



Typical Characteristics For P3T-500M26R5G-30-R-292FF-OPT618

PMI MODEL NUMBER P3T-500M26R5G-30-R-292FF-OPT618 IS A REFLECTIVE, SINGLE POLE, THREE THROW LOW LOSS PIN DIODE SWITCH THAT OPERATES OVER THE 6.0 GHz TO 18.0 GHz FREQUENCY RANGE. THIS MODEL INCORPORATES A TTL COMPATIBLE DRIVER FOR EASY SYSTEM INTEGRATION.



June 11, 2016

Designed by: PMI Engineering

Tested and Reported by: Simon Kuhn

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Typical Characteristics For P3T-500M26R5G-30-R-292FF-OPT618

Product Feature & Mechanical Drawing:

DESCRIPTION

PMI MODEL P3T-500M26R5G-30-R-55-292FF-OPT618 IS A REFLECTIVE, SINGLE POLE, THREE THROW LOW LOSS PIN DIODE SWITCH THAT OPERATES OVER THE 6.0 GHZ TO 18.0 GHZ FREQUENCY RANGE. THIS MODEL INCORPORATES A TTL COMPATIBLE DRIVER FOR EASY SYSTEM INTEGRATION.

SPECIFICATIONS

- FREQUENCY RANGE: 6.0 TO 18.0 GHz
- ISOLATION: 30 dB MIN
- INSERTION LOSS: 2.0 dB MAX
- VSWR IN / OUT: 2.0 : 1 TYP
- INPUT POWER: +23 dBm MAX
- RF SWITCHING SPEED: 100 ns MAX
- DC VOLTAGE: +5 V @ 200 mA TYP
..... -5 V @ 100 mA TYP
- CONTROL SIGNAL: TTL LOGIC
..... SEE LOGIC TABLE
- CONNECTORS IN/OUT: 2.92mm FEMALE CONNECTORS
- CONTROL CONNECTORS: SOLDER PINS
- FINISH: BLUE EPOXY PAINT

LOGIC TABLE

CTL 1	CTL 0	J1 - J2	J1 - J3	J1 - J4
0	0	ON	OFF	OFF
0	1	OFF	ON	OFF
1	0	OFF	OFF	ON
1	1	OFF	OFF	OFF

ENVIRONMENTAL RATINGS

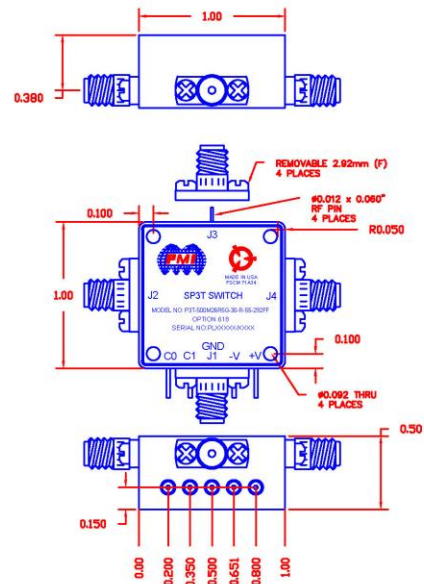
- TEMPERATURE: -40 °C TO +85 °C (OPERATING)
..... -55 °C TO +125 °C (STORAGE)
- HUMIDITY: MIL-STD-202F, METHOD 103B COND. B
- SHOCK: MIL-STD-202F, METHOD 213B COND. B
- VIBRATION: MIL-STD-202F, METHOD 204D COND. B
- ALTITUDE: MIL-STD-202F, METHOD 105C COND. B
- SALT FOG: MIL-STD-202F, METHOD 107D COND. A
- FUNGUS: MIL-STD-810C, METHOD 508.2
- TEMPERATURE CYCLE: MIL-STD-202F, METHOD 107

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

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

REVISIONS				
ZONE	REV.	DESCRIPTION	DATE	APPROVED
	1	ORIGINAL RELEASE	03/30/16	

MECHANICAL OUTLINE



PMI CONFIDENTIAL AND PROPRIETARY

PLANAR MONOLITHICS INDUSTRIES, INC.

