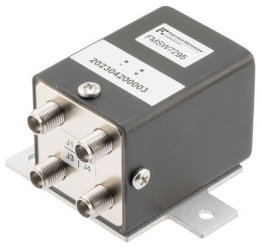
Fairview Microwave
an INFINITE brand

FMSW7295
DATA SHEET

Transfer, Electromechanical Relay Failsafe Switch, DC to 43 GHz, 28VDC, 10W, Solder Terminals, 2.92mm



The FMSW7295 is a Transfer electromechanical relay switch that operates across an ultra wide frequency range from DC to 43 GHz and can handle up to 10 Watts of Average Power in a break before make condition. The 50 Ohm design is rated for 2 million lifecycles and features a Failsafe Actuator. Impressive typical performance includes 0.6 dB insertion loss and isolation greater than 80 dB. This switch requires +28 Vdc bias voltage and operates over a temperature range of -25°C to +65°C. The rugged and compact package assembly supports 2.92mm female connectors and solder terminal 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 = 28 Vdc)

Switch Type	Transfer
Actuator Type	Failsafe

Description	Min	Typ	Max	Units
Frequency Range	DC		43	GHz
Operating Voltage	26	28	30	Volts
Actuating Current @ 28 Volts			160	mA
VSWR		1.4:1	2:1	
Insertion Loss		0.6	1.3	dB
Isolation	50	85		dB
Input Power			10	Watts
Switching Time			20	ms

Performance by Frequency

Description	F1	F2	F3	F4	F5	Units
Frequency Range	DC - 6	6 - 12.4	12.4 - 26.5	26.5 - 40	40 - 43	GHz
VSWR, Max	1.2:1	1.3:1	1.4:1	1.8:1	2:1	
Insertion Loss, Max	0.2	0.4	0.7	1	1.3	dB
Isolation, Min	80	75	65	50	50	dB

Mechanical Specifications

Size

Length	2 in [50.8 mm]
Width/Diameter	2.16 in [54.86 mm]
Height	1.26 in [32 mm]
Weight	0.26 lbs [117.93 g]
Body Material and Plating	Electroless Nickel

Connectors

RF Connector Type	2.92mm Female
Control Connector	Solder Terminals

Features:

- Transfer Electromechancial Relay Switch
- DC to 43 GHz Frequency Range
- Failsafe Actuator
- 2M Lifecycle Rating
- Insertion Loss 0.6 dB typ
- Isolation > 80 dB typ
- VSWR as low as 1.2:1 max
- Solder Terminal Pins for DC Control
- +28 Volt DC Bias
- 2.92mm Female Connectors
- -25°C to +65°C Operating Temperature
- Up to 10 Watt Average Power Handling
- 50 Ohm Design
- Hot Switching Capability - Consult Factory
- S-Parameter Data available upon request
- Rugged Design meets Mil-STD-202 Test Conditions

Applications:

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

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Environmental Specifications

Temperature

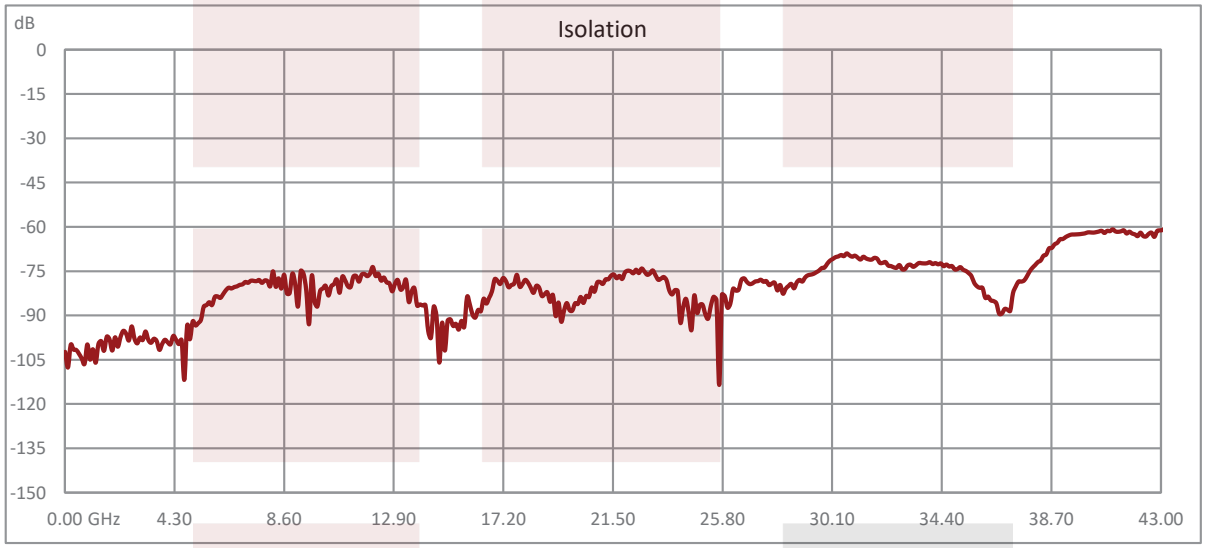
Operating Range	-25 to +65 deg C
Storage Range	-55 to +100 deg C
Shock	MIL-STD-202 Method 213, Condition D, 500G (non operational)
Vibration	MIL-STD-202 Method 204, Condition D, 10G RMS (non operational)

