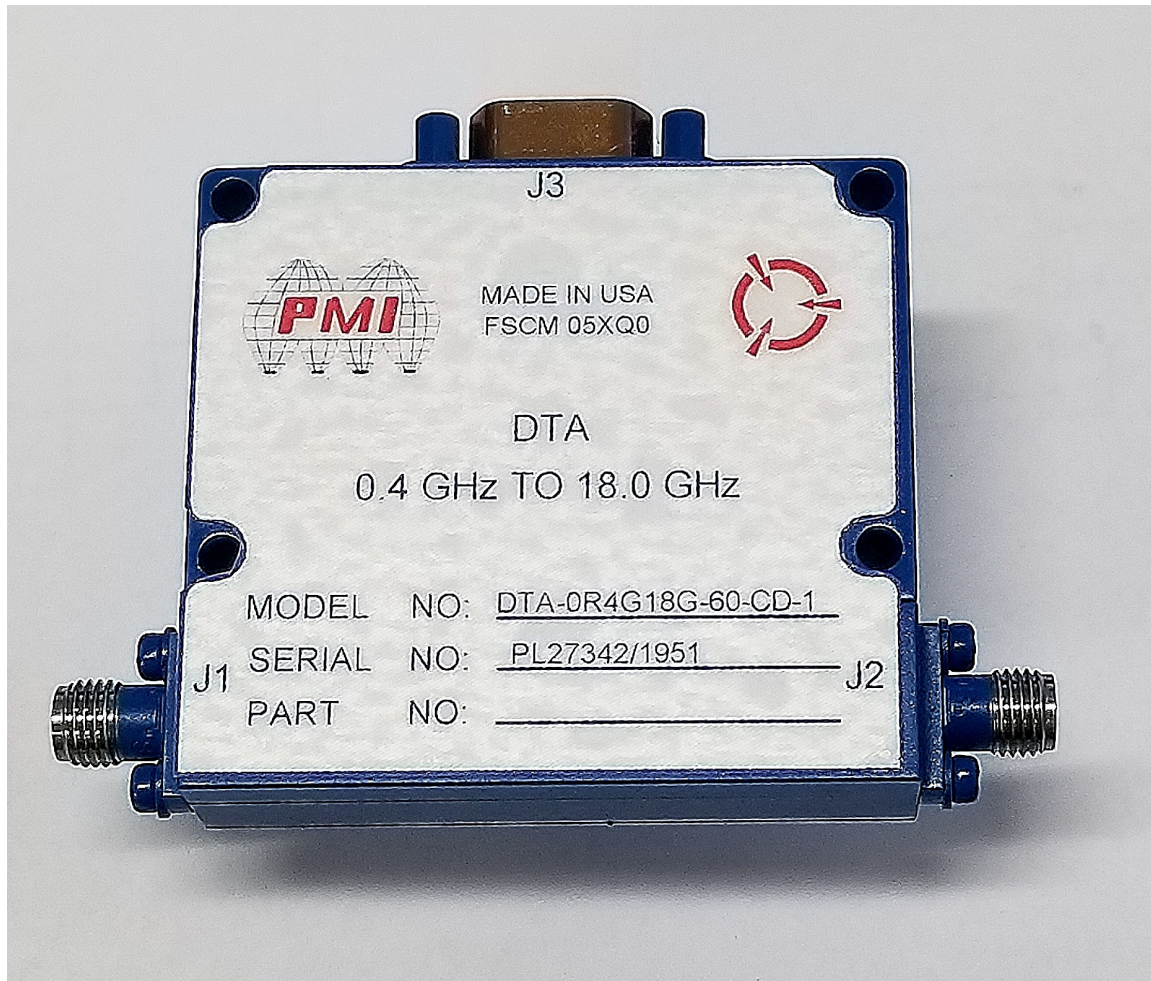




Typical Characteristics For DTA-0R4G18G-60-CD-1

PMI MODEL NUMBER DTA-0R4G18G-60-CD-1 IS A NON-REFLECTIVE 10 BIT PROGRAMMABLE 60 dB PIN DIODE ATTENUATOR WITH STEP RESOLUTION AS LOW AS 0.06 dB OVER THE FREQUENCY RANGE OF 0.4 TO 18.0 GHz.



