

A Series High-Performance Ultra-Low-Loss Stable Amplitude/Phase Flexible RF Cable

01



A SERIES: HIGH-PERFORMANCE ULTRA-LOW-LOSS STABLE AMPLITUDE/PHASE FLEXIBLE RF CABLE

This cable adopts specialized manufacturing processes and strict control requirements, ensuring excellent electrical and mechanical performance characteristics within its operational frequency range.

Electrical performance: The product series achieves a signal transmission velocity of up to 83%, significantly reducing signal attenuation. Temperature-phase stability maintains <550 ppm.

Environmental adaptability: –Utilizing premium materials provides ,Extended temperature range (–55°C to +165°C) – Corrosion/crack resistance – Moisture/mold proof capability – Flame retardancy (UL94 V-0 compliant) – Enhanced UV stability

The design complies with MIL-DTL-17 and IEC 61196-1 specifications for harsh environment applications.

Typical Applications

- Communication System
- Aerospace & Defense
- Broadcast & Industrial
- Outdoor Infrastructure

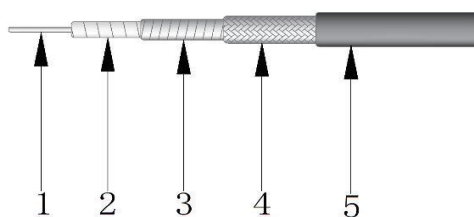
Product Features

- Operating frequency up to 110GHz
- Ultra low loss
- High Flexibility
- Temperature & Phase Stability
- Environmental Resistance

Equivalent Cable Replacement Table

Talent Model	Replacement Model	Replacement Brand
A15	CXN3657	GORE
A22	CXN3506	GORE
A40	CXN3507	GORE
	UFB142	MCC
A48	CXN3449	GORE
A50	UFB205A	MCC
A75	CXN3450	GORE
A81	UFB311A	MCC





- 1-Center Conductor——SPC
- 2-Dielectric——Low density PTFE
- 3-Inner Shield——SPC
- 4-Outer Shield——SPC
- 5-Jacket——FEP

