

	Cage Code:	Title:	Date:	Rev:		Model no:
	02WL0	PRODUCT DATA (Subject to change)	1/28/05	N/A		H24-013

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 SPECIFICATION	IN BAND				
1.1	FREQUENCY		7.8	12.2	GHz	
1.2	PEAK POWER		--	2000	WATTS	
1.3	PULSE WIDTH		--	4	μS	
1.4	DUTY		--	6	%	
1.5	AVERAGE POWER		--	120	WATTS	
2	POWER SPECIFICATIONS	GUARD BAND				
2.1	FREQUENCY		12.2	13	GHz	
2.2	PEAK POWER		--	200	WATTS	
2.3	PULSE WIDTH		--	4	μS	
2.4	DUTY		--	6	%	
2.5	AVERAGE POWER		--	8	WATTS	
3	POWER SPECIFICATIONS	OUT OF BAND				
3.1	FREQUENCY			>13	GHz	
3.2	PEAK POWER		--	5	WATTS	
3.3	PULSE WIDTH		--	4	μS	
3.4	DUTY		--	6	%	
3.5	AVERAGE POWER		--	--	WATTS	
4	OPERATING FREQUENCY		8.0	12.0	GHz	
5	INSERTION LOSS	8.0 to 12.0 GHz		1.5	dB	
6	ISOLATION					
6.1	ISOLATION	INPUT TO OUTPUT	35	--	dB	
7	PHASE					
7.1	MATCHING					NOT SPECIFIED
7.2	PHASE TRACKING					NOT SPECIFIED
8	VSWR					
8.1	INPUT	SELECTED PORTS	--	1.6:1	--	

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8.2	OUTPUT	SELECTED PORTS	--	1.6:1	--	
8.3	PORT NOT SELECTED		--	∞	--	infinity
8.4	TERMINATION		--	2.5:1	--	
8.5	SOURCE		--	1.2:1	--	
9	HARMONICS & SPURS					
9.1	INTERNALLY GENERATED					NOT SPECIFIED
10	SWITCHING					
10.1	SPEED	TO 0.50DB	--	1.0	μS	
10.2	SWITCHING RATE		--	5	KHz	
10.3	COMMAND LOGIC	RS-422				
10.4	LOGIC TABLE					SEE OUTLINE DWG 3961
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			20	mA	
12	CONNECTORS					
12.1	RF					SMA(F)
12.2	DC					SOLDER PINS
13	MECHANICAL					
13.1	WEIGHT		--	TBD	OZ	
13.2	OUTLINE					SEE DWG 3961
14	ENVIRONMENTAL					
14.1	OPERATING TEMPERATURE		-20	+60	°C	
14.2	STORAGE TEMPERATURE		-55	+85	°C	
14.3	VIBRATION LEVEL					SHELTERED GND MOBILE
14.4	DEVICE SCREENING	LEVEL 2				QP-121



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2X ϕ .130 THRU

3X .25

.700

J1

HILL ENG
02WL0-MODEL #
SN: XXX DC: XXXX
WARNING: BeO

J3

J2

1.400

.125

1.02

.90

2X .39

3X .23

5X ϕ .025 PIN

MOUNTING SURFACE
SEE NOTE 1d.

1.60

.60

3X SMA (F)

.00

.50

.65

.80

.95

1.10

.17

REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
-	INITIAL RELEASE EDNR #2623	3/14/05	SPL

L+	L-	SELECTED PATH
0	1	J1-J2
1	0	J1-J3

NOTES:

- FINISH:
 - PAINT PER HILL ENG. MEI-105.
 - PRIMER: ZRC ZINC PRIMER P/N 172-0003.
 - PAINT: FLAT BLACK EPOXY ENAMEL P/N 172-0002.
 - MOUNTING SURFACE: CHEMICAL FILM.
- MARKING:
 - MARK PER MEI-147.
 - MARKING: .06" BLACK CHARACTERS.
 - LABEL: METALIZED POLYESTER SHEET P/N 127-0010.

FUNCTIONS	DETAILS	ANALYSIS	SURFACE
21/94	2004.02	20/97	2004.02
REMOVE ALL BURRS FROM PARTS			
MATERIAL:			
FINISH:			
NEXT ASSY	USED ON		
APPLICATIONS	DO NOT SCALE DRAWING		

APPROVALS	DATE
DRAWN BY HN BASKEN	1/28/05
CHECKED BY	
DESIGNED SP LEBLOUX	3/14/05
MANUFACTURING J ALLEN	3/14/05
QC	
CUSTOMER APPROVALS	

COMTECH PST Hill Engineering Division			
DRAWING TITLE: OUTLINE, SPDT SWITCH			
SIZE B	QWC CODE 02WL0	DRAWING NO. 3961	REV -
SCALE 2/1	FILENAME 3961-	SHEET 1 of 1	