

## Fire Rated Low PIM 7/16 DIN Male to N Female Cable SPF-250 Coax in 7 Inch Using Times Microwave Parts

The 7/16 DIN male to type N female 7 inch cable using SPF-250 coax, part number FMCA2540, from Fairview Microwave is in-stock and ships same day. This Fairview 7/16 DIN to type N cable assembly has a male to female gender configuration with 50 ohm corrugated SPF-250 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 FMCA2540 7/16 DIN male to type N female cable assembly operates to 5.8 GHz.

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 |     | 83           |       | %            |
| Passive Intermodulation |     |              | -160  | dBc          |
| Capacitance             |     | 24 [78.74]   |       | pF/ft [pF/m] |
| Inductance              |     | 0.054 [0.18] |       | uH/ft [uH/m] |

### Performance by Frequency

| Description           | F1   | F2    | F3    | F4    | F5    | Units |
|-----------------------|------|-------|-------|-------|-------|-------|
| Frequency             | 0.25 | 0.5   | 1     | 2.5   | 5.8   | GHz   |
| Insertion Loss (Typ.) | 0.03 | 0.043 | 0.062 | 0.103 | 0.167 | dB    |

#### Electrical Specification Notes:

Insertion Loss does not include the loss of the connectors. Insertion Loss is estimated as  $0.1 * \text{SQRT}(\text{FGHz})$  dB per connector.

### Mechanical Specifications

#### Cable Assembly

Length\* 7 in [177.8 mm]  
 Weight 0.4485 lbs [203.44 g]

#### Cable

Cable Type SPF-250  
 Impedance 50 Ohms  
 Inner Conductor Type Solid  
 Inner Conductor Material and Plating Copper Clad Aluminum  
 Dielectric Type Foam PE  
 Number of Shields 1  
 Outer Conductor Material and Plating Copper  
 Jacket Material FRPE, Black



### Configuration:

- 7/16 DIN Male
- N Female
- SPF-250

### Features:

- Max Frequency 5.8 GHz
- Low PIM: -160 dBc Max
- 83% Phase Velocity
- FRPE Jacket
- 100% Tested with PIM Test Results Marked on 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
- CMR Riser Rated Applications
- Distributed Antenna Systems (DAS)
- Multi-Carrier Communication Systems
- PIM Testing

### Cable Diagram:

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[sales@fairviewmicrowave.com](mailto:sales@fairviewmicrowave.com)

Jacket Diameter 0.303 in [7.7 mm]

One Time Minimum Bend Radius 1.25 in [31.75 mm]

Bending Moment 0.5 lbs-ft [0.68 N-m]

### Connectors

| Description                     | Connector 1      | Connector 2        |
|---------------------------------|------------------|--------------------|
| Type                            | 7/16 DIN Male    | N Female           |
| Impedance                       | 50 Ohms          | 50 Ohms            |
| Mating Cycles                   |                  | 500                |
| Contact Material & Plating      | Brass, Silver    | Brass, Silver      |
| Contact Plating Spec.           | 196 µin          | 200 µin            |
| Dielectric Type                 | PTFE             | PTFE               |
| Outer Cond Material & Plating   |                  | Brass, Tri-Metal   |
| Outer Cond Plating Spec.        |                  | 100 µin            |
| Body Material & Plating         | Brass, Tri-Metal | Brass, Tri-Metal   |
| Body Plating Spec.              | 118 µin          | 100 µin            |
| Coupling Nut Material & Plating | Brass, Nickel    |                    |
| Coupling Nut Plating Spec.      | 118 µin          |                    |
| Torque                          |                  | 9.74 in-lbs 1.1 Nm |

### Environmental Specifications

#### Temperature

Operating Range -40 to +85 deg C

### Compliance Certifications (see [product page](#) for current document)

### Plotted and Other Data

Notes:

### How to Order

Part Number Configuration:

**FMCA2540 - xx uu**

cm = Centimeters  
 <blank> = Inches  
 Length

Example: FMCA2540-12 = 12 inches long cable  
 FMCA2540-100cm = 100 cm long cable

Fire Rated Low PIM 7/16 DIN Male to N Female Cable SPF-250 Coax in 7 Inch 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.