December 18, 2019
Designed by: PMI Engineering
Reported by: K. Mansfield



Typical Characteristics For DTA-0R4G18G-60-CD-1

Table Of Contents

Outline Drawing -----	Page 3
Test Data-----	Page 5
Insertion Loss and VSWR Plots-----	Page 5
Attenuation Plot-----	Page 6
Accuracy and Flatness Plots-----	Page 7
Delay On-----	Page 8
Delay Off-----	Page 9
Full Pulse -----	Page 10



Typical Characteristics For DTA-0R4G18G-60-CD-1

DESCRIPTION:

PMI MODEL NUMBER DTA-0R4G18G-60-CD-1 IS A NON-REFLECTIVE 10 BIT PROGRAMMABLE 60 dB PIN DIODE ATTENUATOR WITH STEP RESOLUTION AS LOW AS 0.06 dB OVER THE FREQUENCY RANGE OF 0.4 TO 18.0 GHz. THIS MODEL IS OFFERED IN A SLIM LINE HOUSING MEASURING ONLY 0.5" HEIGHT.

SPECIFICATIONS:

- FREQUENCY: _____ 0.4 GHz TO 18.0 GHz
 - MEAN ATTENUATION RANGE: _____ 60 dB
 - INSERTION LOSS: _____ 4.8 dB MAX
 - VSWR: _____ 2.0 :1 MAX
 - FLATNESS UP TO:
 - 20 dB _____ ±1.0 dB TYP
 - 40 dB _____ ±1.25 dB TYP
 - 60 dB _____ ±3.0 dB TYP
 - ACCURACY OF ATTENUATION:
 - 0 dB TO 20 dB _____ ±1.0 dB TYP
 - 20 dB TO 40 dB _____ ±1.5 dB TYP
 - 40 dB TO 60 dB _____ ±2.0 dB TYP
 - MINIMUM ATTENUATION STEP: _____ 0.06 dB
 - OPERATING POWER: _____ 15dBm MIN
 - SURVIVAL POWER: _____ 1W Average from -65°C to +25°C
 - SWITCHING TIME:
 - ON TIME _____ 1.0 us MAX
 - OFF TIME _____ 0.5 us MAX
 - DC POWER SUPPLY: _____ +12 to 15V @ 150 mA MAX
 - CONNECTORS: _____ 2 SMA & 15 PIN Micro-D-Female (ITT Cannon MDM15SSP or similar)
 - WEIGHT: _____ 3.0 oz (85 gm) Approximate
 - FINISH: _____ PAINTED BLUE
-
- LOGIC INPUT:
 - LOGIC "0" (BIT OFF) _____ -0.3 to +0.8V
 - LOGIC "1" (BIT ON) _____ +2.0 to +5.0V

ENVIRONMENTAL RATINGS:

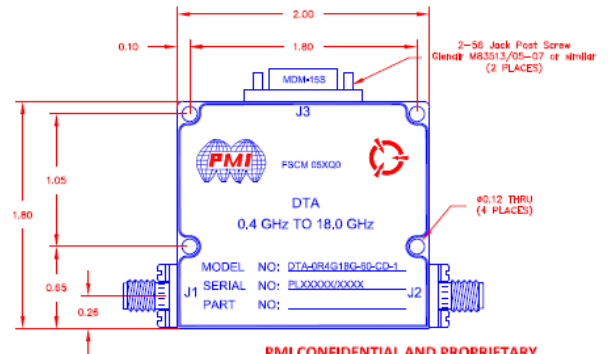
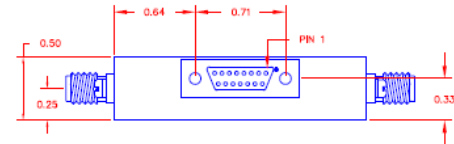
- TEMPERATURE: _____ -55°C TO +85°C (OPERATING)
_____ -57°C TO +85°C (STORAGE)
- HUMIDITY: _____ MIL-E-5400T 3,2,24,4, 5 TO 95% RH
- SHOCK: _____ MIL-E-5400T 3,2,24,6,1, 15G 11 ± 1 ms 6 DIRECTIONS
- VIBRATION: _____ MIL-E-5400T 3,2,24,5, FIGURE 2 SHEET 1 OF CURVE III
- ALTITUDE: _____ UP TO 10,000 m

