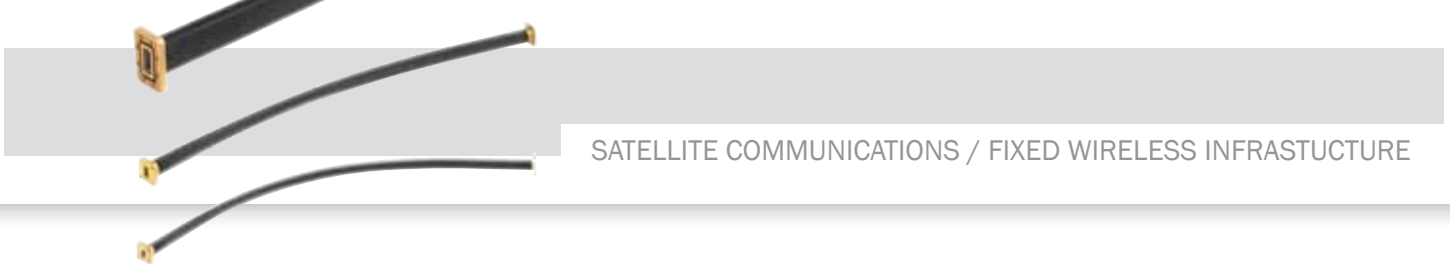
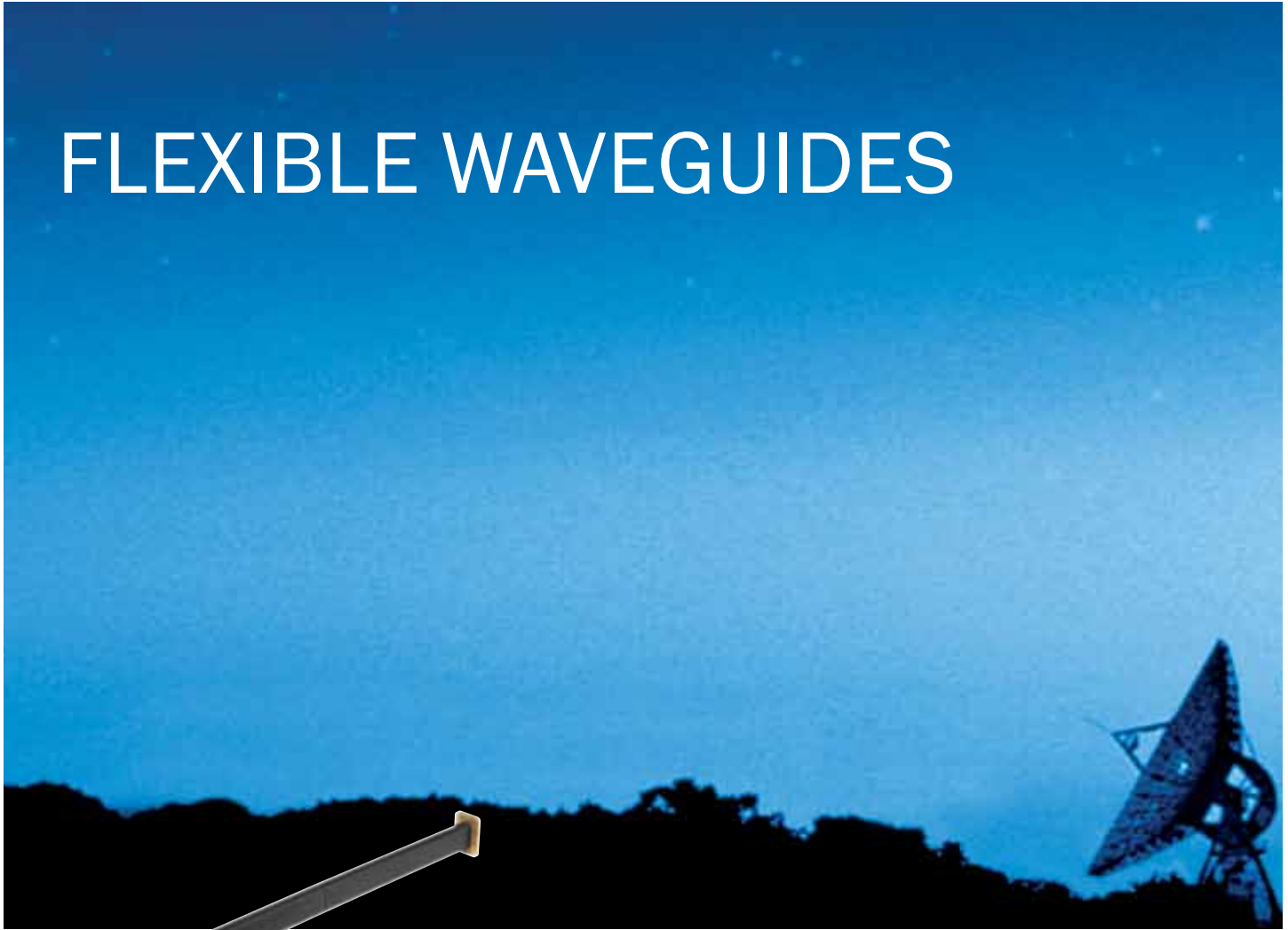


