

	Cage Code:	Title:	Date:	Rev:	Model no:
	02WLO	PRODUCT DATA (subject to change)	10/7/99	None	UH20-214

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		490	1010	MHz	
1.2	PEAK POWER	ABSOLUTE MAXIMUM at input	--	1000	WATTS	
1.3	PULSE WIDTH		--	CW	μS	
1.4	DUTY		--	CW	%	
1.6	CW POWER		--	1000	WATTS	
2	POWER SPECIFICATION	GUARD BAND				
2.1	FREQUENCY		1010	1200.0	MHz	
2.2	PEAK POWER		--	200	WATTS	
2.3	PULSE WIDTH			CW	μS	
2.4	DUTY			CW	%	
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	%	
3.6	CW POWER		--	0.3	dBm	
4	OPERATING FREQUENCY		500	1000	MHz	
5	INSERTION LOSS					
5.1			--	0.5	dB	
6	ISOLATION					
	I/O-O/O		50		dB	
7	PHASE SPECIFICATION					
7.1	MATCHING		--	--	DEG	NOT SPECIFIED
7.2	PHASE TRACKING		--	--	DEG	NOT SPECIFIED

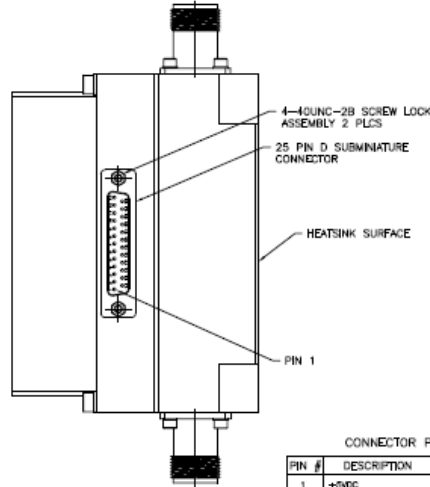
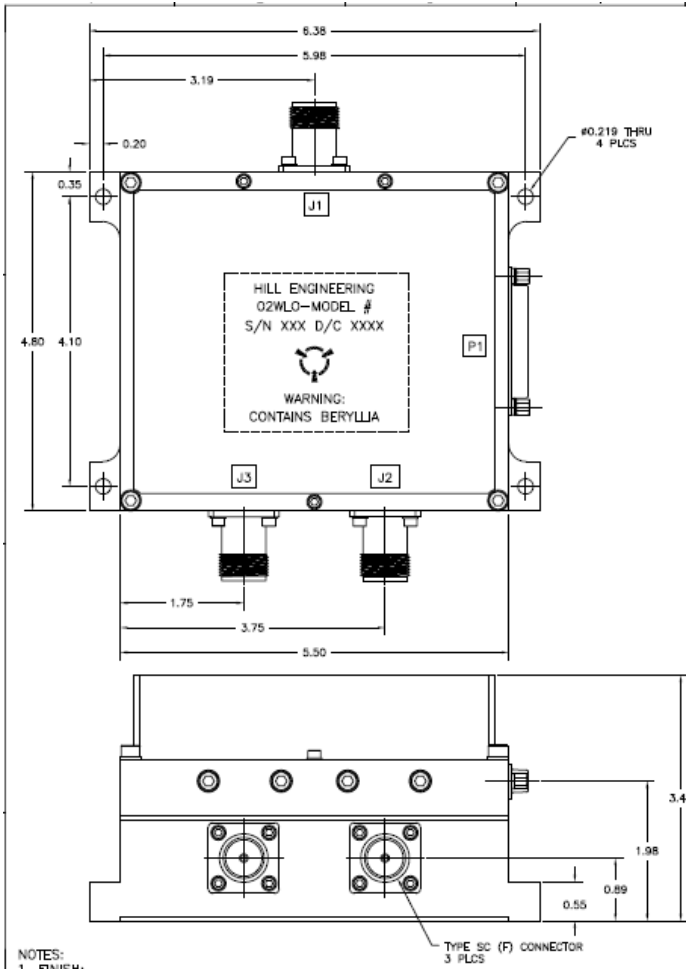
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8	VSWR					
8.1	INPUT & OUTPUT	SELECTED PORTS	---	1.5:1	--	
8.2	PORTS NOT SELECTED		--	--	--	INFINITY
8.3	LOAD	AT 1000W	---	2.0:1	--	
8.4	SOURCE		---	1.5:1	--	
9	HARMONICS & SPURS					
9.1	INTERNALLY GENERATED		-70	--	dBc	
10	SWITCHING SPECIFICATIONS					
10.1	SWITCHING SPEED	50% TTL TO 90% RF	--	25	μS	
10.2	SWITCHING RATE		--	2	kHz	
10.3	VIDEO LEAKAGE		--	10	Vpp	
10.4	COMMAND LOGIC TYPE					RS-422
10.5	LOGIC TABLE					SEE DWG 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:		--	--	--	SC(F)
12.2	DC	P1	--	--	--	DCMM-25
13	MECHANICAL					
13.1	WEIGHT		--	5	LBS	
13.2	SIZE		--	--	IN.	SEE DWG below
13.3	FINISH		--	--	--	SEE DWG 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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REVISIONS				
ZONE	REV	DESCRIPTION	DATE	APPROVED
-	-	INITIAL RELEASE DRN #3054	5/3/08	SPL

CONNECTOR P1 PIN ASSIGNMENT


PIN #	DESCRIPTION	PIN #	DESCRIPTION
1	+5VDC	14	N/C
2	+28VDC	15	+5VDC RETURN
3	+5VDC RETURN	16	N/C
4	N/C	17	+28VDC RETURN
5	+28VDC	18	N/C
6	N/C	19	N/C
7	CONTROL + (RS-422)	20	CONTROL RETURN
8	CONTROL - (RS-422)	21	N/C
9	N/C	22	N/C
10	STATUS BIT + (RS-422)	23	STATUS RETURN
11	STATUS BIT - (RS-422)	24	N/C
12	POSITION IND. (TTL)	25	N/C
13	POSITION IND. (TTL)		

TRUTH TABLE

MODE	SELECTED PATH	CONTROL		POSITION INDICATOR		STATUS	
		+	-	PIN 12	PIN 13	+	-
FILTER BAND 1	J1-J2	0	1	0	1	1	0
FILTER BAND 2	J1-J3	1	0	1	0	1	0
FAULT	----	0	1	0	0	0	1
FAULT	----	1	0	0	0	0	1

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



UH20-232 UH20-214 UH20-214	APPROVALS DATE BY TLR 5/3/08 DATE BY S. LOROUX 5/3/08 DATE BY J. WALTER 5/3/08	
NEXT ASSY USED ON APPLICATIONS	DO NOT SCALE DRAWING	DRAWING TITLE OUTLINE 1P2T SWITCH REV 02WLO PART NO 4135