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

NOTE: THE ABOVE SPECIFICATIONS ARE SUBJECT TO CHANGE OR REVISION

REVISIONS				
ZONE	REV.	DESCRIPTION	DATE	APPROVED
	A1	ORIGINAL RELEASE	9/5/19	
	A2	ECN # 20-0050	03/11/20	

PIN NO:	J3 PIN FUNCTIONS
1	2dB
2	1dB
3	0.5dB
4	0.25dB
5	GND
6	0.15 dB
7	0.06 dB (LSB)
8	GND
9	Not Used
10	Not Used
11	+12 to 15VDC
12	32dB (MSB)
13	16dB
14	8dB
15	4dB



PMI CONFIDENTIAL AND PROPRIETARY

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ISO 9001 CERTIFIED



APPROVALS		DATE	TITLE			REV.
DRAWN NJA		9/5/19	PRODUCT FEATURE			
CHECKED			DTA-0R4G18G-60-CD-1			
ISSUED			SIZE A	FSCM NO. 05XQ0	DWG NO. 27037160	A2
			SCALE N:S			SHEET 1 OF 1

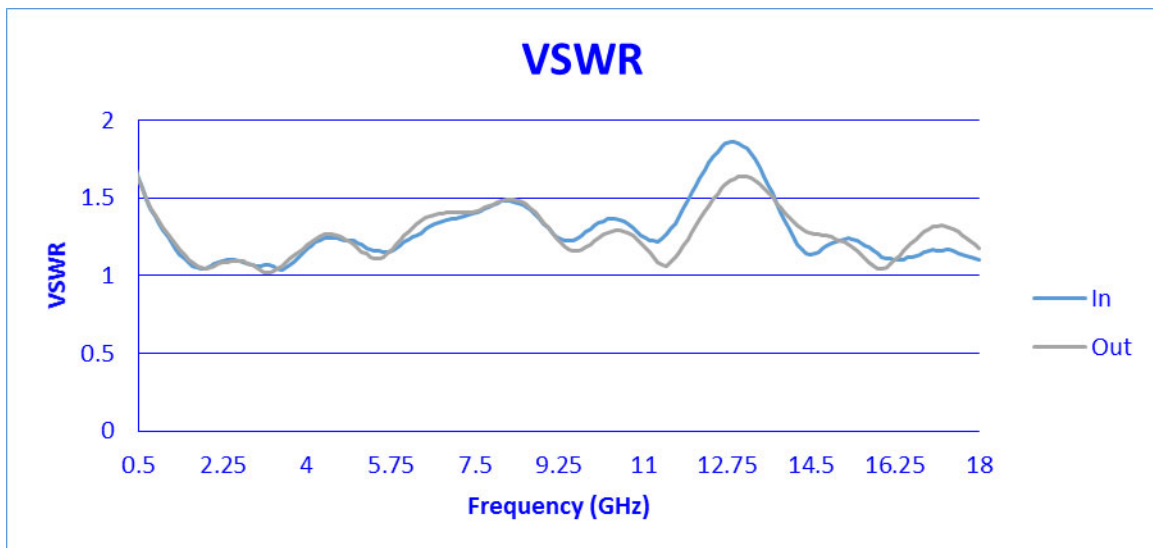
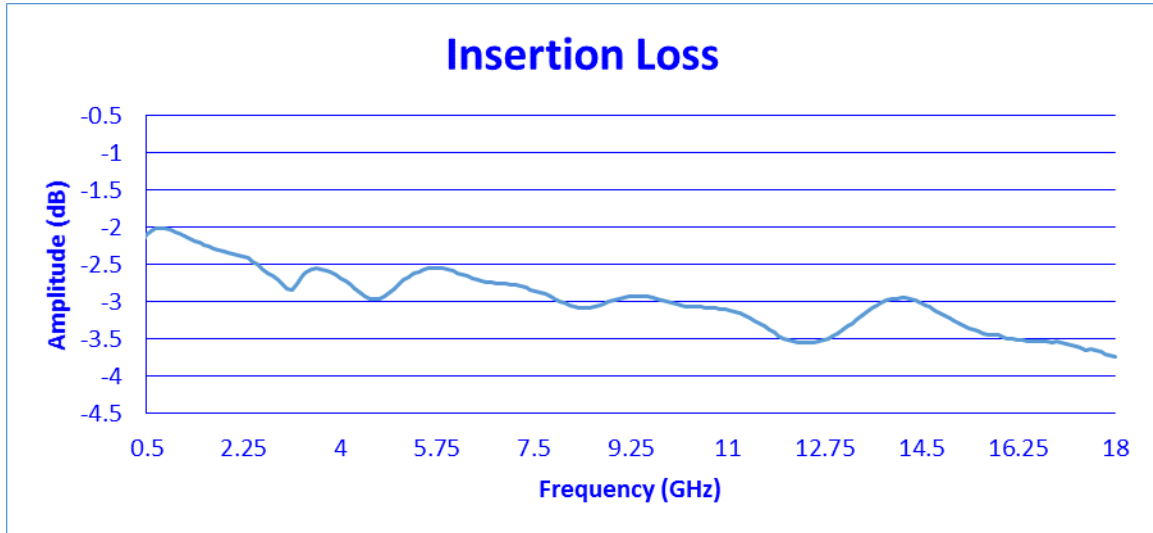


