

Plenum Low PIM 4.3-10 Male to N Female Cable SPP-250-LLPL Coax in 50 cm Using Times Microwave Parts

FMCA1890-50CM

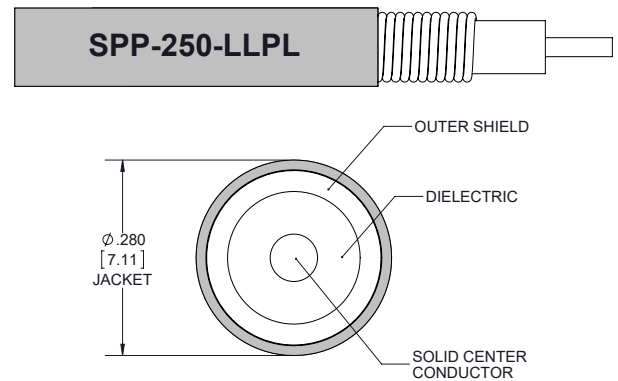


Configuration

- Connector 1: 4.3-10 Male TC-250-4310M-LP
- Connector 2: N Female TC-SPP250-NF-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 4.3-10 male to type N female 50 cm cable using SPP-250-LLPL coax, part number FMCA1890-50CM, from Fairview Microwave is in-stock and ships same day. This Fairview 4.3-10 to type N cable assembly has a male to female 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 FMCA1890-50CM 4.3-10 male to type N female 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

Plenum Low PIM 4.3-10 Male to N Female Cable SPP-250-LLPL Coax in 50 cm Using Times Microwave Parts

FMCA1890-50CM



Electrical Specifications

Description	Minimum	Typical	Maximum	Units
Passive Intermodulation		-165	-160	dBc
IM3 (2x43dBm Tones) at 850 MHz or 1900 MHz				
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.)	0.24	0.27	0.3	0.42	0.6	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 $0.1 \cdot \sqrt{\text{FGHz}}$ dB for the male connector and 0.1 dB for the female connector.

Mechanical Specifications

Cable Assembly

Length	19.685 in [500 mm]
Width/Diameter	.94 in [23.88 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]

Plenum Low PIM 4.3-10 Male to N Female Cable SPP-250-LLPL Coax in 50 cm Using Times Microwave Parts

FMCA1890-50CM



Connectors

Description	Connector 1	Connector 2
Type	4.3-10 Male	N Female
Impedance	50 Ohms	50 Ohms
Configuration	Straight	Straight
Contact Material and Plating	Phosphor Bronze, Silver	Phosphor Bronze, Silver
Contact Plating Specification	200μ in	196μ in
Dielectric Type	PTFE	PTFE
Outer Conductor Material and Plating		Brass, Tri-Metal
Outer Conductor Plating Specification		118μ in
Body Material and Plating	Brass, Tri-Metal	Brass, Tri-Metal
Body Plating Specification	80μ in	118μ in
Coupling Nut Material and Plating	Brass, Tri-Metal	
Coupling Nut Plating Specification	80μ in	
Torque	44.25 in-lbs 5 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.

Plenum Low PIM 4.3-10 Male to N Female Cable SPP-250-LLPL Coax in 50 cm Using Times Microwave Parts

FMCA1890-50CM



Typical Performance Data



Plenum Low PIM 4.3-10 Male to N Female Cable SPP-250-LLPL Coax in 50 cm Using Times Microwave Parts

FMCA1890-50CM



How to Order

Part Number Configuration:

FMCA1890 - xx uu

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

Length

Base Number

Example: FMCA1890-12 = 12 inches long cable
FMCA1890-100cm = 100 cm long cable

Plenum Low PIM 4.3-10 Male to N Female Cable SPP-250-LLPL Coax in 50 cm 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 4.3-10 Male to N Female Cable SPP-250-LLPL Coax in 50 cm Using Times Microwave Parts FMCA1890-50CM](https://www.fairviewmicrowave.com/low-pim-4.3-10-male-n-female-cable-spp250llpl-coax-fmca1890-50cm-p.aspx)

URL: <https://www.fairviewmicrowave.com/low-pim-4.3-10-male-n-female-cable-spp250llpl-coax-fmca1890-50cm-p.aspx>

The information contained within 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 liability arising out of the use of any part or document.

FMCA1890-50CM CAD Drawing

Plenum Low PIM 4.3-10 Male to N Female Cable SPP-250-LLPL Coax in 50 cm Using Times Microwave Parts

