



**TYPICAL CHARACTERISTICS
ON
P2T-1G18G-10-R-5V-SFF-HIP10W-HERM**

PL13238/1321

PMI MODEL P2T-1G18G-10-R-5V-SFF-HIP10W-HERM IS A REFLECTIVE, SINGLE POLE, TWO THROW PIN DIODE SWITCH THAT OPERATES OVER THE 1.0 GHz TO 18.0 GHz FREQUENCY RANGE. THIS MODEL IS CAPABLE OF HANDLING AN INPUT POWER LEVEL OF 5 WATTS CW WHILE PROVIDING SWITCHING SPEEDS OF 100ns. THIS MODEL INCORPORATES A TTL COMPATIBLE DRIVER FOR EASY SYSTEM INTEGRATION.



TESTED & REPORTED BY:

SEBASTIAN PALACIO

June 13, 2013

7311-F Grove Road Frederick, MD 21704 USA Phone: (301)662-5019 Fax: (301)662-1731
Email: sales@pmi-rf.com



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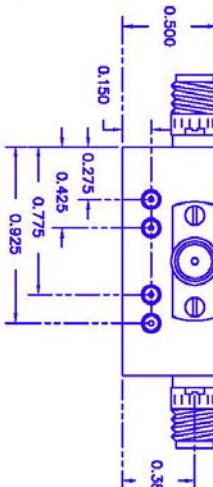
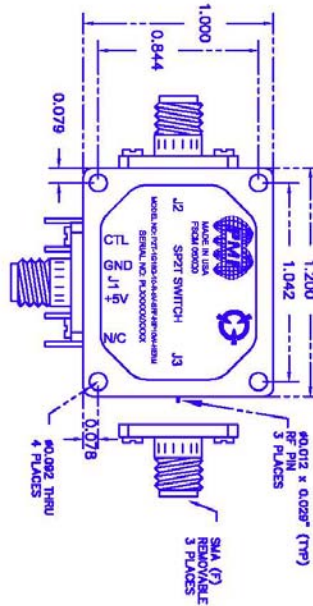
DESCRIPTION
 PMI MODEL P2T-1G18G-10-R-5V-SFF-HIP10W-HERM IS A REFLECTIVE SINGLE POLE, TWO THROW PIN DIODE SWITCH THAT OPERATES OVER THE 1.0 GHz TO 18.0 GHz FREQUENCY RANGE. THIS MODEL IS CAPABLE OF HANDLING AN INPUT POWER LEVEL OF 5 WATTS CW WHILE PROVIDING SWITCHING SPEEDS OF 100ns. THIS MODEL INCORPORATES A TTL COMPATIBLE DRIVER FOR EASY SYSTEM INTEGRATION.

TYPICAL SPECIFICATIONS

- FREQUENCY RANGE: 1.0 TO 18.0 GHz
- ISOLATION: 10 dB Min
- INSERTION LOSS: 4.0 DB Max; 3.0 DB GOAL
- VSWR IN / OUT: 2.0:1
- OPERATING INPUT POWER: 5 WATTS CW Max (Not To Be Switched Any Higher Than 50kHz [PRI])
- 1dB COMPRESSION: +40dBm GOAL
- RF SWITCHING SPEED: 100ns GOAL (At Low Power)
- IMPEDANCE: 50 OHMS
- DC VOLTAGE: +5 V @ 20 mA
- CONTROL SIGNAL: TTL LOGIC SEE LOGIC TABLE
- CONNECTORS: SMA(F) - REMOVABLE
- CONTROL CONNECTORS: SOLDER PINS
- PACKAGE: HERMETIC
- FINISH: PAINTED GRAY
BOTTOM SIDE - UNPAINTED

LOGIC TABLE

CTL	J1 - J2	J1 - J3
0	ON	OFF
1	OFF	ON



ENVIRONMENTAL RATINGS

- TEMPERATURE: -54°C TO +100°C (OPERATING)
-55°C TO +125°C (STORAGE)
 - SHOCK: MIL-STD-202F, METHOD 2139 COND. B
 - VIBRATION: MIL-STD-202F, METHOD 2049 COND. B
 - ALTITUDE: MIL-STD-202F, METHOD 105C COND. B
 - TEMPERATURE CYCLES: MIL-STD-202F, METHOD 107
- NOTE: SPECIFICATIONS WILL VARY OVER OPERATING TEMPERATURE RANGES. THE ABOVE SPECIFICATIONS ARE SUBJECT TO CHANGE OR REVISION.

