



**TYPICAL CHARACTERISTICS
ON
P4T-2G18G-60-T-5-5-SFF**

PL13610/1333

PMI MODEL NUMBER P4T-2G18G-60-T-5-5-SFF IS A SINGLE POLE, FOUR THROW ABSORPTIVE SWITCH DESIGNED TO OPERATE OVER THE 2GHZ TO 18GHZ FREQUENCY RANGE. THIS MODEL IS DESIGNED TO MAINTAIN LOW INSERTION LOSS, HIGH ISOLATION, AND FAST SWITCHING SPEED.



July 30, 2013

**Designed By:
PMI Engineering**

**Tested & Reported By:
Lee McGraw & Sebastian Palacio**

7311-F Grove Road Frederick, MD 21704 USA Phone: (301)662-5019 Fax: (301)662-1731
Email: sales@pmi-rf.com



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TEST. ITEM NO	PARAMETERS	SPECIFIED VALUE	TEST RESULTS	QA QC	
1	Frequency Range:	2.0 GHz – 18.0 GHz	2.0 GHz – 18.0 GHz See Plots		
2	Insertion Loss:	3.8 dB Typ.	3.23dB See Plots		
3	Isolation:	60 dB Min.	<60dB See Plots		
4	VSWR:	2.0:1	1.91:1 See Plots		
5	Speed:	50ns Max.	<30ns See Plots		
6	Power Input:	100mW CW Max.	Pass		
7	Power Supply:	+5V @ 200 mA Nominal -5V @ 75 mA Nominal	125mA 70mA		
8	Video Transients:	Not Specified	820mV Peak to Peak Typ. See Plots		
9	Control Signal	LOGIC TABLE 2 BIT DECODER			Pass
		E1	E2	FUNCTION	
		0	0	J1 – J2 “Low Loss”	
		0	1	J1 – J3 “Low Loss”	
		1	0	J1 – J4 “Low Loss”	
1	1	J1 – J5 “Low Loss”			



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DESCRIPTION:
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SPECIFICATIONS:

- FREQUENCY: 2.0 GHZ TO 18.0 GHZ
- INSERTION LOSS: 3.8dB TYPICAL
- ISOLATION: 60dB MINIMUM
- VSWR: 2.0:1
- SPEED: 50ms MAXIMUM
- POWER INPUT: 100 mW CW MAXIMUM
- CONTROL: TTL LOGIC - SEE LOGIC TABLE
- POWER SUPPLY: +5V @ 200 mA NOMINAL
 -5V @ 75 mA NOMINAL
- RF CONNECTORS: SMA FEMALE CONNECTORS
- POWER & CONTROL CONNECTORS: MICRO SUB-D 9 PIN - FEMALE MATING CONNECTOR SUPPLIED
- SIZE: 1.50" (W) X 2.72" (L) X 0.40" (H)
- FINISH: GOLD PLATED

ENVIRONMENTAL RATINGS:

- TEMPERATURE: -55°C TO +85°C (OPERATING)
 -65°C TO +125°C (STORAGE)
- HUMIDITY: MIL-STD-202F, METHOD 1038 COND. B
- SHOCK: MIL-STD-202F, METHOD 2138 COND. B
- VIBRATION: MIL-STD-202F, METHOD 2040 COND. B
- ALTITUDE: MIL-STD-202F, METHOD 1050 COND. B
- TEMPERATURE CYCLE: MIL-STD-202F, METHOD 107

