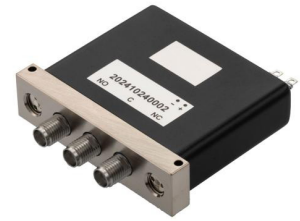


SPDT Failsafe DC to 26.5 GHz Terminated Electro-Mechanical Relay Switch, 90W, 2M Lifecycles, 12V, SMA



FMSW6621

Features

- Single Pole Double Throw
- DC to 26.5 GHz Frequency Range
- Isolation greater than 50 dB minimum
- 2M Cycle Min Operating Life
- +12 Volt DC
- 90 Watt average Power
- Failsafe Actuator
- -25 to +65°C Operating Temperature
- Insertion Loss as low as 0.6 dB Max
- VSWR as low as 1.7:1 max
- SMA Female RF connectors
- Solder Terminals for DC Control
- Hot Switching Capability - Consult Factory
- S-Parameter Data available upon request

Applications

- Aerospace & Defense
- Test & Measurement
- Microwave Radio Systems
- Military Commercial Communication Systems
- Research & Development
- SATCOM
- Wireless Communications
- Enterprise
- IOT

Description

The FMSW6621 is a Single Pole Double Throw (SPDT) electromechanical relay switch that operates across a wide frequency range of DC to 26.5 GHz and can handle up to 90 Watts of CW input power in a break before make condition. The 50 Ohm design is rated for 2M life cycles for high reliability operation and features a Failsafe actuator, which returns the actuator to its default position when power is removed, ensuring the system remains in a known and safe state. Impressive performance includes insertion loss less than 0.6 dB maximum and isolation greater than 50 dB minimum. The Failsafe actuator requires +12 Vdc bias voltage, and operates over a temperature range of -25°C to +65°C. The rugged and compact package assembly supports SMA Female connectors and terminal solder pins 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 (TA = +25°C, DC Voltage = 12 Vdc)

Switch Type	SPDT, Terminated
Actuator Type	Failsafe
Switching Sequence	Make Before Break

Description	Min	Typ	Max	Units
Frequency Range	DC		26.5	GHz
Impedance		50		Ohms
Operating Voltage		12		Volts
Actuating Current @ 12 Volts			420	mA
420mA max @ 12Vdc and 20°C				
VSWR			1.7:1	
Insertion Loss			0.6	
Isolation	50			dB
Input Power (CW)		90		Watts
(Average Power for Cold Switching (Reference RF Power Rating Table for Cold Switching))				
Switching Time		20		ms

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Performance by Frequency

Description	F1	F2	F3	F4	F5	Units
Frequency Range	DC - 6	6 - 12	12 - 18	18 - 26.5		GHz
VSWR, Max	1.2:1	1.3:1	1.4:1	1.7:1		
Insertion Loss, Max	0.2	0.4	0.5	0.6		dB
Isolation, Min	70	60	60	50		dB

Mechanical Specifications

Size

Length	2.25 in [57.15 mm]
Width/Diameter	1.85 in [46.99 mm]
Height	0.56 in [14.22 mm]
Weight	0.379 lbs [171.91 g]
Finish	Electroless Nickel
Package Type	Connectorized
Operating Life	2,000,000 Cycles

Connectors

RF Connector Type	SMA Female
Control Connector	Solder Terminals

Environmental Specifications

Temperature

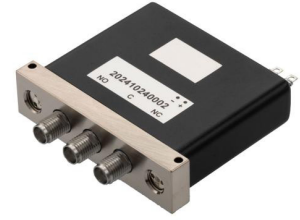
Operating Range	-25 to +65 deg C
Shock	MIL-STD-202 Method 213, Condition D (500G Non Operating)
Vibration	MIL-STD-202 Method 214, Condition D (100G RMS Non Operating)

