

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

**FMCA1817**

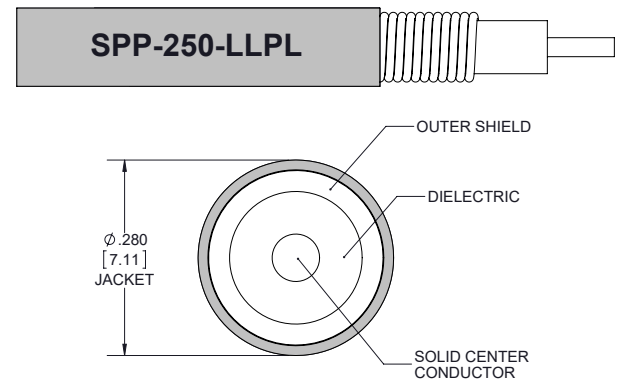


**Configuration**

- 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 cable using SPP-250-LLPL coax, part number FMCA1817, 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 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.) | 0.038 | 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]  
Weight 0.181 lbs [82.1 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**

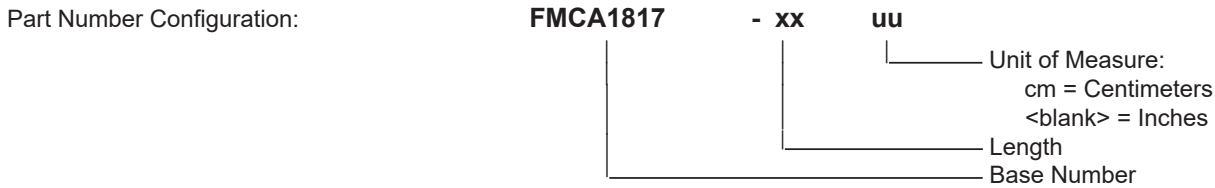


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**How to Order**



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 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.

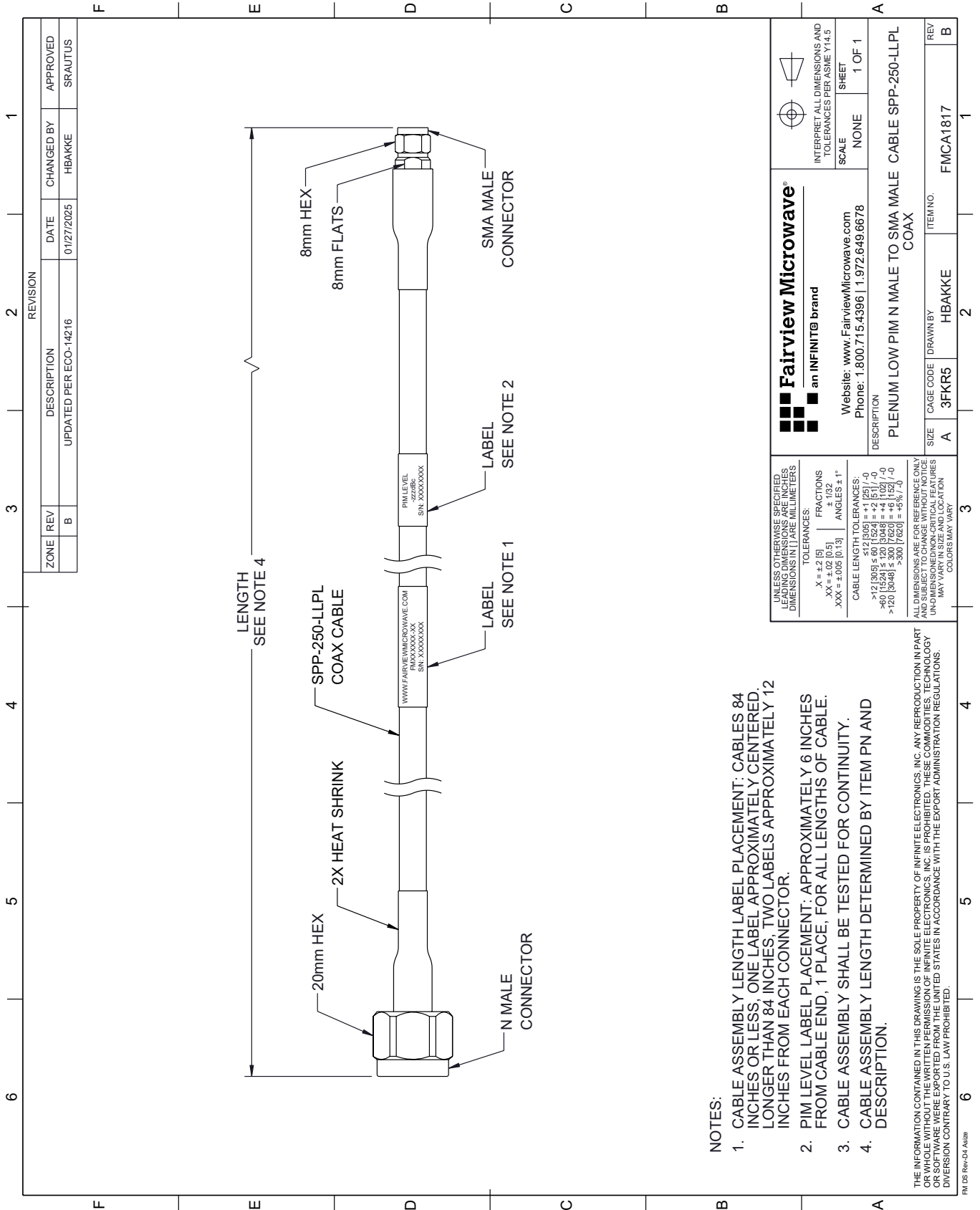
For additional information on this product, please click the following link: [Low PIM N Male to SMA Male Plenum Cable SPP-250-LLPL Coax with LF Solder FMCA1817](#)

URL: <https://www.fairviewmicrowave.com/n-male-sma-male-cable-spp250llpl-coax-fmca1817-p.aspx>

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# FMCA1817 CAD Drawing

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



**NOTES:**

1. 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.
2. PIM LEVEL LABEL PLACEMENT: APPROXIMATELY 6 INCHES FROM CABLE END, 1 PLACE, FOR ALL LENGTHS OF CABLE.
3. CABLE ASSEMBLY SHALL BE TESTED FOR CONTINUITY.
4. CABLE ASSEMBLY LENGTH DETERMINED BY ITEM PN AND DESCRIPTION.

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UNLESS OTHERWISE SPECIFIED, LEADING DIMENSIONS ARE IN INCHES. DIMENSIONS IN [ ] ARE 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] = ±.1 [2.5] / -0  
 >60 [1524] ≤ 120 [3048] = ±.4 [102] / -0  
 >120 [3048] ≤ 300 [7620] = ±.8 [20] / -0

ALL DIMENSIONS ARE FOR REFERENCE ONLY. UNDIMENSIONED/NON-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 |