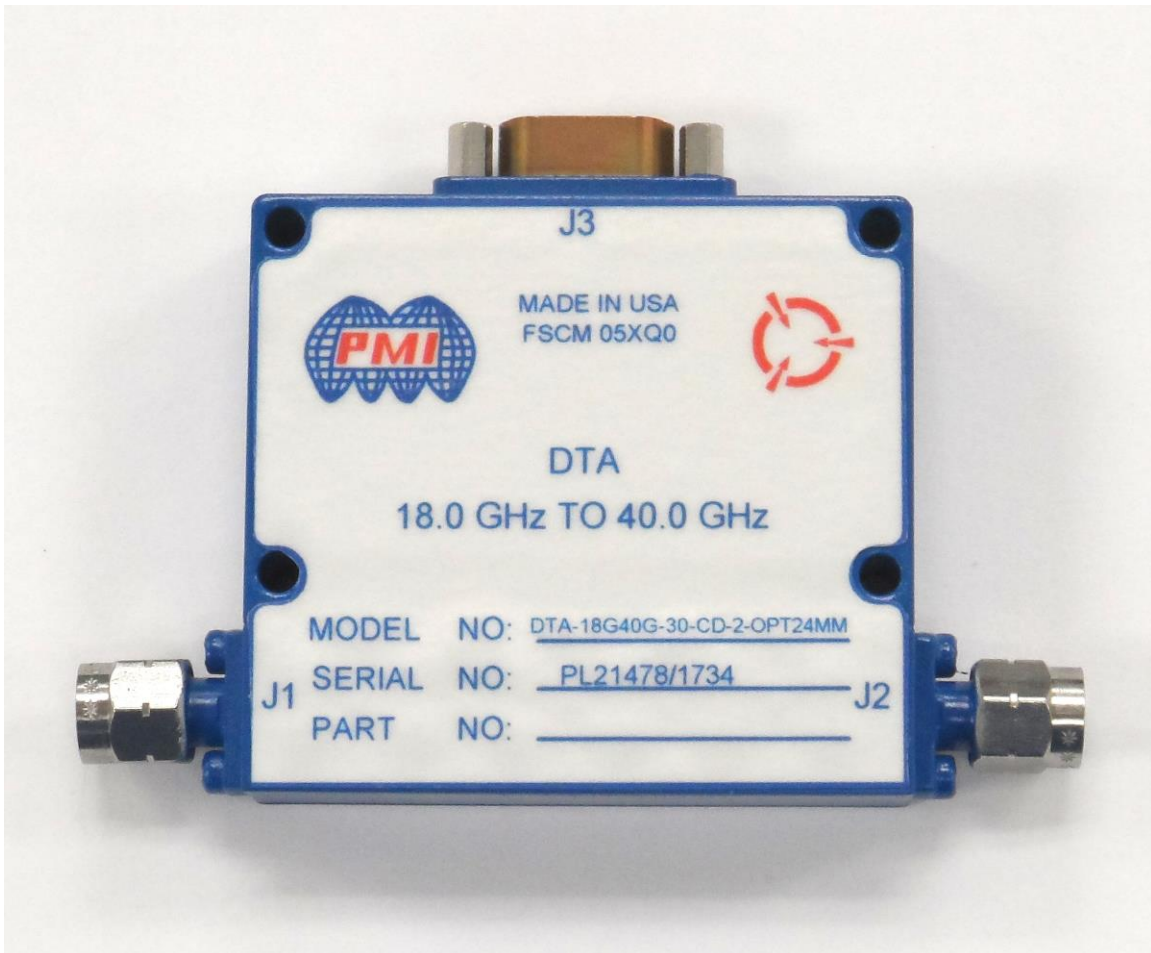




Typical Characteristics On DTA-18G40G-30-CD-2-OPT24MM

PMI MODEL NUMBER DTA-18G40G-30-CD-2-OPT24MM IS A 10 BIT PROGRAMMABLE 30 dB ATTENUATOR WITH STEP RESOLUTION AS LOW AS 0.03 dB OVER THE FREQUENCY RANGE OF 18 GHz TO 40 GHz. THIS MODEL IS OFFERED IN THE SLIM LINE HOUSING MEASURING ONLY 0.5" IN HEIGHT WITH 2.4mm MALE CONNECTORS.