FLEXIBLE WAVEGUIDES



SATELLITE COMMUNICATIONS / FIXED WIRELESS INFRASTRUCTURE

FLEXING OUR MUSCLE

Mitec, a global provider of RF components and systems to telecom and satcom markets, is cranking up the power.

Choose from our selection of twistable and non-twistable waveguides and you'll receive a value priced solution, when you need it, where you need it, with everything you need. The fact is Mitec has been building and supporting carrier-grade solutions since 1973.

Fast delivery, full documentation, immediate product support, engineered solutions—that's Mitec.

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FLEXIBLE WAVEGUIDES

Mitec's products have more than a quarter century of proven field experience, demonstrating their unmatched dependability and reliability day after day. This level of dependability can be found in our line of flexible waveguides. Uniquely designed to be a high quality but cost effective solution for the satellite communications market, this line of flexible waveguides sets the standard for the satellite industry.

Mitec's ISO-standard manufacturing ensures high quality waveguides for satellite communications applications. The construction of the guide is similar for both twistable and non-twistable versions. The design consists of an inner core, two connecting flanges soldered into position, and a protective outer jacket. The core is manufactured from pre-convoluted brass strip helically wound to extremely close tolerances around a rectangular mandrel.



TWISTABLE

The twistable cores are silver clad and are locked by a plated wire inserted into their seam during winding. An outer jacket is required to enable the twisted core to be pressurized.



NON-TWISTABLE

The non-twistable cores are also silver clad and are locked by solder wire which is then melted to form a continuous fillet running the entire length of the seam. Non-twistable cores can be pressurized without an outer jacket.

KEY FEATURES

- Waveguide sizes from WR28 to WR284
- In-house manufacturing ensures fast delivery
- Available with North American and European flange configurations



SPECIFICATIONS



DASH N.	IEC-R	E/A SIZE	MATCHING RIGID	OPERATIONAL	NOMINAL	MAX	VSWR		VSWR		POWER	POWER
			W/G INTERNAL	FREQUENCY	TEST FREQ.		MAX. (CPR OR COVER FLANGE)	MAX. (PLAIN OR CHOKE FLANGE)	RATING	RATING		
			DIM.	BAND	FOR				IL	M1640	M1650	
			(IN.)	(GHZ)	ATTENUATION	(DB/FT.)	< 36"	> 36'	< 36"	> 36'	CW (KW)	CW (KW)
1	32	284	2.840 x 1.340	2.60 - 3.95	3.15	0.03	1.04	1.07	1.07	1.10	6.50	8.5
2	40	229	2.290 x 1.145	3.30 - 4.90	3.85	0.03	1.05	1.07	-	-	-	-
3	48	187	1.872 x 0.872	3.95 - 5.85	4.75	0.04	1.05	1.07	1.07	1.10	3.00	3.40
4	58	159	1.590 x 0.795	4.90 - 7.05	5.90	0.05	1.05	1.08	1.08	1.10	2.50	2.50
5	70	137	1.372 x 0.622	5.85 - 8.20	6.45	0.06	1.05	1.09	1.09	1.10	2.00	1.70
6	84	112	1.122 x 0.497	7.05 - 10.00	9.40	0.07	1.07	1.10	1.10	1.13	1.26	0.80
7	100	90	0.900 x 0.400	8.20 - 12.40	9.40	0.09	1.07	1.10	1.10	1.13	0.96	0.62
8	120	75	0.750 x 0.375	10.00 - 15.00	13.70	0.13	1.08	1.10	1.10	1.13	0.75	0.50
9	140	62	0.622 x 0.311	12.40 - 18.00	14.00	0.16	1.10	1.13	1.13	1.16	0.22	0.30
10	180	51	0.510 x 0.255	15.00 - 22.00	18.50	0.35	1.15	1.18	1.17	1.20	0.14	0.23
11	220	42	0.420 x 0.170	18.00 - 26.50	22.00	0.38	1.18	1.23	1.20	1.25	0.10	0.12
12	260	34	0.340 x 0.170	22.00 - 33.00	28.00	0.45	1.17	1.20	1.20	1.23	0.10	0.12
13	320	28	0.280 x 0.140	26.50 - 40.00	34.00	0.60	1.19	-	1.30	-	0.10	N/A

