Typical Characteristics
On
PVVAN-8018-60-MP

PMI MODEL NUMBER PVVAN-8018-60-MP IS AN ANALOG CONTROLLED 60 dB PIN DIODE ATTENUATOR OPERATING OVER THE FREQUENCY RANGE OF 8.0 GHz TO 18.0 GHz.

July 21, 2014

Designed By:
PMI Engineering

Tested and Reported By:
Kevin Mansfield
Sebastian Palacio

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email: sales@pmi-rf.com

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DESCRIPTION:

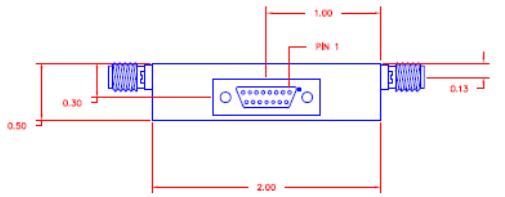
PMI MODEL NUMBER PVVAN-8018-60-MP IS AN ANALOG CONTROLLED 60 dB PIN DIODE ATTENUATOR OPERATING OVER THE FREQUENCY RANGE OF 8.0 GHz TO 18.0 GHz.

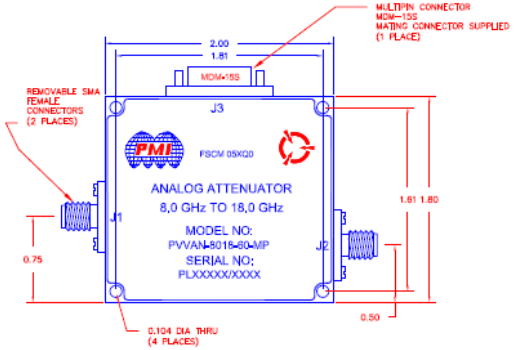
REVISIONS				
ZONE	REV.	DESCRIPTION	DATE	APPROVED
	1	ORIGINAL RELEASE	05/28/13	
	A1	ECN # 14-0069	05/01/14	
	A2	ECN # 22-0067	07/12/22	

SPECIFICATIONS:

- FREQUENCY: 8.0 GHz TO 18.0 GHz
- MEAN ATTENUATION RANGE: 60dB
- INSERTION LOSS: 3.7 dB MAX
- VSWR: 2.0:1 MAX
- POWER RATING: +20dBm (Operating)
  +30dBm (Survival)
- ATTENUATION FLATNESS:
  - @ 10 dB ±0.8 dB
  - @ 20dB ±1.1 dB
  - @ 40dB ±1.5 dB
  - @ 60dB ±1.6 dB
- SWITCHING TIME 500 nsec MAX
- CONTROL 10dB/Volt Analog Controlled
- POWER SUPPLY +12V to +15V @ 125mA MAX
  -12V to -15V @ 50mA MAX
- PWR/CTL CONNECTORS 15 PIN Micro-D-Female (MATING CONNECTOR SUPPLIED)
- RF CONNECTORS SMA – Female
- FINISH GRAY EPOXY POLIMIDE COATING IAW MIL-C-22750, TYPE I OVER EPOXY POLIMIDE PRIMER IAW MIL-P-23377, TYPE I, CLASS 1 OR 3.
- SIZE (L) 2.00" X (W) 1.80" X(H) 0.50"

PIN NO:	J3 PIN FUNCTIONS
1	N/C
2	N/C
3	ANALOG INPUT
4	GND
5	N/C
6	N/C
7	N/C
8	N/C
9	N/C
10	N/C
11	N/C
12	N/C
13	+12 or +15 VDC
14	-12 or -15 VDC
15	N/C





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 107

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 ANG	05/28/13
CHECKED	
ISSUED	

TITLE: PRODUCT FEATURE
PVVAN-8018-60-MP

SIZE	FSCM NO.	DWG NO.	REV.
A	05XQ0	27019161	A2

SCALE N:S SHEET 1 OF 1

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Typical Characteristics On PVVAN-8018-60-MP

