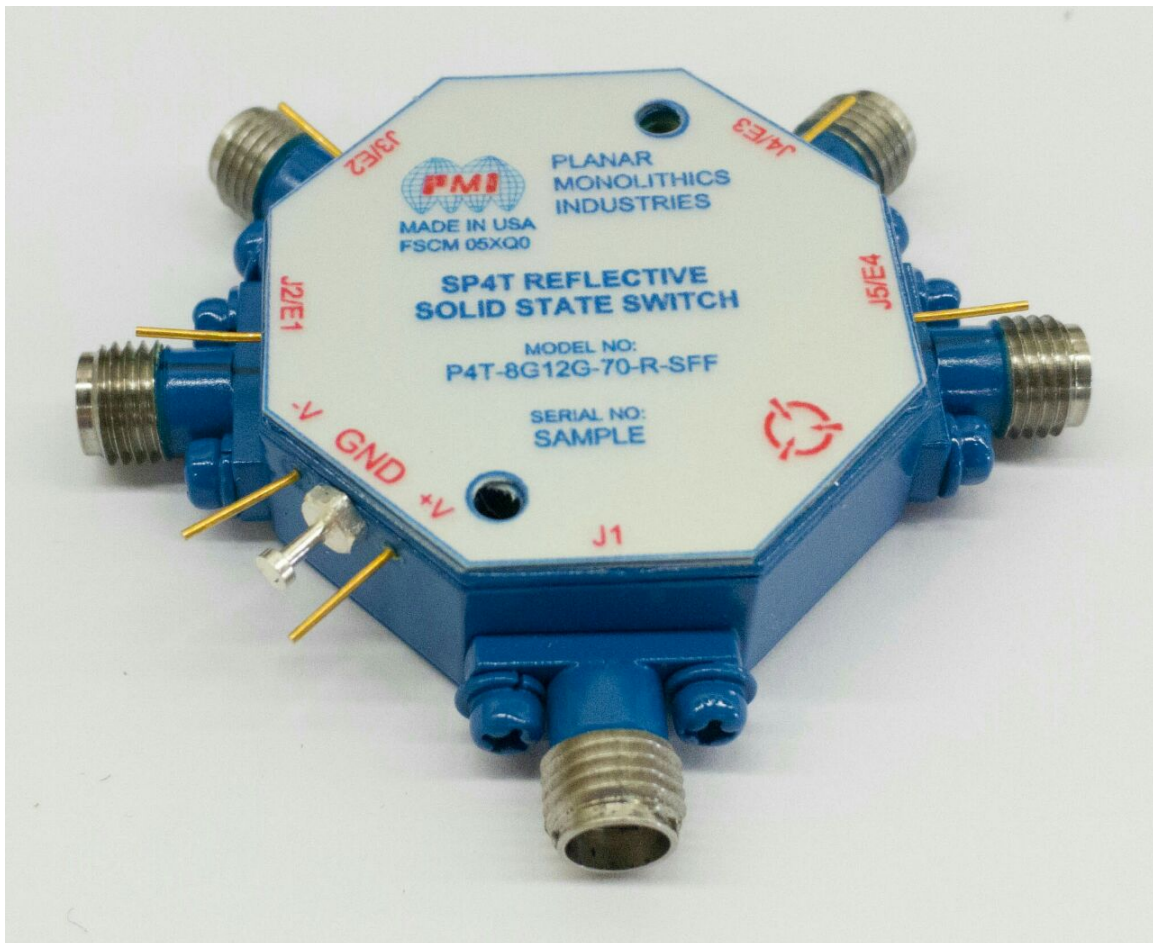




**TYPICAL CHARACTERISTICS
ON
P4T-8G12G-70-R-SFF**

PMI MODEL P4T-8G12G-70-R-SFF IS A REFLECTIVE, HIGH SPEED, SINGLE POLE FOUR THROW SWITCH CAPABLE OF SWITCHING WITHIN 100ns MAXIMUM. THE FREQUENCY RANGE IS 8.0GHz TO 12.0GHz. THIS SWITCH HAS > 70dB ISOLATION



APRIL, 01, 2016

DESIGNED BY: PMI ENGINEERING

TESTED & REPORTED BY: CHRISTOPHER BENJAMINS



**TYPICAL CHARACTERISTICS
ON
P4T-8G12G-70-R-SFF**

TABLE OF CONTENTS

Outline Drawing..... Page 3

Summary Test Data.....Page 4

S-Parameter Data Insertion Loss and Return Loss..... Page 5

S-Parameter Data Isolation and Termination Return Loss.

