T Seires 03

Semi-Rigid Alternative Flexible Cable

INTRODUCTION

T series has similar performance of semi-rigid cable. This series is using the worldwide leading SPC spiral wrap as an outer conductor. This series uses solid and durable PTFE with SPC tape braid as dielectric, which makes this series has good electrical performance. Standard semi-rigid or semi-flexible connectors can be easily selected due to the standard cable structure and size.

Typical Application

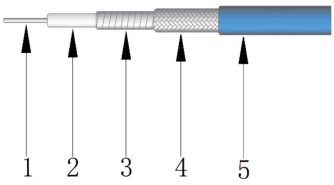
- Maximum operating frequency up to 67GHz
- Excellent shielding
- Excellent corrosion resistance
- Good mechanical stability
- Cost-effective

Features

- Test setup
- Phased array radars interconnection
- Cabinet jumper
- Equipment automation
- High-power operating environment

Replacement Table

Talent Model	Replacement Model	Replacement Brand
T1	TFLEX-405	TIMES
	MULTFLEX86	H+S
	MULTIBEND86	HABIA
	SS405	HARBOUR
T2	TFLEX402	TIMES
	MULTFLEX141	H+S
	MULTIBEND141	HABIA
	SS402	HARBOUR

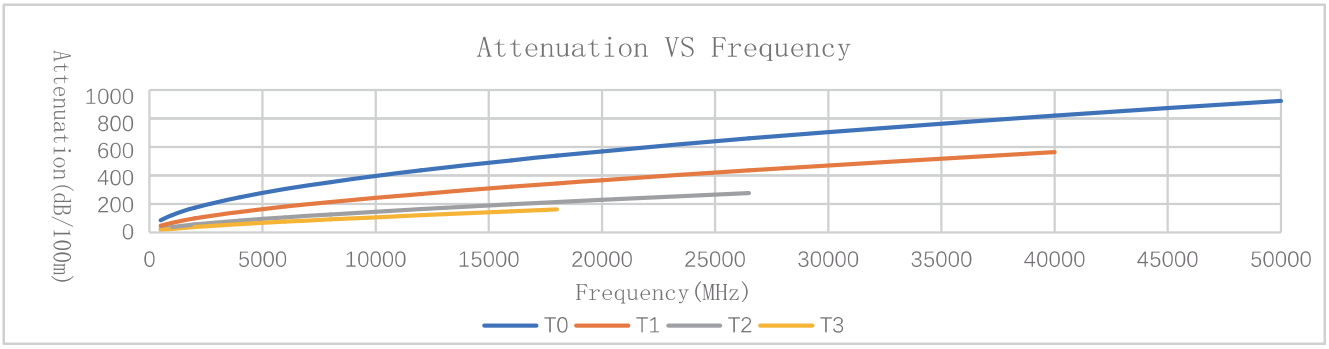


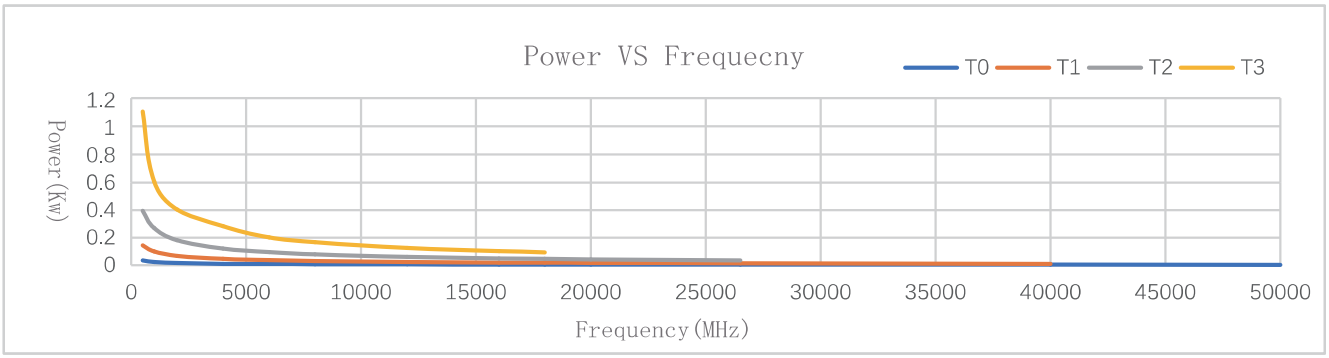
1–Center Conductor——SPC
2–Dielectric——Solid state PTFE
3–Outer Conductor——SPC
4–Outer Shield——SPC
5–FEP Jacket——FEP

