



Cage Code:  
**02WLO**

Title:  
**PRODUCT DATA**  
**(subject to change)**

Date:  
**10/24/05**

Rev:  
**None**

Model no:  
**H46-018**

**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	18	GHz	
1.2	PEAK POWER	8-12.4 GHz		2000	WATTS	Absolute maximum at input, including load effects and harmonics.
		12.4-16 GHz		1600	WATTS	
		16-18 GHz		1000	WATTS	
1.3	PULSE WIDTH			10	μS	
1.4	DUTY			6	%	
1.5	AVE. POWER	8-12.4 GHz		120	WATTS	
		12.4-16 GHz		96	WATTS	
		16-18 GHz		60	WATTS	
1.6	CW POWER			N/A	WATTS	
2	POWER SPECIFICATIONS	GUARD BAND				
2.1	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	18	GHz	
5	INSERTION LOSS					
5.1		IN BAND		3.5	dB	
6	ISOLATION					
6.1	I/O – O/O	IN BAND	40		dB	



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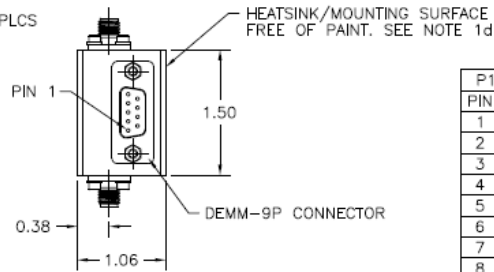
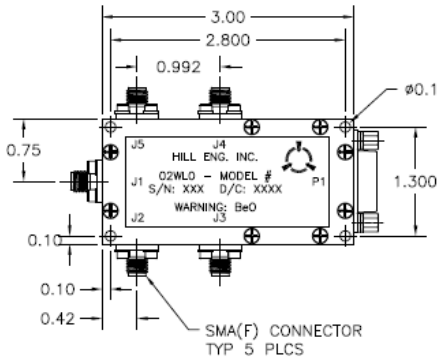
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ITEM NO	CHARACTERISTIC	CONDITIONS	MIN	MAX	UNITS	COMMENTS
7	PHASE					
7.1	MATCHING					NOT SPECIFIED
7.2	TRACKING					NOT SPECIFIED
8	VSWR					
8.1	PORTS NOT SELECTED					INFINITE (Reflective)
8.2	INPUT & OUTPUT, SELECTED PORTS			1.8:1		
8.3	TERMINATION			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 0.5dBRF		2	uS	
10.2	SWITCHING RATE			100	KHz	
10.3	VIDEO LEAKAGE				Vpp	NOT SPECIFIED
10.4	COMMAND LOGIC	TTL See Drawing 2653				
10.4	LOGIC TABLE					SEE DWG 2653 below
11	D.C. POWER					
11.1	POSITIVE BIAS VOLTAGE		4.8	5.2	VDC	
11.2	NEGATIVE BIAS VOLTAGE		-66	-74	VDC	
11.4	POSITIVE BIAS CURRENT			300	mA	
11.5	NEGATIVE BIAS CURRENT			60	mA	
12	CONNECTORS					
12.1	RF					SMA
12.3	DC					DAM-9
13	MECHANICAL					
13.1	WEIGHT			16	Oz.	
13.2	OUTLINE				Inches	SEE DWG 2653 below
14	ENVIRONMENTAL					
14.1	OPERATING TEMPERATURE		-20	+60	°C	
14.2	STORAGE TEMPERATURE		-40	+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 #418	2/2/98	SPL
A	REVISED PER ECN # 3760	4/26/06	SPL



P1 CONNECTIONS	
PIN	SIGNAL
1	+5VDC
2	-V
3	GND
4	TTL, MSB
5	N/C
6	GND
7	TTL, LSB
8	N/C
9	GND

LOGIC

OUTPUT	LSB	MSB
J2	0	0
J3	1	0
J4	0	1
J5	1	1



SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

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.

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE:	APPROVALS DESIGNED BY: LDC SHARKER DATE: 2/2/98	
FINISH: SEE DRAWING SURFACE: SEE DRAWING REMOVE ALL BURRS FROM PARTS	CHECKED BY: SPL DATE: 2/8/98 MANUFACTURED BY: JAW DATE: 2/9/98 QC: JCH CUSTOMER APPROVALS:	
MATERIAL: H46-018 NEXT ASSY: USED ON	DRAWING TITLE: OUTLINE, SP4T TTL SWITCH	SIZE: B QTY: 02WLO DRAWING NO.: 2653 REV: A
APPLICATIONS: DO NOT SCALE DRAWING	SCALE: 1/1	PARTNAME: 2653a SHEET 1 OF 1