

YSRPTC-360CR

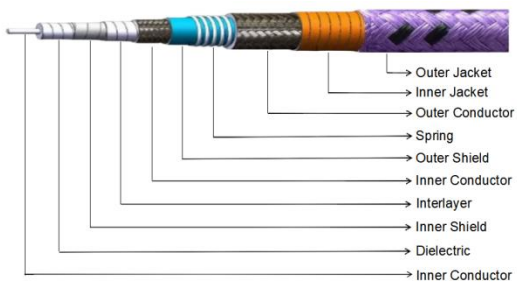
50 GHz, φ6.10 mm Ruggedized Precision Test Cable Assembly

Key Features

- Ruggedized Construction
- Stable Phase Performance
- Low Loss & Low VSWR
- Enhanced Mechanical Protection
- High Reliability

Applications

- Electronic Warfare Systems
- Military Test Platforms
- Outdoor RF Systems
- Harsh Environment Applications
- Phase-Critical Microwave Systems

Cable Construction											
			Cable Type	Dia.(mm)	Material						
			Inner Conductor	φ0.72	Silver plated Copper						
			Dielectric	φ2.10	Low Density PTFE						
			Inner Shield	φ2.25	Silver Plated Copper Strip						
			Interlayer	φ2.55	Low Density PTFE						
			Outer Shield	φ3.01	Silver Plated Copper Braid						
			Jacket	φ3.60	FEP						
			Outer Conductor	φ5.10	Silver plated Copper						
			Outer Jacket	φ6.10	PTFE						
			Electrical Specifications				Mechanical Specifications				Environmental Specifications
Operating Freq.		50 GHz		Static Bending Radius		30 mm		Operating Temperature		-55 to +125°C	
Cut-off Freq.		50 GHz		Dynamic Bending Radius		60 mm		Weight		95 g/m	
Impedance		50 Ω		Phase Stability vs. Flexure		±7°		Amplitude Stability		±0.05 dB	
Velocity of Propagation		76%		Flexure Cycling		≥50,000 Cycles		Shielding Effectiveness		>90 dB	
Dielectric Withstanding Voltage		1200 VDC		Environmental Specifications				VSWR		≤1.25 @ 50 GHz	
Attenuation (dB/100 M, Typical at +25°C) & Power Handling (W, Typical at +40°C)											
Freq.(GHz)	1	2	3	6	8	10	12.4	18	26.5	40	50
Attenuation	48.1	68.3	83.9	119.4	138.4	155.2	173.4	210.2	257.1	319.2	359.2
Avg. Power	506	356	290	204	176	157	140	116	95	76	68
Typical Cable Attenuation Calculation Formula: $K1*\sqrt{F}(\text{MHz}) + K2*F(\text{MHz})$ $K1=1.507808, K2=0.000440$											
Connectors Options											
Connectors	Freq.(Max)	VSWR (Max)	Connectors	Freq.(Max)	VSWR (Max)	Connectors	Freq.(Max)	VSWR (Max)	Connectors	Freq.(Max)	VSWR (Max)
2.4 mm (2)	50 GHz	1.30:1	SSMA (M)	40 GHz	1.30:1	N(N)	18 GHz	1.25:1			
2.92 mm (K)	40 GHz	1.30:1									
3.5 mm (3)	27 GHz	1.30:1									
SMA (S)	27 GHz	1.25:1									

Cable Assemblies Naming Rule:

PN: Cable-Length(M)-Connector 1-Connector 2

Eg.: YSRPTC-360CR-1M-SM-SF means YSRPTC-360CR cable, L=1M, SMA(M)-SMA(F).
Add "R" for Right-Angle Connector, Add "H" for Bulkhead Connector (e.g., SMR, SFH).