



**TYPICAL CHARACTERISTICS
ON
P2T-500M10G-60-R-515-SFF-10WCW**

**PMI MODEL: P2T-500M10G-60-R-515-SFF-10WCW IS A SINGLE POLE TWO
THROW REFLECTIVE SWITCH THAT OPERATES OVER THE 0.5 TO 10 GHz
FREQUENCY RANGE. THIS SWITCH HANDLES INPUT POWER OF 10
WATTS CW AND HAS A TYPICAL SWITCHING SPEED OF 100 ns.**



September 4, 2015

Designed By: PMI Engineering

**Tested & Reported By:
Kevin Mansfield**

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TYPICAL CHARACTERISTICS ON P2T-500M10G-60-R-515-SFF-10WCW

DESCRIPTION

PMI MODEL: P2T-500M10G-60-R-515-SFF-10WCW IS A SINGLE POLE TWO THROW REFLECTIVE SWITCH THAT OPERATES OVER THE 0.5 TO 10 GHz FREQUENCY RANGE. THIS SWITCH HANDLES INPUT POWER OF 10 WATTS CW AND HAS A TYPICAL SWITCHING SPEED OF 100 ns.

SPECIFICATIONS

- FREQUENCY RANGE: 0.5 GHz TO 10.0 GHz
- INSERTION LOSS: 2.5 dB MAXIMUM
- ISOLATION: 60 dB MINIMUM
- VSWR: 2.0:1 MAXIMUM
- SWITCHING SPEED: 100 ns TYPICAL (50% TTL TO 10%/90% RF)
- CONTROL LOGIC: SINGLE CONTROL TTL TOGGLE
LOGIC "0" = J1-J2 ON
LOGIC "1" = J1-J3 ON
- RF CONNECTORS: SMA FEMALE (3X)
- POWER SUPPLY: +5 V @ 100 mA MAXIMUM
-15 V @ 75 mA MAXIMUM
- RF POWER (OPERATING): 10 WATTS CW MAXIMUM
- SIZE: 1.2" (L) X 1.00" (W) X 0.50" (H)
- FINISH: BLUE EPOXY POLIMIDE COATING
IAW MIL-C-22750, TYPE I OVER
EPOXY POLIMIDE PRIMER IAW
MIL-P-23377, TYPE I,
CLASS 1 OR 3.

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
	1	ORIGINAL RELEASE	02/11/16	

MECHANICAL OUTLINE

PLANAR MONOLITHICS INDUSTRIES, INC.
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ISO 9001 CERTIFIED

<small>APPROVALS</small>	<small>DATE</small>	<small>TITLE</small>	
<i>M. Berry</i>	02/11/16	PRODUCT FEATURE P2T-500M10G-60-R-515-SFF-10WCW	
<small>CHECKED</small>		<small>SIZE</small>	<small>DWG NO.</small>
		A	05XQ0
<small>ISSUED</small>		<small>SCALE</small>	<small>SHEET</small>
		N:S	1 OF 1

ALL DIMENSIONS ARE IN INCHES
TOLERANCES:
XXX ±0.020
XXX ±0.010

PMI CONFIDENTIAL AND PROPRIETARY.



**TYPICAL CHARACTERISTICS
ON
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TEST. ITEM NO	PARAMETERS	SPECIFIED VALUE	TEST RESULTS	QA QC
1	Frequency Range	0.5 GHz to 10.0 GHz	0.5 GHz to 10.0 GHz	
2	Insertion Loss	2.5 dB Maximum	1.15 dB (See Plot)	
3	Isolation	60 dB Minimum	88 dB (See Plot)	
4	VSWR	2.0:1 Maximum	1.6:1 (See Plot)	
5	Switching Speed	100 ns Typical (50% TTL TO 10%/90% RF)	86 ns (See Plot)	
6	Power Supply	+5 V @ 100 mA Maximum -15 V @ 75 mA Maximum	38 mA 43 mA	
7	RF Power	10 Watts CW Maximum	Pass (See Plot)	



