



**TYPICAL CHARACTERISTICS
ON
P5T-0R5G18G-60-T-SFF**

**PMI MODEL P5T-0R5G18G-60-T-SFF IS A SINGLE POLE, FIVE THROW
NON-REFLECTIVE SWITCH DESIGNED TO OPERATE OVER THE 0.5GHZ
TO 18.0 GHZ FREQUENCY RANGE. THIS MODEL IS CAPABLE OF
SWITCHING WITHIN 100 NSEC AND HAS OVER 60 dB OF ISOLATION.**



OCTOBER 15, 2018

DESIGNED BY: PMI ENGINEERING

TESTED & REPORTED BY: E. KRETZ



**TYPICAL CHARACTERISTICS
ON
P5T-0R5G18G-60-T-SFF**

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OUTLINE DRAWING

DESCRIPTION:

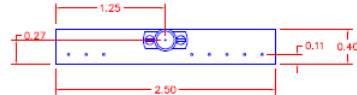
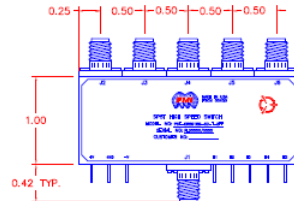
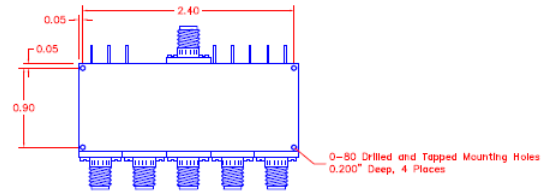
PMI MODEL NUMBER P5T-0R5G18G-60-T-SFF IS A SINGLE POLE, FIVE THROW NON-REFLECTIVE SWITCH DESIGNED TO OPERATE OVER THE 0.5GHZ TO 18.0GHZ FREQUENCY RANGE. THIS MODEL IS CAPABLE OF SWITCHING WITHIN 100 NSEC AND HAS OVER 60 dB OF ISOLATION.

SPECIFICATIONS:

- FREQUENCY: _____ 0.5 GHz TO 18.0 GHz
- ISOLATION: _____ 60 dB MINIMUM
- INSERTION LOSS: _____ 4.0 dB MAXIMUM
- VSWR IN/OUT: _____ 2.0:1 MAXIMUM
- OPERATING INPUT POWER: _____ +20 dBm CW
- SWITCHING SPEED: _____ 100 nsec MAXIMUM
- CONTROL SIGNAL: _____ 5 LINE TTL
- DC VOLTAGE & CURRENT: _____ +5 VDC @ 250 mA
_____ -12 VDC @ 100 mA
- RF CONNECTORS: _____ SMA FEMALE CONNECTORS
- DC CONNECTORS: _____ SOLDER PINS
- FINISH: _____ PAINTED BLUE

TTL LOGIC "1" = LOW LOSS	
TTL LOGIC "0" = ISOLATION	
E1	J1-J2
E2	J1-J3
E3	J1-J4
E4	J1-J5
E5	J1-J6

REVISIONS				
ZONE	REV.	DESCRIPTION	DATE	APPROVED
	A1	ORIGINAL RELEASE	05/23/18	
	A2	ECN #23-0062	03/23/23	
	A3	ECN #24-0104	04/15/24	



PMI CONFIDENTIAL AND PROPRIETARY

ENVIRONMENTAL RATINGS:

- TEMPERATURE: _____ -54 °C TO +95 °C (OPERATING)
_____ -65 °C TO +125 °C (STORAGE)
- HUMIDITY: _____ MIL-STD-202F, METHOD 103B COND. B
- SHOCK: _____ MIL-STD-202F, METHOD 213B COND. C
- VIBRATION: _____ MIL-STD-202F, METHOD 204B COND. B
- ALTITUDE: _____ MIL-STD-202F, METHOD 105B COND. B
- TEMPERATURE CYCLE: _____ MIL-STD-202F, METHOD 107B COND. A

