



Cage Code:
02WLO

Title:
PRODUCT DATA

Date:
9/23/99

Rev:
None

Model no:
L46-004

This document describes the performance of a high power 1P4T switch. This is a cold switched design i.e.; switched while RF is off. Proper bias levels must be applied when operating this device.

ITEM NO	CHARACTERISTIC	CONDITIONS	MIN	MAX	UNITS	COMMENTS
1	POWER SPECIFICATION	IN BAND				
1.1	FREQUENCY		8.2	18	GHz	
1.2	PEAK POWER			12.5	WATTS	
1.3	PULSE WIDTH			10	μS	
1.4	DUTY			20	%	
1.5	AVE. POWER			2.5	WATTS	
1.6	CW POWER			12.5	WATTS	
2	POWER SPECIFICATIONS	GUARD BAND				
2.1.1	FREQUENCY		7.8	8.2	GHz	
2.1.2	FREQUENCY		18	18.4	GHz	
2.2	PEAK POWER			12.5	WATTS	
2.3	PULSE WIDTH			10	μS	
2.4	DUTY			20	%	
2.5	AVE. POWER			2.5	WATTS	
2.6	CW POWER			12.5	WATTS	
3	POWER SPECIFICATIONS	OUT OF BAND				
3.1	FREQUENCY		>18.4		GHz	
3.2	PEAK POWER			0.03	WATTS	
3.3	PULSE WIDTH		N/A		μS	
3.4	DUTY		N/A		%	
3.5	AVE. POWER		N/A		WATTS	
3.6	CW POWER			0.03	WATTS	
4	OPERATING FREQUENCY		8.2	18	GHz	
5	INSERTION LOSS					
5.1		IN BAND		2.6	dB	
5.2		GUARD BAND		3.6	dB	
6	ISOLATION					
6.1		IN BAND	40		dB	
6.2		GUARD BAND	30		dB	
7	PHASE					
7.1	MATCHING					NOT SPECIFIED
7.2	TRACKING					NOT SPECIFIED



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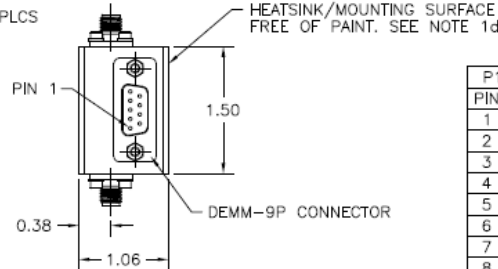
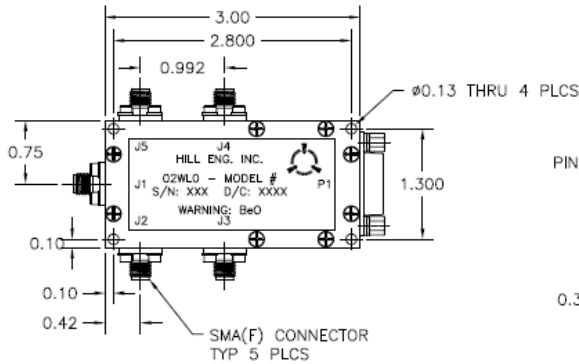
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8	VSWR					
8.1	PORTS NOT SELECTED					INFINITE
8.2	INPUT & OUTPUT, SELECTED PORTS			1.8:1		
8.3	TERMINATION			2.0:1		
8.4	SOURCE			1.6:1		
9	HARMONICS & SPURS					
9.1	INTERNALLY GENERATED					NOT SPECIFIED
9.2		MEASURED AT INCIDENT POWER		0	WATTS	
10	SWITCHING					
10.1	SPEED	50% TTL TO 90% RF		75	nS	
10.2	SWITCHING RATE			2	MHz	
10.3	VIDEO LEAKAGE				Vpp	NOT SPECIFIED
10.4	COMMAND LOGIC	TTL, STD. INVERTING				
10.4	LOGIC TABLE					SEE DWG 3046
11	D.C. POWER					
11.1	POSITIVE BIAS VOLTAGE		4.8	5.2	VDC	
11.2	NEGATIVE BIAS VOLTAGE		-24	-32	VDC	
11.4	POSITIVE BIAS CURRENT			300	mA	
11.5	NEGATIVE BIAS CURRENT			20	mA	
NOTE: NO OVER-VOLTAGE OR REVERSE POLARITY PROTECTION IS PROVIDED WITH THIS SWITCH.						
NOTE 2: NO RF POWER SHALL BE APPLIED TO THE UNIT IN THE "ALL OFF" CONDITION.						
12	CONNECTORS					
12.1	RF					SMAF
12.3	DC					DAM-9
13	MECHANICAL					
13.1	WEIGHT			8	Oz.	
13.2	OUTLINE					SEE DWG 3046
14	ENVIRONMENTAL					
14.1	OPERATING TEMPERATURE		-20	+60	°C	
14.2	STORAGE TEMPERATURE		-20	+70	°C	
14.3	VIBRATION LEVEL					GROUND TRANSPORT
14.4	DEVICE SCREENING	LEVEL 2				DEVICE SCREEING PER HILL PROCEDURE QP-121 LEVEL2

REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
-	INITIAL DRN #517	9/21/99	SPL
A	REVISED PER ECN #1360 (djb)	3/2/2000	SPL
B	REVISED PER ECN #1849 (hrb)		



P1 CONNECTIONS	
PIN	SIGNAL
1	+5VDC
2	-V
3	GND
4	LOGIC J2
5	LOGIC J3
6	GND
7	LOGIC J4
8	LOGIC J5
9	GND

- NOTES:
- FINISH:
 - PAINT PER HILL ENG. MEI-105.
 - PRIMER: ZRC ZINC PRIMER P/N 172-0003.
 - PAINT: FLAT BLACK EPOXY ENAMEL P/N 172-0002.
 - HEATSINK/MOUNTING SURFACE CHEMICAL FILM PER HILL IP-125.
 - MARKING:
 - MARK PER MEI-147.
 - MARKING: 0.09" BLACK CHARACTERS.
 - LABEL: METALIZED POLYESTER SHEET P/N 127-0010.

LOGIC				
OUTPUT	PIN 4	PIN 5	PIN 7	PIN 8
J2	0	1	1	1
J3	1	0	1	1
J4	1	1	0	1
J5	1	1	1	0
[ISOLATED]	1	1	1	1

NOTE: ANY OTHER LOGIC STATE IS NOT ALLOWED



UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES DIMENSIONS ARE				APPROVALS		DATE	
FINISHES	21/94	21/94	21/94	DESIGNED BY	HR BENSON	8/31/99	
ANGLES	90°	90°	90°	CHECKED BY			
SURFACE	25/97	25/97	25/97	DESIGNED	SP LEROUX	9/21/99	
REMOVE ALL BURRS FROM PARTS				MANUFACTURING	S. WARD	9/20/99	
				DC	K. RINGDAHL	9/17/99	
				DESIGNED APPROVALS			
NEXT ASSY	USED ON			SIZE	B	ONE CITE	02WLO
APPLICATIONS	DO NOT SCALE DRAWING			DRAWING NO.	3046	REV	B
				SCALE	1/1	FILENAME	3046A
						SHEET	1 of 1



OUTLINE, SP4T TTL SWITCH