

## Halogen Free Bend Relief 3-Slot TRB Plug to Bend Relief 3-Lug TRB Jack for 78 Ohm TWCH-78-2, 24" Cable

The 78 ohm TRB 3-Slot plug to 78 ohm TRB 3-Lug jack 24 inch cable using 78 ohm TWCH-78-2 twinax, part number FM3MSA00231-24, from Fairview Microwave is in-stock and ships same day. This Fairview TRB 3-Slot to TRB 3-Lug cable assembly has a plug to jack gender configuration with 78 ohm flexible TWCH-78-2 twinax. Fairview Microwave's flexible RF cable assemblies are ideal for applications where tight bends and continual flexure are required. The FM3MSA00231-24 TRB 3-Slot plug to TRB 3-Lug jack cable assembly operates to 500 MHz.

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  |              | 500   | MHz          |
| Capacitance            |     | 21.2 [69.55] |       | pF/ft [pF/m] |
| Operating Voltage (AC) |     |              | 1,000 | Vrms         |

### Performance by Frequency

| Description           | F1    | F2    | F3   | F4   | F5   | Units |
|-----------------------|-------|-------|------|------|------|-------|
| Frequency             | 10    | 50    | 100  | 200  | 500  | MHz   |
| Insertion Loss (Typ.) | 0.244 | 0.302 | 0.35 | 0.41 | 0.52 | dB    |

#### Electrical Specification Notes:

The Insertion Loss data above is based on the performance specifications of the coax and connectors used in this assembly. The Insertion Loss includes an estimated insertion loss of 0.1 dB per connector.

### Mechanical Specifications

#### Cable Assembly

|         |                     |
|---------|---------------------|
| Length* | 24 in [609.6 mm]    |
| Weight  | 0.182 lbs [82.55 g] |

#### Cable

|                                      |                      |
|--------------------------------------|----------------------|
| Cable Type                           | TWCH-78-2            |
| Impedance                            | 78 Ohms              |
| Inner Conductor Type                 | Stranded             |
| Inner Conductor Material and Plating | Copper, Silver       |
| Dielectric Type                      | PE                   |
| Shield Layer 1                       | Silver Plated Copper |
| Jacket Material                      | HF POF, Blue         |

|                              |                  |
|------------------------------|------------------|
| One Time Minimum Bend Radius | 1.5 in [38.1 mm] |
|------------------------------|------------------|



### Configuration:

- TRB 3-Slot Plug
- TRB 3-Lug Jack
- TWCH-78-2

### Features:

- Max Frequency 500 MHz
- HF POF Jacket
- MIL-STD-1553
- -30°C to +80°C
- 78 ohms
- Halogen Free
- Non-Toxic

### Applications:

- General Purpose
- Laboratory Use
- Military Contractors
- MIL-STD-1553
- Data
- Safer Environments
- Ventilation critical areas

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**Connectors**

| Description                   | Connector 1                  | Connector 2                  |
|-------------------------------|------------------------------|------------------------------|
| Type                          | TRB 3-Slot Plug Bayonet      | TRB 3-Lug Jack Bayonet       |
| Option                        | Bend Relief Spring           | Bend Relief Spring           |
| Impedance                     | 78 Ohms                      | 78 Ohms                      |
| Contact Material & Plating    | Bronze, Gold 30 micro inches | Bronze, Gold 30 micro inches |
| Contact Plating Spec.         | ASTM-B-488                   | ASTM-B-488                   |
| Dielectric Type               | Teflon                       | Teflon                       |
| Outer Cond Material & Plating | Phosphor Bronze, Gold        | Phosphor Bronze, Gold        |
| Outer Cond Plating Spec.      | 30 micro inches              | 30 micro inches              |
| Body Material & Plating       | Brass, Nickel                | Brass, Nickel                |
| Body Plating Spec.            | ASTM-B-733                   | ASTM-B-733                   |

**Environmental Specifications**  
**Temperature**

Operating Range -30 to +80 deg C

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

**Plotted and Other Data**

Notes:

**How to Order**

Part Number Configuration: **FM3MSA00231 - xx uu**

cm = Centimeters  
<blank> = Inches  
Length

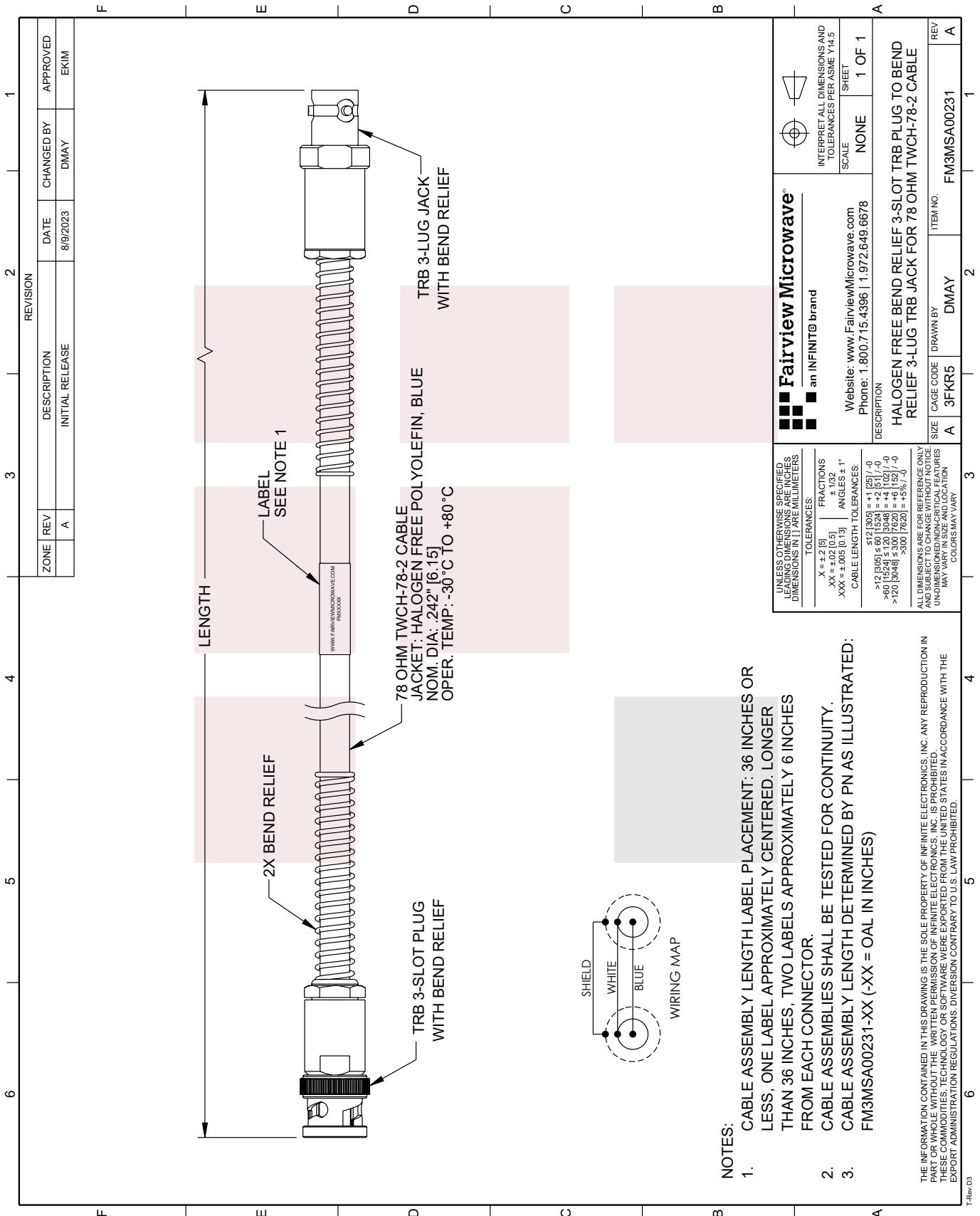
Example: FM3MSA00231-12 = 12 inches long cable  
FM3MSA00231-100cm = 100 cm long cable

Halogen Free Bend Relief 3-Slot TRB Plug to Bend Relief 3-Lug TRB Jack for 78 Ohm TWCH-78-2, 24" Cable 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: [Halogen Free Bend Relief 3-Slot TRB Plug to Bend Relief 3-Lug TRB Jack for 78 Ohm TWCH-78-2, 24" Cable FM3MSA00231-24](#)

URL: <https://www.fairviewmicrowave.com/1553-trb-3-slot-plug-to-trb-3-lug-jack-cable-78-ohm-twch-78-2-coax-in-24-inch-with-bend-relief-fm3msa00231-24-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.



|   |                         |   |
|---|-------------------------|---|
| <p><b>Fairview Microwave</b><br/>an INFINIT<sup>®</sup> brand</p> <p>Website: <a href="http://www.FairviewMicrowave.com">www.FairviewMicrowave.com</a><br/>Phone: 1.800.715.4396   1.972.649.6678</p> |                         | <p>INTERPRET ALL DIMENSIONS AND TOLERANCES PER ASME Y14.5 SHEET</p> <p>SCALE: NONE</p> <p>SHEET: 1 OF 1</p> |
| <p>DESCRIPTION: HALOGEN FREE BEND RELIEF 3-SLOT TRB PLUG TO BEND RELIEF 3-LUG TRB JACK FOR 78 OHM TWCH-78-2 CABLE</p>   |                         |   |
| <p>SIZE: A</p>  | <p>CAGE CODE: 3FKR5</p> | <p>ITEM NO.: FM3MSA00231</p>  |
| <p>REV: A</p>   | <p>DRAWN BY: DMAY</p>   | <p>REV: A</p>   |

UNLESS OTHERWISE SPECIFIED, LEADING DIMENSIONS ARE IN INCHES, DIMENSIONS IN [ ] ARE MILLIMETERS.

TOLERANCES:

|                     |                  |
|---------------------|------------------|
| X = ±.2 [5]         | FRACTIONS ± 1/32 |
| .XX = ±.02 [0.5]    | ANGLES ± 1°      |
| .XXX = ±.005 [0.13] |                  |

CABLE LENGTH TOLERANCES:

|  |
|--|
| ±12 [305] = ±1 [25] / -0                           |
| ±12 [305] ≤ 60 [1524] = ±2 [51] / -0               |
| ±12 [305] ≤ 60 [1524] ≤ 300 [7620] = ±4 [102] / -0 |
| >120 [3046] ≤ 300 [7620] = ±6 [152] / -0           |
| >300 [7620] = ±5% / -0                             |

ALL DIMENSIONS ARE FOR REFERENCE ONLY AND SUBJECT TO CHANGE WITHOUT NOTICE. UNDIMENSIONED NON-CRITICAL FEATURES MAY VARY IN SIZE AND LOCATION. COLORS MAY VARY.

NOTES:

- CABLE ASSEMBLY LENGTH LABEL PLACEMENT: 36 INCHES OR LESS, ONE LABEL APPROXIMATELY CENTERED. LONGER THAN 36 INCHES, TWO LABELS APPROXIMATELY 6 INCHES FROM EACH CONNECTOR.
- CABLE ASSEMBLIES SHALL BE TESTED FOR CONTINUITY.
- CABLE ASSEMBLY LENGTH DETERMINED BY PN AS ILLUSTRATED: FM3MSA00231-XX (-XX = OAL IN INCHES)

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