TEST. ITEM NO	PARAMETERS	SPECIFIED VALUE		TEST RESULTS		QA QC
1	Frequency Range:	8.0 GHz to 18.0 GHz		**8.0 GHz to 18.0 GHz See Plots**		
2	Mean Attenuation Range:	60dB		**60dB See Plots**		
3	Insertion Loss:	3.7dB Max.		**3.15dB See Plot**		
4	VSWR:	2.0:1 Max		**1.71:1 See Plots**		
5	Power Rating:	+20dBm (Operating)		**PASS**		
		+30dBm (Survival)		**PASS**		
6	Attenuation Flatness:	@ 10 dB	±0.8 dB	**@ 10 dB**	**±0.35 dB**	
		@ 20 dB	±1.1 dB	**@ 20 dB**	**±0.46 dB**	
		@ 40 dB	±1.5 dB	**@ 40 dB**	**±1.11 dB**	
		@ 60 dB	±1.6 dB	**@ 60 dB**	**±1.58 dB**	
7	Switching Time:	500ns Max		**<400ns See Plots**		
8	*Control:	10dB/Volt		**10dB/Volt**		
9	Power Supply:	+12V to +15V @ 125mA Max		**32mA @ +12V to +15V**		
		-12V to -15V @ 50mA Max		**0mA @ -12V to -15V**		

*ANALOG CONTROLLED

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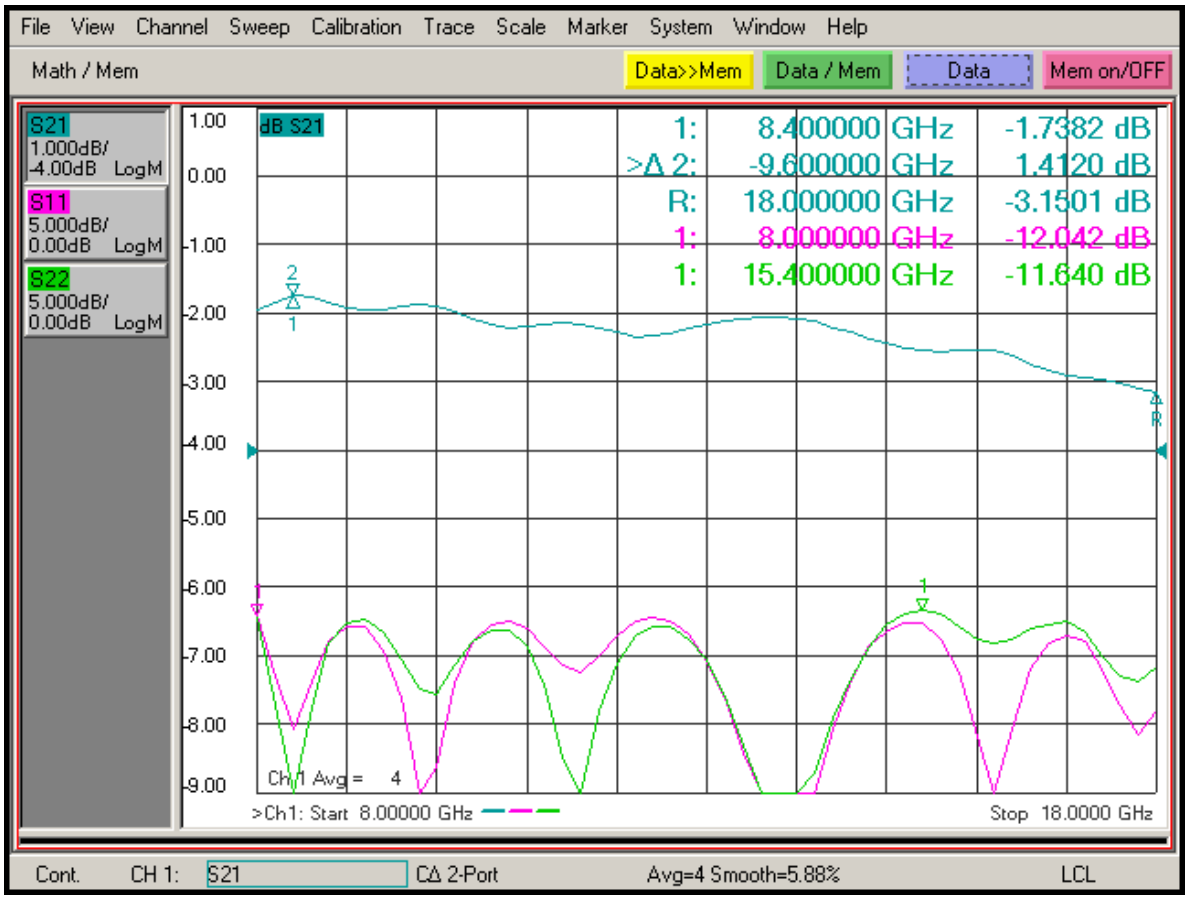
Insertion Loss and Return Loss



