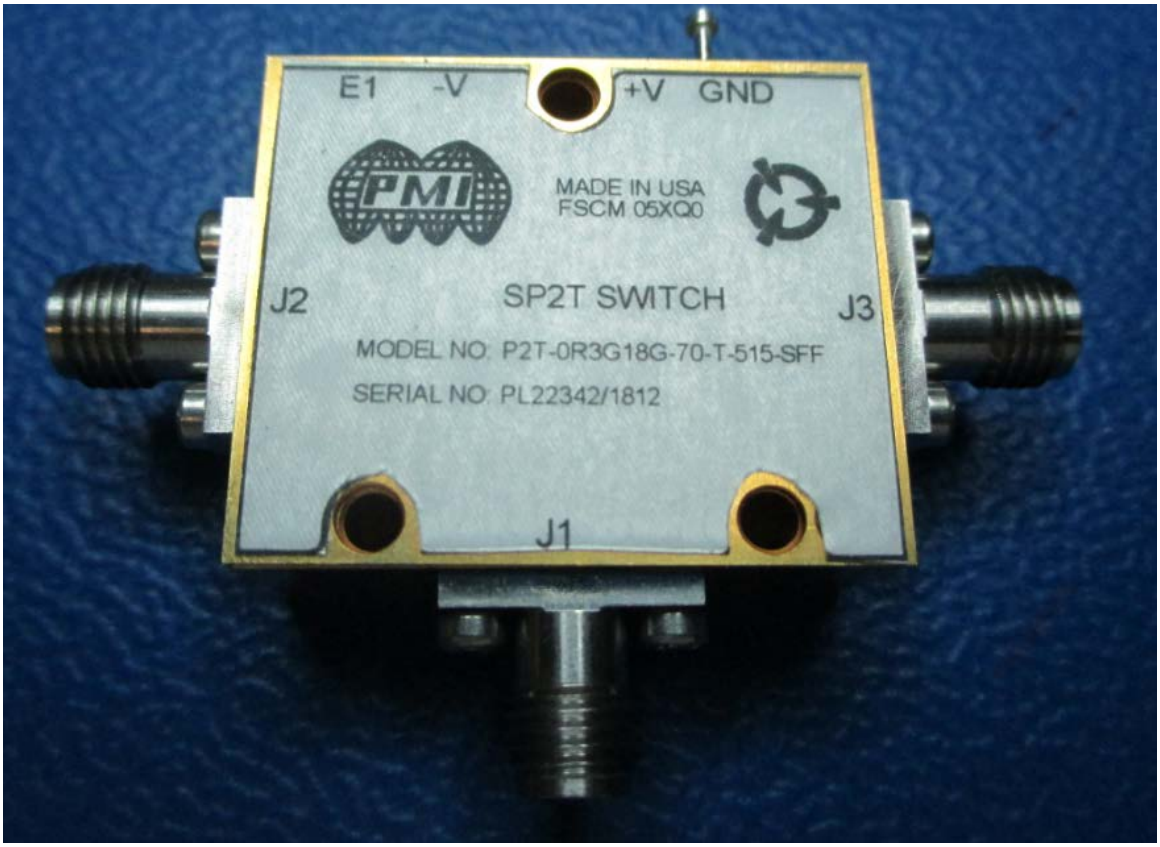
TYPICAL CHARACTERISTICS ON P2T-0R3G18G-70-T-515-SFF

PMI MODEL P2T-0R3G18G-70-T-515-SFF IS A SINGLE POLE DOUBLE THROW ABSORPTIVE SWITCH. THIS MODEL HAS THE FOLLOWING SPECIFICATIONS.



April 3, 2018

Designed By: PMI Engineering

Tested & Reported By:
Eric Valdez & Sebastian Palacio

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

TYPICAL CHARACTERISTICS ON P2T-0R3G18G-70-T-515-SFF

DESCRIPTION

PMI MODEL P2T-0R3G18G-70-T-515-SFF IS A SINGLE POLE DOUBLE THROW ABSORPTIVE SWITCH. THIS MODEL HAS THE FOLLOWING SPECIFICATIONS.

