

Low Loss SMA Male to FAKRA Code C / Blue Jack Cable LMR-100 Coax



FMCA10040

Configuration

- Connector 1: SMA Male
- Connector 2: FAKRA Jack
- Cable Type: LMR-100A
- Coax Flex Type: Flexible

Features

- Max Frequency 4 GHz
- Shielding Effectivity > 90 dB
- 66% Phase Velocity
- Double Shielded
- PVC Jacket

Applications

- General Purpose
- Laboratory Use

Description

The SMA male to FAKRA Code C / Blue jack cable using LMR-100 coax, part number FMCA10040, from Fairview Microwave is in-stock and ships same day. This Fairview SMA to FAKRA cable assembly has a male to jack gender configuration with 50 ohm flexible LMR-100A coax. Fairview Microwave's flexible RF cable assemblies are ideal for applications where tight bends and continual flexure are required. The FMCA10040 SMA male to FAKRA jack cable assembly operates to 4 GHz. The double shielding of this Fairview cable assembly provides excellent shielding effectiveness of better than 90 dB.

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 RF cable assembly value added services including connector orientation or clocking, heat shrink booting and labeling are also available. RF testing can also be performed to document the electrical performance of your cable assembly.

Electrical Specifications

Description	Minimum	Typical	Maximum	Units
Frequency Range	DC		4	GHz
VSWR			1.4:1	
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]		Ohms/1000ft [Ohms/Km]
DC Resistance Outer Conductor		9.5 [31.17]		Ohms/1000ft [Ohms/Km]
Jacket Spark			2,000	Vrms

Specifications by Frequency

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Part Number	Length	Description	F1	F2	F3	F4	F5	Units	Weight (lbs)
			Frequency	100	250	500	1000	4000	
FMCA10040	Custom Lengths Available	Insertion Loss (Typ.)	0.06	0.12	0.17	0.24	0.5	dB/ft	
			0.21	0.39	0.55	0.79	1.65	dB/m	
FMCA10040-24	24 Inch	Insertion Loss (Typ.)	0.48	0.59	0.68	0.83	1.36	dB	0.046
FMCA10040-36	36 Inch	Insertion Loss (Typ.)	0.55	0.7	0.85	1.07	1.86	dB	0.055
FMCA10040-48	48 Inch	Insertion Loss (Typ.)	0.61	0.82	1.01	1.31	2.36	dB	0.064
FMCA10040-100CM	100 CM	Insertion Loss (Typ.)	0.56	0.74	0.9	1.14	2	dB	0.058
FMCA10040-200CM	200 CM	Insertion Loss (Typ.)	0.77	1.12	1.44	1.93	3.65	dB	0.087

The insertion loss data for the base model does not include loss due to the connectors. Each length includes insertion loss due to the connectors.

Loss due to Connector 1: 0.25 dB
 Loss due to Connector 2: 0.1 dB
 Base Weight: 0.037 pounds
 Additional Weight per Inch: 0.07833 pounds

Mechanical Specifications

Cable Assembly

Width/Diameter 0.5 in [12.7 mm]
 Weight 0.037 lbs [16.78 g]

Cable

Cable Type LMR-100A
 Impedance 50 Ohms
 Inner Conductor Type Solid
 Inner Conductor Material and Plating Copper Clad Steel
 Dielectric Type PE
 Number of Shields 2
 Shield Layer 1 Aluminum Tape
 Shield Layer 2 Tinned Copper Braid
 Jacket Material PVC, Black
 Jacket Diameter 0.11 in [2.79 mm]
 One Time Minimum Bend Radius 0.25 in [6.35 mm]
 Repeated Minimum Bend Radius 1 in [25.4 mm]
 Bending Moment 0.1 lbs-ft [0.14 N-m]
 Flat Plate Crush 10 lbs/in [0.18 Kg/mm]
 Tensile Strength 15 lbs [6.8 Kg]