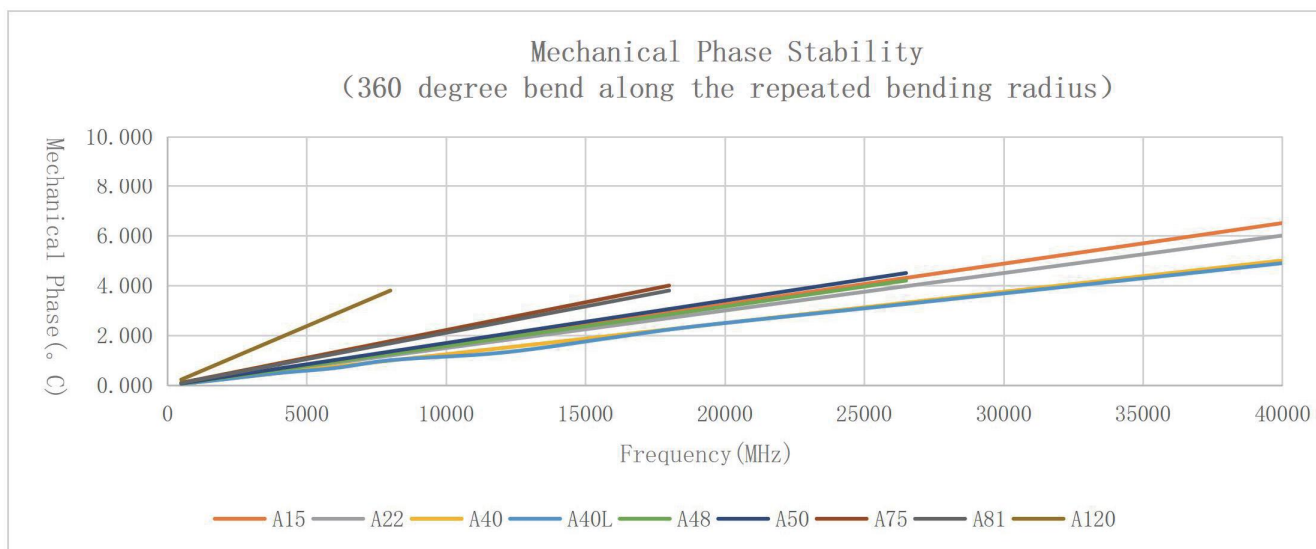
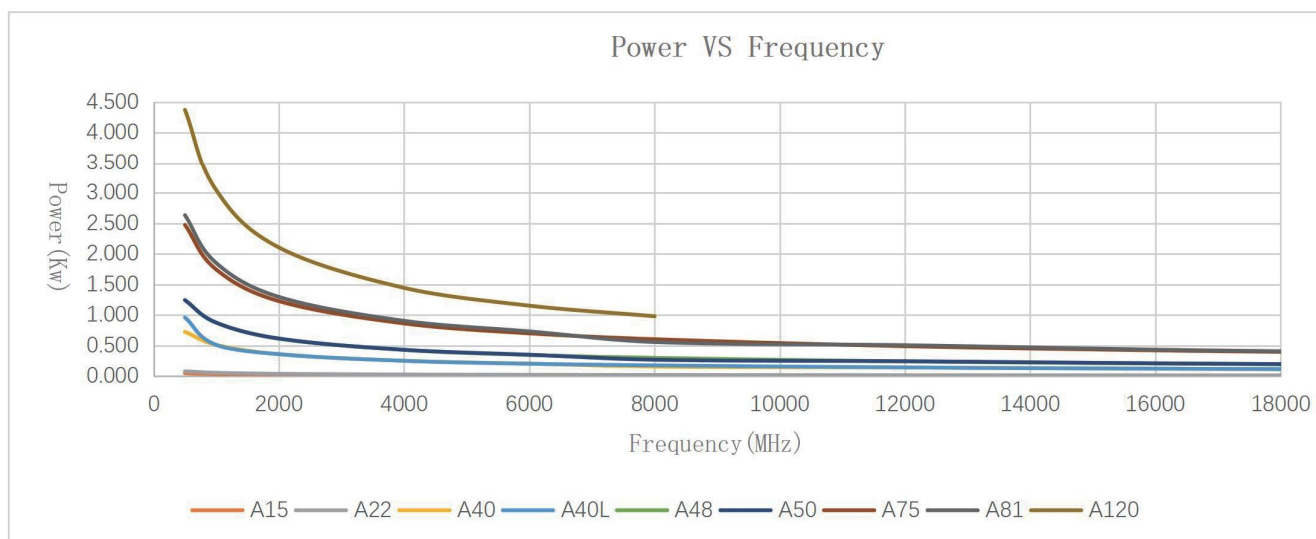
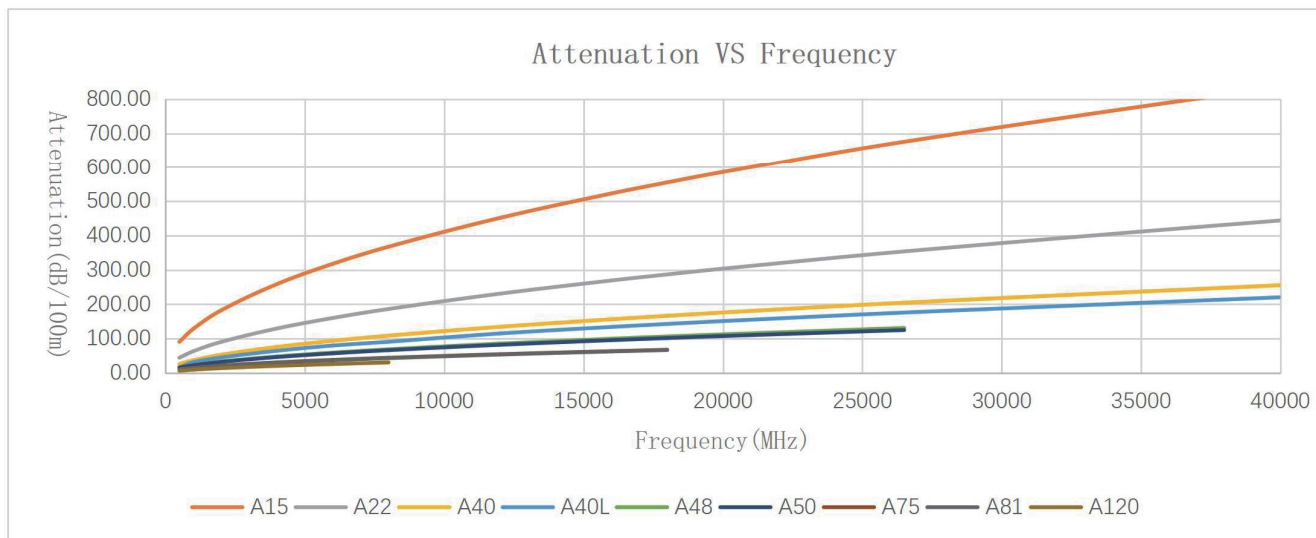
► Cable Specification

