

Low PIM N Male to SMA Male Plenum Cable SPP-250-LLPL Coax in 50 cm with LF Solder

FMCA1817-50CM



Configuration

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

Features

- Max Frequency 5.8 GHz
- Low PIM: -155 dBc Max
- Shielding Effectivity > 100 dB
- 76% Phase Velocity
- FEP Jacket
- IP67 (Mated)
- Low Loss with Excellent VSWR
- PIM Test Results Marked on Each Cable
- UL910 Plenum Rated Cable
- Extremely Flexible and Lightweight



Applications

- General Purpose
- Laboratory Use
- Low PIM Applications
- DAS
- Mobile Networks
- In-Building Wireless
- Small Cells
- PIM Testing

Description

The type N male to SMA male 50 cm cable using SPP-250-LLPL coax, part number FMCA1817-50CM, 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 -155 dBc. The FMCA1817-50CM type N male to SMA male cable assembly operates to 5.8 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		5.8	GHz
VSWR			1.4:1	
Velocity of Propagation		76		%
RF Shielding	100			dB
Passive Intermodulation			-155	dBc
IM3 (2x43dBm Tones) at 850 MHz or 1900 MHz				

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Electrical Specifications

Description	Minimum	Typical	Maximum	Units
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.)	0.12	0.15	0.18	0.29	0.44	dB

Electrical Specification Notes:

The insertion loss data above is based on the performance specifications of the coax cable used in this assembly. The insertion loss includes an estimated insertion loss of $0.04 \cdot \sqrt{\text{FGHz}}$ dB maximum per connector.

Mechanical Specifications

Cable Assembly

Length	19.685 in [500 mm]
Weight	0.233 lbs [105.69 g]

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
Outer Conductor 1 Material and Plating	Copper
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]

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, Gold
Dielectric Type	PTFE	PTFE
Body Material and Plating	Brass, Tri-Metal	Brass, Tri-Metal
Coupling Nut Material and Plating	Brass, Tri-Metal	Brass, Tri-Metal

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Environmental Specifications

Operating Range Temperature -55 to +165 deg C

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

Plotted and Other Data

Notes:

Typical Performance Data



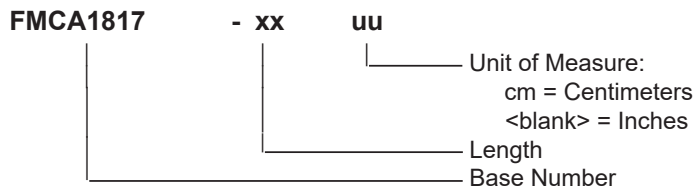
Low PIM N Male to SMA Male Plenum Cable SPP-250-LLPL Coax in 50 cm with LF Solder



FMCA1817-50CM

How to Order

Part Number Configuration:



Example: FMCA1817-12 = 12 inches long cable
FMCA1817-100cm = 100 cm long cable

Low PIM N Male to SMA Male Plenum Cable SPP-250-LLPL Coax in 50 cm with LF Solder 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.

