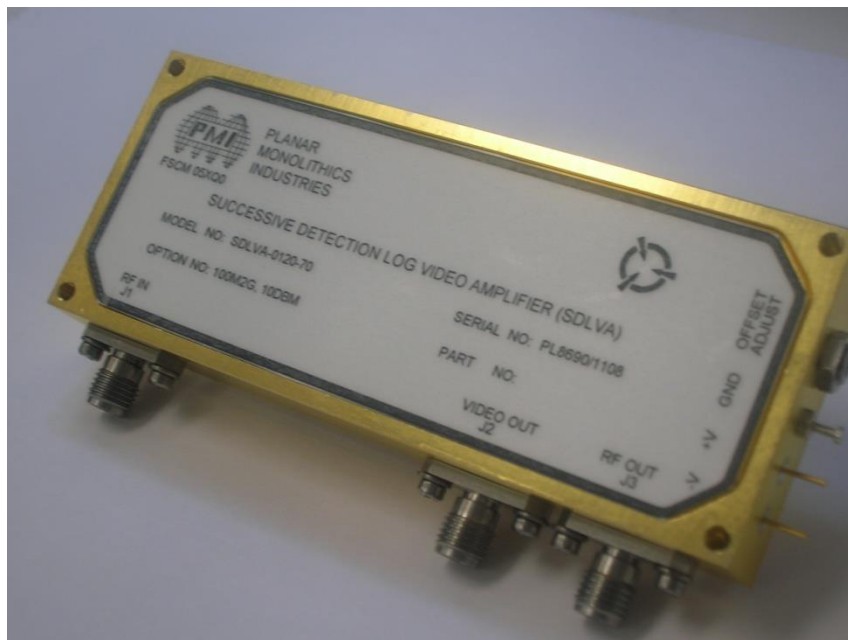




**Typical Characteristics
For
SDLVA-0120-70 Opt. 100M2G, 10dBm**

THE MODEL SDLVA-0120-70 OPTION: 100M2G, 10dBm IS A SUCCESSIVE DETECTION LOG VIDEO AMPLIFIER (SDLVA) THAT OPERATES BETWEEN THE 0.1 TO 2.0 GHz FREQUENCY RANGE. IT HAS A DYNAMIC RANGE OF 70 dB MINIMUM AND A TSS OF -65 dBm. THIS UNIT OFFERS A MAXIMUM FAST RISE TIME OF 25 nSec AND A RAPID FALL TIME OF 30 nSec.



February 24, 2011
Reported by: Dave Durbin



Typical Characteristics For SDLVA-0120-70 Opt. 100M2G, 10dBm

DESCRIPTION

THE MODEL SDLVA-0120-70 OPTION: 100M2G, 10DBM IS A SUCCESSIVE DETECTION LOG VIDEO AMPLIFIER (SDLVA) THAT OPERATES BETWEEN THE 0.1 TO 2.0 GHz FREQUENCY RANGE. IT HAS A DYNAMIC RANGE OF 70 dB MINIMUM AND A TSS OF -65 dBm. THIS UNIT OFFERS A MAXIMUM FAST RISE TIME OF 25 nSec AND A RAPID FALL TIME OF 30 nSec

SPECIFICATIONS

- FREQUENCY RANGE: 0.1 TO 2.0 GHz
- DYNAMIC RANGE: 70 dBm MINIMUM, 75 dB TYPICAL
- LOG LINEARITY: ± 2.0 dB MAXIMUM (-65 TO +5 dBm)
AT 100 MHz: ± 2.0 dB MAXIMUM (-50 TO +5 dBm)
- MINIMUM LOGGING RANGE: -65 dBm
- MAXIMUM LOGGING RANGE: +5 dBm
- VSWR INPUT: 2.0:1 MAXIMUM (1.8:1 TYPICAL)
- TANGENTIAL SENSITIVITY: -65 dBm (-70 dBm TYPICAL)
- LIMITED IF OUTPUT: +10 dBm TYPICAL
- MAXIMUM RF INPUT POWER: +10 dBm
- LOG VIDEO OUTPUT:
 - OUTPUT COUPLING: DC
 - MAXIMUM OUTPUT VOLTAGE: 2.7 VOLTS
 - RISE TIME: 25 nsec Max
 - FALL TIME: 30 nsec Max
 - SETTLING TIME: 40 nsec Max
 - DC OFFSET: 0.1 V NOMINAL (ADJUSTABLE)
 - SLOPE: 25 mV/dB NOMINAL (at 1GHz)
 - LOG SLOPE VARIATION
WITH FREQUENCY: ± 0.5 mV/dB TYPICAL (OVER 80 MHz RF BANDWIDTH)
 - LOG SLOPE VARIATION
WITH TEMPERATURE: ± 0.5 mV/dB TYPICAL
 - PROPAGATION DELAY: 10 nSec TYPICAL
 - VIDEO LOAD: 100 Ω $\pm 10\%$
- DC POWER SUPPLY:
 - +V: +7 TO +18V @ 300 mA
 - V: -7 TO -18V @ 150 mA
- SIZE: (L) 3.75" X (W) 1.50" X (H) 0.50"
- FINISH: GOLD PLATED

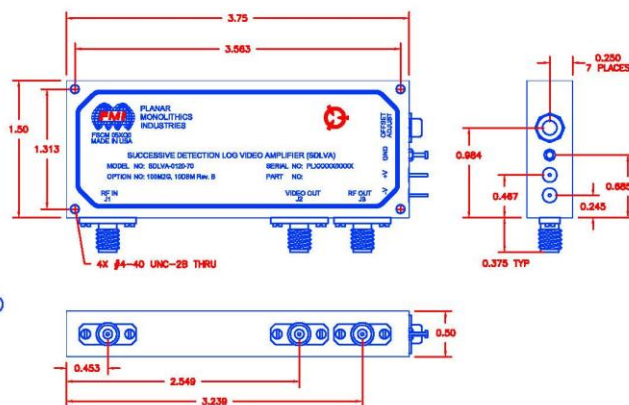
ENVIRONMENTAL RATINGS

- TEMPERATURE: -55°C TO +85°C (OPERATING)
..... -65°C TO +100°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
WEIGHT: 2.75 oz.

REVISIONS				
ZONE	REV.	DESCRIPTION	DATE	APPROVED
	A1	ORIGINAL RELEASE	12/2/08	
	B1	UPDATED LINEARITY SPEC AT 100 MHZ	8/28/11	
	B2	ECN # 13-0208	11/28/19	



PMI CONFIDENTIAL AND PROPRIETARY

PLANAR MONOLITHICS INDUSTRIES, INC.

