

# YSRPTC-245CR

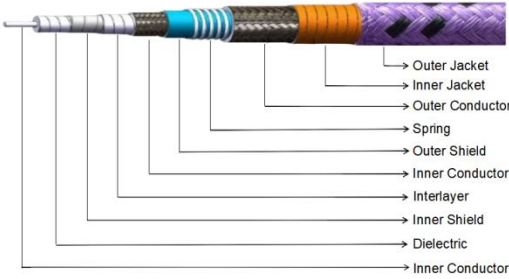
67 GHz, φ4.80 mm Ruggedized Precision Test Cable Assembly

## 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	φ0.50	Silver plated Copper						
			Dielectric	φ1.38	Low Density PTFE						
			Inner Shield	φ1.54	Silver Plated Copper Strip						
			Interlayer	φ1.82	Low Density PTFE						
			Outer Shield	φ2.17	Silver Plated Copper Braid						
			Jacket	φ2.45	FEP						
			Outer Conductor	φ3.60	Silver plated Copper						
			Outer Jacket	φ4.80	PTFE						
			Electrical Specifications				Mechanical Specifications				
Operating Freq.	67 GHz			Static Bending Radius	24 mm						
Cut-off Freq.	82 GHz			Dynamic Bending Radius	48 mm						
Impedance	50 Ω			Weight	52 g/m						
Velocity of Propagation	81%			Phase Stability vs. Flexure	±7°						
Shielding Effectiveness	>90 dB			Amplitude Stability	±0.05 dB						
Dielectric Withstanding Voltage	800 VDC			Flexure Cycling	≥100,000 Cycles						
VSWR	≤1.3 @ 67 GHz			Environmental Specifications							
				Operating Temperature	-55 to +125°C						
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	67
Attenuation	63.7	90.8	111.9	160.4	186.5	209.8	235.2	287.1	354.0	444.0	593.2
Avg. Power	110	77	63	44	38	33	30	24	20	16	12
Typical Cable Attenuation Calculation Formula: $K1*\sqrt{F}(\text{MHz}) + K2*F(\text{MHz})$ K1=1.975832, K2=0.01221											
Connectors Options											
Connectors	Freq.(Max)	VSWR (Max)		Connectors	Freq.(Max)	VSWR (Max)					
1.85 mm(v)	67 GHz	1.30:1		SSMA (M)	40 GHz	1.30:1					
2.4 mm (2)	50 GHz	1.30:1		SMP (P)	40 GHz	1.30:1					
2.92 mm (K)	40 GHz	1.30:1		N(N)	18 GHz	1.25:1					
3.5 mm (3)	27 GHz	1.30:1		MCX(C)	6 GHz	1.25:1					
SMA (S)	27 GHz	1.25:1									

**Cable Assemblies Naming Rule:**PN: Cable-Length(M)-Connector 1-Connector 2

Eg.: YSRPTC-245CR-1M-SM-SF means YSRPTC-245CR cable, L=1M, SMA(M)-SMA(F).

Add "R" for Right-Angle Connector, Add "H" for Bulkhead Connector (e.g., SMR, SFH).