

DC TO 20 GHz **S2CP20101** NON REFLECTIVE SINGLE-POLE SINGLE-THROW SWITCH

Typical Values Low Insertion Loss High Isolation High Output Power High Third Order I.P. 2 Stage CougarPak™ for Switches	S2CP20101 <2.8 dB >70 dB +22.0 dBm +XX dBm
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SPECIFICATIONS*

Parameter	Typical	Guaranteed*	
		0 to 50 °C	-55 to +85 °C
Frequency (Min.)	DC - 20 GHz	DC - 20 GHz	DC - 20 GHz
Insertion Loss (Max.)			
DC-500 MHz	<0.9 dB	1.5 dB	1.8 dB
500-18000 MHz	<1.8 dB	3.0 dB	3.2 dB
18000-20000 MHz	<2.6 dB	3.3 dB	3.5 dB
Isolation (Min.)			
DC-500 MHz	65 dB	63.0 dB	62.0 dB
500-18000 MHz	70 dB	69.0 dB	68.0 dB
18000-20000 MHz	70 dB	69.0 dB	68.0 dB
SWR (Max.)[^]			
Input/Output			
DC-500 MHz	<1.3:1	1.9:1	2.0:1
500-18000 MHz	<1.3:1	1.9:1	2.0:1
18000-20000 MHz	<1.4:1	1.9:1	2.0:1
Power Output (Min.)			
@ 1dB comp. DC-500 MHz	+22.0 dBm	+20.0 dBm	+19.0 dBm
500-18000 MHz	+24.0 dBm	+22.0 dBm	+21.0 dBm
18000-20000 MHz	+22.0 dBm	+20.0 dBm	+19.0 dBm
Switching Time[†]			
DC-20 GHz	75/50 ηsec	80/60 ηsec	80/60 ηsec
DC Current (Max.)	4 mA	5 mA	5 mA

* Measured in a 50-ohm system at -5 Vdc unless otherwise specified.
[^] Insertion loss state. [†] 50% TTL control to 10% or 90% RF.

INTERMODULATION PERFORMANCE

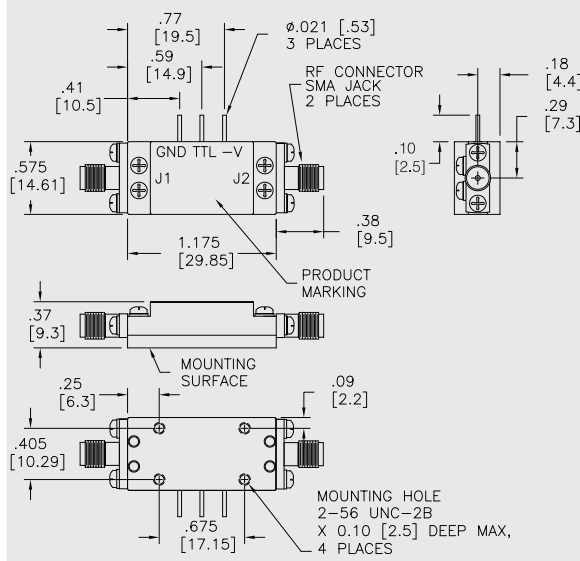
Typical @ 25 °C, -5 Volts, and 1000 MHz Second Order Two Tone Intercept Point Third Order Two Tone Intercept Point	S2CP20101 +XX dBm +XX dBm
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ABSOLUTE MAXIMUM RATINGS

Storage Temperature	-65 to +125 °C
Maximum Case Temperature	+150 °C
Maximum DC Voltage	-5.5 Volts
Maximum Continuous RF Input Power	+28 dBm
Maximum Short Term Input Power (1 Minute Max.)	+31 dBm
Maximum Peak Power (3 μsec Max.)	+34 dBm
Burn-in Temperature	+125 °C

S2CP20101

2 Stage CougarPak™ for Switches



LOGIC TABLE	
TTL CONTROL	J1-J2/ J2-J1
LOW	INSERTION LOSS
HI	ISOLATION

LOW is defined as 0 to +0.8 V
 HI is defined as +2.4 V to +5.5 V

DIMENSIONS ARE IN INCHES [MILLIMETERS]