

**Field Replaceable SMA Transfer PIN Diode Switch  
 Absorptive From 12 GHz to 18 GHz Rated at +27 dBm**

FMSW6291 is a Absorptive PIN Diode Transfer Switch that operates from 12 GHz to 18 GHz. Performance includes 3.0 dB max insertion loss, 65 dB min isolation, and 100 nsec max switching speed. The design incorporates TTL compatible driver circuitry for accurate logic control. Operational temperature range is -55°C to +85°C and dual voltage controls of +5 VDC and -15 VDC are required. The rugged package is designed to meet a series of MIL-STD-202F environmental conditions including humidity, shock, vibration, and temperature cycle. Package interfaces include solder terminals and female SMA connectors.



**Electrical Specifications**

Description	Min	Typ	Max	Units
Frequency Range	12		18	GHz
Impedance		50		Ohms
VSWR			2:1	
Insertion Loss			3	dB
Isolation	65			dB
Switching Time			100	ns
Input Power (CW)			0.5	Watts
Positive Operating Voltage		5		Vdc
Negative Operating Voltage		-15		Vdc
Operating Temperature	-55		+85	deg C

**Features:**

- Transfer Absorptive Switch
- 12 GHz to 18 GHz
- Insertion Loss 3.0 dB max
- Isolation 65 dB min
- Power Input 27 dBm CW max
- Field Replaceable Connectors

**Applications:**

- Test & Measurement
- Military Communication
- Commercial Communication
- Wireless Communications
- SATCOM
- Military Electronic Systems
- RF Test Stations

**Mechanical Specifications**

Length	1.2 in [30.48 mm]
Width	1.2 in [30.48 mm]
Height	0.5 in [12.7 mm]
Weight	0.083 lbs [37.65 g]
Finish	Blue Paint

**Configuration**

Design	Absorptive, Transfer
RF Connector	SMA Female
RF Connector Option	Field Replaceable
Control Connector	Solder Pin

**Environmental Specifications**

**Temperature**

Operating Range	-55 to +85 deg C
Storage Range	-65 to +125 deg C

Humidity	MIL-STD-202F, Method 103B, Condition B
Shock	MIL-STD-202F, Method 213B, Condition B
Vibration	MIL-STD-202F, Method 204D, Condition B
Altitude	MIL-STD-202F, Method 105C, Condition B
Temperature Cycling	MIL-STD-202F, Method 107D, Condition A

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ESD Sensitivity

ESD Sensitive Material, Transport material in Approved ESD bags. Handle only in ESD Workstation.



**Compliance Certifications** (visit [www.FairviewMicrowave.com](http://www.FairviewMicrowave.com) for current document)  
REACH Compliant 12/17/2015

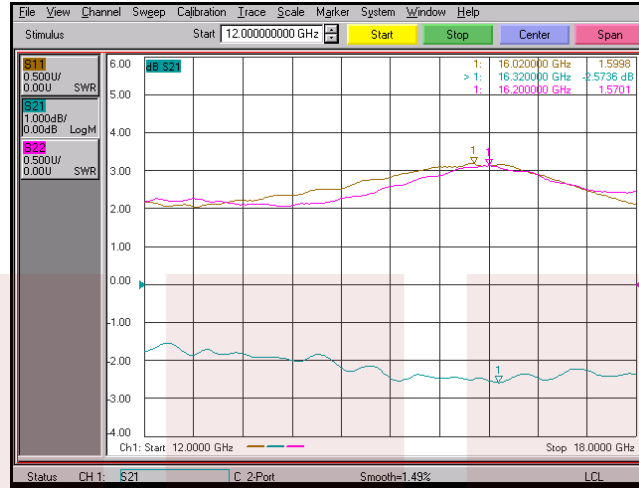
**Plotted and Other Data**

Notes:

