

SMA Female to SMA Female Cable RG-316 Coax



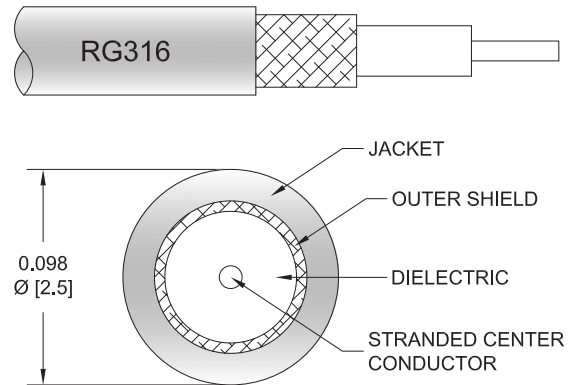
FMC1313316

Configuration

- Connector 1: SMA Female
- Connector 2: SMA Female
- Cable Type: RG-316
- Coax Flex Type: Flexible

Features

- Max Frequency 3 GHz
- 70% Phase Velocity
- FEP Jacket



Applications

- General Purpose
- Laboratory Use

Description

The SMA female to SMA female cable using RG-316 coax, part number FMC1313316, from Fairview Microwave is in-stock and ships same day. This Fairview SMA to SMA cable assembly has a female to female gender configuration with 50 ohm flexible RG-316 coax. Fairview Microwave's flexible RF cable assemblies are ideal for applications where tight bends and continual flexure are required. The FMC1313316 SMA female to SMA female cable assembly operates to 3 GHz.

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		3	GHz
VSWR			1.4:1	
Velocity of Propagation		70		%
Capacitance		32 [104.99]		pF/ft [pF/m]

Specifications by Frequency

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Part Number	Length	Description	F1	F2	F3	F4	F5	Units	Weight (lbs)
			Frequency	100	250	500	1000	3000	
FMC1313316	Custom Lengths Available	Insertion Loss (Typ.)	0.11	0.16	0.23	0.38	0.58	dB/ft	
			0.37	0.53	0.76	1.25	1.91	dB/m	
FMC1313316-12	12 Inch	Insertion Loss (Typ.)	0.31	0.36	0.43	0.58	0.78	dB	0.022
FMC1313316-24	24 Inch	Insertion Loss (Typ.)	0.42	0.52	0.66	0.96	1.36	dB	0.033
FMC1313316-36	36 Inch	Insertion Loss (Typ.)	0.53	0.68	0.89	1.34	1.94	dB	0.043
FMC1313316-48	48 Inch	Insertion Loss (Typ.)	0.64	0.84	1.12	1.72	2.52	dB	0.053
FMC1313316-72	72 Inch	Insertion Loss (Typ.)	0.86	1.16	1.58	2.48	3.68	dB	0.073

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:	0.1 dB
Loss due to Connector 2:	0.1 dB
Base Weight:	0.022 pounds
Additional Weight per Inch:	0.00084 pounds

Mechanical Specifications

Cable Assembly

Weight 0.022 lbs [9.98 g]

Cable

Cable Type	RG-316
Impedance	50 Ohms
Inner Conductor Type	Solid
Inner Conductor Material and Plating	Copper, Silver
Dielectric Type	PTFE
Number of Shields	1
Shield Layer 1	Silver Plated Copper Tape
Shield Layer 2	Silver Plated Copper Braid
Jacket Material	FEP, Black
Jacket Diameter	0.098 in [2.49 mm]

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Connectors

Description	Connector 1	Connector 2
Type	SMA Female	SMA Female
Specification	MIL-STD-348A	MIL-STD-348A
Impedance	50 Ohms	50 Ohms
Configuration	Straight	Straight
Contact Material and Plating	Beryllium Copper, Gold	Beryllium Copper, Gold
Contact Plating Specification	50 µin minimum	50 µin minimum
Dielectric Type	PTFE	PTFE
Outer Conductor Material and Plating	Brass, Gold	Brass, Gold
Outer Conductor Plating Specification	3 µin minimum	3 µin minimum
Hex Size	1/4 inch	1/4 inch

Environmental Specifications

Operating Range Temperature -55 to +165 deg C

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

Plotted and Other Data

Notes:

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FMC1313316

Typical Performance Data

How to Order

Part Number Configuration:

FMC1313316

- **xx**

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Unit of Measure:

cm = Centimeters

<blank> = Inches

Length

Base Number

Example: FMC1313316-12 = 12 inches long cable
FMC1313316-100cm = 100 cm long cable

SMA Female to SMA Female Cable RG-316 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.

