GL Series
Low Loss Semi-Rigid Coax Cable

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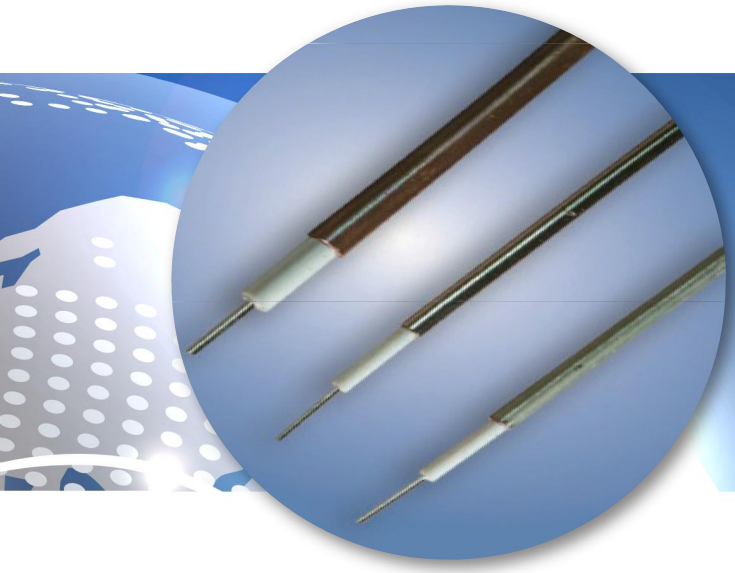


INTRODUCTION

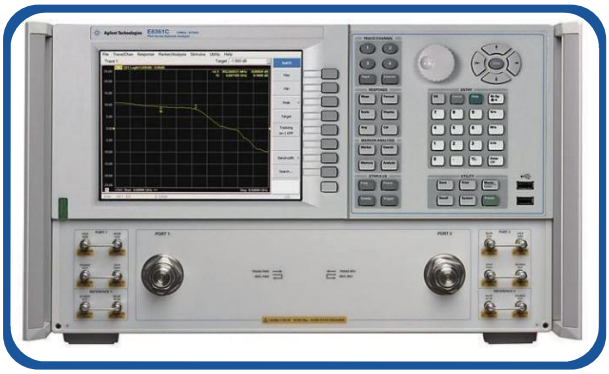
GL series features low loss, light weight, high power handling and excellent temperature phase. The central conductor is made of silver plated copper. It utilizes advanced low density PTFE dielectric to replace traditional solid PTFE dielctric. The outer conductor is made of seamless copper tube and uses the same connector as semi-rigid cable . It is mainly used in test measurement, system interconnection and instrumentation.

Typical Application

- ·Aerospace
- ·Plate-to-plate connection
- ·Instrumentation and card inte-rconnection
- ·Feed network
- ·Cabinet jumper

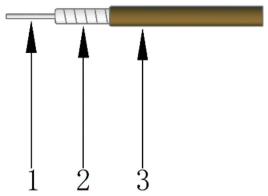
Features

- ·Ultra-low loss
- ·Light weight
- ·High power handling
- ·High temperature resistance
- ·Good temperature and phase stability



Replacement Table

Talent Model	Replacement Model	Replacement Brand
GL2	086 CLL50086	TIMES
	UT-085-LL	MCC
GL3	CLL50141	TIMES
	UT-141-LL	MCC