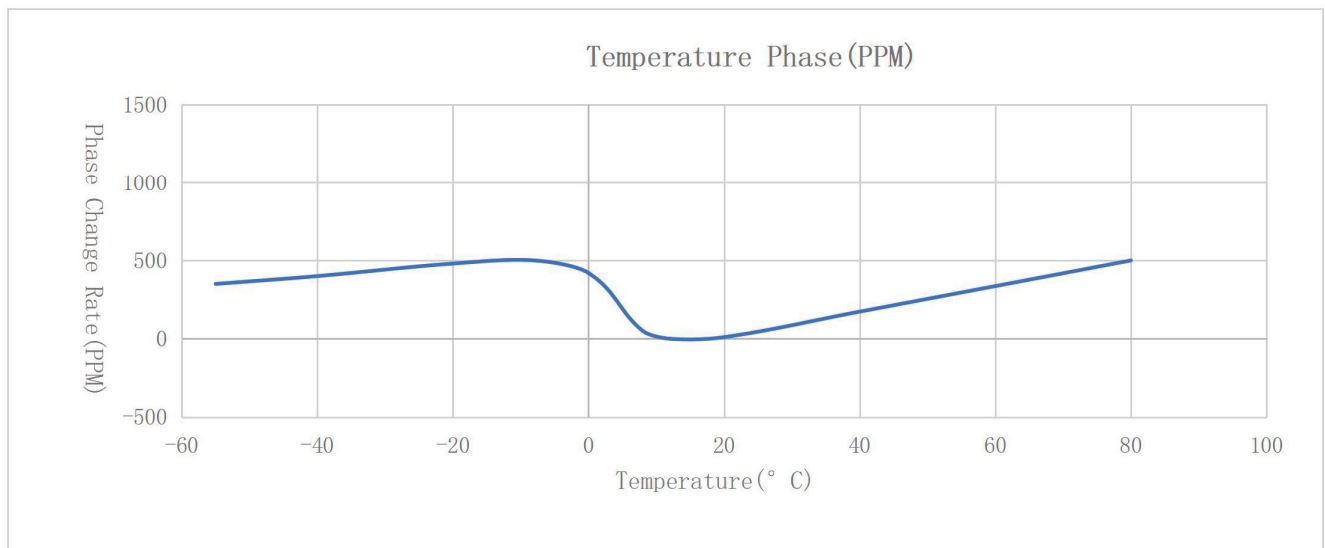
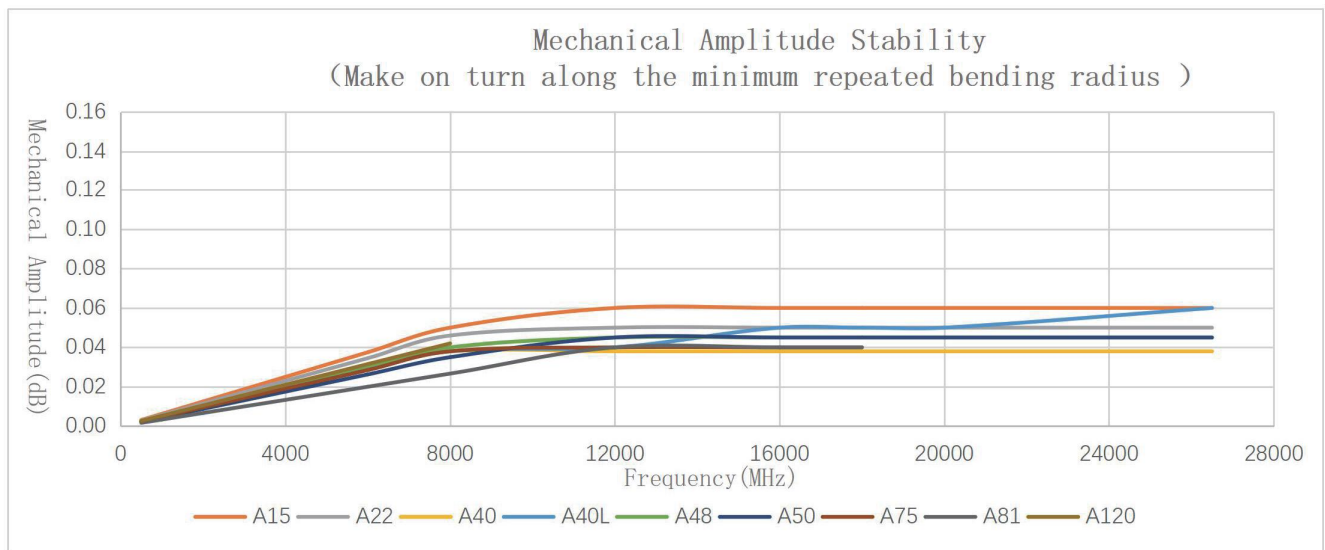
Model	A15		A22		A40L		A40		A48	
Mechanical Specifications										
Center Conductor	0.29		0.51		1.02		0.91		1.40	
Dielectric	0.85		1.38		2.80		2.45		3.75	
Inner Shield	1.01		1.58		3.00		2.66		3.95	
Outer Shield	1.24		1.96		3.40		3.15		4.43	
Jacket	1.54		2.20		3.70		3.60		4.80	
Electrical Specifications										
Impedance(Ω)	50		50		50		50		50	
Velocity of Propagation(%)	80		82		83		83		83	
Shielding Effectiveness (dB)	< -90		< -90		< -90		< -90		< -90	
Time Delay (ns/m)	4.16		4.06		4.01		4.01		4.01	
Capacitance (pF/m)	80.8		83		79.9		79.8		81.9	
Cut-off Frequency(GHz)	134		83		41		46		31	
Voltage Withstand(V,DC)	200		350		750		650		1000	
Static Bending Radius (mm)	8		11		19		18		24	
Dynamic Bending Radius (mm)	15		22		37		36		48	
Operating Temperature (°C)	-55~165		-55~165		-55~165		-55~165		-55~165	
Attenuation(+25°C Ambient)&Power Handling(+40°C Ambient;SeaLevel;VSWR 1:1)										
Frequency (MHz)	dB/100m	KW	dB/100m	KW	dB/100m	KW	dB/100m	KW	dB/100m	KW
