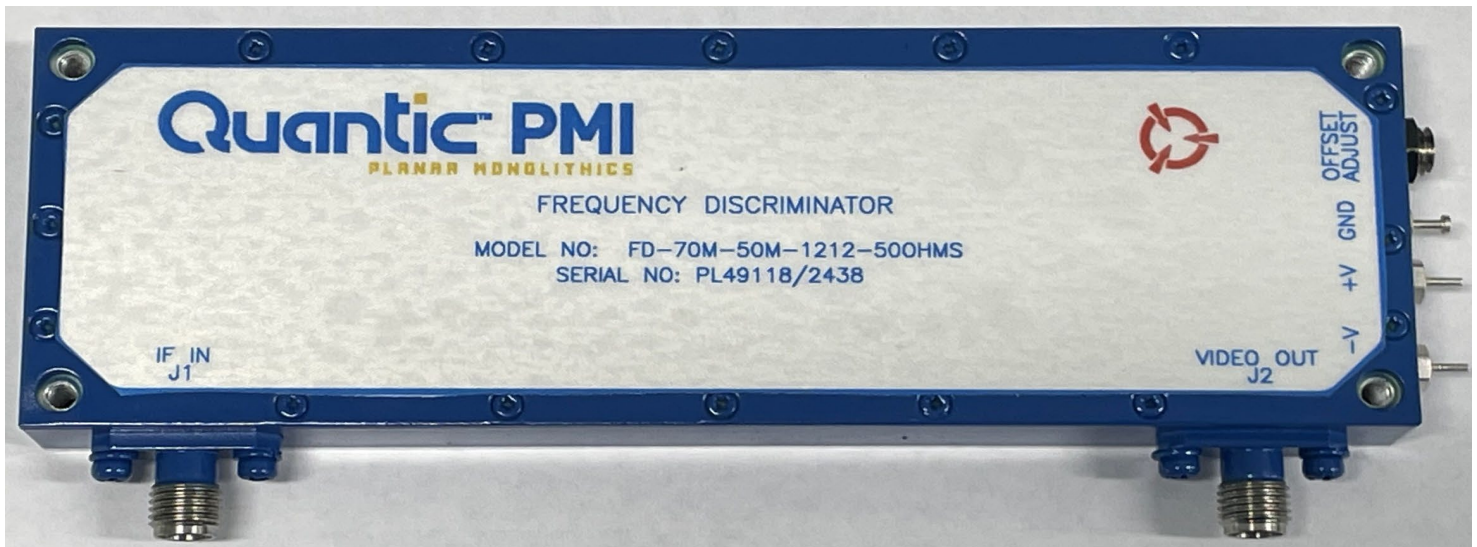


TYPICAL CHARACTERISTICS ON FD-70M-50M-1212-50OHMS

MODEL NUMBER FD-70M-50M-1212-50OHMS IS A FREQUENCY DISCRIMINATOR THAT OPERATES AT A CENTER FREQUENCY OF 70 MHz. IT HAS A PEAK TO PEAK BANDWIDTH OF 90 MHz AND A LINEAR BANDWIDTH OF 50 MHz MINIMUM. WITH A DYNAMIC RANGE OF -10 TO 0 dBm, THE SENSITIVITY INTO A 50 OHM LOAD IS 100 mV / MHz. THIS UNIT OFFERS A MAXIMUM RISE TIME OF 80 nS.



Septemeber 13, 2024

Tested By:

Eric K.

Reported By:

Matt L.