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ISO 9001 CERTIFIED



APPROVALS		DATE	TITLE		REV.
DRAWN <i>B. Thomas</i>		03/30/16	OUTLINE DRAWING P3T-500M26R5G-30-R-55-292FF OPTION 618		1
CHECKED	SIZE	PSDM NO.	DWG NO.		
ISSUED	A	05XQ0	27029371		
SCALE N: S			SHEET 1 OF 1		

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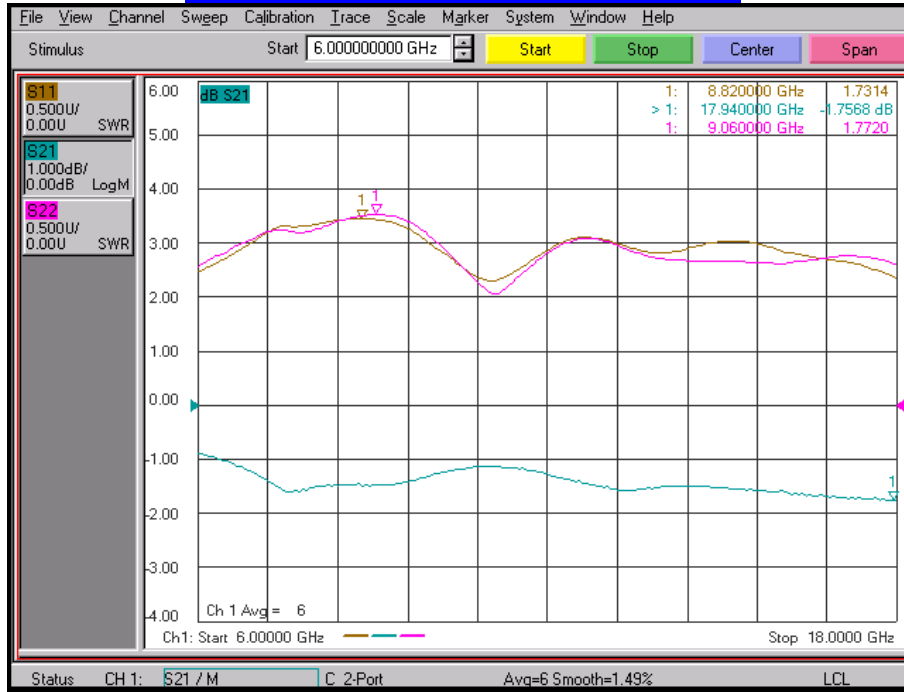
Summary Test Data

TEST. ITEM NO	PARAMETERS	SPECIFIED VALUE					TEST RESULTS	QA QC
1	Frequency Range:	6.0 – 18 GHz					6.0 – 18 GHz	
2	Insertion Loss:	2.0 dB MAX					1.95 dB	
3	Isolation:	30 dB MIN					30 dB	
4	VSWR:	2.0:1 TYP					1.83 :1	
5	Switching Speed:	100 ns MAX					See Typical Characteristics	
6	Input Power:	+23 dBm CW MAX					Pass	
7	DC Supply:	+5VDC @ 200 mA Typ. -5VDC @ 100 mA Typ.					110 mA 22 mA	
8	Control Signal	Logic Table					Pass	
		C1	C0	J1-J2	J1-J3	J1-J4		
		0	0	ON	OFF	OFF		
		0	1	OFF	ON	OFF		
		1	0	OFF	OFF	ON		
1	1	OFF	OFF	OFF				

