



Typical Characteristics on P4T-1G18G-70-T-SFF

PMI MODEL P4T-1G18G-70-T-SFF IS AN ABSORPTIVE, HIGH SPEED, SINGLE POLE, FOUR THROW SWITCH CAPABLE OF SWITCHING WITHIN 100 ns MAXIMUM. THE FREQUENCY RANGE IS 1.0 GHz TO 18.0 GHz. THIS SWITCH HAS > 70 dB ISOLATION.



May 12, 2016
Designed by: PMI Engineering
Reported by: Kevin Mansfield



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REVISIONS			
DATE	REV	DESCRIPTION	APPROVED
	1	ORIGINAL RELEASE	07/16/93

DESCRIPTION
 PMI MODEL P4T-1G18G-70-T-SFF IS AN ABSORPTIVE, HIGH SPEED, SINGLE POLE FOUR THROW SWITCH CAPABLE OF SWITCHING WITHIN 100 ns MAXIMUM. THE FREQUENCY RANGE IS 1.0 GHz TO 18.0 GHz. THIS SWITCH HAS > 70 dB ISOLATION.

MECHANICAL OUTLINE

SPECIFICATIONS

- FREQUENCY RANGE: 1.0 GHz TO 18.0 GHz
- IMPEDANCE: 50 Ω
- INPUT POWER: +30dBm MAX (SURVIVAL)
+20dBm MAX (OPERATING)
- VSWR: 2.0:1 MAX
- INSERTION LOSS: 3.75dB MAX
- ISOLATION: 70dB MIN
- SWITCHING SPEED: 100ns MAX
- DC VOLTAGE: +5VDC, 200mA TYP.
-15VDC, 100mA TYP.
- CONTROLS: SOLDER PIN
TTL Logic "0" = Low Loss
TTL Logic "1" = Isolation
E1 Controls J1 - J2
E2 Controls J1 - J3
E3 Controls J1 - J4
E4 Controls J1 - J5
- CONNECTORS IN/OUT: SMA (F)
- SIZE: (L) 1.25" X (W) 1.25" X (H) 0.4"
- FINISH: BLUE EPOXY POLIMIDE COATING IAW MIL-C-22759, 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 TEMPERATURES.
 NOTE: THE ABOVE SPECIFICATIONS ARE SUBJECT TO CHANGE OR REVISION.

PMI CONFIDENTIAL AND PROPRIETARY

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 ISO 9001 CERTIFIED

APPROVALS		DATE	TITLE	
DRAWN: <i>B. Thomas</i>		07/16/93	PRODUCT FEATURE P4T-1G18G-70-T-SFF	
CHECKED:			SUA FROM NO: A	ENGR NO: 27026781
ISSUED:			SCALE: N:S	SHEET 1 OF 1

