

**Transfer Latching Electro-Mechanical Relay  
Switch From DC to 18 GHz, 100 Watts  
with Indicators, Self Cut Off, SMA**

The SEMS-4065-DPDT-SMA is a Transfer Electromechanical Relay Switch that operates over a wide frequency band from DC to 18GHz with up to 240 Watts of input power (CW) handling capability. Rated for 2.5M life cycles for high reliability operation, this design uses a Latching Actuator with a break before make configuration, position indicators, and self cut off circuitry. The switch exhibits exceptional electrical performance specified from 0.2 dB max for insertion loss and from 80 dB min for isolation, and guaranteed over -40°C to +85°C. The assembly requires an operating voltage of +28Vdc and is certified as RoHS and REACH 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, Self Cut Off
Polarity	Negative Common
Indicator Rating	1 Watts / 30 Volts / 100 mA
Self Cut-Off Time	40 ms < CT < 120 ms

Description	Min	Typ	Max	Units
Frequency Range	DC		18	GHz
Impedance		50		Ohms
Operating Voltage	24	28	30	Volts
Actuating Current @ 28 Volts		125		mA
VSWR			1.5:1	
Insertion Loss			0.5	dB
Isolation	60			dB
Input Power (CW)			100	Watts

**Performance by Frequency**

Description	F1	F2	F3	F4	F5	Units
Frequency Range	DC - 3	3 - 8	8 - 12.4	12.4 - 18		GHz
VSWR, Max	1.2:1	1.3:1	1.4:1	1.5:1		
Insertion Loss, Max	0.2	0.3	0.4	0.5		dB
Isolation, Min	80	70	65	60		dB
Power In, Max (CW)	240	150	120	100		Watts

Electrical Specification Notes:  
Average Power and Actuating Current values at 25°C.



**Features:**

- Transfer Relay Switch
- DC to 18 GHz Frequency Range
- 2.5M Cycle Operating Life Min
- 100 Watt Avg Power Max
- -40 to +85 Deg C Operating Temperature
- Insertion Loss 0.5 dB Max
- VSWR 1.5:1 Max

**Applications:**

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

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**Mechanical Specifications**

**Size**

Length 1.53 in [38.86 mm]  
 Width/Diameter 1.27 in [32.26 mm]  
 Height 1.33 in [33.78 mm]  
 Weight 0.19 lbs [86.18 g]  
 Package Type Connectorized Module  
 Operating Life 2,500,000 Cycles  
 Switching Time 15 ms Max

**Connectors**

RF Connector Type SMA Female  
 RF Connector Specification MIL C 39012  
 Control Connector Solder Pins

Mechanical Specification Notes:  
 Solder Pins: 250°C max/30sec.

**Environmental Specifications**

**Temperature**

Operating Range -40 to +85 deg C  
 Storage Range -55 to +85 deg C

Construction Splashproof  
 Shock MIL-STD-202, Method 213B, Cond.G  
 Vibration MIL-STD-202, Method 204D, Cond.C  
 ESD Sensitivity ESD Sensitive Material. Transport material in approved ESD bags. Handle in approved ESD Workstation.



Environmental Specification Notes:  
 Environmental specifications are guaranteed but not tested.

