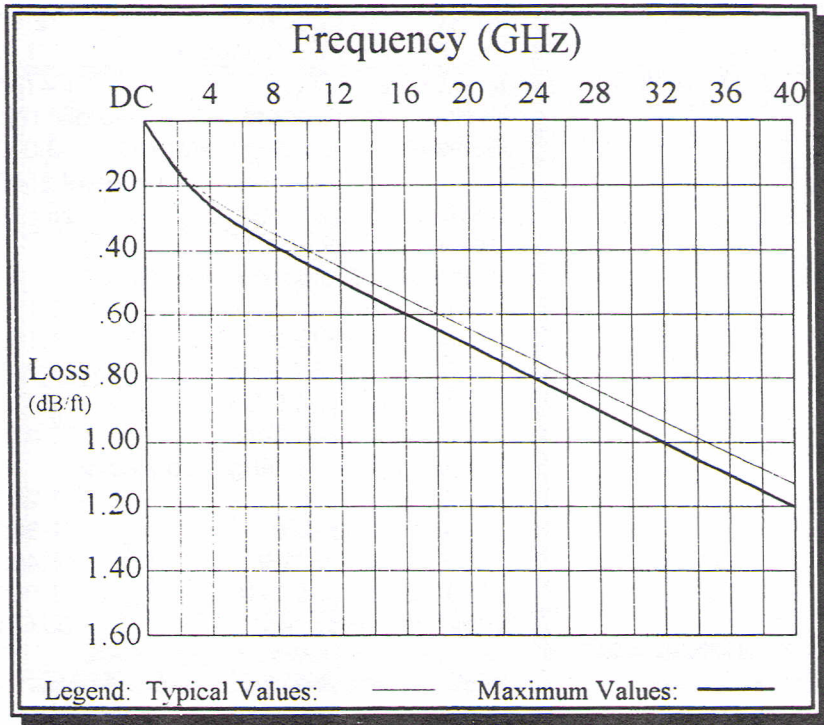




## FC182 Flexible Coaxial Cable 40 GHz Cable

**Frequency vs. Attenuation**



**Electrical Characteristics:**

- Nominal Impedance: 50Ω
- Velocity of Propagation: 69%
- Effective Dielectric Constant: 2.10
- Time Delay: 1.47 ns/ft
- Shielding Effectiveness: -90 dBc min.
- Dielectric Withstanding Voltage: 5.0 KV  
(@ 60 Hz, Sea Level/25°C)
- Nominal Capacitance: 29 pF/ft
- Maximum VSWR:

**Precision Straight connectors:**

- DC - < 4 GHz 1.10:1
- 4 GHz - < 8 GHz 1.15:1
- 8 GHz - < 18 GHz 1.25:1
- 18 GHz - < 26.5 GHz 1.35:1
- 26.5 GHz - 40 GHz 1.40:1

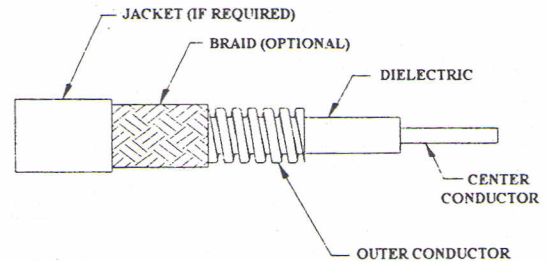
**Non-Precision or Angle connectors:**

- DC - < 4 GHz 1.20:1
- 4 GHz - < 8 GHz 1.30:1
- 8 GHz - < 18 GHz 1.40:1
- 18 GHz - 26.5 GHz 1.50:1

Maximum Frequency: 50 GHz

*For phase and other electrical characteristics, please consult the appropriate section of catalog.*

Frequency (GHz)	Maximum Insertion Loss (dB/ft)	Typical Insertion Loss (dB/ft)	Precision Connector Loss (dB)	Non Precision Connector Loss (dB)
0.5	0.08	0.07	0.02	0.03
1.0	0.12	0.11	0.02	0.03
2.0	0.18	0.17	0.03	0.05
4.0	0.26	0.24	0.04	0.06
6.0	0.34	0.32	0.06	0.09
8.0	0.40	0.38	0.07	0.11
10.0	0.46	0.44	0.08	0.12
12.0	0.51	0.48	0.08	0.12
14.0	0.56	0.53	0.09	0.14
16.0	0.60	0.57	0.10	0.15
18.0	0.65	0.62	0.11	0.17
20.0	0.70	0.66	0.12	0.19
22.0	0.75	0.71	0.13	0.23
24.0	0.80	0.76	0.14	0.26
26.0	0.83	0.78	0.15	0.30
28.0	0.90	0.85	0.16	
30.0	0.95	0.90	0.16	
32.0	1.00	0.95	0.17	
34.0	1.06	1.00	0.18	
36.0	1.10	1.04	0.19	
38.0	1.15	1.10	0.20	
40.0	1.20	1.14	0.20	



**Physical Characteristics:**

- Center Conductor: Solid SPC per ASTM-B298
- Dielectric: PTFE per L-P-403
- Outer Conductor: Strip wound oxygen free copper
- Minimum Internal Bend Radius: 0.5 inches
- Operating Temperature: -60°C to +175°C
- Weight per Foot (unjacketed): 0.035 lbs
- Connector Interface: Per MIL-C-39012

**Optional Jacketing and Braid:**

- Polyolefin per MIL-I-23053/5: 0.250" max. O.D.
- Neoprene per MIL-I-23053/1: 0.285" max. O.D.
- FEP per MIL-I-23053/11: 0.240" max. O.D.
- Braid: Bronze per UNS C22000, 0.250" max. O.D.
- Others available, please consult factory.