

TC-038 Low loss, Low reflection

Series Number	
TC-038	
High Frequency Test Cables	0.141inch(φ 4.3)



Flexible cable equivalent to "0.141".
 Excellent shielding characteristics and stable transmission characteristics in high frequency bands.
 Transmission characteristics in a high frequency band.
 Can be used for everything from measurement to wiring applications.
 Standard connector SMA,N.
 Waterproof specification equivalent to IPX4.
 For high-power applications.

Mechanical Characteristics

Outer Diameter/Coating	4.3mm	PFA Blue
Center Conductor	0.91mm	Silver plated copper covered steel wire Single
Insulator	2.95mm	PTFE
Outer Conductor1	-	Silver plated copper foil tape
Outer Conductor2	-	Tinned soft copper wire
Outer Conductor3	-	
Operating temperature	-40°C~+125°C (Typ. -65°C~+125°C)	
Bending radius (min.)	Inner R20mm	
Mass	50g/m	

Electrical Characteristics

Impedance	50Ω
Insulation resistance (20°C)	1500MΩ · km (Min.)
Withstand voltage	AC3000V / minute
Allowable power (typ)	400W@1GHz / 150W@6GHz
Shield Characteristics	> 90dB
Frequency(Max.)	34GHz
Wavelength shortening rate	70%
Insertion Loss (typ)	0.37dB/m(@1GHz) / 0.90dB/m(@5GHz)
VSWR (typ)	1.2 (SMA)、 1.25 (N)
Phase vs Bending (typ)	0.1° @6GHz, 0.2° @10GHz (Inner 20mm,90-degree bend)

Applicable Connectors and Models

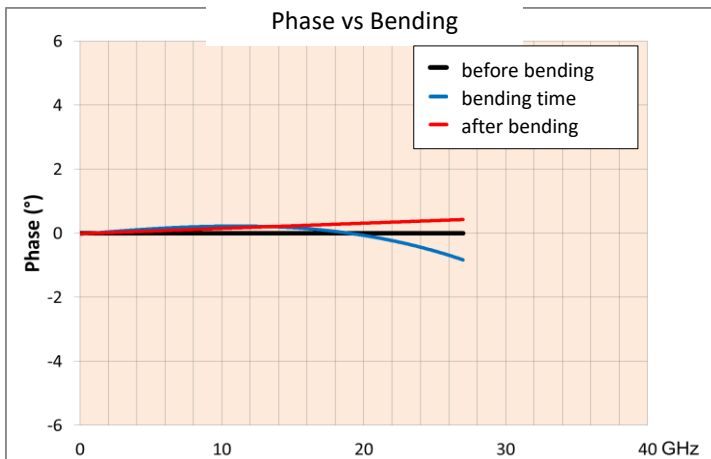
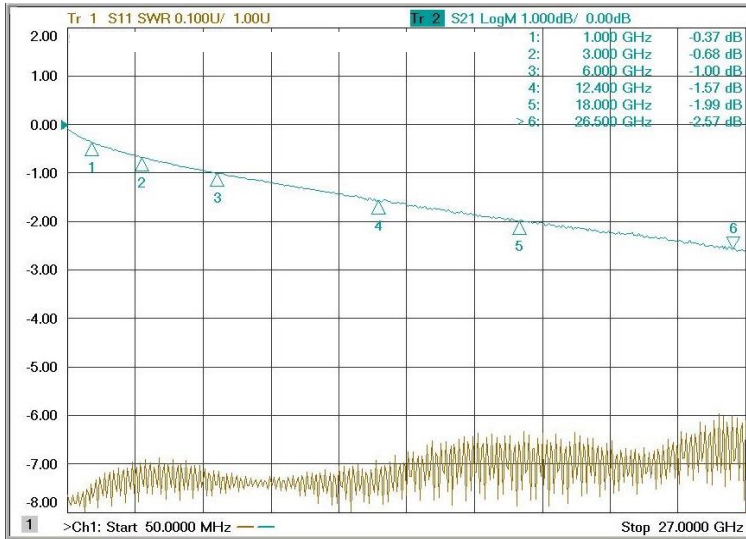
①	TC	-	038	-	SP	-	SJ	-	□□□□	-	△△
①			②		③		④		⑤		⑥
			Cable Type		Connector1		Connector2		Length		Option
									⑤ L (mm)		
					③		④				
①	TC	RoHS compliant									
②	038	Cable Type									
③ ④	SP	SMA(P)	~18GHz (~26.5G ※)								
	SJ	SMA(J)	~18GHz (~26.5G ※)								
	SLP	SMAL(P)	~18GHz								
	NP	N(P) Knurled nut	~12.4GHz								
	NP6	N(P) Hex nut	~18GHz								
	Consultation	N(J)	Consultation								
	Consultation	BNC	Consultation								
	⑤	□□□□	Cable length (mm)								
⑥	No entry	Standard Specification									
	26.5G	Frequency ~26.5GHz ※	Only SMA(P) and SMA(J)								

In the case of standard specifications, ⑥ is not required to be filled in.

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Measured data

Model : TC-038-SP-SP-1000-26.5G
 (SMA(P)-SMA(P) L=1m ~26.5GHz)



GHz	I.L.(dB)	VSWR(U)
1	-0.37	1.06
2	-0.54	1.04
3	-0.68	1.07
4	-0.79	1.03
5	-0.90	1.09
6	-1.00	1.06
7	-1.10	1.06
8	-1.19	1.05
9	-1.26	1.08
10	-1.35	1.08
11	-1.43	1.05
12	-1.56	1.08
13	-1.62	1.05
14	-1.72	1.12
15	-1.76	1.08
16	-1.86	1.14
17	-1.89	1.07
18	-1.99	1.15
19	-2.05	1.06
20	-2.13	1.15
21	-2.18	1.06
22	-2.26	1.13
23	-2.33	1.13
24	-2.38	1.08
25	-2.44	1.16
26	-2.52	1.08
26.5	-2.57	1.20

These are reference values for phase change with a bending radius of 20 mm and a 90-degree bend.
 Small amount of phase change when bent.

Actual Applications

- Cellular phone base station
- For measurement of base station construction
- Onboard Aircraft
- Measurement cables to connect inspection equipment on production lines, such as Network analyzer, Spectrum analyzer, etc.
- Long-selling and proven cable.

Custom Cases

- We can also customize the performance, connectors, cable lengths, etc., to non-standard specifications.
- Phase and electrical length management.
- Various types of connectors can be mounted (flanged N connectors, TNC, BNC, etc.)

The data, etc. shown in the catalog are representative values and are not guaranteed.