



Absorptive Coaxial SP4T Switch 2 - 20GHz



Features

- Ultra Wide Band Operation 2-20GHz
- TTL compatible driver included
- 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, Vdd = +5V, Vss = -5V, Control TTL = 0 / +5V

Description	PN: RFSP4TA0220G									
	SP4T Absorptive Switch									
	Low Power Cold Switching									
Parameters	Min	Typ	Max	Min	Typ	Max	Min	Typ	Max	Units
Frequency Range	2~6			6~12			12~20			GHz
Insertion Loss		1.8	2		2.7	3		3.2	3.5	dB
Insertion Loss Temperature Coefficient		0.003			0.003			0.003		dB/°C
Isolation	70	75		70	75		60	65		dB
Input VSWR		1.8	2		1.6	2		1.6	2	:1
Output VSWR		1.8	2		1.6	2		1.6	2	:1
RF Input power			30			30			30	dBm
DC Power Dissipation (CW)		0.3			0.4			0.5		W
0.1dB Compression Point (Po.1dB)		30			30			30		dBm
IIP3		55			55			55		dBm
Switching Speed	100									ns
Weight	1.06									ounces
Impedance	50									Ω
Bias Current (+5V/-5V)	160/50									mA
Input / Output Connectors	SMA - Female									
Finishing	Gold Plating									
Material	Aluminum									
Sealing	Hermetically Sealed (optional)									



Absolute Maximum Ratings

Biasing Voltage	+5V±10%/-5V±10%
TTL Control Voltage	-0.5~ 0.8V / 2 ~ 5.5V

Ordering Information

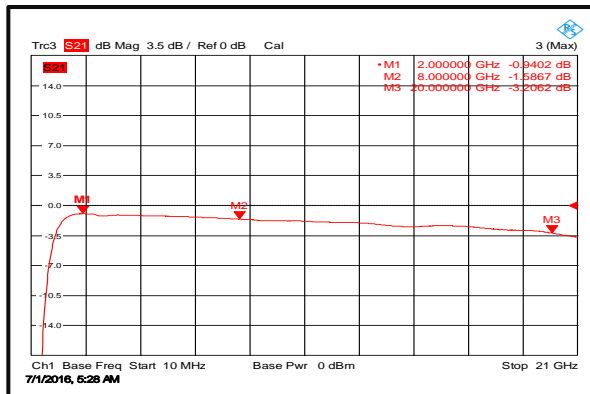
Part No.	ECCN	Description
RFSP4TA0220G	EAR99	SP4T 2-20GHz PIN Diode Switch

Environmental Specifications

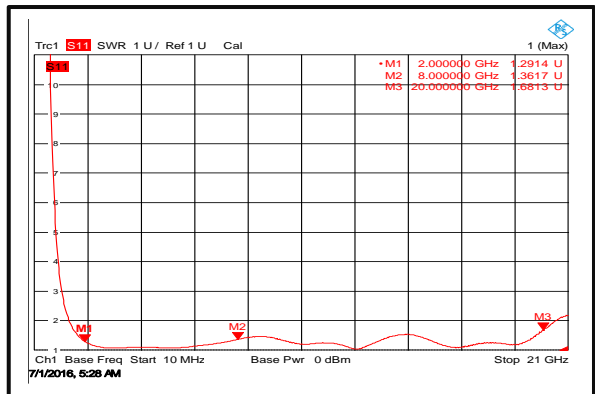
Operational Temperature (°C)	-45 ~ +85
Storage Temperature (°C)	-50 ~ +125
Altitude	30,000 ft. (Epoxy Sealed Controlled environment)
	60,000 ft. 1.0psi min (Hermetically Seal Un-controlled environment) (Optional)
Vibration	25g RMS (15 degrees 2KHz) endurance, 1 hour per axis
Humidity	100% RH at 35c,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

