

LMR[®]-200-UF UltraFlex Communications Coax

Ideal for...

- Jumper Assemblies in Wireless Communications Systems
- Short Antenna Feeder runs
- Any application that requires additional flexibility



| Part Description | | | | |
|------------------|----------------|--------|-------|------------|
| Part Number | Application | Jacket | Color | Stock Code |
| LMR-200-UF | Indoor/Outdoor | TPE | Black | 54042 |

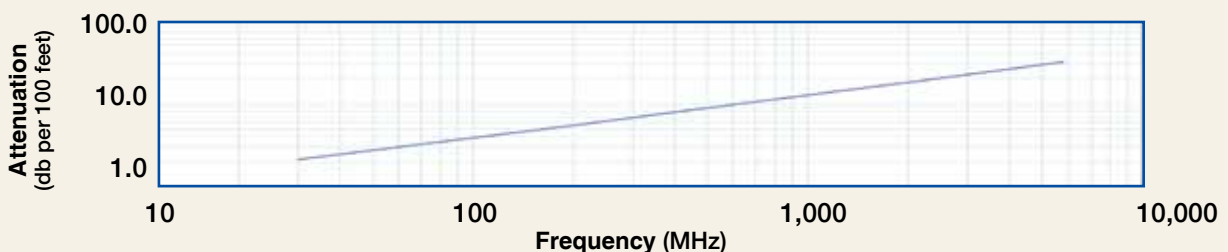
| Environmental Specifications | | |
|--------------------------------|----------|---------|
| Performance Property | °F | °C |
| Installation Temperature Range | -40/+185 | -40/+85 |
| Storage Temperature Range | -94/+185 | -70/+85 |
| Operating Temperature Range | -40/+185 | -40/+85 |

| Construction Specifications | | | |
|-----------------------------|-------------------------------|-------|--------|
| Description | Material | In. | (mm) |
| Inner Conductor | Stranded BC | 0.044 | (1.12) |
| Dielectric | Foam Polyethylene | 0.116 | (2.95) |
| Outer Conductor | Aluminum Tape | 0.121 | (3.07) |
| Overall Braid | Tinned Copper | 0.144 | (3.66) |
| Jacket | Black Thermoplastic Elastomer | 0.195 | (4.95) |

| Electrical Specifications | | | |
|---------------------------|-------------------|-------|----------|
| Performance Property | Units | US | (metric) |
| Velocity of Propagation | % | 83 | |
| Dielectric Constant | NA | 1.45 | |
| Time Delay | nS/ft (nS/m) | 1.22 | (4.02) |
| Impedance | ohms | 50 | |
| Capacitance | pF/ft (pF/m) | 24.5 | (80.3) |
| Inductance | uH/ft (uH/m) | 0.061 | (0.20) |
| Shielding Effectiveness | dB | >90 | |
| DC Resistance | | | |
| Inner Conductor | ohms/1000ft (/km) | 7.5 | (24.6) |
| Outer Conductor | ohms/1000ft (/km) | 4.9 | (16.1) |
| Voltage Withstand | Volts DC | 1000 | |
| Jacket Spark | Volts RMS | 3000 | |
| Peak Power | kW | 2.5 | |

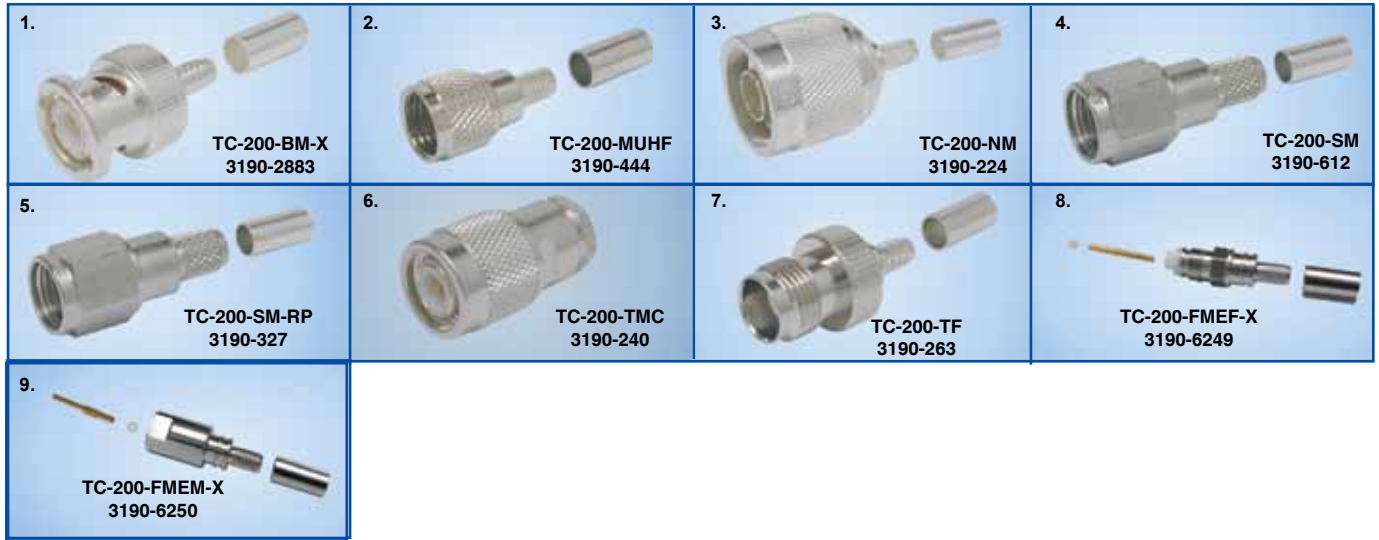
| Mechanical Specifications | | | |
|---------------------------|----------------|-------|----------|
| Performance Property | Units | US | (metric) |
| Bend Radius: installation | in. (mm) | 0.5 | (12.7) |
| Bend Radius: repeated | in. (mm) | 2 | (50.8) |
| Bending Moment | ft-lb (N-m) | 0.1 | (0.14) |
| Weight | lb/ft (kg/m) | 0.022 | (0.03) |
| Tensile Strength | lb (kg) | 40 | (18.2) |
| Flat Plate Crush | lb/in. (kg/mm) | 10 | (0.18) |

