FLEX TEST™

Test Cable

E40-2FT-KMKM+

50Ω 2 FT DC to 40 GHz Low Loss 2.92mm-Male

FEATURES

- Low Insertion Loss
- Stainless steel 40 GHz Connector for long mating-cycle life
- Good Amplitude and Phase Stability vs Flexing over Frequency
- 40 GHz Connector mates with 2.92mm, K*, 3.5mm, SMA

Generic photo used for illustration purposes only

Model No.	E40-2FT-KMKM+
Case Style	RF2512-2
Connectors	2.92mm-Male

+RoHS Compliant
The +Suffix identifies RoHS Compliance.
See our website for methodologies and qualifications

APPLICATIONS

- Military and Defense Applications
- Research & Development Labs
- Field RF Testing
- Environmental and Temperature Test Chambers

ELECTRICAL SPECIFICATIONS AT +25°C

Parameter	Frequency (GHz)	Min.	Typ.	Max.	Units
Frequency Range		DC	—	40	GHz
Length[1]			2		FT
Insertion Loss	DC - 6	—	1.0	1.3	dB
	6 - 18	—	2.0	2.3	
	18 - 26.5	—	2.5	2.9	
	26.5 - 40	—	3.4	3.9	
Return Loss	DC - 6	23	26	—	dB
	6 - 18	19	20	—	
	18 - 26.5	17	20	—	
	26.5 - 40	16	18	—	

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

ABSOLUTE MAXIMUM RATINGS

Parameter	Ratings
Operating Temperature	-40°C to +70°C
Storage Temperature	-55°C to +85°C
Power Handling at 25°C, Sea Level	54W at 2 GHz 17W at 18 GHz 13W at 26.5 GHz 11W at 40 GHz

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

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

REV. A
ECO-019580
E40-2FT-KMKM+
MCL NY
231017

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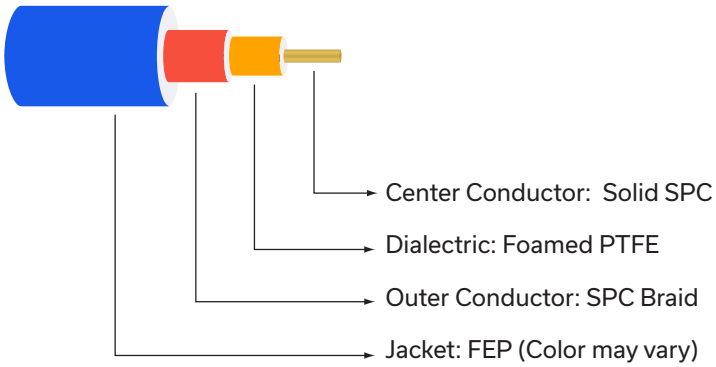
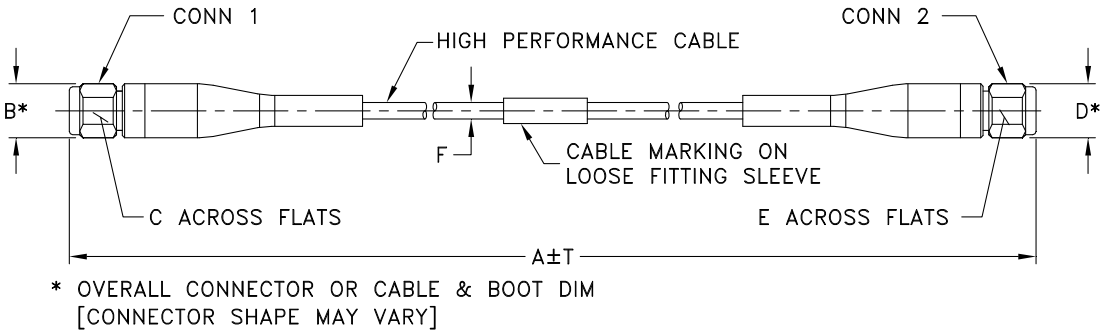
CABLE CONSTRUCTION



OUTLINE DRAWING



OUTLINE DIMENSIONS (Inch / mm)

A		B	C	D	E	F	T		wt
Feet	Meters	0.36	0.312	0.36	.312	.100	Inch	MM	grams
2.00	0.61	9.25	7.92	9.25	7.92	2.54	+.50/-0	+12.7/-0	30

