MI-WAVE

Millimeter Wave Products Inc.

7-325 GHz

RF PRODUCTS AND SOLUTIONS

ACTIVE | PASSIVE | ANTENNAS | SYSTEMS

www.miwv.com
2007 Gandy Blvd N Suite 1310
St. Petersburg, FL 33702

TEL: (727) 563-0034
Email: sales @miwv.com

Table of Contents

About Us....4-5

Amplifiers
- High Power Amplifiers (Series 955) 6
- High Power Amplifiers (Series 955) 7
- Low Noise Amplifiers (Series 955)....8

Antennas
- Standard Gain Horn (Series 261) 9
- Cassegrain Reflector Antennas (Series 222 & 223) 10
- Waveguide Probe Antennas (Series 260) 11
- Omni Directional Antennas (Series 267) 11
- Scalar Feed Horn Antennas (Series 268) 11
- Trihedral Corner Reflector Antennas (Series 770) 12
- Spot Focus Antennas (Series 257) 13
- Conical Horn Antennas (Series 262) 14
- Prime Focus Antennas (Series 202 & 203) 15

Attenuators
- Pin Diode Voltage Variable Attenuators (900 Series)....16
- Direct Reading Precision Electronic Attenuators (Series 515) 16
- Programmable Rotary Vane Attenuators (511 Series)....17
- Dial-Type Uncalibrated and Calibrated Waveguide Attenuators (Series 520 & 522) 17
- Low Power Handling Fixed Attenuators (Series 521)....18
- High Power Handling Fixed Attenuators (Series 524)....19

Couplers
- Bi-Directional Couplers (Series 555) 20
- Broadband H-Plane Directional Couplers (Series 559) 21
- Waveguide Type E-Plane Directional Couplers (Series 560) 22
- Block Type Directional Couplers (Series 561) 23
- Block Type Cross Guide Directional Couplers (Series 564)....24
- Waveguide Type Dual-Directional Couplers (Series 567) 25
- Waveguide Type Cross Guide Directional Couplers (Series 566) 26

Subsytems and Assemblies
- Frequency Transmitters/Receivers (Series 970 & 980)....27
- Frequency Upconverter/Downconverter (Series 970 & 980) 28

Detectors
- Amplitude Detectors (Series 950) 29
- Balanced Phase Detectors (Series 990) 29

Isolators
- Faraday Isolators (Series 115) 30
- Y-Junction Isolators (Series 178)....30

Circulators
- Y-Junction Waveguide Circulators (Series 179) 31
- Multi-Junction Waveguide Circulators (Series 180)....31

Direct-Reading Precision Electronic Frequency Meters (Series 551) 32

Broadband Calibrated Noise Source (Series 870) 32

Mixers & Multipliers
- Harmonic Mixers (Series 920) 33
- Harmonic Mixers with DiPlexers (Series 922)....33
- Multipliers, Doubler, Frequency Extenders (Series 93(X)) 34
- Wide Band Balanced Mixers (Series 970 & 980) 35
- Mixers IQ Mixers (971 Series) 35

Oscillators
- Fixed Phase-Locked Coaxial Oscillator (957 Series) 36
- Fixed Phase-Locked Waveguide Oscillator (957 Series) 36
- Mechanically Controlled Oscillators (830 Series) 37
- Wide Band Voltage Controlled Oscillators VCO (840 Series) 37

Phase Shifters

Uncalibrated/Calibrated Phase Shifters (525 & 526 Series) 38
Micrometer Type Calibrated Phase Shifter (527 Series) 38
Direct-Reading Phase Shifters (528 Series) 39
Motorized | Programmable | Rotary Vane Phase Shifters (529 Series)....39

Circular Polarizer

Linear to Circular Polarizer (282 Series) 40
Adjustable Circular Polarizers (Series 283) 41

Tees & Divider/Combiners

2 – Way Power Divider | Combiner | Magic Hybrid Tees (Series 630/635)....42
4 – Way Power Divider | Combiner (Series 604)....42
8 – Way Power Divider | Combiner (Series 608)....43
E-Planes and H-Planes Tees (Series 640/650)....43

Orthomode Transducers OMT (Series 281) 44

Switches

Pin Diode MMIC Switches (Series 91X)....45
Four Position Manual Waveguide Switch (Series 530) 45
Electromechanical Waveguide Switches (Series 535)....46

Terminations

Low Power Terminations(Series 580) 46
Medium Power Terminations (Series 581) 47
High Power Load Terminations (Series 582) 47

Transitions & Adapters

Circular to Rectangular Waveguide Transitions & Adapters (Series 284) 48
Rectangular Waveguide – to – Rectangular Waveguide Adapters (Series 692) 49
Waveguide to Coax Adapter | Right Angle and Inline Adapters & Transitions (Series 410 & 411) 50

Waveguides

E-plane Straight High Precision Waveguide (Series 690) 51
Waveguide Twists | High Precision (Series 680/681) 51
E-Plane | Waveguide Bends (Series 660,661,662,665) 52
H-Plane | Waveguide Bends (Series 670,671,672,675) 53
Circular Waveguides (Series 370) 54

Fixed Waveguide Short Circuits(Series 595) 55
Adjustable Waveguide Short Circuits(Series 590) 55
Waveguide Calibration Kits (Series 780) 55

APPENDICES

APPENDIX Rectangular Waveguides 56
APPENDIX Round Contact Flanges 57
APPENDIX Round Flange Blanks 58
APPENDIX Cover Flanges-Flange Blanks 59
APPENDIX Square Choke Flanges 59
APPENDIX Square Cover Flanges 60
APPENDIX Square Cover Flanges 61
APPENDIX Antenna Circular Waveguides 62
APPENDIX The Effect of VSWR on Transmittal Power 63
APPENDIX TE Circular Waveguides Specifications 64

About Us

Since its inception over 34 years ago, Millimeter Wave Products Inc. (Mi-Wave) has been an award winning company and worldwide leader in microwave and millimeter wave products for commercial and military applications in 2-500 GHz frequencies.

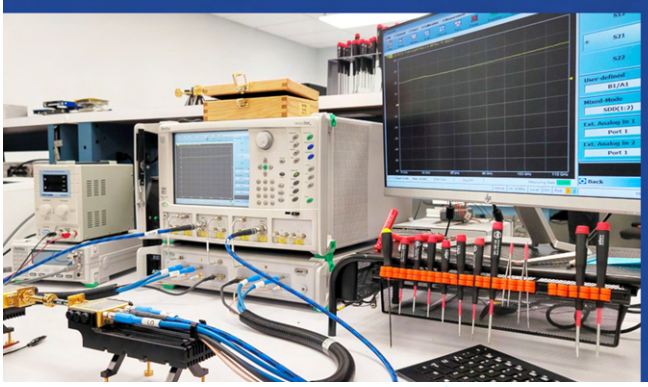
Mi-Wave Inc's history incorporates the fundamental engineering and product lines of Alpha Industries Inc. / TRG Division, Northeast Microwave Systems and Millimeter Products Inc. / Center Technologies Div. with novel engineering in both passive and active components, antennas, and system design.

As an OEM manufacturer, we design, develop, and manufacture all our solutions, parts and/or assemblies in our 25,000+ square ft space in St Petersburg, Fl.

We manufacture using state of the art CNC Mills, Wire EDMs, Lathes and semi-automatic Wire Bonders.

To test and measure we use the latest technology, including:

- ANRITSU Vector Star VNAs
- Four Port ANRITSU Vector Star VNAs 70GHz, Spectrum Analyzers
- Dual-channel Power Meters/Sensors
- ANRITSU Frequency Synthesizers
- Programmable Multimeters/ Power Supplies.



We have worked with more than 4000 companies and organizations globally to create full-cycle (design, development, production) solutions.

Our commitment to quality and customer service has led us to tremendous growth within our industry, providing the resources for us to expand our manufacturing factory with newly-equipped labs and test facilities. Mi-Wave's Engineers have extensive experience in designing and testing complex chip-level integrated sub-systems (Transceivers, 512 Channel Up-Converters, Down Converters, etc).

Mi-wave's Mechanical Engineers have deep knowledge and nearly half a century of experience in machining, design techniques, tools, machine programs and principles for production of precision technical plans, blueprints, drawings and models using 3D Design Software, SOLIDWORKS.

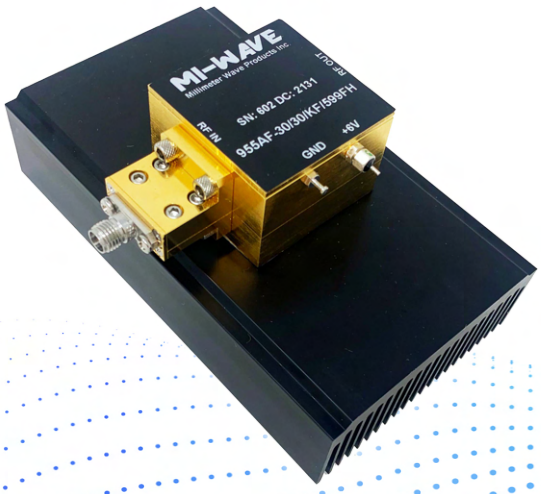
We are ready to help customers meet their greatest mission challenges in communication, National Security, and Defense sector modernization. We achieved this readiness through intensive research, product development, and advanced and carefully controlled production.

Would you like more information about our components and capabilities?
Contact our sales and engineering team today!
Apply Mi-wave's experience, talent, and manufacturing resources to your project for optimized solutions!

High Power Amplifiers (Series 955)

Mi-Wave's 955 series microwave and millimeter wave power amplifiers offer a wide variety of frequency ranges, bandwidths, gain and power outputs

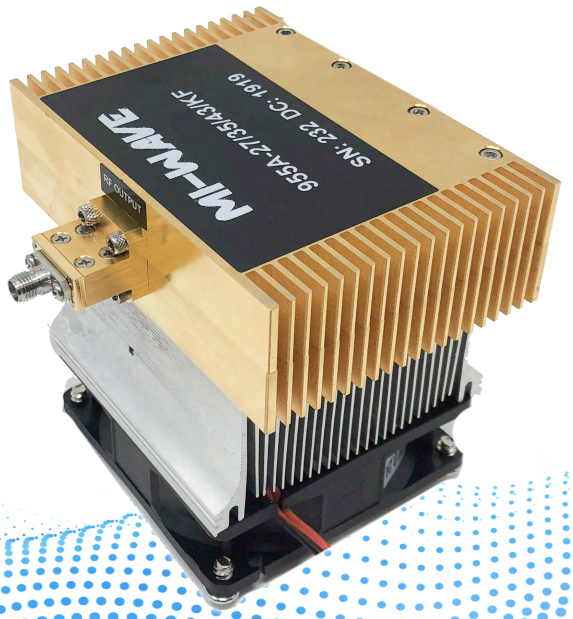
Model	Band	Frequency (GHz)	Gain (dB)	Output Power P1dB (dBm)	Output Power Psat (dBm)	Output Power Psat (Watts)	Input/Output Port	DC Bias
955-18/40/25/24/KF	Crossband	18-40	25	20	24	0.25	2.92mm Female (K)	+12V
955A-24/30/40/45/KFH	Ka-band	24-30	40		45	31.62	2.92mm K Female Coaxial Connector	+28V
955AF-30/18/599H	Ka-band	26.5-40	30		18	0.06	WR-28 waveguide, UG-599/U Flange	+8V
955AF-22/27/KFH	Ka-band	26.5-40	22	27	28	0.63	2.92mm K Female Coaxial Connector	+12-15V
955AF-30/31/599H	Ka-band	26.5-40	30		31	1.26	WR-28 waveguide, UG-599/U Flange	+12-+15V
955AF-30/31/599H-P	Ka-Band	26.5-40	30	28	31	1.26	WR-28 Waveguide, UG-599/U Flange	+6V
955AF-40/36/599H	Ka-band	26.5-40	40		36	3.98	WR-28 waveguide, UG-599/U Flange	+6V
955A-26.5/40/40/36/KFH	Ka-band	26.5-40	40		36	4.00	WR-28 waveguide, UG-599/U Flange	
955A-27/35/43/599	Ka-band	26-28	35		43	19.95	WR-28 Waveguide, UG-599/ K Female	+20-25V
955A-27/31/31/36/KFH	Ka-band	27-31	31		43	20.00	WR-28 waveguide, UG-599/U Flange	
955A-28/29/30/36/KFH	Ka-band	28-29	40	32	36	3.98	WR-28 Waveguide, UG-599/U Flange	+21-24V
955A-29.3/40/41.5/KF/599HAC	Ka-band	29.3	40		41.5	14.13	WR-28,UG-599/K Female	100 ~ 120V
955A-33/36.5/38/42.5/599	Ka-band	32-36	45		42.5	17.78	WR-28 waveguide, UG-599/U Flange	+30V
955A-32/38/38/42.5/599	Ka-band	32-38	38		42.5	17.78	WR-28 waveguide, UG-599/U Flange	+30V
955A-33/37/38/40/KFH	Ka-band	33-37	38		40	10.00	2.92mm K Female Coaxial Connector	+30V
955BF-30/20/383H	B-band	33-50	30		20	0.10	WR-22 waveguide, UG-383/U Flange	+8V
955BF-30/20/383H-P	B-Band	33-50	30	17	20	0.10	WR-22 Waveguide, UG-383/U Flange	+8V
955B-35/48/30/27/383H	B-band	35-48	30	25	27	0.50	WR-22 waveguide, UG-383/U Flange	+8V
955B-35/48/30/27/383H	B-band	35-48	30	25	27	0.50	WR-22 Waveguide wiith UG-383/U Flange	+8V
955A-37/44/40/43/KFH	Ka-band	37-44	40		43	19.95	2.92mm K Female Coaxial Connector	+28V
955A-37/44/40/45/KFH	Ka-band	37-44	40		45	31.62	2.92mm K Female Coaxial Connector	+28V
955B-37/48.2/30/27/1.85mmFH	B-band	37-48.2	30	27		0.50	1.85mm Female Coaxial Connector	+6V
955U-44.1/35/33/383	U-band	40-48.2	35	30	33	2.00	WR-19 Waveguide, UG-383/U-M Flange	+6V
955UF-35/22/383	U-band	40-60	35		22	0.16	WR-19 Waveguide, UG-383/U-M Flange	+8V
955UF-25/29/1.85mmF	U-band	40-60	25		29	0.79	1.85mm Female Coaxial Connector	+8-+12V
955B-43/46/30/33/2.4mmFH	B-band	43-46	30		33	2.00	2.4mm Female Coaxial Connector	+8V
955U-47.2/48.2/35/39/383	U-band	47.2-48.2	35	37	39	7.94	WR-19 Waveguide, UG-383/U-M Flange	+28V
955U-47/52.4/40/37/383	U-band	47-52.4	40		37	5.01	WR-19 Waveguide, UG-383/U-M Flange	+28V
955U-47/52.4/40/40/383	U-band	47-52.4	40		40	10.00	WR-19 Waveguide, UG-383/U-M Flange	+28V
955B-50/40/47/383H	B-band	49.5-50	40		47	50.00	WR-15 waveguide, UG-385/U Flange	
955V-50/25/20/2.4mmF	V-band	49.5-50.5	25	20	23	0.20	2.4mm Female Coaxial Connector	+6V
955B-50/25/27/2.4mmFH	B-band	49.5-50.5	25	27	30	1.00	2.4mm Female Coaxial Connector	+6V
955B-50/40/44/383H	B-band	49.5-50.5	40	44	47	50.12	WR-22 Waveguide with UG-383/U Flanges	+28V
955U-49/51/40/45/383H	U-band	49-51	40	41	45	31.62	WR-19 Waveguide, UG-383/U-M Flange	+28V
955U-49/51/40/45/383H	U-band	49-51	40	41	45	31.62	WR-19 Waveguide, UG-383/U-M Flange	+28V
955U-49/51/45/47/383H	U-band	49-51	45	43	47	50.12	WR-19 Waveguide, UG-383/U-M Flange	+28V
955U-49/51/45/47/383H	U-band	49-51	45	43	47	50.12	WR-19 Waveguide, UG-383/U-M Flange	+28V

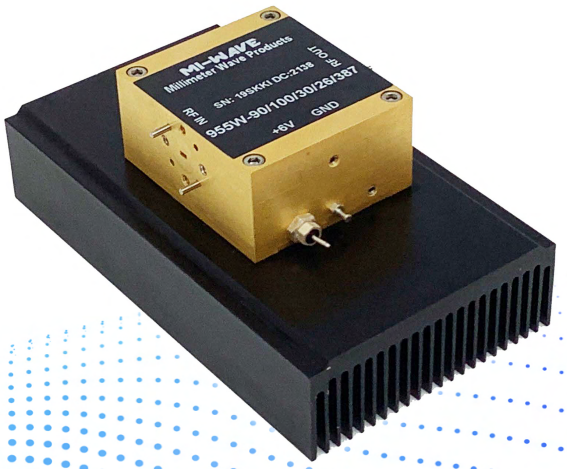


High Power Amplifiers (Series 955)

Mi-Wave's 955 series microwave and millimeter wave power amplifiers offer a wide variety of frequency ranges, bandwidths, gain and power outputs

Model	Band	Frequency (GHz)	Gain (dB)	Output Power P1dB (dBm)	Output Power Psat (dBm)	Output Power Psat (Watts)	Input/Output Port	DC Bias
955U-50/66/22/15/383	U-band	50-66	22		15	0.03	WR-19 Waveguide, UG-383/U-M Flange	+8V
955U-50/67/20/20/1.85mmF	U-band	50-67	20	20		0.10	1.85mm Female Coaxial Connector	+6V
955V-50/68/35/18/385	V-band	50-68	35		18	0.06	WR-15 waveguide, UG-385/U Flange	+6V
955V-50/70/28/15/385	V-band	50-70	28		15	0.03	WR-15 waveguide, UG-385/U Flange	+6V
955VF-40/385	V-Band	50-75	40	9	12	0.02	WR-15 waveguide, UG-385/U Flange	+6V
955VF-35/15/385	V-band	50-75	35		15	0.03	WR-15 waveguide, UG-385/U Flange	+6V
955VF-25/25/385H	V-band	50-75	25		25	0.32	WR-15 waveguide, UG-385/U Flange	+6V
955V-55/65/30/24/385	V-band	55-65	30	22	24	0.25	WR-15 waveguide, UG-385/U Flange	+6V
955V-57/68/25/26/385	V-band	57-68	25	26		0.4	WR-15 waveguide, UG-385/U Flange	+6V
955V-57/70/25/30/385H	V-band	57-70	25		30	1.00	WR-15 waveguide, UG-385/U Flange	+8V
955V-60/25/31.5/385H	V-band	59-61	25		31.5	1.41	WR-15 waveguide, UG-385/U Flange	+6V
955EF-25/15/387	E-band	60-90	25		15	0.03	WR-12 waveguide, UG-387/U Flange	+8V
955EF-25-15-387	E-band	60-90	30		15	0.03	WR-12 waveguide, UG-387/U Flange	+6V -12V MAX
955EF-30/15/387	E-band	60-90	30		15	0.03	WR-12 waveguide, UG-387/U Flange	+8V -12V MAX
955E-67.5/35/30/387H	E-band	64-71	35	27	30	1.00	WR-12 waveguide, UG-387/U Flange	+6V
955E-67.5/35/30/387H	E-band	65-70	35	27	30	1.00	WR-12 waveguide, UG-387/U Flange	+6V
955E-65/70/35/35/387	E-band	65-70	35		35	3.00	WR-12 waveguide, UG-387/U Flange	
955E-70/95/20/16/387	E-band	70-95	20	15	16	0.04	WR-12 waveguide, UG-387/U Flange	+6V
955E-71/76/25/30/387	E-band	71-76	25		30	1.00	WR-12 waveguide, UG-387/U Flange	+6V
955E-71/76/30/32.5/387	E-band	71-76	30	30.5	32.5	1.78	WR-12 waveguide, UG-387/U Flange	+5V
955E-71/76/25/37/387	E-band	71-76	25		37	5.00	WR-12 waveguide, UG-387/U Flange	
955WF-35/15/387H	W-band	75-110	35	10	15	0.03	WR-10 Waveguide, UG-387/U-M Flange	+6V
955E-76/81/30/29/387	E-band	76-81	30	26	29	0.79	WR-12 waveguide, UG-387/U Flange	+12V
955E-81/86/25/30/387	E-band	81-86	25		30	1.00	WR-12 waveguide, UG-387/U Flange	+6V
955E-81/86/35/30/387	E-band	81-86	35		30	1.00	WR-12 waveguide, UG-387/U Flange	+13 - +14V
955E-81/86/30/32.5/387	E-band	81-86	30	30.5	32.5	1.78	WR-12 waveguide, UG-387/U Flange	+5V
955W-89/97/25/24/387H	W-band	89-97	25	24	27	0.50	WR-10 Waveguide, UG-387/U-M Flange	+12-+15V
955W-92/96/20/28/387	W-band	92-96	20		28	0.63	WR-10 Waveguide, UG-387/U-M Flange	+6V
955W-94/30/26/387	W-band	92-96	30	26	28	0.63	WR-10 Waveguide, UG-387/U-M Flange	+6V
955W-92/96/25/30/387	W-band	92-96	25	27.5	30	1.00	WR-10 Waveguide, UG-387/U-M Flange	+6V
955W-94/30/30/387H	W-band	92-96	30		30	1.00	WR-10 Waveguide, UG-387/U-M Flange	+6V
955W-94/15/387	W-band	92-96	12		32.5	1.78	WR-10 Waveguide, UG-387/U-M Flange	+6V
955W-94/20/32.5/387	W-band	92-96	20		32.5	1.78	WR-10 Waveguide, UG-387/U-M Flange	+6V
955W-94/35/33/387	W-band	92-96	35		33	2.00	WR-10 Waveguide, UG-387/U-M Flange	+6 - +7 V
955W-94/35/35/387	W-band	92-96	35		35	3.16	WR-10 Waveguide, UG-387/U-M Flange	+13 - +14V
955W-94/30/37/387	W-band	92-96	30		37	5.01	WR-10 Waveguide, UG-387/U-M Flange	+6V
955W-94/25/27/387	W-band	92-96	25	27		0.50	WR-10 Waveguide, UG-387/U-M Flange	+6V
955W-94/30/36.5/387	W-band	92-96	30		36.5	4.50	WR-10 Waveguide, UG-387/U-M Flange	
955W-93/95/20/30/387	W-band	93-95	20		30	1.00	WR-10 Waveguide, UG-387/U-M Flange	+6-+12V





Low Noise Amplifiers (Series 955)

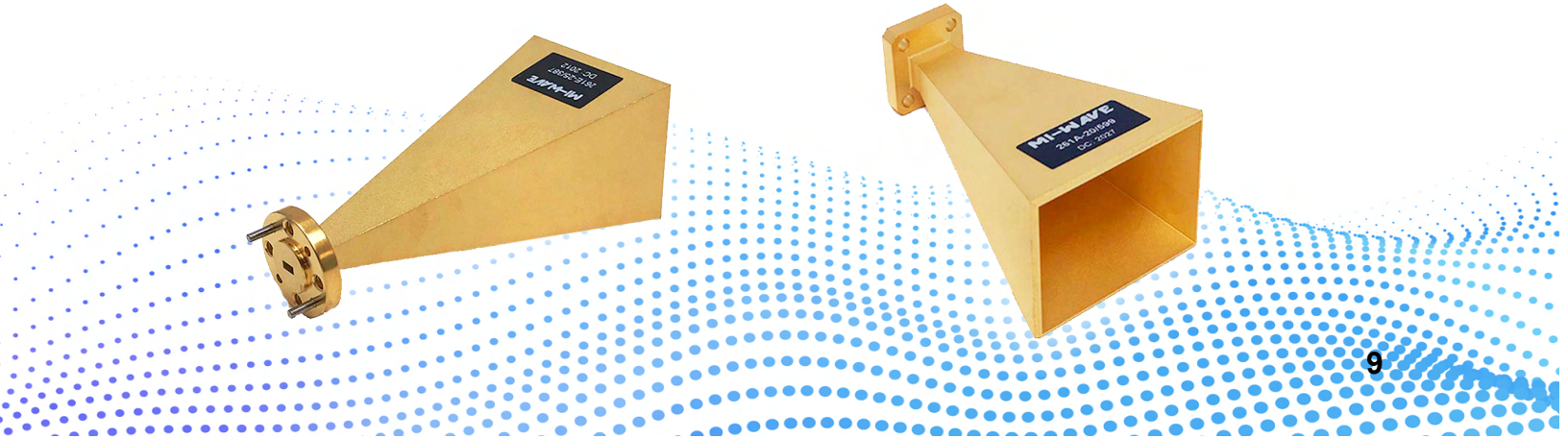
Mi-Wave's 955 Series microwave and millimeter wave low noise amplifiers offer a wide variety of frequency ranges, bandwidths, gain and power outputs

Model	Band	Frequency (GHz)	Gain (dB)	Noise Figure (dB)	Output Power P1dB (dBm)	Output Power Psat (dBm)	Input/Output Port	DC Bias
955-01/60/30/1.85mmF	DC - 60GHz	1-60	30	5	12	10	1.85 mm Female Coaxial Connector	+8V
955AF-20/599	Ka-band	26.5-40	20	3.5			WR-28 waveguide, UG-599/U Flange	
955AF-20/10/KF	Ka-band	26.5-40	20	3		10	2.92mm K Female Coaxial Connector	+8V
955AF-30/18/599H	Ka-band	26.5-40	30	3	18		WR-28 waveguide, UG-599/U Flange	+8V
955AF-40/10/2.4mmF	Ka-band	26.5-40	40	4.5		10	2.4mm Female Coaxial Connector	+8V
955BF-15/8/383	B-band	33-50	10-15	5.5		8	WR-22 Waveguide with UG-383/U Flanges	+8-12V
955BF-20/10/383	B-band	33-50	20	5.5		10	WR-22 Waveguide with UG-383/U Flanges	+8V
955BF-30/10/383	B-band	33-50	30	5.5		10	WR-22 Waveguide with UG-383/U Flanges	+8V
955BF-40/10/383	B-band	33-50	40	6		10	WR-22 Waveguide with UG-383/U Flanges	+8V
955UF-15/10/383	U-band	40-60	15	5		10	WR-19 Waveguide, UG-383/U-M Flange	+12-15V
955UF-20/10/383	U-band	40-60	20	5		10	WR-19 Waveguide, UG-383/U-M Flange	+8V
955UF-30/15/383	U-band	40-60	30	4.5		15	WR-19 Waveguide, UG-383/U-M Flange	+6V
955UF-30/383	U-band	40-60	30	5		15	WR-19 Waveguide, UG-383/U-M Flange	+6V
955UF-40/13/383	U-band	40-60	40	5	13		WR-19 Waveguide, UG-383/U-M Flange	+6V
955U-50/66/22/15/383	U-band	50-66	22	5	22		WR-19 Waveguide, UG-383/U-M Flange	+6V
955V-50/68/35/18/385	V-Band	50-68	35		18		WR-15 Waveguide, UG-385/U Flange	+6V
955VF-35/15/385	V-Band	50-75	35		18		WR-15 Waveguide, UG-385/U Flange	+6V
955VF-35/13/1.85mmF	V-Band	50-75	35	5	13		1.85 mm Female Coaxial Connector	+6V
955VF-20/15/385	V-Band	50-75	20	5	15		WR-15 Waveguide, UG-385/U Flange	+6V
955VF-30/10/385	V-Band	50-75	30	5	10		WR-15 Waveguide, UG-385/U Flange	+6V
955VF-40/385	V-Band	50-75	40	5		9	WR-15 Waveguide, UG-385/U Flange	+6-+8V
955EF-15/8/387	E-band	60-90	15	4.5		8	WR-12 Waveguide, UG-387/U Flange	+8V
955EF-20/10/387	E-band	60-90	20	5.5	10		WR-12 Waveguide, UG-387/U Flange	+8V
955EF-20/12/387	E-band	60-90	20	5	12		WR-12 Waveguide, UG-387/U Flange	+8V
955EF-25/8/387	E-band	60-90	25	4.5		8	WR-12 Waveguide, UG-387/U Flange	+8V
955EF-30/8/387	E-band	60-90	30	4.5		8	WR-12 Waveguide, UG-387/U Flange	+8V
955E-77/30/387	E-band	72-82	30	4	14	8	WR-12 Waveguide, UG-387/U Flange	+8V
955WF-10/10/387	W-band	75-110	10	5.5	10		WR-10 Waveguide, UG-387/U-M Flanges	+8V
955WF-20/10/387	W-band	75-110	20	5.5	10		WR-10 Waveguide, UG-387/U-M Flanges	+8V
955WF-20/11.5/387H	W-band	75-110	20	12	10		WR-10 Waveguide, UG-387/U-M Flanges	+8V
955WF-25/10/387	W-band	75-110	25	5.5	10		WR-10 Waveguide, UG-387/U-M Flanges	+8V
955WF-30/387	W-band	75-110	30	3	10		WR-10 Waveguide, UG-387/U-M Flanges	+8V
955WF-35/10/387	W-band	75-110	35	5	10		WR-10 Waveguide, UG-387/U-M Flanges	+8V

Standard Gain Horn (Series 261)

Mi-Wave's 261 Series standard gain horn antennas are often referred to as microwave horn antennas or simply gain horn antennas. Our Standard Gain Horn antenna product line come in various waveguide sizes.

Model	Frequency (GHz)	Gain (dBi) typical	Polarization	Bandwidth E-Plane (db)	BandWidth H-Plane (dB)	Side Lobes E-Plane(dB)	Side Lobes H-Plane(dB)	RF Ports
261X-15/39	8.2-12.4	15	Linear	29.3	29	20	20	WR-90 Waveguide with UG-39 Flange
261(75)-20/120	10-15	20	Linear	16.22	19.81	12	18	WR-75 waveguide UBR - 120 / U
261Ku-20/419	12-18	20	Linear	16.9	17.8	16	18	WR-90 Waveguide port UG-419/U Flange
261K-10/595	18-26.5	10	Linear	19	21	17	25	WR-42 Waveguide UG-595/U Flange
261K-15/595	18-26.5	15	Linear	19	21	20	23	WR-42 Waveguide UG-595/U Flange
261K-20/595	18-26.5	20	Linear	19	21	20	20	WR-42 Waveguide UG-595/U Flange
261A-10/599	26.5-40	10	Linear	56	54	20	20	WR-28 Waveguide UG-599/U Flange
261A-15/599	26.5-40	15	Linear	33	33	20	20	WR-28 Waveguide UG-599/U Flange
261A-20/599	26.5-40	20	Linear	16.57	16.58	20	20	WR-28 Waveguide UG-599/U Flange
261A-25/599	26.5-40	25	Linear	7	9	20	20	WR-28 Waveguide UG-599/U Flange
261B-15/383	33-50	15	Linear	39.81	25.9	20	20	WR-22 Waveguide UG-383/U Flange
261B-20/383	30-50	20	Linear	15	16	20	20	WR-22 Waveguide UG-383/U Flange
261B-25/383	33-50	25	Linear	7	9	20	20	WR-22 Waveguide UG-383/U Flange
261U-10/383	40-60	10	Linear	55	55	20	20	WR-19 Waveguide UG-383/U-M Flange
261U-15/383	40-60	15	Linear	32	32	14	20	WR-19 Waveguide UG-383/U-M Flange
261U-20/383	40-60	20	Linear	14	16	14	30	WR-19 Waveguide UG-383/U-M Flange
261U-25/383	40-60	25	Linear	9	10	20	20	WR-19 Waveguide UG-383/U-M Flange
261V-10/385	50-75	10	Linear	55	55	20	20	WR-15 Waveguide UG-385/U-M Flange
261V-15/385	50-75	15	Linear	29	32	20	20	WR-15 Waveguide UG-385/U-M Flange
261V-20/385	50-75	20	Linear	14	15	20	20	WR-15 Waveguide UG-385/U Flange
261V-25/385-FL	50-75	25	Linear	9	10	20	20	WR-15 Waveguide UG-385/U Flange
261E-10/387	60-90	10	Linear	55	55	20	20	WR-12 Waveguide UG-387/U Flange
261E-15/387	60-90	15	Linear	30	32	20	20	WR-12 Waveguide UG-387/U Flange
261E-20/387	60-90	20	Linear	14	15	20	20	WR-12 Waveguide UG-387/U Flange
261E-25/387	60-90	25	Linear	9	10	20	20	WR-12 Waveguide UG-387/U Flange
261W-10/387	75-110	10	Linear	51.76	52	2	25	WR-10 Waveguide UG-387/U-M Flange
261W-15/387	75-110	15	Linear	32	32	14	25	WR-10 Waveguide UG-387/U-M Flange
261W-20/387	75-110	20	Linear	16	18	20	20	WR-10 Waveguide UG-387/U-M Flange
261W-25/387-FL	75-110	25	Linear	9	10	20	20	WR-10 Waveguide UG-387/U-M Flange
261F-10/387	90-140	10	Linear	53	55	19	22	WR-08 Waveguide UG-387/U-M Flange
261F-15/387	90-140	15	Linear	29.73	33.67	14	25	WR-08 Waveguide UG-387/U-M Flange
261F-20/387	90-140	20	Linear	16	18	14	30	WR-08 Waveguide UG-387/U-M Flange
261F-25/387	90-140	25	Linear	9	10	12	15	WR-08 Waveguide UG-387/U-M Flange
261D-15/387	110-170	15	Linear	33	31	20	20	WR-06 Waveguide UG-387/U-M Flange
261D-20/387	110-170	20	Linear	17	18	20	20	WR-06 Waveguide UG-387/U-M Flange
261D-25/387	110-170	25	Linear	25	25.5	20	20	WR-06 Waveguide UG-387/U-M Flange
261G-10/387	140-220	10	Linear	56	54	19	21	WR-05 Waveguide UG-387/U-M Flange
261G-15/387	140-220	15	Linear	33.41	31.9	17	23	WR-05 Waveguide UG-387/U-M Flange
261G-20/387	140-220	20	Linear	13	13	12	25	WR-05 Waveguide UG-387/U-M Flange
261G-25/387	140-220	25	Linear	8.9	10.28	20	20	WR-05 Waveguide UG-387/U-M Flange
261H-25/387	170-260	25	Linear	10	10			WR-04 Waveguide UG-387/U Flange
261J-15/387	220-325	15	Linear	35	38	14	17	WR-3 Waveguide UG-387/U-M Flange
261J-25/387	220-325	25	Linear	9	10	20	20	WR-3 Waveguide UG-387/U-M Flange
261(2.8)-25/387	260-400	25	Linear	26.18	25.8	20	20	WR-2.8 Waveguide UG-387/U-M Flange
261(2.2)/387	325-500	25	Linear	13	15	22	23	WR-2.2 Waveguide UG-387/U-M Flange
261(1.5)-25/387	500-750	25	Linear			22	23	WR-1.5 Waveguide UG-387/U-M Flange



Cassegrain Reflector Antennas (Series 222 & 223)

Mi-Wave's 222 & 223 Series cassegrain reflector antennas consists of a parabolic reflector, a primary feed, sub-reflector, and a feed support assembly of four low profile aluminum spars that are attached to the rim if the reflector to position the feed