Attenuation vs. Frequency (typical)



| Frequency (MHz) | 30 | 50 | 150 | 220 | 450 | 900 | 1500 | 1800 | 2000 | 2500 | 5800 |
|-----------------------|------|------|------|------|------|------|------|------|------|------|-------|
| Attenuation dB/100 ft | 2.1 | 2.7 | 4.8 | 5.8 | 8.3 | 11.9 | 15.5 | 17.1 | 18.0 | 20.2 | 31.6 |
| Attenuation dB/100 m | 7.0 | 9.0 | 15.7 | 19.0 | 27.4 | 39.1 | 50.9 | 55.9 | 59.1 | 66.4 | 103.8 |
| Avg. Power kW | 0.95 | 0.73 | 0.42 | 0.35 | 0.24 | 0.17 | 0.13 | 0.12 | 0.11 | 0.10 | 0.06 |

Calculate Attenuation = $(0.385082) \sqrt{\text{FMHz}} + (0.000396) \cdot \text{FMHz}$ (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



| Connectors | | | | | | | | | | | |
|---------------|------------------|---------------|------------|-----------------------|-----------------|----------------------------|----------------------------|-------------------------|-------------------|------------------|------------------|
| Interface | Description | Part Number | Stock Code | VSWR** Freq. (GHz) | Coupling Nut | Inner Contact Attach | Outer Contact Attach | Finish* Body /Pin | Length in (mm) | Width in (mm) | Weight lb (g) |
| 1. BNC Male | Straight Plug | TC-200-BM-X | 3190-2883 | <1.25:1 (2.5) | Knurl | Solder | Crimp | S/G | 1.7 (43.2) | 0.56 (14.2) | 0.045 (20.4) |
| 2. Mini-UHF | Straight Plug | TC-200-MUHF | 3190-444 | <1.25:1 (2.5) | Knurl | Solder | Crimp | NG | 1.1 (27.9) | 0.45 (11.4) | 0.015 (6.8) |
| 3. N Male | Straight Plug | TC-200-NM | 3190-224 | <1.25:1 (2.5) | Knurl | Solder | Crimp | S/G | 1.5 (38.1) | 0.75 (19.1) | 0.073 (33.1) |
| 4. SMA Male | Straight Plug | TC-200-SM | 3190-612 | <1.25:1 (8) | Hex | Solder | Crimp | SS/G | 1.0 (25.4) | 0.32 (8.1) | 0.015 (6.8) |
| 5. SMA Male | Reverse Polarity | TC-200-SM-RP | 3190-327 | <1.25:1 (2.5) | Hex | Solder | Crimp | SS/G | 1.0 (25.4) | 0.32 (8.1) | 0.015 (6.8) |
| 6. TNC Male | Straight Plug | TC-200-TMC | 3190-240 | <1.25:1 (2.5) | Knurl | Solder | Clamp | S/G | 1.7 (43.2) | 0.59 (15.0) | 0.045 (20.4) |
| 7. TNC Female | Straight Jack | TC-200-TF | 3190-263 | <1.25:1 (2.5) | NA | Solder | Crimp | N/G | 1.3 (33.0) | 0.57 (14.5) | 0.033 (15.0) |
| 8. FME Female | Straight Jack | TC-200-FMEF-X | 3190-6249 | <1.25:1 (2) | Hex | Solder | Crimp | A/G | 1.2 (29.3) | 0.36 (9.2) | 0.240 (6.1) |
| 9. FME Male | Straight Plug | TC-200-FMEM-X | 3190-6250 | <1.25:1 (2) | NA | Solder | Crimp | A/G | 1.1 (28.1) | 0.42 (10.8) | 0.421 (10.7) |

Hardware Accessories

| Type | Part Number | Stock Code | Description |
|------------|-------------|------------|----------------------------|
| Ground Kit | GK-S200TT | GK-S200TT | 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 |
| Cutting Tool | CCT-02 | 3192-165 | Cable end flush cut tool |
| Replacement Blade | RB-02 | 3192-166 | Replacement blade for cutting tool |

