

A Series High-Performance Low Loss Phase Stable Flexible Cable

01



INTRODUCTION

A Series adopts strict production process and control requirements, so that the product has excellent electrical and mechanical performance within its working frequency range; In terms of electrical performance, the signal transmission rate of this series can reach 83%, which makes the cable signal loss as low as possible and the temperature phase stability is less than 550PPM;

In terms of mechanical performance, the strict production technology ensures excellent bending performance; In terms of environmental adaptability, the use of excellent production materials ensures the product used in a wide temperature range and has corrosion resistance, cracking resistance, moisture-proof, mildew-proof and fire resistance characteristics.

Typical Application

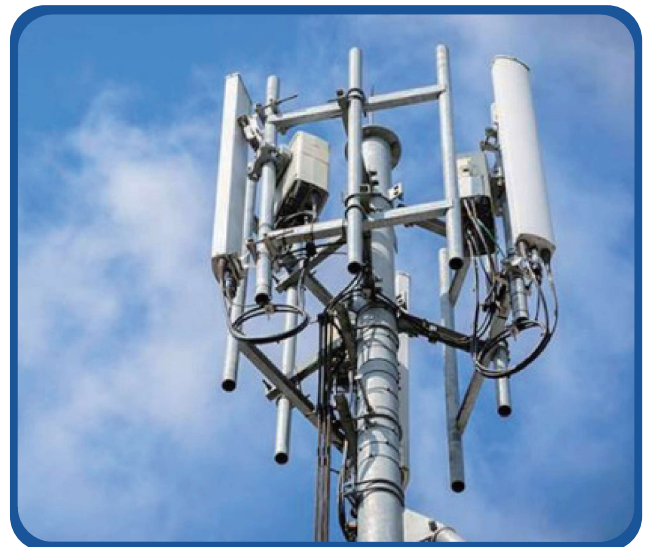
- Test cables
- Radar
- Aerospace systems
- Millimeter wave 5G communication
- Lab test

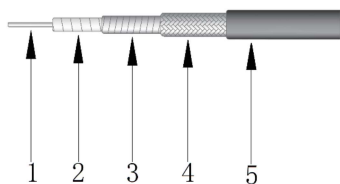
Features

- Operating frequency up to 110GHz
- Extra-low loss
- High power
- High temperature resistance
- Good shielding

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(Silver Plated Copper)
- 2—Dielectric——PTFE
- 3—Inner Shield——SPC(Silver Plated Copper)
- 4—Outer Shield——SPC(Silver Plated Copper)
- 5—Jacket——FEP

