

SMA SP12T PIN Diode Switch Absorptive From 100 MHz to 20 GHz Rated at +27 dBm

FMSW2034 is a Single Pole Twelve Throw (SP12T) Absorptive PIN Diode Switch that operates from 0.1 to 20 GHz. The output port is terminated in 50 ohms when switched in the isolation (off) state. Electrical performance includes 6 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 -12 Vdc are required. The package interface uses solder terminals and SMA Female connectors.



Electrical Specifications

Description	Min	Typ	Max	Units
Frequency Range	0.1		20	GHz
Impedance		50		Ohms
VSWR			2:1	
Insertion Loss			6	dB
Isolation	65			dB
Switching Time			100	ns
Input Power (CW)			0.5	Watts
Positive Operating Voltage		5		Vdc
Negative Operating Voltage		-12		Vdc
Current @ 5 Vdc		480		mA
Current @ -12 Vdc		40		mA
Operating Temperature	-55		+85	deg C

Features:

- SP12T Absorptive Switch
- 100 MHz to 20 GHz
- Insertion Loss 6 dB max
- Isolation 65 dB min
- Switching speed 100 nsec max
- Max Operating Power +27 dBm

Applications:

- Communications Systems
- Electronic Simulators
- Bypass Switch
- Test Equipment
- Radar Systems
- EW Systems

Mechanical Specifications

Length	3.04 in [77.22 mm]
Width	1.11 in [28.19 mm]
Height	0.35 in [8.89 mm]
Weight	0.1594 lbs [72.3 g]
Design	Absorptive, SP12T
RF Connector	SMA Female
RF Connector Specification	MIL-C-39012
Control Connector	Solder Pin

Environmental Specifications

Temperature

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

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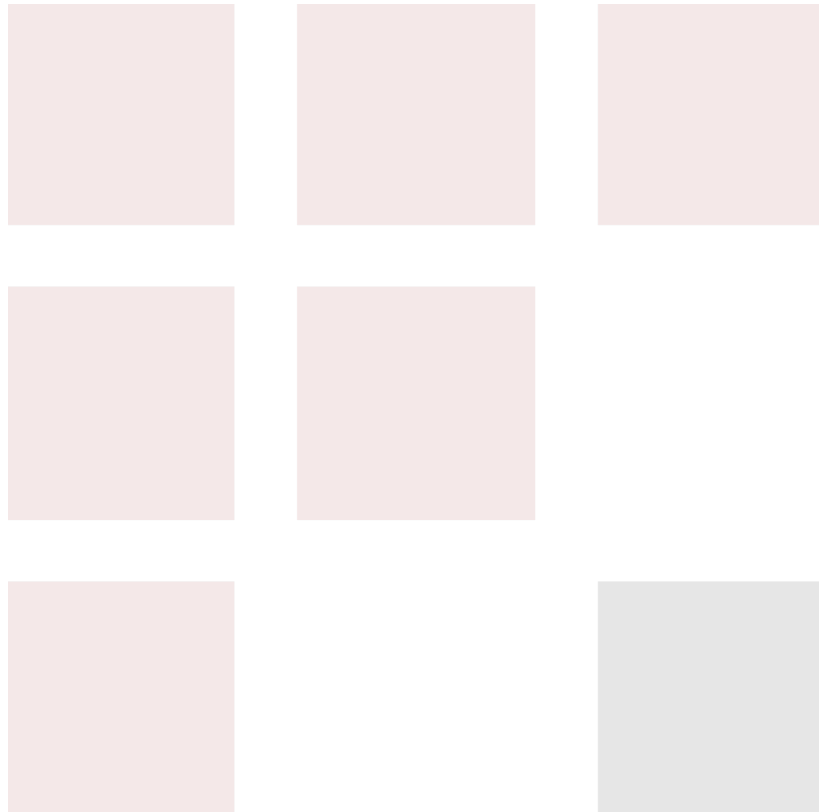