Switching Speed..... Page 9



TYPICAL CHARACTERISTICS ON P4T-8G12G-70-R-SFF

OUTLINE DRAWING

DESCRIPTION

PMI MODEL P4T-8G12G-70-R-SFF IS A REFLECTIVE, HIGH SPEED, SINGLE POLE FOUR THROW SWITCH CAPABLE OF SWITCHING WITHIN 100 ns MAXIMUM. THE FREQUENCY RANGE IS 8.0 GHz TO 12.0 GHz. THIS SWITCH HAS > 70 dB ISOLATION.

SPECIFICATIONS

- FREQUENCY RANGE: 8.0 GHz TO 12.0 GHz
- IMPEDANCE: 50 Ω
- INPUT POWER: +30dBm MAX (SURVIVAL)
+20dBm MAX (OPERATING)
- VSWR: 1.8:1 TYP
- INSERTION LOSS: 2.2dB TYP
- ISOLATION: 70dB MIN
- SWITCHING SPEED: 100ns MAX
- DC VOLTAGE: +5VDC, 200mA TYP
-15VDC, 75mA TYP
- CONTROL: 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 1AW
MIL-C-22750, TYPE I OVER EPOXY
POLIMIDE PRIMER 1AW MIL-P-23377,
TYPE I, CLASS 1 OR 3.

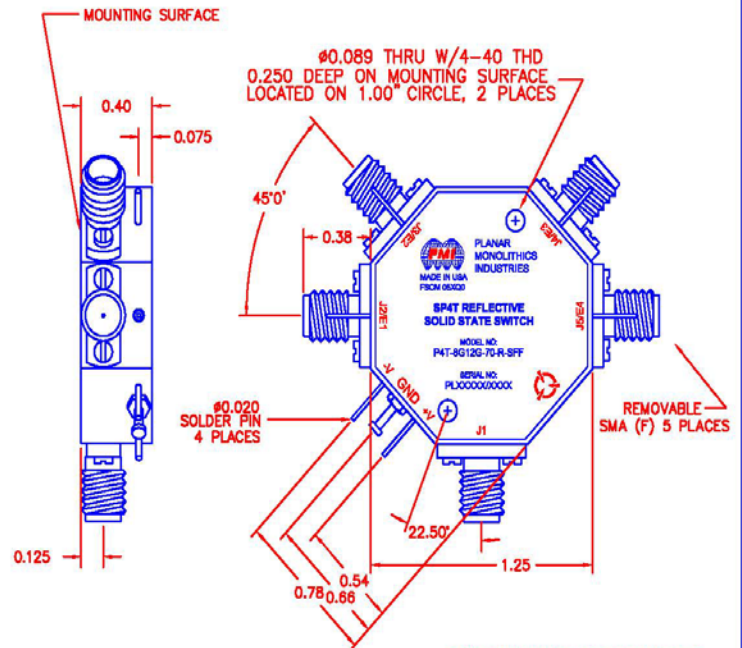
ENVIRONMENTAL RATINGS

- 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	11/11/13	
	A1	ECN # 16-0171	11/13/18	

MECHANICAL OUTLINE



PMI CONFIDENTIAL AND PROPRIETARY

PLANAR MONOLITHICS INDUSTRIES, INC.

