

Transfer Latching DC to 12 GHz Electro-Mechanical Relay Switch, up to 430W, 12V, N

The FMSW6387 is a Transfer (DPDT) electromechanical relay switch that operates across a wide frequency range of DC to 12 GHz and can handle up to 430 Watts of CW input power in a break before make condition. The design features a Latching actuator and is rated for 5M life cycles for high reliability operation. Insertion loss is specified from 0.7 dB maximum and Isolation from 60 dB minimum. The Latching actuator has a +12 Vdc bias voltage, and operates over a temperature range of -25°C to +70°C. The rugged and compact package assembly supports N Female connectors and a 9 Pin D-Sub Connector for DC Control. And for highly reliable operation, the model is guaranteed to meet MIL-STD-202 environmental test conditions for shock and random vibration.

Electrical Specifications

Switch Type: Transfer
Actuator Type: Latching
Switching Sequence: Break before Make

| Description | Min | Typ | Max | Units |
|------------------------------|-----|-------|-------|-------|
| Frequency Range | DC | | 12 | GHz |
| Impedance | | 50 | | Ohms |
| Operating Voltage | 11 | 12 | 13 | Volts |
| Actuating Current @ 12 Volts | | 200 | | mA |
| VSWR | | 1.2:1 | 1.7:1 | |
| Insertion Loss | | 0.2 | 0.7 | dB |
| Insertion Loss Repeatability | | | | |
| Isolation | 60 | 80 | | dB |
| Input Power (CW) | | | 200 | Watts |
| Switching Time | | | 20 | ms |

Performance by Frequency

| Description | F1 | F2 | F3 | F4 | F5 | Units |
|---------------------|--------|-------|-------|--------|----|-------|
| Frequency Range | DC - 2 | 2 - 4 | 4 - 8 | 8 - 12 | | GHz |
| VSWR, Max | 1.2:1 | 1.4:1 | 1.5:1 | 1.7:1 | | |
| Insertion Loss, Max | 0.2 | 0.4 | 0.5 | 0.7 | | dB |
| Isolation, Min | 80 | 80 | 70 | 60 | | dB |
| Power In, Typ (CW) | 430 | 300 | 230 | 200 | | Watts |

Mechanical Specifications

Size

Weight: 0.591 lbs [268.07 g]
Package Type: Connectorized
Operating Life: 5,000,000 Cycles

Connectors

RF Connector Type: N Female
Control Connector: 9 Pin D-Sub



Features:

- Transfer (DPDT)
- DC to 12 GHz Frequency Range
- Isolation greater than 80 dB typical
- 5M Cycle Min Operating Life
- +12 Volt DC
- 430 Watt average Power
- Latching Actuator
- -25 to +70°C Operating Temperature
- Insertion Loss as low as 0.2 dB Max
- VSWR as low as 1.2:1 max
- N Female RF connectors
- 9 Pin D-Sub Connector for DC Control
- Hot Switching Capability - Consult Factory
- S-Parameter Data available upon request

Applications:

- High Performance Relay Switch
- Military Communications
- Communications Systems
- Test & Measurement

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Environmental Specifications