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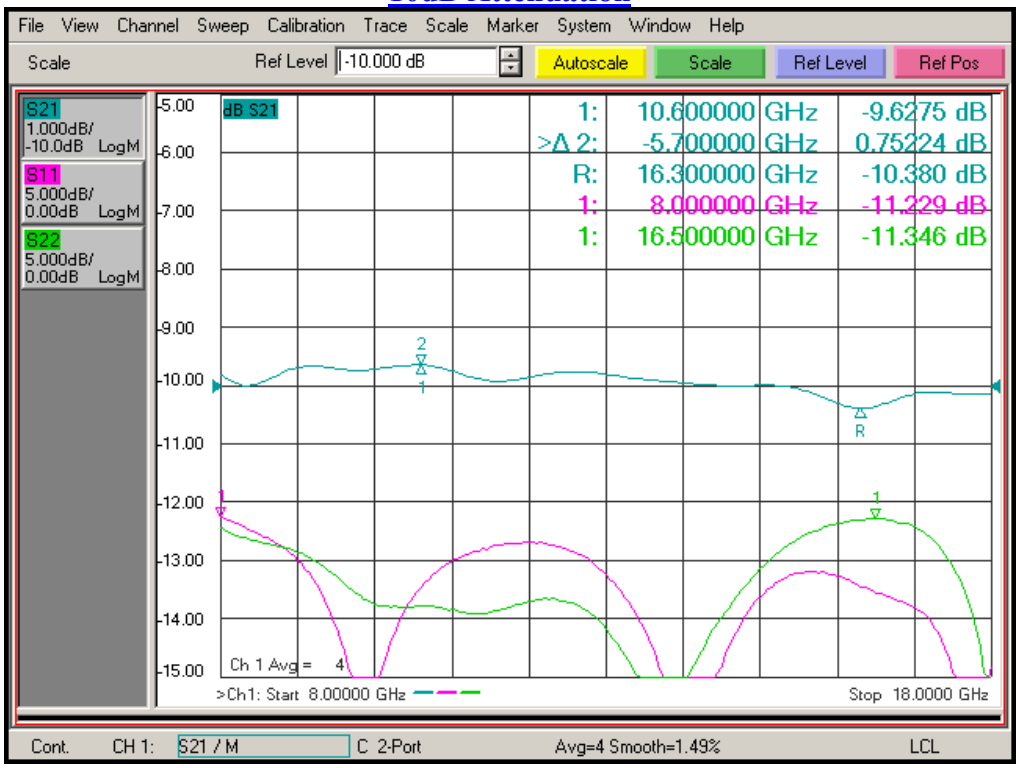
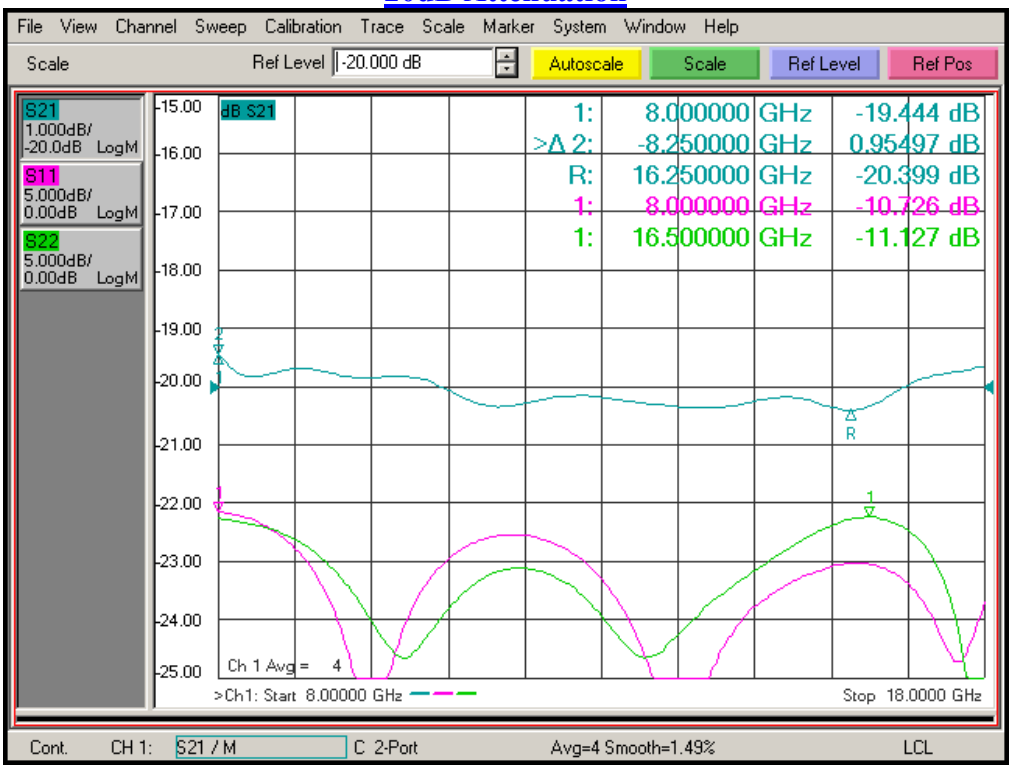
10dB Attenuation



