

	Cage Code:	Title:	Date:	Rev:	Model no:
	02WLO	<b>PRODUCT DATA</b> <b>(subject to change)</b>	10/7/99	None	<b>UH20-143</b>

**This document describes the performance of a high power 1P2T/TR 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		500	1000	MHz	
1.2	PEAK POWER	ABSOLUTE MAXIMUM	--	500	WATTS	
1.3	PULSE WIDTH		--	CW	μS	
1.4	DUTY		--	CW	%	
1.5	AVERAGE POWER		--	500	WATTS	N/A
1.6	CW POWER		--	500	WATTS	
2	POWER SPECIFICATION	GUARD BAND				
2.1	FREQUENCY		1000.0	1200.0	MHz	
2.2	PEAK POWER		--	200	WATTS	
2.3	PULSE WIDTH			CW	μS	
2.4	DUTY			CW	%	
2.5	AVERAGE POWER		--	200	WATTS	N/A
2.6	CW POWER		--	200	WATTS	
3	POWER SPECIFICATION	OUT OF BAND				
3.1	FREQUENCY		>1200	--	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		500	1000	MHz	
5	INSERTION LOSS					
5.1	JI-J2	TRANSMIT	--	0.65	dB	
5.2	JI-J3	RECEIVE	--	0.35	dB	
6	ISOLATION					
6.1	INPUT TO OUTPUT, XMIT		30	--	dB	
6.2	OUTPUT 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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ITEM NO	CHARACTERISTIC	CONDITIONS	MIN	MAX	UNITS	COMMENTS
8	VSWR					
8.1	INPUT & OUTPUT	SELECTED PORTS	---	1.5:1	--	
8.2	PORTS NOT SELECTED		--	--	--	INFINITY (reflective)
8.3	LOAD	AT 500W	---	2.5:1	--	
8.4	SOURCE		---	1.5:1	--	
9	HARMONICS & SPURS					
9.1	INTERNALLY GENERATED		--	--	dBc	NOT SPECIFIED
10	SWITCHING SPECIFICATIONS					
10.1	SWITCHING SPEED	50% LOGIC 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 3370 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		--	2000	mA	
11.6	NOTE 1: To prevent damage to the switch apply the +5V first then the +28V. No over-voltage or reverse polarity protection is provided.					
12	CONNECTORS & INTERFACE					
12.1	RF: INPUT AND XMIT	J1, J2	--	--	--	N(F)
12.2	RF: IRCVR	J3	--	--	--	SMA(F)
12.3	DC	P1	--	--	--	DCMM-37
13	MECHANICAL					
13.1	WEIGHT		--	4	LBS	
13.2	SIZE		--	--	IN.	SEE DWG 3370 below
13.3	FINISH		--	--	--	SEE DWG 3370 below
14	ENVIROMENTAL					
14.1	OPERATING TEMPERATURE		-20	+60	°C	
14.2	STORAGE TEMPERATURE		-55	+85	°C	
14.3	VIBRATION LEVEL					GND TRANSPORT
14.4	DEVICE SCREENING	LEVEL 2				SCREENING PER HILL ENG QP 121

