

## VT-047 – FEP Low Loss Phase Stable Coaxial Cable

### Features & Benefits

- Solid FEP + Silver Plated Copper Foil
- Excellent stability with Flexure/Bending

### Construction Specification

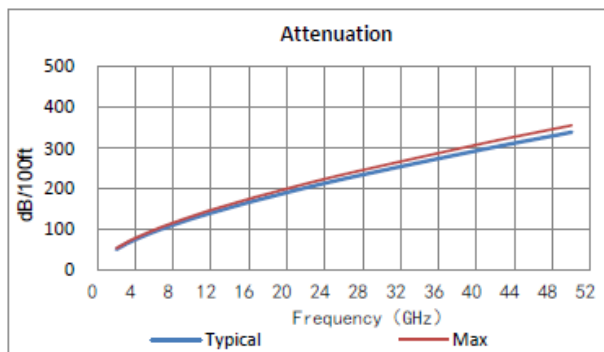
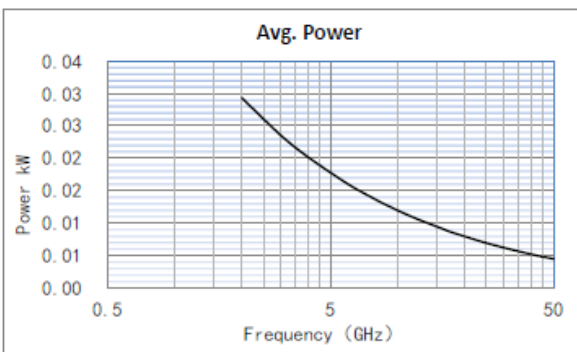
	Description	Size (mm) Tol.	Size (inch) Tol.	Materials
1	Center Conductor	0.287 ± 0.0025	0.0113 ± 0.0001	Silver Plated Copper
2	Dielectric	0.91 ± 0.025	0.0358 ± 0.0010	FEP
3	Outer Conductor	1.07 ± 0.050	0.0421 ± 0.0020	Silver Plated Copper Foil
4	Outer Shield	1.16 ± 0.050	0.0460 ± 0.0020	Silver Plated Copper
5	Jacket	1.42 ± 0.076	0.0560 ± 0.0030	Blue FEP

### Mechanical & Environmental Specifications

Bend Radius: Installation (inches)	0.20
Bend Radius: Repeated (inches)	0.40
Weight (LBS/1000ft)	3.50
Temp: Operating and Installation (°C)	-65 ~ 165
Temp: Storage (°C)	-65 ~ 165

### Electrical Specifications

Operating Frequency (GHz)	50
Impedance (Ohms)	50
Velocity of Propagation	70%
Shielding Effectiveness (dB)	90
Voltage Withstanding (V, DC)	500



### Attenuation (Typical @ 25°C & VSWR = 1.0 & Power (VSWR = 1.0; 40°C Sea Level)

Frequency MHz	2000	4000	6000	8000	10000	12000	16000	18000	25600	40000	50000
dB/100 m	170.53	248.82	311.94	367.20	417.44	464.11	464.11	589.99	730.61	965.53	1113.98
dB/100 ft	52.01	75.89	95.14	112.00	127.32	141.55	167.72	179.95	222.84	294.49	339.76
Avg. Power kW	0.0293	0.0201	0.0160	0.0136	0.0120	0.0108	0.0091	0.0085	0.0068	0.0052	0.0045

Calculate Attenuation =  $K1 \cdot \sqrt{FMHz} + K2 \cdot FMHz$  where  $K1 = 1.07322$  (dB/100FT) &  $K2 = 0.00199$  (dB/100FT)

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