Typical Characteristics For DTA-0R4G18G-60-CD-1

TEST ITEM NO.	PARAMETERS	SPECIFIED VALUE	RESULTS	QA QC
1	Frequency Range:	0.4 GHz – 18 GHz	0.4 GHz – 18 GHz	
2	Insertion Loss:	4.8 dB Max.	3.7 dB See Plot	
3	VSWR:	2.0:1 Max.	1.9:1 See Plot	
4	Flatness to 20 dB:	± 1.0 dB Typ.	±0.53 dB See Plot	
6	Flatness to 40 dB:	± 1.25 dB Typ.	±1.07 dB See Plot	
7	Flatness to 60 dB:	± 3.0 dB Typ.	±4.25 dB See Plot	
8	Accuracy of Attenuation 0 to 20 dB:	± 1.0 dB Typ.	±0.62 dB See Plot	
9	Accuracy of Attenuation 20 to 40 dB:	± 1.5 dB Typ.	±0.89 dB See Plot	
10	Accuracy of Attenuation 40 to 60 dB:	± 2.0 dB Typ.	±1.03 dB See Plot	
11	Switching Speed:	1.0 μs Max. On 0.5 μs Max. Off	On: 977 ns Off: 421 ns	
12	DC Supply:	+15VDC @ 150 mA	113 mA	