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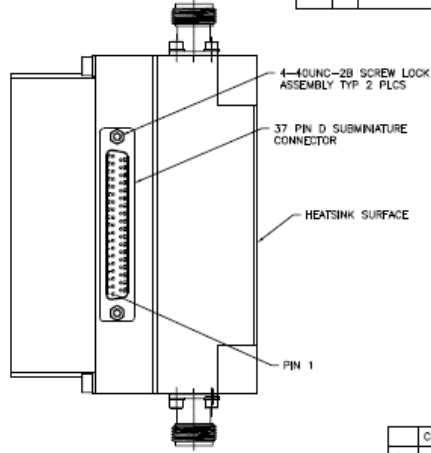
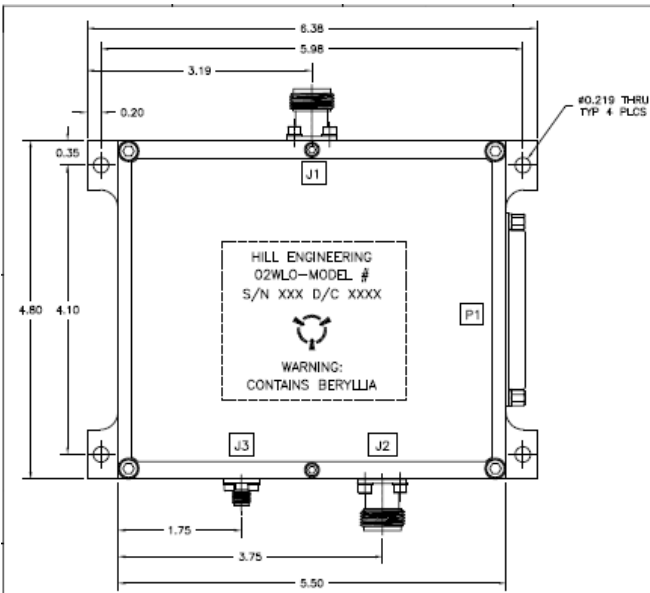
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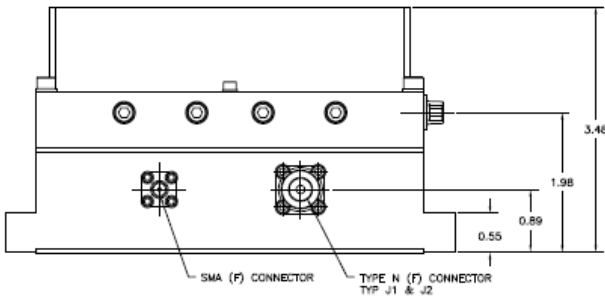
Rev: None

Model no: UH20-143



REVISIONS				
ZONE	REV	DESCRIPTION	DATE	APPROVED
	-	INITIAL RELEASE DRN #1300	6/25/01	SFL

PIN	CONTROL			FAULT			POSITION			MODE
	9	10	15	16	29	30	1	0	1	
0	1	1	0	1	0	1	0	1	0	J1-J2
1	0	1	0	0	0	1	1	1	1	J1-J3
0	1	0	1	1	1	1	1	1	1	FAULT
1	0	0	1	1	1	1	1	1	1	FAULT



PIN #	DESCRIPTION	PIN #	DESCRIPTION
1	+28VDC	20	+28VDC RET.
2	+28VDC	21	+28VDC RET.
3	+28VDC	22	+28VDC RET.
4	N/C	23	N/C
5	N/C	24	N/C
6	N/C	25	CONTROL BIT RET.
7	N/C	26	N/C
8	N/C	27	N/C
9	CONTROL BIT +	28	N/C
10	CONTROL BIT -	29	J2 POSITION BIT
11	POSITION BIT RET.	30	J3 POSITION BIT
12	N/C	31	N/C
13	N/C	32	N/C
14	N/C	33	N/C
15	FAULT BIT +	34	FAULT BIT RET.
16	FAULT BIT -	35	N/C
17	N/C	36	+5VDC RET.
18	+5VDC	37	+5VDC RET.
19	+5VDC		

- NOTES:  
 1. FINISH:  
 1a. CHEMICAL FILM IAW HILL IP-125 YELLOW  
 2. MARKING  
 2a. MARK PER HILL MEI-147  
 2b. MARKING: 0.12" HIGH BLACK CHARACTERS  
 2c. LABEL: METALIZED POLYESTER SHEET, P/N 127-0010



APPROVED DATE: 6/15/01 BY: SFL	CHECKED BY: SFL DATE: 6/25/01	DRAWING TITLE <b>OUTLINE UHF SWITCH</b>
PART NO: UH20-143 NEXT ASSY: USED ON	DATE OF ISSUE: 6/25/01 DRAWING NO: 3370	SHEET: 1 OF 1