

Tower - Series 7



Standard Connectors

725: SMA, TNC, Type N

738: TNC, Type N, Type HN, Type SC

748 & 754: 7-16, 7/8 EIA, Type N, Type HN, Type SC

Other connectors available upon request.

Tower Series 7 Typical Insertion Loss_{dB} = (Attenuation)(Length)

Frequency		725				738				748				754						
		Attenuation		CW Power		Attenuation		CW Power		Attenuation		CW Power		Attenuation		CW Power				
GHz	Band	dB/m	dB/ft	kW	SWR	dB/m	dB/ft	kW	SWR	dB/m	dB/ft	kW	SWR	dB/m	dB/ft	kW	SWR			
0.150	VHF	0.02	0.07	1.01	1.20:1	0.01	0.04	1.83	1.23:1	0.01	0.04	2.50	1.29:1	0.01	0.03	2.79	1.29:1			
0.450	UHF	0.04	0.13	0.57		0.02	0.08	1.02		0.02	0.08	1.38		0.02	0.08	1.29		0.01	0.05	1.56
0.512		0.04	0.14	0.53		0.02	0.08	0.96		0.02	0.08	1.29		0.02	0.05	1.45				
0.800		0.05	0.17	0.42		0.03	0.10	0.75		0.03	0.10	1.00		0.02	0.07	1.14				
0.960		0.06	0.19	0.38		0.03	0.11	0.68		0.04	0.12	0.91		1.13:1	0.02	0.07		1.03	1.13:1	
1.000	L	0.06	0.20	0.37		0.04	0.12	0.67		0.04	0.12	0.89		1.29:1	0.02	0.08		1.01	1.29:1	
1.700		0.08	0.26	0.28		0.05	0.16	0.50		0.05	0.16	0.65		1.13:1	0.03	0.10		0.75		
2.000	S	0.09	0.28	0.26		0.05	0.17	0.45		0.05	0.18	0.59		1.29:1	0.03	0.11		0.68		
3.000		0.11	0.35	0.21		0.07	0.21	0.36		0.07	0.22	0.47		1.29:1	0.04	0.14		0.54		
6.000	C	0.16	0.52	0.14		1.40:1	0.10	0.32		0.24	1.35:1	0.11		0.34	0.30	1.29:1		0.07		0.21
8.000	X	0.19	0.62	0.12	0.12		0.38	0.20	0.13	0.41		0.25	1.50:1	0.08	0.25		0.29			
10.000		0.22	0.71	0.10	0.13		0.44	0.18	0.15	0.48		0.25	1.60:1							
12.000	0.24	0.79	0.09	0.15	0.50		0.16													
14.000	Ku	0.27	0.87	0.08	1.55:1															
16.000		0.29	0.94	0.08																
18.000		0.31	1.01	0.07																
20.000		0.33	1.08	0.07																

Tower Series 7 Electrical Data

	725	738	748	754
Maximum Frequency	20.0 GHz	13.5 GHz	10.2 GHz	8.8 GHz
Impedance	50 Ω nominal	50 Ω nominal	50 Ω nominal	50 Ω nominal
Propagation Velocity	84% nominal	88% nominal	81% nominal	88% nominal
Shielding Effectiveness	< -120 dB minimum	< -120 dB minimum	< -120 dB minimum	< -120 dB minimum
Peak Power Rating	6.4 kW	15.6 kW	15.6 kW	40.0 kW

Tower Series 7 Mechanical Data

	725	738	748	754
Outer Conductor Diameter	0.250 in (6.35 mm)	0.380 in (9.65 mm)	0.480 in (12.19 mm)	0.545 in (13.84 mm)
Jacketed Outer Diameter	0.300 in (7.62 mm)	0.440 in (11.18 mm)	0.540 in (13.72 mm)	0.644 in (16.35 mm)
Bend Radius	1.00 in (2.54 cm)	3.75 in (9.53 cm)	1.25 in (3.18 cm)	2.00 in (5.08 cm)
Number of Bends	15 minimum	15 minimum	20 minimum	15 minimum
Operating Temperature Range	-40 to 185°F (-40 to +85°C)		-40 to 185°F (-40 to +85°C)	
Jacketed Weight	0.05 lbs/ft (0.075 kg/m)	0.08 lbs/ft (0.119 kg/m)	0.15 lbs/ft (0.224 kg/m)	0.16 lbs/ft (0.238 kg/m)
Flexibility Rating – Highest = 5.0	2.5	1.0	2.0	1.0

Tower Series 7 Cable Construction

	725	738	748	754
Inner Conductor	Cu-Clad Aluminum	Cu-Clad Aluminum	Cu-Clad Aluminum	Cu-Clad Aluminum
Dielectric	Low Loss Polyethylene Foam		Low Loss Polyethylene Foam	
Outer Conductor	Corrugated Seamless Cu Tube		Corrugated Seamless Cu Tube	
Outer Jacket	Black Polyethylene-J	Black Polyethylene-J	Black Polyethylene-J	Black Polyethylene-J