	Cage Code:	Title:	Date:	Rev:	Model no:
	02WLO	<b>PRODUCT DATA</b> <b>(subject to change)</b>	3/27/00	N/A	<b>VH40-223</b>

**This document describes the performance of a high power 1P4T switch for use with band pass filters. Band specific tuning per customer supplied band limits is applied to this switch. This is a cold switched design i. e; switched while RF is off. Proper bias levels per item no. 11 must be applied when operating this device.**

ITEM NO	CHARACTERISTIC	CONDITIONS	MIN	MAX	UNITS	COMMENTS
1	POWER SPECIFICATION	IN BAND				
1.1	FREQUENCY		20	115	MHz	
1.2	PEAK POWER, CW	MAX AT INPUT		2000	Watts	See 8.3 below
2	POWER SPECIFICATIONS	GUARD BAND				
2.1	FREQUENCY		115	180	MHz	
2.2	PEAK POWER			10	Watts	
2.3	PULSE WIDTH			100	mS	
2.4	DUTY			10	%	
2.5	CW POWER			1	Watts	
3	POWER SPECIFICATIONS	OUT OF BAND				
3.1	FREQUENCY			>180	MHz	
3.2	PEAK POWER			1	Watt	
3.3	PULSE WIDTH				CW	
3.4	DUTY				CW	
3.5	CW POWER			1	Watt	
4	OPERATING FREQUENCY		20	115	MHz	
5	INSERTION LOSS			0.3	dB	
6	ISOLATION					
6.1		Input To Output	50		dB	
6.2		Output To Output	50		dB	
7	PHASE					
7.1	MATCHING					NOT SPECIFIED
7.2	PHASE TRACKING					NOT SPECIFIED
8	VSWR					
8.1	INPUT			1.25:1		
8.2	OUTPUT			1.25:1		
8.3	TERMINATION			2.0:1		NOTE: THIS MUST BE OBSERVED FOR FULL POWER HANDLING
8.4	PORTS NOT SELECTED			$\infty$		INFINITY



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**(subject to change)**

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	50% TTL to 90% RF Signal		25	μS	
10.2	SWITCHING RATE			2	KHz	
10.3	VIDEO LEAKAGE			10	Vpp	DC to 3 GHz
10.4	COMMAND LOGIC	RS-422				
10.5	LOGIC TABLE					SEE DWG below
11	D.C. POWER					
11.1	POSITIVE 1 BIAS VOLTAGE		4.85	5.25	VDC	
11.2	POSITIVE 2 BIAS VOLTAGE		26	30	VDC	
11.3	NEGATIVE BIAS VOLTAGE		-11.5	-12.5	VDC	
11.4	POSITIVE 1 BIAS CURRENT			2000	mA	
11.5	POSITIVE 2 BIAS CURRENT			1000	mA	
11.6	NEGATIVE BIAS CURRENT			1000	mA	
11.7	VOLTAGE PROTECTION					THIS UNIT DOES NOT HAVE OVERVOLTAGE OR REVERSE POLARITY PROTECTION ON ANY BIAS PORT
12	CONNECTORS					
12.1	RF					SCF
12.2	DC					DAM-25
13	MECHANICAL					
13.1	WEIGHT			6	lbs.	
13.2	OUTLINE					DWG below
14	ENVIRONMENTAL	SHELTERED				
14.1	OPERATING TEMPERATURE		0	+60	°C	
14.2	STORAGE TEMPERATURE		-20	+55	°C	
14.3	VIBRATION LEVEL	GND TRANSPORT				Ground Transport
14.4	DEVICE SCREENING	LEVEL 2				QP-121 LEVEL 2



