	Cage Code:	Title:	Date:	Rev:	Model no:
Hill Engineering Division	02WL0	PRODUCT DATA	6/17/03	None	M20-027
<u></u>		(subject to change)		TTORE	

This document describes the performance of a high power 1P2T switch. This is a cold-switched design i.e.; switched while RF is off. Bias voltages and currents listed in section 11 must be applied when operating this switch.

ITEM NO	CHARACTERISTIC	CONDITIONS	MIN	MAX	UNITS	COMMENTS
1	POWER SPECIFICATION	IN BAND				
1.1	FREQUENCY		20	500	MHz	
1.2	PEAK POWER	ABSOLUTE MAX.		150	WATTS	
1.3	PULSE WIDTH			CW		
1.4	DUTY		CW	-	%	
1.5	CW POWER	ABSOLUTE MAX		150	WATTS	
1.6	INTO OPEN/SHORT OR AMP OVERSHOOT	ALL PHASE ANGLES	CW	180	WATTS	
2	POWER SPECIFICATIONS	GUARD BAND				
2.1	FREQUENCY		500	580	MHz	
2.2	PEAK POWER			10	WATTS	
2.3	PULSE WIDTH		CW		μS	
2.4	DUTY		CW		%	
2.5	CW POWER			10	WATTS	
3	POWER SPECIFICATIONS	OUT OF BAND				
3.1	FREQUENCY		>580		MHz	
3.2	PEAK POWER			30	dBm	
3.3	PULSE WIDTH			CW	μS	
3.4	DUTY			CW	%	
3.5	CW POWER			30	dBm	
4	OPERATING FREQUENCY		20	500	MHz	
5	INSERTION LOSS			0.55	dB	
6	ISOLATION					
6.1	I/O		40		dB	
7	PHASE					
7.1	MATCHING					NOT SPECIFIED
7.2	TRACKING					NOT SPECIFIED
8	VSWR					
8.1	PORT SELECTED			1.6:1		
8.2	PORT NOT SELECTED			>20:1		INFINITY
8.3	LOAD			2.5:1		
8.4	SOURCE			1.15:1		

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		(subject to change)		None	

ITEM NO	CHARACTERISTIC	CONDITIONS	MIN	MAX	UNITS	COMMENTS
9	HARMONICS & SPURS					
9.1	INTERNALLY GENERATED	TRANSMIT MODE			dBc	Not specified
9.2		MEASURED AT INCIDENT POWER		0	dBm	
10	SWITCHING					
10.1	SPEED	TO 0.50DB I.L.		20	μS	
10.2	SWITCHING RATE			2	KHz	
10.3	VIDEO LEAKAGE			40	Vpp	MEASURED INTO 50 OHMS
10.4	COMMAND LOGIC	RS-422				BALANCED
10.5	POSITION SENSE	TTL				SINGLE ENDED
10.6	LOGIC TABLE					SEE DWG 3713
11	D.C. POWER					
11.1	POSITIVE BIAS VOLTAGE		4.80	5.20	VDC	
11.2	NEGATIVE BIAS VOLTAGE		-230	-250	VDC	
11.3	POSITIVE BIAS CURRENT			300	mA	
11.4	NEGATIVE BIAS CURRENT			50	mA	
11.5	NOTE 1: Power on sequence - 240V.	To prevent possible dar	nage to th	ne switch, t	the + 5V sh	ould be applied first, then the -
11.6	NOTE 2: Voltage Protection – 1	his unit does not have	over-volta	ge or reve	rse polarity	protection on any bias port.
12	CONNECTORS					
12.1	RF	INPUT & XMIT				NF
12.3	DC					DCM-9P
13	MECHANICAL					
13.1	WEIGHT			1.0	LBS	
13.1	OUTLINE			1.0	LDO	SEE DWG 3713
13.2	OUTLINE					SEE DWG 3/13
14	ENVIRONMENTAL					
14.1	OPERATING TEMPERATURE		0	+50	°C	
14.2	STORAGE TEMPERATURE		-20	+55	°C	
14.3	VIBRATION LEVEL					GROUND TRANSPORT



