



**TYPICAL CHARACTERISTICS
ON
P3T-8G12G-70-T-SFF**

PMI MODEL P3T-8G12G-70-T-SFF IS AN ABSORPTIVE, HIGH SPEED, SINGLE POLE THREE 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.



JANUARY 22, 2016

DESIGNED BY: PMI ENGINEERING

TESTED & REPORTED BY: JERRY N.



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TYPICAL CHARACTERISTICS ON P3T-8G12G-70-T-SFF

OUTLINE DRAWING

DESCRIPTION

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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: 2.8dB MAX
- ISOLATION: 70dB MIN
- SWITCHING SPEED: 100ns MAX
- DC VOLTAGE: +5VDC, 150mA TYP.
-15VDC, 100mA TYP.
- CONTROL: SOLDER PIN
TTL COMPATIBLE - SEE LOGIC TABLE
- CONNECTORS IN/OUT: SMA (F)
- SIZE: (L) 1.5" X (W) 1.5" 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.

LOGIC TABLE			
E1	E2	E3	FUNCTION
0	1	1	J1-J2 "LOW LOSS"
1	0	1	J1-J3 "LOW LOSS"
1	1	0	J1-J4 "LOW LOSS"

ENVIRONMENTAL RATINGS

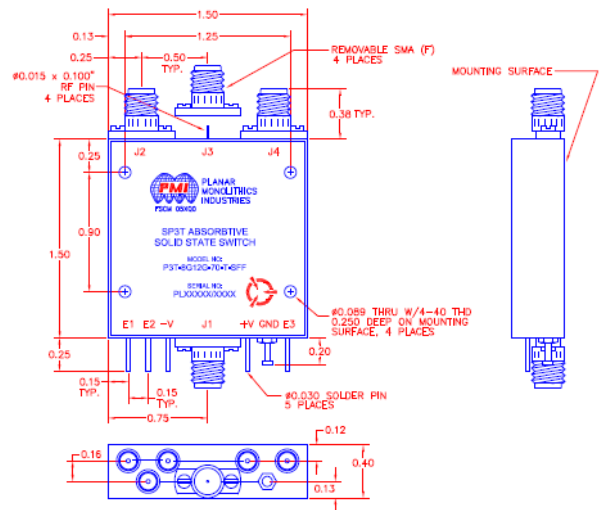
- * TEMPERATURE: -55°C TO + 85°C (OPERATING)
-65°C TO +125°C (STORAGE)
- * HUMIDITY: MIL-STD-202F, METHOD 103B COND. B
- * SHOCK: MIL-STD-202F, METHOD 213B COND. B
- * VIBRATION: MIL-STD-202F, METHOD 204D COND. B
- * ALTITUDE: MIL-STD-202F, METHOD 105C COND. B
- * TEMPERATURE CYCLE: MIL-STD-202F, METHOD 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

REVISIONS				
ZONE	REV.	DESCRIPTION	DATE	APPROVED
	1	ORIGINAL RELEASE	11/18/15	
	A1	ECN # 16-0099	8/18/16	

MECHANICAL OUTLINE



PMI CONFIDENTIAL AND PROPRIETARY

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ISO 9001 CERTIFIED



APPROVALS		DATE	TITLE		REV.
DRAWN: <i>SAB</i>		11/18/15	PRODUCT FEATURE		
CHECKED:			P3T-8G12G-70-T-SFF		A1
ISSUED:			SIZE: A	FSOW NO.: 05XQ0	DWG NO.: 27026601
			SCALE: N:S	SHEET 1 OF 1	



