

Plenum Low PIM N Male to SMA Male Cable SPP-250-LLPL Coax Using Times Microwave Parts

FMCA1883



Configuration

- Connector 1: N Male TC-250-NM-LP
- Connector 2: SMA Male TC-250-SM-LP
- Cable Type: SPP-250-LLPL
- Coax Flex Type: Corrugated

Features

- Max Frequency 5.8 GHz
- Low PIM: -160 dBc Max
- Shielding Effectivity > 100 dB
- 76% Phase Velocity
- FEP Jacket
- 100% Tested with PIM Test Results Marked on Cable
- UL910 Plenum Rated 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)
- Plenum Installations
- Multi-Carrier Communication Systems
- PIM Testing

Description

The type N male to SMA male cable using SPP-250-LLPL coax, part number FMCA1883, from Fairview Microwave is in-stock and ships same day. This Fairview type N to SMA cable assembly has a male to male gender configuration with 50 ohm corrugated SPP-250-LLPL 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 FMCA1883 type N male to SMA 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		76		%
RF Shielding	100			dB

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Electrical Specifications

Description	Minimum	Typical	Maximum	Units
Passive Intermodulation IM3 (2x43dBm Tones) at 850 MHz or 1900 MHz		-165	-160	dBc
Capacitance		27 [88.58]		pF/ft [pF/m]
Inductance		0.067 [0.22]		uH/ft [uH/m]
DC Resistance Inner Conductor		3 [9.84]		Ohms/1000ft [Ohms/Km]

Specifications by Frequency

Description	F1	F2	F3	F4	F5	Units
Frequency	0.45	0.7	1	2.5	5.8	GHz
Insertion Loss (Max.)	0.038	0.048	0.057	0.094	0.148	dB/ft
	0.12	0.16	0.19	0.31	0.49	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 $0.1 \cdot \sqrt{F(\text{GHz})}$ dB for the N male connector and 0.15 for the SMA male connector.

Mechanical Specifications

Cable Assembly

Length 0 in [0 mm]

Cable

Cable Type SPP-250-LLPL
 Impedance 50 Ohms
 Inner Conductor Type Solid
 Inner Conductor Material and Plating Copper
 Dielectric Type PTFE
 Number of Shields 1
 Shield Layer 1 Helically Corrugated Copper Tube
 Outer Conductor 1 Material and Plating Copper
 Outer Conductor Diameter 0.25 in [6.35 mm]
 Jacket Material FEP, Blue
 Jacket Diameter 0.28 in [7.11 mm]
 One Time Minimum Bend Radius 1.25 in [31.75 mm]
 Bending Moment 0.8 lbs-ft [1.08 N-m]

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Connectors

Description	Connector 1	Connector 2
Type	N Male	SMA Male
Impedance	50 Ohms	50 Ohms
Configuration	Straight	Straight
Contact Material and Plating	Phosphor Bronze, Silver	Brass, Silver
Contact Plating Specification	196 µin	196 µin
Dielectric Type	PTFE	PTFE
Body Material and Plating	Brass, Tri-Metal	Brass, Tri-Metal
Body Plating Specification	118 µin	118 µin
Coupling Nut Material and Plating	Brass, Tri-Metal	Brass, Tri-Metal
Coupling Nut Plating Specification	118 µin	118 µin
Torque	9.74 in-lbs 1.1 Nm	10 in-lbs 1.13 Nm

Environmental Specifications

Operating Range Temperature	-55 to +200 deg C
Storage Range Temperature	-55 to +200 deg C
Plenum Rating	UL910

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:

FMCA1883 **- xx** **uu**

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

_____ Length

_____ Base Number

Example: FMCA1883-12 = 12 inches long cable
FMCA1883-100cm = 100 cm long cable

Plenum Low PIM N Male to SMA Male Cable SPP-250-LLPL 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: [Plenum Low PIM N Male to SMA Male Cable SPP-250-LLPL Coax Using Times Microwave Parts FMCA1883](#)

URL: <https://www.fairviewmicrowave.com/low-pim-n-male-sma-male-cable-spp250llpl-coax-fmca1883-p.aspx>

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FMCA1883 CAD Drawing

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