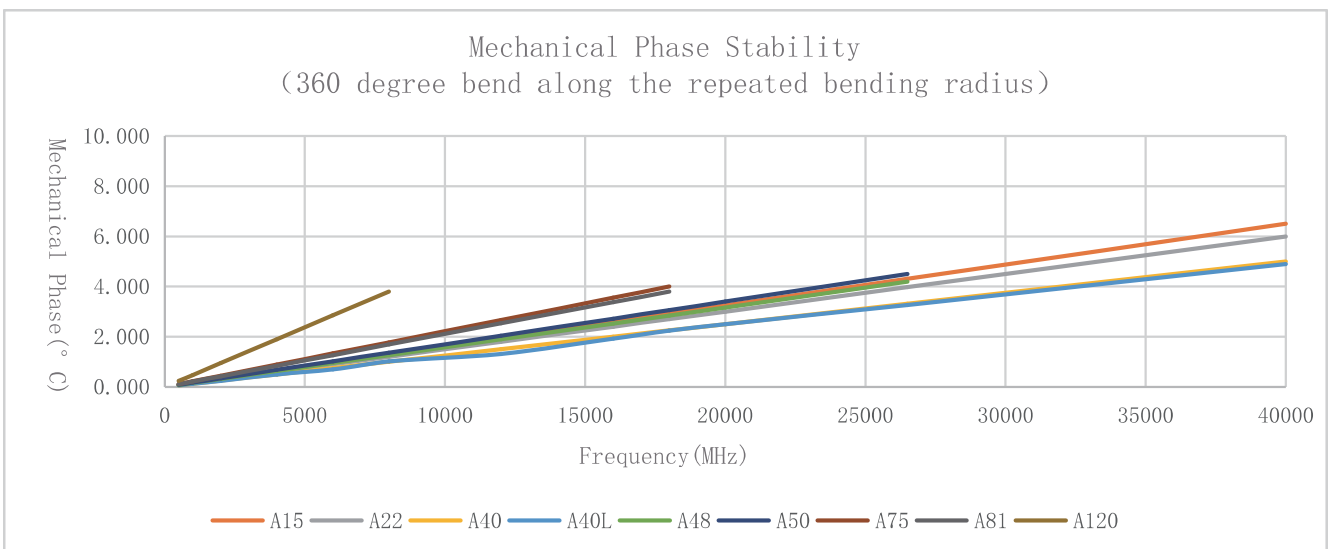
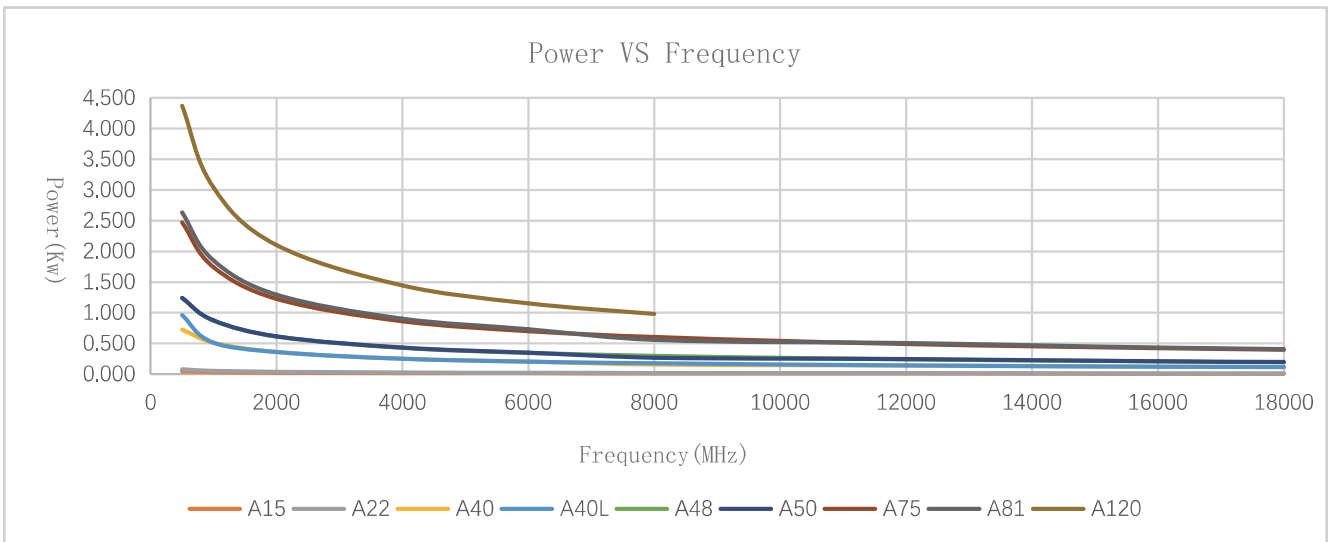