TYPICAL CHARACTERISTICS ON FD-70M-50M-1212-50OHMS

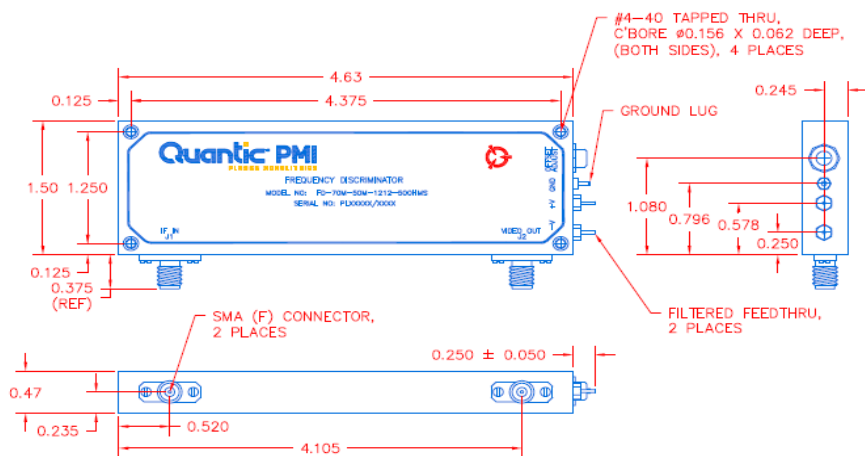
Outline Drawing

DESCRIPTION

MODEL NUMBER FD-70M-50M-1212-50OHMS IS A FREQUENCY DISCRIMINATOR THAT OPERATES AT A CENTER FREQUENCY OF 70 MHz. IT HAS A PEAK TO PEAK BANDWIDTH OF 90 MHz AND A LINEAR BANDWIDTH OF 50 MHz MINIMUM. WITH A DYNAMIC RANGE OF -10 TO 0 dBm, THE SENSITIVITY INTO A 50 OHM LOAD IS 100 mV / MHz. THIS UNIT OFFERS A MAXIMUM RISE TIME OF 80 nS.

SPECIFICATIONS

- CENTER FREQUENCY: 70 MHz
- PEAK TO PEAK BANDWIDTH: 90 MHz MIN.
- LINEAR BANDWIDTH: 50 MHz MIN.
- SENSITIVITY @ 25°C: 100 mV / MHz $\pm$ 5% INTO 50 OHMS
- LINEARITY: $\pm$ 5% MAX.
- INPUT VSWR: 2.0 : 1 MAX.
- INPUT DYNAMIC RANGE: -10 TO 0 dBm MIN.
- RISE TIME: 75 ns TYP, 80 nS MAX.
- DC POWER SUPPLY:
 - +V: +12V @ 200 mA MAX.
 - V: -12V @ 100 mA MAX.
- SIZE: 4.625" x 1.500" 0.470"
- FINISH: PAINTED BLUE



PMI CONFIDENTIAL AND PROPRIETARY

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 REVISIONS

ALL DIMENSIONS ARE IN INCHES
TOLERANCES:
XXX $\pm$ 0.020
XXX $\pm$ 0.010
WEIGHT: 2.75 oz.

7309-A GROVE ROAD
FREDERICK, MARYLAND 21704 USA
TEL: (301)-662-5019, FAX: (301)-662-1731
WEB: www.quanticipmi.com
EMAIL: sales@quanticipmi.com
ISO 9001 CERTIFIED

