

YSRPTC-780CR

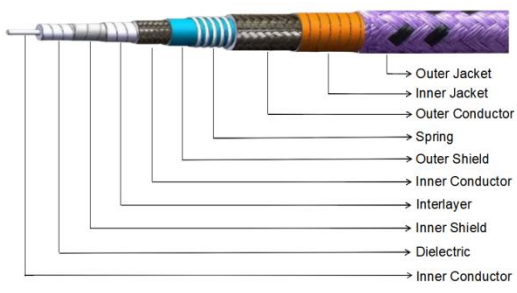
18 GHz, ϕ 10.40 mm Ruggedized Precision Test Cable Assembly

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	ϕ 2.39	Silver plated Copper			
			Dielectric	ϕ 6.16	Low Density PTFE			
			Inner Shield	ϕ 6.40	Silver Plated Copper Strip			
			Interlayer	ϕ 6.70	Low Density PTFE			
			Outer Shield	ϕ 7.25	Silver Plated Copper Braid			
			Jacket	ϕ 7.80	FEP			
			Outer Conductor	ϕ 9.45	Silver plated Copper			
			Outer Jacket	ϕ 10.40	PTFE			
			Electrical Specifications				Mechanical Specifications	
Operating Freq.	18 GHz			Static Bending Radius	52 mm			
Cut-off Freq.	18 GHz			Dynamic Bending Radius	104 mm			
Impedance	50 Ω			Weight	220 g/m			
Velocity of Propagation	84%			Phase Stability vs. Flexure	$\pm 3^\circ$			
Shielding Effectiveness	>90 dB			Amplitude Stability	± 0.10 dB			
Dielectric Withstanding Voltage	2500 VDC			Flexure Cycling	$\geq 200,000$ Cycles			
VSWR	≤ 1.20 @ 18 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
Attenuation	16.7	23.8	29.3	42.1	48.9	55.0	61.7	75.3
Avg. Power	1604	1125	913	637	548	487	435	356
Typical Cable Attenuation Calculation Formula: $K1 \cdot \sqrt{F(\text{MHz})} + K2 \cdot F(\text{MHz})$ $K1=0.518300, K2=0.000320$								
Connectors Options								
Connectors	Freq.(Max)	VSWR (Max)		Connectors	Freq.(Max)	VSWR (Max)		
SMA (S)	27 GHz	1.25:1		N(N)	18 GHz	1.25:1		
TNC(T)	12 GHz	1.25:1		SC(G)	6 GHz	1.25:1		

Cable Assemblies Naming Rule:

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

Eg.: YSRPTC-780CR-1M-SM-SF means YSRPTC-780CR cable, L=1M, SMA(M)-SMA(F).

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