

**Engineered Products:**

**FBT™-240**

**Flexible Low Loss High Power Communications Coax**

**Ideal for...**

- High Power Base Station Jumper Assemblies
- In-Building Plenum Feeder Runs
- Any High Power Low Loss RF cable application



Part Description					Stock
Part Number	Application	Jacket	Color	Code	
FBT-240	Indoor/Outdoor	FEP	Brown	54167	

Construction Specifications				
Description	Material	In.	(mm)	
Inner Conductor	Solid BC	0.051	(1.30)	
Dielectric	Low Density PTFE	0.150	(3.81)	
Outer Conductor	Aluminum Tape	0.155	(3.94)	
Overall Braid	Tinned Copper	0.178	(4.52)	
Jacket	Brown FEP	0.205	(5.21)	

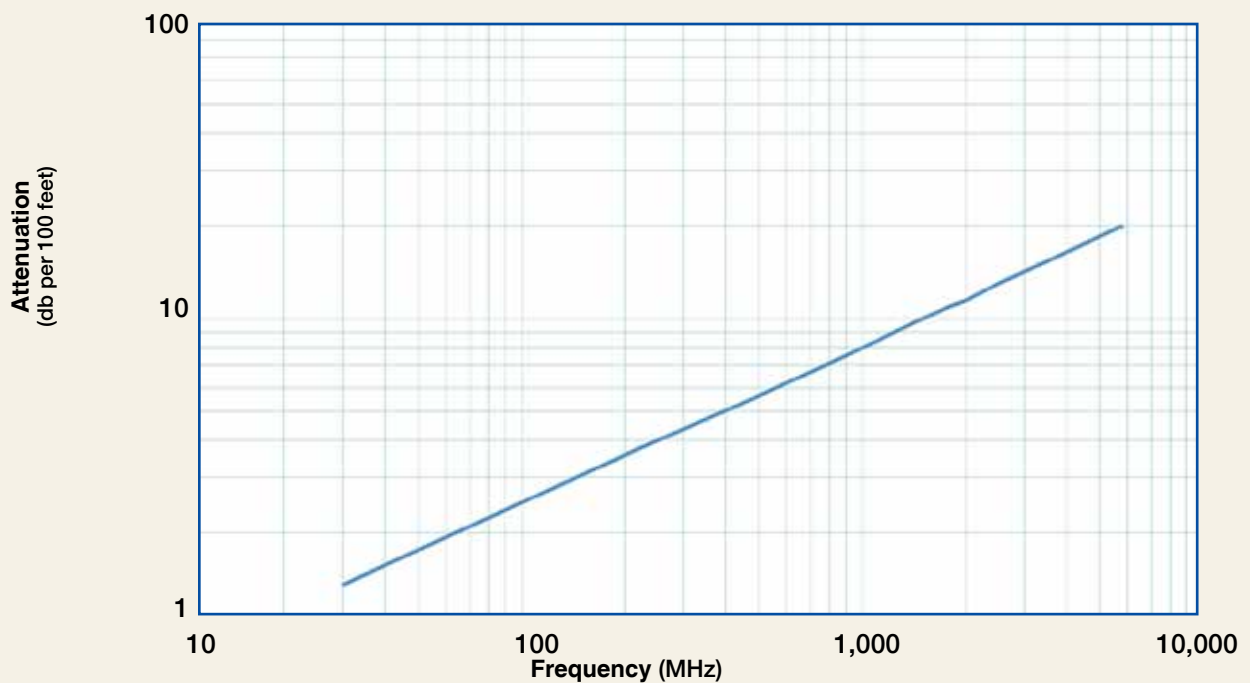
Environmental Specifications			
Performance Property	°F	°C	
Installation Temperature Range	-67/+302	-55/+150	
Storage Temperature Range	-67/+302	-55/+150	
Operating Temperature Range	-67/+302	-55/+150	

Mechanical Specifications				
Performance Property	Units	US	(metric)	
Bend Radius: installation	in. (mm)	1.0	(25.4)	
Bend Radius: repeated	in. (mm)	2	(50.8)	
Bending Moment	ft-lb (N-m)	0.25	(0.34)	
Weight	lb/ft (kg/m)	0.040	(0.06)	
Tensile Strength	lb (kg)	60	(27.2)	
Flat Plate Crush	lb/in. (kg/mm)	85	(1.52)	

Electrical Specifications				
Performance Property	Units	US	(metric)	
Velocity of Propagation	%	76		
Dielectric Constant	NA	1.73		
Time Delay	nS/ft (nS/m)	1.34	(4.40)	
Impedance	ohms	50		
Capacitance	pF/ft (pF/m)	26.7	(87.6)	
Inductance	uH/ft (uH/m)	0.067	(0.22)	
Shielding Effectiveness	dB	>90		
DC Resistance				
Inner Conductor	ohms/1000ft (/km)	4.00	(13.1)	
Outer Conductor	ohms/1000ft (/km)	3.90	(12.8)	
Voltage Withstand	Volts DC	1500		
Jacket Spark	Volts RMS	5000		
Peak Power	kW	5.6		



**Attenuation vs. Frequency (typical)**



Frequency (MHz)	30	50	150	220	450	900	1500	1800	2000	2500	3400	5800
<b>Attenuation dB/100 ft</b>	1.4	1.8	3.1	3.7	5.4	7.6	9.9	10.9	11.5	12.9	15.1	20.0
<b>Attenuation dB/100 m</b>	4.5	5.8	10.1	12.2	17.6	25.0	33.2	35.7	37.7	42.3	49.6	65.6
<b>Avg. Power kW</b>	2.48	1.92	1.10	0.91	0.63	0.44	0.34	0.31	0.29	0.26	0.22	0.17

**Calculate Attenuation =**  
 $(0.248515) \cdot \sqrt{\text{FMHz}} + (0.000183) \cdot \text{FMHz}$  (interactive calculator available at [http://www.timesmicrowave.com/cable\\_calculators](http://www.timesmicrowave.com/cable_calculators))

**Attenuation:**  
 VSWR=1.0 ; Ambient = +25°C (77°F)

**Power:**  
 VSWR=1.0; Ambient = +40°C; Inner Conductor = 100°C (212°F); Sea Level; dry air; atmospheric pressure; no solar loading