

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



**FMCA1884-12**

**Configuration**

- Connector 1: N Female Bulkhead TC-SPP250-NF-BH-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 type N female bulkhead to SMA male 12 inch cable using SPP-250-LLPL coax, part number FMCA1884-12, from Fairview Microwave is in-stock and ships same day. This Fairview type N to SMA cable assembly has a female 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 FMCA1884-12 type N female to SMA male cable assembly operates to 5.8 GHz. Our RF cable assembly with type N bulkhead interface allows designers to create external connections on their product enclosures, and can be used in a variety of other rack mount and panel mount applications. 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	

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**Electrical Specifications**

Description	Minimum	Typical	Maximum	Units
Velocity of Propagation		76		%
RF Shielding	100			dB
Passive Intermodulation		-165	-160	dBc
IM3 (2x43dBm Tones) at 850 MHz or 1900 MHz				
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.)	0.29	0.3	0.31	0.35	0.4	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 dB for the female connector and 0.15 dB for the male 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	N Female Bulkhead	SMA Male
Impedance	50 Ohms	50 Ohms
Configuration	Straight	Straight
Contact Material and Plating	Phosphor Bronze, Silver	Brass, Silver
Contact Plating Specification	196µ in	196µ in
Dielectric Type	PTFE	PTFE
Outer Conductor Material and Plating	Brass, Tri-Metal	
Outer Conductor Plating Specification	118µ in	
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
Coupling Nut Plating Specification		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

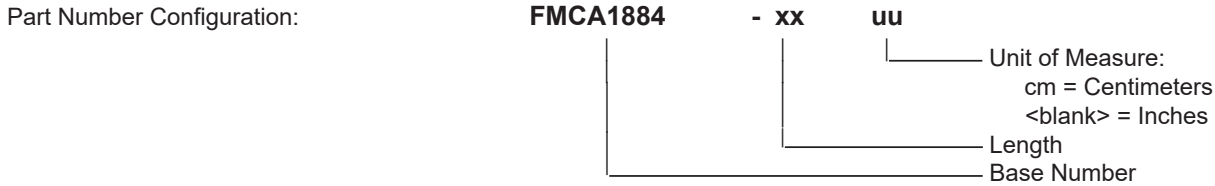


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**FMCA1884-12**

**How to Order**



Example: FMCA1884-12 = 12 inches long cable  
FMCA1884-100cm = 100 cm long cable

Plenum Low PIM N Female Bulkhead 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.

