TYPICAL CHARACTERISTICS
ON
P4T-2G6G-70-R-SFF

PMI MODEL P4T-2G6G-70-R-SFF IS A REFLECTIVE, HIGH SPEED, SINGLE POLE FOUR THROW SWITCH CAPABLE OF SWITCHING WITH 50 ns TYPICAL. THE FREQUENCY RANGE IS 2.0GHz TO 6.0GHz. THIS SWITCH HAS > 70 dB ISOLATION.

APRIL, 13, 2016

DESIGNED BY: PMI ENGINEERING

TESTED & REPORTED BY: JERRY N.

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OUTLINE DRAWING

REVISIONS

ZONE	REV.	DESCRIPTION	DATE	APPROVED
	1	ORIGINAL RELEASE	11/11/13	

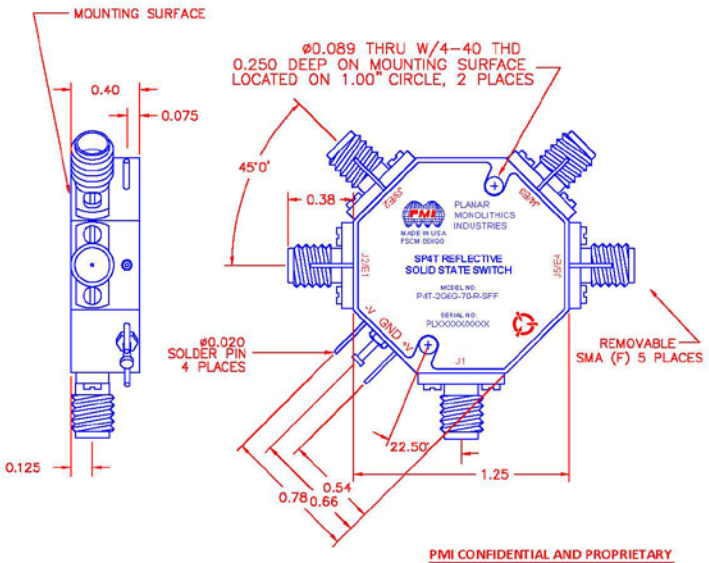
DESCRIPTION

PMI MODEL P4T-2G6G-70-R-SFF IS A REFLECTIVE, HIGH SPEED, SINGLE POLE FOUR THROW SWITCH CAPABLE OF SWITCHING WITHIN 50 ns TYPICAL. THE FREQUENCY RANGE IS 2.0 GHz TO 6.0 GHz. THIS SWITCH HAS > 70 dB ISOLATION.

SPECIFICATIONS

- FREQUENCY RANGE: — 2.0 GHz TO 6.0 GHz
- IMPEDANCE: — 50 Ω
- INPUT POWER: — +30dBm MAX (SURVIVAL)
  +20dBm MAX (OPERATING)
- VSWR: — 1.5:1 TYP
- INSERTION LOSS: — 2.0dB TYP
- ISOLATION: — 70dB MIN
- SWITCHING SPEED: — 50ns TYP
- 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 IAW MIL-C-22750, TYPE I OVER EPOXY POLIMIDE PRIMER IAW MIL-P-23377, TYPE I, CLASS 1 OR 3.

MECHANICAL OUTLINE



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

PLANAR MONOLITHICS INDUSTRIES, INC.
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E-MAIL: sales@pmi-rf.com
ISO 9001 CERTIFIED

APPROVALS	DATE
DRAWN B. Thomas	11/11/13
CHECKED	
ISSUED	

TITLE: PRODUCT FEATURE
P4T-2G6G-70-R-SFF

SIZE	FSCM NO.	DWG NO.	REV.
A	05XQ0	27026801	1

SCALE N:S SHEET 1 OF 1

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TEST DATA SUMMARY

TEST. ITEM NO	PARAMETERS	SPECIFIED VALUE	TEST RESULTS	QA QC
1	Frequency Range	2.0 TO 6.0 GHz	**6.0 TO 12.0 GHz**	
2	Insertion Loss	2.0 dB Typ	**1.41 dB (See Plot)**	
3	VSWR	1.5:1 Typ	**1.57 :1 (See Plot)**	
4	Isolation	70 dB Min	**91.11 dB (See Plot)**	
5	Switching Speed	50 ns Typ	**39.2 ns** **See Typical Characteristics**	
6	Input Power	+30dBm Max (Survival) +20dBm Max (Operating)	**Pass**	
7	DC Supply	+5VDC @ 200 mA Typ -15VDC @ 75 mA Typ	**225 mA** **30 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**	