Model	Band	Reflector diameter (inches)	Circular Waveguide Internal Diameter (. in Model)	Frequency (GHz)	Gain (dB)	3 dB Beamwidth (degree)	VSWR	Reflector Material
222X-18/.XXX/39 & 223X-18/.XXX/39 & &	X-band	18	1.094 / .938 / .797	8.2-9.97 / 8.5-11.6 / 9.97-12.4	29	4.5	1.3:1	Aluminum/Fibreglass
222X-24/.XXX/39 & 223X-24/.XXX/39 & &	X-band	24	1.094 / .938 / .797	8.2-9.97 / 8.5-11.6 / 9.97-12.5	32	3.5	1.3:1	Aluminum/Fibreglass
222Ku-18/.XXX/419 & 223-18/.XXX/419	Ku-Band	18	.660 / .550	12.4-14.6 / 14.6-18	33	3	1.3:1	Aluminum/Fibreglass
222Ku-24/.XXX/419 & 223-24/.XXX/419	Ku-Band	24	.660 / .550	12.4-14.6 / 14.6-18	36.5	2	1.3:1	Aluminum/Fibreglass
223Ku-36/.XXX/419	Ku-Band	36	.660 / .550	12.4-14.6 / 14.6-18	40.5	1.5	1.3:1	Fibreglass
223Ku-48/.XXX/419	Ku-Band	48	.660 / .550	12.4-14.6 / 14.6-18	43	1	1.3:1	Fibreglass
222K-18/.XXX/595 & 223K-18/.XXX/595	K-Band	18	.470 / .396 / .328	18-20.5 / 20.4-24.5 / 24.5-26.5	36	2	1.3:1	Aluminum/Fibreglass
222K-24/.XXX/595 & 223K-24/.XXX/595	K-Band	24	.470 / .396 / .328	18-20.5 / 20.4-24.5 / 24.5-26.5	39	1.5	1.3:1	Aluminum/Fibreglass
223K-36/.XXX/595	K-Band	36	.470 / .396 / .328	18-20.5 / 20.4-24.5 / 24.5-26.5	43	1	1.3:1	Fibreglass
223K-48/.XXX/595	K-Band	48	.470 / .396 / .328	18-20.5 / 20.4-24.5 / 24.5-26.5	45.5	1	1.3:1	Fibreglass
222A-18/.XXX/599 & 223A-18/.XXX/599	Ka-Band	18	.328 / .281 / .250 / .219	26.5-28.5 / 28.5-33.0 / 33.0 / -38.5 / 38.5-40.0	39	1.3	1.3:1	Aluminum/Fibreglass
222A-24/.XXX/599 & 223A-24/.XXX/599	Ka-Band	24	.328 / .281 / .250 / .219	26.5-28.5 / 28.5-33.0 / 33.0 / -38.5 / 38.5-40.0	42	1.5	1.3:1	Aluminum/Fibreglass
223A-36/.XXX/599	Ka-Band	36	.328 / .281 / .250 / .219	26.5-28.5 / 28.5-33.0 / 33.0 / -38.5 / 38.5-40.0	45.5	1	1.3:1	Fibreglass
223A-48/.XXX/599	Ka-Band	48	.328 / .281 / .250 / .219	26.5-28.5 / 28.5-33.0 / 33.0 / -38.5 / 38.5-40.0	48	0.8	1.3:1	Fibreglass
222B-18/.XXX/383 & 223B-18/.XXX/383	B-Band	18	.250 / .219 / .188	33.0-38.5 / 38.5-43.0 / 43.0-50.0 /	42	1.5	1.3:1	Aluminum/Fibreglass
222B-24/.XXX/383 & 223B-24/.XXX/383	B-Band	24	.250 / .219 / .188	33.0-38.5 / 38.5-43.0 / 43.0-50.0 /	44	1	1.3:1	Aluminum/Fibreglass
223B-36/.XXX/383	B-Band	36	.250 / .219 / .188	33.0-38.5 / 38.5-43.0 / 43.0-50.0 /	48	0.7	1.3:1	Fibreglass
223B-48/.XXX/383	B-Band	48	.250 / .219 / .188	33.0-38.5 / 38.5-43.0 / 43.0-50.0 /	50	0.5	1.3:1	Fibreglass
222U-18/.XXX/383 & 223U-18/.XXX/383	U-Band	18	.219 / .188 / .165 / .141	38.5-43.0 / 43.0-50.0 / 50.0-58.0 / 58.0-60.0	43	1	1.3:1	Aluminum/Fibreglass
222U-24/.XXX/383 & 223U-24/.XXX/383	U-Band	24	.219 / .188 / .165 / .141	38.5-43.0 / 43.0-50.0 / 50.0-58.0 / 58.0-60.0	46	0.7	1.3:1	Aluminum/Fibreglass
223U-36/.XXX/383	U-Band	36	.219 / .188 / .165 / .141	38.5-43.0 / 43.0-50.0 / 50.0-58.0 / 58.0-60.0	49.5	0.5	1.3:1	Fibreglass
223U-48/.XXX/383	U-Band	48	.219 / .188 / .165 / .141	38.5-43.0 / 43.0-50.0 / 50.0-58.0 / 58.0-60.0	52	0.5	1.3:1	Fibreglass
222V-12/.XXX/385 & 223V-12/.XXX/385	V-Band	12	.165 / .141 / .125	50.0-58.0 / 58.0-68.0 / 68.0-75.0	42	1.2	1.3:1	Aluminum/Fibreglass
222V-18/.XXX/385 & 223V-18/.XXX/385	V-Band	18	.165 / .141 / .125	50.0-58.0 / 58.0-68.0 / 68.0-75.0	45	0.9	1.3:1	Aluminum/Fibreglass
222V-24/.XXX/385 & 223V-24/.XXX/385	V-Band	24	.165 / .141 / .125	50.0-58.0 / 58.0-68.0 / 68.0-75.0	58	0.6	1.3:1	Aluminum/Fibreglass
223V-36/.XXX385	V-Band	36	.165 / .141 / .125	50.0-58.0 / 58.0-68.0 / 68.0-75.0	51	0.4	1.3:1	Fibreglass
223V-48/385	V-Band	48	.165 / .141 / .125	50.0-58.0 / 58.0-68.0 / 68.0-75.0	54	0.3	1.3:1	Fibreglass
222E-12/.XXX/387 & 223E-12/.XXX/387	E-Band	12	.141 / .125 / .110 / .094	60.0-68.0 / 68.0-77.0 / 77.087.0 / 87.0-90.0	43	1	1.3:1	Aluminum/Fibreglass
222E-18/.XXX/387 & 223E-18/.XXX/387	E-Band	18	.141 / .125 / .110 / .094	60.0-68.0 / 68.0-77.0 / 77.0-87.0 / 87.0-90.0	47	0.6	1.3:1	Aluminum/Fibreglass
222E-24/.XXX/387 & 223E-24/.XXX/387	E-Band	24	.141 / .125 / .110 / .094	60.0-68.0 / 68.0-77.0 / 77.0-87.0 / 87.0-90.0	49	0.5	1.3:1	Aluminum/Fibreglass
223E-36/.XXX/387	E-Band	36	.141 / .125 / .110 / .094	60.0-68.0 / 68.0-77.0 / 77.0-87.0 / 87.0-90.0	56	0.35	1.3:1	Fibreglass
223E-48/.XXX/387	E-Band	48	.141 / .125 / .110 / .094	60.0-68.0 / 68.0-77.0 / 77.0-87.0 / 87.0-90.0	55.5	0.3	1.3:1	Fibreglass
222W-12/.XXX/387 & 223W-12/.XXX/387	W-Band	12	.125 / .110 / .094 / .082	75.0-77.0 / 77.0-87.0 / 87.0-100.0 / 100.0-110.0	45	0.8	1.3:1	Aluminum/Fibreglass
222W-18/.XXX/387 & 223W-18/.XXX/387	W-Band	18	.125 / .110 / .094 / .082	75.0-77.0 / 77.0-87.0 / 87.0-100.0 / 100.0-110.0	49	0.5	1.3:1	Aluminum/Fibreglass
222W-24/.XXX/387 & 203W-24/.XXX/387	W-Band	24	.125 / .110 / .094 / .082	75.0-77.0 / 77.0-87.0 / 87.0-100.0 / 100.0-110.0	51	0.4	1.3:1	Aluminum/Fibreglass
223W-36/.XXX/387	W-Band	36	.125 / .110 / .094 / .082	75.0-77.0 / 77.0-87.0 / 87.0-100.0 / 100.0-110.0	55	0.25	1.3:1	Fibreglass
223W-48/.XXX/387	W-Band	48	.125 / .110 / .094 / .082	75.0-77.0 / 77.0-87.0 / 87.0-100.0 / 100.0-110.0	57	0.18	1.3:1	Fibreglass

Waveguide Probe Antennas (Series 260)

Model	Band	Frequency (GHz)	Gain (db)	Length (Inches)	Port
260X/39	X-Band	8.2-12.4	5.2	4.5	WR-90 Waveguide Flange UG-39
260K/595	K-Band	18-26.5	4.6	4.72	WR-42 Waveguide Flange UG-595/U
260A/599	Ka-Band	26.5-40	4.9	2	WR-28 Waveguide Flange UG-599/U
260B/383	Q-Band	33-50	4.9	2	WR-22 Waveguide Flange UG-383/U
260U/383	U-Band	40-60	5	2	WR-19 Waveguide Flange UG-383/U-M
260V/385	V-Band	50-75	4.9	2	WR-15 Waveguide Flange UG-385/U
260E/387	E-Band	60-90	4.8	2	WR-12 Waveguide Flange UG-387/U
260W/387	W-Band	75-110	4.8	2	WR-10 Waveguide Flange UG-387/U-M
260F/387	F-Band	90-140	4.9	2	WR-08 Waveguide Flange UG-387/U-M
260G/387	G-Band	140-220	4.9	1.5	WR-05 Waveguide Flange UG-387/U-M
260H/387	H-Band	170-260	4.9	1.25	WR-04 Waveguide Flange UG-387/U-M
260J/387	J-Band	220-325	4.9	1.5	WR-03 Waveguide Flange UG-387/U-M
260(2.2)/387	WR-2.2	325-500	4.9		WR-2.2 Waveguide Flange UG-387/U-M

Mi-Wave's 260 Series Waveguide Probe Antennas are used in a wide variety of applications due to their high power handling capability, low loss, high directivity, and near-constant electrical performance across a broad bandwidth.

Omni Directional Antennas (Series 267)

Mi-Wave's 267 Series omnidirectional antennas are created with the end consumer in mind. We know you need and demand the absolute best when it comes to custom or stock antennas and we look to provide you with the best solutions possible

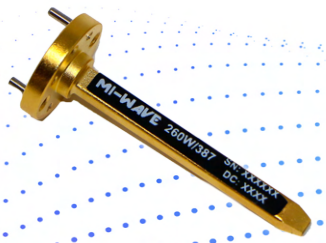
Model	Band	Frequency (GHz)	Azimuth Beamwidth (Degrees)	Vertical Beamwidth (Degrees)	Return Loss (dB)	Power Handling (Watts)	Gain (dB) typical	Polarization	RF Ports
267X/SMAF	X-Band	8.2-12.4	360	45	17	5	3 to 4	Vertical	SMA-Female Connector
267Ku/SMAF	Ku-Band	12-18	360	45	17	5	3 to 4	Vertical	SMA-Female Connector
267K/595	K-Band	18-26.5	360	45	20	5	3 to 4	Vertical	WR-42 Waveguide, UG-595/U Flange
267A/599	Ka-Band	26.5-40	360	45	20	5	3 to 4	Vertical	WR-28 Waveguide, UG-599/U Flange
267B/383	Q-Band	33-50	360	45	20	5	3 to 4	Vertical	WR-22 Waveguide, UG-383/U Flange
267U/383	U-Band	40-60	360	45	20	5	3 to 4	Vertical	WR-19 Waveguide, UG-383/U-M Flange
267V/385	V-Band	50-75	360	45	20	3	3 to 4	Vertical	WR-15 Waveguide, UG-385/U Flange
267E/387	E-Band	60-90	360	45	20	2	3 to 4	Vertical	WR-12 Waveguide, UG-387/U Flange
267W/387	W-Band	75-110	360	45	20	1	3 o 4	Vertical	WR-10 Waveguide, UG-387/U-M Flange
267D/387	D-Band	110-170	360	45	20	0.01	3 to 4	Vertical	WR-06 Waveguide, UG-387/U-M Flange

Scalar Feed Horn Antennas (Series 268)

Mi-Wave's 268 Series Scalar feed horn antennas have been designed to be used in lens illumination such as scalar lens antennas and Cassegrain antennas. Low sidelobes are inherent in this type of feed.

Model	Band	Circular Waveguide Internal Diameter (.XXX in Model No.) in Inches	Frequency (GHz)	Gain (dB)	3 dB Beamwidth E Plane (degrees)	3 dB Beamwidth H Plane (degrees)	Polarization	VSWR	Antenna Port
268X-XX/.XXX/39	X-Band	.XXX=1.094 / .938 / .797	8.2-9.97 / 8.5-11.6 / 9.97-12.4	15	22	26	Linear & Circular	1.5:1	Circular Waveguide with UG-39/U Flange or WR-90 with UG-39/U
268Ku-XX/.XXX/419	Ku-Band	XXX=.660 / .550	12.4-14.6 / 14.6-18	15	22	26	Linear & Circular	1.5:1	Circular Waveguide with UG-419/U Flange or WR-62 with UG-419/U
268K-XX/.XXX/595	K-Band	XXX=.470 / 396 / .328	18-20.5 / 20.4-24.5 / 24.5-26.5	15	22	26	Linear & Circular	1.5:1	Circular Waveguide with UG-595/U Flange or WR-42 with UG-595/U Flange
268A-XX/.XXX/599	Ka-Band	XXX=.328 / .281 / .250 / .219	26.5-28.5 / 28.5-33.0 / 33.0-38.5 / 38.5-40.0	15	22	26	Linear & Circular	1.5:1	Circular Waveguide with UG-599/U Flange
268B-XX/.XXX/383	B-Band	XXX=.250 / .219 / .188	33.0-38.5 / 38.5-43.0 / 43.0-50.0	15	22	26	Linear & Circular	1.5:1	Circular Waveguide with UG-383/U Flange
268U-XX/.XXX/383	U-Band	XXX=.219 / .188 / .165 / .141	38.5-43.0 / 43.0-50.0 / 50.0-58.0 / 58.0-60.0	15	22	26	Linear & Circular	1.5:1	Circular Waveguide with UG-383/U-M Flange
268V-XX/.XXX/385	V-Band	XXX=.165 / .141 / .125	50.0-58.0 / 58.0-68.0 / 68.0-75.0	15	22	26	Linear & Circular	1.5:1	Circular Waveguide with UG-385/U Flange
268E-XX/.XXX/387	E-Band	XXX=.141 / .125 / .110 / .094	60.0-68.0 / 68.0-77.0 / 77.0-87.0 / 87.0-90.0	15	22	26	Linear & Circular	1.5:1	Circular Waveguide with UG-387/U Flange
268W-XX/.XXX/387	W-Band	XXX=.125 / .110 / .094 / .082	75.0-77.0 / 77.0-87.0 / 87.0-100.0 / 100.0-110.0	15	22	26	Linear & Circular	1.5:1	Circular Waveguide with UG-387/U-M Flange

Series 260



Series 267

Series 268

Trihedral Corner Reflector Antennas (Series 770)

Model	Frequency (GHz)	Length (a) (inches)	Length (L) (inches)	Weight (oz)	RCS (dBsm)	Mounting Bracket optional	Material	Finish
770-1.4-m	10	1	1.4	4	-27	Metric thread M3 x 0.5 and 1/4 x 20	Aluminum	Painted
770-2.8-m	10	2	2.8	0.7	-15	Metric thread M3 x 0.5 and 1/4 x 20	Aluminum	Painted
770-4.2-m	10	3	4.2	0.8	-8	Metric thread M3 x 0.5 and 1/4 x 20	Aluminum	Painted
770-5.6-m	10	4	5.6	1.5	-3	Metric thread M3 x 0.5 and 1/4 x 20	Aluminum	Painted
770-7-m	10	5	7	2	0.8	Metric thread M3 x 0.5 and 1/4 x 20	Aluminum	Painted
770-8-m	10	5.6	8	2.5	2.8	Metric thread M3 x 0.5 and 1/4 x 20	Aluminum	Painted
770-1.4-m	20	1	1.4	4	-21	Metric thread M3 x 0.5 and 1/4 x 20	Aluminum	Painted
770-2.8-m	20	2	2.8	0.7	-9	Metric thread M3 x 0.5 and 1/4 x 20	Aluminum	Painted
770-4.2-m	20	3	4.2	0.8	-2	Metric thread M3 x 0.5 and 1/4 x 20	Aluminum	Painted
770-5.6-m	20	4	5.6	1.5	3	Metric thread M3 x 0.5 and 1/4 x 20	Aluminum	Painted
770-7-m	20	5	7	2	6.8	Metric thread M3 x 0.5 and 1/4 x 20	Aluminum	Painted
770-8-m	20	5.6	8	2.5	8.8	Metric thread M3 x 0.5 and 1/4 x 20	Aluminum	Painted
770-1.4-m	30	1	1.4	4	-17	Metric thread M3 x 0.5 and 1/4 x 20	Aluminum	Painted
770-2.8-m	30	2	2.8	0.7	-5.5	Metric thread M3 x 0.5 and 1/4 x 20	Aluminum	Painted
770-4.2-m	30	3	4.2	0.8	1.5	Metric thread M3 x 0.5 and 1/4 x 20	Aluminum	Painted
770-5.6-m	30	4	5.6	1.5	6.5	Metric thread M3 x 0.5 and 1/4 x 20	Aluminum	Painted
770-7-m	30	5	7	2	10.3	Metric thread M3 x 0.5 and 1/4 x 20	Aluminum	Painted
770-8-m	30	5.6	8	2.5	12.3	Metric thread M3 x 0.5 and 1/4 x 20	Aluminum	Painted
770-1.4-m	40	1	1.4	4	-15	Metric thread M3 x 0.5 and 1/4 x 20	Aluminum	Painted
770-2.8-m	40	2	2.8	0.7	-3	Metric thread M3 x 0.5 and 1/4 x 20	Aluminum	Painted
770-4.2-m	40	3	4.2	0.8	4	Metric thread M3 x 0.5 and 1/4 x 20	Aluminum	Painted
770-5.6-m	40	4	5.6	1.5	9	Metric thread M3 x 0.5 and 1/4 x 20	Aluminum	Painted
770-7-m	40	5	7	2	12.8	Metric thread M3 x 0.5 and 1/4 x 20	Aluminum	Painted
770-8-m	40	5.6	8	2.5	14.8	Metric thread M3 x 0.5 and 1/4 x 20	Aluminum	Painted
770-1.4-m	50	1	1.4	4	-13	Metric thread M3 x 0.5 and 1/4 x 20	Aluminum	Painted
770-2.8-m	50	2	2.8	0.7	-1.1	Metric thread M3 x 0.5 and 1/4 x 20	Aluminum	Painted
770-4.2-m	50	3	4.2	0.8	6	Metric thread M3 x 0.5 and 1/4 x 20	Aluminum	Painted
770-5.6-m	50	4	5.6	1.5	11	Metric thread M3 x 0.5 and 1/4 x 20	Aluminum	Painted
770-7-m	50	5	7	2	14.8	Metric thread M3 x 0.5 and 1/4 x 20	Aluminum	Painted
770-8-m	50	5.6	8	2.5	16.7	Metric thread M3 x 0.5 and 1/4 x 20	Aluminum	Painted
770-1.4-m	60	1	1.4	4	-11	Metric thread M3 x 0.5 and 1/4 x 20	Aluminum	Painted
770-2.8-m	60	2	2.8	0.7	0.48	Metric thread M3 x 0.5 and 1/4 x 20	Aluminum	Painted
770-4.2-m	60	3	4.2	0.8	7.5	Metric thread M3 x 0.5 and 1/4 x 20	Aluminum	Painted
770-5.6-m	60	4	5.6	1.5	12.5	Metric thread M3 x 0.5 and 1/4 x 20	Aluminum	Painted
770-7-m	60	5	7	2	16.4	Metric thread M3 x 0.5 and 1/4 x 20	Aluminum	Painted
770-8-m	60	5.6	8	2.5	18.3	Metric thread M3 x 0.5 and 1/4 x 20	Aluminum	Painted
770-1.4-m	70	1	1.4	4	-10	Metric thread M3 x 0.5 and 1/4 x 20	Aluminum	Painted
770-2.8-m	70	2	2.8	0.7	1.8	Metric thread M3 x 0.5 and 1/4 x 20	Aluminum	Painted
770-4.2-m	70	3	4.2	0.8	8.8	Metric thread M3 x 0.5 and 1/4 x 20	Aluminum	Painted
770-5.6-m	70	4	5.6	1.5	13.8	Metric thread M3 x 0.5 and 1/4 x 20	Aluminum	Painted
770-7-m	70	5	7	2	17.7	Metric thread M3 x 0.5 and 1/4 x 20	Aluminum	Painted
770-8-m	70	5.6	8	2.5	19.7	Metric thread M3 x 0.5 and 1/4 x 20	Aluminum	Painted
770-1.4-m	80	1	1.4	4	-9	Metric thread M3 x 0.5 and 1/4 x 20	Aluminum	Painted
770-2.8-m	80	2	2.8	0.7	3	Metric thread M3 x 0.5 and 1/4 x 20	Aluminum	Painted
770-4.2-m	80	3	4.2	0.8	10	Metric thread M3 x 0.5 and 1/4 x 20	Aluminum	Painted
770-5.6-m	80	4	5.6	1.5	15	Metric thread M3 x 0.5 and 1/4 x 20	Aluminum	Painted
770-7-m	80	5	7	2	18.8	Metric thread M3 x 0.5 and 1/4 x 20	Aluminum	Painted
770-8-m	80	5.6	8	2.5	20.8	Metric thread M3 x 0.5 and 1/4 x 20	Aluminum	Painted
770-1.4-m	90	1	1.4	4	-8	Metric thread M3 x 0.5 and 1/4 x 20	Aluminum	Painted
770-2.8-m	90	2	2.8	0.7	4	Metric thread M3 x 0.5 and 1/4 x 20	Aluminum	Painted
770-4.2-m	90	3	4.2	0.8	11	Metric thread M3 x 0.5 and 1/4 x 20	Aluminum	Painted
770-5.6-m	90	4	5.6	1.5	16	Metric thread M3 x 0.5 and 1/4 x 20	Aluminum	Painted
770-7-m	90	5	7	2	20	Metric thread M3 x 0.5 and 1/4 x 20	Aluminum	Painted
770-8-m	90	5.6	8	2.5	22	Metric thread M3 x 0.5 and 1/4 x 20	Aluminum	Painted
770-1.4-m	100	1	1.4	4	-7	Metric thread M3 x 0.5 and 1/4 x 20	Aluminum	Painted
770-2.8-m	100	2	2.8	0.7	5	Metric thread M3 x 0.5 and 1/4 x 20	Aluminum	Painted
770-4.2-m	100	3	4.2	0.8	12	Metric thread M3 x 0.5 and 1/4 x 20	Aluminum	Painted
770-5.6-m	100	4	5.6	1.5	17	Metric thread M3 x 0.5 and 1/4 x 20	Aluminum	Painted
770-7-m	100	5	7	2	20.8	Metric thread M3 x 0.5 and 1/4 x 20	Aluminum	Painted
770-8-m	100	5.6	8	2.5	22.8	Metric thread M3 x 0.5 and 1/4 x 20	Aluminum	Painted
770-1.4-m	110	1	1.4	4	-6	Metric thread M3 x 0.5 and 1/4 x 20	Aluminum	Painted
770-2.8-m	110	2	2.8	0.7	5.7	Metric thread M3 x 0.5 and 1/4 x 20	Aluminum	Painted
770-4.2-m	110	3	4.2	0.8	12.8	Metric thread M3 x 0.5 and 1/4 x 20	Aluminum	Painted
770-5.6-m	110	4	5.6	1.5	17.7	Metric thread M3 x 0.5 and 1/4 x 20	Aluminum	Painted
770-7-m	110	5	7	2	21.6	Metric thread M3 x 0.5 and 1/4 x 20	Aluminum	Painted
770-8-m	110	5.6	8	2.5	23.6	Metric thread M3 x 0.5 and 1/4 x 20	Aluminum	Painted
770-1.4-m	120	1	1.4	4	-5.5	Metric thread M3 x 0.5 and 1/4 x 20	Aluminum	Painted
770-2.8-m	120	2	2.8	0.7	6.5	Metric thread M3 x 0.5 and 1/4 x 20	Aluminum	Painted
770-4.2-m	120	3	4.2	0.8	13.5	Metric thread M3 x 0.5 and 1/4 x 20	Aluminum	Painted
770-5.6-m	120	4	5.6	1.5	18.5	Metric thread M3 x 0.5 and 1/4 x 20	Aluminum	Painted
770-7-m	120	5	7	2	22	Metric thread M3 x 0.5 and 1/4 x 20	Aluminum	Painted
770-8-m	120	6	8	2.5	24	Metric thread M3 x 0.5 and 1/4 x 20	Aluminum	Painted

Mi-Wave's 770 Trihedral corner reflector antennas consists of a circular scalar feed horn illuminating a piano-convex lens. The trihedral corner reflector antennas simulates radar target precisely and is widely used for Radar system calibration.

Series 770

Series 257

Series 263

Spot Focus Antennas (Series 257)

Mi-Wave's 257 Series spot focus antennas consists of a circular scalar feed horn illuminating a piano-convex lens.
Housed in either aluminum or plastic, these horn lens antennas provide a high efficiency beam with equal E and H plane amplitude patterns.

Mode	Band	Reflector diameter (inches)	Circular Waveguide Internal Diameter (.XXX in Model No.) in Inches	Frequency / (GHz)	Spot Size (inches)	Focal Length (inches)	Polarization	VSWR	Antenna Port	Lens material	Housing material
257X-12/.XXX/39	X-Band	12	.XXX=1.094 / .938 / .797	8.2-9.97 / 8.5-11.6 / 9.97-12.4	1.0-1.5	12-14	Circular Polarized	1.3:1	Circular Waveguide with UG-39/U Flange	Rexolite	HDPE
257Ku-9/.XXX/419	Ku-Band	9	XXX=.660 / .550	12.4-14.6 / 14.6-18	1.0-1.5	9-10	Circular Polarized	1.3:1	Circular Waveguide with UG-419/U Flange	Rexolite	HDPE
257Ku-12/.XXX/419	Ku-Band	12	XXX=.660 / .550	12.4-14.6 / 14.6-18	1.0-1.5	12-14	Circular Polarized	1.3:1	Circular Waveguide with UG-419/U Flange	Rexolite	HDPE
257K-6/.XXX/595	K-Band	6	XXX=.470 XXX .396 / .328	18-20.5 / 20.4-24.5 / 24.5-26.5	1.0-1.5	8	Circular Polarized	1.3:1	Circular Waveguide with UG-595/U Flange or UG-425/U Flange	Rexolite	HDPE
257K-9/.XXX/595	K-Band	9	XXX=.470 XXX .396 / .328	18-20.5 / 20.4-24.5 / 24.5-26.5	1.0-1.5	9-10	Circular Polarized	1.3:1	Circular Waveguide with UG-595/U Flange or UG-425/U Flange	Rexolite	HDPE
257K-12/.XXX/595	K-Band	12	XXX=.470 XXX .396 / .328	18-20.5 / 20.4-24.5 / 24.5-26.5	1.0-1.5	12-14	Circular Polarized	1.3:1	Circular Waveguide with UG-595/U Flange or UG-425/U Flange	Rexolite	HDPE
257A-6/.XXX/599	Ka-Band	6	XXX=.328 / .281 / .250 / .219	26.5-28.5 / 28.5-33.0 / 33.0 / -38.5 / 38.5-40.0	1.0-1.5	8	Circular Polarized	1.3:1	Circular Waveguide with UG-599/U Flange or UG-381/U Flange	Rexolite	HDPE
257A-9/.XXX/599	Ka-Band	9	XXX=.328 / .281 / .250 / .219	26.5-28.5 / 28.5-33.0 / 33.0 / -38.5 / 38.5-40.0	1.0-1.5	9-10	Circular Polarized	1.3:1	Circular Waveguide with UG-599/U Flange or UG-381/U Flange	Rexolite	HDPE
257A-12/.XXX/599	Ka-Band	12	XXX=.328 / .281 / .250 / .219	26.5-28.5 / 28.5-33.0 / 33.0 / -38.5 / 38.5-40.0	1.0-1.5	12-14	Circular Polarized	1.3:1	Circular Waveguide with UG-599/U Flange or UG-381/U Flange	Rexolite	HDPE
257B-3/.XXX/383	B-Band	3	XXX=.250 / .219 / .188	33.0-38.5 / 38.5-43.0 / 43.0-50.0 /	1.0-1.5	4	Circular Polarized	1.3:1	Circular Waveguide with UG-383/U Flange	Rexolite	Aluminum
257B-6/.XXX/383	B-Band	6	XXX=.250 / .219 / .188	33.0-38.5 / 38.5-43.0 / 43.0-50.0 /	1.0-1.5	8	Circular Polarized	1.3:1	Circular Waveguide with UG-383/U Flange	Rexolite	HDPE
257B-9/.XXX/383	B-Band	9	XXX=.250 / .219 / .188	33.0-38.5 / 38.5-43.0 / 43.0-50.0 /	1.0-1.5	9-10	Circular Polarized	1.3:1	Circular Waveguide with UG-383/U Flange	Rexolite	HDPE
257B-12/.XXX/383	B-Band	12	XXX=.250 / .219 / .188	33.0-38.5 / 38.5-43.0 / 43.0-50.0 /	1.0-1.5	12-14	Circular Polarized	1.3:1	Circular Waveguide with UG-383/U Flange	Rexolite	HDPE
257U-3/.XXX/383	U-Band	3	XXX=.219 / .188 / .165 / .141	38.5-43.0 / 43.0-50.0 / 50.0-58.0 / 58.0-60.0	1.0-1.5	4	Circular Polarized	1.3:1	Circular Waveguide with UG-383/U-M Flange	Rexolite	Aluminum
257U-6/.XXX/383	U-Band	6	XXX=.219 / .188 / .165 / .141	38.5-43.0 / 43.0-50.0 / 50.0-58.0 / 58.0-60.0	1.0-1.5	8	Circular Polarized	1.3:1	Circular Waveguide with UG-383/U-M Flange	Rexolite	HDPE
257U-9/.XXX/383	U-Band	9	XXX=.219 / .188 / .165 / .141	38.5-43.0 / 43.0-50.0 / 50.0-58.0 / 58.0-60.0	1.0-1.5	9-10	Circular Polarized	1.3:1	Circular Waveguide with UG-383/U-M Flange	Rexolite	HDPE
257U-12/.XXX/383	U-Band	12	XXX=.219 / .188 / .165 / .141	38.5-43.0 / 43.0-50.0 / 50.0-58.0 / 58.0-60.0	1.0-1.5	12-14	Circular Polarized	1.3:1	Circular Waveguide with UG-383/U-M Flange	Rexolite	HDPE
257V-3/.XXX/385	V-Band	3	XXX=.165 / .141 / .125	50.0-58.0 / 58.0-68.0 / 68.0-75.0	1.0-1.5	4	Circular Polarized	1.3:1	Circular Waveguide with UG-385/U Flange	Rexolite	Aluminum
257V-6/.XXX/385	V-Band	6	XXX=.165 / .141 / .125	50.0-58.0 / 58.0-68.0 / 68.0-75.0	1.0-1.5	8	Circular Polarized	1.3:1	Circular Waveguide with UG-385/U Flange	Rexolite	HDPE
257V-9/.XXX/385	V-Band	9	XXX=.165 / .141 / .125	50.0-58.0 / 58.0-68.0 / 68.0-75.0	1.0-1.5	9-10	Circular Polarized	1.3:1	Circular Waveguide with UG-385/U Flange	Rexolite	HDPE
257V-12/.XXX/385	V-Band	12	XXX=.165 / .141 / .125	50.0-58.0 / 58.0-68.0 / 68.0-75.0	1.0-1.5	12-14	Circular Polarized	1.3:1	Circular Waveguide with UG-385/U Flange	Rexolite	HDPE
257E-3/.XXX/387	E-Band	3	XXX=.141 / .125 / .110 / .094	60.0-68.0 / 68.0-77.0 / 77.0-87.0 / 87.0-90.0	1.0-1.5	4	Circular Polarized	1.3:1	Circular Waveguide with UG-387/U Flange	Rexolite	Aluminum
257E-6/.XXX/387	E-Band	6	XXX=.141 / .125 / .110 / .094	60.0-68.0 / 68.0-77.0 / 77.0-87.0 / 87.0-90.0	1.0-1.5	8	Circular Polarized	1.3:1	Circular Waveguide with UG-387/U Flange	Rexolite	HDPE
257E-9/.XXX/387	E-Band	9	XXX=.141 / .125 / .110 / .094	60.0-68.0 / 68.0-77.0 / 77.0-87.0 / 87.0-90.0	1.0-1.5	9-10	Circular Polarized	1.3:1	Circular Waveguide with UG-387/U Flange	Rexolite	HDPE
257E-12/.XXX/387	E-Band	12	XXX=.141 / .125 / .110 / .094	60.0-68.0 / 68.0-77.0 / 77.0-87.0 / 87.0-90.0	1.0-1.5	12-14	Circular Polarized	1.3:1	Circular Waveguide with UG-387/U Flange	Rexolite	HDPE
257W-3/.XXX/387	W-Band	3	XXX=.125 / .110 / .094 / .082	75.0-77.0 / 77.0-87.0 / 87.0-100.0 / 100.0-110.0	1.0-1.5	4	Circular Polarized	1.3:1	Circular Waveguide with UG-387/U-M Flange	Rexolite	Aluminum
257W-6/.XXX/387	W-Band	6	XXX=.125 / .110 / .094 / .082	75.0-77.0 / 77.0-87.0 / 87.0-100.0 / 100.0-110.0	1.0-1.5	8	Circular Polarized	1.3:1	Circular Waveguide with UG-387/U-M Flange	Rexolite	HDPE
257W-9/.XXX/387	W-Band	9	XXX=.125 / .110 / .094 / .082	75.0-77.0 / 77.0-87.0 / 87.0-100.0 / 100.0-110.0	1.0-1.5	9-10	Circular Polarized	1.3:1	Circular Waveguide with UG-387/U-M Flange	Rexolite	HDPE
257W-12/.XXX/387	W-Band	12	XXX=.125 / .110 / .094 / .082	75.0-77.0 / 77.0-87.0 / 87.0-100.0 / 100.0-110.0	1.0-1.5	12-14	Circular Polarized	1.3:1	Circular Waveguide with UG-387/U-M Flange	Rexolite	HDPE

Wide Angle Scalar Feed Horns (Series 263)

Mi-Wave's 263 Series wide angle scalar feed horn antennas are created with the end consumer in mind.
Our wide angle scalar feed horns, also called a choke horn, have been designed to be used in applications where wide beamwidth (55 Deg.)

Model	Band	Frequency (GHz)	Gain (dBi)	3dB Beamwidth, E-Plane (Degrees)	3dB Beamwidth, H-Plane (Degrees)	Polarization	RF Ports
263A-XX/.XXX/381	Ka-Band	26.5-40	10	55	56	Circular	0.250" Circular waveguide diameter
263A-XX/.XXX/599	Ka-Band	26.5-40	10	55	56	Circular	0.281" Circular waveguide diameter
263B-XX/.XXX/384	Q-Band	33-50	10	55	56	Linear & Circular	.250" ID Circular Waveguide (33-38.5 GHz)
263U-XX/.XXX/383	U-Band	40-60	10	55	56	Linear & Circular	.219" ID Circular Waveguide (40-43 GHz)
263V-XX/.XXX/385	V-Band	50-75	10	55	56	Linear & Circular	.165" ID Circular Waveguide (50-58 GHz)
263E-XX/.XXX/387	E-Band	60-90	10	55	56	Linear & Circular	.141" ID Circular Waveguide (60-68 GHz)
263W-XX/.XXX/387	W-Band	75-110	10	55	56	Linear & Circular	.125" ID Circular Waveguide (75-77 GHz)

Conical Horn Antennas (Series 262)

Mi-Wave's 262 Series conical horn antennas are fabricated with very close tolerances to ensure the precision of every horn manufactured by Mi-Wave. Each unit is supplied with a short section of the circular waveguide and terminated in a standard round flange.