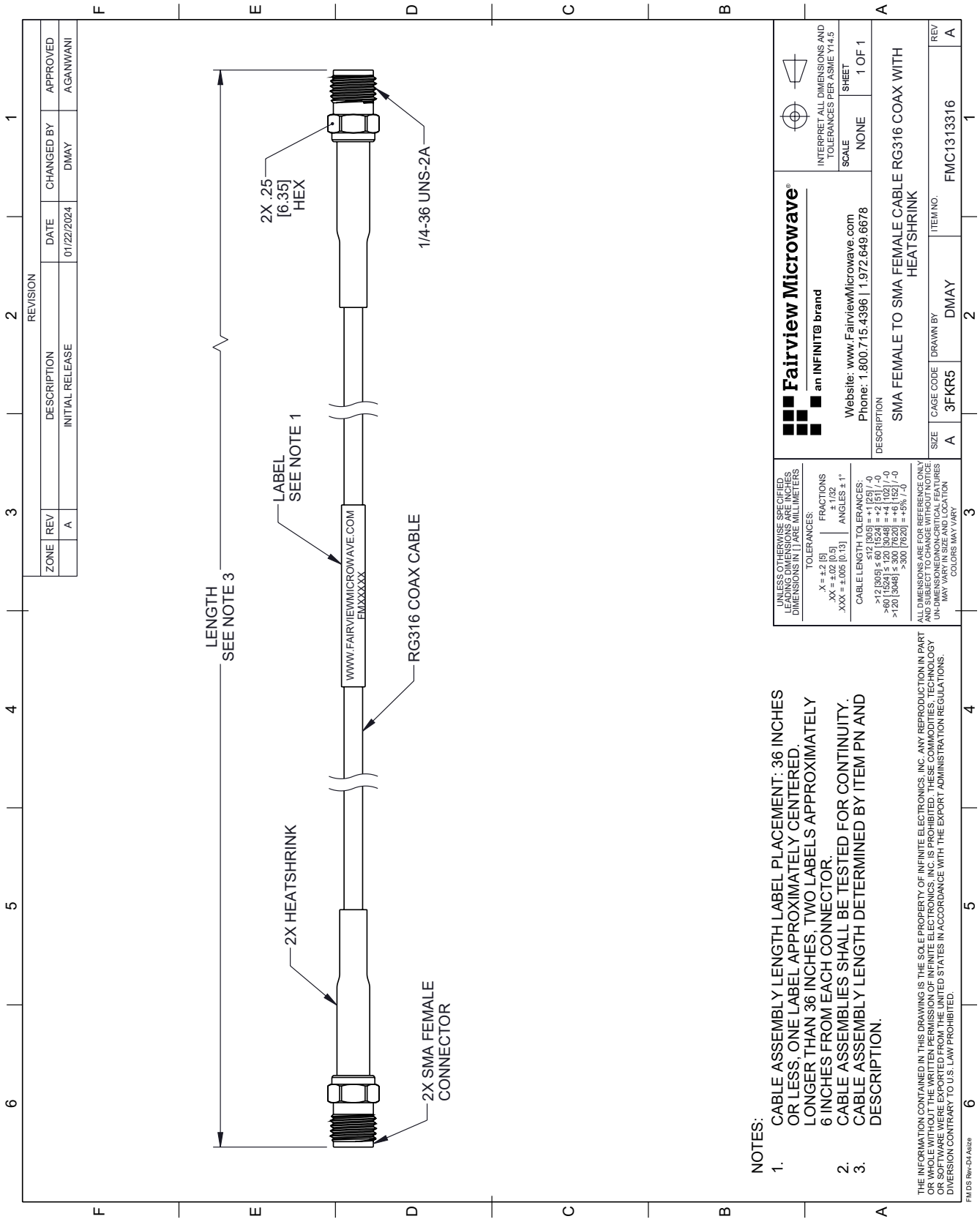
For additional information on this product, please click the following link: [SMA Female to SMA Female Cable RG-316 Coax FMC1313316](#)

URL: <https://www.fairviewmicrowave.com/sma-female-to-sma-female-cable-rg-316-coax-fmc1313316-p.aspx>

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FMC1313316 CAD Drawing

SMA Female to SMA Female Cable RG-316 Coax



REVISION		DATE	CHANGED BY	APPROVED
ZONE	REV	DESCRIPTION	INITIAL RELEASE	
	A			AGANWANI

 Fairview Microwave® an INFINIT® brand		INTERPRET ALL DIMENSIONS AND TOLERANCES PER ASME Y14.5 SCALE: NONE SHEET: 1 OF 1	
Website: www.FairviewMicrowave.com Phone: 1.800.715.4396 1.972.649.6678		DESCRIPTION: SMA FEMALE TO SMA FEMALE CABLE RG316 COAX WITH HEATSHRINK	
SIZE: A	CAGE CODE: 3FKR5	DRAWN BY: DMAY	ITEM NO.: FMC1313316
REV: A			REV: A

UNLESS OTHERWISE SPECIFIED LEADING DIMENSIONS ARE INCHES DIMENSIONS IN [] ARE MILLIMETERS

TOLERANCES:
 .XX = ±.02 [0.5] FRACTIONS ± 1/32
 .XXX = ±.005 [0.13] ANGLES ± 1°

CABLE LENGTH TOLERANCES:
 >12 [305] ≤ 472 [95] = +1 [25] / -0
 >472 [95] ≤ 1524 [38] = +4 [102] / -0
 >1524 [38] ≤ 300 [7620] = +6 [152] / -0
 >300 [7620] = +5% / -0

ALL DIMENSIONS ARE FOR REFERENCE ONLY AND SUBJECT TO CHANGE WITHOUT NOTICE UNLESS OTHERWISE SPECIFIED. DIMENSIONS MAY VARY IN SIZE AND LOCATION. COLORS MAY VARY.

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FAVDS Rev-D14.4sz

- 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.
 - CABLE ASSEMBLY LENGTH DETERMINED BY ITEM PN AND DESCRIPTION.