NOTE: THE ABOVE SPECIFICATIONS ARE SUBJECT TO CHANGE OR REVISION

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

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ISO 9001 CERTIFIED



APPROVALS		DATE	TITLE	
DRAWN: <i>EMF</i>		08/10/15	PRODUCT FEATURE	
REDRAWN: <i>NFA</i>		05/23/18	P5T-0R5G18G-60-T-SFF	
ISSUED:	SCALE: N/S	SHEET	27035101	REV: A3
		1 OF 1		



**TYPICAL CHARACTERISTICS
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TEST DATA SUMMARY

TEST. ITEM NO	PARAMETERS	SPECIFIED VALUE	TEST RESULTS	QA QC
1	Frequency Range	0.5 TO 18.0 GHz	0.5 TO 18.0 GHz	
2	Insertion Loss	4 dB Max	3.86 dB (See Plots)	
3	VSWR	2.0:1 Max	1.95 :1 (See Plots)	
4	Isolation	60 dB Min	71.28 dB (See Plots)	
5	Switching Speed	100 ns Max	66 ns (See Plots)	
6	Input Power	+20 dBm CW	Pass (See Graph)	
7	DC Supply	+5VDC @ 250 mA Typ -12VDC @ 100 mA Typ	+5VDC @ 140 mA -12VDC @ 23 mA	
8	Control Signal	TTL LOGIC "1" = LOW LOSS TTL LOGIC "0" = ISOLATION E1 CONTROLS J1-J2 E2 CONTROLS J1-J3 E3 CONTROLS J1-J4 E4 CONTROLS J1-J5 E5 CONTROLS J1-J6	Pass	



**TYPICAL CHARACTERISTICS
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(J1 – J2) Insertion Loss and Return Loss



(J1 – J2) Isolation and Termination Return Loss





TYPICAL CHARACTERISTICS ON P5T-0R5G18G-60-T-SFF

(J1 – J3) Insertion Loss and Return Loss



(J1 – J3) Isolation and Termination Return Loss





TYPICAL CHARACTERISTICS ON P5T-0R5G18G-60-T-SFF

(J1 – J4) Insertion Loss and Return Loss



(J1 – J4) Isolation and Termination Return Loss





**TYPICAL CHARACTERISTICS
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(J1 – J5) Insertion Loss and Return Loss



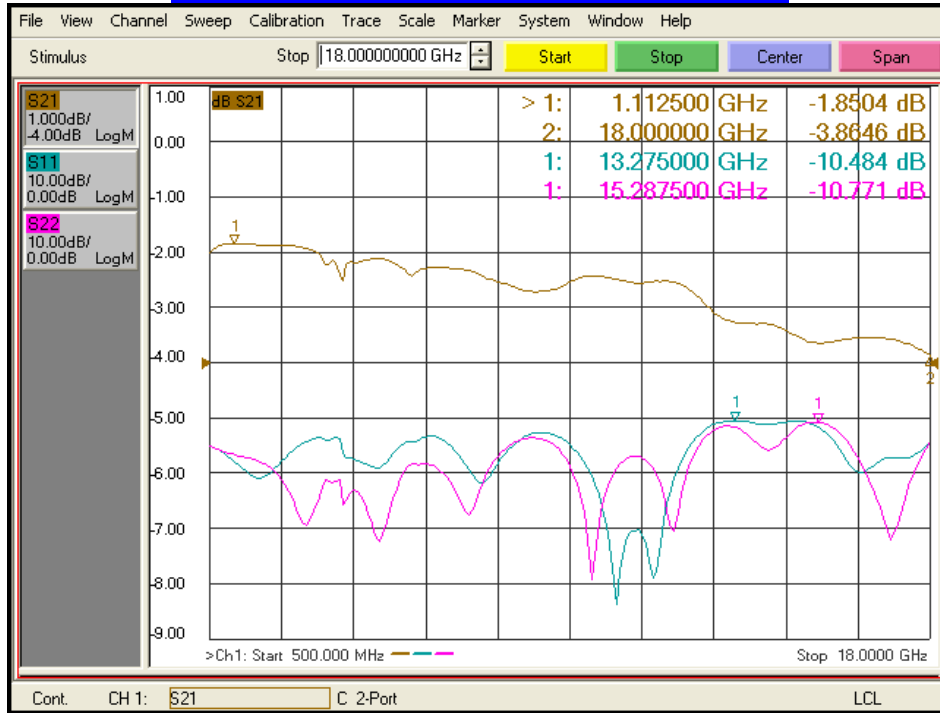
(J1 – J5) Isolation and Termination Return Loss