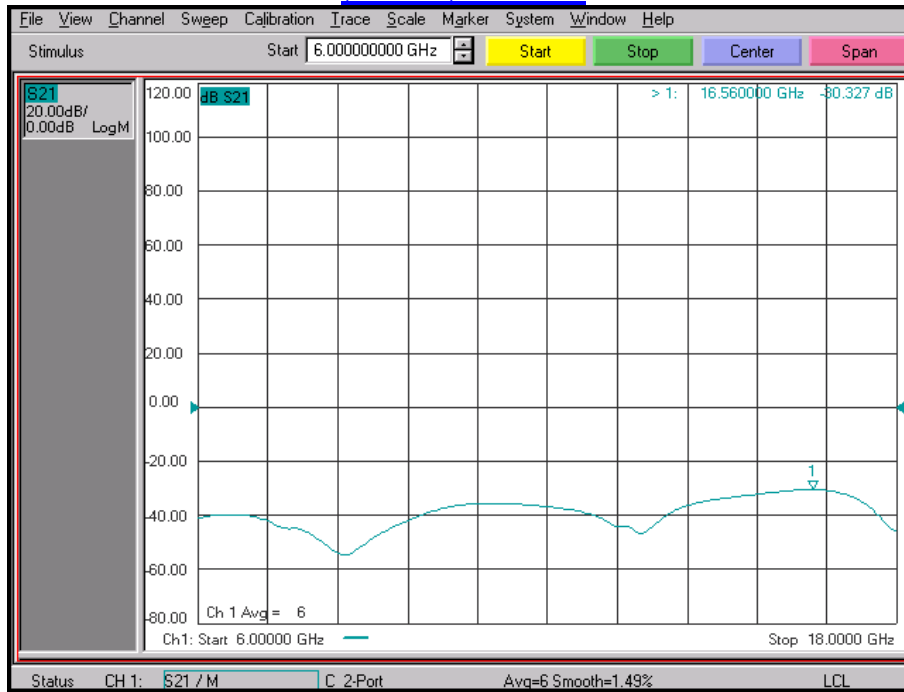


Typical Characteristics For P3T-500M26R5G-30-R-292FF-OPT618

(J1 – J2) Insertion Loss and Return Loss



(J1 – J2) Isolation

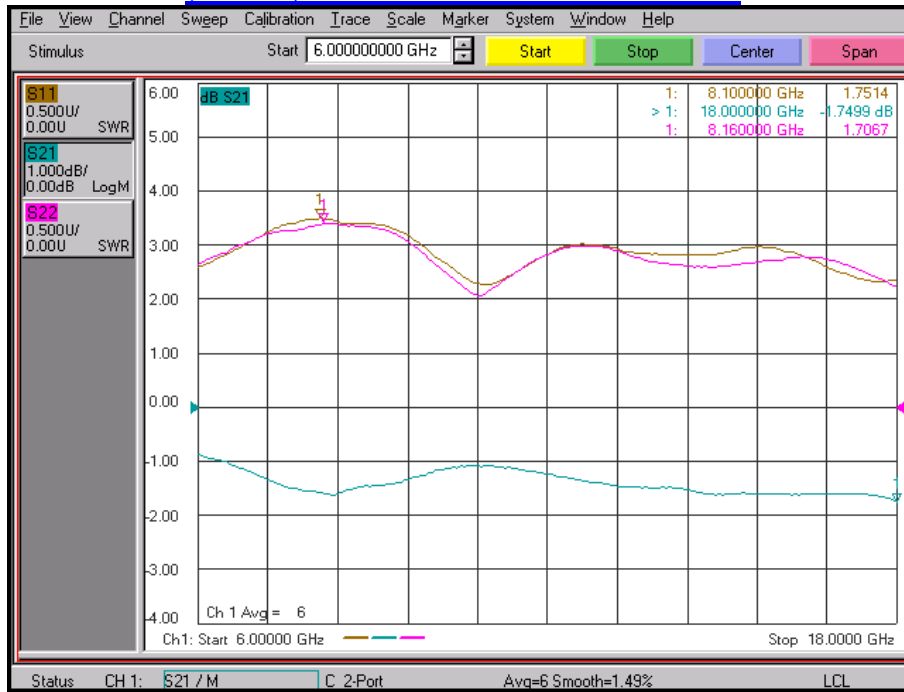


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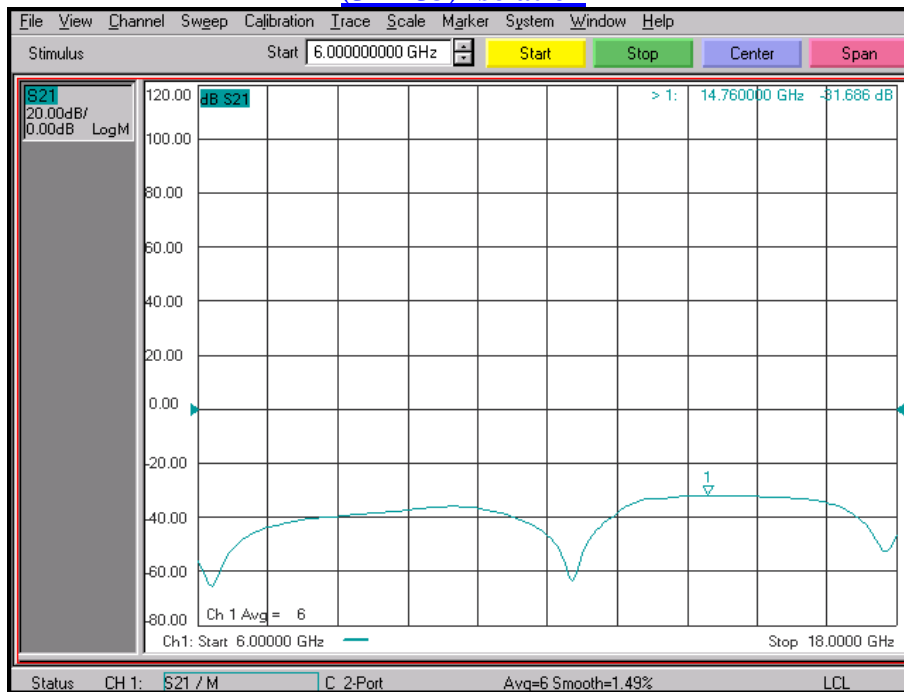


