

	Cage Code:	Title:	Date:	Rev:	Model no:
	02WLO	<b>PRODUCT DATA</b> <b>(subject to change</b>	08/14/06	None	<b>H26-023</b>

This document describes the performance of a high power 1P2T switch. This is a cold switched designed to switch cold; i.e; switching occurs only when 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 SPECIFICATIONS	FREQUENCY BAND (GHz)				Includes in-band harmonics and load VSWR effects
1.1	PEAK POWER	8.0 to 12.4	--	2100	W	
1.2	PEAK POWER	12.4 to 16.0	--	2600	W	
1.3	PEAK POWER	16.0 to 18.0	--	2000	W	
1.3	PULSE WIDTH		--	2	µs	
1.4	DUTY		--	6	%	
1.6	CW POWER		--	N/A	--	
2	POWER SPECIFICATIONS	FREQUENCY BAND (GHz)				Includes in-band harmonics and load VSWR effects
2.1	PEAK POWER	8.0 to 12.4	--	2000	W	
2.2	PEAK POWER	12.4 to 16.0	--	2000	W	
2.3	PEAK POWER	16.0 to 18.0	--	1500	W	
2.4	PULSE WIDTH		2	5	µs	
2.5	DUTY		--	6	%	
2.6	CW POWER		--	N/A	--	
3	POWER SPECIFICATIONS	FREQUENCY BAND (GHz)				Includes in-band harmonics and load VSWR effects
3.1	PEAK POWER	8.0 to 12.4	--	1250	W	
3.2	PEAK POWER	12.4 to 16.0	--	1000	W	
3.3	PEAK POWER	16.0 to 18.0	--	1000	W	
3.4	PULSE WIDTH		5	10	µs	
3.5	DUTY		--	6	%	
3.6	CW POWER		--	N/A	--	
4	POWER SPECIFICATIONS	OUT OF BAND				<b>ABOVE 18.0 GHz</b>
4.1	PEAK POWER	>18 GHz		1	W	Use a low pass filter if necessary. Filter skirt must achieve 1 W max at 18.5 GHz
4.2	PULSE WIDTH	>18 GHz		CW		
4.3	DUTY	>18 GHz		CW		
4.4	CW POWER	>18 GHz		1	W	
5	OPERATING FREQUENCY		8.0	18.0	GHz	
6	INSERTION LOSS	100% of band	--	2.4	dB	
6.1		80% of band		1.8	dB	
7	ISOLATION					
7.1	ISOLATION	INPUT TO OUTPUT	50	--	dB	



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ITEM NO	CHARACTERISTIC	CONDITIONS	MIN	MAX	UNITS	COMMENTS
7.2	ISOLATION	OUTPUT TO OUTPUT	50	--	dB	
8.0	VSWR					
8.1	INPUT AND OUTPUT	SELECTED PORTS	--	1.8:1	--	
8.2	PORT NOT SELECTED		--	$\infty$	--	REFLECTIVE
8.4	TERMINATION		--	2.5:1	--	LOAD
8.5	SOURCE		--	1.2:1	--	
9	HARMONICS & SPURS					
9.1	INTERNALLY GENERATED					NOT SPECIFIED
9.2		MEASURED AT INCIDENT POWER		0	dBm	
10	SWITCHING					
10.1	SPEED	TO 0.50DB	--	1.5	$\mu$ s	
10.2	SWITCHING RATE		--	100	KHz	
10.3	COMMAND LOGIC	RS-422 Balanced logic				
10.4	LOGIC TABLE					SEE OUTLINE DWG 2143 below
10.5	VIDEO LEAKAGE					NOT SPECIFIED
11	D.C. POWER					
11.1	POSITIVE BIAS VOLTAGE		4.8	5.2	VDC	
11.2	NEGATIVE BIAS VOLTAGE		-66	-74	VDC	
11.3	POSTIVE BIAS CURRENT			300	mA	
11.4	NEGATIVE BIAS CURRENT			60	mA	
12	CONNECTORS					
12.1	RF					TNC
12.2	DC					Solder pins
13	MECHANICAL					
13.1	WEIGHT		--	4.5	OZ	
13.2	OUTLINE					SEE DWG 2143 below
14	ENVIRONMENTAL					
14.1	OPERATING TEMPERATURE		-20	+60	$^{\circ}$ C	
14.2	STORAGE TEMPERATURE		-55	+85	$^{\circ}$ C	
14.3	VIBRATION LEVEL					SHELTERED GND MOBILE
14.4	DEVICE SCREENING	LEVEL 2				QP-121

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

0.10

1.60

1.400

0.13 THRU TYP 4 PLCS

0.100

J1

J2

J3

HILL ENG. 02WLO

SN: XXXXX

DC: XXXX

WARNING: BeO

1.600

1.80

1.20

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:

- FINISH
  - PAINT PER PROCEDURE MEI-105.
  - PRIMER: ZRC ZINC PRIMER HILL P/N 172-0003
  - PAINT: FLAT BLACK EPOXY ENAMEL HILL P/N 172-0002
  - TRANSFER SURFACE TO BE CHEM. FILM
- MARKING
  - MARK PER PROCEDURE MEI-147.
  - MARKING: .09" HIGH BLACK CHARACTERS
  - LABEL: METALIZED POLYESTER SHEET HILL P/N 127-0010.
- DATECODE FORMAT SHALL BE (YYWK) EXAMPLE: 0608.
- 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

MATERIAL		APPROVALS		DATE	
DESIGNER	DRG BARKER	DATE	5/13/96		
DESIGNER	M. POLIGRINI	DATE	7/8/98		
DESIGNER	J. HILL	DATE	5/14/98	DRAWING TITLE: <b>OUTLINE TNC SPDT SWITCH</b>	
MANUFACTURING	S. WARD	DATE	7/10/98		
DATE	J. HILL	DATE	7/9/98	SIZE: B 02WLO DRAWING NO.: 2143 REV: D	
CUSTOMER APPROVALS					
APPROVALS	DO NOT SCALE DRAWING			SCALE: 1/1 PFORM: 2143D SHEET 1 OF 1	