

## Low Loss Test RA SMA Male to N Female Bulkhead Cable LL335i Coax

The RA SMA male to type N female bulkhead cable using LL335i coax, part number FMCA1293, from Fairview Microwave is in-stock and ships same day. This Fairview SMA to type N cable assembly has a male to female gender configuration with 50 ohm flexible LL335i coax. Fairview Microwave's flexible RF cable assemblies are ideal for applications where tight bends and continual flexure are required. The FMCA1293 SMA male to type N female cable assembly operates to 18 GHz. The right angle SMA interface on the LL335i 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. The triple shielding of this Fairview cable assembly provides excellent shielding effectiveness of better than 95 dB. The FMCA1293 high performance test cable's 0.3 inch diameter and 83% phase velocity offer very low loss performance up to 18 GHz. The durable stainless steel connectors and FEP jacket provide a cost effective design ideal for test environments where a rugged cable assembly is required. The series is offered with Type N, TNC, and SMA connectors all rated to 18 GHz. A heavy duty boot provides improved strain relief and adds to the durability of the cable assemblies. These cable assemblies are built using a double shielded flexible cable, providing excellent shielding effectiveness of greater than 95 dB. All FMCA1293 cable assemblies are 100% continuity and RF tested to published specifications. Custom lengths are built to order and shipped same day.

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  |            | 18    | GHz          |
| VSWR                    |     |            | 1.4:1 |              |
| Velocity of Propagation |     | 83         |       | %            |
| RF Shielding            | 95  |            |       | dB           |
| Capacitance             |     | 25 [82.02] |       | pF/ft [pF/m] |

### Performance by Frequency

| Description           | F1    | F2    | F3   | F4   | F5   | Units |
|-----------------------|-------|-------|------|------|------|-------|
| Frequency             | 1     | 2     | 4.5  | 9    | 18   | GHz   |
| Insertion Loss (Max.) | 0.06  | 0.08  | 0.12 | 0.18 | 0.26 | dB/ft |
|                       | 0.2   | 0.26  | 0.39 | 0.59 | 0.85 | dB/m  |
| Insertion Loss (Typ.) | 0.05  | 0.07  | 0.1  | 0.15 | 0.22 | dB/ft |
|                       | 0.16  | 0.23  | 0.33 | 0.49 | 0.72 | dB/m  |
| Power Handling (Max.) | 1,800 | 1,200 | 900  | 650  | 400  | W     |

Electrical Specification Notes:



### Configuration:

- SMA Male Right Angle
- N Female Bulkhead
- LL335i

### Features:

- Max Frequency 18 GHz
- Shielding Effectivity > 95 dB
- 83% Phase Velocity
- Triple Shielded
- FEP Jacket
- 83% Velocity of Propagation
- Shielding effectiveness 95 Db
- Maximum VSWR is 1.40:1 to 18 GHz
- Minimum Bend Radius of 1.5 inches
- Operating Temperature range of -55 to +125°C
- Same day shipment of custom lengths
- 100% Continuity and RF tested

### Applications:

- General Purpose
- Test & Measurement
- Laboratory Use
- General Purpose
- Test & Measurement
- Laboratory Use

Fairview Microwave  
 301 Leora Ln., Suite 100  
 Lewisville, TX 75056  
 Tel: 1-800-715-4396 / (972) 649-6678  
 Fax: (972) 649-6689  
[www.fairviewmicrowave.com](http://www.fairviewmicrowave.com)  
[sales@fairviewmicrowave.com](mailto:sales@fairviewmicrowave.com)

Power handling values are calculated based on Cable properties. Power handling will vary based on the actual VSWR of the cable assembly. Insertion Loss does not include the loss of the connectors, insertion loss is estimated as .1dB per connector.

## Mechanical Specifications

### Cable Assembly

Weight 0.203 lbs [92.08 g]

### Cable

Cable Type LL335i  
 Impedance 50 Ohms  
 Inner Conductor Type Solid  
 Inner Conductor Material and Plating Copper, Silver  
 Dielectric Type PTFE  
 Number of Shields 3  
 Shield Layer 1 Silver Plated Copper Tape  
 Shield Layer 2 Aluminum Polyester  
 Shield Layer 3 Silver Plated Copper Wire  
 Jacket Material FEP, Green  
 Jacket Diameter 0.3 in [7.62 mm]

Repeated Minimum Bend Radius 1.5 in [38.1 mm]

