

DESCRIPTION

PMI MODEL NO.: TD-30T-SHS-218-30DBAMP-DAC-DS IS AN ULTRA-HIGH SPEED, HIGH SENSITIVITY THRESHOLD DETECTOR DESIGNED FOR BROAD BAND APPLICATIONS IN THE 2 TO 18 GHz FREQUENCY RANGE. THIS IS A MINIATURE UNIT WITH TTL OUTPUT LOGIC. A PARALLEL 8 BIT DIGITAL TO ANALOG CONVERTER IS INCLUDED TO SET THE THRESHOLD LEVEL. ALSO INCLUDED IS A COMPARATOR MONITOR OUT (TTL), A FORCE OUT "ON", AND AN ENABLE PIN.

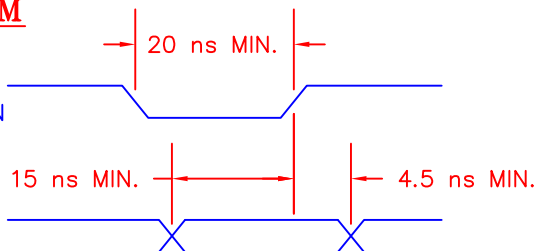
SPECIFICATIONS

- FREQUENCY RANGE: 2 TO 18 GHz
- MINIMUM SIGNAL LEVEL FOR THRESHOLD DETECTOR TO RESPOND -45 dBm
- PROPAGATION DELAY TO 50% MONITOR LOGIC OUTPUT ON LEADING EDGE FOR AN INPUT OF -45 dBm 15 ns (TYP), 30 ns (MAX)
- PROPAGATION DELAY FROM 50% RF INPUT TO 50% LOGIC OUTPUT WHEN INPUT -45 dBm 30 ns (TYP), 45 ns (MAX)
- DC POWER +12V (NO LOAD) 300 mA (TYP)
- DC POWER -12V (NO LOAD) 120 mA (TYP)
- SIZE 2.5"(L) X 2.0"(W) X 0.5"(H)
- FINISH GOLD PLATED

TIMING DIAGRAM

LATCH ENABLE (CLK)
(DATA WILL BE WRITTEN
ON RISING EDGE)

DB0 - DB7



HOLD HIGH DURING NORMAL OPERATION
LOW WILL RESULT IN NO OUTPUT

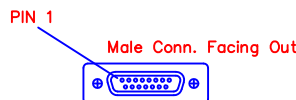
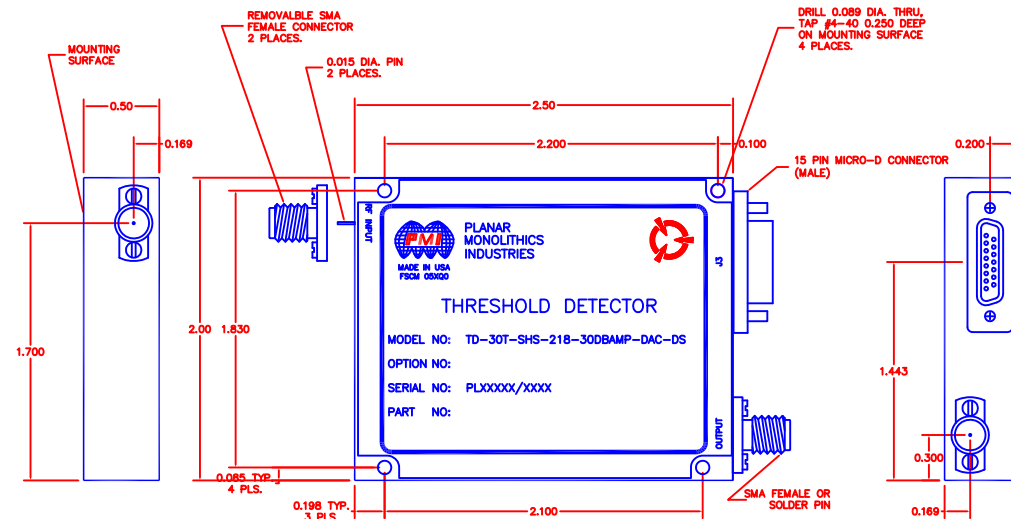
ENABLE
FORCED OUT "ON" HOLD LOW DURING NORMAL OPERATION
HIGH WILL RESULT IN HIGH OUTPUT

