

	Cage Code:	Title:	Date:	Rev:	Model no:
	02WL0	PRODUCT DATA (subject to change)	5/3/05	None	M42-020

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 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		1	3	GHz	
1.2	PEAK POWER			250	Watts	Into 2:1 Load (see 8.3)
1.3	PULSE WIDTH		-	CW		
1.4	DUTY			CW	%	
1.5	CW POWER			250	Watts	
2	POWER SPECIFICATIONS	GUARD BAND				
2.1	FREQUENCY		3.0	3.5	GHz	
2.2	PEAK POWER			0.5	Watts	
2.3	PULSE WIDTH		-	CW		
2.4	DUTY			CW	%	
2.5	AVERAGE POWER			0.5	Watts	
3	POWER SPECIFICATIONS	OUT OF BAND				
3.1	FREQUENCY			>3.5	GHz	
3.2	PEAK POWER			0.01	Watt	
3.3	PULSE WIDTH			CW	µS	
3.4	DUTY			CW	%	
3.5	AVERAGE			CW	Watts	
4	OPERATING FREQUENCY		1.0	3.0	GHz	
5	INSERTION LOSS			2.3	dB	
6	ISOLATION					
6.1		Input To Output	40		dB	
6.2		Output To Output	40		dB	
7	PHASE	MATCH/TRACK				NOT SPECIFIED
8	VSWR					
8.1	INPUT			1.6:1		
8.2	OUTPUT			1.6:1		
8.3	TERMINATION			2.0:1		
8.4	PORTS NOT SELECTED			∞		INFINITY (reflective)
8.5	SOURCE			1.4:1		

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9	HARMONICS & SPURS					
9.1	INTERNALLY GENERATED		60		dBc	
9.2		MEASURED AT INCIDENT POWER		0	Watts	
10	SWITCHING					
10.1	SWITCHING SPEED	TO 0.5 dB OF I.L.		25	μS	
10.2	SWITCHING RATE			2	KHz	
10.3	VIDEO LEAKAGE			10	Vpp	Across 50 Ohms
10.4	COMMAND LOGIC TYPE:	RS-422, BALANCED				
10.5	LOGIC TABLE					SEE OUTLINE DWG below
11	D.C. POWER					
11.1	POSITIVE BIAS VOLTAGE 1		4.8	5.5	VDC	
11.2	POSITIVE BIAS VOLTAGE 2		26	32	VDC	
11.3	POSITIVE BIAS CURRENT 1			1000	mA	
11.4	POSITIVE BIAS CURRENT 2			600	mA	
11.5	VOLTAGE PROTECTION					THIS UNIT DOES NOT HAVE OVERVOLTAGE OR REVERSE POLARITY PROTECTION ON ANY BIAS PORT
12	CONNECTORS					
12.1	RF					TNCF
12.2	DC					DAM-25
13	MECHANICAL					
13.1	WEIGHT			3.5	lb.	
13.2	OUTLINE					SEE DWG below
14	ENVIRONMENTAL	WEATHERPROOF				
14.1	OPERATING TEMPERATURE		-20	+60	°C	
14.2	STORAGE TEMPERATURE		-20	+60	°C	
14.3	VIBRATION LEVEL					Ground Transport
14.4	DEVICE SCREENING	LEVEL 2				QP-121 LEVEL 2



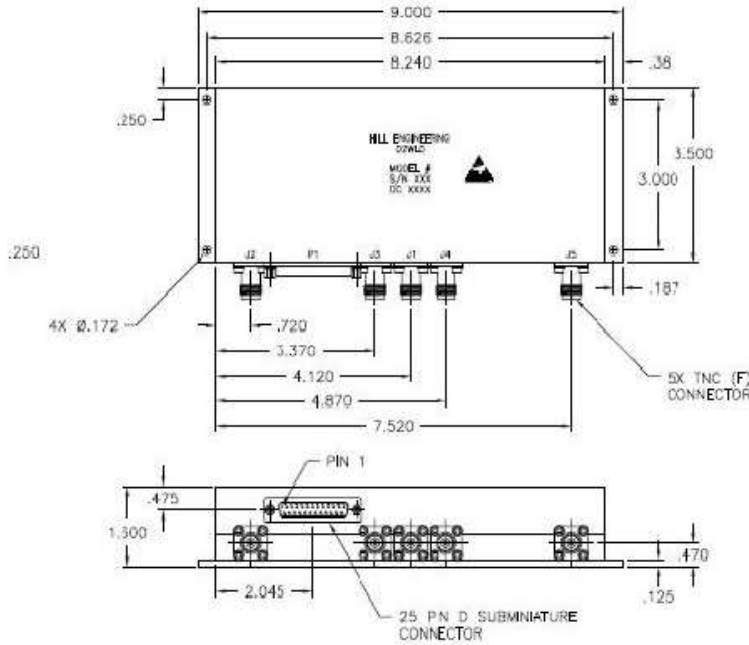
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CONNECTOR P1 PIN ASSIGNMENT

PIN #	DESCRIPTION	PIN #	DESCRIPTION
1	+5VDC	14	N/C
2	N/C	15	+5VDC RETURN
3	N/C	16	N/C
4	+28VDC	17	N/C
5	+28VDC	18	+28VDC RETURN
6	N/C	19	+28VDC RETURN
7	CONTROL 0+ (RS-422)	20	CONTROL 0 RETURN
8	CONTROL 0- (RS-422)	21	CONTROL 1+ (RS-422)
9	CONTROL 1 RETURN	22	CONTROL 1- (RS-422)
10	STATUS BIT 4- (RS-422)	23	STATUS RETURN
11	STATUS BIT - (RS-422)	24	N/C
12	N/C	25	N/C
13	N/C		

TRUTH TABLE

FILTER BAND	SELECTED PATH	CONTROL 0+	CONTROL 0-	CONTROL 1+	CONTROL 1-	STATUS 0+	STATUS 0-
1	J1-J2	0	1	0	1	1	0
2	J1-J3	1	0	0	1	1	0
3	J1-J4	0	1	1	0	1	0
4	J1-J5	1	0	1	0	1	0
-	FAULT	X	X	X	X	0	1

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

