

	Cage Code:	Title:	Date:	Rev:	Model no:
	02WLO	PRODUCT DATA (subject to change)	10/7/99	N/A	VH20-002

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		20.0	100.0	MHz	
1.2	PEAK POWER	ABSOLUTE MAXIMUM	--	1000	WATTS	
1.3	PULSE WIDTH		--	CW	μS	
1.4	DUTY		--	CW	%	
1.5	AVERAGE POWER		--	--	WATTS	N/A
1.6	CW POWER		--	1000	WATTS	
2	POWER SPECIFICATION	GUARD BAND				
2.1	FREQUENCY		100.0	160.0	MHz	
2.2	PEAK POWER		--	1	WATTS	
2.3	PULSE WIDTH		CW	--	μS	
2.4	DUTY		CW	--	%	
2.5	AVERAGE POWER		--	--	WATTS	N/A
2.6	CW POWER		--	1	WATTS	
3	POWER SPECIFICATION	OUT OF BAND				
3.1	FREQUENCY		>160.0	--	MHz	
3.2	PEAK POWER		--	0.3	dBm	
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		20.0	100.0	MHz	
5	INSERTION LOSS					
5.1			--	0.35	dB	
6	ISOLATION					
6.1	INPUT TO OUTPUT, XMIT		40		dB	
6.2	INPUT TO OUTPUT, RCV		60		dB	
6.3	OUTPUT TO OUTPUT		60		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	AT 1000W	---	2.5:1	--	
8.4	SOURCE		---	1.5:1	--	
9	HARMONICS & SPURS					
9.1	INTERNALLY GENERATED		--	--	dBc	NOT SPECIFIED
9.2		MEASURED AT INCIDENT POWER	--	--	WATTS	NOT SPECIFIED
10	SWITCHING SPECIFICATIONS					
10.1	SWITCHING SPEED	50% TTL TO 90% RF	--	40	μS	
10.2	SWITCHING RATE		--	2	kHz	
10.3	VIDEO LEAKAGE		--	--	Vpp	NOT SPECIFIED
10.4	COMMAND LOGIC TYPE					RS-422
10.5	LOGIC TABLE					SEE DWG 2245 below
11	D.C. SPECIFICATIONS					
11.1	POSITIVE 1 BIAS VOLTAGE		4.8	5.5	V	
11.2	POSITIVE 2 BIAS VOLTAGE		26	30	V	
11.3	NEGATIVE BIAS VOLTAGE		--	--	V	DEVELOPED INTERNALLY
11.4	POSITIVE 1 BIAS CURRENT		--	1000	mA	
11.5	POSITIVE 2 BIAS CURRENT		--	1200	mA	
11.6	NEGATIVE BIAS CURRENT		--	--	mA	N/A
11.7	NOTE 1: Power on sequence: To prevent damage to the switch apply the +5V first then the +28V.					
11.8	NOTE 2: No over-voltage or reverse polarity protection is provided in this switch.					
12	CONNECTORS & INTERFACE					
12.1	RF: INPUT AND XMIT	J1, J2	--	--	--	N(F)
12.2	RF: RCVR	J3	--	--	--	SMA(F)
12.3	DC	P1	--	--	--	DAM-37
13	MECHANICAL					
13.1	WEIGHT		--	5	LBS	
13.2	SIZE		--	--	IN.	SEE DWG 2245 below
13.3	FINISH		--	--	--	SEE DWG 2245 below

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14	ENVIRONMENTAL					
14.1	OPERATING TEMPERATURE		0	+60	°C	
14.2	STORAGE TEMPERATURE		-20	+55	°C	
14.3	VIBRATION LEVEL					GND TRANSPORT
14.4	DEVICE SCREENING	LEVEL 2				SCREENING PER HILL ENGINEERING QUALITY PROCEDURE 121