QA/QC Approval: _____ **Date:** _____

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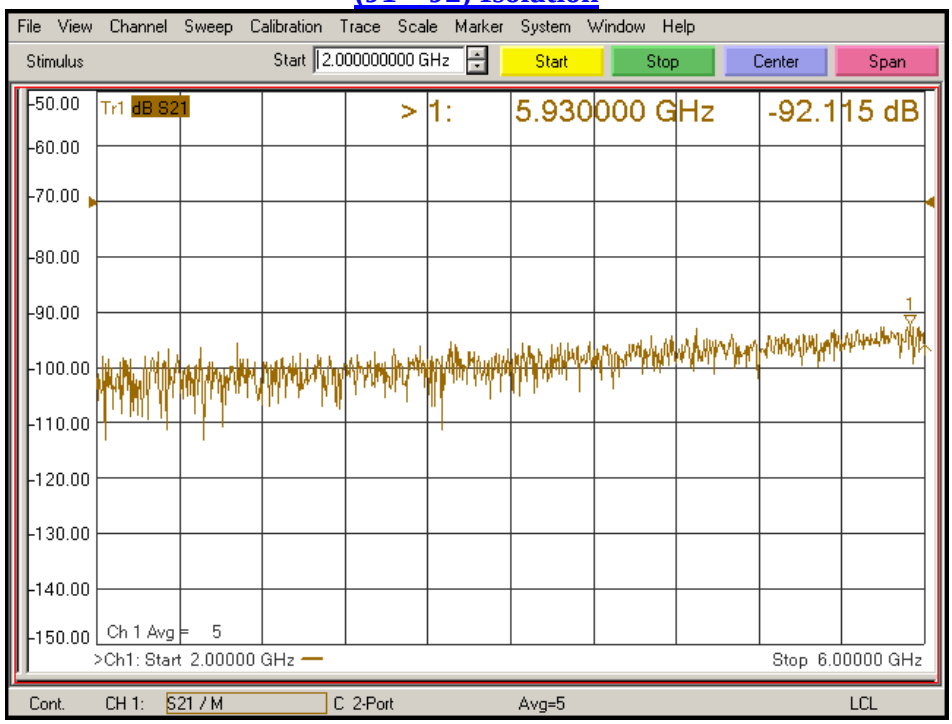
(J1 – J2) Insertion Loss and Return Loss