20dB Attenuation



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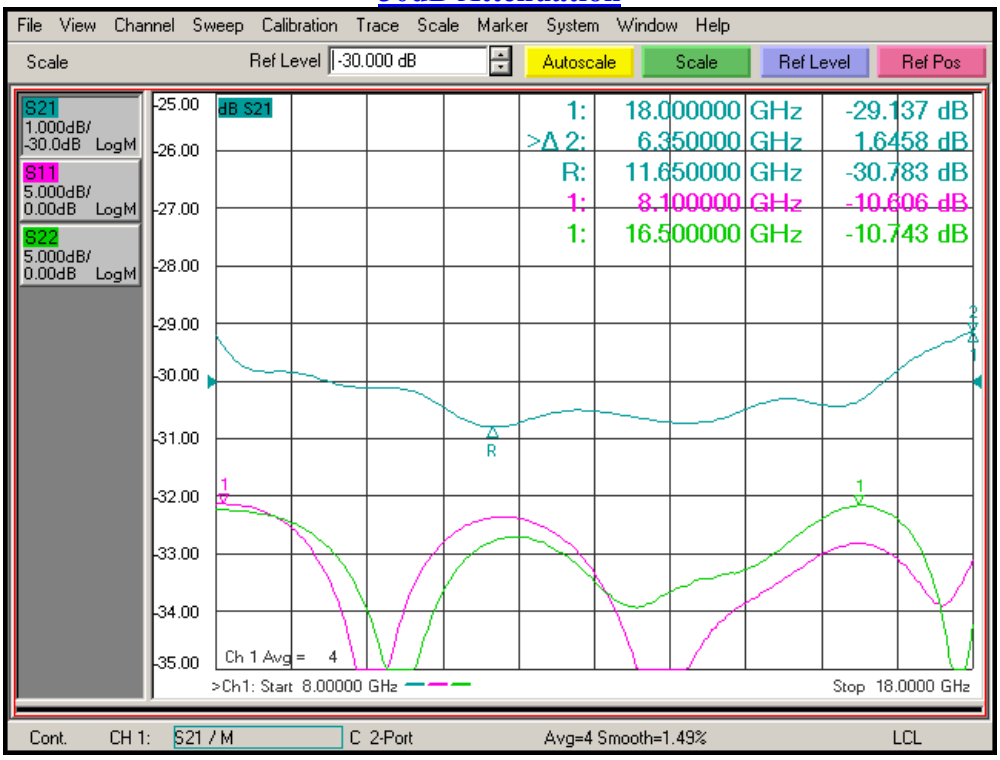
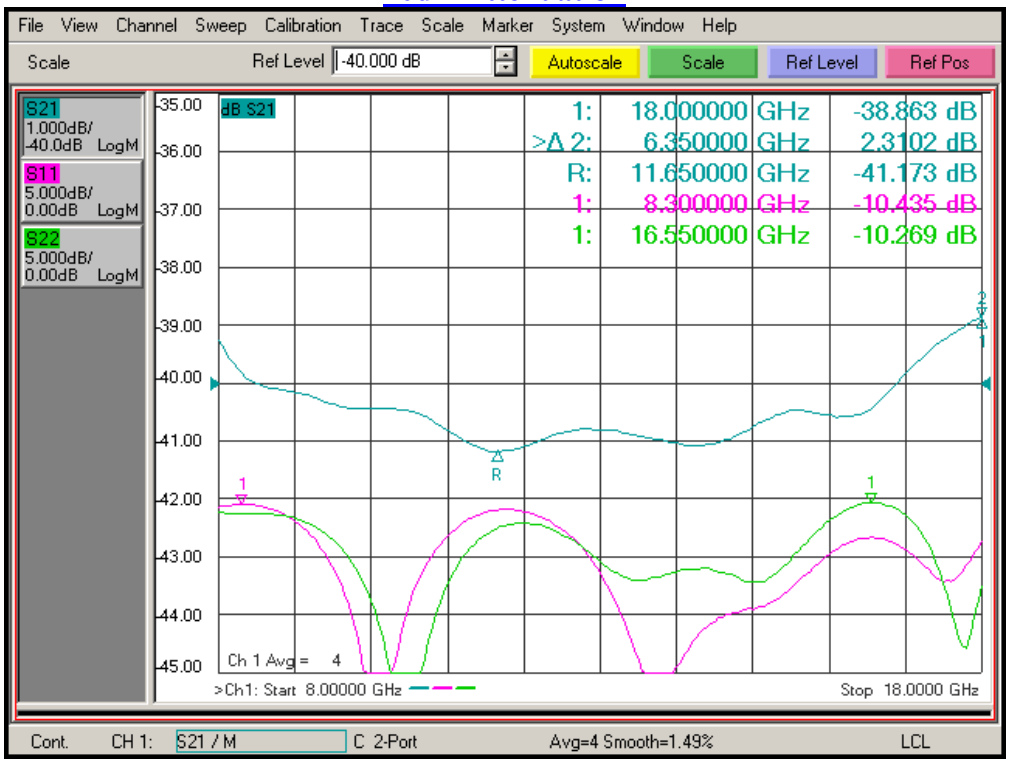
30dB Attenuation