7311-F GROVE ROAD
FREDERICK, MARYLAND 21704 USA
TEL: 301-662-5019 FAX: 301-662-1731
WEBSITE: www.pmi-rf.com
E-MAIL: sales@pmi-rf.com
ISO 9001 CERTIFIED



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

APPROVALS		DATE	TITLE		
DRAWN: B. Thomas		11/11/13	PRODUCT FEATURE P4T-8G12G-70-R-SFF		
CHECKED:			SIZE: A	FSOM NO.: 05XQ0	DWG NO.: 27027441
ISSUED:			SCALE: N:S		REV: A1
				SHEET	1 OF 1



**TYPICAL CHARACTERISTICS
ON
P4T-8G12G-70-R-SFF**

TEST DATA SUMMARY

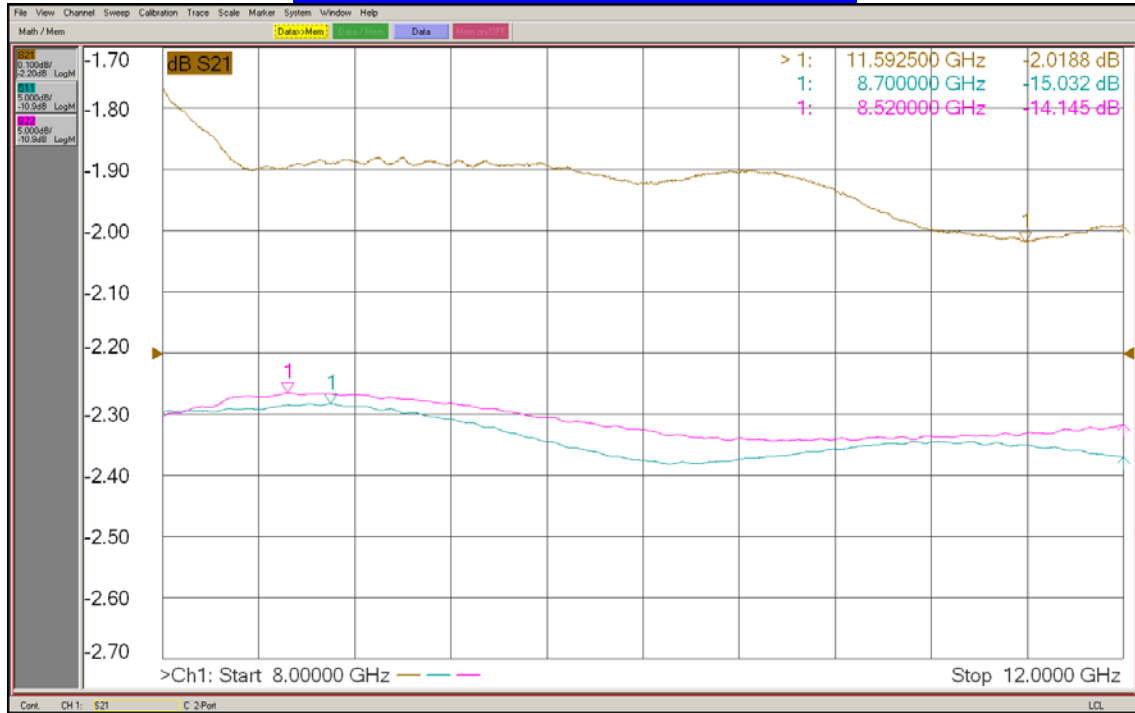
TEST. ITEM NO	PARAMETERS	SPECIFIED VALUE	TEST RESULTS	QA QC
1	Frequency Range	8.0 TO 12.0 GHz	8.0 TO 12.0 GHz	
2	Insertion Loss	2.2 dB Typ	2.05dB (See Plot)	
3	VSWR	1.8:1 Typ	1.49:1 (See Plot)	
4	Isolation	70 dB Min	85.3dB (See Plot)	
5	Switching Speed	100 ns Max	34ns	
6	Input Power	+30dBm Max (Survival) +20dBm Max (Operating)	PASS	
7	DC Supply	+5VDC @ 200 mA Typ -15VDC @ 75 mA Typ	230mA 30mA	
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	

