

Plenum Low PIM SMA Male to SMA Male Cable SPP-250-LLPL Coax in 12 Inch Using Times Microwave Parts

FMCA1877-12

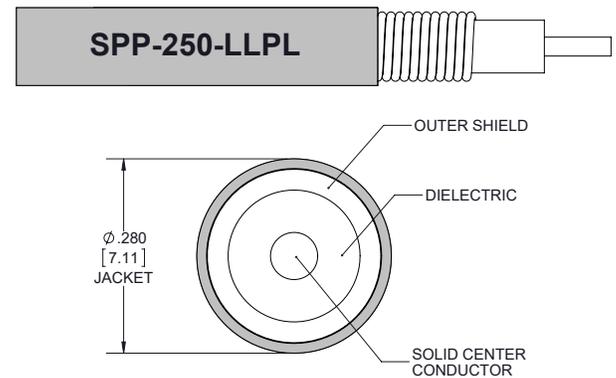


Configuration

- Connector 1: SMA Male TC-SPP250-SM-LP
- Connector 2: SMA Male TC-SPP250-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 SMA male to SMA male 12 inch cable using SPP-250-LLPL coax, part number FMCA1877-12, from Fairview Microwave is in-stock and ships same day. This Fairview SMA 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 FMCA1877-12 SMA male to SMA male cable assembly operates to 5.8 GHz. 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		%
RF Shielding	100			dB

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Electrical Specifications

Description	Minimum	Typical	Maximum	Units
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.)	0.34	0.35	0.36	0.4	0.45	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 0.15 dB per connector.

Mechanical Specifications

Cable Assembly

Length 12 in [304.8 mm]
Weight 0.14 lbs [63.5 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	SMA Male	SMA Male
Impedance	50 Ohms	50 Ohms
Configuration	Straight	Straight
Contact Material and Plating	Brass, 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



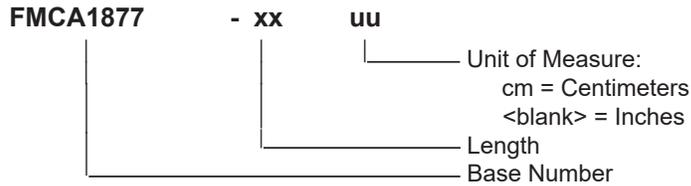
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FMCA1877-12

How to Order

Part Number Configuration:



Example: FMCA1877-12 = 12 inches long cable
FMCA1877-100cm = 100 cm long cable

Plenum Low PIM SMA Male to 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.

