	Cage Code:	Title:	Date:	Rev:	Model no:
	02WL0	PRODUCT DATA (subject to change)	09/15/05	N/A	VH20-106

This document describes the performance of a high power 1P2T/TR switch. This is a cold-switched design i.e.; switched while RF is off. Transmit band (high power) is 20-100 MHz; Receive band (low power) is 20-512 MHz

ITEM NO	CHARACTERISTIC	CONDITIONS	MIN	MAX	UNITS	COMMENTS
1	POWER SPECIFICATION	IN BAND				
1.1	FREQUENCY		20	512	MHz	
1.2	TRANSMIT POWER, CW	20-100 MHz		1400	WATTS	
1.3	RECEIVE POWER, CW	20-512 MHz		10	WATTS	
1.6	TRANSMIT INTO OPEN/SHORT	ALL PHASE ANGLES	CW	125	WATTS	
2	POWER SPECIFICATIONS	GUARD BAND				
2.1	FREQUENCY		500	540	MHz	
2.2	PEAK POWER			5	WATTS	
2.3	PULSE WIDTH		CW		μS	
2.4	DUTY		CW		%	
2.5	CW POWER			5	WATTS	
3	POWER SPECIFICATIONS	OUT OF BAND				
3.1	FREQUENCY		>540		MHz	
3.2	PEAK POWER			30	dBm	
3.5	CW POWER			30	dBm	
4	OPERATING FREQUENCY	TRANSMIT	20	100	MHz	
4.1	OPERATING FREQUENCY	RECEIVE	20	512	MHz	
5	INSERTION LOSS	TRANSMIT		0.50	dB	
5.1		RECEIVE				
6	ISOLATION					
6.1	TRANSMIT		50		dB	
6.2	RECEIVE		50		dB	
7	PHASE	MATCH/TRACK				NOT SPECIFIED
8	VSWR					
8.1	PORT SELECTED			1.5:1		
8.2	PORT NOT SELECTED			>20:1		INFINITY
8.3	LOAD			2.5:1		
8.4	SOURCE			1.15:1		

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ITEM NO	CHARACTERISTIC	CONDITIONS	MIN	MAX	UNITS	COMMENTS
9	HARMONICS & SPURS					
9.1	INTERNALLY GENERATED			-70	dBc	
9.2		MEASURED AT INCIDENT POWER		0	dBm	
10	SWITCHING					
10.1	SPEED	TO 0.50DB I.L.		30	μS	
10.2	SWITCHING RATE			2	KHz	
10.3	VIDEO LEAKAGE			40	Vpp	DC to 1 GHz
10.4	COMMAND LOGIC	RS-422				CONTROL AND BIT
10.5	LOGIC TABLE					SEE DWG BELOW
11	D.C. POWER					
11.1	POSITIVE BIAS VOLTAGE 1		4.80	5.20	VDC	
11.2	POSITIVE BIAS VOLTAGE 2		7.3	7.7	VDC	
11.3	POSITIVE BIAS VOLTAGE 3		26	30	VDC	
11.4	POSITIVE BIAS CURRENT 1			1.2	A	
11.5	POSITIVE BIAS CURRENT 2			1.0	A	
11.6	POSITIVE BIAS CURRENT 3			1.0	A	
11.7	NOTE : Voltage Protection – This unit does not have over-voltage or reverse polarity protection on any bias port.					
12	CONNECTORS					
12.1	RF					NF
12.3	DC					25 pin D submin
13	MECHANICAL					
13.1	WEIGHT			5.3	LBS	
13.2	OUTLINE					SEE DWG BELOW
14	ENVIRONMENTAL					
14.1	OPERATING TEMPERATURE		0	+60	°C	
14.2	STORAGE TEMPERATURE		-20	+55	°C	
14.3	VIBRATION LEVEL					GROUND TRANSPORT