7311-G GROVE ROAD
FREDERICK, MARYLAND 21704 USA
TEL: 301-631-1579 FAX: 301-662-2029
WEBSITE: www.planarmonolithicsindustries.com
E-MAIL: sales@planarmonolithics.com
ISO 9001 CERTIFIED

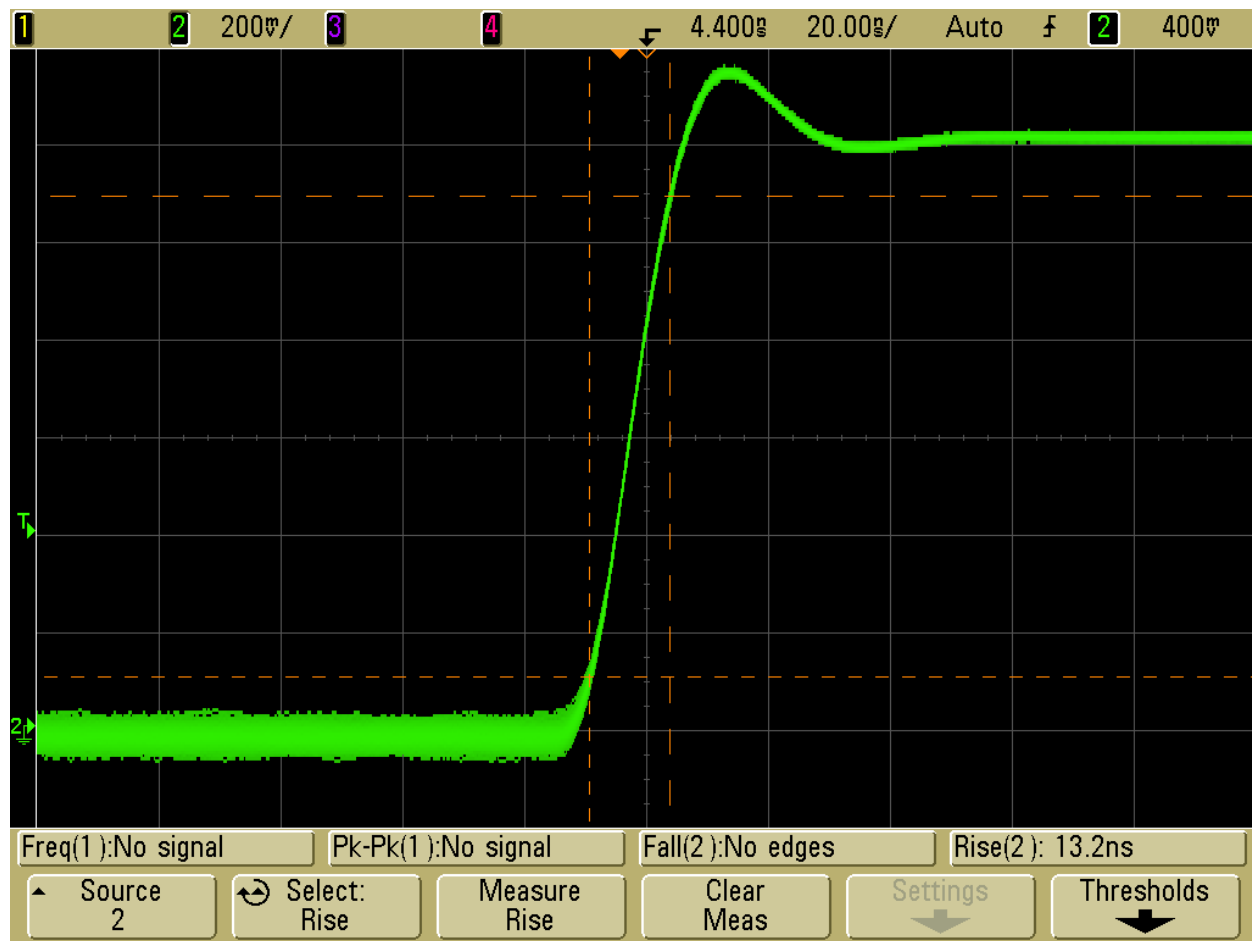


APPROVALS		DATE		TITLE	
DRAWN	JCM	8/28/08		PRODUCT FEATURE	SDLVA-0120-70
CHECKED				OPTION: 100M2G, 10DBM	
BAI				0.1 TO 2.0 GHz, SUCCESSIVE DETECTOR LOG VIDEO AMPLIFIER	
SIZE FROM NO.		DWG NO.		REV.	
A 05XQ0		27009481-B		B2	
SCALE N:S		SHEET		1 OF 1	



