

## Plenum Low PIM RA N Male to SMA Male Cable SPP-250-LLPL Coax in 100 cm Using Times Microwave Parts



### FMCA1879-100CM

#### Configuration

- Connector 1: N Male Right Angle TC-250-NM-RA-LP
- Connector 2: SMA Male TC-250-SM-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 RA type N male to SMA male 100 cm cable using SPP-250-LLPL coax, part number FMCA1879-100CM, 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 -160 dBc. The FMCA1879-100CM type N male to SMA male cable assembly operates to 5.8 GHz. The right angle type N 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 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.)	0.4	0.43	0.46	0.58	0.76	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 0.12 dB for the right angle connector and 0.15 dB for the straight connector.

**Mechanical Specifications**

**Cable Assembly**

Length 39.3701 in [100 cm]  
Weight 0.479 lbs [217.27 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  
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	N Male Right Angle	SMA Male
Impedance	50 Ohms	50 Ohms
Configuration	Right Angle	Straight
Contact Material and Plating	Phosphor Bronze, Silver	Brass, Silver
Contact Plating Specification	196µ in	196µ in
Dielectric Type	PTFE	PTFE
Body Material and Plating	Brass, Tri-Metal	Brass, Tri-Metal
Body Plating Specification	118µ in	118µ in
Coupling Nut Material and Plating	Brass, Tri-Metal	Brass, Tri-Metal
Coupling Nut Plating Specification	118µ in	118µ in
Torque	10 in-lbs 1.13 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



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**FMCA1879-100CM**

**How to Order**

Part Number Configuration:

**FMCA1879**

**- xx**

**uu**

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

Example: FMCA1879-12 = 12 inches long cable  
FMCA1879-100cm = 100 cm long cable

Plenum Low PIM RA N Male to SMA Male Cable SPP-250-LLPL Coax in 100 cm 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.

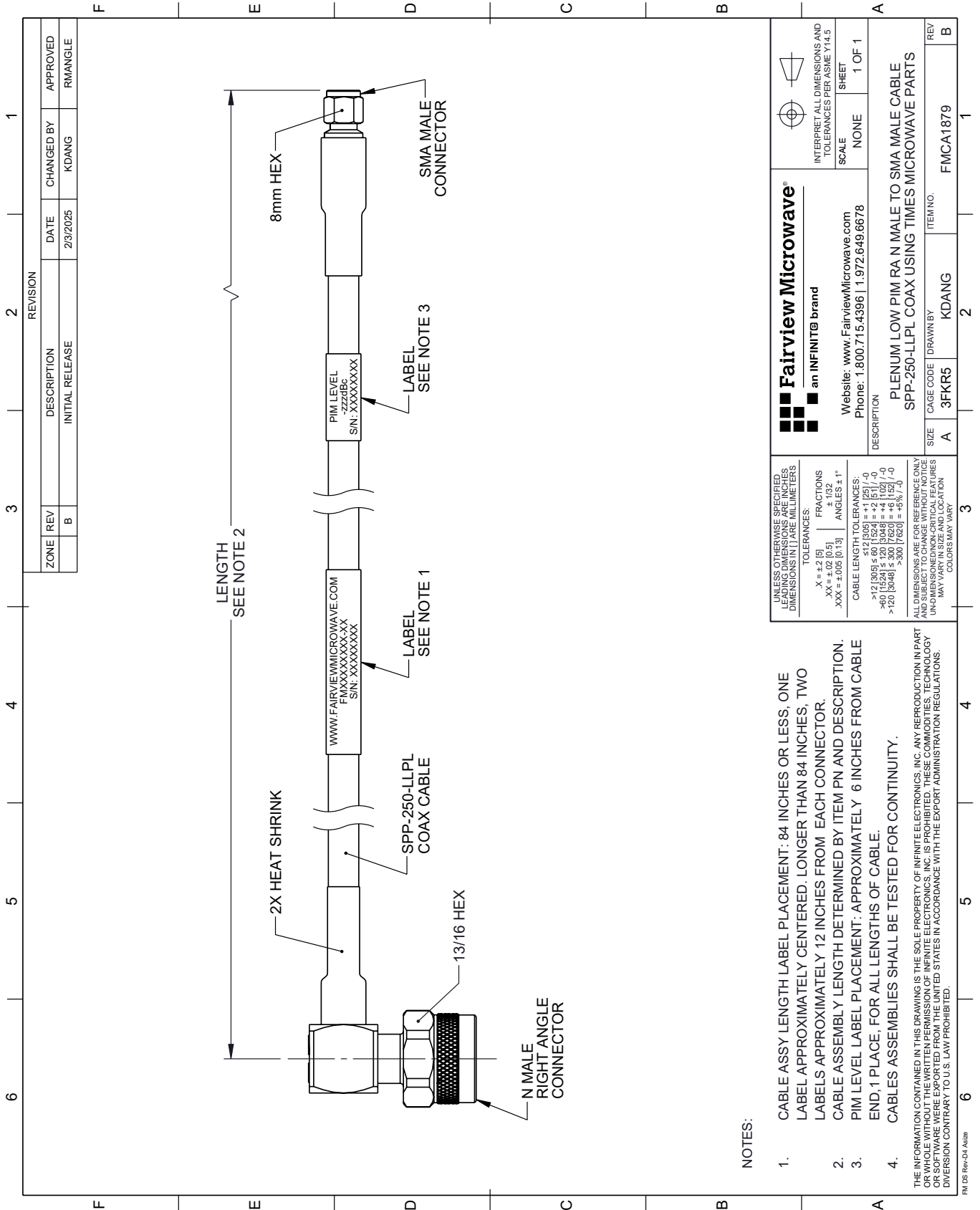
For additional information on this product, please click the following link: [Plenum Low PIM RA N Male to SMA Male Cable SPP-250-LLPL Coax in 100 cm Using Times Microwave Parts FMCA1879-100CM](https://www.fairviewmicrowave.com/low-pim-ra-n-male-sma-male-cable-spp250llpl-coax-fmca1879-100cm-p.aspx)

