



MI-23 Family of Waveguide Feeds

MI-23 Feeds offer wide frequency coverage from 1.1 - 40 GHz with a rugged construction ensuring a long, useful life and are designed for use with the MI-22 Family of Parabolic Reflectors.

Description

MI-23 Family of Waveguide Feeds are linearly polarized feeds covering the frequency range of 1.1 GHz to 40 GHz. All MI-23 feeds are waveguide horns which are weather sealed with a radome cover. These feeds are designed to be used with MI-22 Family of Parabolic Reflectors.

The feed terminating connectors are shown in the table of specifications. MI-23-8.2 through MI-23-26 are provided with a button hook waveguide section to permit a rear waveguide input. To minimize aperture blocking, feeds for the MI-22A-1 reflector are supported beside the reflector, with the waveguide passing around the reflector edge. MI-11 Coax-to-Waveguide Adaptors may be used to provide a coaxial cable input to the waveguide.

Ordering Information

When ordering one of the MI-23 Feeds for use with a MI-22 Parabolic Reflector, check specifications for each unit to ensure compatibility.

Options

Not applicable

Accessories

MI-22 Family of Parabolic Reflectors

Specifications

Model ¹	Reflector	Nominal Range (GHz)	Nominal Gain (dB)	Beamwidth (degrees)	Maximum VSWR	Nominal 1st Side Lobe Suppression (dB)	Feed Connector Type or Equivalent	Net Weight lbs (kg)	Shipping Weight lbs (kg)
MI-23-1.7/8/10	22-10A	1.70-2.60	33	3.8	1.5	18	UG-437/U	8 (3.6)	20 (9)
MI-23-1.7/8/10	22-8B	1.70-2.60	31	4.6	1.5	18	UG-437/U	8 (3.6)	20 (9)
MI-23-2.6/8	22-8B	2.60-3.95	35	3.1	1.5	18	UG-584/U	4 (1.8)	15 (6.8)
MI-23-3.9/8	22-8B	3.95-5.85	39	2.1	1.5	18	UG-149/U	4 (1.8)	10 (4.5)
MI-23-5.8/8	22-8B	5.85-8.20	42	1.6	1.5	18	UG-441/U	2 (0.9)	5 (2.3)
MI-23-2.6/4/6	22-6B	2.60-3.95	32	4.0	2.0	18	Type N	4 (1.8)	15 (6.8)
MI-23-3.9/4/6	22-6B	3.95-5.85	36	3.0	1.5	18	UG-149/U	4 (1.8)	10 (4.5)
MI-23-5.8/4/6	22-6B	5.85-8.20	39	2.0	1.5	18	UG-441/U	2 (0.9)	5 (2.3)
MI-23-8.2/6	22-6B	8.20-12.4	42	1.5	1.5	18	UG-135/U	5 (2.3)	25 (11.4)
MI-23-2.6/4/6	22-4A	2.60-3.95	29	6.0	2.0	18	Type N	4 (1.8)	15 (6.8)
MI-23-3.9/4/6	22-4A	3.95-5.85	32	4.0	1.5	18	UG-149/U	2 (0.9)	10 (4.5)
MI-23-5.8/4/6	22-4A	5.85-8.20	35	3.0	1.5	18	UG-441/U	2 (0.9)	5 (2.3)
MI-23-8.2/4	22-4A	8.20-12.4	39	2.0	1.5	18	UG-135/U	2 (0.9)	25 (11.4)
MI-23-12/4	22-4A	12.4-18.0	42	1.5	1.5	18	UG-419/U	2 (0.9)	20 (9)
MI-23A-8.2/2	22A-2	8.20-12.4	33	4.0	1.5	15	UG-135/U	3 (1.4)	25 (11.4)
MI-23A-12/2	22A-2	12.4-18.0	36	3.0	1.5	15	UG-419/U	2 (0.9)	20 (9)
MI-23A-12/1	22A-1	12.4-18.0	30	5.0	1.5	18	UG-419/U	1 (0.5)	20 (9)
MI-23A-18/1	22A-1	18.0-26.5	33	4.0	1.5	18	UG-595/U	1 (0.5)	15 (6.8)
MI-23A-26/1	22A-1	26.5-40.0	37	2.5	1.5	18	UG-599/U	1 (0.5)	10 (4.5)

¹ Numbers following "f" indicate reflector diameters (in feet) for which the feed is recommended. All specifications define combined performance when installed in a MI-22 Parabolic Reflector.

Model	Frequency (GHz)	Peak ¹	Radome Dimensions ³	Avg. ^{1,2}	Window Thickness		Notes
					RX2200 Rexolite	W2 Mylar	
MI-23-1.7/8/10	1.7-2.6	18 MW	6.8 X 5.2 (17.3 X 13.2)	15 kW		0.005 (0.013)	RG-105/U
MI-23-2.6/4/6	2.6-3.95	2.5 kW	4.5 X 3.3 (11.4 X 8.4)	90 W		0.005 (0.013)	Type N/RG-214
MI-23-2.6/8	2.6-3.95	7.6 MW	4.5 X 3.3 (11.4 X 8.4)	10 kW		0.005 (0.013)	RG-75/U 6061
MI-23-3.9/4/6	3.95-5.85	3.3 MW	3.0 X 2.2 (7.6 X 5.6)	4 kW		0.005 (0.013)	RG-95/U
MI-23-3.9/8	3.95-5.85	3.3 MW	3.0 X 2.2 (7.6 X 5.6)	4 kW		0.005 (0.013)	RG-95/U 6061
MI-23-5.8/4/6	5.85-8.2	1.9 MW	2.11 X 1.55 (5.4 X 3.9)	1.5 kW		0.005 (0.013)	RG-106/U
MI-23-5.8/8	5.85-8.2	1.9 MW	2.11 X 1.55 (5.4 X 3.9)	1.5 kW		0.005 (0.013)	RG-106/U 6061
MI-23-8.2/2	8.2-12.4	0.7 MW	1.46 X 1.07 (3.7 X 2.7)	0.7 kW		0.005 (0.013)	RG-67/U
MI-23-8.2/4	8.2-12.4	0.7 MW	1.46 X 1.07 (3.7 X 2.7)	0.7 kW		0.005 (0.013)	RG-67/U
MI-23-8.2/6	8.2-12.4	0.7 MW	1.46 X 1.07 (3.7 X 2.7)	0.7 kW		0.005 (0.013)	RG-57/U 6061
MI-23-12/1	12.4-18.0	0.4 MW	0.97 X 0.71 (2.5 X 1.8)	0.4 kW	0.050 (0.13)		RG-91/U
MI-23-12/2	12.4-18.0	0.4 MW	0.97 X 0.71 (2.5 X 1.8)	0.4 kW	0.050 (0.13)		RG-91/U
MI-23-12/4	12.4-18.0	0.4 MW	0.97 X 0.71 (2.5 X 1.8)	0.4 kW	0.050 (0.13)		RG-91/U Brass
MI-23-18/1	18.0-26.5	0.17 MW	0.66 X 0.48 (1.7 X 1.2)	0.14 kW	0.050 (0.13)		RG-53/U Brass
MI-23-26/1	26.5-40.0	0.096 MW	0.43 X 0.03 (1.1 X 0.08)	0.09 kW	0.030 (0.08)		RG-271 Brass

¹ Ref. MIL-STD-1358B

² Derated for typical VSWR

³ All dimensions in inches (cm)



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