

SMA Male to SMA Female Bulkhead Cable FM086FLEX Coax in 12 Inch

The SMA male to SMA female bulkhead 12 inch cable using FM086FLEX coax, part number FMCA1042-12, from Fairview Microwave is in-stock and ships same day. This Fairview SMA to SMA cable assembly has a male to female gender configuration with 50 ohm flexible FM086FLEX coax. Fairview Microwave's flexible RF cable assemblies are ideal for applications where tight bends and continual flexure are required. The FMCA1042-12 SMA male to SMA female cable assembly operates to 27 GHz. Our RF cable assembly with SMA 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 double shielding of this Fairview cable assembly provides excellent shielding effectiveness of better than 90 dB. Our new series of flexible cables use high performance FM086FLEX coax and are terminated with a new low profile connector design. These high performance flexible cables are an ideal choice for many applications including in-rack RF devices where tight bends and continual flexure might be required. Our FM086FLEX is a flexible coax alternative to semi-rigid coax and has a solid PTFE resulting in a 69.5% phase velocity. This series features a smooth wall formed by the braid-over-spiral-ribbon design and has similar performance to a solid wall RG405 semi-rigid RG405 cable.

These FM086FLEX cables are similar to our existing SCA1814 cables. The heavier duty SCA1814 test cables have similar electrical performance, but include a heavy duty strain relief mechanism and extra booting material as well as a thick wall SMA connector to increase the ruggedness of the SCA1814 cables for use in more demanding test environments.

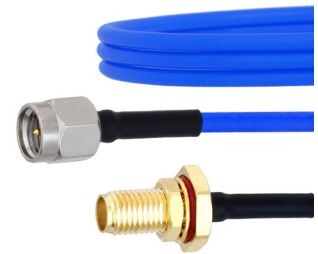
Custom versions of most RF cable assemblies can be built and shipped same day. Custom cable assembly lengths can be obtained by specifying the desired length on the web site at time of order or by contacting a sales representative. Other RF cable assembly value added services including connector orientation 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 | | 27 | GHz |
| VSWR | | | 1.4:1 | |
| Return Loss | | | 16.54 | dB |
| Velocity of Propagation | | 69.5 | | % |
| RF Shielding | 90 | | | dB |
| Group Delay | | 1.44 [4.72] | | ns/ft [ns/m] |
| Capacitance | | 29.4 [96.46] | | pF/ft [pF/m] |
| Operating Voltage (AC) | | | 250 | Vrms |

Performance by Frequency

| Description | F1 | F2 | F3 | F4 | F5 | Units |
|-----------------------|------|-----|-----|-----|------|-------|
| Frequency | 3 | 6 | 12 | 18 | 27 | GHz |
| Insertion Loss (Max.) | 0.62 | 0.9 | 1.3 | 1.6 | 1.85 | dB |



Configuration:

- SMA Male
- SMA Female Bulkhead
- FM086FLEX

Features:

- Max Frequency 27 GHz
- Shielding Effectivity > 90 dB
- 69.5% Phase Velocity
- Double Shielded
- FEP Jacket
- 500 Mating Cycles
- Typical SMA VSWR less than 1.30:1 to 27 GHz
- Shielding effectivity > 90dB
- One time minimum bend radius: 0.24 inch

Applications:

- General Purpose
- Laboratory Use
- High Performance RF equipment interconnect
- Flexible in cabinet or in the rack requirements
- Inside the box RF routing
- General purpose lighter duty lab 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
sales@fairviewmicrowave.com

| | | | | | |
|-----------------------|--------|-------|--------|--------|-------|
| VSWR (Max.) | 1.12:1 | 1.2:1 | 1.25:1 | 1.35:1 | 1.4:1 |
| Power Handling (Max.) | 81 | 50 | 40 | 33 | W |

Mechanical Specifications

Cable Assembly

| | |
|---------|----------------------|
| Length* | 12 in [304.8 mm] |
| Weight | 0.0393 lbs [17.83 g] |

Cable

| | |
|--|----------------------------|
| Cable Type | FM086FLEX |
| Impedance | 50 Ohms |
| Inner Conductor Type | Solid |
| Inner Conductor Material and Plating | Copper Clad Steel, Silver |
| Dielectric Type | PTFE |
| Number of Shields | 2 |
| Shield Layer 1 | Silver Plated Copper Tape |
| Shield Layer 2 | Silver Plated Copper Braid |
| Outer Conductor 1 Material and Plating | Silver Plated Copper Tape |
| Outer Conductor 2 Material and Plating | Silver Plated Copper Braid |
| Jacket Material | FEP |
| Jacket Diameter | 0.104 in [2.64 mm] |
| One Time Minimum Bend Radius | 0.24 in [6.1 mm] |
| Repeated Minimum Bend Radius | 0.79 in [20.07 mm] |