August 23, 2017
Designed by: PMI Engineering
Reported by: Kevin Mansfield



Typical Characteristics On DTA-18G40G-30-CD-2-OPT24MM

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Typical Characteristics On DTA-18G40G-30-CD-2-OPT24MM

REVISIONS			
ZONE	REV.	DESCRIPTION	DATE
	A1	ORIGINAL RELEASE	05/17/17

DESCRIPTION:
 PMI MODEL NUMBER DTA-18G40G-30-CD-2-OPT24MM IS A 10 BIT PROGRAMMABLE 30 dB ATTENUATOR WITH STEP RESOLUTION AS LOW AS 0.03 dB OVER THE FREQUENCY RANGE OF 18 GHz TO 40 GHz. THIS MODEL IS OFFERED IN THE SLIM LINE HOUSING MEASURING ONLY 0.5" IN HEIGHT WITH 2.4mm MALE CONNECTORS.

SPECIFICATIONS:

- FREQUENCY: 18 GHz TO 40 GHz
- MEAN ATTENUATION RANGE: 30 dB
- INSERTION LOSS: 6.0 dB TYP
- VSWR: 2.5:1 MAX
- FLATNESS: ±1.5 dB TYP
- ACCURAY OF ATTENUATION: ±2.0 dB TYP
- POWER HANDLING CAPABILITY: +24 dBm CW MAX
- INPUT 1dB COMPRESSION: +10 dBm TYP
- SWITCHING TIME:
 - ON TIME 1.0 us MAX
 - OFF TIME 0.5 us MAX
- POWER SUPPLY: 15V @ 100mA MAX
- CONNECTORS: (2) 2.4mm(M) & 15 PIN Micro-D-Female
 Shipped with mating Micro-D Male
- 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

PIN NO.	J3 PIN FUNCTIONS
1	1dB
2	0.5dB
3	0.25dB
4	0.125dB
5	GND
6	0.08 dB
7	0.03 dB (LSB)
8	GND
9	Not Used
10	Not Used
11	+12VDC
12	16dB (MSB)
13	8dB
14	4dB
15	2dB

2.4mm Male Connectors
(2 Places)

PMI CONFIDENTIAL AND PROPRIETARY

ENVIRONMENTAL RATINGS:

- TEMPERATURE: -40°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

PLANAR MONOLITHICS INDUSTRIES, INC.
 7311-F GROVE ROAD
 FREDERICK, MARYLAND 21704 USA
 TEL: 301-662-5019 FAX: 301-662-1731
 WEBSITE: www.pmi-t.com
 E-MAIL: sales@pmi-t.com
 ISO 9001 CERTIFIED

APPROVALS	DATE	TITLE		
DRAWN <i>JCM</i>	18/08/11	PRODUCT FEATURE		
RESPONSE <i>JSP/L</i>	06/11/11	PART NO.	DWG NO.	REV.
		A	05XQ0	27032681
ISSUED		SCALE: N:S	SHEET	1 OF 1