ALL DIMENSIONS ARE IN INCHES
 TOLERANCES:
 XXX .0100
 XXXX .012

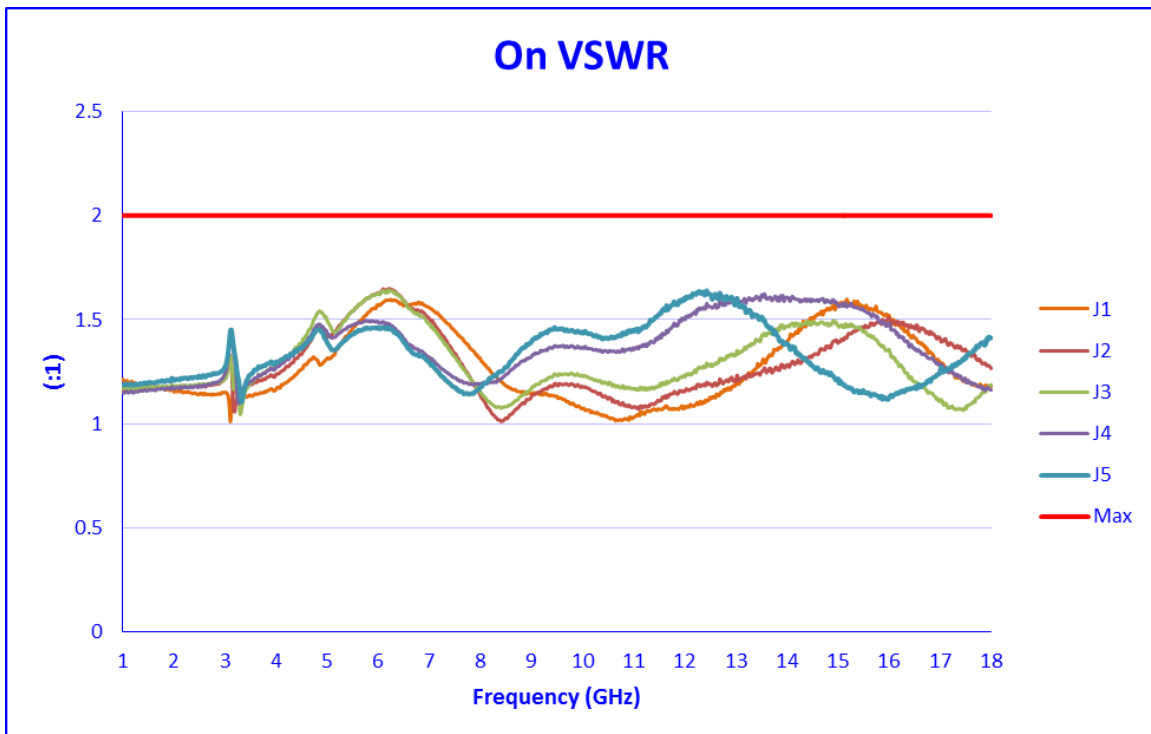
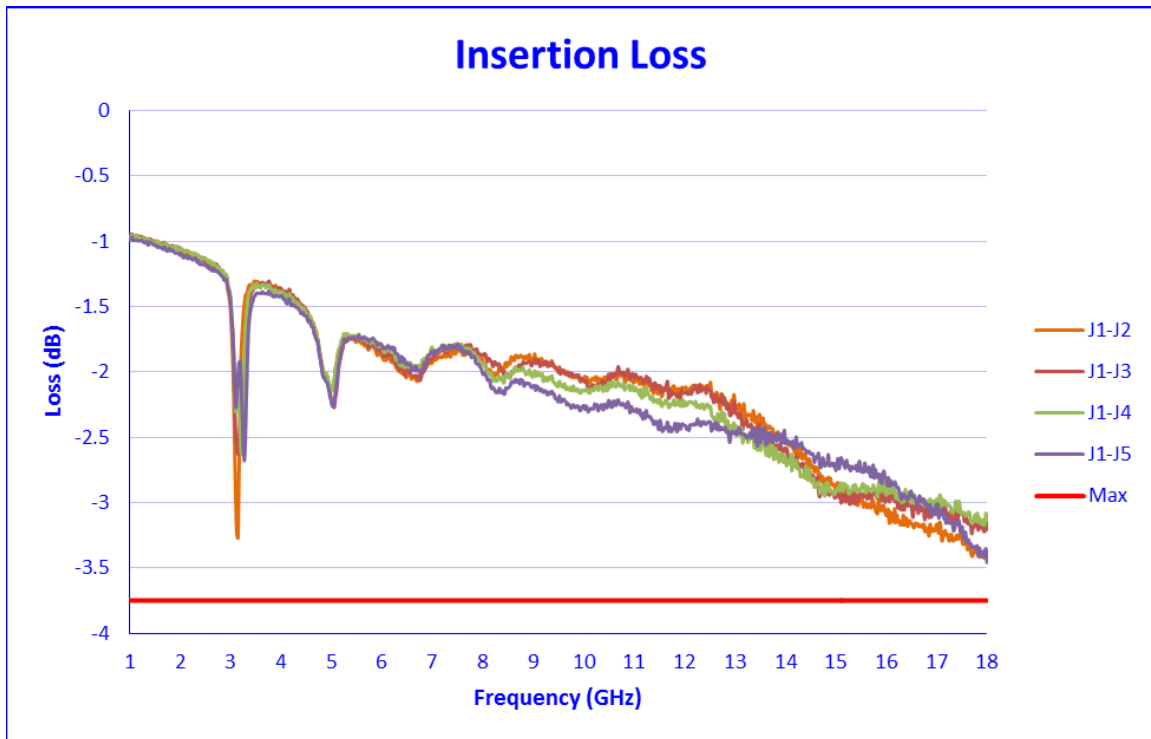


