

TC-054 60GHz compatible, High Flexibility

Series Number
TC-054
High Frequency Test Cables ~60GHz



Extremely flexible and maintains stable characteristics up to the millimeter wave band. Flexible cable with stable characteristics up to the millimeter wave band. It can be used for a wide range of applications, from wiring to measurement, because of its wide variety of compatible connectors and relatively low cost. It can be used for a wide range of applications from wiring to measurement.

Equivalent to "0.085" (RG405).

1.85mm (V) connectors are very low reflection because the core wire of the cable is used as the connector pin. pins, resulting in very low reflection.

Mechanical Characteristics

Outer Diameter/Coating	2.65mm	FEP Blue
Center Conductor	0.51mm	Silver plated soft copper clad steel, Single
insulator	1.63mm	PTFE
Outer Conductor1	-	Silver plated copper tape
Outer Conductor2	2.16mm	Silver plated copper, Braided
Outer Conductor3	-	
Operating temperature	-40°C~+125°C (Typ.-65°C~+125°C)	
Bending radius (min.)	Inner R6.4mm	
Mass	22g/m	

Electrical Characteristics

Impedance	50 Ω
Allowable power (typ)	119W@1GHz / 45W@6GHz
Shield Characteristics	>100dB
Wavelength shortening rate	69.5%
Frequency(Max.)	60GHz
Insertion Loss (typ)	0.64dB/m(@1GHz) / 1.46dB/m(@5GHz)
VSWR (typ)	1.10(1.85mm)、1.20(SMA/2.92mm)
Phase vs Bending (typ)	0.4° @6GHz、0.7° @10GHz (R20mm,90-degree bend)

Applicable Connectors and Models

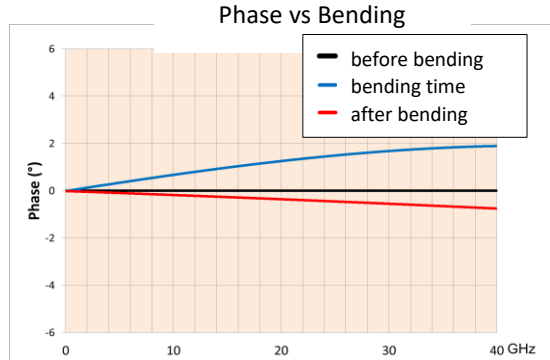
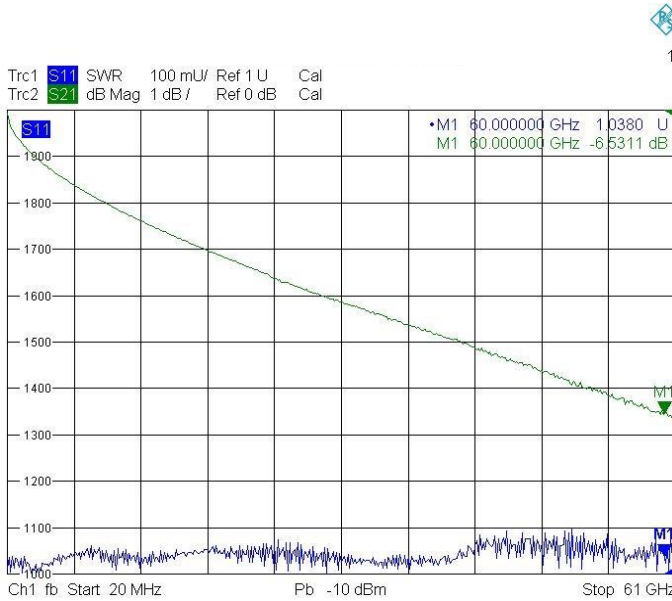
	TC	-	054	-	SP	-	SJ	-	□□□□	-	△△	
	①		②		③		④		⑤		⑥	
			Cable Type		Connector1		Connector2		Length		Option	
									⑤ L (mm)			
①	TC	RoHS compliant *Non-RoHS requests are negotiable.										
②	054	Cable Type										
③	1.85P	1.85mm(P)-TYPE		~60GHz								
	2.92P	2.92mm(P)		~40GHz								
	2.92J	2.92mm(J)		~40GHz								
	SP	SMA(P)		~18GHz (~26.5G ※)								
	SJ	SMA(J)		~18GHz (~26.5G ※)								
	SLP	SMAL(P)		~18GHz, Consultation								
	④	NP6	N(P) Hex nut		~18GHz							
		Consultation	N(J)		Consultation							
		Consultation	SMP		Consultation							
		Consultation	SMPM		Consultation							
		Consultation	MMCX		~6GHz							
		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-054-1.85P-1.85P-100((1.85P-1.85P L=1m)



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

Achieves amazingly low reflection.

GHz	(Typ) I.L(dB)	(Typ) VSWR(U)
1	-0.64	1:01
2	-0.88	1:02
3	-1.11	1:00
4	-1.27	1:02
5	-1.46	1:04
6	-1.59	1:03
7	-1.75	1:03
8	-1.90	1:04
9	-2.01	1.05
10	-2.15	1:05
11	-2.25	1:01
12	-2.37	1.01
13	-2.48	1:04
14	-2.60	1.05
15	-2.69	1.04
16	-2.80	1:04
17	-2.91	1:05
18	-3.00	1:05
19	-3.10	1.06
20	-3.20	1:04

GHz	(Typ) I.L(dB)	(Typ) VSWR(U)
21	-3.29	1.02
22	-3.39	1.02
23	-3.47	1.05
24	-3.59	1.06
25	-3.70	1.04
26	-3.77	1.04
27	-3.85	1.02
28	-3.94	1.01
29	-4.02	1:00
30	-4.10	1:04
31	-4.19	1.04
32	-4.26	1.02
33	-4.36	1.02
34	-4.40	1:02
35	-4.53	1:01
36	-4.61	1.02
37	-4.67	1.02
38	-4.73	1:02
39	-4.82	1.03
40	-4.90	1.02

GHz	(Typ) I.L(dB)	(Typ) VSWR(U)
41	-4.93	1:03
42	-5.05	1.06
43	-5.15	1:04
44	-5.21	1.06
45	-5.32	1:06
46	-5.40	1:05
47	-5.51	1:04
48	-5.57	1:08
49	-5.64	1.08
50	-5.75	1.03
51	-5.81	1.02
52	-5.94	1.08
53	-5.97	1:07
54	-6.03	1.06
55	-6.18	1:03
56	-6.21	1.04
57	-6.27	1:04
58	-6.43	1.05
59	-6.50	1:03
60	-6.48	1:02

Actual Applications

Wiring in equipment, antenna wiring, measurement cables (up to 60 GHz)

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