

Plenum Low PIM RA 4.3-10 Male to N Female Bulkhead Cable SPP-250-LLPL Coax in 48 Inch Using Times Microwave Parts

FMCA1909-48



Configuration

- Connector 1: 4.3-10 Male Right Angle TC-250-4310M-RA-LP
- Connector 2: N Female Bulkhead TC-SPP250-NF-BH-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 4.3-10 male to type N female bulkhead 48 inch cable using SPP-250-LLPL coax, part number FMCA1909-48, from Fairview Microwave is in-stock and ships same day. This Fairview 4.3-10 to type N cable assembly has a male to female 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 FMCA1909-48 4.3-10 male to type N female cable assembly operates to 5.8 GHz. The right angle 4.3-10 interface on the SPP-250-LLPL cable allows for easier connections in tight spaces. 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

Plenum Low PIM RA 4.3-10 Male to N Female
Bulkhead Cable SPP-250-LLPL Coax in
48 Inch Using Times Microwave Parts



FMCA1909-48

Electrical Specifications

Description	Minimum	Typical	Maximum	Units
VSWR			1.4:1	
Velocity of Propagation		76		%
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.)	0.33	0.39	0.43	0.64	0.95	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 male connector and 0.1 dB for the female connector.

Mechanical Specifications

Cable Assembly

Length 48 in [121.92 cm]
Width/Diameter .94 in [23.88 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]

Plenum Low PIM RA 4.3-10 Male to N Female
Bulkhead Cable SPP-250-LLPL Coax in
48 Inch Using Times Microwave Parts



FMCA1909-48

Connectors

Description	Connector 1	Connector 2
Type	4.3-10 Male Right Angle	N Female Bulkhead
Impedance	50 Ohms	50 Ohms
Configuration	Right Angle	Straight
Contact Material and Plating	Brass, Silver	Phosphor Bronze, Silver
Contact Plating Specification	200μ 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	80μ in	118μ in
Coupling Nut Material and Plating	Brass, Nickel	
Coupling Nut Plating Specification	200μ in	
Torque	15.05 in-lbs 1.7 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.

Plenum Low PIM RA 4.3-10 Male to N Female
Bulkhead Cable SPP-250-LLPL Coax in
48 Inch Using Times Microwave Parts

FMCA1909-48



Typical Performance Data

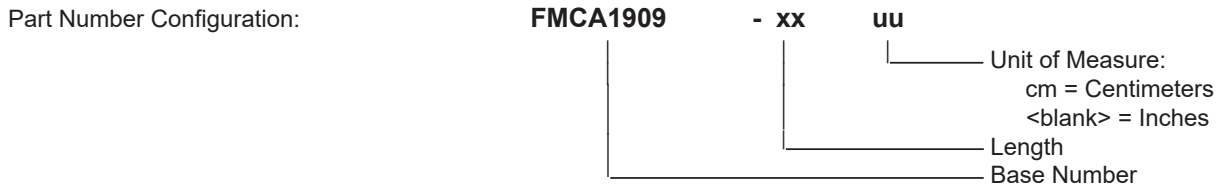


Plenum Low PIM RA 4.3-10 Male to N Female Bulkhead Cable SPP-250-LLPL Coax in 48 Inch Using Times Microwave Parts



FMCA1909-48

How to Order



Example: FMCA1909-12 = 12 inches long cable
FMCA1909-100cm = 100 cm long cable

Plenum Low PIM RA 4.3-10 Male to N Female Bulkhead Cable SPP-250-LLPL Coax in 48 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.