40dB Attenuation



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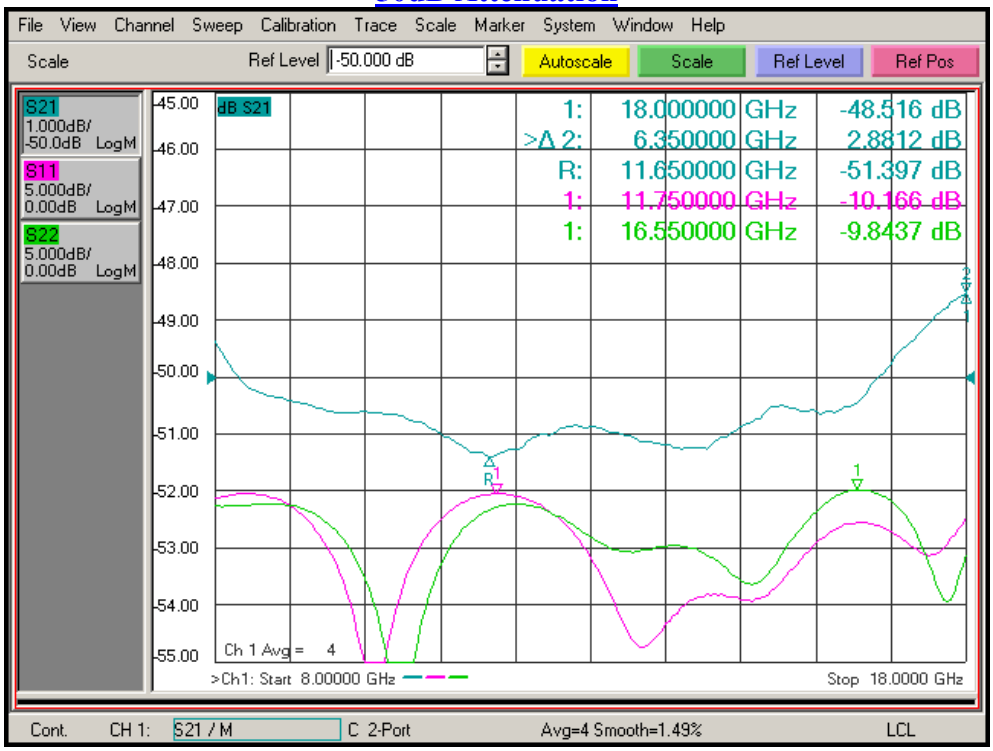
50dB Attenuation



