

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)	

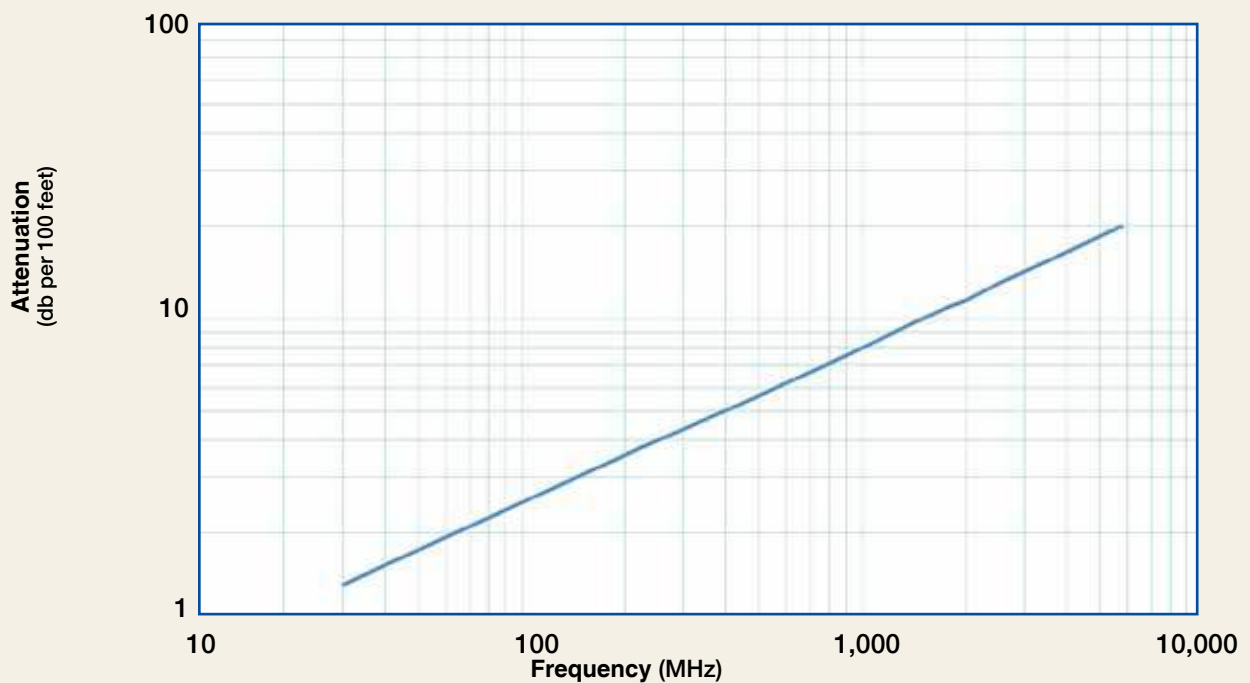
Environmental Specifications			
Performance Property	°F	°C	
Installation Temperature Range	-67/+302	-55/+150	
Storage Temperature Range	-67/+302	-55/+150	
Operating Temperature Range	-67/+302	-55/+150	

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
Attenuation dB/100 ft	1.4	1.8	3.1	3.7	5.4	7.6	9.9	10.9	11.5	12.9	15.1	20.0
Attenuation dB/100 m	4.5	5.8	10.1	12.2	17.6	25.0	33.2	35.7	37.7	42.3	49.6	65.6
Avg. Power kW	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)

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

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Connectors		Part Number	Stock Code	VSWR**	Coupling	Inner Contact Attach	Outer Contact Attach	Body Finish*	Length in (mm)	Width in (mm)	Weight lb (g)
1. BNC Male	Straight Plug	TC-240-BMC	3190-242	<1.25:1 (2.5)	Knurl	Solder	Clamp	S/G	1.7 (43)	0.56 (14.2)	0.040 (18.1)
2. Mini-UHF	Straight Plug	TC-240-MUHF	3190-445	<1.25:1 (2.5)	Knurl	Solder	Crimp	N/G	1.1 (28)	0.45 (11.4)	0.014 (6.4)
3. N Female	Bulkhead Jack	TC-240-NF-BH	3190-419	<1.25 (2.5)	NA	Solder	Crimp	A/G	1.7 (44)	0.88 (22.2)	0.115 (52.2)
4. N Male	Straight Plug	TC-240-NMH	3190-382	<1.25:1 (2.5)	Hex	Solder	Crimp	N/S	1.5 (38)	0.75 (19.1)	0.086 (39.0)
5. N Male	Straight Plug	TC-240-NMC	3190-244	<1.25:1 (2.5)	Knurl	Solder	Clamp	S/G	1.5 (38)	0.75 (19.1)	0.082 (37.2)
6. SMA Female	Bulkhead Jack	TC-240-SF-BH	3190-824	<1.25:1 (2.5)	NA	Solder	Crimp	SS/G	1.1 (29)	0.31 (7.9)	0.019 (8.6)
7. SMA Male	Straight Plug	TC-240-SM-SS-X	3190-2898	<1.25:1 (10)	Hex	Solder	Crimp	SS/G	1.0 (25)	0.32 (8.1)	0.016 (7.3)
8. SMA Male	Right Angle	TC-240-SM-RA	3190-381	<1.35:1 (6)	Hex	Solder	Crimp	SS/G	0.8 (20)	0.65 (16.5)	0.019 (8.6)
9. SMA Male	Reverse Polarity	TC-240-SM-RP	3190-326	<1.25:1 (2.5)	Hex	Solder	Crimp	SS/G	1.0 (25)	0.32 (8.1)	0.016 (7.3)
10. TNC Male	Straight Plug	TC-240-TM	3190-275	<1.25:1 (2.5)	Knurl	Solder	Crimp	N/S	1.7 (43)	0.59 (15.0)	0.043 (19.5)
11. TNC Male	Right Angle	TC-240-TM-RA	3190-604	<1.35:1 (2.5)	Knurl	Solder	Crimp	N/G	1.3 (33)	0.57 (14.5)	0.055 (24.9)
12. Type F Male	Straight Plug	TC-240-FM-X	3190-2891	<.25:1 (2.5)	Knurl	Solder	Crimp	N/G	1.1 (28)	0.45 (11.4)	0.014 (6.4)



Hardware Accessories

Type	Part Number	Stock Code	Description
Ground Kit	GK-S240TT	GK-S240TT	Standard Ground Kit (each)



Install Tools

Type	Part Number	Stock Code	Description
Crimp Tool	CT-240/200/195/100	3190-667	Crimp tool for LMR-100, 195, 200 and 240 connectors
Deburr Tool	DBT-U	3192-001	Removes center conductor rough edges
Cutting Tool	CCT-02	3192-165	Cable and flush cut tool
Replacement Blade	RB-02	3192-166	Replacement blade for cutting tool