Model	Band	Gain (dBi)	Circular Waveguide Internal Diameter (.XXX in Model No.) in Inches	Frequency (GHz)	3 dB Beamwidth E-Plane	3 dB Beamwidth H-Plane	Polarization	VSWR	Antenna Port	Material
262X-10/.XXX/39	X-Band	10	.XXX=1.094 / .938 / .797	8.2-9.97 / / 8.5-11.6 / 9.97-12.4	59.42	57.7	Circular Polarized	1.3:1	Circular Waveguide with UG-39/U Flange	Aluminum/Brass
262X-15/.XXX/39	X-Band	15	.XXX=1.094 / .938 / .797	8.2-9.97 / / 8.5-11.6 / 9.97-12.4	15.28	18.54	Circular Polarized	1.3:1	Circular Waveguide with UG-39/U Flange	Aluminum/Brass
262KU-10/.XXX/419	Ku-Band	10	.XXX=.660 / .550	12.4-14.6 / 14.6-18.0	47.67	50.04	Circular Polarized	1.3:1	Circular Waveguide with UG-419/U Flange	Aluminum/Brass
262Ku-15/.XXX/419	Ku-Band	15	.XXX=.660 / .550	12.4-14.6 / 14.6-18.0	28.25	32.96	Circular Polarized	1.3:1	Circular Waveguide with UG-419/U Flange	Aluminum/Brass
262K-10/.XXX/595	K-Band	10	.XXX=.470 .XXX .396 / .328	18.0-20.5 / 20.4-24.5 / 24.5-26.5	45.72	48.54	Circular Polarized	1.3:1	Circular Waveguide with UG-595/U Flange or UG-425/U Flange	Aluminum/Brass
262K-15/.XXX/595	K-Band	15	.XXX=.470 .XXX .396 / .328	18.0-20.5 / 20.4-24.5 / 24.5-26.5	26.5	31.13	Circular Polarized	1.3:1	Circular Waveguide with UG-595/U Flange or UG-425/U Flange	Aluminum/Brass
262K-20/.XXX/595	K-Band	20	.XXX=.470 .XXX .396 / .328	18.0-20.5 / 20.4-24.5 / 24.5-26.5	14.48	17.61	Circular Polarized	1.3:1	Circular Waveguide with UG-595/U Flange or UG-425/U Flange	Aluminum/Brass
262A-10/.XXX/599	Ka-Band	10	.XXX=.328 / .281 / .250 / .219	26.5-28.5 / 28.5-33.0 / 33.0 / -38.5 / 38.5-40.0	47.64	49.03	Circular Polarized	1.3:1	Circular Waveguide with UG-599/U Flange or UG-381/U Flange	Aluminum/Brass
262A-15/.XXX/599	Ka-Band	15	.XXX=.328 / .281 / .250 / .219	26.5-28.5 / 28.5-33.0 / 33.0 / -38.5 / 38.5-40.0	23.44	27.94	Circular Polarized	1.3:1	Circular Waveguide with UG-599/U Flange or UG-381/U	Aluminum/Brass
262A-20/.XXX/599	Ka-Band	20	.XXX=.328 / .281 / .250 / .219	26.5-28.5 / 28.5-33.0 / 33.0 / -38.5 / 38.5-40.0	15.9	19.39	Circular Polarized	1.3:1	Circular Waveguide with UG-599/U Flange or UG-381/U	Aluminum/Brass
262A-25/.XXX/599	Ka-Band	25	.XXX=.328 / .281 / .250 / .219	26.5-28.5 / 28.5-33.0 / 33.0 / -38.5 / 38.5-40.0	8.62	10.55	Circular Polarized	1.3:1	Circular Waveguide with UG-599/U Flange or UG-381/U	Aluminum/Brass
262B-10/.XXX/383	B-Band	10	.XXX=.250 / .219 / .188	33.0-38.5 / 38.5-43.0 / 43.0-50.0 /	49.92	51.66	Circular Polarized	1.3:1	Circular Waveguide with UG-383/U Flange	Aluminum/Brass
262B-15/.XXX/383	B-Band	15	.XXX=.250 / .219 / .188	33.0-38.5 / 38.5-43.0 / 43.0-50.0 /	25.27	29.88	Circular Polarized	1.3:1	Circular Waveguide with UG-383/U Flange	Aluminum/Brass
263B-20/.XXX/383	B-Band	20	.XXX=.250 / .219 / .188	33.0-38.5 / 38.5-43.0 / 43.0-50.0 /	14.36	17.56	Circular Polarized	1.3:1	Circular Waveguide with UG-383/U Flange	Aluminum/Brass
262B-25/.XXX/383	B-Band	25	.XXX=.250 / .219 / .188	33.0-38.5 / 38.5-43.0 / 43.0-50.0 /	8.23	9.96	Circular Polarized	1.3:1	Circular Waveguide with UG-383/U Flange	Aluminum/Brass
262U-10/.XXX/383	U-Band	10	.XXX=.219 / .188 / .165 / .141	38.5-43.0 / 43.0-50.0 / 50.0-58.0 / 58.0-60.0	54.64	54.84	Circular Polarized	1.3:1	Circular Waveguide with UG-383/U-M Flange	Aluminum/Brass
262U-15/.XXX/383	U-Band	15	.XXX=.219 / .188 / .165 / .141	38.5-43.0 / 43.0-50.0 / 50.0-58.0 / 58.0-60.0	29.53	34.39	Circular Polarized	1.3:1	Circular Waveguide with UG-383/U-M Flange	Aluminum/Brass
262U-20/.XXX/383	U-Band	20	.XXX=.219 / .188 / .165 / .141	38.5-43.0 / 43.0-50.0 / 50.0-58.0 / 58.0-60.0	12.34	15.17	Circular Polarized	1.3:1	Circular Waveguide with UG-383/U-M Flange	Aluminum/Brass
262U-25/.XXX/383	U-Band	25	.XXX=.219 / .188 / .165 / .141	38.5-43.0 / 43.0-50.0 / 50.0-58.0 / 58.0-60.0	8.78	10.76	Circular Polarized	1.3:1	Circular Waveguide with UG-383/U-M Flange	Aluminum/Brass
262V-10/.XXX/385	V-Band	10	.XXX=.165 / .141 / .125	50.0-58.0 / 58.0-68.0 / 68.0-75.0	55.99	55.68	Circular Polarized	1.3:1	Circular Waveguide with UG-385/U Flange	Aluminum/Brass
262V-15/.XXX/385	V-Band	15	.XXX=.165 / .141 / .125	50.0-58.0 / 58.0-68.0 / 68.0-75.0	29.69	34.56	Circular Polarized	1.3:1	Circular Waveguide with UG-385/U Flange	Aluminum/Brass
262V-20/.XXX/385	V-Band	20	.XXX=.165 / .141 / .125	50.0-58.0 / 58.0-68.0 / 68.0-75.0	15.22	18.64	Circular Polarized	1.3:1	Circular Waveguide with UG-385/U Flange	Aluminum/Brass
262V-25/.XXX/385	V-Band	25	.XXX=.165 / .141 / .125	50.0-58.0 / 58.0-68.0 / 68.0-75.0	7.68	9.32	Circular Polarized	1.3:1	Circular Waveguide with UG-385/U Flange	Aluminum/Brass
262E-10/.XXX/387	E-Band	10	.XXX=.141 / .125 / .110 / .094	60.0-68.0 / 68.0-77.0 / 77.0-87.0 / 87.0-90.0	51.39	52.7	Circular Polarized	1.3:1	Circular Waveguide with UG-387/U Flange	Aluminum/Brass
262E-15/.XXX/387	E-Band	15	.XXX=.141 / .125 / .110 / .094	60.0-68.0 / 68.0-77.0 / 77.0-87.0 / 87.0-90.0	28.39	33.22	Circular Polarized	1.3:1	Circular Waveguide with UG-387/U Flange	Aluminum/Brass
262E-20/.XXX/387	E-Band	20	.XXX=.141 / .125 / .110 / .094	60.0-68.0 / 68.0-77.0 / 77.0-87.0 / 87.0-90.0	15.59	18.97	Circular Polarized	1.3:1	Circular Waveguide with UG-387/U Flange	Aluminum/Brass
262E-25/.XXX/387	E-Band	25	.XXX=.141 / .125 / .110 / .094	60.0-68.0 / 68.0-77.0 / 77.0-87.0 / 87.0-90.0	8	9.74	Circular Polarized	1.3:1	Circular Waveguide with UG-387/U Flange	Aluminum/Brass
262W-10/.XXX/387	W-Band	10	.XXX=.125 / .110 / .094 / .082	75.0-77.0 / 77.0-87.0 / 87.0-100.0 / 100.0-110.0	60.48	58.32	Circular Polarized	1.3:1	Circular Waveguide with UG-387/U-M Flange	Aluminum/Brass
262W-15/.XXX/387	W-Band	15	.XXX=.125 / .110 / .094 / .082	75.0-77.0 / 77.0-87.0 / 87.0-100.0 / 100.0-110.0	29.86	34.73	Circular Polarized	1.3:1	Circular Waveguide with UG-387/U-M Flange	Aluminum/Brass
262W-20/.XXX/387	W-Band	20	.XXX=.125 / .110 / .094 / .082	75.0-77.0 / 77.0-87.0 / 87.0-100.0 / 100.0-110.0	16.33	19.96	Circular Polarized	1.3:1	Circular Waveguide with UG-387/U-M Flange	Aluminum/Brass
262W-25/.XXX/387	W-Band	25	.XXX=.125 / .110 / .094 / .082	75.0-77.0 / 77.0-87.0 / 87.0-100.0 / 100.0-110.0	9.32	11.37	Circular Polarized	1.3:1	Circular Waveguide with UG-387/U-M Flange	Aluminum/Brass
262F-10/.XXX/387	F-Band	10	.XXX=.094 / .082 / .075 / .067	87.0-100.0 / 100.0-112.0 / 112.0-125.0 / 125.0-140.0	55.75	55.54	Circular Polarized	1.3:1	Circular Waveguide with UG-387/U-M Flange	Aluminum/Brass
262F-15/.XXX/387	F-Band	15	.XXX=.094 / .082 / .075 / .067	87.0-100.0 / 100.0-112.0 / 112.0-125.0 / 125.0-140.0	30.81	35.41	Circular Polarized	1.3:1	Circular Waveguide with UG-387/U-M Flange	Aluminum/Brass
262F-20/.XXX/387	F-Band	20	.XXX=.094 / .082 / .075 / .067	87.0-100.0 / 100.0-112.0 / 112.0-125.0 / 125.0-140.0	14.54	17.87	Circular Polarized	1.3:1	Circular Waveguide with UG-387/U-M Flange	Aluminum/Brass
262F-25/.XXX/387	F-Band	25	.XXX=.094 / .082 / .075 / .067	87.0-100.0 / 100.0-112.0 / 112.0-125.0 / 125.0-140.0	9.25	11.48	Circular Polarized	1.3:1	Circular Waveguide with UG-387/U-M Flange	Aluminum/Brass
262D-10/.XXX/387	D-Band	10	.XXX=.082 / .075 / .067 / .059	100.0-112.0 / 112.0-125.0 / 125.0-140.0 / 140.0-170.0	55.75	55.54	Circular Polarized	1.3:1	Circular Waveguide with UG-387/U-M Flange	Aluminum/Brass
262D-15/.XXX/387	D-Band	15	.XXX=.082 / .075 / .067 / .059	100.0-112.0 / 112.0-125.0 / 125.0-140.0 / 140.0-170.0	30.81	35.41	Circular Polarized	1.3:1	Circular Waveguide with UG-387/U-M Flange	Aluminum/Brass
262D-20/.XXX/387	D-Band	20	.XXX=.082 / .075 / .067 / .059	100.0-112.0 / 112.0-125.0 / 125.0-140.0 / 140.0-170.0	16.29	19.9	Circular Polarized	1.3:1	Circular Waveguide with UG-387/U-M Flange	Aluminum/Brass
262D-25/.XXX/387	D-Band	25	.XXX=.082 / .075 / .067 / .059	100.0-112.0 / 112.0-125.0 / 125.0-140.0 / 140.0-170.0	9.25	11.48	Circular Polarized	1.3:1	Circular Waveguide with UG-387/U-M Flange	Aluminum/Brass
262G-10/.XXX/387	G-Band	10	.XXX=.059	140.0-170.0	53.09	53.85	Circular Polarized	1.3:1	Circular Waveguide with UG-387/U-M Flange	Aluminum/Brass
262G-15/.XXX/387	G-Band	15	.XXX=.059	140.0-170.0	29.71	34.61	Circular Polarized	1.3:1	Circular Waveguide with UG-387/U-M Flange	Aluminum/Brass
262G-20/.XXX/387	G-Band	20	.XXX=.059	140.0-170.0	16.57	20.26	Circular Polarized	1.3:1	Circular Waveguide with UG-387/U-M Flange	Aluminum/Brass
262G-25/.XXX/387	G-Band	25	.XXX=.059	140.0-170.0	8.3	10.17	Circular Polarized	1.3:1	Circular Waveguide with UG-387/U-M Flange	Aluminum/Brass
262H-25/.XXX/387	H-Band	25	.XXX=.049	170.0-325.0	8.31	10.2	Circular Polarized	1.3:1	Circular Waveguide with UG-387/U-M Flange	Aluminum/Brass
262J-25/.XXX/387	J-Band	25	.XXX=.049	170.0-325.0	9.2	11.42	Circular Polarized	1.3:1	Circular Waveguide with UG-387/U-M Flange	Aluminum/Brass

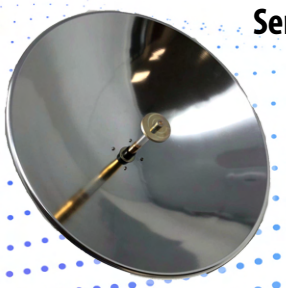
Series 262

Prime Focus Antennas (Series 202 & 203)

Mi-Wave's 202,203 Series prime focus antennas consist of a parabolic reflector, a linearly-polarized primary feed, and a feed support assembly, that is attached to the rim of the reflector in order to position the feed accurately.

Model	Band	Reflector diameter (inches)	Frequency (GHz)	Gain (dB)	3 dB Beamwidth (degree)	Polarization	VSWR	Antenna Port	Reflector material
202X-18/39 and 203X-18/39	X-Band	18	8.2-12.4	29	4.5	Linear	1.3:1	WR-90 Waveguide with UG-39/U Flange	Aluminum/Fibreglass
202X-24/39 and 203X-24/39	X-Band	24	8.2-12.4	32	3.5	Linear	1.3:1	WR-90 Waveguide with UG-39/U Flange	Aluminum/Fibreglass
202Ku-9/419	Ku-Band	9	12.4-18	27	5.8	Linear	1.3:1	WR-62 Waveguide with UG-419/U Flange	Aluminum
202Ku-12/419 and 203-12/419	Ku-Band	12	12.4-18	30	4.5	Linear	1.3:1	WR-62 Waveguide with UG-419/U Flange	Aluminum/Fibreglass
202Ku-18/419 and 203-18/419	Ku-Band	18	12.4-18	33	3	Linear	1.3:1	WR-62 Waveguide with UG-419/U Flange	Aluminum/Fibreglass
202Ku-24/419 and 203-24/419	Ku-Band	24	12.4-18	36.5	2	Linear	1.3:1	WR-62 Waveguide with UG-419/U Flange	Aluminum/Fibreglass
203Ku-36/419	Ku-Band	36	12.4-18	40.5	1.5	Linear	1.3:1	WR-62 Waveguide with UG-419/U Flange	Fibreglass
203Ku-48/419	Ku-Band	48	12.4-18	43	1	Linear	1.3:1	WR-62 Waveguide with UG-419/U Flange	Fibreglass
202K-6/595	K-Band	6	18-26.5	26.5	6	Linear	1.3:1	WR-42 Waveguide with UG-595/U Flange	Aluminum
202K-9/595	K-Band	9	18-26.5	30	4	Linear	1.3:1	WR-42 Waveguide with UG-595/U Flange	Aluminum
202K-12/595 and 203K-12/595	K-Band	12	18-26.5	33	3	Linear	1.3:1	WR-42 Waveguide with UG-595/U Flange	Aluminum/Fibreglass
202K-18/595 and 203K-18/595	K-Band	18	18-26.5	36	2	Linear	1.3:1	WR-42 Waveguide with UG-595/U Flange	Aluminum/Fibreglass
202K-24/595 and 203K-24/595	K-Band	24	18-26.5	39	1.5	Linear	1.3:1	WR-42 Waveguide with UG-595/U Flange	Aluminum/Fibreglass
203K-36/595	K-Band	36	18-26.5	43	1	Linear	1.3:1	WR-42 Waveguide with UG-595/U Flange	Fibreglass
203K-48/595	K-Band	48	18-26.5	45.5	1	Linear	1.3:1	WR-42 Waveguide with UG-595/U Flange	Fibreglass
202A-6/599	Ka-Band	6	26.5-40	30	4.2	Linear	1.3:1	WR-28 Waveguide with UG-599/U Flange	Aluminum
202A-9/599	Ka-Band	9	26.5-40	33	3	Linear	1.3:1	WR-28 Waveguide with UG-599/U Flange	Aluminum
202A-12/599 and 203A-12/599	Ka-Band	12	26.5-40	36	2	Linear	1.3:1	WR-28 Waveguide with UG-599/U Flange	Aluminum/Fibreglass
202A-18/599 and 203A-18/599	Ka-Band	18	26.5-40	39	1.3	Linear	1.3:1	WR-28 Waveguide with UG-599/U Flange	Aluminum/Fibreglass
202A-24/599 and 203A-24/599	Ka-Band	24	26.5-40	42	1.5	Linear	1.3:1	WR-28 Waveguide with UG-599/U Flange	Aluminum/Fibreglass
203A-36/599	Ka-Band	36	26.5-40	45.5	1	Linear	1.3:1	WR-28 Waveguide with UG-599/U Flange	Fibreglass
203A-48/599	Ka-Band	48	26.5-40	48	0.8	Linear	1.3:1	WR-28 Waveguide with UG-599/U Flange	Fibreglass
202B-3/383	B-Band	3	33-50	26	6.5	Linear	1.3:1	WR-22 Waveguide with UG-383/U Flange	Aluminum
202B-6/383	B-Band	6	33-50	32	3.5	Linear	1.3:1	WR-22 Waveguide with UG-383/U Flange	Aluminum
202B-9/383	B-Band	9	33-50	36	2.5	Linear	1.3:1	WR-22 Waveguide with UG-383/U Flange	Aluminum
202B-12/383 and 203B-12/383	B-Band	12	33-50	38.5	1.7	Linear	1.3:1	WR-22 Waveguide with UG-383/U Flange	Aluminum/Fibreglass
202B-18/383 and 203B-18/383	B-Band	18	33-50	42	1.5	Linear	1.3:1	WR-22 Waveguide with UG-383/U Flange	Aluminum/Fibreglass
202B-24/383 and 203B-24/383	B-Band	24	33-50	44	1	Linear	1.3:1	WR-22 Waveguide with UG-383/U Flange	Aluminum/Fibreglass
203B-36/383	B-Band	36	33-50	48	0.7	Linear	1.3:1	WR-22 Waveguide with UG-383/U Flange	Fibreglass
203B-48/383	B-Band	48	33-50	50	0.5	Linear	1.3:1	WR-22 Waveguide with UG-383/U Flange	Fibreglass
202U-3/383	U-Band	3	40-60	28	5.5	Linear	1.3:1	WR-19 Waveguide with UG-383/U-M Flange	Aluminum
202U-6/383	U-Band	6	40-60	34	2.8	Linear	1.3:1	WR-19 Waveguide with UG-383/U-M Flange	Aluminum
202U-9/383	U-Band	9	40-60	37.5	2	Linear	1.3:1	WR-19 Waveguide with UG-383/U-M Flange	Aluminum
202U-12/383 and 203U-12/383	U-Band	12	40-60	40	1.5	Linear	1.3:1	WR-19 Waveguide with UG-383/U-M Flange	Aluminum/Fibreglass
202U-18/383 and 203U-18/383	U-Band	18	40-60	43	1	Linear	1.3:1	WR-19 Waveguide with UG-383/U-M Flange	Aluminum/Fibreglass
202U-24/383 and 203U-24/383	U-Band	24	40-60	46	0.7	Linear	1.3:1	WR-19 Waveguide with UG-383/U-M Flange	Aluminum/Fibreglass
203U-36/383	U-Band	36	40-60	49.5	0.5	Linear	1.3:1	WR-19 Waveguide with UG-383/U-M Flange	Fibreglass
203U-48/383	U-Band	48	40-60	52	0.5	Linear	1.3:1	WR-19 Waveguide with UG-383/U-M Flange	Fibreglass
202V-3/385	V-Band	3	50-75	30	4.5	Linear	1.3:1	WR-15 Waveguide with UG-385/U Flange	Aluminum
202V-6/385	V-Band	6	50-75	36	2.5	Linear	1.3:1	WR-15 Waveguide with UG-385/U Flange	Aluminum
202V-9/385	V-Band	9	50-75	39	1.5	Linear	1.3:1	WR-15 Waveguide with UG-385/U Flange	Aluminum
202V-12/385 and 203V-12/385	V-Band	12	50-75	42	1.2	Linear	1.3:1	WR-15 Waveguide with UG-385/U Flange	Aluminum/Fibreglass
202V-18/385 and 203V-18/385	V-Band	18	50-75	45	0.9	Linear	1.3:1	WR-15 Waveguide with UG-385/U Flange	Aluminum/Fibreglass
202V-24/385 and 203V-24/385	V-Band	24	50-75	48	0.6	Linear	1.3:1	WR-15 Waveguide with UG-385/U Flange	Aluminum/Fibreglass
203V-36/385	V-Band	36	50-75	51	0.4	Linear	1.3:1	WR-15 Waveguide with UG-385/U Flange	Fibreglass
203V-48/385	V-Band	48	50-75	54	0.3	Linear	1.3:1	WR-15 Waveguide with UG-385/U Flange	Fibreglass
202E-3/387	E-Band	3	60-90	31	3.5	Linear	1.3:1	WR-12 Waveguide with UG-387/U Flange	Aluminum
202E-6/387	E-Band	6	60-90	37	1.8	Linear	1.3:1	WR-12 Waveguide with UG-387/U Flange	Aluminum
202E-9/387	E-Band	9	60-90	41	1.2	Linear	1.3:1	WR-12 Waveguide with UG-387/U Flange	Aluminum
202E-12/387 and 203E-12/387	E-Band	12	60-90	43	1	Linear	1.3:1	WR-12 Waveguide with UG-387/U Flange	Aluminum/Fibreglass
202E-18/387 and 203E-18/387	E-Band	18	60-90	47	0.6	Linear	1.3:1	WR-12 Waveguide with UG-387/U Flange	Aluminum/Fibreglass
202E-24/387 and 203E-24/387	E-Band	24	60-90	49	0.5	Linear	1.3:1	WR-12 Waveguide with UG-387/U Flange	Aluminum/Fibreglass
203E-36/387	E-Band	36	60-90	53	0.35	Linear	1.3:1	WR-12 Waveguide with UG-387/U Flange	Fibreglass
203E-48/387	E-Band	48	60-90	55.5	0.3	Linear	1.3:1	WR-12 Waveguide with UG-387/U Flange	Fibreglass
202W-3/387	W-Band	3	75-110	33	2.9	Linear	1.3:1	WR-10 Waveguide with UG-387/U-M Flange	Aluminum
202W-6/387	W-Band	6	75-110	39	1.5	Linear	1.3:1	WR-10 Waveguide with UG-387/U-M Flange	Aluminum
202W-9/387	W-Band	9	75-110	43	1	Linear	1.3:1	WR-10 Waveguide with UG-387/U-M Flange	Aluminum
202W-12/387 and 203W-12/387	W-Band	12	75-110	45	0.8	Linear	1.3:1	WR-10 Waveguide with UG-387/U-M Flange	Aluminum/Fibreglass
202W-18/387 and 203W-18/387	W-Band	18	75-110	49	0.5	Linear	1.3:1	WR-10 Waveguide with UG-387/U-M Flange	Aluminum/Fibreglass
202W-24/387 and 203W-24/387	W-Band	24	75-110	51	0.4	Linear	1.3:1	WR-10 Waveguide with UG-387/U-M Flange	Aluminum/Fibreglass
203W-36/387	W-Band	36	75-110	55	0.25	Linear	1.3:1	WR-10 Waveguide with UG-387/U-M Flange	Fibreglass
203W-48/387	W-Band	48	75-110	57	0.18	Linear	1.3:1	WR-10 Waveguide with UG-387/U-M Flange	Fibreglass

Series 202



Pin Diode Voltage Variable Attenuators (900 Series)

Mi-Wave's 900 Series Pin Diode or MMIC Attenuator is a reflective attenuator that combines low loss, high isolation performance in a compact package. Attenuation options are available for the 900 Series attenuation with isolation versions up to 60 dB.

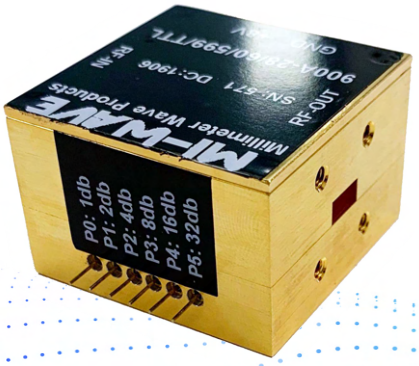
Model	Frequency (GHz)	Insertion Loss (dB) typical	Attenuation (dB)	Speed (nS)	Power Handling (dBm)	DC Bias	Control Bias (Volts)	RF Ports
900KF-30/KF	18-26.5	3	30	<25	23	+8V to +12V	0 to +5 V	K-F
900AF-30/599	26.5-40	3	30	<25	23	+8V to +12V	0 to +5 V	WR-28 Waveguide with UG-599/U Flange
900A-60/SMAFTTL-B	27.5-28.5	0	60	<25	25	+8V to +12V	0 to +5 V	SMA-F
900BF-30/383	33-50	3	30	<25	23	+8V to +12V	0 to +5 V	WR-22 Waveguide with UG-383/U Flange
900UF-30/383	40-60	3	30	<25	23	+8V to +12V	0 to +5 V	WR-19 Waveguide with UG-383/U-M Flange
900VF-30/385	50-75	3	30	<25	23	+8V to +12V	0 to +5 V	WR-15 Waveguide with UG-385/U Flange
900EF-30/387	60-90	4	30	<25	23	+8V to +12V	0 to +5 V	WR-12 Waveguide with UG-387/U Flange
900WF-30/388	75-110	4	30	<25	23	+8V to +12V	0 to +5 V	WR-10 Waveguide with UG-387/U-M Flange

Direct Reading Precision Electronic Attenuators (Series 515)

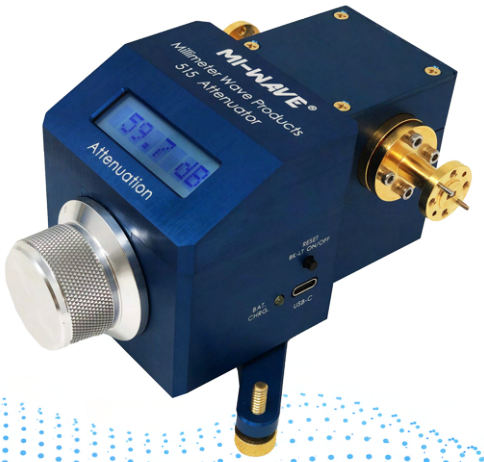
Mi-Wave's 515 Series Direct-reading electronic Precision Attenuators provide 0 to 60 dB of calibrated attenuation by rotation of a resistive vane mounted in a circular waveguide section.

Model	Frequency (GHz)	Insertion Loss (dB) typical	Attenuation Range (dB)	Resolution (dB)	Power Handling (Watts)	RF Ports	Accuracy
515Ku/419	12.4-18	0.5	0-60	0.01	0.3	WR-62 Waveguide with UG-419/U Flanges	0.1 dB or < 1% of setting
515K/595	18-26.5	0.5	0-60	0.01	0.3	WR-42 Waveguide with UG-595/U Flanges	0.1 dB or < 1% of setting
515(34)/595	22-33	0.5	0-60	0.01	0.3	WR-34 Waveguide with UG-595/U Flanges	0.1 dB or < 1% of setting
515A/599	26.5-40	0.5	0-60	0.01	10	WR-28 Waveguide, UG-599/U Flange	0.1 dB or < 1% of setting
515B/383	33-50	0.7	0-60	0.01	7	WR-22 Waveguide, UG-383/U Flange	0.1 dB or < 1% of setting
515U/383	40-60	1	0-60	0.01	5	WR-19 Waveguide, UG-383/U-M Flange	0.1 dB or < 1% of setting
515V/385	50-75	1.2	0-60	0.01	5	WR-15 Waveguide, UG-385/U Flange	0.1 dB or < 1% of setting
515E/387	60-90	1.8	0-60	0.01	2	WR-12 Waveguide, UG-387/U Flanges	0.1 dB or < 1% of setting
515W/387	75-110	3.3	0-60	0.01	2	WR-10 Waveguide, UG-387/U-M Flanges	0.1 dB or < 1% of setting
515F/387	90-140	3.4	0-60	0.01	0.1	WR-08 Waveguide, UG-387/U-M Flange	0.1 dB or < 1% of setting
515D/387	110-170	3.5	0-60	0.01	0.1	WR-06 Waveguide, UG-387/U-M Flange	0.1 dB or < 1% of setting
515G/387	140-220	3.8	0-60	0.01	0.1	WR-05 Waveguide, UG-387/U-M Flange	0.1 dB or < 1% of setting

Series 900



Series 515



Programmable Rotary Vane Attenuators (511 Series)

Mi-Wave's 511 Series Precision Programmable Rotary Vane Attenuators are available in full waveguide bands from 7.0 to 220GHz. Attenuation control is performed manually via a front panel or remote controlled using a standard IEEE-488 or USB interface.

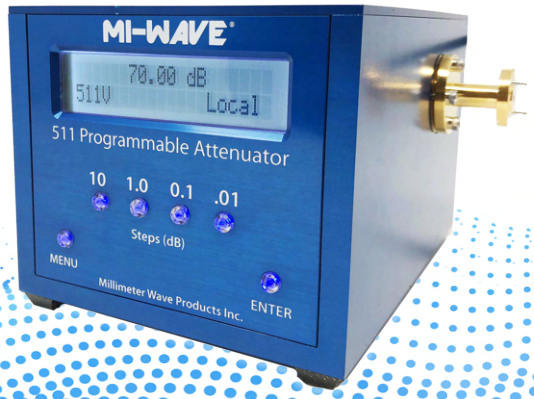
Model	Power Type	Frequency (GHz)	Insertion Loss (dB) typical	Attenuation Range (dB)	Resolution (dB)	Programmable GPIB Address	Power Handling (Watts)	RF Ports
511X/39ND	Low Power	8.2-12.4	0.5	0-70	0.01	up to 30	0.3	WR-90 Waveguide, UG-39/U Flange
511Ku/419ND	Low Power	12.4-18	0.5	0-70	0.01	up to 30	0.3	WR-62 Waveguide, UG-419/U Flange
511K/595ND	Low Power	18-26	0.5	0-70	0.01	up to 30	0.3	WR-42 Waveguide with UG-595/U Flanges
511(34)/595ND	Low Power	22-33	0.5	0-70	0.01	up to 30	0.3	WR-34 Waveguide with UG-595/U Flanges
511A-599ND	High Power	26.5-40	0.5	0-70	0.01	up to 30	10	WR-28 Waveguide, UG-599/U Flange
511B/383ND	High Power	33-50	0.7	0-70	0.01	up to 30	7	WR-22 Waveguide, UG-383/U Flange
511U/383ND	High Power	40-60	1	0-70	0.01	up to 30	5	WR-19 Waveguide, UG-383/U-M Flange
511V/385ND	High Power	50-75	1.2	0-70	0.01	up to 30	5	WR-15 Waveguide, UG-385/U Flange
511E/387ND	High Power	60-90	1.8	0-65	0.01	up to 30	2	WR-12 Waveguide, UG-387/U-M Flange
511W/387ND	High Power	75-110	3.3	0-65	0.01	up to 30	2	WR-10 Waveguide, UG-387/U-M Flange
511F/387ND	Low Power	90-140	3.4	0-60	0.01	up to 30	0.1	WR-8 Waveguide, UG-387/U-M Flange
511D/387ND	Low Power	110-170	3.5	0-60	0.01	up to 30	0.1	WR-6 Waveguide, UG-387/U-M Flange
511G/387ND	Low Power	140-220	3.8	0-50	0.01	up to 30	0.1	WR-05 Waveguide, UG-387/U-M Flange
511H/387ND	Low Power	170-260	6	0-40	0.01	up to 30	0.1	WR-04 Waveguide with UG-387/U-M Flange
511J/387ND	Low Power	220-325	7	0-40	0.01	up to 30	0.05	WR-03 Waveguide, UG-387/U Flange

Dial-Type Uncalibrated and Calibrated Waveguide Attenuators (Series 520 & 522)

Mi-Wave's 520 Series Dial-Type Uncalibrated Variable Waveguide Attenuators and 522 Calibrated Attenuators are available in standard waveguide sizes from 8 to 220 GHz.

Model	Frequency (GHz)	Insertion Loss at 0 (dB) setting	Attenuation Range (dB)	Power Handling (Watts)	RF Ports
520K/595	18-26.5	0.3	0-30	0.3	WR-42 Waveguide, UG-595/U Flange
520(34)/595	22-33	0.3	0-25	0.3	WR-34 Waveguide, UG-595/U Flanges
520A/599	26.5-40	0.3	0-25	5	WR-28 Waveguide, UG-599
520B/383	33-50	0.3	25	5	WR-19 Waveguide, UG-383/U-M Flange
520U/383	40-60	0.3	0-25	4	WR-19 Waveguide, UG-383/U-M Flange
520V/385	50-75	0.4	0-25	3	WR-15 Waveguide, UG-385/U Flange
520E/387	60-90	0.4	0-25	2	WR-12 Waveguide, UG-387/U Flange
520W/387	75-110	0.4	0-25	2	WR-10 Waveguide, UG-387/U-M Flange
520F/387	90-140	0.5	0-25	0.5	WR-08 Waveguide, UG-387/U-M Flange
520D/387	110-170	0.7	0-20	0.1	WR-06 Waveguide UG-387/U-M Flange
520G/387	140-220	1	0-25	0.2	WR-08 Waveguide, UG-387/U-M Flange

Series 511



Series 520

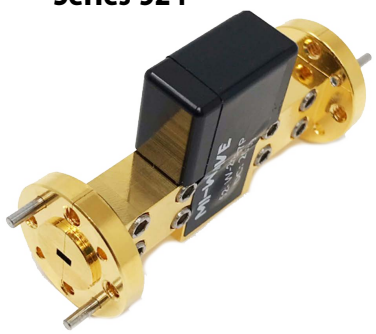
Low Power Handling Fixed Attenuators (Series 521)

Model	Band	Power Handling	Frequency (GHz)	Attenuation (dB)	Power Handling (CW)	RF Ports
521K-3/595	K-Band	LOW	18-26.5	3	0.3	WR-42 Waveguide UG-595/U Flange
521K-6/595	K-Band	LOW	18-26.5	6	0.3	WR-42 Waveguide UG-595/U Flange
521K-10/595	K-Band	LOW	18-26.5	10	0.3	WR-42 Waveguide UG-595/U Flange
521K-20/595	K-Band	LOW	18-26.5	20	0.3	WR-42 Waveguide UG-595/U Flange
521K-30/595	K-Band	LOW	18-26.5	30	0.3	WR-42 Waveguide UG-595/U Flange
521K-3/595P	K-Band	LOW	18-26.5	3	5	WR-42 Waveguide UG-595/U Flange
521K-6/595P	K-Band	LOW	18-26.5	6	5	WR-42 Waveguide UG-595/U Flange
521K-10/595P	K-Band	LOW	18-26.5	10	5	WR-42 Waveguide UG-595/U Flange
521K-20/595P	K-Band	LOW	18-26.5	20	5	WR-42 Waveguide UG-595/U Flange
521K-30/595P	K-Band	LOW	18-26.5	30	5	WR-42 Waveguide UG-595/U Flange
521A-30/599	Ka-Band	LOW	26.5-40	30	0.3	WR-42 Waveguide UG-599/U Flange
521A-2/599	Ka-Band	LOW	26.5-40	2	5	WR-42 Waveguide UG-599/U Flange
521A-3/599	Ka-Band	LOW	26.5-40	3	5	WR-42 Waveguide UG-599/U Flange
521A-5/599	Ka-Band	LOW	26.5-40	5	5	WR-42 Waveguide UG-599/U Flange
521A-10/599	Ka-Band	LOW	26.5-40	10	5	WR-42 Waveguide UG-599/U Flange
521A-20/599	Ka-Band	LOW	26.5-40	20	5	WR-42 Waveguide UG-599/U Flange
521A-30/599	Ka-Band	LOW	26.5-40	30	5	WR-42 Waveguide UG-599/U Flange
521B-2/383	Q-Band	LOW	33-50	2	0.3	WR-22 Waveguide UG-383/U Flange
521B-3/383	Q-Band	LOW	33-50	3	0.3	WR-22 Waveguide UG-383/U Flange
521B-5/383	Q-Band	LOW	33-50	5	0.3	WR-22 Waveguide UG-383/U Flange
521B-10/383	Q-Band	LOW	33-50	10	0.3	WR-22 Waveguide UG-383/U Flange
521B-20/383	Q-Band	LOW	33-50	20	0.3	WR-22 Waveguide UG-383/U Flange
521B-30/383	Q-Band	LOW	33-50	30	4	WR-22 Waveguide UG-383/U Flange
521U-3/383	U-Band	LOW	40-60	3	0.2	WR-19 Waveguide UG-383/U-M Flange
521U-6/383	U-Band	LOW	40-60	6	0.2	WR-19 Waveguide UG-383/U-M Flange
521U-10/383	U-Band	LOW	40-60	10	0.2	WR-19 Waveguide UG-383/U-M Flange
521U-20/383	U-Band	LOW	40-60	20	0.2	WR-19 Waveguide UG-383/U-M Flange
521U-30/383	U-Band	LOW	40-60	30	0.2	WR-19 Waveguide UG-383/U-M Flange
521V-3/385	V-Band	LOW	50-75	3	0.2	WR-15 Waveguide UG-385/U Flange
521V-6/385	V-Band	LOW	50-75	6	0.2	WR-15 Waveguide UG-385/U Flange
521V-10/385	V-Band	LOW	50-75	10	0.2	WR-15 Waveguide UG-385/U Flange
521V-20/385	V-Band	LOW	50-75	20	0.2	WR-15 Waveguide UG-385/U Flange
521V-30/385	V-Band	LOW	50-75	30	0.2	WR-15 Waveguide UG-385/U Flange
521V-3/385	V-Band	LOW	50-75	3	2	WR-15 Waveguide UG-385/U Flange
521V-6/385	V-Band	LOW	50-75	6	2	WR-15 Waveguide UG-385/U Flange
521V-10/385	V-Band	LOW	50-75	10	2	WR-15 Waveguide UG-385/U Flange
521V-20/385	V-Band	LOW	50-75	20	2	WR-15 Waveguide UG-385/U Flange
521V-30/385	V-Band	LOW	50-75	30	2	WR-15 Waveguide UG-385/U Flange
521E-3/387	E-Band	LOW	60-90	3	0.1	WR-12 Waveguide UG-387/U Flange
521E-6/387	E-Band	LOW	60-90	6	0.1	WR-12 Waveguide UG-387/U Flange
521E-10/387	E-Band	LOW	60-90	10	0.1	WR-12 Waveguide UG-387/U Flange
521E-15/387	E-Band	LOW	60-90	15	0.1	WR-12 Waveguide UG-387/U Flange
521E-20/387	E-Band	LOW	60-90	20	0.1	WR-12 Waveguide UG-387/U Flange
521E-30/387	E-Band	LOW	60-90	30	1	WR-12 Waveguide UG-387/U Flange
521W-3/387	W-Band	LOW	75-110	3	0.1	WR-10 Waveguide UG-387/U-M Flange
521W-6/387	W-Band	LOW	75-110	6	0.1	WR-10 Waveguide UG-387/U-M Flange
521W-10/387	W-Band	LOW	75-110	10	0.1	WR-10 Waveguide UG-387/U-M Flange
521W-20/387	W-Band	LOW	75-110	20	0.1	WR-10 Waveguide UG-387/U-M Flange
521W-30/387	W-Band	LOW	75-110	30	0.1	WR-10 Waveguide UG-387/U-M Flange
521W-3/387	W-Band	LOW	75-110	3	0.1	WR-10 Waveguide UG-387/U-M Flange
521W-6/387	W-Band	LOW	75-110	6	0.1	WR-10 Waveguide UG-387/U-M Flange
521W-10/387	W-Band	LOW	75-110	10	0.1	WR-10 Waveguide UG-387/U-M Flange
521W-20/387	W-Band	LOW	75-110	20	0.1	WR-10 Waveguide UG-387/U-M Flange
521F-30/387	F-Band	LOW	90-140	30	0.1	WR-8 Waveguide UG-387/U-M Flange
521F-3/387	F-Band	LOW	90-140	3	0.5	WR-8 Waveguide UG-387/U-M Flange
521F-6/387	F-Band	LOW	90-140	6	0.5	WR-8 Waveguide UG-387/U-M Flange
521F-10/387	F-Band	LOW	90-140	10	0.5	WR-8 Waveguide UG-387/U-M Flange
521F-20/387	F-Band	LOW	90-140	20	0.5	WR-8 Waveguide UG-387/U-M Flange
521F-30/387	F-Band	LOW	90-140	30	0.5	WR-8 Waveguide UG-387/U-M Flange
521D-3/387	D-Band	LOW	110-170	3	0.1	WR-6 Waveguide UG-387/U-M Flange
521D-6/387	D-Band	LOW	110-170	6	0.1	WR-6 Waveguide UG-387/U-M Flange
521D-10/387	D-Band	LOW	110-170	10	0.1	WR-6 Waveguide UG-387/U-M Flange
521D-20/387	D-Band	LOW	110-170	20	0.1	WR-6 Waveguide UG-387/U-M Flange
521D-30/387	D-Band	LOW	110-170	30	0.1	WR-6 Waveguide UG-387/U-M Flange
521G-3/387	G-Band	LOW	140-220	3	0.1	WR-5 WaveguideUG-387/U-M Flange
521G-6/387	G-Band	LOW	140-220	6	0.1	WR-5 WaveguideUG-387/U-M Flange
521G-10/387	G-Band	LOW	140-220	10	0.1	WR-5 WaveguideUG-387/U-M Flange
521G-20/387	G-Band	LOW	140-220	20	0.1	WR-5 WaveguideUG-387/U-M Flange
521G-30/387	G-Band	LOW	140-220	30	0.1	WR-5 WaveguideUG-387/U-M Flange
521H-3/387	H-Band	LOW	170-260	3	0.1	WR-4 Waveguide UG-387/U Flange
521H-5/387	H-Band	LOW	170-260	5	0.1	WR-4 Waveguide UG-387/U Flange
521H-6/387	H-Band	LOW	170-260	6	0.1	WR-4 Waveguide UG-387/U Flange
521H-10/387	H-Band	LOW	170-260	10	0.1	WR-4 Waveguide UG-387/U Flange
521H-20/387	H-Band	LOW	170-260	20	0.1	WR-4 Waveguide UG-387/U Flange
521J-20/387	J-Band	LOW	220-325	20	0.1	WR-3 Waveguide UG-387/U Flange
521J-30/387	J-Band	LOW	220-325	30	0.1	WR-3 Waveguide UG-387/U Flange

Mi-Wave's 521 Series Fixed Attenuators are available in attenuation values up to 30 dB for each waveguide band from 8 to 220 GHz. Each fixed attenuator is calibrated at the exact frequency specified and is accurate within 0.1 dB or 1%.

