



Absorptive 6-12GHz Coaxial SP8T Switch



Features

- Wide Band Operation 6-12GHz
- TTL compatible driver include
- Fast Switching Speed
- Low Insertion Loss and High Isolation
- Temperature Range -45°C~+85°C
- Customization available upon request
- Hermetically sealed package up to 60,000ft available upon request.

Electrical Specifications, TA = +25° C, With Biasing +5V & -5V Control 5V TTL= 0/ +5V

Description	PN: RFSP8TA0612G			
	SP8T Absorptive Switch			
	Low Power Cold Switching			
Parameters	Min	Typ.	Max	Units
Frequency Range	6-12			GHz
Insertion Loss		2.4	3	dB
Insertion Loss Temperature Coefficient		0.003		dB/°C
Isolation	80	85		dB
Input VSWR		1.3	1.5	
Output VSWR		1.3	1.5	
RF Input power	30			dBm
DC Power Dissipation		0.4		W
0.1dB Compression Po.1dB		30		dBm
IIP3		55		dBm
Switching Speed		100		ns
Weight		1.76		ounces
Impedance		50		Ω
Biasing(+5V/-5V)		350/50		mA
Input /Output Connector	SMA-Female			
Finishing	Gold Plating			
Material	Aluminum			
Seal	Hermetically Sealed (optional)			

Absorptive Coaxial Single Pole Eight Throw Switch 6-12GHz



Absolute Maximum Ratings

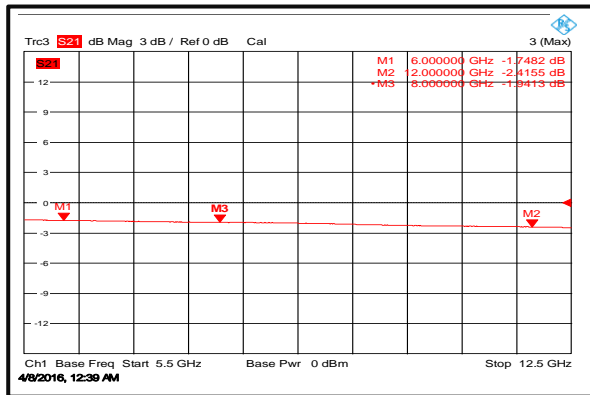
Biassing	+5V±10%/-5V±10%
TTL Control Voltage	0~0.8V/2~5V
Operating Temperature(°C)	-45 ~ +85
Storage Temperature(°C)	-50 ~ +125

