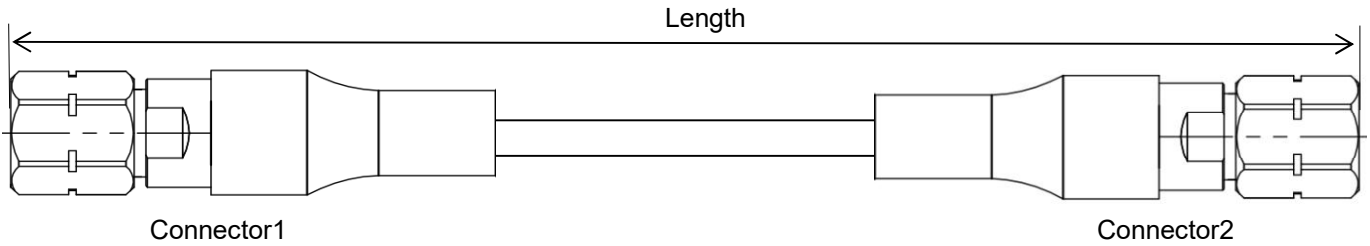


Precision Phase Stable Test Cable Assembly, Using PL360P

DC-50 GHz, 2.4mm Male to 2.4mm Male

PL360P-24M24M-L(L:Length)

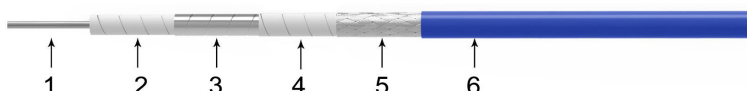


- Length can be in meter or in inch etc, e.g, PL360P-24M24M-1M. Standard length tolerance: $\pm 1.5\%$. Custom lengths and other connector types available.
- Length is measured from one connector end to the other connector end as shown above. For RA connectors, use the pin center-line.

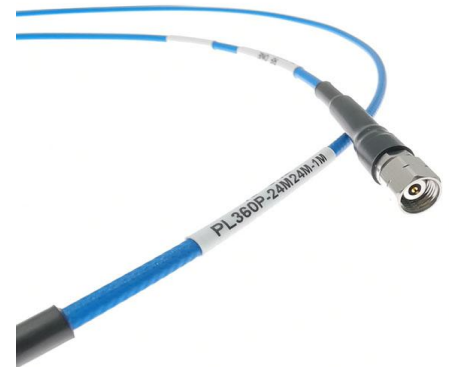
Configuration

| | | | |
|--------------------|----------------------------|--------------------|----------------------------|
| Connector 1 | 2.4mm male | Connector 2 | 2.4mm male |
| Body | Passivated stainless steel | Body | Passivated stainless steel |
| Center Contact | Gold plated BeCu | Center Contact | Gold plated BeCu |
| Cable Type | PL360P | | |

Cable Construction



| No. | Construction | Size (mm) | Materials |
|-----|------------------|-----------|---------------------------------|
| 1 | Center Conductor | 0.72 | Solid silver-plated copper |
| 2 | Dielectric | 2.15 | Low density PTFE |
| 3 | Outer Conductor | 2.30 | Silver-plated copper tape wrap |
| 4 | Interlayer | 2.60 | Low density PTFE |
| 5 | Outer Shield | 3.05 | Silver-plated copper wire braid |
| 6 | Jacket | 3.60 | FEP |



Electrical

| | |
|--------------------------------|----------------------|
| Frequency | DC-50 GHz |
| Impedance | 50 Ω |
| VSWR Max | 1.35 |
| IL Max(1 meter assembly) | 4dB |
| *Mechanical Phase Stability | $< \pm 5^\circ$ |
| Amplitude Stability vs Shaking | $< \pm 0.1\text{dB}$ |

Mechanical & Environmental

| | |
|------------------------------|--------------------------|
| Min.Bending Radius Static | 18mm |
| Min. Bending Radius Repeated | 36mm |
| Velocity of Propagation | 76% |
| Temperature(Operation) | -50~105 $^\circ\text{C}$ |
| Temperature(Storage) | -60~105 $^\circ\text{C}$ |

* Wrapped 360° around a 36mm radius mandrel.

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

| | | | | | | | | | | | | |
|---------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Frequency MHz | 300 | 1000 | 2000 | 4000 | 6000 | 8000 | 10000 | 12000 | 18000 | 26500 | 40000 | 50000 |
| dB/100 Meter | 23.9 | 43.8 | 62.2 | 88.5 | 108.8 | 126.1 | 141.5 | 155.4 | 191.8 | 234.8 | 291.7 | 328.5 |
| Avg.Power kW | 0.750 | 0.409 | 0.288 | 0.202 | 0.165 | 0.142 | 0.127 | 0.115 | 0.093 | 0.076 | 0.061 | 0.055 |

Attenuation at any frequency= $[1.370735 \times \text{SQRT}(\text{FMHz})] + [0.000440 \times \text{FMHz}]$

- 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 $0.03\text{dB} \times \text{SQRT} \text{Freq}(\text{GHz})$.
 - 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 (PL360P-24M24M-1M)