Series 521

Series 524



High Power Handling Fixed Attenuators (Series 524)

Mi-Wave's 524 Series Fixed Attenuators are available in attenuation values up to 30 dB for each waveguide band from 8 to 220 GHz. Each fixed attenuator is calibrated at the exact frequency specified and is accurate within 0.1 dB or 1%

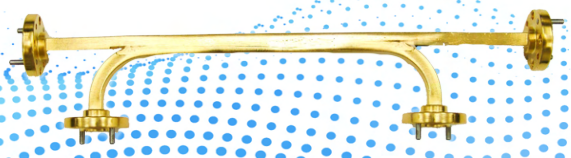
Model	Band	Power Handling	Frequency (GHz)	Attenuation (dB)	Power Handling (CW)	RF Ports
524K-3/595	K-Band	HIGH	18-26.5	3	150	WR-42 Waveguide UG-595/U Flange
524K-6/595	K-Band	HIGH	18-26.5	6	150	WR-42 Waveguide UG-595/U Flange
524K-10/595	K-Band	HIGH	18-26.5	10	150	WR-42 Waveguide UG-595/U Flange
524K-20/595	K-Band	HIGH	18-26.5	20	150	WR-42 Waveguide UG-595/U Flange
524K-30/595	K-Band	HIGH	18-26.5	30	150	WR-42 Waveguide UG-595/U Flange
524A-3/599	Ka-Band	HIGH	26.5-40	3	75	WR-42 Waveguide UG-599/U Flange
524A-6/599	Ka-Band	HIGH	26.5-40	6	75	WR-42 Waveguide UG-599/U Flange
524A-10/599	Ka-Band	HIGH	26.5-40	10	75	WR-42 Waveguide UG-599/U Flange
524A-20/599	Ka-Band	HIGH	26.5-40	20	75	WR-42 Waveguide UG-599/U Flange
524A-30/599	Ka-Band	HIGH	26.5-40	30	75	WR-42 Waveguide UG-599/U Flange
524B-3/383	Q-Band	HIGH	33-50	3	20	WR-22 Waveguide UG-383/U Flange
524B-5/383	Q-Band	HIGH	33-50	5	20	WR-22 Waveguide UG-383/U Flange
524B-10/383	Q-Band	HIGH	33-50	10	20	WR-22 Waveguide UG-383/U Flange
524B-20/383	Q-Band	HIGH	33-50	20	20	WR-22 Waveguide UG-383/U Flange
524B-30/383	Q-Band	HIGH	33-50	30	20	WR-22 Waveguide UG-383/U Flange
524U-3/383	U-Band	HIGH	40-60	3	10	WR-19 Waveguide UG-383/U-M Flange
524U-6/383	U-Band	HIGH	40-60	6	10	WR-19 Waveguide UG-383/U-M Flange
524U-10/383	U-Band	HIGH	40-60	10	10	WR-19 Waveguide UG-383/U-M Flange
524U-20/383	U-Band	HIGH	40-60	20	10	WR-19 Waveguide UG-383/U-M Flange
524U-30/383	U-Band	HIGH	40-60	30	10	WR-19 Waveguide UG-383/U-M Flange
524V-3/385	V-Band	HIGH	50-75	3	10	WR-15 Waveguide UG-385/U Flange
524V-6/385	V-Band	HIGH	50-75	6	10	WR-15 Waveguide UG-385/U Flange
524V-10/385	V-Band	HIGH	50-75	10	10	WR-15 Waveguide UG-385/U Flange
524V-20/385	V-Band	HIGH	50-75	20	10	WR-15 Waveguide UG-385/U Flange
524V-30/385	V-Band	HIGH	50-75	30	10	WR-15 Waveguide UG-385/U Flange
524E-3/387	E-Band	HIGH	60-90	3	10	WR-12 Waveguide UG-387/U Flange
524E-6/387	E-Band	HIGH	60-90	6	10	WR-12 Waveguide UG-387/U Flange
524E-10/387	E-Band	HIGH	60-90	10	10	WR-12 Waveguide UG-387/U Flange
524E-20/387	E-Band	HIGH	60-90	20	10	WR-12 Waveguide UG-387/U Flange
524E-30/387	E-Band	HIGH	60-90	30	10	WR-12 Waveguide UG-387/U Flange
524W-3/387	W-Band	HIGH	75-110	3	10	WR-10 Waveguide UG-387/U-M Flange
524W-6/387	W-Band	HIGH	75-110	6	10	WR-10 Waveguide UG-387/U-M Flange
524W-10/387	W-Band	HIGH	75-110	10	10	WR-10 Waveguide UG-387/U-M Flange
524W-20/387	W-Band	HIGH	75-110	20	10	WR-10 Waveguide UG-387/U-M Flange
524W-30/387	W-Band	HIGH	75-110	30	10	WR-10 Waveguide UG-387/U-M Flange
524F-3/387	F-Band	HIGH	90-140	3	5	WR-8 Waveguide UG-387/U-M Flange
524F-6/387	F-Band	HIGH	90-140	6	5	WR-8 Waveguide UG-387/U-M Flange
524F-10/387	F-Band	HIGH	90-140	10	5	WR-8 Waveguide UG-387/U-M Flange
524F-20/387	F-Band	HIGH	90-140	20	5	WR-8 Waveguide UG-387/U-M Flange
524F-30/387	F-Band	HIGH	90-140	30	5	WR-8 Waveguide UG-387/U-M Flange
524D-3/387	D-Band	HIGH	110-170	3	2	WR-6 Waveguide UG-387/U-M Flange
524D-36/387	D-Band	HIGH	110-170	36	2	WR-6 Waveguide UG-387/U-M Flange
524D-10/387	D-Band	HIGH	110-170	10	2	WR-6 Waveguide UG-387/U-M Flange
524D-20/387	D-Band	HIGH	110-170	20	2	WR-6 Waveguide UG-387/U-M Flange
524D-30/387	D-Band	HIGH	110-170	30	2	WR-6 Waveguide UG-387/U-M Flange
524G-3/387	G-Band	HIGH	140-220	3	1	WR-5 WaveguideUG-387/U-M Flange
524G-6/387	G-Band	HIGH	140-220	6	1	WR-5 WaveguideUG-387/U-M Flange
524G-10/387	G-Band	HIGH	140-220	10	1	WR-5 WaveguideUG-387/U-M Flange
524G-20/387	G-Band	HIGH	140-220	20	1	WR-5 WaveguideUG-387/U-M Flange
524G-30/387	G-Band	HIGH	140-220	30	1	WR-5 WaveguideUG-387/U-M Flange
524H-3/387	H-Band	HIGH	170-260	3	0.5	WR-4 Waveguide UG-387/U Flange
524H-6/387	H-Band	HIGH	170-260	6	0.5	WR-4 Waveguide UG-387/U Flange
524H-10/387	H-Band	HIGH	170-260	10	0.5	WR-4 Waveguide UG-387/U Flange
524H-20/387	H-Band	HIGH	170-260	20	0.5	WR-4 Waveguide UG-387/U Flange
524H-30/387	H-Band	HIGH	170-260	30	0.5	WR-4 Waveguide UG-387/U Flange

Bi-Directional Couplers (Series 555)

Mi-Wave's 555 Series Bi-directional couplers are broadband, broad-wall waveguide type. The 556 are split block type components with a multi-hold directivity. The 555 Series couplers are available in 3, 6, 10, 20, 30, and 40 dB coupling values for standard waveguide bands from 18 to 220 GHz.

Model	Frequency (GHz)	Coupling Value (dB)	Directivity (dB)	Coupling Flatness (dB)	Coupling Accuracy (dB)	VSWR	RF Ports
555A-3/599	26.5-40	3	30	±0.7	± 1	1.05:1	WR-28 Waveguide, UG-599
555A-6/599	26.5-40	6	30	±0.7	± 1	1.05:1	WR-28 Waveguide, UG-599
555A-10/599	26.5-40	10	30	±0.7	± 1	1.05:1	WR-28 Waveguide, UG-599
555A-20/599	26.5-40	20	30	±0.7	± 1	1.05:1	WR-28 Waveguide, UG-599
555A-30/599	26.5-40	30	30	±0.7	± 1	1.05:1	WR-28 Waveguide, UG-599
555A-40/599	26.5-40	40	30	±0.7	± 1	1.05:1	WR-28 Waveguide, UG-599
555B-3/383	33-50	3	35	± 1	± 1.5	1.10:1	WR-22 Waveguide, UG-383
555B-6/383	33-50	6	35	± 1	± 1.5	1.10:1	WR-22 Waveguide, UG-383
555B-10/383	33-50	10	35	± 1	± 1.5	1.10:1	WR-22 Waveguide, UG-383
555B-20/383	33-50	20	35	± 1	± 1.5	1.10:1	WR-22 Waveguide, UG-383
555B-30/383	33-50	30	35	± 1	± 1.5	1.10:1	WR-22 Waveguide, UG-383
555B-40/383	33-50	40	35	± 1	± 1.5	1.10:1	WR-22 Waveguide, UG-383
555U-3/383	40-60	3	35	±0.7	± 1	1.05:1	WR-19 Waveguide, UG-383
555U-6/383	40-60	6	35	±0.7	± 1	1.05:1	WR-19 Waveguide, UG-383
555U-10/383	40-60	10	35	±0.7	± 1	1.05:1	WR-19 Waveguide, UG-383
555U-20/383	40-60	20	35	±0.7	± 1	1.05:1	WR-19 Waveguide, UG-383
555U-30/383	40-60	30	35	±0.7	± 1	1.05:1	WR-19 Waveguide, UG-383
555U-40/383	40-60	40	35	±0.7	± 1	1.05:1	WR-19 Waveguide, UG-383
555V-3/385	50-75	3	30	±0.7	± 1	1.10:1	WR-15 Waveguide, UG-385
555V-6/385	50-75	6	30	±0.7	± 1	1.10:1	WR-15 Waveguide, UG-385
555V-10/385	50-75	10	30	±0.7	± 1	1.10:1	WR-15 Waveguide, UG-385
555V-20/385	50-75	20	30	±0.7	± 1	1.10:1	WR-15 Waveguide, UG-385
555V-30/385	50-75	30	30	±0.7	± 1	1.10:1	WR-15 Waveguide, UG-385
555V-40/385	50-75	40	30	±0.7	± 1	1.10:1	WR-15 Waveguide, UG-385
555E-3/387	60-90	3	30	± 1	± 1.5	1.10:1	WR-12 Waveguide, UG-387
555E-6/387	60-90	6	30	± 1	± 1.5	1.10:1	WR-12 Waveguide, UG-387
555E-10/387	60-90	10	30	± 1	± 1.5	1.10:1	WR-12 Waveguide, UG-387
555E-20/387	60-90	20	30	± 1	± 1.5	1.10:1	WR-12 Waveguide, UG-387
555E-30/387	60-90	30	30	± 1	± 1.5	1.10:1	WR-12 Waveguide, UG-387
555E-40/387	60-90	40	30	± 1	± 1.5	1.10:1	WR-12 Waveguide, UG-387
555W-3/387	75-110	3	30	± 1	± 1.5	1.10:1	WR-10 Waveguide, UG-387
555W-6/387	75-110	6	30	± 1	± 1.5	1.10:1	WR-10 Waveguide, UG-387
555W-10/387	75-110	10	30	± 1	± 1.5	1.10:1	WR-10 Waveguide, UG-387
555W-20/387	75-110	20	30	± 1	± 1.5	1.10:1	WR-10 Waveguide, UG-387
555W-30/387	75-110	30	30	± 1	± 1.5	1.10:1	WR-10 Waveguide, UG-387
555W-40/387	75-110	40	30	± 1	± 1.5	1.10:1	WR-10 Waveguide, UG-387

Series 555



Series 559

Broadband H-Plane Directional Couplers (Series 559)

Each of Mi-Wave's 559 Series Broadband Directional Couplers are broadwall multi-hole energy coupling devices.
The 559 Series couplers are designed in 7 couplings of 3, 6, 10, 20, 30, 40, and 50 dB are offered to complement specific test set requirements.

Model	Frequency (GHz)	Insertion Loss (dB)	Coupling (dB)	Directivity (dB)	VSWR	Ports
559K-3/595	18-26.5	1	3	40	1.12	WR-42 Waveguide, UG-595/U Flange
559K-6/595	18-26.6	1	6	40	1.12	WR-42 Waveguide, UG-595/U Flange
559K-10/595	18-26.7	1	10	40	1.12	WR-42 Waveguide, UG-595/U Flange
559K-20/595	18-26.8	1	20	40	1.12	WR-42 Waveguide, UG-595/U Flange
559K-30/595	18-26.9	1	30	40	1.12	WR-42 Waveguide, UG-595/U Flange
559K-40/595	18-26.10	1	40	40	1.12	WR-42 Waveguide, UG-595/U Flange
559A-3/599	26.5-40	1	3	40	1.12	WR-28 Waveguide, UG-599/U Flange
559A-6/599	26.5-40	1	6	40	1.12	WR-28 Waveguide, UG-599/U Flange
559A-10/599	26.5-40	1	10	40	1.12	WR-28 Waveguide, UG-599/U Flange
559A-20/599	26.5-40	1	20	40	1.12	WR-28 Waveguide, UG-599/U Flange
559A-30/599	26.5-40	1	30	40	1.12	WR-28 Waveguide, UG-599/U Flange
559A-40/599	26.5-40	1	40	40	1.12	WR-28 Waveguide, UG-599/U Flange
559B-3/719	33-50	1	3	40	1.12	WR-22 Waveguide. UG-719/U Flange
559B-6/383	33-50	1	6	40	1.12	WR-22 Waveguide, UG-383/U Flange
559B-10/383	33-50	1	10	40	1.12	WR-22 Waveguide, UG-383/U Flange
559B-20/383	33-50	1	20	40	1.12	WR-22 Waveguide, UG-383/U Flange
559B-30/383	33-50	1	30	40	1.12	WR-22 Waveguide, UG-383/U Flange
559B-40/383	33-50	1	40	40	1.12	WR-22 Waveguide, UG-383/U Flange
559U-3/383	40-60	1	3	40	1.15	WR-19 Waveguide, UG-383/U Flange
559U-3/383	40-60	1	6	40	1.15	WR-19 Waveguide, UG-383/U Flange
559U-10/383	40-60	1	10	40	1.15	WR-19 Waveguide, UG-383/U Flange
559U-20/383	40-60	1	20	40	1.15	WR-19 Waveguide, UG-383/U Flange
559U-30/383	40-60	1	30	40	1.15	WR-19 Waveguide, UG-383/U Flange
559U-40/383	40-60	1	40	40	1.15	WR-19 Waveguide, UG-383/U Flange
559V-3/385	50-75	1	3	40	1.15	WR-15 Waveguide, UG-385/U Flange
559V-6/385	50-75	1	6	40	1.15	WR-15 Waveguide, UG-385/U Flange
559V-10/385	50-75	1	10	40	1.15	WR-15 Waveguide, UG-385/U Flange
559V-20/385	50-75	1	20	40	1.15	WR-15 Waveguide, UG-385/U Flange
559V-30/385	50-75	1	30	40	1.15	WR-15 Waveguide, UG-385/U Flange
559V-40/385	50-75	1	40	40	1.15	WR-15 Waveguide, UG-385/U Flange
559E-3/387	60-90	1.5	3	40	1.15	WR-12 Waveguide, UG-387/U Flange
559E-6/387	60-90	1.5	6	40	1.15	WR-12 Waveguide, UG-387/U Flange
559E-10/387	60-90	1.5	10	40	1.15	WR-12 Waveguide, UG-387/U Flange
559E-20/387	60-90	1.5	20	40	1.15	WR-12 Waveguide, UG-387/U Flange
559E-30/387	60-90	1.5	30	40	1.15	WR-12 Waveguide, UG-387/U Flange
559E-40/387	60-90	1.5	40	40	1.15	WR-12 Waveguide, UG-387/U Flange
559W-3/387	75-110	1.5	3	40	1.17	WR-10 Waveguide, UG-387/U Flange
559W-6/387	75-110	1.5	6	40	1.17	WR-10 Waveguide, UG-387/U Flange
559W-10/387	75-110	1.5	10	40	1.17	WR-10 Waveguide, UG-387/U Flange
559W-20/387	75-110	1.5	20	40	1.17	WR-10 Waveguide, UG-387/U Flange
559W-30/387	75-110	1.5	30	40	1.17	WR-10 Waveguide, UG-387/U Flange
559W-40/387	75-110	1.5	40	40	1.17	WR-10 Waveguide, UG-387/U Flange

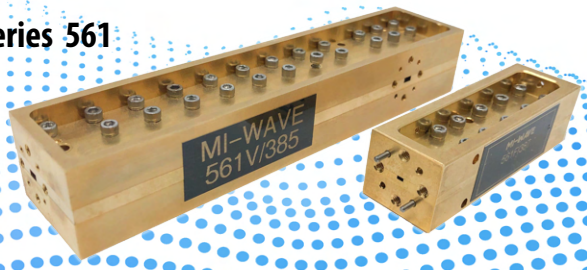
Waveguide Type E-Plane Directional Couplers (Series 560)

Mi-Wave's 560 Series Broadband Directional Couplers are broadwall E-plane multi-hole energy-couping devices. The 560 Series directional couplers provide an efficient and convenient means for sampling a finite quantity of power flowing in a transmission line or for injecting a desired signal into the line.

Model	Band	Frequency (GHz)	Insertion Loss (dB)	Directivity (dB)	Coupling (dB)	Coupling Accuracy (± dB)	Input/Output Port
560K-3/594	K-Band	18-26.5	1	40	3	1.5	WR-42 Waveguide, UG-595/U
560K-6/595	K-Band	18-26.5	1	40	6	1.5	WR-42 Waveguide, UG-595/U
560K-10/595	K-Band	18-26.5	1	40	10	1.5	WR-42 Waveguide, UG-595/U
560K-20/595	K-Band	18-26.5	1	40	20	1.5	WR-42 Waveguide, UG-595/U
560K-30/595	K-Band	18-26.5	1	40	30	1.5	WR-42 Waveguide, UG-595/U
560K-40/596	K-Band	18-26.5	1	40	40	1.5	WR-42 Waveguide, UG-595/U
560A-3/596	Ka-Band	26.5-40	1	40	3	1.5	WR-28 Waveguide, UG-599/U Flange
560A-6/597	Ka-Band	26.5-40	1	40	6	1.5	WR-28 Waveguide, UG-599/U Flange
560A-10/598	Ka-Band	26.5-40	1	40	10	1.5	WR-28 Waveguide, UG-599/U Flange
560A-20/599	Ka-Band	26.5-40	1	40	20	1.5	WR-28 Waveguide, UG-599/U Flange
560A-30/599	Ka-Band	26.5-40	1	40	30	1.5	WR-28 Waveguide, UG-599/U Flange
560A-40/598	Ka-Band	26.5-40	1	40	40	1.5	WR-28 Waveguide, UG-599/U Flange
560B-3/381	Q-Band	33-50	1	40	3	1	WR-22 Waveguide, UG-383 Flange
560B-6/382	Q-Band	33-50	1	40	6	1	WR-22 Waveguide, UG-383 Flange
560B-10/383	Q-Band	33-50	1	40	10	1	WR-22 Waveguide, UG-383 Flange
560B-20/383	Q-Bnad	33-50	1	40	20	1	WR-22 Waveguide, UG-383/U Flange
560B-30/383	Q-Band	33-50	1	40	30	1	WR-22 Waveguide, UG-383/U Flange
560B-40/382	Q-Band	33-50	1	40	40	1	WR-22 Waveguide, UG-383 Flange
560E-3/387	E-Band	60-90	1	40	3	1.5	WR-12 Waveguide, UG-387/U Flange
560E-3/385	E-Band	60-90	1	40	3	1.5	WR-12 Waveguide, UG-387/U Flange
560E-6/386	E-Band	60-90	1	40	6	1.5	WR-12 Waveguide, UG-387/U Flange
560E-10/387	E-Band	60-90	1	40	10	1.5	WR-12 Waveguide, UG-387/U Flange
560E-20/387	E-Band	60-90	1	40	20	1.5	WR-12 Waveguide, UG-387/U Flange
560E-30/387	E-Band	60-90	1	40	30	1.5	WR-12 Waveguide, UG-387/U Flange
560E-40/388	E-Band	60-90	1	40	40	1.5	WR-12 Waveguide, UG-387/U Flange
560U-3/383	U-Band	40-60	1	40	3	1.2	WR-19 Waveguide, UG-383/U-M Flange
560U-6/384	U-Band	40-60	1	40	6	1.2	WR-19 Waveguide, UG-383/U-M Flange
560U-10/383	U-Band	40-60	1	40	10	1.2	WR-19 Waveguide, UG-383/U-M Flange
560U-20/383	U-Band	40-60	1	40	20	1.2	WR-19 Waveguide, UG-383/U-M Flange
560U-30/384	U-Band	40-60	1	40	30	1.2	WR-19 Waveguide, UG-383/U-M Flange
560U-40/385	U-Band	40-60	1	40	40	1.2	WR-19 Waveguide, UG-383/U-M Flange
560V-3/385	V-Band	50-70	1	40	3	1.5	WR-15 Waveguide, UG-385/U Flange
560V-6/383	V-Band	50-70	1	40	6	1.5	WR-15 Waveguide, UG-385/U Flange
560V-10/384	V-Band	50-70	1	40	10	1.5	WR-15 Waveguide, UG-385/U Flange
560V-20/385	V-Band	50-70	1	40	20	1.5	WR-15 Waveguide, UG-385/U Flange
560V-30/385	V-Band	50-70	1	40	30	1.5	WR-15 Waveguide, UG-385/U Flange
560V-40/386	V-Band	50-70	1	40	40	1.5	WR-15 Waveguide, UG-385/U Flange
560W-3/385	W-Band	75-110	1	40	3	1.5	WR-10 Waveguide, UG-387/U-M Flange
560W-6/386	W-Band	75-110	1	40	6	1.5	WR-10 Waveguide, UG-387/U-M Flange
560W-10/387	W-Band	75-110	1	40	10	1.5	WR-10 Waveguide, UG-387/U-M Flange
560W-20/387	W-Band	75-110	1	40	20	1.5	WR-10 Waveguide, UG-387/U-M Flange
560W-30/387	W-Band	75-110	1	40	30	1.5	WR-10 Waveguide, UG-387/U-M Flange
560W-40/386	W-Band	75-110	1	40	40	1.5	WR-10 Waveguide, UG-387/U-M Flange

Series 560

Series 561



Block Type Directional Couplers (Series 561)

Mi-Wave's 561 Series Broadband Directional Couplers are broadwall mulit-hole energy-coupling devices.
The 561 Series devices are available in various waveguide sizes ranging in frequency from 18.0 to 500 GHz.

Model Number	Frequency (GHz)	Coupling (dB)	Directivity (dB)	Insertion Loss (dB) typical	Main Line VSWR max.	Auxiliary Line VSWR max.	Input/OutPort
561A-3/599	26.5-40	3	35	0.4	1.05:1	1.12:1	WR-28 Waveguide, UG-595/U Square Flange
561A-6/599	26.5-40	6	35	0.4	1.05:1	1.12:1	WR-28 Waveguide, UG-595/U Square Flange
561A-10/599	26.5-40	10	35	0.4	1.05:1	1.12:1	WR-28 Waveguide, UG-595/U Square Flange
561A-20/599	26.5-40	20	35	0.4	1.05:1	1.12:1	WR-28 Waveguide, UG-595/U Square Flange
561A-30/599	26.5-40	30	35	0.4	1.05:1	1.12:1	WR-28 Waveguide, UG-595/U Square Flange
561A-40/599	26.5-40	40	35	0.4	1.05:1	1.12:1	WR-28 Waveguide, UG-595/U Square Flange
561B-3/383	33-50	3	35	0.5	1.05:1	1.12:1	WR-22 Waveguide, UG-383/U Round Flange
561B-6/383	33-50	6	35	0.5	1.05:1	1.12:1	WR-22 Waveguide, UG-383/U Round Flange
561B-10/383	33-50	10	35	0.5	1.05:1	1.12:1	WR-22 Waveguide, UG-383/U Round Flange
561B-20/383	33-50	20	35	0.5	1.05:1	1.12:1	WR-22 Waveguide, UG-383/U Round Flange
561B-30/383	33-50	30	35	0.5	1.05:1	1.12:1	WR-22 Waveguide, UG-383/U Round Flange
561B-40/383	33-50	40	35	0.5	1.05:1	1.12:1	WR-22 Waveguide, UG-383/U Round Flange
561U-3/383	40-60	3	35	0.6	1.05:1	1.12:1	WR-19 Waveguide, UG-383/U-M Round Flange
561U-6/383	40-60	6	35	0.6	1.05:1	1.12:1	WR-19 Waveguide, UG-383/U-M Round Flange
561U-10/383	40-60	10	35	0.6	1.05:1	1.12:1	WR-19 Waveguide, UG-383/U-M Round Flange
561U-20/383	40-60	20	35	0.6	1.05:1	1.12:1	WR-19 Waveguide, UG-383/U-M Round Flange
561U-30/383	40-60	30	35	0.6	1.05:1	1.12:1	WR-19 Waveguide, UG-383/U-M Round Flange
561U-40/383	40-60	40	35	0.6	1.05:1	1.12:1	WR-19 Waveguide, UG-383/U-M Round Flange
561U-50/383	40-60	50	35	0.6	1.05:1	1.12:1	WR-19 Waveguide, UG-383/U-M Round Flange
561V-3/385	50-75	3	35	0.7	1.10:1	1.15:1	WR-15 Waveguide, UG-383/U Round Flange
561V-6/385	50-75	6	35	0.7	1.10:1	1.15:1	WR-15 Waveguide, UG-383/U Round Flange
561V-10/385	50-75	10	35	0.7	1.10:1	1.15:1	WR-15 Waveguide, UG-383/U Round Flange
561V-20/385	50-75	20	35	0.7	1.10:1	1.15:1	WR-15 Waveguide, UG-383/U Round Flange
561V-30/385	50-75	30	35	0.7	1.10:1	1.15:1	WR-15 Waveguide, UG-383/U Round Flange
561V-40/385	50-75	40	35	0.7	1.10:1	1.15:1	WR-15 Waveguide, UG-383/U Round Flange
561E-3/387	60-90	3	35	1	1.10:1	1.15:1	WR-12 Waveguide, UG-387/U Round Flange
561E-6/387	60-90	6	35	1	1.10:1	1.15:1	WR-12 Waveguide, UG-387/U Round Flange
561E-10/387	60-90	10	35	1	1.10:1	1.15:1	WR-12 Waveguide, UG-387/U Round Flange
561E-20/387	60-90	20	35	1	1.10:1	1.15:1	WR-12 Waveguide, UG-387/U Round Flange
561E-30/387	60-90	30	35	1	1.10:1	1.15:1	WR-12 Waveguide, UG-387/U Round Flange
561E-40/387	60-90	40	35	1	1.10:1	1.15:1	WR-12 Waveguide, UG-387/U Round Flange
561W-3/387	75-110	3	35	1	1.10:1	1.15:1	WR-10 Waveguide, UG-387/U-M Round Flange
561W-6/387	75-110	6	35	1	1.10:1	1.15:1	WR-10 Waveguide, UG-387/U-M Round Flange
561W-10/387	75-110	10	35	1	1.10:1	1.15:1	WR-10 Waveguide, UG-387/U-M Round Flange
561W-20/387	75-110	20	35	1	1.10:1	1.15:1	WR-10 Waveguide, UG-387/U-M Round Flange
561W-30/387	75-110	30	35	1	1.10:1	1.15:1	WR-10 Waveguide, UG-387/U-M Round Flange
561W-40/387	75-110	40	35	1	1.10:1	1.15:1	WR-10 Waveguide, UG-387/U-M Round Flange
561F-3/387	90-140	3	25	1.5	1.10:1	1.17:1	WR-08 Waveguide, UG-387/U-M Round Flange
561F-6/387	90-140	6	25	1.5	1.10:1	1.17:1	WR-08 Waveguide, UG-387/U-M Round Flange
561F-10/387	90-140	10	25	1.5	1.10:1	1.17:1	WR-08 Waveguide, UG-387/U-M Round Flange
561F-20/387	90-140	20	25	1.5	1.10:1	1.17:1	WR-08 Waveguide, UG-387/U-M Round Flange
561F-30/387	90-140	30	25	1.5	1.10:1	1.17:1	WR-08 Waveguide, UG-387/U-M Round Flange
561F-40/387	90-140	40	25	1.5	1.10:1	1.17:1	WR-08 Waveguide, UG-387/U-M Round Flange
561G-3/387	140-220	3	25	1.5	1.15:1	1.20:1	WR-06 Waveguide, UG-387/U-M Round Flange
561G-6/387	140-220	6	25	1.5	1.15:1	1.20:1	WR-06 Waveguide, UG-387/U-M Round Flange
561G-10/387	140-220	10	25	1.5	1.15:1	1.20:1	WR-06 Waveguide, UG-387/U-M Round Flange
561G-20/387	140-220	20	25	1.5	1.15:1	1.20:1	WR-06 Waveguide, UG-387/U-M Round Flange
561G-30/387	140-220	30	25	1.5	1.15:1	1.20:1	WR-06 Waveguide, UG-387/U-M Round Flange
561G-40/387	140-220	40	25	1.5	1.15:1	1.20:1	WR-06 Waveguide, UG-387/U-M Round Flange
561H-3/387	170-260	3	25	3.5	1.15:1	1.20:1	WR-04 Waveguide, UG-387/U-M Round Flange
561H-6/387	170-260	6	25	3.5	1.15:1	1.20:1	WR-04 Waveguide, UG-387/U-M Round Flange
561H-10/387	170-260	10	25	3.5	1.15:1	1.20:1	WR-04 Waveguide, UG-387/U-M Round Flange
561H-20/387	170-260	20	25	3.5	1.15:1	1.20:1	WR-04 Waveguide, UG-387/U-M Round Flange
561H-30/387	170-260	30	25	3.5	1.15:1	1.20:1	WR-04 Waveguide, UG-387/U-M Round Flange
561H-40/387	170-260	40	25	3.5	1.15:1	1.20:1	WR-04 Waveguide, UG-387/U-M Round Flange
561J-3/387	220-325	3	25	6	1.25:1	1.32:1	WR-03 Waveguide, UG-387/U-M Rond Flange
561J-6/387	220-325	6	25	6	1.25:1	1.32:1	WR-03 Waveguide, UG-387/U-M Rond Flange
561J-10/387	220-325	10	25	6	1.25:1	1.32:1	WR-03 Waveguide, UG-387/U-M Rond Flange
561J-20/387	220-325	20	25	6	1.25:1	1.32:1	WR-03 Waveguide, UG-387/U-M Rond Flange
561J-30/387	220-325	30	25	6	1.25:1	1.32:1	WR-03 Waveguide, UG-387/U-M Rond Flange
561J-40/387	220-325	40	25	6	1.25:1	1.32:1	WR-03 Waveguide, UG-387/U-M Rond Flange
561(2.2)-3/387	330-500	3	25	6	1.25:1	1.32:1	WR-2.2 Waveguide, UG-387/U-M Round Flange
561(2.2)-6/387	330-500	6	25	6	1.25:1	1.32:1	WR-2.2 Waveguide, UG-387/U-M Round Flange
561(2.2)-10/387	330-500	10	25	6	1.25:1	1.32:1	WR-2.2 Waveguide, UG-387/U-M Round Flange
561(2.2)-20/387	330-500	20	25	6	1.25:1	1.32:1	WR-2.2 Waveguide, UG-387/U-M Round Flange
561(2.2)-30/387	330-500	30	25	6	1.25:1	1.32:1	WR-2.2 Waveguide, UG-387/U-M Round Flange

Block Type Cross Guide Directional Couplers (Series 564)

Mi-Wave's 564 Series Cross Guide Coupler consists of two waveguides at right angles to each other, joined by small coupling slots whose size, location, and orientation determine the coupling and directivity of the unit.

Model	Band	Frequency (GHz)	Coupling value (dB)	Directivity (dB)	VSWR	RF Port
564K-16-595	K-Band	18-26.5	16	15	1.15	WR-42 Waveguide, UG-595
564K-20-595	K-Band	18-26.5	20	15	1.15	WR-42 Waveguide, UG-596
564K-30-595	K-Band	18-26.5	30	15	1.15	WR-42 Waveguide, UG-597
564K-40-595	K-Band	18-26.5	40	15	1.15	WR-42 Waveguide, UG-598
564K-50-595	K-Band	18-26.5	50	15	1.15	WR-42 Waveguide, UG-599
564A-16/599	Ka-Band	26.5-40	16	15	1.15	WR-28 Waveguide, UG-599
564A-20/599	Ka-Band	26.5-40	20	15	1.15	WR-28 Waveguide, UG-599
564A-30/599	Ka-Band	26.5-40	30	15	1.15	WR-28 Waveguide, UG-599
564A-40/599	Ka-Band	26.5-40	40	15	1.15	WR-28 Waveguide, UG-599
564A-50/599	Ka-Band	26.5-40	50	15	1.15	WR-28 Waveguide, UG-599
564B-16/383	Q-Band	33-50	16	15	1.15	WR-22 Waveguide, UG-383
564B-20/383	Q-Band	33-50	20	15	1.15	WR-22 Waveguide, UG-383
564B-30/383	Q-Band	33-50	30	15	1.15	WR-22 Waveguide, UG-383
564B-40/383	Q-Band	33-50	40	15	1.15	WR-22 Waveguide, UG-383
564B-50/383	Q-Band	33-50	50	15	1.15	WR-22 Waveguide, UG-383
564U-16/383	U-Band	40-60	16	15	1.15	WR-19 Waveguide, UG-383
564U-20/383	U-Band	40-61	20	15	1.15	WR-19 Waveguide, UG-383
564U-30/383	U-Band	40-62	30	15	1.15	WR-19 Waveguide, UG-383
564U-40/383	U-Band	40-63	40	15	1.15	WR-19 Waveguide, UG-383
564U-50/383	U-Band	40-64	50	15	1.15	WR-19 Waveguide, UG-383
564V-16/385	V-Band	50-75	16	15	1.2	WR-15 Waveguide, UG-385
564V-20/385	V-Band	50-75	20	15	1.2	WR-15 Waveguide, UG-385
564V-30/385	V-Band	50-75	30	15	1.2	WR-15 Waveguide, UG-385
564V-40/385	V-Band	50-75	40	15	1.2	WR-15 Waveguide, UG-385
564V-50/385	V-Band	50-75	50	15	1.2	WR-15 Waveguide, UG-385
564E-16/387	E-Band	60-90	16	15	1.2	WR-12 Waveguide, UG-387
564E-20/387	E-Band	60-91	20	15	1.2	WR-12 Waveguide, UG-387
564E-30/387	E-Band	60-92	30	15	1.2	WR-12 Waveguide, UG-387
564E-40/387	E-Band	60-93	40	15	1.2	WR-12 Waveguide, UG-387
564E-50/387	E-Band	60-94	50	15	1.2	WR-12 Waveguide, UG-387
564W-16/387	W-Band	75-110	16	15	1.2	WR-10 Waveguide, UG-387
564W-20/387	W-Band	75-111	20	15	1.2	WR-10 Waveguide, UG-387
564W-30/387	W-Band	75-112	30	15	1.2	WR-10 Waveguide, UG-387
564W-40/387	W-Band	75-113	40	15	1.2	WR-10 Waveguide, UG-387
564W-50/387	W-Band	75-114	50	15	1.2	WR-10 Waveguide, UG-387
564F-16/387	F-Band	90-140	16	15	1.2	WR-08 Waveguide, UG-387
564F-20/387	F-Band	90-141	20	15	1.2	WR-08 Waveguide, UG-387
564F-30/387	F-Band	90-142	30	15	1.2	WR-08 Waveguide, UG-387
564F-40/387	F-Band	90-143	40	15	1.2	WR-08 Waveguide, UG-387
564F-50/387	F-Band	90-144	50	15	1.2	WR-08 Waveguide, UG-387
564D-16/387	D-Band	110-170	16	14	1.5	WR-6 Waveguide, UG-387
564D-20/387	D-Band	110-170	20	14	1.5	WR-6 Waveguide, UG-387
564D-30/387	D-Band	110-170	30	14	1.5	WR-6 Waveguide, UG-387
564D-40/387	D-Band	110-170	40	14	1.5	WR-6 Waveguide, UG-387
564D-50/387	D-Band	110-170	50	14	1.5	WR-6 Waveguide, UG-387

Series 564

Series 567

Waveguide Type Dual-Directional Couplers (Series 567)

Mi-Wave's 567 Series Dual-directional Couplers are broadband, broadwall components with a multi-hole directivity.
The 567 Series Couplers are available in 3, 6, 10, 20, 30, 40 and 50 dB coupling values for standard waveguide bands from 18 to 170.0 GHz.

Model	Frequency (GHz)	Insertion Loss (dB)	Coupling (dB)	Directivity (dB)	VSWR	Ports
567K-3/595	18-26.5	1	3	40	1.12	WR-42 Waveguide, UG-595/U Flange
567K-6/595	18-26.6	1	6	40	1.12	WR-42 Waveguide, UG-595/U Flange
567K-10/595	18-26.7	1	10	40	1.12	WR-42 Waveguide, UG-595/U Flange
567K-20/595	18-26.8	1	20	40	1.12	WR-42 Waveguide, UG-595/U Flange
567K-30/595	18-26.9	1	30	40	1.12	WR-42 Waveguide, UG-595/U Flange
567K-40/595	18-26.10	1	40	40	1.12	WR-42 Waveguide, UG-595/U Flange
567A-3/599	26.5-40	1	3	40	1.12	WR-28 Waveguide, UG-599/U Flange
567A-6/599	26.5-40	1	6	40	1.12	WR-28 Waveguide, UG-599/U Flange
567A-10/599	26.5-40	1	10	40	1.12	WR-28 Waveguide, UG-599/U Flange
567A-20/599	26.5-40	1	20	40	1.12	WR-28 Waveguide, UG-599/U Flange
567A-30/599	26.5-40	1	30	40	1.12	WR-28 Waveguide, UG-599/U Flange
567A-40/599	26.5-40	1	40	40	1.12	WR-28 Waveguide, UG-599/U Flange
567B-3/719	33-50	1	3	40	1.12	WR-22 Waveguide. UG-719/U Flange
567B-6/383	33-50	1	6	40	1.12	WR-22 Waveguide, UG-383/U Flange
567B-10/383	33-50	1	10	40	1.12	WR-22 Waveguide, UG-383/U Flange
567B-20/383	33-50	1	20	40	1.12	WR-22 Waveguide, UG-383/U Flange
567B-30/383	33-50	1	30	40	1.12	WR-22 Waveguide, UG-383/U Flange
567B-40/383	33-50	1	40	40	1.12	WR-22 Waveguide, UG-383/U Flange
567U-3/383	40-60	1	3	40	1.15	WR-19 Waveguide, UG-383/U Flange
567U-3/383	40-60	1	6	40	1.15	WR-19 Waveguide, UG-383/U Flange
567U-10/383	40-60	1	10	40	1.15	WR-19 Waveguide, UG-383/U Flange
567U-20/383	40-60	1	20	40	1.15	WR-19 Waveguide, UG-383/U Flange
567U-30/383	40-60	1	30	40	1.15	WR-19 Waveguide, UG-383/U Flange
567U-40/383	40-60	1	40	40	1.15	WR-19 Waveguide, UG-383/U Flange
567V-3/385	50-75	1	3	40	1.15	WR-15 Waveguide, UG-385/U Flange
567V-6/385	50-75	1	6	40	1.15	WR-15 Waveguide, UG-385/U Flange
567V-10/385	50-75	1	10	40	1.15	WR-15 Waveguide, UG-385/U Flange
567V-20/385	50-75	1	20	40	1.15	WR-15 Waveguide, UG-385/U Flange
567V-30/385	50-75	1	30	40	1.15	WR-15 Waveguide, UG-385/U Flange
567V-40/385	50-75	1	40	40	1.15	WR-15 Waveguide, UG-385/U Flange
567E-3/387	60-90	1.5	3	40	1.15	WR-12 Waveguide, UG-387/U Flange
567E-6/387	60-90	1.5	6	40	1.15	WR-12 Waveguide, UG-387/U Flange
567E-10/387	60-90	1.5	10	40	1.15	WR-12 Waveguide, UG-387/U Flange
567E-20/387	60-90	1.5	20	40	1.15	WR-12 Waveguide, UG-387/U Flange
567E-30/387	60-90	1.5	30	40	1.15	WR-12 Waveguide, UG-387/U Flange
567E-40/387	60-90	1.5	40	40	1.15	WR-12 Waveguide, UG-387/U Flange
567W-3/387	75-110	1.5	3	40	1.17	WR-10 Waveguide, UG-387/U Flange
567W-6/387	75-110	1.5	6	40	1.17	WR-10 Waveguide, UG-387/U Flange
567W-10/387	75-110	1.5	10	40	1.17	WR-10 Waveguide, UG-387/U Flange
567W-20/387	75-110	1.5	20	40	1.17	WR-10 Waveguide, UG-387/U Flange
567W-30/387	75-110	1.5	30	40	1.17	WR-10 Waveguide, UG-387/U Flange
567W-40/387	75-110	1.5	40	40	1.17	WR-10 Waveguide, UG-387/U Flange

Waveguide Type Cross Guide Directional Couplers (Series 566)

Mi-Wave's 566 Series Cross Guide Coupler Consists of two waveguides at right angles to each other, joined by small coupling slots whose size, location, and orientation determine the coupling and directivity of the unit.

