

Low PIM SMA Male to SMA Female Plenum Cable
SPP-250-LLPL Coax in 150 cm with LF Solder

FMCA1813-150CM

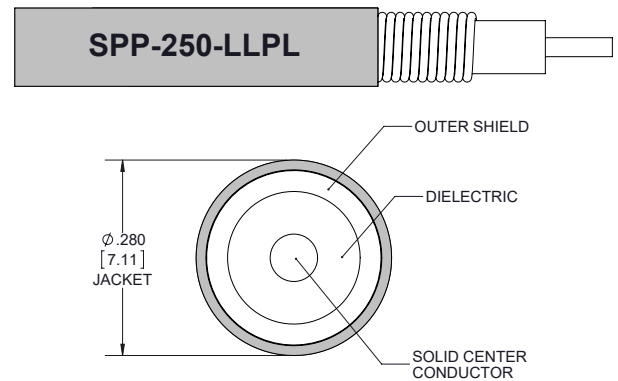


Configuration

- Connector 1: SMA Male
- Connector 2: SMA Female
- 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 SMA male to SMA female 150 cm cable using SPP-250-LLPL coax, part number FMCA1813-150CM, from Fairview Microwave is in-stock and ships same day. This Fairview SMA to SMA 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 -155 dBc. The FMCA1813-150CM SMA male to SMA female 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.) | 0.25 | 0.31 | 0.37 | 0.59 | 0.93 | 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 59.0551 in [150 cm]

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 | SMA Male | SMA Female |
| Impedance | 50 Ohms | 50 Ohms |
| Configuration | Straight | Straight |
| Contact Material and Plating | Brass, Gold | Beryllium Copper, Silver |
| Dielectric Type | PTFE | PTFE |
| Outer Conductor Material and Plating | | Brass, Tri-Metal |
| Body Material and Plating | Brass, Tri-Metal | Brass, Tri-Metal |
| Coupling Nut Material and Plating | 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



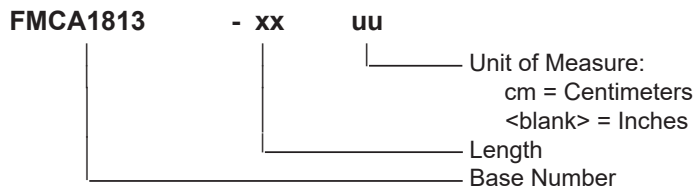
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FMCA1813-150CM

How to Order

Part Number Configuration:



Example: FMCA1813-12 = 12 inches long cable
FMCA1813-100cm = 100 cm long cable

Low PIM SMA Male to SMA Female Plenum Cable SPP-250-LLPL Coax in 150 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.

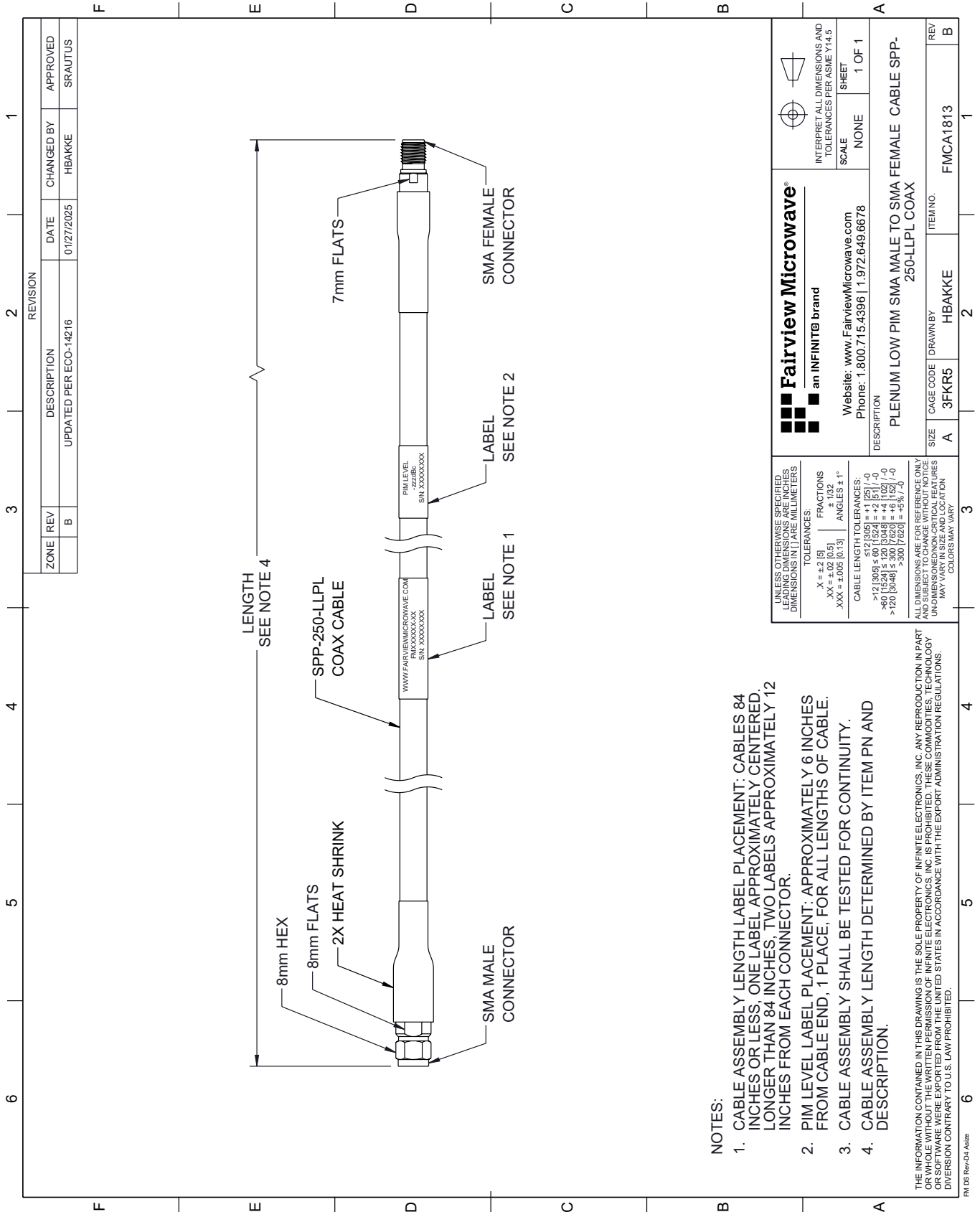
For additional information on this product, please click the following link: [Low PIM SMA Male to SMA Female Plenum Cable SPP-250-LLPL Coax in 150 cm with LF Solder FMCA1813-150CM](#)

