

FMSW6390 DATA SHEET

Transfer Latching DC to 12 GHz Electro-Mechanical Relay Switch, up to 90W, 12V, SMA

The FMSW6390 is a Transfer (DPDT) electromechanical relay switch that operates across a wide frequency range of DC to 12 GHz and can handle up to 90 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. Impressive performance includes insertion loss less than 0.2 dB typical and isolation greater than 70 dB typical. 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 SMA Female connectors and a 9 Pin D-Sub Connector for DC Control. And for highly reliable operation, the model is guranteed to meet MIL-STD-202 environmental test conditions for shock and random vibration.

Electrical Specifications

Switch Type Actuator Type Switching Sequence Transfer Latching Break before Make

Description	Min	Тур	Мах	Units	
Frequency Range	DC		12	GHz	
Impedance		50		Ohms	
Operating Voltage	11	12	13	Volts	
Actuating Current @ 12 Vo	lts	200		mA	
VSWR		1.2:1	1.4:1		
Insertion Loss		0.2	0.3	dB	
Insertion Loss Repeatability					
Isolation	60	70		dB	
Input Power (CW)			75	Watts	
Switching Time			20	ms	

Performance by Frequency

Description	F1	F2	F3	F4	F5	Units
Frequency Range	DC - 6	6 - 12				GHz
VSWR, Max	1.2:1	1.3:1				
Insertion Loss, Max	0.2	0.3				dB
Isolation, Min	70	60				dB
Power In, Typ (CW)	90	75				Watts

Mechanical Specifications

Size

Package Type

Operating Life

Connectors RF Connector Type Control Connector Connectorized 5,000,000 Cycles

SMA Female 9 Pin D-Sub



Features:

- Tranfer (DPDT)
- DC to 12 GHz Frequency Range
- Isolation greater than
 70 dB typical
- 5M Cycle Min Operating Life
- +12 Volt DC
- 90 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
- SMA 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

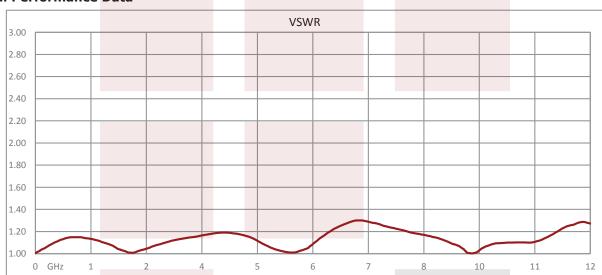
Temperature Operating Range Storage Range	-25 to +70 deg C -55 to +100 deg C
Shock	MIL-STD-202 Method 213, Cond. D 500G Non Operating
Vibration	MIL-STD-202 Method 214, Cond. D 10G RMS Non Operating

Compliance Certifications (see product page for current document)

Plotted and Other Data

Notes:

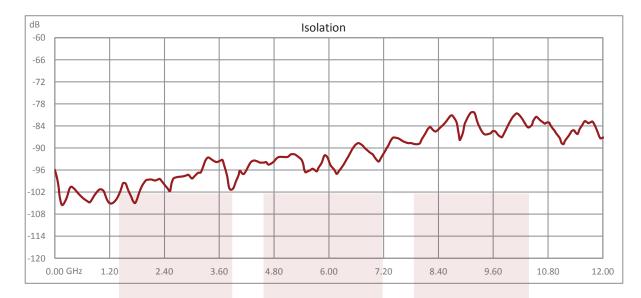
Typical Performance Data











Transfer Latching DC to 12 GHz Electro-Mechanical Relay Switch, up to 90W, 12V, SMA 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.

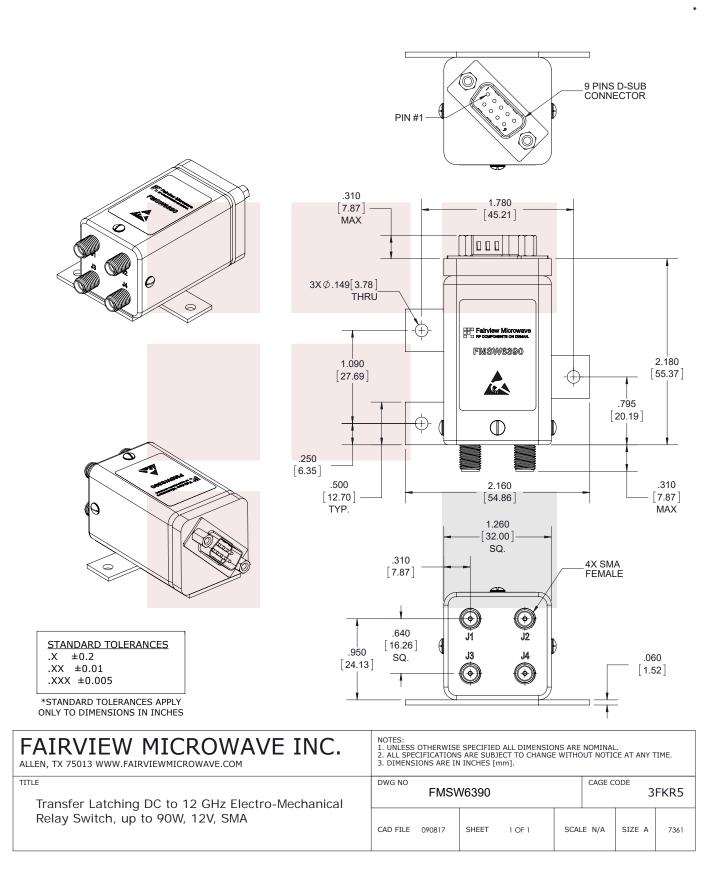
For additional information on this product, please click the following link: Transfer Latching DC to 12 GHz Electro-Mechanical Relay Switch, up to 90W, 12V, SMA FMSW6390

URL: https://www.fairviewmicrowave.com/transfer-latching-12-ghz-electro-mechanical-relay-switch-75w-12v-sma-fmsw6390-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.

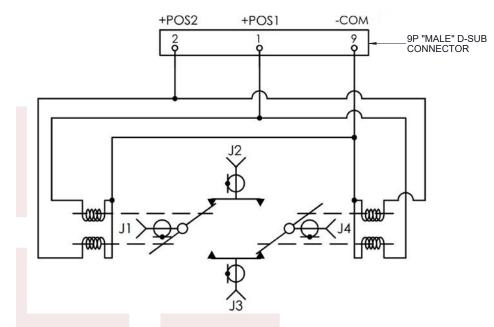












SCHEMATIC SHOWN IN LATCHING POSITION

POS	VOLTAGE	RF PATH
POS 1	1-9	JI-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.	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].				IME.		
TITLE Transfer Latching DC to 12 GHz Electro-Mechanical Relay Switch, up to 90W, 12V, SMA	DWG NO FMSW6390				CAGE CODE 3FKR5		
	CAD FILE 090817	SHEET	2 OF 2	SCAL	E N/A	SIZE A	7361