

# TC-055 Ultra low loss, Heat resistant

Series Number	
<b>TC-055</b>	
High Frequency Test Cables	Precision Type



Features low loss with the highest level of dielectric loss. Ensures stable transmission under severe conditions such as temperature environment. Stable loss/reflection/phase even when cable is bent. Low phase change vs. temperature. triple-shielded for high shielding. High power.

**Heat-resistant 200° C specification available.**

## Applicable Connectors and Models

## Mechanical Characteristics

Outer Diameter/Coating	5.46mm	FEP Transparency
Center Conductor	1.42mm	Silver plated copper, Single
insulator	4.19mm	Microporous PTFE
Outer Conductor1	4.29mm	Silver plated copper
Outer Conductor2	4.5mm	Aluminum/Polyimide Tape
Outer Conductor3	4.9mm	Silver plated copper, Braided
Operating temperature(standard)	-40°C~+135°C (Typ. -65°C~+200°C)	
Operating temperature(heat-resisting)	-40°C~+200°C (Typ. -65°C~+200°C)	
Bending radius (min.)	Inner R23mm	
Mass	68g/m	

## Electrical Characteristics

Impedance	50 Ω
Withstand voltage	AC2000V / minute
Allowable power (typ)	1230W@1GHz / 480W@6GHz
Shield Characteristics	>110dB
Wavelength shortening rate	77.3%
Frequency(Max.)	26.5GHz
Insertion Loss (typ)	0.25dB/m(@1GHz) / 0.55dB/m(@5GHz)
VSWR (typ)	1.10 (SMA)、1.20 (N)、1.10(3.5mm)
Phase vs Bending (typ)	0.2° @6GHz, 0.4° @10GHz(Inner 20mm,90-degree bend)
Phase vs Temperature (typ)	1500PPM(Max.) (-35°C~+135°C)

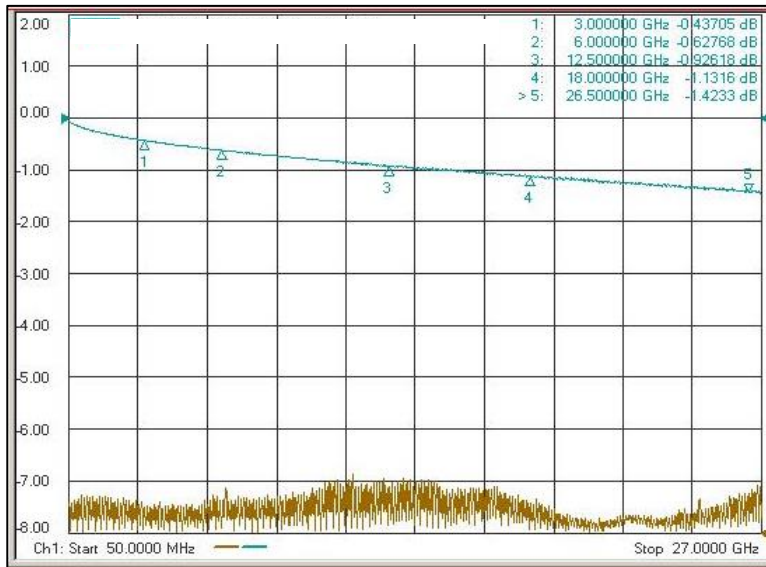
①	TC	-	055	-	SP	-	SJ	-	□□□□	-	△△	⑥
	①		②		③		④		⑤		⑥	
			Cable Type		Connector1		Connector2		Length		Option	
									⑤ L (mm)			
					③		④					
①	TC	RoHS compliant *Non-RoHS requests are negotiable.										
②	055A	Armored Cable (stainless steel reinforced cable)										
	055H	Heat-resistant +200° C specifications										
③	SP	SMA(P)	~18GHz (~26.5G ※)									
	SJ	SMA(J)	~18GHz (~26.5G ※)									
	SLP	SMAL(P)	~18GHz									
④	SP90	90° SWEEP SMA(P)	~18GHz									
	NP6	N(P) Hex nut	~18GHz									
	3.5P	3.5mm(P)	~26.5GHz									
	3.5J	3.5mm(J)	~26.5GHz									
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.

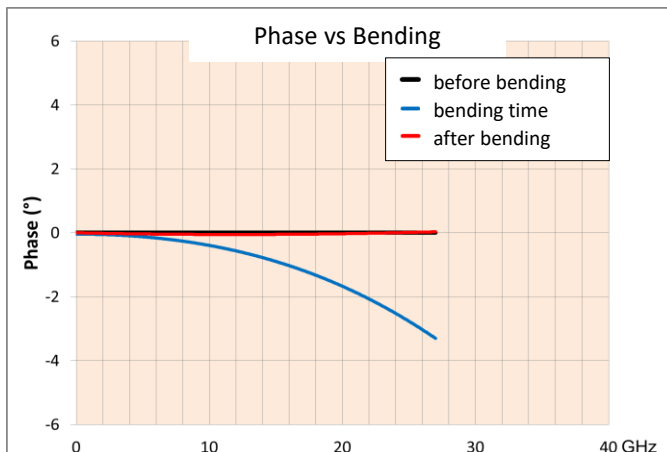
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## Measured data

Model : TC-055-SP-SP-1000-26.5G  
(SMAP-SMAP L=1m ~26.5GHz)



GHz	I.L.(dB) (Typ)	VSWR(U) (Typ)
1	-0.25	1.04
2	-0.35	1.02
3	-0.43	1.06
4	-0.49	1.01
5	-0.55	1.03
6	-0.60	1.02
7	-0.65	1.08
8	-0.71	1.01
9	-0.75	1.07
10	-0.80	1.04
11	-0.83	1.11
12	-0.89	1.09
13	-0.91	1.12
14	-0.97	1.05
15	-1.00	1.05
16	-1.03	1.08
17	-1.08	1.03
18	-1.12	1.07
19	-1.14	1.04
20	-1.20	1.06
21	-1.24	1.08
22	-1.29	1.10
23	-1.31	1.05
24	-1.36	1.10
25	-1.39	1.03
26	-1.43	1.10
26.5	-1.46	1.03



These are reference values for phase change with a bending radius of 20 mm and a 90-degree bend. Reproducibility is good because the amount of change when bending is small and it returns to the original state on bending back.

## Actual Applications

- Measurement cables for use with network analyzers, spectrum analyzers, etc.
- Wireless communication measurements for cell phone carriers
- Radar systems
- Measurement and inspection lines for production equipment
- ~K band (~26 GHz)

## Custom Cases

- We can also customize the performance, connectors, cable length, etc., to any specifications other than the standard specifications.
- Sweep processing at the connector neck.
- Phase and electrical length management.

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