SPECIFICATIONS

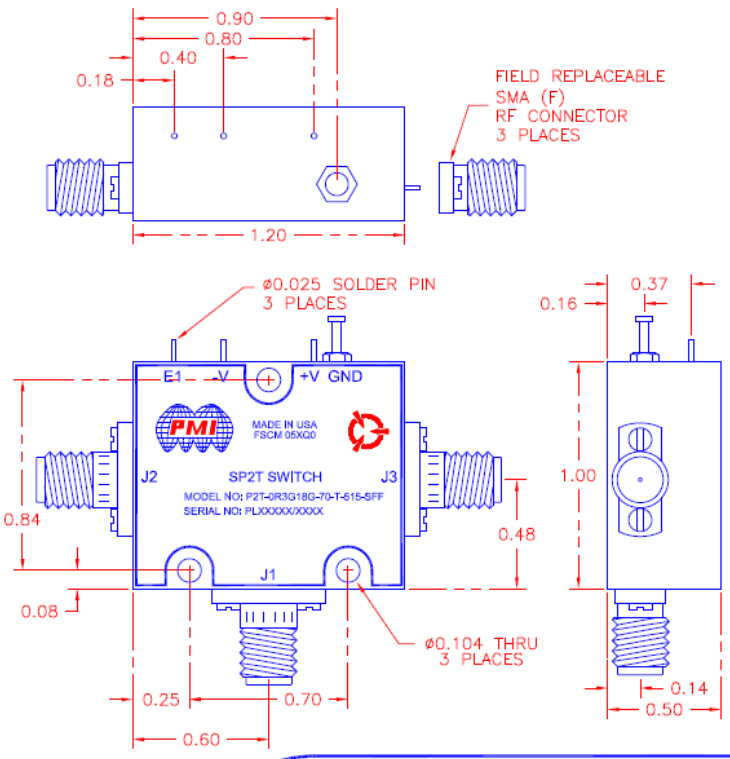
- FREQUENCY RANGE: ..... 0.3 TO 18.0 GHz
- INSERTION LOSS: ..... 3.5 dB MAX
- ISOLATION: ..... 70 dB MIN
- VSWR: ..... IN / OUT: 2.0:1
  TERMINATED OUT: 2.0:1
- RISE TIME: ..... 30 ns MAX (10% RF TO 90% RF)
- FALL TIME: ..... 30 ns MAX (90% RF TO 10% RF)
- DELAY ON: ..... 100 ns MAX
- DELAY OFF: ..... 100 ns MAX
- POWER INPUT: ..... +20 dBm CW (STANDARD)
  +10 dBM (HIGH SPEED)
- SURVIVAL: ..... 1 WATT CW, 10 WATTS PEAK 1 usec
- CONTROL: ..... TTL LOGIC "0" = J1-J2 ON
  TTL LOGIC "1" = J1-J3 ON
- POWER SUPPLY: ..... +5 V @ 100 mA MAX
  −15 V @ 100 mA MAX
- CONNECTORS: ..... RF: SMA (F)
  CONTRL: SOLDER PIN
- SIZE: ..... 1.20" (L) X 1.00" (W) X 0.50" (H)
- FINISH: ..... GOLD PLATED

ENVIRONMENTAL RATINGS

- **TEMPERATURE:** ..... −55°C TO +85°C (OPERATING)
  −65°C TO +125°C (STORAGE)
- **HUMIDITY:** ..... MIL-STD-202G, METHOD 103B COND. B
- **SHOCK:** ..... MIL-STD-202G, METHOD 213B COND. B
- **VIBRATION:** ..... MIL-STD-202G, METHOD 204D COND. B
- **ALTITUDE:** ..... MIL-STD-202G, METHOD 105C COND. B
- **TEMPERATURE CYCLE:** ..... MIL-STD-202G, METHOD 107G 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
	A1	ORIGINAL RELEASE	1/24/18	



