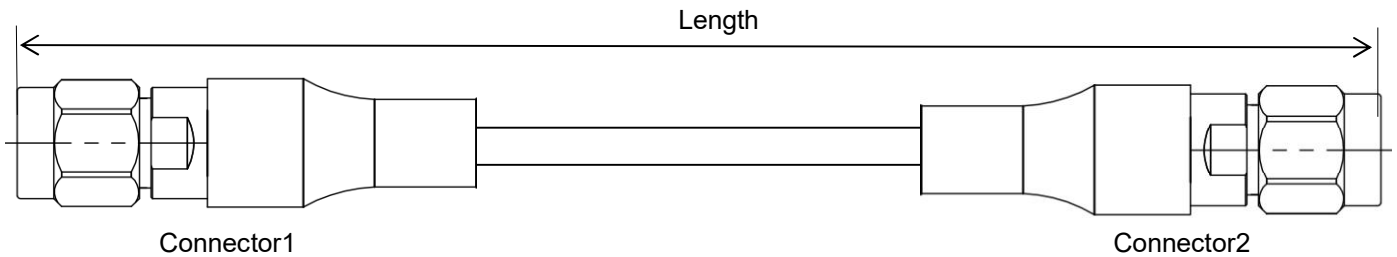


## Ultra-Low Loss Phase and Amplitude Stable Cable Assembly, Using PL360

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

PL360-292M292M-L(L:Length)

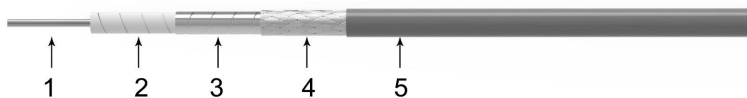


- Length can be in meter or in inch etc, e.g, PL360-292M292M-1M. Standard length tolerance:  $\pm 1.5\%$ . Custom lengths and other connector types available.
- Length is measured from one connector end to the other connector end as shown above. For RA connectors, use the pin center-line.

### 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>	PL360		

### Cable Construction



No.	Construction	Size (mm)	Materials
1	Center Conductor	0.91	Solid silver-plated copper
2	Dielectric	2.50	Ultra-low density PTFE
3	Outer Conductor	2.66	Silver-plated copper tape wrap
4	Outer Shield	3.06	Silver-plated copper wire braid
5	Jacket	3.60	FEP



### Electrical

Frequency	DC-40 GHz
Impedance	50 $\Omega$
VSWR Max	1.3
IL Max(1 meter assembly)	3.2dB
*Mechanical Phase Stability	$< \pm 6^\circ$
Amplitude Stability vs Shaking	$< \pm 0.15\text{dB}$

### Mechanical & Environmental

Min. Bending Radius Static	18mm
Min. Bending Radius Repeated	36mm
Velocity of Propagation	82%
Temperature(Operation)	-50~85 °C
Temperature(Storage)	-60~85 °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	1200	2500	4000	6000	8000	10000	12000	14000	18000	32000	40000
dB/100 Meter	20.4	41.1	59.8	76.1	93.8	108.9	122.3	134.6	146.0	166.7	226.6	255.7
Avg.Power kW	0.940	0.466	0.321	0.252	0.204	0.176	0.157	0.142	0.131	0.115	0.094	0.075

$$\text{Attenuation at any frequency} = [1.16847 \times \text{SQRT}(\text{FMHz})] + [0.000550 \times \text{FMHz}]$$

- 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 (PL360-292M292M-1M)