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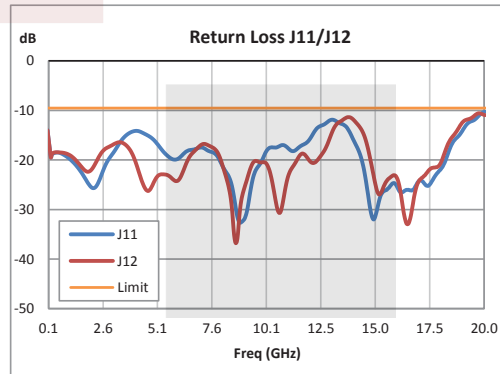
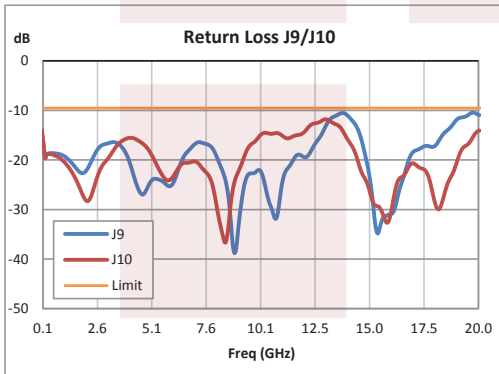
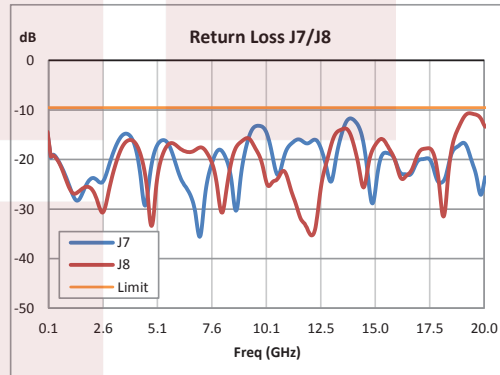
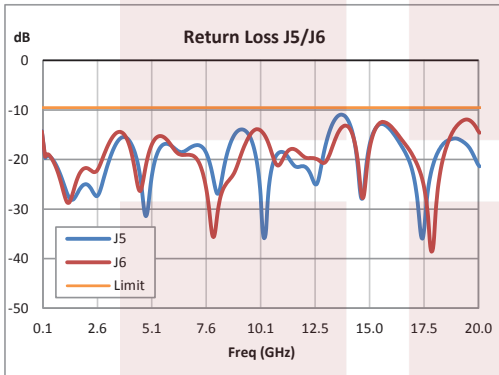
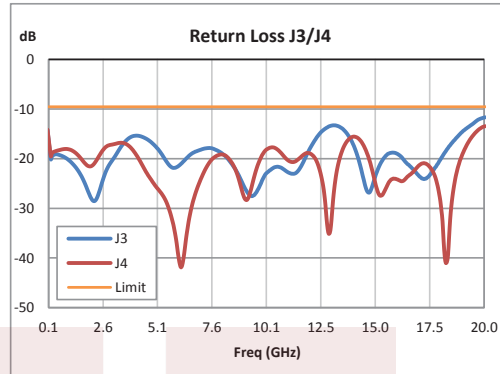
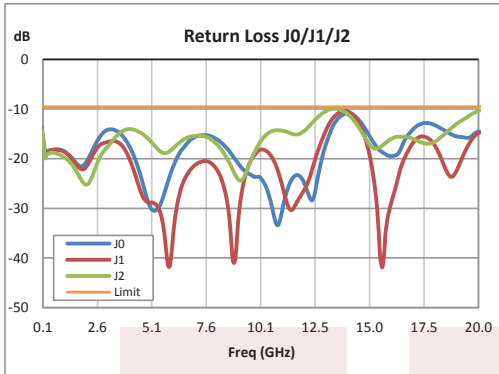
Compliance Certifications (visit www.FairviewMicrowave.com for current document)

