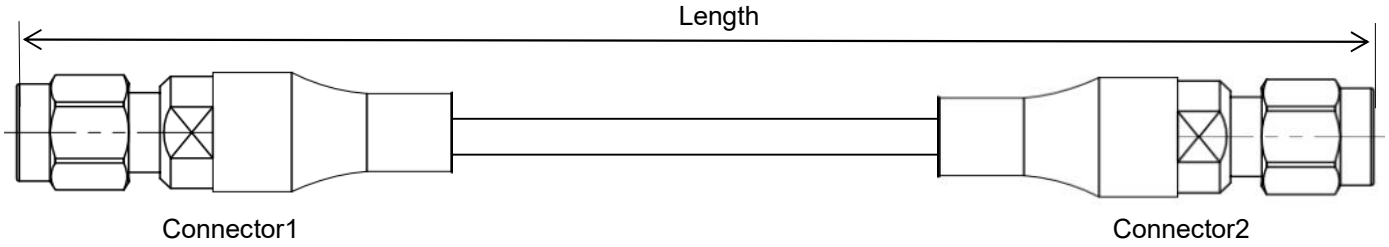
**Armored Bench Test Cable Assembly, Using PL180P**

**DC-110 GHz, 1.0mm Male to 1.0mm Male** **PL180P-1M1M-L-A(L:Length)**

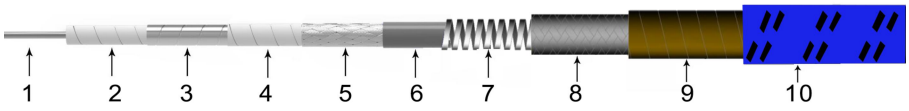



· Length can be in meter or in inch etc, e.g, PL180P-1M1M-10CM-A. Standard length tolerance: ±1.5%. Custom lengths and other connector types available.
· Length is measured from one connector end to the other connector end as shown above. For RA connectors, use the pin center-line.

## Configuration

| | | | |
|---|---|---|---|
| **Connector 1** | 1.0mm male | **Connector 2** | 1.0mm male |
| Body | Passivated stainless steel | Body | Passivated stainless steel |
| Center Contact | Gold plated brass | Center Contact | Gold plated brass |
| **Cable Type** | PL180P with armor | | |

## Cable and Armor Construction




| No. | Construction | Materials |
|---|---|---|
| 1 | Center Conductor | Solid silver-plated copper |
| 2 | Dielectric | Low density PTFE |
| 3 | Outer Conductor | Silver-plated copper tape wrap |
| 4 | Interlayer | Low density PTFE |
| 5 | Outer Shield | Silver-plated copper wire braid |
| 6 | Inner Jacket | FEP |
| 7 | Crush Resistance Layer | Stainless steel spiral |
| 8 | Strengthening Layer | Silver plated copper braid |
| 9 | Waterproof Layer | PTFE Binder |
| 10 | Armor Jacket | Braiding PTFE |

## Electrical

| | |
|---|---|
| Frequency | DC-110 GHz |
| Impedance | 50 Ω |
| VSWR Max | 1.45 |
| IL Max(10 cm assembly) | 2.6dB |
| Velocity of Propagation | 82% |
| Mechanical Phase Stability | <±12º@110GHz (Wrapped 360˚ around a 40mm diameter mandrel.) |
| Amplitude Stability vs Shaking | <±0.2dB@110GHz |
| Temp Phase Stability | <1500ppm(-40℃ to +85℃) |

## Mechanical & Environmental

| | |
|---|---|
| Min.Bending Radius Static | 20mm |
| Min. Bending Radius Repeated | 40mm |
| Flex Life Min | 20000 cycles |
| Temperature(Operation) | -50～85 ºC |
| Temperature(Storage) | -60～85 ºC |

## **Bulk Cable Attenuation**(Typical@25℃) **& Power**(VSWR=1.0; 40℃; Sea level)

| Frequency MHz | 300 | 1000 | 2000 | 3000 | 6000 | 12000 | 16000 | 18000 | 26500 | 40000 | 67000 | 110000 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| dB/Meter | 0.6 | 1.1 | 1.6 | 2.0 | 2.8 | 4.0 | 4.7 | 5.0 | 6.1 | 7.6 | 10.0 | 13.1 |
| Avg.Power W | 61.0 | 33.0 | 24.0 | 19.0 | 14.0 | 10.0 | 8.0 | 8.0 | 6.0 | 5.0 | 4.0 | 3.0 |
| Attenuation at any frequency＝[3.557846×SQRT(FMHz)]+[0.001221×FMHz] | | | | | | | | | | | | |

**Notes**:
1) The above attenuation refers to typical loss of cable only. Insertion loss per connector is estimated as 0.06dB 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** (PL180P-1M1M-10CM-A)