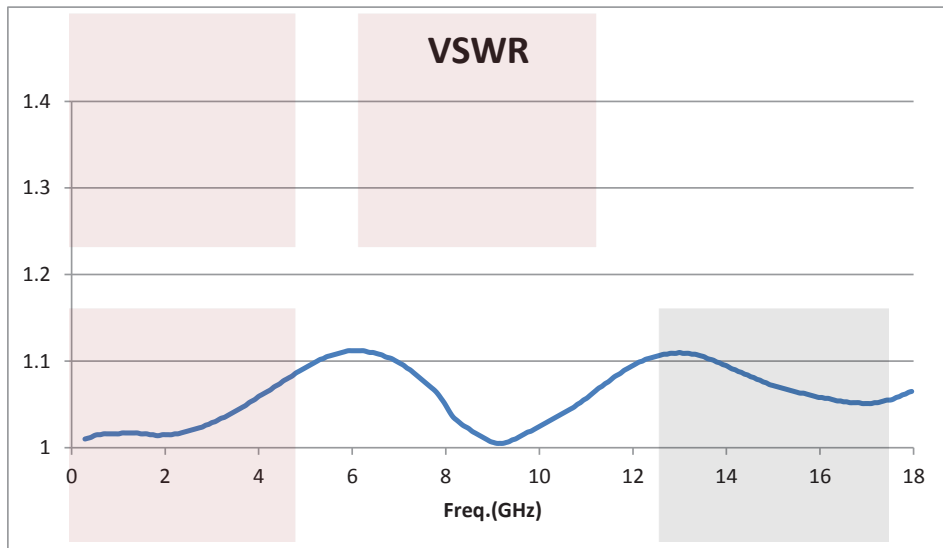
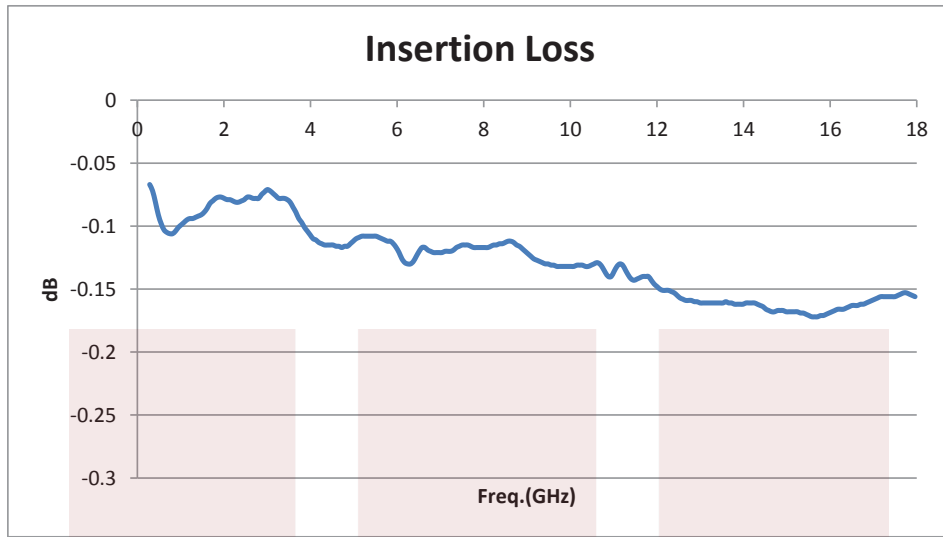
**Compliance Certifications** (visit [www.FairviewMicrowave.com](http://www.FairviewMicrowave.com) for current document)

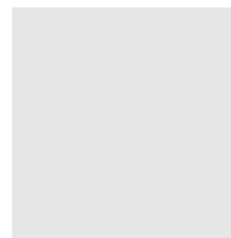
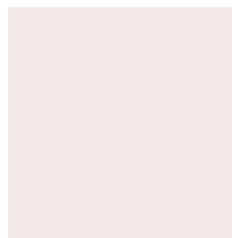
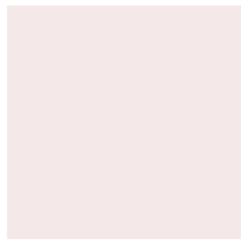
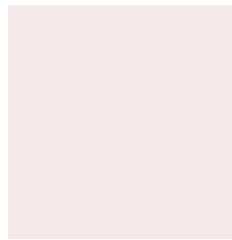
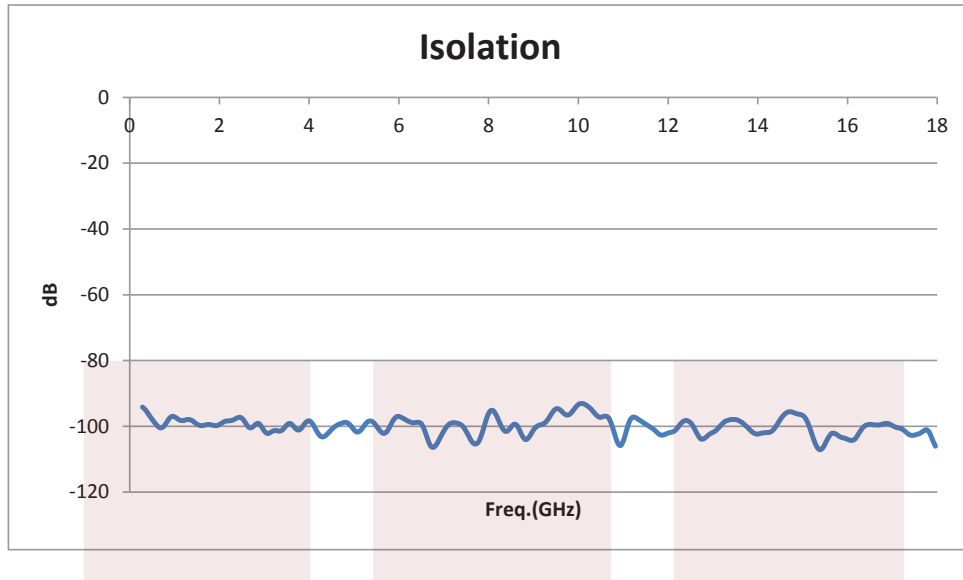
RoHS Compliant  
 REACH Compliant 12/17/2014