Quantic PMI
PLANAR MONOLITHICS

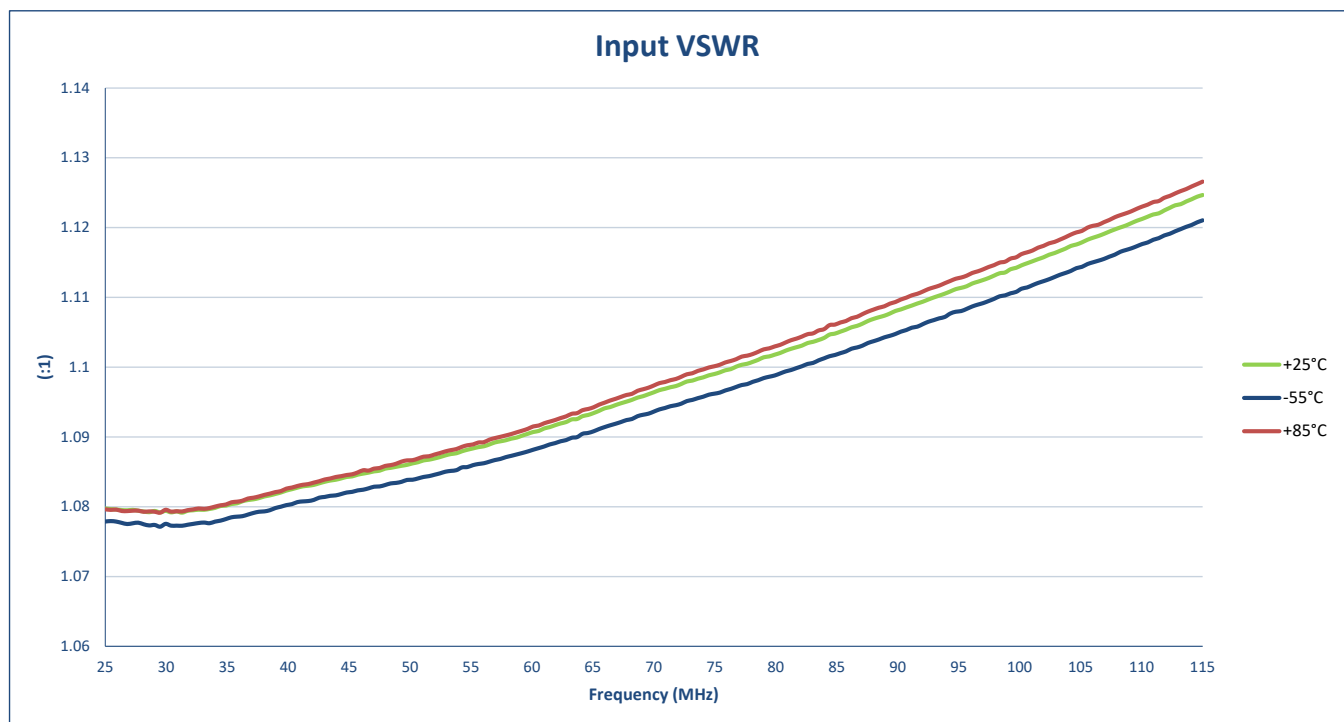
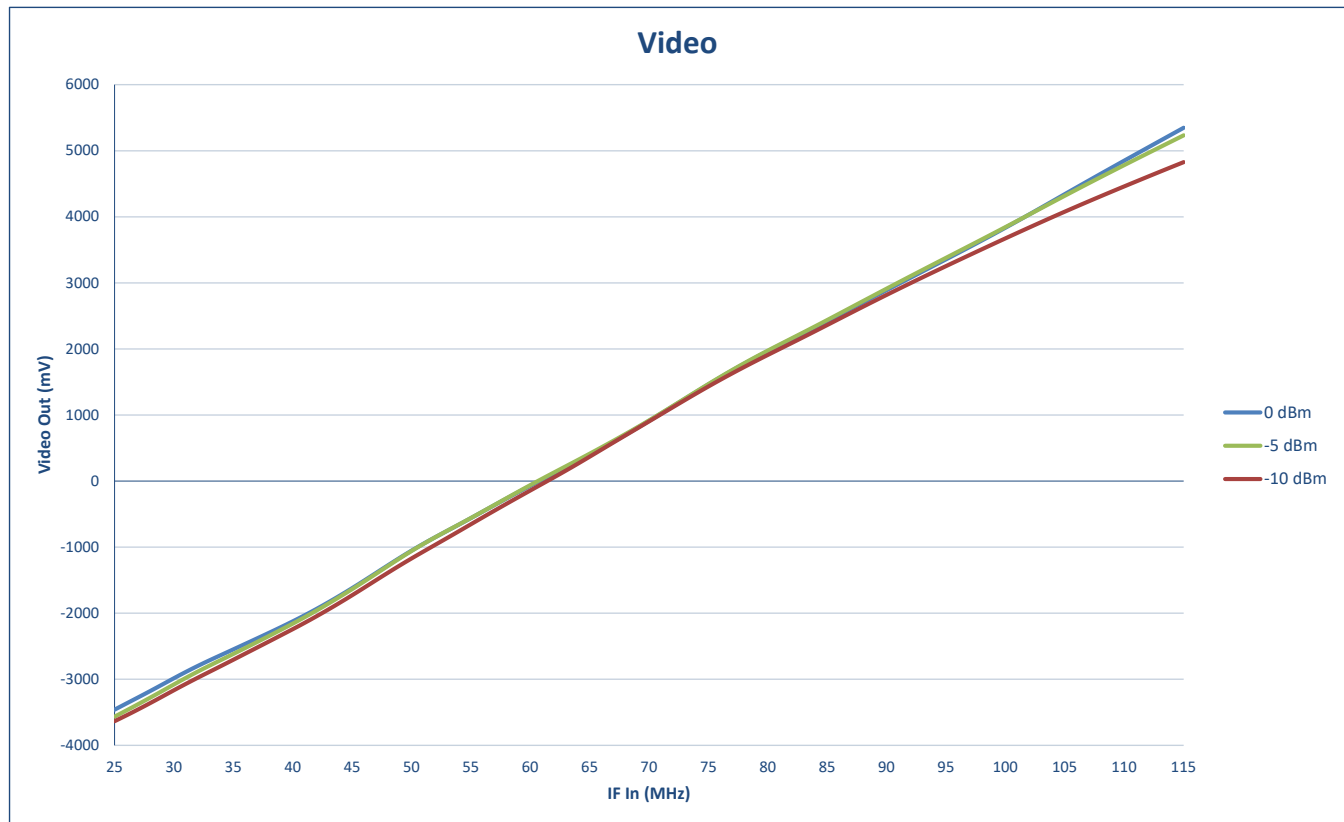
APPROVALS		DATE		TITLE	
DRAWN		05/28/24		PRODUCT FEATURE	
CHECKED				FD-70M-50M-1212-50OHMS	
ISSUED					
SIZE		FSOM NO.		DWG NO.	
A		05XQ0		27048280	
SCALE		N:S		SHEET	
				1 OF 1	