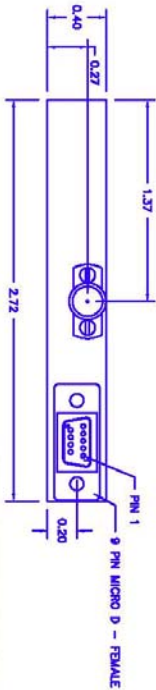
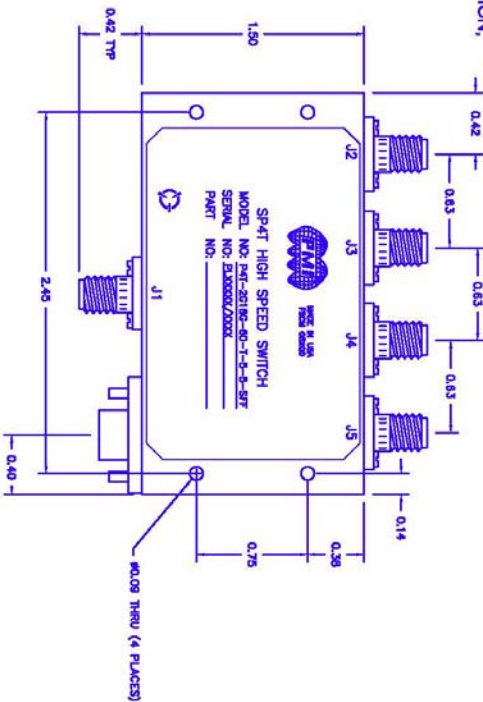
NOTE: THE ABOVE SPECIFICATIONS ARE SUBJECT TO CHANGE OR REVISION

PIN No.	Function
1	E1
2	E2
3	NC
4	NC
5	NC
6	GND
7	+V
8	-V
9	GND

2 BIT DECODER	FUNCTION
E1 E2	J1-J2 "Low Level"
0 0	J1-J3 "Low Level"
0 1	J1-J4 "Low Level"
1 0	J1-J5 "Low Level"
1 1	J1-J5 "Low Level"

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

REVISIONS			
ZONE	REV.	DESCRIPTION	DATE
	1	ORIGINAL RELEASE	05/28/13



PMI CONFIDENTIAL AND PROPRIETARY

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 ISO 9001:2008 CERTIFIED

PRODUCT FEATURE
 P4T-2G18G-60-T-5-5-SFF

APPROVALS: *KLL* DATE: 11/14/18

SIZE: FROM NO. A 05X00 DWG NO. 27019483
 CHECKED: [] SHEET NO. 1 OF 1
 REV: 1



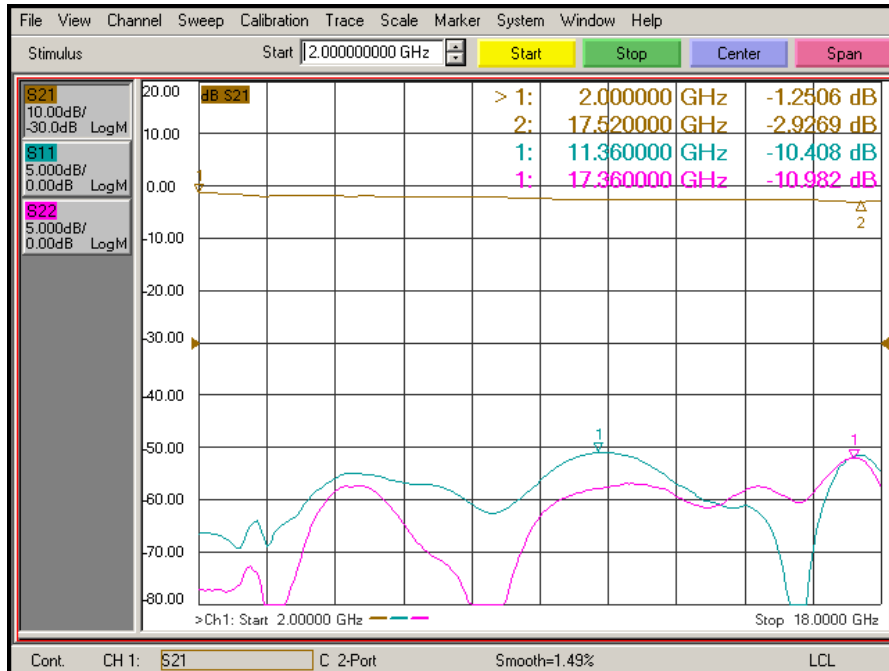
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(J1-J2) Insertion Loss and Return Loss