URL: <https://www.fairviewmicrowave.com/low-pim-ra-n-male-sma-male-cable-spp250llpl-coax-fmca1879-100cm-p.aspx>

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# FMCA1879-100CM CAD Drawing

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**NOTES:**

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

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<p><b>Fairview Microwave</b> an INFINITB brand</p> <p>Website: <a href="http://www.FairviewMicrowave.com">www.FairviewMicrowave.com</a> Phone: 1.800.715.4396   1.972.649.6678</p>		<p>INTERPRET ALL DIMENSIONS AND TOLERANCES PER ASME Y14.5</p> <p>SCALE: NONE</p> <p>SHEET: 1 OF 1</p>
<p>UNLESS OTHERWISE SPECIFIED, LEADING DIMENSIONS ARE IN INCHES, DIMENSIONS IN [ ] ARE MILLIMETERS.</p> <p>TOLERANCES:</p> <p>.X = ±.2 [5]      FRACTIONS ± 1/32</p> <p>.XX = ±.02 [0.5]      ANGLES ± 1°</p> <p>.XXX = ±.005 [0.13]</p> <p>CABLE LENGTH TOLERANCES:</p> <p>&gt;12 [305] ≤ 60 [1524] = ±.2 [5] / -0</p> <p>&gt;60 [1524] ≤ 120 [3048] = ±.4 [102] / -0</p> <p>&gt;120 [3048] ≤ 300 [7620] = ±.6 [15] / -0</p>		<p>DESCRIPTION</p> <p>PLENUM LOW PIM RA N MALE TO SMA MALE CABLE SPP-250-LLPL COAX USING TIMES MICROWAVE PARTS</p>
<p>ALL DIMENSIONS ARE FOR REFERENCE ONLY. UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN INCHES. UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN MILLIMETERS.</p> <p>COLORS MAY VARY</p>	<p>SIZE</p> <p>A</p>	<p>ITEM NO.</p> <p>FMCA1879</p>
<p>DRAWN BY</p> <p>KDANG</p>	<p>REV</p> <p>B</p>	<p>REV</p> <p>B</p>