

## Low PIM N Male to RA SMA Male Plenum Cable SPP-250-LLPL Coax with LF Solder

### FMCA1822



#### Configuration

- Connector 1: N Male
- Connector 2: SMA Male Right Angle
- 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 RA SMA male cable using SPP-250-LLPL coax, part number FMCA1822, 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 FMCA1822 type N male to SMA male cable assembly operates to 5.8 GHz. The right angle SMA interface on the SPP-250-LLPL cable allows for easier connections in tight spaces.

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				

Low PIM N Male to RA SMA Male Plenum Cable  
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**FMCA1822**



**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.)	0.038	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:

Insertion loss does not include the loss of the connectors. Insertion loss is estimated as 0.04\*SQRT(FGHz) dB per 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  
 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 Right Angle
Impedance	50 Ohms	50 Ohms
Configuration	Straight	Right Angle
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**

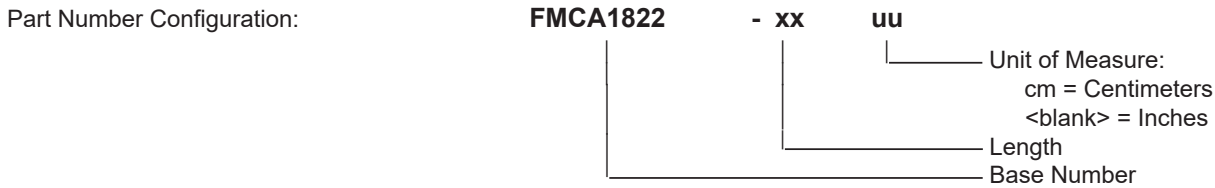


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**FMCA1822**

**How to Order**



Example: FMCA1822-12 = 12 inches long cable  
FMCA1822-100cm = 100 cm long cable

Low PIM N Male to RA SMA Male Plenum Cable SPP-250-LLPL Coax 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.

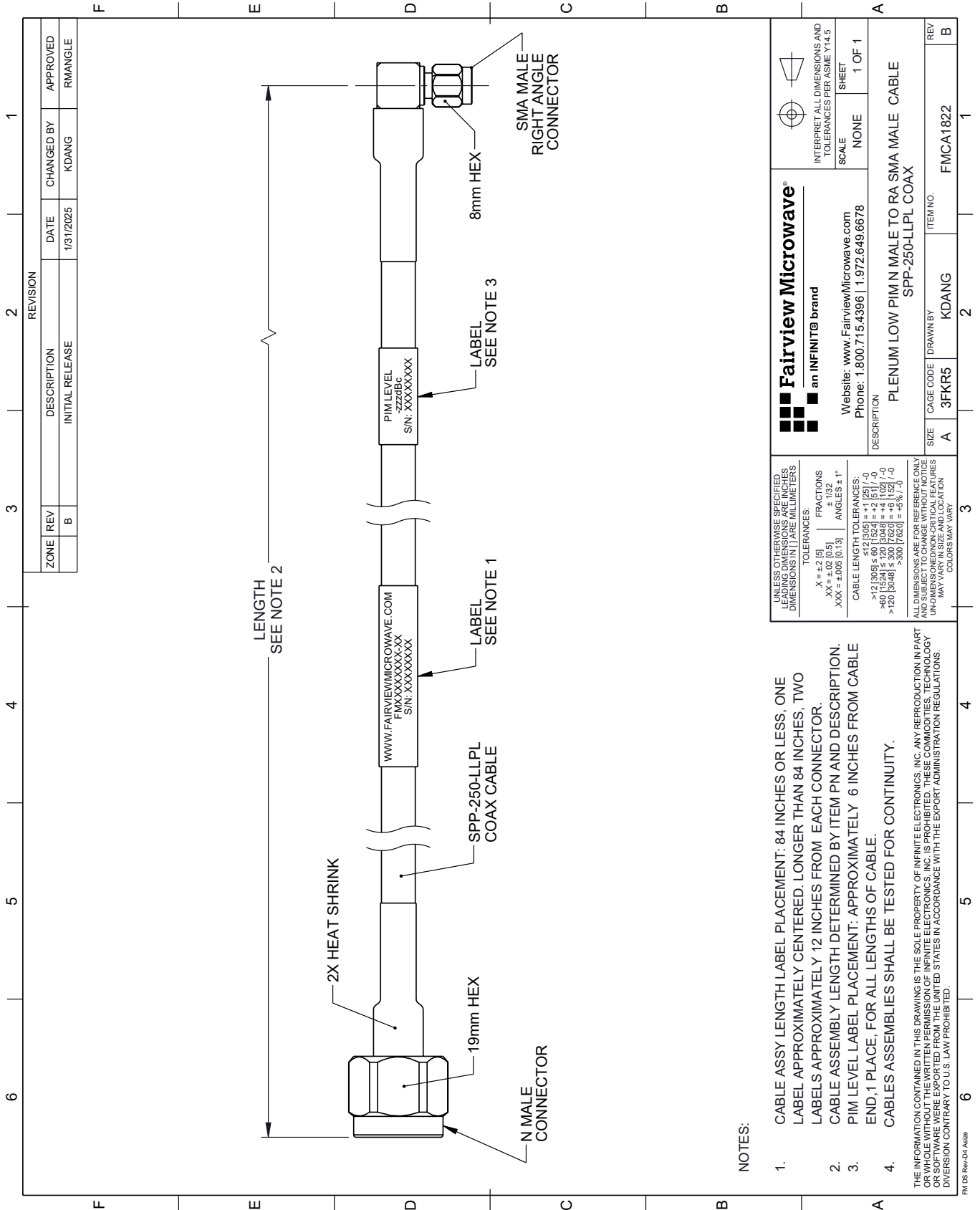
For additional information on this product, please click the following link: [Low PIM N Male to RA SMA Male Plenum Cable SPP-250-LLPL Coax with LF Solder FMCA1822](#)

URL: <https://www.fairviewmicrowave.com/n-male-ra-sma-male-cable-spp250llpl-coax-fmca1822-p.aspx>

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# FMCA1822 CAD Drawing

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



REVISION		DATE	CHANGED BY	APPROVED
ZONE	REV			
	B	1/31/2025	KDANG	RMANGLE
DESCRIPTION				
INITIAL RELEASE				

**Fairview Microwave**  
an INFINIT® brand

Website: [www.FairviewMicrowave.com](http://www.FairviewMicrowave.com)  
Phone: 1.800.715.4396 | 1.972.649.6678

INTERPRET ALL DIMENSIONS AND TOLERANCES PER ASME Y14.5

SCALE: NONE  
SHEET: 1 OF 1

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

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

CABLE LENGTH TOLERANCES:  
 <12 [305] ≤ 60 [1524] = +2 [51] / -0  
 >60 [1524] ≤ 120 [3048] = +4 [102] / -0  
 >120 [3048] ≤ 300 [7620] = +5 [127] / -0  
 >300 [7620] = +5% / -0

ALL DIMENSIONS ARE FOR REFERENCE ONLY. UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN INCHES AND TRAILING DIMENSIONS ARE IN MILLIMETERS. COLORS MAY VARY.

**NOTES:**

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

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PM DS Rev-D4 Alt26

DESCRIPTION	SIZE	CAGE CODE	DRAWN BY	ITEM NO.	REV
PLENUM LOW PIM N MALE TO RA SMA MALE CABLE SPP-250-LLPL COAX	A	3FKR5	KDANG	FMCA1822	B