

## Low Loss FAKRA Code Z / Water Blue Plug to SMA Male Cable LMR-100 Coax



### FMCA10032

#### Configuration

- Connector 1: FAKRA Plug
- Connector 2: SMA Male
- 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 FAKRA Code / Water Blue plug to SMA male cable using LMR-100 coax, part number FMCA10032, from Fairview Microwave is in-stock and ships same day. This Fairview FAKRA to SMA cable assembly has a plug to male 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 FMCA10032 FAKRA plug to SMA male 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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**FMCA10032**

Part Number	Length	Description	F1	F2	F3	F4	F5	Units	Weight (lbs)
			Frequency	100	250	500	1000	4000	
FMCA10032	Custom Lengths Available	Insertion Loss (Typ.)	0.064	0.115	0.165	0.24	0.502	dB/ft	
			0.21	0.38	0.55	0.79	1.65	dB/m	
FMCA10032-24	24 Inch	Insertion Loss (Typ.)	0.48	0.58	0.68	0.83	1.36	dB	0.033
FMCA10032-36	36 Inch	Insertion Loss (Typ.)	0.55	0.7	0.85	1.07	1.86	dB	0.042
FMCA10032-48	48 Inch	Insertion Loss (Typ.)	0.61	0.81	1.01	1.31	2.36	dB	0.051
FMCA10032-100CM	100 CM	Insertion Loss (Typ.)	0.56	0.73	0.9	1.14	2	dB	0.045
FMCA10032-200CM	200 CM	Insertion Loss (Typ.)	0.77	1.11	1.44	1.93	3.65	dB	0.074

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: 0.024 pounds  
 Additional Weight per Inch: 0.07833 pounds

**Mechanical Specifications**

**Cable Assembly**

Width/Diameter 0.5 in [12.7 mm]  
 Weight 0.024 lbs [10.89 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	FAKRA Plug	SMA Male
Impedance	50 Ohms	50 Ohms
Configuration	Straight	Straight
Color	WB	
Contact Material and Plating	Phosphor Bronze, Gold	Brass, Gold
Contact Plating Specification		15 µin minimum
Dielectric Type	PTFE	PTFE
Outer Conductor Material and Plating	Brass, Nickel	
Body Material and Plating	Plastic	Brass, Nickel
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:

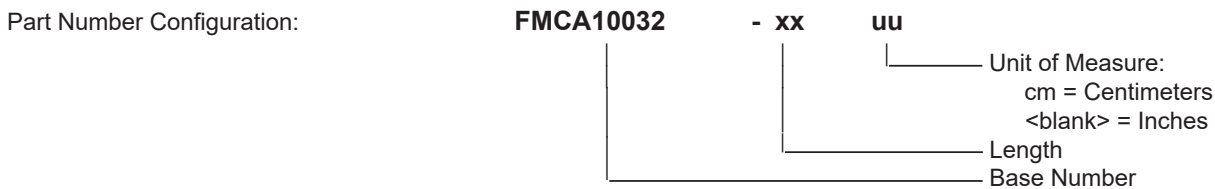
Low Loss FAKRA Code Z / Water Blue Plug to SMA Male Cable LMR-100 Coax



**FMCA10032**

**Typical Performance Data**

**How to Order**



Example: FMCA10032-12 = 12 inches long cable  
FMCA10032-100cm = 100 cm long cable

Low Loss FAKRA Code Z / Water Blue Plug to SMA Male 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.