Temperature

Operating Range -25 to +70 deg C
 Storage Range -55 to +100 deg C

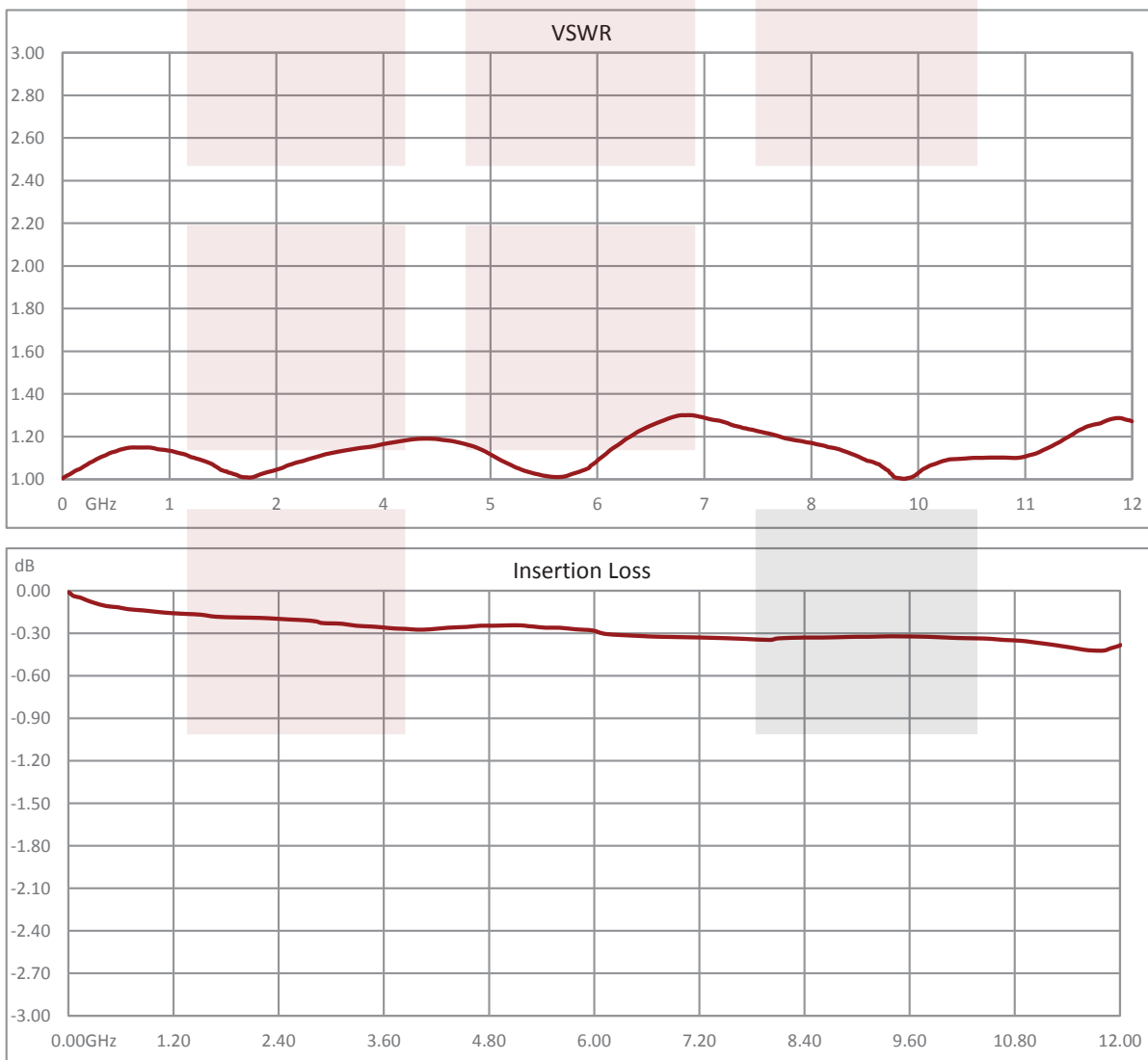
Shock MIL-STD-202 Method 213, Cond. D 500G Non Operating
 Vibration MIL-STD-202 Method 214, Cond. D 10G RMS Non Operating

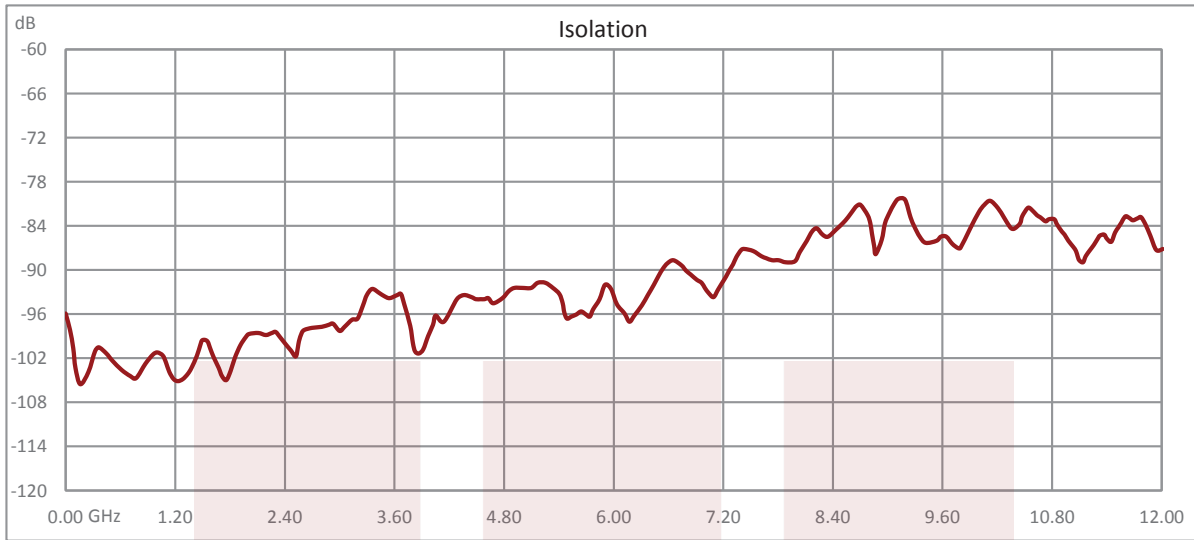
Compliance Certifications (see [product page](#) for current document)

