

# YSLLPS-310A

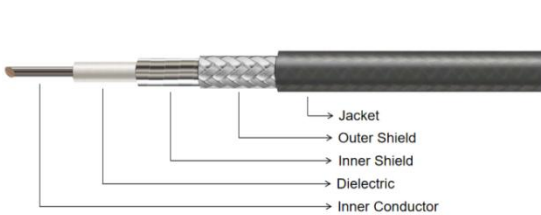
50 GHz,  $\phi$ 3.10 mm Low-Loss Phase-Stable RF Cable Assembly

## 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	$\phi$ 0.70	Silver plated Copper						
				Dielectric	$\phi$ 1.93	Low Density PTFE						
				Inner Shield	$\phi$ 2.09	Silver Plated Copper Strip						
				Outer Shield	$\phi$ 2.74	Silver Plated Copper Braid						
				Jacket	$\phi$ 3.10	PFA						
Electrical Specifications						Mechanical Specifications						
Operating Freq.			50 GHz			Static Bending Radius			16 mm			
Cut-off Freq.			60 GHz			Dynamic Bending Radius			31 mm			
Impedance			50 $\Omega$			Weight			27 g/m			
Velocity of Propagation			82%			Environmental Specifications						
Shielding Effectiveness			>90 dB			Operating Temperature			-55 to +165°C			
Dielectric Withstanding Voltage			1000 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	50	
Attenuation	46.8	66.6	81.9	117.1	135.9	152.6	170.8	207.9	255.4	318.9	360.1	
Avg. Power	407	286	232	163	140	125	111	92	75	60	53	
Typical Cable Attenuation Calculation Formula: $K1 \cdot \sqrt{F(\text{MHz})} + K2 \cdot F(\text{MHz})$ $K1=1.458470, K2=0.000680$												
Connectors Options												
Connectors	Freq.(Max)	VSWR (Max)		Connectors	Freq.(Max)	VSWR (Max)						
2.4 mm (2)	50 GHz	1.30:1		TNC(T)	12 GHz	1.25:1						
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										
SMA (S)	27 GHz	1.25:1										
SSMA (M)	40 GHz	1.30:1										

## Cable Assemblies Naming Rule:

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

Eg.: YSLLPS-310A-1M-SM-SF means YSLLPS-310A cable, L=1M, SMA(M)-SMA(F).

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