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	02WLO	PRODUCT SPECIFICATION	8/29/2023	B	1 of 3	16H05795-01
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(HH20-257)

Revision Record Cover Sheet						
Revision	Date	Change Description	Approvals			
P1	3/17/21	PRELIMINARY ENGINEERING RELEASE				
P2	3/22/21	Load VSWR changed from 2:1 to 3:1 (Add to item 1.5 comments. Remove items 6.3 and 6.4.				
P3	3/23/21	Change Item 7.1 units from dBm to dBm/Hz.				
P4	8/24/21	Change Item 8.3 control logic from RS-422 to TTL. Remove "TTL" reference from Item 8.5 conditions column.				
A	11/18/21	RELEASED PER EDR # H3T7000*1-04	SLC 11/17/21	LB 11/17/21	MK 11/17/21	DW 11/18/21
B	8/29/23	REVISED PER ECN 7-020566	<i>ML</i> 8-31-23	<i>MB</i> 8/31/23	<i>MK</i> 8/31/23	<i>DW</i> 8-31-23

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	02WL0	PRODUCT SPECIFICATION	8/29/2023	B	2 of 3	16H05795-01
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This document describes the specification for a high power 1P2T switch that can be used as a SP2T or a T/R. This is a cold switched design, i.e., switched while RF is off. Proper bias levels must be applied when operating this device.

ITEM NO	CHARACTERISTIC	CONDITIONS	MIN	MAX	UNITS	COMMENTS
1	POWER SPECIFICATION	IN BAND				
1.1	FREQUENCY		1.0	30.0	MHz	
1.2	PEAK POWER			500	W	
1.3	PULSE WIDTH			1.0	mS	
1.4	DUTY			10	%	
1.5	CW POWER			200	W	Load VSWR 3:1 max.
2	OPERATING FREQUENCY		1.0	30.0	MHz	
3	INSERTION LOSS					
3.1		1.0 to 3.0 MHz	--	0.60	dB	
		3.0 to 30 MHz	-	0.35	dB	
4	ISOLATION					
4.1	J1-J2, J3 TERM (TX)		50	--	dB	
4.2	J1-J3, J2 TERM (RCV)		50	--	dB	
5	PHASE					
5.1	MATCHING					NOT SPECIFIED
5.2	TRACKING					NOT SPECIFIED
6	VSWR					
6.1	PORTS NOT SELECTED					REFLECTIVE
6.2	INPUT & OUTPUT, SELECTED PORTS			1.70:1	--	
7	HARMONICS & SPURS					
7.1	INTERNALLY GENERATED	In-band		-130	dBm/Hz	
7.2	MEASURED AT INCIDENT POWER					NOT SPECIFIED

8	SWITCHING					
8.1	SPEED	50%TTL TO 10%/90% RF		15	µs	
8.2	SWITCHING RATE			5	kHz	
8.3	CONTROL LOGIC	TTL				
8.4	VIDEO LEAKAGE	OUT OF BAND		30	Vpp	
8.5	LOGIC TABLE					SEE DWG 03H05509-02
9	D.C. POWER					
9.1	POSITIVE BIAS VOLTAGE 1		4.8	5.2	VDC	
9.2	POSITIVE BIAS VOLTAGE 2		26	32	VDC	
9.3	POSITIVE BIAS CURRENT 1			750	mA	
9.4	POSITIVE BIAS CURRENT 2			500	mA	
9.5	VOLTAGE PROTECTION					THIS UNIT DOES NOT HAVE OVERVOLTAGE OR REVERSE POLARITY PROTECTION ON ANY BIAS PORT
10	CONNECTORS					
10.1	RF					NF
10.2	DC					DEMM-9P
11	MECHANICAL					
11.1	WEIGHT			TBD	oz	
11.2	OUTLINE				Inches	SEE DWG 03H05509-02
12	ENVIRONMENTAL					
12.1	OPERATING TEMPERATURE		-20	+70	°C	
12.2	STORAGE TEMPERATURE		-20	+85	°C	
13	ESS SCREENING					
13.1	BURN-IN					48HRS @ +70°C