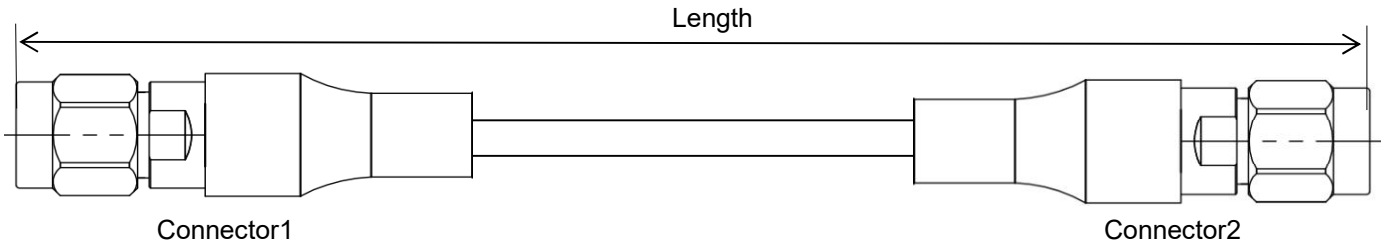


## Ultra-Low Loss Phase Stable High Power Cable Assembly, Using PL800

DC-6 GHz, DIN 7/16 Male to DIN 7/16 Male

PL800-716M716M-L(L:Length)

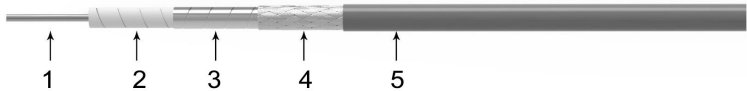


- Length can be in meter or in inch etc, e.g, PL800-716M716M-1M. Standard length tolerance:  $\pm 1.5\%$ . Custom lengths and other connector types available.
- Length is measured from one connector end to the other connector end as shown above. For RA connectors, use the pin center-line.

### Configuration

Connector 1	DIN 7/16 male	Connector 2	DIN 7/16 male
Body	Passivated stainless steel	Body	Passivated stainless steel
Center Contact	Gold plated Phosphor bronze	Center Contact	Gold plated Phosphor bronze
<b>Cable Type</b>	PL800		

### Cable Construction



No.	Construction	Size (mm)	Materials
1	Center Conductor	2.30	Solid silver-plated copper
2	Dielectric	6.30	Ultra-low density PTFE
3	Outer Conductor	6.50	Silver-plated copper tape wrap
4	Outer Shield	7.10	Silver-plated copper wire braid
5	Jacket	7.85	FEP



### Electrical

Frequency	DC-6 GHz
Impedance	50 $\Omega$
VSWR Max	1.3
IL Max(1 meter assembly)	0.6dB
*Mechanical Phase Stability	$< \pm 5^\circ$
Amplitude Stability vs Shaking	$< \pm 0.1\text{dB}$

### Mechanical & Environmental

Min.Bending Radius Static	40mm
Min. Bending Radius Repeated	80mm
Velocity of Propagation	83%
Temperature(Operation)	-50 ~ 105 $^\circ\text{C}$
Temperature(Storage)	-60 ~ 105 $^\circ\text{C}$

\* Wrapped 360° around a 80mm radius mandrel.

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

Frequency MHz	300	1000	1500	2000	2500	3000	3500	4000	4500	5000	6000
dB/100 Meter	8.0	14.8	18.2	21.1	23.6	26.0	28.1	30.2	32.1	33.9	37.3
Avg.Power kW	3.341	1.812	1.472	1.269	1.131	1.029	0.950	0.886	0.833	0.788	0.716

Attenuation at any frequency= $[0.456380 \times \text{SQRT}(\text{FMHz})] + [0.000328 \times \text{FMHz}]$

- 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  $0.04\text{dB} \times \text{SQRT} \text{ Freq}(\text{GHz})$ .
  - 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 (PL800-716M716M-5M)

