

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

FMSW6630



Features

- Transfer Switch
- DC to 26.5 GHz Frequency Range
- Isolation greater than 60 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 0.8 dB Max
- VSWR as low as 1.6:1 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 FMSW6630 is a Transfer 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 0.8 dB maximum and isolation greater than 60 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	Transfer
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			380	mA
380mA max @ 12Vdc and 20°C				
VSWR			1.6:1	
Insertion Loss			0.8	
Isolation	60			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	1.6:1		
Insertion Loss, Max	0.2	0.3	0.5	0.8		dB
Isolation, Min	80	70	65	60		dB

Mechanical Specifications

Size

Length	2 in [50.8 mm]
Width/Diameter	2.16 in [54.86 mm]
Height	1.32 in [33.53 mm]
Weight	0.1 lbs [45.36 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

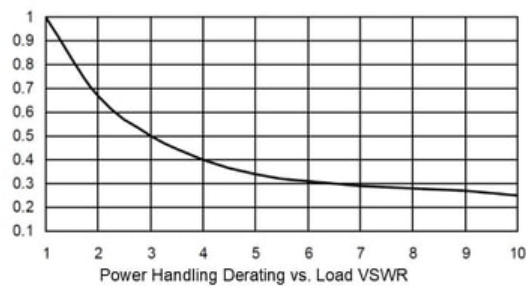
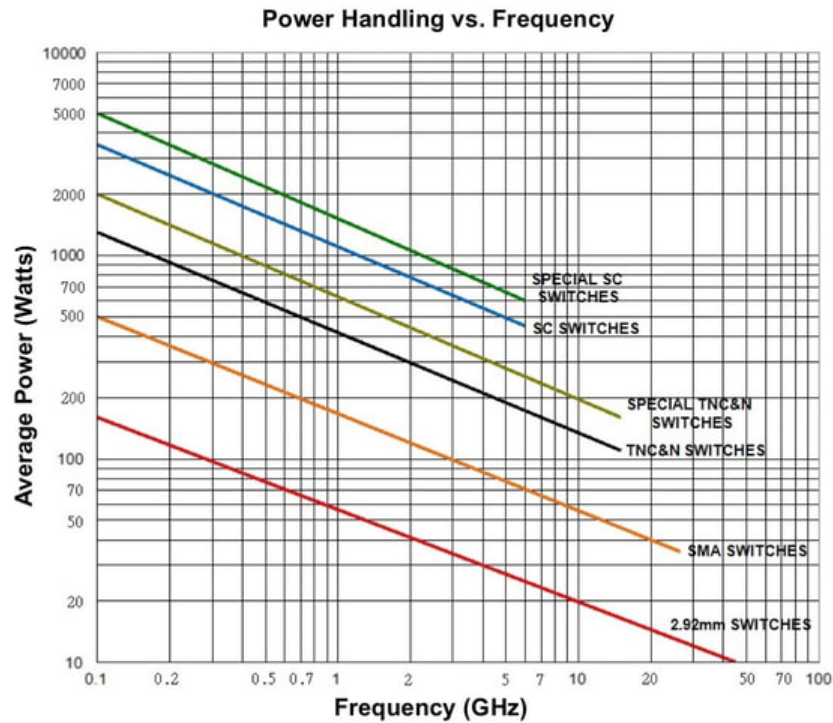
Notes:

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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

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Transfer Failsafe DC to 26.5 GHz 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: [Transfer Failsafe DC to 26.5 GHz Electro-Mechanical Relay Switch, 90W, 2M Lifecycles, 12V, SMA FMSW6630](https://www.fairviewmicrowave.com/transfer-failsafe-26.5-ghz-electro-mechanical-relay-switch-12v-sma-fmsw6630-p.aspx)

URL: <https://www.fairviewmicrowave.com/transfer-failsafe-26.5-ghz-electro-mechanical-relay-switch-12v-sma-fmsw6630-p.aspx>

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