

DESCRIPTION

PMI MODEL: DFD-2G18G-5512 IS A DIGITAL FREQUENCY DISCRIMINATOR (DFD) OPERATING OVER THE 2.0 TO 18.0 GHz FREQUENCY RANGE. THIS DFD OFFERS A DYNAMIC RANGE OF -50 TO +15 dBm WITH A MAXIMUM INPUT POWER OF +17 dBm CW. THIS UNIT MEASURES 5.98" x 5.79" x 1.28" (152 mm x 147 mm x 32.5 mm) AND IS OUTFITTED WITH AN SMA FEMALE CONNECTOR FOR ITS RF INPUT PORT. THIS MODEL INCORPORATES CONDUCTION COOLING AND THE ABILITY TO BE MOUNTED VIA SCREW HOLES LOCATED ON THE UNDERSIDE OF THE UNIT OR VIA THE WEDGE LOCKS LOCATED ON THE TOP OF THE UNIT.

SPECIFICATIONS

- FREQUENCY RANGE: ----- 2.0 TO 18.0 GHz
- UNAMBIGUOUS BANDWIDTH: ----- 16 GHz MINIMUM
- VSWR: ----- 2.5:1 TYPICAL
- DYNAMIC RANGE: ----- -50 TO +15 dBm
- MEAN FREQUENCY RESOLUTION: ----- 1 MHz NOMINAL
- FREQUENCY ACCURACY: ----- 4.5 MHz (AVERAGE) TYPICAL
- PEAK FREQUENCY ERROR: ----- 15 MHz MAXIMUM
- MAXIMUM RF INPUT POWER: ----- +17 dBm CW
- THROUGHPUT TIME: ----- LESS THAN 350 ns TYPICAL
- RECOVERY TIME
(AFTER HIGH POWER PULSE INPUT): ----- 100 ns MAXIMUM
- SHADOW TIME: ----- 50 ns TYPICAL
- MINIMUM PULSE WIDTH: ----- 100 ns TYPICAL
- POWER CONSUMPTION: ----- -5 VDC @ 100 mA TYPICAL
+5 VDC @ 1.5 A TYPICAL
+12 VDC @ 800 mA TYPICAL
- CONTROL LOGIC: ----- 14-BIT TTL DIGITAL OUTPUT (SINGLE ENDED)
- CONNECTORS: ----- RF INPUT: SMA FEMALE
POWER/CONTROL: 51-PIN MICRO-D
CALIBRATION/TEST: 15-PIN MICRO-D
- WEIGHT: ----- 1.15 kg TYPICAL
- SIZE: ----- 152 mm x 147 mm x 32.5 mm
5.98" x 5.79" x 1.28"
- FINISH: ----- NICKEL PLATED

ENVIRONMENTAL RATINGS

- TEMPERATURE: ----- -40 °C TO +60 °C (OPERATING)
-55 °C TO +95 °C (STORAGE)
- HUMIDITY: ----- MIL-STD-202, METHOD 103B COND. B
- SHOCK: ----- MIL-STD-202, METHOD 213B COND. B
- VIBRATION: ----- MIL-STD-202, METHOD 204D COND. B
- ALTITUDE: ----- MIL-STD-202, METHOD 105C COND. A
- TEMPERATURE CYCLE: ----- MIL-STD-202, METHOD 107G COND. A

NOTE: SPECIFICATIONS WILL VARY OVER OPERATING TEMPERATURE

NOTE: THE ABOVE SPECIFICATIONS ARE SUBJECT TO CHANGE OR REVISION

PMI CONFIDENTIAL AND PROPRIETARY

ALL DIMENSIONS
ARE IN mm [INCH]
TOLERANCES:
X.XX ± 0.508 [0.020]
X.XXX ± 0.254 [0.010]