ALL DIMENSIONS ARE IN INCHES
TOLERANCES:
X.XX ±0.020
X.XXX ±0.010
WEIGHT: 1.5 oz. TYPICAL

PLANAR MONOLITHICS INDUSTRIES, INC.
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FREDERICK, MARYLAND 21704 USA
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WEBSITE: www.pmi-rf.com
E-MAIL: sales@pmi-rf.com
ISO 9001 CERTIFIED

APPROVALS	DATE
DRAWN JLH	1/24/18
REDRAWN	
ISSUED	

TITLE: PRODUCT FEATURE
P2T-0R3G18G-70-T-515-SFF

SIZE	FSCM NO.	DWG NO.	REV.
A	05XQ0	27033960	A1

SCALE N:S SHEET 1 OF 1

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TYPICAL CHARACTERISTICS
ON
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TEST. ITEM NO	PARAMETERS	SPECIFIED VALUE	TEST RESULTS	QA QC
1	Frequency Range:	0.3 GHz – 18 GHz	**0.3 GHz – 18 GHz See Plots**	
2	Insertion Loss:	3.5 dB Max	**2.92dB See Plots**	
3	Isolation:	70 dB Min	**80.0dB See Plots**	
4	VSWR: (ON/OFF)	2.0:1 Max	**1.93:1 See Plots**	
5	RISE/FALL TIME	30 ns (10% - 90% RF)	**19.4ns / 4.1ns See Plots**	
6	DELAY (ON/OFF)	100ns (on/off)	**50ns / 30ns See Plots**	
7	Video Transients	Not Specified	**3.24 V Peak to Peak Typ. See Plot**	
8	Control Logic:	Single Control TTL Toggle LOGIC “0” = J1 - J2 ON LOGIC “1” = J1 - J3 ON	**PASS**	
9	Power Supply:	+5V @ 100mA Max -15V @ 100mA Max	**52mA 48mA**	
10	RF Power (Survival):	+30 dBm CW (1 Watt) & 10 W Peak, 1us	**PASS**	
11	RF Power (Operating):	+20 dBm Max	**PASS**	

