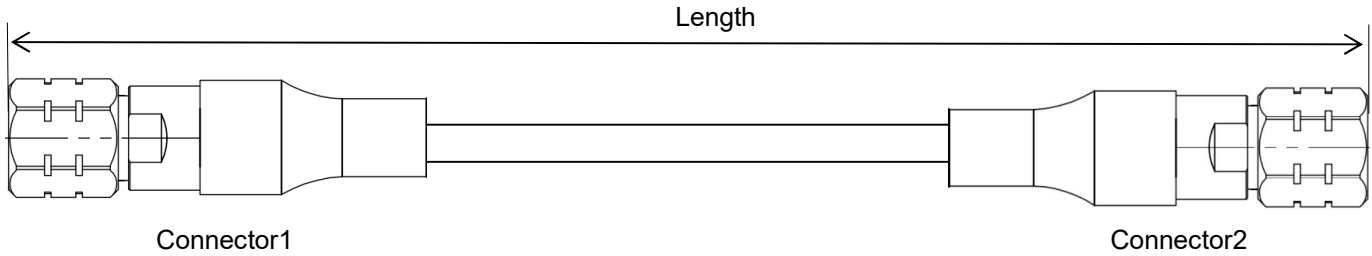


# Precision Phase Stable Test Cable Assembly, Using PL230P

DC-67 GHz, 1.85mm Male to 1.85mm Male

PL230P-185M185M-L(L:Length)

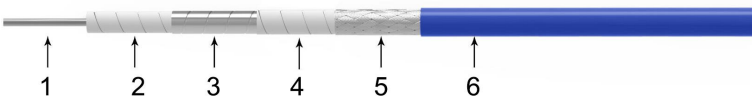


- Length can be in meter or in inch etc, e.g, PL230P-185M185M-1M. Standard length tolerance:  $\pm 1.5\%$ . Custom lengths and other connector types available.
- Length is measured from one connector end to the other connector end as shown above. For RA connectors, use the pin center-line.

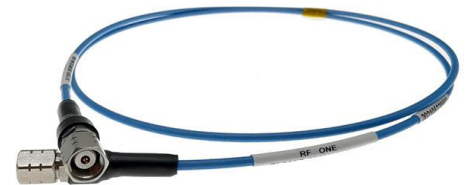
## Configuration

Connector 1	1.85mm male	Connector 2	1.85mm male
Body	Passivated stainless steel	Body	Passivated stainless steel
Center Contact	Gold plated BeCu	Center Contact	Gold plated BeCu
<b>Cable Type</b>	PL230P		

## Cable Construction



No.	Construction	Size (mm)	Materials
1	Center Conductor	0.51	Solid silver-plated copper
2	Dielectric	1.60	Low density PTFE
3	Outer Conductor	1.70	Silver-plated copper tape wrap
4	Interlayer	2.00	Low density PTFE
5	Outer Shield	2.25	Silver-plated copper wire braid
6	Inner Jacket	2.60	FEP



## Electrical

Frequency	DC-67 GHz
Impedance	50 $\Omega$
VSWR Max	1.4
IL Max(1 meter assembly)	7.1dB
*Mechanical Phase Stability	$< \pm 7^\circ$
Amplitude Stability vs Shaking	$< \pm 0.15\text{dB}$

## Mechanical & Environmental

Min.Bending Radius Static	13mm
Min. Bending Radius Repeated	26mm
Velocity of Propagation	74%
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	1000	2000	4000	6000	8000	10000	12000	18000	26500	40000	50000	67000
dB/100 Meter	63.1	90.1	129.1	159.7	186.0	209.5	231.0	287.7	355.9	448.0	508.5	601.9
Avg.Power kW	0.271	0.190	0.132	0.107	0.092	0.082	0.074	0.059	0.048	0.038	0.034	0.029

$$\text{Attenuation at any frequency} = [1.95000 \times \text{SQRT}(\text{FMHz})] + [0.001450 \times \text{FMHz}]$$

- 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 (PL230P-185M185M-1M)

