

Transfer Latching Electro-Mechanical Relay Switch From DC to 26.5 GHz, 20 Watts with Indicators, TTL, Self Cut Off, Diodes, SMA

The FMSW6116 is a Transfer Electromechanical Relay Switch that operates over a wide frequency band from DC to 26.5 GHz and has a rating of 20 Watts input power (CW). Rated for 1M life cycles for high reliability operation, this design uses a Latching Actuator with a break before make configuration, self cut off circuitry, TTL logic driver, position indicators and suppression diodes. The switch exhibits exceptional electrical performance specified from 0.2 dB max for insertion loss and 80 dB min for isolation, and guaranteed over -25°C to +85°C. The assembly requires an operating voltage of +12Vdc and is certified as RoHS compliant. External connectors include solder terminals and SMA female connectors.

Electrical Specifications

Switch Type	Transfer, Reflective
Actuator Type	Latching
Switching Sequence	Break Before Make
Actuator Options	Indicators, TTL Logic, Self Cut Off, Diodes
TTL Control	on: 2.4 to 5 Volts off: 0 to 0.8 Volts

Description	Min	Typ	Max	Units
Frequency Range	DC		26.5	GHz
Impedance		50		Ohms
Operating Voltage		12		Volts
Actuating Current @ 12 Volts		335		mA
VSWR			1.5:1	
Insertion Loss			0.5	dB
Isolation	60			dB
Input Power (CW) (at 26.5 GHz)			20	Watts

Performance by Frequency

Description	F1	F2	F3	F4	F5	Units
Frequency Range	DC - 4	4 - 8	8 - 12	12 - 18	18 - 26.5	GHz
VSWR, Max	1.2:1	1.3:1	1.4:1	1.5:1	1.5:1	
Insertion Loss, Max	0.2	0.3	0.4	0.5	0.5	dB
Isolation, Min	80	75	70	60	60	dB



Features:

- Transfer Relay Switch
- DC to 26.5 GHz Frequency Range
- 1M Cycle Operating Life Min
- Latching Actuator
- Self Cut Off, TTL Logic Driver, Position Indicators, Suppression Diodes
- Insertion Loss 0.5 dB max
- Isolation 60 dB min
- 20 Watts Avg Power Max
- Switching Sequence Break Before Make

Applications:

- Test & Measurement
- Communications System
- Instrumentation

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Mechanical Specifications

Size

Length	2 in [50.8 mm]
Width/Diameter	2.16 in [54.86 mm]
Height	1.363 in [34.62 mm]
Weight	0.35 lbs [158.76 g]
Body Material and Plating	Aluminum
Package Type	Connectorized Module
Operating Life	1,000,000 Cycles
Switching Time	20 ms Max

Connectors

RF Connector Type	SMA Female
RF Connector Contact Material & Plating	Beryllium Copper, Gold
RF Connector Body Material & Plating	Passivated Stainless Steel
Control Connector	Solder Pin

Environmental Specifications

Temperature

Operating Range	-25 to +85 deg C
ESD Sensitivity	ESD Sensitive Material. Transport material in Approved ESD bags. Handle in approved ESD Workstation.