(J1 – J2) Isolation



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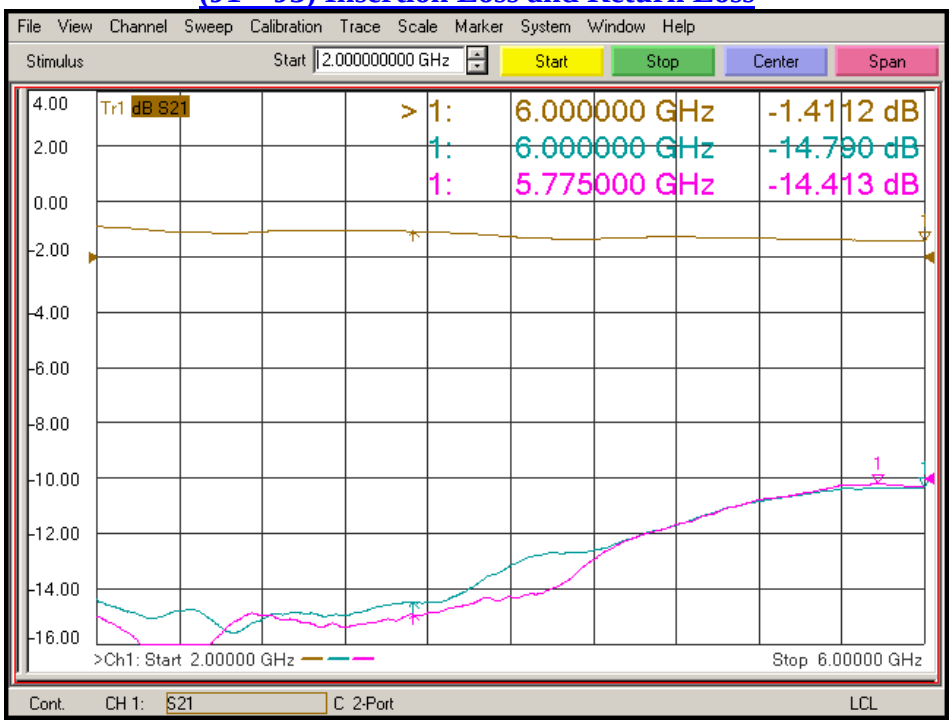
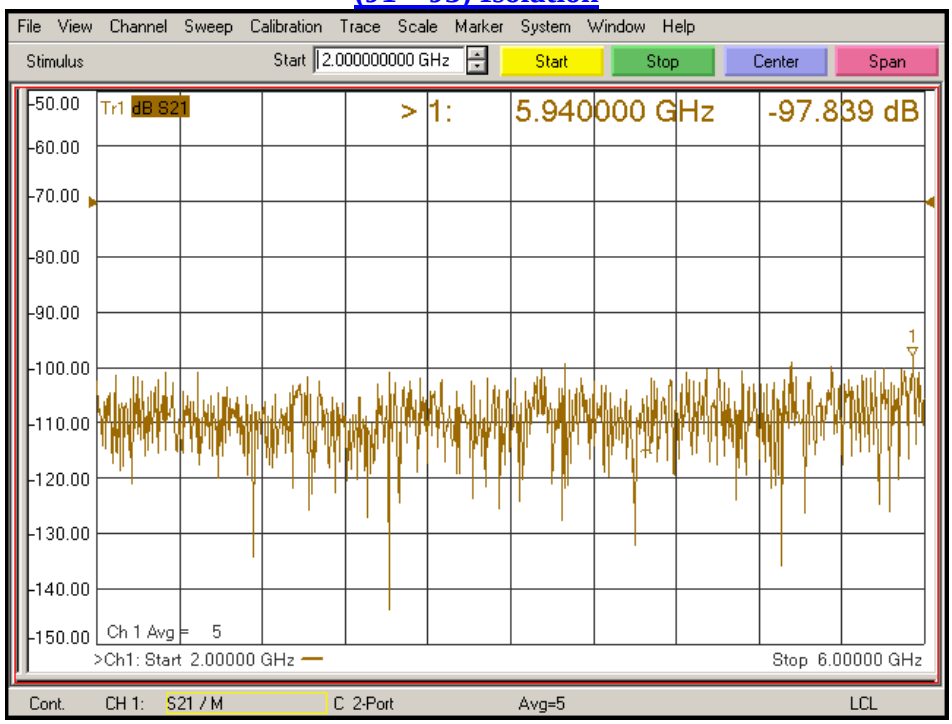
TYPICAL CHARACTERISTICS ON P4T-2G6G-70-R-SFF

