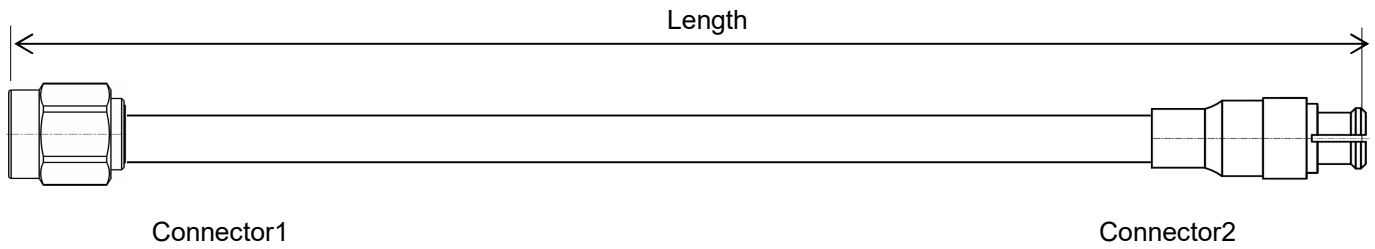


086" High Density Flexible Cable Assembly, Using Phase Stable PL220

DC-18 GHz, Direct Solder SMA Male to SSMP Female

PL220-DSMAMSSMPF-L(L:Length)

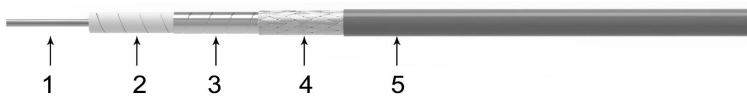


- Length can be in meter or in inch etc, e.g, PL220-DSMAMSSMPF-L. Standard length tolerance: $\pm 1.5\%$ or $\pm 5\text{mm}$ whichever is greater. Custom lengths and other connector types available.
- Length is measured from one connector end to the other connector end as shown above. For RA connectors, use the pin center-line.

Configuration

| | | | |
|--------------------|----------------------------|--------------------|----------------------|
| Connector 1 | Direct solder SMA male | Connector 2 | SSMP(Mini-SMP)female |
| Body | Gold plated brass | Body | Gold plated BeCu |
| Nut | Passivated stainless steel | Center Contact | Gold plated BeCu |
| Center Contact | Gold plated BeCu | Cable Type | PL220 |

Cable Construction



| No. | Construction | Size (mm) | Materials |
|-----|------------------|-----------|---------------------------------|
| 1 | Center Conductor | 0.51 | Solid silver-plated copper |
| 2 | Dielectric | 1.43 | Ultra-low density PTFE |
| 3 | Outer Conductor | 1.55 | Silver-plated copper tape wrap |
| 4 | Outer Shield | 1.85 | Silver-plated copper wire braid |
| 5 | Jacket | 2.20 | FEP |



Electrical

| | |
|--------------------------------|-----------------------|
| Frequency | DC-18GHz |
| Impedance | 50 Ω |
| VSWR Max | 1.35 |
| *IL Max(0.1 meter assembly) | 0.82dB |
| **Mechanical Phase Stability | $< \pm 4^\circ$ |
| Amplitude Stability vs Shaking | $< \pm 0.15\text{dB}$ |

Mechanical & Environmental

| | |
|------------------------------|--------------------------|
| Min.Bending Radius Static | 11mm |
| Min. Bending Radius Repeated | 22mm |
| Velocity of Propagation | 81% |
| Temperature(Operation) | -50~105 $^\circ\text{C}$ |
| Temperature(Storage) | -60~105 $^\circ\text{C}$ |

** The VSWR and IL include the loss and reflection contributions from Mini-SMP adapters used during testing.

** Wrapped 360° around a 22mm radius mandrel.



086" High Density Flexible Cable Assembly, Using Phase Stable PL220

DC-18 GHz, Direct Solder SMA Male to SSMP Female

PL220-DSMAMSSMPF-L(L:Length)

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

| | | | | | | | | | | | | |
|---------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Frequency MHz | 300 | 1000 | 2000 | 3000 | 6000 | 12000 | 18000 | 26500 | 30000 | 40000 | 50000 | 67000 |
| dB/100 Meter | 34.3 | 63.3 | 90.3 | 111.3 | 159.8 | 230.7 | 286.9 | 354.3 | 379.4 | 445.2 | 504.8 | 596.4 |
| Avg.Power kW | 0.510 | 0.277 | 0.194 | 0.157 | 0.110 | 0.076 | 0.061 | 0.049 | 0.046 | 0.039 | 0.035 | 0.029 |

Attenuation at any frequency= $[1.96000 \times \text{SQRT}(\text{FMHz})] + [0.001330 \times \text{FMHz}]$

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 0.03dB 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.