ALL DIMENSIONS ARE IN INCHES
 TOLERANCES:
 XXX .0010
 XXXX .0005

REVISIONS		
ZONE	REV.	DATE
A	ORIGINAL RELEASE	09/18/19

PLANAR MONOLITHICS INDUSTRIES, INC.
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 ISO 9001:2008 CERTIFIED

PMI CONFIDENTIAL AND PROPRIETARY

APPROVALS	DATE	TITLE
<i>AM</i>	09/19/19	PRODUCT FEATURE

P2T-1G18G-10-R-5V-SFF-HIP10W-HERM

DRW. NO.	REV. NO.	DATE
05X00	27018331	

SCALE: N:S SHEET 1 OF 1



**TYPICAL CHARACTERISTICS
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TEST. ITEM NO	PARAMETERS	SPECIFIED VALUE	TEST RESULTS	QA QC
1	Frequency Range:	1.0 TO 18.0 GHz	1.0 TO 18.0 GHz See Plots	
2	Isolation:	10 dB Min	25.1dB See Plots	
3	Insertion Loss:	4.0 dB Max; 3.0 dB Goal	2.53dB See Plots	
4	VSWR (In/Out):	2.0:1	1.64:1 See Plots	
5	Operating Input Power:	5 Watts CW Max*	Pass	
6	1dB Compression:	+40dBm Goal	Pass	
7	RF Switching Speed:	100 ns Goal (At Low Power)	<40ns Pass	
8	DC Voltage:	+5 V @ 30mA Typ.	35mA	
9	Control Signal:	TTL "0" (J1→J2) TTL "1" (J1→J3)	Pass	

*Not to be Switched Any Higher Than 50kHz [PRI]

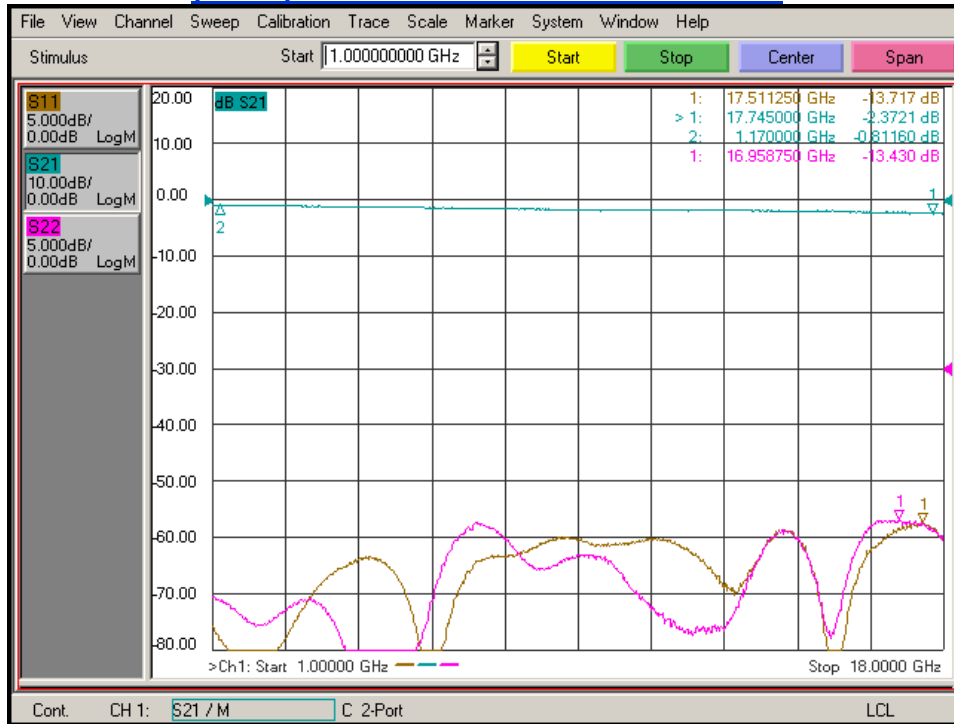
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TYPICAL CHARACTERISTICS ON P2T-1G18G-10-R-5V-SFF-HIP10W-HERM