**TYPICAL CHARACTERISTICS
ON
FD-70M-50M-1212-50OHMS**

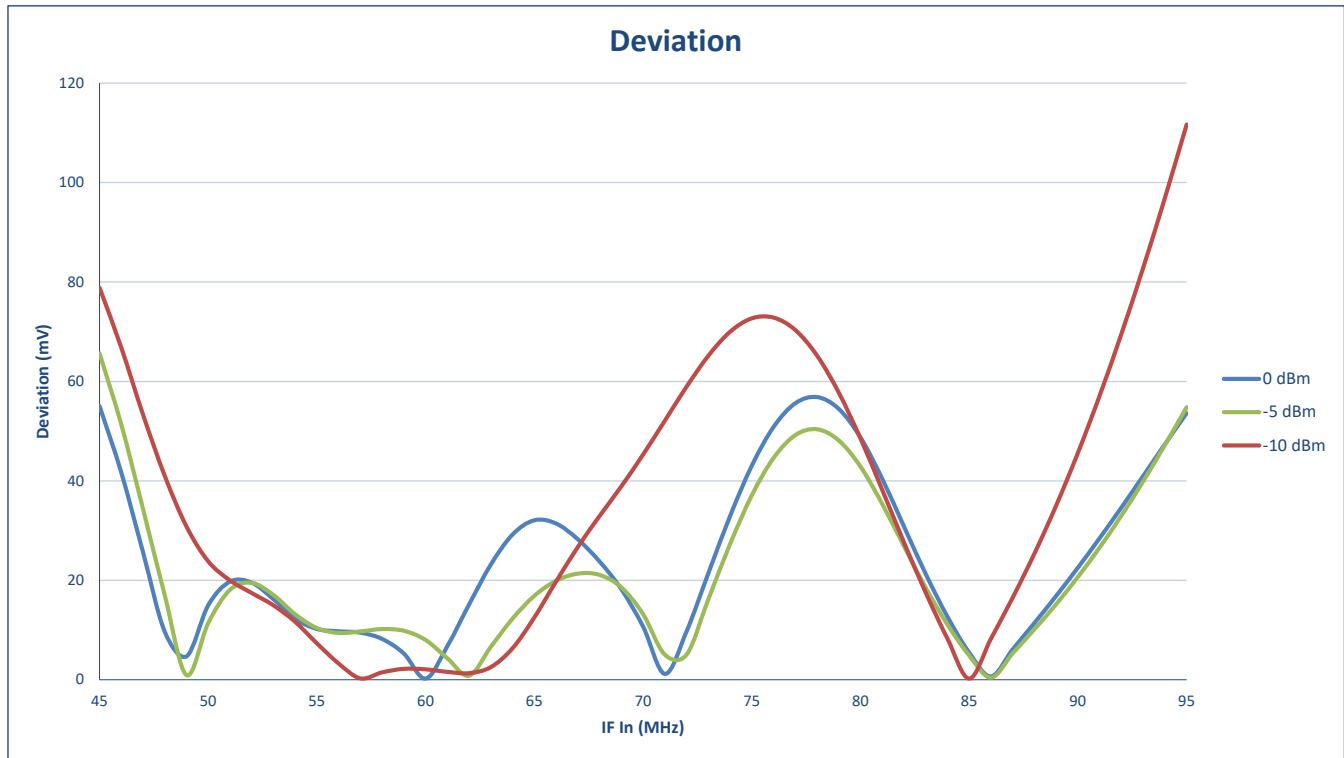
Typical Specifications

TEST ITEM NO.	PARAMETERS	SPECIFIED VALUE	TEST RESULTS		
			+25°C	-55°C	+85°C
1	Center Frequency:	70 MHz	70 MHz	70 MHz	70 MHz
2	Peak to Peak Bandwidth:	90 MHz Min.	90 MHz	90 MHz	90 MHz
3	Linear Bandwidth:	50 MHz Min.	50 MHz	50 MHz	50 MHz
4	Sensitivity @ 25C: (50 Ohm Load)	100 mV / MHz $\pm$ 5%	100 mV / MHz	110.7 mV / MHz	96.3 mV / MHz
5	Linearity:	$\pm$ 5% Max.	$\pm$ 1.3%	$\pm$ 1.1%	$\pm$ 0.1%
6	Input VSWR:	2.0:1 Max.	1.12:1 See Plot	1.12:1 See Plot	1.13:1 See Plot
7	Input Dynamic Range:	-10 to 0 dBm Min.	-10 to 0 dBm	-10 to 0 dBm	-10 to 0 dBm
8	Rise Time:	75 ns TYP, 80 ns Max.	72 ns	70 ns	72 ns
9	DC Supply:	+12 V @ 200 mA Max. -12 V @ 100 mA Max.	+12 V @ 137 mA -12 V @ 46 mA	+12 V @ 137 mA -12 V @ 46 mA	+12 V @ 137 mA -12 V @ 46 mA