**TYPICAL CHARACTERISTICS
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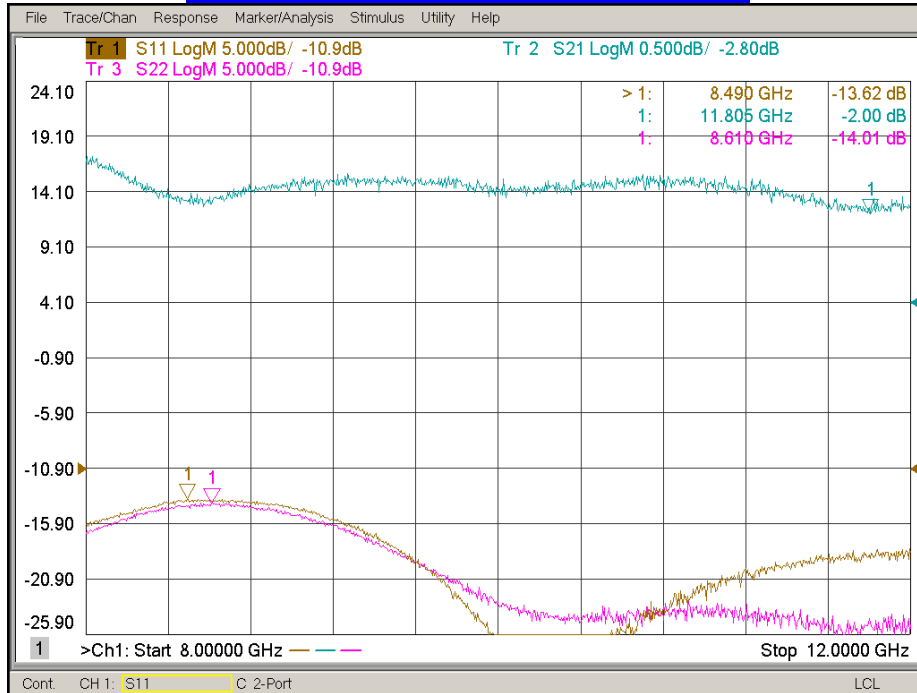
TEST DATA SUMMARY

TEST. ITEM NO	PARAMETERS	SPECIFIED VALUE	TEST RESULTS	QA QC
1	Frequency Range	8.0 TO 12.0 GHz	8.0 TO 12.0 GHz	
2	Insertion Loss	2.8 dB Max	2.07 dB (See Plot)	
3	VSWR	1.8:1 Typ	1.67:1 (See Plot)	
4	Isolation	70 dB Min	78.13 dB (See Plot)	
5	Switching Speed	100 ns Max	35.8 ns See Typical Characteristics	
6	Input Power	+30dBm Max (Survival) +20dBm Max (Operating)	Pass	
7	DC Supply	+5VDC @ 150 mA Typ -15VDC @ 100 mA Typ	74 mA 54 mA	
8	Control Signal	LOGIC TABLE E1 E2 E3 FUNCTION 0 1 1 J1-J2 "LOW LOSS" 1 0 1 J1-J3 "LOW LOSS" 1 1 0 J1-J4 "LOW LOSS"	Pass	

