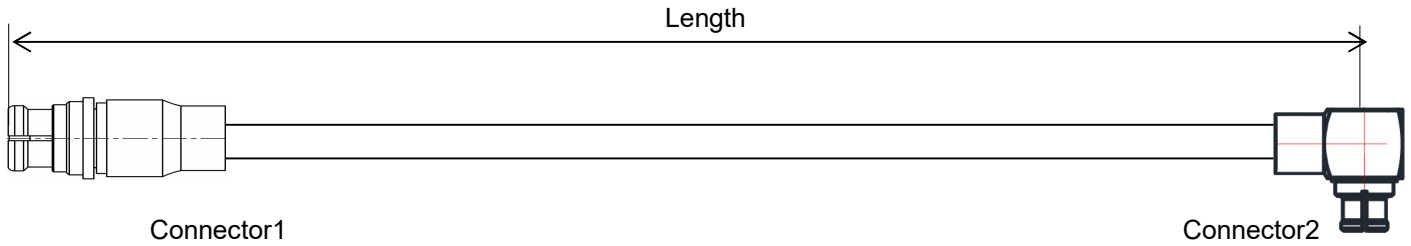


## 047" High Density Flexible Cable Assembly, Using Phase Stable PL150

DC-40 GHz, SMP Female to SSMP Female Right Angle **PL150-SMPFSSMPFRA-L(L:Length)**

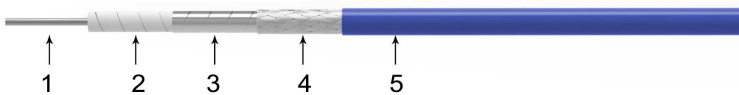


- Length can be in meter or in inch etc, e.g, PL220-SMPFSSMPFRA-L. Standard length tolerance:  $\pm 1.5\%$  or  $\pm 5\text{mm}$  whichever is greater. Custom lengths and other connector types available.
- Length is measured from one connector end to the other connector end as shown above. For RA connectors,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

### Configuration

<b>Connector 1</b>	SMP female	<b>Connector 2</b>	SSMP(Mini-SMP)female right
Body	Gold plated BeCu	Body	Gold plated BeCu
Center Contact	Gold plated BeCu	Center Contact	Gold plated BeCu
<b>Cable Type</b>	PL150		

### Cable Construction



No.	Construction	Size (mm)	Materials
1	Center Conductor	0.29	Solid silver-plated copper
2	Dielectric	0.86	Low density PTFE wrapping
3	Outer Conductor	1.02	Silver-plated copper tape wrap
4	Outer Shield	1.23	Silver-plated copper wire braid
5	Jacket	1.50	FEP



### Electrical

Frequency	DC-40 GHz
Impedance	50 $\Omega$
*VSWR Max	1.55-1.6
*IL Max(0.1 meter assembly)	1.75dB
**Mechanical Phase Stability	$< \pm 5^\circ @ 18\text{GHz}$ , $< \pm 8^\circ @ 40\text{GHz}$
Amplitude Stability vs Shaking	$< \pm 0.1\text{dB} @ 18\text{GHz}$ , $< \pm 0.15\text{dB} @ 40\text{GHz}$

### Mechanical & Environmental

Min.Bending Radius Static	7mm
Min. Bending Radius Repeated	15mm
Velocity of Propagation	74%
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 the SMP & Mini-SMP adapters used during testing.

\*\* Wrapped 360° around a 15mm radius mandrel.



## 047" High Density Flexible Cable Assembly, Using Phase Stable PL150

DC-40 GHz, SMP Female to SSMP Female Right Angle **PL150-SMPFSSMPFRA-L(L:Length)**

---

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

Frequency MHz	500	1000	2000	4000	6000	8000	10000	12000	14000	18000	26500	40000
dB/100 Meter	78.8	111.7	158.4	224.8	276.1	319.6	358.0	392.9	425.1	483.5	589.9	730.0
Avg.Power kW	0.053	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Attenuation at any frequency= $[3.510186 \times \text{SQRT}(\text{FMHz})] + [0.000699 \times \text{FMHz}]$

#### 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  $0.03\text{dB} \times \text{SQRT Freq}(\text{GHz})$ .
- 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.