**TYPICAL CHARACTERISTICS
ON
FD-70M-50M-1212-50OHMS**



**TYPICAL CHARACTERISTICS
ON
FD-70M-50M-1212-50OHMS**



**TYPICAL CHARACTERISTICS
ON
FD-70M-50M-1212-50OHMS**

Rise Time @ 25 MHz

Pink: RF Signal

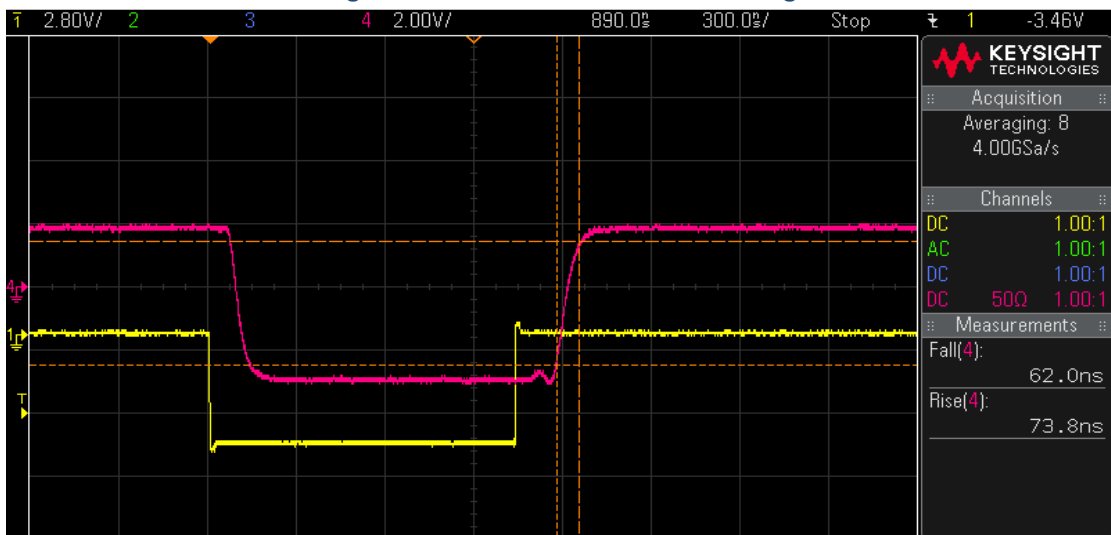
Yellow: Generated Signal



Rise Time @ 35 MHz

Pink: RF Signal