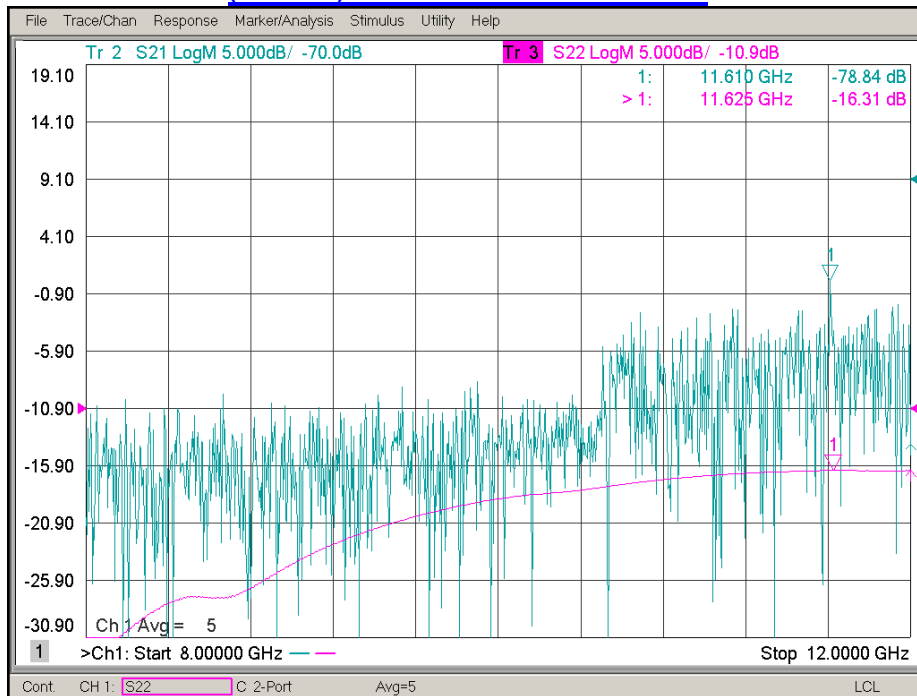


TYPICAL CHARACTERISTICS ON P3T-8G12G-70-T-SFF

(J1 – J2) Insertion Loss and Return Loss



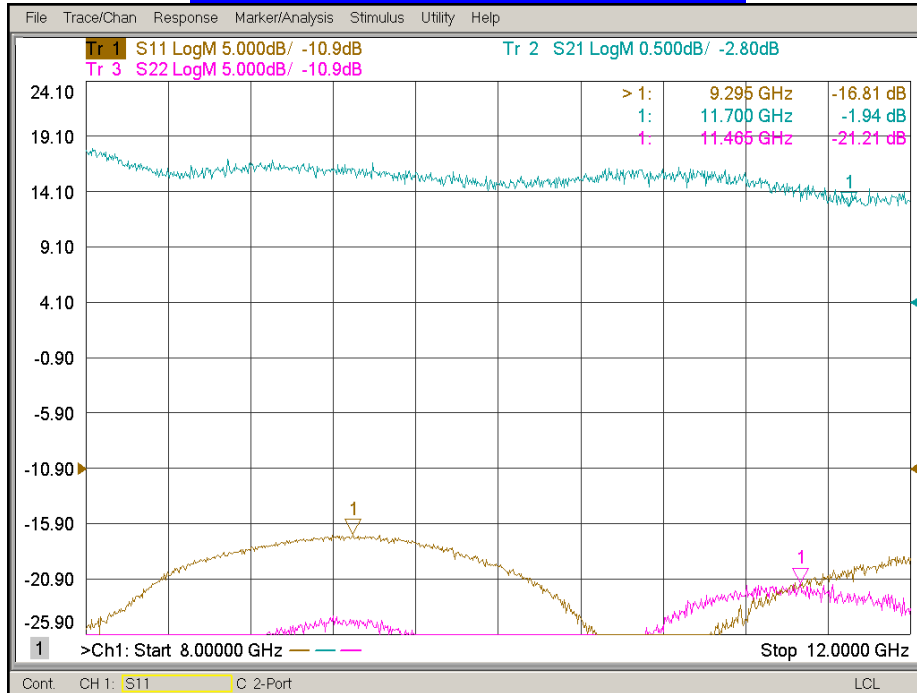
(J1 – J2) Isolation and Return Loss



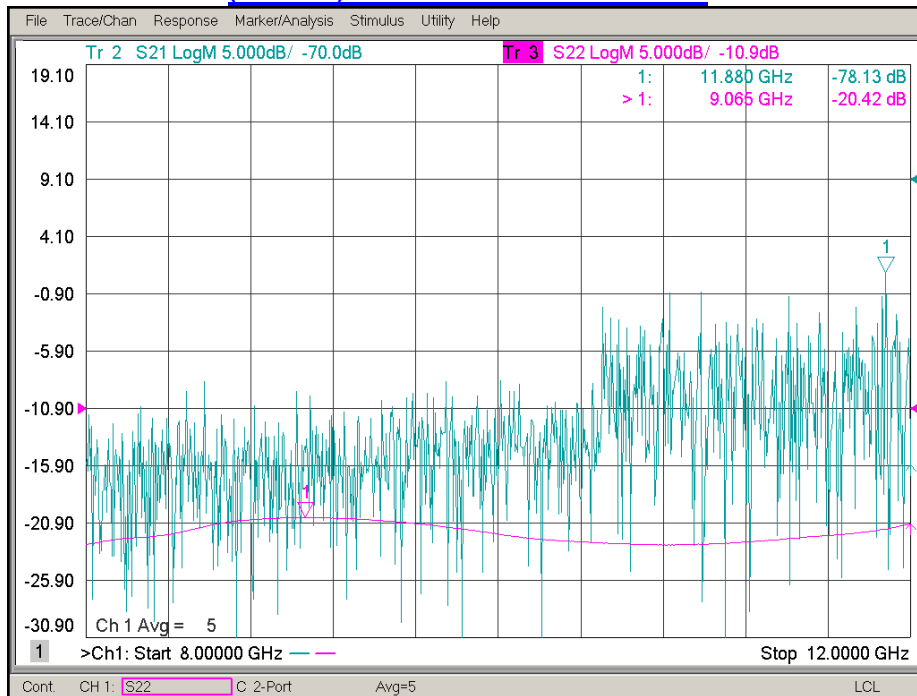


TYPICAL CHARACTERISTICS ON P3T-8G12G-70-T-SFF