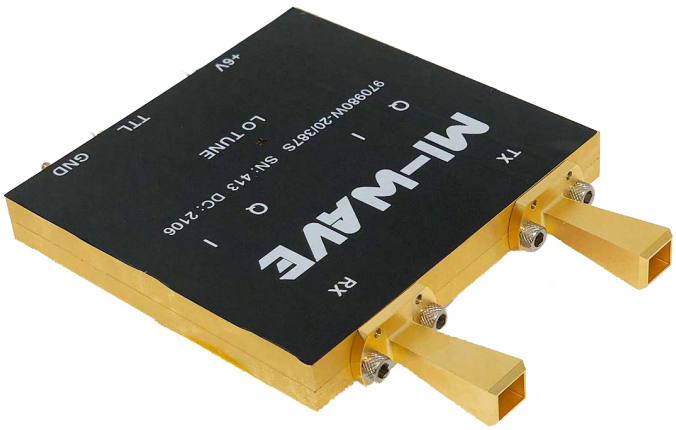
Model	Frequency (GHz)	Coupling Value (dB)	Directivity (dB)	VSWR	RF Port
566K-20/595	18-26.5	20	15	1.15	WR-42 Waveguide, UG-595
566K-30/595	18-26.5	30	15	1.15	WR-42 Waveguide, UG-595
566K-40/595	18-26.5	40	15	1.15	WR-42 Waveguide, UG-595
566K-50/595	18-26.5	50	15	1.15	WR-42 Waveguide, UG-595
566A-20/599	26.5-40	20	15	1.15	WR-28 Waveguide, UG-599
566A-30/599	26.5-40	30	15	1.15	WR-28 Waveguide, UG-599
566A-40/599	26.5-40	40	15	1.15	WR-28 Waveguide, UG-599
566A-50/599	26.5-40	50	15	1.15	WR-28 Waveguide, UG-599
566B-20/383	33-50	20	15	1.15	WR-22 Waveguide, UG-383
566B-30/383	33-50	30	15	1.15	WR-22 Waveguide, UG-383
566B-40/383	33-50	40	15	1.15	WR-22 Waveguide, UG-383
566B-50/383	33-50	50	15	1.15	WR-22 Waveguide, UG-383
566U-20/383	40-60	20	15	1.15	WR-19 Waveguide, UG-383
566U-30/383	40-60	30	15	1.15	WR-19 Waveguide, UG-383
566U-40/383	40-60	40	15	1.15	WR-19 Waveguide, UG-383
566U-50/383	40-60	50	15	1.15	WR-19 Waveguide, UG-383
566V-20/383	50-75	20	20	1.2	WR-15 Waveguide, UG-385
566V-30/383	50-75	30	20	1.2	WR-15 Waveguide, UG-385
566V-40/383	50-75	40	20	1.2	WR-15 Waveguide, UG-385
566V-50/383	50-75	50	20	1.2	WR-15 Waveguide, UG-385

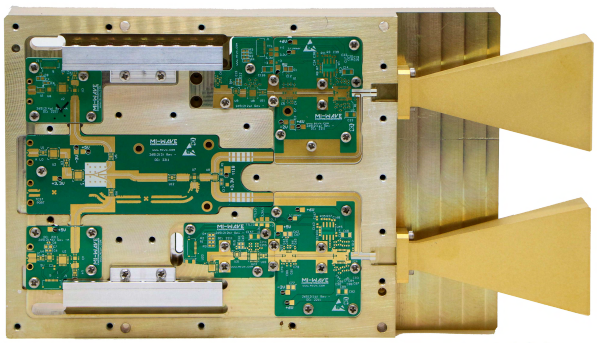
Series 566

Frequency Transmitters/Receivers (Series 970 & 980)

Mi-Wave's Transmitters and Receivers are reliable components for signal frequency conversion. Our models can be tailor-made with valuable features: multiple channels, individual gain controls, remote access, high input power tolerance, and multiple inputs/outputs, for example. The series is packaged for airborne, commercial, military, and other applications.

Model	Type	Frequency (GHz)	Band	Channels
980-10/385S	Transmitter	2.0-18.0	Crossband	1,2,3,4
970A-39.65/599	Receiver	8.5-11.5	Ka-Band	1,2,3,4
980A-34.5/381S	Transmitter	33-36	Ka-Band	1,2,3,4
970B-38.25/387S	Receiver	38.0-38.5	Q-Band	1,2,3,4
980B-43.25/387S	Transmitter	43.0-43.5	Q-Band	1,2,3,4
970U-47.2/51.4/1.85mmF	Receiver	47.2-51.4	U-Band	1,2,3,4
970E-70.4/86.4/387	Receiver	70.4-86.4	E-Band	1,2,3,4
970980A-35.61/KF	Transceiver	35.61	Ka-Band	1,2,3,4
970980W-20/387S	Transceiver	95-100	W-Band	1,2,3,4
970980UB-47.2/51.4/1.85mmF-PLO	Transceiver	47.2-51.4	U-Band Q-Band	1,2,3,4





Frequency Upconverter/Downconverter (Series 970 & 980)

Mi-Wave's Upconverters and Downconverters are reliable components for signal frequency conversion. Our models can be tailor-made with valuable features: multiple channels, individual gain controls, remote access, high input power tolerance, and multiple inputs/outputs, for example. The series is packaged for airborne, commercial, military, and other applications.

Model	Type	Frequency (GHz)	Band	Channels
980-10/385S	Upconverter	2.0-18.0	2GHz – 18GHz	1,2,3,4
970A-39.65/599	Downconverter	39.4 to 39.9	Ka-Band	1,2,3,4
970B-38.25/387S	Downconverter	38.0-38.5	Q-Band	1,2,3,4
980B-43.25/387S	Upconverter	43.0-43.5	Q-Band	1,2,3,4
970U-47.2/51.4/1.85mmF	Downconverter	47.2-51.4	U-Band	1,2,3,4
970E-70.4/86.4/387	Downconverter	70.4-86.4	E-Band	1,2,3,4
970980A-35.61/KF	Up-Downconverter	35.61	Ka-Band	1,2,3,4
970980W-20/387S	Downconverter	95-100	W-Band	1,2,3,4
970980UB-47.2/51.4/1.85mmF-PLO	Up-Downconverter	47.2-51.4	U-Band Q-Band	1,2,3,4
980A-34.5/381S	Upconverter	8.5-11.5	Ka-Band	1,2,3,4
970V-62.5/385	Downconverter	60-65	V-Band	1,2,3,4

Amplitude Detectors (Series 950)

Mi-Wave's 950 Series Detectors convert incident energy into a DC voltage signal. The 950 Series detectors perform measurements more quickly and have a greater dynamic range than that obtainable from comparable power sensors.

Model	Band	Frequency (GHz)	Sensitivity Flatness (±dB)	Input Power (dBm)	Output Voltage Polarity	Specification Temperature (C)	RF Port
950A/599	Ka-Band	26.5-40	2	17	Positive	25	WR-28 Waveguide, UG-599 Flange
950B/383	Q-Band	33-50	2	17	Positive	25	WR-22 Waveguide, UG-383 Flange
950U/383	U-Band	40-60	1.5	17	Positive	25	WR-19 Waveguide, UG-383 Flange
950V/385	V-Band	50-75	2	17	Positive	25	WR-15 Waveguide, UG-385/U Flange
950E/387	E-Band	60-90	2	20	Positive	25	WR-12 Waveguide, UG-387/U-M Flange
950W/387	W-Band	75-110	2	17	Positive	25	WR-10 Waveguide, UG-387/U-M Flange
950F/387	F-Band	90-140	2	17	Positive	25	WR-08 Waveguide, UG-387/U-M Flange
950D/387	D-Band	110-170	2.5	17	Positive	25	WR-06 Waveguide, UG-387/U-M Flange

Balanced Phase Detectors (Series 990)

Mi-Wave's 990 Series Balanced Phase Detectors feature a pair of Schottky diodes that mix or beat two input signals at the same frequency to produce a DC output voltage proportional to the phase difference of the input signals. Matching the two Schottky diodes ensures low DC offset results as well as good port-to-port isolation.

Model	Band	Frequency (GHz)	Sensitivity1 (mV/o), Typ.	Bandwidth (%), Typ.	RF Isolation (dB), Typ.	AM Suppression (dB), Typ.	RF Port
990K/599	K-Band	18.0–26.5	4	4	20	20	WR-42 Waveguide, UG-599 Flange
990A/599	Ka-Band	26.5-40	4	4	20	20	WR-28 Waveguide, UG-599 Flange
990B/383	Q-Band	33-50	4	4	20	20	WR-22 Waveguide, UG-383 Flange
990U/383	U-Band	40-60	3	4	20	20	WR-19 Waveguide, UG-383 Flange
990V/385	V-Band	50-75	3	4	20	20	WR-15 Waveguide, UG-385/U Flange
990E/387	E-Band	60-90	2	4	20	20	WR-12 Waveguide, UG-387/U-M Flange
990W/387	W-Band	75-110	2	4	20	20	WR-10 Waveguide, UG-387/U-M Flange

Series 950

Series 990

Faraday Isolators (Series 115)

Mi-Wave's 115 series isolators use the Faraday principle of rotation in a broadband dielectric waveguide design to achieve high isolation across full waveguide bands. These faraday isolators are available in standard waveguide sizes from 18.0 to 325 GHz

Model	Frequency (GHz)	Isolation (dB)	Insertion Loss (dB) typical	VSWR max.	Power Handling CW (Watts max.)	Input Port	Output Port
115K/595	18-26.5	25	1	1.30:1	2	WR-42 Waveguide, UG-595/U Flange	WR-42 Waveguide, UG-595/U Flange
115(34)/595	22-33	25	1	1.30:1	2	WR-34 Waveguide, UG-595/U Square Flange	WR-34 Waveguide, UG-595/U Square Flange
115(34)/381	22-33	25	1	1.30:1	2	WR-34 Waveguide, UG-381/U Round Flange	WR-34 Waveguide, UG-381/U Round Flange
115A/599	26.5-40	25	1	1.30:1	1.5	WR-28 Waveguide, UG-599/U Square Flange	WR-28 Waveguide, UG-599/U Square Flange
115B/383	33-50	25	1.3	1.30:1	1.5	WR-22 Waveguide, UG-383/U Round Flange	WR-22 Waveguide, UG-383/U Round Flange
115U/383	40-60	25	1.5	1.30:1	1.5	WR-19 Waveguide, UG-383/U-M Round Flange	WR-19 Waveguide, UG-383/U-M Round Flange
115V/385	50-75	25	1.7	1.30:1	1	WR-15 Waveguide, UG-385/U Round Flange	WR-15 Waveguide, UG-385/U Round Flange
115V/1.85mmF	50-75	25	1.7	1.30:1	1	WR-15 Waveguide, UG-385/U Round Flange	1.85mm Female Connector
115V/1mmF	50-75	25	1.7	1.30:1	1	WR-15 Waveguide, UG-385/U Round Flange	1 mm Female Connector
115E/387	60-90	25	2	1.35:1	1	WR-12 Waveguide, UG-387/U Round Flange	WR-12 Waveguide, UG-387/U Round Flange
115W/387	75-110	25	2.2	1.40:1	1	WR-10 Waveguide, UG-387/U-M Round Flange	WR-10 Waveguide, UG-387/U-M Round Flange
115F/387	90-140	22	2.7	1.50:1	0.4	WR-08 Waveguide, UG-387/U-M Round Flange	WR-08 Waveguide, UG-387/U-M Round Flange
115D/387	110-170	20	3.1	1.50:1	0.2	WR-06 Waveguide, UG-387/U-M Round Flange	WR-06 Waveguide, UG-387/U-M Round Flange
115G/387	140-220	20	3.5	1.50:1	0.2	WR-05 Waveguide, UG-387/U-M Round Flange	WR-05 Waveguide, UG-387/U-M Round Flange
115H/387	170-260	20	5	1.50:1	0.1	WR-04 Waveguide, UG-387/U-M Round Flange	WR-04 Waveguide, UG-387/U-M Round Flange
115J/387	220-325	20	5	1.50:1	0.1	WR-03 Waveguide, UG-387/U-M Round Flange	WR-03 Waveguide, UG-387/U-M Round Flange

Y-Junction Isolators (Series 178)

Mi-Wave's 178 series is an H-plane, three-port Y-junction ferrite device with one arm internally terminated in a matched load . Reflected energy is circulated into this load to isolate the input .

Model	Band	Frequency (GHz)	Bandwidth (GHz)	Isolation (dB)	Insertion Loss (dB)	VSWR (Max)	Average Power (Watts)	Peak Power (kW)	In/Output Ports	Temperature Range (°C)
178K-XX/595	K Band	18-26.5	Full Band	20	0.4	1.3:1	30	1	WR-42 Waveguide with UG-595/U Flange	-15 to +65
178A-XX/599	A Band	26.5-40	Full Band	20	0.4	1.3:1	30	1	WR-28 Waveguide with UG-599/U Flange	-15 to +65
178B-XX/383	B Band	33-50	6	20	0.5	1.3:1	25	1	WR-22 Waveguide with UG-383/U Flange	-15 to +65
178U-XX/383	U Band	40-60	1.3	18	0.7	1.35:1	15	1	WR-19 Waveguide with UG-383/U-M Flange	-15 to +65
178V-XX/385	V Band	50-75	1.5	18	0.8	1.4:1	10	1	WR-15 Waveguide with UG-385/U Flange	0 to 50
178E-XX/387	E Band	60-90	1.5	15	0.9	1.4:1	5	1	WR-12 Waveguide with UG-387/U Flange	0 to 50
178W-XX/387	W Band	75-110	1.5	15	1	1.4:1	5	1	WR-10 Waveguide with UG-387/U-M Flange	0 to 50
178F-XX/387	F Band	90-140	1.5	15	1.3	1.4:1	5	1	WR-8 Waveguide with UG-387/U-M Flange	0 to 50

Series 115

Series 178

Y-Junction Waveguide Circulators (Series 179)

Mi-Wave's 179 is an H-plane, three-port Y-junction ferrite device.
The 179 Series circulators are available in standard waveguide sizes from 18.0 to 110 GHz, in round-style flanges only.

Model	Band	Frequency (GHz)	Bandwidth (GHz)	Isolation (dB)	Insertion Loss (dB)	VSWR (Max)	Average Power (Watts)	Peak Power (kW)	In/Output Ports	Temperature Range (°C)
179K-XX/595	K Band	18-26.5	1.8	18	0.4	1.3:1	30	1	WR-42 Waveguide with UG-595/U Flange	-15 to +65
179A-XX/599	A Band	26.5-40	1.3	18	0.4	1.3:1	30	1	WR-28 Waveguide with UG-599/U Flange	-15 to +65
179B-XX/383	B Band	33-50	1.2	18	0.5	1.3:1	25	1	WR-22 Waveguide with UG-383/U Flange	-15 to +65
179U-XX/383	U Band	40-60	1.2	15	0.7	1.35:1	15	1	WR-19 Waveguide with UG-383/U-M Flange	-15 to +65
179V-XX/385	V Band	50-75	1.3	15	1	1.4:1	10	1	WR-15 Waveguide with UG-385/U Flange	0 to 50
179E-XX/387	E Band	60-90	1.3	15	1	1.4:1	5	1	WR-12 Waveguide with UG-387/U Flange	0 to 50
179W-XX/387	W Band	75-110	1.3	15	1	1.4:1	5	1	WR-10 Waveguide with UG-387/U-M Flange	0 to 50

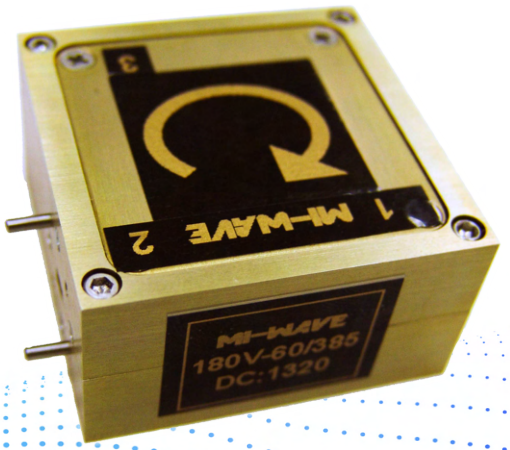
Multi-Junction Waveguide Circulators (Series 180)

Mi-Wave's 180 series is an H-plane, three-junction, three-port, Y-junction ferrite device.
The 180 Series circulators are available in standard wave-guide sizes from 18.00 to 110 GHz.

Model	Band	Frequency (GHz)	Bandwidth (GHz)	Isolation (dB)	Insertion Loss (dB)	VSWR	Temperature Range	Peak Power (kW)	Average Power (Watts)	Flange
180K-30/595	K-Band	18-26.5	1	>30	0.7	1.3	0 to +40 c	1	30	UG-595/U
180A-30/599	Ka-Band	26.5-40	1	>30	0.8	1.3	0 to +40 c	1	30	UG-599/U
180B-25/383	Q-Band	33-50	1	>30	0.9	1.3	0 to +40 c	1	25	UG-383/U
180U-15/383	U-Band	40-60	1	>30	1	1.35	0 to +40 c	1	15	UG-383/U
180V-10/385	V-Band	50-75	1	>30	1.2	1.4	0 to +40 c	1	10	UG-385/U
180E-5/387	E-Band	60-90	1	>30	1.4	1.4	0 to +40 c	1	5	UG-387/U
180W-5/387	W-Band	75-110	1	>30	1.4	1.4	0 to +40 c	1	5	UG-387/U

Series 179

Series 180



Direct-Reading Precision Electronic Frequency Meters (Series 551)

Model	Band	Frequency (GHz)	Resonance Dip (dBM)	Insertion Loss (dB)
551A/595	Ka-Band	26.5-40	3	0.8
551B/383	Q-Band	33-50	3	0.8
551U/383	U-Band	40-60	3	0.8
551V/383	V-Band	50-75	3	0.8
551E/387	E-Band	60-90	3	0.8
551W/387	W-Band	75-110	3	0.8

Each of Mi-Wave's 551 Series Direct-reading Frequency Meters are available in standard waveguide sizes from 18.0 to 170.0 GHz and are designed to provide an easy direct readout of frequency with a high degree of resolution and accuracy.

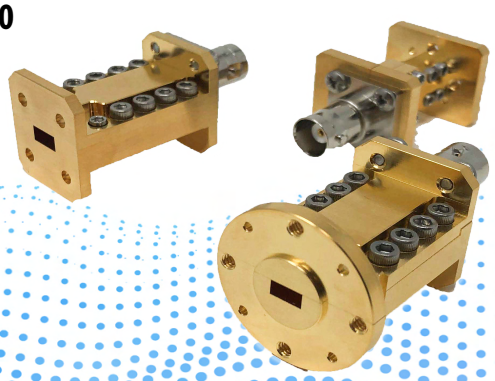
Series 551

Broadband Calibrated Noise Source (Series 870)

Mi-Wave's 870 Series Broadband Calibrated Noise Sources are available in 18 to 110 GHz frequency range offering the best stability and switching speed over other brands.

Model	Band	Frequency (GHz)	ENR (dB)	ENR Flatness (dB)	Output Port
870A/599	Ka-Band	26.5-40	15.5	1.5	WR-28 Waveguide with UG-599/U Flanges
870B/383	Q-Band	33-50	15.5	1.5	WR-22 Waveguide with UG-383/U Flanges
870E/387	E-Band	60-90	15	6	WR-12 Waveguide, UG-387/U Flange
870K/595	K-Band	18-26.5	15.5	1.5	WR-42 Waveguide, UG-595/U Flange
870V/385	V-Band	50-75	15.5	3	WR-15 Waveguide with UG-385/U Flange
870W/387	W-Band	75-110	13	5	WR-10 Waveguide with UG-387/U-M Flanges

Series 870

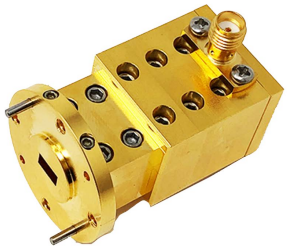


Harmonic Mixers (Series 920)

Mi-Wave's 920 Series Harmonic Mixers are used to downconvert millimeter wave signals using a Schottky barrier mixer diode. Measurements can be made by mixing the harmonic of the LO with the desired signal and observing the resulting IF.

Model	Band	RF Frequency (GHz)	LO Frequency (GHz)	IF Frequency (GHz)	LO Power (dBm)	RF Port	LO/IF Port
920A/599	Ka-Band	26.5 - 40	<20 GHz	Dependent on Diplexer Config	13+	WR-28 Waveguide, UG-599/U Flange	SMA (F)
920B-383	Q-Band	33 - 50	<20 GHz	Dependent on Diplexer Config	13+	WR-22 Waveguide, UG-383/U Flange	SMA (F)
920U-383	U-Band	40 - 60	<20 GHz	Dependent on Diplexer Config	13+	WR-19 Waveguide, UG-383/U-M Flange	SMA (F)
920E-387	E-Band	60 - 90	<20 GHz	Dependent on Diplexer Config	13+	WR-12 Waveguide, UG-387/U-M Flange	SMA (F)
920V-385	V-Band	50 - 75	<20 GHz	Dependent on Diplexer Config	13+	WR-15 Waveguide, UG-385/U Flange	SMA (F)
920W-387	W-Band	75 - 110	<20 GHz	Dependent on Diplexer Config	13+	WR-10 Waveguide, UG-387/U-M Flange	SMA (F)
920F-387	F-Band	90 - 140	<20 GHz	Dependent on Diplexer Config	13+	WR-08 Waveguide, UG-387/U-M Flange	SMA (F)
920D-387	D-Band	110 - 170	<20 GHz	Dependent on Diplexer Config	13+	WR-06 Waveguide, UG-387/U-M Flange	SMA (F)
920G-387	G-Band	140 - 220	<20 GHz	Dependent on Diplexer Config	13+	WR-05 Waveguide, UG-387/U-M Flange	SMA (F)

Series 920

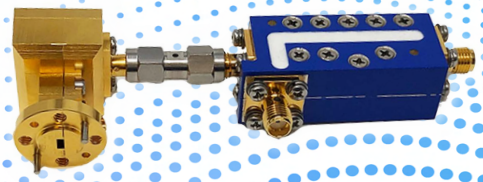


Harmonic Mixers with DiPlexers (Series 922)

Mi-Wave's 922 Series Harmonic Mixers include optional LO-IF frequency diplexer and are used to downconvert millimeter wave signals using a Schottky barrier mixer diode.
Measurements can be made by mixing the harmonic of the LO with the desired signal and observing the resulting IF.

Model	Band	Frequency (GHz)	LO Frequency (GHz)	IF Frequency (GHz)	LO Power (dBm)	LO Plus RF Power	RF Port	LO/IF Port
922A/387	Ka-Band	26.5 - 40	Option 1: 4-20 Option 2: 6-20	Option 1: DC-3 Option 2: DC-5	13+	13+	WR-28 Waveguide, UG-599/U Flange	SMA (F)
922B/383	Q-Band	33 - 50	Option 1: 4-20 Option 2: 6-20	Option 1: DC-3 Option 2: DC-5	13+	13+	WR-22 Waveguide, UG-383/U Flange	SMA (F)
922U/383	U-Band	40 - 60	Option 1: 4-20 Option 2: 6-20	Option 1: DC-3 Option 2: DC-5	13+	13+	WR-19 Waveguide, UG-383/U-M Flange	SMA (F)
922E/387	E-Band	60 - 90	Option 1: 4-20 Option 2: 6-20	Option 1: DC-3 Option 2: DC-5	13+	13+	WR-12 Waveguide, UG-387/U-M Flange	SMA (F)
922V/385	V-Band	50 - 75	Option 1: 4-20 Option 2: 6-20	Option 1: DC-3 Option 2: DC-5	13+	13+	WR-15 Waveguide, UG-385/U Flange	SMA (F)
922W/387	W-Band	75 - 110	Option 1: 4-20 Option 2: 6-20	Option 1: DC-3 Option 2: DC-5	13+	13+	WR-10 Waveguide, UG-387/U-M Flange	SMA (F)
922F/387	F-Band	90 - 140	Option 1: 4-20 Option 2: 6-20	Option 1: DC-3 Option 2: DC-5	13+	13+	WR-08 Waveguide, UG-387/U-M Flange	SMA (F)
922D/387	D-Band	110 - 170	Option 1: 4-20 Option 2: 6-20	Option 1: DC-3 Option 2: DC-5	13+	13+	WR-06 Waveguide, UG-387/U-M Flange	SMA (F)
922G/387	G-Band	140 - 220	Option 1: 4-20 Option 2: 6-20	Option 1: DC-3 Option 2: DC-5	13+	13+	WR-05 Waveguide, UG-387/U-M Flange	SMA (F)

Series 922

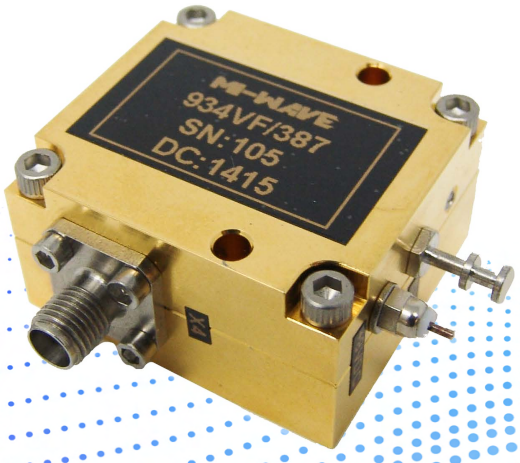


Multipliers, Doubler, Frequency Extenders (Series 93(X))

Mi-Wave's 93(x) Series Active Frequency Multipliers utilize high-performance MMIC chips for frequency multiplication and amplification. More configurations are available under different model numbers.

Model Number	Input Frequency (GHz)	Output Frequency (GHz)	Input Power (dBm)	Output Power (dBm)	Input Port	Output Port	DC Bias	Multiplication Factor
932-10/20/10/SMAF-2	5-10	10-20	+11 to 16 nominal, +17 max	+7 to +10 nominal	SMA-Feamle	SMA-Feamle	+8V@105mA,+12V max.	2
932KF-10/KF	9-13.25	18-26.5	+5 nominal, +10 max	+15 nominal	K-Female	K-Female	+8 V@82 mA,+15 V max.	2
932KF-30/3.5mmF	9-13.25	18-26.5	+3 to +5 nominal, +10 max	+31 nominal	3.5 mm Female	3.5 mm Female	+6V@1.35A, +12 V max.	2
932AF-20/599/KF	13.25-20	26.5-40	0 to +5 nominal, +10 max	20 nominal	K-Female	WR-28 waveguide, UG-599/U Flange	+8 V@470mA,+15 V max.	2
934BF-10/383	8.25-12.5	33-50	+2 nominal, +5 max	+10 nominal	K-Female/SMA-Female	WR-22 waveguide, UG-383/U Flange	+8V@0.250 A,+12V max.	4
934BF-13/383	8.25-12.5	33-50	0 to +2 nominal, +5 max	+14.5 nominal	K-Female/SMA-Female	WR-22 waveguide, UG-383/U Flange	+8V@0.280 A,+12V max.	4
934UF-10/383	10-15	40-60	0 nominal, +10max	+13 nominal	K-Female/SMA-Female	WR-19 waveguide, UG-383/U-M Flange	+6V@143mA,+6V max.	4
934VF-10/385	12.5-18.75	50-75	+5 nominal, +10 max	+11 nominal	K-Female/SMA-Female	WR-15 waveguide, UG-385/U Flange	+8V@270mA,+15V max.	4
934VF-15/385	12.5-18.75	50-75	+5 nominal, +10 max	+15 nominal	K-Female/SMA-Female	WR-15 waveguide, UG-385/U Flange	+10V@321mA,+15V max.	4
934EF-20/387	15-22.5	60-90	+5 to +7 nominal, +12 max	+20 nominal	K-Female/SMA-Female	WR-12 waveguide, UG-387/U Flange	+6 to +8V@650mA,+12V max.	4
936EF-10/387	10-15	60-90	+4 nominal,+10 max	+13 nominal	K-Female/SMA-Female	WR-12 waveguide, UG-387/U Flange	+6V@237mA,+12V max.	6
936EF-20/387H	10-15	60-90	+5 nominal, +10 max	+20 nominal	K-Female/SMA-Female	WR-12 waveguide, UG-387/U Flange	+6V@540mA,+12V max.	6
938EF-16/387H	7.5-11.25	60-90	+3 to +5 nominal, +10 max	+17 nominal	K-Female/SMA-Female	WR-12 waveguide, UG-387/U Flange	+8V@590mA,+12V max.	8
936WF-10/387	12.5-18.33	75-110	+6 nominal,+10 max	+10 nominal	K-Female/SMA-Female	WR-10 waveguide, UG-387/U-M Flange	+6V@309mA,+12V max.	6
936WF-15/387	12.5-18.33	75-110	+5 to+10 nominal, +15 max	+16 nominal	K-Female/SMA-Female	WR-10 waveguide, UG-387/U-M Flange	+12V@500mA,+15V max.	6
936WF-20/387	12.5-18.33	75-110	+5 to+10 nominal, +15 max	+20 nominal	K-Female/SMA-Female	WR-10 waveguide, UG-387/U-M Flange	+13V@410mA,+15V max.	6
938WF-18/387	9.375-13.75	75-110	+7 nominal, +10 max	+20 nominal	K-Female/SMA-Female	WR-10 waveguide, UG-387/U-M Flange	+8V@185mA,+15V max.	8
938WF-10/387	10-13.25	80-106	+7 nominal, +10 max	+15 nominal	K-Female/SMA-Female	WR-10 waveguide, UG-387/U-M Flange	+6V@180mA,+12V max.	8
938W-80/106/15/388	8.9-11.78	80-106	+7 nominal, +10 max	+15 nominal	K-Female/SMA-Female	WR-10 waveguide, UG-387/U-M Flange	+13V@180mA,+15V max.	9

Series 934



Series 938

Wide Band Balanced Mixers (Series 970 & 980)

Mi-Wave's 970 Series balanced mixer down-converters have been designed to cover extremely wide RF bandwidths for EW/ELINT applications. Biased mixers with lower LO drive available.

Mi-Wave's 980 Series balanced mixer up-converters have been designed to cover extremely wide RF bandwidths for EW/ELINT applications. Biased mixers with lower LO drive available.

Model	RF Frequency (GHz)	LO Frequency (GHz)	IF Frequency (GHz)	LO Drive Level (dBm) typ.	RF to IF Conversion Loss (dB) typ.	LO-RF Isolation (dB) typ.	Maximum LO + RF Input Power Level (dBm)	RF and LO ports	IF Port
970AF/599 | 980AF/599	26.5-40	26.5-40	DC-10	13	10	28	17	WR-28 Waveguide, UG-599/U Flange	SMA-Female
970BF/383 | 980BF/383	33-50	33-50	DC-12	13	10	28	17	WR-22 Waveguide, UG-383/U Flange	SMA-Female
970UF/383 | 980UF/383	40-60	40-60	DC-12	13	10	28	17	WR-19 Waveguide, UG-383/U-M Flange	SMA-Female
970VF/385 | 980VF/385	50-75	50-75	DC-25	13	8	28	17	WR-15 Waveguide, UG-385/U Flange	SMA-Female
970EF/387 | 980EF/387	60-90	60-90	DC-30	13	10	28	17	WR-12 Waveguide, UG-387/U Flange	SMA-Female
970WF/387 | 980WF/387	75-110	75-110	DC-25	13	12	28	17	WR-10 Waveguide, UG-387/U-M Flange	SMA-Female

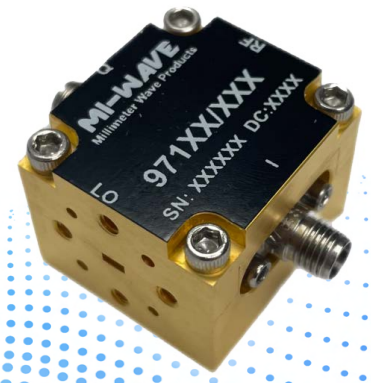
IQ Mixers (971 Series)

Mi-Wave's 922 Series Harmonic Mixers include optional LO-IF frequency diplexer and are used to downconvert millimeter wave signals using a Schottky barrier mixer diode. Measurements can be made by mixing the harmonic of the LO with the desired RF signal and observing the resulting IF.

Model	Band	RF Frequency (GHz)	IF Frequency (GHz)	RF to IF Conversion Loss (dBm)	Maximum LO + RF Input Power Level	RF Port	LO/IF Port
971AF/599	Ka-Band	26.5 - 40	DC - 12	10	17	WR-28 Waveguide, UG-599/U Flange	SMA (F)
971BF/383	Q-Band	33 - 50	DC - 12	10	17	WR-22 Waveguide, UG-383/U Flange	SMA (F)
971UF/383	U-Band	40 - 60	DC - 12	10	17	WR-12 Waveguide, UG-387/U-M Flange	SMA (F)
971VF/385	V-Band	50 - 75	DC - 12	10	17	WR-15 Waveguide, UG-385/U Flange	SMA (F)
971EF/387	E-Band	60 - 90	DC - 12	10	17	WR-19 Waveguide, UG-383/U-M Flange	SMA (F)
971WF/387	W-Band	75 - 110	DC - 12	10	17	WR-10 Waveguide, UG-387/U-M Flange	SMA (F)

Series 970

Series 971



Fixed Phase-Locked Coaxial Oscillator (957 Series)

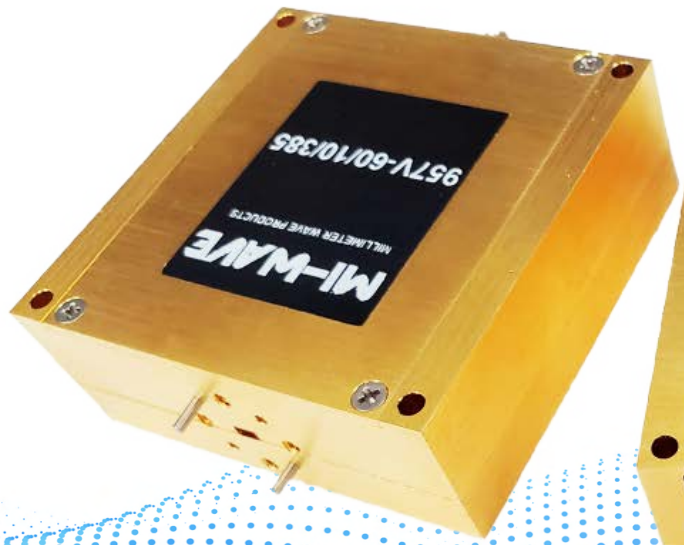
Mi-Wave's 957 Series Phase Locked Oscillators uses fixed frequency low noise synthesizer technology. These oscillators use an external reference from 1MHz to 600MHz and frequency outputs from 100MHz to 110GHz.

Model	Band	Frequency (GHz)	Power Output (dBm)	Port	Waveguide Flange
957-XX/XX/SMAF	-	100MHz-18	Upto 30	SMA female	UG-39
957K-XX/XX/SMAK	K-Band	18-26.5	Upto 30	SMA female	UG-419
957K-XX/XX/F	K-Band	18-26.5	Upto 30	K-female	UG-419
957A-XX/XX/KF	Ka-Band	26.5-40	Upto 30	K-female	UG-595/U
957B-XX/XX/1.85mmF	Q-Band	33-50	Upto 30	1.85 mm female	UG-599/U
957U-XX/XX/1.85mmF	U-Band	40-60	Upto 30	1.85 mm female	UG-383/U
957V-XX/XX/1.85mmF	V-Band	50-75	Upto 30	1.85 mm female	UG-383/U-M
957V-XX/XX/1.00mmF	V-Band	50-75	Upto 30	1.85 mm female	UG-383/U-M
957E-XX/XX/1mmF	E-Band	60-90	Upto 30	1.00 mm female	UG-385/U
957W-XX/XX/1mmF	W-Band	75-110	Upto 30	1.00 mm female	UG-387/U

Fixed Phase-Locked Waveguide Oscillator (957 Series)

Model	Band	Frequency (GHz)	Power Output (dBm)	Port	Waveguide Flange
957X-XX/XX/39	X-Band	8.20-12.40	Upto 30	WR90	UG-39
957Ku-XX/XX/419	Ku-Band	12.40-18	Upto 30	WR62	UG-419
957K-XX/XX/595	K-Band	18-26.5	Upto 30	WR42	UG-595/U
957A-XX/XX/599	Ka-Band	26.5-40	Upto 30	WR28	UG-599/U
957B-XX/XX/383	Q-Band	33-50	Upto 30	WR22	UG-383/U
957U-XX/XX/383	U-Band	40-60	Upto 30	WR19	UG-383/U-M
957V-XX/XX/385	V-Band	50-75	Upto 30	WR15	UG-385/U
957E-XX/XX/387	E-Band	60-90	Upto 30	WR12	G-387/U
957W-XX/XX/387	W-Band	75-110	Upto 30	WR10	UG-387/U-M

Series 957 -Waveguide



Series 957 -Coaxial

Mechanically Controlled Oscillators (830 Series)

Mi-Wave's 830 Series Mechanically Controlled Oscillator source is available in the 18 to 110GHz frequency range.
This source can be used for a mixer local oscillator or transmit source.