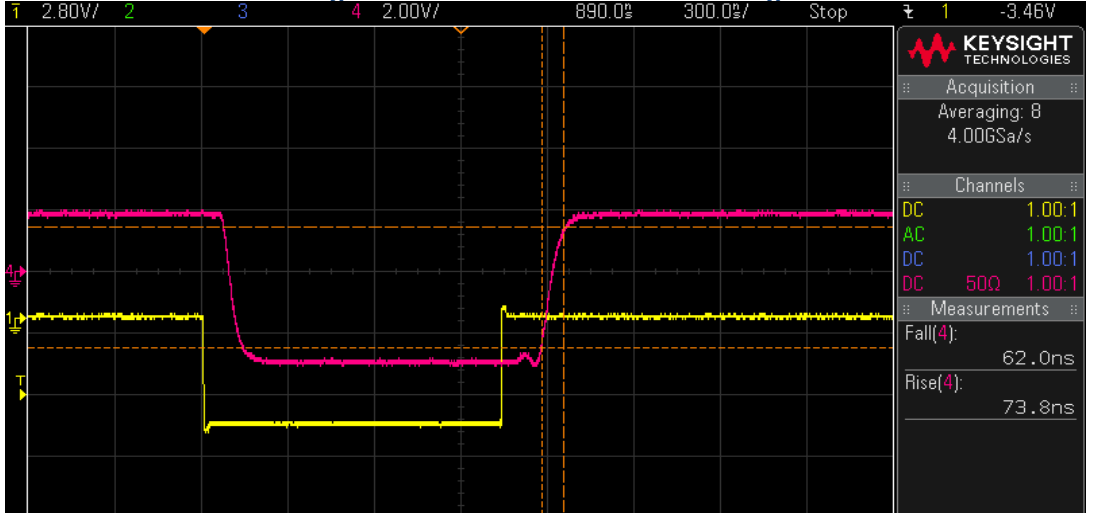
Yellow: Generated Signal



Rise Time @ 45 MHz

Pink: RF Signal

Yellow: Generated Signal

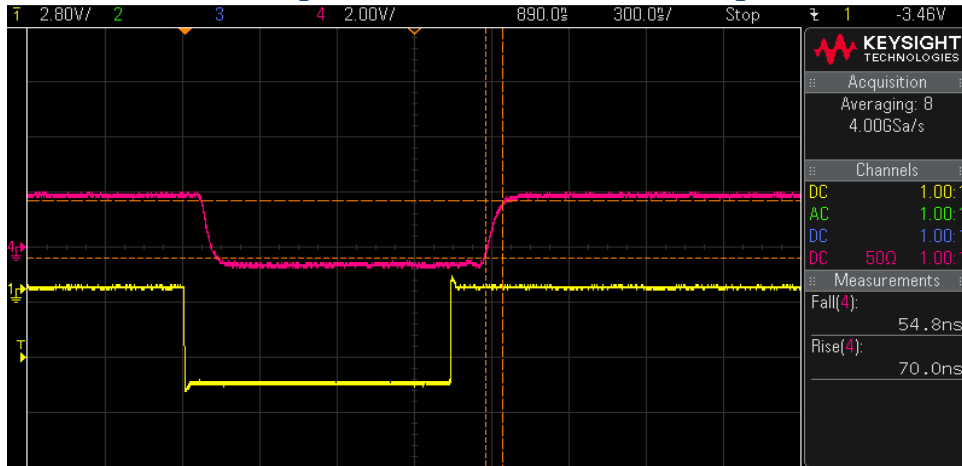


**TYPICAL CHARACTERISTICS
ON
FD-70M-50M-1212-50OHMS**

Rise Time @ 55 MHz

Pink: RF Signal

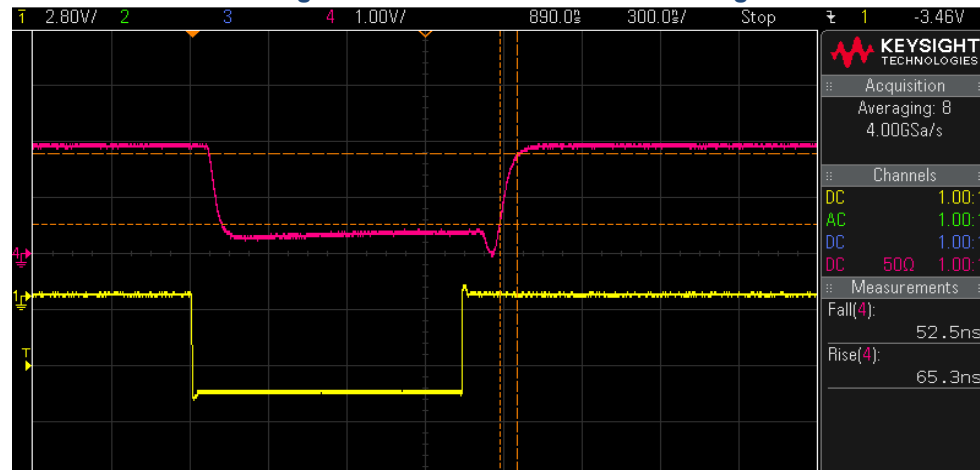
Yellow: Generated Signal