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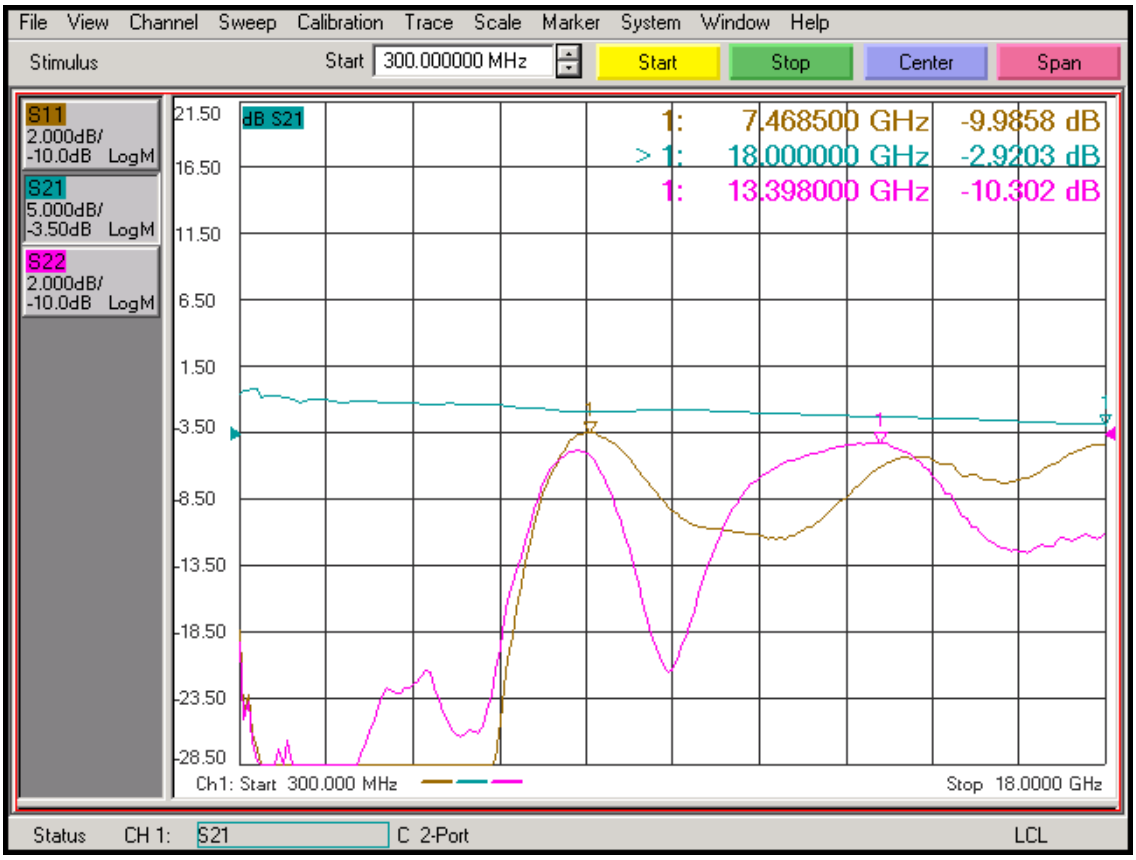
(J1-J2) Insertion Loss and Return Loss



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TYPICAL CHARACTERISTICS
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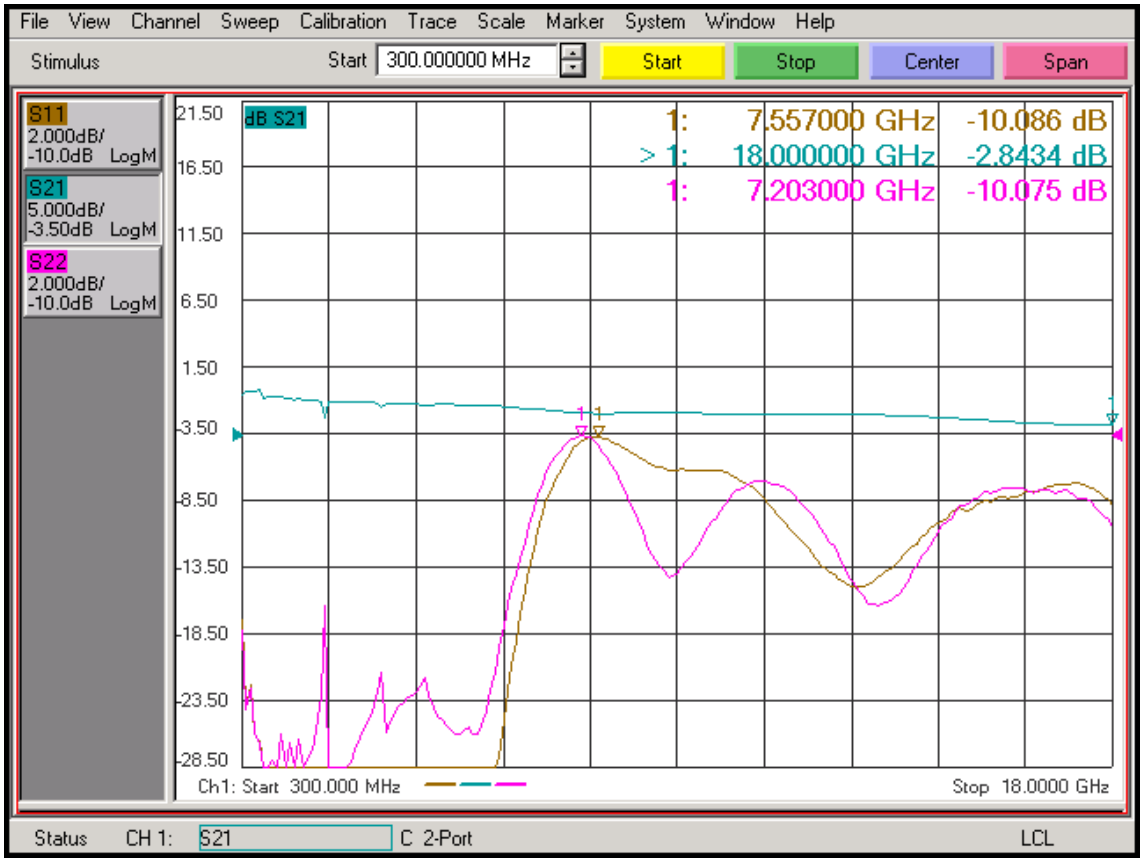
(J1-J3) Insertion Loss and Return Loss