(J1 – J3) Insertion Loss and Return Loss



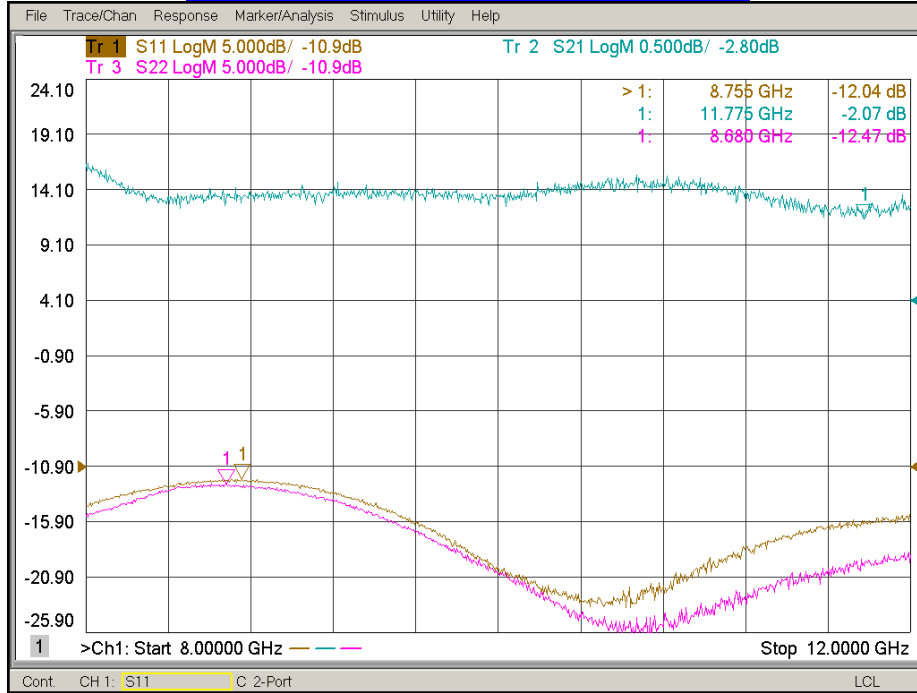
(J1 – J3) Isolation and Return Loss



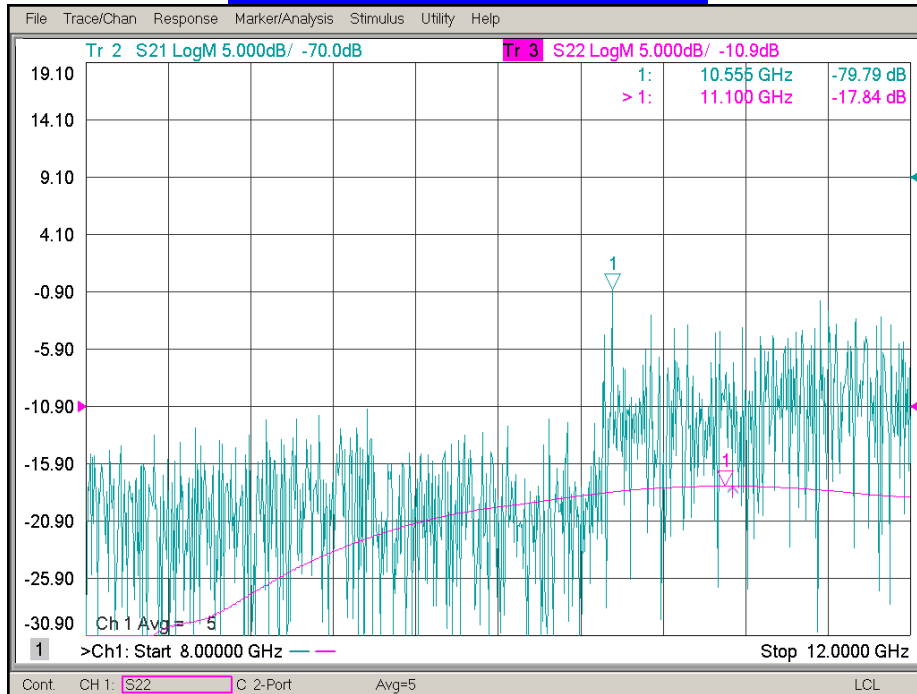


TYPICAL CHARACTERISTICS ON P3T-8G12G-70-T-SFF

(J1 – J4) Insertion Loss and Return Loss



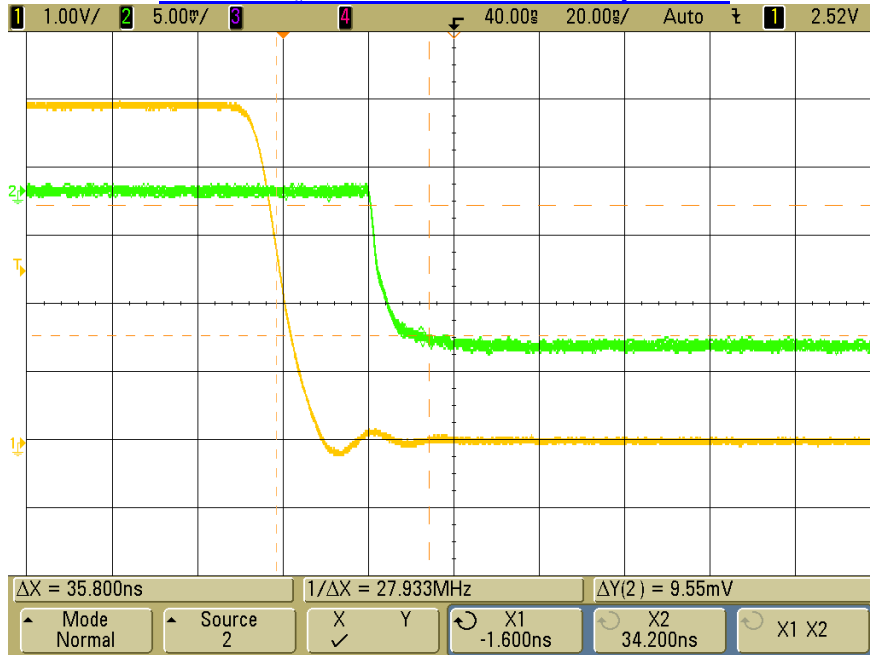