Environmental Specification Notes:
Designed to meet MIL-DTL-3928

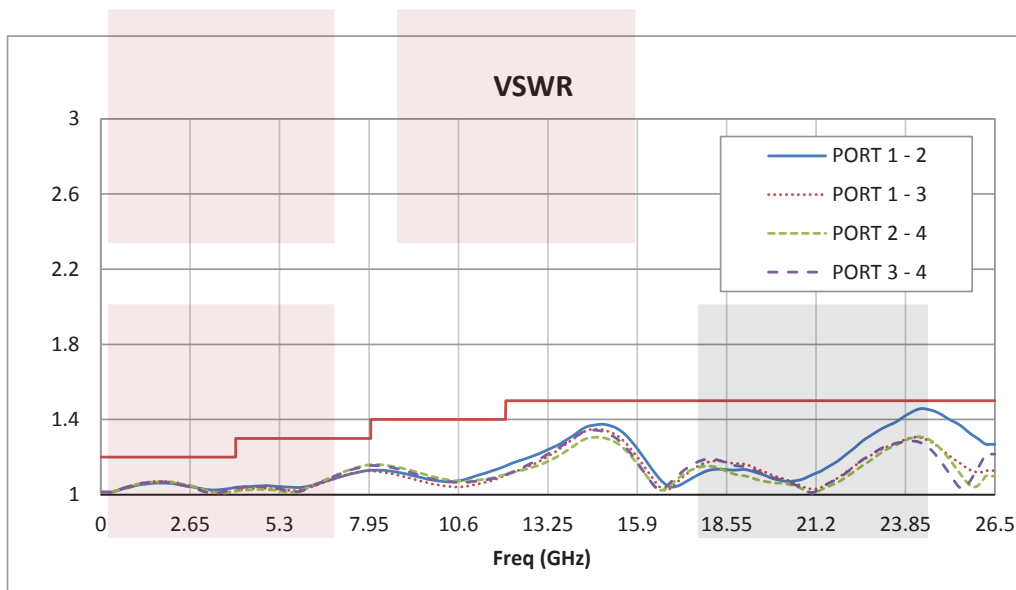
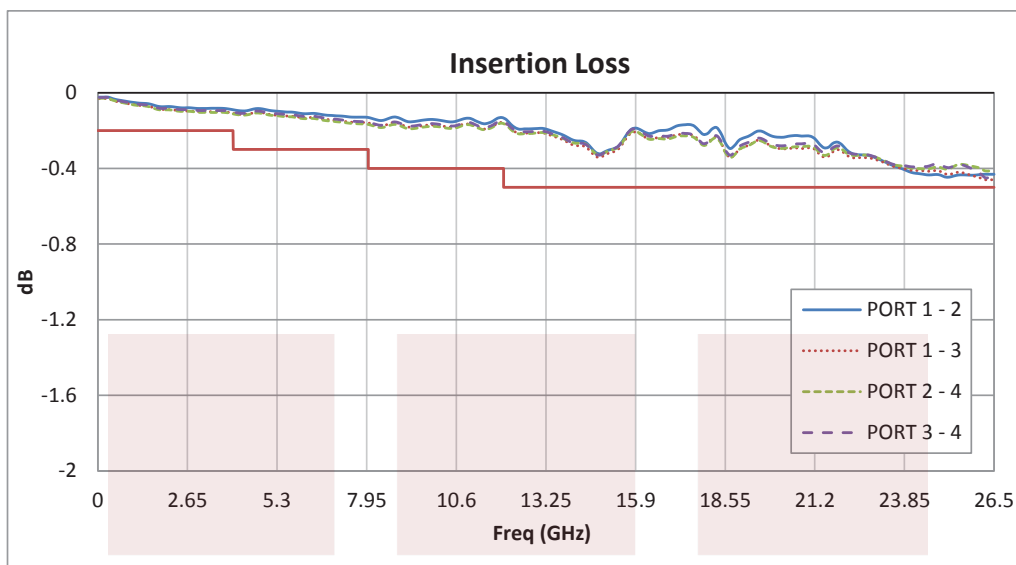
Compliance Certifications (visit www.FairviewMicrowave.com for current document)

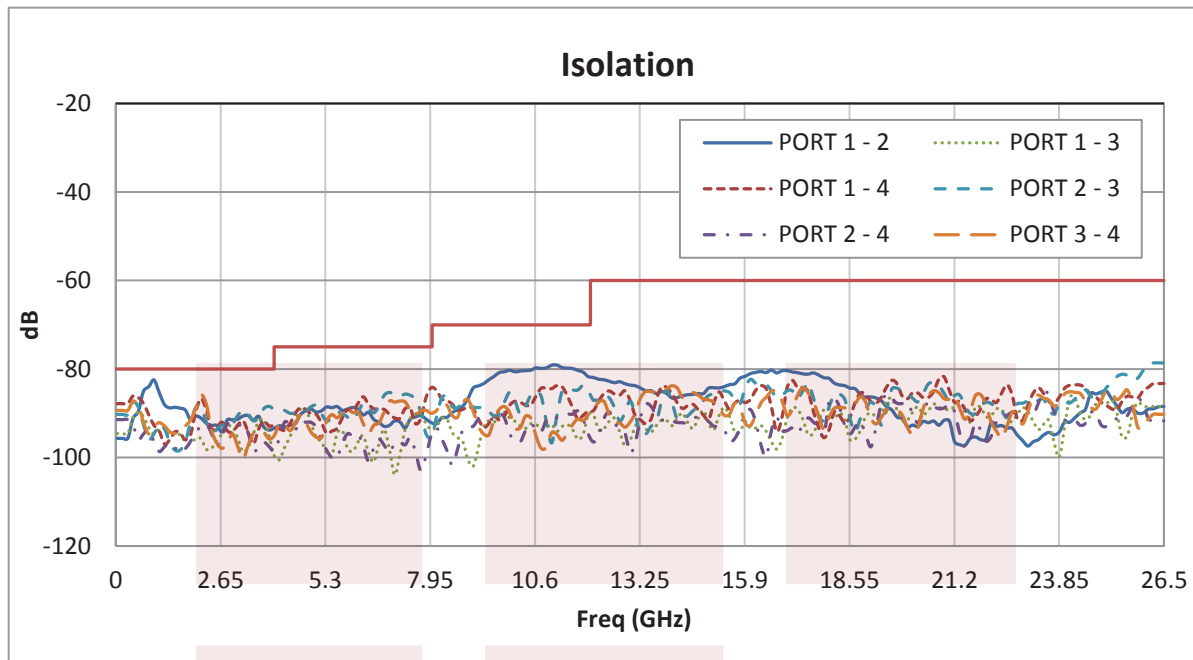
RoHS Compliant

Plotted and Other Data

Notes:

Typical Performance Data



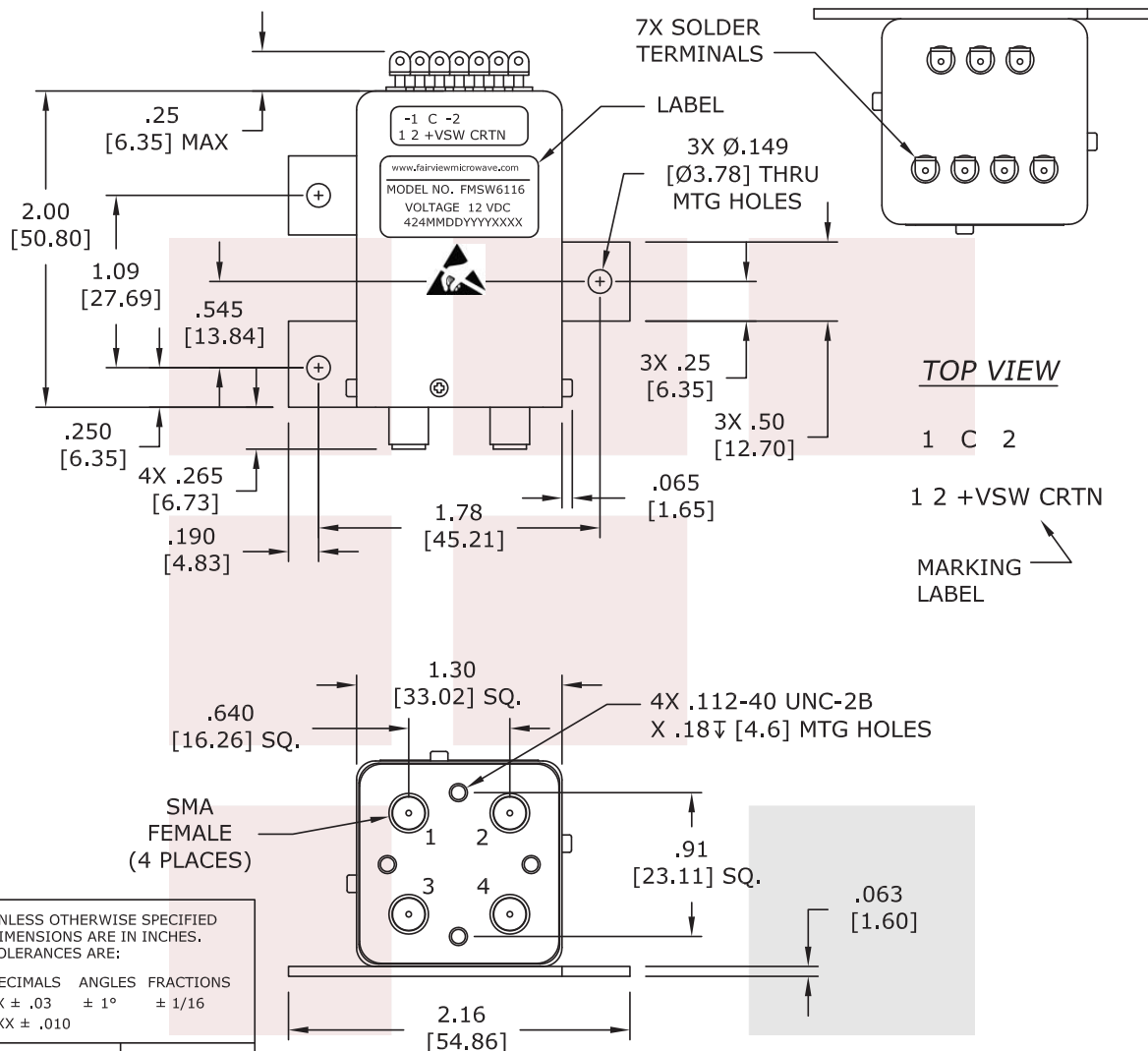


Transfer Latching Electro-Mechanical Relay Switch From DC to 26.5 GHz, 20 Watts with Indicators, TTL, Self Cut Off, Diodes, SMA from Fairview Microwave is in-stock and available to ship same-day. All of our RF/microwave products are available off-the-shelf from our ISO 9001:2008 certified facilities in Allen, Texas. Fairview Microwave is RF on-demand.