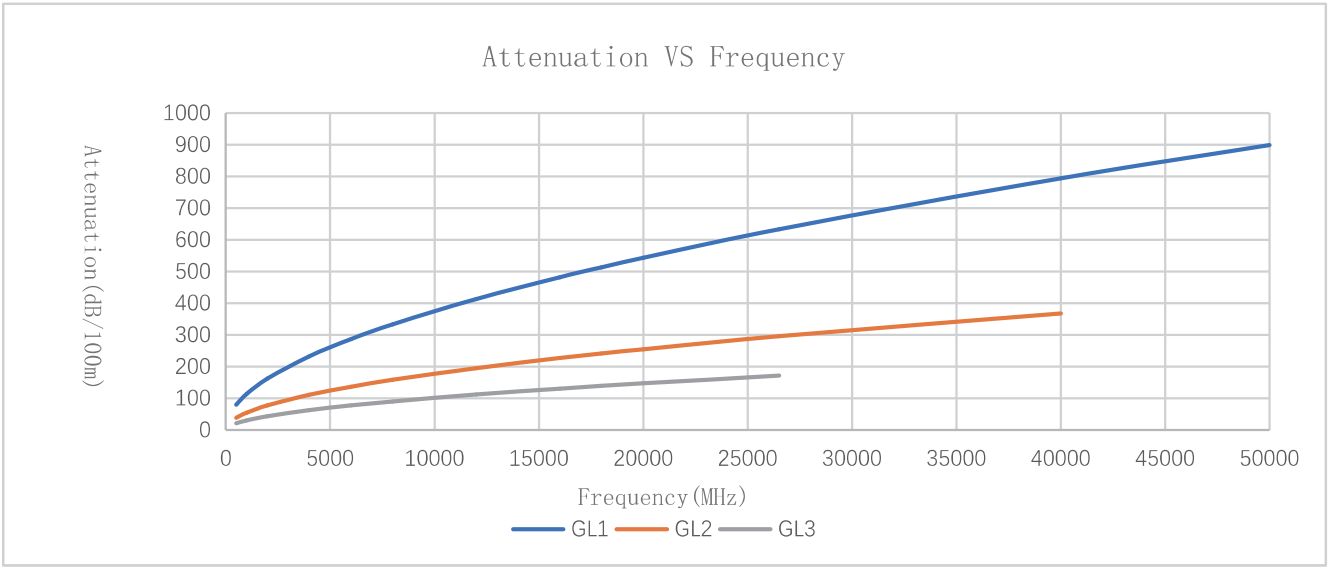


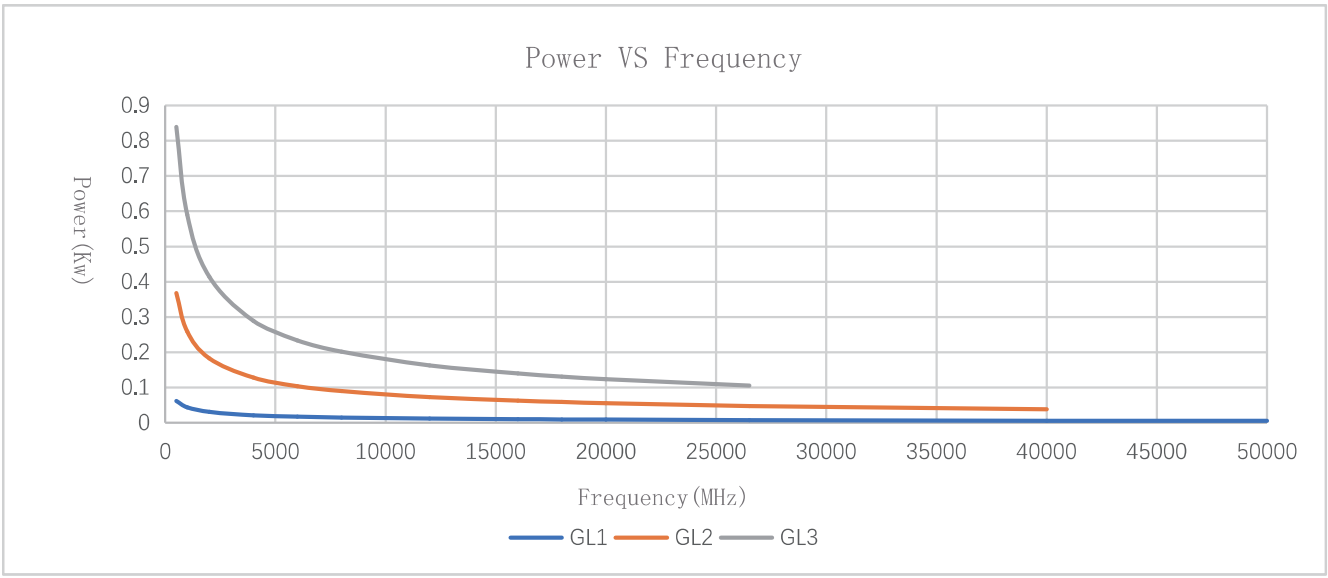
1–Center Conductor——SPC(Silver Plated Copper)
2–Dielectric——PTFE
3–Out conductor——Copper/Ternary Alloy