**Typical Characteristics
For
SDLVA-0120-70 Opt. 100M2G, 10dBm**

Rise Time @ +5 dBm

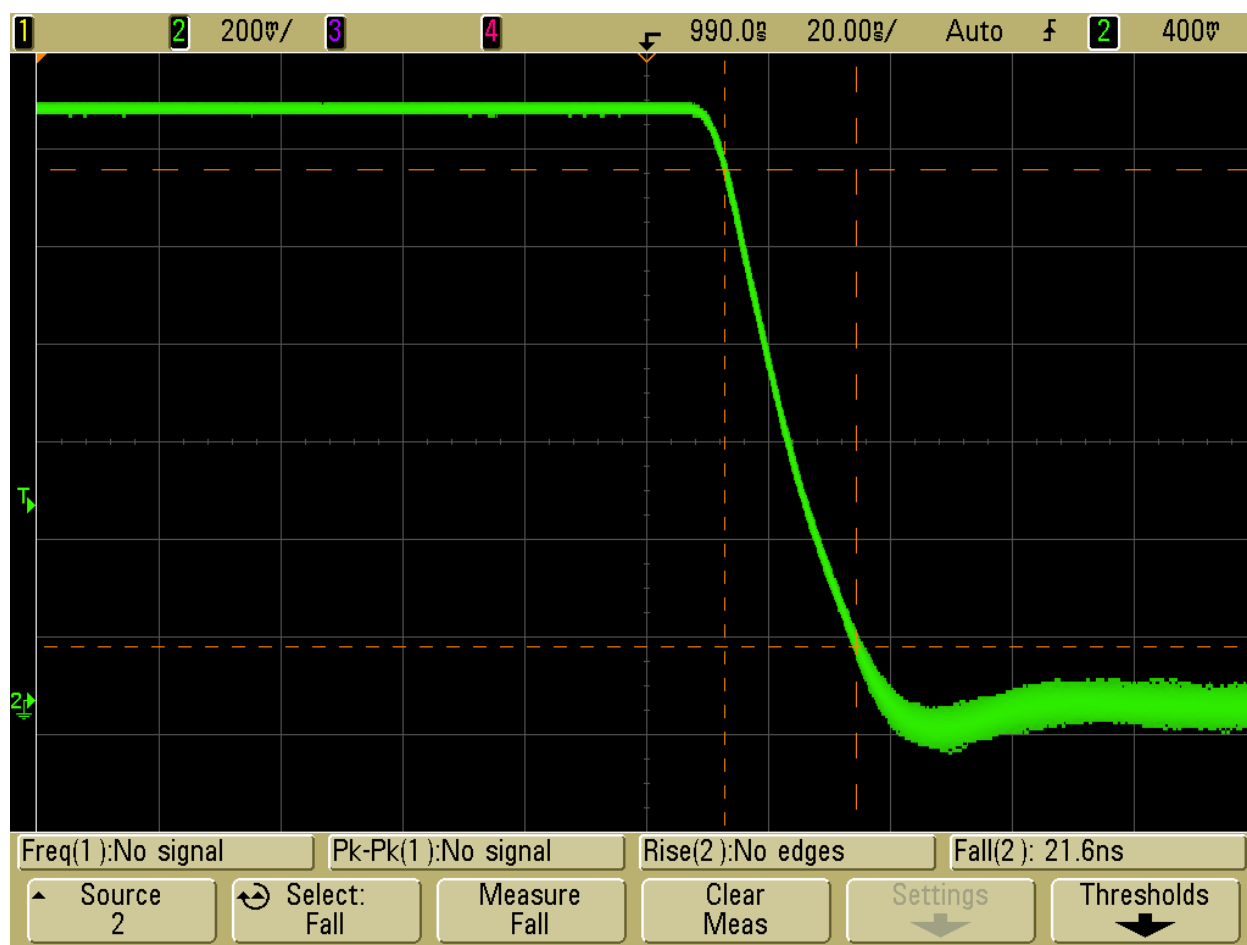


Channel 1: Video output terminated in 100 Ohms



Typical Characteristics
For
SDLVA-0120-70 Opt. 100M2G, 10dBm

Fall Time @ +5 dBm

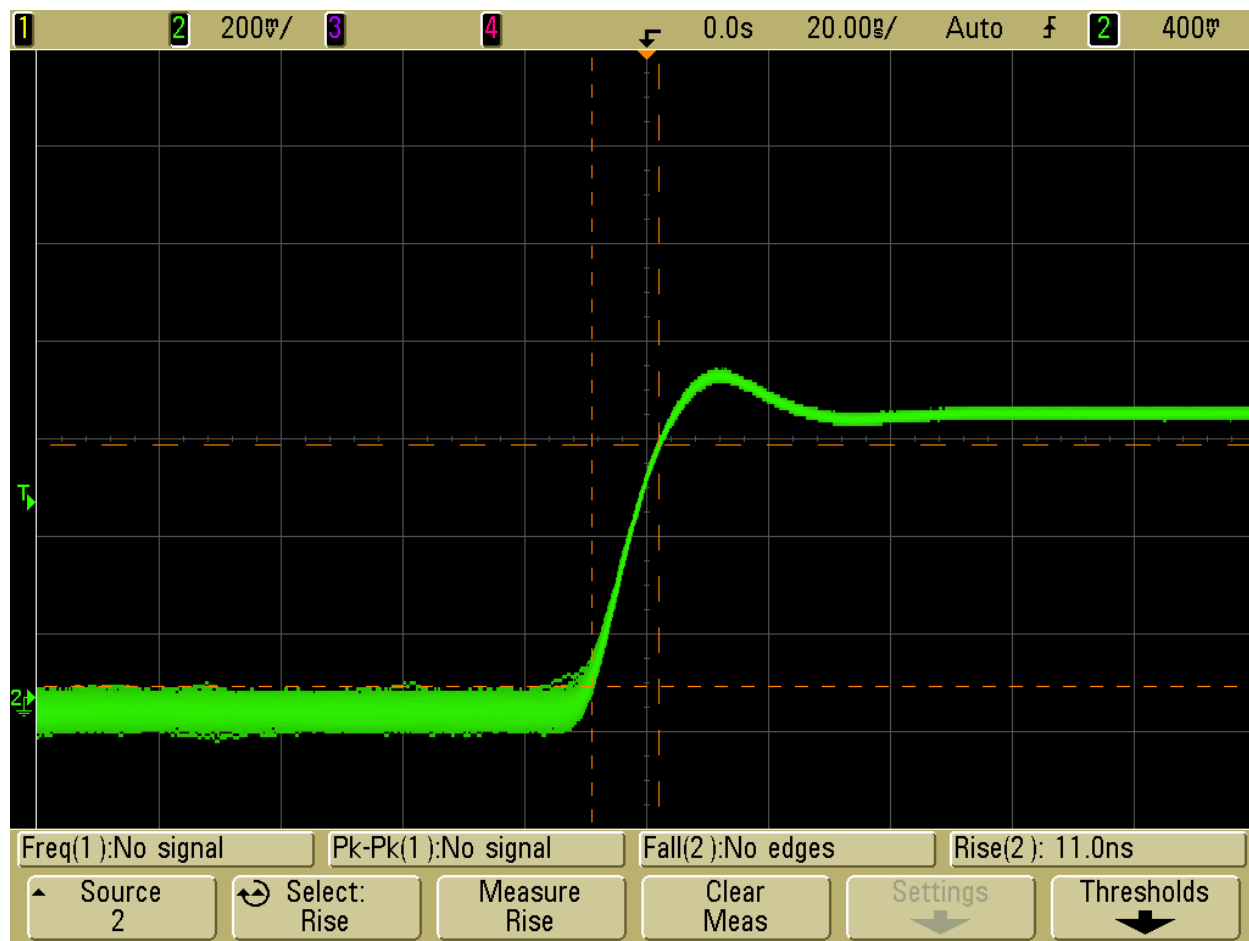


Channel 1: Video output terminated in 100 Ohms