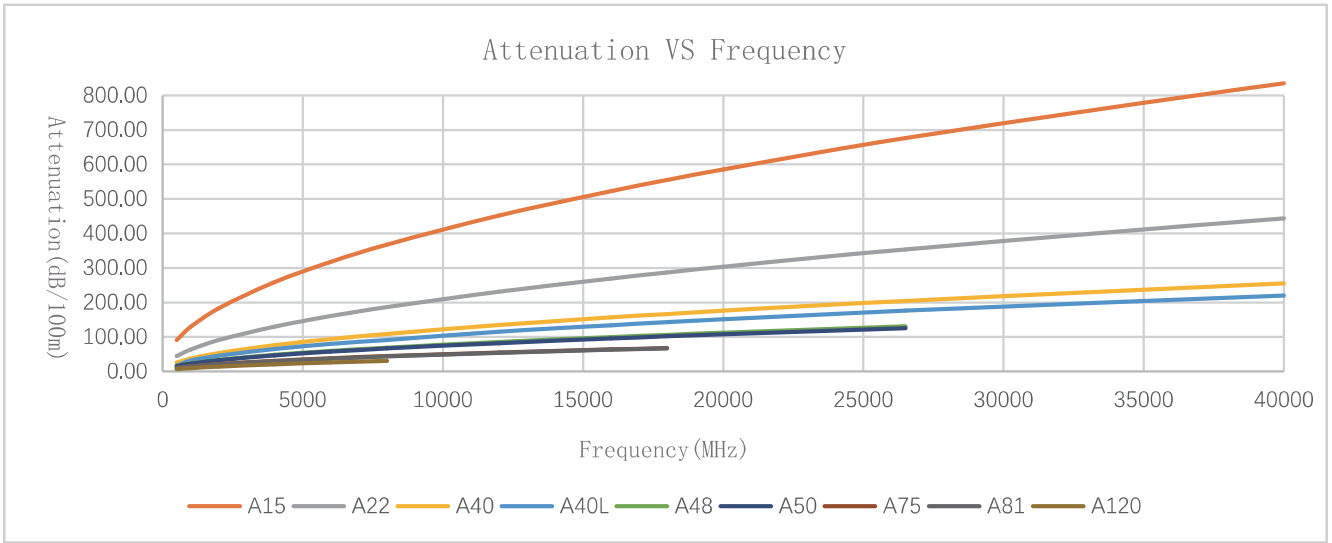
CABLE SPECIFICATION

