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FMCA1868 DATA SHEET

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

The RA 7/16 DIN male to type N male cable using SPP-250-LLPL coax, part number FMCA1868, from Fairview Microwave is in-stock and ships same day. This Fairview 7/16 DIN to type N 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 FMCA1868 7/16 DIN male to type N male cable assembly operates to 5.8 GHz. The right angle 7/16 DIN 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	Typ	Max	Units
Frequency Range	DC		5.8	GHz
VSWR			1.4:1	
Velocity of Propagation		76		%
RF Shielding	100			dB
Passive Intermodulation		-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]		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.)	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 right angle connector and 0.1*SQRT(FGHz) dB for the straight connector.

Configuration:

- 7/16 DIN Male Right Angle
- TC-SPP250-716M-RA-LP
- N Male
- TC-250-NM-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 1	Connector 2
Type	7/16 DIN Male	N Male
Impedance	50 Ohms	50 Ohms
Contact Material & Plating	Brass, Silver	Phosphor Bronze, Silver
Contact Plating Spec.	196 µin	196 µin
Dielectric Type	PTFE	PTFE
Body Material & Plating	Brass, Nickel	Brass, Tri-Metal
Body Plating Spec.	118 µin	118 µin
Coupling Nut Material & Plating	Brass, Nickel	Brass, Tri-Metal
Coupling Nut Plating Spec.	118 µin	118 µin
Torque	22.127 ft-lbs 30 Nm	9.74 in-lbs 1.1 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: **FMCA1868 - xx uu**

- xx = Length
- uu = cm = Centimeters, <blank> = Inches

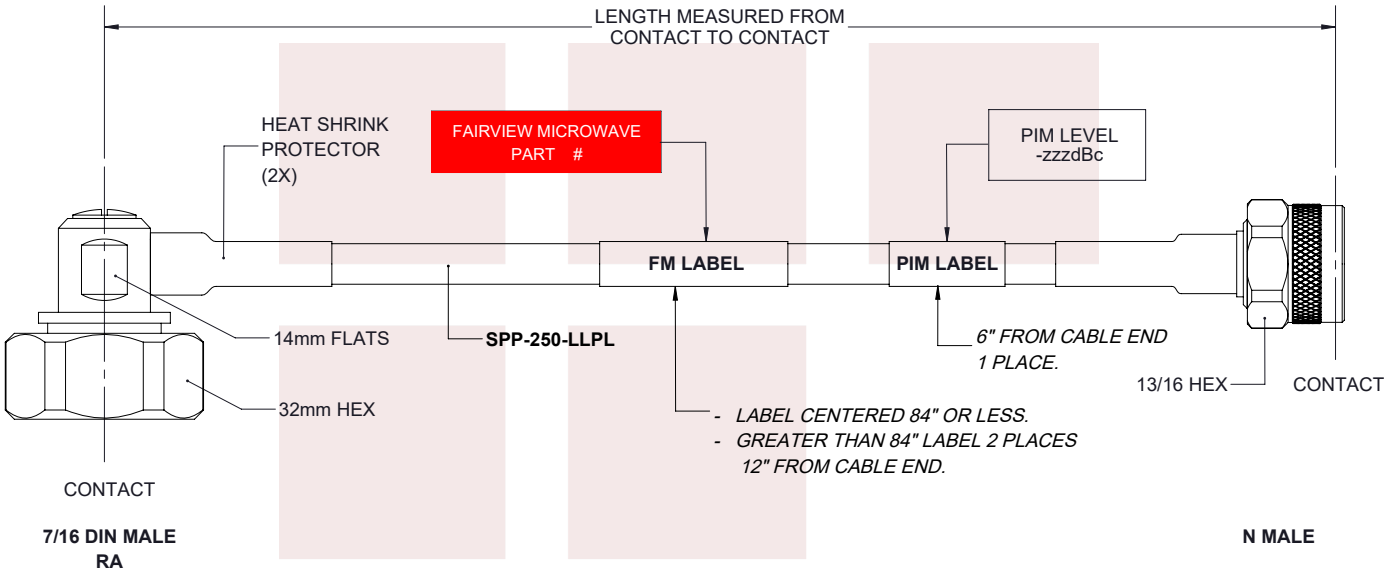
Example: FMCA1868-12 = 12 inches long cable
FMCA1868-100cm = 100 cm long cable

Plenum Low PIM RA 7/16 DIN Male to 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 RA 7/16 DIN Male to N Male Cable SPP-250-LLPL Coax Using Times Microwave Parts FMCA1868

URL: https://www.fairviewmicrowave.com/low-pim-ra-7-16-din-male-n-male-cable-spp250llpl-coax-fmca1868-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.



STANDARD TOLERANCES	
.X	±0.2
.XX	±0.01
.XXX	±0.005

*STANDARD TOLERANCES APPLY ONLY TO DIMENSIONS IN INCHES

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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].

TITLE

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

DWG NO	CAGE CODE
FMCA1868	3FKR5

CAD FILE	SHEET	SCALE	SIZE	
06/05/19	1 OF 1	N/A	A	7361

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