Typical Characteristics
For
P2T-8G12G-70-T-SFF

PMI MODEL P2T-8G12G-70-T-SFF IS AN ABSORPTIVE, HIGH SPEED, SINGLE POLE TWO 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.

February 29, 2016

Designed by: PMI Engineering

Tested by: Jojo Emperador

Reported by: Simon Kuhn

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For
P2T-8G12G-70-T-SFF

TABLE OF CONTENTS

1. Product Feature & Mechanical Drawing: ..……..……..... Page 3

2. Summary Test Data: ……..…..…..……. Page 4

3. J1 – J2 Insertion Loss and Return Loss: ….……... Page 5

4. J1 – J2 Isolation and Terminated Return Loss: ..……... Page 6

5. J1 – J3 Insertion Loss and Return Loss: ….……... Page 7

6. J1 – J3 Isolation and Terminated Return Loss: ….……... Page 8

7. Switching Speed: ….……... Page 9

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Product Feature & Mechanical Drawing:

REVISIONS				
ZONE	REV.	DESCRIPTION	DATE	APPROVED
	1	ORIGINAL RELEASE	10/19/15	

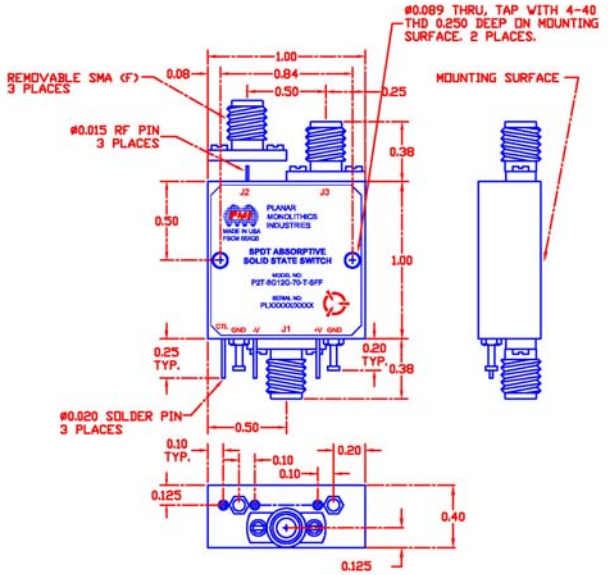
DESCRIPTION

PMI MODEL P2T-8G12G-70-T-SFF IS AN ABSORPTIVE, HIGH SPEED, SINGLE POLE TWO 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)
- INPUT VSWR: — 1.8:1 TYP.
- INSERTION LOSS: — 2.2dB MAX
- ISOLATION: — 70dB MIN
- SWITCHING SPEED: — 100ns MAX
- DC VOLTAGE: — +5VDC, 100mA TYP.
  −15VDC, 100mA TYP.
- CONTROL: — SOLDER PIN
  TTL COMPATIBLE – SEE LOGIC TABLE
- CONNECTORS IN/OUT: — SMA (F)
- SIZE: — (L) 1.0" X (W) 1.0" X (H) 0.4"
- 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.

MECHANICAL OUTLINE



LOGIC TABLE

CTL	J1 – J2	J1 – J3
0	ON	OFF
1	OFF	ON

PMI CONFIDENTIAL AND PROPRIETARY

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

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

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ISO 9001 CERTIFIED

APPROVALS	DATE	TITLE: PRODUCT FEATURE P2T-8G12G-70-T-SFF			
DRAWN GAB	10/19/15				
CHECKED		SIZE A	FSCM NO. 05XQ0	DWG NO. 27026461	REV. 1
ISSUED		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	8.0 TO 12.0 GHz	**8.0 TO 12.0 GHz**	
2	Insertion Loss	1.9 dB Max	**1.78 dB (See Plot)**	
3	VSWR	1.6:1 Typ	**1.79:1 (See Plot)**	
4	Isolation	70 dB Min	**91.9 dB (See Plot)**	
5	Switching Speed	100 ns Max	**49.6 ns**	
6	Input Power	+30dBm Max (Survival) +20dBm Max (Operating)	**Pass**	
7	DC Supply	+5VDC @ 100 mA Typ -15VDC @ 100 mA Typ	**24 mA** **58 mA**	
8	Control Signal	LOGIC TABLE CTL FUNCTION 0 J1–J2 “LOW LOSS” 1 J1–J3 “LOW LOSS”	**Pass**	