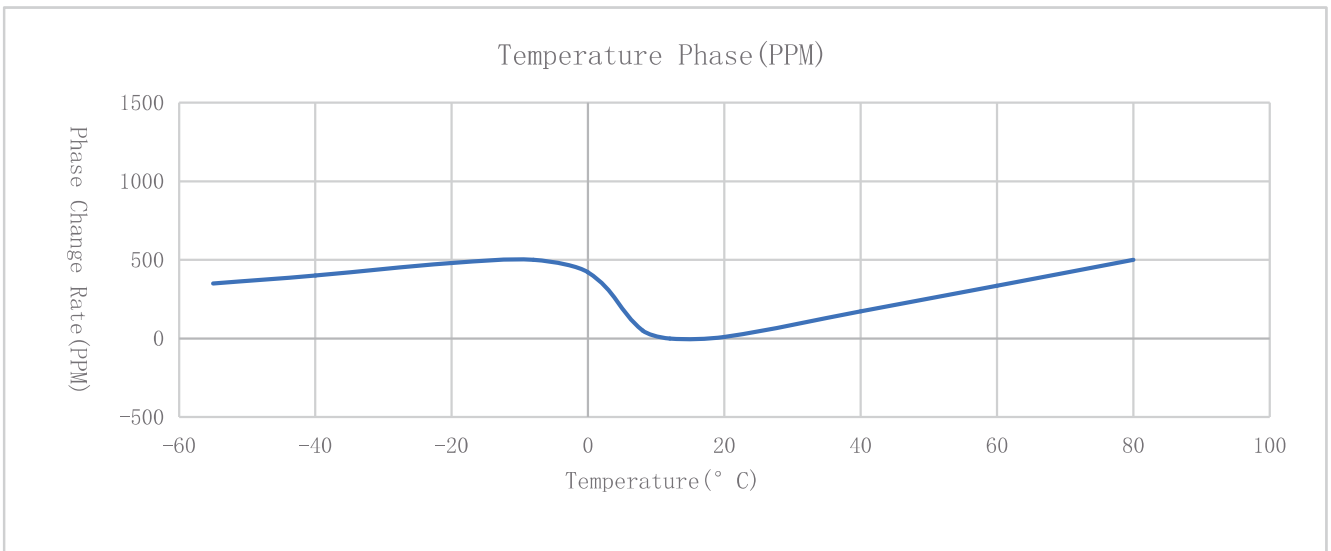
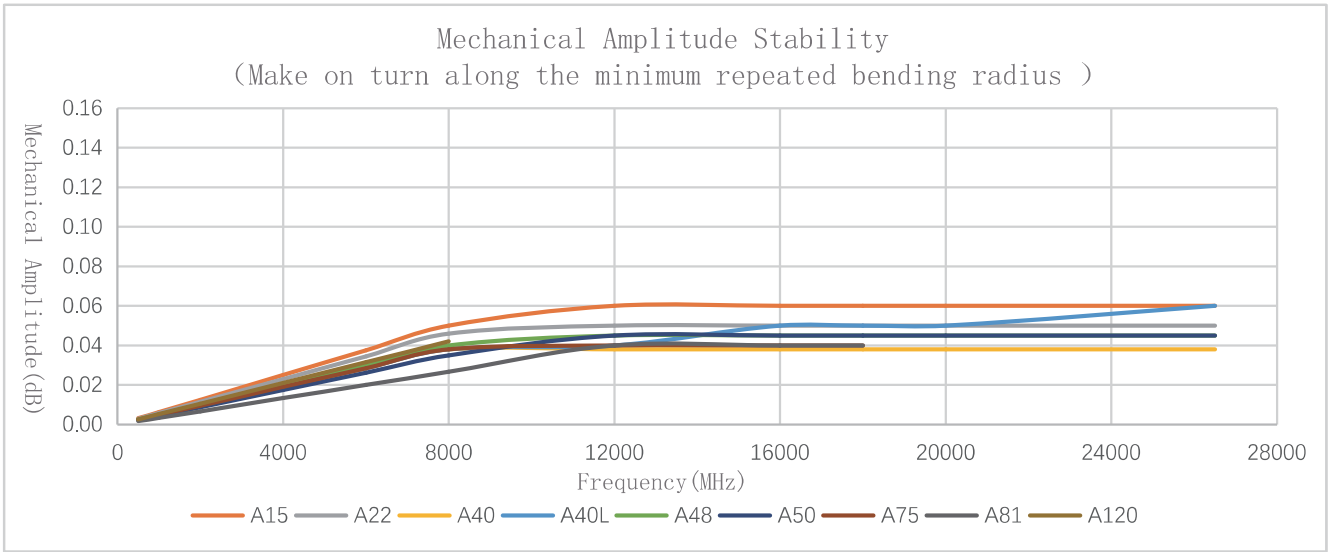
Model	A15		A22		A40L		A40		A48			
Mechanical Specifications												
Center Conductor (mm)	0.29		0.51		1.02		0.91		1.4			
Dielectric (mm)	0.85		1.38		3.0		2.45		3.75			
Inner Shield (mm)	1.01		1.58		3.1		2.66		3.95			
Outer Shield (mm)	1.24		1.9		3.35		3.15		4.43			
Jacket (mm)	1.54		2.2		3.7		3.6		4.8			
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		4.06		4.01		4.01			
Capacitance (pF/m)	81.7		83		79.8		79.8		81.9			
Cut-off Frequency(GHz)	135		83		46		46		31			
Voltage Withstand(V,DC)	200		350		650		650		1000			
Static Bending Radius (mm)	7		11		18		18		24			
Dynamic Bending Radius (mm)	15		22		36		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	
500	75.73		0.047		44.79		0.079		22.45		0.960	
1000	107.41		0.033		63.70		0.055		31.91		0.511	
2000	152.51		0.023		90.80		0.039		45.45		0.359	
4000	216.90		0.016		129.85		0.027		64.93		0.251	
6000	266.80		0.013		160.37		0.022		80.14		0.203	
8000	309.20		0.012		186.49		0.019		93.13		0.176	
12000	380.99		0.009		231.09		0.015		115.28		0.142	
16000	442.17		0.008		269.46		0.013		134.30		0.122	
18000	470.07		0.008		287.06		0.012		143.02		0.115	
20000	496.57		0.007		303.84		0.012		151.33		0.110	
26500	575.23		0.006		354.00		0.010		176.12		0.093	
40000	714.50		0.005		444.01		0.008		220.51		0.074	
50000	804.35		0.004		502.86		0.007					
67000	940.64		0.004		593.24		0.006					
110000	1230.52		0.003									
K1	3.3634		1.975832		0.991550		1.16847		0.734593			
K2	0.0010455		0.001221		0.000555		0.00055		0.00044			