QA/QC Approval: _____ Date: _____

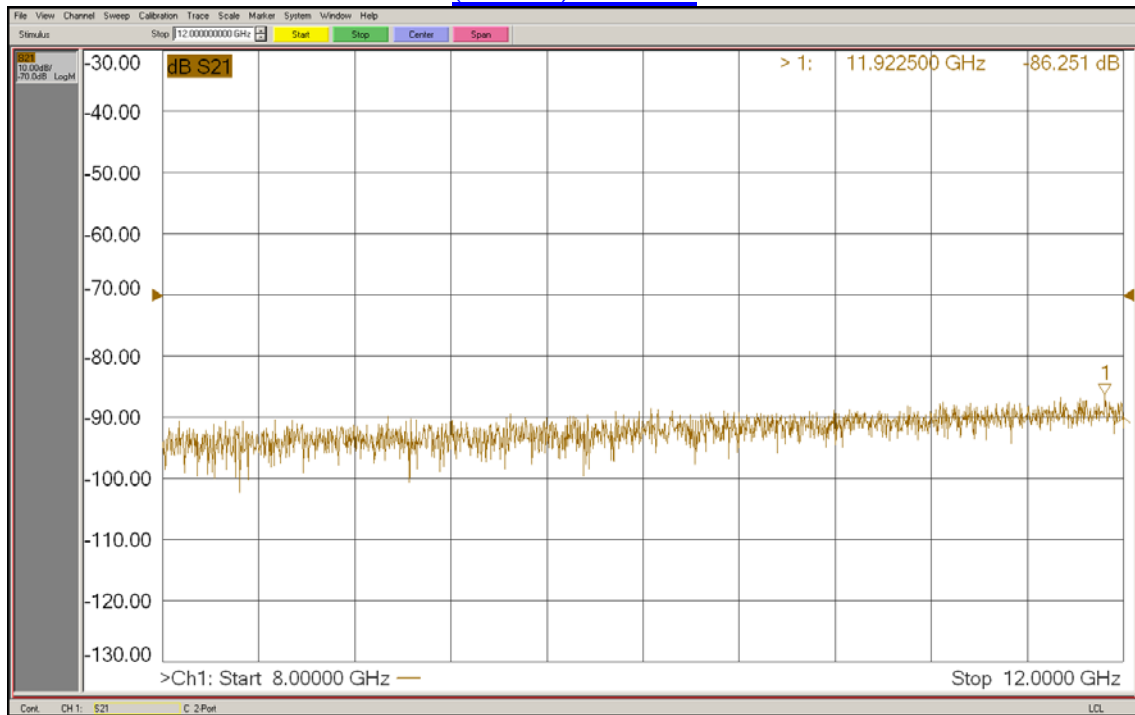


TYPICAL CHARACTERISTICS ON P4T-8G12G-70-R-SFF

(J1 – J2) Insertion Loss and Return Loss



(J1 – J2) Isolation



