FLEXIBLE

Coaxial Cable

FL86-12KMVM+

50Ω 12 inch DC to 40 GHz 2.92mm-Male to 2.4mm-Male

THE BIG DEAL

- Wideband frequency coverage, DC to 40 GHz
- Low Loss, 1.6 dB typ. at 40 GHz
- Excellent Return Loss, 21 dB at 40 GHz
- 6mm bend radius for tight installations, 6mm static bend, 20mm dynamic bend
- Insulated outer jacket standard
- Connector interface, meets MIL-STD-348
- Ideal for interconnect of assembled systems

Generic photo used for illustration purposes only

Model No.	FL86-12KMVM+
Case Style	SE3058-12
Connectors	2.92mm-Male to 2.4mm-Male

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

APPLICATIONS

- Communication Receivers and Transmitters
- Military and Aerospace Systems
- Environmental and Test Chambers
- Test Accessory

PRODUCT OVERVIEW

The FL86 Series Flexible Coaxial Cables are ideal for interconnection of coaxial components or sub-systems. The construction includes a silver-plated copper-clad steel center conductor. The outer shield is copper braid, tin soaked, which minimizes signal leakage and at the same time flexible for easy bend. Dielectric is low loss PTFE. Connectors have brass coupling nut over nickel plated body with a gold plated brass center conductor. The FL86 Series Flexible cables are available in variety of length to meet your requirements.

KEY FEATURES

Feature	Advantages
Flexible RF Cables	The FL86 Series Flexible cables are ideal for use integrating coaxial components and sub-assemblies without the need for special cable-bending tools and alleviating the risk of damage during the bending process typical of semi-rigid coaxial cable assemblies.
Tight Bend Radius, 6mm Static Bend, 20mm Dynamic	Capable bend radius, 6mm static bend, 20mm dynamic, the FL86 Flexible series is able to make connections in tight spaces making these cables ideal for dense system integration.
Excellent Return Loss • 28 dB typ. at 18 GHz • 21 dB typ. at 40 GHz	The FL86 Series Flexible Cables are ideally suited for interconnecting a wide variety of RF components while minimizing VSWR ripple contribution due to mating cables & connectors.
Good Power Handling Capability • 12W at 40 GHz	Mini-Circuits FL86 Cable series can support medium to high RF power levels enabling these cables to be used in the transmit path. NOTE: power rating is at sea-level altitudes.

REV. A
ECO-019705
FL86-12KMVM+
MCL NY
231024

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ELECTRICAL SPECIFICATIONS AT +25°C

Parameter	Frequency (GHz)	Min.	Typ.	Max.	Units
Frequency Range		DC	—	40	GHz
Length[1]			12		inches
Insertion Loss	DC - 6	—	0.37	0.85	dB
	6 - 18	—	0.79	1.56	
	18 - 26.5	—	1.12	1.96	
	26.5 - 40	—	1.46	2.49	
Return Loss	DC -18	17.7	30.4	—	dB
	18 - 40	15.5	27.3	—	

1. Custom sizes available, consult factory.

ABSOLUTE MAXIMUM RATINGS

Parameter	Ratings
Operating Temperature	-55°C to +100°C
Storage Temperature	-55°C to +100°C
Power Handling at 25°C, Sea Level	198W at 0.5 GHz 99W at 2 GHz 57W at 6 GHz 44W at 10 GHz 33W at 18 GHz 16W at 26.5 GHz 12W at 40 GHz