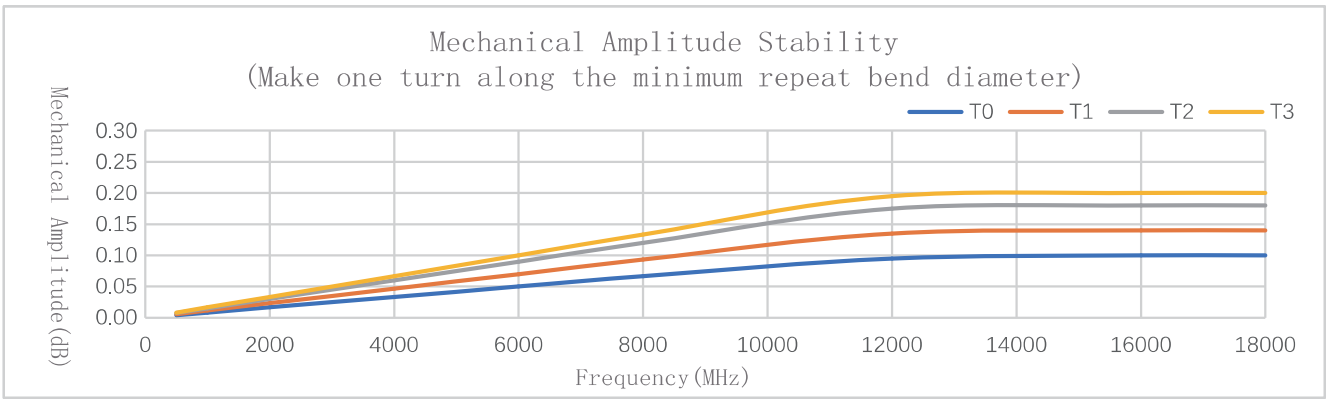
Cable Specification

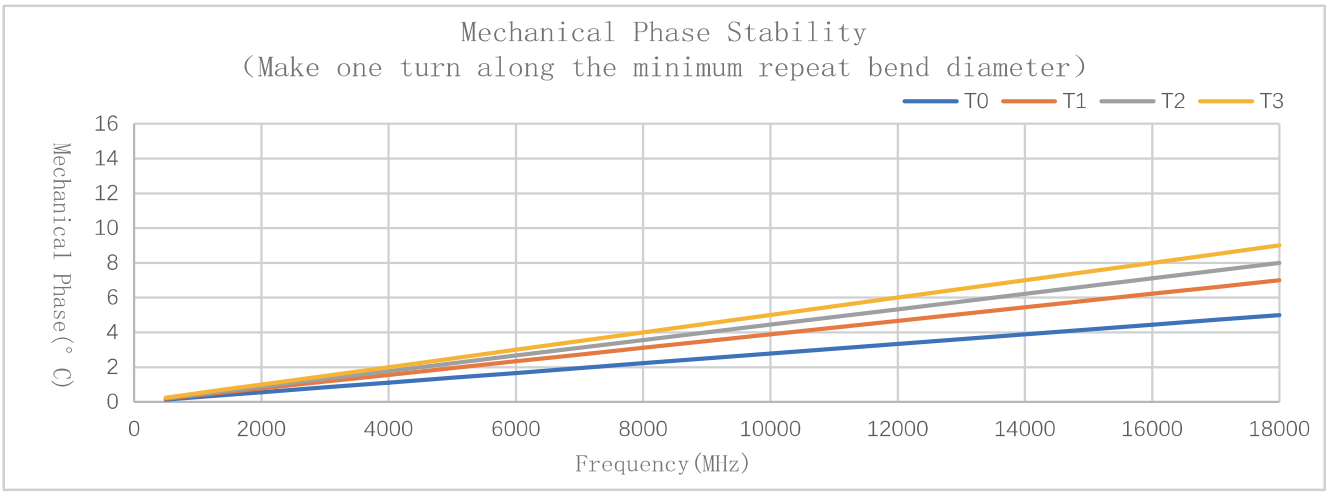
Mode	T0		T1		T2		T3	
Mechanical Specifications								
Center Conductor (mm)	0.3		0.51		0.91		1.65	
Dielectric (mm)	0.94		1.60		3.00		5.25	
Inner Shield (mm)	1.06		1.79		3.20		5.57	
Outer Shield (mm)	1.3		2.16		3.60		6.08	
Jacket (mm)	1.6		2.80		4.00		6.50	
Electrical Specifications								
Impedance(Ω)	50		50		50		50	
Velocity of Propagation(%)	70		70		70		70	
Shielding Effectiveness（dB)	< -90		< -90		< -90		< -90	
Time Delay（ns/m)	4.76		4.76		4.76		4.76	
Capacitance（pF/m)	98.3		99.2		95.1		98.0	
Cut-off Frequency(GHz)	110		63		34		19	
Voltage Withstand(V,DC)	450		800		1500		2600	
Static Bending Radius（mm)	7		14		20		33	
Dynamic Bending Radius (mm)	14		28		40		65	
Operating Temperature（℃)	-55~125		-55~125		-55~125		-55~125	
Attenuation(+25°C Ambient)&Power Handling(+40°C Ambient;SeaLevel;VSWR 1:1)								
Frequency（MHz)	dB/100	KW	dB/100m	KW	dB/100m	KW	dB/100m	KW
500	87.41	0.036	48.19	0.144	26.17	0.390	17.37	1.743
1000	124.00	0.025	69.30	0.100	38.17	0.267	25.72	1.177
2000	176.15	0.018	100.31	0.069	56.28	0.181	38.69	0.783
4000	250.67	0.012	146.47	0.047	84.20	0.121	59.32	0.510
6000	308.48	0.010	183.73	0.038	107.46	0.095	76.99	0.393
8000	357.63	0.009	216.06	0.032	128.61	0.079	93.1	0.140
12000	440.95	0.007	273.66	0.025	165.81	0.062	122.72	0.126
16000	512.02	0.006	324.44	0.021	199.91	0.051	150.14	0.110
18000	544.46	0.006	348.17	0.020	216.09	0.047	163.30	0.094
20000	575.28	0.005	371.05	0.019	231.81	0.044		
26500	666.83	0.005	440.80	0.016	280.53	0.036		
40000	829.20	0.004	570.87	0.012				
50000	934.11	0.003						
K1	3.8791178		2.0669291		1.0824		0.688976	
K2	0.0013343		0.003937		0.003937		0.003937	