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TEST. ITEM NO	PARAMETERS	SPECIFIED VALUE	TEST RESULTS	QA QC
1	Frequency Range	1.0 TO 18.0 GHz	1.0 TO 18.0 GHz	
2	Insertion Loss	3.75 dB Max	3.46 dB (See Plot)	
3	VSWR	2.0:1 Max	1.7:1 (See Plot)	
4	Isolation	70 dB Min	71 dB (See Plot)	
5	Switching Speed	100 ns Max	52 ns (See Plot)	
6	Input Power	+30dBm Max (Survival) +20dBm Max (Operating)	Pass	
7	DC Supply	+5VDC @ 200 mA Typ -15VDC @ 100 mA Typ	112 mA 54 mA	
8	Control Signal	TTL LOGIC "0" = LOW LOSS TTL LOGIC "1" = ISOLATION E1 CONTROLS J1-J2 E2 CONTROLS J1-J3 E3 CONTROLS J1-J4 E4 CONTROLS J1-J5	Pass	

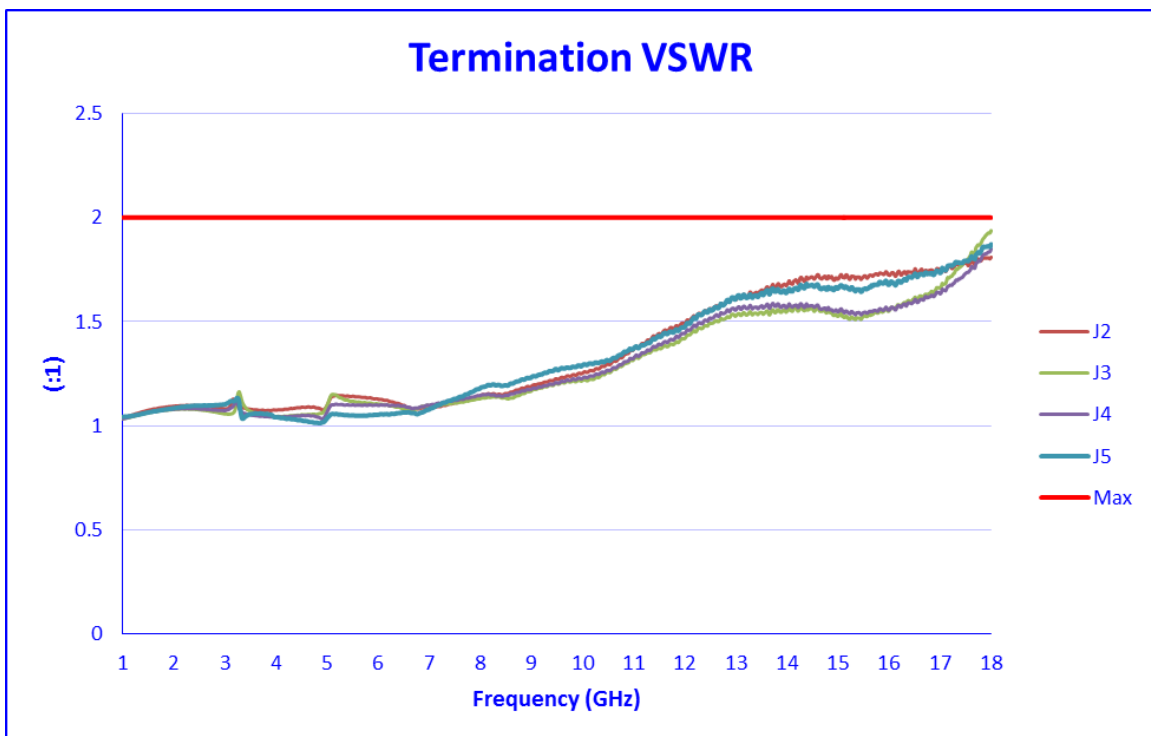
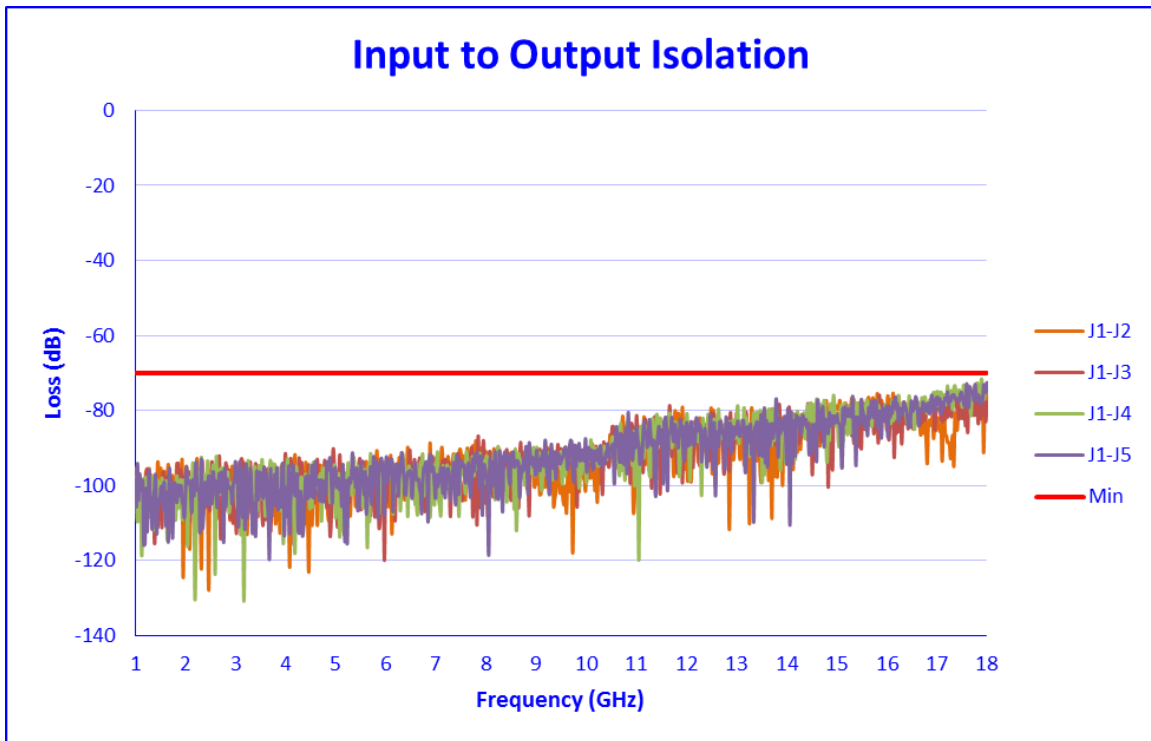