(J1 – J3) Insertion Loss and Return Loss



(J1 – J3) Isolation



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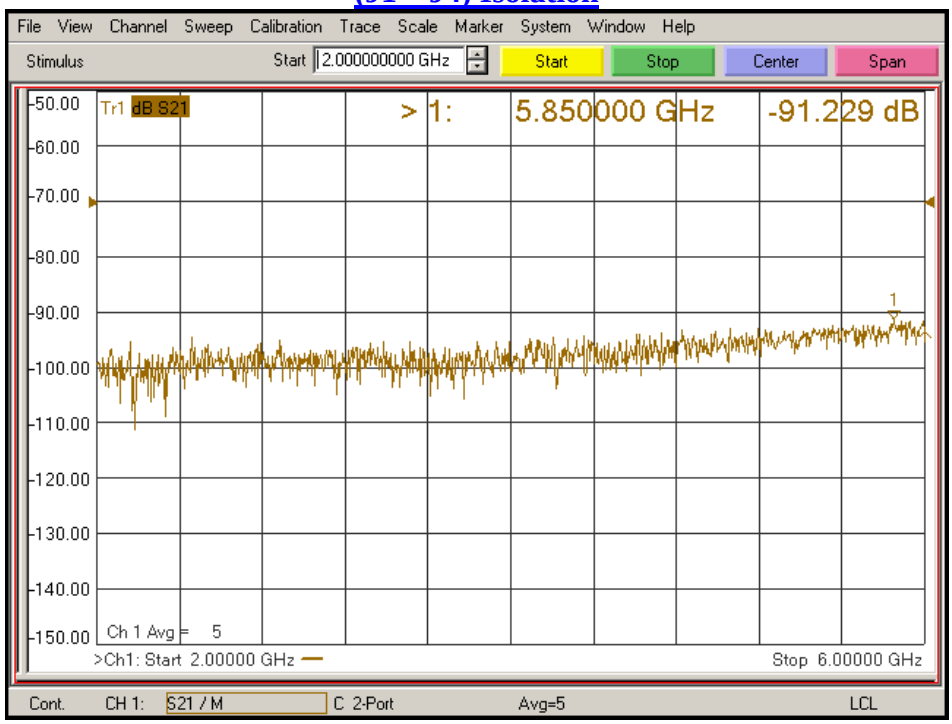
TYPICAL CHARACTERISTICS ON P4T-2G6G-70-R-SFF

(J1 – J4) Insertion Loss and Return Loss

(J1 – J4) Isolation



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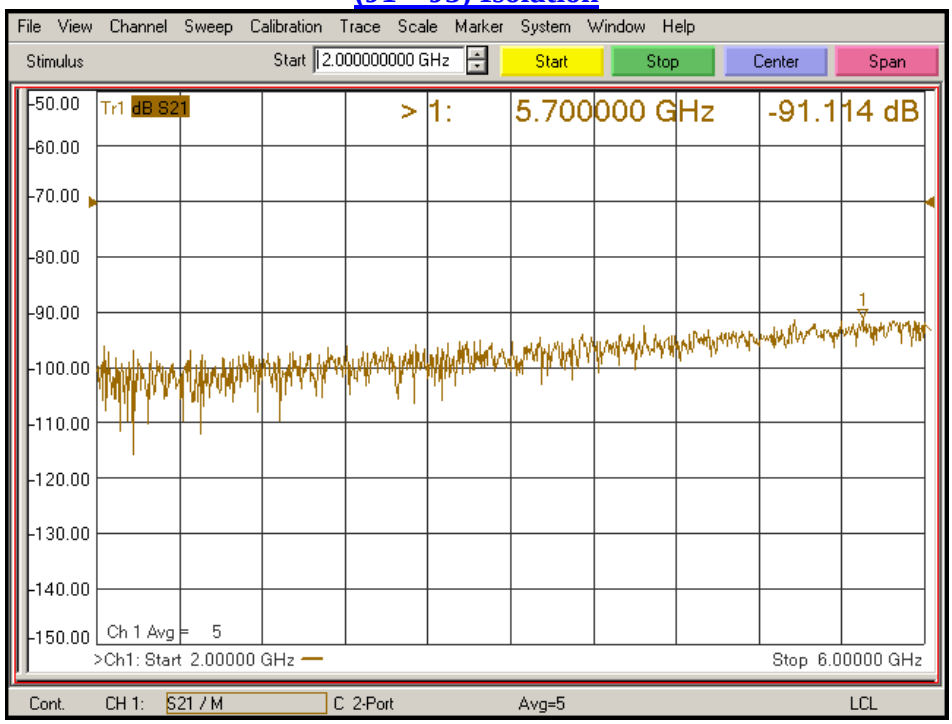
TYPICAL CHARACTERISTICS ON P4T-2G6G-70-R-SFF

