
	Cage Code:	Title:	Date:	Rev:	Model no:
	02WL0	PRODUCT DATA (subject to change)	09/15/05	N/A	VH20-212

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. Proper bias per section 11 must be applied before operating this switch.

ITEM NO	CHARACTERISTIC	CONDITIONS	MIN	MAX	UNITS	COMMENTS
1	POWER SPECIFICATION	IN BAND				
1.1	FREQUENCY		20	115	MHz	
1.2	PEAK POWER	ABSOLUTE MAX. AT TRANSMIT INPUT, INCLUDING LOAD EFFECTS		1600	WATTS	SEE 8.3 BELOW
1.4	DUTY		CW	-	%	
1.6	RECEIVE POWER		CW	50	WATTS	
2	POWER SPECIFICATIONS	GUARD BAND				
2.1	FREQUENCY		115	140	MHz	
2.2	PEAK POWER			50	WATTS	
2.3	PULSE WIDTH		CW		μS	
2.4	DUTY		CW		%	
2.5	CW POWER			50	WATTS	
3	POWER SPECIFICATIONS	OUT OF BAND				
3.1	FREQUENCY		>140		MHz	
3.2	PEAK POWER			38	dBm	
3.3	PULSE WIDTH			65	μS	
3.4	DUTY			10	%	
3.5	CW POWER			28	dBm	
4	OPERATING FREQUENCY		20	115	MHz	
5	INSERTION LOSS	TRANSMIT		0.3	dB	
5.1		RECEIVE		1.0	dB	
6	ISOLATION					
6.1	TRANSMIT		60		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			2.0:1		
8.4	SOURCE			1.15:1		

Federal Cage Code 02WLO

	Cage Code:	Title:	Date:	Rev:	Model no:
	02WLO	PRODUCT DATA (subject to change)	09/15/05	N/A	VH20-212

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.		25	μS	
10.2	SWITCHING RATE			2	KHz	
10.3	VIDEO LEAKAGE			20	Vpp	DC to 3 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		26	30	VDC	
11.3	POSITIVE BIAS CURRENT 1			1	A	
11.4	POSITIVE BIAS CURRENT 2			2	A	
11.5	NOTE : Voltage Protection – This unit does not have over-voltage or reverse polarity protection on any bias port.					
12	CONNECTORS					
12.1	RF	INPUT & XMIT				SC (F)
12.2	RF	RCV				SMA (F)
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



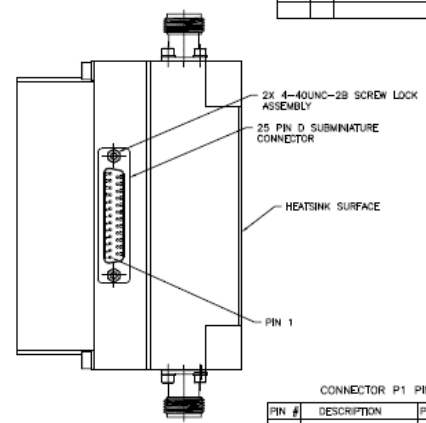
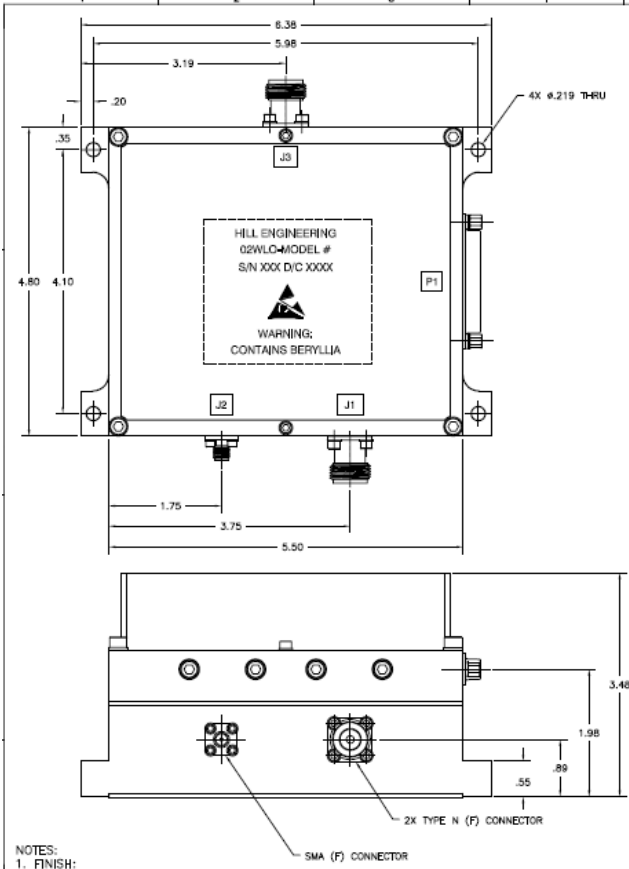
Cage Code: 02WLO

