

Test Cable

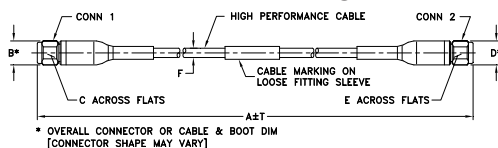
50Ω 6FT DC to 40 GHz

Maximum Ratings

Operating Temperature	-55°C to +105°C
Storage Temperature	-55°C to +125°C
Power Handling at 25°C, Sea Level	102W at 6 GHz 57W at 18 GHz 47W at 26.5 GHz 37W at 40 GHz

Permanent damage may occur if any of these limits are exceeded.

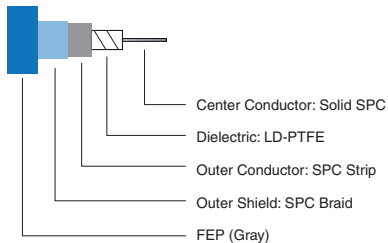
Outline Drawing



Outline Dimensions (inch/mm)

	A	B	C	D	E	F	T	wt
Feet	6.00	0.42	.312	0.42	.312	.142		
Meters	1.83	10.7	7.92	10.7	7.92	3.6	+72/-0	+18.3/-0
								89

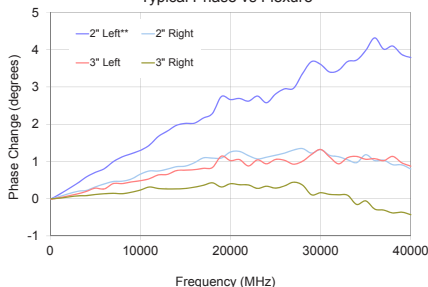
Cable Construction



Product Guarantee

Mini-Circuits® will repair or replace your test cable at its option if the connector attachment falls within six months of shipment. This guarantee excludes cable or connector interface damage from misuse or abuse.

Typical Phase vs Flexure*



* Typical phase change over flexure performed on TMP40-3FT-KMKM+ by wrapping cable 360° around 2" and 3" radii mandrels referenced to normalized straight position.

** Setup is flipped and measurement is repeated.

Notes

- Performance and quality attributes and conditions not expressly stated in this specification document are intended to be excluded and do not form a part of this specification document.
- Electrical specifications and performance data contained in this specification document are based on Mini-Circuit's applicable established test performance criteria and measurement instructions.
- The parts covered by this specification document are subject to Mini-Circuits standard limited warranty and terms and conditions (collectively, "Standard Terms"); Purchasers of this part are entitled to the rights and benefits contained therein. For a full statement of the Standard Terms and the exclusive rights and remedies thereunder, please visit Mini-Circuits' website at www.minicircuits.com/MCLStore/terms.jsp



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TMP40-6FT-KMKM+



CASE STYLE: RJ2516-6

Connectors	Model
2.92mm Male	TMP40-6FT-KMKM+

+RoHS Compliant

The +Suffix identifies RoHS Compliance. See our web site for RoHS Compliance methodologies and qualifications

Features

- Useful over temperature range, -55°C to 105°C
- low insertion loss
- stainless steel 40 GHz connector for long mating-cycle life
- triple shield cable for excellent shielding effectiveness
- good amplitude and phase stability vs flexing over frequency
- 40 GHz connector mates with 2.92 mm, K*, 3.5mm, SMA

Applications

- military and defense applications
- research & development labs
- environmental & temperature test chambers

Electrical Specifications at 25°C

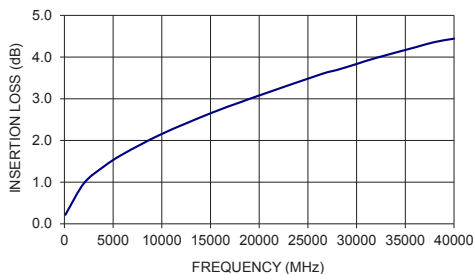
Parameter	Condition (GHz)	Min.	Typ.	Max.	Units
Frequency Range		DC		40	GHz
Length			6		FT
Insertion Loss	DC - 6	—	1.7	2.0	dB
	6 - 18	—	3.0	3.5	
	18 - 26.5	—	3.7	4.3	
Return Loss	DC - 6	20	23	—	dB
	6 - 18	17	22	—	
	18 - 26.5	16	18	—	
	26.5 - 40	15	17	—	

*K Connector is a trademark of Anritsu
Custom sizes available, consult factory.

