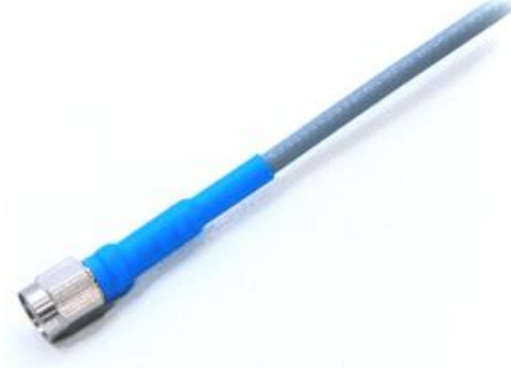


TC-120 50GHz compatible, Low loss

Series Number	
TC-120	
High Frequency Test Cables	Precision Type



For 50GHz-compatible measurement, High-end product, triple-shielded type, non-magnetic. Precision grade cable with low loss and high phase stability. Phase-stable against bending and temperature. (Highest-end product in phase stability vs. bending) Ideal for measurement in network analyzers, etc.

Mechanical Characteristics

Outer Diameter/Coating	3.2mm	FEP Gray
Center Conductor	0.64mm	Silver plated copper, Single
Insulator	1.91mm	Microporous PTFE
Outer Conductor1	2.23mm	Silver plated copper, flat band weave
Outer Conductor2	2.46mm	Aluminum foil
Outer Conductor3	2.64mm	Silver plated copper, Braided
Operating temperature	-40°C~+125°C (Typ.-65°C~+205°C)	
Bending radius (min.)	Inner R15mm	
Mass	30g/m	

Electrical Characteristics

Impedance	50 Ω
Breakdown Voltage	5000V
Shield Characteristics	> 90dB
Wavelength shortening rate	74%
Frequency(Max.)	55GHz
Insertion Loss (typ)	0.56dB/m(@1GHz) / 1.24dB/m(@5GHz)
VSWR (typ)	1.20
Phase vs Bending (typ)	0° @6GHz, 0.1° @10GHz (Inner 20mm, 90-degree bend)
Phase vs Temperature (typ)	1500PPM (Max.) (-35°C~+125°C)

Applicable Connectors and Models

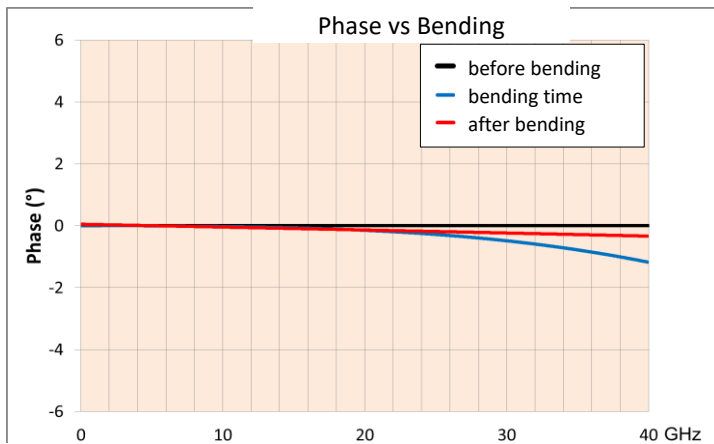
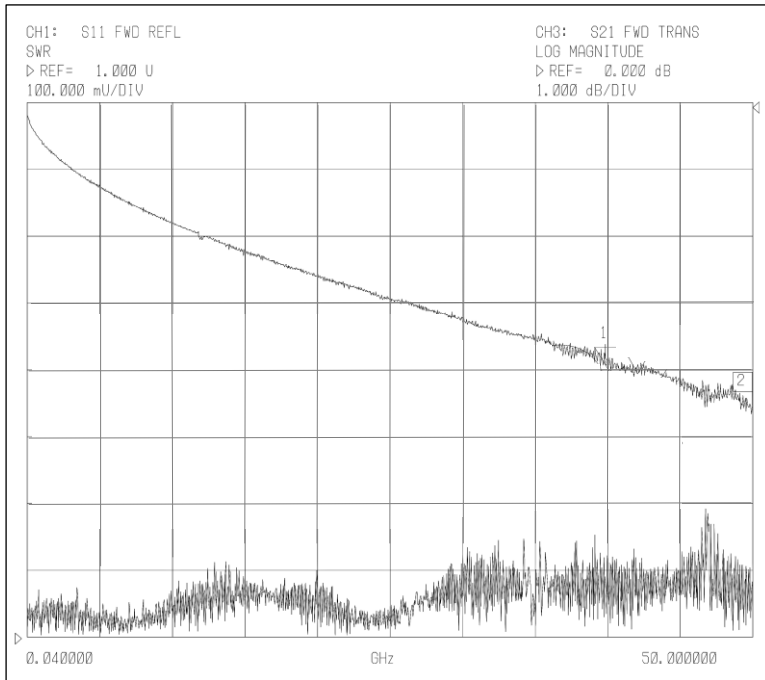
①	TC	-	②	-	③	-	④	-	□□□□	-	△△	⑥
			Cable Type		Connector1		Connector2		Length		Option	
									⑤ L (mm)			
					③		④					
①	TC	RoHS compliant *Non-RoHS requests are negotiable.										
②	120	Cable Type										
③ ④	2.4P	2.4mm(P)	~50GHz									
	2.4J	2.4mm(J)	~50GHz									
	1.85PNM	1.85mm(P) Non-Magnetic	~50GHz									
	1.85JNM	1.85mm(J) Non-Magnetic	~50GHz									
	2.92P	2.92mm(P)	~40GHz									
	2.92J	2.92mm(J)	~40GHz									
	SP	SMA(P)	~18GHz (~26.5G ※)									
	SJ	SMA(J)	~18GHz (~26.5G ※)									
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.

TC-120 50GHz compatible, Low loss

Measured data

Model : TC-120-2.4P-2.4P-1000
(2.4P-2.4P L=1m ~50GHz)



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

Minimal phase change in counterbending (top-of-the-line product)

Actual Applications

- Antenna measurements.
- High frequency probe measurement.
- Measurement cables for net-analysers, spare-analysers, etc.
- ~V-band

Custom Cases

- We can also produce various custom products other than standard specifications in terms of performance, connectors, cable lengths, etc.
- Phase and electrical length control.
- Non-magnetic support.

GHz	I.L.(dB) (Typ)	VSWR(U) (Typ)
1	-0.56	1.00
2	-0.80	1.01
3	-0.98	1.02
4	-1.12	1.03
5	-1.24	1.04
6	-1.39	1.03
7	-1.51	1.03
8	-1.62	1.04
9	-1.71	1.02
10	-1.81	1.04
11	-1.90	1.03
12	-2.03	1.05
13	-2.05	1.07
14	-2.13	1.08
15	-2.21	1.06
16	-2.28	1.06
17	-2.37	1.07
18	-2.49	1.07
19	-2.54	1.08
20	-2.60	1.10
21	-2.68	1.07
22	-2.73	1.05
23	-2.80	1.03
24	-2.88	1.02
25	-2.95	1.02
26	-3.00	1.04
28	-3.06	1.05
29	-3.11	1.06
29	-3.17	1.06
30	-3.21	1.06
31	-3.34	1.04
32	-3.38	1.05
33	-3.43	1.01
34	-3.49	1.06
35	-3.53	1.04
36	-3.61	1.07
37	-3.74	1.09
38	-3.69	1.11
39	-3.82	1.11
40	-3.84	1.07
42	-3.99	1.06
44	-4.13	1.06
46	-4.34	1.09
48	-4.29	1.04
50	-4.55	1.02

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