

## Low Loss Push-On RA SMP Female to Push-On RA SMP Female Cable LMR-100 Coax, 180 Degree Clocking

The RA SMP female push-on to RA SMP female push-on cable using LMR-100 coax, part number FMCA3168, from Fairview Microwave is in-stock and ships same day. This Fairview SMP to SMP cable assembly has a female to female gender configuration with 50 ohm flexible LMR-100A-PVC coax. Fairview Microwave's flexible RF cable assemblies are ideal for applications where tight bends and continual flexure are required. The FMCA3168 SMP female to SMP female cable assembly operates to 3 GHz. The right angle SMP interfaces on the LMR-100A-PVC cable allow 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		3	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]		$\Omega$ /1000ft [ $\Omega$ /Km]
DC Resistance Outer Conductor		9.5 [31.17]		$\Omega$ /1000ft [ $\Omega$ /Km]
Operating Voltage (AC)			350	Vrms
Jacket Spark			2,000	Vrms

### Performance by Frequency

Description	F1	F2	F3	F4	F5	Units
Frequency	0.1	0.25	0.5	1	3	GHz
Insertion Loss (Typ.)	0.07	0.115	0.165	0.24	0.434	dB/ft
	0.23	0.38	0.54	0.79	1.42	dB/m

#### Electrical Specification Notes:

Insertion Loss does not include the loss of the connectors. Insertion Loss is estimated as 0.2 dB per connector.

### Mechanical Specifications

#### Cable Assembly

Weight 0.03 lbs [13.61 g]

#### Cable

Cable Type LMR-100A-PVC



### Configuration:

- Push-OnSMP Female Right Angle
- Push-OnSMP Female Right Angle
- LMR-100A-PVC

### Features:

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

### Applications:

- General Purpose
- Laboratory Use

Fairview Microwave  
 301 Leora Ln., Suite 100  
 Lewisville, TX 75056  
 Tel: 1-800-715-4396 / (972) 649-6678  
 Fax: (972) 649-6689  
[www.fairviewmicrowave.com](http://www.fairviewmicrowave.com)  
[sales@fairviewmicrowave.com](mailto:sales@fairviewmicrowave.com)

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]

**Connectors**

Description	Connector 1	Connector 2
Type	SMP Female	SMP Female
Specification	MIL-STD-348A	MIL-STD-348A
Impedance	50 Ohms	50 Ohms
Connection Method	Push-On	Push-On
Contact Material & Plating	Beryllium Copper, Gold	Beryllium Copper, Gold
Contact Plating Spec.	30μ in. minimum	30μ in. minimum
Dielectric Type	PTFE	PTFE
Outer Cond Material & Plating	Beryllium Copper, Gold	Beryllium Copper, Gold
Outer Cond Plating Spec.	3μ in. minimum	3μ in. minimum
Body Material & Plating	Brass, Gold	Brass, Gold
Body Plating Spec.	3μ in. minimum	3μ in. minimum

**Environmental Specifications**  
**Temperature**

Operating Range -40 to +85 deg C

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

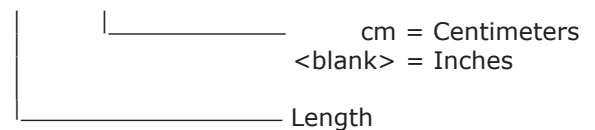
**Plotted and Other Data**

Notes:

**How to Order**

Part Number Configuration:

**FMCA3168 - xx uu**



Example: FMCA3168-12 = 12 inches long cable  
 FMCA3168-100cm = 100 cm long cable