500	75.73	0.047	44.79	0.079	22.45	0.901	26.40	0.726	16.65	1.243
1000	107.41	0.033	63.70	0.055	31.91	0.634	37.50	0.511	23.67	0.874
2000	152.51	0.023	90.80	0.039	45.45	0.445	53.36	0.359	33.73	0.613
4000	216.90	0.016	129.85	0.027	64.93	0.312	76.10	0.252	48.22	0.429
6000	266.80	0.013	160.37	0.022	80.14	0.253	93.81	0.204	59.54	0.348
8000	309.20	0.012	186.49	0.019	93.13	0.217	108.91	0.157	69.22	0.299
12000	380.99	0.009	231.09	0.015	115.28	0.176	134.60	0.142	85.75	0.241
16000	442.17	0.008	269.46	0.013	134.30	0.151	156.60	0.122	99.96	0.207
18000	470.07	0.008	287.06	0.012	143.02	0.141	166.67	0.115	106.48	0.194
20000	496.57	0.007	303.84	0.012	151.33	0.134	176.25	0.109	112.69	0.184
26500	575.23	0.006	353.99	0.010	176.12	0.115	204.79	0.094	131.24	0.158
40000	714.50	0.005	443.99	0.008	220.51	0.092	255.69	0.075		
50000	804.35	0.004	502.84	0.007						
67000	940.64	0.004	593.22	0.006						
110000	1230.52	0.003								
K1	3.3634		1.9758324		0.991550		1.16847		0.734593	
K2	0.0010455		0.001227		0.000555		0.00055		0.00044	

