

Transfer Failsafe DC to 12.4 GHz Electro-Mechanical Relay Switch, Indicators, up to 700W, 28V, N

The SEMS-4068-DPDT-N is a Transfer Electromechanical Relay Switch that operates over a wide frequency band from DC to 12.4GHz with up to 700 Watts of input power (CW) handling capability. Rated for 2.5M life cycles for high reliability operation, this design uses a Failsafe Actuator with a break before make configuration and position indicators. The switch exhibits exceptional electrical performance specified from 0.15 dB max for insertion loss and from 85 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 N female connectors.



Electrical Specifications

Switch Type	Transfer
Actuator Type	Failsafe
Switching Sequence	Break before Make
Actuator Options	Indicators
Indicator Rating	1 Watts / 30 Volts / 100 mA

Features:

- Transfer Relay Switch
- DC to 12.4 GHz Frequency Range
- 2.5M Cycle Operating Life Min
- 200 Watt Avg Power Max
- -40 to +85 Deg C Operating Temperature
- Insertion Loss 0.5 dB Max
- VSWR 1.5:1 Max

Description	Min	Typ	Max	Units
Frequency Range	DC		12.4	GHz
Impedance		50		Ohms
Operating Voltage	24	28	30	Volts
Actuating Current @ 28 Volts		140		mA
VSWR			1.5:1	
Insertion Loss			0.5	dB
Isolation	60			dB
Input Power (CW)			200	Watts
Switching Time			15	ms

Applications:

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

Performance by Frequency

Description	F1	F2	F3	F4	F5	Units
Frequency Range	DC - 1	1 - 2	2 - 3	3 - 8	8 - 12.4	GHz
VSWR, Max	1.15:1	1.2:1	1.25:1	1.35:1	1.5:1	
Insertion Loss, Max	0.15	0.2	0.25	0.35	0.5	dB
Isolation, Min	85	80	75	70	60	dB
Power In, Max (CW)	700	500	400	250	200	Watts

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

Mechanical Specifications

Size	
Length	1.74 in [44.2 mm]
Width/Diameter	1.75 in [44.45 mm]
Height	1.75 in [44.45 mm]
Weight	0.5005 lbs [227.02 g]
Package Type	Connectorized
Operating Life	2,500,000 Cycles

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Connectors

RF Connector Type	N Female
RF Connector Specification	MIL C 39012
Control Connector	Solder Pin

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

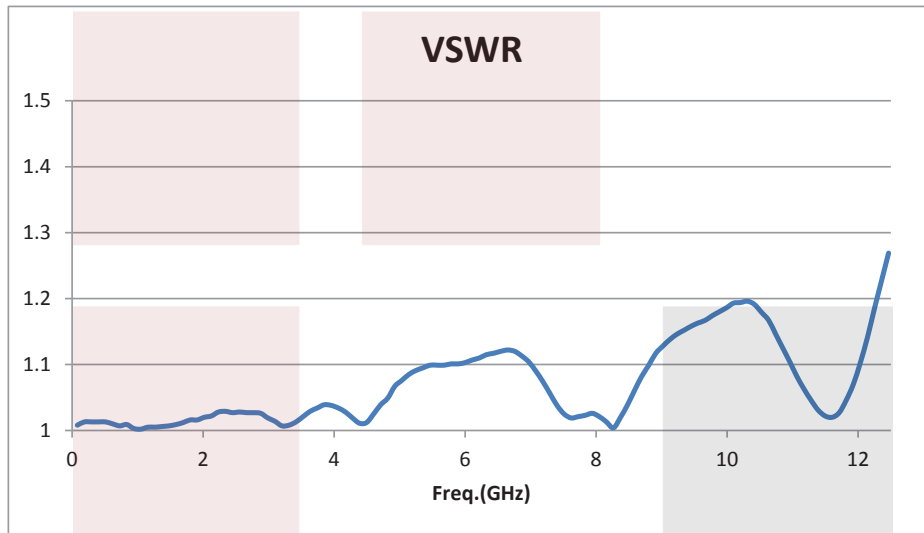
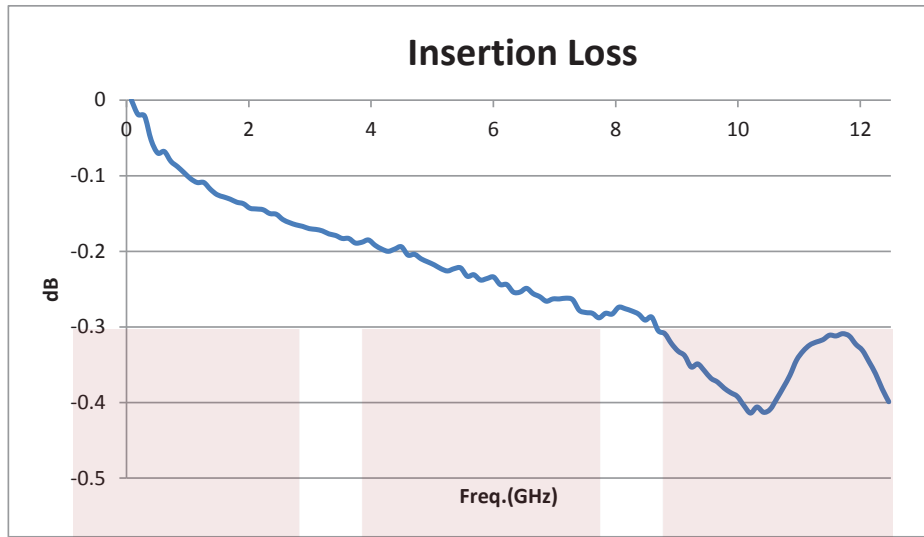
Environmental Specification Notes:
 Environmental specifications are guaranteed but not tested.