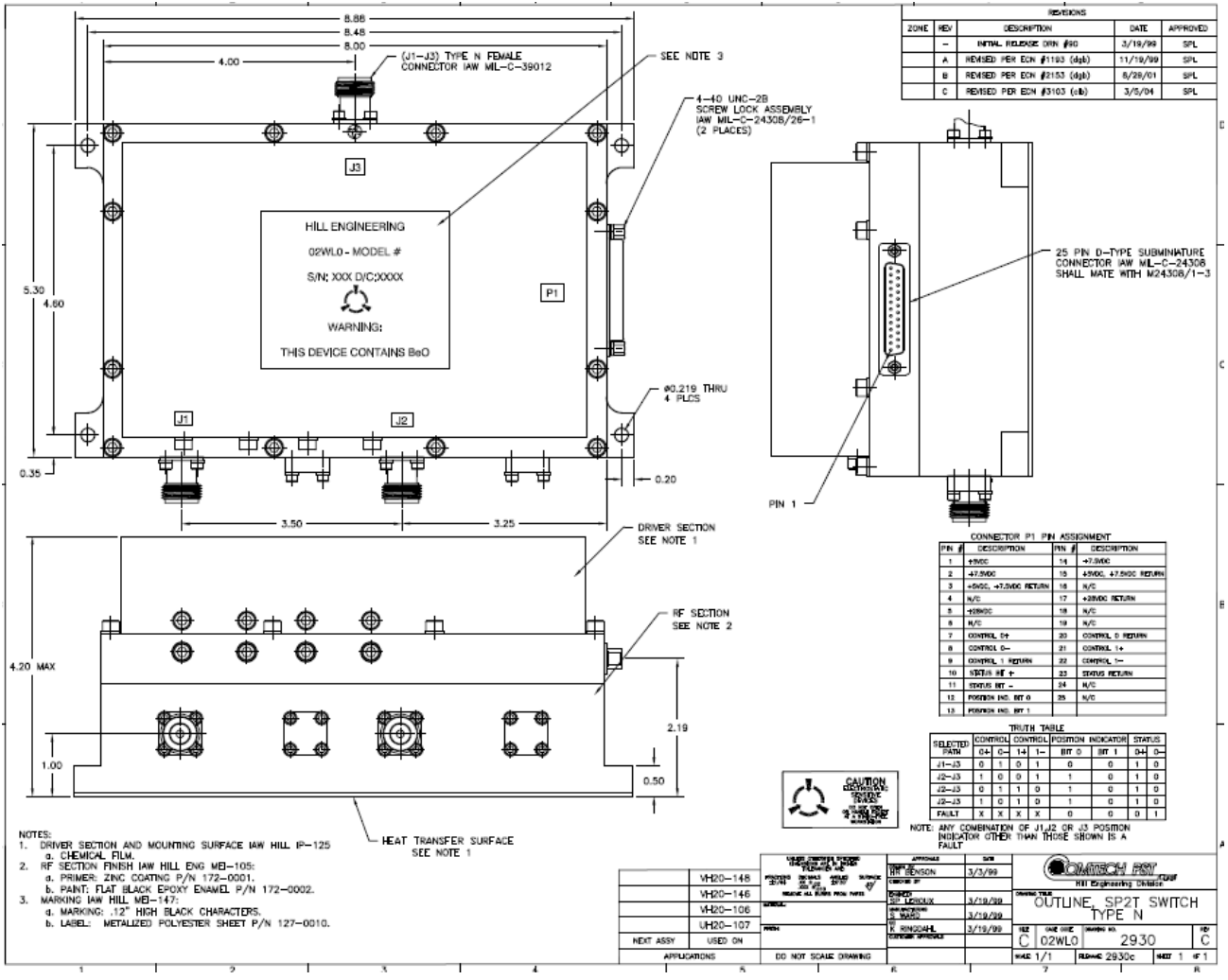
Cage Code: 02WL0

Title: PRODUCT DATA
(subject to change)

Date: 09/15/05

Rev: N/A

Model no: VH20-106



ZONE	REV	DESCRIPTION	DATE	APPROVED
-	-	INITIAL RELEASE DWN #80	3/19/99	SPL
A	A	REVISED PER ECH #1193 (qsk)	11/19/99	SPL
B	B	REVISED PER ECH #2153 (qsk)	8/28/01	SPL
C	C	REVISED PER ECH #3103 (qsk)	3/5/04	SPL

PN #	DESCRIPTION	PN #	DESCRIPTION
1	+5VDC	14	+7.5VDC
2	+12VDC	15	+5VDC, +7.5VDC RETURN
3	+5VDC, +7.5VDC RETURN	16	N/C
4	N/C	17	+28VDC RETURN
5	+5VDC	18	N/C
6	N/C	19	N/C
7	CONTROL 0+	20	CONTROL 0 RETURN
8	CONTROL 0-	21	CONTROL 1+
9	CONTROL 1 RETURN	22	CONTROL 1-
10	STATUS HE +	23	STATUS RETURN
11	STATUS BIT -	24	N/C
12	POWERED IND. BIT 0	25	N/C
13	POWERED IND. BIT 1		

SELECTED PATH	CONTROL	CONTROL	POSITION	INDICATOR	STATUS			
	D4	0	14	1-	BIT 0	BIT 1	D4	0-
J1-J3	0	1	0	1	0	0	1	0
J2-J3	1	0	0	1	1	0	1	0
J2-J3	0	1	1	0	1	0	1	0
J2-J3	1	0	1	0	1	0	1	0
FAULT	X	X	X	X	0	0	0	1

- NOTES:
1. DRIVER SECTION AND MOUNTING SURFACE IAW HILL IP-125
 2. RF SECTION FINISH IAW HILL ENG MB-105;
 - a. CHEMICAL FILM
 - b. PRIMER: ZINC COATING P/N 172-0001.
 - c. PAINT: FLAT BLACK EPOXY ENAMEL P/N 172-0002.
 3. MARKING IAW HILL MB-147;
 - a. MARKING: .12" HIGH BLACK CHARACTERS.
 - b. LABEL: METALLIZED POLYESTER SHEET P/N 127-0010.

MODEL	DATE	APPROVED	DATE
VH20-148	3/19/99	[Signature]	3/5/99
VH20-146	3/19/99	[Signature]	3/19/99
VH20-106	3/19/99	[Signature]	3/19/99
VH20-107	3/19/99	[Signature]	3/19/99

APPLICATIONS: USED ON DO NOT SCALE DRAWING