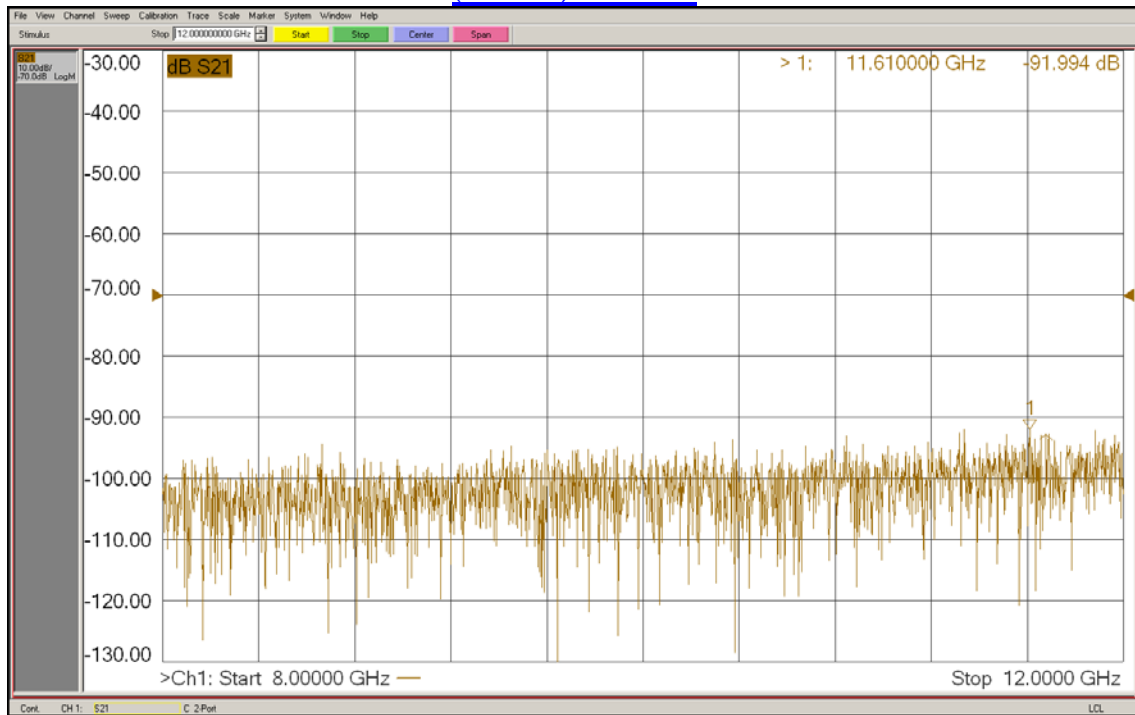


TYPICAL CHARACTERISTICS ON P4T-8G12G-70-R-SFF

(J1 – J3) Insertion Loss and Return Loss



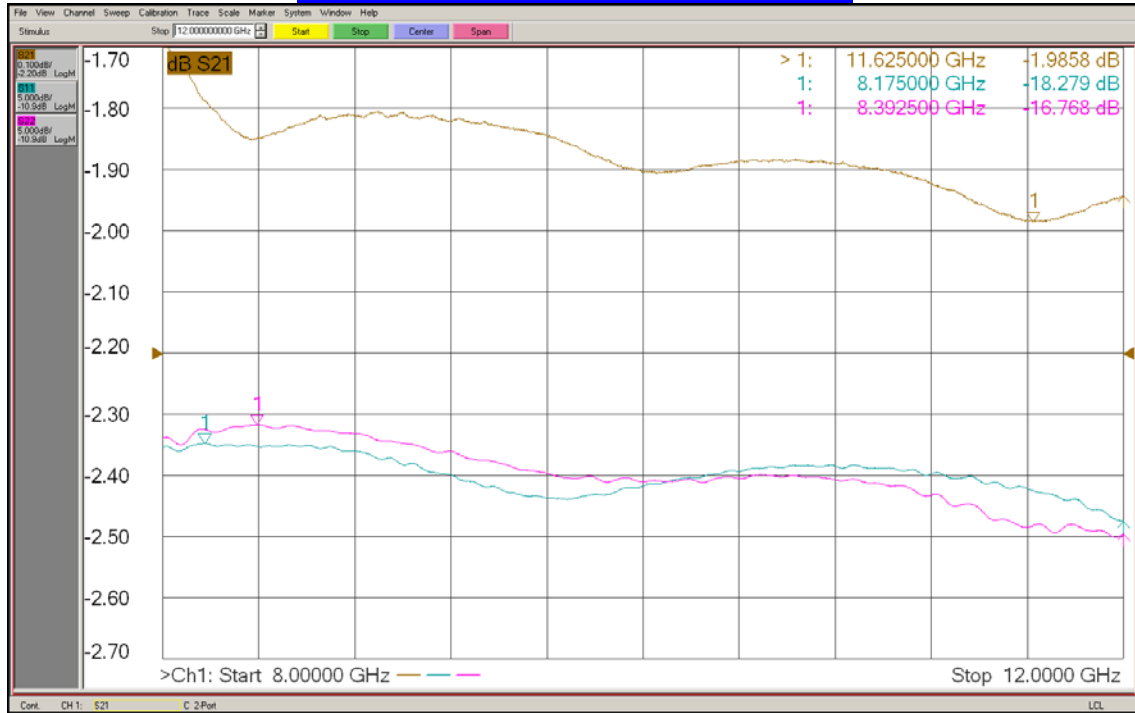
(J1 – J3) Isolation