Rise Time @ 65 MHz

Pink: RF Signal

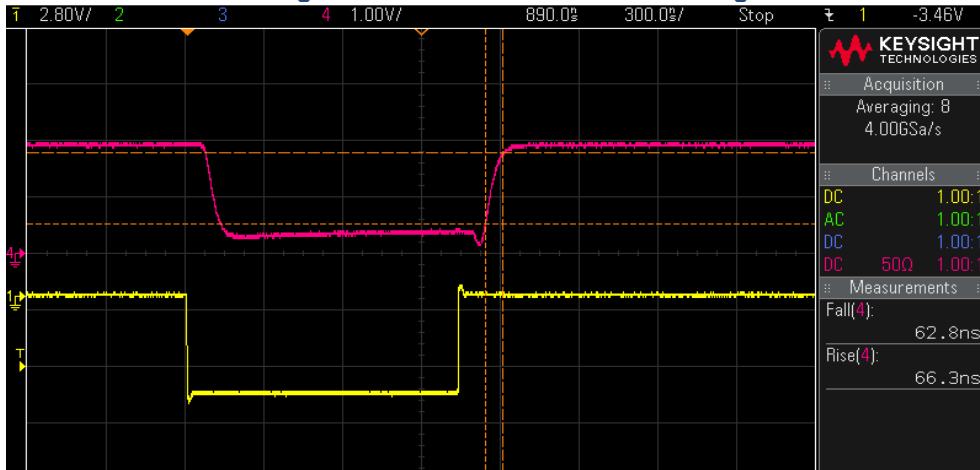
Yellow: Generated Signal



Rise Time @ 75 MHz

Pink: RF Signal

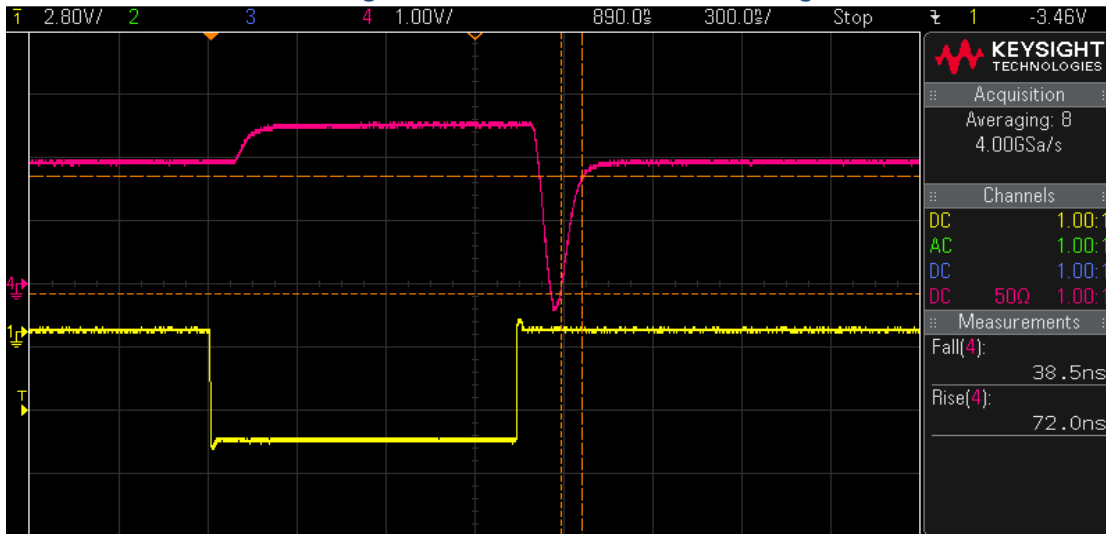
Yellow: Generated Signal



Rise Time @ 85 MHz

Pink: RF Signal

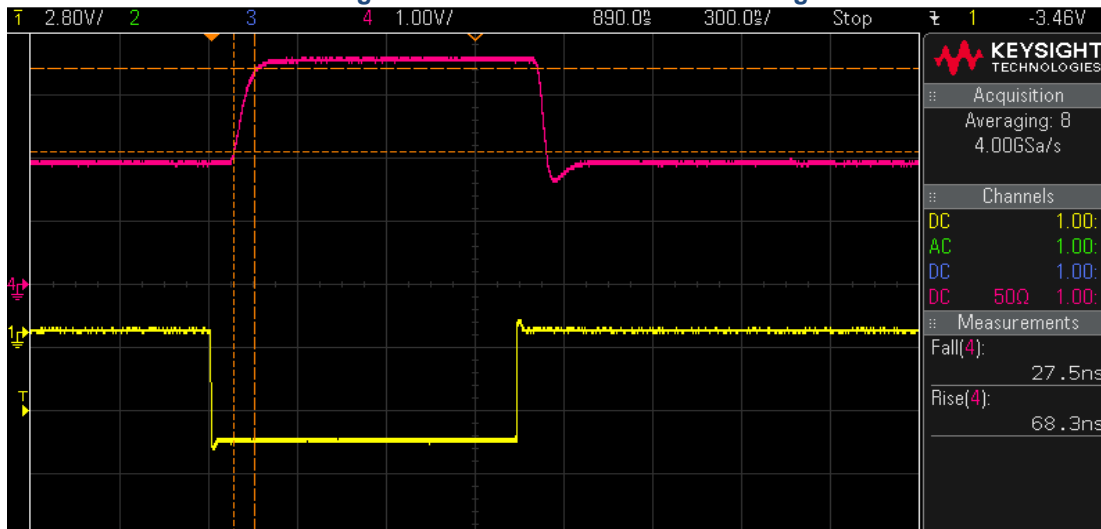
Yellow: Generated Signal



Rise Time @ 95 MHz

