

YSPTC-420C

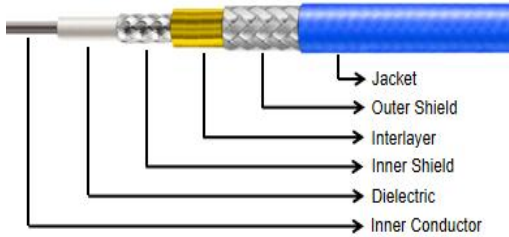
40 GHz, ϕ 4.20 mm Precision Test Cable Assembly

Key Features

- Excellent Phase Stability
- Low Insertion Loss
- High Flexibility
- Precision RF Performance
- Wide Frequency Coverage

Applications

- RF Test Systems
- Microwave Measurements
- Phased Array Radar
- Aerospace & Avionics
- Laboratory Applications

Cable Construction										
			Cable Type		Dia.(mm)		Material			
			Inner Conductor		ϕ 1.02		Silver plated Copper			
			Dielectric		ϕ 2.80		Low Density PTFE			
			Inner Shield		ϕ 2.95		Silver Plated Copper Strip			
			Interlayer		ϕ 3.20		Low Density PTFE			
			Outer Shield		ϕ 3.62		Silver Plated Copper Braid			
			Jacket		ϕ 4.20		FEP			
Electrical Specifications					Mechanical Specifications					
Operating Freq.		40 GHz			Static Bending Radius		21 mm			
Cut-off Freq.		41 GHz			Dynamic Bending Radius		42 mm			
Impedance		50 Ω			Weight		40 g/m			
Velocity of Propagation		81%			Environmental Specifications					
Shielding Effectiveness		>90 dB			Operating Temperature		-55 to +165°C			
Dielectric Withstanding Voltage		1500 VDC								
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
Attenuation	40.5	57.6	70.8	100.8	116.9	131.2	146.6	178.0	218.0	271.2
Avg. Power	743	523	426	299	258	230	205	169	138	111
Typical Cable Attenuation Calculation Formula: $K1*\sqrt{F}(\text{MHz}) + K2*F(\text{MHz})$ $K1=1.267795, K2=0.000440$										
Connectors Options										
Connectors	Freq.(Max)	VSWR (Max)			Connectors	Freq.(Max)	VSWR (Max)			
2.92 mm (K)	40 GHz	1.30:1			SMA (S)	27 GHz	1.25:1			
3.5 mm (3)	27 GHz	1.30:1			N(N)	18 GHz	1.25:1			

Cable Assemblies Naming Rule:

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

Eg.: YSPTC-420C-1M-SM-SF means YSPTC-420C cable, L=1M, SMA(M)-SMA(F).

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