

	Cage Code:	Title:	Date:	Rev:	Model no:
	02WL0	PRODUCT DATA (subject to change)	5/4/05	None	M26-018

This document describes the Specification for a high power 1P2T switch. This is a cold switched designed to switch cold; switching normally occurs 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		6	18	GHz	
1.2	PEAK POWER		--	100	WATTS	
1.3	PULSE WIDTH		--	CW	us	
1.4	DUTY		--	CW	%	
1.5	AVERAGE POWER			100	WATTS	
1.5	CW POWER		--	100	WATTS	
2	POWER SPECIFICATIONS	GUARD BAND				
2.1	FREQUENCY		18	19	GHz	
2.2	PEAK POWER		--	5	WATTS	
2.3	PULSE WIDTH		--	10	us	
2.4	DUTY		--	5	%	
2.5	AVERAGE POWER		--	0.5	WATTS	
2.6	CW POWER		--	0.5	WATTS	
3	POWER SPECIFICATIONS	OUT OF BAND				
3.1	FREQUENCY			>19	GHz	
3.2	PEAK POWER		--	1	WATTS	
3.3	PULSE WIDTH		--	1	μs	
3.4	DUTY		--	5	%	
3.5	AVERAGE POWER		--	0.025	WATTS	
3.6	CW POWER		--		WATTS	
4	OPERATING FREQUENCY		6.0	18.0	GHz	
5	INSERTION LOSS					
				1.5	dB	
6	ISOLATION					
6.1	ISOLATION	INPUT TO OUTPUT	20	--	dB	
7	PHASE					
7.1	MATCHING					NOT SPECIFIED
7.2	PHASE TRACKING					NOT SPECIFIED
8	VSWR					
8.1	INPUT	SELECTED PORTS	--	1.8:1	--	

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8.2	OUTPUT	SELECTED PORTS	--	1.8:1	--	
8.3	PORT NOT SELECTED		--	∞	--	infinity
8.4	TERMINATION		--	2.0:1	--	
8.5	SOURCE		--	1.2:1	--	
9	RESERVED					
10	SWITCHING					
10.1	SPEED	FROM 50% CONTROL TO 0.50dB IL	--	1.0	μs	
10.2	SWITCHING RATE		--	10	KHz	
10.3	COMMAND LOGIC	TTL				
10.4	LOGIC TABLE					SEE OUTLINE 3930
11	D.C. POWER					
11.1	POSITIVE BIAS VOLTAGE 1		4.8	5.2	VDC	
11.2	POSITIVE BIAS VOLTAGE 2		26	32	VDC	
11.3	POSTIVE BIAS CURRENT 1			300	mA	
11.4	POSITIVE BIAS CURRENT 2			60	mA	
12	CONNECTORS					
12.1	RF					TNC(F)
12.2	DC					M83513/02-AN (Socket)
13	MECHANICAL					
13.1	WEIGHT		--	TBD	OZ	
13.2	OUTLINE					Drawing 3930
14	ENVIRONMENTAL DESIGN LIMITS	TEST (WHEN PURCHASED)				
14.1	OPERATING TEMPERATURE		-40	+71	°C	
14.2	STORAGE TEMPERATURE		-55	+85	°C	
14.3	SHOCK					MIL-STD-202 Method 213 Cond K, frequency per Fig. 213-3
14.4.1	RANDOM VIBRATION					
14.4.2	SINUSOIDAL VIBRATION					
14.4.3	GUNFIRE					
14.4	TEMP/HUMIDITY/ALTITUDE					
14.6	SALT FOG					
14.7	UNIT SCREEN	QP-121 L-2				48 HRS DC POWERED 85 DEG C



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4X .150 THRU
.375
.815
3X TNC (F)
SOCKET 1
1.330 1.030
HILL ENGINEERING
02WL0-MXX-XXX
SN: XXX DC: XXXX
WARNING: CONTAINS BeO
P/N
J1
J2
J3
J4
HEAT TRANSFER SURFACE
MOUNTING SURFACE
SEE NOTE 1d.
NOTES:
1. FINISH
a. PAINT PER PROCEDURE MEI-105.
b. PRIMER: ZRC ZINC PRIMER HILL
P/N 172-0003
c. PAINT: FLAT BLACK EPOXY ENAMEL
HILL P/N 172-0002
d. MOUNTING SURFACE: CHEMICAL FILM.
2. MARKING
a. MARK PER PROCEDURE MEI-147.
b. MARKING: .08" HIGH BLACK CHARACTERS
c. LABEL: METALIZED POLYESTER SHEET
HILL P/N 127-0010.

REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
-	INITIAL RELEASE EDN #2548	12/1/04	SPL
A	REVISED PER EDN #3459 (hnb)	2/22/05	SPL
B	REVISED PER EDN #3473 (hnb)	3/4/05	SPL
C	REVISED PER EDN #6504	10/27/09	SPL

J4 CONNECTIONS			
SOCKET	FUNCTION		
1	+28V		
2	N/C		
3	J3 CONTROL		
4	+5V		
5	J2 CONTROL		
6	GND		
7	GND		
8	GND		
9	GND		

SOCKET 3	SOCKET 5	J1-J2	J1-J3
0	0	OFF	OFF
1	0	OFF	ON
0	1	ON	OFF
1	1	ON	ON

CAUTION
ELECTRIC
SHOCK
Hazardous
Material

	UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES FRACTIONS DECIMALS ANGLES SURFACE FINISHES 25/64 .005 .010 .015 .020 .030 .040 .050 REMOVE ALL BURRS FROM PARTS	APPROVALS DRAWN BY: HW BASKEN CHECKED BY: SP LENDUX MANUFACTURING: J. ALLEN QC: [] CUSTOMER APPROVALS: []	DATE: 11/30/04 12/1/04 12/1/04	 OUTLINE, 1P2T SWITCH
MATERIAL: M26-022 M26-018 NEXT ASSY: USED ON	APPLICATIONS: DO NOT SCALE DRAWING	SIZE: B CAGE CODE: 02WL0 SHIPPING NO.: 03H03930-01 SCALE: 1/1	REV: C FILENAME: 03H03930-016 SHEET: 1 OF 1	