



Absorptive 15-18GHz Coaxial SP3T Switch



Features

- Wide Band Operation 15-18GHz
- 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.

Absorptive Coaxial Single Pole Three Throw Switch 15-18GHz

Electrical Specifications, TA = +25° C, With Vdd = +5V & VCTL = 0/ +5V

Description ^{0.6}	PN: RFSP3TA1518GAR			
	SP3T Absorptive Switch			
	High Power Cold Switching			
Parameters	Min	Typ.	Max	Units
Frequency Range	15~18			GHz
Insertion Loss		3.0	3.5	dB
Insertion Loss Temperature Coefficient		0.003		dB/°C
Isolation	70	80		dB
Input VSWR		1.6	2	ratio
Output VSWR (ON State)		1.6	2	ratio
Output VSWR (OFF State)	10			ratio
RF Input power (CW)			10	W
Power Dissipation (CW)		5.5		W
IM3		45		dBc
1dB Compression P1dB		39		dBm
Switching Speed			200	ns
Weight	5			ounces
Impedance	50			Ω
Biasing(+5V)	120			mA
Input /Output Connector	SMA-Female/SMA-Female (Standard)			
Finishing	Gold Plating			
Material	Brass			
Seal	Hermetically Sealed (optional)			



Absolute Maximum Ratings

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

Ordering Information

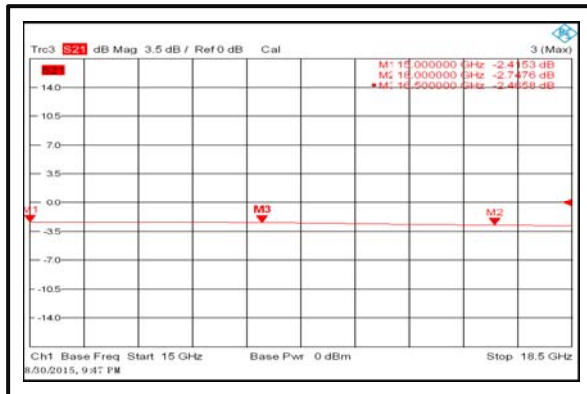
Part No	ECCN	Description
RFSP3TA1518GAR	EAR99	SP3T 15-18GHz PIN Diode Switch

Environment specifications

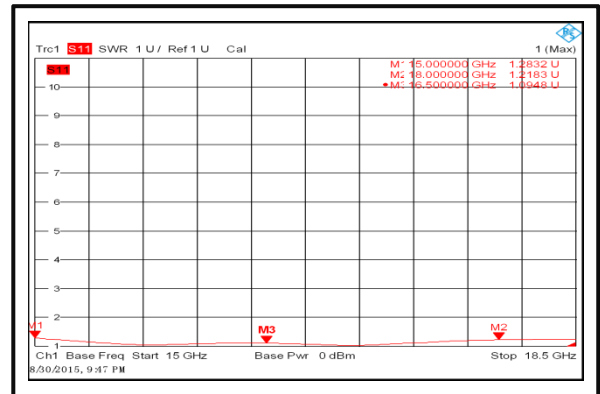
Operational Temperature (°C)	-45 ~ +85
Storage Temperature (°C)	-50 ~ +125
Altitude	30,000 ft. (Epoxy Seal Controlled environment) 60,000 ft 1.0psi min (Hermetically Seal Un-controlled environment) (Optional)
Vibration	25g rms (15 degree 2KHz) endurance, 1 hour per axis
Humidity	100% RH at 35c, 95%RH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

Typical performance plots

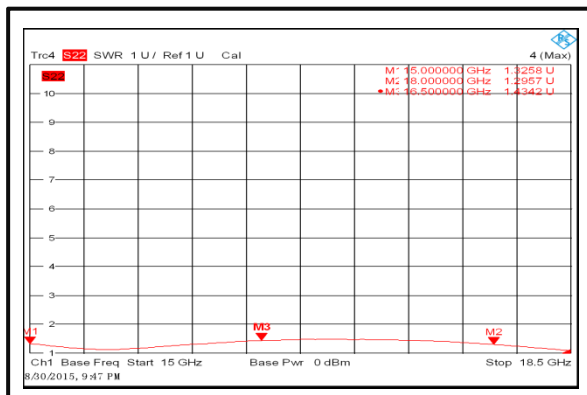
Insertion Loss



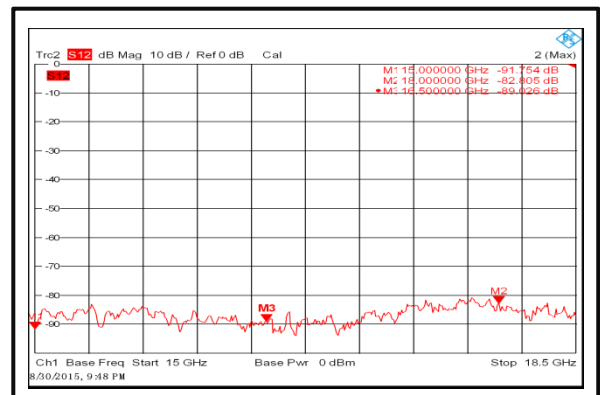
Input VSWR



Output VSWR



Isolation





RF-LAMBDA

LEADER OF BROADBAND SOLUTIONS

RFSP3TA1518GAR

Switching Speed



Switching Speed

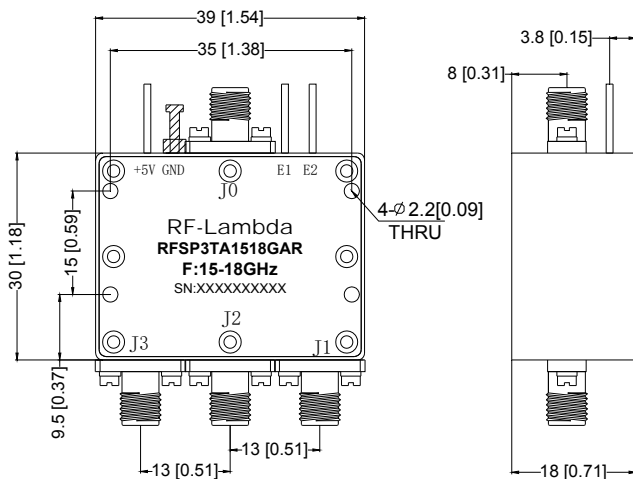


Output Third Order Intercept (IP₃)



Outline Drawing:

All Dimensions in mm (inches)



Truth Table

Control Input TTL		Signal Path State
E2	E1	
0	0	Jo-J1
0	1	Jo-J2
1	0	Jo-J3

Control Pin Customization available upon request



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