			TWIST AND NON-TWIST (M1640 & M1650)				TWIST ONLY (M1640)				
BENDING RATING							TWISTING RATING			MAXIMUM OPERATING PRESSURE	
DASH N.	IEC-R	EIA SIZE	STATIC		REPEATED		STATIC TOLERANCE	REPEATED TWIST	LENTH NON-TWIST	M1640	M1650
			E-PLANE	H-PLANE	E-PLANE	H-PLANE					
		(WR)	RAD (IN.)	RAD (IN.)	RAD (IN.)	RAD (IN.)	(± DEG./FT.)	(± DEG./FT.)	(± IN./FT.)	PSIG	PSIG
1	32	284	7	14	28	56	32	8	1/8	20	40
2	40	229	6.5	13	26	52	40	10	1/8	30	40
3	48	187	6.5	13	26	52	48	12	1/8	30	40
4	58	159	5	10	20	40	56	14	1/8	30	40
5	70	137	4	8	16	32	64	16	1/8	30	40
6	84	112	3	6	12	24	80	20	1/8	35	50
7	100	90	2.5	5	10	20	96	24	1/8	45	50
8	120	75	2.5	4.5	10	20	112	28	1/8	45	50
9	140	62	2	4	8	16	136	34	1/8	45	50
10	180	51.2	4	8	16	136	34	1/8	45	60	
11	220	42	1.5	3	6	12	155	45	1/8	45	60
12	260	34	1.5	3	6	12	155	45	1/8	45	60
13	320	28	1	2	4	8	180	70	1/8	45	60



FLEXIBLE WAVEGUIDES

ORDERING INFORMATION

MODEL NO.	WG SIZE	LENGTH	JACKET	FLANGES*	FLANGE FINISH
M1640	7	12	N	06-07	U

- MITEC PART NUMBER – M1640-07-12-N-06-07-U
- The above is a WR90 Flex Twist 12” – long neoprene jacket with cover and choke flanges – flanges unplated irridited & polished
- Specify flanges – flange numeric codes

*Brass unless otherwise requested

JACKET/PAINT	FLANGE FINISH CODE
<ul style="list-style-type: none"> • P-Black paint (M1650 only) • S-Silicone • N-Neoprene • T-Both flanges tin-plated 	<ul style="list-style-type: none"> • C-Both flanges cadmium-plated and passivated • U-Both flanges unplated irridited and polished • S-Both flanges silver-plated

CODE FLANGE STYLE		CODE FLANGE STYLE	
01	CPR style grooved (CPRG)	10	UDR style (European CPRF)
02	CPR style flat (CPRF)	11	UBR style (European cover)
03	CMR style standard hole pattern	12	PBR style (European cover groove)
04	CMR style all clear holes	13	CBR style (European choke)
05	CMR style all tapped holes	14	CAR style (European)
06	Cover style	15	PAR style (European)
07	Choke style	16	UAR style (European)
08	Special customer specified type	17	UER style (European CMR all clear)
09	PDR style (European CPRG)	18	Cover style with o-ring groove

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