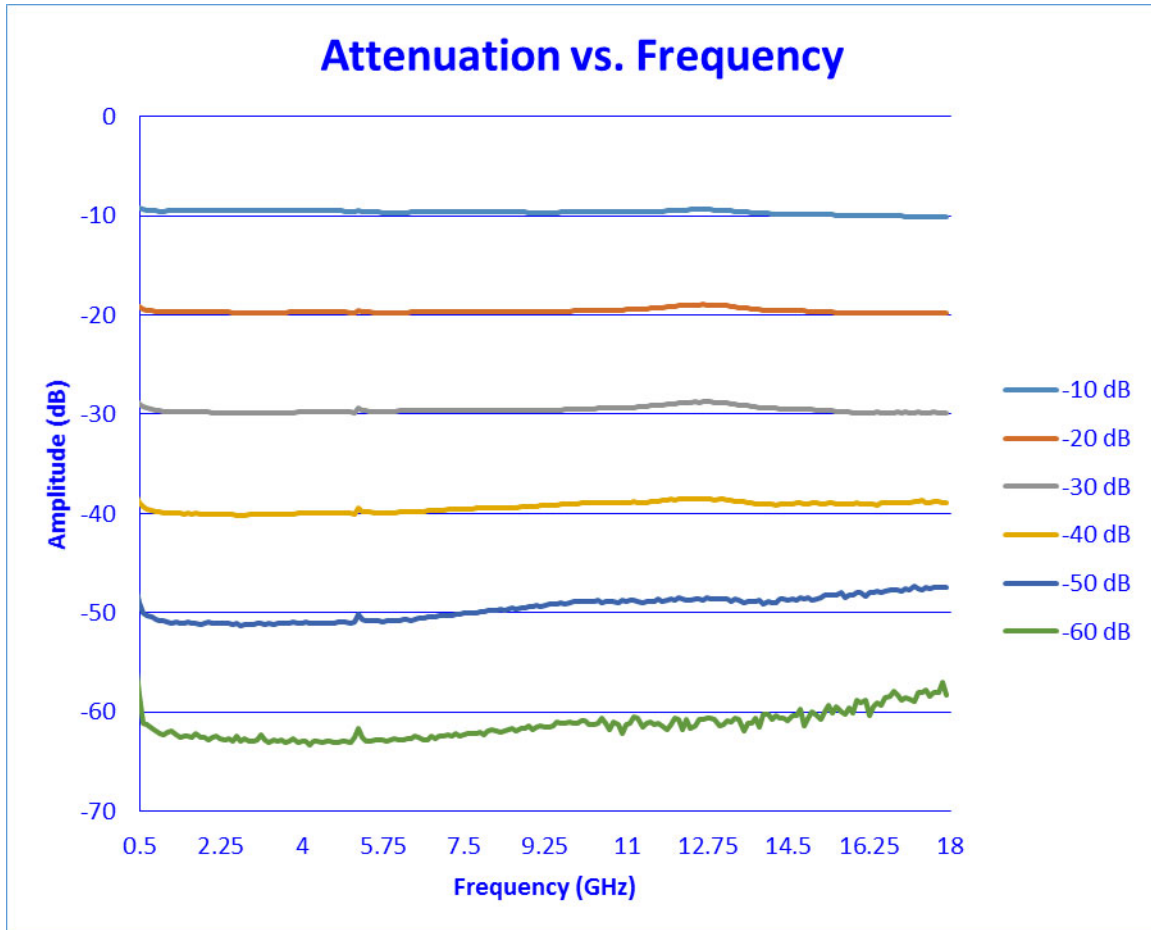


Typical Characteristics For DTA-0R4G18G-60-CD-1