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Connectors

Description	Connector 1	Connector 2
Type	SMA Male	FAKRA Jack
Impedance	50 Ohms	50 Ohms
Configuration	Straight	Straight
Color		BL
Contact Material and Plating	Brass, Gold	Phosphor Bronze, Gold
Contact Plating Specification	15 µin minimum	
Dielectric Type	PTFE	PTFE
Outer Conductor Material and Plating		Brass, Nickel
Body Material and Plating	Brass, Nickel	Plastic
Body Plating Specification	200 µin minimum	
Coupling Nut Material and Plating	Brass, Nickel	
Coupling Nut Plating Specification	200 µin minimum	

Environmental Specifications

Operating Range Temperature -40 to +85 deg C

Compliance Certifications (see [product page](#) for current document)

Plotted and Other Data

Notes:

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FMCA10040

Typical Performance Data

How to Order



Example: FMCA10040-12 = 12 inches long cable
FMCA10040-100cm = 100 cm long cable

Low Loss SMA Male to FAKRA Code C / Blue Jack Cable LMR-100 Coax from Fairview Microwave is in-stock and available to ship same-day. All of our RF/microwave products are available off-the-shelf from our ISO 9001:2008 certified facilities in Lewisville, Texas. Fairview Microwave is RF on-demand.

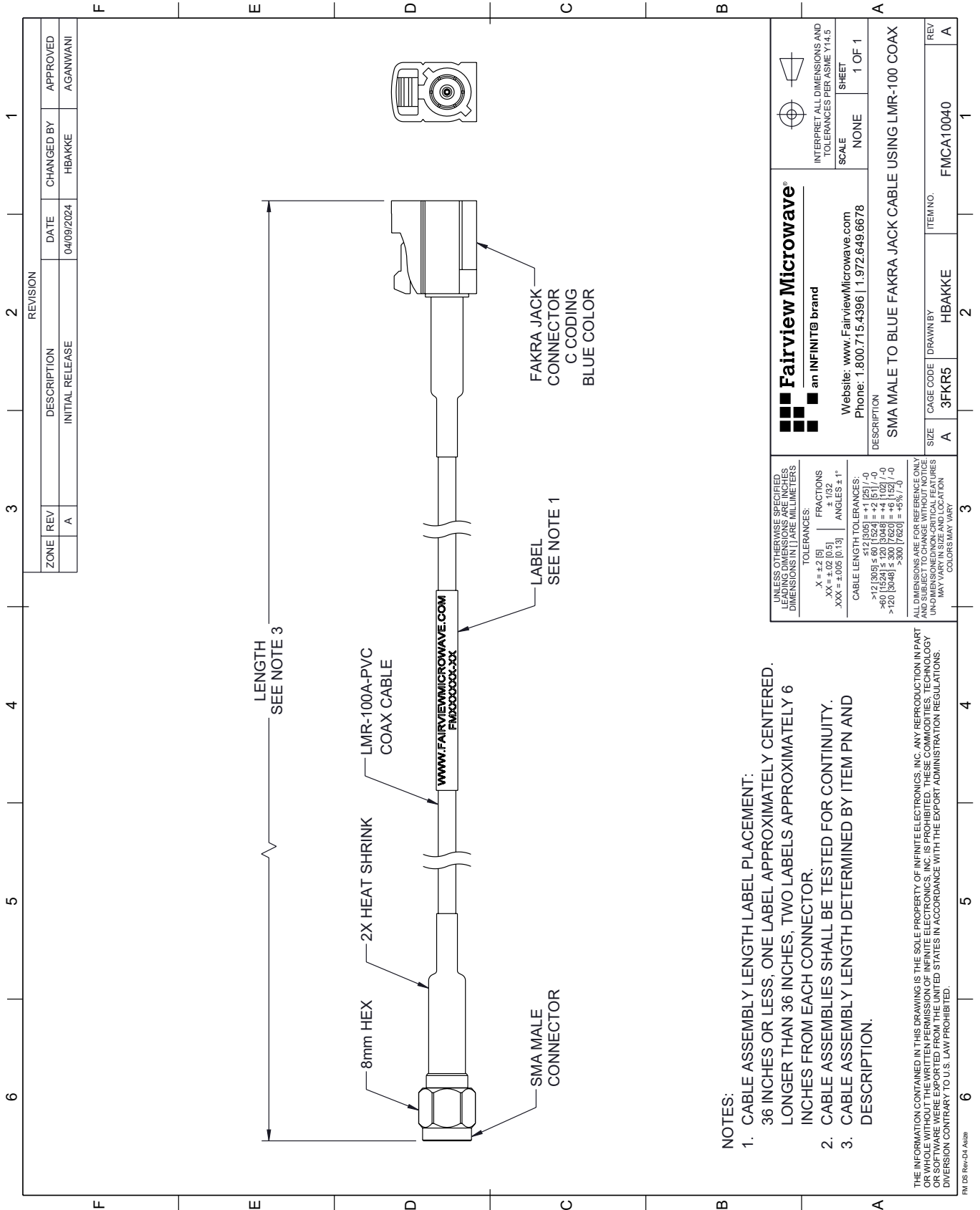
For additional information on this product, please click the following link: [Low Loss SMA Male to FAKRA Code C / Blue Jack Cable LMR-100 Coax FMCA10040](#)

