

## Low PIM RA 4.1/9.5 Mini DIN Male to SMA Male Plenum Cable SPP-250-LLPL Coax and RoHS with LF Solder

The RA 4.1/9.5 Mini DIN male to SMA male cable using SPP-250-LLPL coax, part number FMCA1781, from Fairview Microwave is in-stock and ships same day. This Fairview 4.1/9.5 Mini DIN 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 FMCA1781 4.1/9.5 Mini DIN male to SMA male cable assembly operates to 5.8 GHz. The right angle 4.1/9.5 Mini DIN 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	Min	Typ	Max	Units
Frequency Range	DC		5.8	GHz
VSWR			1.4:1	
Velocity of Propagation		76		%
RF Shielding	100			dB
Passive Intermodulation			-155	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]		$\Omega$ /1000ft [ $\Omega$ /Km]

### Performance 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  $0.04 * \text{SQRT}(\text{FGHz})$  dB per connector.

### Mechanical Specifications

#### Cable Assembly

##### Cable

Cable Type	SPP-250-LLPL
Impedance	50 Ohms
Inner Conductor Type	Solid



### Configuration:

- 4.1/9.5 Mini DIN Male Right Angle
- SMA Male
- SPP-250-LLPL

### 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 Light-weight

### Applications:

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

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Inner Conductor Material and Plating	Copper
Dielectric Type	PTFE
Number of Shields	1
Outer Conductor 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	4.1/9.5 Mini DIN Male	SMA Male
Impedance	50 Ohms	50 Ohms
Contact Material & Plating	Brass, Silver	Brass, Gold
Dielectric Type	PTFE	PTFE
Body Material & Plating	Brass, Tri-Metal	Brass, Tri-Metal
Coupling Nut Material & Plating		Brass, Tri-Metal

### Mechanical Specification Notes:

\*All cable assemblies have a length tolerance of 1.5% or  $\pm 3/8"$ , whichever is greater.

## Environmental Specifications

### Temperature

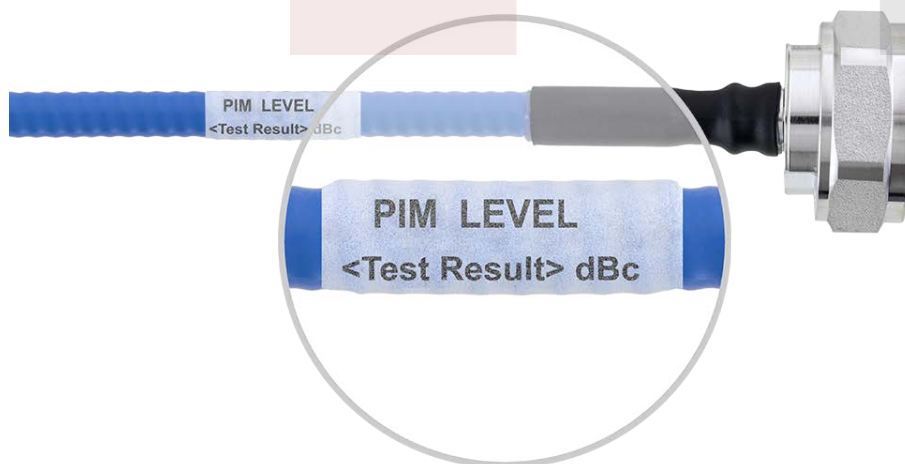
Operating Range -55 to +165 deg C

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

## Plotted and Other Data

Notes:

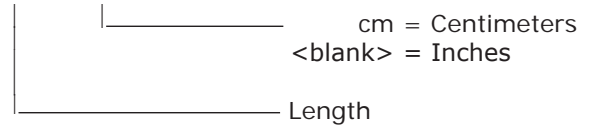
### Typical Performance Data



**How to Order**

Part Number Configuration:

