	Cage Code:	PRODUCT DATA (subject to change)	Date:	Rev:	Model no:
	02WLO		11/20/2009	None	M21-007
(15H02803-02)					

This document describes the performance of a high power 1P2T/TR switch. This is a cold switched designed to switch cold; i.e; switching should occur only when 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		100	1000	MHz	
1.2	PEAK POWER	J1-J3		250	WATTS	J2 is receive port, low power only
1.3	PULSE WIDTH		--	100	uS	
1.4	DUTY		--	5%	%	
1.5	AVERAGE POWER		--	12.5	WATTS	
1.6	CW POWER		--	12.5	WATTS	
2	POWER SPECIFICATIONS	GUARD BAND				
2.1	FREQUENCY		1000	1250	GHz	
2.2	PEAK POWER		--	2	WATTS	
2.3	PULSE WIDTH		--	CW	μS	
2.4	DUTY		--	CW	%	
2.5	AVERAGE POWER		--	2	WATTS	
2.6	CW POWER		--	2	WATTS	
3	POWER SPECIFICATIONS	OUT OF BAND				
3.1	FREQUENCY			>1250	MHz	
3.2	PEAK POWER		--	0.03	WATTS	
3.3	PULSE WIDTH		CW	--	μS	
3.4	DUTY		CW	--	%	
3.5	AVERAGE POWER		--	--	WATTS	
3.6	CW POWER		--	0.03	WATTS	
4	OPERATING FREQUENCY		100	1000	MHz	
5	INSERTION LOSS					
		J1-J2		0.75	dB	
		J3-J1		0.60	dB	
6	ISOLATION					
6.1	ISOLATION	J3-J2	55		dB	
		J2-J3	40		dB	
7	PHASE					
7.1	MATCHING					NOT SPECIFIED
7.2	PHASE TRACKING					NOT SPECIFIED



Cage Code:
02WLO

PRODUCT DATA
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Date:
11/20/2009

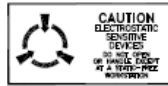
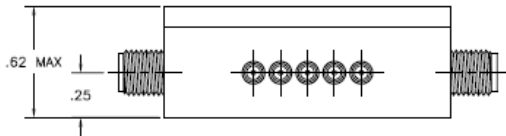
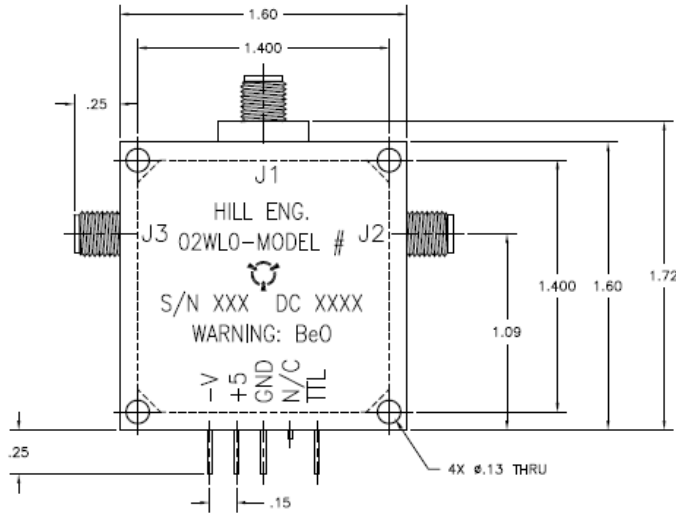
Rev:
None

Model no:
M21-007

(15H02803-02)

ITEM NO	CHARACTERISTIC	CONDITIONS	MIN	MAX	UNITS	COMMENTS
8	VSWR					
8.1	INPUT	SELECTED PORTS	--	1.8:1	--	
8.2	OUTPUT	SELECTED PORTS	--	1.7:1	--	
8.3	PORT NOT SELECTED		--	∞	--	Infinity
8.4	TERMINATION		--	2:1	--	
8.5	SOURCE		--	1.2:1	--	
9	HARMONICS & SPURS					
9.1	INTERNALLY GENERATED					NOT SPECIFIED
10	SWITCHING					
10.1	SPEED	90/10 – 10/90	--	4	µS	
10.2	SWITCHING RATE		--	10	KHz	
10.3	COMMAND LOGIC	TTL				
10.4	LOGIC TABLE					SEE OUTLINE DWG 2194 BELOW
10.5	POSITION SENSE					NOT AVAILABLE
10.6	VIDEO LEAKAGE	J1, J2		3	Vpp	Into 1K Ohm load
		J3		10	Vpp	Into 1K Ohm load
11	D.C. POWER					
11.1	POSITIVE BIAS VOLTAGE		4.8	5.2	VDC	
11.2	NEGATIVE BIAS VOLTAGE		-66	-74	VDC	
11.3	POSTIVE BIAS CURRENT			300	mA	
11.4	NEGATIVE BIAS CURRENT			60	mA	
12	CONNECTORS					
12.1	RF					SMA
12.2	DC					Solder pins
13	MECHANICAL					
13.1	WEIGHT		--	6.5	OZ	
13.2	OUTLINE					SEE DWG 2194 (below)
14	ENVIRONMENTAL					
14.1	OPERATING TEMPERATURE		-20	+60	°C	
14.2	STORAGE TEMPERATURE		-55	+85	°C	
14.3	VIBRATION LEVEL					Airborne subsonic
14.4	DEVICE SCREENING	LEVEL 2				QP-121

(15H02803-02)



REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
-	INITIAL RELEASE	7/23/96	J HILL
A	REVISED PER ECN #416	1/26/98	J HILL
B	REVISED PER ECN #696	2/12/99	SPL
C	REVISED PER ECN #2325 (dgb)	12/7/01	SPL
D	REVISED PER ECN #3348 (hrb)	8/25/04	AG

- NOTES:
- FINISH
 - PAINT PER PROCEEDURE MEI-105.
 - PRIMER: ZRC ZINC PRIMER HILL P/N 172-0003
 - PAINT: FLAT BLACK EPOXY ENAMEL HILL P/N 172-0002
 - MARKING
 - MARK PER PROCEEDURE MEI-147.
 - MARKING: .09" HIGH BLACK CHARACTERS
 - LABEL: METALIZED POLYESTER SHEET HILL P/N 127-0010.
 - DATECODE FORMAT SHALL BE (YYWK) EXAMPLE; 0445.
 - V IS A GENERIC TERM. REFER TO PRODUCT SPEC. LISTED IN JOB FOLDER FOR ACTUAL NEG. VOLTAGE VALUE AND MARK ACCORDINGLY. DO NOT MARK "-V."

LOGIC TABLE

OUTPUT	TTL	PATH
J1-J2	0	RCV
J1-J3	1	XMT

	H22-081
	M21-044
	M21-043
	M21-038
NEXT ASSY	USED ON

MILLEN METASTATIC INSULATED TRANSDUCER ASS IN 80410		APPROVALS	DATE
DESIGNED BY DG BARKER	CHECKED BY		7/23/96
DESIGNED BY J HILL	CHECKED BY		7/23/96
DESIGNED BY J HILL	CHECKED BY		12/95
CUSTOMER APPROVALS			

COMTECH PST Hill Engineering Division		DRAWING TITLE	SCALE	DATE	REV
		OUTLINE, 1P2T TTL LOGIC, T/R	2/1	03H02194-01	D

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