

## Low Loss RA Water Blue FAKRA Jack Code Z to SMA Male Cable LMR-100A-UF

The RA FAKRA Code / Water Blue jack to SMA male cable using LMR-100A-UF coax, part number FMCA3175, from Fairview Microwave is in-stock and ships same day. This Fairview FAKRA to SMA cable assembly has a jack to male gender configuration with 50 ohm flexible LMR-100A-UF coax. Fairview Microwave's flexible RF cable assemblies are ideal for applications where tight bends and continual flexure are required. The FMCA3175 FAKRA jack to SMA male cable assembly operates to 4 GHz. The right angle FAKRA interface on the LMR-100A-UF cable allows for easier connections in tight spaces. 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	Min	Typ	Max	Units
Frequency Range	DC		4	GHz
VSWR			1.5:1	
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]		$\Omega$ /1000ft [ $\Omega$ /Km]
DC Resistance Outer Conductor		9.5 [31.17]		$\Omega$ /1000ft [ $\Omega$ /Km]
Jacket Spark			2,000	Vrms

### Performance by Frequency

Description	F1	F2	F3	F4	F5	Units
Frequency	0.1	0.25	0.5	1	4	GHz
Insertion Loss (Typ.)	0.07	0.115	0.165	0.24	0.508	dB/ft
	0.23	0.38	0.54	0.79	1.67	dB/m

#### Electrical Specification Notes:

Insertion Loss does not include the loss of the connectors. Insertion Loss is estimated as 0.1 dB for the SMA connector and 0.2 dB for the FAKRA connector.

### Mechanical Specifications

#### Cable Assembly

Weight 0.04 lbs [18.14 g]

#### Cable

Cable Type LMR-100A-UF



### Configuration:

- FAKRA Jack Right Angle
- SMA Male
- LMR-100A-UF

### Features:

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

### Applications:

- General Purpose
- Laboratory Use

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Impedance 50 Ohms  
 Inner Conductor Type Solid  
 Inner Conductor Material and Plating Copper  
 Dielectric Type PE  
 Number of Shields 2  
 Shield Layer 1 Aluminum Tape  
 Shield Layer 2 Tinned Copper  
 Jacket Material TPE, 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]

**Connectors**

Description	Connector 1	Connector 2
Type	FAKRA Jack	SMA Male
Configuration	Right Angle	Straight
Impedance	50 Ohms	50 Ohms
Contact Material & Plating	Phosphor Bronze, Gold	Brass, Gold
Contact Plating Spec.		50 µin minimum
Dielectric Type	PTFE	PTFE
Outer Cond Material & Plating	Brass, Nickel	
Body Material & Plating	Plastic	Brass, Gold
Body Plating Spec.		3 µin minimum
Coupling Nut Material & Plating		Brass, Gold
Coupling Nut Plating Spec.		3 µin minimum
Hex Size		5/16 in
Torque		5 in-lbs 0.57 Nm

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

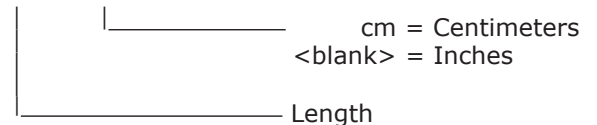
**Plotted and Other Data**

Notes:

**How to Order**

Part Number Configuration:

**FMCA3175 - xx uu**



Example: FMCA3175-12 = 12 inches long cable  
 FMCA3175-100cm = 100 cm long cable