(J1 – J5) Insertion Loss and Return Loss

(J1 – J5) Isolation



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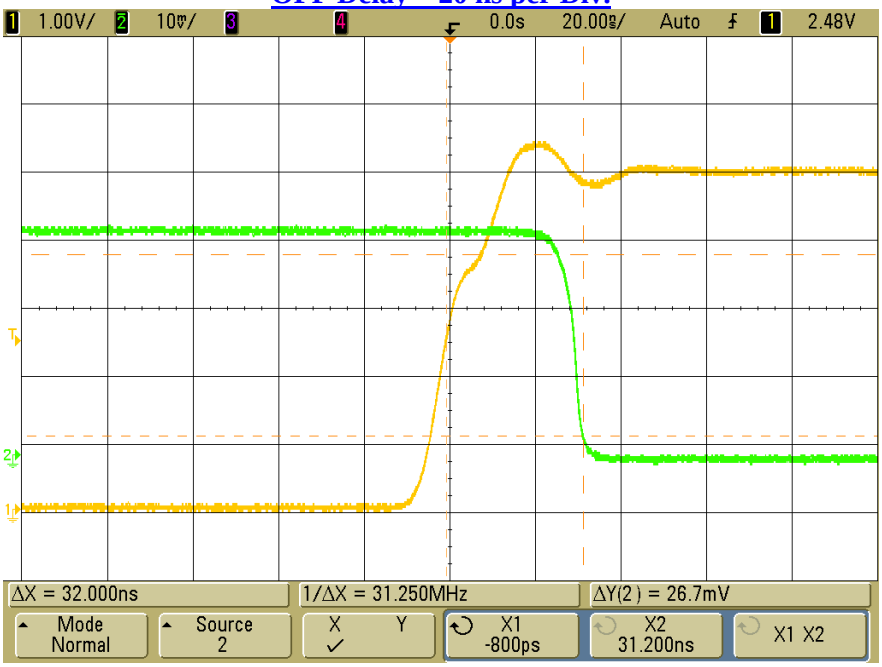
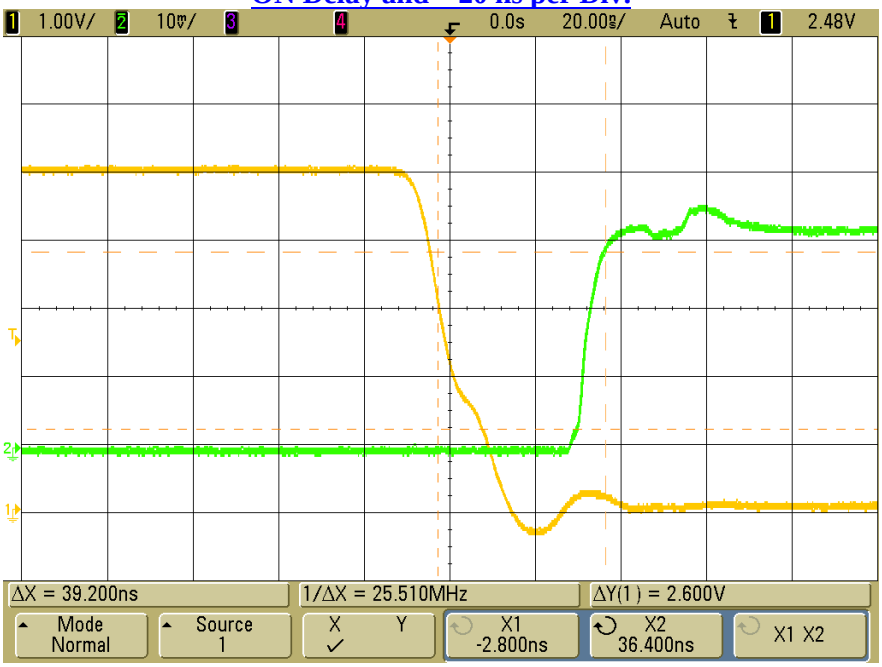
Switching Speed TYP.

OFF Delay – 20 ns per Div.



ON Delay and – 20 ns per Div.