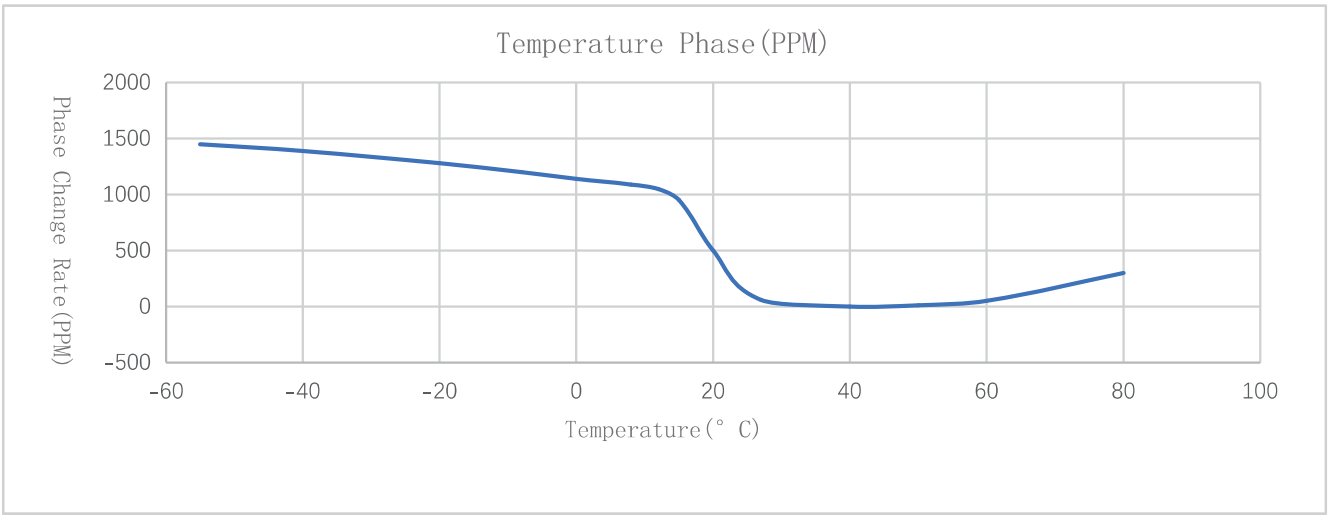
Cable Specification

Model	GL1		GL2		GL3	
Mechanical Specifications						
Center Conductor (mm)	0.31		0.56		0.99	
Dielectric (mm)	0.94		1.68		3.00	
Outer Conductor (mm)	1.19		2.18		3.58	
Electrical Specifications						
Impedance(Ω)	50		50		50	
Velocity of Propagation(%)	76		76		76	
Shielding Effectiveness（dB)	< -120		< -120		< -120	
Time Delay（ns/m)	4.39		4.39		4.39	
Capacitance（pF/m)	87.5		87.5		87.5	
Cut-off Frequency(GHz)	116		65		36	
Voltage Withstand(V,DC)	300		600		1300	
Static Bending Radius（mm)	4		7		13	
Operating Temperature (℃)	-55~200		-55~200		-55~200	
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	80.28	0.0626	38.80	0.368	21.78	0.839
1000	114.17	0.0440	55.04	0.259	30.98	0.590
2000	162.72	0.0309	78.19	0.183	44.16	0.414
4000	232.65	0.0216	111.27	0.128	63.14	0.289
6000	287.31	0.0175	136.93	0.104	77.98	0.234
8000	334.06	0.0150	158.74	0.090	90.68	0.202
12000	413.89	0.0121	195.72	0.073	112.36	0.163
16000	482.53	0.0104	227.26	0.063	131.01	0.140
18000	514.02	0.0098	241.65	0.059	139.56	0.131
20000	544.04	0.0092	255.33	0.056	147.72	0.124
26500	633.73	0.0079	295.96	0.048	172.09	0.106