### Connectors

| Description                     | Connector 1                | Connector 2                        |
|---------------------------------|----------------------------|------------------------------------|
| Type                            | SMA Male                   | N Female                           |
| Mount Method                    |                            | Bulkhead                           |
| Specification                   | MIL-STD-348                | MIL-STD-348                        |
| Impedance                       | 50 Ohms                    | 50 Ohms                            |
| Mating Cycles                   |                            | 500                                |
| Contact Material & Plating      | Beryllium Copper, Gold     | Beryllium Copper, Gold over Nickel |
| Contact Plating Spec.           | ASTM-B488 50µ In.          | 50 µin minimum                     |
| Dielectric Type                 | PTFE                       | PEI                                |
| Outer Cond Material & Plating   |                            | Passivated Stainless Steel         |
| Outer Cond Plating Spec.        |                            | SAE-AMS-2700                       |
| Body Material & Plating         | Passivated Stainless Steel | Passivated Stainless Steel         |
| Body Plating Spec.              | SAE-AMS-2700               | SAE-AMS-2700                       |
| Coupling Nut Material & Plating | Passivated Stainless Steel |                                    |
| Coupling Nut Plating Spec.      | SAE-AMS-2700               |                                    |
| Hex Size                        | 5/16 Inch                  |                                    |
| Torque                          | 8 in-lbs 0.9 Nm            | 20 in-lbs 2.26 Nm                  |

## Environmental Specifications

### Temperature

Operating Range -55 to +165 deg C

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

## Plotted and Other Data

Notes:

## How to Order

Part Number Configuration:

**FMCA1293 - xx uu**



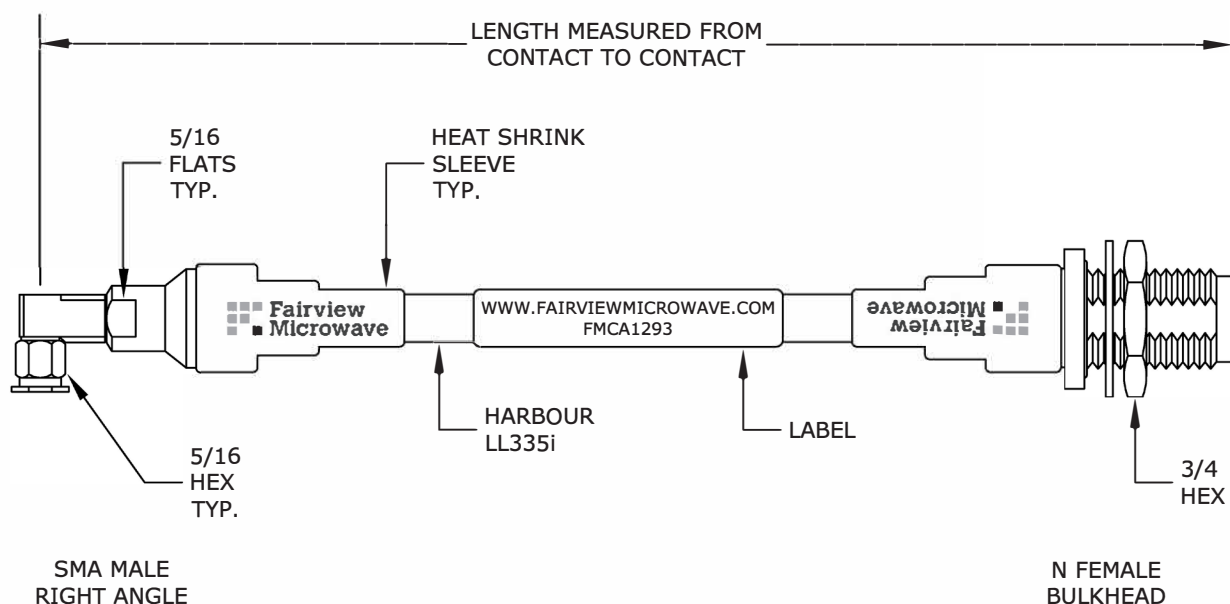
Example: FMCA1293-12 = 12 inches long cable  
FMCA1293-100cm = 100 cm long cable

Low Loss Test RA SMA Male to N Female Bulkhead Cable LL335i Coax 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: [Low Loss Test RA SMA Male to N Female Bulkhead Cable LL335i Coax FMCA1293](https://www.fairviewmicrowave.com/low-loss-test-ra-sma-male-n-female-cable-ll335i-coax-fmca1293-p.aspx)

URL: <https://www.fairviewmicrowave.com/low-loss-test-ra-sma-male-n-female-cable-ll335i-coax-fmca1293-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.



**NOTE:**

LABEL FOR CABLE LENGTHS 48" OR SHORTER TO BE CENTERED . LONGER THAN 48" WILL BE 6" AWAY FROM CONNECTOR .

|                                                                                  |  |                                                                                                                                                                                     |       |                               |             |
|----------------------------------------------------------------------------------|--|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|-------------------------------|-------------|
| <b>FAIRVIEW MICROWAVE INC.</b><br>ALLEN, TX 75013 WWW.FAIRVIEWMICROWAVE.COM      |  | NOTES:<br>1. UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS ARE NOMINAL.<br>2. ALL SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE AT ANY TIME.<br>3. DIMENSIONS ARE IN INCHES [mm]. |       |                               |             |
| TITLE<br><br>Low Loss Test RA SMA Male to N Female Bulkhead<br>Cable LL335i Coax |  | DWG NO<br><br><b>FMCA1293</b>                                                                                                                                                       |       | CAGE CODE<br><br><b>3FKR5</b> |             |
|                                                                                  |  | CAD FILE 122016                                                                                                                                                                     | SHEET | SCALE N/A                     | SIZE A 2233 |