

# TC-065 Flexible/High phase stability/40GHz

Series Number	
TC-065	
High Frequency Test Cables	Flexible



Very flexible and easy-to-handle cable. It is relatively inexpensive, low-loss, and highly phase-stable, so it can be used for a wide range of applications from wiring to measurement. It can be used for a wide range of applications from wiring to measurement. 2.92mm connector is available up to 40GHz.

## Mechanical Characteristics

Outer Diameter/Coating	3.3mm	FEP Light blue
Center Conductor	0.70mm	Silver plated copper wire, Single
Insulator	2.15mm	Microporous PTFE
Outer Conductor1	-	Silver plated copper tape
Outer Conductor2	-	PPS resin tape
Outer Conductor3	2.80mm	Silver-plated soft copper wire braid
Operating temperature	-40°C~+125°C (Typ.-65°C~+125°C)	
Bending radius (min.)	Inner R20mm	
Mass	21g/m	

## Electrical Characteristics

Impedance	50Ω
Insulation resistance (20°C)	1000MΩ · km (Min.)
Withstand voltage	AC2000V / minute
Shield Characteristics	>120dB
Frequency(Max.)	40GHz
Insertion Loss (typ)	0.43B/m(@1GHz) / 1.02dB/m(@5GHz)
VSWR (typ)	1.10(SMA)、1.20(K)、1.25(N)
Phase vs Bending (typ)	0.4° @6GHz, 0.6° @10GHz (Inner R20mm, 90-degree bend)
Phase vs Temperature (typ)	1500PPM(Max.) (-35°C~+125°C)

## Applicable Connectors and Models

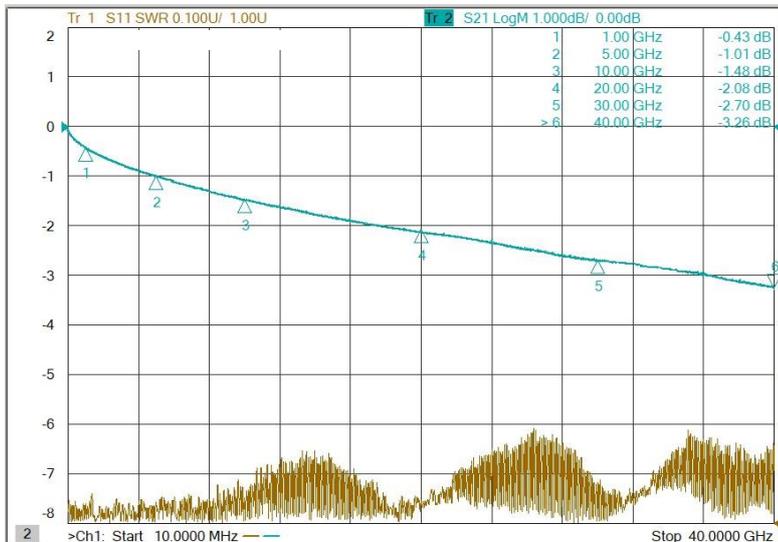
①	TC	-	②	-	③	-	④	-	□□□□	-	△△	⑥
			Cable Type		Connector1		Connector2		Length		Option	
							⑤ L (mm)					
					③						④	
①	TC	RoHS compliant *Non-RoHS requests are negotiable.										
②	065	Cable Type										
③ ④	SP	SMA(P)	~18GHz (~26.5G ※)									
	SJ	SMA(J)	~18GHz (~26.5G ※)									
	SLP	SMAL(P)	~18GHz									
	2.92P	2.92mm(P)	~40GHz									
	2.92J	2.92mm(J)	~40GHz									
	NP	N(P)	~12.4GHz									
	Consultation	N(J)	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.

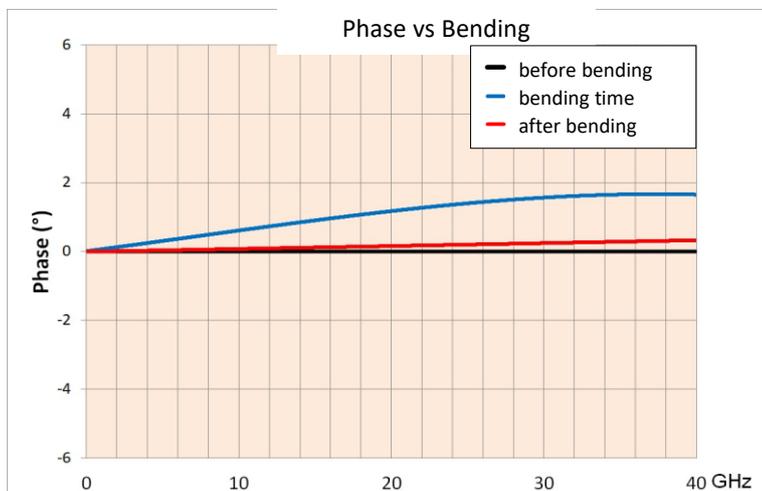
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## Measured data

Model : TC-065-2.92P-2.92P-1000  
(2.92mm(P)-2.92mm(P) L=1m ~40GHz)



GHz	I.L.(dB)	VSWR(U)
1	-0.43	1.04
2	-0.62	1.01
3	-0.76	1.01
4	-0.90	1.03
5	-1.02	1.04
6	-1.11	1.04
7	-1.24	1.04
8	-1.33	1.04
9	-1.41	1.00
10	-1.49	1.05
11	-1.57	1.02
12	-1.60	1.11
13	-1.70	1.07
14	-1.79	1.11
15	-1.85	1.08
16	-1.85	1.06
17	-1.99	1.07
18	-2.04	1.05
19	-2.09	1.02
20	-2.09	1.05
21	-2.19	1.05
22	-2.24	1.07
23	-2.30	1.11
24	-2.29	1.10
25	-2.43	1.10
26	-2.52	1.15
27	-2.51	1.09
28	-2.65	1.15
29	-2.70	1.05
30	-2.70	1.07
31	-2.73	1.07
32	-2.70	1.04
33	-2.78	1.08
34	-2.82	1.12
35	-2.91	1.14
36	-3.00	1.09
37	-3.08	1.13
38	-3.15	1.06
39	-3.22	1.09
40	-3.27	1.11



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

### Actual Applications

- Measurement and inspection lines for production equipment as flexible measurement cables
- Wiring in equipment
- Antenna wiring



### Custom Cases

- We can also customize the connector cable length and performance to any other specifications.
- Sweep processing at the connector neck.
- Phase and electrical length control.

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