Model	A50		A75		A81		A120	
Mechanical Specifications								
Center Conductor	1.45		2.10		2.30		3.80	
Dielectric	4.00		5.75		6.25		10.40	
Inner Shield	4.20		6.07		6.57		10.72	
Outer Shield	4.68		6.64		7.15		11.44	
Jacket	5.20		7.50		7.80		12.00	
Electrical Specifications								
Impedance(Ω)	50		50		50		50	
Velocity of Propagation(%)	83		83		83		83	
Shielding Effectiveness(dB)	< -90		< -90		< -90		< -90	
Time Delay (ns/m)	4.01		4.01		4.01		4.01	
Capacitance (pF/m)	79.5		80.1		80.1		80.1	
Cut-off Frequency(GHz)	29		20		18		11	
Voltage Withstand(V,DC)	1100		1600		1700		2900	
Static Bending Radius (mm)	26		38		39		60	
Dynamic Bending Radius (mm)	51		75		78		120	
Operating Temperature (°C)	-55~165		-55~165		-55~165		-55~165	
Attenuation(+25°C Ambient)&Power Handling(+40°C Ambient;SeaLevel;VSWR 1:1)								
Frequency (MHz)	dB/100m	KW	dB/100m	KW	dB/100m	KW	dB/100m	KW
500	16.17	1.243	10.88	2.474	10.37	2.633	6.94	4.372
1000	22.96	0.875	15.43	1.744	14.76	1.850	9.98	3.043
2000	32.66	0.615	21.93	1.227	21.07	1.296	14.42	2.105
4000	46.58	0.431	31.21	0.862	30.18	0.905	21.02	1.444
6000	57.40	0.350	38.42	0.700	37.32	0.732	26.34	1.153
8000	66.66	0.268	44.55	0.604	43.44	0.558	30.98	0.980
12000	82.34	0.244	54.94	0.490	53.93	0.506		
16000	95.78	0.210	63.81	0.422	62.98	0.434		
18000	101.92	0.197	67.86	0.397	67.13	0.407		
20000	107.77	0.186						
26500	125.20	0.161						
K1	0.715687		0.48249		0.45638		0.298565	
K2	0.000328		0.000174		0.000328		0.000535	