(J1-J3) Insertion Loss and Return Loss





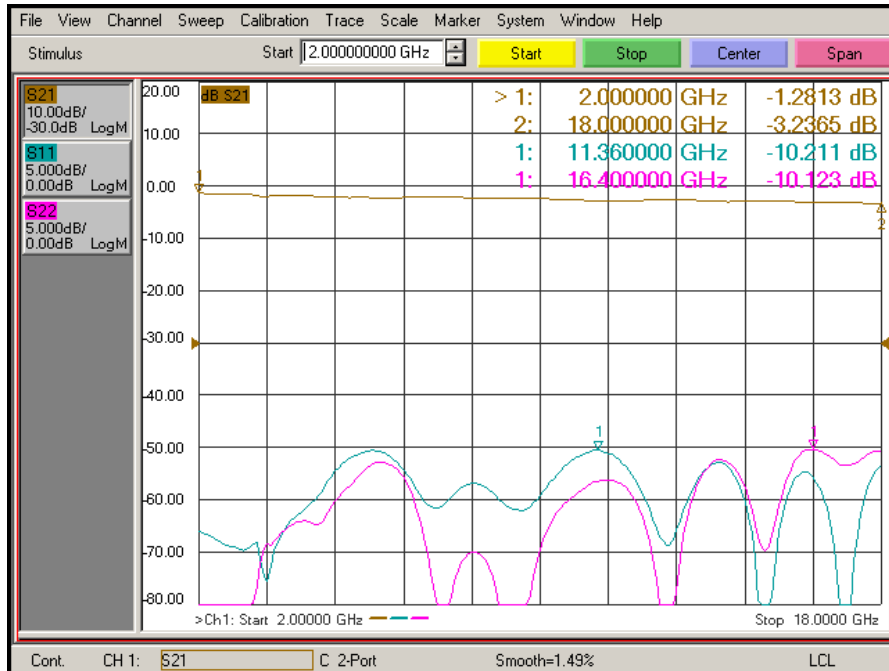
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(J1-J4) Insertion Loss and Return Loss



(J1-J5) Insertion Loss and Return Loss



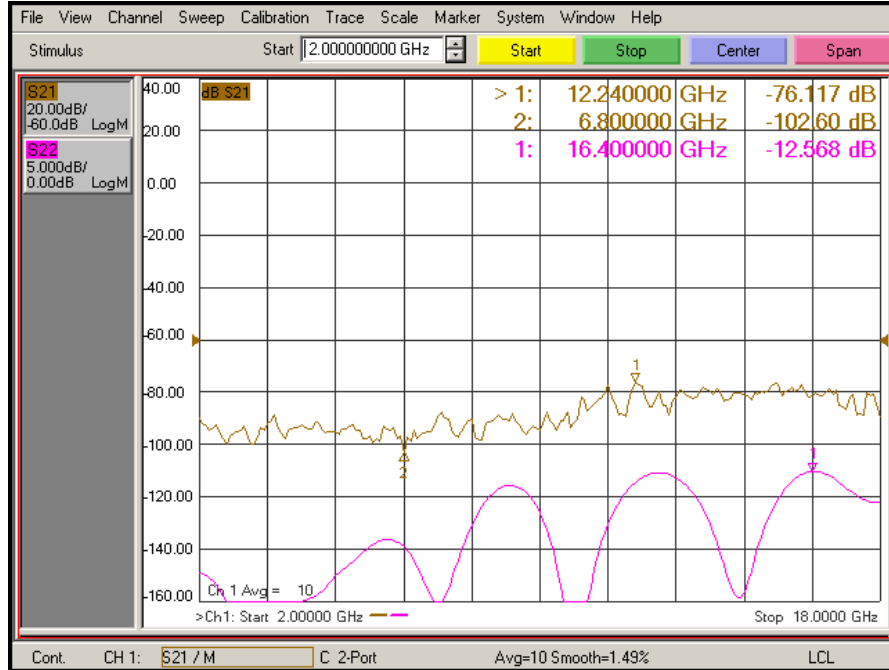
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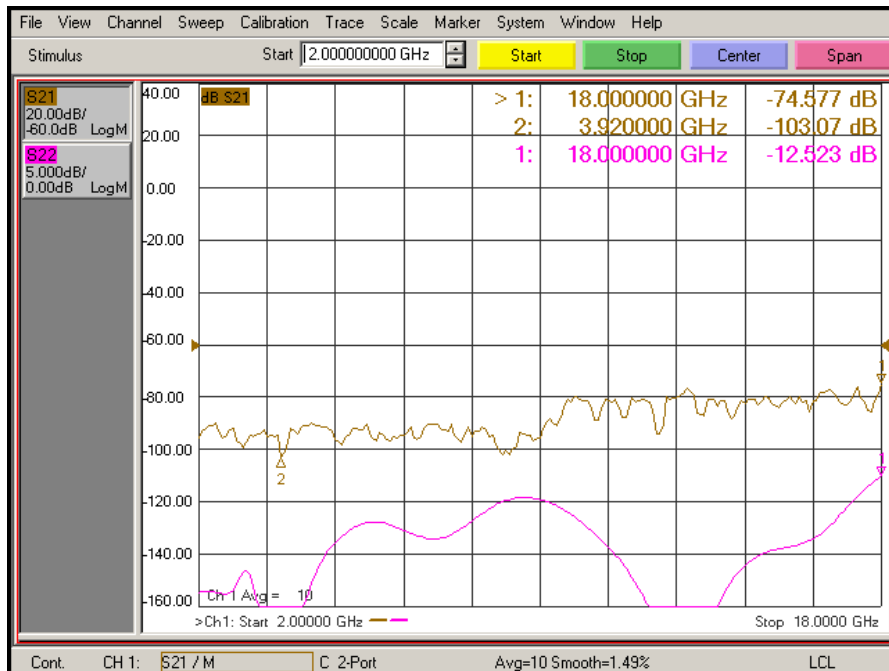
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(J1 – J2) Isolation and Termination Return Loss