Connectors

| Description | Connector 1 | Connector 2 |
|---------------------------------|----------------------------|------------------------|
| Type | SMA Male | SMA Female |
| Mount Method | | Bulkhead |
| Impedance | 50 Ohms | 50 Ohms |
| Mating Cycles | 500 | 500 |
| Contact Material & Plating | Brass, Gold | Beryllium Copper, Gold |
| Dielectric Type | PTFE | PTFE |
| Body Material & Plating | Stainless Steel, Gold | Stainless Steel, Gold |
| Coupling Nut Material & Plating | Passivated Stainless Steel | |
| Hex Size | 5/16 Inch | |
| Seal Gasket Material | Silicon | |

Environmental Specifications

Temperature

| | |
|-----------------|-------------------|
| Operating Range | -40 to +150 deg C |
|-----------------|-------------------|

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

Plotted and Other Data

Notes:

How to Order

Part Number Configuration:

FMCA1042 - xx uu



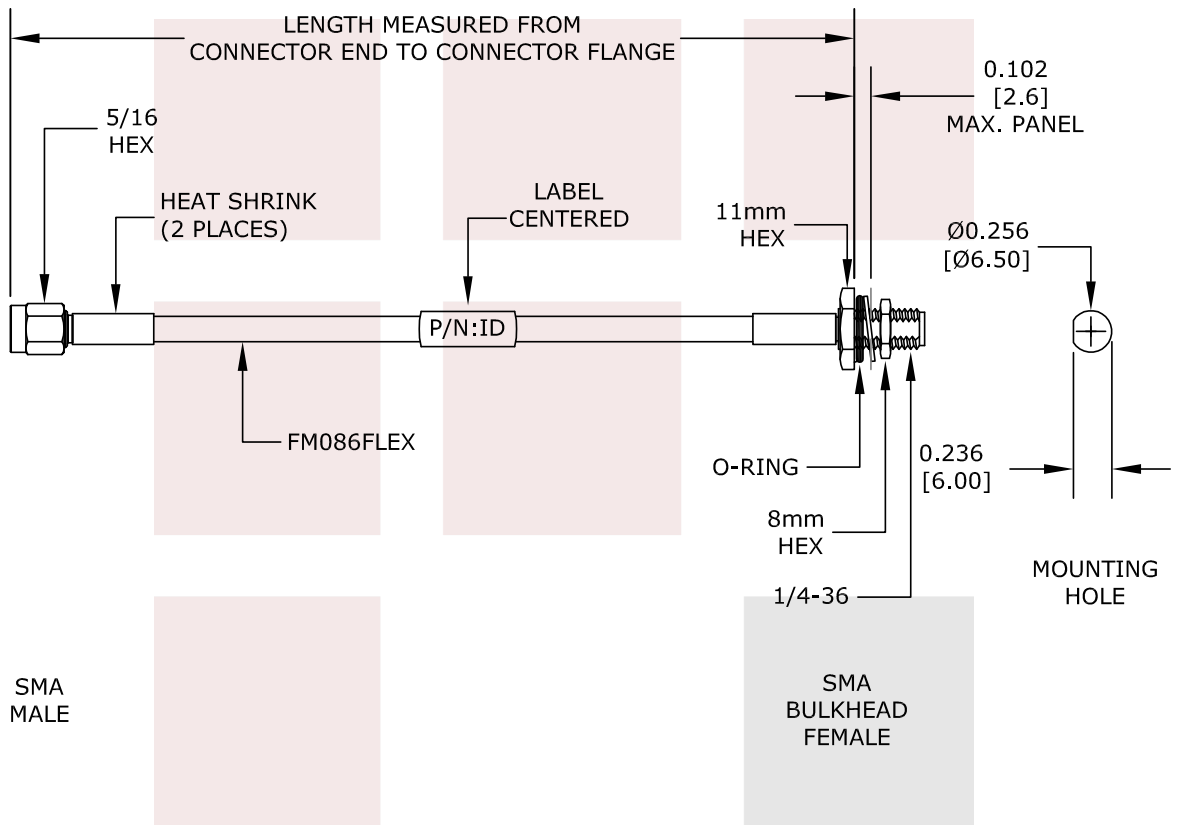
Example: FMCA1042-12 = 12 inches long cable
FMCA1042-100cm = 100 cm long cable

SMA Male to SMA Female Bulkhead Cable FM086FLEX Coax in 12 Inch 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: [SMA Male to SMA Female Bulkhead Cable FM086FLEX Coax in 12 Inch FMCA1042-12](https://www.fairviewmicrowave.com/sma-male-sma-female-cable-fm086flex-coax-fmca1042-12-p.aspx)

URL: <https://www.fairviewmicrowave.com/sma-male-sma-female-cable-fm086flex-coax-fmca1042-12-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.



FAIRVIEW MICROWAVE INC.
ALLEN, TX 75013 WWW.FAIRVIEWMICROWAVE.COM

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 | DWG NO | | CAGE CODE | |
| SMA Male to SMA Female Bulkhead Cable FM086FLEX Coax in 12 Inch | FMCA1042 | | 3FKR5 | |
| CAD FILE | 041015 | SHEET | SCALE | N/A |
| | | | SIZE | A |
| | | | | 150 |