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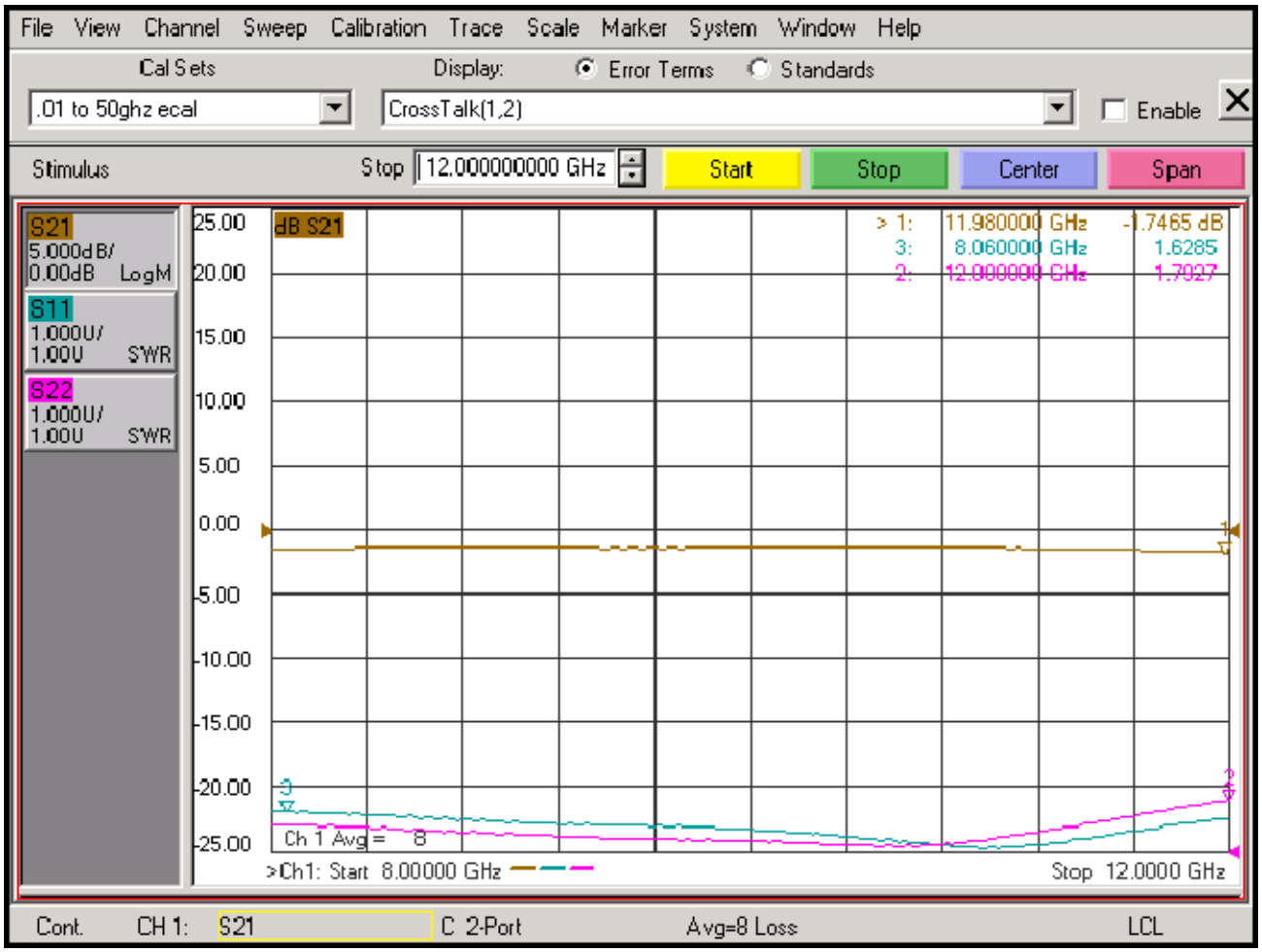
J1 – J2 Insertion Loss and Return Loss:



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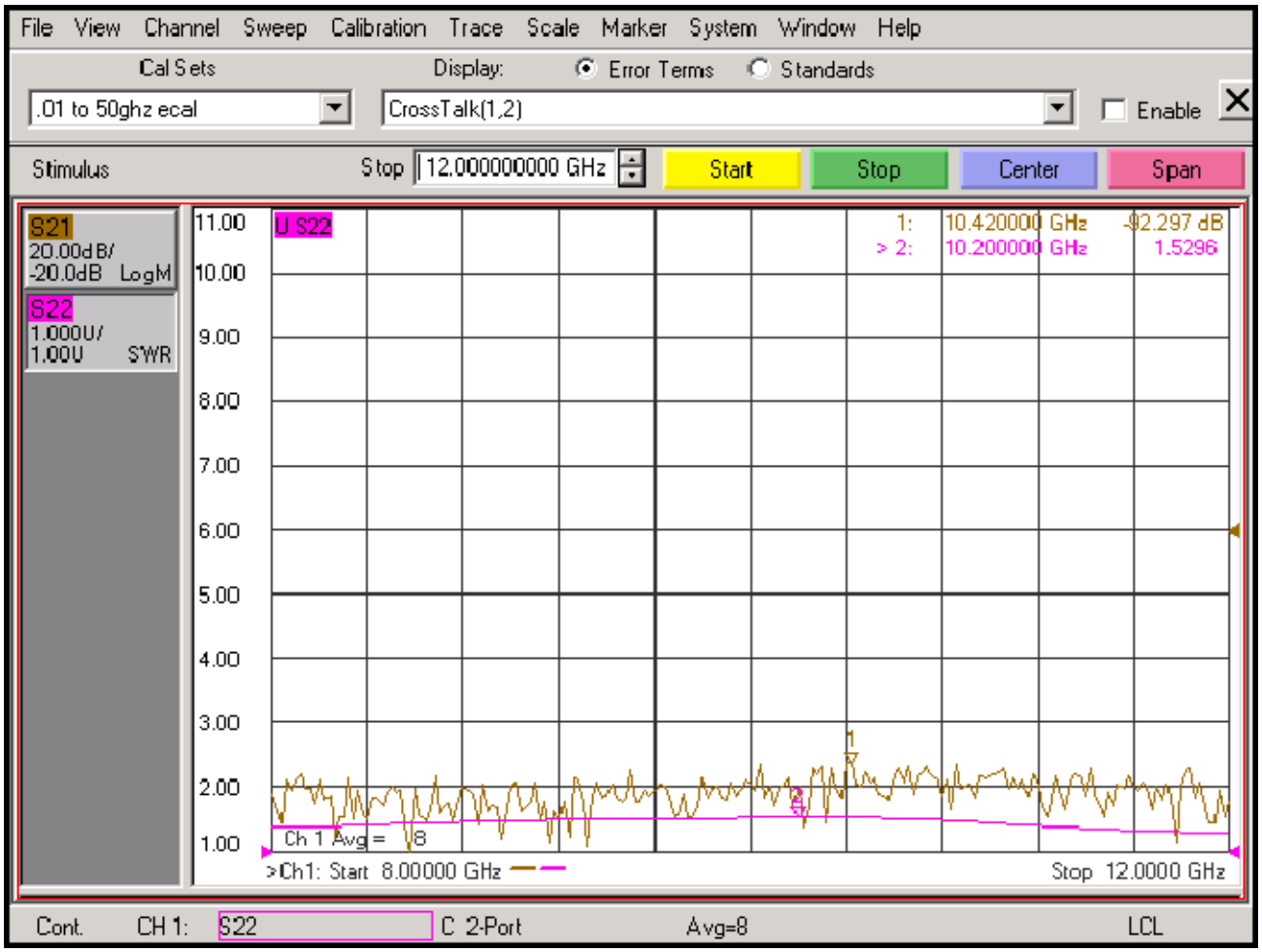
J1 – J2 Isolation and Terminated Return Loss:



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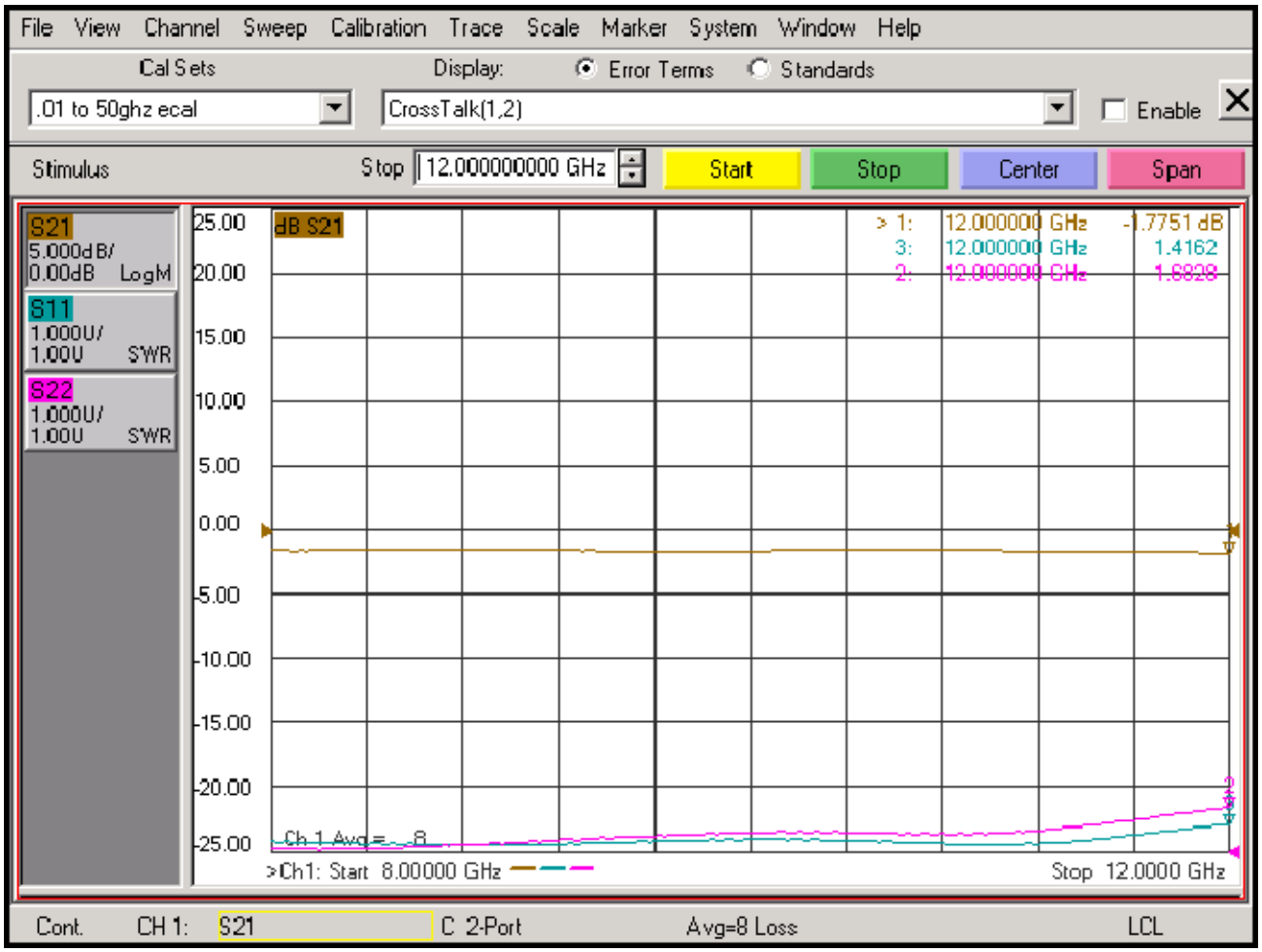
J1 – J3 Insertion Loss and Return Loss:



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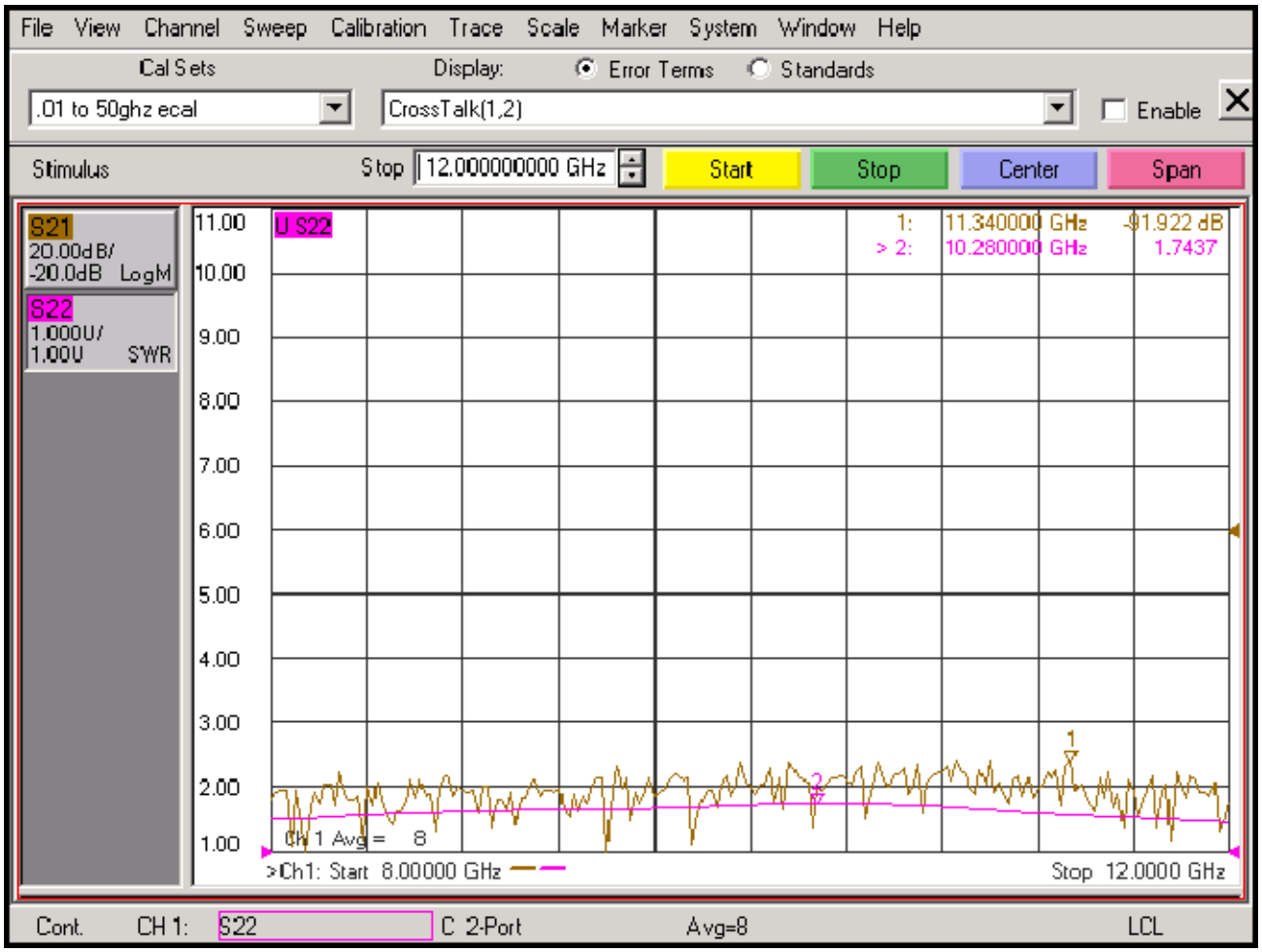
J1 – J3 Isolation and Terminated Return Loss:



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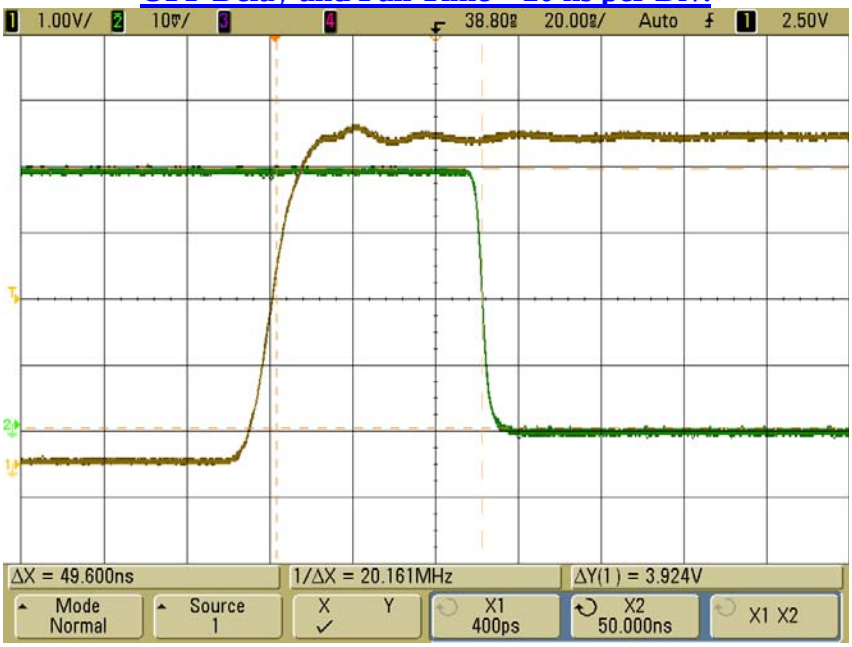
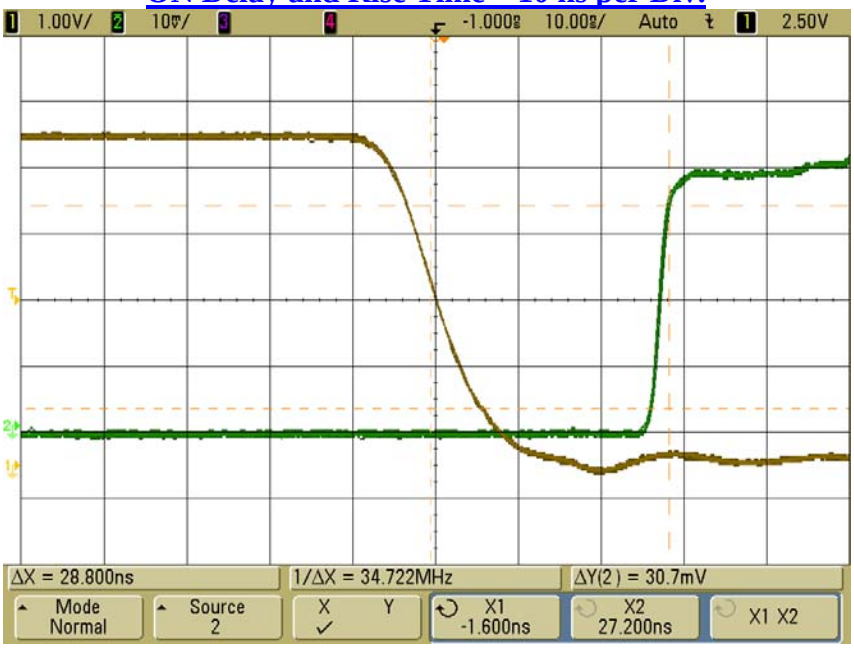
Switching Speed:

OFF Delay and Fall Time – 20 ns per Div.



ON Delay and Rise Time – 10 ns per Div.



GREEN TRACE : RF
YELLOW TRACE: TTL

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