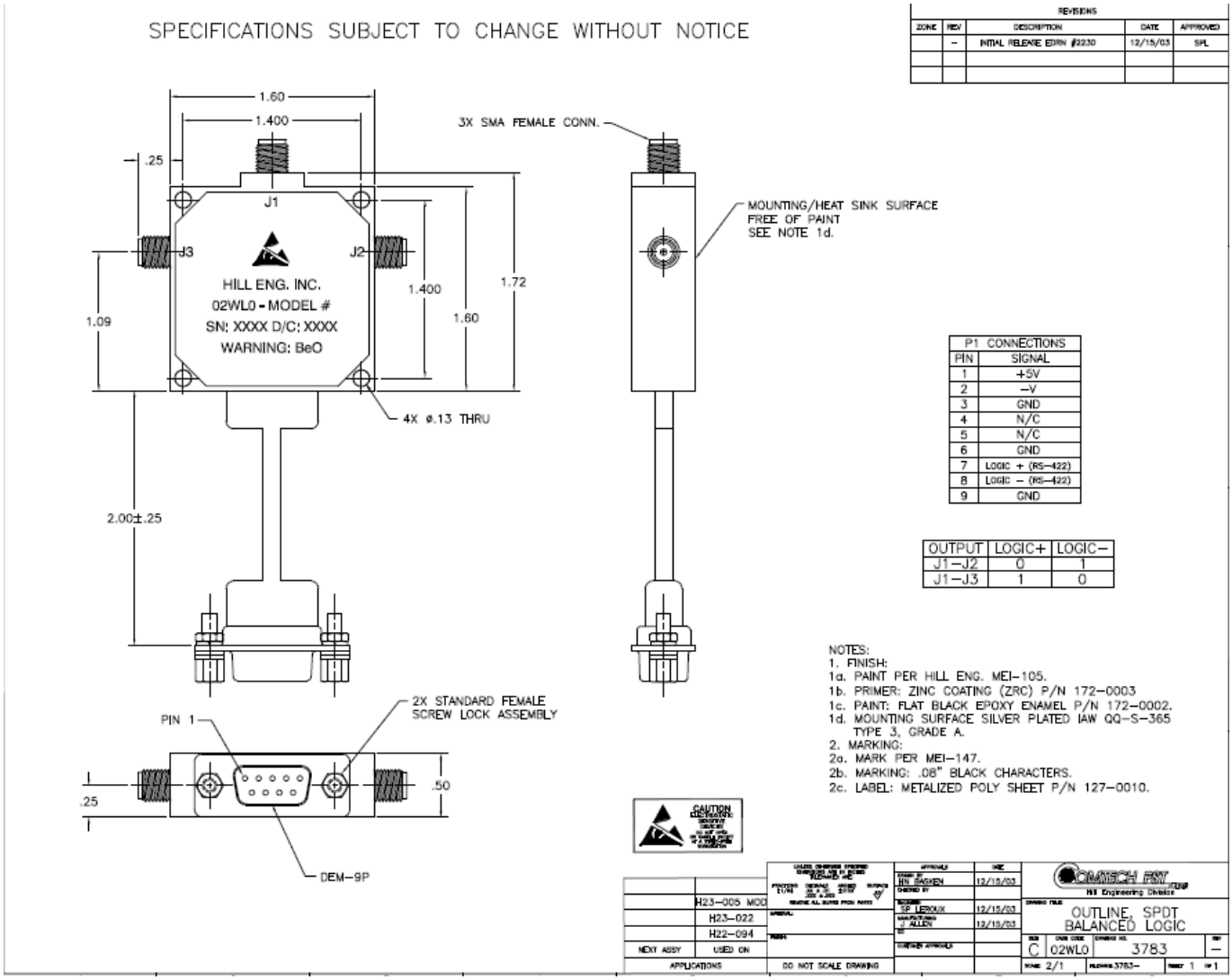
COMTECH PST Hill Engineering Division	PRODUCT DATA (subject to change)	Date: 06/28/06	Rev: None		H22-094

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 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		2.00	4.00	GHz	
1.2	PEAK POWER		--	2000	WATTS	
1.3	PULSE WIDTH		--	10	µS	
1.4	DUTY		--	4	%	
1.5	AVERAGE POWER		--	80	WATTS	
1.6	CW POWER		--	80	WATTS	
2	POWER SPECIFICATION	GUARD BAND				
2.1	FREQUENCY		4.00	4.50	GHz	
2.2	PEAK POWER		--	20	WATTS	
2.3	PULSE WIDTH		--	10	µS	
2.4	DUTY		--	5	%	
2.5	AVERAGE POWER		--	1	WATTS	
2.6	CW POWER		--	1	WATTS	
3	POWER SPECIFICATION	OUT OF BAND				
3.1	FREQUENCY		>4.50	--	GHz	
3.2	PEAK POWER		--	0.03	WATTS	
3.3	PULSE WIDTH		CW	--	µS	
3.4	DUTY		CW	--	%	
3.5	AVERAGE POWER		--	--	WATTS	
3.6	CW POWER		--	0.03	WATTS	
4	OPERATING FREQUENCY		2.00	4.00	GHz	
5	INSERTION LOSS		--	1	dB	
6	ISOLATION					
6.1	INPUT TO OUTPUT		45	-	dB	
6.2	OUTPUT TO OUTPUT		45	-	dB	
7	PHASE SPECIFICATION					
7.1	MATCHING		--	--	DEG	NOT SPECIFIED
7.2	PHASE TRACKING		--	--	DEG	NOT SPECIFIED