ALL DIMENSIONS ARE IN INCHES
 TOLERANCES:
 X.XXX ±0.005
 X.XXXX ±0.010



Typical Characteristics On DTA-18G40G-30-CD-2-OPT24MM

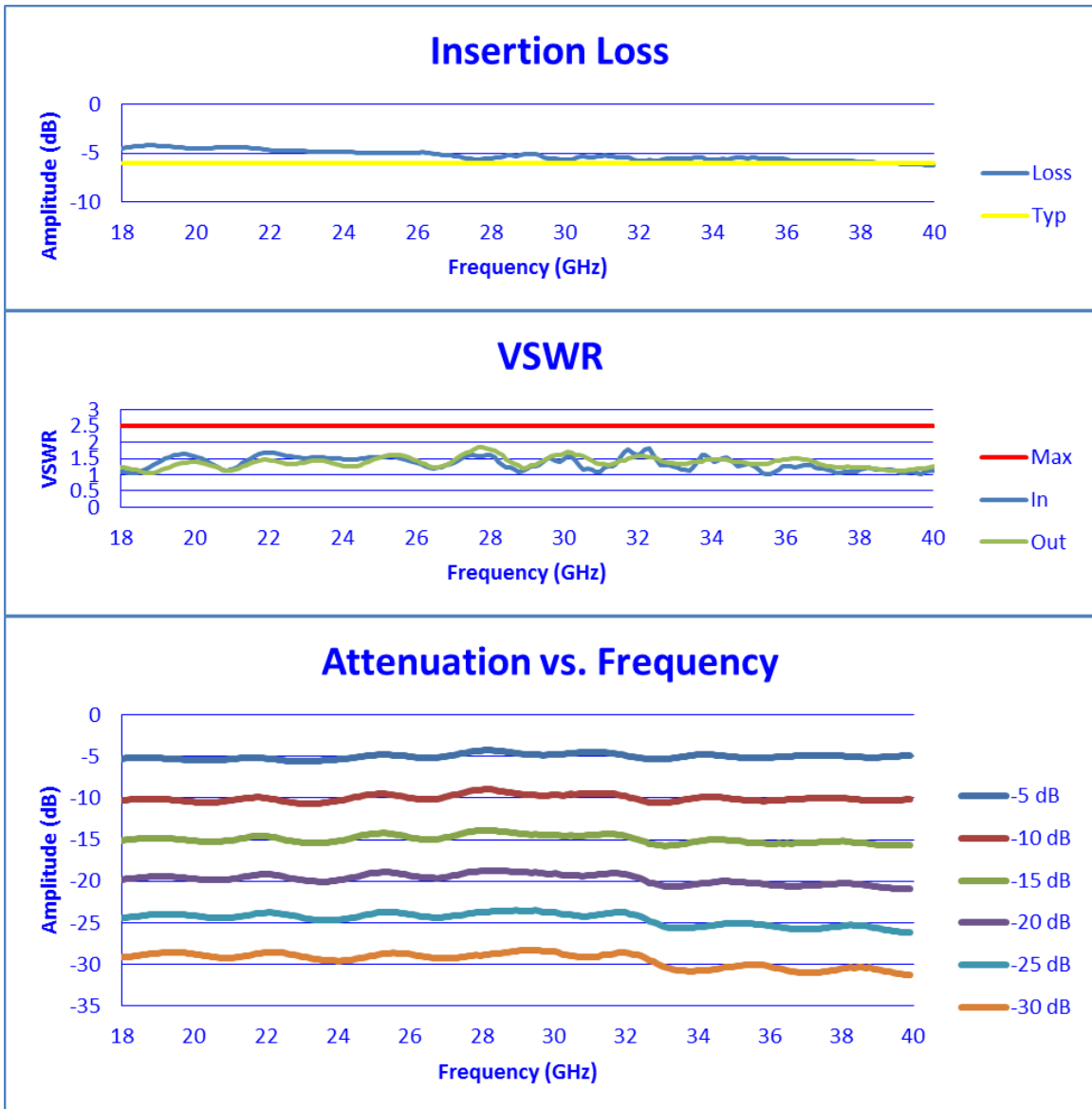
TEST. ITEM NO	PARAMETERS	SPECIFIED VALUE	PASS/FAIL	QA QC
1	Frequency Range:	18 GHz – 40 GHz	18 GHz – 40 GHz	
2	Insertion Loss:	6.0 dB Typ.	6.3 dB See Plot	
3	VSWR:	2.5:1 Max.	1.8:1 See Plot	
4	Flatness to 15 dB:	± 1.5 dB Typ.	0.94 dB See Plot	
5	Flatness to 30 dB:	± 1.5 dB Typ.	1.52 dB See Plot	
6	Accuracy of Attenuation 0 to 15 dB:	± 2.0 dB Typ.	0.22 dB See Plot	
7	Accuracy of Attenuation 15 to 30 dB:	± 2.0 dB Typ.	0.24 dB See Plot	
8	Power Handling:	24 dBm CW Max.	Pass	
9	Input 1 dB Compression:	10 dBm Typ.	>10 dBm	
10	Switching Speed:	On: 1.0 us Max. Off: 0.5 us Max.	On Time <0.30 us Off Time <0.20 us	
11	DC Supply:	+15VDC @ 100 mA Max.	38 mA	

Programed Attenuation	Attenuation	Accuracy of Attenuation	Flatness dB
dB	dB	dB	±dB
1.00	1.00	0.00	0.12
2.00	1.98	0.02	0.23
4.00	3.92	0.08	0.54
8.00	7.83	0.17	0.85
16.00	15.77	0.23	0.95
31.00	30.78	0.22	1.54