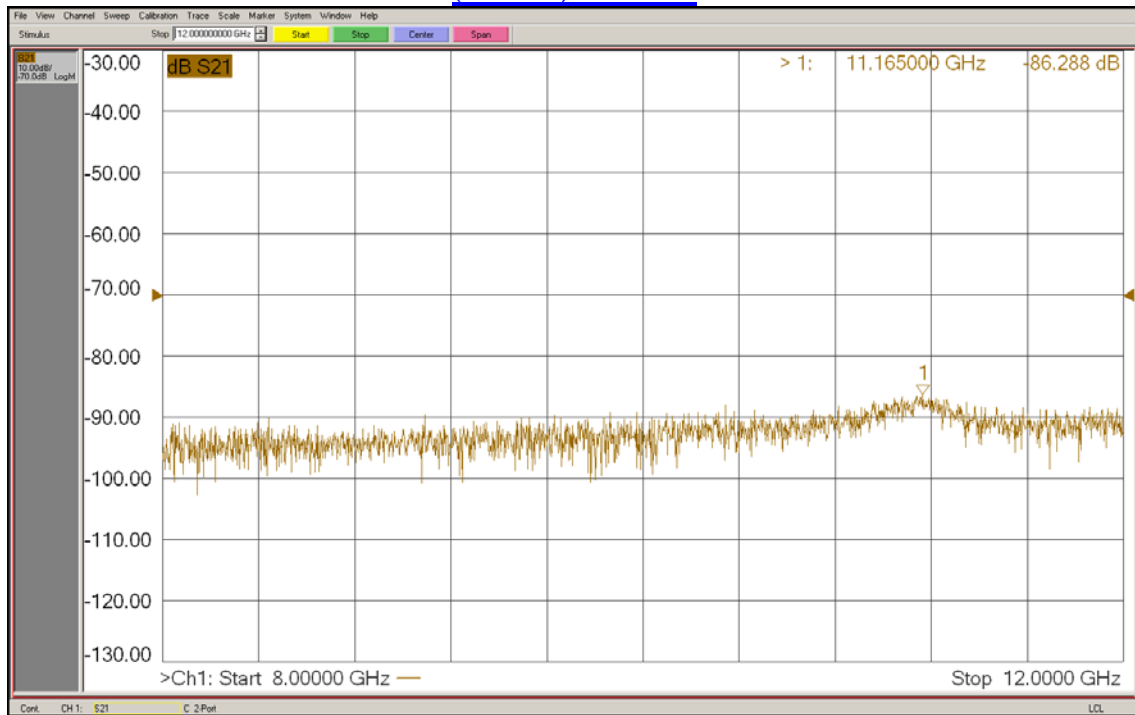


TYPICAL CHARACTERISTICS ON P4T-8G12G-70-R-SFF

(J1 – J4) Insertion Loss and Return Loss



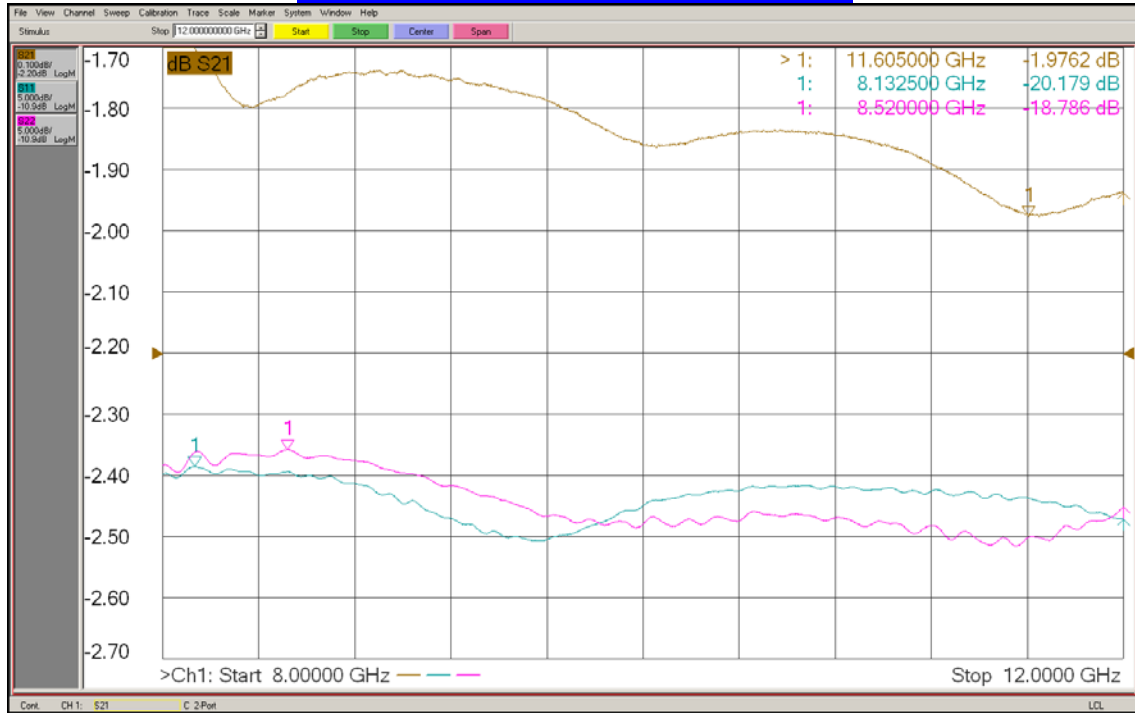
(J1 – J4) Isolation