Mode	A50		A75		A81		A120	
Mechanical Specifications								
Center Conductor (mm)	1.45		2.1		2.3		3.80	
Dielectric (mm)	4		5.75		6.25		10.40	
Inner Shield (mm)	4.2		6.07		6.57		10.78	
Outer Shield (mm)	4.68		6.58		7.15		11.35	
Jacket (mm)	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)	-55~125		-55~125		-55~125		-55~125	
Attenuation(+25°C Ambient)&Power Handling(+40°C Ambient;SeaLevel;VSWR 1:1)								
Frequency (MHz)	dB/100m		KW		dB/100m		KW	
500	16.17		1.243		10.88		2.474	
1000	22.96		0.875		15.43		1.744	
2000	32.66		0.615		21.93		1.227	
4000	46.58		0.431		31.21		0.862	
6000	57.40		0.350		38.42		0.700	
8000	66.66		0.268		44.55		0.604	
12000	82.34		0.244		54.94		0.490	
16000	95.78		0.210		63.81		0.422	
18000	101.92		0.197		67.86		0.397	
20000	107.77		0.186					
26500	125.20		0.161					
K1	0.715987		0.48249		0.45638		0.298565	
K2	0.000328		0.000174		0.000328		0.000535	

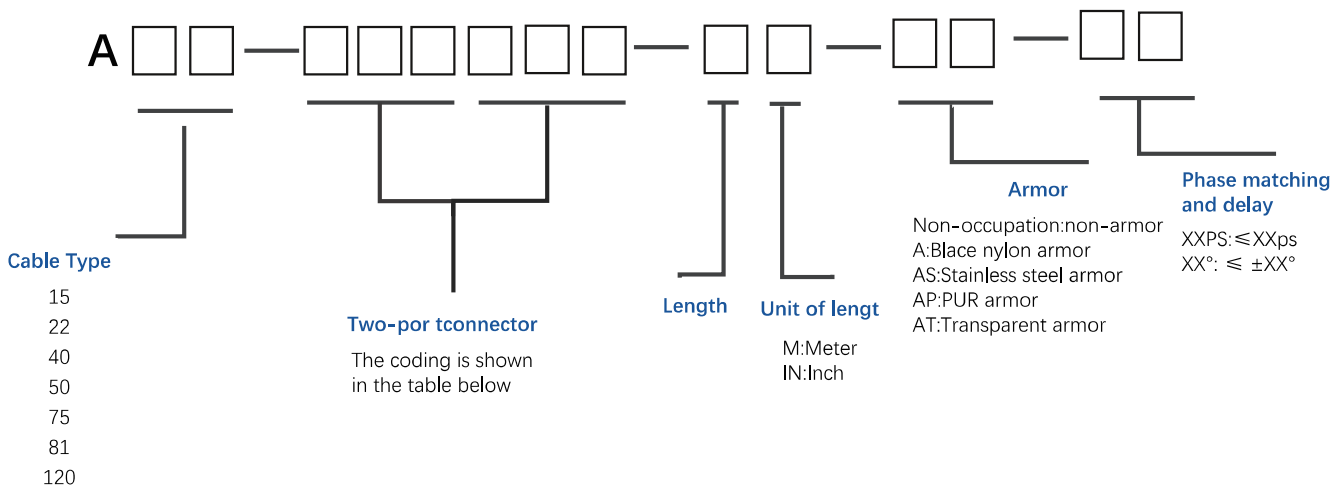


Test Data





Assembly Selection Information



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