

	Cage Code:	Title:	Date:	Rev:		Model no:
	02WL0	<b>PRODUCT DATA</b> <b>(Subject to change)</b>	12/5/06	N/A		<b>H24-014</b>

**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 (section 11) must be applied to this switch under all operating conditions. This switch is absorptive at low power levels (section 8.2.1)**

ITEM NO	CHARACTERISTIC	CONDITIONS	MIN	MAX	UNITS	COMMENTS
1	POWER SPECIFICATION	IN BAND				
1.1	FREQUENCY		8	12.4	GHz	
1.2	PEAK POWER			2000	WATTS	
1.3	PULSE WIDTH		50	300	nS	
1.4	DUTY			6	%	
1.5	AVG POWER			120	WATTS	
1.6	CW POWER				WATTS	NOT SPECIFIED
2	POWER SPECIFICATIONS	GUARD BAND				
2.1	FREQUENCY		12.4	13	GHz	
2.2	PEAK POWER			10	WATTS	
2.3	PULSE WIDTH		50	300	nS	
2.4	DUTY			6	%	
2.5	AVG POWER			0.6	WATTS	
3	POWER SPECIFICATIONS	OUT OF BAND				
3.1	FREQUENCY		>13		GHz	
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		8	12.4	GHz	
5	INSERTION LOSS			1.5	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			2:1		
8.2.1	OFF TERMINATION POWER	PEAK POWER AVERAGE POWER		2 80	WATTS miliwatts	
8.3	LOAD			2.0:1		

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ITEM NO	CHARACTERISTIC	CONDITIONS	MIN	MAX	UNITS	COMMENTS
9	HARMONICS & SPURS					
9.1	INTERNALLY GENERATED		40		dBc	
10	SWITCHING					
10.1	SPEED	TO 0.50DB I.L.		1	uS	
10.2	SWITCHING RATE			200	KHz	
10.3	VIDEO LEAKAGE			1	Vpp	Across 50 Ohms
10.4	COMMAND LOGIC	RS-422				120 Ohm Balanced logic
10.5	LOGIC TABLE					SEE DWG 2143
11	D.C. POWER					
11.1	POSITIVE BIAS VOLTAGE 1		4.80	5.20	VDC	
11.3	NEGATIVE BIAS VOLTAGE		-66	-74	VDC	
11.4	POSITIVE BIAS CURRENT 1			300	mA	
11.4	NEGATIVE BIAS CURRENT			30	mA	
11.5	NOTE : Voltage Protection – This unit does not have over-voltage or reverse polarity protection on any bias port.					
12	CONNECTORS					
12.1	RF					TNCF
12.3	DC					Solder Pins
13	MECHANICAL					
13.1	WEIGHT			4	Oz	
13.2	OUTLINE					See Dwg 2143
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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REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
A	REVISED PER ECN #091	8/27/96	J HILL
B	REVISED PER ECN #416	1/26/98	J HILL
C	UPDATE PER ECN #3705	2/24/06	SPL
D	REVISED PER ECN #3915	2/28/07	SPL

TYPE TNC FEMALE  
TYP 3 PLCS

1.60  
1.400  
0.10  
0.13 THRU  
TYP 4 PLCS  
0.100  
1.600  
1.80  
0.25 TYP  
SEE NOTE 2

HEAT TRANSFER  
SURFACE  
SEE NOTE 1d.

DATE CODE  
AS REQUIRED

0.75

0.15  
0.36

OUTPUT	+L	-L
J1-J2	0	1
J1-J3	1	0

**NOTES:**  
1. FINISH  
a. PAINT PER PROCEDURE MEI-105.  
b. PRIMER: ZRC ZINC PRIMER HILL P/N 172-0003  
c. PAINT: FLAT BLACK EPOXY ENAMEL HILL P/N 172-0002  
d. TRANSFER SURFACE TO BE CHEM. FILM  
2. MARKING  
a. MARK PER PROCEDURE MEI-147.  
b. MARKING: .09" HIGH BLACK CHARACTERS  
c. LABEL: METALIZED POLYESTER SHEET HILL P/N 127-0010.  
3. DATECODE FORMAT SHALL BE (YYWK) EXAMPLE: 0608.  
4. -V IS A GENERIC TERM. REFER TO PRODUCT SPEC. LISTED IN JOB FOLDER FOR ACTUAL NEG. VOLTAGE VALUE AND MARK ACCORDINGLY. DO NOT MARK "-V."

SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

UNLESS OTHERWISE SPECIFIED (INDICATED HERE IN SQUARE) TOLERANCES ARE:		APPROVALS		DATE
FRONT	0.1/04	DRW BY	DC BARKER	5/13/96
GENERAL	0.1/04	CHKD BY	W PELLEGRINI	7/8/98
DETAIL	0.005	DESIGNED BY	J HILL	5/14/98
FINISH	0.005	MANUFACTURED BY	S. WARD	7/10/98
		DATE	J HILL	7/9/98
		OTHER APPROVALS		

DRAWING TITLE:		COMTECH PST Hill Engineering Division	
OUTLINE TNC SPDT SWITCH		REV	REV
B	02WL0	2143	D
SCALE: 1/1	FILENAME: 2143D	SHEET 1 of 1	