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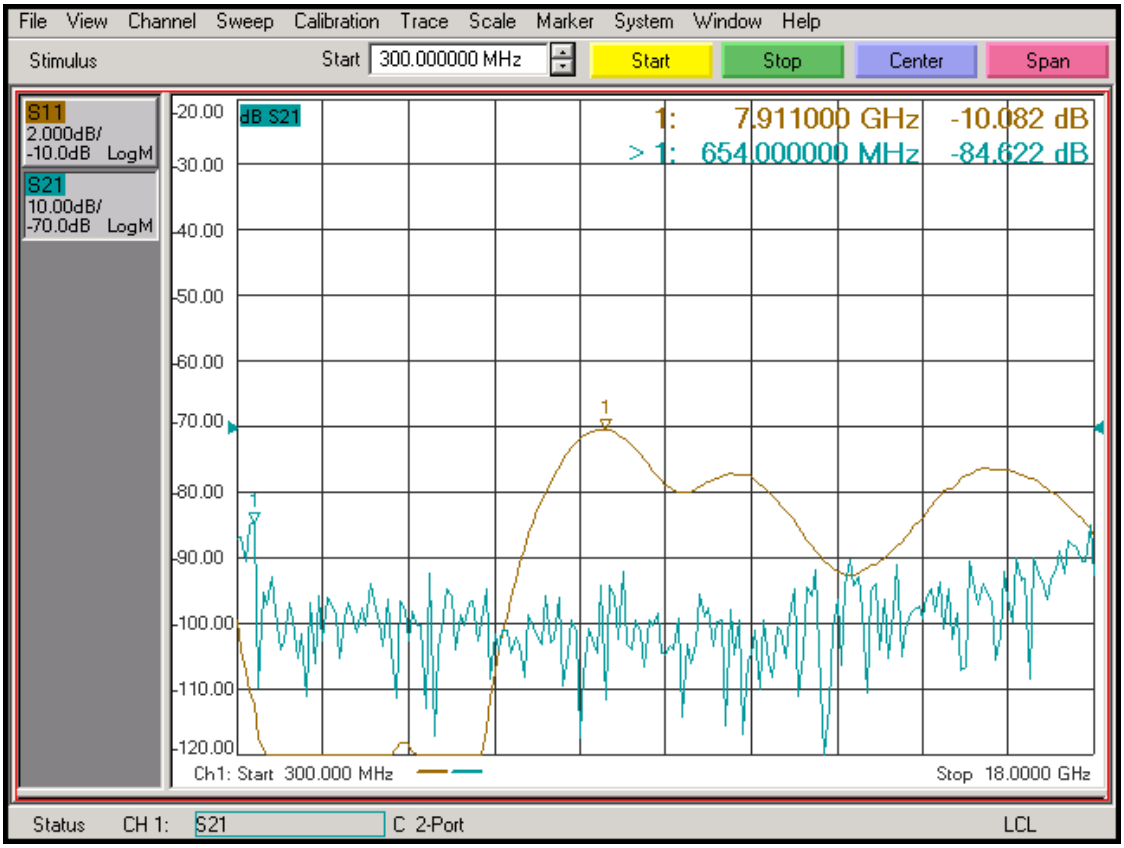
(J1 – J2) Isolation and Termination Return Loss