**FMCA1781 - xx uu**



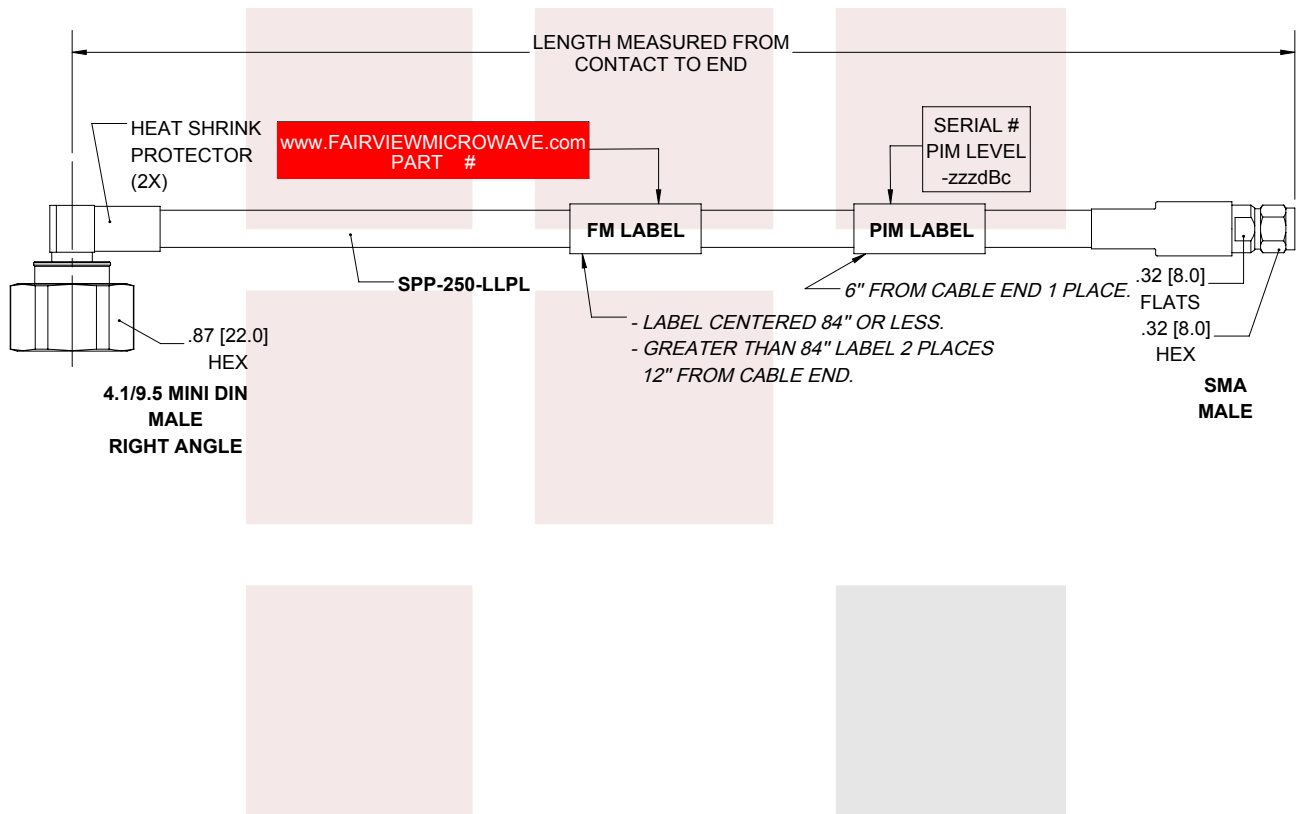
Example: FMCA1781-12 = 12 inches long cable  
FMCA1781-100cm = 100 cm long cable

Low PIM RA 4.1/9.5 Mini DIN Male to SMA Male Plenum Cable SPP-250-LLPL Coax and RoHS with LF Solder from Fairview Microwave has same day shipment for domestic and International orders. Our RF, microwave and fiber optic products maintain a 99% availability and are part of the broadest selection in the industry.

Click the following link to obtain additional part information: [Low PIM RA 4.1/9.5 Mini DIN Male to SMA Male Plenum Cable SPP-250-LLPL Coax and RoHS with LF Solder FMCA1781](#)


URL: <https://www.fairviewmicrowave.com/ra-4.1-9.5-mini-din-male-sma-male-cable-spp250llpl-coax-fmca1781-p.aspx>

The information contained in 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 any liability arising out of the use of any part or documentation.



STANDARD TOLERANCES	
.X	±0.2
.XX	±0.01
.XXX	±0.005

\*STANDARD TOLERANCES APPLY ONLY TO DIMENSIONS IN INCHES

	NOTES: 1. UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS ARE NOMINAL. 2. ALL SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE AT ANY TIME. 3. DIMENSIONS ARE IN INCHES [mm].				
	TITLE Low PIM RA 4.1/9.5 Mini DIN Male to SMA Male Plenum Cable SPP-250-LLPL Coax and RoHS with LF Solder	DWG NO FMCA1781	CAGE CODE 3FKR5		
	CAD FILE 12/27/18	SHEET 1 OF 1	SCALE N/A	SIZE A	CN2379