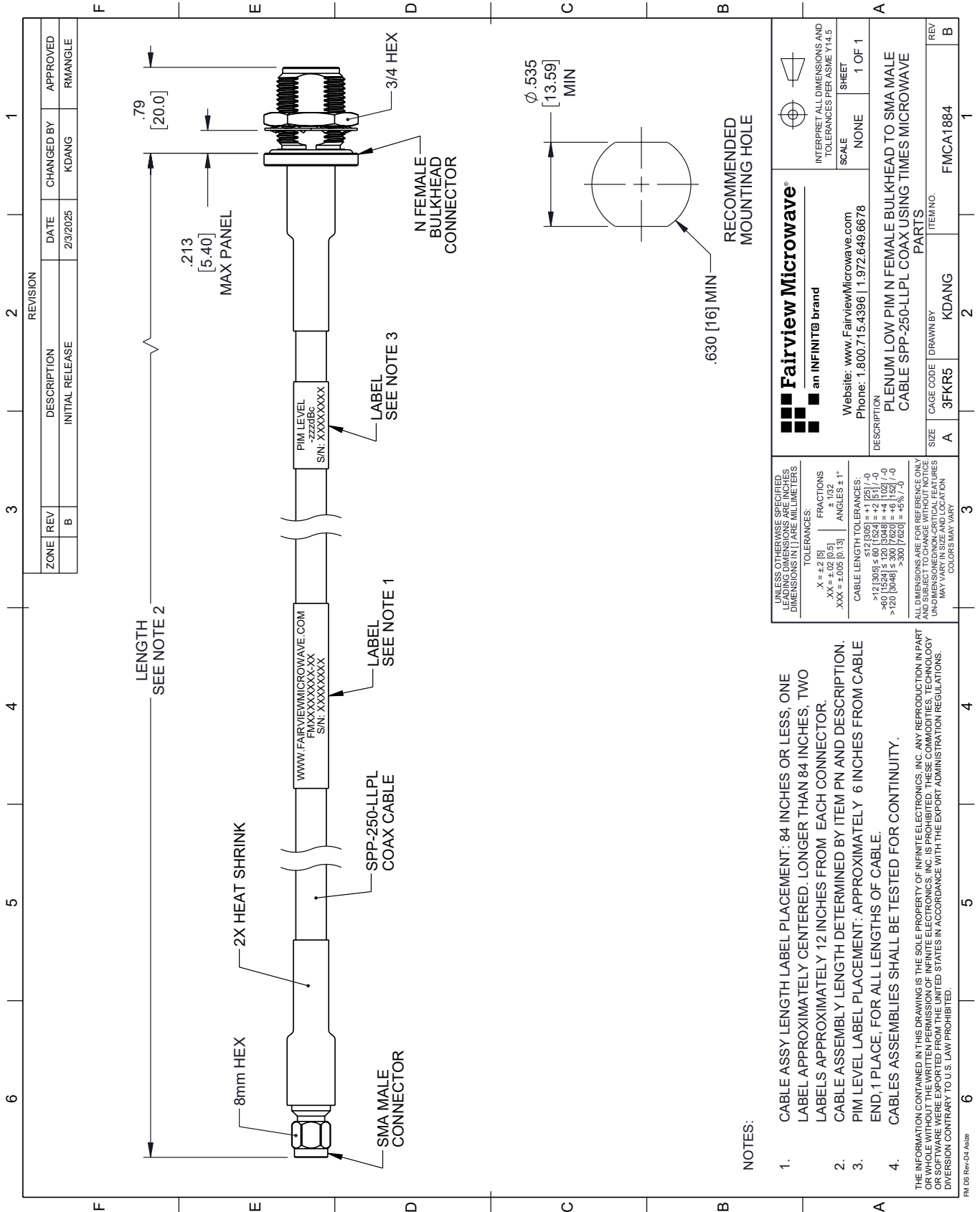
For additional information on this product, please click the following link: [Plenum Low PIM N Female Bulkhead to SMA Male Cable SPP-250-LLPL Coax in 12 Inch Using Times Microwave Parts FMCA1884-12](https://www.fairviewmicrowave.com/low-pim-n-female-sma-male-cable-spp250llpl-coax-fmca1884-12-p.aspx)

URL: <https://www.fairviewmicrowave.com/low-pim-n-female-sma-male-cable-spp250llpl-coax-fmca1884-12-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.

# FMCA1884-12 CAD Drawing

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



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

REVISION	DESCRIPTION	DATE	CHANGED BY	APPROVED
1				

		Website: <a href="http://www.FairviewMicrowave.com">www.FairviewMicrowave.com</a> 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 N FEMALE BULKHEAD TO SMA MALE CABLE SPP-250-LLPL COAX USING TIMES MICROWAVE PARTS		CAGE CODE: 3FKR5 DRAWN BY: KDANG	
SIZE: A		ITEM NO.: FMCA1884	

- UNLESS OTHERWISE SPECIFIED, LEADING DIMENSIONS ARE IN INCHES, DIMENSIONS IN [ ] ARE 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] = ±.1 [25] / -0  
 >120 [3048] ≤ 300 [7620] = ±.3 [7.6] / -0
- ALL DIMENSIONS ARE FOR REFERENCE ONLY. UNDIMENSIONED NON-CRITICAL FEATURES MAY VARY IN SIZE AND LOCATION. COLORS MAY VARY.
- 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.
  - CABLE ASSEMBLY LENGTH DETERMINED BY ITEM PN AND DESCRIPTION.
  - PIM LEVEL LABEL PLACEMENT: APPROXIMATELY 6 INCHES FROM CABLE END, 1 PLACE, FOR ALL LENGTHS OF CABLE.
  - CABLES ASSEMBLIES SHALL BE TESTED FOR CONTINUITY.
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