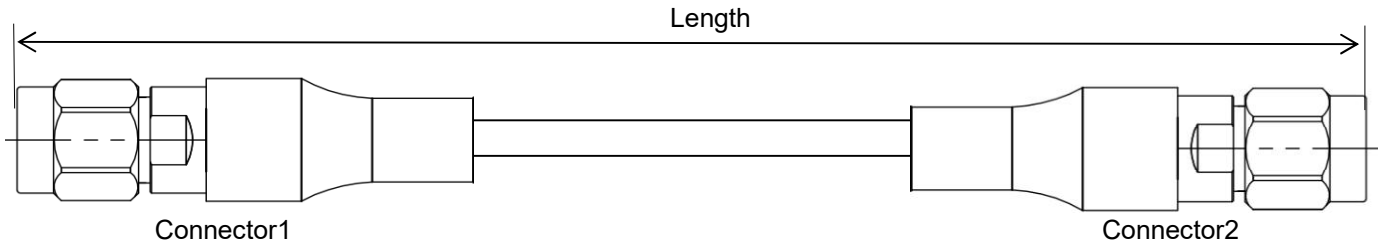


Low Loss Flexible Cable Replacing Semi-flexible Cable Assembly, Using SP280

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

SP280-292M292M-L(L:Length)

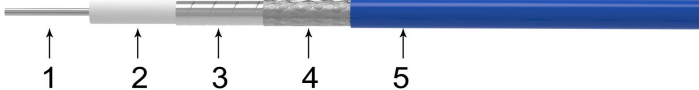


- Length can be in meter or in inch etc, e.g, SP280-292M292M-1M. Standard length tolerance: $\pm 1.5\%$. Custom lengths and other connector types available.
- Length is measured from one connector end to the other connector end as shown above. For RA connectors, use the pin center-line.

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 | SP280 | | |

Cable Construction



| No. | Construction | Size (mm) | Materials |
|-----|------------------|-----------|---------------------------------|
| 1 | Center Conductor | 0.51 | Silver plated copper |
| 2 | Dielectric | 1.63 | Solid PTFE |
| 3 | Outer Conductor | 1.79 | Silver plated copper tape wrap |
| 4 | Outer Shield | 2.16 | Silver plated copper wire braid |
| 5 | Jacket | 2.80 | FEP |



Electrical

| | |
|--------------------------|-------------|
| Frequency | DC-40 GHz |
| Impedance | 50 Ω |
| VSWR Max | 1.3 |
| IL Max(1 meter assembly) | 6.7dB |
| Velocity of Propagation | 70% |

Mechanical & Environmental

| | |
|------------------------------|------------|
| Min.Bending Radius Static | 14mm |
| Min. Bending Radius Repeated | 28mm |
| Temperature(Operation) | -50~105 °C |
| Temperature(Storage) | -60~105 °C |

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

| | | | | | | | | | | | | |
|---------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Frequency MHz | 300 | 1000 | 2000 | 4000 | 6000 | 8000 | 10000 | 12000 | 14000 | 18000 | 26500 | 40000 |
| dB/100 Meter | 37.0 | 69.3 | 100.3 | 146.5 | 183.7 | 216.4 | 246.1 | 273.7 | 299.7 | 348.2 | 440.8 | 570.9 |
| Avg.Power kW | 0.187 | 0.100 | 0.069 | 0.047 | 0.038 | 0.032 | 0.028 | 0.025 | 0.023 | 0.020 | 0.016 | 0.012 |

Attenuation at any frequency= $[2.066929 \times \text{SQRT}(\text{FMHz})] + [0.003937 \times \text{FMHz}]$

- 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 (SP280-292M292M-1M)