Typical Characteristics For P3T-500M26R5G-30-R-292FF-OPT618

(J1 – J3) Insertion Loss and Return Loss



(J1 – J3) Isolation

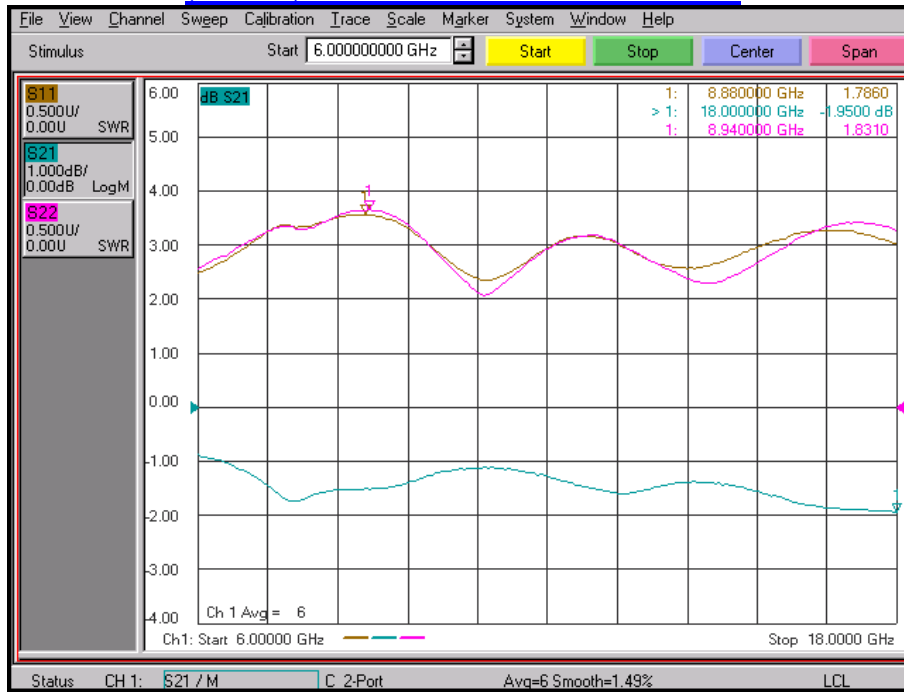


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Typical Characteristics For P3T-500M26R5G-30-R-292FF-OPT618

(J1 – J4) Insertion Loss and Return Loss



(J1 – J4) Isolation



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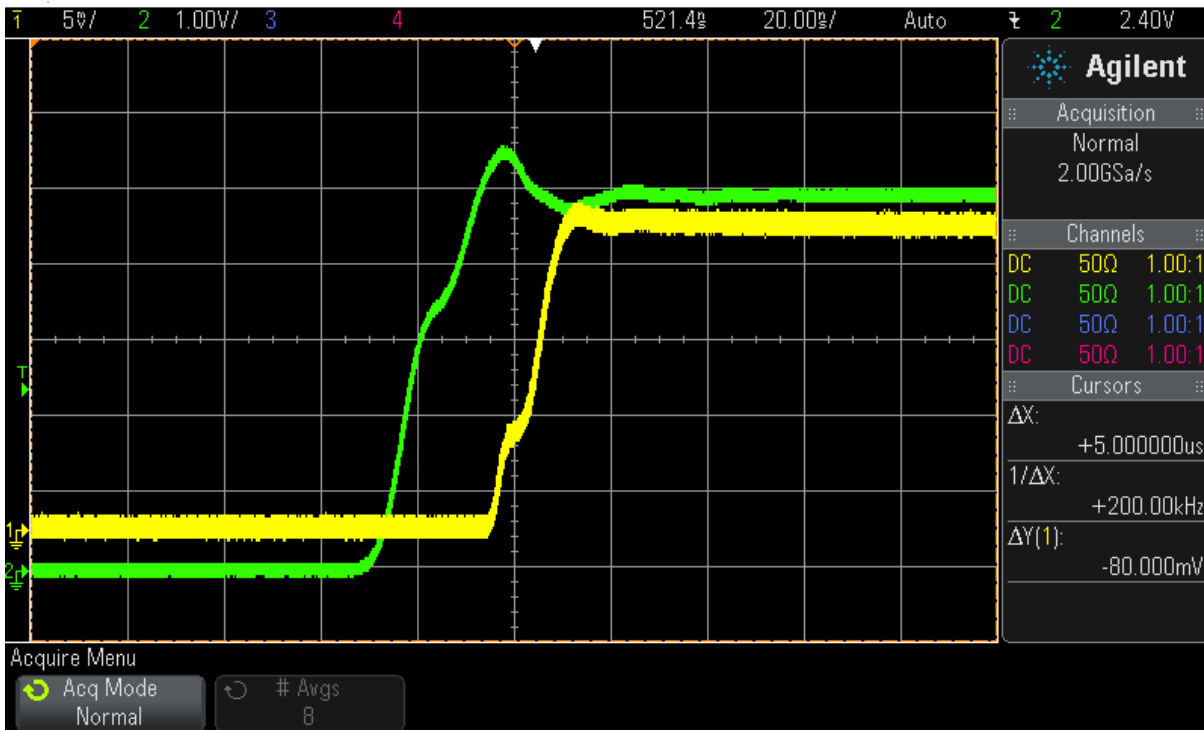
Typical Characteristics For P3T-500M26R5G-30-R-292FF-OPT618

