



Mini-Circuits



# Test Cable

## E40-6FT-KMKM+

50Ω 6 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

### APPLICATIONS

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

<b>Model No.</b>	E40-6FT-KMKM+
<b>Case Style</b>	RF2512-6
<b>Connectors</b>	2.92mm-Male

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

### ELECTRICAL SPECIFICATIONS AT +25°C

Parameter	Frequency (GHz)	Min. Typ. Max.			Units
		Min.	Typ.	Max.	
Frequency Range		DC	—	40	GHz
Length <sup>1</sup>			6		FT
Insertion Loss	DC - 6	—	3	3.3	dB
	6 - 18	—	5.4	6.2	
	18 - 26.5	—	6.8	7.8	
	26.5 - 40	—	8.7	10.2	
Return Loss	DC - 6	22	28	—	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.





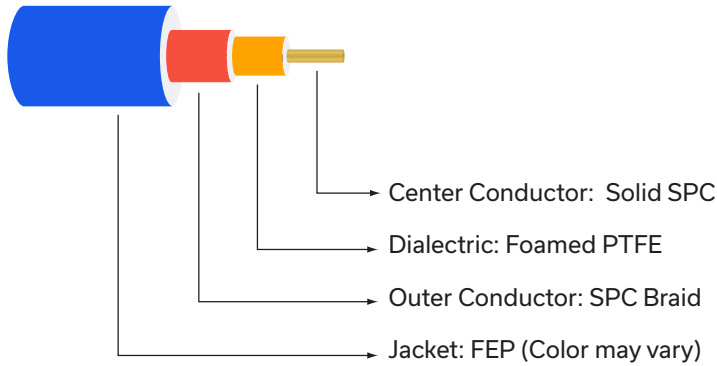
# Test Cable

## E40-6FT-KMKM+

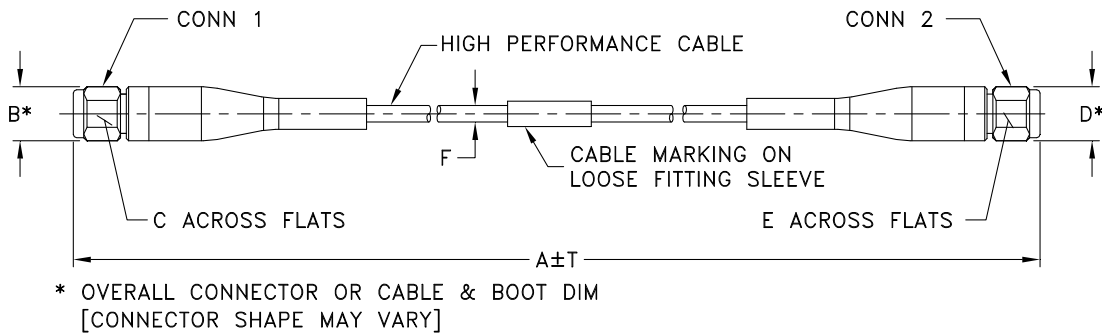
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50Ω 6 FT DC to 40 GHz Low Loss 2.92mm-Male

### CABLE CONSTRUCTION



### OUTLINE DRAWING



### OUTLINE DIMENSIONS (Inch/mm)

A		B	C	D	E	F	T		wt
Feet	Meters						Inch	MM	grams
6.00	1.83	0.36	0.31	0.36	.312	.100	+1.44/-0	+36.6/-0	50





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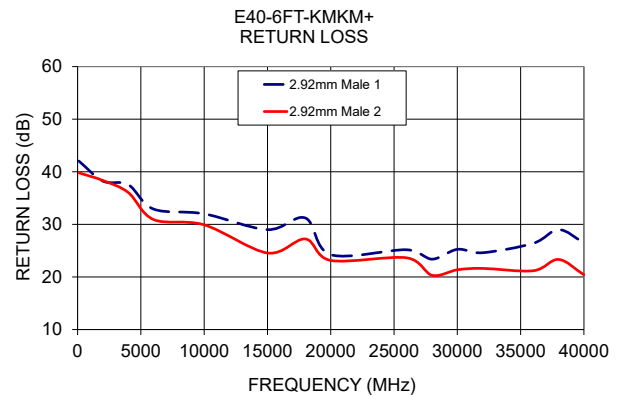
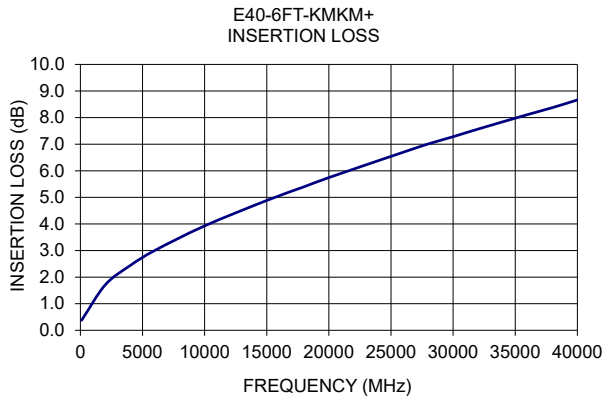
# Test Cable

