

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) | |

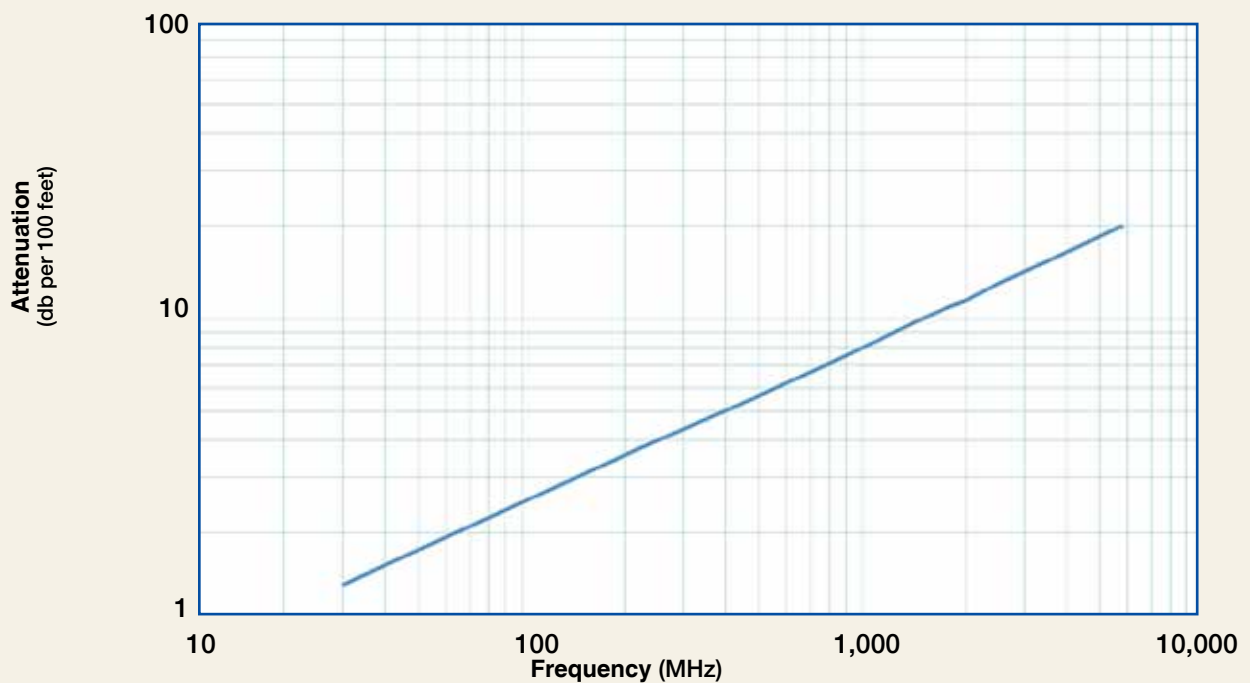
| Environmental Specifications | | | |
|--------------------------------|----------|----------|--|
| Performance Property | °F | °C | |
| Installation Temperature Range | -67/+302 | -55/+150 | |
| Storage Temperature Range | -67/+302 | -55/+150 | |
| Operating Temperature Range | -67/+302 | -55/+150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

| 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 |