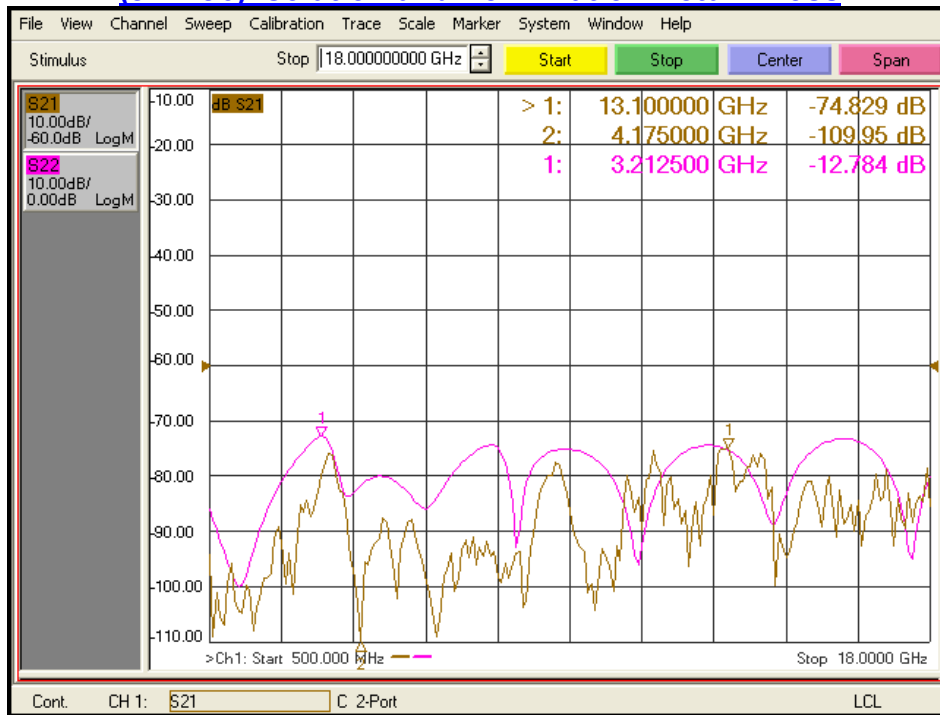


TYPICAL CHARACTERISTICS ON P5T-0R5G18G-60-T-SFF

(J1 – J6) Insertion Loss and Return Loss



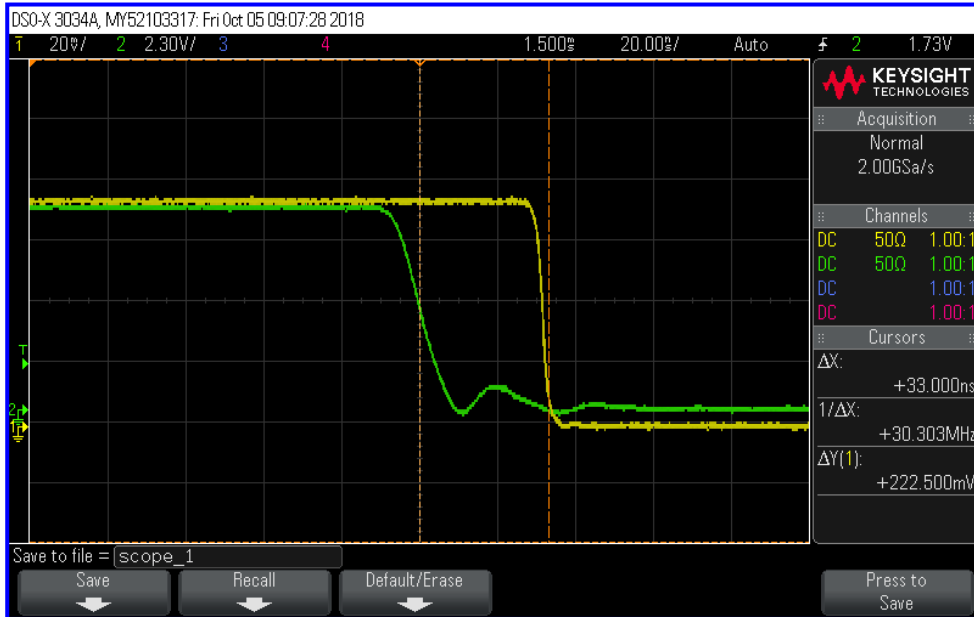