(J1 – J3) Isolation and Termination Return Loss

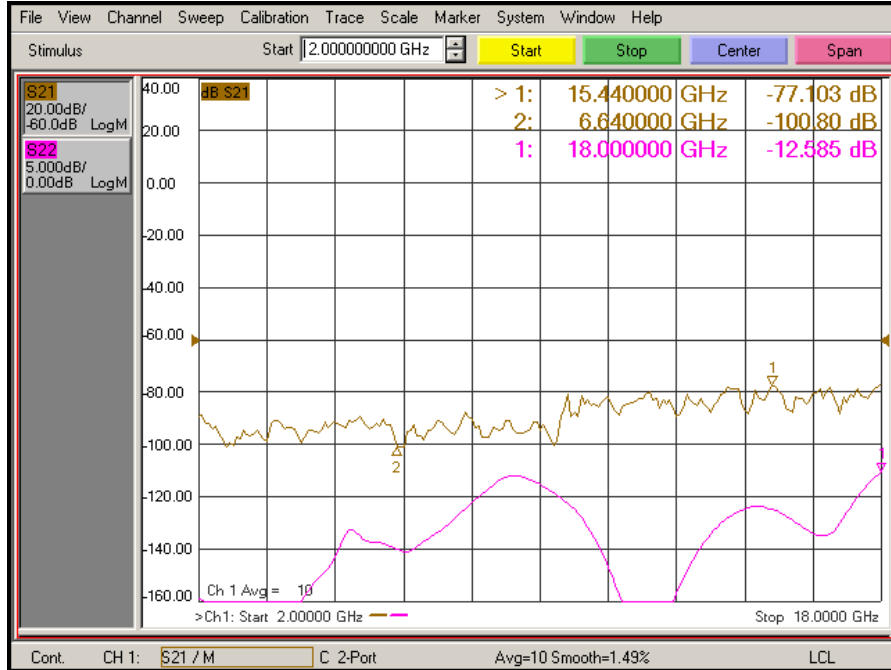




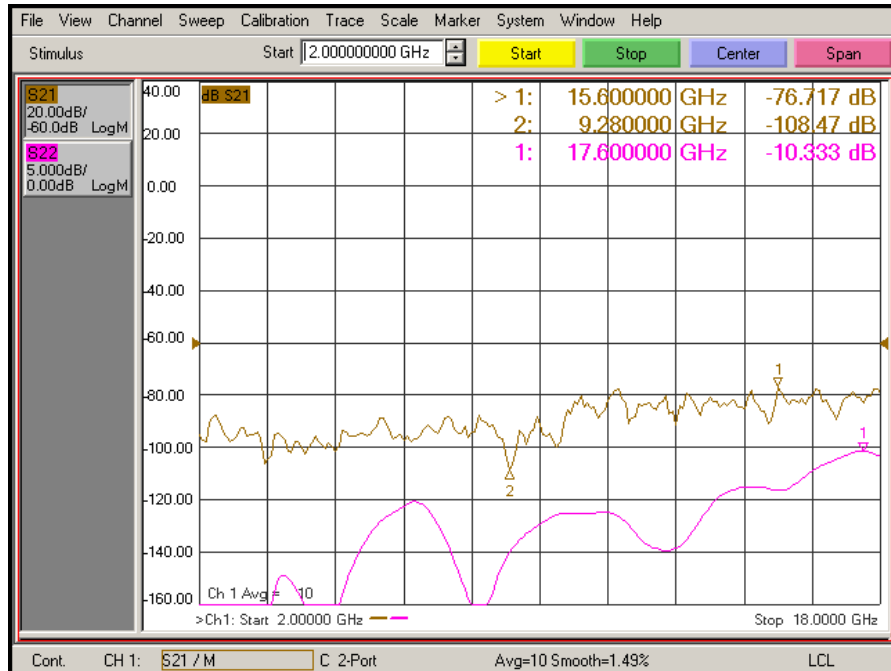
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(J1 – J4) Isolation and Termination Return Loss