**Typical Characteristics
For
SDLVA-0120-70 Opt. 100M2G, 10dBm**

Rise Time @ -30 dBm



Channel 1: Video output terminated in 100 Ohms



**Typical Characteristics
For
SDLVA-0120-70 Opt. 100M2G, 10dBm**

Fall Time @ -30 dBm

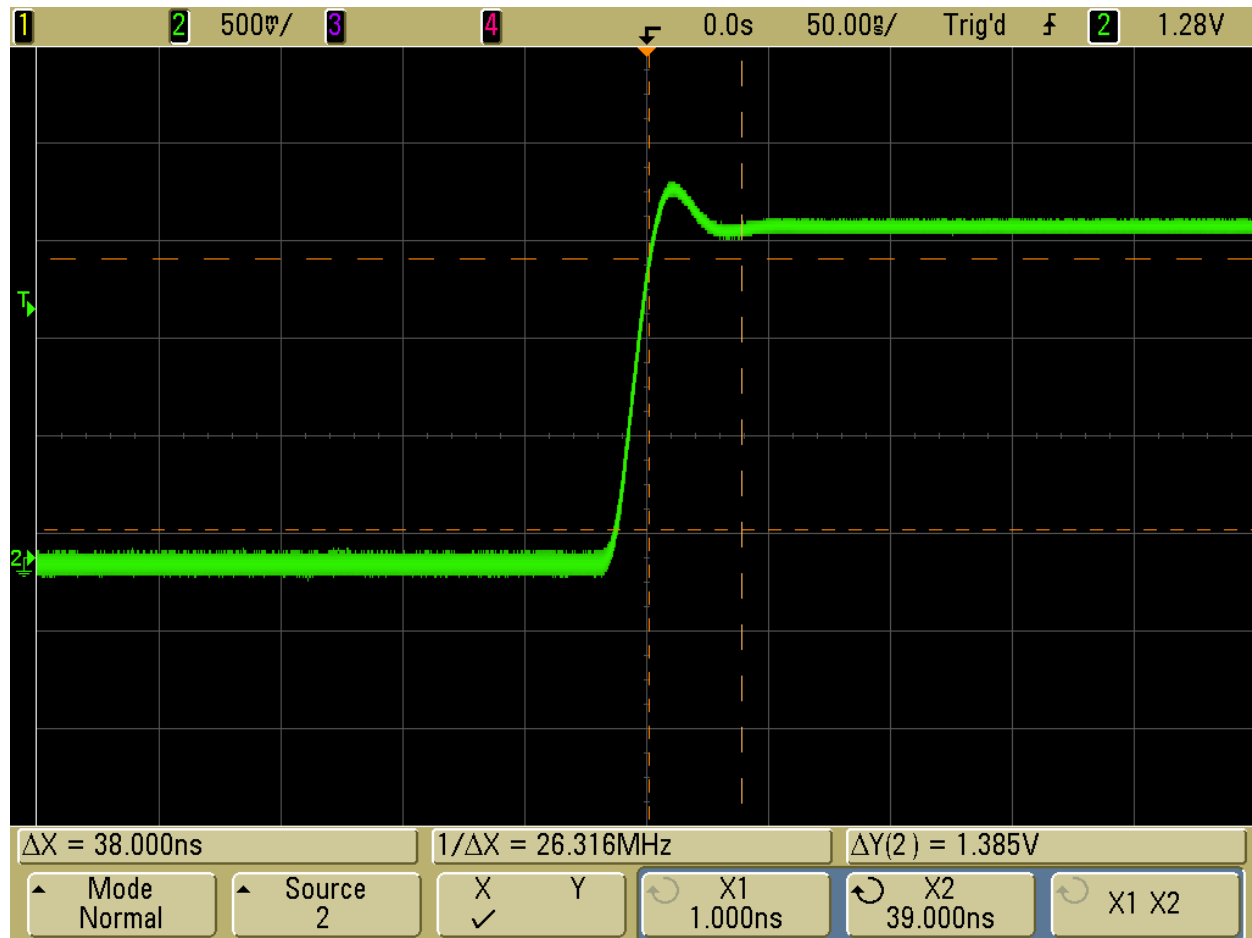


Channel 1: Video output terminated in 100 Ohms



Typical Characteristics
For
SDLVA-0120-70 Opt. 100M2G, 10dBm