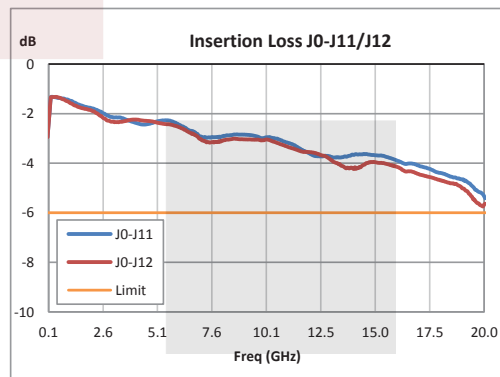
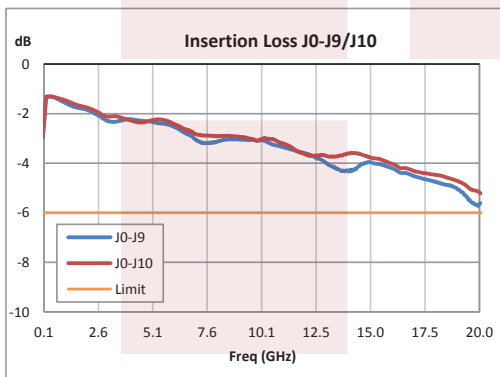
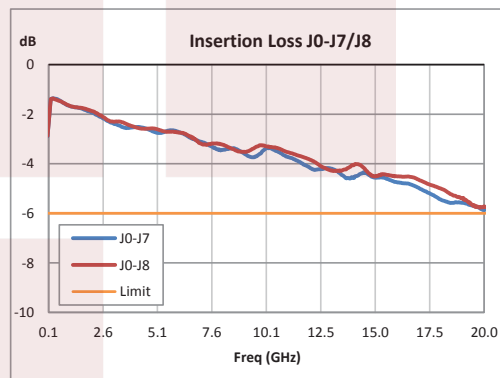
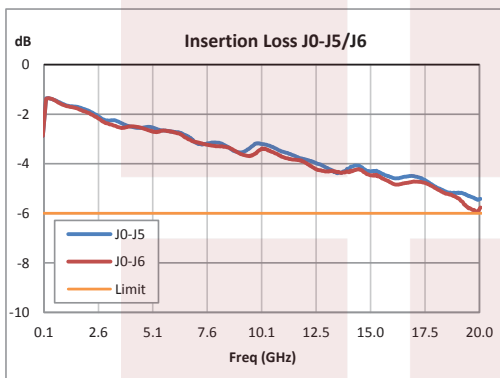
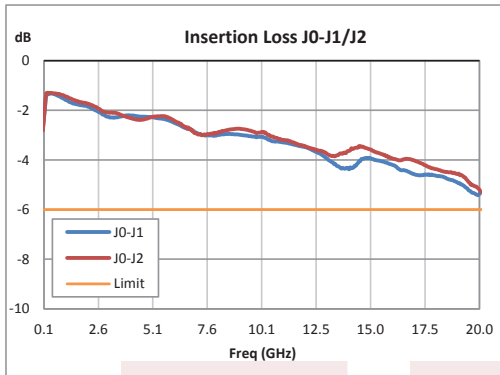
Plotted and Other Data

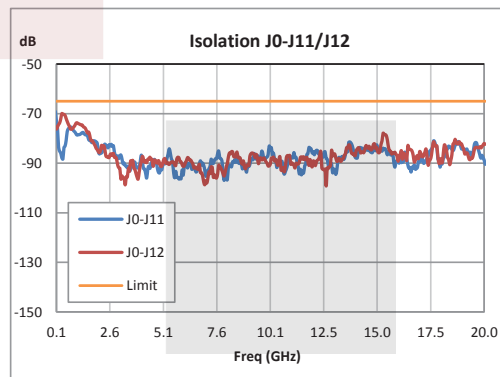
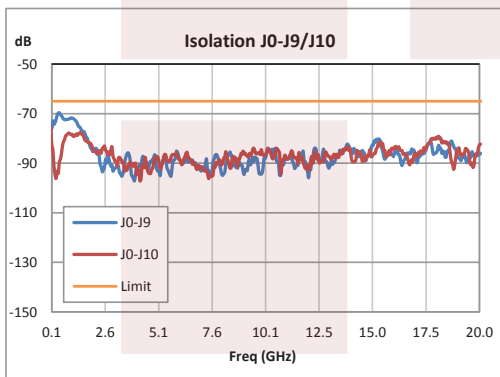
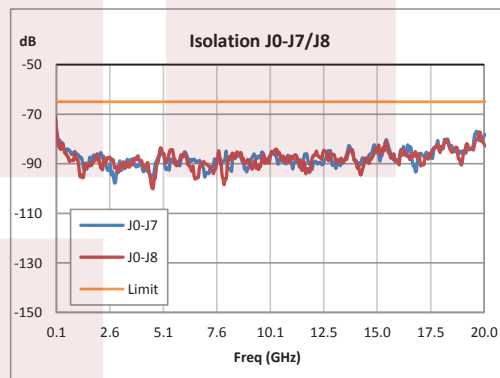
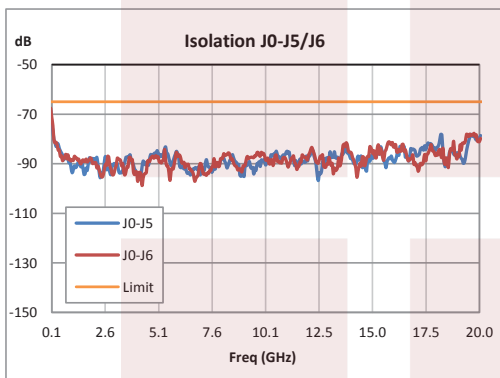
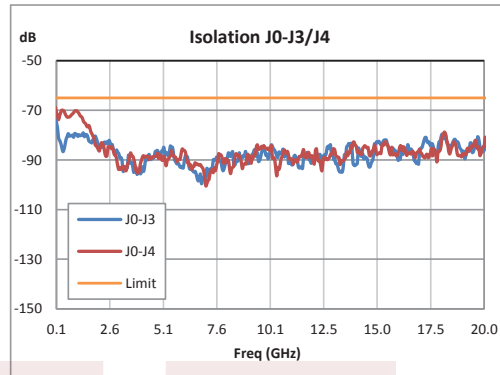
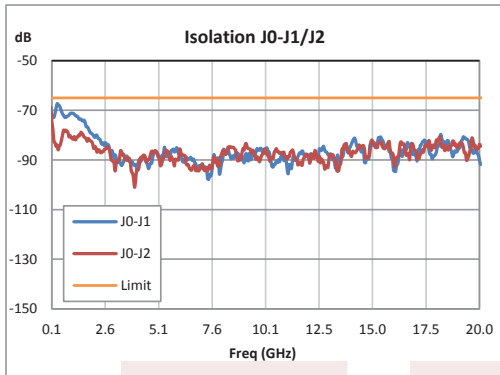
Notes:



Typical Performance Data





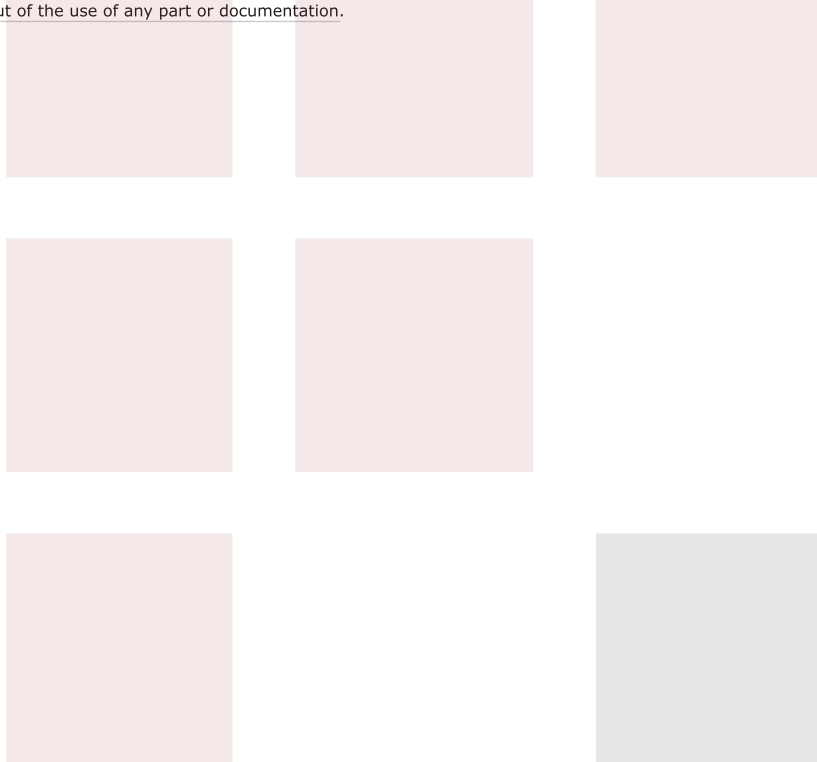


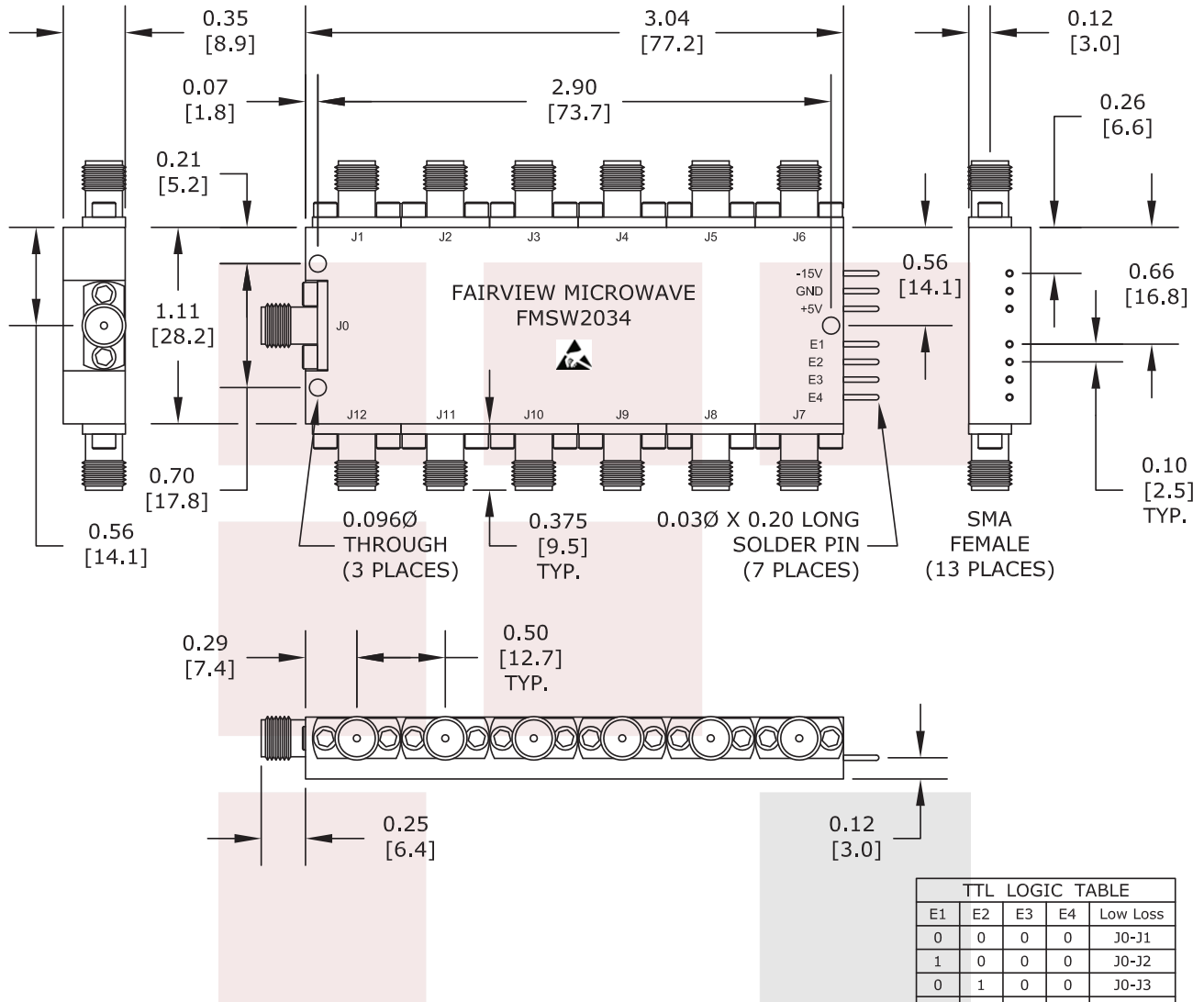
SMA SP12T PIN Diode Switch Absorptive From 100 MHz to 20 GHz Rated at +27 dBm from Fairview Microwave is in-stock and available to ship same-day. All of our RF/microwave products are available off-the-shelf from our ISO 9001:2008 certified facilities in Allen, Texas. Fairview Microwave is RF on-demand.

For additional information on this product, please click the following link: [SMA SP12T PIN Diode Switch Absorptive From 100 MHz to 20 GHz Rated at +27 dBm FMSW2034](#)

URL: <https://www.fairviewmicrowave.com/sma-sp12t-pin-diode-switch-absorptive-20-ghz-27-dbm-fmsw2034-p.aspx>

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

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

TTL LOGIC TABLE				
E1	E2	E3	E4	Low Loss
0	0	0	0	J0-J1
1	0	0	0	J0-J2
0	1	0	0	J0-J3
1	1	0	0	J0-J4
0	0	1	0	J0-J5
1	0	1	0	J0-J6
0	1	1	0	J0-J7
1	1	1	0	J0-J8
0	0	0	1	J0-J9
1	0	0	1	J0-J10
0	1	0	1	J0-J11
1	1	0	1	J0-J12

NOTE: 0011 To 1111 All OFF

FAIRVIEW MICROWAVE INC.				
ALLEN, TX 75013 WWW.FAIRVIEWMICROWAVE.COM				
TITLE		DWG NO		CAGE CODE
SMA SP12T Pin Diode Switch Absorptive From 100 MHz to 20 GHz Rated at +27 dBm		FMSW2034		3FKR5
CAD FILE	042116	SHEET	SCALE	N/A
			SIZE	A
				2233

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].