

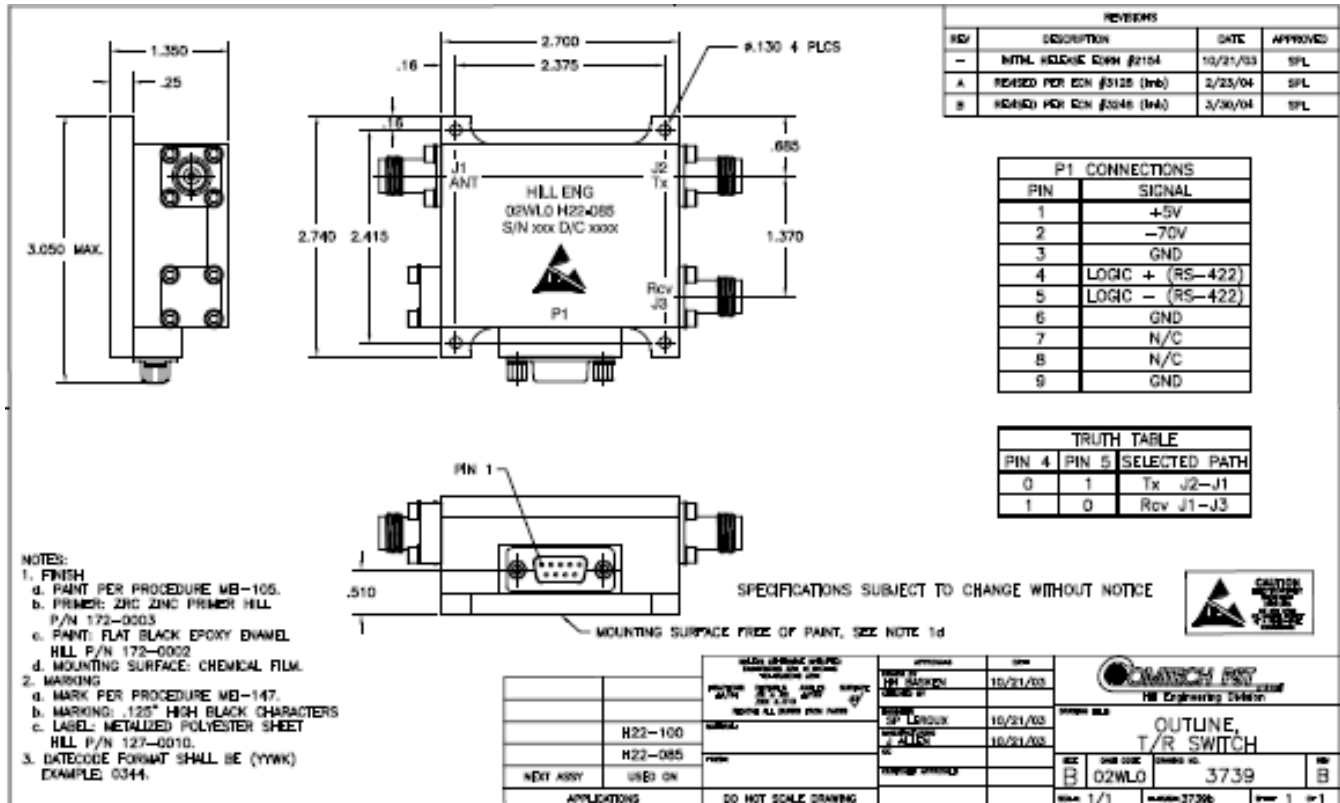
	Cage Code:	Title:	Date:	Rev:	Model no:
	02WLO	PRODUCT DATA (subject to change)	11/16/2009	None	H22-085

This document describes the performance of a high power 1P2T 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		2.0	4.0	GHZ	
1.2	PEAK POWER	At input connector		1000	WATTS	Absolute max, including reflections
1.3	PULSE WIDTH			42	μs	
1.4	DUTY			15	%	
1.5	AVG / CW POWER			150	WATTS	
2	POWER SPECIFICATIONS	GUARD BAND A				
2.1	FREQUENCY		4.0	6.0	GHZ	
2.2	PEAK POWER			1000	WATTS	
2.3	PULSE WIDTH			42	μs	
2.4	DUTY			15	%	
2.5	CW POWER			150	WATTS	
3	POWER SPECIFICATIONS	GUARD BAND B				
3.1	FREQUENCY		6.0	8.0	GHZ	
3.2	PEAK POWER			20	WATTS	
3.3	PULSE WIDTH			0.5	μs	
3.4	DUTY			5	%	
3.5	CW POWER			1	WATTS	
4	POWER SPECIFICATIONS	OUT OF BAND				
4.1	FREQUENCY		>8.0		GHZ	
4.2	PEAK POWER			0.03	WATTS	
4.3	PULSE WIDTH		CW		μs	
4.4	DUTY		CW		%	
4.5	CW POWER			0.03	WATTS	
5	OPERATING FREQUENCY		2.0	4.0	GHZ	
6	INSERTION LOSS					
6.1				1.3	dB	

