

Low Loss RA TNC Male to TNC Female Bulkhead Cable LMR-195-UF Coax

FMCA100232



Configuration

- Connector 1: TNC Male Right Angle
- Connector 2: TNC Female Bulkhead
- Cable Type: LMR-195-UF
- Coax Flex Type: Flexible

Features

- Max Frequency 3 MHz
- Shielding Effectivity > 90 dB
- 74% Phase Velocity
- Double Shielded
- TPE Jacket

Applications

- General Purpose
- Laboratory Use

Description

The RA TNC male to TNC female bulkhead cable using LMR-195-UF coax, part number FMCA100232, from Fairview Microwave is in-stock and ships same day. This Fairview TNC to TNC cable assembly has a male to female gender configuration with 50 ohm flexible LMR-195-UF coax. Fairview Microwave's flexible RF cable assemblies are ideal for applications where tight bends and continual flexure are required. The FMCA100232 TNC male to TNC female cable assembly operates to 3 MHz. The right angle TNC interface on the LMR-195-UF cable allows for easier connections in tight spaces. Our RF cable assembly with TNC 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.

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 | | 3 | GHz |
| VSWR | | | 1.35:1 | |
| Velocity of Propagation | | 74 | | % |
| RF Shielding | 90 | | | dB |
| Group Delay | | 1.27 [4.17] | | ns/ft [ns/m] |
| Capacitance | | 25.4 [83.33] | | pF/ft [pF/m] |
| Inductance | | 0.064 [0.21] | | uH/ft [uH/m] |
| DC Resistance Inner Conductor | | 9.5 [31.17] | | Ohms/1000ft [Ohms/Km] |
| DC Resistance Outer Conductor | | 4.9 [16.08] | | Ohms/1000ft [Ohms/Km] |
| Operating Voltage (AC) | | | 500 | Vrms |

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Electrical Specifications

| Description | Minimum | Typical | Maximum | Units |
|--------------|---------|---------|---------|-------|
| Jacket Spark | | | 3,000 | Vrms |

Specifications by Frequency

| Part Number | Length | Description | F1 | F2 | F3 | F4 | F5 | Units | Weight (lbs) |
|----------------|--------------------------|-----------------------|-------|-------|-------|-------|-------|-------|--------------|
| | | Frequency | 100 | 250 | 500 | 1000 | 3000 | MHz | |
| FMCA100232 | Custom Lengths Available | Insertion Loss (Typ.) | 0.042 | 0.068 | 0.097 | 0.132 | 0.246 | dB/ft | |
| | | | 0.14 | 0.23 | 0.32 | 0.44 | 0.81 | dB/m | |
| FMCA100232-12 | 12 Inch | Insertion Loss (Typ.) | 0.35 | 0.37 | 0.4 | 0.44 | 0.55 | dB | 0.115 |
| FMCA100232-24 | 24 Inch | Insertion Loss (Typ.) | 0.39 | 0.44 | 0.5 | 0.57 | 0.8 | dB | 0.136 |
| FMCA100232-36 | 36 Inch | Insertion Loss (Typ.) | 0.43 | 0.51 | 0.6 | 0.7 | 1.04 | dB | 0.157 |
| FMCA100232-60 | 60 Inch | Insertion Loss (Typ.) | 0.51 | 0.64 | 0.79 | 0.96 | 1.53 | dB | 0.199 |
| FMCA100232-300 | 300 Inch | Insertion Loss (Typ.) | 1.35 | 2 | 2.73 | 3.6 | 6.45 | dB | 0.619 |

The insertion loss data for the base model does not include loss due to the connectors. Each length includes insertion loss due to the connectors.

Loss due to Connector 1: 0.2 dB

Loss due to Connector 2: 0.1 dB

Base Weight: 0.115 pounds

Additional Weight per Inch: 0.00175 pounds

Electrical Specification Notes:

Values at 25°C, sea level.

Mechanical Specifications

Cable Assembly

| | |
|----------------|---------------------|
| Width/Diameter | 0.5 in [12.7 mm] |
| Weight | 0.115 lbs [52.16 g] |

Cable

| | |
|--------------------------------------|------------------------|
| Cable Type | LMR-195-UF |
| Impedance | 50 Ohms |
| Inner Conductor Type | Stranded |
| Inner Conductor Material and Plating | Copper |
| Dielectric Type | Foam PE |
| Number of Shields | 2 |
| Shield Layer 1 | Aluminum Tape |
| Shield Layer 2 | Tinned Copper |
| Jacket Material | TPE, Black |
| Jacket Diameter | 0.195 in [4.95 mm] |
| One Time Minimum Bend Radius | 0.5 in [12.7 mm] |
| Repeated Minimum Bend Radius | 2 in [50.8 mm] |
| Bending Moment | 0.1 lbs-ft [0.14 N-m] |
| Flat Plate Crush | 10 lbs/in [0.18 Kg/mm] |
| Tensile Strength | 40 lbs [18.14 Kg] |

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Connectors

| Description | Connector 1 | Connector 2 |
|------------------------------------|----------------------|---------------------|
| Type | TNC Male Right Angle | TNC Female Bulkhead |
| Specification | MIL-STD-348A | MIL-STD-348A |
| Impedance | 50 Ohms | 50 Ohms |
| Configuration | Right Angle | Straight |
| Contact Material and Plating | Brass, Gold | Brass, Gold |
| Contact Plating Specification | 30 µin minimum | 30 µin minimum |
| Dielectric Type | PTFE | PTFE |
| Body Material and Plating | Brass, Nickel | Brass, Nickel |
| Body Plating Specification | 100 µin minimum | 100 µin minimum |
| Coupling Nut Material and Plating | Brass, Nickel | |
| Coupling Nut Plating Specification | 100 µin minimum | |

Environmental Specifications

Operating Range Temperature -40 to +85 deg C

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

Plotted and Other Data

Notes:
Values at 25°C, sea level.

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Typical Performance Data

How to Order

Part Number Configuration: **FMCA100232** **- xx** **uu**

Unit of Measure:
cm = Centimeters
<blank> = Inches

Length

Base Number

Example: FMCA100232-12 = 12 inches long cable
FMCA100232-100cm = 100 cm long cable

Low Loss RA TNC Male to TNC Female Bulkhead Cable LMR-195-UF Coax 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: [Low Loss RA TNC Male to TNC Female Bulkhead Cable LMR-195-UF Coax FMCA100232](#)

URL: <https://www.fairviewmicrowave.com/low-loss-ra-tnc-male-to-tnc-female-bulkhead-cable-lmr-195-uf-coax-fm-ca100232-p.aspx>

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