TYPICAL CHARACTERISTICS ON P2T-500M10G-60-R-515-SFF-10WCW

Insertion Loss and Return Loss J1 - J2



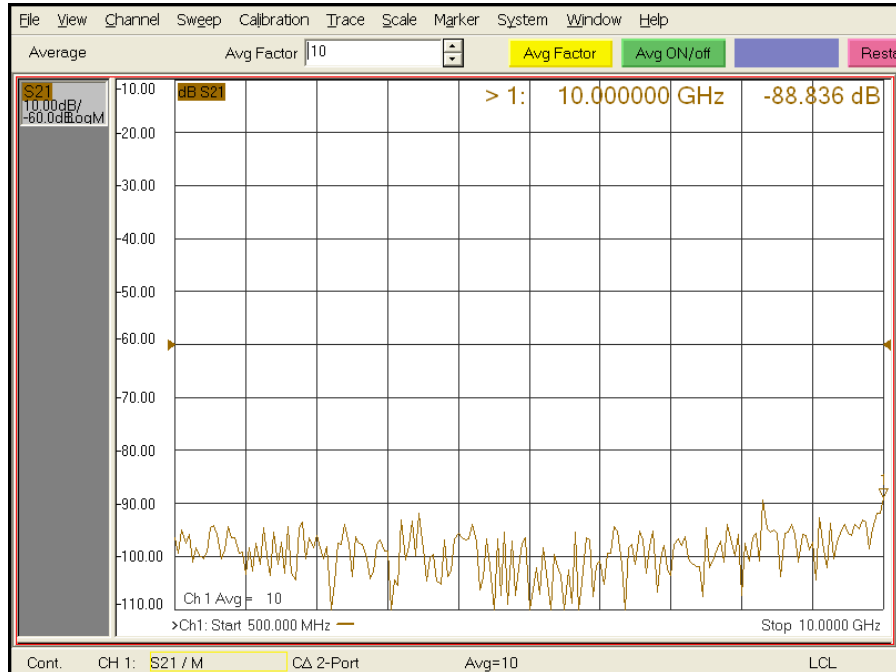
Insertion Loss and Return Loss J1 - J3



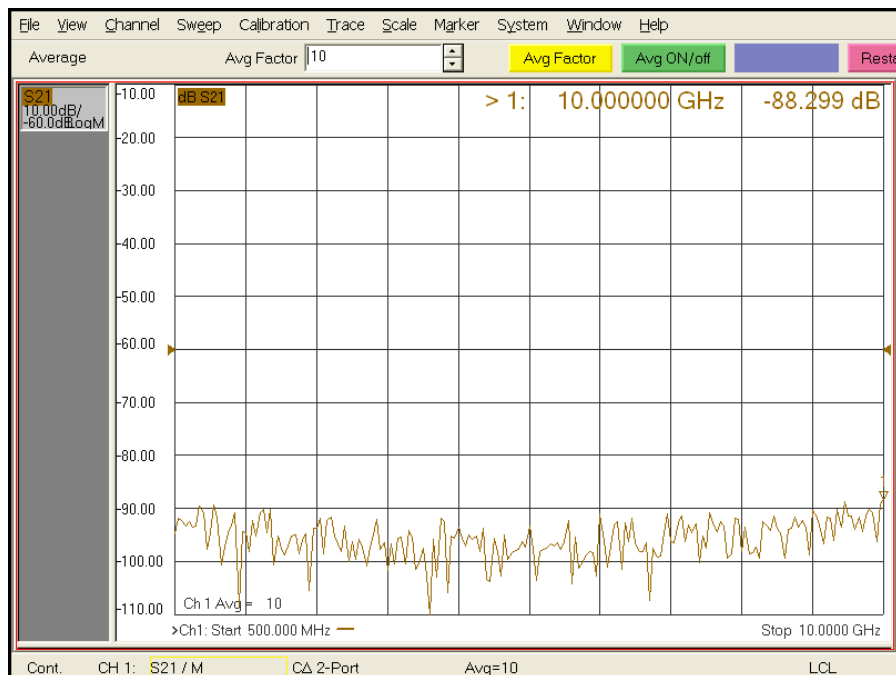