ITEM NO	CHARACTERISTIC	CONDITIONS	MIN	MAX	UNITS	COMMENTS
8	VSWR					
8.1	INPUT & OUTPUT	SELECTED PORTS	---	1.8:1	--	
8.2	PORTS NOT SELECTED		--	--	--	INFINITY
8.3	TERMINATION		---	2.0:1	--	
8.4	SOURCE		---	1.2:1	--	
9	HARMONICS & SPURS					
9.1	INTERNALLY GENERATED		--	--	dBc	NOT SPECIFIED
9.2		MEASURED AT INCIDENT POWER	--	0	WATTS	
10	SWITCHING SPECIFICATIONS					
10.1	SWITCHING SPEED	50% LOGIC TO 90% RF	--	1	µS	
10.2	SWITCING RATE		--	100	kHz	
10.3	VIDEO LEAKAGE		--	--	Vpp	NOT SPECIFIED
10.4	COMMAND LOGIC TYPE					RS-422
10.5	LOGIC TABLE					SEE DWG 3783 below
11	D.C. SPECIFICATIONS					
11.1	POSITIVE BIAS VOLTAGE		4.5	5.5	V	
11.2	NEGATIVE BIAS VOLTAGE		-66	-74	V	
11.3	POSITIVE BIAS CURRENT		--	300	mA	
11.4	NEGATIVE BIAS CURRENT		--	60	mA	
11.5	NOTE: No over-voltage or reverse polarity protection is provided in this switch.					
12	CONNECTORS & INTERFACE					
12.1	RF					SMA(F)
12.2	DC					DEM-9
13	MECHANICAL					SEE DWG 3783 below
13.1	WEIGHT		--	8	OZ	
13.2	SIZE		--	--	--	SEE DWG 3783 below
13.3	FINISH		--	--	--	SEE DWG 3783 below
ITEM NO	CHARACTERISTIC	CONDITIONS	MIN	MAX	UNITS	COMMENTS
14	ENVIROMENTAL					
14.1	OPERATING TEMPERATURE		-20	+55	C	
14.2	STORAGE TEMPERATURE		-20	+70	C	
14.3	VIBRATION LEVEL					GND TRANSPORT
14.4	DEVICE SCREENING	LEVEL 1				SCREENING PER HILL ENGINEERING QUALITY PROCEDURE 121


SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE
REVISIONS
ZONE | REV | DESCRIPTION | DATE | APPROVED
– | INITIAL RELEASE ECRN #2230 | 12/15/03 | SPL
1.60
1.400
.25
J1
J3
J2
HILL ENG. INC.
02WL0 - MODEL #
SN: XXXX D/C: XXXX
WARNING: BeO
1.09
1.400
1.72
1.60
4X ø.13 THRU
2.00±.25
3X SMA FEMALE CONN.
MOUNTING/HEAT SINK SURFACE
FREE OF PAINT
SEE NOTE 1d.
P1 CONNECTIONS
PIN | SIGNAL
1 | +5V
2 | –V
3 | GND
4 | N/C
5 | N/C
6 | GND
7 | LOGIC + (RS–422)
8 | LOGIC – (RS–422)
9 | GND
OUTPUT | LOGIC+ | LOGIC–
J1–J2 | 0 | 1
J1–J3 | 1 | 0
NOTES:
1. FINISH:
1a. PAINT PER HILL ENG. MEI–105.
1b. PRIMER: ZINC COATING (ZRC) P/N 172–0003
1c. PAINT: FLAT BLACK EPOXY ENAMEL P/N 172–0002.
1d. MOUNTING SURFACE SILVER PLATED IAW QQ–S–365 TYPE 3, GRADE A.
2. MARKING:
2a. MARK PER MEI–147.
2b. MARKING: .08" BLACK CHARACTERS.
2c. LABEL: METALIZED POLY SHEET P/N 127–0010.
PIN 1
2X STANDARD FEMALE SCREW LOCK ASSEMBLY
.25
.50
DEM–9P
CAUTION ELECTROSTATIC SENSITIVE DEVICES
H23–005 MOD
H23–022
H22–094
NEXT ASSY
USED ON
APPLICATIONS
DO NOT SCALE DRAWING
12/15/03
12/15/03
12/15/03
COMTECH PST Hill Engineering Division
OUTLINE, SPDT BALANCED LOGIC
C
02WL0
3783
SCALE 2/1