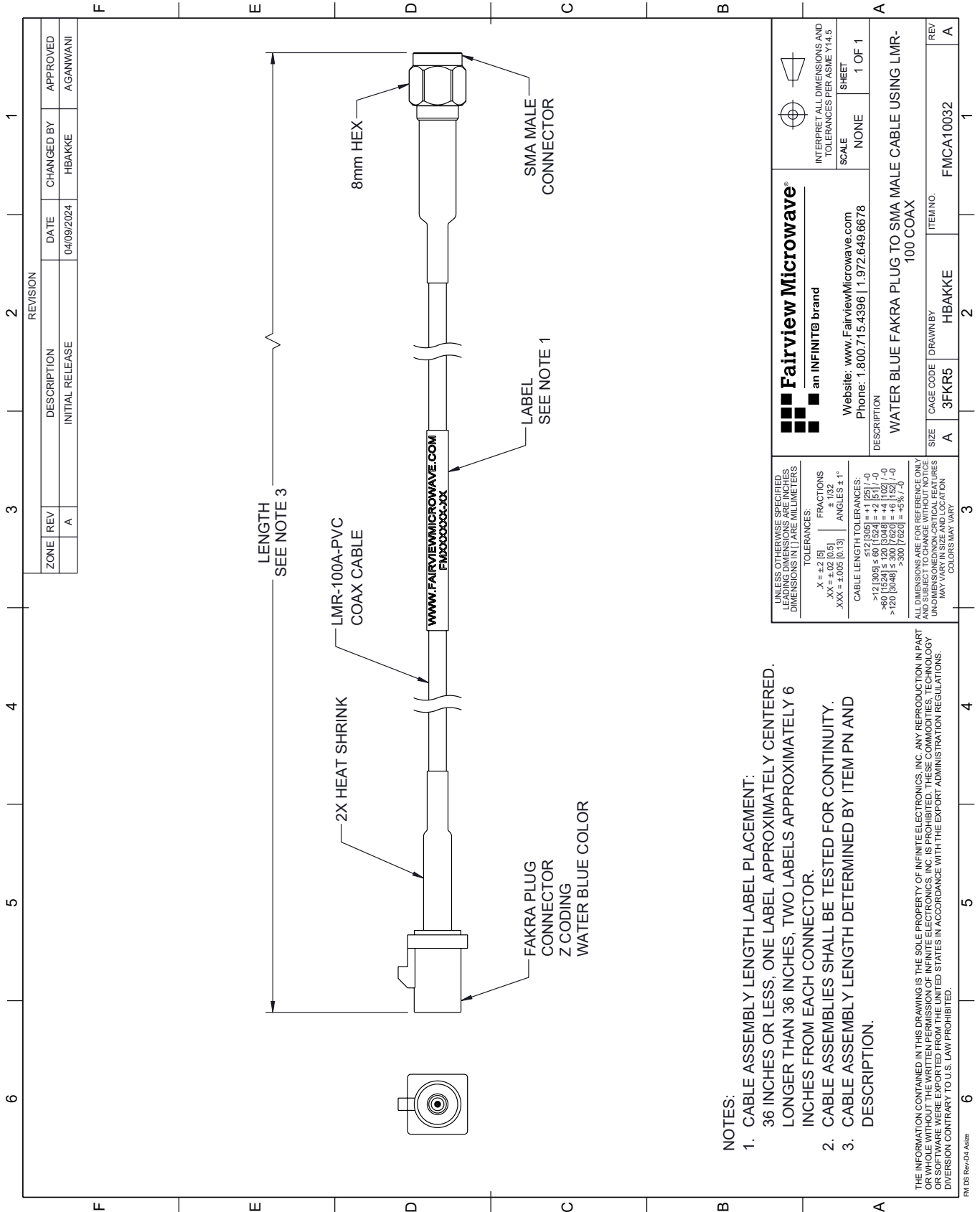
For additional information on this product, please click the following link: [Low Loss FAKRA Code Z / Water Blue Plug to SMA Male Cable LMR-100 Coax FMCA10032](#)

URL: <https://www.fairviewmicrowave.com/low-loss-fakra-plug-to-sma-male-cable-lmr-100-coax-fmca10032-p.aspx>

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# FMCA10032 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 Alt26

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

<p><b>Fairview Microwave</b> an INFINIT® brand</p>		<p>INTERPRET ALL DIMENSIONS AND TOLERANCES PER ASME Y14.5</p>
Website: <a href="http://www.FairviewMicrowave.com">www.FairviewMicrowave.com</a> Phone: 1.800.715.4396   1.972.649.6678		SCALE: NONE SHEET: 1 OF 1
DESCRIPTION: WATER BLUE FAKRA PLUG TO SMA MALE CABLE USING LMR-100 COAX		
SIZE: A	CAGE CODE: 3FKR5	ITEM NO.: FMCA10032
DRAWN BY: HBAKKE	REV: A	

UNLESS OTHERWISE SPECIFIED, LEADING DIMENSIONS ARE IN INCHES, DIMENSIONS IN [ ] ARE 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  
 >300 [7620] = ±.8 [1] / -0

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