Pink: RF Signal

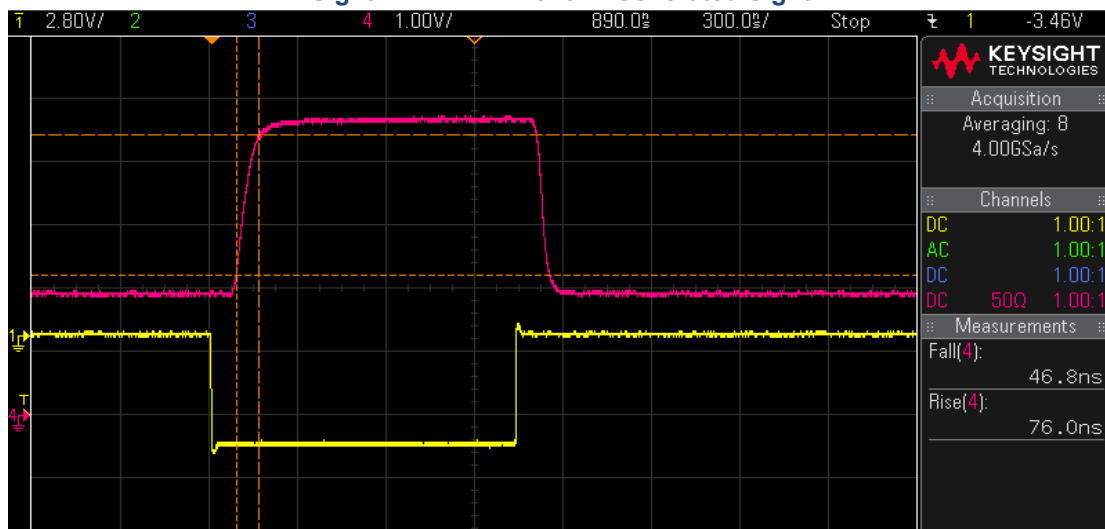
Yellow: Generated Signal



Rise Time @ 105 MHz

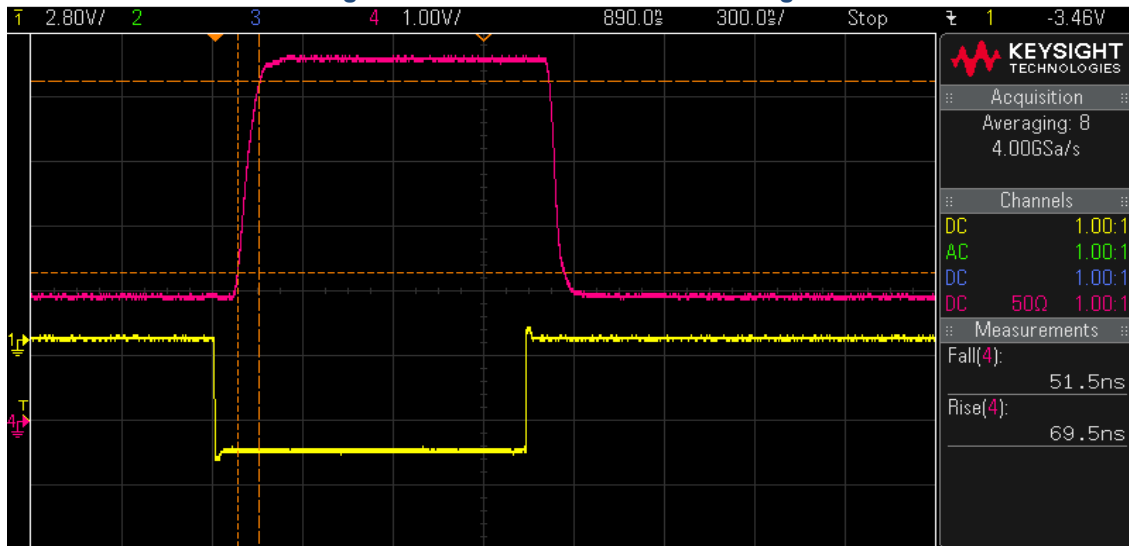
Pink: RF Signal

Yellow: Generated Signal



Rise Time @ 115 MHz

Pink: RF Signal Yellow: Generated Signal



Rise Time @ 125 MHz

Pink: RF Signal Yellow: Generated Signal