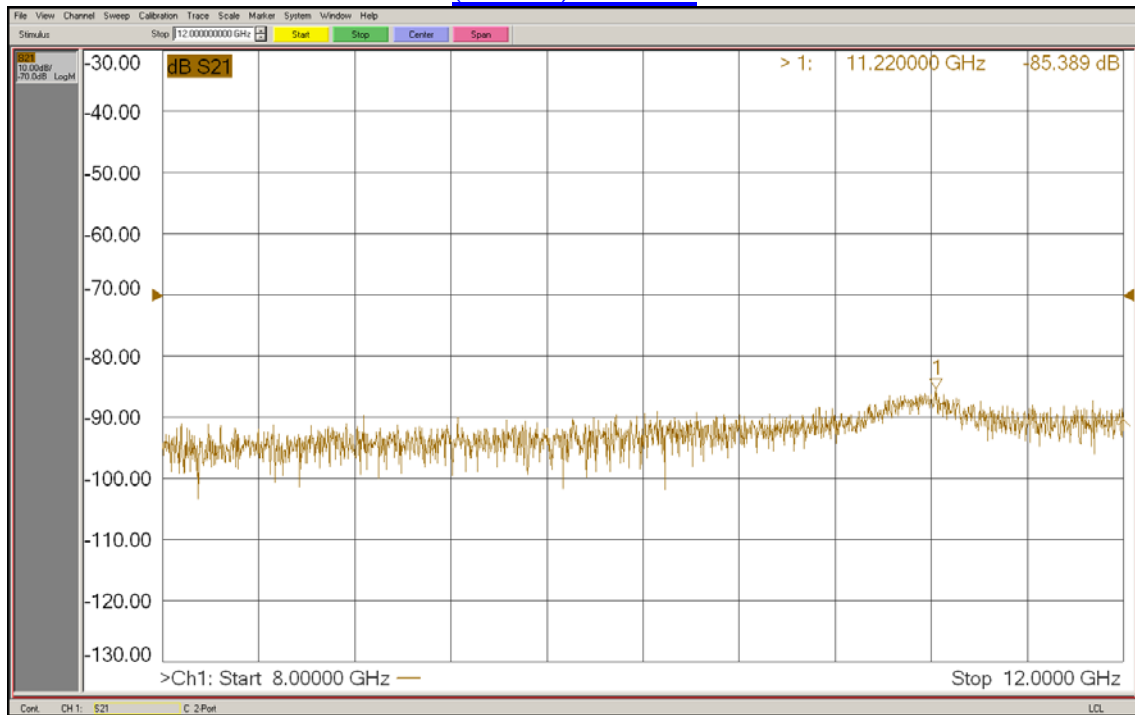


TYPICAL CHARACTERISTICS ON P4T-8G12G-70-R-SFF

(J1 – J5) Insertion Loss and Return Loss



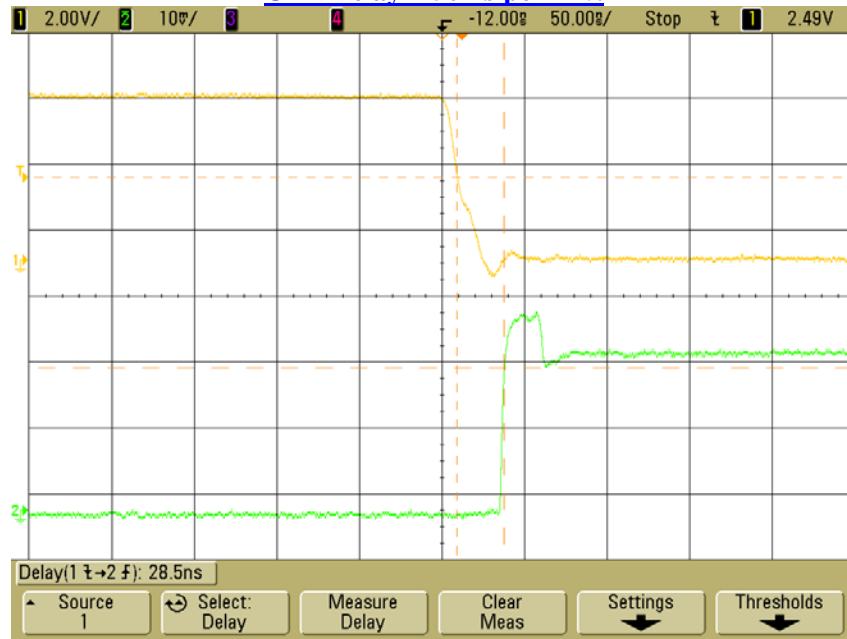
(J1 – J5) Isolation