ENVIRONMENTAL RATINGS

- **TEMPERATURE:** -55°C TO +85°C (OPERATING)
..... -65°C TO +125°C (STORAGE)
- **HUMIDITY:** MIL-STD-202F, METHOD 103B COND. B
- **SHOCK:** MIL-STD-202F, METHOD 213B COND. B
- **VIBRATION:** MIL-STD-202F, METHOD 204D COND. B
- **ALTITUDE:** MIL-STD-202F, METHOD 105C COND. B
- **TEMPERATURE CYCLE:** MIL-STD-202F, METHOD 107D COND. A

NOTE: SPECIFICATIONS WILL VARY OVER OPERATING TEMPERATURE
NOTE: THE ABOVE SPECIFICATIONS ARE SUBJECT TO CHANGE OR REVISION

REVISIONS				
ZONE	REV.	DESCRIPTION	DATE	APPROVED
	A1	ORIGINAL RELEASE	3/30/09	
	B1	CURRENT DRAW INCREASED	12/14/10	
	B2	ECN # 13-0197	11/07/13	
	B3	ECN # 14-0189	11/21/14	



- PIN 1 - DB0 (LSB)
- PIN 2 - DB1
- PIN 3 - DB2
- PIN 4 - DB3
- PIN 5 - DB4
- PIN 6 - DB5
- PIN 7 - DB6
- PIN 8 - DB7 (MSB)
- PIN 9 - LATCH ENABLE (CLK)
- PIN 10 - COMPARATOR OUT (MONITOR POINT)
- PIN 11 - FORCED OUT "ON"
- PIN 12 - ENABLE
- PIN 13 - (-12V)
- PIN 14 - (+12V)
- PIN 15 - GND

ALL DIMENSIONS ARE IN INCHES
TOLERANCES:
X.XX ±0.020
X.XXX ±0.010

PMI CONFIDENTIAL AND PROPRIETARY

PLANAR MONOLITHICS INDUSTRIES, INC.

7311-F GROVE ROAD
FREDERICK, MARYLAND 21704 USA
TEL: 301-662-5019 FAX: 301-662-1731
WEBSITE: www.pmi-rf.com
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ISO 9001 CERTIFIED

