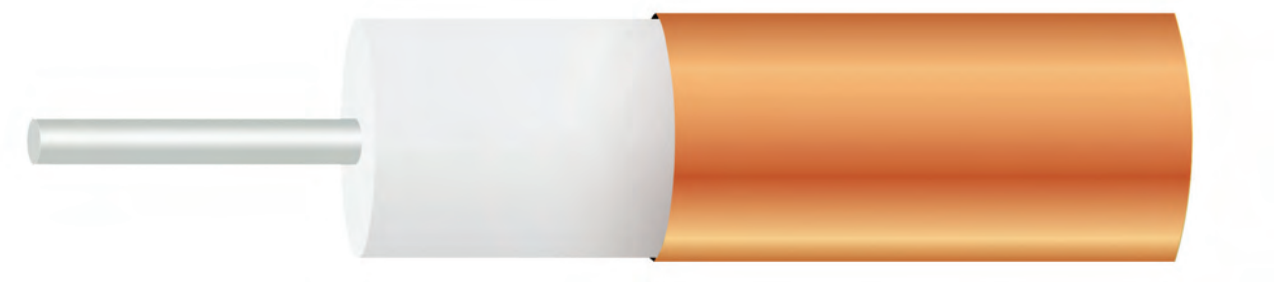
Semi Rigid Series



Center Conductor
Silver Plated
Copper/Steel Solid

Dielectric
PTFE

Outer Conductor
Copper
50S047 - (0.047", 1.19 mm)
50S085 - (0.088", 2.23 mm)
50S141 - (0.141", 3.58 mm)
50S250 - (0.250", 6.35 mm)

	50S047	50S085	50S141	50S250
Electrical Characteristics				
Impedance	50 +/– 2Ω	50 +/– 2Ω	50 +/– 2Ω	50 +/– 2Ω
Cut Off Frequency (cable only)	110 GHz	62 GHz	35 GHz	18 GHz
Capacitance	29 pF/ft.	28.6 pF/ft.	28.6 pF/ft.	28.6 pF/ft.
Velocity of Propagation	70%	71%	71%	71%
Time Delay	1.45 ns/ft.	1.43 ns/ft.	1.43 ns/ft.	1.43 ns/ft.
Shielding Effectiveness up to 18GHz	>90 dB	>90 dB	>90 dB	>90 dB
Cable Attenuation Factors (K1, K2) *	33.2, 0.83	18.7, 0.82	10.5, 0.85	6.0, 0.81
Power Handling	See Chart	See Chart	See Chart	See Chart

Mechanical Characteristics:				
Weight	0.06 oz/ft (5.60 g/m)	0.26 oz/ft (24.5 g/m)	0.52 oz/ft (48.37 g/m)	1.76 oz/ft (163.7 g/m)
Minimum Bend Radius	0.0625" (1.59mm)	0.125" (3.18 mm)	0.25" (6.35 mm)	0.375" (9.52mm)

Environmental Characteristics:	
Operating Temperature Range [1]	-65°C to +125°C
RoHS 3 (EU 2015/863)	Yes

Semi-Rigid supplied in cut lengths or coils.

Available as bare copper or plated with tin, tin-lead, or silver.

*Attenuation = $K1\sqrt{f} + K2f$ (cable only)

Semi Rigid Series

Attenuation (max)

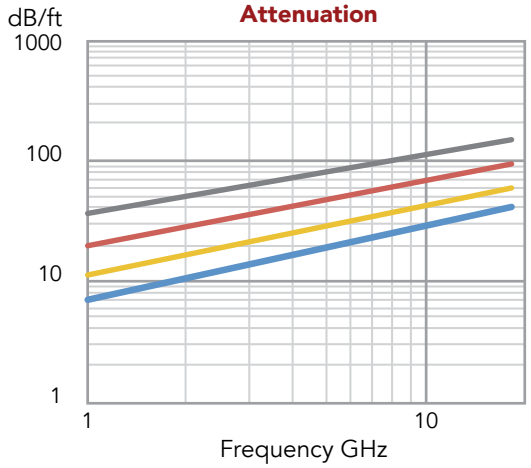
	50S047		
GHz	**dB/ft.**	**dB/m**	**Power(W) @ 20°C @ Sea Level**
0.5	0.24	0.78	82
1	0.34	1.11	58
5	0.78	2.57	25
10	1.13	3.71	19
18	1.56	5.10	14

	50S085		
GHz	**dB/ft.**	**dB/m**	**Power(W) @ 20°C @ Sea Level**
0.5	0.14	0.45	232
1	0.20	0.64	162
5	0.46	1.51	70
10	0.67	2.21	48
18	0.94	3.09	35

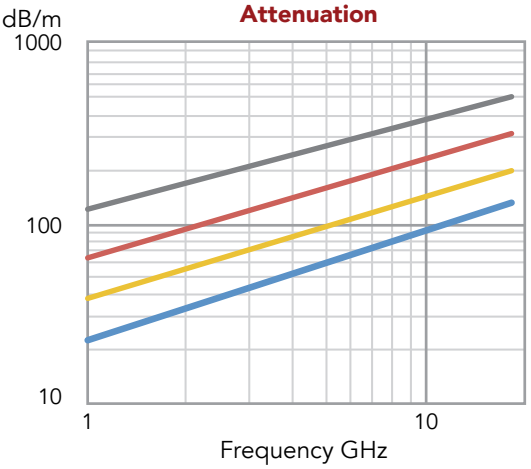
	50S141		
GHz	**dB/ft.**	**dB/m**	**Power(W) @ 20°C @ Sea Level**
0.5	0.08	0.26	600
1	0.11	0.37	450
5	0.28	0.91	180
10	0.42	1.36	120
18	0.60	1.96	83

	50S250		
GHz	**dB/ft.**	**dB/m**	**Power(W) @ 20°C @ Sea Level**
0.5	0.05	0.15	1950
1	0.07	0.22	1500
5	0.17	0.57	765
10	0.27	0.89	350
18	0.40	1.31	210

Attenuation



Attenuation



Max RF Power at 20°C at Sea Level