

## Plenum Low PIM 7/16 DIN Male to N Male Cable SPP-500-LLPL Coax in 50 cm Using Times Microwave Parts

### FMCA2039-50CM

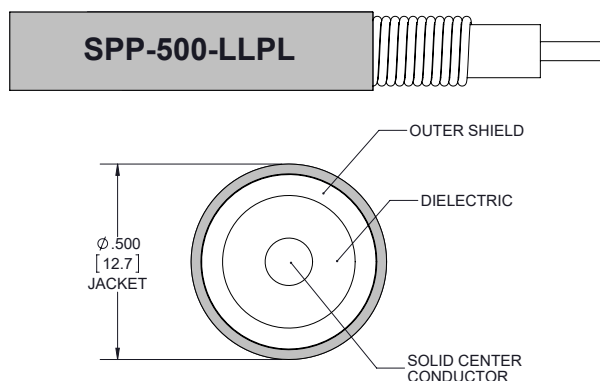


#### Configuration

- Connector 1: 7/16 DIN Male TC-SPP500-716M-LP
- Connector 2: N Male TC-SPP500-NM-LP
- Cable Type: SPP-500-LLPL
- Coax Flex Type: Corrugated

#### Features

- Max Frequency 5.8 GHz
- Low PIM: -160 dBc Max
- 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 7/16 DIN male to type N male 50 cm cable using SPP-500-LLPL coax, part number FMCA2039-50CM, 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-500-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 FMCA2039-50CM 7/16 DIN male to type N 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      |         | %     |

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#### Electrical Specifications

| Description                                | Minimum | Typical      | Maximum | Units        |
|--------------------------------------------|---------|--------------|---------|--------------|
| Passive Intermodulation                    |         | -165         | -160    | dBc          |
| IM3 (2x43dBm Tones) at 850 MHz or 1900 MHz |         |              |         |              |
| Capacitance                                |         | 26.2 [85.96] |         | pF/ft [pF/m] |

#### Specifications by Frequency

| Description           | F1   | F2   | F3   | F4   | F5  | Units |
|-----------------------|------|------|------|------|-----|-------|
| Frequency             | 0.45 | 0.7  | 1    | 2.5  | 5.8 | GHz   |
| Insertion Loss (Max.) | 0.21 | 0.24 | 0.26 | 0.36 | 0.5 | 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 7/16 DIN connector and 0.1\*SQRT(FGHz) dB for the N male connector.

#### Mechanical Specifications

##### Cable Assembly

|                |                    |
|----------------|--------------------|
| Length         | 19.685 in [500 mm] |
| Width/Diameter | 0 in [0 mm]        |

##### Cable

|                                        |                                  |
|----------------------------------------|----------------------------------|
| Cable Type                             | SPP-500-LLPL                     |
| Impedance                              | 50 Ohms                          |
| Inner Conductor Type                   | Solid                            |
| Inner Conductor Material and Plating   | Copper Clad Aluminum             |
| Dielectric Type                        | PTFE                             |
| Number of Shields                      | 1                                |
| Shield Layer 1                         | Helically Corrugated Copper Tube |
| Outer Conductor 1 Material and Plating | Copper                           |
| Jacket Material                        | FEP, Blue                        |
| Jacket Diameter                        | 0.5 in [12.7 mm]                 |
| One Time Minimum Bend Radius           | 1.5 in [38.1 mm]                 |

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#### Connectors

| Description                           | Connector 1         | Connector 2       |
|---------------------------------------|---------------------|-------------------|
| Type                                  | 7/16 DIN Male       | N Male            |
| Impedance                             | 50 Ohms             | 50 Ohms           |
| Configuration                         | Straight            | Straight          |
| Contact Material and Plating          | Brass, Silver       | Brass, Silver     |
| Contact Plating Specification         | 196 µin             | 200 µin           |
| Dielectric Type                       | PTFE                | PTFE              |
| Outer Conductor Material and Plating  | Brass, Tri-Metal    |                   |
| Outer Conductor Plating Specification | 118 µin             |                   |
| Body Material and Plating             |                     | Brass, Tri-Metal  |
| Body Plating Specification            |                     | 80 µin            |
| Coupling Nut Material and Plating     | Brass, Tri-Metal    | Brass, Tri-Metal  |
| Coupling Nut Plating Specification    | 200 µin             | 80 µin            |
| Torque                                | 22.127 ft-lbs 30 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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**FMCA2039-50CM**



#### Typical Performance Data



## Plenum Low PIM 7/16 DIN Male to N Male Cable SPP-500-LLPL Coax in 50 cm Using Times Microwave Parts

### FMCA2039-50CM



#### How to Order

Part Number Configuration:

**FMCA2039**

**- xx**

**uu**

Unit of Measure:  
cm = Centimeters  
<blank> = Inches  
Length  
Base Number

Example: FMCA2039-12 = 12 inches long cable  
FMCA2039-100cm = 100 cm long cable

Plenum Low PIM 7/16 DIN Male to N Male Cable SPP-500-LLPL Coax in 50 cm 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.