(J1 – J6) Isolation and Termination Return Loss



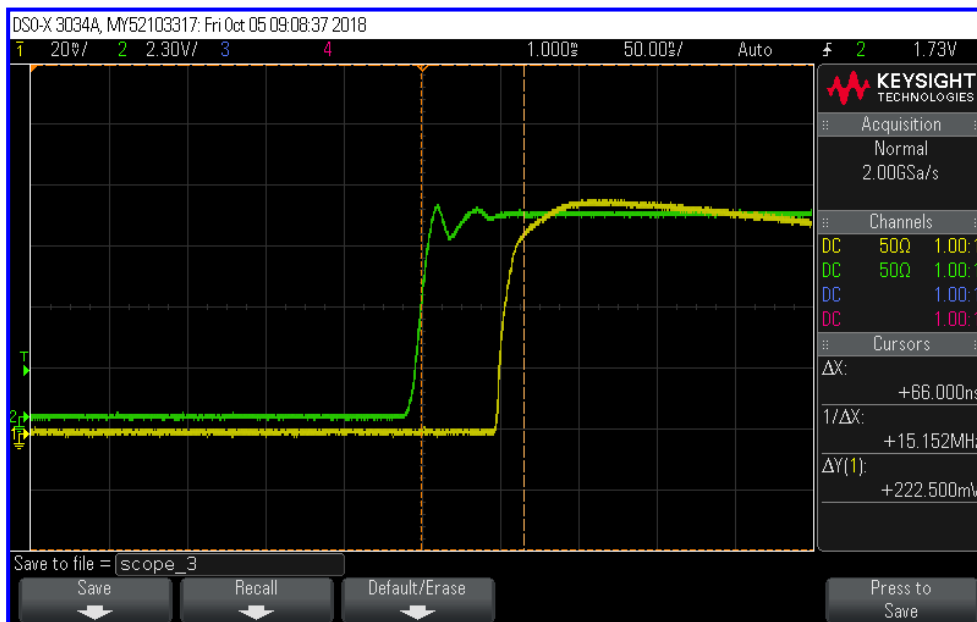


TYPICAL CHARACTERISTICS ON P5T-0R5G18G-60-T-SFF

Switching Speed OFF (20 ns. Per Div.)



Switching Speed ON (50 ns. Per Div.)