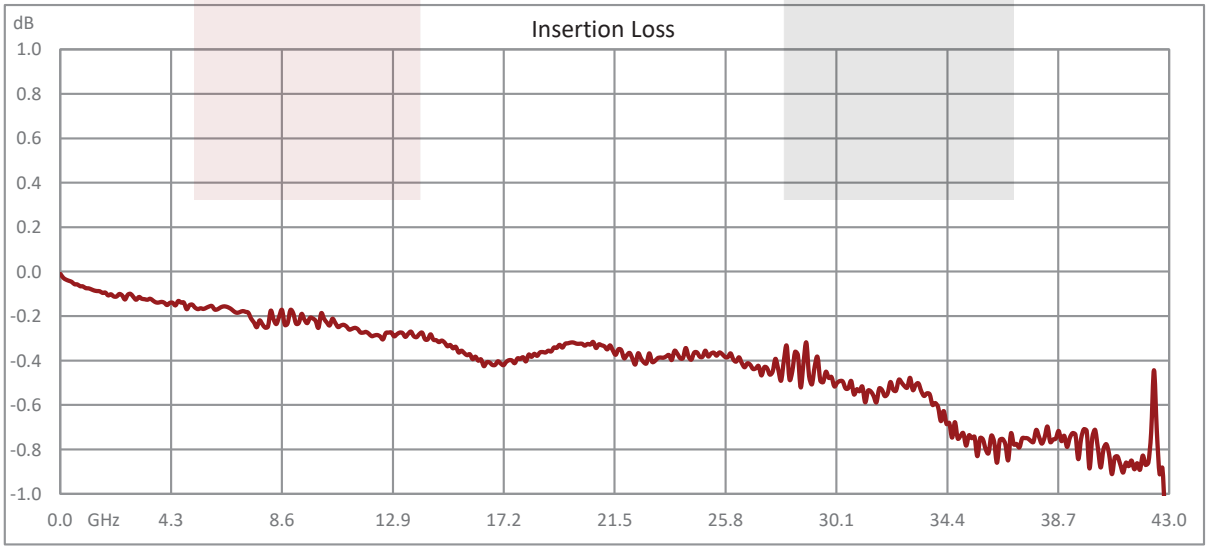
Compliance Certifications (see product page for current document)

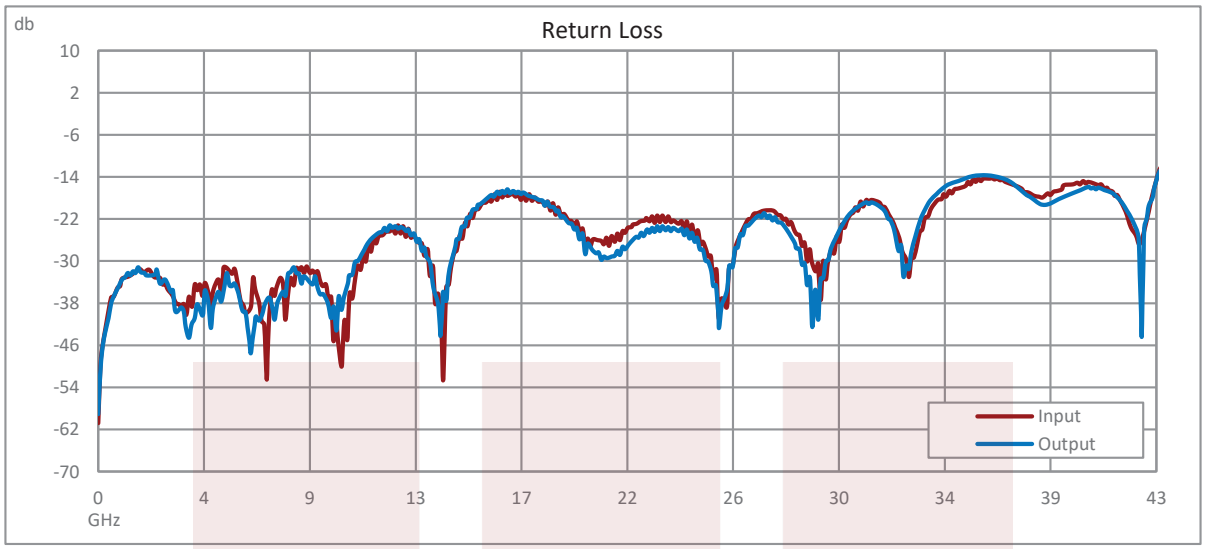
Plotted and Other Data

Notes:

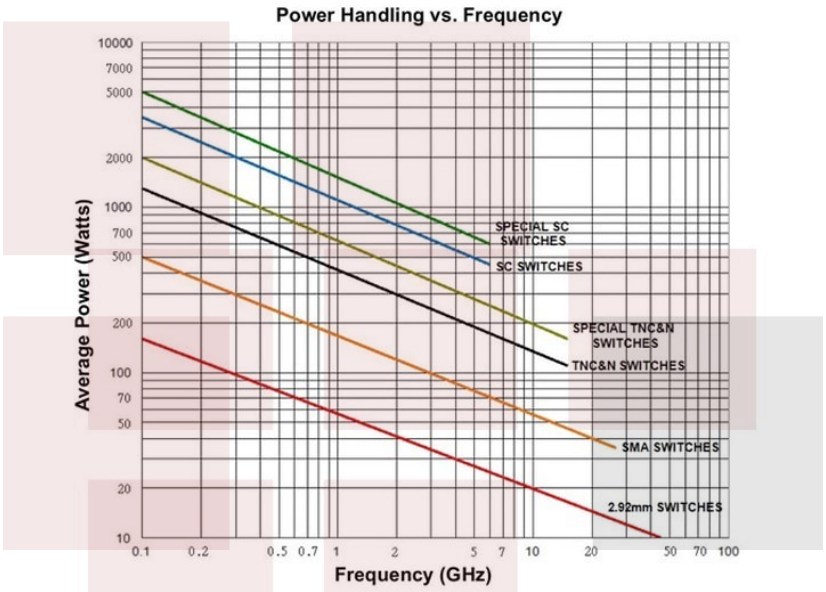
Typical Performance Data

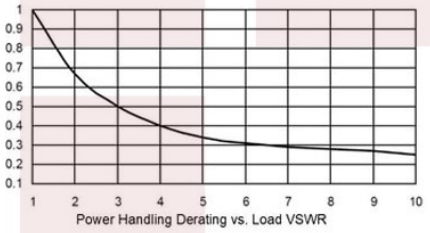






Power Handling vs. Frequency





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

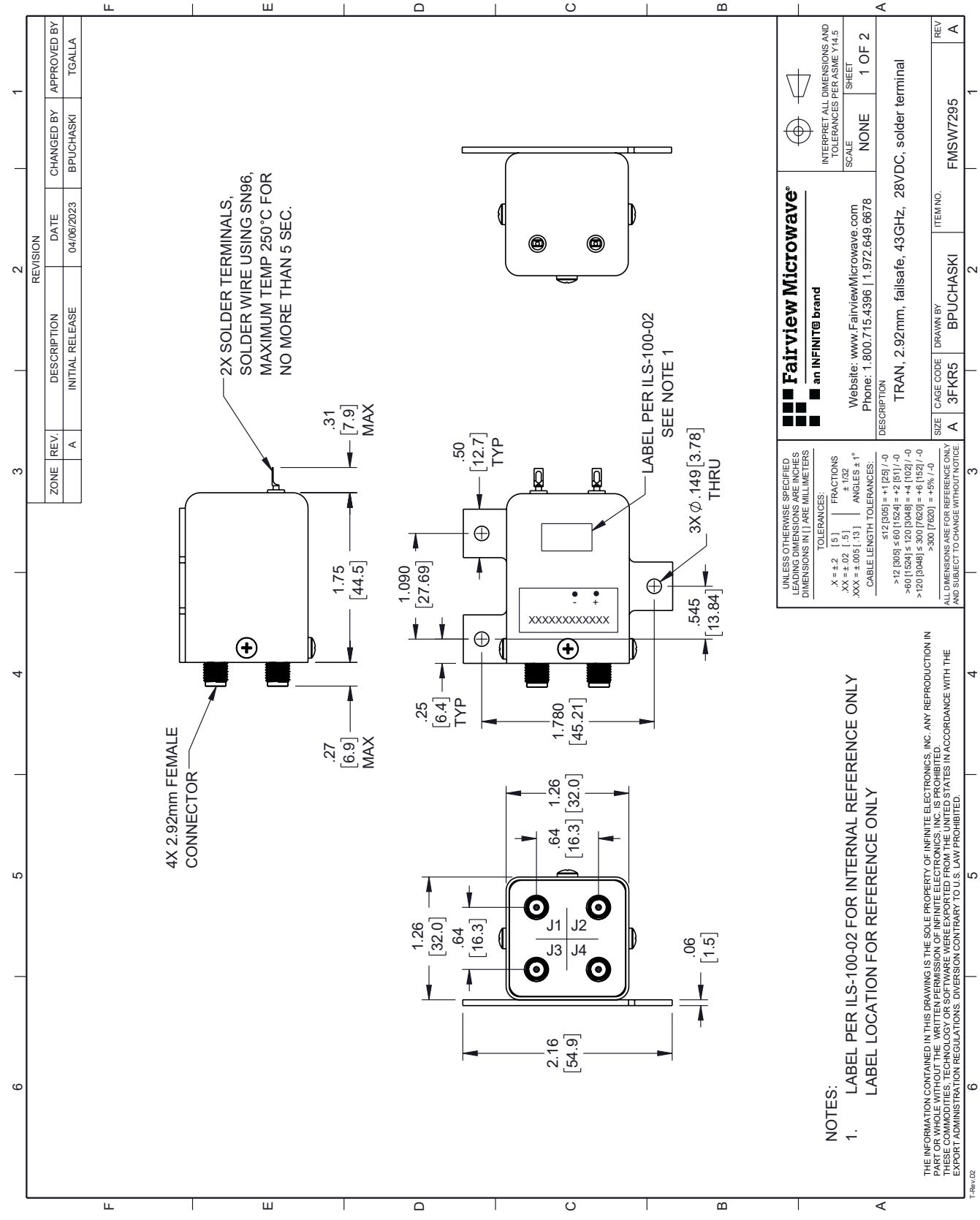
- Ambient temperature: 40°C or less
- Altitude: Sea level
- Load VSWR: 1.20:1 Maximum
- Relative Humidity: 40-50%
- Cold switching: RF signal off