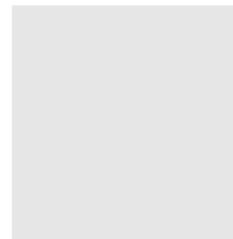
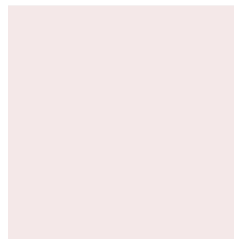
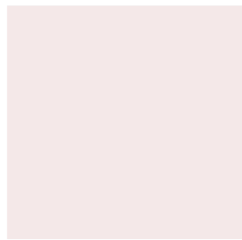
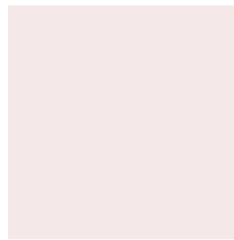
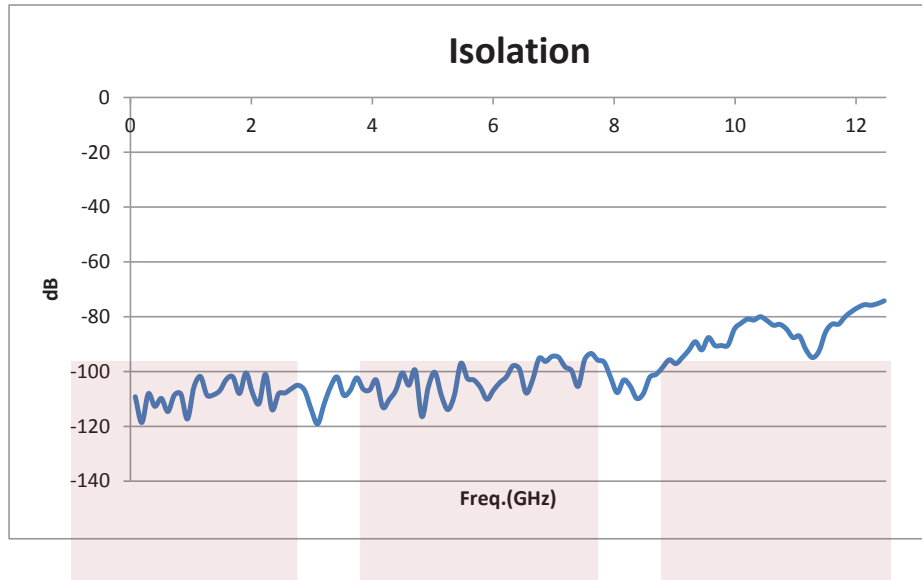
Compliance Certifications (see [product page](#) for current document)

