

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

Fairview Microwave
1130 Junction Dr. #100
Allen, TX 75013
Tel: 1-800-715-4396 / (972) 649-6678
Fax: (972) 649-6689
www.fairviewmicrowave.com
sales@fairviewmicrowave.com

Environmental Specifications

Temperature

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

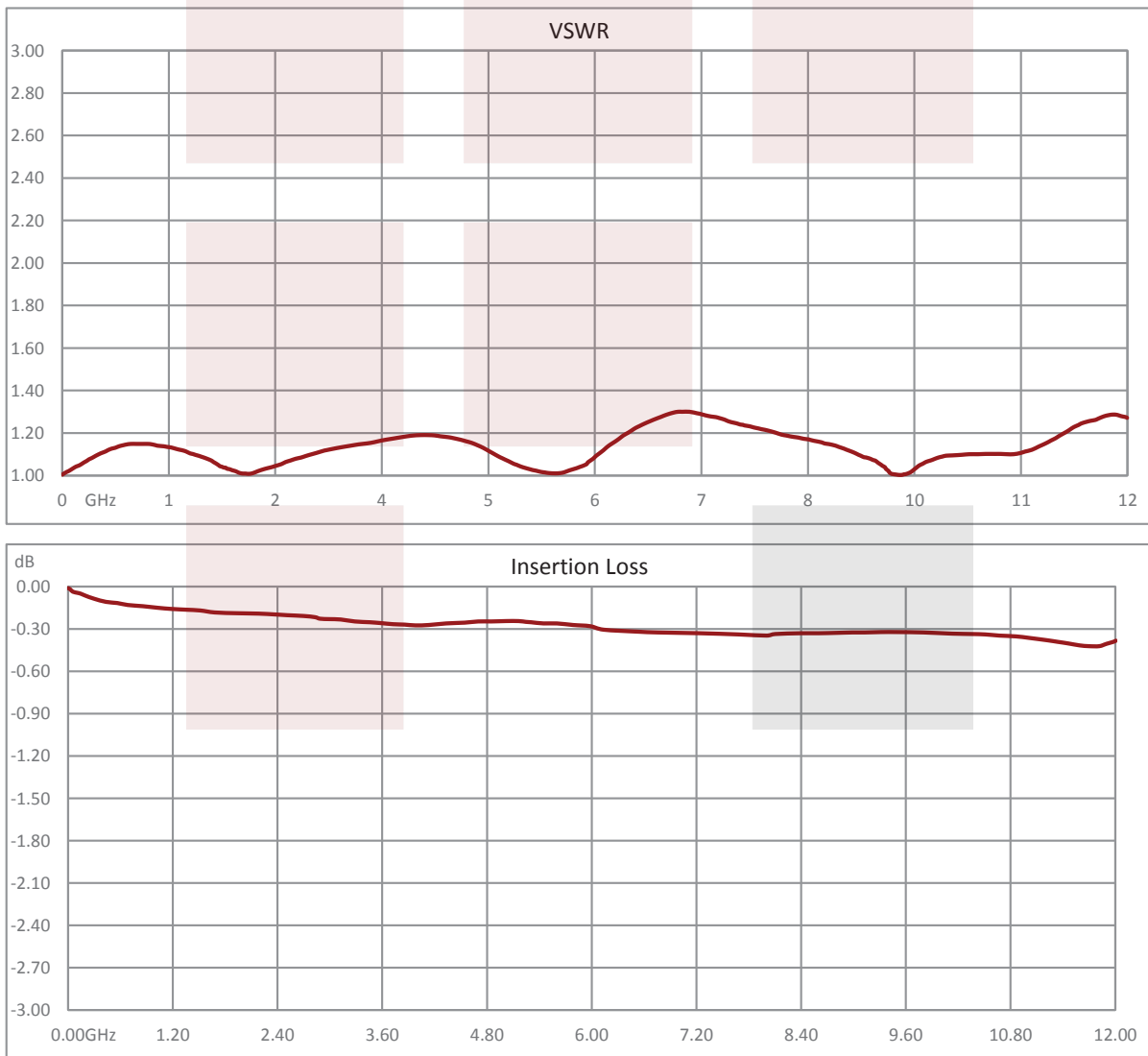
Shock MIL-STD-202 Method 213, Cond. D 500G Non Operating
 Vibration MIL-STD-202 Method 214, Cond. D 10G RMS Non Operating