Switching Speed (Delay ON – 20 ns per division)



Agilent Technologies

Thu Aug 01 04:54:41 2013



GREEN TRACE: TTL

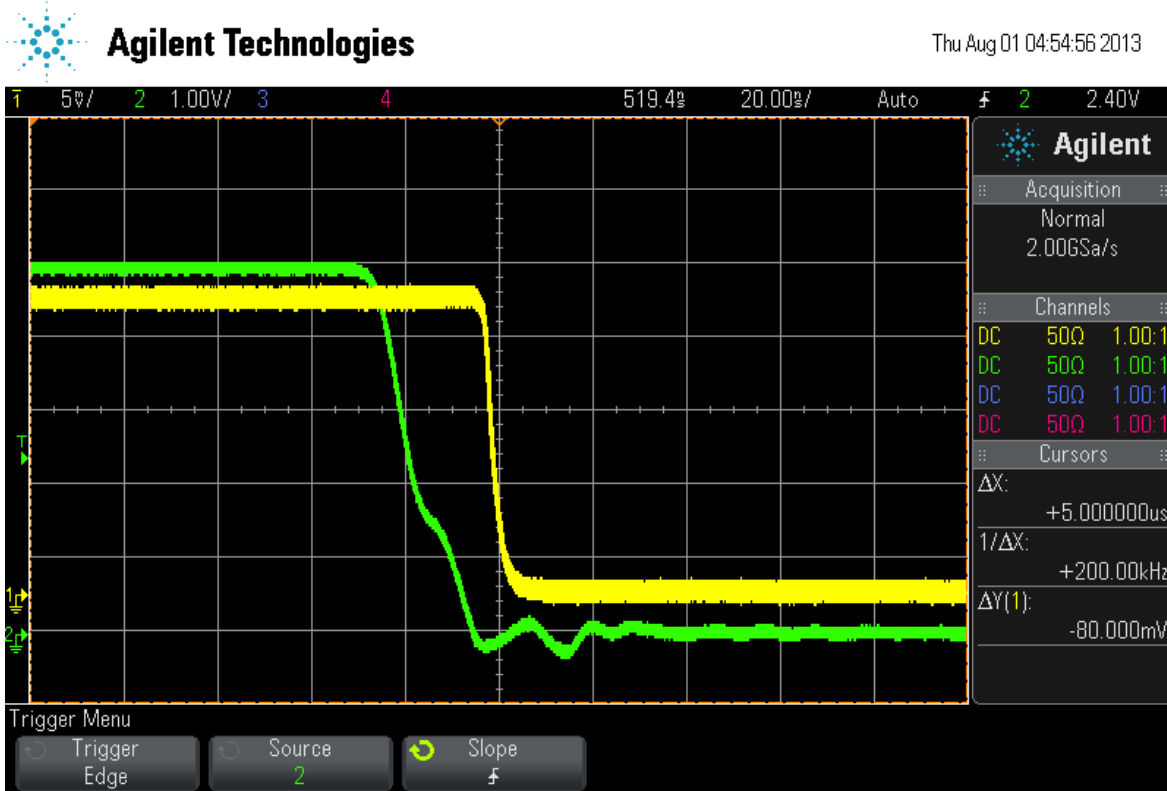
YELLOW TRACE: RF

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Typical Characteristics For P3T-500M26R5G-30-R-292FF-OPT618

Switching Speed (Delay OFF – 20 ns per division)



GREEN TRACE: TTL

YELLOW TRACE: RF