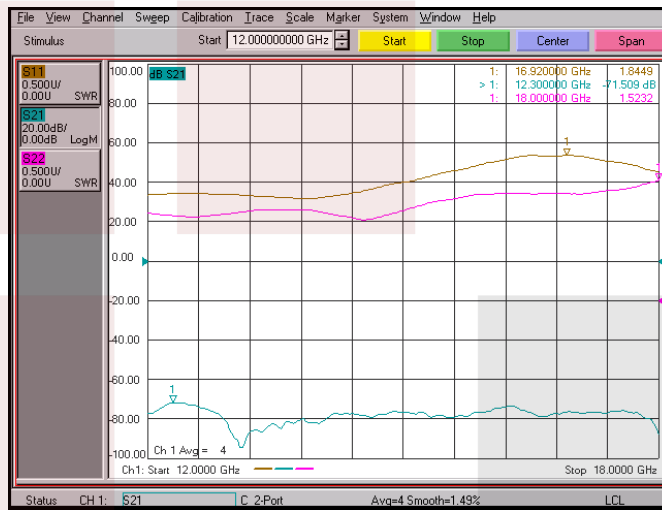


**Typical Performance Data**

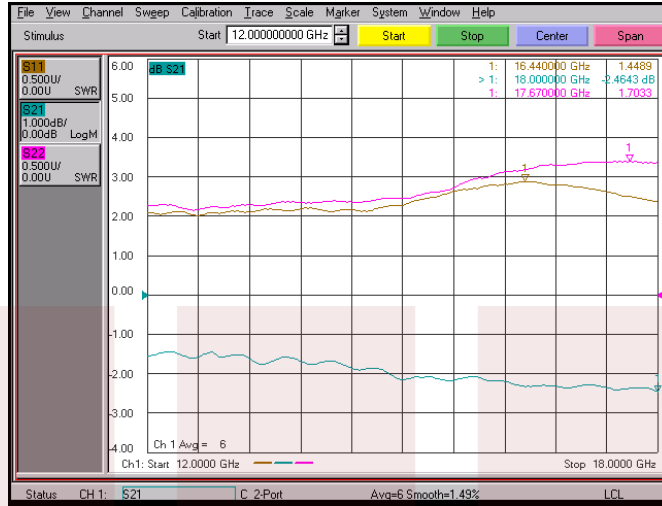
**(J1 – J2) Insertion Loss and Return Loss**



**(J1 – J2) Isolation and Termination Return Loss**



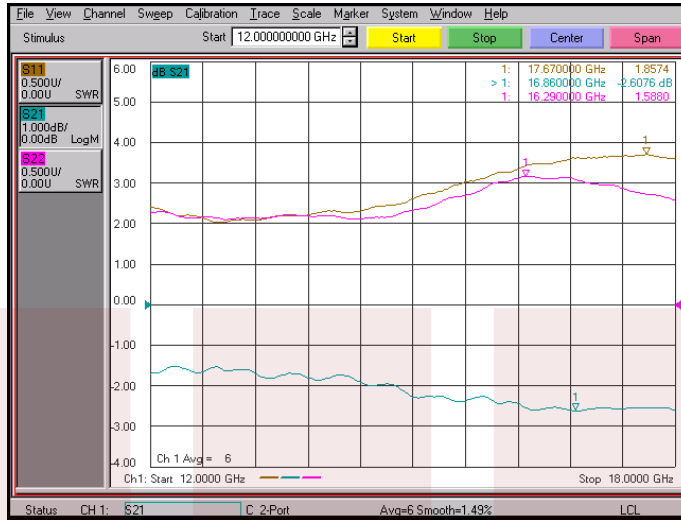
**(J3 – J4) Insertion Loss and Return Loss**



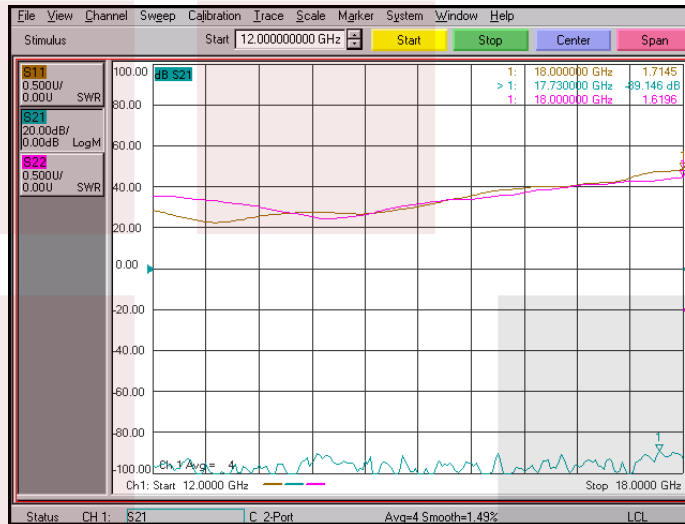
**(J3– J4) Isolation and Termination Return Loss**



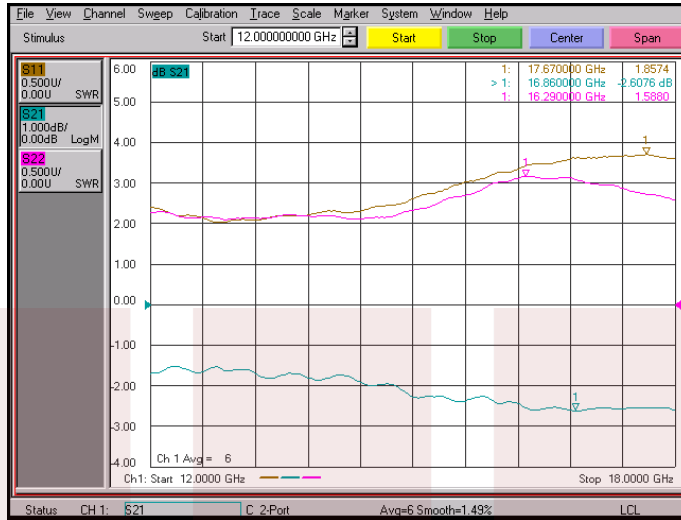
**(J1 – J4) Insertion Loss and Return Loss**



