

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

FMCA2030

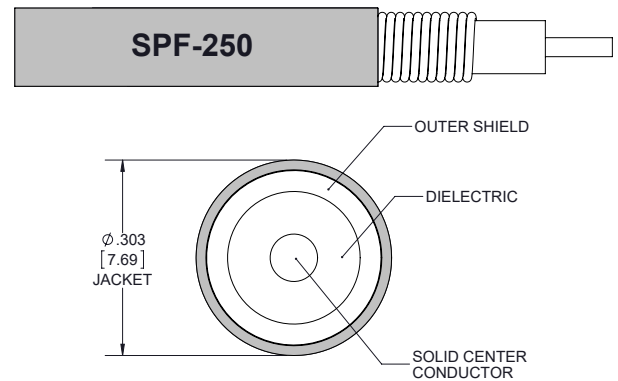


Configuration

- Connector 1: N Male TC-250-NM-LP
- Connector 2: N Male TC-250-NM-LP
- Cable Type: SPF-250
- Coax Flex Type: Corrugated

Features

- Max Frequency 5.8 GHz
- Low PIM: -160 dBc Max
- 83% Phase Velocity
- FRPE Jacket
- 500 Mating Cycles
- 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

Description

The type N male to type N male cable using SPF-250 coax, part number FMCA2030, 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 FMCA2030 type N male to type N male cable assembly operates to 5.8 GHz. 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	Minimum	Typical	Maximum	Units
Frequency Range	DC		5.8	GHz
VSWR			1.4:1	
Velocity of Propagation		83		%
Passive Intermodulation		-165	-160	dBc
IM3 (2x43dBm Tones) at 850 MHz or 1900 MHz				

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Electrical Specifications

Description	Minimum	Typical	Maximum	Units
Capacitance		24 [78.74]		pF/ft [pF/m]
Inductance		0.054 [0.18]		uH/ft [uH/m]

Specifications by Frequency

Description	F1	F2	F3	F4	F5	Units
Frequency	0.45	0.7	1	2.5	5.8	GHz
Insertion Loss (Max.)	0.041	0.051	0.062	0.103	0.167	dB/ft
	0.13	0.17	0.2	0.34	0.55	dB/m

Electrical Specification Notes:

PIM test results vary between cables

Insertion Loss does not include the loss of the connectors. Insertion Loss is estimated as $0.1 \cdot \sqrt{\text{FGHz}}$ dB per connector.

Mechanical Specifications

Cable Assembly

Width/Diameter .63 in [16 mm]

Cable

Cable Type SPF-250
 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 1 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]

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Connectors

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

Environmental Specifications

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

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Typical Performance Data



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How to Order

Part Number Configuration:

FMCA2030 - xx uu

Unit of Measure:
cm = Centimeters
<blank> = Inches

Length

Base Number

Example: FMCA2030-12 = 12 inches long cable
FMCA2030-100cm = 100 cm long cable

Fire Rated Low PIM N Male to N Male Cable SPF-250 Coax Using Times Microwave Parts 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: [Fire Rated Low PIM N Male to N Male Cable SPF-250 Coax Using Times Microwave Parts FMCA2030](#)

URL: <https://www.fairviewmicrowave.com/low-pim-n-male-n-male-cable-spf250-coax-fmca2030-p.aspx>

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