Test Data

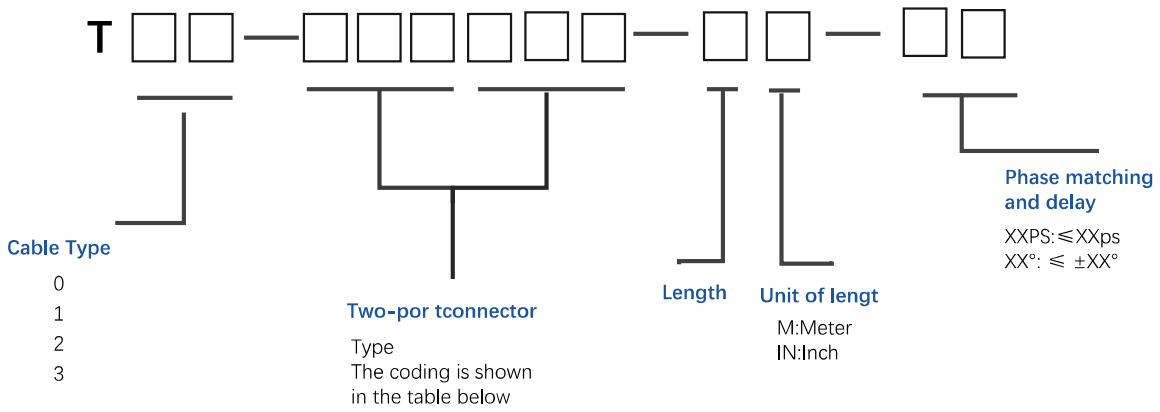

Attenuation VS Frequency
Attenuation(dB/100m)
1000
800
600
400
200
0
0
5000
10000
15000
20000
25000
30000
35000
40000
45000
50000
Frequency(MHz)
T0
T1
T2
T3


Power VS Frequecny
T0
T1
T2
T3
Power(Kw)
1.2
1
0.8
0.6
0.4
0.2
0
0
5000
10000
15000
20000
25000
30000
35000
40000
45000
50000
Frequency(MHz)


Mechanical Amplitude Stability
(Make one turn along the minimum repeat bend diameter)
T0
T1
T2
T3
Mechanical Amplitude(dB)
0.30
0.25
0.20
0.15
0.10
0.05
0.00
0
2000
4000
6000
8000
10000
12000
14000
16000
18000
Frequency(MHz)


Mechanical Phase Stability
(Make one turn along the minimum repeat bend diameter)
T0
T1
T2
T3
Mechanical Phase(° C)
16
14
12
10
8
6
4
2
0
0
2000
4000
6000
8000
10000
12000
14000
16000
18000
Frequency(MHz)

Assembly Selection Intormation



Optional Connectors

Connector Code	Connector Type	Operating Frequency	T0	T1	T2	T3	VSWR（Max）
2.4M	2.4mm Male	DC-40GHz	●				1.35
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
3.5	3.5mm Male	DC-27GHz			●		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
SMPF	SMP Female	DC-40GHz		●			1.25
SSMPF	SSMP Female	DC-40GHz		●			1.25