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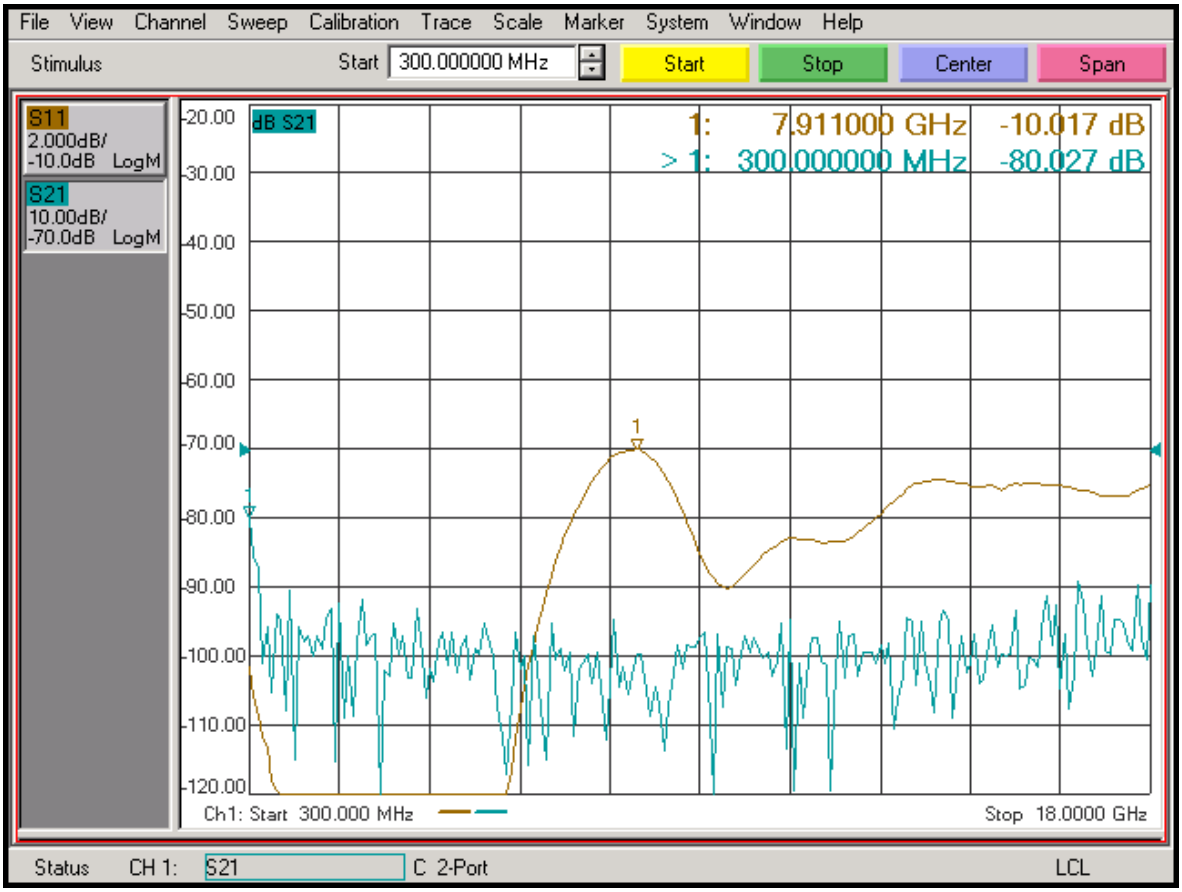
(J1 – J3) Isolation and Termination Return Loss