Settling Time On @ +5 dBm

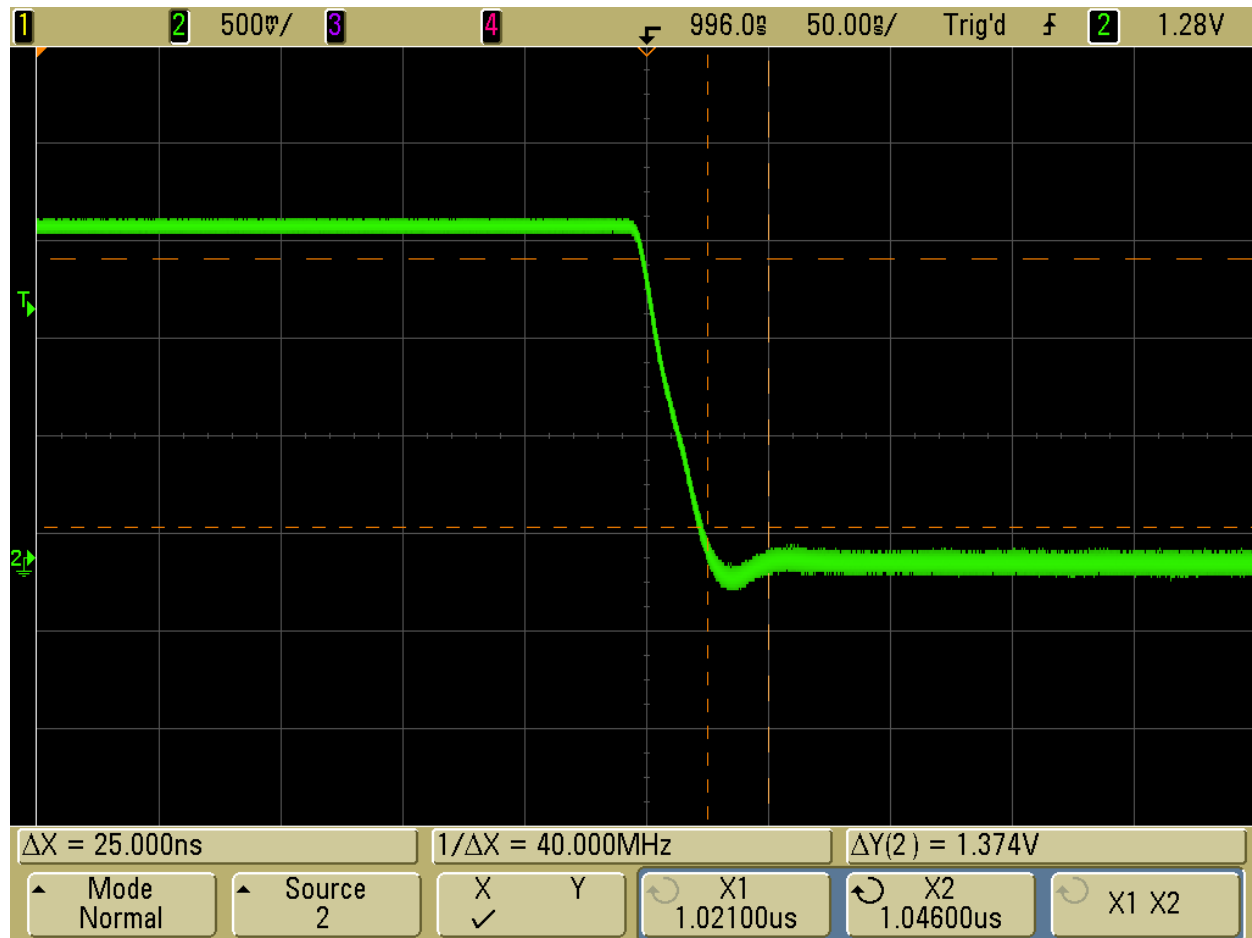


Channel 1: Video output terminated in 100 Ohms



**Typical Characteristics
For
SDLVA-0120-70 Opt. 100M2G, 10dBm**

Settling Time Off @ +5 dBm

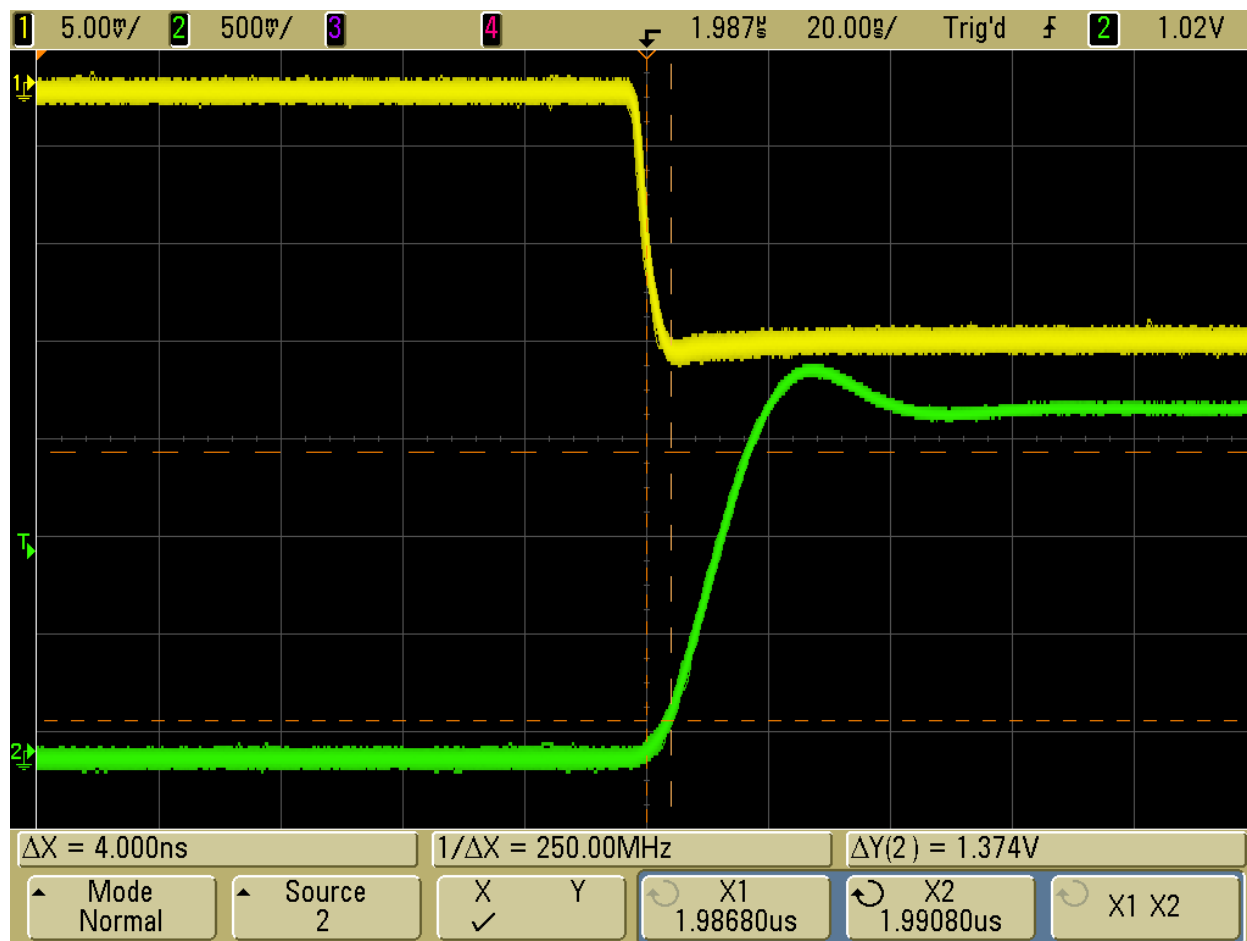


Channel 1: Video output terminated in 100 Ohms



Typical Characteristics
For
SDLVA-0120-70 Opt. 100M2G, 10dBm