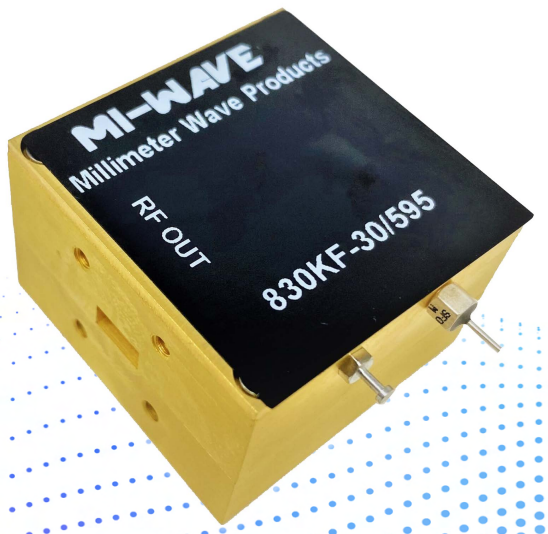
Model	Band	Frequency (GHz)	Output Power (dBm)	Tuning Bandwidth (GHz)	Bias Current	Output Port
830AF-36/599	Ka-Band	26.5-40	36	15.3	4A	WR-28 Waveguide with UG-599/U Flanges
830BF-20/383	Q-Band	33-50	20	17	1.2A	WR-22 Waveguide with UG-383/U Flanges
830EF-17/387	E-Band	60-90	17	30	500mA	WR-12 Waveguide, UG-387/U Flange
830KF-30/595	K-Band	18-26.5	30	8.5	500mA	WR-42 Waveguide with UG-595/U Flanges
830UF-29/383	U-Band	40-60	29	20	2A	WR-19 Waveguide with UG-383/U-M Flanges
830VF-25/385	V-Band	50-75	25	25	2A	WR-15 Waveguide, UG-385/U Flange
830WF-15/387	W-Band	75-110	15	35	1A	WR-10 Waveguide, UG-387/U-M Flange

Wide Band Voltage Controlled Oscillators VCO (840 Series)

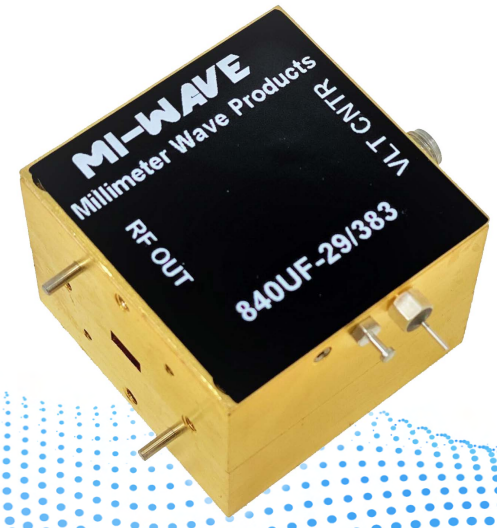
Mi-Wave's 840 Voltage controlled sources are available in 18 to 110Ghz. This source can be used as a modulated transmitter or local oscillator.
Common applications include radar, swept sources, and telecommunications systems.

Model	Band	Frequency (GHz)	Output Power (dBm)	Tuning Bandwidth (GHz)	Bias Current	Output Port
840AF-36/599	Ka-Band	26.5-40	36	15.3	4A	WR-28 Waveguide with UG-599/U Flanges
840BF-20/383	Q-Band	33-50	20	17	1.2A	WR-22 Waveguide with UG-383/U Flanges
840EF-17/387	E-Band	60-90	17	30	500mA	WR-12 Waveguide, UG-387/U Flange
840KF-30/595	K-Band	18-26.5	30	8.5	500mA	WR-42 Waveguide with UG-595/U Flanges
840UF-29/383	U-Band	40-60	29	20	2A	WR-19 Waveguide with UG-383/U-M Flanges
840VF-25/385	V-Band	50-75	25	25	2A	WR-15 Waveguide, UG-385/U Flange
840WF-15/387	W-Band	75-110	15	35	1A	WR-10 Waveguide, UG-387/U-M Flange

Series 830



Series 840



Uncalibrated/Calibrated Phase Shifters (525 & 526 Series)

Mi-Wave's 525 Uncalibrated and 526 Calibrated Phase Shifters provide phase shifts from 0º to 180º at any frequency within the waveguide band.

Model	Band	Frequency (GHz)	Insertion Loss (dB)	Phase Shift Range (Degrees)	Power Handling (Watts)	RF Port
525K/595	K-Band	18-26.5	0.3	0-180	1.5	WR-42 Waveguide Flanges UG-595/U
525A/599	Ka-Band	26.5-40	0.3	0-180	1	WR-28 Waveguide Flanges UG-599/U
525B/383	Q-Band	33-50	0.3	0-180	1	WR-22 Waveguide Flanges UG-383/U
525U/383	U-Band	40-60	0.3	0-180	1	WR-19 Waveguide Flanges UG-383/U-M
525V/385	V-Band	50-75	0.4	0-180	0.8	WR-15 Waveguide Flanges UG-3835/U-M
525E/387	E-Band	60-90	0.5	0-180	0.7	WR-12 Waveguide, Flanges UG-387/U
525W/387	W-Band	75-110	0.5	0-180	0.6	WR-10 Waveguide Flanges UG-387/U-M
525F/387	F-Band	90-140	0.6	0-180	0.3	WR-08 Waveguide Flanges UG-387/U-M
525D/387	D-Band	110-170	0.8	0-180	0.3	WR-06 Waveguide Flanges UG-387/U-M

Micrometer Type Calibrated Phase Shifter (527 Series)

Mi-Wave's 527 Series Phase Shifters are designed for operation in waveguide sizes from 18 to 220 GHz.
This resolution is advantageous since the total travel of the phase shift vane is quite short at high frequencies

Model	Band	Frequency (GHz)	Insertion Loss (dB)	Power Handling (Watts)	RF Port
527K/595	K-Band	18-26.5	0.3	1.5	WR-42 Waveguide Flanges UG-595/U
527A/599	Ka-Band	26.5-40	0.3	1	WR-22 Waveguide, UG-383/U Flange
527B/383	Q-Band	33-50	0.3	1	WR-22 Waveguide Flanges UG-383/U
527U/383	U-Band	40-60	0.4	1	WR-19 Waveguide Flanges UG-383/U-m
527V/385	V-Band	50-75	0.4	0.8	WR-15 Waveguide Flanges UG-385/U
527E/387	E-Band	60-90	0.5	0.7	WR-12 Waveguide Flanges UG-387/U
527W/387	W-Band	75-110	0.5	0.6	WR-10 Waveguide Flanges UG-387/U-M
527F/387	F-Band	90-140	0.6	0.4	WR-08 Waveguide Flanges UG-387/U-M
527D/387	D-Band	110-170	0.8	0.3	WR-06 Waveguide Flanges UG-387/U-M
527G/387	G-Band	140-220	1	0.2	WR-05 Waveguide Flanges UG-387/U-M

Series 525 & 526

Series 527

Direct-Reading Phase Shifters (528 Series)

Mi-Wave's 528 Series Direct-reading Phase Shifters provide highly accurate measurement of phase shift over each full waveguide band from 26.5 to 170.0 GHz.

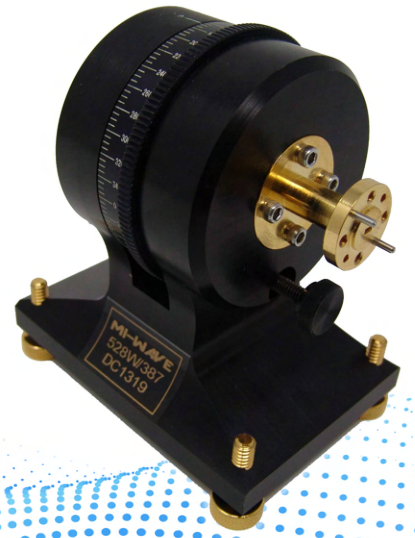
Model	Band	Low Frequency (GHz)	Phase Shift (Degrees)	Power Handling (CW)	Insertion Loss (dB)	RF Port
528A/599	Ka-Band	26.5-40	0-360	1	1	WR-28 Waveguide, UG-599/U Flange
528B/383	Q-Band	33-50	0-360	1	1.2	WR-22 Waveguide, UG-383/U Flange
528U/383	U-Band	40-60	0-360	1	1.3	WR-19 Waveguide, UG-383/U-M Flange
528V/385	V-Band	50-75	0-360	0.8	1.5	WR-15 Waveguide, UG-385/U Flange
528E/387	E-Band	60-90	0-360	0.7	1.8	WR-12 Waveguide, UG-387/U Flange
528W/387	W-Band	75-110	0-360	0.6	2	WR-10 Waveguide, UG-387/U-M Flange
528F/387	F-Band	90-140	0-360	1.5	3	WR-08 Waveguide, UG-387/U-M Flange
528D/387	D-Band	110-170	0-360	0.3	4	WR-06 Waveguide, UG-387/U-M Flange

Motorized | Programmable | Rotary Vane Phase Shifters (529 Series)

Mi-Wave has developed a new motorized rotary vane phase shifter which is available in W/G bands from 18.0 to 170 GHz. The 529 Series is a computer-controlled version of Mi-Waves' standard direct reading phase shifter and features a 0º to 360º range with 0.5-degree resolution

Model	Band	Frequency (GHz)	Resolution (Degrees)	Accuracy (+-)	Power Handling (CW)	Insertion Loss	I/O Ports
529K/595	K-Band	18-26.5	0.5	4	1	1	WR-42 Waveguide, UG-595/U Flange
529A/599	Ka-Band	26.5-40	0.5	4	0.5	1	WR-28 Waveguide, UG-599/U-M Flange
529B/383	Q-Band	33-50	0.5	4	0.5	1	WR-22 Waveguide, UG-383/U Flange
529U/383	U-Band	40-60	0.5	4	0.4	1.1	WR-19 Waveguide, UG-383/U-M Flange
529V/385	V-Band	50-75	0.5	4	0.3	1.2	WR-15 Waveguide, UG-385/U Flange
529E/387	E-Band	60-90	0.5	4	0.2	1.4	WR-12 Waveguide, UG-387/U Flange
529W/38	W-Band	75-110	0.5	4	0.2	1.5	WR-10 Waveguide, UG-387/U-M Flange
529F/387	F-Band	90-140	0.5	5	0.2	2	WR-08 Waveguide, UG-387/U-M Flange
529D/387	D-Band	110-170	0.5	5	0.1	3	WR-06 Waveguide, UG-387/U-M Flange

Series 528



Series 529

Linear to Circular Polarizer (282 Series)

Mi-Wave's 282 Series linear to circular polarizers converts input linear signals to circularly polarized output signals.

Model	Circular Antenna Port Internal Diameter (inches) (.XXX in Model No.)	Frequency (GHz)	Flange	Insertion Loss (dB) typical	Bandwidth (GHz)	Axial Ratio (dB)
282X-XX/.XXX/90	Option 1 1.094" ID Circular Waveguide Option 2 .938" ID Circular Waveguide Option 3 .797" ID Circular Waveguide	8-9.97 8.5-11.6 9.7-12.4	UG-90/U	1	2	1
282Ku-XX/.XXX/90	Option 1 .660" ID Circular Waveguide Option 2 .550" ID Circular Waveguide	12.4-14.6 14.6-17.5	UG-419/U	1	2.2	1
282K-XX/.XXX/595	Option 1 .470" ID Circular Waveguide Option 2 .396" ID Circular Waveguide Option 3 .328" ID Circular Waveguide	17.5- 20.5 20.5-24.5 24.5-26.5	UG-595/U	1	3	1
282A-XX/.XXX/599	Option 1 .328" ID Circular Waveguide Option 2 .281" ID Circular Waveguide Option 3 .250" ID Circular Waveguide Option 4 .219" ID Circular Waveguide	26.5-28.5 28.5-33 33-38.5 38.5-40	UG-599/U	1	5	1
282B-XX/.XXX/383	Option 1 .328" ID Circular Waveguide Option 2 .281" ID Circular Waveguide Option 3 .250" ID Circular Waveguide Option 4 .219" ID Circular Waveguide	26.5-28.5 28.5-33 33-38.5 38.5-40	UG-383/U	1	5	1
282U-XX/.XXX/383	Option 1 .219" ID Circular Waveguide Option 2 .188" ID Circular Waveguide Option 3 .165" ID Circular Waveguide Option 4 .141" ID Circular Waveguide	40-43 43-50 50-58 58-60	UG-383/U-M	1	6	1
282V-XX/.XXX/385	Option 1 .165" ID Circular Waveguide Option 2 .141" ID Circular Waveguide Option 3 .125" ID Circular Waveguide	50-58 58-68 68-75	UG-385/U	1	7	1
282E-XX/.XXX/387	Option 1 .141" ID Circular Waveguide Option 2 .125" ID Circular Waveguide Option 3 .110" ID Circular Waveguide Option 4 .094" ID Circular Waveguide	60-68 68-77 77-87 87-90	UG-387/U	1	7	1
282W-XX/.XXX/387	Option 1 .125" ID Circular Waveguide Option 2 .110" ID Circular Waveguide Option 3 .094" ID Circular Waveguide Option 4 .082" ID Circular Waveguide	75-77 77-87 87-100 100-110	UG-387/U-M	1	8	1
282F-XX/.XXX/38	Option 1 .094" ID Circular Waveguide Option 2 .082" ID Circular Waveguide Option 3 .075" ID Circular Waveguide Option 4 .067" ID Circular Waveguide	90-100 100-112 112-125 125-140	UG-387/U-M	1	10	1
282D-XX/.XXX/387	Option 1 .082" ID Circular Waveguide Option 2 .075" ID Circular Waveguide Option 3 .067" ID Circular Waveguide Option 4 .059" ID Circular Waveguide	110-112 112-125 125-160 160-170	UG-387/U-M	1.5	10	1
282G-XX/.XXX/387	Option 1 .067" ID Circular Waveguide Option 2 .059" ID Circular Waveguide	125-140 140-220	UG-387/U-M	1.7	10	1

Adjustable Circular Polarizers (Series 283)

Mi-Wave's 283 Series Polarizer, similar to the 282 Series, will convert linear input signals to circular output signals with selectable output features. A manual switch on the unit allows for selection of the output signal's polarization sense or conversion back to a linear polarization.

Model	Band	Circular Antenna Port Internal Diameter (inches) (.XXX in Model No.)	Frequency (GHz)	Flange	Bandwidth (GHz)	Insertion Loss (dB)	Axial ratio (dB)
283X-XX/.XXX/39	X-Band	Option 1 1.094" ID Circular Waveguide Option 2 .938" ID Circular Waveguide Option 3 .797" ID Circular Waveguide	8-9.97 8.5-11.6 9.7-12.4	UG-39/U	2	0.25	1
283Ku-XX/.XXX/419	Ku-Band	Option 1 .660" ID Circular Waveguide Option 2 .550" ID Circular Waveguide	12.4-14.6 14.6-17.5	UG-419/U	3	0.25	1
283K-XX/.XXX/595	K-Band	Option 1 .470" ID Circular Waveguide Option 2 .396" ID Circular Waveguide Option 3 .328" ID Circular Waveguide	17.5- 20.5 20.5-24.5 24.5-26.5	UG-595/U	3	0.35	1
283A-XX/.XXX/599	Ka-Band	Option 1 .328" ID Circular Waveguide Option 2 .281" ID Circular Waveguide Option 3 .250" ID Circular Waveguide Option 4 .219" ID Circular Waveguide	26.5-28.5 28.5-33 33-38.5 38.5-40	UG-599/U	5	0.5	1
283U-XX/.XXX/383	U-Band	Option 1 .219" ID Circular Waveguide Option 2 .188" ID Circular Waveguide Option 3 .165" ID Circular Waveguide Option 4 .141" ID Circular Waveguide	40-43 43-50 50-58 58-60	UG-383	6	0.5	1
283V-XX/.XXX/385	V-Band	Option 1 .165" ID Circular Waveguide Option 2 .141" ID Circular Waveguide Option 3 .125" ID Circular Waveguide	50-58 58-68 68-75	UG-385	7	0.6	1
283E-XX/.XXX/387	E-Band	Option 1 .141" ID Circular Waveguide Option 2 .125" ID Circular Waveguide Option 3 .110" ID Circular Waveguide Option 4 .094" ID Circular Waveguide	60-68 68-77 77-87 87-90	UG-387/U	7	1	1
283W-XX/.XXX/387	W-Band	Option 1 .125" ID Circular Waveguide Option 2 .110" ID Circular Waveguide Option 3 .094" ID Circular Waveguide Option 4 .082" ID Circular Waveguide	75-77 77-87 87-100 100-110	UG-387/U-M	8	1	1
283F-XX/.XXX/387	F-Band	Option 1 .094" ID Circular Waveguide Option 2 .082" ID Circular Waveguide Option 3 .075" ID Circular Waveguide Option 4 .067" ID Circular Waveguide	90-100 100-112 112-125 125-140	UG-387/U-M	10	1.05	1
283D-XX/.XXX/387	D-Band	Option 1 .082" ID Circular Waveguide Option 2 .075" ID Circular Waveguide Option 3 .067" ID Circular Waveguide Option 4 .059" ID Circular Waveguide	110-112 112-125 125-160 160-170	UG-387/U-M	10	1.5	1
283G-XX/.XXX/387	G-Band	Option 1 .067" ID Circular Waveguide Option 2 .059" ID Circular Waveguide	125-140 140-220	UG-387/U-M	10	1.7	1

Series 282

Series 283

2 – Way Power Divider | Combiner | Magic Hybrid Tees (Series 630/635)

Model	Band	Frequency (GHz)	Isolation (E-H)	Insertion Loss (dB)	Power Imbalance (± dB)
635X/39	X-Band	8.2-12.4	35	0.5	0.5
635K/595	K-Band	18-26.5	35	0.6	0.5
635A/599	Ka-Band	26.5-40	30	0.7	0.5
635B/383	Q-Band	33-50	30	0.7	0.5
635U/383	U-Band	40-60	30	1	0.5
635V/385	V-Band	50-75	30	1	0.5
635E/387	E-Band	60-90	30	1	0.5
635W/387	W-Band	75-110	20	1.5	0.5
635F/387	F-Band	90-140	25	1.7	0.8
635D/387	D-Band	110-170	20	2.5	0.5
635G/387	G-Band	140-220	20	3	1.5
635H/387	H-Band	170-260	20	4	1.5
635J/387	J-Band	220-325	15	5	1.5

Mi-Wave's 630/635 Series E/H Hybrid and Magic Tees consist of three mutually perpendicular flanged sections of a standard waveguide. Two of these sections are symmetrically located on the walls of the main tee section to provide E-plane and H-plane connections.

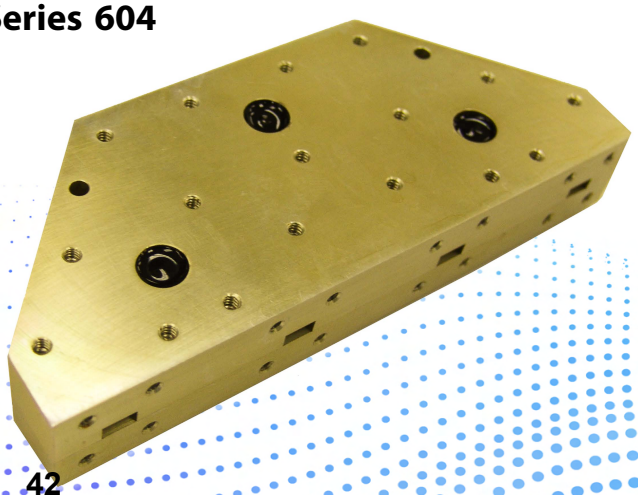
Series 630

4 – Way Power Divider | Combiner (Series 604)

Model	Band	Frequency (GHz)	Isolation (E-H)	Insertion Loss (dB)	Power Imbalance (± dB)
604K/595	K-Band	18-26.5	20	2	0.5
604A/599	Ka-Band	26.5-40	20	2	0.5
604B/383	Q-Band	33-50	20	2	0.5
604U/383	U-Band	40-60	20	2	0.7
604V/385	V-Band	50-75	20	2	0.8
604E/387	E-Band	60-90	20	2	0.8
604W/387	W-Band	90-140	20	2	0.8
604F/387	F-Band	75-110	20	2	1.2
604D/387	D-Band	110-170	20	2	1.3
604G/387	G-Band	140-220	20	2	1.6
604H/387	H-Band	170-260	22	2	1.6
604J/387	J-Band	220-325	20	2	2.1

Mi-Wave's 604 Series Four-way Power Divider, inherently-matched 2 dB power splitting devices. Available in standard waveguide sizes from 8.0 to 325.0 GHz, these units are capable of in-phase splitting.

Series 604



Series 608

8 – Way Power Divider | Combiner (Series 608)

Mi-Wave's 608 Series Eight-way Power Divider, inherently-matched 3 dB power splitting devices. Available in standard waveguide sizes from 18.0 to 220.0 GHz, these units are capable of in-phase splitting.

Model	Band	Frequency (GHz)	Isolation (E-H)	Insertion Loss (dB)	Power Imbalance (± dB)
608K/595	K-Band	18-26.5	20	2.6	0.8
608A/599	Ka-Band	26.5-40	20	3	1
608B/383	Q-Band	33-50	20	2.5	1
608U/383	U-Band	40-60	20	3	1
608V/385	V-Band	50-75	20	3.6	1
608E/387	E-Band	60-90	20	3.8	1
608W/387	W-Band	75-110	20	4.5	1
608F/387	F-Band	90-140	20	6.5	1
608D/387	D-Band	110-170	20	7	1
608G/387	G-Band	140-220	20	8.5	1

E-Planes and H-Planes Tees (Series 640/650)

Mi-Wave's 640 Series E-plane Tees consist of a length of standard flanged waveguide with a perpendicular E-plane coupling arm symmetrically located on the broad waveguide wall. Input power is divided equally and in the opposite phase between the two outputs.

Similarly, the 650 Series H-plane Tees feature an H-plane coupling arm located on the narrow waveguide wall. Power at the coupling arm input is divided into equal signals in phase at the main outputs. These devices are available in standard waveguide sizes from 12.4 to 110 GHz. Neither the 640 Series or the 650 Series Tees have matched junctions and therefore are not recommended for low VSWR applications.

Series 640

Orthomode Transducers OMT (Series 281)

Mi-Wave's 608 Series Eight-way Power Divider, inherently-matched 3 dB power splitting devices. Available in standard waveguide sizes from 18.0 to 220.0 GHz, these units are capable of in-phase splitting.

Model	Band	Frequency (GHz)	Circular Antenna Port Internal Diameter (inches)(.XXX in Model No.)	Flange	Bandwidth (GHz)	Isolation (H to V)(dB)	Cross Polarization (Port)
281X-XX/.XXX	X-Band	8-9.97 8.5-11.6 9.7-12.4	Option 1 1.094" ID Circular Waveguide Option 2 .938" ID Circular Waveguide Option 3 .797" ID Circular Waveguide	UG-90/U	1.5	35	(H to A): 30 (V to A): 30
281Ku-XX/.XXX/419	Ku-Band	12.4-14.6 14.6-17.5	Option 1 .660" ID Circular Waveguide Option 2 .550" ID Circular Waveguide	UG-419/U	2	35	(H to A): 30 (V to A): 30
281K-XX/.XXX/595	K-Band	17.5- 20.5 20.5-24.5 24.5-26.5	Option 1 .470" ID Circular Waveguide Option 2 .396" ID Circular Waveguide Option 3 .328" ID Circular Waveguide	UG-595/U	3	35	(H to A): 30 (V to A): 30
281A-XX/.XXX/599	Ka-Band	26.5-28.5 28.5-33 33-38.5 38.5-40	Option 1 .328" ID Circular Waveguide Option 2 .281" ID Circular Waveguide Option 3 .250" ID Circular Waveguide Option 4 .219" ID Circular Waveguide	UG-599/U	5.5	35	(H to A): 30 (V to A): 30
281B-XX/.XXX/383	Q-Band	26.5-28.5 28.5-33 33-38.5 38.5-40	Option 1 .328" ID Circular Waveguide Option 2 .281" ID Circular Waveguide Option 3 .250" ID Circular Waveguide Option 4 .219" ID Circular Waveguide	UG-383/U	4	30	(H to A): 30 (V to A): 30
281U-XX/.XXX/383	U-Band	40-43 43-50 50-58 58-60	Option 1 .219" ID Circular Waveguide Option 2 .188" ID Circular Waveguide Option 3 .165" ID Circular Waveguide (50-58 GHz) Option 4 .141" ID Circular Waveguide (58-60 GHz)	UG-383/U-M	5	30	(H to A): 30 (V to A): 30
281V-XX/.XXX/385	V-Band	50-58 58-68 68-75	Option 1 .165" ID Circular Waveguide Option 2 .141" ID Circular Waveguide Option 3 .125" ID Circular Waveguide	UG-385/U	5	30	(H to A): 30 (V to A): 30
281E-XX/.XXX/387	E-Band	60-68 68-77 77-87 87-90	Option 1 .141" ID Circular Waveguide Option 2 .125" ID Circular Waveguide Option 3 .110" ID Circular Waveguide (77-87 GHz) Option 4 .094" ID Circular Waveguide (87-90 GHz)	UG-387/U	6	30	(H to A): 30 (V to A): 30
281W-XX/.XXX/387	W-Band	75-77 77-87 87-100 100-110	Option 1 .125" ID Circular Waveguide Option 2 .110" ID Circular Waveguide Option 3 .094" ID Circular Waveguide (87-100 GHz) Option 4 .082" ID Circular Waveguide (100-110 GHz)	UG-387/U-M	6	30	(H to A): 30 (V to A): 30
281F-XX/.XXX/387	F-Band	90-100 100-112 112-125 125-140	Option 1 .094" ID Circular Waveguide Option 2 .082" ID Circular Waveguide Option 3 .075" ID Circular Waveguide Option 4 .067" ID Circular Waveguide	UG-387/U-M	6	25	(H to A): 25 (V to A): 25
281D-XX/.XXX/387	D-Band	110-112 112-125 125-160 160-170	Option 1 .082" ID Circular Waveguide Option 2 .075" ID Circular Waveguide Option 3 .067" ID Circular Waveguide Option 4 .059" ID Circular Waveguide	UG-387/U-M	7	25	(H to A): 25 (V to A): 25
281G-XX/.XXX/387	G-Band	125-140 140-220	Option 1 .067" ID Circular Waveguide Option 2 .059" ID Circular Waveguide	UG-387/U-M	20		(H to A): 20 (V to A): 20

Series 281

Series 91X

Series 530

Pin Diode MMIC Switches (Series 91X)

Mi-Wave offers Pin Diode MMIC Switches such as SPST, SPDT, SP3T, SP4T, SP6T, SP8T, SP12T, or others in the 100MHz to 110GHz range. These reflective switches combine low loss, high isolation performance with TTL driver in a compact package.
Various driver options are available in higher isolation versions up to 60 dB. These switches can also be supplied without drivers.

Model	Band	Type	Frequency (GHz)	Isolation (dB)	Insertion Loss (dB)	Max RF Input Power (CW)	Switching Speed (ns)	Ports
914-0/40/KF/TTL	Broad-Band	SP4T	DC-40	30	4		10	Coaxial - K (2.92mm) Female
912-20/55/VF	Broad-Band	SPDT	18-50	50	6	23	100	Coaxial - (1.85mm) Female
912-20/55/VF	Broad-Band	SPDT	18-25	50	6	23	100	Coaxial - (1.85mm) Female
911AF/599TTL	Ka-Band	SPST	26.5-40	30	3	23	50	WR-28 Waveguide, UG-599/U Flange
9112A-28.75/60/KF	Ka-Band	SP12T	26.5-40	60	7	23	50	WR-28 Waveguide, UG-599/U Flange
912AF/KF	Ka-Band	SPDT	26.5-40	30	3.5	23	50	K-Female Connector
914AF-30/383TTL	Ka-Band	SPST	26.5-40	30	6.5	23	30	WR-28 Waveguide, UG-599/U Flange
911BF/383TTL	Q-Band	SPST	33-50	30	3	23	50	WR-22 Waveguide, UG-383/U Flange
912BF/383TTL	Q-Band	SP2T	33-50	30	4	23	50	WR-22 Waveguide, UG-383/U Flange
914BF-30/383TTL	Q-Band	SP4T	33-50	30	6.5	23	30	WR-22 Waveguide, UG-383/U Flange
911EF/387TTL	E-Band	SPST	60-90	30	3	23	50	WR-12 Waveguide, UG-387/U Flange
918EF-50/1mmF	E-Band	SP8T	60-90	50	11	23	50	Coaxial - 1.00 mm Female
912EF/387TTL	E-Band	SPDT	60-90	30	4	23	50	WR-12 Waveguide, UG-387/U-M
914EF-30/387TTL	E-Band	SP4T	60-90	30	6.5	23	30	WR-12 Waveguide, UG-387/U-M
911UF/383TTL	U-Band	SPST	40-60	30	3	23	50	WR-19 Waveguide, UG-383/U-M
912UF/383TTL	U-Band	SPDT	40-60	30	4	23	50	WR-19 Waveguide, UG-383/U-M
914UF-30/383TTL	U-Band	SP4T	40-60	30	6.5	23	30	WR-19 Waveguide, UG-383/U-M
911VF/385TTL	V-Band	SPST	50-75	30	3	23	50	WR-15 Waveguide, UG-385/U-M
912VF/385TTL	V-Band	SPDT	50-75	30	4	23	50	WR-15 Waveguide, UG-385/U-M
914VF-30/385TTL	V-Band	SP4T	50-75	30	6.5	23	30	WR-15 Waveguide, UG-385/U Flange
911WF/387TTL	W-Band	SPST	75-110	30	3	23	50	WR-10 Waveguide, UG-387/U-M
912WF-30/387	W-Band	SPDT	75-110	30	4	23	50	WR-10 Waveguide, UG-387/U-M
914WF-35/387TTL	W-Band	SP4T	75-110	30	6.5	23	30	WR-10 Waveguide, UG-387/U-M

Four Position Manual Waveguide Switch (Series 530)

Mi-Wave's 530 Series Manual Switches are designed for use in standard millimeter wave frequency bands from 8.4 to 325 GHz.
Each unit will operate over the full waveguide bandwidth with minimum insertion loss, minimum VSWR, and maximum isolation between coupled and uncoupled waveguide sections.

Model	Band	Frequency (GHz)	Insertion Loss (dB)	VSWR	Isolation (dB)	Power Handling (CW)	RF Ports
530A/599	Ka-Band	26.5-40	0.3	1.15:1	60	100W	WR-28 Waveguide UG-599/U Flange
530B/383	Q-Band	33-50	0.3	1.15:1	60	100W	WR-22 Waveguide UG-383/U Flange
530U/382	U-Band	40-60	0.3	1.15:1	60	100W	WR-22 Waveguide UG-383/U-M Flange
530V/385	V-Band	50-75	0.4	1.15:1	60	100W	WR-15 Waveguide UG-385/U Flange
530E/387	E-Band	60-90	0.5	1.15:1	60	100W	WR-12 Waveguide UG-387/U Flange
530W/387	W-Band	75-110	0.4	1.15:1	60	100W	WR-10 Waveguide UG-387/U-M Flange
530F/387	F-Band	90-140	0.7	1.15:1	50	100W	WR-8 Waveguide UG-387/U-M Flange
530D/387	D-Band	110-170	0.7	1.15:1	50	100W	WR-06 Waveguide UG-387/U-M Flange
530G/387	G-Band	140-220	1	1.25:1	45	100W	WR-5 Waveguide UG-387/U-M Flange
530H/387	H-Band	170-260	1	1.25:1	45	100W	WR-04 Waveguide UG-387/U-M Flange
530J/387	J-Band	220-325	2	1.30:1	40	100W	WR-3 Waveguide UG-387/U-M Flange

Electromechanical Waveguide Switches (Series 535)

Each of Mi-Wave's 535 Series Waveguide Switches consists of a waveguide switch selection similar to the 530 Series switch and a rotary motor encased in a machined housing.

The 535 Series Solenoid Switches are used in applications that require remote-controlled or timed transmission line switching. They are particularly useful in operational systems and test setups where they supply a variety of switching combinations

Model	Band	Frequency (GHz)	Insertion Loss (dB)	Isolation	Power Handling (CW)	Bias Voltage (V)	Bias Current (mA)	Switching Speed (sec)	RF Ports
535A/599TTL	Ka-Band	26.5-40	0.3	60	100W	12 to 15	150	0.5	WR-28 Waveguide UG-599/U Flange
535B/383TTL	Q-Band	33-50	0.3	70	100W	12 to 15	150	0.5	WR-22 Waveguide UG-383/U Flange
535U/383TTL	U-Band	40-60	0.3	70	100W	12 to 15	150	0.5	WR-19 Waveguide UG-383/U-M Flange
535V/385/TTL	V-Band	50-75	0.4	70	100W	12 to 15	150	0.5	WR-15-Waveguide UG-385/U Flange
535E/387TTL	E-Band	60-90	0.4	70	100W	12 to 15	150	0.5	WR-12 Waveguide UG-387/U Flange
535W/387TTL	W-Band	75-110	0.5	70	100W	12 to 15	150	0.5	WR-10 Waveguide UG-387/U-M Flange
535F/387TTL	F-Band	90-140	0.8	60	100W	12 to 15	150	0.5	WR-8 Waveguide UG-387/U-M Flange
535D/387TTL	D-Band	110-170	1	60	100W	12 to 15	150	0.5	WR-6 Waveguide UG-387/U-M Flange
535G/387TTL	G-Band	140-220	1.3	60	100W	12 to 15	150	0.5	WR-5 Waveguide UG-387/U-M Flange

Low Power Terminations(Series 580)

Mi-Wave's 580 Series Terminations are designed with standard waveguide flanges for use from 5 to 500 GHz. Each unit consists of a short length of waveguide and an integral matched terminal load. Individual resistive dielectric loads are tapered to precise wedge configurations for maximum effective energy absorption. The gradual taper provides a low VSWR over the full waveguide bandwidth.

Model	Band	Frequency (GHz)	Power Handling (CW)	VSWR	RF Ports
580K/595	K-Band	18-26.5	6 W	1.05:1	WR-42 Waveguide, UG-595/U
580(34)/595	WR-34	22-33	5 W	1.05:2	WR-34 Waveguide, UG-595
580A/381	Ka-Band	26.5-40	5 W	1.05:3	WR-28 Waveguide, UG-381/U Flange
580B/383	Q-Band	33-50	4 W	1.05:4	WR-22 Waveguide, UG-383/U Flange
580U/383	U-Band	40-60	2 W	1.06:1	WR-19 Waveguide, UG-383/U Flange
580V/385	V-Band	50-75	1 W	1.06:1	WR-15 Waveguide, UG-385/U Flange
580E/387	E-Band	60-90	0.6 W	1.06:1	WR-12 Waveguide, UG-387/U Flange
580W/387	W-Band	75-110	0.4 W	1.06:1	WR-10 Waveguide, UG-387/U Flange
580F/387	F-Band	90-140	0.2 W	1.10:1	WR-8 Waveguide, UG-387/U Flange
580D/387	D-Band	110-170	0.1	1.1	WR-6 Waveguide, UG-387/U-M Flange
580G/387	G-Band	140-220	0.1 W	1.1	WR-5 Waveguide, UG-387/U Flange
580H/387	H-Band	170-260	0.05 W	1.05:1	WR-4 Waveguide, UG-387/U Flange
580J/387	J-Band	220-325	0.02 W	1.05:1	WR-3 Waveguide, UG-387/U Flange
580(2.2)/387	WR-2.2	325-500		1.06:1	WR-2.2 Waveguide, UG-387/U Flange

Series 535

Series 580

Medium Power Terminations (Series 581)

Mi-Wave's 581 Series Terminations are designed with standard waveguide flanges for use from 12.4 to 220 GHz. Each unit consists of a short length of waveguide and an integral matched terminal load. Individual resistive dielectric loads are tapered to precise wedge configurations for maximum effective energy absorption. The gradual taper provides a low VSWR over the full waveguide bandwidth.

Model	Band	Frequency (GHz)	Power Handling (CW)	VSWR	RF Ports
581X/UG39	X-Band	8.2-12.4	10 W	1.10:1	WR-90 Waveguide, UG-339/U Flange
581A/599	Ka-Band	26.5-40	7 W	1.10:1	WR-28 Waveguide, UG-599/U Flange
581B/383	Q-Band	33-50	5 W	1.10:1	WR-22 Waveguide, UG-383/U Flange
581U/383	U-Band	40-60	3 W	1.10:1	WR-19 Waveguide, UG-383/U Flange
581V/385	V-Band	50-75	2 W	1.10:1	WR-15 Waveguide, UG-385/U Flange
581E/387	E-Band	60-90	1.8	1.10:1	WR-12 Waveguide, UG-387/U Flange
581W/387	W-Band	75-110	1.2 W	1.10:1	WR-10 Waveguide, UG-387/U Flange
581F/387	F-Band	90-140	0.4 W	1.10:1	WR-8 Waveguide, UG-387/U Flange
581D/387	D-Band	110-170	0.3 W	1.15	WR-6 Waveguide UG-387/U-M Flange
581G/387	G-Band	140-220	0.2 W	1.15:1	WR-5 Waveguide, UG-387/U-M Flange
581H/387	H-Band	170-260	0.2 W	1.15:1	WR-4 Waveguide, UG-387/U Flange

High Power Load Terminations (Series 582)

Mi-Wave's 582 Series Terminations are designed with standard waveguide flanges for use from 12.4 to 220 GHz. Each unit consists of a short length of the waveguide and an integral matched terminal load. Individual resistive dielectric loads are tapered to precise wedge configurations for maximum effective energy absorption.

Model	Band	Frequency (GHz)	Power Handling (CW)	VSWR	RF Ports
582A/599	Ka-Band	26.5-40	75W	1.10:1	WR-28 Waveguide, UG-599/U Flange
582B/383	Q-Band	33-50	50 W	1.10:1	WR-22 Waveguide, UG-383/U Flange
582U/383	U-Band	40-60	10 W	1.10:1	WR-19 Waveguide, UG-383/U Flange
582V/385	V-Band	50-75	10 W	1.10:1	WR-15 Waveguide, UG-385/U Flange
582E/387	E-Band	60-90	10W	1.10:1	WR-12 Waveguide, UG-387/U Flange
582W/387	W-Band	75-110	10 W	1.10:1	WR-10 Waveguide, UG-387/U Flange
582F/387	F-Band	90-140	5.0 W	1.10:1	WR-8 Waveguide, UG-387/U Flange
582D/387	D-Band	110-170	2 W	1.15:1	WR-6 Waveguide with UG-387/U-M Flange
582G/387	G-Band	140-220	1.0 W	1.15:1	WR-5 Waveguide, UG-387/U-M Flange
582H/387	H-Band	170-260	0.5 W	1.2:1	WR-4 Waveguide, UG-387/U Flange
582J/387	J-Band	220-325	0.25 W	1.2:1	WR-4 Waveguide, UG-387/U Flange

Series 581

Series 582

Circular to Rectangular Waveguide Transitions & Adapters (Series 284)

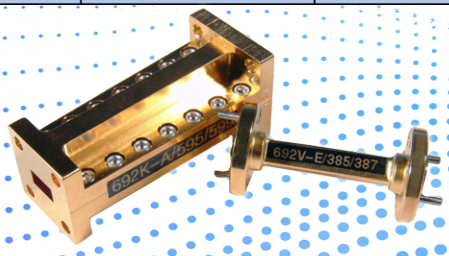
Mi-Wave's 284 series tapered mode transitions is a precision-formed adapter used to transform rectangular TE10 mode waveguide to a circular TE11 mode waveguide. Mainly used in antenna systems and associated components to adapt to the conventional waveguides.

