

YSRLLPS-420AR

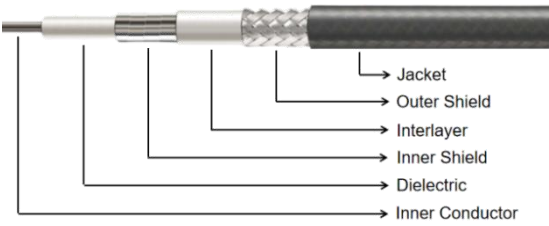
40 GHz, ϕ 4.20 mm Reinforced Low-Loss Phase-Stable Cable Assembly

Key Features

- Outstanding Phase Stability vs. Temperature
- Ultra-Low Insertion Loss
- High Power Capability
- Excellent Low PIM Performance
- Lightweight and Rugged Construction

Applications

- Phased Array Radar
- Aerospace & Avionics Systems
- Electronic Warfare and Defense Systems
- Low-Loss Phase-Critical Applications

Cable Construction												
			Cable Type	Dia.(mm)	Material							
			Inner Conductor	Φ 1.05	Silver plated Copper							
			Dielectric	Φ 2.85	Low Density PTFE							
			Inner Shield	Φ 3.05	Silver Plated Copper Strip							
			Interlayer	Φ 3.30	Low Density PTFE							
			Outer Shield	Φ 3.65	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	37 g/m						
Velocity of Propagation	82%				Environmental Specifications							
Shielding Effectiveness	>90 dB				Operating Temperature	-55 to +165°C						
Dielectric Withstanding Voltage	1500 VDC											
Passive Intermodulation (PIM)	<-155 dBc											
Phase Stability vs. Temperature	<750 PPM @ -55 to +85°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		
Attenuation	33.5	47.5	58.3	82.8	95.8	107.2	119.7	144.7	176.4	218.1		
Avg. Power	634	447	365	257	222	198	178	147	120	97		
Typical Cable Attenuation Calculation Formula: $K1 \cdot \sqrt{F}(\text{MHz}) + K2 \cdot F(\text{MHz})$ K1=1.054470, K2=0.000180												
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.: YSRLLPS-420AR-1M-SM-SF means YSRLLPS-420AR cable, L=1M, SMA(M)-SMA(F).

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