Plotted and Other Data

Notes:

Typical Performance Data



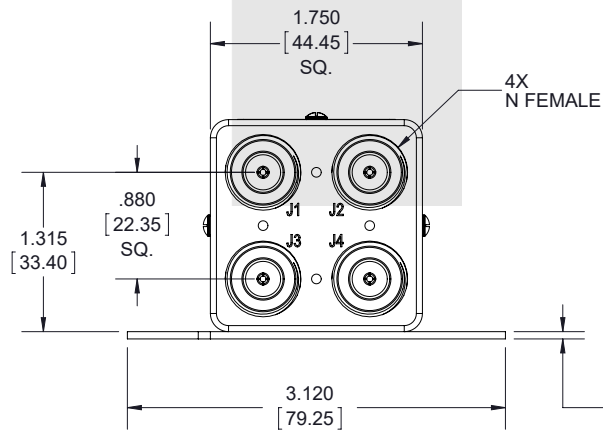
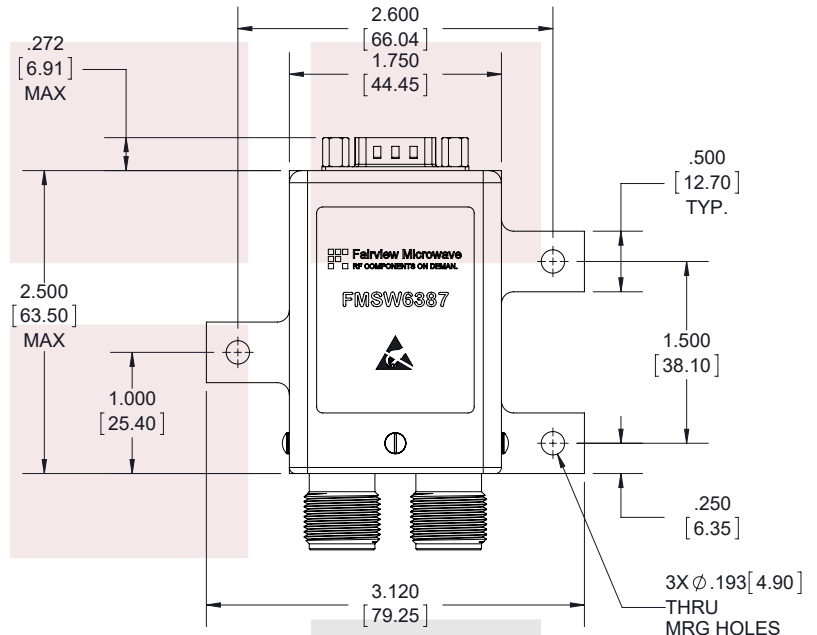
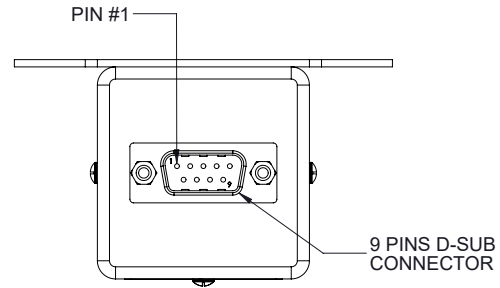
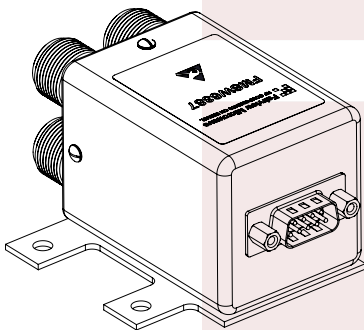
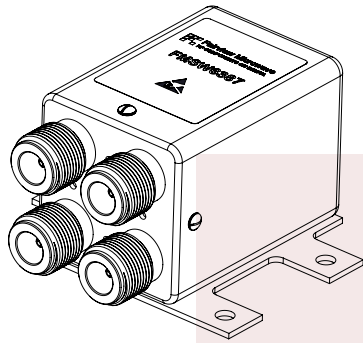


Transfer Latching DC to 12 GHz Electro-Mechanical Relay Switch, up to 430W, 12V, N from Fairview Microwave is in-stock and available to ship same-day. All of our RF/microwave products are available off-the-shelf from our ISO 9001:2008 certified facilities in Allen, Texas. Fairview Microwave is RF on-demand.