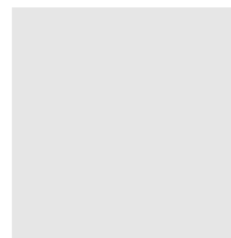
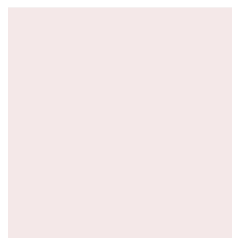
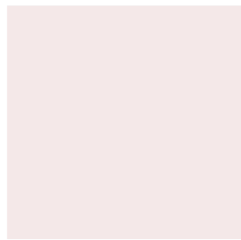
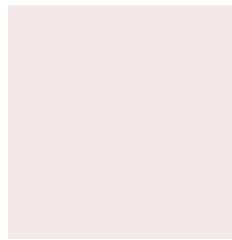
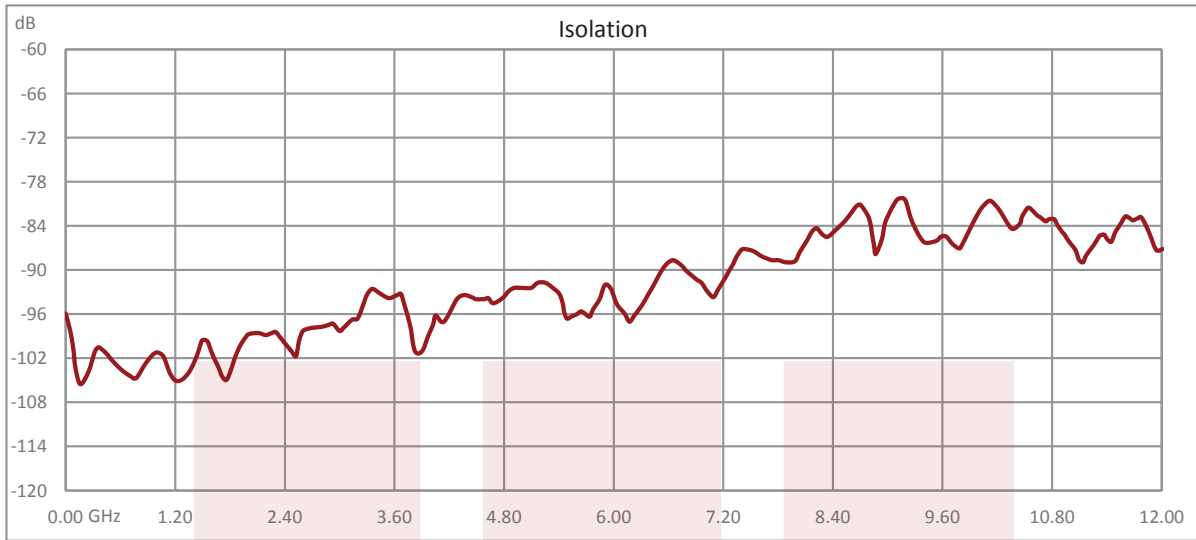
Compliance Certifications (see [product page](#) for current document)

Plotted and Other Data

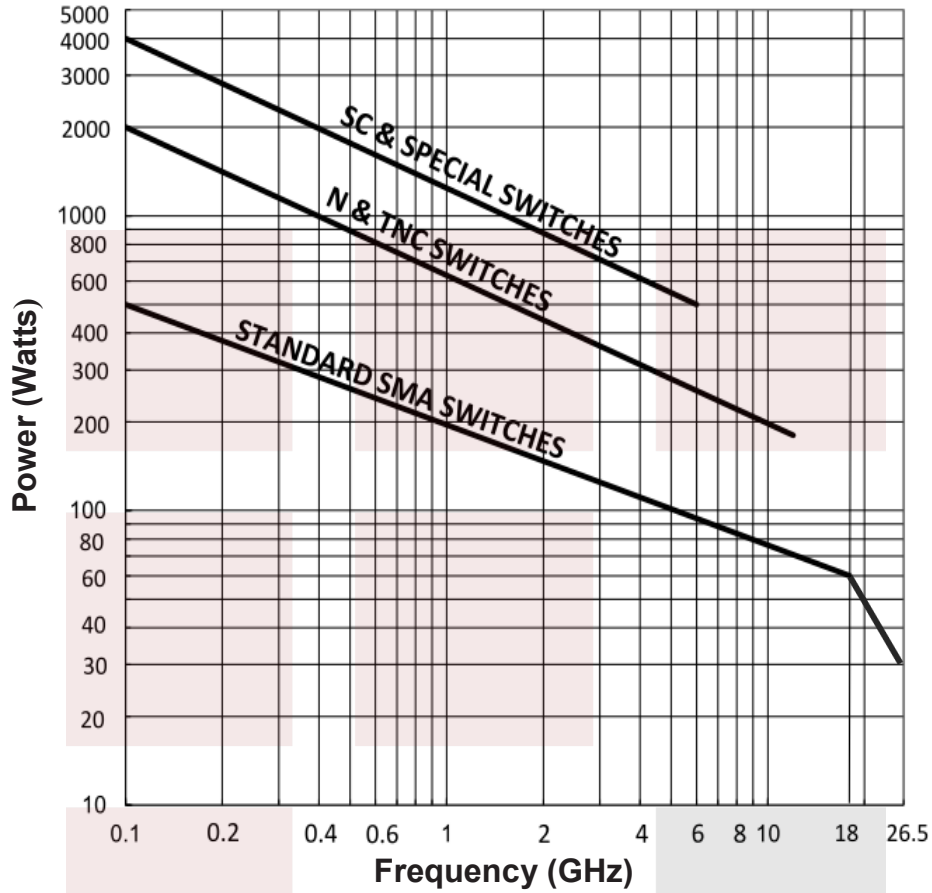
Notes:

Typical Performance Data





Power Handling vs. Frequency & Connector Type



Environmental and Test Conditions:

- Ambient temperature of 25°C or less
- Altitude: Sea Level
- Load VSWR: 1.20:1 max.
- Cold Switching

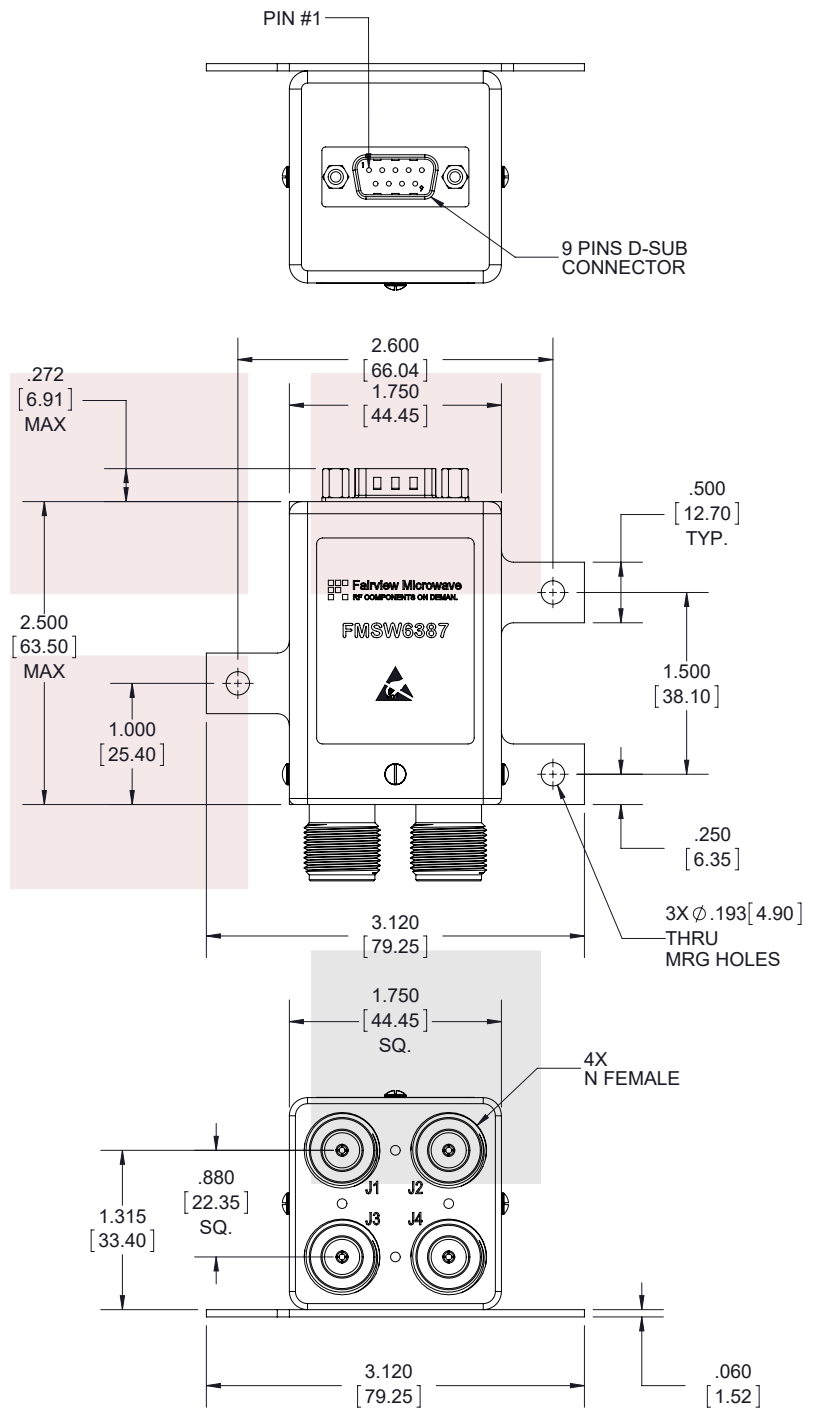
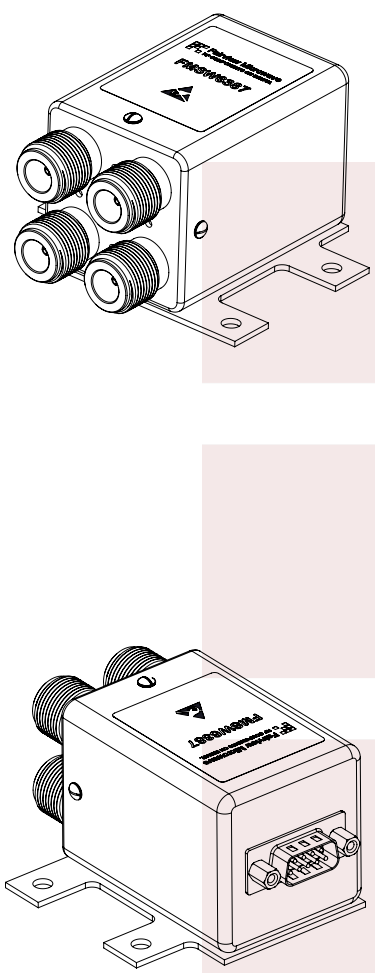
Transfer Latching DC to 12 GHz Electro-Mechanical Relay Switch, up to 430W, 12V, N from Fairview Microwave is in-stock and available to ship same-day. All of our RF/microwave products are available off-the-shelf from our ISO 9001:2008 certified facilities in Allen, Texas. Fairview Microwave is RF on-demand.