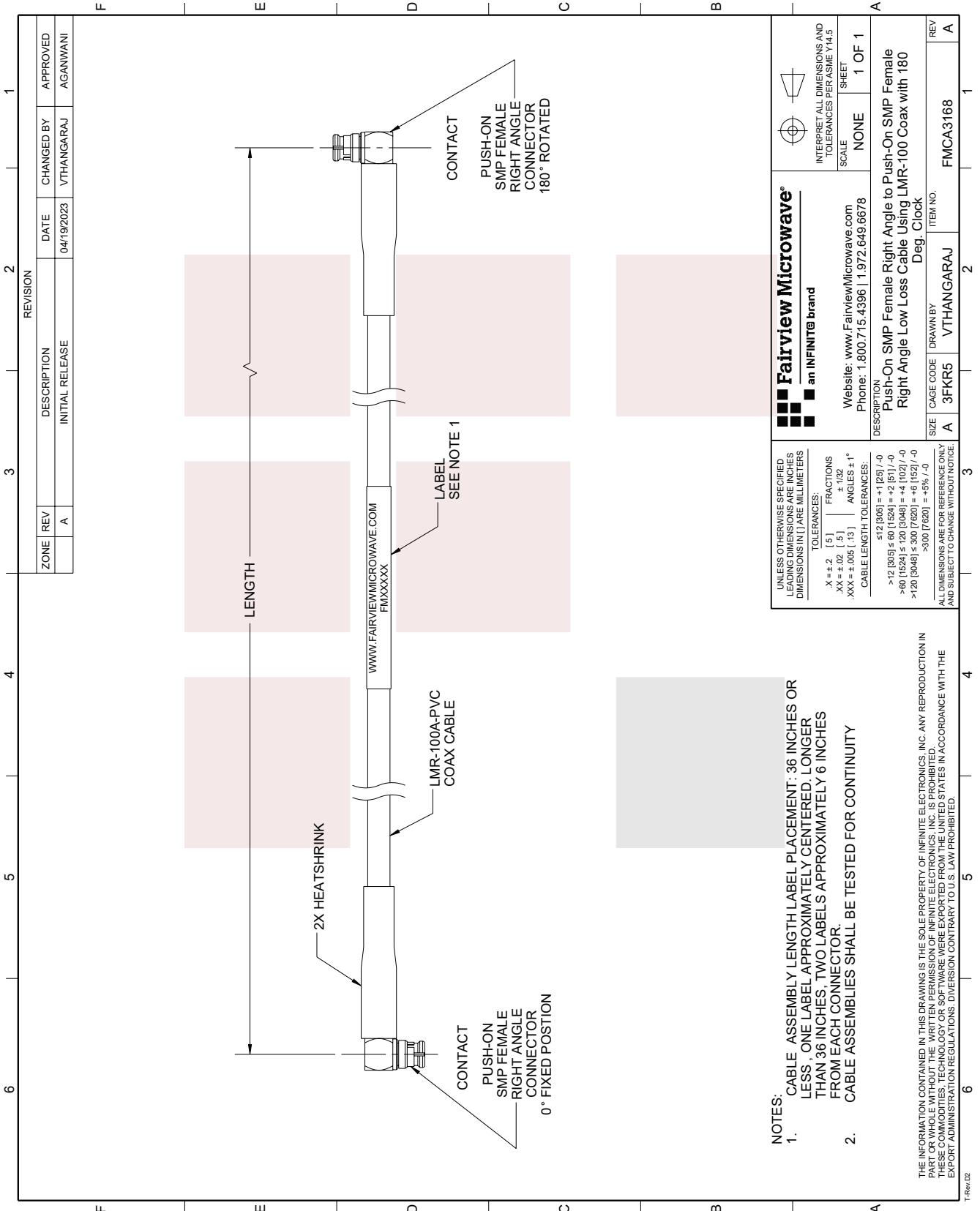
Low Loss Push-On RA SMP Female to Push-On RA SMP Female Cable LMR-100 Coax, 180 Degree Clocking from Fairview Microwave has same day shipment for domestic and International orders. Our RF, microwave and millimeter wave products maintain a 99% availability and are part of the broadest selection in the industry.

Click the following link to obtain additional part information: [Low Loss Push-On RA SMP Female to Push-On RA SMP Female Cable LMR-100 Coax, 180 Degree Clocking FMCA3168](#)

URL: <https://www.fairviewmicrowave.com/low-loss-push-on-ra-smp-female-to-push-on-ra-smp-female-cable-lmr-100-coax-180-degree-clocking-fmca3168-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: 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  
Push-On SMP Female Right Angle to Push-On SMP Female Right Angle Low Loss Cable Using LMR-100 Coax with 180 Deg. Clock

ITEM NO. FMCA3168

SIZE A CAGE CODE 3FKR5 DRAWN BY VTHANGARAJ

UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN INCHES. DIMENSIONS IN PARENTHESES ARE IN MILLIMETERS.

TOLERANCES:  
 .X = ±.2 (5) FRACTIONS  
 .XX = ±.02 (.5) ANGLES ± 1°  
 .XXX = ±.005 (.13)

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.

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

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