REVISIONS				
ZONE	REV.	DESCRIPTION	DATE	APPROVED
	A1	ORIGINAL RELEASE	4/27/20	
	A2	SPECIFICATION UPDATES	9/1/20	

CALIBRATION/TEST PIN OUT TABLE

FOR FACTORY USE ONLY

POWER/CONTROL PIN OUT TABLE

PIN	SIGNAL	PIN	SIGNAL	PIN	SIGNAL
1	0 V	18	0 V	35	FREQ. 13
2	0 V	19	IFM CLOCK	36	+12 V
3	0 V	20	0 V	37	0 V
4	0 V	21	0 V	38	FREQ. 0
5	0 V	22	0 V	39	FREQ. 2
6	EXT. TRIGGER**	23	FREQ. 1	40	FREQ. 4
7	0 V	24	0 V	41	FREQ. 5
8	0 V	25	FREQ. 3	42	0 V
9	0 V	26	0 V	43	FREQ. 7
10	0 V	27	BAD DATA	44	FREQ. 6
11	0 V	28	0 V	45	0 V
12	0 V	29	FREQ. 11	46	FREQ. 9
13	DATA VALID**	30	0 V	47	FREQ. 8
14	0 V	31	FREQ. 12	48	FREQ. 10
15	0 V	32	0 V	49	0 V
16	0 V	33	0 V	50	+5 V
17	-5 V	34	0 V	51	+5 V

** Connector Pins 6 and 13 are reserved for future use.

PLANAR MONOLITHICS INDUSTRIES, INC.

