

	Cage Code:	PRODUCT DATA (subject to change)	Date:	Rev:	Model no:
	02WLO		6/17/03	None	M22-088

This document describes the performance of a high power 1P2T switch. This is a cold-switched design i.e.; switched while RF is off.

ITEM NO	CHARACTERISTIC	CONDITIONS	MIN	MAX	UNITS	COMMENTS
1	POWER SPECIFICATION	IN BAND				
1.1	FREQUENCY		500	1000	MHz	
1.2	PEAK POWER	ABSOLUTE MAX.		150	WATTS	
1.3	PULSE WIDTH			CW		
1.4	DUTY		CW	-	%	
1.5	CW POWER	ABSOLUTE MAX		150	WATTS	
1.6	INTO OPEN/SHORT OR AMP OVERSHOOT	ALL PHASE ANGLES	CW	180	WATTS	
2	POWER SPECIFICATIONS	GUARD BAND				
2.1	FREQUENCY		1000	1100	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		>1100		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		500	1000	MHz	
5	INSERTION LOSS			0.9	dB	
6	ISOLATION					
6.1	I/O		40		dB	
7	PHASE					
7.1	MATCHING					NOT SPECIFIED
7.2	TRACKING					NOT SPECIFIED
8	VSWR					
8.1	PORT SELECTED			1.6:1		
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	TRANSMIT MODE			dBc	Not specified
9.2		MEASURED AT INCIDENT POWER		0	dBm	
10	SWITCHING					
10.1	SPEED	TO 0.50DB I.L.		20	μs	
10.2	SWITCHING RATE			2	KHz	
10.3	VIDEO LEAKAGE			40	Vpp	MEASURED INTO 50 OHMS
10.4	COMMAND LOGIC	RS-422				BALANCED
10.5	POSITION SENSE	TTL				SINGLE ENDED
10.6	LOGIC TABLE					SEE DWG 2394
11	D.C. POWER					
11.1	POSITIVE BIAS VOLTAGE		4.80	5.20	VDC	
11.2	NEGATIVE BIAS VOLTAGE		-230	-250	VDC	
11.3	POSITIVE BIAS CURRENT			300	mA	
11.4	NEGATIVE BIAS CURRENT			50	mA	
11.5	NOTE 1: Power on sequence - To prevent possible damage to the switch, the + 5V should be applied first, then the - 240V.					
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	INPUT & XMIT				NF
12.3	DC					DCM-9P
13	MECHANICAL					
13.1	WEIGHT			1.0	LBS	
13.2	OUTLINE					SEE DWG 2394
14	ENVIRONMENTAL					
14.1	OPERATING TEMPERATURE		0	+50	°C	
14.2	STORAGE TEMPERATURE		-20	+55	°C	
14.3	VIBRATION LEVEL					GROUND TRANSPORT



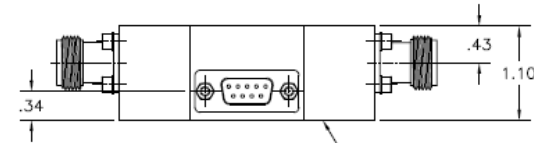
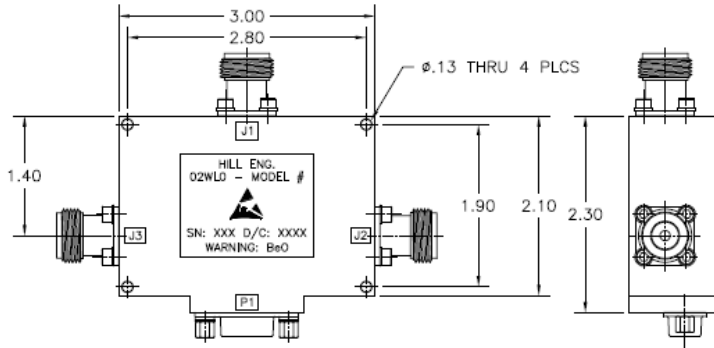
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- NOTES:
1. FINISH:
1a. PAINT PER HILL ENG. MEI-105.
1b. PRIMER: ZRC ZINC PRIMER
P/N 172-0003.
1c. PAINT: FLAT BLACK EPOXY ENAMEL
P/N 172-0002.
1d. MOUNTING SURFACE: CHEMICAL FILM
PER MIL-C-5541.
2. MARKING:
2a. MARK PER MD-147.
2b. MARKING: .08" BLACK CHARACTERS.
2c. LABEL: METALIZED POLYESTER SHEET
P/N 127-0010.
3. DATECODE FORMAT SHALL BE (YYWK).

REVISIONS

REV	DESCRIPTION	DATE	APPROVED
-	INITIAL RELEASE ECN #199	3/3/97	SPL
A	REVISED PER ECN #303	8/18/97	J WARD
B	REVISED PER ECN #416	1/26/98	J HILL
C	REVISED PER ECN #3006 (hrb)	8/15/03	SPL

PIN	SIGNAL
1	+5V
2	Vee
3	GND
4	LOGIC + RS-422
5	LOGIC - RS-422
6	GND
7	J1-J3 SENSE
8	J2-J3 SENSE
9	GND

PIN	4	5	7	8
OUTPUT	+LOG	-LOG	J2 SENSE	J3 SENSE
J1-J2	0	1	1	0
J1-J3	1	0	0	1
FAULT	X	X	0	0



WARNING: TOXIC
CONTAINS BERYLLIA
DO NOT OPEN THIS
DEVICE

HILL (MEMBER HUBBARD) ENGINEERING AND MANUFACTURING, INC. 21701 25th St. # 210 Redwood City, CA 94061 REMOVE ALL SLUGS FROM PARTS		APPROVALS CHECKED BY: DC BARKER DATE: 3/10/97	
MATERIAL: M22-088 PART: USED ON		DESIGNED BY: SP LEROUX DATE: 3/3/97 MANUFACTURED BY: J WARD DATE: 8/21/97 CHECKED BY: J HILL DATE: 3/27/97	
APPLICATIONS: DO NOT SCALE DRAWING		DRAWING TITLE: OUTLINE, SPDT UHF, TYPE N PORTED SIZE: B ONE SIDE DRAWING NO.: 2394 SCALE: 1/1 FILENAME: 2394c SHEET: 1 of 1	REV: C