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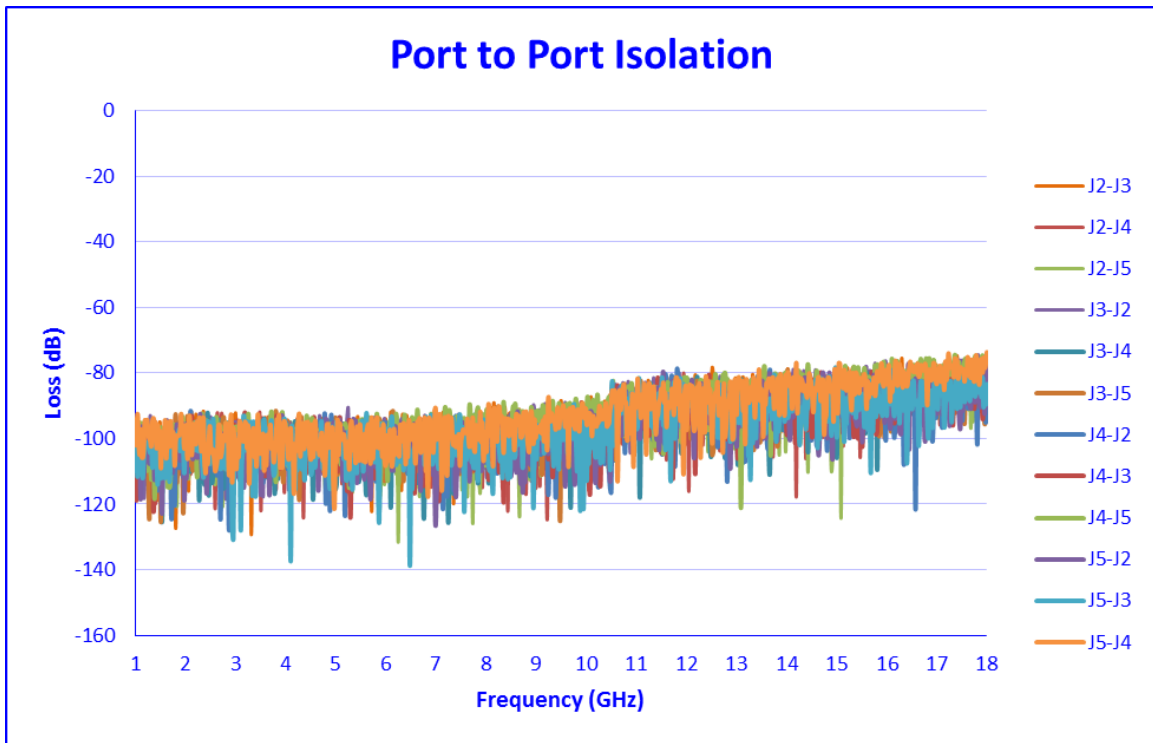