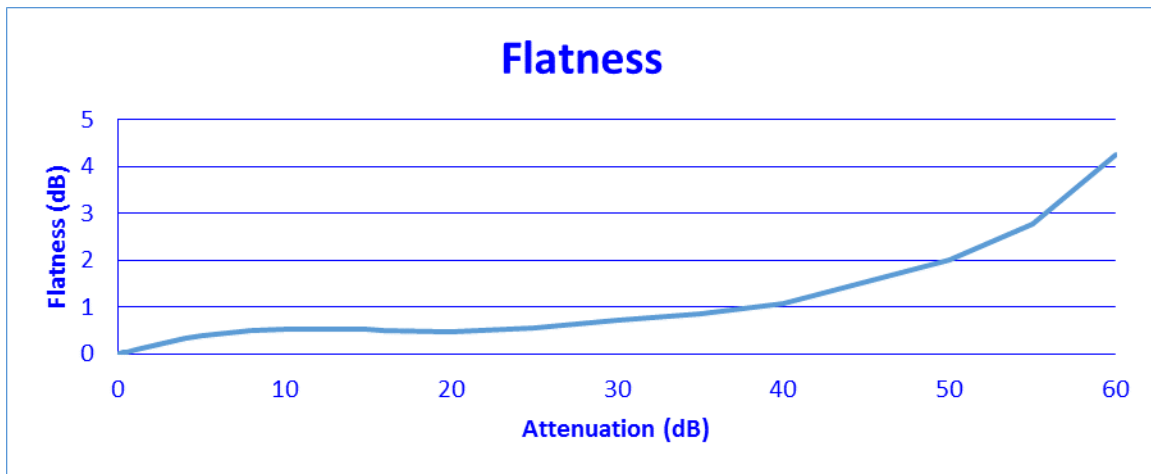
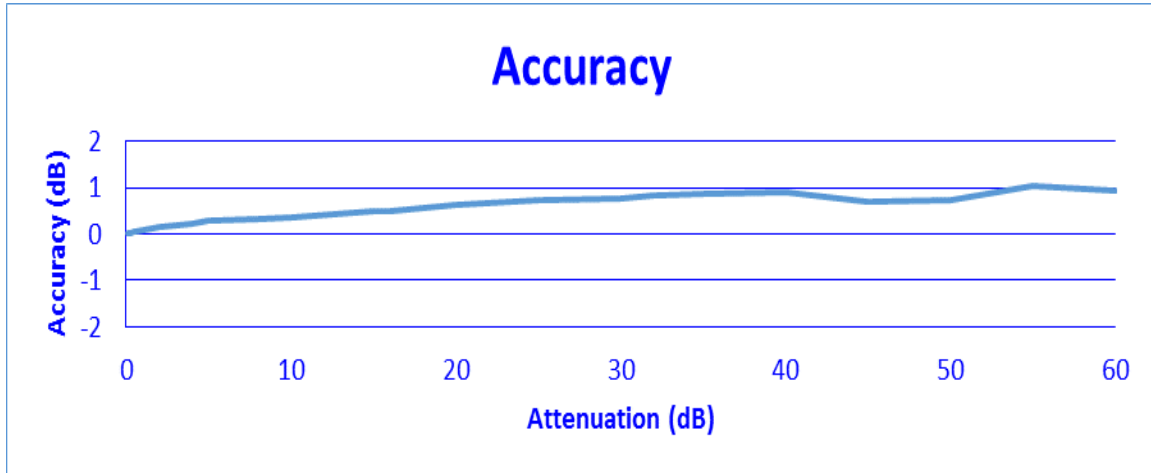