**Plotted and Other Data**

Notes:  
 • Values shown are typical at 25°C.

**Typical Performance Data**





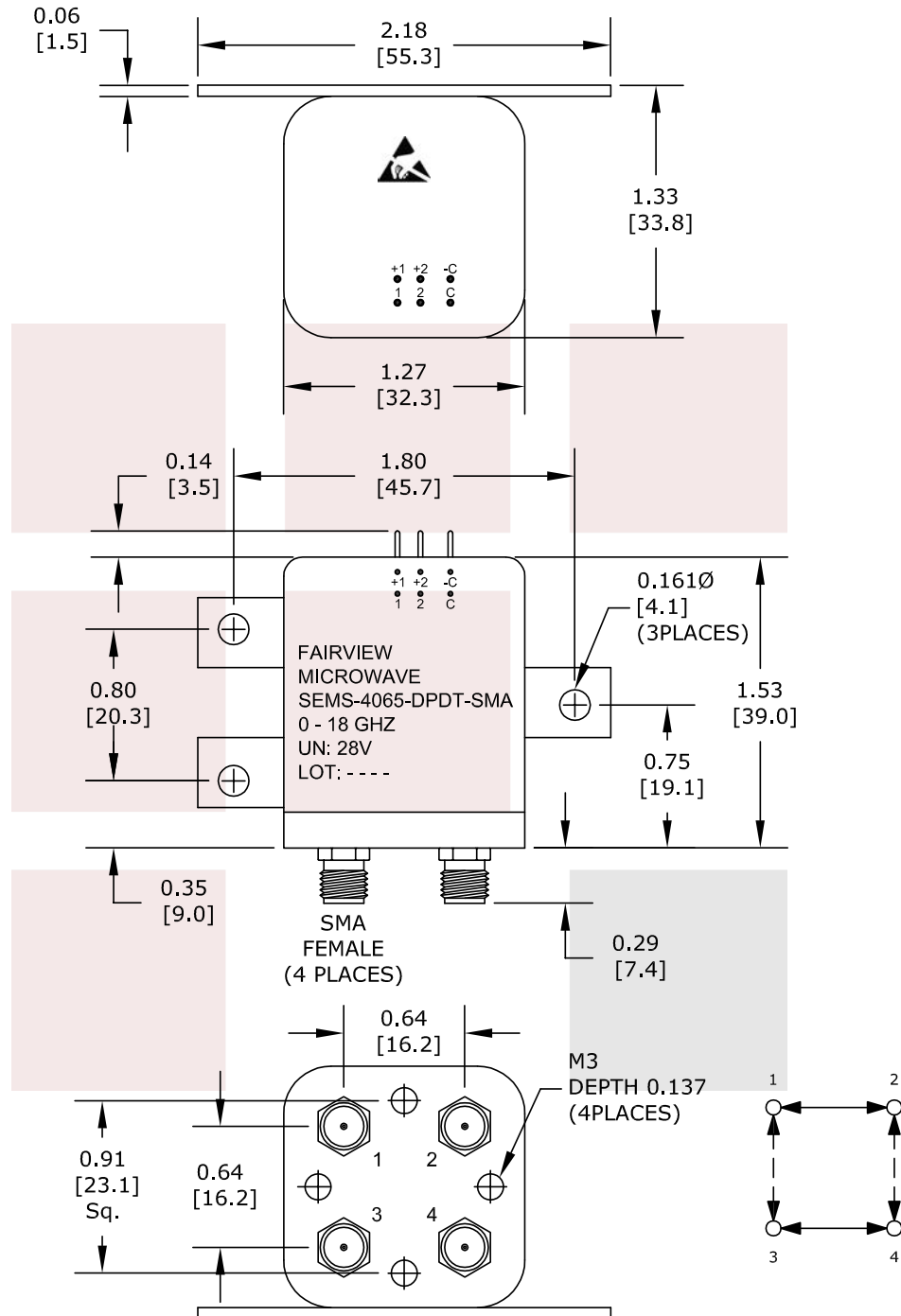
Transfer Latching Electro-Mechanical Relay Switch From DC to 18 GHz, 100 Watts with Indicators, Self Cut Off, SMA from Fairview Microwave is in-stock and available to ship same-day. All of our RF/microwave products are available off-the-shelf from our ISO 9001:2008 certified facilities in Allen, Texas. 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 18 GHz, 100 Watts with Indicators, Self Cut Off, SMA SEMS-4065-DPDT-SMA](#)