Programed Attenuation	Attenuation	Accuracy of Attenuation	Flatness dB
dB	dB	dB	±dB
5.00	4.89	0.11	0.69
10.00	9.80	0.20	0.87
15.00	14.79	0.21	0.94
20.00	19.80	0.20	1.10
25.00	24.83	0.17	1.31
30.00	29.76	0.24	1.52

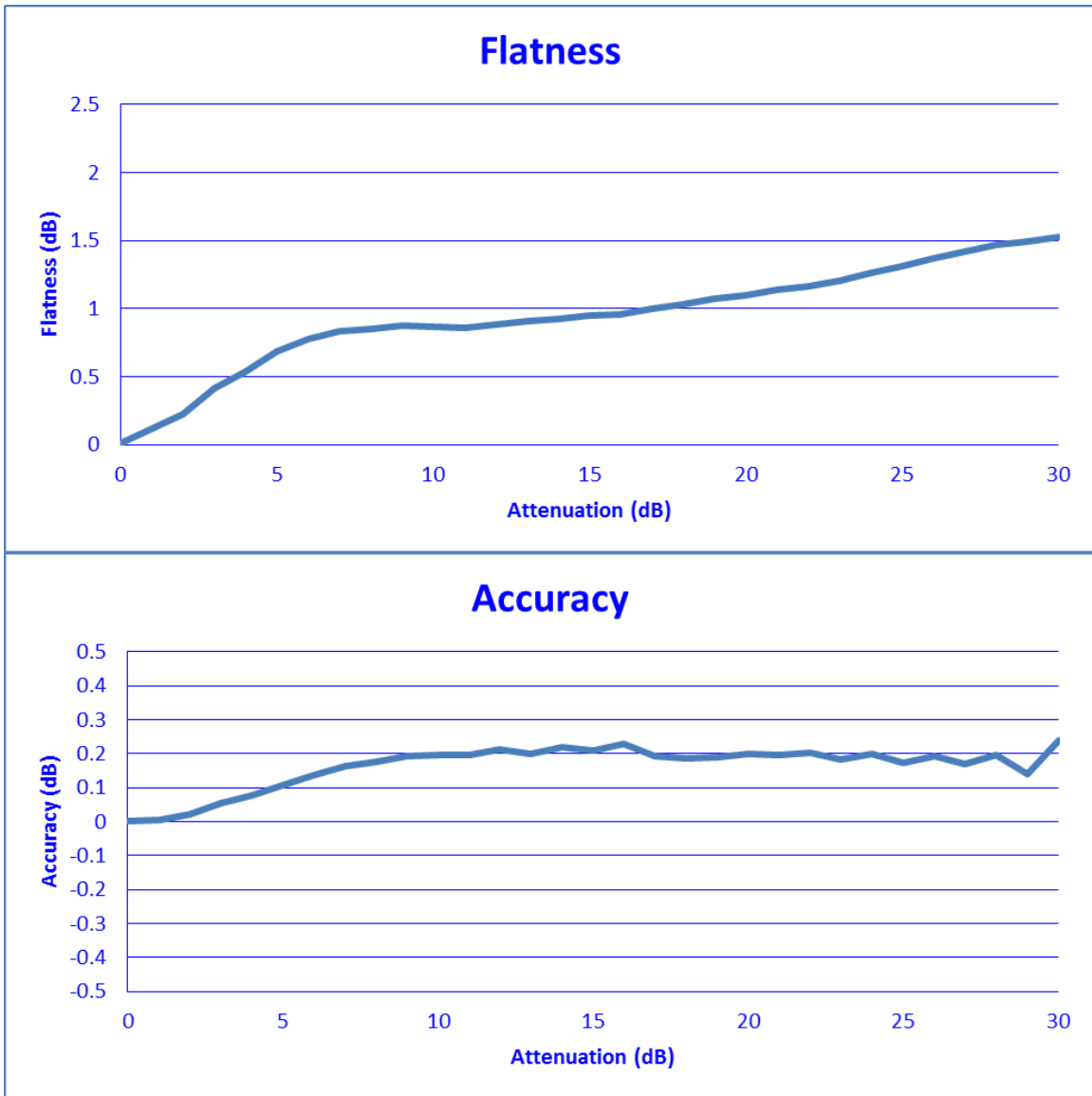


Typical Characteristics On DTA-18G40G-30-CD-2-OPT24MM





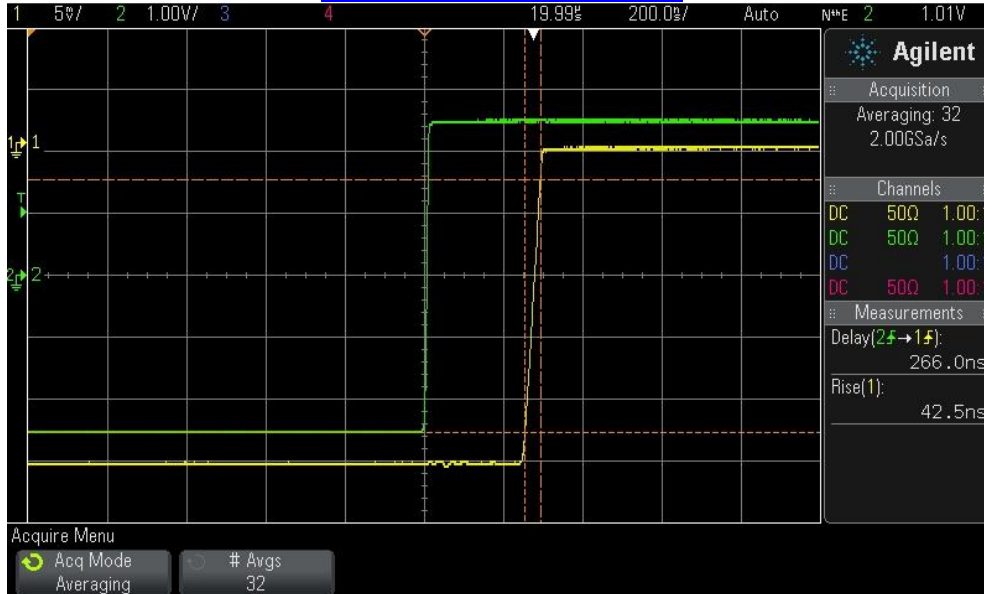