(J1 – J5) Isolation and Termination Return Loss



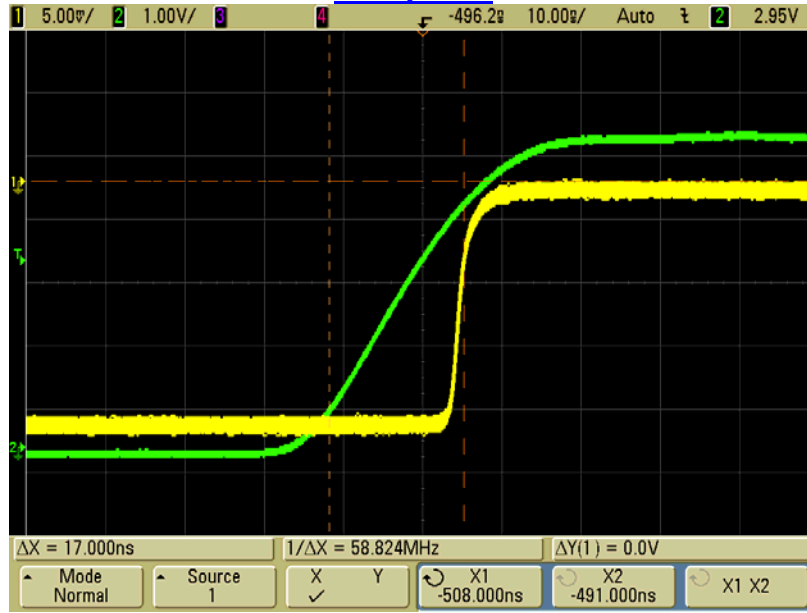


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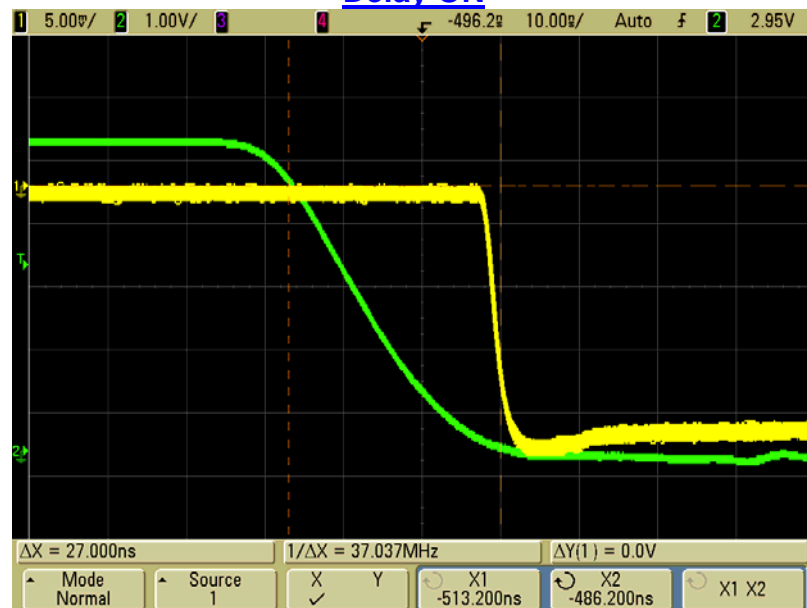
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Switching Speed
10ns per Div.

