



# RF Cable Assemblies Technical Data Sheet

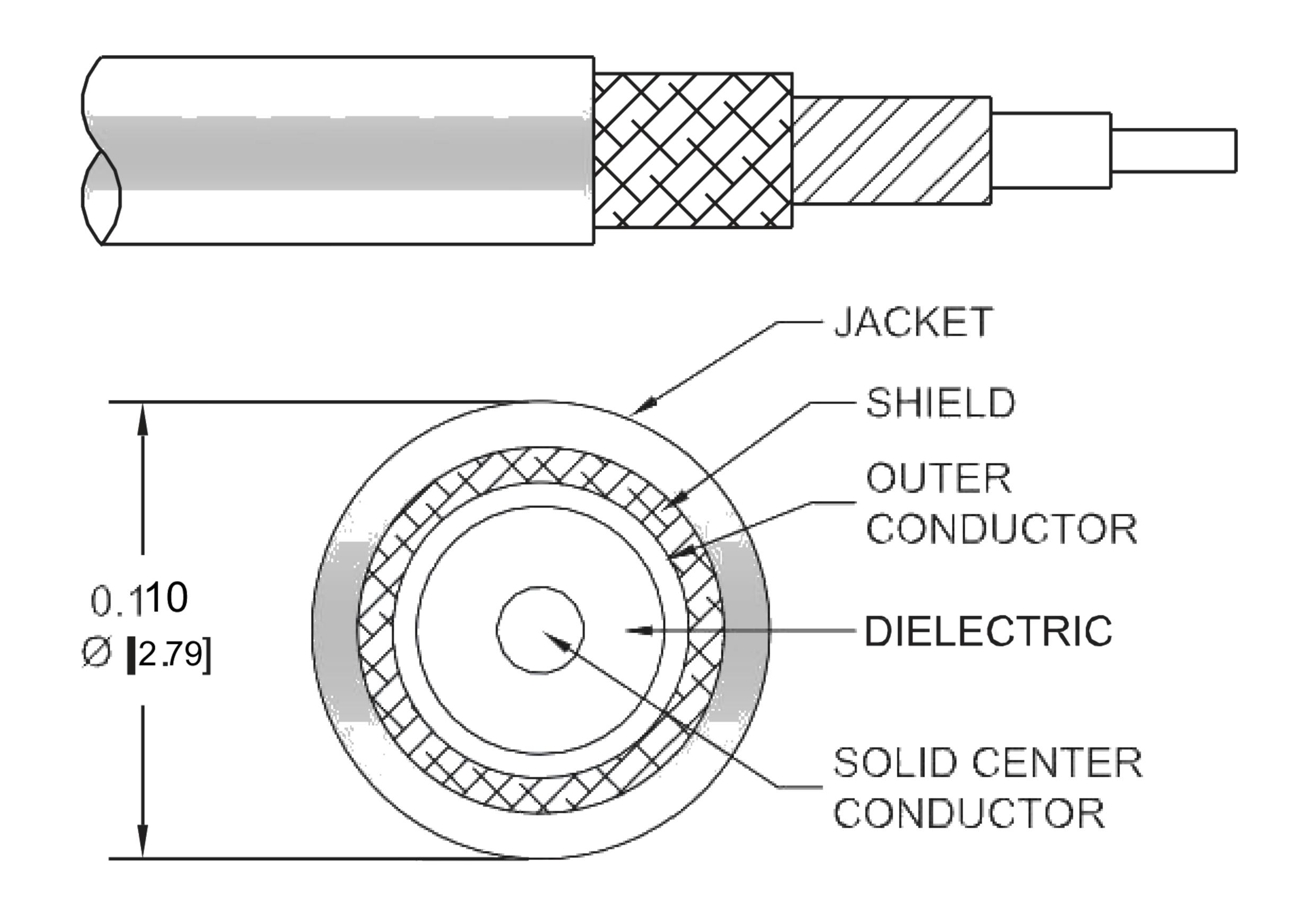
### ET24942

# Configuration

Connector 1: MCX Plug
Connector 2: SMA Female
Cable Type: ET-LMR-100A

# Features

- Max Frequency 3 GHz
- Shielding Effectivity > 90 dB
- 66% Phase Velocity
- Double Shielded
- PVC Jacket



# Applications

General Purpose

Laboratory Use

#### Description

Ebeestock's ET24942 MCX plug to SMA female 50 cm cable using ET-LMR-100 coax is part of our full line of RF components available for same-day shipping. Ebeestock's flexible RF cable assemblies are ideal for applications where tight bends and flexure are required. This Ebeestock MCX to SMA cable assembly has a plug to female gender configuration with 50 ohm flexible ET-LMR-100A coax. The ET24942 MCX plug to SMA female cable assembly operates to 3 GHz. The double shielding of this Ebeestock cable assembly provides excellent shielding effectiveness of better than 90dB.