Typical Characteristics On DTA-18G40G-30-CD-2-OPT24MM



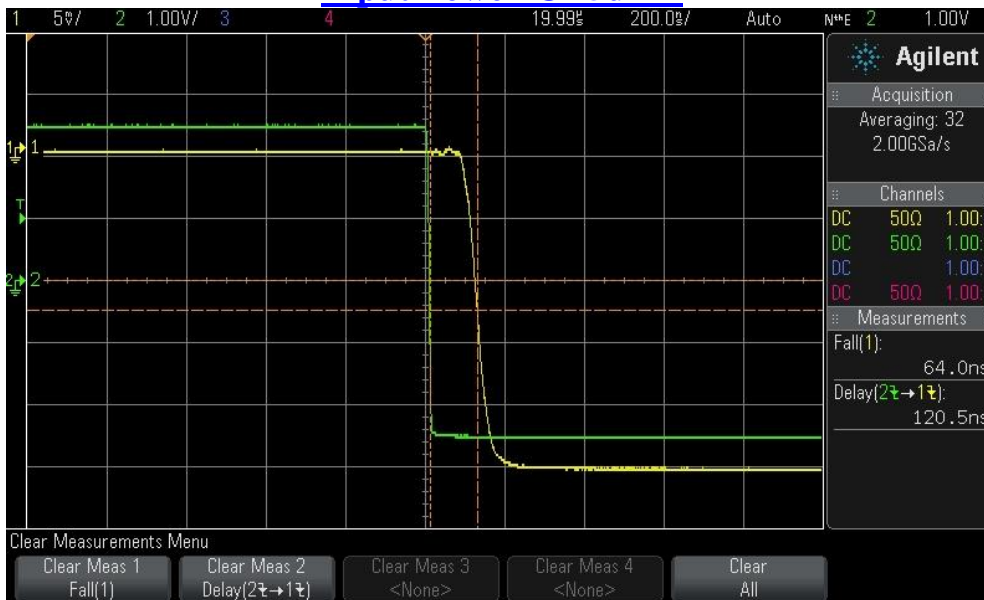


Typical Characteristics On DTA-18G40G-30-CD-2-OPT24MM

Delay On Measured with a Tunnel Diode @ 30GHz Input Power @ -5dBm



Delay Off Measured with a Tunnel Diode @ 30GHz Input Power @ -5dBm



Channel 1 (Yellow): Tunnel Diode output
Channel 2 (Green): TTL Input from Signal Generator