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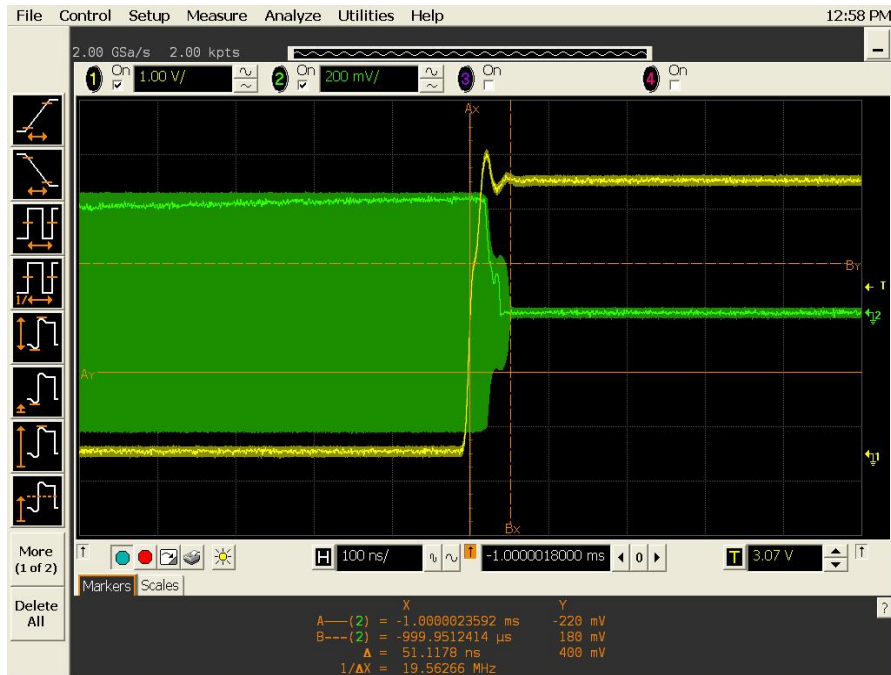
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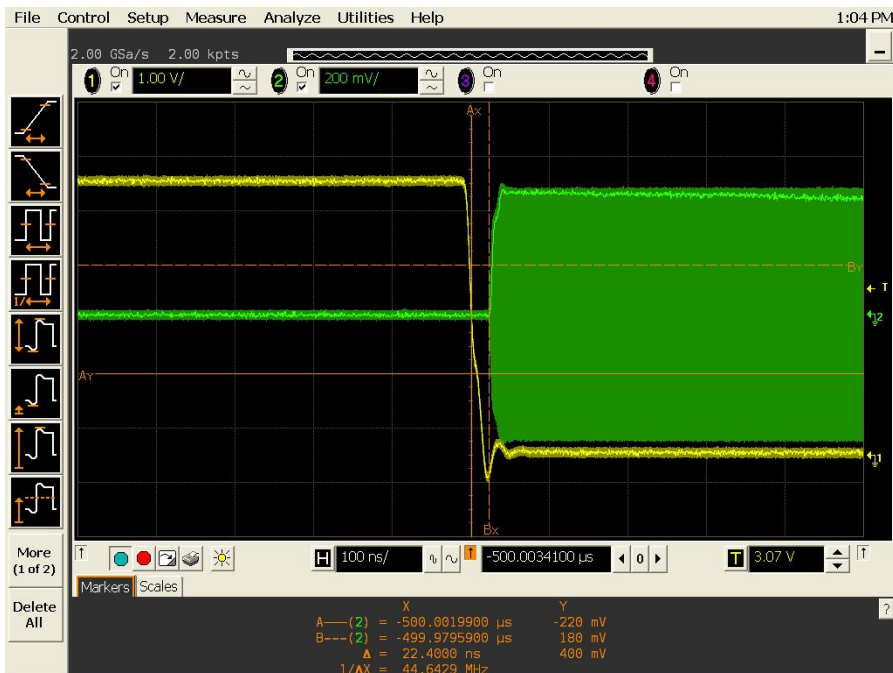
Switching Speed (Off)



Yellow Trace = TTL Control

Green Trace = RF Response From Crystal Detector

Switching Speed (On)



Yellow Trace = TTL Control

Green Trace = RF Response From Crystal Detector