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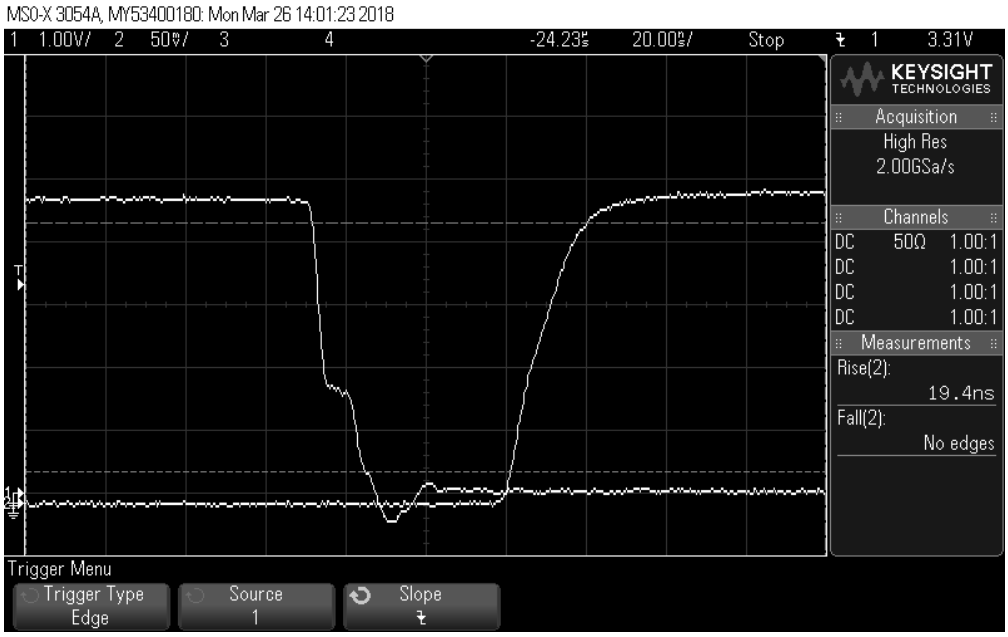
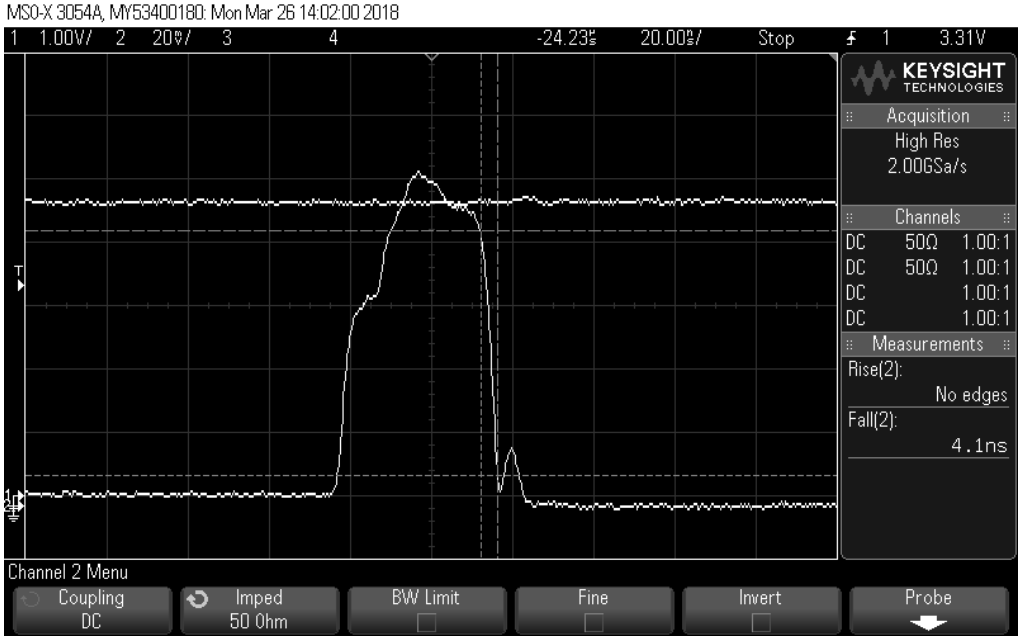
Switching Speed
Rise and ON Delay Time



