

YSRPTC-510CR

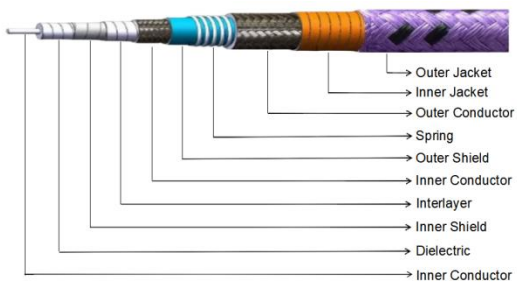
26.5 GHz, ϕ 7.60 mm Ruggedized Precision Test Cable Assembly

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 1.44	Silver plated Copper				
			Dielectric	ϕ 3.85	Low Density PTFE				
			Inner Shield	ϕ 4.05	Silver Plated Copper Strip				
			Interlayer	ϕ 4.30	Low Density PTFE				
			Outer Shield	ϕ 4.65	Silver Plated Copper Braid				
			Jacket	ϕ 5.10	FEP				
			Outer Conductor	ϕ 6.70	Silver plated Copper				
			Outer Jacket	ϕ 7.60	PTFE				
			Electrical Specifications					Mechanical Specifications	
Operating Freq.	26.5 GHz				Static Bending Radius	38 mm			
Cut-off Freq.	29 GHz				Dynamic Bending Radius	76 mm			
Impedance	50 Ω				Weight	135 g/m			
Velocity of Propagation	82%				Phase Stability vs. Flexure	$\pm 5^\circ$			
Shielding Effectiveness	>90 dB				Amplitude Stability	± 0.05 dB			
Dielectric Withstanding Voltage	1500 VDC				Flexure Cycling	$\geq 600,000$ Cycles			
VSWR	≤ 1.25 @ 26.5 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
Attenuation	27.1	38.9	48.1	69.6	81.3	91.9	103.5	127.4	158.8
Avg. Power	821	573	463	320	274	242	215	175	140
Typical Cable Attenuation Calculation Formula: $K1 \cdot \sqrt{F(\text{MHz})} + K2 \cdot F(\text{MHz})$ $K1=0.828800, K2=0.000900$									
Connectors Options									
Connectors	Freq.(Max)	VSWR (Max)		Connectors	Freq.(Max)	VSWR (Max)			
2.92 mm (K)	40 GHz	1.30:1		BNC(B)	4 GHz	1.30:1			
3.5 mm (3)	27 GHz	1.30:1		N(N)	18 GHz	1.25:1			
SMA (S)	27 GHz	1.25:1							
TNC(T)	12 GHz	1.25:1							

Cable Assemblies Naming Rule:

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

Eg.: YSRPTC-510CR-1M-SM-SF means YSRPTC-510CR cable, L=1M, SMA(M)-SMA(F).
Add "R" for Right-Angle Connector, Add "H" for Bulkhead Connector (e.g., SMR, SFH).