Prop Delay On @ +5 dBm

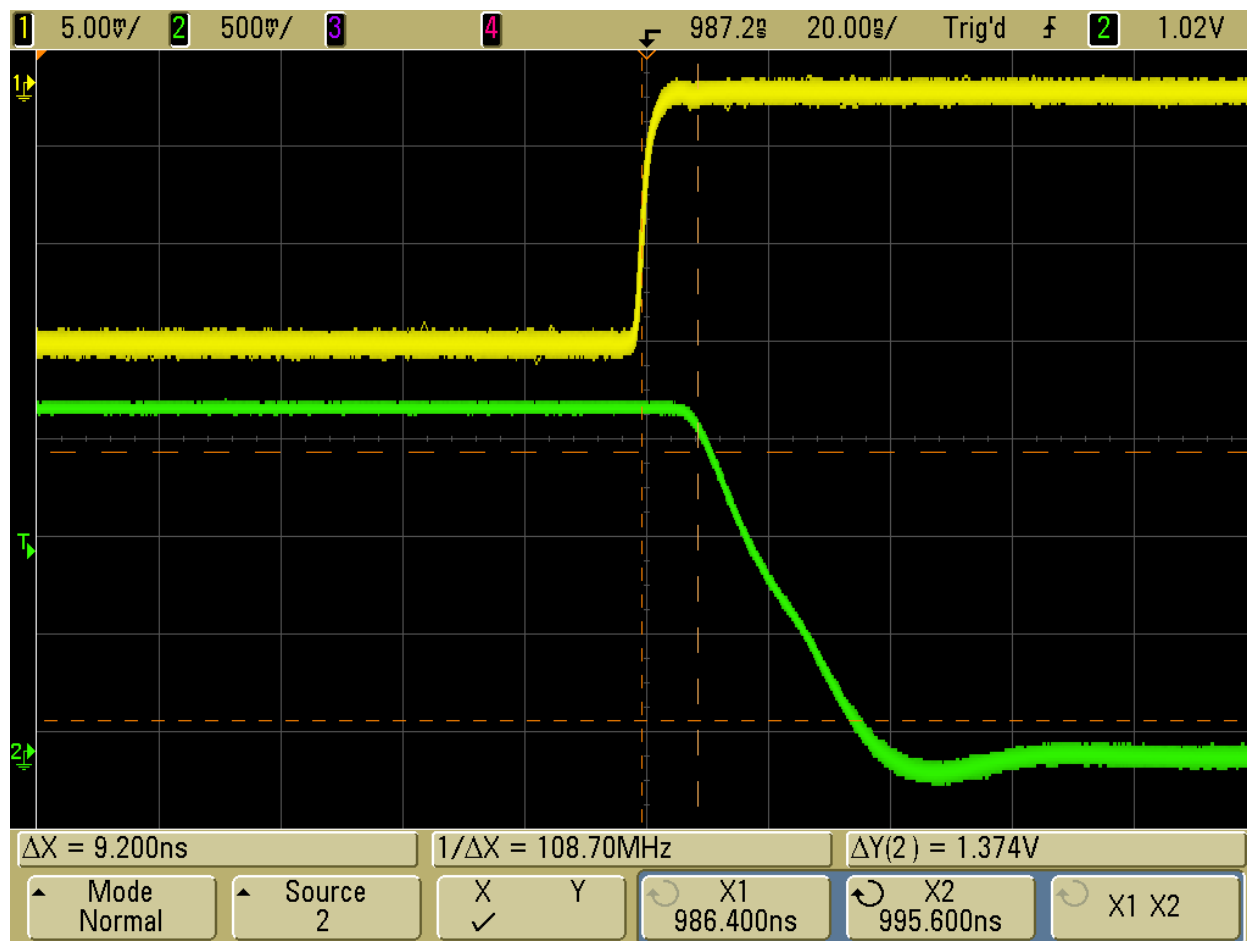


Channel 1: Video output terminated in 100 Ohms (50% RF Input to 10% Video Output)



**Typical Characteristics
For
SDLVA-0120-70 Opt. 100M2G, 10dBm**

Prop Delay Off @ +5 dBm

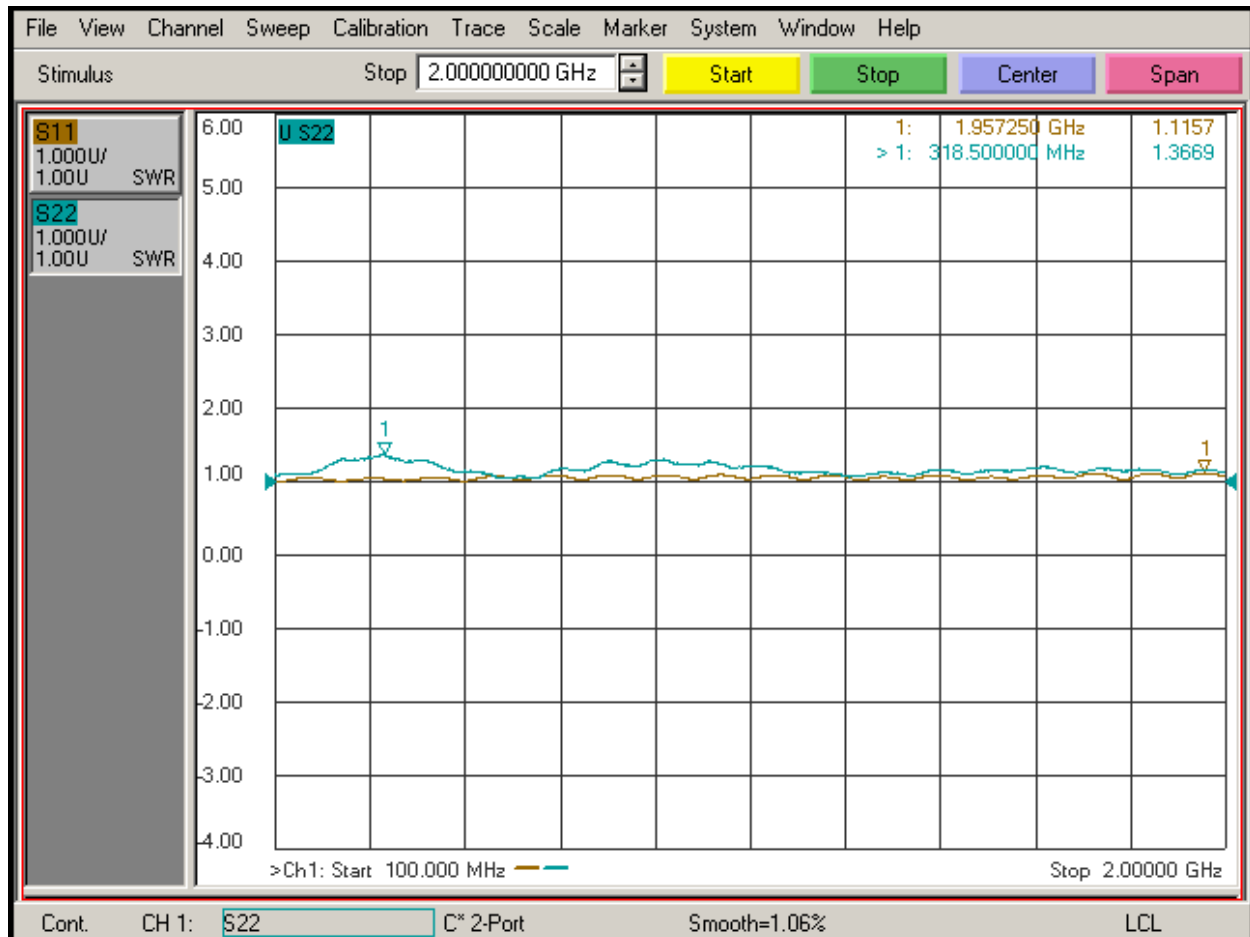


Channel 1: Video output terminated in 100 Ohms (50% RF Input to 10% Video Output)



