

 <small>Hill Engineering Division</small>	Cage Code:	Title:	Date:	Rev:	Model no:
	02WLO	PRODUCT DATA (subject to change)	10/20/06	None	UH20-178

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		350	700	MHz	
1.2	PEAK POWER		--	4000	WATTS	Max at input, including overshoot and load effects
1.3	PULSE WIDTH		0.4	10	μS	
1.4	DUTY		--	6	%	
1.5	AVERAGE POWER		--	240	WATTS	
1.6	CW POWER		--	--	WATTS	
2	POWER SPECIFICATION	GUARD BAND				
2.1	FREQUENCY		700	850	MHz	
2.2	PEAK POWER		--	40	WATTS	
2.3	PULSE WIDTH			CW	μS	
2.4	DUTY			CW	%	
2.5	AVERAGE POWER		--	40	WATTS	N/A
2.6	CW POWER		--	40	WATTS	
3	POWER SPECIFICATION	OUT OF BAND				
3.1	FREQUENCY		>850	--	MHz	
3.2	PEAK POWER		--	0.3	WATTS	
3.3	PULSE WIDTH		--	CW	μS	
3.4	DUTY		--	CW	%	
3.5	AVERAGE POWER		--	--	WATTS	N/A
3.6	CW POWER		--	0.3	dBm	
4	OPERATING FREQUENCY		350	700	MHz	
5	INSERTION LOSS					
5.1			--	0.5	dB	
6	ISOLATION					
6.1	INPUT TO OUTPUT		40		dB	
6.2	OUTPUT TO OUTPUT		40		dB	
7	PHASE SPECIFICATION					
7.1	MATCHING		--	--	DEG	NOT SPECIFIED
7.2	PHASE TRACKING		--	--	DEG	NOT SPECIFIED

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8	VSWR					
8.1	INPUT & OUTPUT	SELECTED PORTS	---	1.5:1	--	
8.2	PORTS NOT SELECTED		--	--	--	INFINITY
8.3	LOAD		---	2:1	--	
8.4	SOURCE		---	1.5:1	--	
9	HARMONICS	INTERNALLY GENERATED		-40	dBc	
9.1	SPURIOUS	INTERNALLY GENERATED		-70	dBc	
10	SWITCHING SPECIFICATIONS					
10.1	SWITCHING SPEED	50% TTL TO 0.5 dB I.L	--	4	μS	
10.2	SWITCHING RATE	50% DUTY		10	kHz	
10.3	VIDEO LEAKAGE	IN BAND	--	-40	dBm	Across a 1 MHz band width
10.4	COMMAND LOGIC TYPE					RS-422 with internal terminating resistor
10.5	LOGIC TABLE					SEE DWG 3993 below
11	D.C. SPECIFICATIONS					
11.1	POSITIVE BIAS VOLTAGE		4.5	5.5	V	
11.3	NEGATIVE BIAS VOLTAGE		-200	-210	V	
11.4	POSITIVE BIAS CURRENT		--	1000	mA	
11.5	NEGATIVE BIAS CURRENT		--	50	mA	
11.6	NOTE: No over-voltage or reverse polarity protection is provided.					
12	CONNECTORS & INTERFACE					
12.1	RF	J1, J2, J3	--	--	--	N(F)
12.3	DC	P1	--	--	--	DCMM-25
13	MECHANICAL					
13.1	WEIGHT		--	1.8	LBS	
13.2	SIZE		--	--	IN.	SEE DWG 3993 below
13.3	FINISH		--	--	--	SEE DWG 3993 below
14	ENVIROMENTAL					
14.1	OPERATING TEMPERATURE		-0	+60	°C	
14.2	STORAGE TEMPERATURE		-40	+85	°C	
14.3	VIBRATION LEVEL					GND TRANSPORT
14.4	DEVICE SCREENING	LEVEL 2				SCREENING PER HILL ENG QP 121

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