



PRODUCT SPECIFICATION
MODEL NO. ES0012
SPDT SWITCH

PS-ES0012 REV -

PARAMETER	VALUE	UNITS
1.0 High Power Input Specifications	-	
1.1 Frequency Range	4.0 to 8.0	Ghz
1.2 Power, Peak (Maximum)	300	Watts
1.3 Power, Average (Maximum)	40	Watts
1.4 Duty (Maximum)	12	%
1.5 RF Pulse Width (Maximum)	10	uSec
1.6 Load VSWR (Maximum)	2.5 : 1	-
2.0 Microwave Switch Specifications		
2.1 Frequency Range	4.0 to 8.0	Ghz
2.2 Isolation (Minimum)	50	dB
2.3 Insertion Loss (Maximum)	1.3	dB
2.4 VSWR (Maximum)	1.8 : 1	-
2.5 Switching Speed		
2.5.1 Rise Time (Maximum)	150	nSec
10% to 90% Detected RF		
2.5.2 Fall Time (Maximum)	150	nSec
90% to 10% Detected RF		
2.5.3 Propagation Delay		
2.5.3.1 50% Control to 50% RF (Maximum)	200	nSec
on Rising Edge		
2.5.3.2 50% Control to 50% RF (Maximum)	200	nSec
on Falling Edge		
2.6 Transition Time (Maximum)		
2.6.1 T1; (10% falling edge J2 to 90% rising edge of J3)	80	nSec
2.6.2 T2; (90% rising edge J2 to 10% falling edge of J3)	80	nSec
2.7 Symmetry (Maximum)		
@ 1 MHz Rep Rate		
S = J2 PW - J3 PW	+/-20	nSec
J2 PW = Detected J2 Pulse Width		
J3 PW = Detected J3 Pulse Width		
2.8 Control Switching Freq. (Maximum)	2000	Khz
2.9 Video Leakage (Maximum)	6.0	Vpp
3.0 General Specifications		
3.1 Connectors	-	
3.1.1 RF, Control	SMA-F	
3.1.2 Bias	Solder Pin	
3.2 Control		
3.2.1 Logic	TTL	-
3.2.2 State Table		
<u>TTL CNTL</u>	<u>RF Path</u>	
" 0 "	J1 to J2	
" 1 "	J1 to J3	

ENG: _____ MFG ENG: _____ TEST ENG: _____ QC: _____
DATE: _____ DATE: _____ DATE: _____ DATE: _____

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3.3	DC Power Requirements		
3.3.1	Positive Supply	+5+/-5%	Vdc
3.3.2	Positive Supply Current (Max)	350	mA
3.3.3	Negative Supply Voltage	28v +/-5%	Vdc
3.3.4	Negative Supply Current (Max)	150	mA
3.4	Environmental Requirements		
3.4.1	Temperature		
3.4.1.1	Operating	-20 to +68	Degrees C
3.4.1.2	Storage	-55 to +125	Degrees C
3.4.2	Cooling:	Conduction cooling through surface of switch body	
3.4.3	Altitude (maximum)		
3.4.3.1	Operating	10000	feet
3.4.3.2	Non-Operating	50000	feet
3.5	Dimensions	Refer to outline drawing	