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

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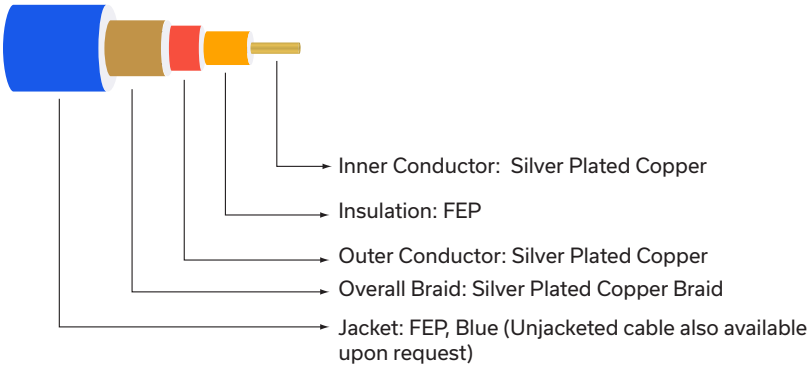
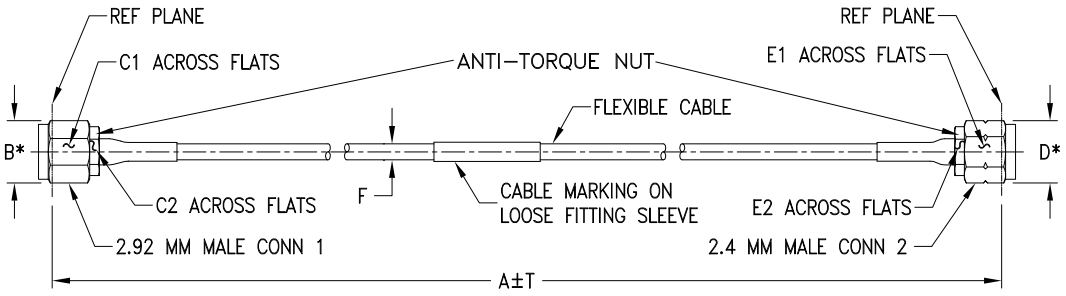
CABLE CONSTRUCTION



OUTLINE DRAWING



* OVERALL CONNECTOR DIMENSION (CONNECTOR SHAPE MAY VARY)

OUTLINE DIMENSIONS (Inch / mm)

A	B	C1	C2	D	E1	E2	T	wt
12.0	.36	.315	.256	.36	.315	.256	0.1	grams
304.80	9.14	8.00	6.50	9.14	8.00	6.50	2.54	12.10

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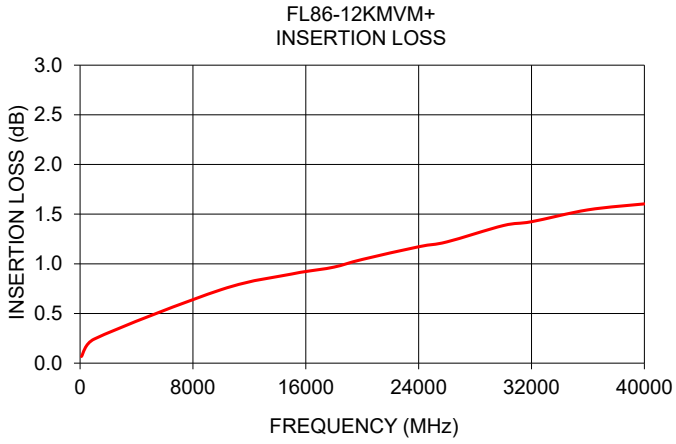
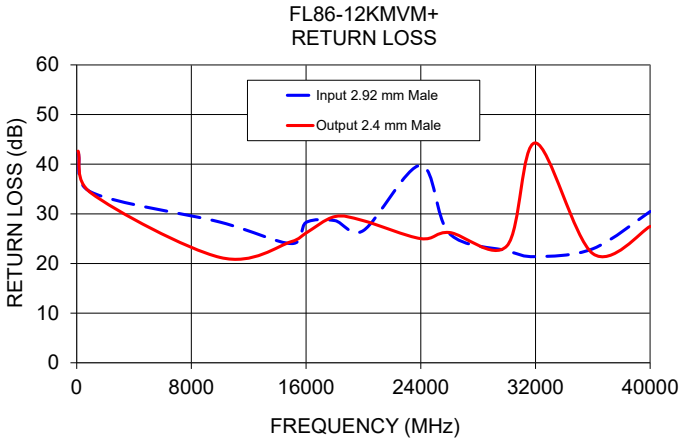
TYPICAL PERFORMANCE DATA AND CHARTS

Frequency (MHz)	Insertion Loss (dB)	Return Loss (dB)	
		2.92mm-Male	2.4mm-Male
100	0.07	42.38	42.63
1000	0.24	34.38	34.20
10000	0.74	28.33	21.22
15000	0.90	24.01	24.43
16000	0.92	28.27	26.14
18000	0.97	28.64	29.44
20000	1.04	26.64	28.62
24000	1.17	39.78	25.01
26000	1.22	26.02	26.24
30000	1.38	22.57	23.52
32000	1.42	21.38	44.27
36000	1.54	22.96	21.98
40000	1.60	30.47	27.47





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