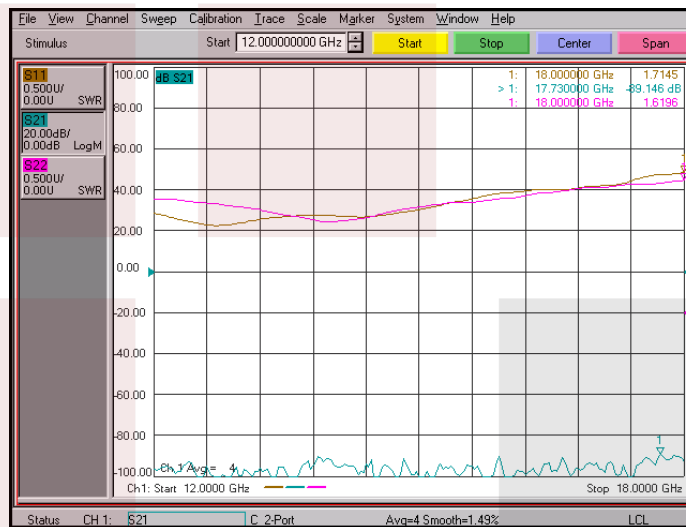
**(J1 – J4) Isolation and Termination Return Loss**



**(J1 – J4) Insertion Loss and Return Loss**



**(J1 – J4) Isolation and Termination Return Loss**

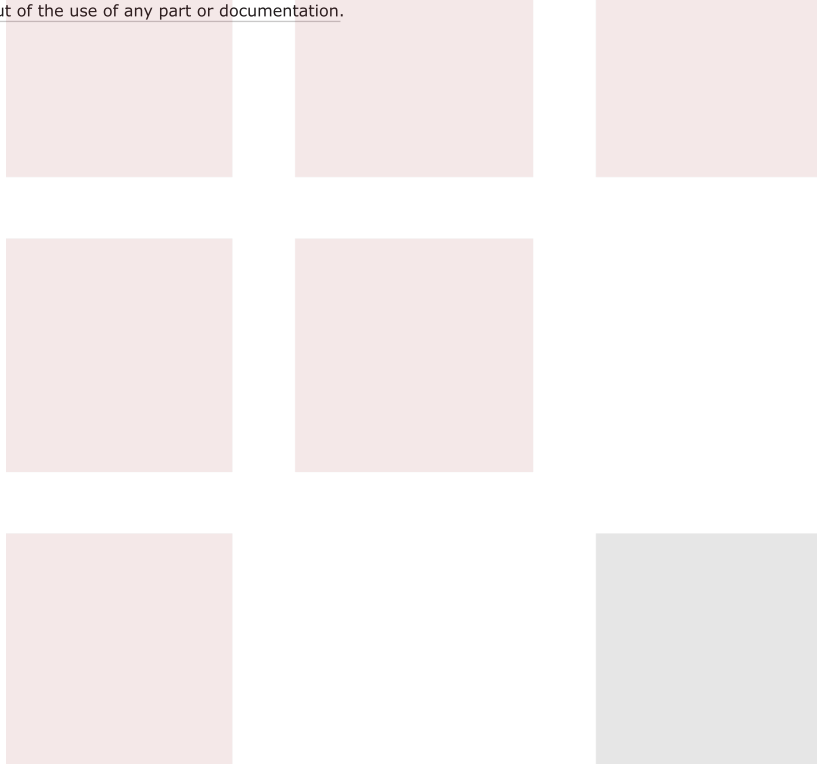


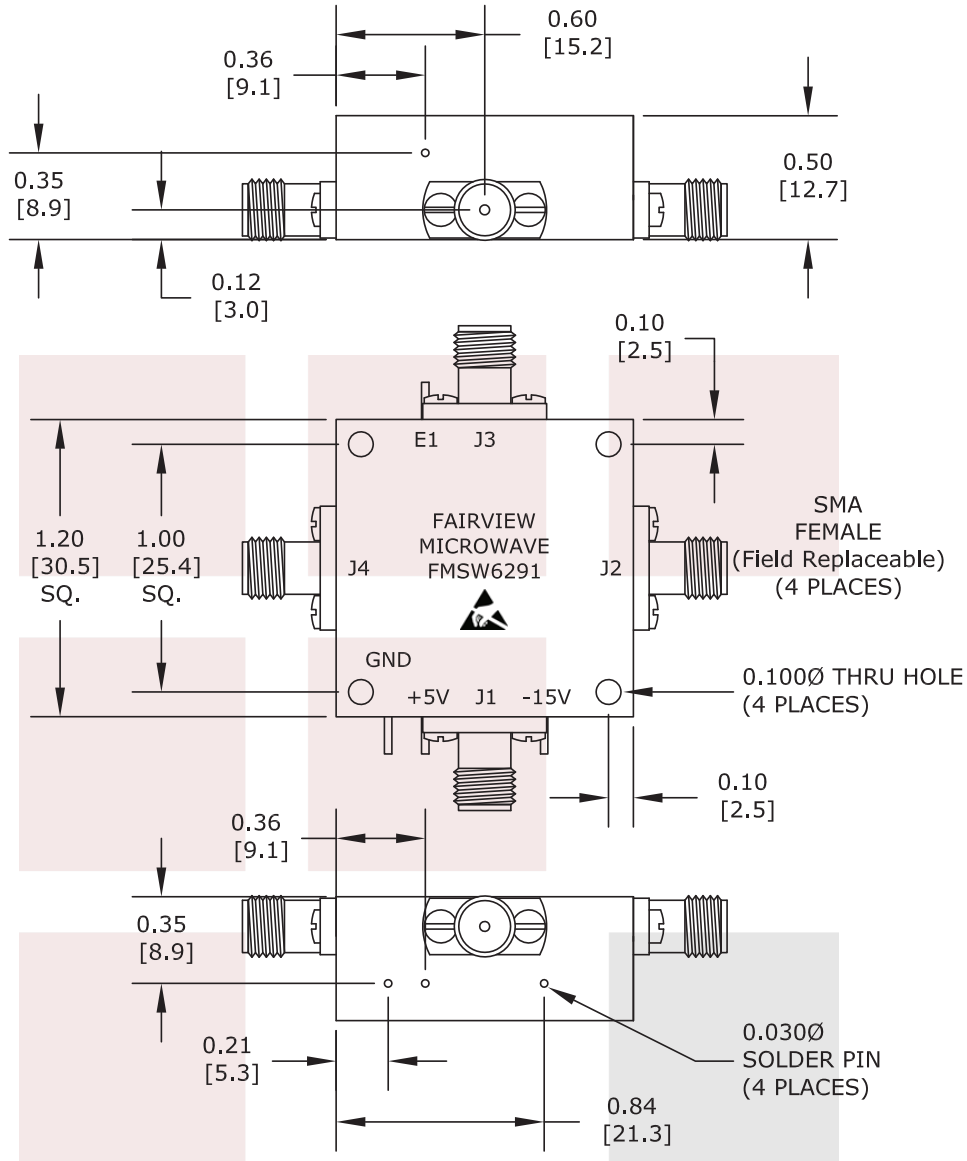
Field Replaceable SMA Transfer PIN Diode Switch Absorptive From 12 GHz to 18 GHz Rated at +27 dBm from Fairview Microwave is in-stock and available to ship same-day. All of our RF/microwave products are available off-the-shelf from our ISO 9001:2008 certified facilities in Allen, Texas. Fairview Microwave is RF on-demand.

For additional information on this product, please click the following link: [Field Replaceable SMA Transfer PIN Diode Switch Absorptive From 12 GHz to 18 GHz Rated at +27 dBm FMSW6291](#)

URL: <https://www.fairviewmicrowave.com/sma-transfer-pin-diode-switch-absorptive-18-ghz-27-dbm-fmsw6291-p.aspx>

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TTL LOGIC	INSERTION LOSS	ISOLATION
0	J1-J2 J3-J4	J1-J4 J2-J3
1	J1-J4 J2-J3	J1-J2 J3-J4

ALL DIMENSIONS ARE IN INCHES.  
TOLERANCES:  
X.XX ±0.020  
X.XXX ±0.010

\* THESE DIMENSIONS AND TOLERANCES  
SUPERSEDE NOTE #1 ON TITLE BLOCK.

<b>FAIRVIEW MICROWAVE INC.</b> ALLEN, TX 75013 WWW.FAIRVIEWMICROWAVE.COM		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 Field Replaceable SMA Transfer PIN Diode Switch Absorptive From 12 GHz to 18 GHz Rated at +27 dBm		DWG NO <b>FMSW6291</b>	CAGE CODE <b>3FKR5</b>
CAD FILE	041916	SHEET	SCALE N/A SIZE A 2233