Typical Characteristics For SDLVA-0120-70 Opt. 100M2G, 10dBm

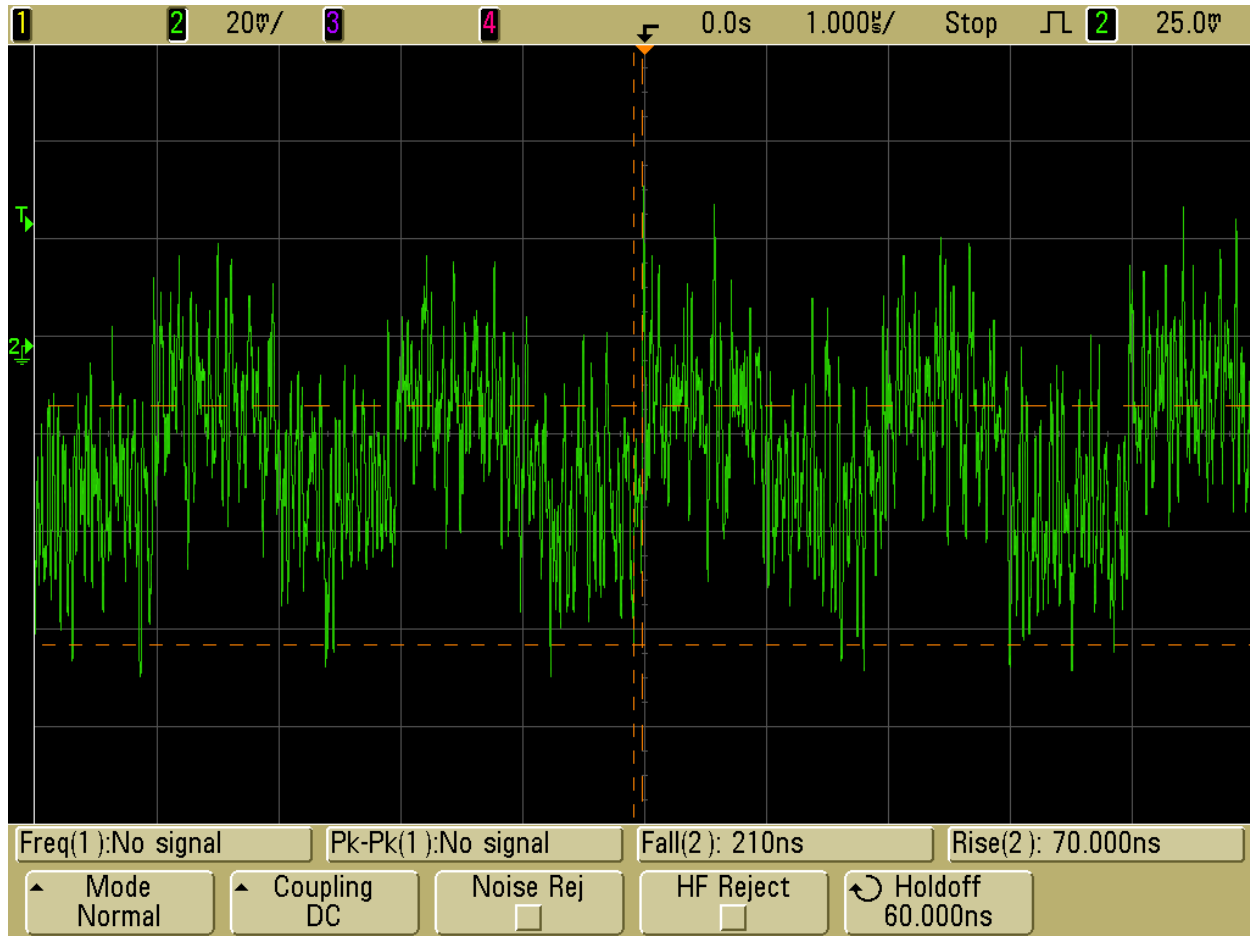
Input / Output VSWR @ 0 dBm





**Typical Characteristics
For
SDLVA-0120-70 Opt. 100M2G, 10dBm**

TSS (Shown Pulsing on and off at a level of -65 dBm @ 100 MHz)