40000	794.63	0.0063	368.00	0.039		
50000	899.79	0.0056				
K1	3.5422442		1.72200		0.96104	
K2	0.0021545		0.00059		0.0005904	

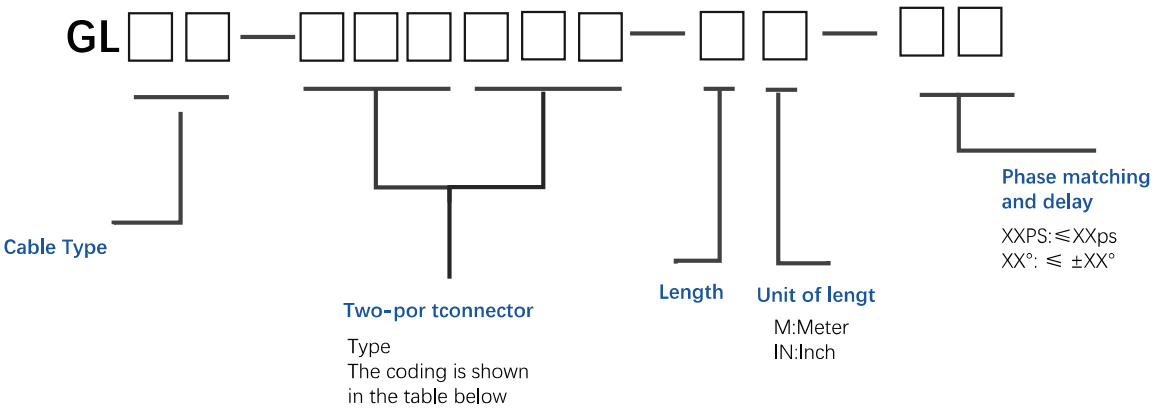
Test Data


Attenuation VS Frequency
Attenuation(dB/100m)
1000
900
800
700
600
500
400
300
200
100
0
0
5000
10000
15000
20000
25000
30000
35000
40000
45000
50000
Frequency(MHz)
GL1
GL2
GL3


Power VS Frequency
Power(Kw)
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
0
5000
10000
15000
20000
25000
30000
35000
40000
45000
50000
Frequency(MHz)
GL1
GL2
GL3


Temperature Phase(PPM)
Phase Change Rate(PPM)
2000
1500
1000
500
0
-500
-60
-40
-20
0
20
40
60
80
100
Temperature(° C)

Assembly Selection Information



Optional Connectors

Connector Code	Connector Type	Operating Frequency	GL1	GL2	GL3	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
2.92M	2.92mm Male	DC-40GHz	●	●		1.30
2.92F	2.92mm Female	DC-40GHz	●	●		1.30
SSMAM	SSMA Male	DC-40GHz		●		1.30
3.5M	3.5mm Male	DC-27GHz		●	●	1.30
SMAM	SMA Male	DC-27GHz		●	●	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
SMPF	SMP Female	DC-40GHz		●		1.25
SSMPF	SSMP Female	DC-40GHz		●		1.25