

TowerFeed™

Corrugated Antenna Feeder Cables

TowerFeed cable uses a low loss polyethylene foam with very low dielectric losses resulting in low attenuation of RF power. Used as antenna feeders, cabling of antenna arrays, radio equipment interconnects, jumper assemblies or indoor cabling, TowerFeed provides a good solution for many wireless applications.

Electrical Data

Maximum Frequency:	725:	20.0 GHz
	738:	12.4 GHz
	748:	10.0 GHz

Impedance:	50 Ω nominal
Propagation Velocity:	82% nominal
Time Delay:	1.24 ns/ft (4.06 ns/m)
Shielding Effectiveness:	-110 dB minimum (cable only)

Dielectric Withstanding Voltage:	725:	1.6 kV at 60 Hz
	738:	2.3 kV at 60 Hz
	748:	2.5 kV at 60 Hz

Capacitance:	24.4 pF/ft (80.1 pF/m)
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Mechanical Data

Finished Outer Diameter:	725:	0.303 in (0.770 cm)
	738:	0.406 in (1.031 cm)
	748:	0.531 in (1.349 cm)

Static Bend Radius:	725:	1.00 in (2.540 cm)
	738:	1.25 in (3.175 cm)
	748:	1.50 in (3.810 cm)

Weight with Standard Jacket/Armor:	725:	0.054 lbs/ft (0.080 kg/m)
	738:	0.085 lbs/ft (0.126 kg/m)
	748:	0.136 lbs/ft (0.202 kg/m)

Crush Resistance:	725:	45 lbs/linear in (8.0 kg/linear cm)
	738 & 748:	85 lbs/linear in (15.2 kg/linear cm)

Operating Temp. Range:	-40 to 185° F (-40 to 85° C)
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Cable Construction

Inner Conductor:	Solid Cu-clad Al
Dielectric:	Foam Polyethylene
Outer Conductor:	Helically Corrugated Cu Tape
Standard Finish:	Polyethylene

(a wide variety of other protective finishes and armors available)

Available Connectors

BNC, Type N

(maximum frequency dependent on cable;
other connectors available)



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122 Banner Road
Stroudsburg, PA 18360-6433 USA

+1(570) 424-8400

Solutions@MegaPhase.com | www.MegaPhase.com

TowerFeed™ (cont'd)

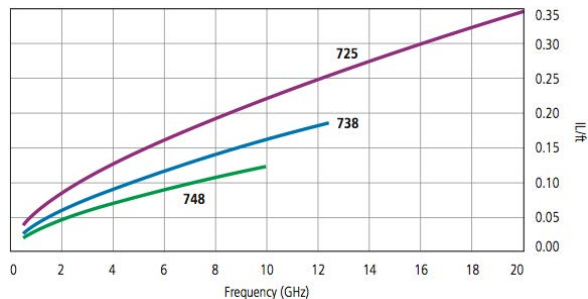
Specifications

Frequency		725 Series		738 Series		748 Series		Conn. Loss dB	VSWR
		Attenuation		Attenuation		Attenuation			
GHz	Band	dB/ft	dB/m	dB/ft	dB/m	dB/ft	dB/m		
0.3	UHF	0.030	0.100	0.021	0.069	0.017	0.055	0.006	1.15
0.5		0.040	0.131	0.028	0.091	0.022	0.072	0.009	
0.8		0.051	0.168	0.036	0.118	0.028	0.093	0.012	
1.0	L	0.058	0.190	0.041	0.133	0.032	0.105	0.014	1.20
2.0	S	0.085	0.279	0.060	0.198	0.047	0.155	0.024	1.25
2.4		0.094	0.310	0.067	0.220	0.052	0.172	0.027	
3.0		0.107	0.352	0.076	0.251	0.060	0.196	0.032	
4.0	C	0.127	0.417	0.091	0.298	0.071	0.232	0.040	1.30
6.0		0.162	0.530	0.117	0.383	0.090	0.295	0.055	
8.0	X	0.193	0.632	0.140	0.459	0.107	0.352	0.070	1.35
10.0		0.221	0.726	0.162	0.530	0.123	0.405	0.084	1.40
12.4		0.253	0.831	0.186	0.611	-	-	0.101	
15.0	Ku	0.286	0.939	-	-	-	-	0.118	
18.0		0.322	1.058	-	-	-	-	0.139	
20.0	K	0.346	1.134	-	-	-	-	0.152	1.50

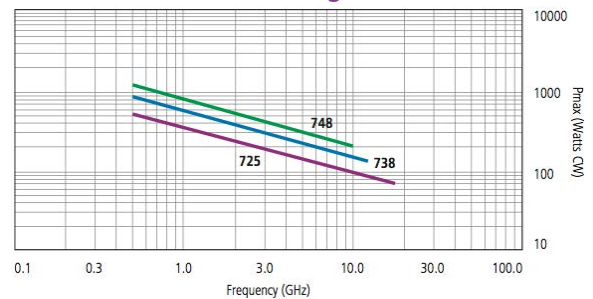
Note: Typical Insertion Loss dB = (Attenuation)(Length) + 2(Conn. Loss)

Attenuation at any frequency = 725: $(0.05232 \times \sqrt{\text{freq GHz}}) + (0.00558 \times \text{freq GHz})$, 738: $(0.03574 \times \sqrt{\text{freq GHz}}) + (0.00486 \times \text{freq GHz})$, 748: $(0.02883 \times \sqrt{\text{freq GHz}}) + (0.00323 \times \text{freq GHz})$

Insertion Loss



Cable CW Power Handling



Note: Data at ambient temperature and sea level. Power handling of a cable assembly is also connector dependent and includes variables such as altitude, temperature and system VSWR. See website for connector power handling standards, including altitude, temperature and VSWR derating.



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