Typical Characteristics For DTA-0R4G18G-60-CD-1





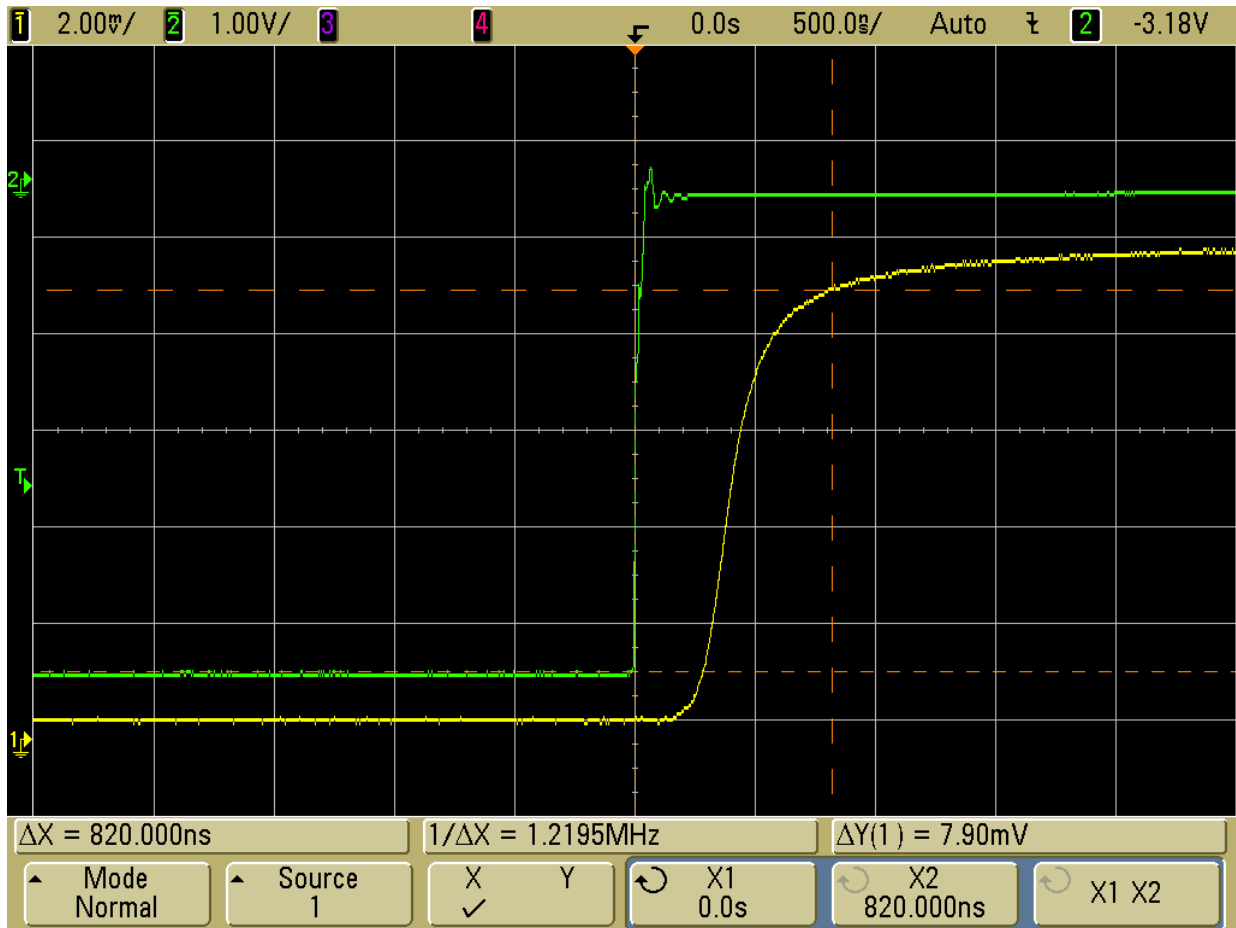
Typical Characteristics For DTA-0R4G18G-60-CD-1





Typical Characteristics For DTA-0R4G18G-60-CD-1

Delay On Time



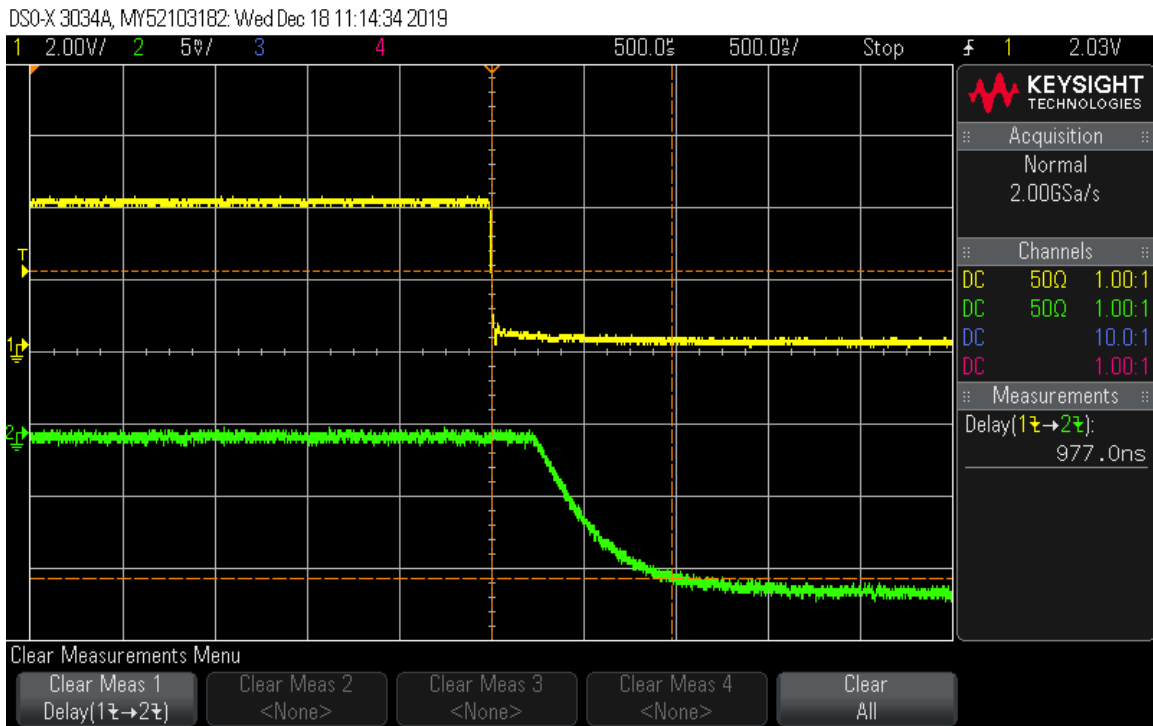
Channel 1 (Yellow): TTL Input from Signal Generator