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(J1-J2) Insertion Loss and Return Loss



(J1 - J2) Isolation



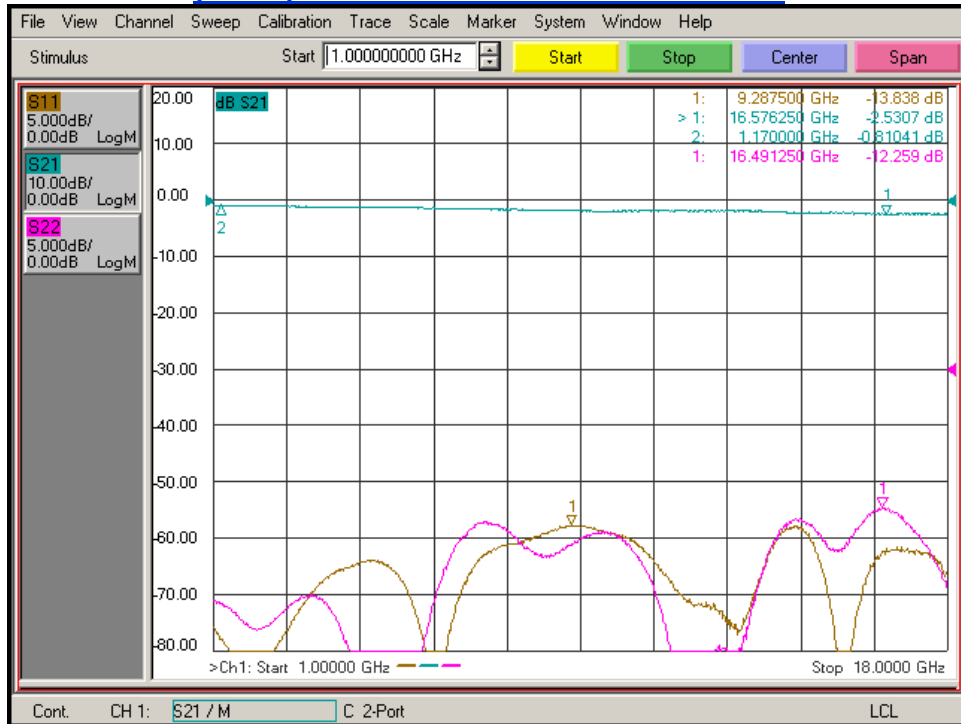
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(J1-J3) Insertion Loss and Return Loss



(J1 - J3) Isolation





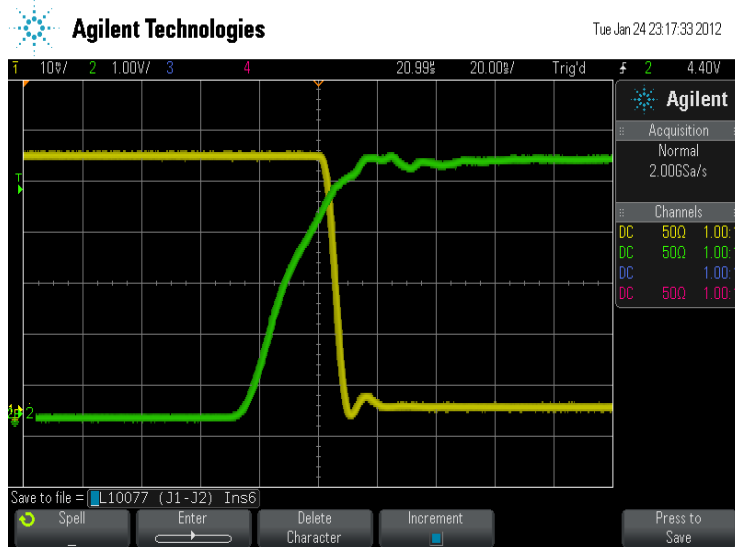
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Switching Speed