7311-F GROVE ROAD

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ISO 9001 CERTIFIED



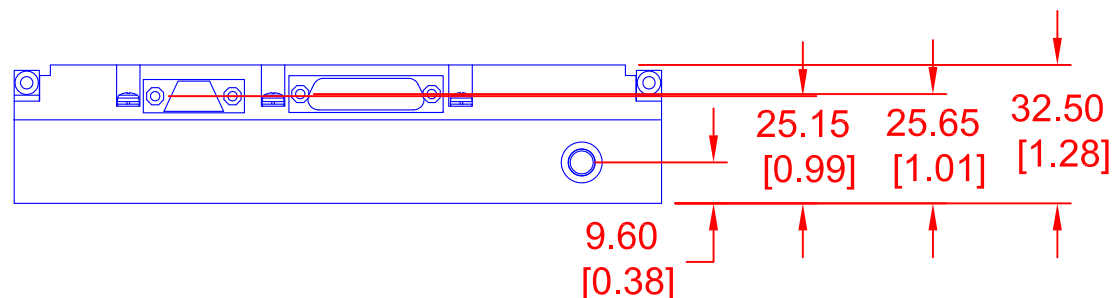
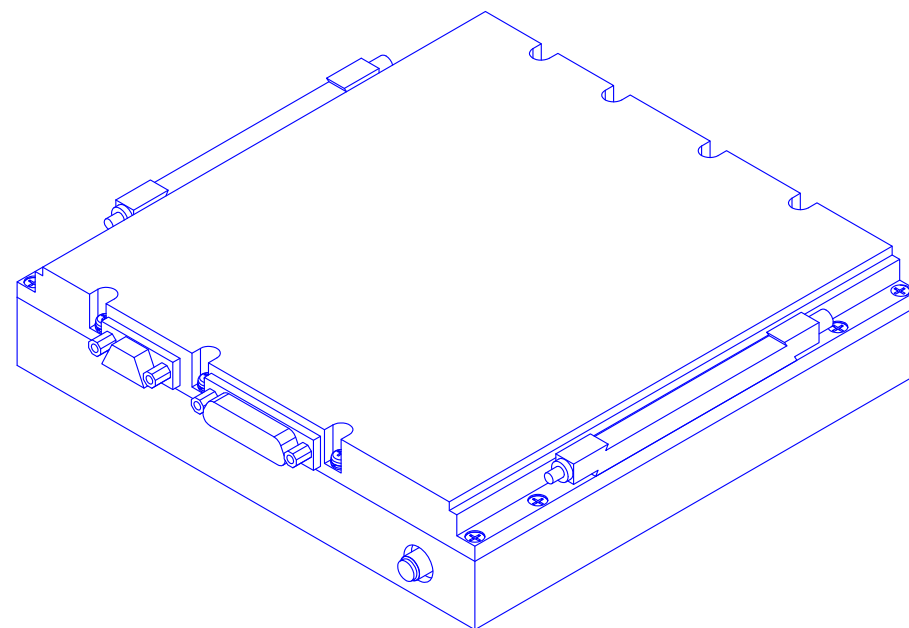
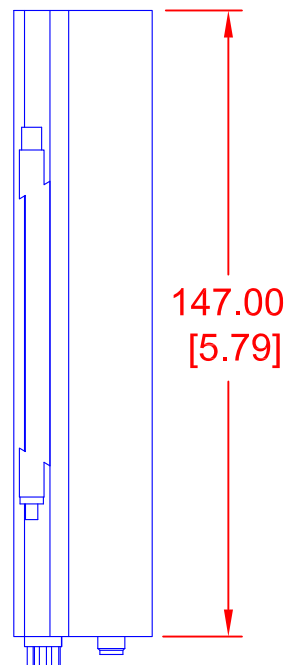
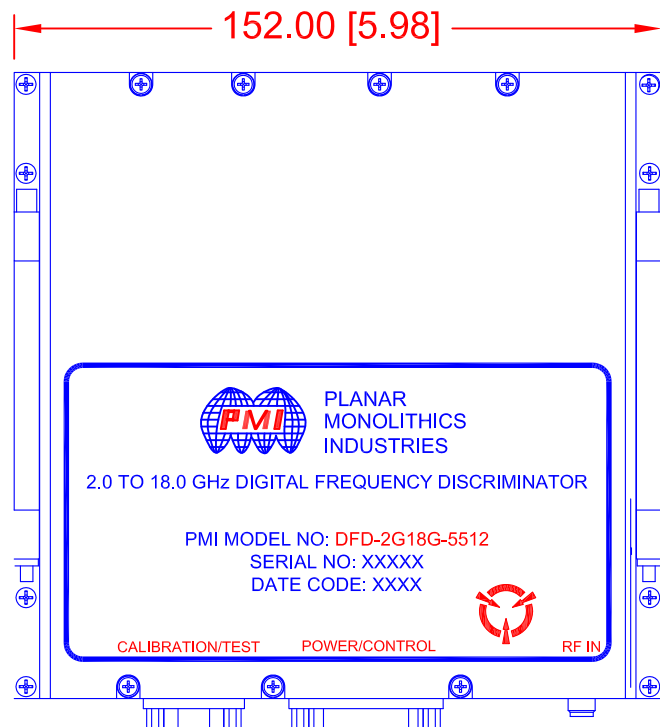
APPROVALS		DATE	TITLE			SIZE	FSCM NO.	DWG NO.	REV.
DRAWN		<i>M. Berry</i>	PRODUCT FEATURE			A	05XQ0	27038520	A2
CHECKED		<i>LMH</i>	DFD-2G18G-5512						
ISSUED			2.0 to 18.0 GHz Digital Frequency Discriminator						
						SCALE	N:S		SHEET 1 OF 2

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MECHANICAL OUTLINE



ALL DIMENSIONS
ARE IN mm [INCH]
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X.XXX ± 0.254 [0.010]

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		TITLE PRODUCT FEATURE DFD-2G18G-5512 2.0 to 18.0 GHz Digital Frequency Discriminator					
APPROVALS						DATE	
DRAWN <i>M. Berry</i>						<i>11/08/16</i>	
CHECKED <i>LMH</i>						<i>04/27/20</i>	
ISSUED							
		SIZE	FSCM NO.	DWG NO.			REV.
		A	05XQ0	27038520			A2
		SCALE N:S					SHEET 2 OF 2