Fall and OFF Delay Time



Channel 1 = TTL Signal
Channel 2 = RF Signal

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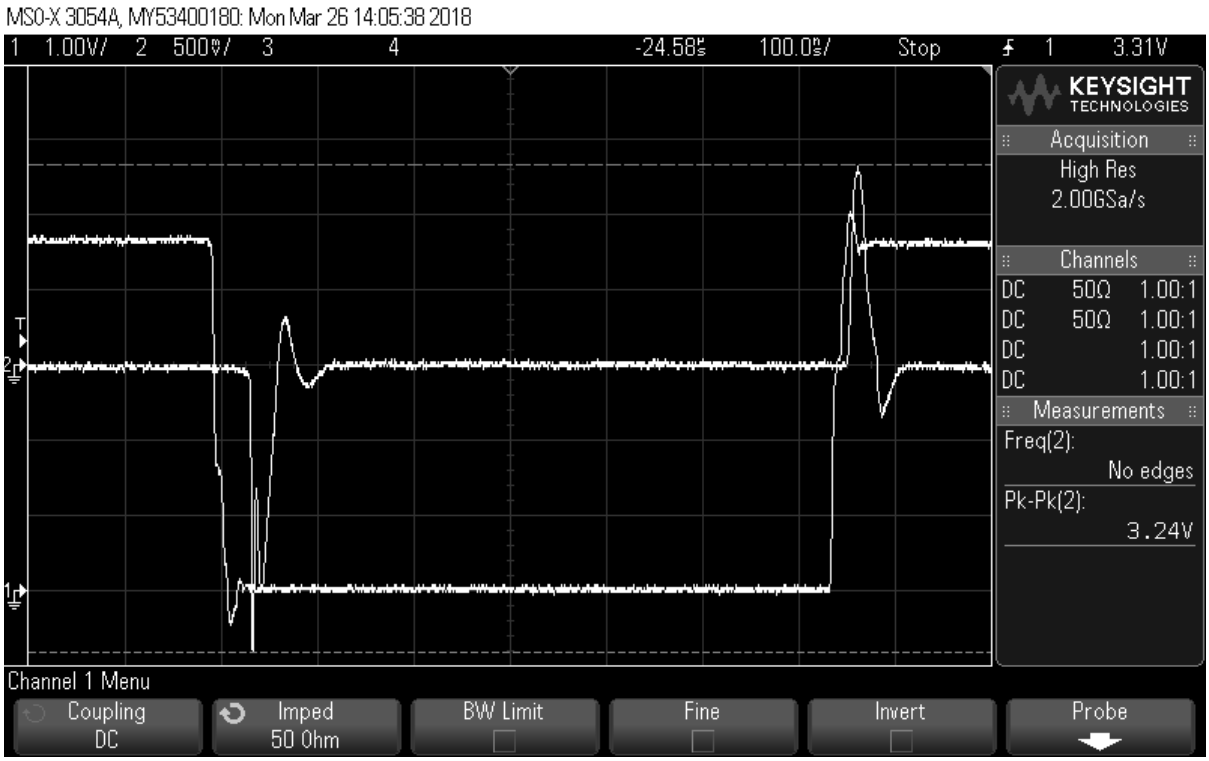
Video Transients



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