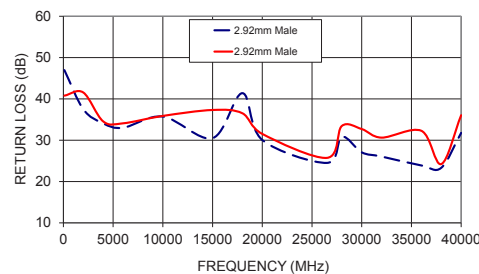
Typical Performance Data

Frequency (MHz)	Insertion Loss (dB)	Return Loss (dB)	
		2.92mm Male	2.92mm Male
100	0.22	47.0	40.8
2000	0.97	37.5	41.6
4000	1.37	34.1	34.6
6000	1.67	33.0	34.1
10000	2.16	35.7	35.9
15000	2.65	30.5	37.3
18000	2.91	41.4	36.5
20000	3.08	30.1	31.5
26500	3.60	24.5	25.7
28000	3.69	30.8	33.4
30000	3.83	27.1	32.7
32000	3.98	26.1	30.6
36000	4.23	23.9	32.3
38000	4.36	23.3	24.2
40000	4.44	31.8	36.1

TMP40-6FT-KMKM+ INSERTION LOSS



TMP40-6FT-KMKM+ RETURN LOSS

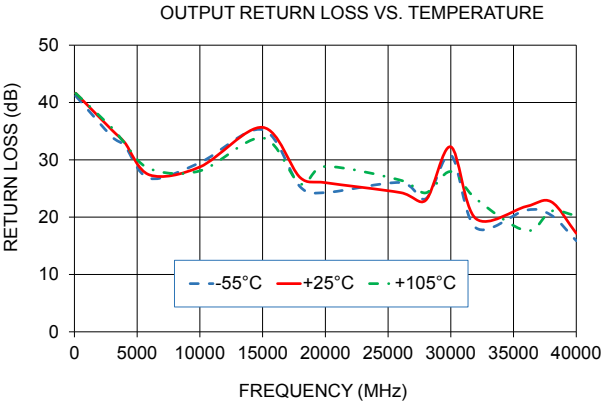
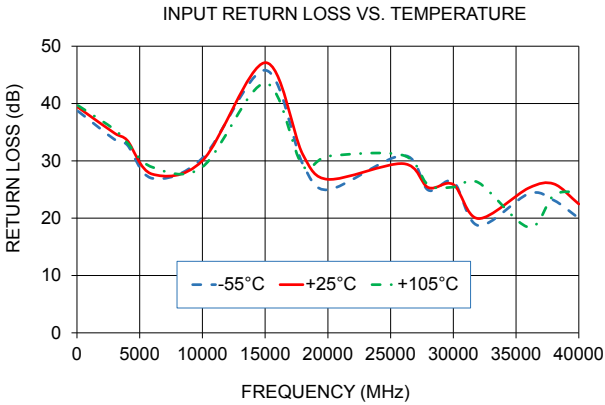
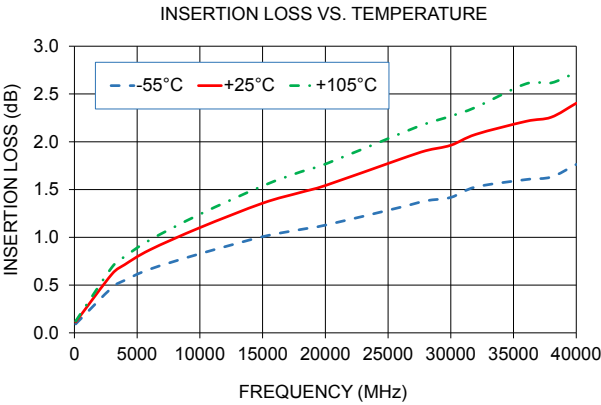