Custom versions of most RF cable assemblies can be built and shipped same day. Custom cable assembly lengths can be obtained by specifying the desired length on the web site at time of order or by contacting a sales representative. Other available RF cable assembly value added services include connector orientation or clocking, heat shrink booting and custom labeling. RF testing can also be performed to document the electrical performance of your cable assembly.

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: MCX Plug to SMA Female Cable 50 cm Length Using ET-LMR-100 Coax, LF Solder ET3W-08203LF-50CM





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## Electrical Specifications

Description	Minimum	Typical	Maximum	Units
Frequency Range	DC		3	GHz
VSWR			1.45:1	
Velocity of Propagation		66		%
RF Shielding	90			dB
Group Delay		1.54 [5.05]		ns/ft[ns/m]
Capacitance		30.8 [101.05]		pF/ft [pF/m]
Inductance		0.077 [0.25]		uH/ft [uH/m]
DC Resistance Inner Conductor		81 [265.75]		Ω/1000ft [Ω/Km]
DC Resistance Outer Conductor		9.5 [31.17]		Ω/1000ft [Ω/Km]
Jacket Spark			2,000	Vrms

### Specifications by Frequency

Description	F1	F2	F3	F4	F5	Units
Frequency	0.1	0.25	0.5	1	3	GHz
Insertion Loss (Max.)	0.3	0.31	0.36	0.45	0.77	dB

Electrical Specification Notes:

The Insertion Loss data above is based on the performance specifications of the coax used in this assembly. Insertion Loss is estimated as 0.1 dB per connector.

### Mechanical Specifications

### Cable Assembly

Length\* 19.68 in [499.87 mm] Diameter 0.312 in [7.92 mm]

#### Cable

Cable Type
Impedance
Inner Conductor Type

ET-LMR-100A
50 Ohms
Solid

Inner Conductor Material and Plating Copper Clad Steel

Dielectric Type
Number of Shields
2

Shield Layer 1
Shield Layer 2
Tinned Copper Braid

Jacket Material
PVC, Black
Jacket Diameter
0.11 in [2.79 mm]

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One Time Minimum Bend Radius
Repeated Minimum Bend Radius
Bending Moment
Flat Plate Crush
Tensile Strength

0.25 in [6.35 mm]
1 in [25.4 mm]
0.1 lbs-ft [0.14 N-m]
10 lbs/in [0.18 Kg/mm]
15 lbs [6.8 Kg]

#### Connectors

Description	Connector 1	Connector 2	
Type	MCX Plug	SMA Female	
Specification	CECC 22220	MIL-STD-348	
Impedance	50 Ohms	50 Ohms	
Contact Material and Plating	Brass, Gold	Gold	
Contact Plating Specification	30 µin minimum	MIL-G-45204	
Dielectric Type	PTFE	PTFE	
Body Material and Plating	Brass, Nickel	Brass, Nickel	
Body Plating Specification	100 μin minimum	QQ-N-290	

### **Environmental Specifications**

Temperature

Operating Range -40 to +85 deg C

Compliance Certifications (see product page for current document)

### Plotted and Other Data

Notes:

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www.ebeestock.com





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### ET24942

#### How to Order

Example: ET3W08203LF-12 = 12 inches long cable

ET3W08203LF-100cm = 100 cm long cable

MCX Plug to SMA Female Cable 50 cm Length Using ET-LMR-100 Coax, LF Solder from Ebeestock Enterprises has same day shipment for domestic and International orders. Our RF, microwave and millimeter wave products maintain a 99.4% availability and are part of the broadest selection in the industry.

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**URL:** https://www.ebeestock.com/mcx-plug-to-sma-female-cable-12-inch-length-using-lmr-100-coax-l f-solder-0024937

The information contained in this document is accurate to the best of our knowledge and representative of the part described herein. It may be necessary to make modifications to the part and/or the documentation of the part, in order to implement improvements. Ebeestock reserves the right to make such changes as required. Unless otherwise stated, all specifications are nominal. Ebeestock does not make any representation or warranty regarding the suitability of the part described herein for any particular purpose, and Ebeestock does not assume any liability arising out of the use of any part or documentation.