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Isolation J1 – J2



Isolation J1 - J3

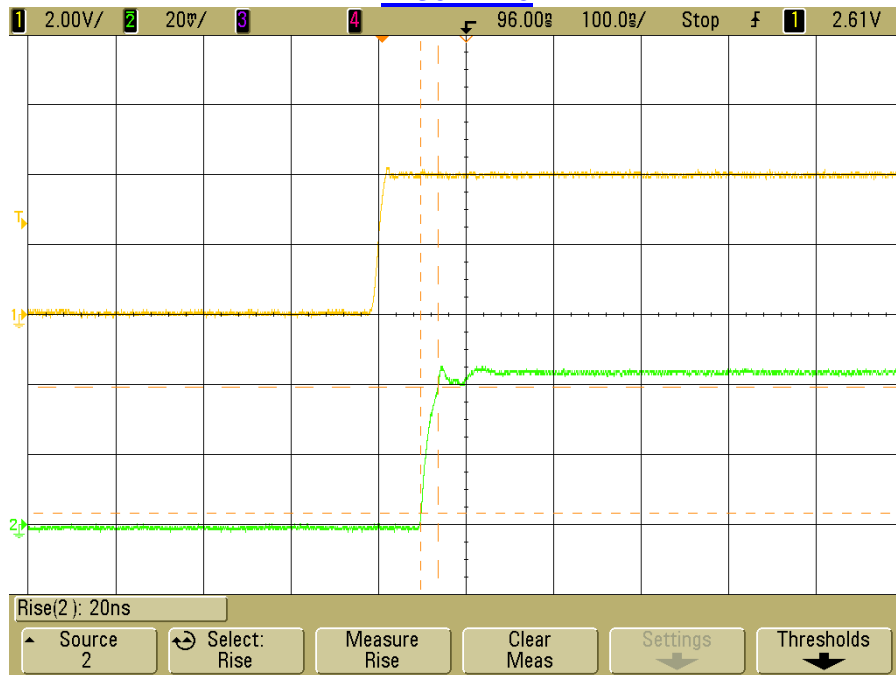




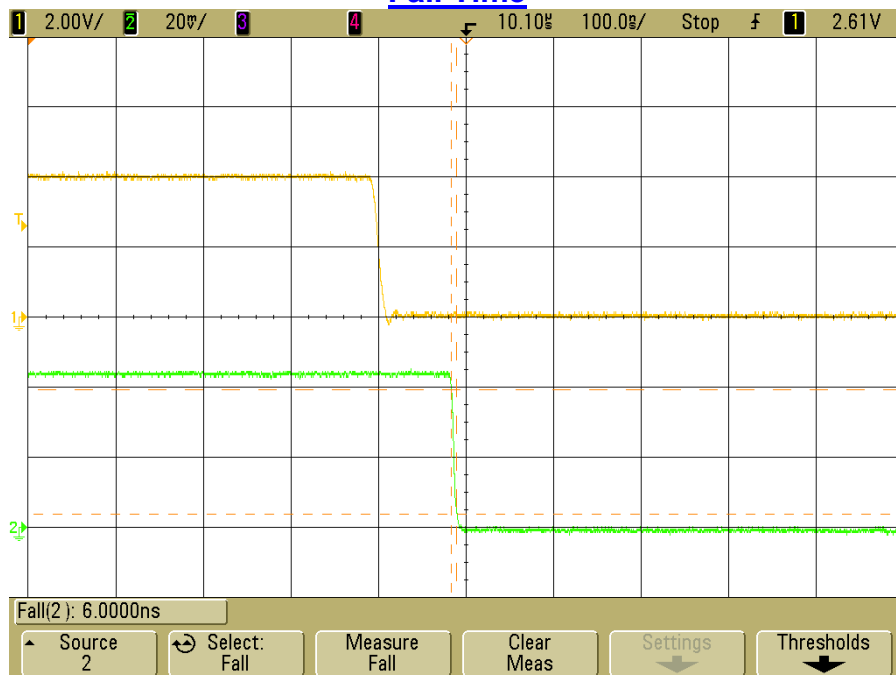
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Switching Speed

