YSHTPS-360AH

40 GHz, φ3.60 mm High-Temperature Phase-Stable RF Cable Assembly

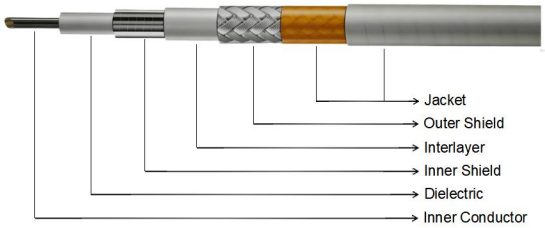
Key Features

- Low Insertion Loss
- Low VSWR
- High-Temperature Resistant
- Stable Phase Performance
- High Reliability

Applications

- Extreme Temperature Testing
- Missile Communication Systems
- Aerospace Electronics
- High-Temperature RF Platforms
- Defense Communication Systems

Cable Construction



Cable Type	Dia.(mm)	Material
Inner Conductor	φ0.72	Silver plated Copper
Dielectric	φ2.10	Low Density PTFE
Inner Shield	φ2.25	Silver Plated Copper Strip
Interlayer	φ2.55	Low Density PTFE
Outer Shield	φ3.01	Silver Plated Copper Braid
Jacket	φ3.60	PI+PTFE

Electrical Specifications		**Mechanical Specifications**	
Operating Freq.	40 GHz	Static Bending Radius	18 mm
Cut-off Freq.	50 GHz	Dynamic Bending Radius	36 mm
Impedance	50 Ω	Weight	28 g/m
Velocity of Propagation	76%	**Environmental Specifications**	
Shielding Effectiveness	>90 dB	Storage Temperature	-55 to +125°C
Dielectric Withstanding Voltage	1000 VDC	High-Temperature Resistance	400°C @ 400 s

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	51.9	74.4	92.1	133.4	156.0	176.4	198.7	244.9	305.5	388.8
Avg. Power	400	279	225	155	133	118	104	85	68	53

Typical Cable Attenuation Calculation Formula: $K1*\sqrt{F(MHz)} + K2*F(MHz)$
K1=1.582929, K2=0.001806

Connectors Options

Connectors	Freq.(Max)	VSWR (Max)	Connectors	Freq.(Max)	VSWR (Max)
2.4 mm (2)	50 GHz	1.30:1	SSMA (M)	40 GHz	1.30:1
2.92 mm (K)	40 GHz	1.30:1	TNC(T)	12 GHz	1.25:1
3.5 mm (3)	27 GHz	1.30:1	BNC(B)	4 GHz	1.30:1
SMA (S)	27 GHz	1.25:1	N(N)	18 GHz	1.25:1

Cable Assemblies Naming Rule:

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

Eg.: YSHTPS-360AH-*1M-SM-SF* means YSHTPS-360AH cable,L=1M, SMA(M)-SMA(F).

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

Yusntech Inc. yusntech.com sales@yusntech.com