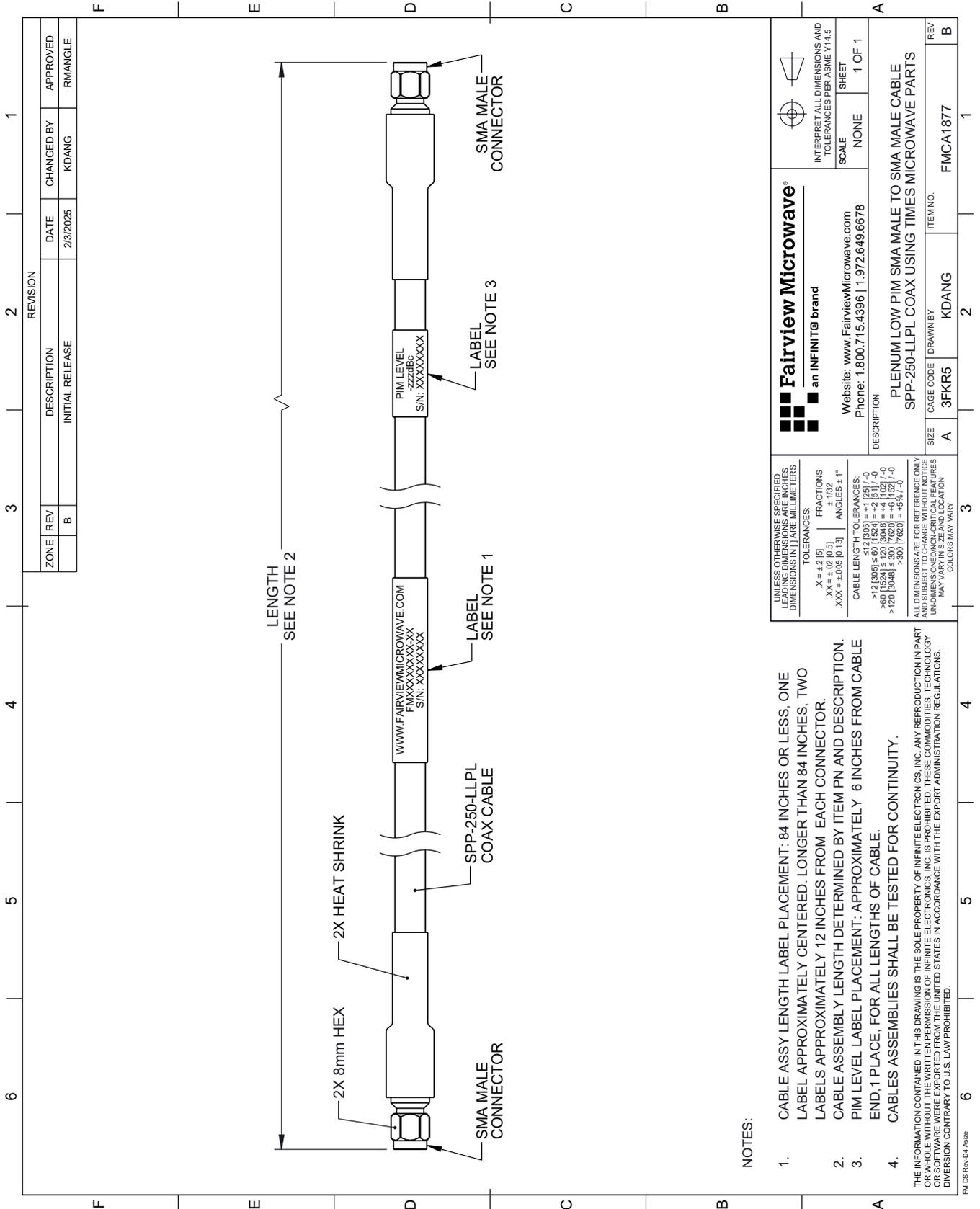
For additional information on this product, please click the following link: [Plenum Low PIM SMA Male to SMA Male Cable SPP-250-LLPL Coax in 12 Inch Using Times Microwave Parts FMCA1877-12](#)

URL: <https://www.fairviewmicrowave.com/low-pim-sma-male-sma-male-cable-spp250llpl-coax-fmca1877-12-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.

FMCA1877-12 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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FM DS Rev-D4 A426

REVISION		DATE	CHANGED BY	APPROVED
ZONE	REV			
	B	2/3/2025	KDANG	RMANGLE
DESCRIPTION				
INITIAL RELEASE				

 an INFINIT® brand		Website: www.FairviewMicrowave.com Phone: 1.800.715.4396 1.972.649.6678	INTERPRET ALL DIMENSIONS AND TOLERANCES PER ASME Y14.5 SCALE: NONE SHEET: 1 OF 1
DESCRIPTION PLENUM LOW PIM SMA MALE TO SMA MALE CABLE SPP-250-LLPL COAX USING TIMES MICROWAVE PARTS			
SIZE	CAGE CODE	DRAWN BY	ITEM NO.
A	3FKR5	KDANG	FMCA1877

UNLESS OTHERWISE SPECIFIED, LEADING DIMENSIONS ARE IN INCHES AND UNLEADING DIMENSIONS ARE IN 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 [25] / -0
 >60 [1524] ≤ 120 [3048] = ±.4 [102] / -0
 >120 [3048] ≤ 300 [7620] = ±.6 [15] / -0
 >300 [7620] = ±.8 [20] / -0

ALL DIMENSIONS ARE FOR REFERENCE ONLY. UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN INCHES. UNLEADING DIMENSIONS/NON-CRITICAL FEATURES MAY VARY IN SIZE AND LOCATION. COLORS MAY VARY.