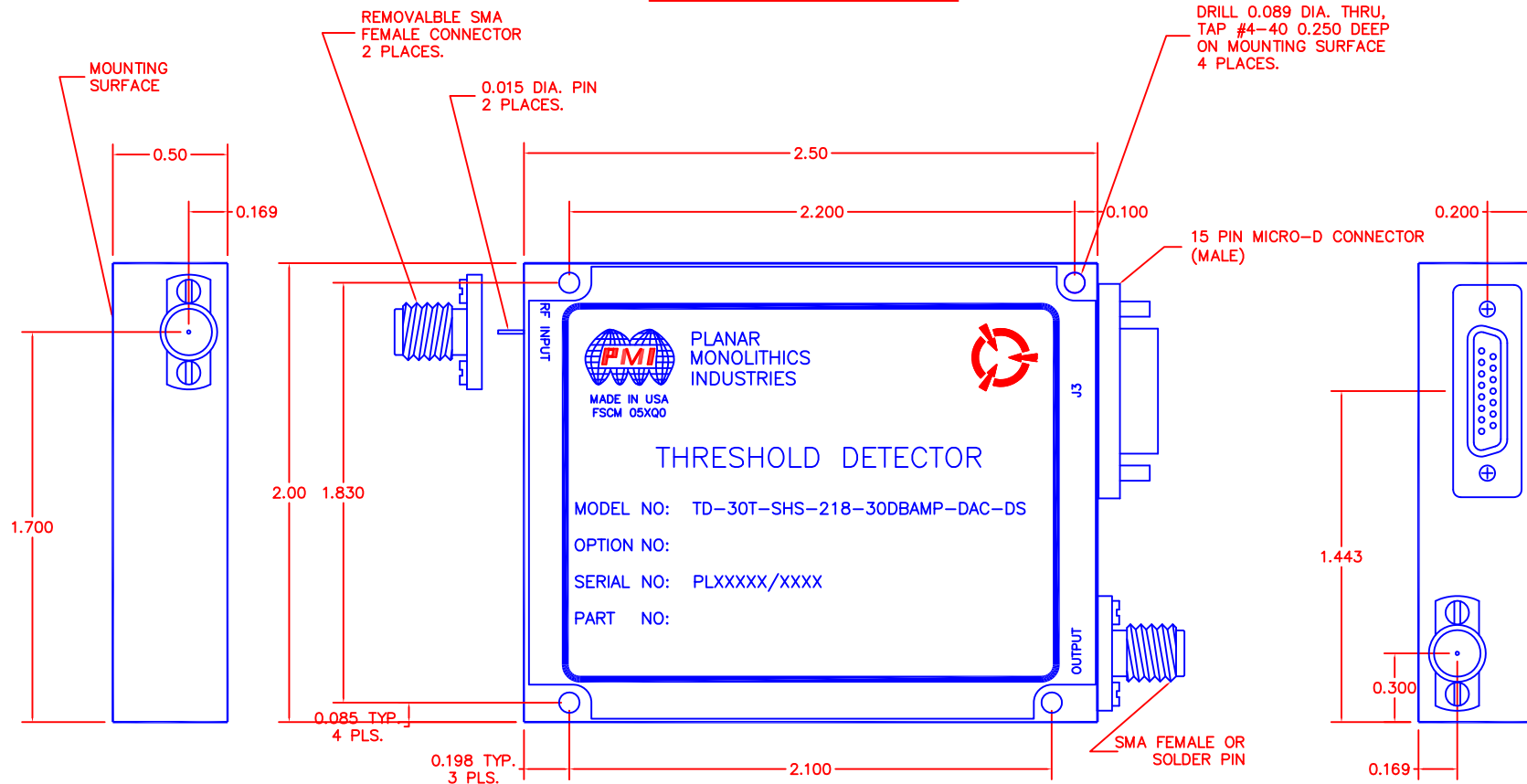


APPROVALS		DATE		TITLE	
DRAWN		3/30/09		PRODUCT FEATURE	
CHECKED				TD-30T-SHS-218-30DBAMP	
ISSUED				2 - 18 GHz THRESHOLD DETECTOR	
SIZE		FSCM NO.		DWG NO.	
A		05XQ0		27010587-B	
SCALE		N:S		REV.	
				B3	
				SHEET 1 OF 3	

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MECHANICAL OUTLINE



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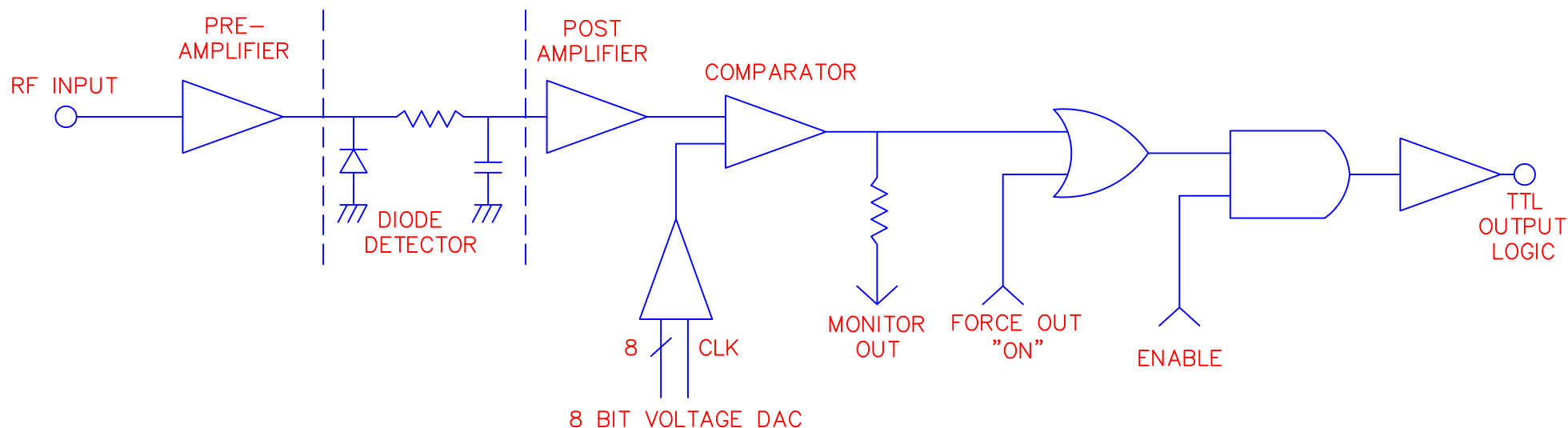
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A		05XQ0		27010587-B		B3	
SCALE		N:S		SHEET		2 OF 3	

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FUNCTIONAL BLOCK DIAGRAM



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SCALE		N:S	SHEET		3 OF 3		