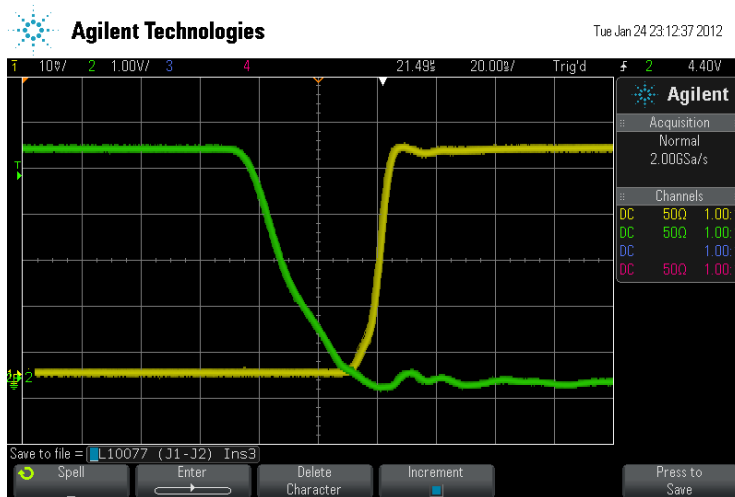
OFF Delay

20ns per Div.



ON Delay

20ns per Div.



Yellow Trace: RF Signal
Green Trace: TTL Signal

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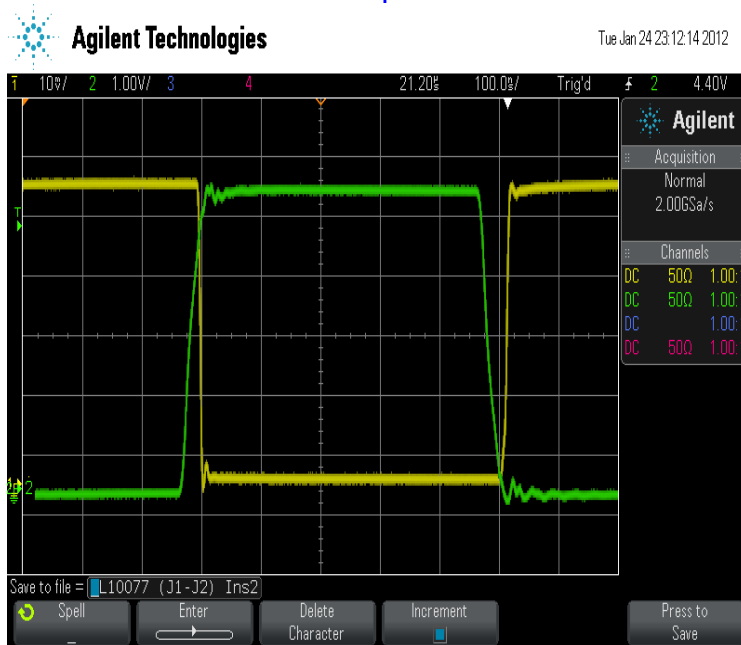
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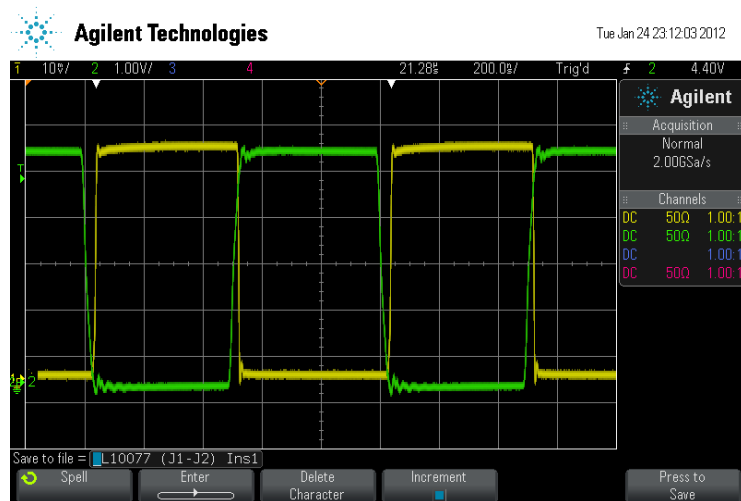
Switching Speed

Full Pulse

100nS per div



200nS per div



Yellow Trace: RF Signal
Green Trace: TTL Signal

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