Model	Band	Frequency (GHz)	Circular Waveguide Port Internal Diameter (inches)	Bandwidth (GHz)	Flange
284X-.XXX/39	X-Band	8-9.97 8.5-11.6 9.7-12.4	Option 1 1.094" ID Circular Waveguide Option 2 .938" ID Circular Waveguide Option 3 .797" ID Circular Waveguide	Def. by ID	UG-39/U
284Ku-.XXX/419	Ku-Band	12.4-14.6 14.6-17.5	Option 1 .660" ID Circular Waveguide Option 2 .550" ID Circular Waveguide	Def. by ID	UG-419/U
284K-.XXX/595	K-Band	17.5- 20.5 20.5-24.5 24.5-26.5	Option 1 .470" ID Circular Waveguide Option 2 .396" ID Circular Waveguide Option 3 .328" ID Circular Waveguide	Def. by ID	UG-595/U
284A-.XXX/599	Ka-Band	26.5-28.5 28.5-33 33-38.5	Option 1 .328" ID Circular Waveguide Option 2 .281" ID Circular Waveguide Option 3 .250" ID Circular Waveguide	Def. by ID	UG-599/U
284B-.XXX/383	Q-Band	26.5-28.5 28.5-33 33-38.5	Option 1 .250" ID Circular Waveguide Option 2 .219" ID Circular Waveguide Option 3 .188" ID Circular Waveguide	Def. by ID	UG-383/U Flange
284U-.XXX/383	U-Band	40-43 43-50 50-58	Option 1 .219" ID Circular Waveguide Option 2 .188" ID Circular Waveguide Option 3 .165" ID Circular Waveguide	Def. by ID	UG-383
284V-.XXX/385	V-Band	50-58 58-68 68-75	Option 1 .165" ID Circular Waveguide Option 2 .141" ID Circular Waveguide Option 3 .125" ID Circular Waveguide	Def. by ID	UG-385
284E-.XXX/387	E-Band	60-68 68-77 77-87	Option 1 .141" ID Circular Waveguide Option 2 .125" ID Circular Waveguide Option 3 .110" ID Circular Waveguide	Def. by ID	UG-387/U
284W-.XXX/387	W-Band	75-77 77-87 87-100	Option 1 .125" ID Circular Waveguide Option 2 .110" ID Circular Waveguide Option 3 .094" ID Circular Waveguide	Def. by ID	UG-387/U-M
284F-.XXX/387	F-Band	90-100 100-112 112-125	Option 1 .094" ID Circular Waveguide Option 2 .082" ID Circular Waveguide Option 3 .075" ID Circular Waveguide	Def. by ID	UG-387/U-M
284D-.XXX/387	D-Band	110-112 112-125 125-160	Option 1 .082" ID Circular Waveguide Option 2 .075" ID Circular Waveguide Option 3 .067" ID Circular Waveguide	Def. by ID	UG-387/U-M
284G-.XXX/387	G-Band	125-140 140-220	Option 1 .067" ID Circular Waveguide Option 2 .059" ID Circular Waveguide	Def. by ID	UG-387/U-M
284H-.XXX/387	H-Band	170	Option 1 .059" ID Circular Waveguide	Def. by ID	UG-387/U-M
284J-.XXX/387	J-Band	140-220	Option 1 .049" ID Circular Waveguide	Def. by ID	UG-387/U-M

Rectangular Waveguide – to – Rectangular Waveguide Adapters (Series 692)

Mi-Wave's 692 Series Rectangular Waveguide Adapters come with standard flanges for two different waveguide sizes. In each transition, the fabrication process allows precise control of taper dimensions to provide a good impedance match. As a result, high mode purity is maintained in the transfer process with minimum VSWR effects and energy loss.

Model	Band	Frequency (GHz)	RF Port	VSWR
692X-B/39/383	X-Band Q-Band	8.2-12.4 33-50	WR-90 Waveguide with UG-39/U Flange WR-22 Waveguide, UG-383/U Flange	1.10:1
692X-Ku/39/419	X-Band Ku-Band	8.2-12.4 12.4-18	WR-90 Waveguide with UG-39/U Flange WR-62 Waveguide, UG-419/U Flange	1.10:1
692Ku-K/419/595	Ku-Band K-Band	12.4-118 18-26.5	WR-62 Waveguide, UG-419/U Flange WR-42 Waveguide, UG-595/U Flange	1.10:1
692K-B/595/383	K-Band Q-Band	18-26.5 33-50	WR-42 Waveguide, UG-595/U Flange WR-22 Waveguide, UG-383/U Flange	1.10:1
692K-A/595/599	K-Band Ka-Band	18-26.5 26.5-40	WR-42 Waveguide, UG-595/U Flange WR-28 Waveguide, UG-599/U Flange	1.10:1
692A-H/599/387	Ka-Band H-Band	26.5-40 170-260	WR-28 Waveguide, UG-599/U Flange WR-04 Waveguide, UG-387/U-M Flange	1.15:1
692A-U/599/383	Ka-Band U-Band	26.5-40 40-60	WR-28 Waveguide, UG-599/U Flange WR-19 Waveguide, UG-383/U-M Flange	1.10:1
692A-V/599/385	Ka-Band V-Band	26.5-40 50-75	WR-28 Waveguide, UG-599/U Flange WR-15 Waveguide, UG-385/U Flange	1.10:1
692B-U/383	Q-Band U-Band	33-50 40-60	WR-22 Waveguide, UG-383/U Flange WR-19 Waveguide, UG-383/U-M Flange	1.10:1
692B-V/383/385	Q-Band V-Band	33-50 50-75	WR-22 Waveguide, UG-383/U Flange WR-15 Waveguide, UG-385/U Flange	1.10:1
692U-V/383/385	U-Band V-Band	40-60 50-75	WR-19 Waveguide, UG-383/U-M Flange WR-15 Waveguide, UG-385/U Flange	1.10:1
692V-E/385/387	V-Band E-Band	50-75 60-90	WR-15 Waveguide, UG-385/U Flange WR-12 Waveguide, UG-387/U Flange	1.10:1
692E-W/387	E-Band W-Band	60-90 75-110	WR-12 Waveguide, UG-387/U Flange WR-10 Waveguide, UG-387/U-M Flange	1.10:1
692W-D/387	W-Band D-Band	75-110 110-170	WR-10 Waveguide, UG-387/U-M Flange WR-06 Waveguide, UG-387/U-M Flange	1.15:1
692W-F/387	W-Band F-Band	75-110 90-140	WR-10 Waveguide, UG-387/U-M Flange WR-8 Waveguide, UG-387/U-M Flange	1.12:1
692W-J/387	W-Band J-Band	75-110 220-325	WR-10 Waveguide, UG-387/U-M Flange WR-03 Waveguide, UG-387/U-M Flange	1.15:1
692F-D/387	F-Band D-Band	90-140 110-170	WR-08 Waveguide, UG-387/U Flange WR-06 Waveguide, UG-387/U-M Flange	1.15:1
692D-G/387	D-Band G-Band	110-170 140-220	WR-06 Waveguide, UG-387/U-M Flange WR-05 Waveguide, UG-387/U-M Flange	1.15:1
692G-H/387	G-Band H-Band	140-220 170-260	WR-05 Waveguide, UG-387/U Flange WR-04 Waveguide, UG-387/U-M Flange	1.25:1
692H-J/387	H-Band J-Band	170-260 220-325	WR-04 Waveguide, UG-387/U Flange WR-03 Waveguide, UG-387/U-M Flange	1.25:1
692J-(2.2)/387	J-Band WR-2.2	220-325 330-500	WR-03 Waveguide, UG-387/U Flange WR-2.2 Waveguide, UG-387/U-M Flange	1.25:1



Mi-Wave's 410 Series Waveguide to Coax Adapter allows an efficient method of adapting from a rectangular waveguide to a coaxial connector. Full waveguide bands are available from 8.2 to 110 GHz.

Model	Band	Frequency (GHz)	Insertion Loss (dB)	Return Loss (dB)	Power Handling (W)	Waveguide Port	Coaxial Port
410X/39/NF	X-Band	8.2-12.4	0.4	16	400	WR-90 Waveguide, UG-39/U Flange	NF- Female connector
410X/39/SMAF	X-Band	8.2-12.4	0.4	17	150	WR-90 Waveguide, UG-39/U Flange	SMA- Female connector
410X/39/SMAM	X-Band	8.2-12.4	0.4	16	150	WR-90 Waveguide, UG-39/U Flange	SMA-Male connector
410(51)/UBR180/CKF	WR-51	15-12	0.3	20	10	WR-51 Waveguide, UBR180 Flange w "O" Ring	CK-Female connector
410(34)/596/KF	WR-34	22-33	0.4	20	10	WR-34 Waveguide, UG-596 Flange w "O" Ring	K-Female connector
410(34)/595/KF	WR-34	22-33	0.4	17	10	WR-34 Waveguide, UG-596 Flange w "O" Ring	K-Female connector
410(34)/595/3.5mmF	WR-35	22-33	0.4	20	10	WR-34 Waveguide, UG-596 Flange w "O" Ring	3.5 mm Female Connector
410(75)/SMAF	WR-75	10-15.0	0.3	20	150	WR-75 Waveguide	SMA Female
410Ku/419/SMAF	Ku-Band	12.4-18	0.3	20	150	WR-62 Waveguide, UG-419 Flange	SMA Female
410K/595/SMAF	K-Band	18-26.5	0.4	20	150	WR-42 Waveguide with UG-595/U Flange	SMA-Female
410K/595/KF	K-Band	18-26.5	0.4	20	10	WR-42 Waveguide, UG-595/U Flange	K-Female connector
410A/599/KF	Ka-Band	26.5-40	0.4	20	10	WR-28 Waveguide, UG-599/U Flange	K-Female connector
410A/599/KM	Ka-Band	26.5-40	0.4	20	10	WR-28 Waveguide, UG-599/U Flange	K-Male connector
410B/383/KF	Q-Band	33-40	0.5	20	10	WR-22 Waveguide with UG-383/U Flange	K-Female connector
410B/383/KM	Q-Band	33-40	0.4	20	10	WR-22 Waveguide with UG-383/U Flange	2.92mm (K) Male connector
410B/383/2.4mmF	Q-Band	33-50	0.4	20	10	WR-22 Waveguide, UG-383/U Flange	2.4 mm Female Connector
410B/383/2.4mmM	Q-Band	33-50	0.4	20	10	WR-22 Waveguide, UG-383/U Flange	2.4 mm Male Connector
410U/383/1.85mmF	U-Band	40-60	0.5	17	10	WR-19 Waveguide with UG-383/U-M Flange	1.85 mm Female connector
410U/383/1.85mmM	U-Band	40-60	0.5	17	10	WR-19 Waveguide with UG-383/U-M Flange	1.85 mm Male Connector
410V/385/1.85mmF	V-Band	50-67	0.5	17	10	WR-15 Waveguide With UG-385/U Flange	1.85 mm Female connector
410V/385/1.85mmM	V-Band	50-67	0.5	17	10	WR-15 Waveguide with UG-385/U Flange	1.85 mm Male connector
410V/385/1.85mmF	V-Band	50-67	0.5	17	10	WR-15 Waveguide with UG-385/U Flange	1.85 mm Female connector
410V/385/1.00mmF	V-Band	50-67	0.5	15	10	WR-15 Waveguide with UG-385/U Flange	1.00 mm Female connector
410E/387/1.00mmM	E-Band	60-90	1	15	10	WR-12 Waveguide, UG-387/U Flange	1.85 mm Male connector
410E/387/1.00mmF	E-Band	60-90	1	15	10	WR-12 Waveguide, UG-387/U Flange	1.00 mm Female connector
410W/387/1.00mmM	W-Band	75-110	1.2	15	10	WR-10 Waveguide, UG-387/U-M Flange	1.00 mm Male connector
410W/387/1.00mmF	W-Band	75-110	1.2	15	10	WR-10 Waveguide, UG-387/U-M Flange	1.00 mm Female connector

Model	Band	Frequency (GHz)	Insertion Loss (dB)	Return Loss (dB)	Power Handling (W)	Waveguide Port	Coaxial Port
411(34)/595/KF	WR-34	22-33	0.4	17	20	WR-34 Waveguide, UG-595/U-M Flange	K-Female (2.92) connector
411(34)/595/KM	WR-34	22-33	0.4	20	20	WR-34 Waveguide, UG-595/U-M Flange	K-Male (2.92) connector
411K/595/2.4mmF	K-Band	18.5-26.5	0.3	16	20	WR-42 Waveguide, UG-595/U Flange	K (2.92 mm) Female connector
411K/595/KM	K-Band	18.5-26.5	0.3	20	20	WR-42 Waveguide, UG-595/U Flange	K-Male connector
411K/595/2.4mmF	K-Band	18.5-26.5	0.3	17	20	WR-42 Waveguide, UG-595/U Flange	K (2.92 mm) Female connector
411K/595/SMAM	K-Band	18.5-26.5	0.4	20	20	WR-42 Waveguide, UG-595/U Flange	SMA-Male
411A/599/KM	Ka-Band	26.5-40	0.4	20	20	WR-28 Waveguide, UG-599/U Flange	K-Male (2.92) connector
411A/599/KF	Ka-Band	26.5-40	0.4	17	20	WR-28 Waveguide, UG-599/U Flange	K-Female (2.92) connector
411B/383/2.4mmM	Q-Band	33-50	0.7	17	15	WR-22 Waveguide, UG-383/U Flange	2.4mm Male connector
411B/383/2.4mmF	Q-Band	33-50	0.7	17	15	WR-22 Waveguide, UG-383/U Flange	2.4mm Female connector
411B/383/1.85mmF	Q-Band	33-50	0.7	20	15	WR-22 Waveguide, UG-383/U Flange	1.85mm Female connector
411B/383/1.85mmF	Q-Band	33-50	0.7	20	15	WR-22 Waveguide, UG-383/U Flange	1.85mm Female connector
411B/383/2.4mmM	Q-Band	33-40	0.7	17	15	WR-22 Waveguide, UG-383/U Flange	2.4mm Male connector
411B/719/2.4mmF	Q-Band	33-50	0.7	20	15	WR-22 Waveguide, UG-719/U Square Flange	2.4mm Female connector
411U/383/1.85mmF	U-Band	40-60	0.7	20	10	WR-19 Waveguide, UG-383/U-M Flange	1.85mm Female connector
411U/383/1.85mmM	U-Band	40-60	0.7	20	10	WR-19 Waveguide, UG-383/U-M Flange	1.85mm Male connector
411V/385/1.85mmF	V-Band	50-75	0.7	20	10	WR-15 Waveguide, UG-385/U Flange	1.85mm Female connector
411V/385/1.85mmM	V-Band	50-75	0.7	20	10	WR-15 Waveguide, UG-385/U Flange	1.85mm Male connector
411V/385/1.85mmF	V-Band	50-75	0.7	20	10	WR-15 Waveguide, UG-385/U Flange	1.85 mm Female connector
411V/385/1.00mmF	V-Band	50-75	1	15	5	WR-15 Waveguide, UG-385/U Flange	1.00 mm Female connector
411E/387/1.00mmF	E-Band	60-90	1	14	5	WR-12 Waveguide, UG-387/U Flange	1.00 mm Female connector
411E/387/1.00mmM	E-Band	60-90	1	14	5	WR-12 Waveguide, UG-387/U Flange	1.00 mm Male connector
411W/387/1.00mmF	W-Band	75-110	1	14	5	WR-10 Waveguide, UG-387/U-M Flange	1.00 mm Female connector
411W/387/1.00mmM	W-Band	75-110	1	14	5	WR-10 Waveguide, UG-387/U-M Flange	1.00 mm Male connector

E-plane Straight High Precision Waveguide (Series 690)

Mi-Wave's 410 Series Waveguide to Coax Adapter allows an efficient method of adapting from a rectangular waveguide to a coaxial

Model	Band	Frequency (GHz)	Guide Type	VSWR	RF Ports
690Ku-/419	Ku-Band	12.4-18	E-plane Straight	1.2:1	WR-42 , UG-595/U Flange
690K-/595	K-Band	18-26.5	E-plane Straight	1.2:1	WR-42 , UG-595/U Flange
690A-/599	Ka-Band	26.5-40	E-plane Straight	1.06:1	WR-28 , UG-381/U Flange
690B-/383	Q-Band	33-50	E-plane Straight	1.06:1	WR-22 , UG-383/U Flange
690U-/383	U-Band	40-60	E-plane Straight	1.06:1	WR-19 , UG-383/U Flange
690V-/385	V-Band	50-75	E-plane Straight	1.2:1	WR-15 , UG-385/U Flange
690E-/387	E-Band	60-90	E-plane Straight	1.06:1	WR-12 , UG-387/U Flange
690W-/387	W-Band	75-110	E-plane Straight	1.15:1	WR-10 , UG-387/U Flange
690F-/387	F-Band	90-140	E-plane Straight	1.15:1	WR-8 , UG-387/U Flange
690D-/387	D-Band	110-170	E-plane Straight	1.15:1	WR-6 , UG-387/U-M Flange
690G-/387	G-Band	140-220	E-plane Straight	1.15:1	WR-5 , UG-387/U Flange
690H-1/387	H-Band	170 – 260	E-plane Straight	1.15:1	WR-04, UG-387/U-M Flange
690J-1/387	J-Band	220 – 325	E-plane Straight	1.2:1	WR-03, UG-387/U-M Flange
690(2.2)-1/387	WR-2.2	325 – 500	E-plane Straight	1.04:1	WR-2.2, UG-387/U-M Flange

Waveguide Twists | High Precision (Series 680/681)

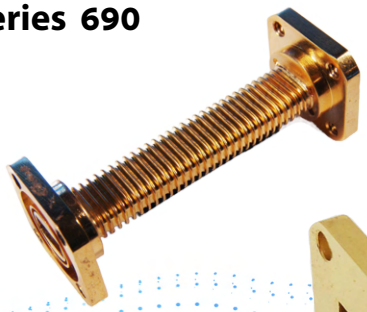
Mi-Wave's 680 Series Twists are short sections of standard flanged waveguide with left-hand or 45º twist configurations while the 681 Series Twists provide 90º twist configurations. The units are available in standard waveguide sizes from 8.2 to 325 GHz.

Model	Band	Frequency (GHz)	Angle	VSWR
680X/39	X-Band	8.2-12.4	45°	1.2:1
680K/595	K-Band	18-26.5	45°	1.2:1
680A/599	Ka-Band	26.5-40	45°	1.06:1
680B/383	Q-Band	33-50	45°	1.06:1
680U/383	U-Band	40-68	45°	1.06:1
680V/385	V-Band	50-75	45°	1.2:1
680E/387	E-Band	68-90	45°	1.06:1
680W/387	W-Band	75-110	45°	1.15:1
680F/387	F-Band	90-140	45°	1.15:1
680D/387	D-Band	110-170	45°	1.15:1
680G/387	G-Band	140-220	45°	1.15:1
680H/387	H-Band	170 – 268	45°	1.15:1
680J/387	J-Band	220 – 325	45°	1.15:1
681X/39	X-Band	8.2-12.4	90°	1.2:1
681K/595	K-Band	18-26.5	90°	1.2:1
681A/599	Ka-Band	26.5-40	90°	1.06:1
681B/383	Q-Band	33-50	90°	1.06:1
681U/383	U-Band	40-68	90°	1.06:1
681V/385	V-Band	50-75	90°	1.2:1
681E/387	E-Band	68-90	90°	1.06:1
681W/387	W-Band	75-110	90°	1.15:1
681F/387	F-Band	90-140	90°	1.15:1
681D/387	D-Band	110-170	90°	1.15:1
681G/387	G-Band	140-220	90°	1.15:1
681H/387	H-Band	170 – 268	90°	1.15:1
681J/387	J-Band	220 – 325	90°	1.15:1

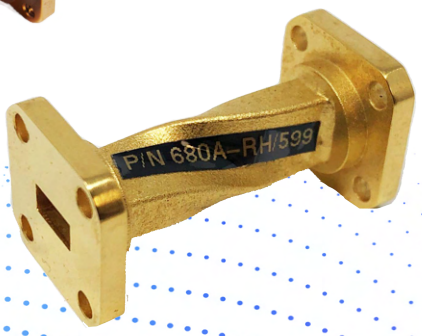
Series 410

Series 411

Series 690



Series 681



E-Plane | Waveguide Bends (Series 660,661,662,665)

Mi-Wave's 660, 661, 662 Series E-plane Bends are sections of high precision waveguide accurate taped to either 30° (661), 45° (665), 60° (662), or 90° (660) bends. Special angles, radii, and configurations for a particular application can be developed in a special order. All E-plane Series Bends are available from 12.4 to 320 GHz.

Model	Band	Frequency (GHz)	Angle	Plane	VSWR
660K/595	K-Band	18-26.5	90°	E-Plane	1.2:1
660A/599	Ka-Band	26.5-40	90°	E-Plane	1.06:1
660B/383	Q-Band	33-50	90°	E-Plane	1.06:1
660U/383	U-Band	40-68	90°	E-Plane	1.06:1
660V/385	V-Band	50-75	90°	E-Plane	1.2:1
660E/387	E-Band	68-90	90°	E-Plane	1.06:1
660W/387	W-Band	75-110	90°	E-Plane	1.15:1
660F/387	F-Band	90-140	90°	E-Plane	1.15:1
660D/387	D-Band	110-170	90°	E-Plane	1.15:1
660G/387	G-Band	140-220	90°	E-Plane	1.15:1
660H/387	H-Band	170 – 268	90°	E-Plane	1.15:1
660J/387	J-Band	220 – 325	90°	E-Plane	1.15:1
661K/595	K-Band	18-26.5	30°	E-Plane	1.2:1
661A/599	Ka-Band	26.5-40	30°	E-Plane	1.06:1
661B/383	Q-Band	33-50	30°	E-Plane	1.06:1
661U/383	U-Band	40-68	30°	E-Plane	1.06:1
661V/385	V-Band	50-75	30°	E-Plane	1.2:1
661E/387	E-Band	68-90	30°	E-Plane	1.06:1
661W/387	W-Band	75-110	30°	E-Plane	1.15:1
661F/387	F-Band	90-140	30°	E-Plane	1.15:1
661D/387	D-Band	110-170	30°	E-Plane	1.15:1
661G/387	G-Band	140-220	30°	E-Plane	1.15:1
661H/387	H-Band	170 – 268	30°	E-Plane	1.15:1
661J/387	J-Band	220 – 325	30°	E-Plane	1.15:1
662K/595	K-Band	18-26.5	60°	E-Plane	1.2:1
662A/599	Ka-Band	26.5-40	60°	E-Plane	1.06:1
662B/383	Q-Band	33-50	60°	E-Plane	1.06:1
662U/383	U-Band	40-68	60°	E-Plane	1.06:1
662V/385	V-Band	50-75	60°	E-Plane	1.2:1
662E/387	E-Band	68-90	60°	E-Plane	1.06:1
662W/387	W-Band	75-110	60°	E-Plane	1.15:1
662F/387	F-Band	90-140	60°	E-Plane	1.15:1
662D/387	D-Band	110-170	60°	E-Plane	1.15:1
662G/387	G-Band	140-220	60°	E-Plane	1.15:1
662H/387	H-Band	170 – 268	60°	E-Plane	1.15:1
662J/387	J-Band	220 – 325	60°	E-Plane	1.15:1
665K/595	K-Band	18-26.5	45°	E-Plane	1.2:1
665A/599	Ka-Band	26.5-40	45°	E-Plane	1.06:1
665B/383	Q-Band	33-50	45°	E-Plane	1.06:1
665U/383	U-Band	40-68	45°	E-Plane	1.06:1
665V/385	V-Band	50-75	45°	E-Plane	1.2:1
665E/387	E-Band	68-90	45°	E-Plane	1.06:1
665W/387	W-Band	75-110	45°	E-Plane	1.15:1
665F/387	F-Band	90-140	45°	E-Plane	1.15:1
665D/387	D-Band	110-170	45°	E-Plane	1.15:1
665G/387	G-Band	140-220	45°	E-Plane	1.15:1
665H/387	H-Band	170 – 268	45°	E-Plane	1.15:1
665J/387	J-Band	220 – 325	45°	E-Plane	1.15:1

H-Plane | Waveguide Bends (Series 670,671,672,675)

Mi-Wave's 670, 671, 672 Series H-plane Bends are sections of high precision waveguide accurate taped to either 30° (671), 45° (675), 60°(672), or 90° (670) bends. Special angles, radii, and configurations for a particular application can be developed in a special order. All H-plane Series Bends are available from 12.4 to 320 GHz.

Model	Band	Frequency (GHz)	Angle	Plane	VSWR
670K/595	K-Band	18-26.5	90°	H-Plane	1.2:1
670A/599	Ka-Band	26.5-40	90°	H-Plane	1.06:1
670B/383	Q-Band	33-50	90°	H-Plane	1.06:1
670U/383	U-Band	40-68	90°	H-Plane	1.06:1
670V/385	V-Band	50-75	90°	H-Plane	1.2:1
670E/387	E-Band	68-90	90°	H-Plane	1.06:1
670W/387	W-Band	75-110	90°	H-Plane	1.15:1
670F/387	F-Band	90-140	90°	H-Plane	1.15:1
670D/387	D-Band	110-170	90°	H-Plane	1.15:1
670G/387	G-Band	140-220	90°	H-Plane	1.15:1
670H/387	H-Band	170 – 268	90°	H-Plane	1.15:1
670J/387	J-Band	220 – 325	90°	H-Plane	1.15:1
671K/595	K-Band	18-26.5	30°	H-Plane	1.2:1
671A/599	Ka-Band	26.5-40	30°	H-Plane	1.06:1
671B/383	Q-Band	33-50	30°	H-Plane	1.06:1
671U/383	U-Band	40-68	30°	H-Plane	1.06:1
671V/385	V-Band	50-75	30°	H-Plane	1.2:1
671E/387	E-Band	68-90	30°	H-Plane	1.06:1
671W/387	W-Band	75-110	30°	H-Plane	1.15:1
671F/387	F-Band	90-140	30°	H-Plane	1.15:1
671D/387	D-Band	110-170	30°	H-Plane	1.15:1
671G/387	G-Band	140-220	30°	H-Plane	1.15:1
671H/387	H-Band	170 – 268	30°	H-Plane	1.15:1
671J/387	J-Band	220 – 325	30°	H-Plane	1.15:1
672K/595	K-Band	18-26.5	60°	H-Plane	1.2:1
672A/599	Ka-Band	26.5-40	60°	H-Plane	1.06:1
672B/383	Q-Band	33-50	60°	H-Plane	1.06:1
672U/383	U-Band	40-68	60°	H-Plane	1.06:1
672V/385	V-Band	50-75	60°	H-Plane	1.2:1
672E/387	E-Band	68-90	60°	H-Plane	1.06:1
672W/387	W-Band	75-110	60°	H-Plane	1.15:1
672F/387	F-Band	90-140	60°	H-Plane	1.15:1
672D/387	D-Band	110-170	60°	H-Plane	1.15:1
672G/387	G-Band	140-220	60°	H-Plane	1.15:1
672H/387	H-Band	170 – 268	60°	H-Plane	1.15:1
672J/387	J-Band	220 – 325	60°	H-Plane	1.15:1
675K/595	K-Band	18-26.5	45°	H-Plane	1.2:1
675A/599	Ka-Band	26.5-40	45°	H-Plane	1.06:1
675B/383	Q-Band	33-50	45°	H-Plane	1.06:1
675U/383	U-Band	40-68	45°	H-Plane	1.06:1
675V/385	V-Band	50-75	45°	H-Plane	1.2:1
675E/387	E-Band	68-90	45°	H-Plane	1.06:1
675W/387	W-Band	75-110	45°	H-Plane	1.15:1
675F/387	F-Band	90-140	45°	H-Plane	1.15:1
675D/387	D-Band	110-170	45°	H-Plane	1.15:1
675G/387	G-Band	140-220	45°	H-Plane	1.15:1
675H/387	H-Band	170 – 268	45°	H-Plane	1.15:1
675J/387	J-Band	220 – 325	45°	H-Plane	1.15:1

Circular Waveguides (Series 370)

Model	Band	Frequency (GHz)	Circular Waveguide Port Internal Diameter (inches)	Flange
370X-.XXX/39	X-Band	8-9.97 8.5-11.6 9.7-12.4	Option 1 1.094" ID Circular Waveguide Option 2 .938" ID Circular Waveguide Option 3 .797" ID Circular Waveguide	UG-39/U
370Ku-.550/419	Ku-Band	12.4-14.6 14.6-17.5	Option 1 .660" ID Circular Waveguide Option 2 .550" ID Circular Waveguide	UG-419/U
370K-.328/595	K-Band	17.5- 20.5 20.5-24.5 24.5-26.5	Option 1 .470" ID Circular Waveguide Option 2 .396" ID Circular Waveguide Option 3 .328" ID Circular Waveguide	UG-595/U
370A-.XXX/599	Ka-Band	26.5-28.5 28.5-33 33-38.5 38.5-40	Option 1 .328" ID Circular Waveguide Option 2 .281" ID Circular Waveguide Option 3 .250" ID Circular Waveguide Option 4 .219" ID Circular Waveguide	UG-599/U
370B-.XXX/383	Q-Band	26.5-28.5 28.5-33 33-38.5 38.5-40	Option 1 .250" ID Circular Waveguide Option 2 .219" ID Circular Waveguide Option 3 .188" ID Circular Waveguide	UG-383/U
370U-.219/383	U-Band	40-43 43-50 50-58 58-60	Option 1 .219" ID Circular Waveguide Option 2 .188" ID Circular Waveguide Option 3 .165" ID Circular Waveguide Option 4 .141" ID Circular Waveguide	UG-383
370V-.XXX/385	V-Band	50-58 58-68 68-75	Option 1 .165" ID Circular Waveguide Option 2 .141" ID Circular Waveguide Option 3 .125" ID Circular Waveguide	UG-385
370E-.XXX/387	E-Band	60-68 68-77 77-87 87-90	Option 1 .141" ID Circular Waveguide Option 2 .125" ID Circular Waveguide Option 3 .110" ID Circular Waveguide Option 4 .094" ID Circular Waveguide	UG-387/U
370W-.XXX/387	W-Band	75-77 77-87 87-100 100-110	Option 1 .125" ID Circular Waveguide Option 2 .110" ID Circular Waveguide Option 3 .094" ID Circular Waveguide Option 4 .082" ID Circular Waveguide	UG-387/U-M
370F-.XXX/387	F-Band	90-100 100-112 112-125 125-140	Option 1 .094" ID Circular Waveguide Option 2 .082" ID Circular Waveguide Option 3 .075" ID Circular Waveguide Option 4 .067" ID Circular Waveguide	UG-387/U-M
370D-.XXX/387	D-Band	110-112 112-125 125-160 160-170	Option 1 .082" ID Circular Waveguide Option 2 .075" ID Circular Waveguide Option 3 .067" ID Circular Waveguide Option 4 .059" ID Circular Waveguide	UG-387/U-M
370G-.XXX/387	G-Band	125-140 140-220	Option 1 .067" ID Circular Waveguide Option 2 .059" ID Circular Waveguide	UG-387/U-M
370H-.XXX/387	H-Band	170	Option 1 .059" ID Circular Waveguide	UG-387/U-M
370J-.049/387	J-Band	140-220	Option 1 .049" ID Circular Waveguide	UG-387/U-M

Mi-Wave's 370 Series flanged waveguide are available in standard sizes from 12.6 to 320 GHz. The 370 Series waveguide sections are fitted with Mi-Wave's standard male/female flanges.

Waveguide Calibration Kits (Series 780)

Mi-Wave's 780 Series Waveguide Calibration Kits are made to precisely calibrate Vector Network Analyzers (VNA) utilizing millimeter waveguide test heads or modules from 18 to 325 GHz. These kits provide the Short-Short-Load-Thru (SSLT) calibration method utilizing offset shorts and fixed precision termination.

Model	Band	Frequency (GHz)	VSWR	RF Ports
780K/595	K-Band	18-26.5	1:06:01	WR-42 Waveguide, UG-595/U Flange
780(34)/595	WR-34	22-33	1:06:01	WR-42 Waveguide, UG-595/U Flange
80A/599	Ka-Band	26.5-40	1:06:01	WR-28 Waveguide, UG-599/U Flange
780B/383	Q-Band	33-50	1:06:01	WR-22 Waveguide, UG-383/U Flange
780U/599	U-Band	40-60	1:06:01	WR-19 Waveguide, UG-599/U Flange
780V/385	V-Band	50-75	1:06:01	WR-15 Waveguide, UG-385/U Flange
780E/387	E-Band	60-90	1:06:01	WR-12 Waveguide, UG-387/U Flange
780W/387	W-Band	75-110	1:06:01	WR-10 Waveguide, UG-387/U Flange
780F/387	F-Band	90-140	1:06:01	WR-8 Waveguide, UG-387/U Flange
780D/387	D-Band	110-170	1:06:01	WR-6 Waveguide, UG-387/U-M Flange
780G/387	G-Band	140-220	1:06:01	WR-5 Waveguide, UG-387/U Flange

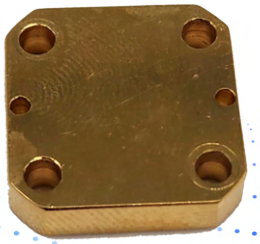
Adjustable Waveguide Short Circuits(Series 590)

Model	Band	Frequency (GHz)	Avg Power (Watts)
590Ku	Ku-Band	12.40-18	1.0
590K	K-Band	18-26.5	1.0
590A	Ka-Band	26.5-40	1.0
590B	Q-Band	33-50	0.7
590U	U-Band	40-60	0.3
590V	V-Band	50-75	0.3
590E	E-Band	60-90	0.3
590W	W-Band	75-110	0.2
590F	F-Band	70-140	0.1
590D	D-Band	110-170	0.1
590G	G-Band	140-220	0.1

Mi-Wave's 590 Series Waveguide Short Circuits are available in standard waveguide sizes from 12.4 to 325 GHz. The non-contacting choke type short circuit is designed to operate with high electrical stability over a broad range of frequencies.

Fixed Waveguide Short Circuits(Series 595)

Model	Band	Frequency (GHz)	Avg Power (Watts)
595Ku	Ku-Band	12.40-18	1.0
595K	K-Band	18-26.5	1.0
595A	Ka-Band	26.5-40	1.0
595B	Q-Band	33-50	0.7
595U	U-Band	40-60	0.3
595V	V-Band	50-75	0.3
595E	E-Band	60-90	0.3
595W	W-Band	75-110	0.2
595F	F-Band	70-140	0.1
595D	D-Band	110-170	0.1
595G	G-Band	140-220	0.1



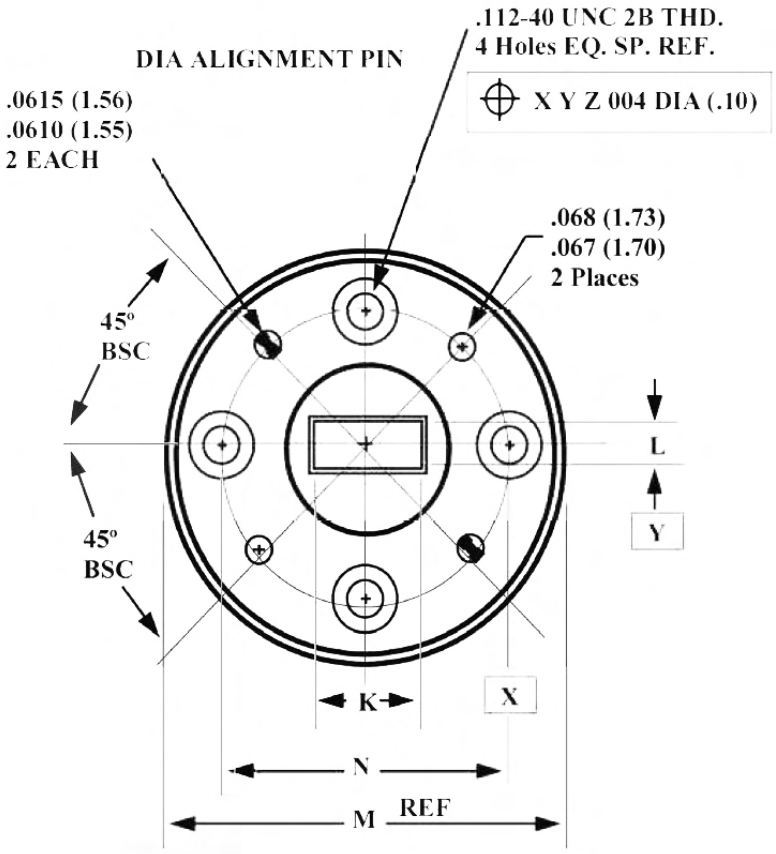
APPENDIX Rectangular Waveguides

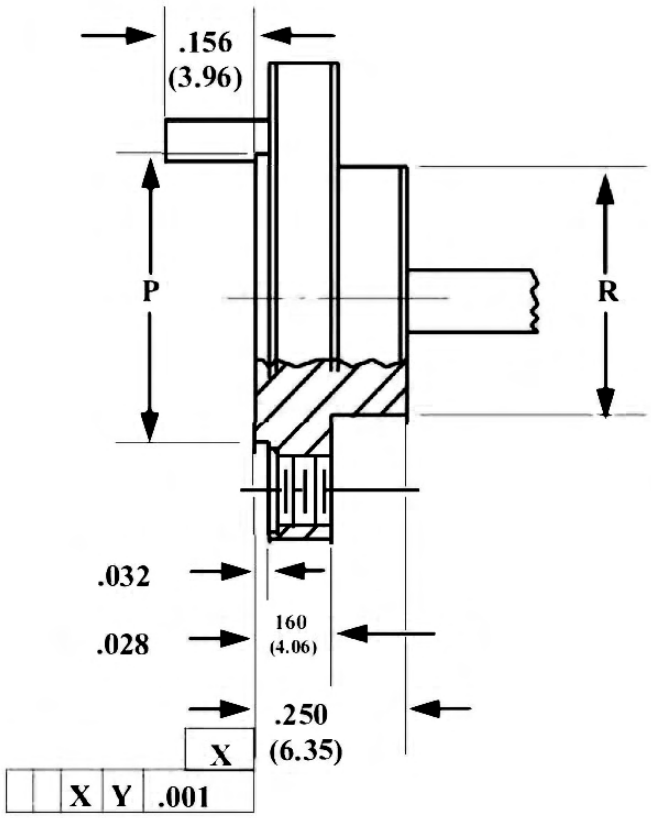
Rectangular Waveguides

			Recommended Operating Range for TE10 Mode		Cut-off TE10 Mode						
Mi-Wave Band	Waveguide Designator(s) (JAN&WR)	Waveguide Inner Dimentions in Inches	Frequency (GHz)	Wavelength (mm)	Frequency (GHz)	Wavelength (mm)	Theoritcal Power CW Breakdown Lowest to Highest Frequency (KW)	Theoritcal Attenuation Lowest to Highest Frequency (dB/ff)	Flange Type	Historic Designation	New MIL Part Number
Ku	WR-62 RG-91/U	0.622 x 0.311	12.40-18.00	24.2-16.6	9.486	31.60	400-600	.064-.030	Cover[1] Choke	UG-419/U UG-541/U	M3922/53-4/005 M3922/59-2/001
K	WR-42 RG-53/U	0.420 x 0.170	18.00-26.5	16.6-11.3	14.047	21.34	160-240	.17-.11	Cover[1] Choke Cover	UG-595/U UG-596A/U UG-425/U	M3922/54-4/001 M3922/59-2/003 M3922/67-2/004
A	WR-28 RG-96/U	0.280 x 0.140	26.50-40.00	11.3-7.5	21.081	14.22	95-145	0.22-0.15	Cover[1] Choke Cover	UG-599/U UG-600/U UG-381/U	M3922/54-4/003 M3922/59-2/005 M3922/67-2/005
B	WR-22 RG-97/U	0.224 x 0.112	33.00-50.00	9.1-6.0	26.342	11.38	62-90	0.31-0.21	Cover[12] Cover Cover	UG-383/U 719 719T	M3922/67-2/006 N/A N/A
U	WR-19	0.188 x 0.094	40.00-60.00	7.5-5.0	31.357	9.56	47-64	0.39-0.27	Cover' Cover Cover	UG-385/U-M 710 720T	M3922/67-2/007 N/A N/A
V	WR-15 RG-98/U	0.148 x 0.074	50.00-75.00	6.0-4.0	39.863	7.52	29-42	0.78-0.53	Cover[1]	UG-385/U	M3922/67-2/008
E	WR-12 RG-99/U	0.122 x 0.061	60.00-90.00	5.0-3.3	48.35	6.20	20-29	0.78-0.53	Cover[1]	UG-387/U	M3922/67-2/009 N/A
W	WR-10	0.100 x 0.050	75.00-110.0	4.0-2.7	59.01	5.08	14-20	1.02-0.71	Cover[12]	UG-387/U-M	M3922/67-2/010
F	WR-8 RG-138/U	0.080 x 0.040	90.00-140.0	3.3-2.1	73.764	4.06	8.5-13.5	1.52-0.98	Pin[1] Cover[2]	714 UG-387/U-M	M3922II4-001 N/A
D	WR-7 RG-136/U	0.065 x 0.0325	110.0-170.0	2.7-1.8	90.786	3.30	5.8-9.0	2.12-1.35	Pin[1] Cover[2]	716 UG-387/U-M	M3922II4-002 N/A
G	WR-5 RG-135/U	0.051 x 0.255	140.0-220.0	2.1-1.4	115.71	2.59	3.7-6.1	3.05-1.93	Pin[1] Cover[2]	715 UG-387/U-M	M3922II4-003 N/A

Modified (-M) means waveguide opening has been reduced appropriately. Screw and pin pattern are unchanged.