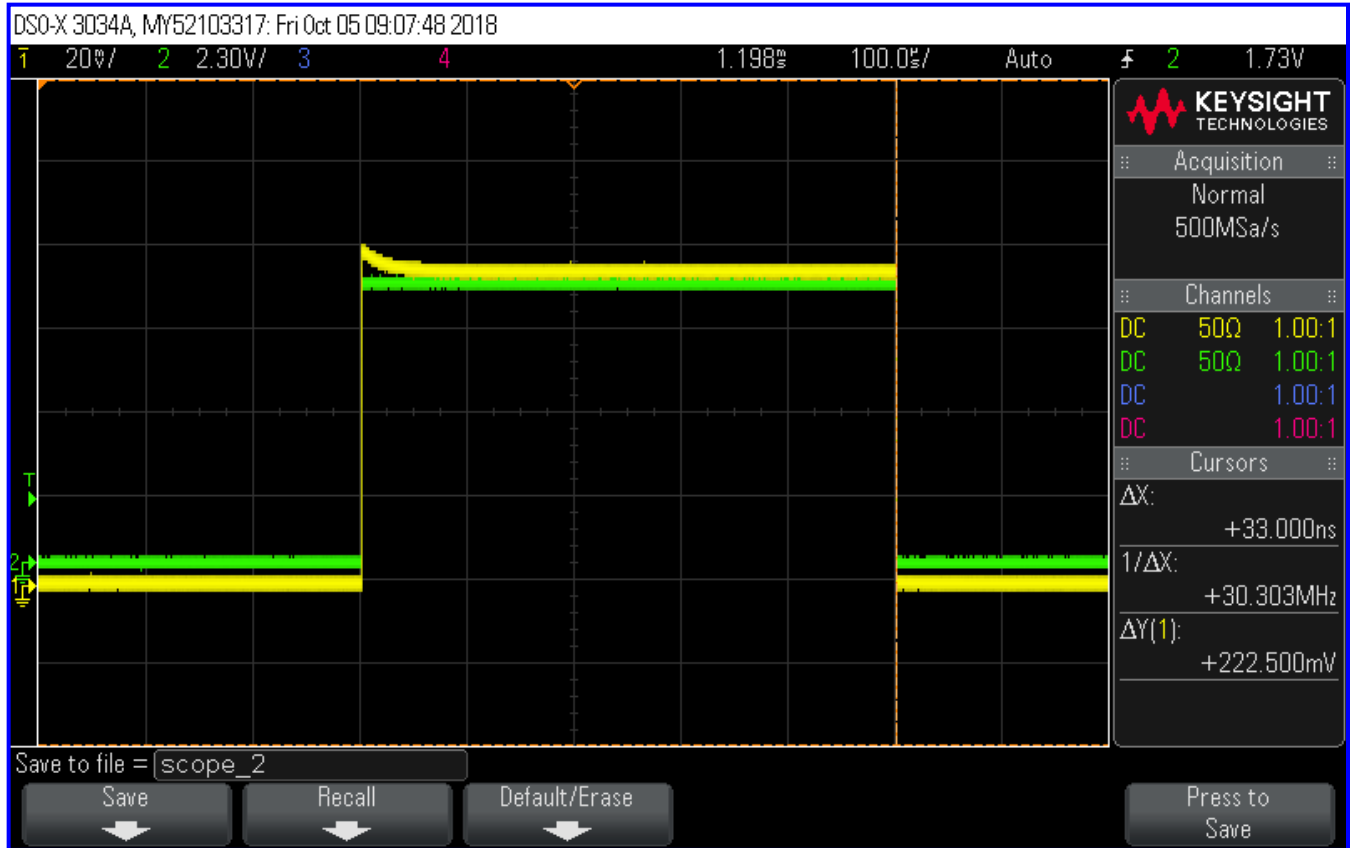


Green trace: TTL
Yellow trace: RF



**TYPICAL CHARACTERISTICS
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**FULL PULSE
(100 us Per. Div.)**



Green trace: TTL
Yellow trace: RF



**TYPICAL CHARACTERISTICS
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High Power Test.