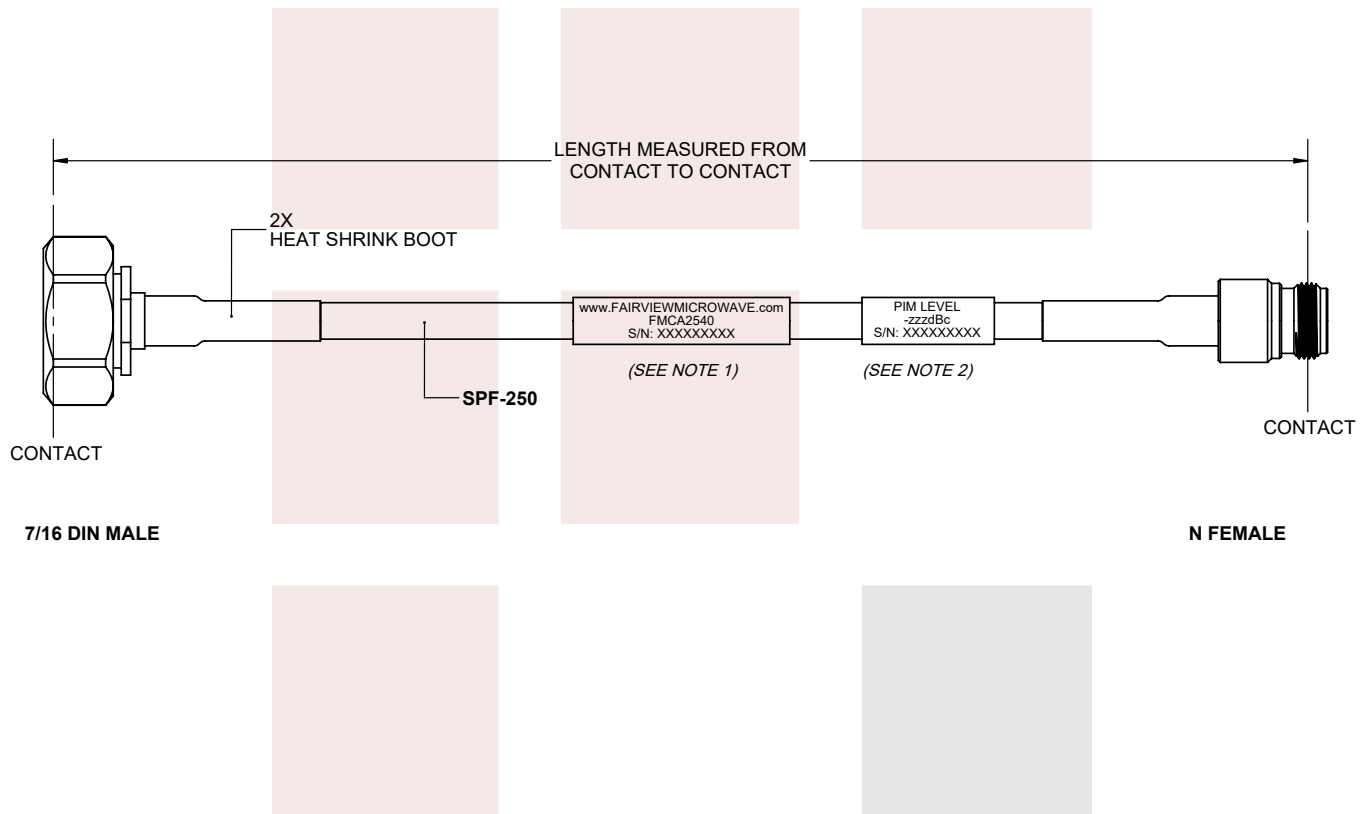
Click the following link to obtain additional part information: [Fire Rated Low PIM 7/16 DIN Male to N Female Cable SPF-250 Coax in 7 Inch Using Times Microwave Parts FMCA2540](https://www.fairviewmicrowave.com/fire-rated-low-pim-7-16-din-male-to-n-female-cable-spf-250-coax-in-7-inch-using-times-microwave-parts-fmca2540-p.aspx)

URL: <https://www.fairviewmicrowave.com/fire-rated-low-pim-7-16-din-male-to-n-female-cable-spf-250-coax-in-7-inch-using-times-microwave-parts-fmca2540-p.aspx>

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| REVISIONS |                 |           |            |
|-----------|-----------------|-----------|------------|
| REV.      | DESCRIPTION     | DATE      | APPROVED   |
| A         | INITIAL RELEASE | 9/21/2021 | A. GANWANI |



**NOTES:**

1. CABLES 84" AND UNDER HAVE 1 LABEL CENTERED. CABLES OVER 84" HAVE 2 LABELS, ONE AT EACH END 12.0" FROM THE END OF THE CONNECTOR.
2. 6" FROM CABLE END 1 PLACE FOR ALL LENGTHS OF CABLE.

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| <p>Fire Rated Low PIM 7/16 DIN Male to N Female Cable<br/>SPF-250 Coax in 7 Inch Using Times Microwave Parts</p> |           | <p>CABLE LENGTH (L) TOLERANCES:</p>                                                                   |          | <p>SHEET 1 OF 1</p>                                                                                                        |  |
| <p>ALL DIMENSIONS SHOWN ARE FOR REFERENCE ONLY.</p>                                                              |           | <p>SCALE N/A</p>                                                                                      |          | <p>REV A</p>                                                                                                               |  |
| SIZE                                                                                                             | CAGE CODE | DRAWN BY                                                                                              | ITEM NO. |                                                                                                                            |  |
| A                                                                                                                | 3FKR5     | K.DANG                                                                                                | FMCA2540 |                                                                                                                            |  |

T-Rev.D