Delay OFF



Delay ON



Green Trace: TTL Signal
Yellow Trace: RF Signal (Negative Output Detector)

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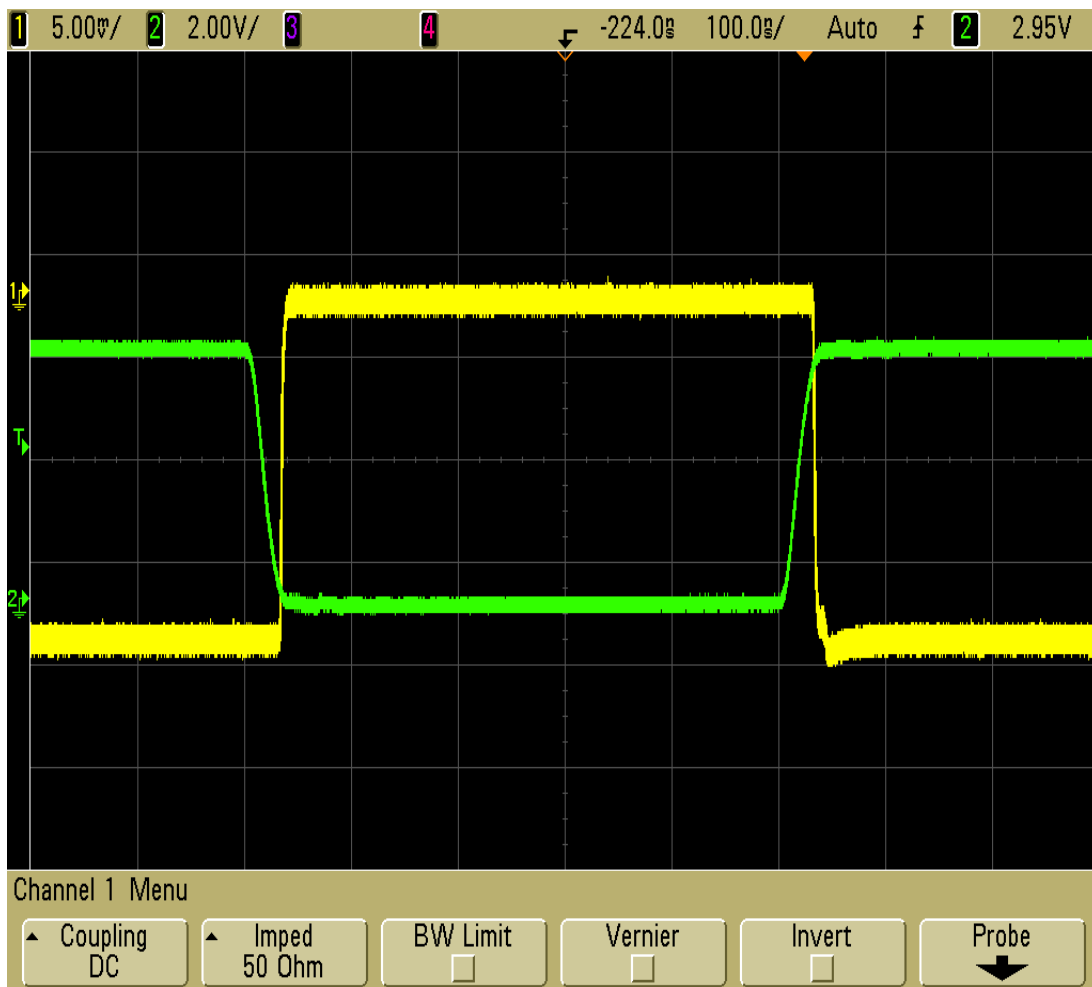