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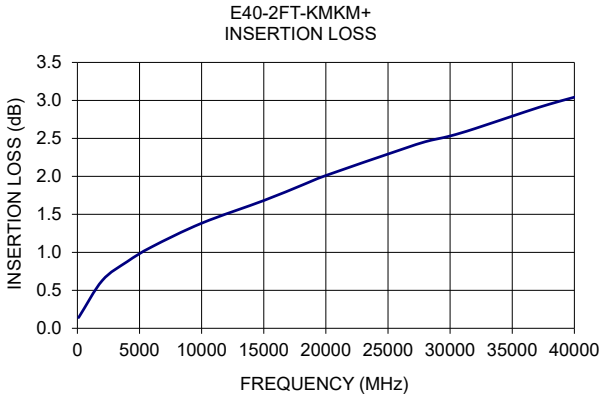
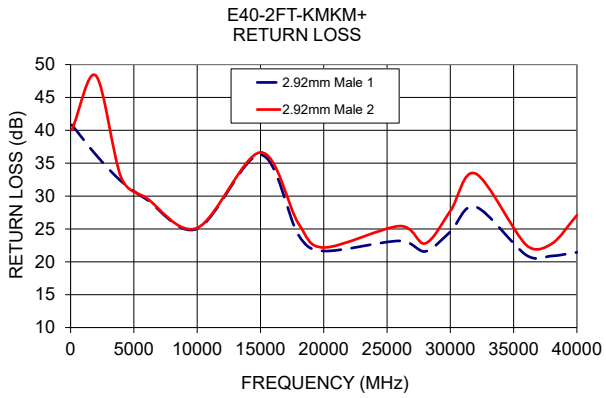
TYPICAL PERFORMANCE DATA AND CHARTS

Frequency (MHz)	Insertion Loss (dB)	Return Loss (dB)	
		2.92mm-Male 1	2.92mm-Male 2
100	0.14	40.8	40.0
2000	0.63	36.3	48.3
4000	0.88	32.2	32.8
6000	1.07	29.5	29.7
10000	1.38	25.0	25.1
15000	1.68	36.3	36.6
18000	1.88	24.1	25.8
20000	2.01	21.6	22.2
26000	2.35	23.2	25.4
28000	2.46	21.6	22.8
30000	2.53	24.6	27.7
32000	2.63	28.4	33.4
36000	2.85	21.0	22.6
38000	2.95	20.9	22.7
40000	3.04	21.4	27.1





NOTES

A. 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.
B. Electrical specifications and performance data contained in this specification document are based on Mini-Circuit's applicable established test performance criteria and measurement instructions.
C. 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/terms/viewterm.html

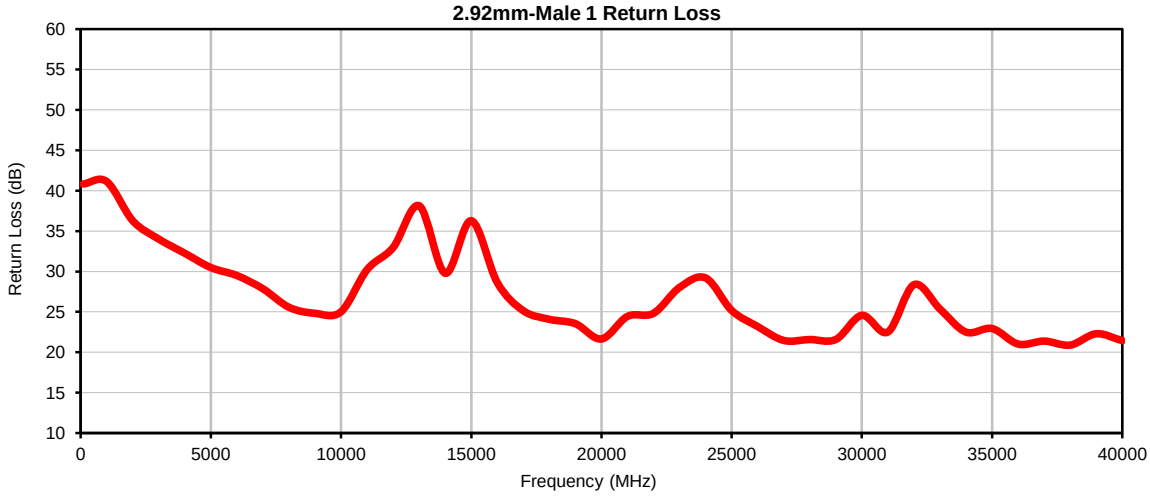
Ultra Flex Test Cable, 2.92mm-M/2.92mm-M E40-2FT-KMKM+