For additional information on this product, please click the following link: [Transfer Latching Electro-Mechanical Relay Switch From DC to 26.5 GHz, 20 Watts with Indicators, TTL, Self Cut Off, Diodes, SMA FMSW6116](http://www.fairviewmicrowave.com/transfer-latching-electro-mechanical-relay-switch-indicators-ttl-self-cut-off-fm-sw6116-p.aspx)

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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.



UNLESS OTHERWISE SPECIFIED
DIMENSIONS ARE IN INCHES.
TOLERANCES ARE:

DECIMALS	ANGLES	FRACTIONS
.XX ± .03	± 1°	± 1/16
.XXX ± .010		

HOLE DIAMETER	TOLERANCE
.0135 TO .125	+.004/-0.001
.126 TO .250	+.005/-0.001
.251 TO .500	+.006/-0.001
.501 TO .750	+.008/-0.001
.751 TO 1.000	+.010/-0.001
1.001 TO 2.000	+.012/-0.001

* THESE DIMENSIONS AND TOLERANCES
SUPERSEDE NOTE #1 ON TITLE BLOCK.

RF STATUS

RF	FAILSAFE	LATCHING
1-3, 2-4	DE-ENERGIZED	POSITION 1
1-2, 3-4	ENERGIZED	POSITION 2

FAIRVIEW MICROWAVE INC.

ALLEN, TX 75013 WWW.FAIRVIEWMICROWAVE.COM

NOTES:

- UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS ARE NOMINAL.
- ALL SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE AT ANY TIME.
- DIMENSIONS ARE IN INCHES [mm].

TITLE

Transfer Latching Electro-Mechanical Relay Switch
From DC to 26.5 GHz, 20 Watts with Indicators, TTL,
Self Cut Off, Diodes, SMA

DWG NO

FMSW6116

CAGE CODE

3FKR5

CAD FILE

031115

SHEET

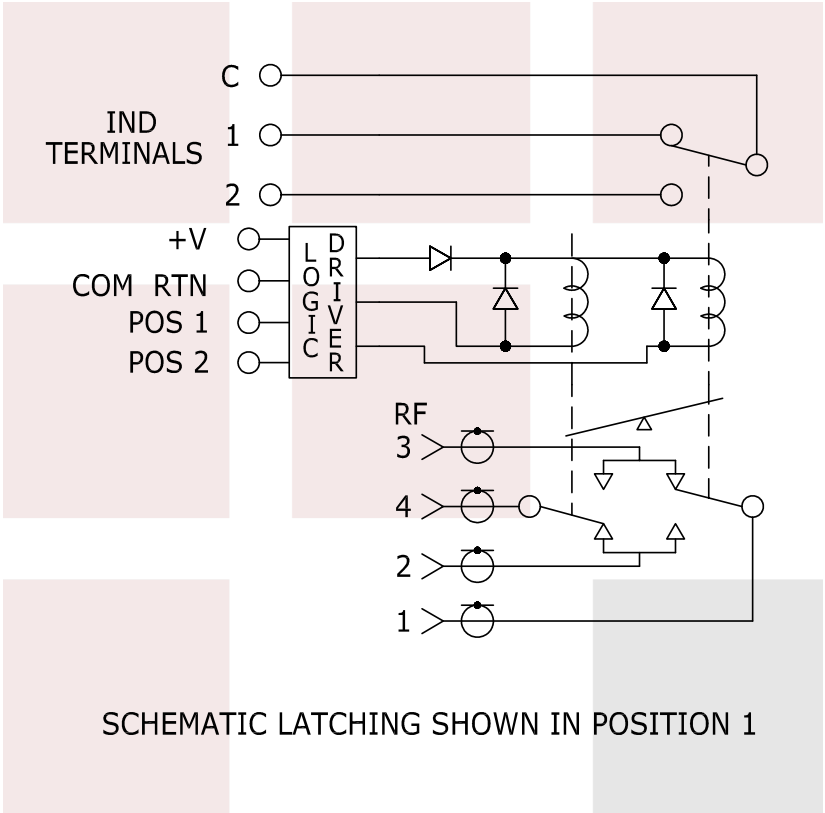
SCALE

N/A

SIZE

A

200



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	CAD FILE 031115	SHEET	SCALE N/A	SIZE A	200