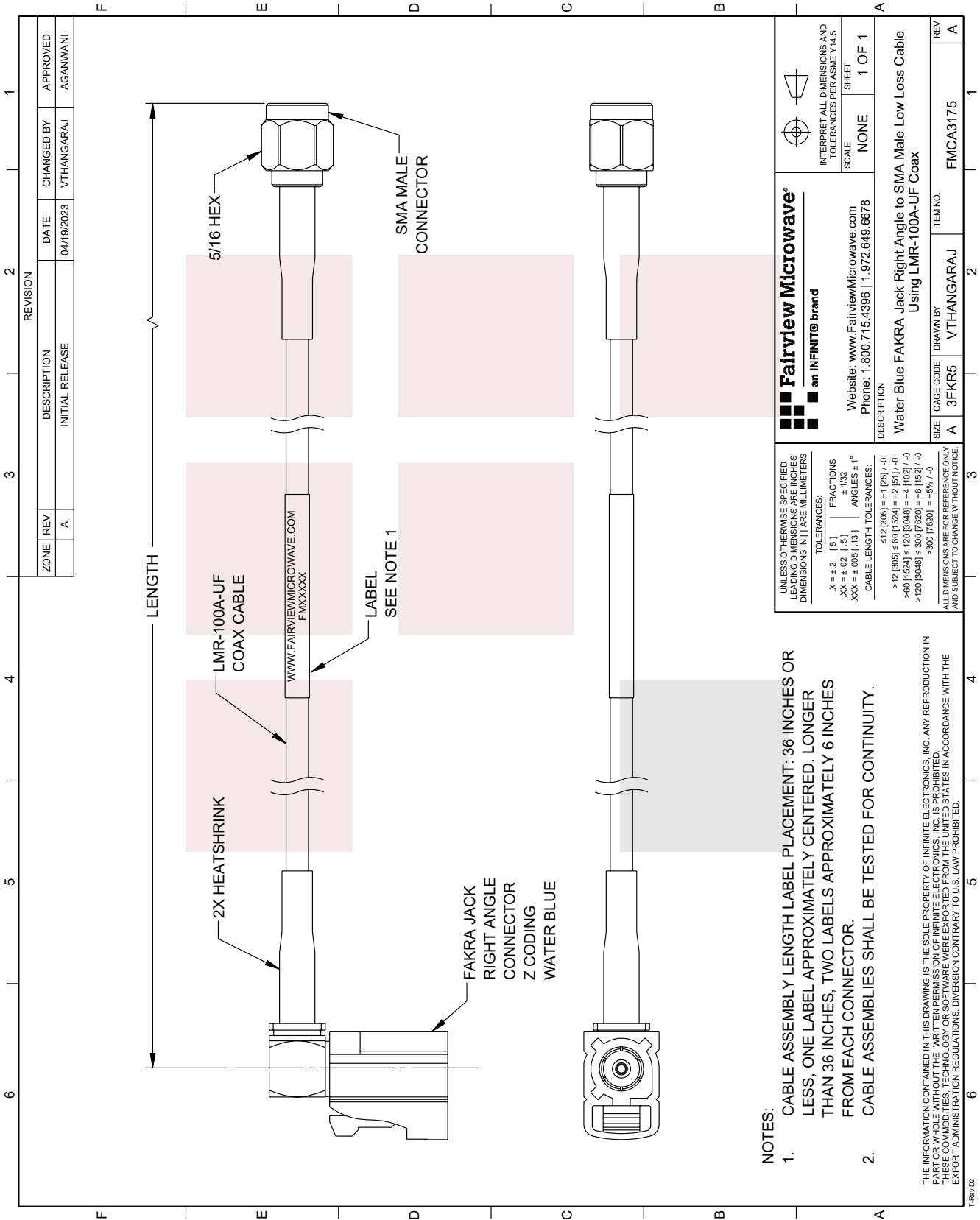
Low Loss RA Water Blue FAKRA Jack Code Z to SMA Male Cable LMR-100A-UF from Fairview Microwave has same day shipment for domestic and International orders. Our RF, microwave and millimeter wave products maintain a 99% availability and are part of the broadest selection in the industry.


Click the following link to obtain additional part information: [Low Loss RA Water Blue FAKRA Jack Code Z to SMA Male Cable LMR-100A-UF FMCA3175](#)

URL: <https://www.fairviewmicrowave.com/low-loss-ra-fakra-jack-to-sma-male-cable-lmr-100a-uf-coax-fmca3175-p.aspx>

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. Fairview Microwave reserves the right to make such changes as required. Unless otherwise stated, all specifications are nominal. Fairview Microwave does not make any representation or warranty regarding the suitability of the part described herein for any particular purpose, and Fairview Microwave does not assume any liability arising out of the use of any part or documentation.





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Website: <a href="http://www.FairviewMicrowave.com">www.FairviewMicrowave.com</a> 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 Water Blue FAKRA Jack Right Angle to SMA Male Low Loss Cable Using LMR-100A-UJ Coax			
UNLESS OTHERWISE SPECIFIED, DIMENSIONS IN LARGE MILLIMETERS	TOLERANCES: .X = ±.2 (.5) .XX = ±.02 (.5) .XXX = ±.005 (.13)	FRACTIONS ± 1/32 ANGLES ± 1°	CABLE LENGTH TOLERANCES: ≤12 (305) = ±1 (25) / -0 >12 (305) ≤ 60 (1524) = +2 (51) / -0 >60 (1524) ≤ 120 (3048) = +4 (102) / -0 >120 (3048) ≤ 300 (7620) = +6 (152) / -0 >300 (7620) = +5% / -0
ALL DIMENSIONS ARE FOR REFERENCE ONLY AND SUBJECT TO CHANGE WITHOUT NOTICE.			
SIZE: A	CAGE CODE: 3FKR5	DRAWN BY: VTHANGARAJ	ITEM NO.: FMCA3175
REV: A	DATE: 04/19/2023	CHANGED BY: VTHANGARAJ	APPROVED: AGANWANI

**NOTES:**

- 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.
- CABLE ASSEMBLIES SHALL BE TESTED FOR CONTINUITY.

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