Ordering Information

Part No	ECCN	Description
RFSP8TA0612G	EAR99	SP8T 6-12GHz PIN Diode Switch

Typical performance plots

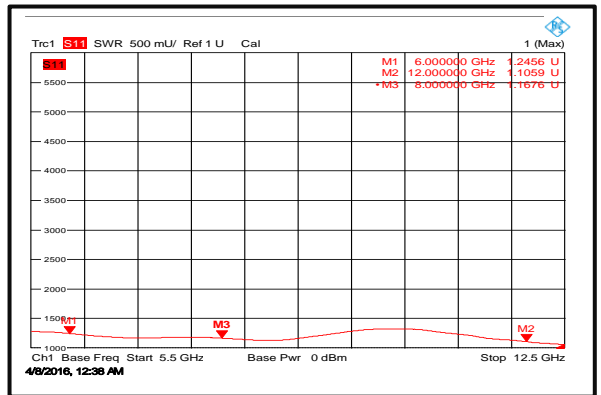
Insertion Loss



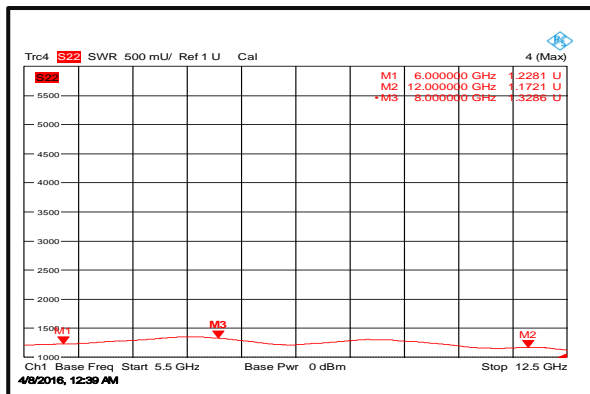
Environment specifications

Operational Temperature (°C)	-45 ~ +85
Storage Temperature (°C)	-50 ~ +125
Altitude	30,000 ft. (Epoxy Seal Controlled environment) 60,000 ft 1.0psi min (Hermetically Seal Un-controlled environment) (Optional)
Vibration	25g rms (15 degree 2KHz) endurance, 1 hour per axis
Humidity	100% RH at 35c, 95%RH at 40°C
Shock	20G for 11msc half sin wave, 3 axis both directions

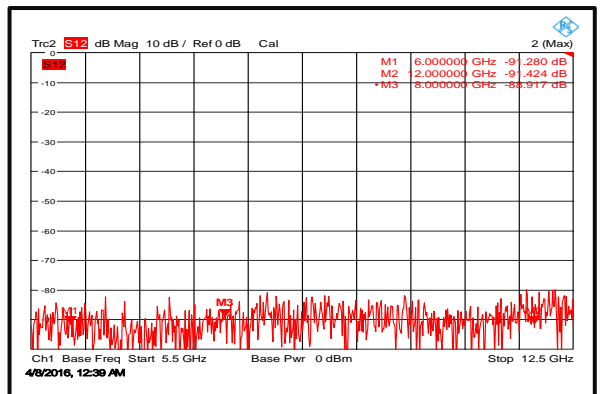
Input VSWR



Output VSWR



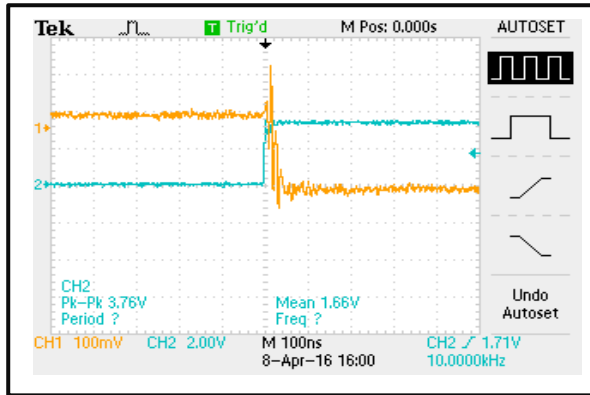
Isolation



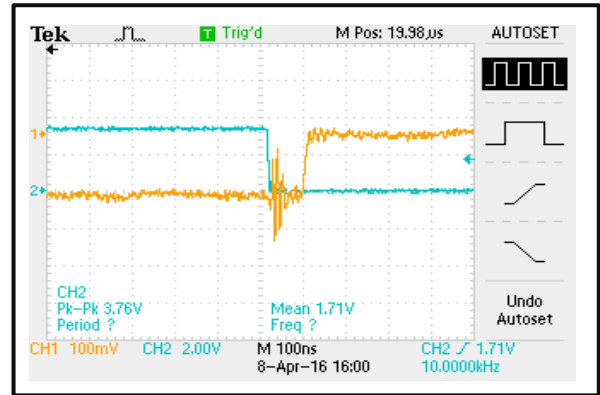
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Switching Speed



Switching Speed



Outline Drawing:

All Dimensions in mm (inches)

RF-Lambda
RFSP8TA0612G
F:6-12GHz
SN:XXXXXXXXXX

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True Table

Control Input TTL			Signal Path State
C3	C2	C1	
0	0	0	Jo-J1
0	0	1	Jo-J2
0	1	0	Jo-J3
0	1	1	Jo-J4
1	0	0	Jo-J5
1	0	1	Jo-J6
1	1	0	Jo-J7
1	1	1	Jo-J8

Control Pin Customization available upon request

ATTENTION
STATIC SENSITIVE DEVICES
HANDLE ONLY AT
STATIC SAFE WORK STATIONS

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