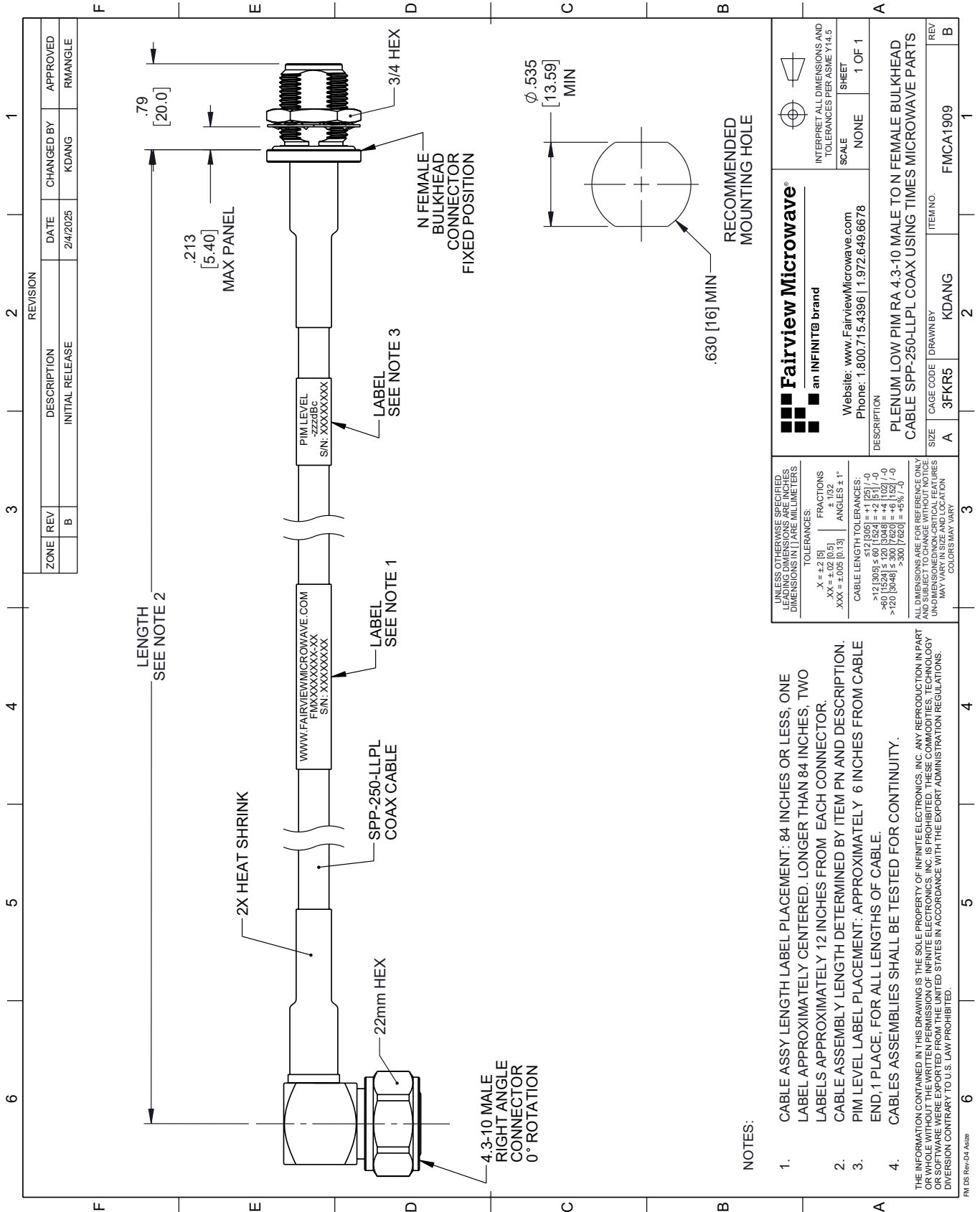
For additional information on this product, please click the following link: [Plenum Low PIM RA 4.3-10 Male to N Female Bulkhead Cable SPP-250-LLPL Coax in 48 Inch Using Times Microwave Parts FMCA1909-48](https://www.fairviewmicrowave.com/low-pim-ra-4.3-10-male-n-female-cable-spp250llpl-coax-fmca1909-48-p.aspx)

URL: <https://www.fairviewmicrowave.com/low-pim-ra-4.3-10-male-n-female-cable-spp250llpl-coax-fmca1909-48-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.

FMCA1909-48 CAD Drawing

Plenum Low PIM RA 4.3-10 Male to N Female Bulkhead Cable SPP-250-LLPL Coax in 48 Inch Using Times Microwave Parts



REVISION		DATE	CHANGED BY	APPROVED
ZONE	REV			
	B	2/4/2025	KDANG	RMANGLE
DESCRIPTION				
INITIAL RELEASE				

 an INFINITB 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 RA 4.3-10 MALE TO N FEMALE BULKHEAD CABLE SPP-250-LLPL COAX USING TIMES MICROWAVE PARTS		
SIZE	CAGE CODE	ITEM NO.
A	3FKR5	FMCA1909
REV	DRAWN BY	
B	KDANG	

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] = ±4 [102] / -0
 >120 [3048] ≤ 300 [7620] = ±5% / -0

ALL DIMENSIONS ARE FOR REFERENCE ONLY. UNDIMENSIONED NON-CRITICAL FEATURES MAY VARY IN SIZE AND LOCATION. COLORS MAY VARY.

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.

THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF INFINITE ELECTRONICS, INC. ANY REPRODUCTION IN PART OR WHOLE WITHOUT THE WRITTEN PERMISSION OF INFINITE ELECTRONICS, INC. IS PROHIBITED. THESE COMMODITIES, TECHNOLOGY OR SOFTWARE WERE EXPORTED FROM THE UNITED STATES IN ACCORDANCE WITH THE EXPORT ADMINISTRATION REGULATIONS. DIVERSION CONTRARY TO U.S. LAW PROHIBITED.

FM DS Rev-D4 Alt2b