URL: <https://www.fairviewmicrowave.com/low-loss-sma-male-to-fakra-jack-cable-lmr-100-coax-fmca10040-p.aspx>

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FMCA10040 CAD Drawing

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NOTES:

1. CABLE ASSEMBLY LENGTH LABEL PLACEMENT:
36 INCHES OR LESS, ONE LABEL APPROXIMATELY CENTERED, LONGER THAN 36 INCHES, TWO LABELS APPROXIMATELY 6 INCHES FROM EACH CONNECTOR.
2. CABLE ASSEMBLIES SHALL BE TESTED FOR CONTINUITY.
3. CABLE ASSEMBLY LENGTH DETERMINED BY ITEM PN AND DESCRIPTION.

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FM DS Rev-D4 Alt2b

REVISION		DATE	CHANGED BY	APPROVED
ZONE	REV			
	A	04/09/2024	HBAKKE	AGANWANI
DESCRIPTION				
INITIAL RELEASE				

Fairview Microwave®
an INFINIT® brand

Website: www.FairviewMicrowave.com
Phone: 1.800.715.4396 | 1.972.649.6678

INTERPRET ALL DIMENSIONS AND TOLERANCES PER ASME Y14.5

SCALE: NONE
SHEET: 1 OF 1

DESCRIPTION		ITEM NO.	REV
SMA MALE TO BLUE FAKRA JACK CABLE USING LMR-100 COAX		FMCA10040	A
SIZE	CAGE CODE	DRAWN BY	
A	3FKR5	HBAKKE	

UNLESS OTHERWISE SPECIFIED, LEADING DIMENSIONS ARE IN INCHES AND TRAILING DIMENSIONS ARE IN MILLIMETERS

TOLERANCES:
 .X = ±.2 [5]
 .XX = ±.02 [0.5]
 .XXX = ±.005 [0.13]

FRACTIONS:
 ± 1/32

ANGLES: ± 1°

CABLE LENGTH TOLERANCES:
 <12 [305] ≤ 60 [1524] = ±.1 [25] / -0
 >60 [1524] ≤ 120 [3048] = ±.4 [102] / -0
 >120 [3048] ≤ 300 [7620] = ±.6 [15] / -0

ALL DIMENSIONS ARE FOR REFERENCE ONLY. UNDIMENSIONED/NON-CRITICAL FEATURES MAY VARY IN SIZE AND LOCATION. COLORS MAY VARY.