60dB Attenuation

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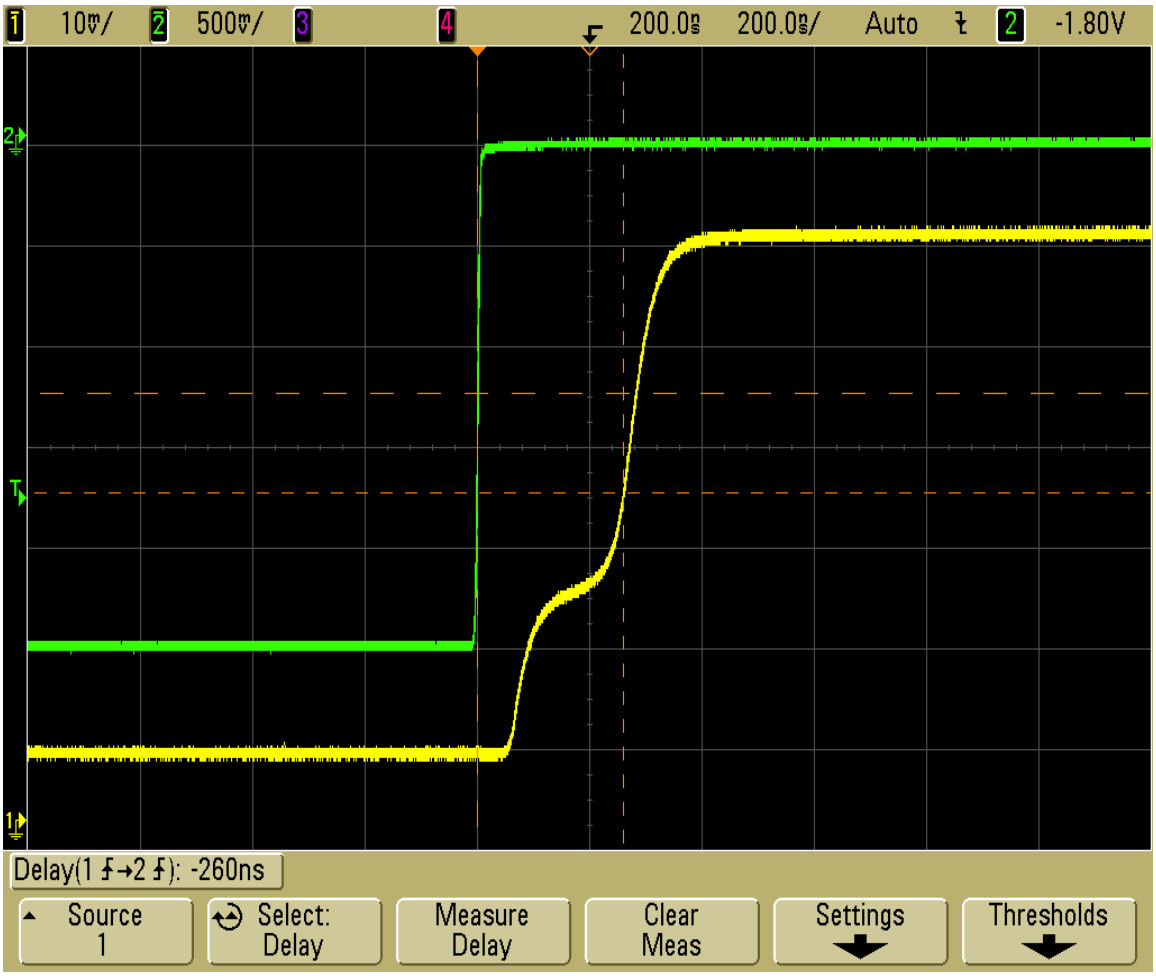
Switching Time

ON Delay – 200ns per Div.



