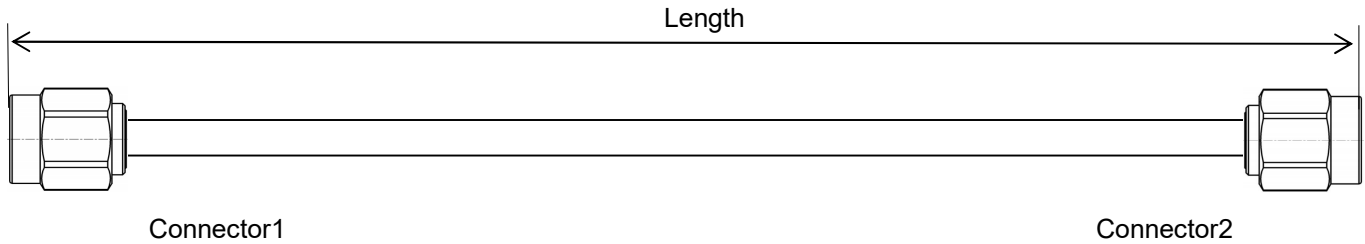


Tight Bend Triple-shielding Flexible Cable Assembly, Using MB250

DC-40 GHz, 2.92mm Male to 2.92mm Male

MB250-292M292M-L(L:Length)

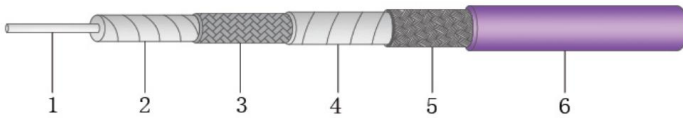


- Length can be in meter or in inch etc, e.g, MB250-292M292M-1M. Standard length tolerance: $\pm 1.5\%$. Custom lengths and other connector types available.
- Length is measured from one connector end to the other connector end as shown above. For RA connectors, use the pin center-line.

Configuration

| Connector 1 | 2.92mm male | Connector 2 | 2.92mm male |
|-------------------|----------------------------|----------------|----------------------------|
| Body | Passivated stainless steel | Body | Passivated stainless steel |
| Center Contact | Gold plated BeCu | Center Contact | Gold plated BeCu |
| Cable Type | MB250 | | |

Cable Construction



| No. | Construction | Size (mm) | Materials |
|-----|------------------|-----------|------------------------------------|
| 1 | Center conductor | 0.51 | Silver plated copper |
| 2 | Dielectric | 1.65 | Low density PTFE |
| 3 | Outer conductor | 1.82 | Silver plated copper wire braiding |
| 4 | Middle layer | 1.90 | Aluminum foil |
| 5 | Outer shield | 2.12 | Stainless steel wire |
| 6 | Jacket | 2.50 | FEP |

Electrical

| | |
|--------------------------------|---------------------------------|
| Frequency | DC-40 GHz |
| Impedance | 50 Ω |
| VSWR Max | 1.4 |
| IL Max(1 meter assembly) | 6.6dB |
| Velocity of Propagation | 70% |
| *Mechanical Phase Stability | $< \pm 15^\circ @ 50\text{GHz}$ |
| Amplitude Stability vs Shaking | $< \pm 0.15\text{dB}$ |

* Wrapped 360° around a 26mm diameter mandrel.

Mechanical & Environmental

| | |
|------------------------------|-----------|
| Min.Bending Radius Static | 10mm |
| Min. Bending Radius Repeated | 25mm |
| Temperature(Operation) | -50~85 °C |
| Temperature(Storage) | -60~85 °C |

Bulk Cable Attenuation(Typical@25°C) & Power(VSWR=1.0; 40°C; Sea level)

| | | | | | | | | | | | | |
|--|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Frequency MHz | 300 | 1000 | 2000 | 4000 | 6000 | 10000 | 12000 | 14000 | 18000 | 26500 | 40000 | 50000 |
| dB/100 Meter | 45.1 | 82.9 | 118.0 | 168.4 | 207.7 | 271.1 | 298.3 | 323.6 | 369.7 | 454.6 | 568.2 | 642.1 |
| Avg.Power kW | 0.500 | 0.272 | 0.191 | 0.134 | 0.109 | 0.083 | 0.076 | 0.070 | 0.061 | 0.050 | 0.040 | 0.035 |
| Attenuation at any frequency=[2.580809×SQRT(FMHz)]+[0.0013×FMHz] | | | | | | | | | | | | |

- Notes:**
- 1) The above attenuation refers to typical loss of cable only, max loss is 1.1 times of typical loss. Insertion loss per connector is estimated as 0.03dB x SQRT Freq(GHz).
 - 2) Power handling values are calculated based on cable properties. Power handling will vary based on connector type and actual VSWR of the cable assembly.

Typical Test Data (MB250-292M292M-30IN)

