



ClearPath™ Cables to 40 GHz

Low Loss, Flexible Jumper Cables

- Light weight jumpers
- Low loss
- Small diameter
- DC-40 GHz

The ClearPath series cables offer a good trade off of cost versus insertion loss in a simple double braid construction. The cables offer excellent flexibility and can be used where light weight solutions are desired. The cables offer suitable performance when options to an expensive high performance cable is warranted. The cable is constructed using a low density dielectric protected by a flat metalized braid. Applications include automatic test equipment bays, jumpers and switch boxes where the cable will not be ruggedly handled or subjected to extreme environmental conditions. Many standardized connectors are available for interconnect solutions.

Electrical Data

Maximum Frequency:

A06: 40.0 GHz
A08: 26.5 GHz

Impedance:

50 Ω nominal

Propagation Velocity:

A06: 72% nominal
A08: 74% nominal

Time Delay:

A06: 1.37 ns/ft (4.49 ns/m)
A08: 1.35 ns/ft (4.43 ns/m)

Shielding Effectiveness:

-85 dB minimum (cable only)

Dielectric Withstanding Voltage:

A06: 1.0 kV at 60 Hz
A08: 3.0 kV at 60 Hz

Capacitance:

A06: 32 pF/ft (105.0 pF/m)
A08: 27 pF/ft (88.6 pF/m)

Mechanical Data

Finished Outer Diameter:

A06: 0.06 in (0.152 cm)
A08: 0.09 in (0.229 cm)

Static Bend Radius:

A06: 0.28 in (0.669 cm)
A08: 0.40 in (1.016 cm)

Weight with Standard Jacket/Armor:

A06: 0.01 lbs/ft (0.015 kg/m)
A08: 0.02 lbs/ft (0.022 kg/m)

Operating Temp. Range:

-85 to 392° F (-65 to 200° C)
Above 185° F (85° C) use "T" designation



With the right connections,
anything is possible.

ClearPath™ Cables to 40 GHz (continued)

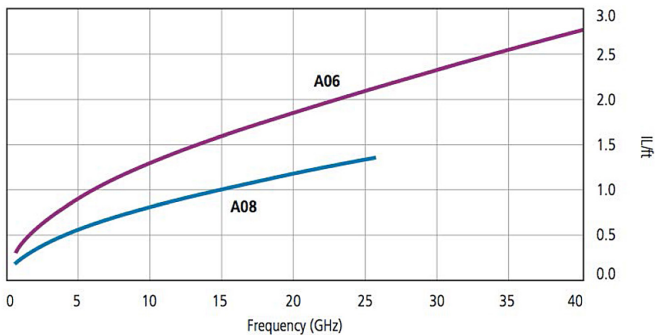
Cable Construction

Inner Conductor: Solid Ag-plated Cu
 Dielectric: PTFE Tape
 Outer Conductor: Ag-plated Cu Flat Braid/
 Ag-plated Cu Round Braid
 Standard Finish: FEP
 (a wide variety of other protective finishes and armors available)

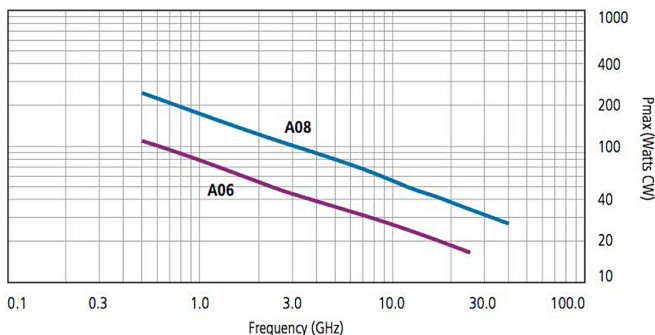
Available Connectors

A06: 2.4mm, 2.92mm, 3.5mm, SMA
 A08: 2.4mm, 2.92mm, 3.5mm, MMCX, OSP, OSSP, SMA, SMB, SMC, SMP, SSMA, SSMB, SSMP, Type N, ZMA
 (maximum frequency dependent on cable; other connectors available)

Insertion Loss



Cable CW Power Handling



Note: Data at ambient temperature and sea level. Power handling of a cable assembly is also connector dependent and includes variables such as altitude, temperature and system VSWR. See website for connector power handling standards, including altitude, temperature and VSWR derating.

Specifications

Frequency		A06 Series		A08 Series		Conn Loss dB	VSWR
GHz	Band	Attenuation		Attenuation			
GHz	Band	dB/ft	dB/m	dB/ft	dB/m		
0.3	UHF	0.211	0.693	0.126	0.413	0.006	1.10
0.5		0.273	0.896	0.163	0.535	0.009	
0.8		0.346	1.135	0.207	0.680	0.012	
1.0	L	0.387	1.271	0.233	0.763	0.014	
2.0	S	0.550	1.804	0.332	1.091	0.024	1.15
2.4		0.603	1.979	0.366	1.199	0.027	
3.0		0.675	2.216	0.411	1.347	0.032	
4.0	C	0.783	2.565	0.487	1.567	0.040	1.20
6.0		0.961	3.154	0.592	1.942	0.055	
8.0	X	1.114	3.655	0.690	2.264	0.070	1.25
10.0		1.249	4.099	0.778	2.554	0.084	
12.4		1.396	4.579	0.875	2.870	0.101	
15.0	Ku	1.540	5.053	0.971	3.184	0.118	1.30
18.0		1.693	5.553	1.073	3.521	0.139	
20.0	K	1.788	5.866	1.138	3.732	0.152	1.40
22.0		1.879	6.164	1.200	3.936	0.164	
24.0		1.966	6.451	1.259	4.132	0.178	
26.5		2.071	6.793	1.331	4.368	0.194	
28.0		2.131	6.992	-	-	0.204	
30.0	Ka	2.210	7.249	-	-	0.217	1.45
32.0		2.286	7.499	-	-	0.230	
34.0		2.360	7.742	-	-	0.243	
36.0		2.432	7.978	-	-	0.256	
40.0		2.571	8.434	-	-	0.281	

Note: Typical Insertion Loss dB = (Attenuation)(Length) + 2(Conn. Loss)
 Attenuation at any frequency = A06: (0.3837 x √freq GHz) + (0.0036 x freq GHz);
 A08: (0.2262 x √freq GHz) + (0.0063 x freq GHz)