

# FMCA1914 DATA SHEET

# Plenum Low PIM 7/16 DIN Female to RA N Male Cable SPP-250-LLPL Coax Using Times Microwave Parts

The 7/16 DIN female to RA type N male cable using SPP-250-LLPL coax, part number FMCA1914, from Fairview Microwave is in-stock and ships same day. This Fairview 7/16 DIN to type N 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 FMCA1914 7/16 DIN female to type N 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	Min	Т	ур	Max	Units		
Frequency Range	DC			5.8	GHz		
VSWR				1.4:1			
Velocity of Propagation		7	76		%		
RF Shielding	100				dB		
Passive Intermodulation		-1	.65	-160	dBc		
Capacitance		27 [88.58]			pF/ft [pF/m]		
Inductance		0.067 [0.22]			uH/ft [uH/m]		
DC Resistance Inner Con	iductor	3 [9.84]			Ω/1000ft [Ω/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	a.) 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:

PIM test results vary between cables

Insertion Loss does not include the loss of the connectors. Insertion Loss is estimated as 0.1 dB for the female connector and 0.12 dB for the male connector.



## **Configuration:**

- 7/16 DIN Female
- TC-SPP250-716F-LP
- N Male Right Angle
- TC-SPP250-NM-RA-LP
- SPP-250-LLPL

## **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

# Cable Diagram:

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## **Mechanical Specifications**

**Cable Assembly** 

Length\* 0 in [0 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 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]

#### **Connectors**

Description	Connector	Connector 2			
Туре	7/16 DIN Fem	emale N Male			
Impedance	50 Ohms	50 Ohms			
Contact Material & Plating	Phosphor Bronze,	nze, Silver Phosphor Bronze,			
Contact Plating Spec.	196 µin		196 µin		
Dielectric Type	PTFE		PTFE		
Outer Cond Material & Plating Brass, Tri-Metal					
Outer Cond Plating Spec. 118 µin					
Body Material & Plating	Brass, Tri-Met	tal	Brass, Tri-Metal		
Body Plating Spec.	118 µin		118 µin		
Coupling Nut Material & Pla	ting		Brass, Tri-Metal		
Coupling Nut Plating Spec.	. 118 μin				
Torque	22.127 ft-lbs 30	10 in-lbs 1.13 Nm			

## **Environmental Specifications**

Temperature

Operating Range -55 to +200 deg C Storage Range -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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### **How to Order**

Part Number Configuration:	FMCA1914	- xx	uu	
			<u> </u>	- cm = Centimeters <blank> = Inches - Length</blank>

Example: FMCA1914-12 = 12 inches long cable

FMCA1914-100cm = 100 cm long cable

Plenum Low PIM 7/16 DIN Female to RA N Male Cable SPP-250-LLPL Coax Using Times Microwave Parts from Fairview Microwave has same day shipment for domestic and International orders. Our RF, microwave and millimeter wave products maintain a 99% availability and are part of the broadest selection in the industry.

Click the following link to obtain additional part information: Plenum Low PIM 7/16 DIN Female to RA N Male Cable SPP-250-LLPL Coax Using Times Microwave Parts FMCA1914

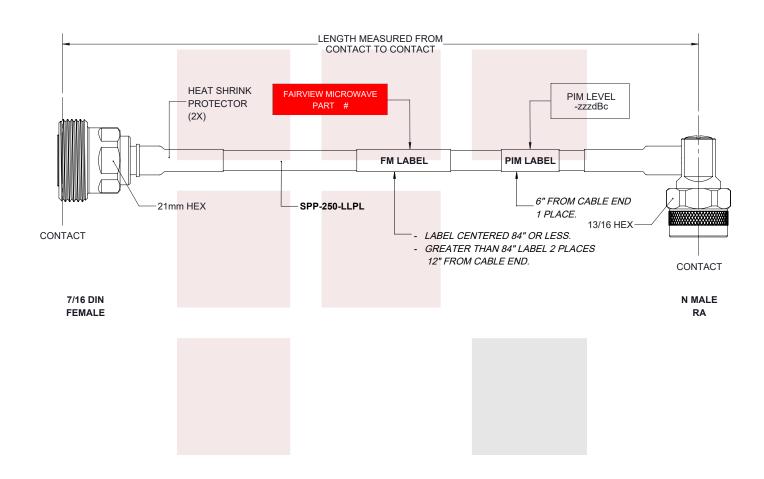
URL: https://www.fairviewmicrowave.com/low-pim-7-16-din-female-ra-n-male-cable-spp250llpl-coax-fmca1914-p.aspx

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.

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STANDARD TOLERANCES

.X ±0.2 .XX ±0.01 .XXX ±0.005

\*STANDARD TOLERANCES APPLY ONLY TO DIMENSIONS IN INCHES

Fairview Microwave an INFINIT® brand	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].						
Plenum Low PIM 7/16 DIN Female to RA N Male Cable SPP-250-LLPL Coax Using Times Microwave Parts	DWG NO FMCA1914				CAGE CODE 3FKR5		
	CAD FILE 06/05/	/19	SHEET	1 OF 1	SCAL	E N/A	SIZE A