## E40-6FT-KMKM+

50Ω 6 FT DC to 40 GHz Low Loss 2.92mm-Male

### TYPICAL PERFORMANCE DATA AND CHARTS

Frequency (MHz)	Insertion Loss (dB)	Return Loss (dB)	
		2.92mm-Male 1	2.92mm-Male 2
100	0.38	42.0	39.8
2000	1.71	38.2	38.3
4000	2.43	37.6	36.1
6000	3.01	32.9	30.9
10000	3.93	32.0	29.9
15000	4.88	29.0	24.6
18000	5.40	31.2	27.2
20000	5.74	24.2	23.1
26000	6.70	25.2	23.6
28000	7.01	23.4	20.3
30000	7.28	25.3	21.4
32000	7.57	24.6	21.6
36000	8.11	26.4	21.2
38000	8.38	29.0	23.3
40000	8.66	26.5	20.4



#### 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](http://www.minicircuits.com/terms/viewterm.html)

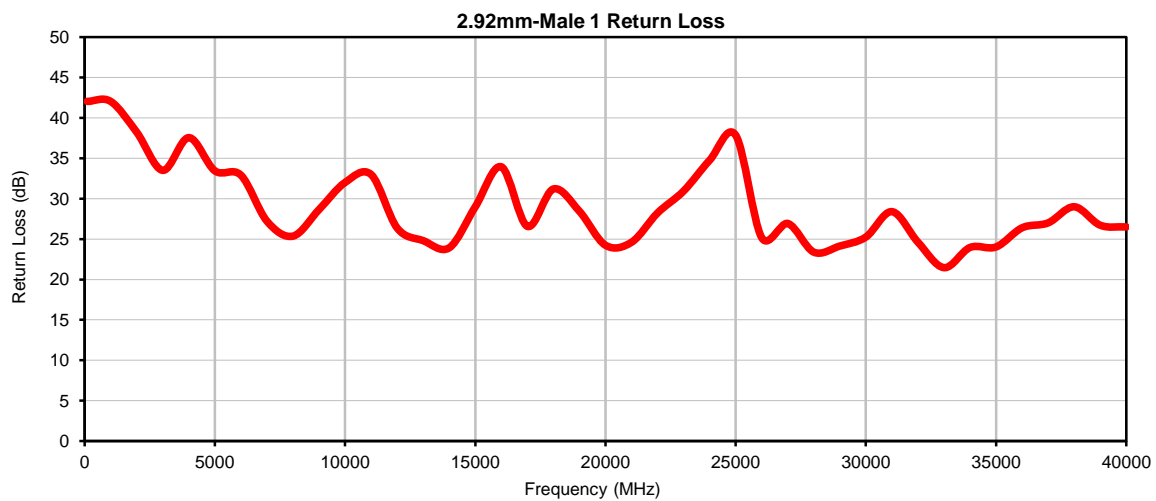
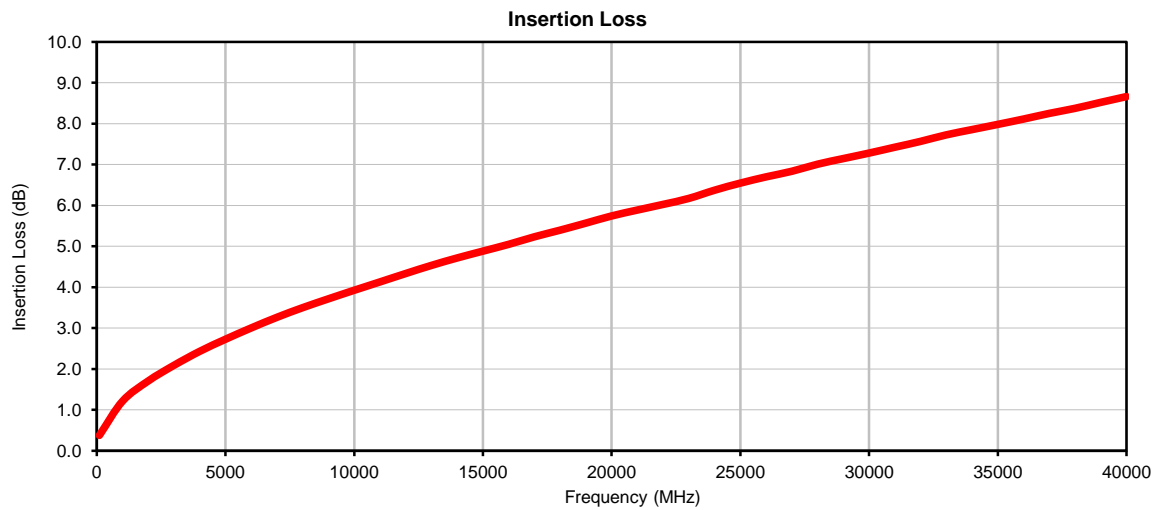