Note: specifications subject to change without notice

Transfer, Electromechanical Relay Failsafe Switch, DC to 43 GHz, 28VDC, 10W, Solder Terminals, 2.92mm 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.

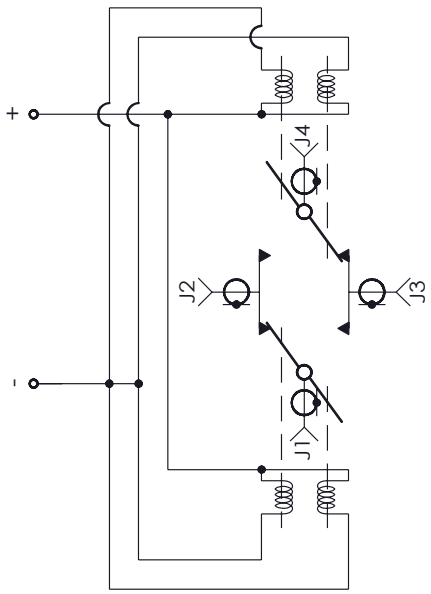
For additional information on this product, please click the following link: Transfer, Electromechanical Relay Failsafe Switch, DC to 43 GHz, 28VDC, 10W, Solder Terminals, 2.92mm FMSW7295

URL: https://www.fairviewmicrowave.com/transfer-failsafe-43-ghz-electro-mechanical-relay-switch-28v-2.92mm-fm-sw7295-p.aspx



VOLTAGE	RF PATH
DE-ENERGIZED	J1-J2, J3-J4
ENERGIZED	J1-J3, J2-J4

SCHEMATIC



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UNLESS OTHERWISE SPECIFIED,
LEADING DIMENSIONS ARE INCHES
DIMENSIONS IN [ ] ARE MILLIMETERS

TOLERANCES:

FRACTIONS	ANGLES
X = ± .2 [5]	± 1/32	± 1°
.XX = ± .02 [.5]	
.XXX = ± .005 [.13]	

CABLE LENGTH TOLERANCES:

≤12 [305] = +1 [25] / -0
>12 [305] ≤ 60 [1524] = +2 [51] / -0
>60 [1524] ≤ 120 [3048] = +4 [102] / -0
>120 [3048] ≤ 300 [7620] = +6 [152] / -0
>300 [7620] = +5% / -0

ALL DIMENSIONS ARE FOR REFERENCE ONLY
AND SUBJECT TO CHANGE WITHOUT NOTICE

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INTERPRET ALL DIMENSIONS AND TOLERANCES PER ASME Y14.5

SCALE: NONE
SHEET: 2 OF 2

DESCRIPTION
TRAN, 2.92mm, failsafe, 43GHz, 28VDC, solder terminal

SIZE	CAGE CODE	DRAWN BY	ITEM NO.	REV
A	3FKR5	BPUCHASKI	FMSW7295	A

T-Rev.D2