**TYPICAL CHARACTERISTICS
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Switching Speed
100ns per Div.

Full Pulse



Green Trace: TTL Signal
Yellow Trace: RF Signal (Negative Output Detector)

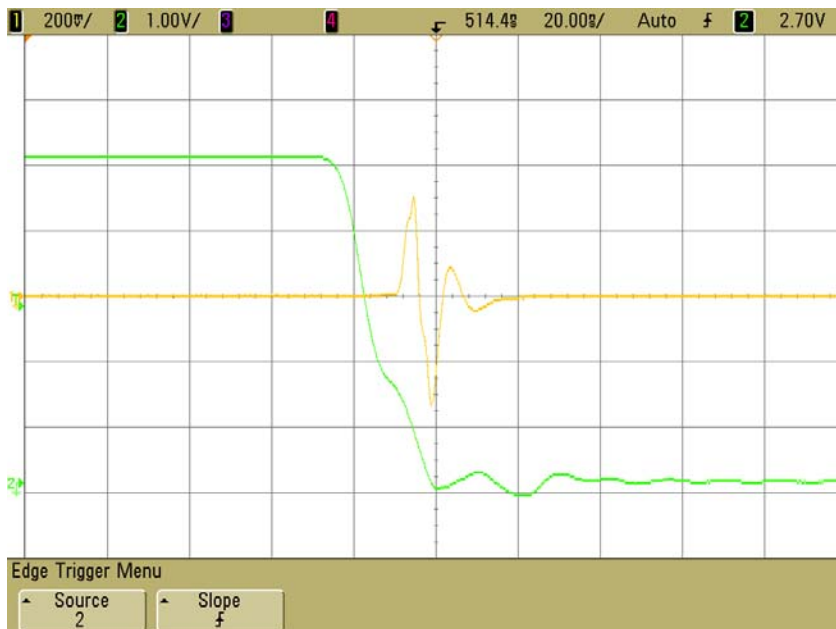
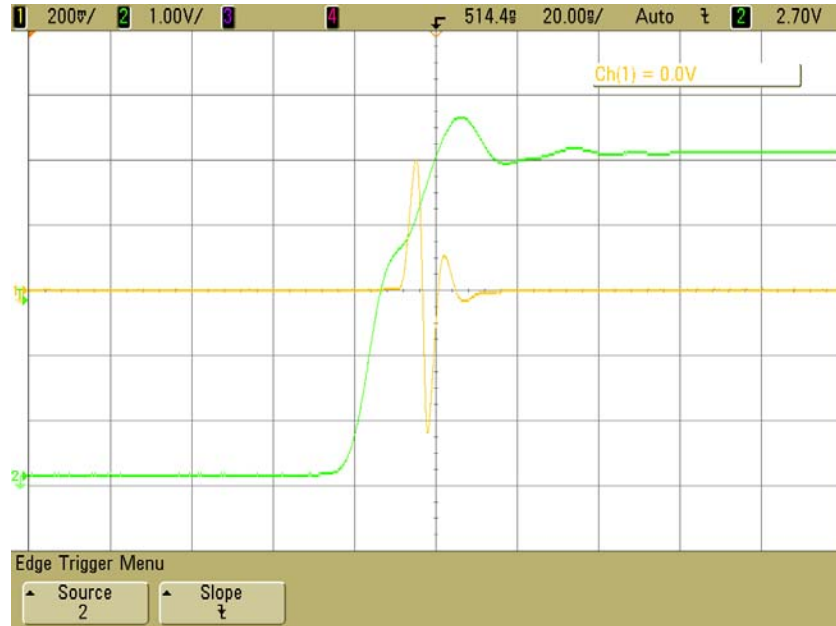


**TYPICAL CHARACTERISTICS
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Video Transients

20ns per Div.



**GREEN TRACE: TTL SIGNAL
YELLOW TRACE: VIDEO TRANSIENTS**

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