

TWISTABLE AND NON-TWISTABLE FLEXIBLE WAVEGUIDE



The **Mitec Telecom Ltd** range of twistable (**M1640**) and non-twistable (**M1650**) flexible waveguide is available with a Neoprene or Silicone jacket in a variety of sizes from WR284 to WR28.

The core is manufactured from pre-convoluted brass strip helically wound to extremely close tolerances around a rectangular mandrel.

Twistable cores (**M1640**) are silver-clad and are locked by a plated copper sealing wire inserted into the seam during winding.

Non-twistable cores (**M1650**) are also silver-clad and are locked by a solder wire, which forms a continuous solder fillet running the entire length of the seam. Non-twistable cores can be pressurised without a rubber jacket.



ELECTRICAL SPECIFICATIONS FOR TWISTABLE M1640 & NON-TWISTABLE M1650

WG CODE	WAVEGUIDE SIZE		FREQUENCY (GHz)	ATTEN. NOMINAL TEST FREQUENCY (GHz)	MAX. ATTEN. (dB/m)	MAX. VSWR PLAIN/PLAIN FLANGES		MAX. VSWR PLAIN/CHOKE FLANGES		MAX. CW POWER M1640 (KW)	MAX. CW POWER M1650 (KW)
						<1m	>1m	<1m	<1m		
01	WG10	WR284	2.60 - 3.95	3.15	0.13	1.04	1.07	1.07	1.10	6.50	8.50
02	WG11A	WR229	3.30 - 4.90	3.85	0.13	1.05	1.07	-	-	-	-
03	WG12	WR187	3.95 - 5.85	4.75	0.16	1.05	1.07	1.07	1.10	3.00	3.40
04	WG13	WR159	4.90 - 7.05	5.90	0.26	1.05	1.08	1.08	1.10	2.50	2.50
05	WG14	WR137	5.85 - 8.20	6.45	0.30	1.05	1.09	1.09	1.10	2.00	1.70
06	WG15	WR112	7.05 - 10.00	9.40	0.40	1.07	1.10	1.10	1.13	1.26	0.80
07	WG16	WR90	8.20 - 12.40	9.40	0.50	1.07	1.10	1.10	1.13	0.96	0.62
08	WG17	WR75	10.00 - 15.00	13.70	0.60	1.08	1.10	1.10	1.13	0.75	0.50
09	WG18	WR62	12.40 - 18.00	14.00	0.91	1.10	1.13	1.13	1.16	0.22	0.30
10	WG19	WR51	15.00 - 22.00	18.50	1.80	1.15	1.18	1.17	1.20	0.14	0.23
11	WG20	WR42	18.00 - 26.50	22.00	2.30	1.18	1.23	1.20	1.25	0.10	0.12
13	WG22	WR28	26.50 - 40.00	34.00	3.25	1.30 (1m MAX.)				0.10	N/A

MECHANICAL SPECIFICATIONS FOR TWISTABLE M1640 & NON-TWISTABLE M1650

WG CODE	WAVEGUIDE SIZE		TWIST & NON-TWIST (M1640 & M1650)				TWIST ONLY (M1640)		MAXIMUM OPERATING PRESSURE	
			BENDING RATING				TWISTING RATING			
			STATIC		REPEATED		STATIC	REPEATED		
			E-Plane Rad. (mm)	H-Plane Rad. (mm)	E-Plane Rad. (mm)	H-Plane Rad. (mm)	Tolerance (± deg./m)	Twist (± deg./m)	M1640 (psig)	M1650 (psig)
01	WG10	WR284	178	356	712	1424	104	26	20	40
02	WG11A	WR229	165	330	660	1320	130	33	30	40
03	WG12	WR187	165	330	660	1320	156	39	30	40
04	WG13	WR159	127	254	508	1016	182	46	30	40
05	WG14	WR137	102	204	408	816	208	52	30	40
06	WG15	WR112	76	152	304	608	260	65	35	50
07	WG16	WR90	64	128	256	512	312	78	45	50
08	WG17	WR75	64	114	256	512	364	91	45	50
09	WG18	WR62	51	102	204	408	442	111	45	50
10	WG19	WR51	51	102	204	408	462	111	45	60
11	WG20	WR42	38	76	152	304	504	147	45	60
13	WG22	WR28	T.B.A.							

TWISTABLE AND NON-TWISTABLE FLEXIBLE WAVEGUIDE



JACKET / PAINT CODES

- P Black paint (M1650 only)
- S Silicone
 - Shore hardness: 50° - 55°
 - Operating temperature: -55°C to +135°C
- N Neoprene
 - Shore hardness: 45° - 50°
 - Operating temperature: -50°C to +100°C

FLANGE FINISH CODES

- E Both flanges electroless nickel
- U Both flanges unplated, irradiated and polished
- T Both flanges silver-plated
- S Both flanges tin-plated

FLANGE NUMERIC CODES

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