Typical Performance Plots

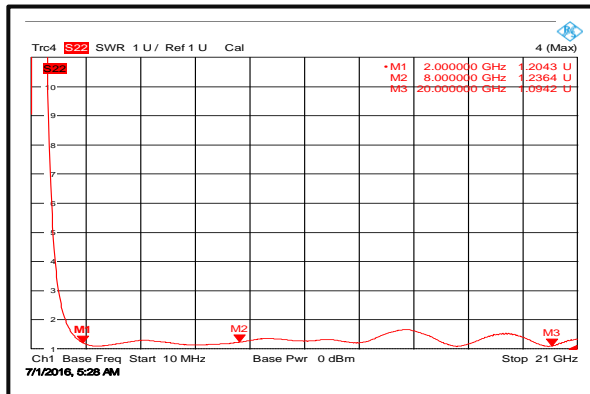
Insertion Loss



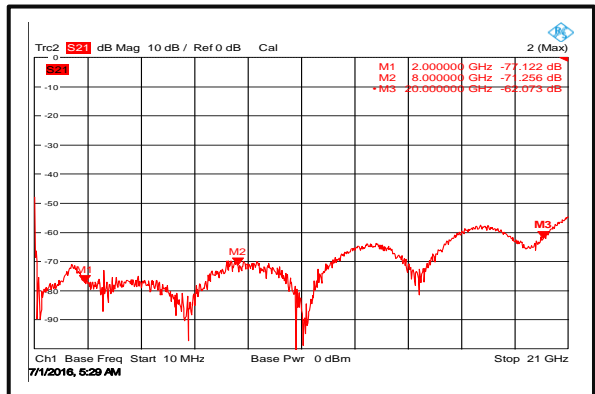
Input VSWR



Output VSWR



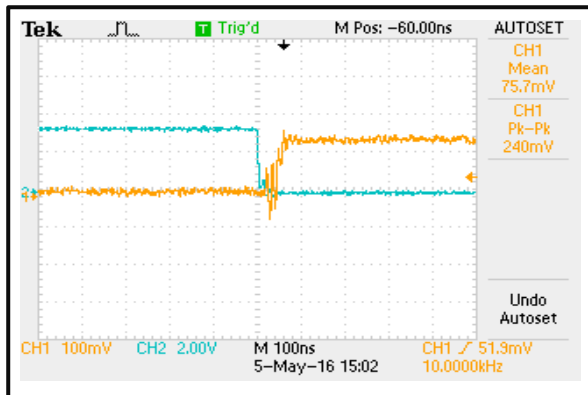
Isolation



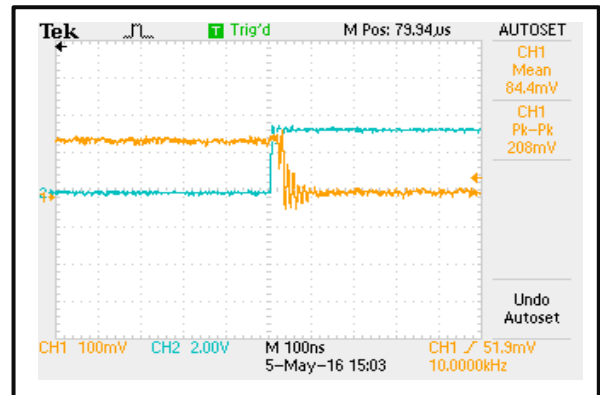
Absorptive Coaxial Single Pole Four Throw Switch 2-20GHz



Switching Speed



Switching Speed



Outline Drawing:

All Dimensions in mm [inches]

Truth Table

Control Input TTL				Signal Path State
C4	C3	C2	C1	
0	0	0	0	NC
1	1	1	0	Jo-J1
1	1	0	1	Jo-J2
1	0	1	1	Jo-J3
0	1	1	1	Jo-J4
1	1	1	1	OFF

Control Pin Customization available upon request

ATTENTION
STATIC SENSITIVE DEVICES
HANDLE ONLY AT
STATIC SAFE WORK STATIONS

Absorptive Coaxial Single Pole Four Throw Switch 2-20GHz

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