Rise Time



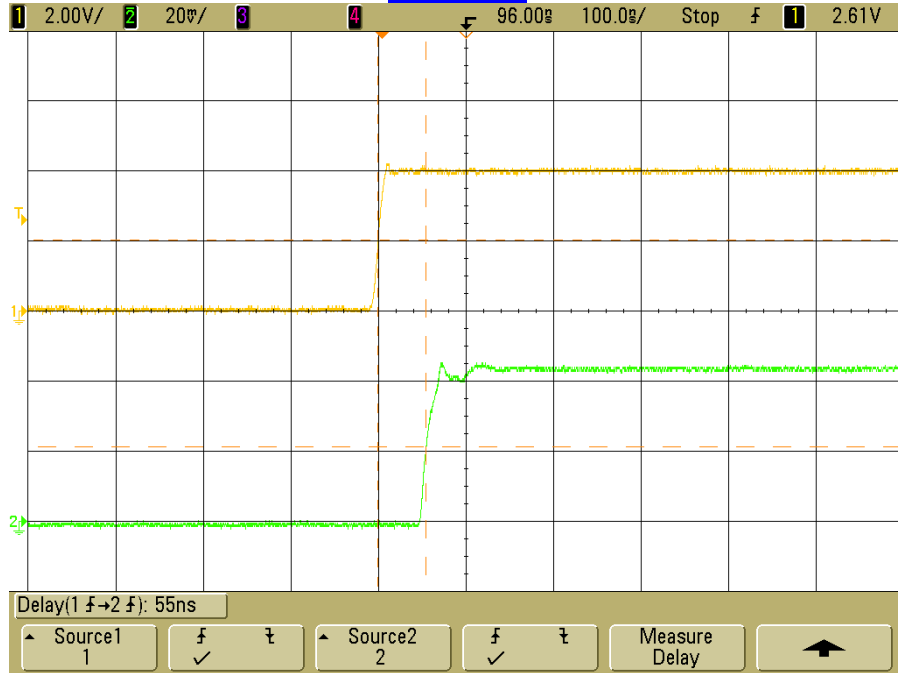
Fall Time



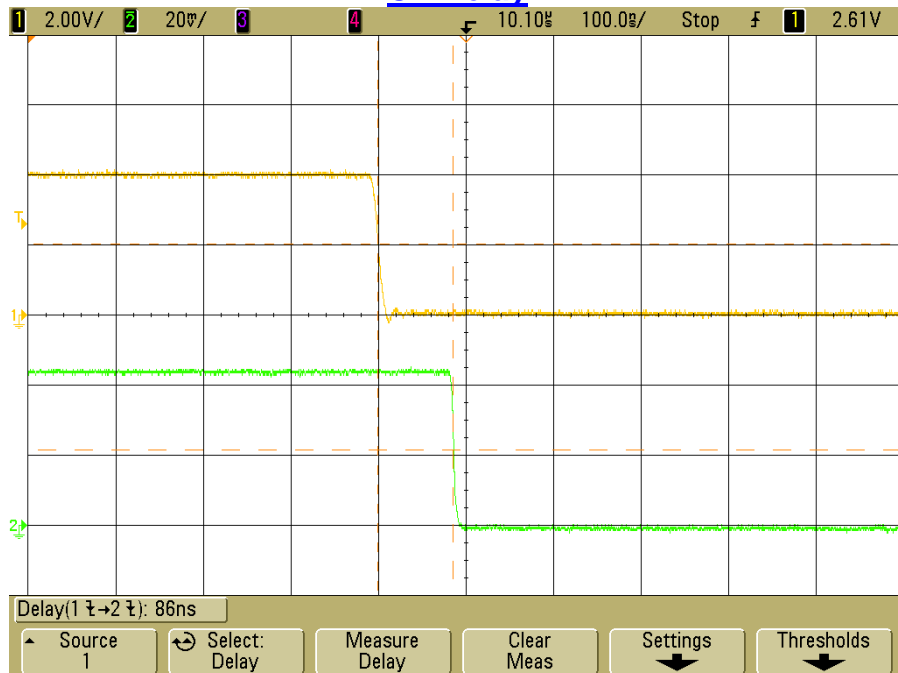


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On Delay



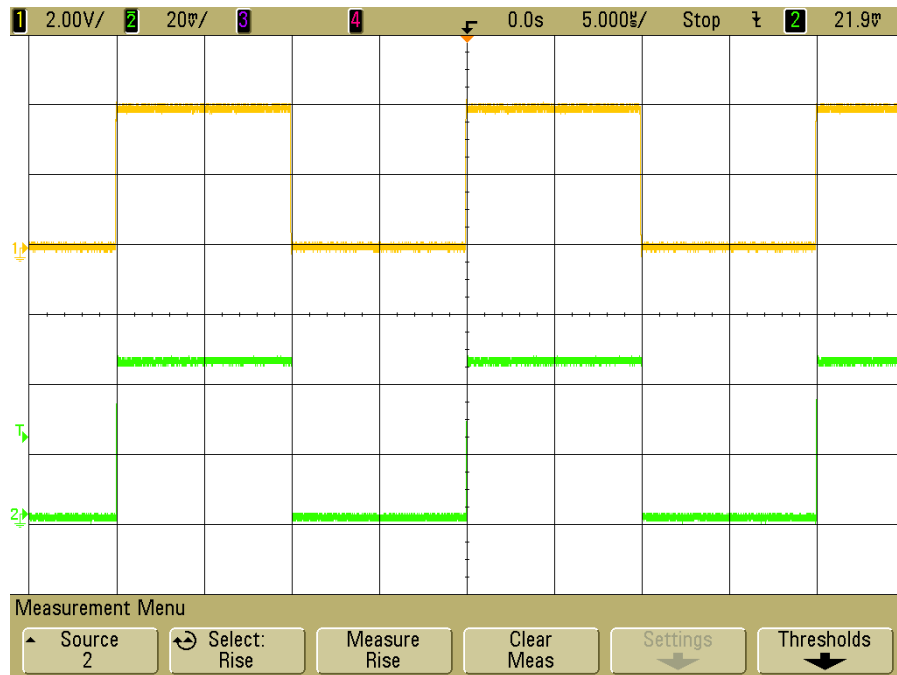
Off Delay





**TYPICAL CHARACTERISTICS
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Full Pulse



Yellow: TTL switch input E1
Green: RF Signal



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Power Graph