Channel 1 (Yellow): RF output

Channel 2 (Green): TTL Input from Signal Generator

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Typical Characteristics
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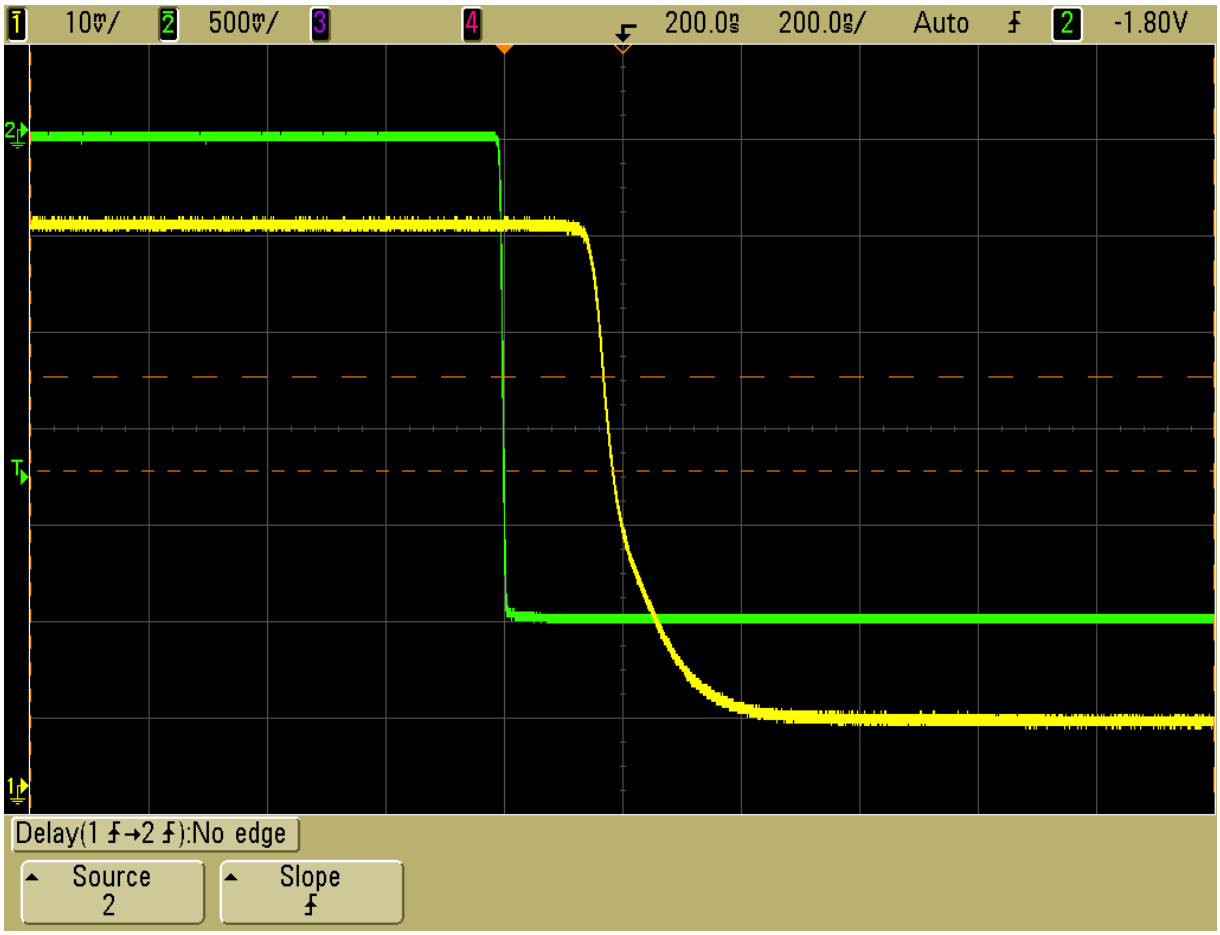
OFF Delay – 200ns per Div.



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