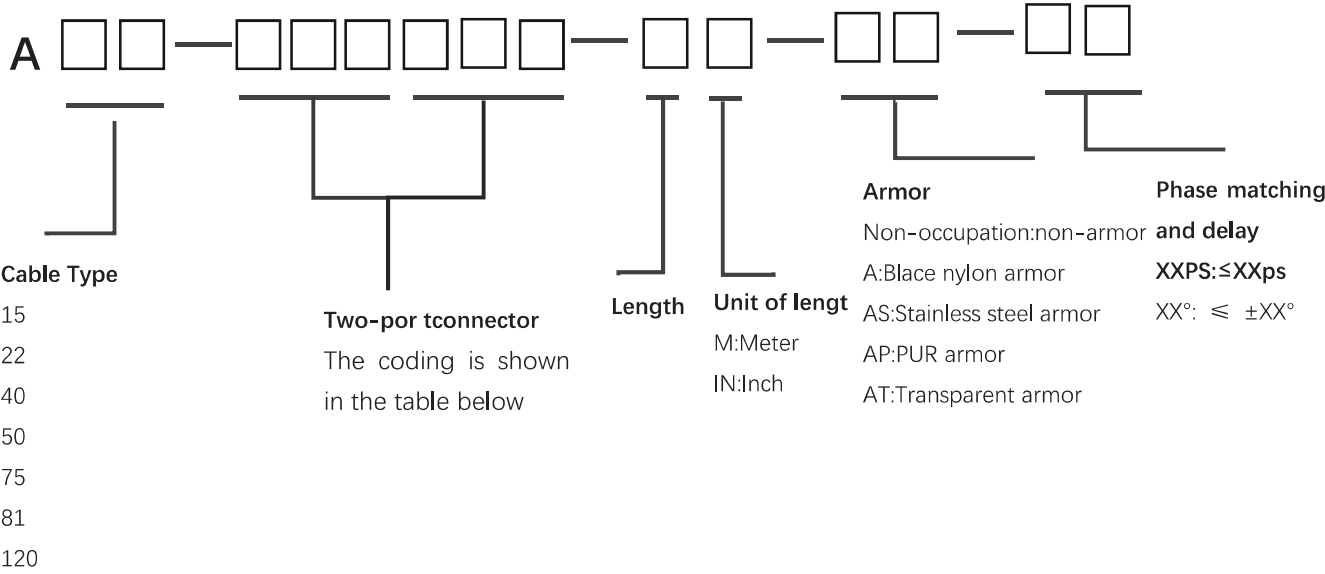


► Test Data





► Assembly Selection Information



Cable Type

15

22

40

50

75

81

120

Two-por tconnector

The coding is shown in the table below

Length

Unit of lengt

M:Meter

IN:Inch

Armor

Non-occupation:non-armor

A:Blace nylon armor

AS:Stainless steel armor

AP:PUR armor

AT:Transparent armor

Phase matching and delay

XXPS:≤XXps

XX°: ≤ ±XX°

► Optional Connectors

Connector Code	Connector Type	Operating Frequency	A15	A22	A40L	A40	A48	A50	A75	A81	A120	VSWR (Max)
1.0M	1.0mm Male	DC-110GHz	●									1.50
1.0F	1.0mm Female	DC-110GHz	●									1.50
1.85M	1.85mm Male	DC-67GHz	●	●								1.30
1.85F	1.85mm Female	DC-67GHz	●	●								1.30
2.4M	2.4mm Male	DC-50GHz		●		●						1.30
2.4F	2.4mm Female	DC-50GHz		●		●						1.30
2.92M	2.92mm Male	DC-40GHz		●	●	●						1.30
2.92WM	2.92 Male Right Angle	DC-40GHz		●	●	●						1.30
2.92F	2.92mm Female	DC-40GHz		●	●	●						1.30
3.5M	3.5mm Male	DC-27GHz					●	●				1.30
3.5F	3.5mm Female	DC-27GHz					●	●				1.30
SMPF	SMP Female	DC-40GHz		●								1.30
SSMAM	SSMA Male	DC-40GHz		●								1.30
SMAM	SMA Male	DC-27GHz		●		●	●	●	●	●		1.25
SMAWM	SMA Male Right Angle	DC-18GHz					●	●	●	●		1.25
SMAF	SMA Female	DC-27GHz		●		●	●	●	●	●		1.25
NM	N Male	DC-18GHz				●			●	●	●	1.25
NF	N Female	DC-18GHz				●			●	●	●	1.25
TNCM	TNC Male	DC-12GHz								●		1.25
SCM	SC Male	DC-6GHz								●		1.25
DINM	7/16 Male	DC-6GHZ								●	●	1.25