GREEN TRACE: RF

YELLOW TRACE: TTL

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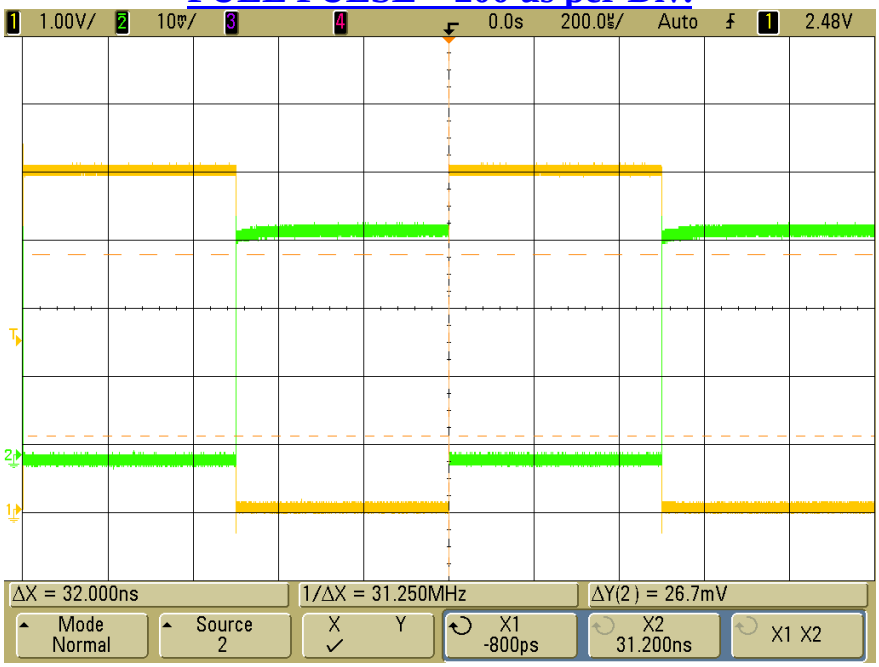
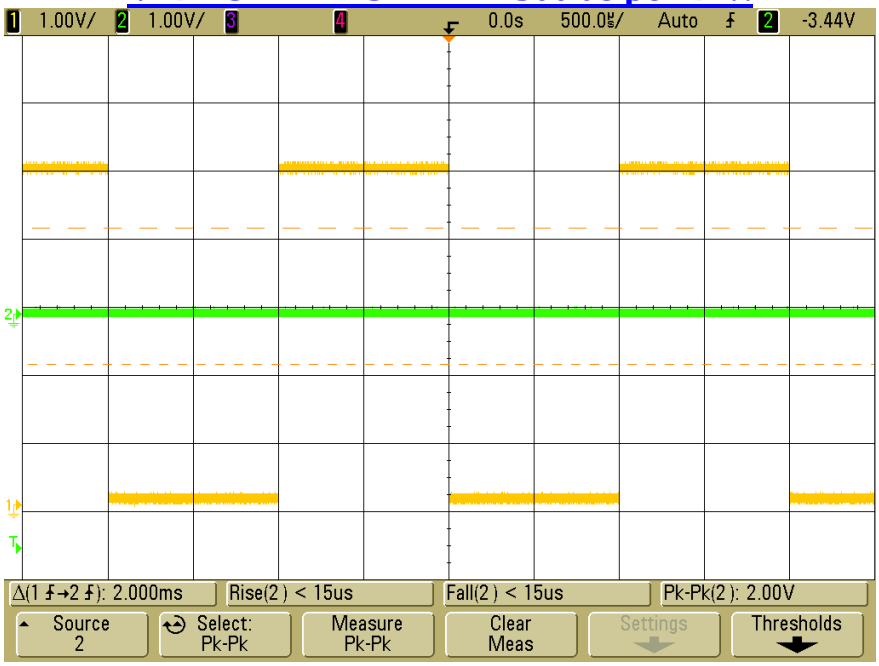
FULL PULSE – 200 us per Div.



VIDEO TRANSIENT – 500 us per Div.



GREEN TRACE: RF

YELLOW TRACE: TTL

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