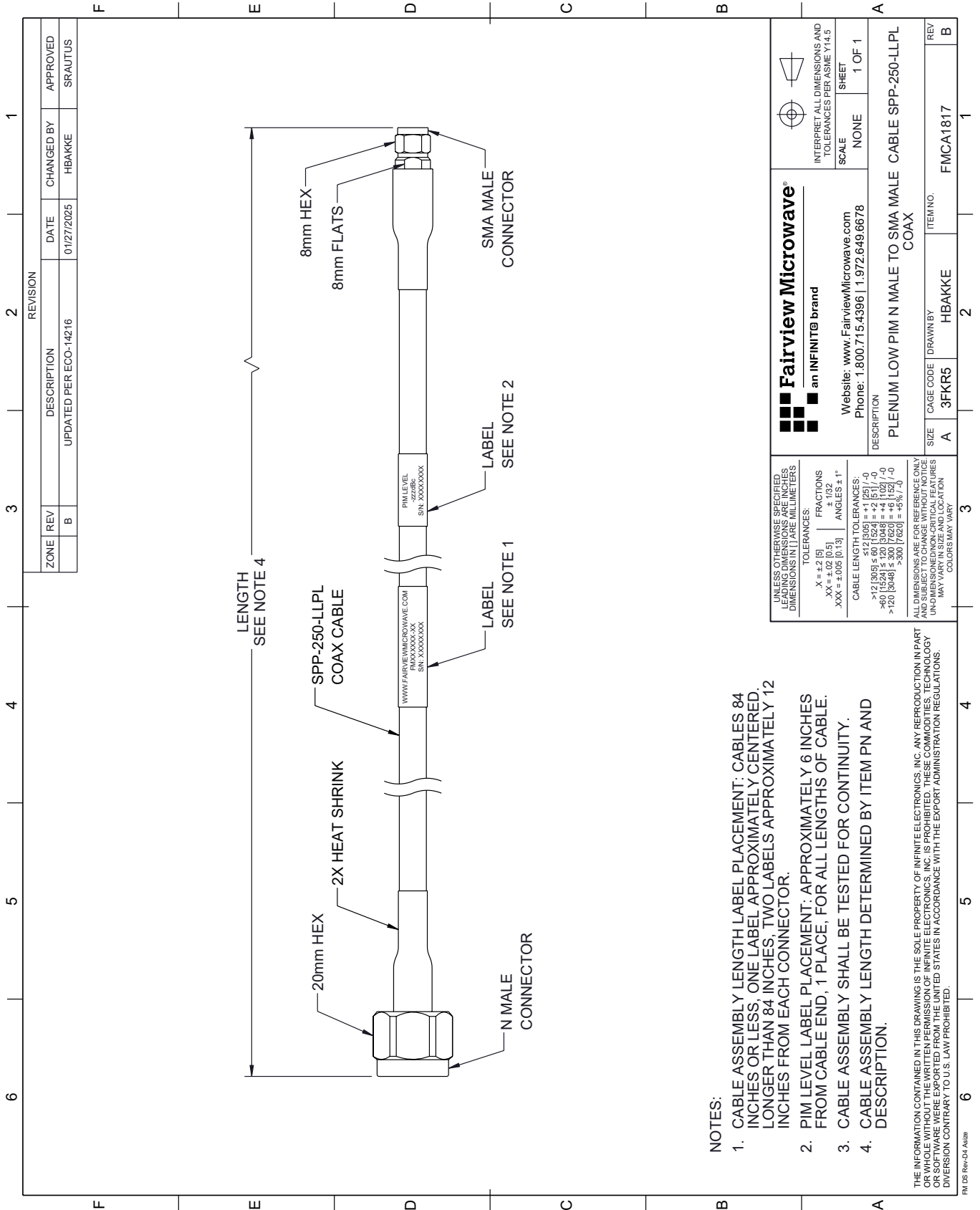
For additional information on this product, please click the following link: [Low PIM N Male to SMA Male Plenum Cable SPP-250-LLPL Coax in 50 cm with LF Solder FMCA1817-50CM](https://www.fairviewmicrowave.com/n-male-sma-male-cable-spp250llpl-coax-fmca1817-50cm-p.aspx)

URL: <https://www.fairviewmicrowave.com/n-male-sma-male-cable-spp250llpl-coax-fmca1817-50cm-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.

FMCA1817-50CM CAD Drawing

Low PIM N Male to SMA Male Plenum Cable SPP-250-LLPL Coax in 50 cm with LF Solder



REVISION		DESCRIPTION	DATE	CHANGED BY	APPROVED
ZONE	REV	UPDATED PER ECO-14216	01/27/2025	HBAKKE	SRAUTUS
	B				

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UNLESS OTHERWISE SPECIFIED, LEADING DIMENSIONS ARE IN INCHES AND UNLEADING DIMENSIONS ARE IN MILLIMETERS.

TOLERANCES:
 .X = ±.2 (5) FRACTIONS ± 1/32
 .XX = ±.02 (0.5) ANGLES ± 1°
 .XXX = ±.005 (0.13)

CABLE LENGTH TOLERANCES:
 >12 (305) ≤ 60 (1524) = ±.1 (25) / -0
 >60 (1524) ≤ 120 (3048) = ±.4 (102) / -0
 >120 (3048) ≤ 300 (7620) = ±.6 (15) / -0

ALL DIMENSIONS ARE FOR REFERENCE ONLY. UNDIMENSIONED/UNCLEAR CRITICAL FEATURES MAY VARY IN SIZE AND LOCATION. COLORS MAY VARY.

INTERPRET ALL DIMENSIONS AND TOLERANCES PER ASME Y14.5

SCALE: NONE SHEET: 1 OF 1

DESCRIPTION: PLENUM LOW PIM N MALE TO SMA MALE CABLE SPP-250-LLPL COAX

SIZE	CAGE CODE	DRAWN BY	ITEM NO.
A	3FKR5	HBAKKE	FMCA1817

- NOTES:
- CABLE ASSEMBLY LENGTH LABEL PLACEMENT: CABLES 84 INCHES OR LESS, ONE LABEL APPROXIMATELY CENTERED, LONGER THAN 84 INCHES, TWO LABELS APPROXIMATELY 12 INCHES FROM EACH CONNECTOR.
 - PIM LEVEL LABEL PLACEMENT: APPROXIMATELY 6 INCHES FROM CABLE END, 1 PLACE, FOR ALL LENGTHS OF CABLE.
 - CABLE ASSEMBLY SHALL BE TESTED FOR CONTINUITY.
 - CABLE ASSEMBLY LENGTH DETERMINED BY ITEM PN AND DESCRIPTION.

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