Fairview Microwave
an INFINITE brand

FMCA2031-100CM DATA SHEET

Fire Rated Low PIM N Male to RA N Male Cable SPF-250 Coax in 100 cm Using Times Microwave Parts

The type N male to RA type N male 100 cm cable using SPF-250 coax, part number FMCA2031-100CM, from Fairview Microwave is in-stock and ships same day. This Fairview type N to type N cable assembly has a male to male gender configuration with 50 ohm corrugated SPF-250 coax. Fairview Microwave's corrugated RF cable assemblies are ideal for applications where durability and high power are needed. Our low PIM design offers excellent passive intermodulation performance with PIM levels better than -160 dBc. The FMCA2031-100CM type N male to type N male cable assembly operates to 5.8 GHz. The right angle type N interface on the SPF-250 cable allows for easier connections in tight spaces. Times Microwave cable is used in each assembly and TMS components are used to form connections with the super flexible low PIM cable. These cable assemblies are expertly built to satisfy your specific need with high quality Times Microwave Systems manufactured parts.

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		5.8	GHz
VSWR			1.4:1	
Velocity of Propagation		83		%
Passive Intermodulation		-165	-160	dBc
Capacitance		24 [78.74]		pF/ft [pF/m]
Inductance		0.054 [0.18]		uH/ft [uH/m]

Performance by Frequency

Description	F1	F2	F3	F4	F5	Units
Frequency	0.45	0.7	1	2.5	5.8	GHz
Insertion Loss (Max.)	0.27	0.34	0.41	0.66	1.03	dB

Electrical Specification Notes:
PIM test results vary between cables
The Insertion Loss data above is based on the performance specifications of the coax used in this assembly. The Insertion Loss includes an estimated insertion loss of 0.1*SQRT(FGHz) dB per connector.

Mechanical Specifications

Cable Assembly
Length* 39.37 in [100 cm]

Cable
Cable Type SPF-250



Configuration:

- N Male
- TC-250-NM-LP
- N Male Right Angle
- TC-SPO250-NM-RA-LP
- SPF-250

Features:

- Max Frequency 5.8 GHz
- Low PIM: -160 dBc Max
- 83% Phase Velocity
- FRPE Jacket
- 100% Tested with PIM Test Results Marked on Cable
- Lightweight and Extremely Flexible
- Low Loss with Excellent VSWR
- IP67 (when mated)
- Using Times Microwave Components

Applications:

- General Purpose
- Laboratory Use
- Low PIM Applications
- Distributed Antenna Systems (DAS)
- Multi-Carrier Communication Systems
- PIM Testing

Cable Diagram:

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
sales@fairviewmicrowave.com

Copyright © 2020

Impedance	50 Ohms
Inner Conductor Type	Solid
Inner Conductor Material and Plating	Copper Clad Aluminum
Dielectric Type	Foam PE
Number of Shields	1
Shield Layer 1	Helically Corrugated Copper Tube
Outer Conductor Material and Plating	Copper
Jacket Material	FRPE, Black
Jacket Diameter	0.303 in [7.7 mm]
One Time Minimum Bend Radius	1.25 in [31.75 mm]
Bending Moment	0.5 lbs-ft [0.68 N-m]

Connectors

Description	Connector 1	Connector 2
Type	N Male	N Male
Impedance	50 Ohms	50 Ohms
Mating Cycles	500	
Contact Material & Plating	Brass, Silver	Brass, Silver
Contact Plating Spec.	200 µin	200 µin
Dielectric Type	PTFE	PTFE
Body Material & Plating	Brass, Tri-Metal	Brass, Tri-Metal
Body Plating Spec.	80 µin	80 µin
Coupling Nut Material & Plating	Brass, Tri-Metal	Brass, Tri-Metal
Coupling Nut Plating Spec.	80 µin	80 µin
Torque	9.74 in-lbs 1.1 Nm	15.05 in-lbs 1.7 Nm

Environmental Specifications

Temperature

Operating Range	-55 to +200 deg C
Storage Range	-55 to +200 deg C

Environmental Specification Notes:
CMR (Riser) Fire Rated

Compliance Certifications (see product page for current document)

Plotted and Other Data

Notes:

- Values at 25°C, sea level.