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

Plotted and Other Data

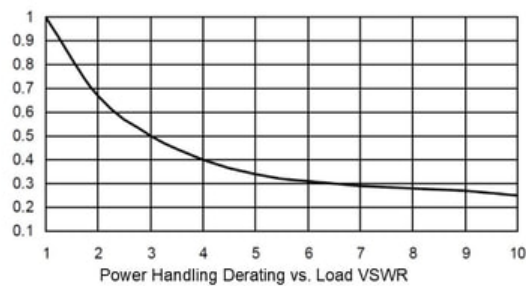
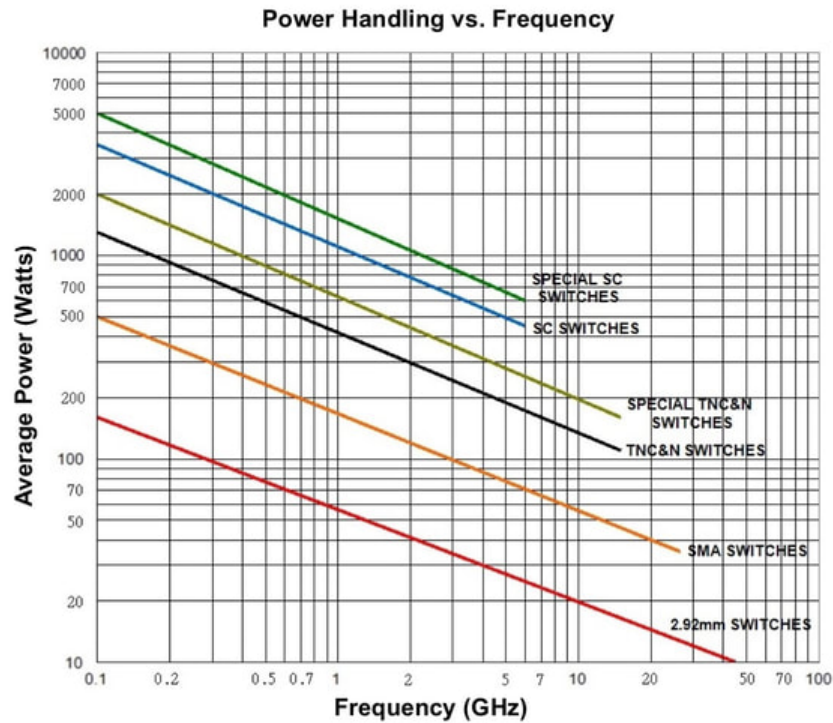
Notes:

SPDT Failsafe DC to 26.5 GHz Terminated Electro-Mechanical Relay Switch, 90W, 2M Lifecycles, 12V, SMA



FMSW6621

Typical Performance Data



Power handling chart and derating curves based on the following conditions:

- Ambient temperature: 40°C or less
- Altitude: Sea level
- Load VSWR: 1.20:1 Maximum
- Relative Humidity: 40-50%
- Cold switching: RF signal off

Note: specifications subject to change without notice

SPDT Failsafe DC to 26.5 GHz Terminated Electro-Mechanical Relay Switch, 90W, 2M Lifecycles, 12V, SMA



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SPDT Failsafe DC to 26.5 GHz Terminated Electro-Mechanical Relay Switch, 90W, 2M Lifecycles, 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 Lewisville, Texas. Fairview Microwave is RF on-demand.

For additional information on this product, please click the following link: [SPDT Failsafe DC to 26.5 GHz Terminated Electro-Mechanical Relay Switch, 90W, 2M Lifecycles, 12V, SMA FMSW6621](https://www.fairviewmicrowave.com/spdt-failsafe-26.5-ghz-terminated-electro-mechanical-relay-switch-12v-sma-fmsw6621-p.aspx)

URL: <https://www.fairviewmicrowave.com/spdt-failsafe-26.5-ghz-terminated-electro-mechanical-relay-switch-12v-sma-fmsw6621-p.aspx>

The information contained within 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 liability arising out of the use of any part or document.

FMSW6621 CAD Drawing

SPDT Failsafe DC to 26.5 GHz Terminated Electro-Mechanical Relay Switch, 90W, 2M Lifecycles, 12V, SMA