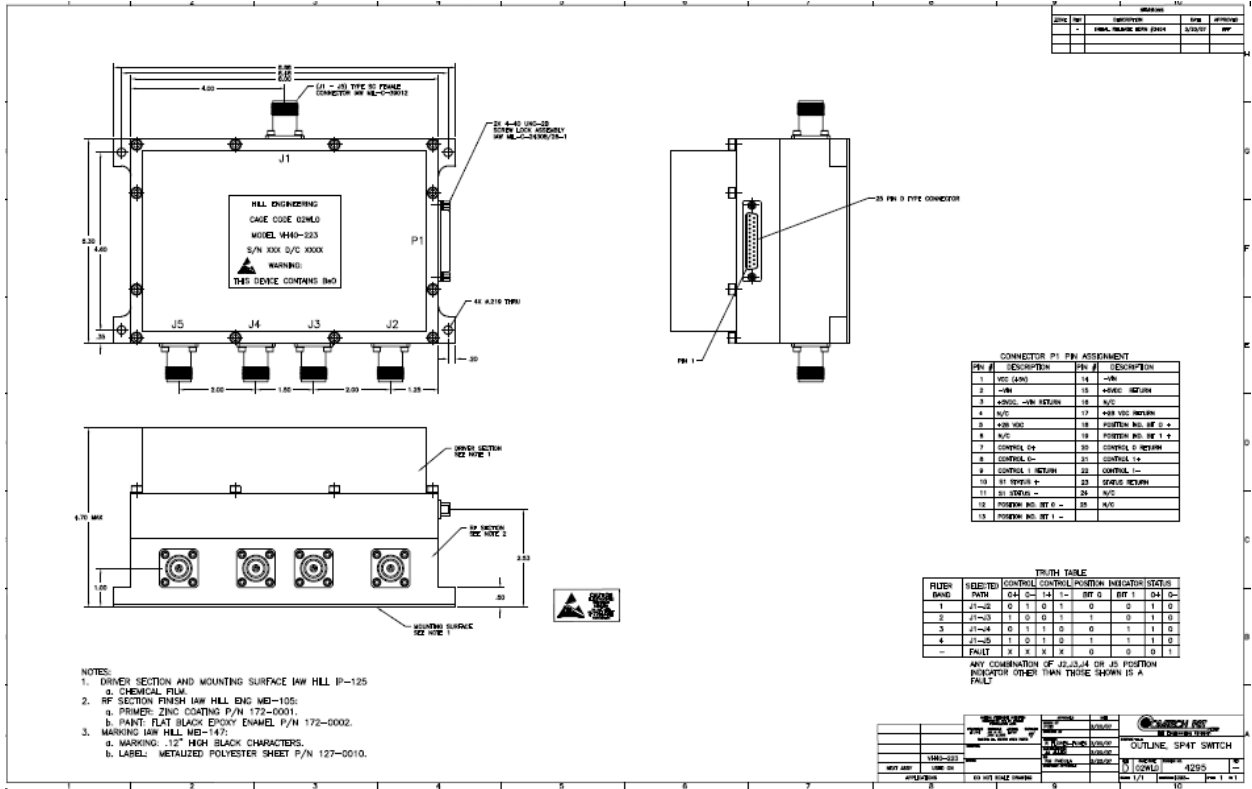
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REV	DESCRIPTION	DATE	BY	CHKD
1	INITIAL RELEASE	03/27/00	...	...

CONNECTOR P1 PIN ASSIGNMENT

PIN #	DESCRIPTION	PIN #	DESCRIPTION
1	VCC (+5V)	14	-M
2	-M	15	+5VDC RETURN
3	+5VDC -M RETURN	16	AVC
4	AVC	17	+5VDC RETURN
5	+5VDC	18	POSITION NO. BY 0 +
6	AVC	19	POSITION NO. BY 1 +
7	CONTROL 0+	20	CONTROL 0 RETURN
8	CONTROL 0-	21	CONTROL 1+
9	CONTROL 1 RETURN	22	CONTROL 1-
10	0+ RETURN +	23	STATUS RETURN
11	0+ RETURN -	24	AVC
12	POSITION NO. BY 0 -	25	AVC
13	POSITION NO. BY 1 -	26	AVC

TRUTH TABLE

FLUX	SELECTED	CONTROL	CONTROL	POSITION	INDICATOR	STATUS
0-0-0	0-0-0	0-0-0	0-0-0	0-0-0	0-0-0	0-0-0
1	0	1	0	1	0	0
2	1	0	0	1	1	0
3	0	1	1	0	0	1
4	1	1	0	1	0	1
...	...	...	...	...	...	...

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

REV	DESCRIPTION	DATE	BY	CHKD
1	INITIAL RELEASE	03/27/00	...	...