URL: <https://www.fairviewmicrowave.com/sma-male-sma-female-cable-spp250llpl-coax-fmca1813-150cm-p.aspx>

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FMCA1813-150CM CAD Drawing

Low PIM SMA Male to SMA Female Plenum Cable SPP-250-LLPL Coax in 150 cm 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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FM DS Rev-D4 A426

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|--|----------------------|--|-------------|------------|------------|----------|--|---|-----------------------|------------|--------|---------|---------------------------------|--|------|-----|-------------|------|------------|----------|--|---|-----------------------|------------|--------|---------|
| <p>UNLESS OTHERWISE SPECIFIED, LEADING DIMENSIONS ARE IN INCHES AND TRAILING DIMENSIONS ARE IN MILLIMETERS.</p> <p>TOLERANCES: X = ±.2 (5) FRACTIONS ±.132 XX = ±.02 (0.5) ANGLES ± 1° XXX = ±.005 (0.13)</p> <p>CABLE LENGTH TOLERANCES: >12 (305) ≤ 60 (1524) = ±.1 (25) / -0 >60 (1524) ≤ 120 (3048) = ±.4 (102) / -0 >120 (3048) ≤ 300 (7620) = ±.6 (15) / -0</p> <p>ALL DIMENSIONS ARE FOR REFERENCE ONLY. DIMENSIONS OF CRITICAL FEATURES MAY VARY IN SIZE AND LOCATION. COLORS MAY VARY.</p> | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <p>DESCRIPTION</p> <p>PLENUM LOW PIM SMA MALE TO SMA FEMALE CABLE SPP-250-LLPL COAX</p> | <p>SIZE</p> <p>A</p> | <p>ITEM NO.</p> <p>FMCA1813</p> | | | | | | | | | | | | | | | | | | | | | | | | |
| <p>REVISION</p> <table border="1"> <tr> <th>ZONE</th> <th>REV</th> <th>DESCRIPTION</th> <th>DATE</th> <th>CHANGED BY</th> <th>APPROVED</th> </tr> <tr> <td></td> <td>B</td> <td>UPDATED PER ECO-14216</td> <td>01/27/2025</td> <td>HBAKKE</td> <td>SRAUTUS</td> </tr> </table> | ZONE | REV | DESCRIPTION | DATE | CHANGED BY | APPROVED | | B | UPDATED PER ECO-14216 | 01/27/2025 | HBAKKE | SRAUTUS | <p>DESCRIPTION</p> <p>3FKR5</p> | <p>REVISION</p> <table border="1"> <tr> <th>ZONE</th> <th>REV</th> <th>DESCRIPTION</th> <th>DATE</th> <th>CHANGED BY</th> <th>APPROVED</th> </tr> <tr> <td></td> <td>B</td> <td>UPDATED PER ECO-14216</td> <td>01/27/2025</td> <td>HBAKKE</td> <td>SRAUTUS</td> </tr> </table> | ZONE | REV | DESCRIPTION | DATE | CHANGED BY | APPROVED | | B | UPDATED PER ECO-14216 | 01/27/2025 | HBAKKE | SRAUTUS |
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