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](#)

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.

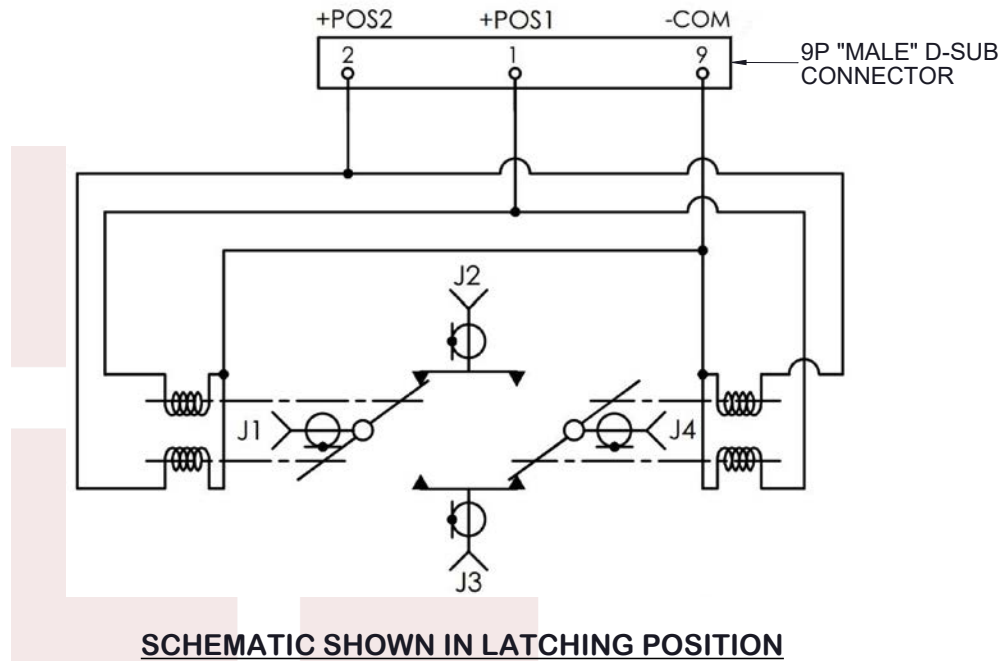




STANDARD TOLERANCES
 .X ±0.2
 .XX ±0.01
 .XXX ±0.005

*STANDARD TOLERANCES APPLY ONLY TO DIMENSIONS IN INCHES

FAIRVIEW MICROWAVE INC. 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 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

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 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