

FMCA1690-24 DATA SHEET

Low Loss RA TNC Male to RA TNC Male Cable LL160 Coax in 24 Inch

The RA TNC Male to RA TNC Male low loss cable using LL160 coax, part number FMCA1690-24, from Fairview Microwave is in-stock and ships same day. This TNC to TNC low loss cable assembly features a 82.5% velocity dielectric manufactured from expanded PTFE tape. This microporous dielectric contributes to the low loss and phase stability of the cables. Our triple shielded coaxial cable construction of Fairview's low loss LL160 provides shielding levels as high as 95 dB. The precision connections are constructed with stainless steel bodies and high temperature insulators, supporting a wide range of temperature from -55 to +165 degrees C. This solid combination of connectors and low loss coax are further enhanced with the addition of heavy-duty heat shrink for improved strain relief for this superior quality RF cable assembly.

Fairview's RA TNC Male to RA TNC Male low loss cable FMCA1690-24 datasheet, specifications and outline drawing are shown in this PDF below. Our extensive offering of RF, microwave and high speed digital connections allows designers to configure and customize their signals however they like. From reducing losses or improving phase stability, Fairview microwave has the right low loss cable solutions to meet your needs.

Electrical Specifications

| Description | Min | T | ур | Max | U | Inits |
|-------------------------|-----|-------|--------|-------|-------|--------|
| Frequency Range | DC | | | 18 | | GHz |
| VSWR | | | | 1.5:1 | | |
| Velocity of Propagation | | 82.5 | | | % | |
| RF Shielding | -90 | | | | | dB |
| Capacitance | | 25 [8 | 32.02] | | pF/ft | [pF/m] |
| | | | | | | |

Performance by Frequency

| Description F1 | | F2 | F3 | F4 | F5 | F5 Units | |
|-----------------------|-----|------|------|------|------|----------|--|
| Frequency | 1 | 2 | 4.5 | 9 | 18 | GHz | |
| Insertion Loss (Typ.) | 0.4 | 0.57 | 0.86 | 1.23 | 1.77 | dB | |

Electrical Specification Notes:

The Insertion Loss data above is based on the performance specifications of the coax cable used in this assembly. The Insertion Loss includes an estimated insertion loss of 0.10*SQRT(F(GHz))dB maximum per connector.

Mechanical Specifications

Cable Assembly

Length* 24 in [609.6 mm]

Cable

Cable Type
Impedance
Inner Conductor Type
Inner Conductor Material and Plating
Dielectric Type
Number of Shields
Shield Layer 1

LL160 50 Ohms Solid Copper, Silver PTFE

Silver Plated Copper



Configuration:

- TNC Male Right Angle
- TNC Male Right Angle
- LL160

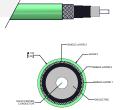
Features:

- Max Frequency 18 GHz
- Shielding Effectivity > -90 dB
- 82.5% Phase Velocity
- Triple Shielded
- FEP Jacket
- Low VSWR of 1.35:1 to 18 GHz
- -55 to +150 Temperature Range
- Expanded PTFE Tape Dielectric
- Same Day Shipment of Custom Lengths

Applications:

- General Purpose
- Laboratory Use
- Automated Test Systems
- Military Electronics
- Phased Array Antennas
- RF Countermeasures

Cable Diagram:



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Shield Layer 2 Aluminum Polyester Shield Layer 3 Silver Plated Copper **FEP**

Jacket Material

Jacket Diameter 0.16 in [4.06 mm]

Repeated Minimum Bend Radius 0.8 in [20.32 mm]

Connectors

| Description | Connecto | r 1 | Connector 2 | | |
|-----------------------------|--------------------------|-----------|--------------------|-----------|--|
| Туре | TNC Male Thr | eaded | TNC Male Thr | eaded | |
| Impedance | 50 Ohms | S | 50 Ohms | 5 | |
| Contact Material & Plating | Beryllium Coppe | er, Gold | Beryllium Coppe | er, Gold | |
| Contact Plating Spec. | ASTM-B48 | 38 | ASTM-B48 | 88 | |
| Dielectric Type | PTFE | | PTFE | | |
| Body Material & Plating | Passivated Stainle | ess Steel | Passivated Stainle | ess Steel | |
| Coupling Nut Material & Pla | iting Passivated Stainle | ess Steel | Passivated Stainle | ess Steel | |
| - | | | | | |

Environmental Specifications

Temperature Operating Range

-55 to +165 deg C

Compliance Certifications (see product page for current document)

FMCA1690-100cm = 100 cm long cable

Plotted and Other Data

Notes:

How to Order

Part Number Configuration: FMCA1690 - xx uu cm = Centimeters <black> = Inches Length Example: FMCA1690-12 = 12 inches long cable

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Low Loss RA TNC Male to RA TNC Male Cable LL160 Coax in 24 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: Low Loss RA TNC Male to RA TNC Male Cable LL160 Coax in 24 Inch FMCA1690-24

The information contained in this document is accurate to the best of our knowledge and representative of the part

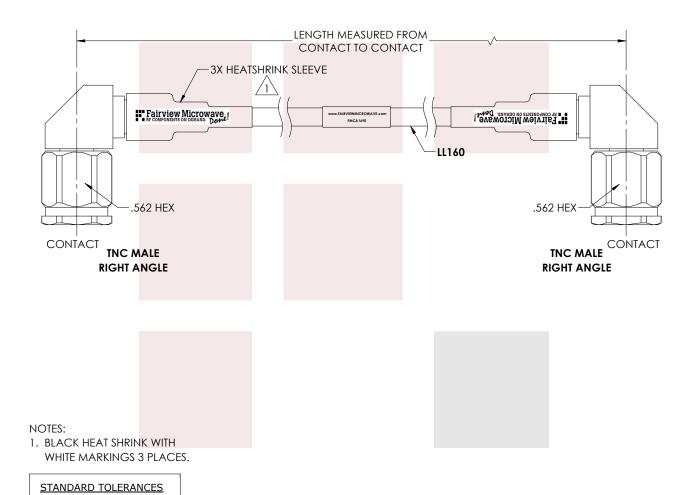
URL: https://www.fairviewmicrowave.com/low-loss-ra-tnc-male-ra-tnc-male-cable-ll160-coax-fmca1690-24-p.aspx

| described | herein. It ma | ay be necessar | y to ma | ke modificatio | ns to the part a | and/or t | he documentation of the | part, in order |
|------------|-----------------|------------------|---------|----------------|------------------|----------|-------------------------|------------------|
| to implem | ent improvem | nents. Fairview | Microw | ave reserves t | he right to mak | e such | changes as required. Ur | less otherwise |
| | | | | | | | resentation or warranty | |
| | | | | | irpose, and Fair | view Mi | crowave does not assur | ne any liability |
| arising ou | t of the use of | f any part or do | cument | tation. | | | | |
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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].

DWG NO
FMCA1690

CAGE CODE
3FKR5

CAD FILE 07/12/18

SHEET

SCALE N/A SIZE A CN2379

.X ±0.2 .XX ±0.01 .XXX ±0.005

*STANDARD TOLERANCES APPLY ONLY TO DIMENSIONS IN INCHES