

## Plenum Low PIM Snap-On 4.3-10 Male to RA SMA Male Cable SPP-250-LLPL Coax in 12 Inch Using Times Microwave Parts

### FMCA1920-12

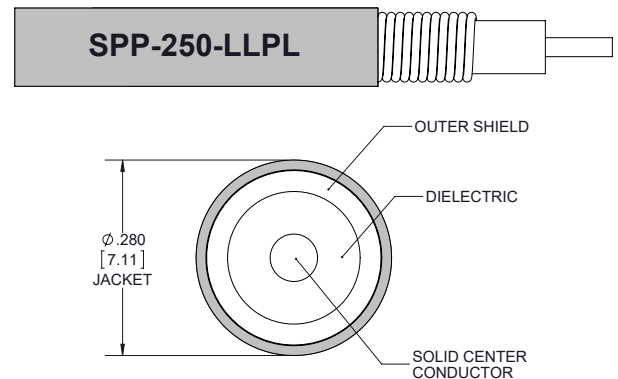


#### Configuration

- Connector 1: Snap-On 4.3-10 Male TC-SPP250-4310MS-LP
- Connector 2: SMA Male Right Angle TC-SPP250-SM-RA-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 snap-on to RA SMA male 12 inch cable using SPP-250-LLPL coax, part number FMCA1920-12, from Fairview Microwave is in-stock and ships same day. This Fairview 4.3-10 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 -160 dBc. The FMCA1920-12 4.3-10 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. 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      |         | %     |

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**Electrical Specifications**

| Description                                                           | Minimum | Typical      | Maximum | Units                 |
|-----------------------------------------------------------------------|---------|--------------|---------|-----------------------|
| RF Shielding                                                          | 100     |              |         | dB                    |
| Passive Intermodulation<br>IM3 (2x43dBm Tones) at 850 MHz or 1900 MHz |         | -165         | -160    | dBc                   |
| 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.) | 0.22 | 0.27 | 0.31 | 0.5 | 0.77 | 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\*SQRT(FGHz) dB for the straight connector and 0.15\*SQRT(FGHz) dB for the right angle connector.

**Mechanical Specifications**

**Cable Assembly**

Length 12 in [304.8 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]

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Connectors

| Description                        | Connector 1       | Connector 2             |
|------------------------------------|-------------------|-------------------------|
| Type                               | 4.3-10 Male       | SMA Male Right Angle    |
| Impedance                          | 50 Ohms           | 50 Ohms                 |
| Configuration                      | Straight          | Right Angle             |
| Connection Method                  | Snap-On           |                         |
| Contact Material and Plating       | Brass, Silver     | Phosphor Bronze, Silver |
| Contact Plating Specification      | 200μ in           | 196μ in                 |
| Dielectric Type                    | PTFE              | PTFE                    |
| 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  | Brass, Tri-Metal        |
| Coupling Nut Plating Specification | 80μ in            | 118μ 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.

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#### Typical Performance Data



## Plenum Low PIM Snap-On 4.3-10 Male to RA SMA Male Cable SPP-250-LLPL Coax in 12 Inch Using Times Microwave Parts

### FMCA1920-12



#### How to Order

Part Number Configuration:

**FMCA1920**

**- xx**

**uu**

Unit of Measure:  
cm = Centimeters  
<blank> = Inches  
Length  
Base Number

Example: FMCA1920-12 = 12 inches long cable  
FMCA1920-100cm = 100 cm long cable

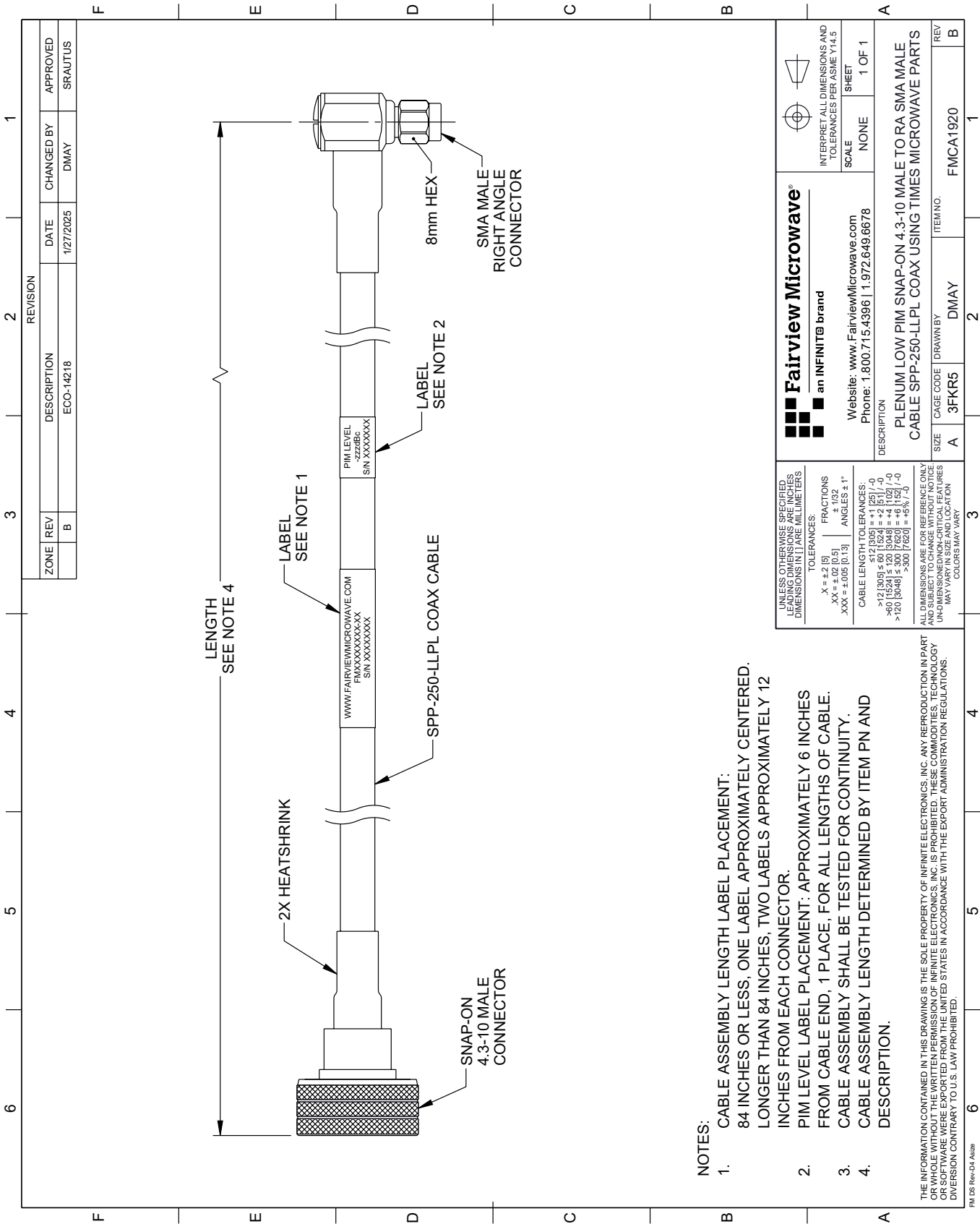
Plenum Low PIM Snap-On 4.3-10 Male to RA SMA Male Cable SPP-250-LLPL Coax in 12 Inch Using Times Microwave Parts from Fairview Microwave is in-stock and available to ship same-day. All of our RF/microwave products are available off-the-shelf from our ISO 9001:2008 certified facilities in Lewisville, Texas. Fairview Microwave is RF on-demand.

For additional information on this product, please click the following link: [Plenum Low PIM Snap-On 4.3-10 Male to RA SMA Male Cable SPP-250-LLPL Coax in 12 Inch Using Times Microwave Parts FMCA1920-12](#)

URL: <https://www.fairviewmicrowave.com/low-pim-4.3-10-male-ra-sma-male-cable-spp250llpl-coax-fmca1920-12-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.

FMCA1920-12 CAD Drawing
Plenum Low PIM Snap-On 4.3-10 Male to RA SMA Male Cable SPP-250-LLPL Coax in 12 Inch Using Times Microwave Parts



- NOTES:
- CABLE ASSEMBLY LENGTH LABEL PLACEMENT: 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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|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Fairview Microwave®</b><br>an INFINITI® brand<br>Website: <a href="http://www.FairviewMicrowave.com">www.FairviewMicrowave.com</a><br>Phone: 1.800.715.4396   1.972.649.6678                                                                                                                                                                                                                                                                                                                                 |  | <br>INTERPRET ALL DIMENSIONS AND TOLERANCES PER ASME Y14.5<br>SCALE: NONE<br>SHEET: 1 OF 1                                                                                                            |
| UNLESS OTHERWISE SPECIFIED, ALL DIMENSIONS ARE IN INCHES. DIMENSIONS IN [ ] ARE MILLIMETERS.<br>TOLERANCES:<br>.X = ±.2 [5]<br>.XX = ±.02 [0.5]<br>.XXX = ±.005 [0.13]<br>FRACTIONS: ± 1/32<br>ANGLES: ± 1°<br>CABLE LENGTH TOLERANCES:<br>>12 [305] ≤ 60 [1524] = ±.125 [-0<br>>60 [1524] ≤ 120 [3048] = ±.125 [-0<br>>120 [3048] ≤ 300 [7620] = ±.125 [-0<br>>300 [7620] = ±.125 [-0<br>ALL DIMENSIONS ARE FOR REFERENCE ONLY. DIMENSIONS OF INDIVIDUAL PARTS MAY VARY IN SIZE AND LOCATION. COLORS MAY VARY. |  | DESCRIPTION<br>PLENUM LOW PIM SNAP-ON 4.3-10 MALE TO RA SMA MALE CABLE SPP-250-LLPL COAX USING TIMES MICROWAVE PARTS<br>SIZE: A<br>CAGE CODE: 3FKR5<br>DRAWN BY: DMAY<br>ITEM NO.: FMCA1920<br>REV: B |