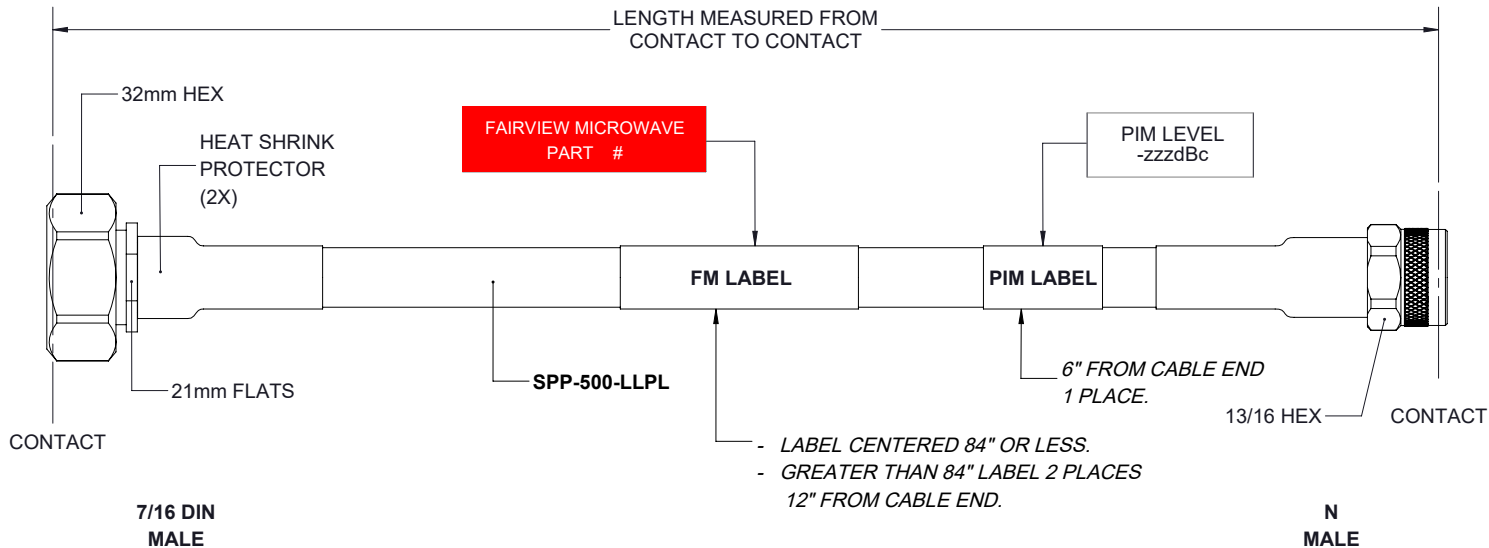
For additional information on this product, please click the following link: [Plenum Low PIM 7/16 DIN Male to N Male Cable SPP-500-LLPL Coax in 50 cm Using Times Microwave Parts FMCA2039-50CM](https://www.fairviewmicrowave.com/low-pim-7-16-din-male-n-male-cable-spp500llpl-coax-fmca2039-50cm-p.aspx)

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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.

FMCA2039-50CM CAD Drawing

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

\*STANDARD TOLERANCES APPLY ONLY TO DIMENSIONS IN INCHES

|                                                                                                                                                   |                                                                                                                                                                                                                        |          |          |       |           |           |
|---------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|----------|-------|-----------|-----------|
| <div><div><div></div><div></div><div></div><div></div><div></div></div><div><div>Fairview Microwave</div><div>an INFINITe brand</div></div></div> | <div>NOTES:</div> <div>1. UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS ARE NOMINAL.</div> <div>2. ALL SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE AT ANY TIME.</div> <div>3. DIMENSIONS ARE IN INCHES [mm].</div> |          |          |       |           |           |
| TITLE                                                                                                                                             |                                                                                                                                                                                                                        | DWG NO   |          |       | CAGE CODE |           |
|                                                                                                                                                   |                                                                                                                                                                                                                        | FMCA2039 |          |       | 3FKR5     |           |
|                                                                                                                                                   |                                                                                                                                                                                                                        | CAD FILE | 06/05/19 | SHEET | 1 OF 1    | SCALE N/A |
|                                                                                                                                                   |                                                                                                                                                                                                                        |          |          |       |           | SIZE A    |
|                                                                                                                                                   |                                                                                                                                                                                                                        |          |          |       |           | 7361      |