

	Cage Code:	Title:	Date:	Rev:	Model no:
	02WLO	PRODUCT DATA (subject to change)	6/3/03	N/A	UM20-168

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 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		150	1000	MHz	
1.2	PEAK POWER	ABSOLUTE MAX.		500	WATTS	
1.3	PULSE WIDTH		CW		mS	
1.4	DUTY		CW	-	%	
1.5	CW POWER	ABSOLUTE MAX		500	WATTS	
2	POWER SPECIFICATIONS	GUARD BAND				
2.1	FREQUENCY		1000	1090	MHz	
2.2	PEAK POWER			10	WATTS	
2.3	PULSE WIDTH		CW		μS	
2.4	DUTY		CW		%	
2.5	CW POWER			10	WATTS	
3	POWER SPECIFICATIONS	OUT OF BAND				
3.1	FREQUENCY		>1090		MHz	
3.2	PEAK POWER			30	dBm	
3.3	PULSE WIDTH			CW	μS	
3.4	DUTY			CW	%	
3.5	CW POWER			30	dBm	
4	OPERATING FREQUENCY		150	1000	MHz	
5	INSERTION LOSS					
5.1				1.0	dB	
6	ISOLATION					
6.1			40		dB	
7	PHASE					
7.1	MATCHING					NOT SPECIFIED
7.2	TRACKING					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		



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9	HARMONICS & SPURS					
9.1	INTERNALLY GENERATED			-50	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			1	KHz	
10.3	VIDEO LEAKAGE			20	Vpp	MEASURED INTO 50 OHMS
10.4	COMMAND LOGIC	RS-422				CONTROL AND BIT
10.5	LOGIC TABLE					SEE DWG 3454 below
11	D.C. POWER					
11.1	POSITIVE BIAS VOLTAGE 1		4.80	5.20	VDC	
11.2	POSITIVE BIAS VOLTAGE 2		26	32	VDC	
11.3	POSITIVE BIAS CURRENT 1			1.0	A	
11.4	POSITIVE BIAS CURRENT 2			0.5	A	
11.5	NOTE 1: Power on sequence - To prevent possible damage to the switch, the + 5V should be applied first, then the +28V.					
11.6	NOTE 2: Voltage Protection – This unit does not have over-voltage or reverse polarity protection on any bias port.					
12	CONNECTORS					
12.1	RF					NF
12.2	DC					DCM-25
13	MECHANICAL					
13.1	WEIGHT			5.5	LBS	
13.2	OUTLINE					SEE DWG 3454 below
14	ENVIRONMENTAL					
14.1	OPERATING TEMPERATURE		-25	+70	°C	
14.2	STORAGE TEMPERATURE		-40	+70	°C	
14.3	VIBRATION LEVEL					GROUND TRANSPORT



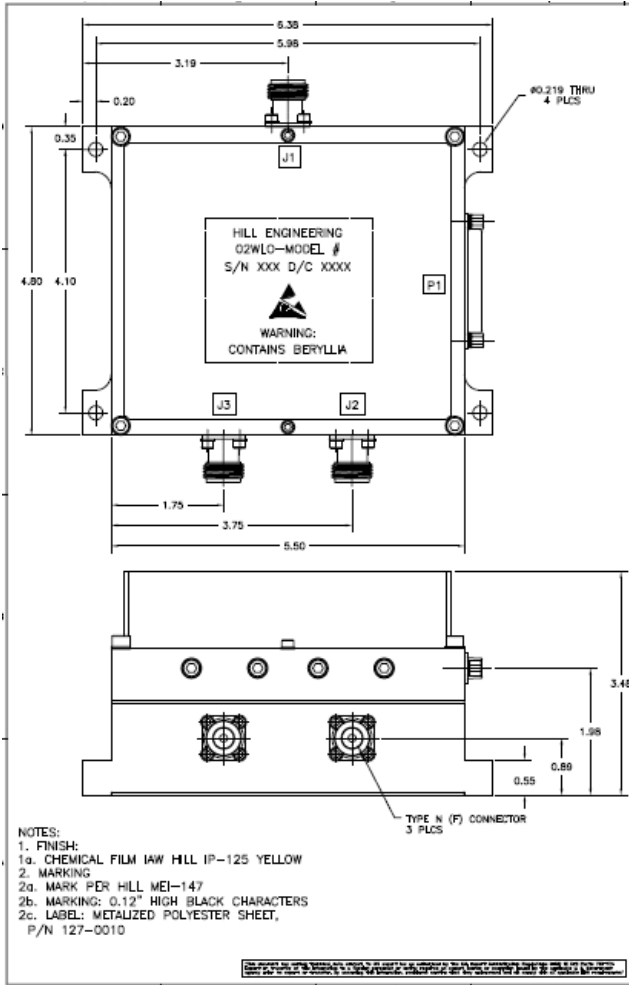
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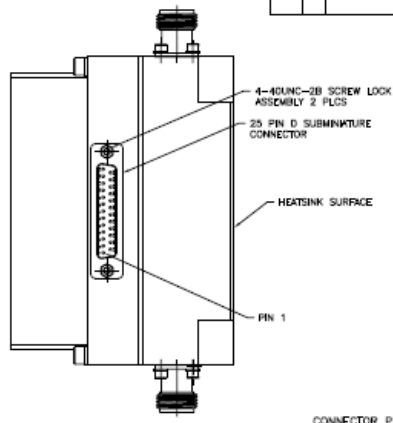
- NOTES:
1. FINISH:
1a. CHEMICAL FILM IAW HILL IP-125 YELLOW
2. MARKING
2a. MARK PDR HILL MEI-147
2b. MARKING: 0.12" HIGH BLACK CHARACTERS
2c. LABEL: METALIZED POLYESTER SHEET, P/N 127-0010



LN20-238	REVISED	10/30/01	10/30/01	10/30/01
LN20-225	REVISED	10/30/01	10/30/01	10/30/01
LN20-224	REVISED	10/30/01	10/30/01	10/30/01
LN20-199	REVISED	10/30/01	10/30/01	10/30/01
LN20-198	REVISED	10/30/01	10/30/01	10/30/01

OUTLINE 1P2T RF SWITCH
C 02WLO 03H03454-01 A

ZONE	REV	DESCRIPTION	DATE	APPROVED
A		INITIAL RELEASE DRN #1472	10/30/01	SPL



CONNECTOR P1 PIN ASSIGNMENT

PIN #	DESCRIPTION	PIN #	DESCRIPTION
1	+5VDC	14	N/C
2	+25VDC	15	+5VDC RETURN
3	+5VDC RETURN	16	N/C
4	N/C	17	+25VDC RETURN
5	+25VDC	18	N/C
6	N/C	19	N/C
7	CONTROL + RS422	20	CONTROL RETURN
8	CONTROL - RS422	21	N/C
9	N/C	22	N/C
10	STATUS BIT +	23	STATUS RETURN
11	STATUS BIT -	24	N/C
12	POSITION IND. TTL	25	N/C
13	POSITION IND. TTL		

TRUTH TABLE

FILTER BAND	SELECTED PATH	CONTROL	POSITION INDICATOR	STATUS			
		+	-	PIN 12	PIN 13	+	-
1	J1-J2	0	1	0	1	1	0
2	J1-J3	1	0	1	0	1	0
-	FAULT	X	X	0	0	0	1