APPENDIX Round Contact Flanges

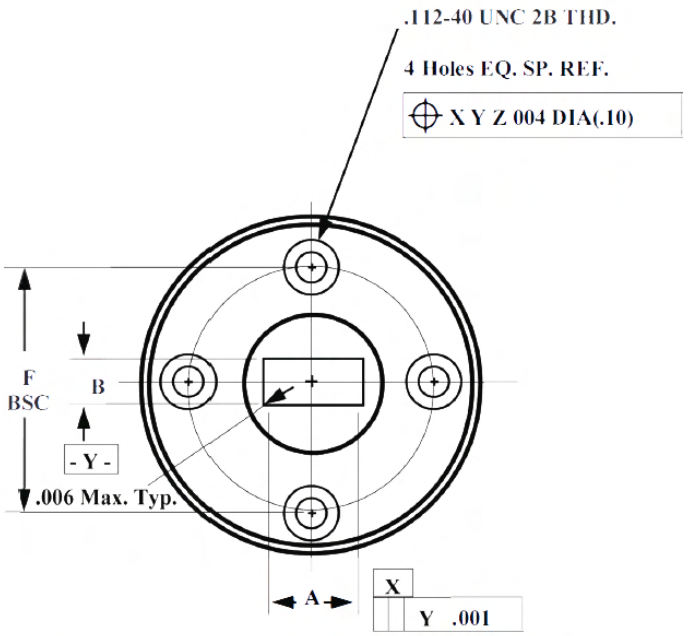


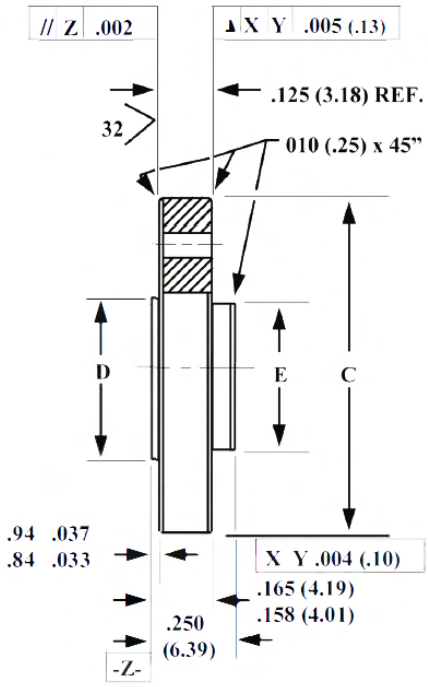


Round Contact Flanges

Mi-Wave Band	Frequency (GHz)	MIL Part Number M3922/67	K ±0.015 (0.4)	L ±0.015 (0.4)	M ±0.000/.002 (0.5)	N BSC	P ±0.005 (.13)	R ±0.005 (.13)	Waveguide Designation	MIWV Flange Designation	MIWV Flange Bank
K	18.00-26.5	-004	0.4200 (10.67)	0.1700 (4.32)	1.125 (28.58)	0.9375 (23.81)	0.625 (15.88)	0.625 (15.88)	WR-42	UG-425/U	101957-10
A	26.50-40.00	-005	0.2800 (7.11)	0.1400 (3.56)	1.125 (28.58)	0.9375 (23.81)	0.500 (12.70)	0.468 (11.89)	WR-42	UG-381/U	101957-1
B	33.00-50.00	-006	0.2240 (5.69)	0.1120 (2.84)	1.125 (28.58)	0.9375 (23.81)	0.500 (12.70)	0.468 (11.89)	WR-42	UG-383/U	101957-2
U	40.00-60.00	-007	0.1180 (4.78)	0.0940 (2.39)	1.125 (28.58)	0.9375 (23.81)	0.500 (12.70)	0.468 (11.89)	WR-42	UG-383/U-M	101957-3
V	50.00-75.00	-008	0.1480 (3.76)	0.0000 (1.88)	0.750 (19.05)	0.5625 (14.29)	0.375 (9.53)	0.312 (7.92)	WR-42	UG-385/U	101957-4
E	60.00-90.00	-009	0.1220 (3.10)	0.1700 (1.55)	0.750 (19.05)	0.5625 (14.29)	0.375 (9.53)	0.312 (7.92)	WR-42	UG-387/U	101957-5
W	75.00-110.0	-010	0.1000 (2.54)	0.1700 (1.27)	0.750 (19.05)	0.5625 (14.29)	0.375 (9.53)	0.312 (7.92)	WR-42	UG-387/U-M	101957-6
F	90.00-140.0	N/A	0.8000 (2.03)	0.1700 (1.02)	0.750 (19.05)	0.5625 (14.29)	0.375 (9.53)	0.312 (7.92)	WR-42	UG-387/U-M	101957-7
D	110.0-170.0	N/A	0.0650 (1.65)	0.1700 (.83)	0.750 (19.05)	0.5625 (14.29)	0.375 (9.53)	0.312 (7.92)	WR-42	UG-387/U-M	101957-8
G	140.0-220.0	N/A	0.0510 (1.30)	0.1700 (.65)	0.750 (19.05)	0.5625 (14.29)	0.375 (9.53)	0.312 (7.92)	WR-42	UG-387/U-M	101957-9

APPENDIX Round Flange Blanks





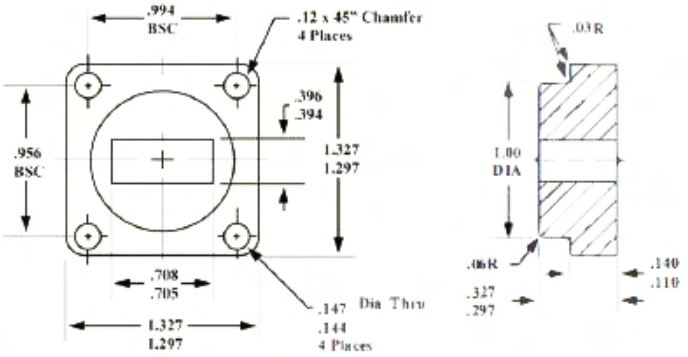
Note: Flange can be ordered with or without holes for pins

Round Flange Blanks

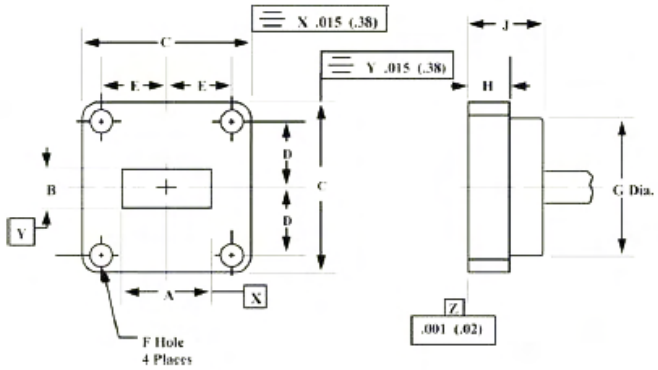
Mi-Wave Band	Frequency (GHz)	MIL Part Number M3922/67	A +.002/-.000 (.05)	B +.002/-.000 (.05)	C +0.00/-.002 (0.5)	D ±0.005 (.13)	P ±0.005 (.13)	F BSC	MIWV Flange Designation
K	18.0-26.5	-004	.502 (12.75)	.252 (6.40)	1.125 (28.58)	.625 (15.88)	.625 (15.88)	.312 (7.92)	UG-425/U
A	26.50-40.0	-005	.362 (9.19)	.222 (5.64)	1.125 (28.58)	.500 (12.70)	.468 (11.89)	.9375 (23.81)	UG-381/U
B	33.0-50.0	-006	0.306 (7.77)	0.194 (4.93)	1.125 (28.58)	0.5 (12.7)	0.468 (11.89)	0.9375 (23.81)	UG-383/U
U	40.0-60.0	-007	0.27 (6.86)	0.167 (4.47)	1.125 (28.58)	0.5 (12.7)	0.468 (11.89)	56.25 (14.29)	UG-383/U-M
V	50.0-75.0	-008	0.42 (5.84)	0.17 (3.96)	1.125 (19.05)	0.9375 (9.53)	0.625 (7.92)	0.625 (14.29)	UG-385/U
E	60.0-90.0	-009	0.42 (5.18)	0.17 (3.63)	1.125 (19.05)	0.9375 (9.53)	0.625 (7.92)	0.625 (14.29)	UG-387/U
W	75.0-110.0	-010	0.42 (4.62)	0.17 (3.35)	1.125 (19.05)	0.9375 (9.53)	0.625 (7.92)	0.625 (14.29)	UG-387/U-M
F	90.0-140.0	N/A	0.141 (3.58)	0.101 (2.56)	0.75 (19.05)	0.375 (9.53)	0.312 (7.92)	56.25 (14.29)	UG-387/U-M
D	110.0-170.0	N/A	0.126 (3.2)	0.094 (2.39)	0.75 (19.05)	0.375 (9.53)	0.312 (7.92)	56.25 (14.29)	UG-387/U-M
G	140.0-220.0	N/A	0.112 (2.84)	0.089 (2.21)	0.75 (19.05)	0.375 (9.53)	0.312 (7.92)	0.9375 (23.81)	UG-387/U-M

APPENDIX Cover Flanges-Flange Blanks

UG-419/U (WR-62)



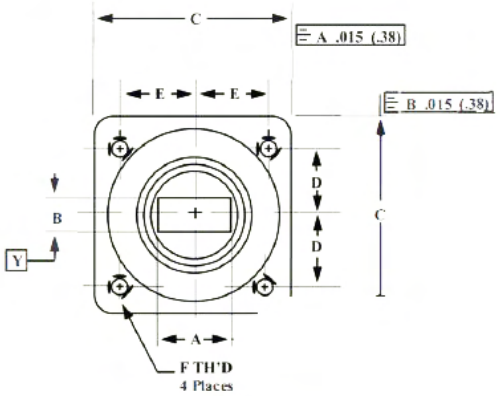
Cover Flanges - Finished Flange & Waveguide UG-418/U (WR-62)

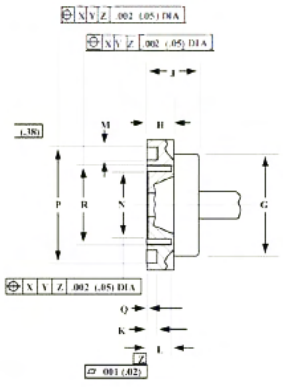


Mi-Wave Band	Frequency (GHz)	MIL Part Number M3922/53	A	B	C .015 (0.38)	D BSC	E BSC	F ±0.003 (.08)	G ±0.015 (.38)	H ±0.015 (.38)	J ±0.015 (.38)	MIWV Flange Bank
Ku	12.4-18.0	-4/005	±.622 ±.002 (15.8) (.05)	±.311 ±.002 (.79) (.05)	1.312 (33.32)	4.78 (12.14)	0.497 (12.62)	0.144 (3.66)	1.000 (25.40)	0.125 (25.40)	0.313 (3.18)	UG-419/U

APPENDIX Square Choke Flanges

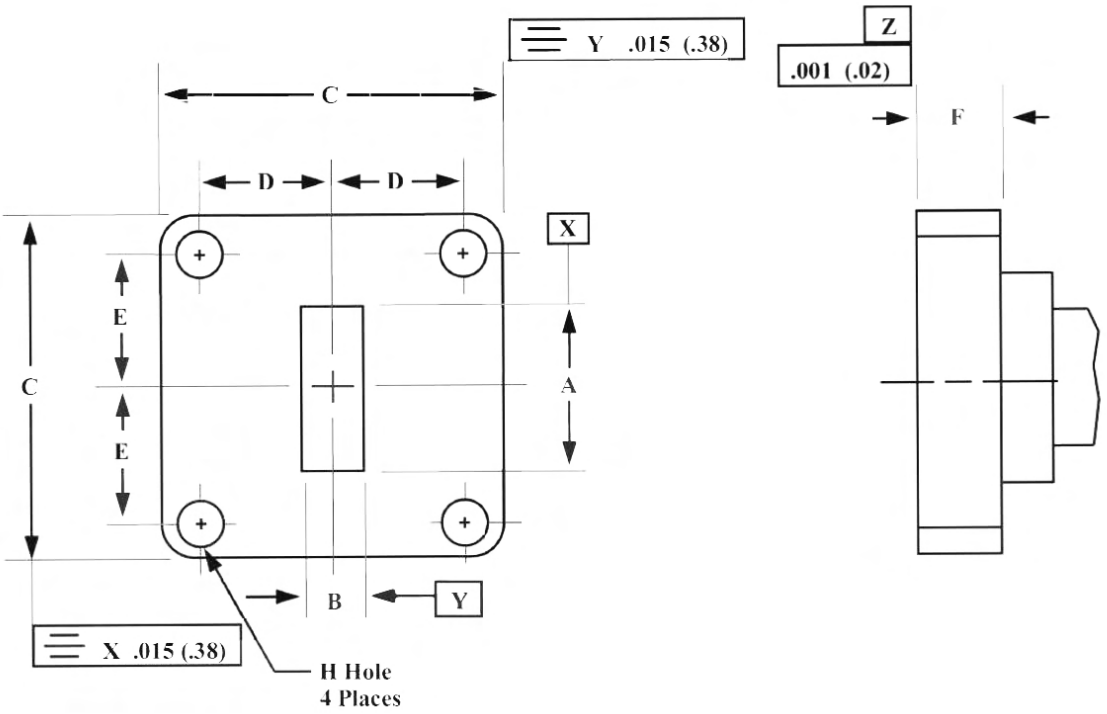
Finished Flange and Waveguide





Mi-Wave Band	Frequency (GHz)	MIL Part Number M3922/539	MIWV FLG. ESIG.	A	B	C .015 (0.38)	D BSC	E BSC	F	G ±0.015 (.38)	H ±0.015 (.38)	J ±0.015 (.38)	K ±0.002 (.05)	L ±0.002 (.05)	M ±0.002 (.05)	N ±0.002 (.05)	P ±0.002 (.05)	Q ±0.001 (.03)	R ±0.002 (.05)
Ku	12.4-18.0	-2/001	UG541	±.622 ±.002 (15.8) (.05)	.311 ± .002 (.79) (.05)	1.312 (33.32)	4.78 (12.14)	.497 (12.62)	.138-32 UNC-2B	1.000 (25.40)	.188 (4.78)	.375 (9.53)	.113 (2.87)	.190 (4.83)	1.58 (4.01)	.710 (18.03)	1.208 (30.68)	.0075 (0.19)	.828 (3.18)
K	12.4-18.0	-2/003	UG596	±.420 ±.002 (10.67)(.05)	.170±.002 (4.32)(.05)	0.875 (22.23)	0.335 (8.51)	.320 (8.13)	0.112-40 UNC-2B	0.625 (15.88)	.156 (3.96)	0.285 (7.24)	0.42 (1.07)	0.129 (3.28)	0.87 (2.21)	0.472 (11.99)	0.761 (19.33)	0.005 (.13)	0.536 (13.61)
A	12.4-18.0	-2/005	UG600	±.280 ±.0014 (7.11)(.04)	±.311 ±.002 (3.56)(.04)	0.75 (19.05)	0.256 (6.73)	0.250 (6.35)	0.112-40 UNC-2B	0.500 -12.7	0.109 -2.77	0.210 -5.33	0.050 -1.27	0.086 (2.18)	0.096 (2.44)	0.321 (8.15)	0.596 (15.14)	0.003 (0.08)	0.372 (9.45)

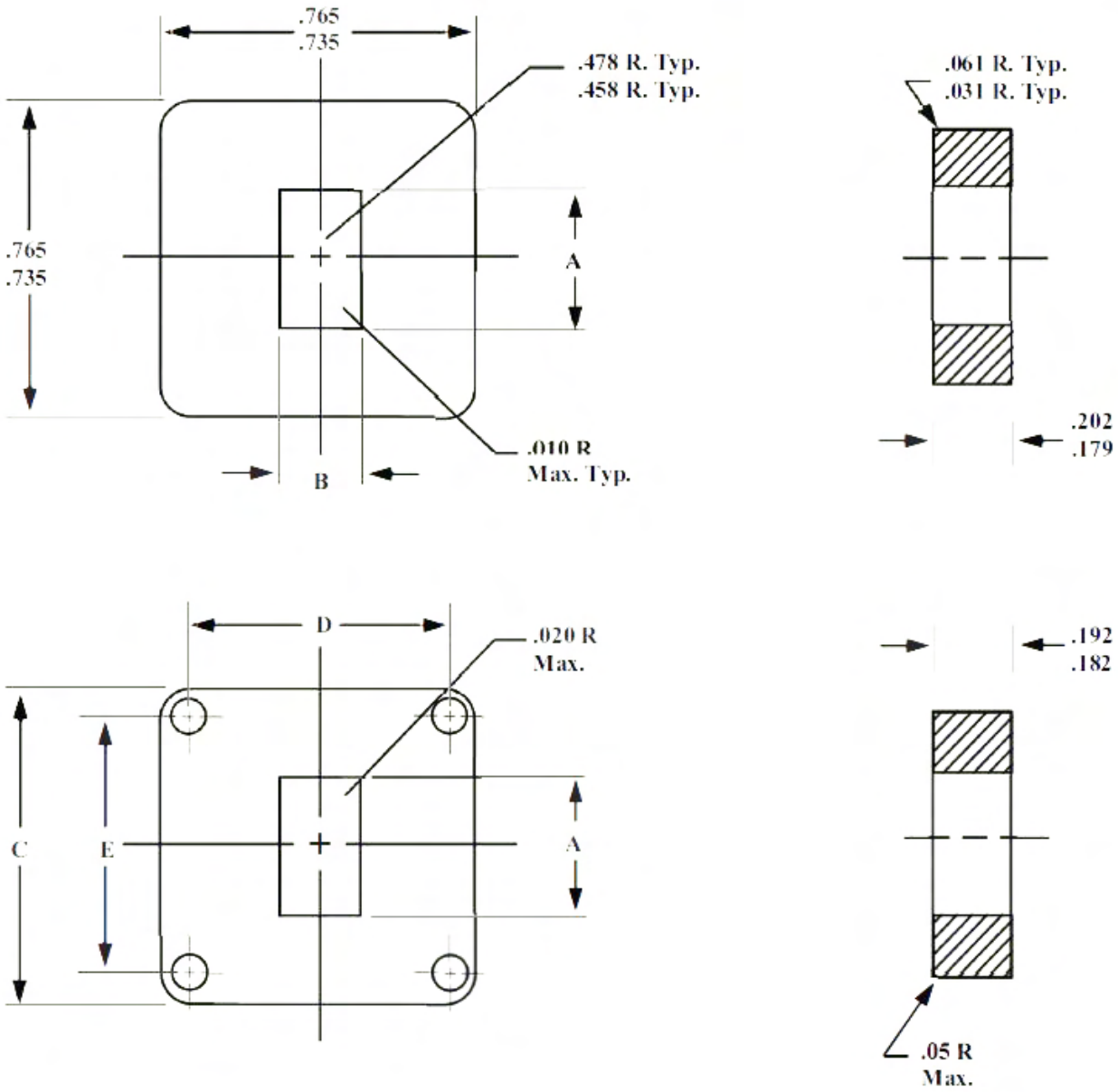
APPENDIX Square Cover Flanges



Round Flange Blanks

Mi-Wave Band	Frequency (GHz)	MIL Part Number M3922/67	A +.002/-.000 (.05)	B +.002/-.000 (.05)	C +0.00/-.002 (0.5)	D ±0.005 (.13)	P ±0.005 (.13)	F BSC	MIWV Flange Designation
K	18.0-26.5	-004	.502 (12.75)	.252 (6.40)	1.125 (28.58)	.625 (15.88)	.625 (15.88)	.312 (7.92)	UG-425/U
A	26.50-40.0	-005	.362 (9.19)	.222 (5.64)	1.125 (28.58)	.500 (12.70)	.468 (11.89)	.9375 (23.81)	UG-381/U
B	33.0-50.0	-006	0.306 (7.77)	0.194 (4.93)	1.125 (28.58)	0.5 (12.7)	0.468 (11.89)	0.9375 (23.81)	UG-383/U
U	40.0-60.0	-007	0.27 (6.86)	0.167 (4.47)	1.125 (28.58)	0.5 (12.7)	0.468 (11.89)	56.25 (14.29)	UG-383/U-M
V	50.0-75.0	-008	0.42 (5.84)	0.17 (3.96)	1.125 (19.05)	0.9375 (9.53)	0.625 (7.92)	0.625 (14.29)	UG-385/U
E	60.0-90.0	-009	0.42 (5.18)	0.17 (3.63)	1.125 (19.05)	0.9375 (9.53)	0.625 (7.92)	0.625 (14.29)	UG-387/U
W	75.0-110.0	-010	0.42 (4.62)	0.17 (3.35)	1.125 (19.05)	0.9375 (9.53)	0.625 (7.92)	0.625 (14.29)	UG-387/U-M
F	90.0-140.0	N/A	0.141 (3.58)	0.101 (2.56)	0.75 (19.05)	0.375 (9.53)	0.312 (7.92)	56.25 (14.29)	UG-387/U-M
D	110.0-170.0	N/A	0.126 (3.2)	0.094 (2.39)	0.75 (19.05)	0.375 (9.53)	0.312 (7.92)	56.25 (14.29)	UG-387/U-M
G	140.0-220.0	N/A	0.112 (2.84)	0.089 (2.21)	0.75 (19.05)	0.375 (9.53)	0.312 (7.92)	0.9375 (23.81)	UG-387/U-M

APPENDIX Square Cover Flanges

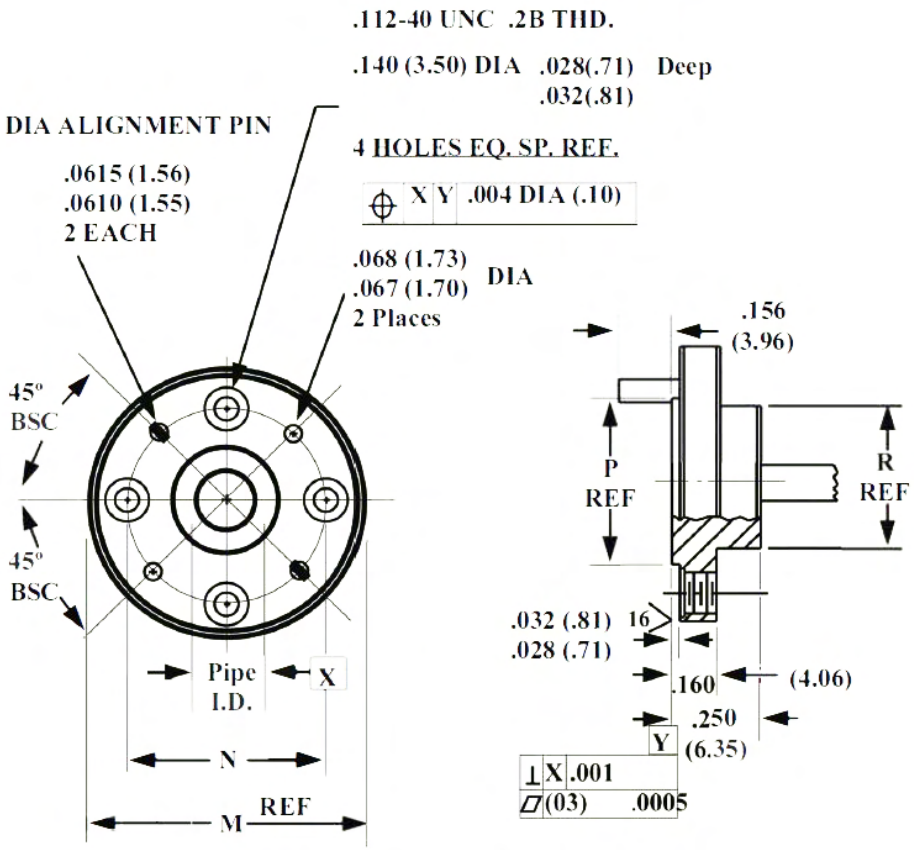


MIWV Flange Designation	A	B	C	D BSC	E BSC
UG 599A	.364 .362	.224 .224	.755 .745	.530	.500
UG 599K	.505 .503	.255 .253	.890 .860	.670	.640

MIWV Part Number	A ±0.002-.000	B ±0.002-.000
719B	.306	.194
720U	.270	.176

APPENDIX Antenna$_{11}$ Circular Waveguides

Band	Pipe	Frequency Band
Ku-1	0.660	12.4-14.6
Ku-2	0.550	14.6-17.5
K-1	0.470	17.5-20.5
K-2	0.396	20.5-24.5
K-3	0.328	24.5-26.5
A-0	0.328	26-28.5
A-1	0.281	28.5-33
K-2	0.250	33-38.5
A-3	0.219	38.5-43
B-0	0.250	33-38.5
B-1	0.219	38.5-43
B-2	0.188	43-50
U-0	0.219	38.5-43
U-1	0.188	43-50
U-2	0.165	50_58
V-0	0.165	50-58
V-1	0.141	58-68
V-2	0.125	T68-77
E-0	0.141	58-68
E-1	0.125	68-77
E-2	0.110	77-87
E-3	0.094	87-100
W-0	0.110	77-87
W-1	0.094	87-100
W-2	0.082	100-112
F-0	0.094	87-100
F- 1	0.082	100-112
F-2	0.075	112-125
F-3	0.067	125-140
D-0	0.082	100-112
D-1	0.075	112-125
D-2	0.067	125-140
D-3	0.059	140-160
G-0	0.067	125-140
G-1	0.059	140-220



MIWV Band	M +.000/.002 (0.05)	N BSC	P +.005 (.13)	R +.005 (.13)	MIWV Flange Designation	MIWV Flange Blank
Ku	1.44 (36.68)	1.250 (28.6)	.967 (24.6)	.967 (24.6)	731	108872
K	1.125 (28.58)	.9375 (23.8)	.625 (15.88)	.625 (15.88)	UG-425/U	107729-7
A	1.125 (28.58)	.9375 (23.8)	.500 (12.70)	.468 (11.89)	UGU381/U	107729.1
B	1.125 (28.58)	.9375 (23.8)	.500 (12.70)	.468 (11.89)	UG-383/U	107729-2
U	1.125 (28.58)	.9375 (23.8)	.500 (12.70)	.468 (11.89)	UG-385/U-M	107729-3
V	.750 (19.05)	.5625 (14.29)	.375 (9.53)	.312 (7.92)	UG-385/U	107729-4
E	.750 (19.05)	.5625 (14.29)	.375 (9.53)	.312 (7.92)	UG-387/U-M	107729-5
W	.750 (19.05)	.5625 (14.29)	.375 (9.53)	.312 (7.92)	UG-387/U-M	107729-6
F	.750 (19.05)	.5625 (14.29)	.375 (9.53)	.312 (7.92)	UG-387/U-M	107729-8
D	.750 (19.05)	.5625 (14.29)	.375 (9.53)	.312 (7.92)	UG-387/U-M	107729-9
G	.750 (19.05)	.5625 (14.29)	.375 (9.53)	.312 (7.92)	UG-387/U-M	107729-10

APPENDIX The Effect of VSWR on Transmittal Power

VSWR	Return Loss (dB)	VSWR (dB)	Volt REFL COEFF	XMSN Loss (dB)	Power XMIT (%)	Power REFL (%)
1.006	50.00	0.05	0.00	0.0000	100.00	0.00
1.010	46.06	0.09	0.00	0.0001	100.00	0.00
1.011	45.00	0.10	0.01	0.0001	100.00	0.00
1.020	40.09	0.17	0.01	0.0004	99.99	0.01
1.020	40.00	0.17	0.01	0.0004	99.99	0.01
1.030	36.61	0.26	0.01	0.0009	99.98	0.02
1.036	35.00	0.31	0.02	0.0014	99.90	0.03
1.040	34.15	0.34	0.02	0.0010	99.96	0.04
1.045	33.15	0.38	0.02	0.0021	99.95	0.05
1.050	32.26	0.42	0.02	0.0026	99.94	0.06
1.060	30.71	0.51	0.03	0.0037	99.92	0.08
1.065	30.00	0.55	0.03	0.0043	99.90	0.10
1.070	29.42	0.59	0.03	0.0050	99.89	0.11
1.080	28.30	0.67	0.04	0.0064	99.85	0.15
1.090	27.32	0.75	0.04	0.0081	99.81	0.19
1.100	26.44	0.83	0.05	0.0099	99.00	0.23
1.110	25.66	0.91	0.05	0.0118	99.30	0.27
1.119	25.00	0.98	0.06	0.0138	99.68	0.32
1.120	24.94	0.98	0.06	0.0139	99.68	0.32
1.130	24.29	1.06	0.06	0.0162	99.63	0.30
1.135	24.00	1.10	0.06	0.0173	99.60	0.40
1.140	23.69	1.14	0.00	0.0186	99.50	0.43
1.150	23.13	1.21	0.00	0.0212	99.51	0.49
1.152	23.00	1.23	0.00	0.0212	99.50	0.50
1.160	22.61	1.29	0.00	0.0239	99.45	0.55
1.170	22.12	1.36	0.08	0.0267	99.39	0.61
1.173	22.00	1.38	0.08	0.0275	99.30	0.63
1.180	21.66	1.44	0.08	0.2970	99.32	0.68
1.190	21.23	1.51	0.09	0.0328	99.25	0.75
1.196	21.00	1.55	0.09	0.0346	99.21	0.90
1.200	20.83	1.58	0.09	0.0360	99.10	0.83
1.210	20.44	1.66	0.10	0.0394	99.10	0.90
1.220	21.08	1.73	0.10	0.0429	99.02	0.98
1.222	20.00	1.74	0.10	0.0436	99.00	1.00
1.230	19.73	1.80	0.10	0.0464	98.94	1.06
1.240	19.40	1.87	0.11	0.5010	98.85	1.15
1.250	19.08	1.94	0.11	0.0540	98.00	1.23
1.253	19.00	1.96	0.11	0.5500	98.40	1.26
1.260	18.78	2.01	0.12	0.0579	98.68	1.32
1.270	18.49	2.08	0.12	0.0619	98.59	1.41
1.280	18.22	2.14	0.12	0.0660	98.49	1.51
1.288	18.00	2.20	0.13	0.0694	98.42	1.58
1.290	17.95	2.21	0.13	0.0720	98.40	1.60
1.300	17.89	2.28	0.13	0.0745	98.30	1.70
1.310	17.45	2.35	13.00	0.08	98.20	1.80
1.320	17.21	2.41	0.14	0.08	98.10	1.90
1.329	17.00	2.40	0.14	0.09	98.00	2.00
1.330	16.98	2.48	0.14	0.09	97.99	2.01
1.340	16.75	2.54	0.15	0.09	97.89	2.11
1.350	16.54	2.61	0.15	0.10	97.78	2.22
1.360	16.33	2.61	0.10	0.10	97.67	2.33
1.370	16.13	2.30	0.16	0.11	97.56	2.44
1.377	16.00	2.80	0.16	0.11	97.49	2.51
1.380	15.94	2.80	0.16	0.11	97.45	2.55
1.390	15.50	2.86	0.16	0.11	97.49	2.51
1.400	15.56	2.92	0.17	0.12	97.22	2.78
1.410	15.38	2.98	0.17	0.13	97.11	2.89
1.420	15.21	3.05	0.17	0.13	96.99	3.01
1.430	15.04	3.11	0.18	0.14	96.80	3.13
1.433	15.00	3.12	0.18	0.14	96.84	3.16
1.440	14.88	3.10	0.18	0.14	96.50	3.25
1.450	14.20	3.23	0.18	0.15	96.63	3.30
1.460	14.56	3.29	0.19	0.15	96.50	3.50
1.464	14.50	3.31	0.19	0.16	96.45	3.55
1.400	14.41	3.35	0.19	0.16	96.38	3.62
1.480	14.26	3.41	0.19	0.10	96.25	3.50
1.490	14.12	3.46	0.20	0.10	96.13	3.80
1.499	14.00	3.51	0.20	0.18	96.02	3.98
1.500	13.96	3.52	0.20	0.18	96.00	4.00
1.536	13.50	3.30	0.21	0.20	95.53	4.40
1.550	13.32	3.81	0.22	0.21	95.35	4.65
1.500	13.00	3.96	0.22	0.22	94.99	5.01
1.600	12.40	4.08	0.23	0.24	94.6.	5.33
1.622	12.50	4.20	0.24	0.25	94.38	5.62
1.650	12.21	4.35	0.25	0.27	93.98	6.02
1.671	12.00	4.46	0.25	0.28	93.69	6.31
1.700	11.30	4.74	0.26	0.30	93.28	6.20
1.725	11.50	4.86	0.20	0.32	92.92	0.08
1.750	11.29	4.86	0.20	0.34	92.56	0.44
1.785	11.00	5.03	0.28	0.36	92.06	0.94
1.800	10.88	5.11	0.29	0.30	91.84	8.16
1.851	10.50	5.35	0.30	0.41	91.09	8.16
1.900	10.16	5.58	0.31	0.44	90.37	9.63
1.925	10.00	5.69	0.32	0.46	90.00	10.00
2.000	9.54	6.02	0.33	0.51	88.89	11.11
2.500	7.36	7.96	0.43	0.88	81.63	18.37
3.000	6.02	9.54	0.50	1.25	75.00	25.00
3.500	5.11	10.88	0.56	1.60	69.14	30.86

APPENDIX TE_{01} Circular Waveguides Specifications

TE_{01} Specifications				
Circular Waveguide		MIL-W-68 Circular Waveguide		
I.D. OD. (Inches)	Frequency (GHz)	I.D. OD. (Inches)	Frequency (GHz)	Type
1.500 X 1.750	11.6-16.0	1.500 X 1.700	11.6-16.0	WRC530D14
1.265 1.375	13.2-18.9	1.281 X 1.441	13.6-18.7	WRC621D14
1.106) 1.250	15.9-21.9	1.094 X 1.224	15.9-21.9	WRC727D14
0.951 X 1.125	18.6-25.6	0.938 X 1.068	18.6-25.6	WRC849D14
0.686 X 0.750	25.3-34.9	0.797 X 0.897	21.9-30.1	WRC997D14
0.688 X 0.888	25.3-34.9	0.688 X 0.788	25.3-34.9	WRC116C14
0.634 X 0.750	27.3-38.8	0.594 X 0.674	29.3-40.4	WRC134C14
0.545 X 0.625	32.4-44.0			N/A
0.495 X 0.625	34.8-48.0	0.500 X 0.580	34.8-48.0	WRC159C14
		0.438 X 0.518	39.8-54.8	WRC182C14
0.370 X 0.500	46.4-63.9	0.375 X 0.435	46.4-63.9	WRC212C14
0.353 X 0.438	50.0-68.0	0.328 X 0.388	53.1-73.1	WRC243C14
0.291 X 0.375	62.0-84.0	0.281 X 0.341	61.9-85.0	WRC283C14
0.249 X 0.313	69.7-95.9	0.250 X 0.290	69.7-95.9	WRC318C14
0.201 X 0.290	86.0-115.0	0.219 X 0.259	79.6-110.0	WRC364C14
0.186 X 0.250	93.0-128.0	0.188 X 0.228	92.9-128.0	WRC424C14
		0.172 X 0.212	101.0-139.0	WRC463C14
		0.141 X 0.181	124.0-171.0	WRC566C14

Contact Us

Millimeter Wave Products, Inc. is an award-winning global provider of millimeter wave products and microwave technology, components, and assemblies.

We offer volume production, individual components, systems, and MORE, in the 7GHz to 500GHz spectrum.

We manufacture all our products in our Florida, USA-based facility. We work with a wide range of global clients, supporting research and real-world deployments across multiple industries. From standard individual components to custom-designed parts and sub assemblies, we are your best choice for Millimeter Wave and Microwave Products!

Would you like more information about our components and capabilities?
Contact our sales and engineering team today!
Apply Mi-Wave's experience, talent, and manufacturing resources to your project for optimized solutions!