TMP40-6FT-KMKM+

Typical Performance vs. Temperature*

Frequency (MHz)	Insertion Loss (dB)			Input Return Loss (dB)			Output Return Loss (dB)		
	-55°C	+25°C	+105°C	-55°C	+25°C	+105°C	-55°C	+25°C	+105°C
100	0.09	0.11	0.12	38.6	39.3	39.6	41.2	41.6	41.6
3000	0.47	0.62	0.69	33.7	34.8	35.4	34.0	35.2	35.6
4000	0.55	0.71	0.80	32.8	33.6	33.2	32.5	33.0	32.9
6000	0.67	0.87	0.97	27.0	27.7	28.9	26.8	27.4	28.4
10000	0.83	1.10	1.24	30.5	30.0	28.9	29.5	28.8	28.1
15000	1.01	1.36	1.54	45.8	47.1	43.5	35.3	35.7	33.8
18000	1.08	1.47	1.68	29.4	31.1	29.1	25.3	26.9	25.8
20000	1.13	1.54	1.77	25.0	26.8	30.8	24.3	26.0	28.8
26000	1.31	1.82	2.09	30.9	29.5	31.0	26.0	24.3	26.4
28000	1.38	1.91	2.19	24.9	25.4	25.8	23.2	22.9	24.2
30000	1.42	1.96	2.27	26.4	25.9	25.4	30.8	32.3	28.0
32000	1.53	2.08	2.36	18.7	19.9	26.2	18.1	19.7	23.2
36000	1.60	2.21	2.61	24.3	25.3	18.4	21.2	21.9	17.6
38000	1.63	2.26	2.62	23.1	26.0	24.0	20.3	22.7	21.0
40000	1.76	2.40	2.73	20.0	22.5	24.6	15.9	17.2	20.2

* Typical performance over temperature performed on TMP40-3FT-KMKM+.



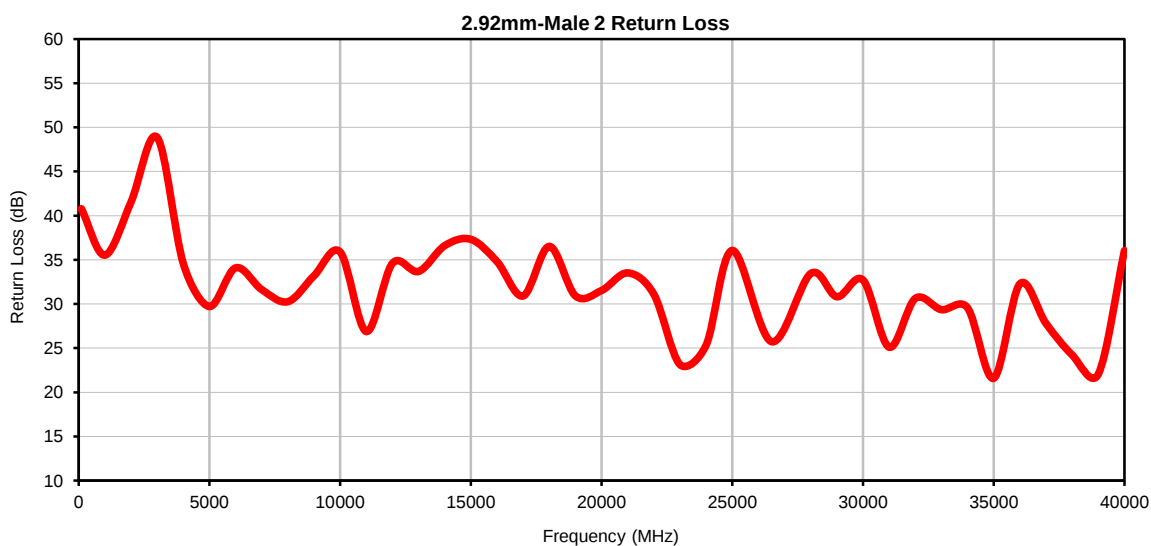
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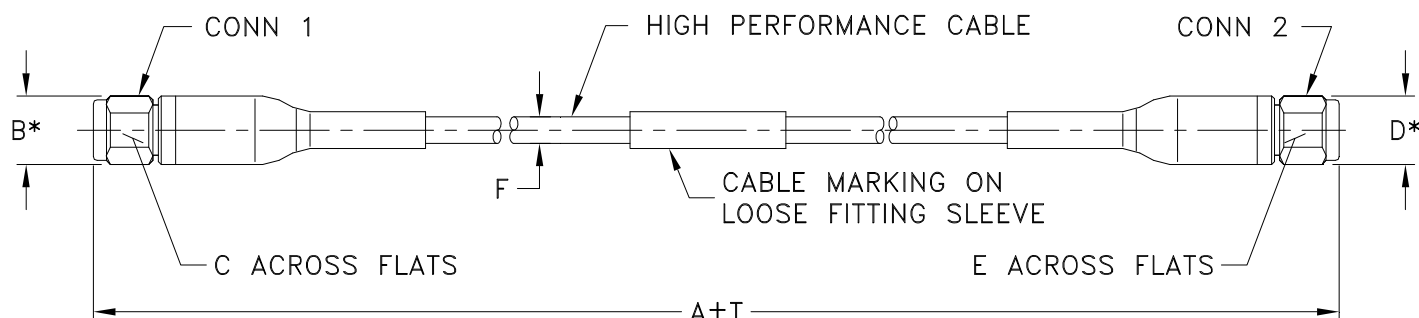
Typical Performance Data