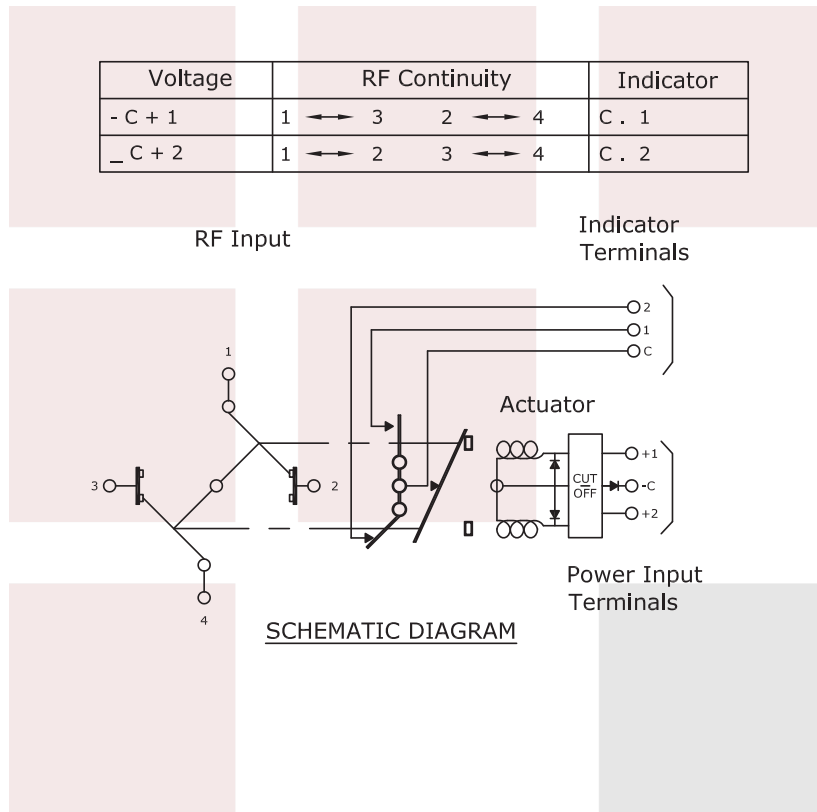
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CAD FILE	082815	SHEET	SCALE	N/A	SIZE A 150



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CAD FILE    092914	SHEET	SCALE N/A	SIZE A	150	