(J1 – J4) Isolation and Return Loss



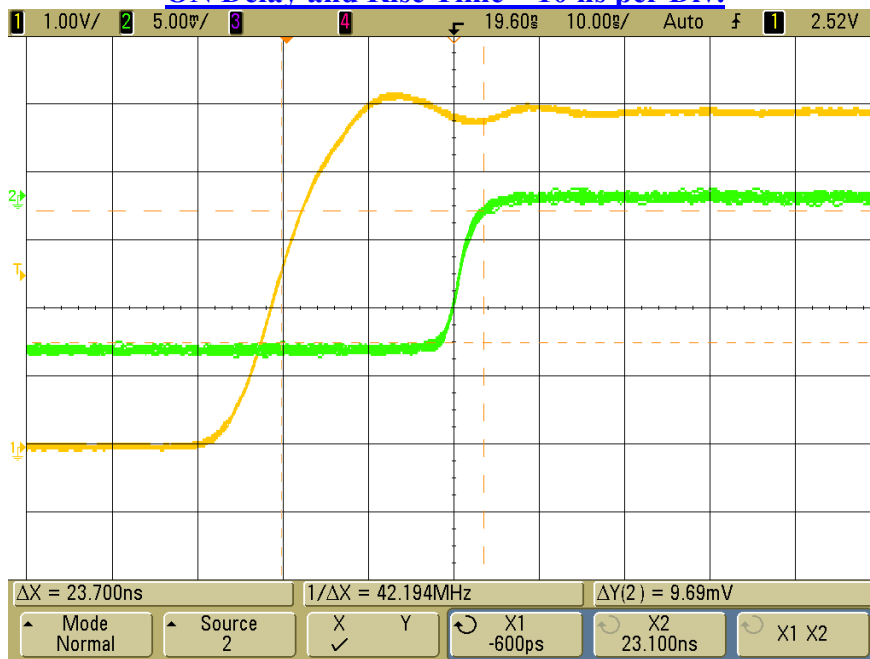


**TYPICAL CHARACTERISTICS
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**Switching Speed TYP.
OFF Delay and Fall Time – 20 ns per Div.**



ON Delay and Rise Time – 10 ns per Div.