*Typical Performance Data*

FREQUENCY (MHz)	INSERTION LOSS (dB)	2.92mm-MALE 1 RETURN LOSS (dB)	2.92mm-MALE 2 RETURN LOSS (dB)
100	0.38	42.0	39.8
1000	1.21	42.0	40.3
2000	1.71	38.2	38.3
3000	2.09	33.5	35.4
4000	2.43	37.6	36.1
5000	2.73	33.4	33.4
6000	3.01	32.9	30.9
7000	3.27	27.2	25.8
8000	3.50	25.4	25.2
9000	3.72	28.7	27.9
10000	3.93	32.0	29.9
11000	4.13	33.0	29.7
12000	4.34	26.4	26.5
13000	4.53	24.8	22.4
14000	4.72	23.9	23.8
15000	4.88	29.0	24.6
16000	5.05	33.9	28.6
17000	5.23	26.6	28.3
18000	5.40	31.2	27.2
19000	5.57	28.4	26.0
20000	5.74	24.2	23.1
21000	5.89	24.6	23.2
22000	6.03	28.2	25.4
23000	6.17	30.9	32.0
24000	6.37	34.8	26.2
25000	6.55	37.9	22.4
26000	6.70	25.2	23.6
27000	6.84	26.9	23.2
28000	7.01	23.4	20.3
29000	7.15	24.1	21.5
30000	7.28	25.3	21.4
31000	7.43	28.4	22.2
32000	7.57	24.6	21.6
33000	7.73	21.5	19.4
34000	7.86	24.0	20.6
35000	7.98	24.0	20.8
36000	8.11	26.4	21.2
37000	8.25	27.0	22.4
38000	8.38	29.0	23.3
39000	8.52	26.7	21.0
40000	8.66	26.5	20.4

# Ultra Flex Test Cable, 2.92mm-M/2.92mm-M E40-6FT-KMKM+

## Typical Performance Curves



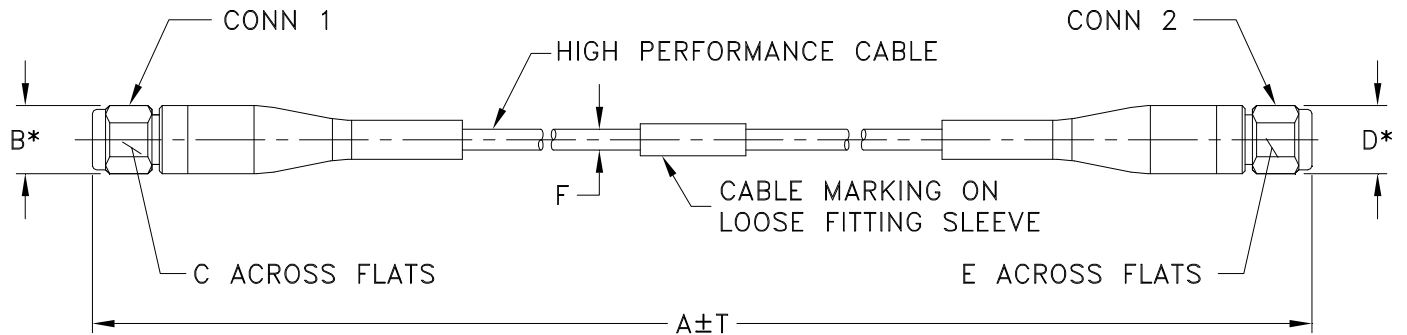
P.O. Box 350166, Brooklyn, New York 11235-0003 (718) 934-4500 • Fax (718) 332-4661 For detailed performance specs & shopping online see Mini-Circuits web site  
 The Design Engineers Search Engine Provides ACTUAL Data Instantly From MINI-CIRCUITS At: [www.minicircuits.com](http://www.minicircuits.com)



IF/RF MICROWAVE COMPONENTS

REV. OR  
 E40-6FT-KMKM+  
 1/29/2018  
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### Outline Dimensions



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

#### 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.  $\pm .03$ ; 3Pl.  $\pm .015$

#### Note:

1. High Performance very Flexible Cable.



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	---