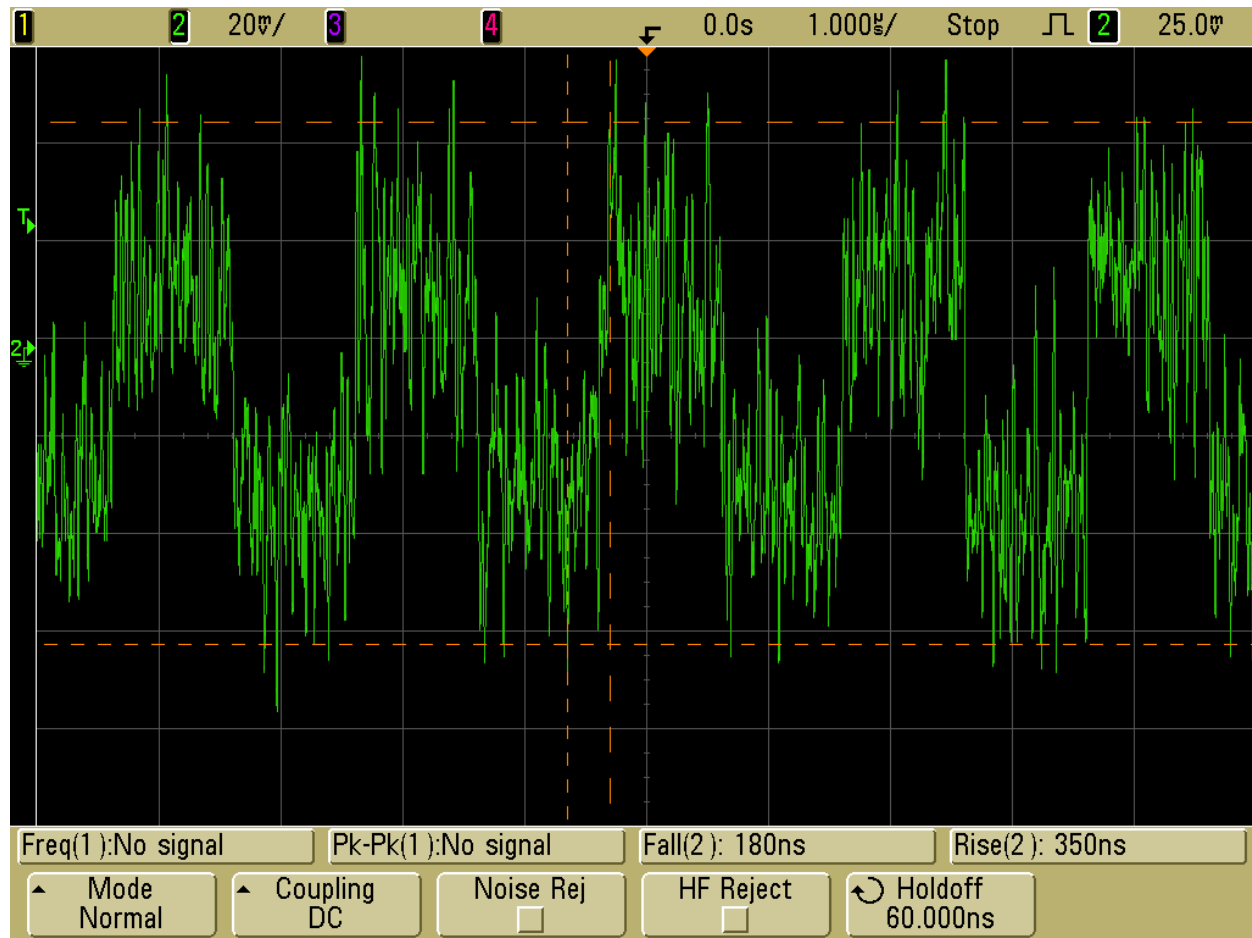


Channel 1: RF Power through Crystal Detector (Negative Voltage when power is on)



**Typical Characteristics
For
SDLVA-0120-70 Opt. 100M2G, 10dBm**

TSS (Shown Pulsing on and off at a level of -70 dBm @ 1 GHz)

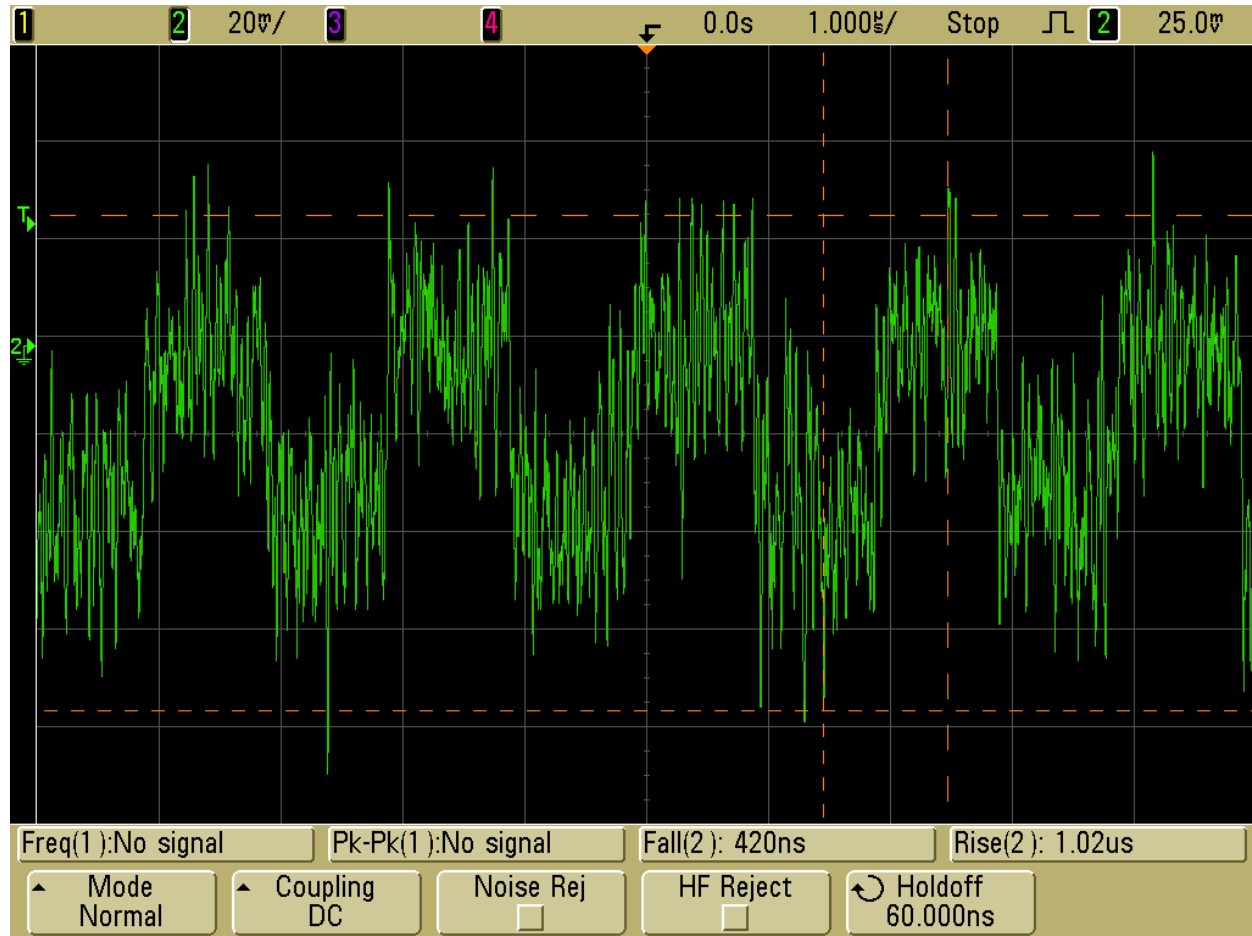


Channel 1: RF Power through Crystal Detector (Negative Voltage when power is on)



**Typical Characteristics
For
SDLVA-0120-70 Opt. 100M2G, 10dBm**

TSS (Shown Pulsing on and off at a level of -65 dBm @ 2 GHz)



Channel 1: RF Power through Crystal Detector (Negative Voltage when power is on)