FREQUENCY (MHz)	INSERTION LOSS (dB)	2.92mm-MALE 1 RETURN LOSS (dB)	2.92mm-MALE 2 RETURN LOSS (dB)
100	0.22	47.0	40.8
1000	0.70	45.5	35.5
2000	0.97	37.5	41.6
3000	1.18	46.4	48.9
4000	1.37	34.1	34.6
5000	1.53	30.6	29.7
6000	1.67	33.0	34.1
7000	1.81	32.9	31.6
8000	1.93	30.7	30.3
9000	2.05	32.7	33.2
10000	2.16	35.7	35.9
11000	2.28	26.1	26.9
12000	2.36	36.2	34.6
13000	2.46	33.0	33.7
14000	2.55	39.6	36.6
15000	2.65	30.5	37.3
16000	2.74	51.2	34.8
17000	2.83	29.8	30.9
18000	2.91	41.4	36.5
19000	3.00	33.1	30.9
20000	3.08	30.1	31.5
21000	3.16	31.3	33.5
22000	3.24	37.8	31.1
23000	3.36	24.2	23.1
24000	3.41	25.4	25.4
25000	3.47	31.6	36.1
26500	3.60	24.5	25.7
28000	3.69	30.8	33.4
29000	3.77	27.7	30.8
30000	3.83	27.1	32.7
31000	3.91	25.5	25.1
32000	3.98	26.1	30.6
33000	4.04	24.3	29.4
34000	4.11	26.8	29.6
35000	4.20	20.3	21.6
36000	4.23	23.9	32.3
37000	4.30	25.4	27.8
38000	4.36	23.3	24.2
39000	4.42	23.3	22.1
40000	4.44	31.8	36.1

Typical Performance Curves



Outline Dimensions



* OVERALL CONNECTOR OR CABLE & BOOT DIM
[CONNECTOR SHAPE MAY VARY]

RJ2516 SERIES

2.92mm MALE (CONN-1)

2.92mm MALE (CONN-2)

CASE STYLE #	A		B	C	D	E	F	T		WEIGHT GRAMS
	FEET	METERS						INCH	MM	
RJ2516-3	3.00	.91	.42 (10.70)	.312 (7.93)	.42 (10.70)	.312 (7.93)	.142 (3.60)	+.08/-0	+2.0/-0	59
RJ2516-3.28	3.28	1.00						+.39/-0	+10.0/-0	61
RJ2516-6	6.00	1.83						+.72/-0	+18.3/-0	89

Unless otherwise specified dimensions are in inches (mm).

Tolerances: 2Pl. $\pm .03$; 3Pl. $\pm .015$

Note:

1. High Performance Cable.



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Mini-Circuits ISO 9001 & ISO 14001 Certified



All Mini-Circuits products are manufactured under exacting quality assurance and control standards, and are capable of meeting published specifications after being subjected to any or all of the following physical and environmental test.

Specification	Test/Inspection Condition	Reference/Spec
Operating Temperature	-55° to 105°C Ambient Environment	Individual Model Data Sheet
Storage Temperature	-55° to 125° C Ambient Environment	Individual Model Data Sheet
Thermal Shock	-55° to 100° C, 100 cycles	MIL-STD-202, Method 107, Condition A-3