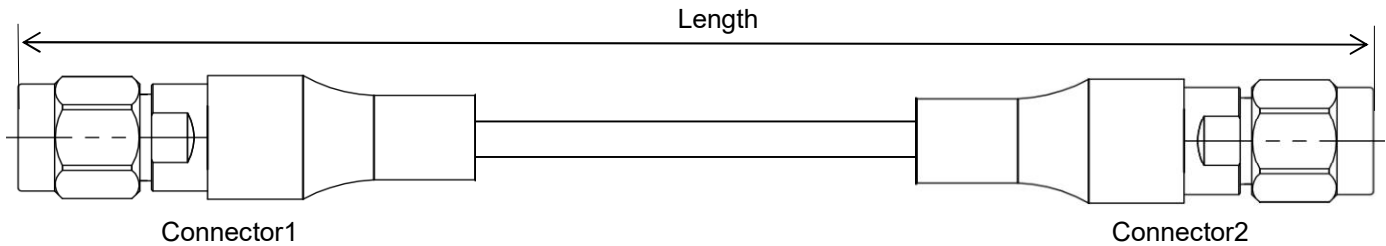


## Ultra-Low Loss Phase Stable High Power Cable Assembly, Using PL400

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

PL400-292M292M-L(L:Length)

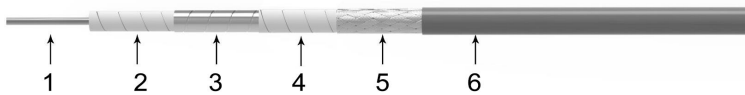


- Length can be in meter or in inch etc, e.g, PL380P-292M292M-1M. Standard length tolerance:  $\pm 1.5\%$ . Custom lengths and other connector types available.
- Length is measured from one connector end to the other connector end as shown above. For RA connectors, use the pin center-line.

### 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
<b>Cable Type</b>	PL400		

### Cable and Armor Construction



No.	Construction	Size (mm)	Materials
1	Construction	1.06	Solid silver-plated copper
2	Center Conductor	2.82	Low density PTFE
3	Dielectric	3.00	Silver-plated copper tape wrap
4	Outer Conductor	3.45	Silver-plated copper wire braid
5	Outer Shield	4.00	FEP



### Electrical

Frequency	DC-40 GHz
Impedance	50 $\Omega$
VSWR Max	1.3
IL Max(1 meter assembly)	2.6dB
*Mechanical Phase Stability	$< \pm 5^\circ$
Amplitude Stability vs Shaking	$< \pm 0.1\text{dB}$

### Mechanical & Environmental

Min.Bending Radius Static	20mm
Min. Bending Radius Repeated	40mm
Velocity of Propagation	84%
Temperature(Operation)	-50~85 $^\circ\text{C}$
Temperature(Storage)	-60~85 $^\circ\text{C}$

\* Wrap the cable 360 degree around a mandrel whose diameter is ten times of the cable jacket size.

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

Frequency MHz	300	500	1000	3000	6000	8000	12000	14000	16000	18000	26500	40000
dB/100 Meter	16.5	21.4	30.4	53.0	75.4	87.5	107.8	116.8	125.1	133.0	162.9	202.4
Avg.Power kW	0.940	0.727	0.512	0.294	0.206	0.178	0.144	0.133	0.124	0.117	0.095	0.077

$$\text{Attenuation at any frequency} = [0.9499642 \times \text{SQRT}(\text{FMHz})] + [0.0003109 \times \text{FMHz}]$$

- 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.

### Typical Test Data (PL400-292M292M-1M)