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7	ISOLATION					
7.1	J2 (Tx) to J3 (Rcv)	Tx (LOGIC 0), J1 TERM.	40		dB	
8	PHASE					NOT SPECIFIED
9	VSWR					
9.1	PORTS NOT SELECTED					INFINITE
9.2	INPUT & OUTPUT, SELECTED PORTS			1.4:1		
9.3	LOAD			2.0:1		
9.4	SOURCE			1.2:1		
10	HARMONICS & SPURS					
10.1	INTERNALLY GENERATED		-60		dBc	
10.2	MEASURED AT INCIDENT POWER			0	WATTS	
11	SWITCHING					
11.1	SPEED	50% TTL TO 0.5dB		3	μs	Microseconds
11.2	SWITCHING RATE			50	kHz	
11.3	COMMAND LOGIC	RS-422				
11.4	VIDEO LEAKAGE			5	V p-p	
11.5	LOGIC TABLE					SEE DWG 3739 below
12	D.C. POWER					
12.1	POSITIVE BIAS VOLTAGE		4.8	5.2	VDC	
12.2	NEGATIVE BIAS VOLTAGE		-66	-74	VDC	
12.4	POSITIVE BIAS CURRENT			300	mA	
12.5	NEGATIVE BIAS CURRENT			50	mA	
	NOTE: NO OVER-VOLTAGE OR REVERSE POLARITY PROTECTION IS PROVIDED WITH THIS SWITCH.					
13	CONNECTORS					
13.1	RF					NF
13.3	DC					9 PIN
14	MECHANICAL					
14.1	WEIGHT			14	Oz.	
14.2	OUTLINE					SEE DWG 3739 below
15	ENVIRONMENTAL					
15.1	OPERATING TEMPERATURE		-0	+70	°C	
15.2	STORAGE TEMPERATURE		-55	+85	°C	
15.3	VIBRATION LEVEL					AIRBORNE SUBSONIC



REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
-	INITIAL RELEASE FOR EOH (#2104)	10/21/03	SPL
A	REDESIGNED FOR EOH (#3125 (Ink))	2/23/04	SPL
B	REDESIGNED FOR EOH (#3048 (Ink))	2/26/04	SPL

P1 CONNECTIONS	
PIN	SIGNAL
1	+5V
2	-70V
3	GND
4	LOGIC + (RS-422)
5	LOGIC - (RS-422)
6	GND
7	N/C
8	N/C
9	GND

TRUTH TABLE		
PIN 4	PIN 5	SELECTED PATH
0	1	Tx J2-J1
1	0	Rev J1-J3

- NOTES:
- FINISH
 - PAINT PER PROCEDURE MB-105.
 - PRIMER: ZINC ZINC PRIMER HILL P/N 172-0003
 - PAINT: FLAT BLACK EPOXY DIAMEL HILL P/N 172-0002
 - MOUNTING SURFACE: CHEMICAL FILM.
 - MARKING
 - MARK PER PROCEDURE MB-147.
 - MARKING: .125" HIGH BLACK CHARACTERS
 - LABEL: METALLIZED POLYESTER SHEET HILL P/N 127-0010.
 - DATECODE FORMAT SHALL BE (YYWK) EXAMPLE: 0344.

SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE



HILL ENGINEERING DIVISION HILL P/N 172-0003 HILL P/N 172-0002 HILL P/N 127-0010		DATE: 10/21/03 BY: [Signature] CHECKED: 10/21/03 BY: [Signature]	
H22-100 H22-085 NDET ASSY USED ON		PART NO. H22-085 REV. 0 DATE 11/16/09	OUTLINE, T/R SWITCH H22-085 3739 1/1
APPLICATIONS		DO NOT SCALE DRAWING	REV 1 of 1