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

Date: 09/15/05

Rev: N/A

Model no: **VH20-212**



REVISIONS				
ZONE	REV	DESCRIPTION	DATE	APPROVED
A		INITIAL RELEASE CONN #2788	6/21/05	SPL

CONNECTOR P1 PIN ASSIGNMENT

PIN #	DESCRIPTION	PIN #	DESCRIPTION
1	+5VDC	14	N/C
2	+28VDC	15	+5VDC RETURN
3	+5VDC RETURN	16	N/C
4	N/C	17	+28VDC RETURN
5	+28VDC	18	N/C
6	N/C	19	N/C
7	CONTROL + (RS-422)	20	CONTROL RETURN
8	CONTROL - (RS-422)	21	N/C
9	N/C	22	N/C
10	STATUS BIT + (RS-422)	23	STATUS RETURN
11	STATUS BIT - (RS-422)	24	N/C
12	POSITION IND. (TL)	25	N/C
13	POSITION IND. (TR)		

TRUTH TABLE

MODE	SELECTED PATH	CONTROL +	CONTROL -	POSITION INDICATOR PIN 12	POSITION INDICATOR PIN 13	STATUS +	STATUS -
XMT	J1-J3	0	1	0	1	1	0
RCV	J3-J2	1	0	1	0	0	1
FAULT	----	0	1	0	0	0	1
FAULT	----	1	0	0	0	0	1



- NOTES:
- FINISH:
 - CHEMICAL FILM IAW HILL IP-125 YELLOW
 - MARKING
 - MARK PER HILL MEI-147
 - MARKING: .12" HIGH BLACK CHARACTERS
 - LABEL: METALIZED POLYESTER SHEET, P/N 127-0010

<p>THIS DRAWING IS THE PROPERTY OF COMTECH PST. IT IS TO BE USED ONLY FOR THE PROJECT AND FOR WHICH IT WAS PREPARED. IT IS NOT TO BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM.</p>	<p>APPROVED: [Signature]</p> <p>DATE: 8/21/05</p>	<p>COMTECH PST Hill Engineering Division</p>
<p>VH20-212</p> <p>VH20-195</p>	<p>DATE: 8/21/05</p> <p>DATE: 8/21/05</p>	<p>OUTLINE, 1P2T I/R SWITCH</p> <p>REV: C</p> <p>DATE: 8/21/05</p> <p>ISSUE NO: 03H04003-01</p> <p>REV: 1 OF 1</p>
<p>APPLICABLE STANDARDS:</p> <p>DO NOT SCALE DRAWING</p>	<p>DATE: 8/21/05</p> <p>ISSUE NO: 03H04003-01</p> <p>REV: 1 OF 1</p>	<p>DATE: 8/21/05</p> <p>ISSUE NO: 03H04003-01</p> <p>REV: 1 OF 1</p>