Typical Performance Data

FREQUENCY (MHz)	INSERTION LOSS (dB)	2.92mm-MALE 1 RETURN LOSS (dB)	2.92mm-MALE 2 RETURN LOSS (dB)
100	0.14	40.8	40.0
1000	0.46	41.1	35.9
2000	0.63	36.3	48.3
3000	0.76	34.0	36.8
4000	0.88	32.2	32.8
5000	0.98	30.5	31.4
6000	1.07	29.5	29.7
7000	1.16	27.9	28.2
8000	1.24	25.6	26.2
9000	1.31	24.8	25.6
10000	1.38	25.0	25.1
11000	1.44	30.2	30.5
12000	1.51	33.0	36.2
13000	1.57	38.1	43.9
14000	1.63	29.8	35.8
15000	1.68	36.3	36.6
16000	1.75	28.6	29.8
17000	1.81	25.1	26.8
18000	1.88	24.1	25.8
19000	1.95	23.5	24.6
20000	2.01	21.6	22.2
21000	2.03	24.4	25.7
22000	2.08	24.8	26.9
23000	2.13	28.0	31.4
24000	2.22	29.2	36.1
25000	2.29	25.2	27.7
26000	2.35	23.2	25.4
27000	2.41	21.5	23.4
28000	2.46	21.6	22.8
29000	2.51	21.6	23.9
30000	2.53	24.6	27.7
31000	2.60	22.5	30.3
32000	2.63	28.4	33.4
33000	2.68	25.3	31.9
34000	2.74	22.5	24.7
35000	2.79	22.9	25.8
36000	2.85	21.0	22.6
37000	2.89	21.4	23.0
38000	2.95	20.9	22.7
39000	2.99	22.3	25.6
40000	3.04	21.4	27.1

Ultra Flex Test Cable, 2.92mm-M/2.92mm-M E40-2FT-KMKM+

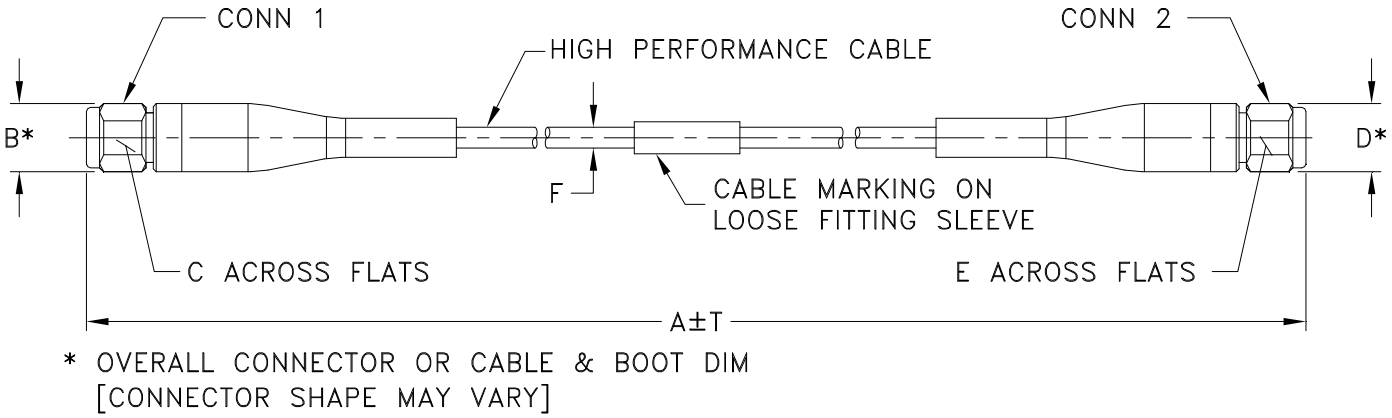
Typical Performance Curves



Case Style RF

RF2512

Outline Dimensions



RF2512 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	
RF2512-2	2.00	.61	.36 (9.25)	.312 (7.93)	.36 (9.25)	.312 (7.93)	.100 (2.54)	+.50/-0	+12.7/-0	30
RF2512-3	3.00	.91						+.72/-0	+18.3/-0	35
RF2512-3.28	3.28	1.00						+.79/-0	+20.0/-0	36
RF2512-6	6.00	1.83						+.1.44/-0	+36.6/-0	50

Unless otherwise specified dimensions are in inches (mm).
Tolerances: 2Pl. ± .03; 3Pl. ± .015

Note:
1. High Performance very Flexible Cable.

Mini-Circuits®
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Environmental Specifications **ENV91**

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	-40° to 70° C Ambient Environment	Individual Model Data Sheet
Storage Temperature	-55° to 85° C Ambient Environment	Individual Model Data Sheet
Mechanical Flexing	4,000 cycles During each cycle, cable flexed from 90° through 0° to -90° and back with a Radii of 3 inches	---

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