For additional information on this product, please click the following link: [Transfer Latching DC to 12 GHz Electro-Mechanical Relay Switch, up to 430W, 12V, N FMSW6387](https://www.fairviewmicrowave.com/transfer-latching-12-ghz-electro-mechanical-relay-switch-200w-12v-n-fm-sw6387-p.aspx)

URL: <https://www.fairviewmicrowave.com/transfer-latching-12-ghz-electro-mechanical-relay-switch-200w-12v-n-fm-sw6387-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.



STANDARD TOLERANCES

- .X ±0.2
- .XX ±0.01
- .XXX ±0.005

*STANDARD TOLERANCES APPLY ONLY TO DIMENSIONS IN INCHES

FAIRVIEW MICROWAVE INC.

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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].

TITLE

Transfer Latching DC to 12 GHz Electro-Mechanical Relay Switch, up to 430W, 12V, N

DWG NO

FMSW6387

CAGE CODE

3FKR5

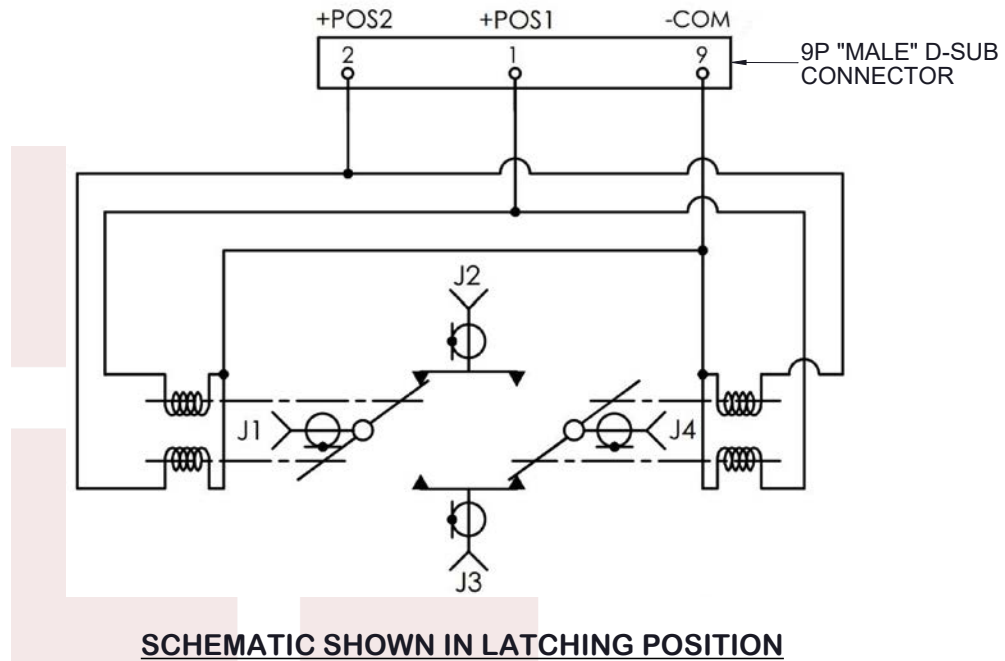
CAD FILE 090817

SHEET 1 OF 1

SCALE N/A

SIZE A

7361



| POS | TERMINAL PATH | RF PATH |
|-------|---------------|--------------|
| POS 1 | 1-9 | J1-J2, J3-J4 |
| POS 2 | 2-9 | J1-J3, J2-J4 |

| STANDARD TOLERANCES | |
|---------------------|--------|
| .X | ±0.2 |
| .XX | ±0.01 |
| .XXX | ±0.005 |

*STANDARD TOLERANCES APPLY ONLY TO DIMENSIONS IN INCHES

| | | | | | | | | |
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| TITLE Transfer Latching DC to 12 GHz Electro-Mechanical Relay Switch, up to 430W, 12V, N | | DWG NO FMSW6387 | | CAGE CODE 3FKR5 | | | | |
| CAD FILE | 090817 | SHEET | 2 OF 2 | SCALE | N/A | SIZE | A | 7361 |