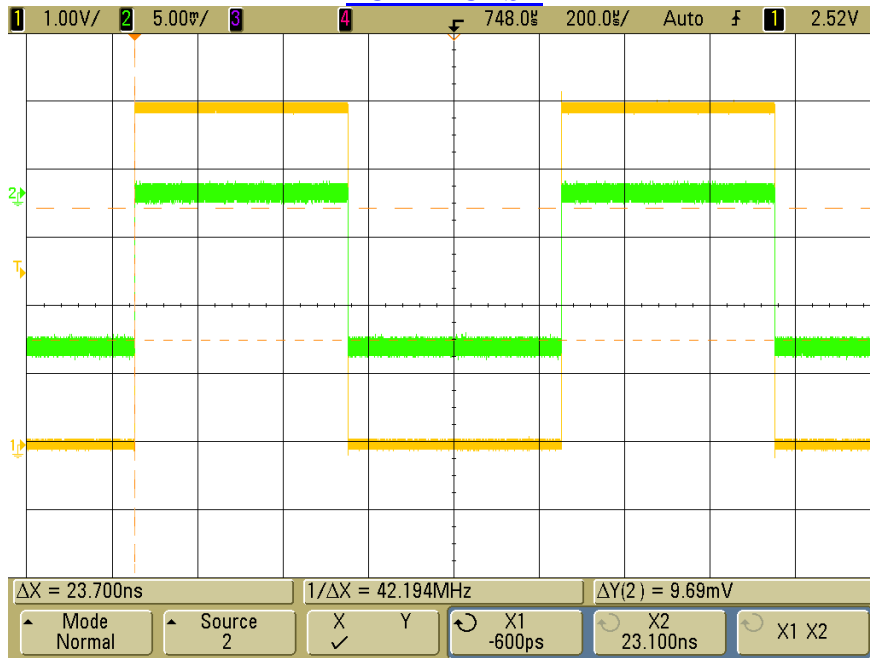


GREEN TRACE : RF
YELLOW TRACE : TTL

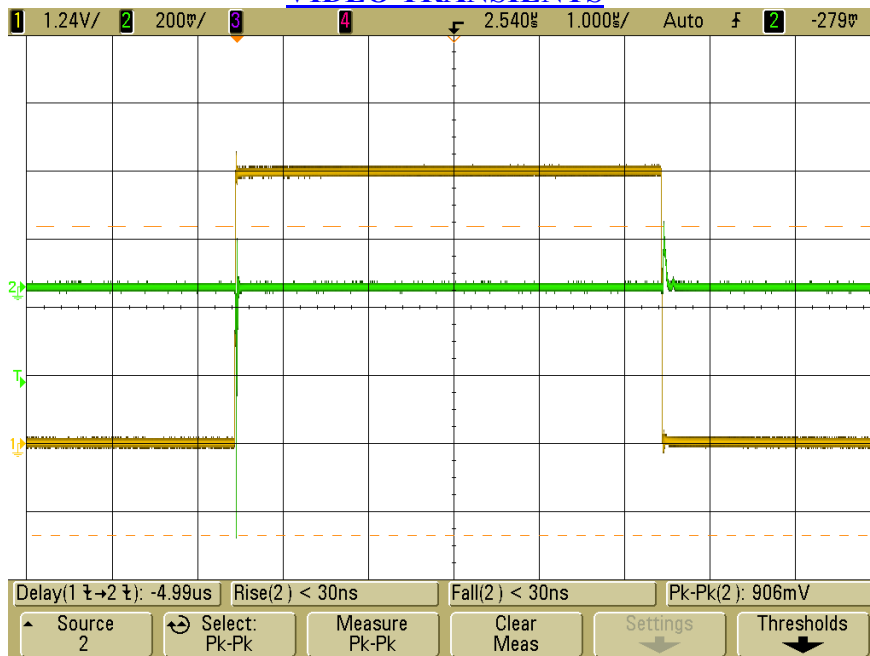


**TYPICAL CHARACTERISTICS
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FULL PULSE



VIDEO TRANSIENTS



GREEN TRACE : RF
YELLOW TRACE : TTL