
	Cage Code:	Title:	Date:	Rev:	Model no:
	02WLO	PRODUCT DATA (subject to change)	10/7/99	None	UH20-150

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		145.0	225.0	MHz	
1.2	PEAK POWER	ABSOLUTE MAXIMUM	--	1350	WATTS	
1.3	PULSE WIDTH		--	40	µs	
1.4	DUTY		--	12	%	
1.5	AVERAGE POWER		--	162	WATTS	
1.6	CW POWER		--	162	WATTS	
2	POWER SPECIFICATION	GUARD BAND				
2.1	FREQUENCY		225.0	325.0	MHz	
2.2	PEAK POWER		--	20	WATTS	
2.3	PULSE WIDTH		CW	--	µs	
2.4	DUTY		CW	--	%	
2.5	AVERAGE POWER		--	--	WATTS	
2.6	CW POWER		--	20	WATTS	
3	POWER SPECIFICATION	OUT OF BAND				
3.1	FREQUENCY		>325.0	--	MHz	
3.2	PEAK POWER		--	0.3	WATTS	
3.3	PULSE WIDTH		--	CW	µs	
3.4	DUTY		--	CW	%	
3.5	AVERAGE POWER		--	--	WATTS	
3.6	CW POWER		--	0.3	WATTS	
4	OPERATING FREQUENCY		145	225	MHz	
5	INSERTION LOSS		--	0.30	dB	
6	ISOLATION					
6.1	J2-J1, J3 TERM	J1-J3 selected	40		dB	
6.2	J2-J3, J1 TERM	J1-J2 selected	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 1350W	---	2.5:1	--	
8.4	SOURCE		---	1.5:1	--	
	HARMONICS & SPURS					
9.1	INTERNALLY GENERATED		-100	--	dBm	
10	SWITCHING SPECIFICATIONS					
10.1	SWITCHING SPEED	50% TTL TO 0.5 dB I.L.	--	10	µs	
10.2.1	SWITCHING RATE	1 sec interval in 10 sec	--	4	KHz	
10.2.2	SWITCHING RATE	All other conditions	-	2	KHz	
10.3	VIDEO LEAKAGE	In Band	--	-40	dBm	1 MHz band width
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 TO THE SWITCH
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: IRCVR	J3	--	--	--	SMA(F)
12.3	DC	P1	--	--	--	DAM-37
13	MECHANICAL					
13.1	WEIGHT		--	4.5	LBS	
13.2	SIZE		--	--	IN.	SEE DWG 2245 BELOW
13.3	FINISH		--	--	--	SEE DWG 2245 BELOW
14	ENVIROMENTAL					
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



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