Plotted and Other Data

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

Typical Performance Data





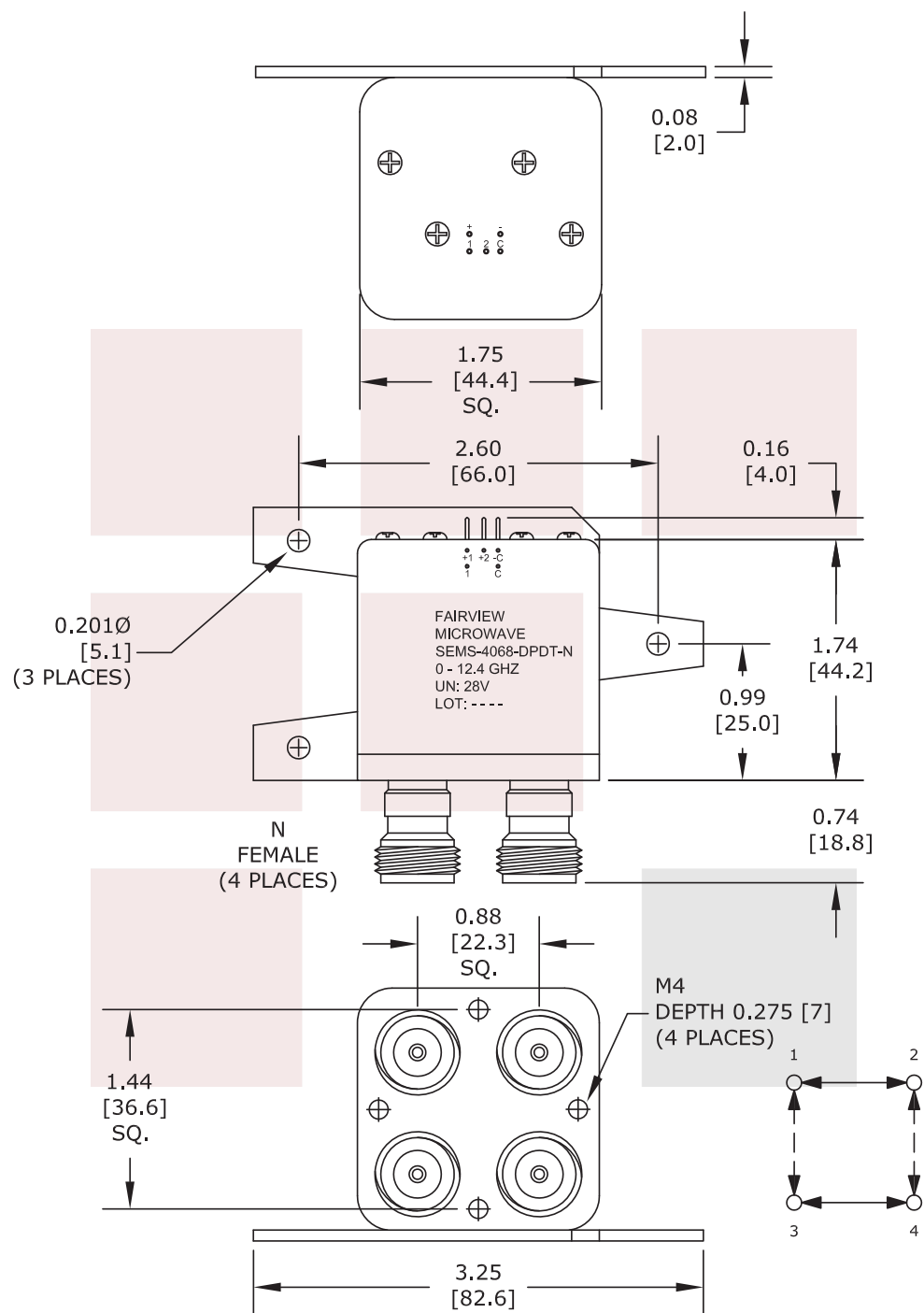
Transfer Failsafe DC to 12.4 GHz Electro-Mechanical Relay Switch, Indicators, up to 700W, 28V, N from Fairview Microwave is in-stock and available to ship same-day. All of our RF/microwave products are available off-the-shelf from our ISO 9001:2008 certified facilities in Allen, Texas. Fairview Microwave is RF on-demand.

For additional information on this product, please click the following link: [Transfer Failsafe DC to 12.4 GHz Electro-Mechanical Relay Switch, Indicators, up to 700W, 28V, N SEMS-4068-DPDT-N](#)

URL: <https://www.fairviewmicrowave.com/transfer-failsafe-electro-mechanical-relay-switch-indicators-sems-4068-dpdt-n-p.aspx>

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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 Failsafe DC to 12.4 GHz Electro-Mechanical
Relay Switch, Indicators, up to 700W, 28V, N

DWG NO SEMS-4068-DPDT-N CAGE CODE 3FKR5

CAD FILE	082515	SHEET	SCALE	N/A	SIZE	A	2233
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