How to Order

Part Number Configuration: **FMCA2031 - xx uu**

- uu: cm = Centimeters; <blank> = Inches
- xx: Length

Example: FMCA2031-12 = 12 inches long cable
FMCA2031-100cm = 100 cm long cable

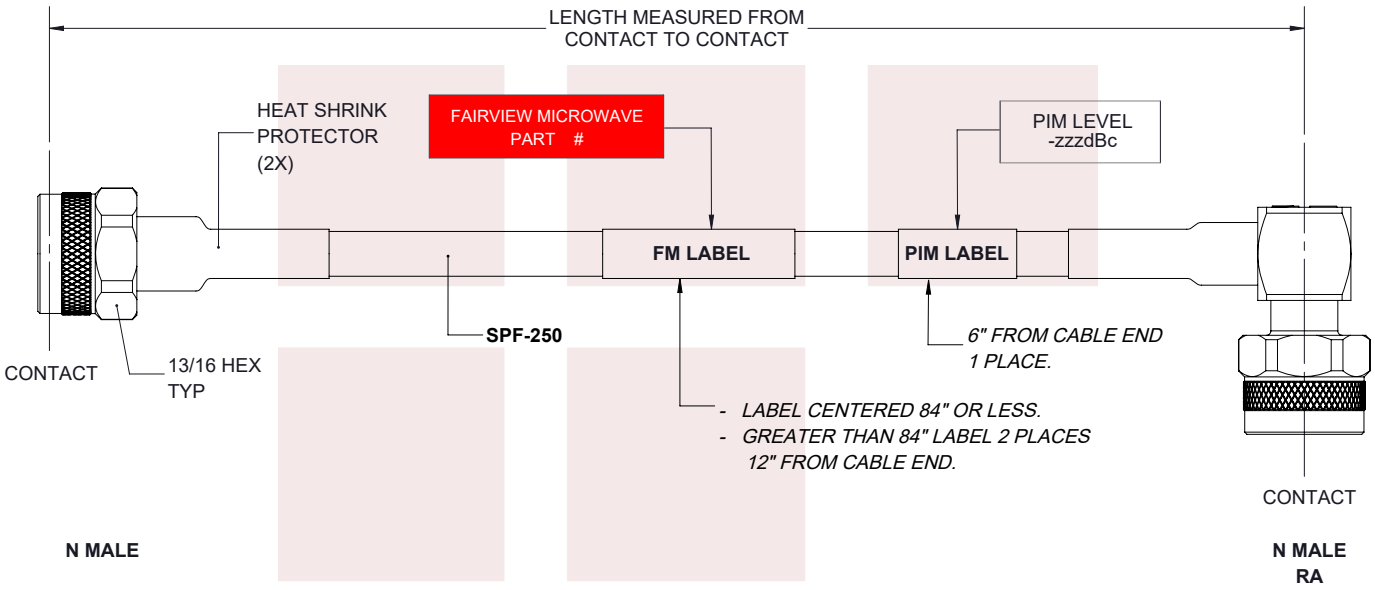
Copyright © 2020

Fire Rated Low PIM N Male to RA N Male Cable SPF-250 Coax in 100 cm Using Times Microwave Parts 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: Fire Rated Low PIM N Male to RA N Male Cable SPF-250 Coax in 100 cm Using Times Microwave Parts FMCA2031-100CM

URL: https://www.fairviewmicrowave.com/low-pim-n-male-ra-n-male-cable-spf250-coax-fmca2031-100cm-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.



STANDARD TOLERANCES	
.X	±0.2
.XX	±0.01
.XXX	±0.005

*STANDARD TOLERANCES APPLY ONLY TO DIMENSIONS IN INCHES

Fairview Microwave
an INFINITE brand

NOTES:
1. UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS ARE NOMINAL.
2. ALL SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE AT ANY TIME.
3. DIMENSIONS ARE IN INCHES [mm].

TITLE

Fire Rated Low PIM N Male to RA N Male Cable SPF-250 Coax in 100 cm Using Times Microwave Parts

DWG NO	CAGE CODE
FMCA2031	3FKR5

CAD FILE	SHEET	SCALE	SIZE	
06/05/19	1 OF 1	N/A	A	7361

301 Leora Ln., Suite 100, Lewisville, TX 75056 | Tel: 1-800-715-4396 / (972) 649-6678 / Fax: (972) 649-6689

Copyright © 2020