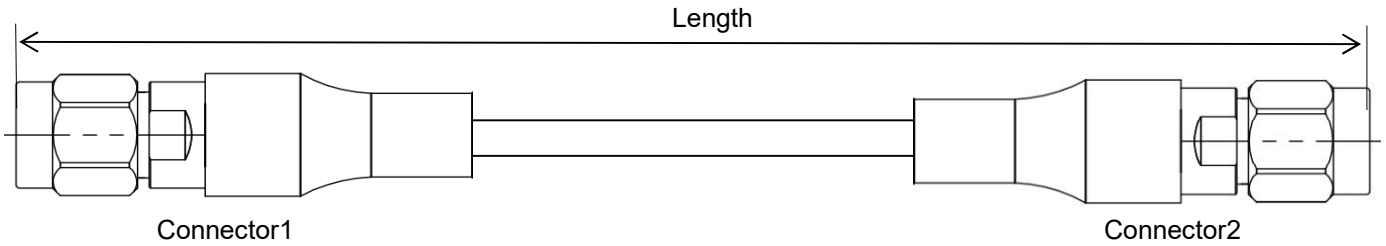


Ultra-Low Loss Phase Stable High Power Cable Assembly, Using PL800

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

PL800-716M716M-L(L:Length)

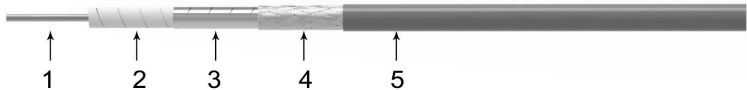


- Length can be in meter or in inch etc, e.g, PL800-716M716M-1M. Standard length tolerance: $\pm 1.5\%$. Custom lengths and other connector types available.
- Length is measured from one connector end to the other connector end as shown above. For RA connectors, use the pin center-line.

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
Cable Type	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 Ω
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)	-50~85 $^\circ\text{C}$
Temperature(Storage)	-60~85 $^\circ\text{C}$

* 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)