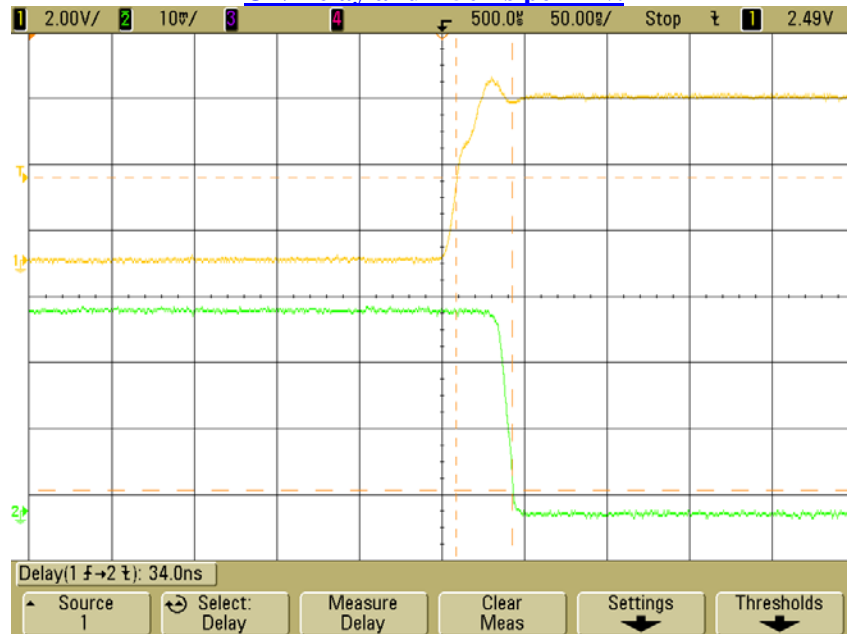


**TYPICAL CHARACTERISTICS
ON
P4T-8G12G-70-R-SFF**

**Switching Speed TYP.
OFF Delay – 50 ns per Div.**



ON Delay and – 50 ns per Div.



GREEN TRACE: RF
YELLOW TRACE: TTL