Channel 2 (Green): RF Output



Typical Characteristics For DTA-0R4G18G-60-CD-1

Delay Off Time



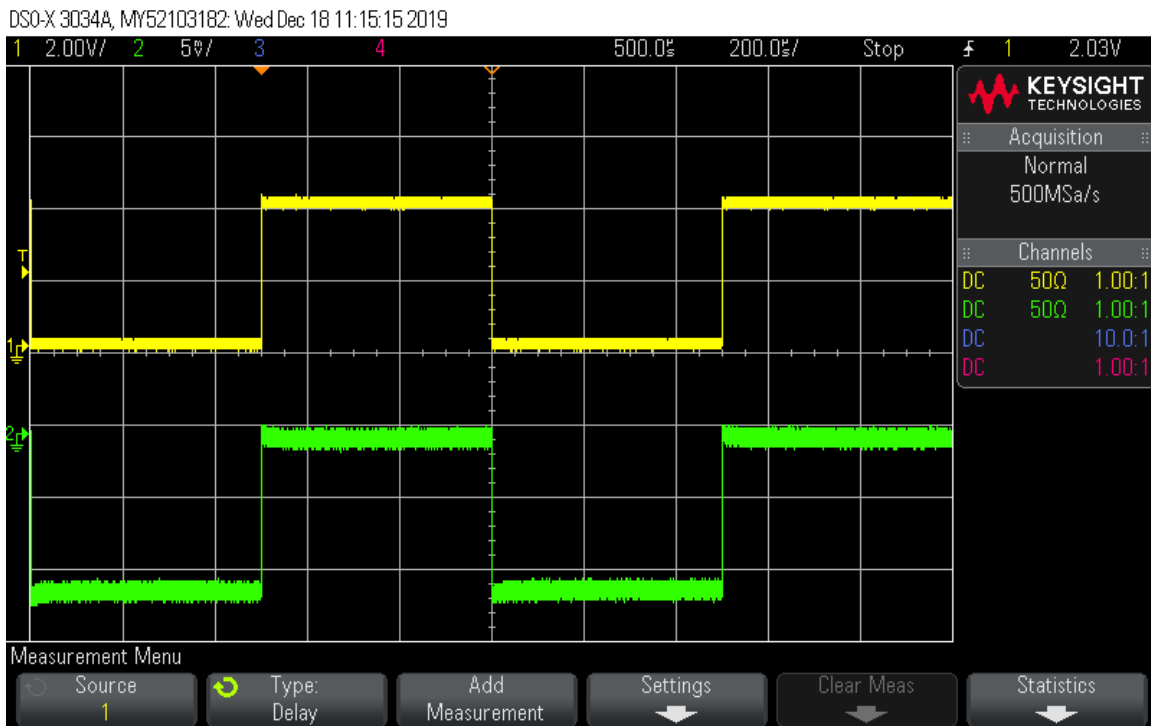
Channel 1 (Yellow): TTL Input from Signal Generator

Channel 2 (Green): RF Output



Typical Characteristics For DTA-0R4G18G-60-CD-1

Full Pulse



Channel 1 (Yellow): TTL Input from Signal Generator

Channel 2 (Green): RF Output