

**TYPICAL CHARACTERISTICS
ON
PLDRO-12000-13DBM-SFF**

**QUANTIC PMI MODEL PLDRO-12000-13DBM-SFF IS A PHASE LOCKED
MICROWAVE OSCILATOR THAT PROVIDES A 13 dBm MINIMUM OUTPUT AT 12000 MHz**



**Reported By: Matt L.
Tested By: Eric K.
Date: August 8th, 2025**

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PRODUCT FEATURE

DESCRIPTION:

QUANTIC PMI MODEL PLDRO-12000-13DBM-SFF IS A PHASE LOCKED MICROWAVE OSCILATOR THAT PROVIDES A 13 dBm MINIMUM OUTPUT AT 12000 MHz

SPECIFICATIONS:

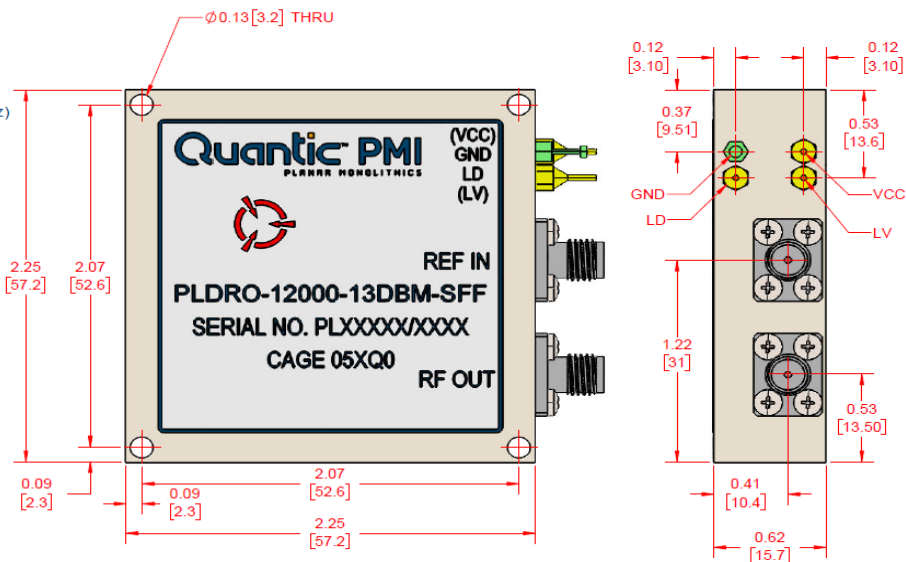
- OUTPUT FREQUENCY:..... 12000 MHz
- REFERENCE FREQUENCY:..... 100 MHz (SINE WAVE)
- INPUT LEVEL:..... -3 TO +3 dBm
- OUTPUT LEVEL:..... +13 dBm MIN
- SPURIOUS:..... -60 dBc MAX (FO +/- 100kHz)
-75 dBc MAX (FO > 100kHz)
- HARMONICS:..... -20 dBc MAX
- LOAD VSWR:..... 1.5:1 MAX
- REF PHASE NOISE:..... -130 dBc/Hz MAX @ 100 Hz
-155 dBc/Hz MAX @ 1 kHz
- RF PHASE NOISE:..... -130 dBc/Hz MAX @ 1 MHz
- FREQUENCY STABILITY:..... SAME AS REFERENCE
- SUPPLY VOLTAGE:..... +12 V @ 300 mA MAX
- LOCK DETECTOR:..... TTL HIGH = LOCK
- CONNECTORS(IN/OUT):..... SMA (F)
- FINISH:..... NICKEL PLATED

ENVIRONMENTAL RATINGS:

- TEMPERATURE:..... -40°C TO +70°C (OPERATING)
-55°C TO +125°C (STORAGE)

NOTE: SPECIFICATIONS WILL VARY OVER TEMPERATURE
NOTE: THE ABOVE SPECIFICATIONS ARE SUBJECT TO CHANGE OR REVISION

ZONE	REV	DESCRIPTION	DATE	APPROVED
	A1	ORIGINAL RELEASE	8/12/2008	



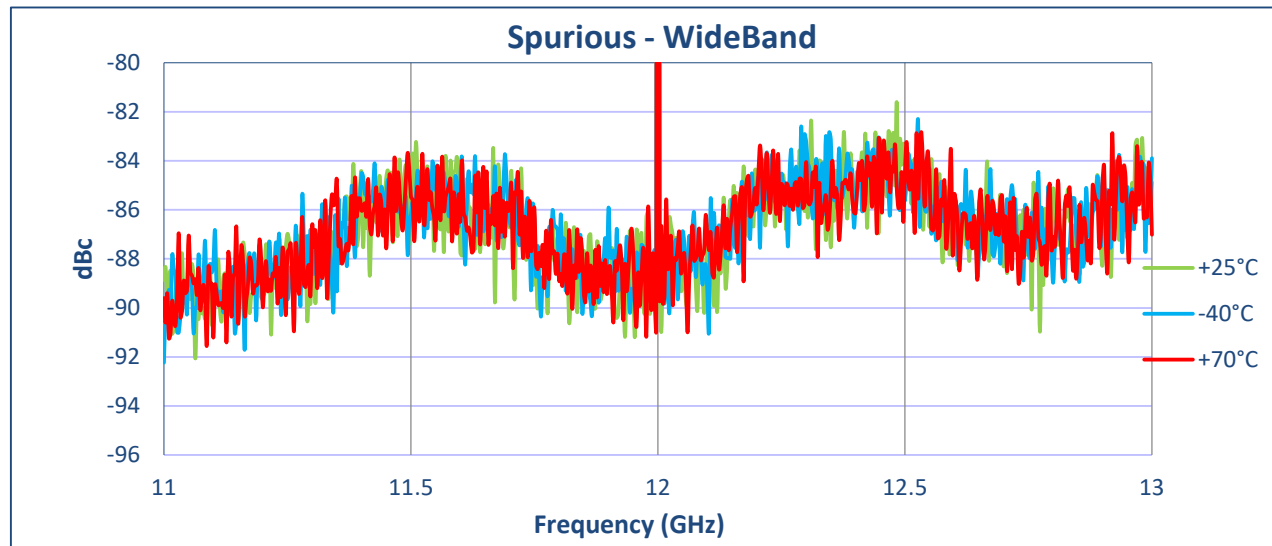
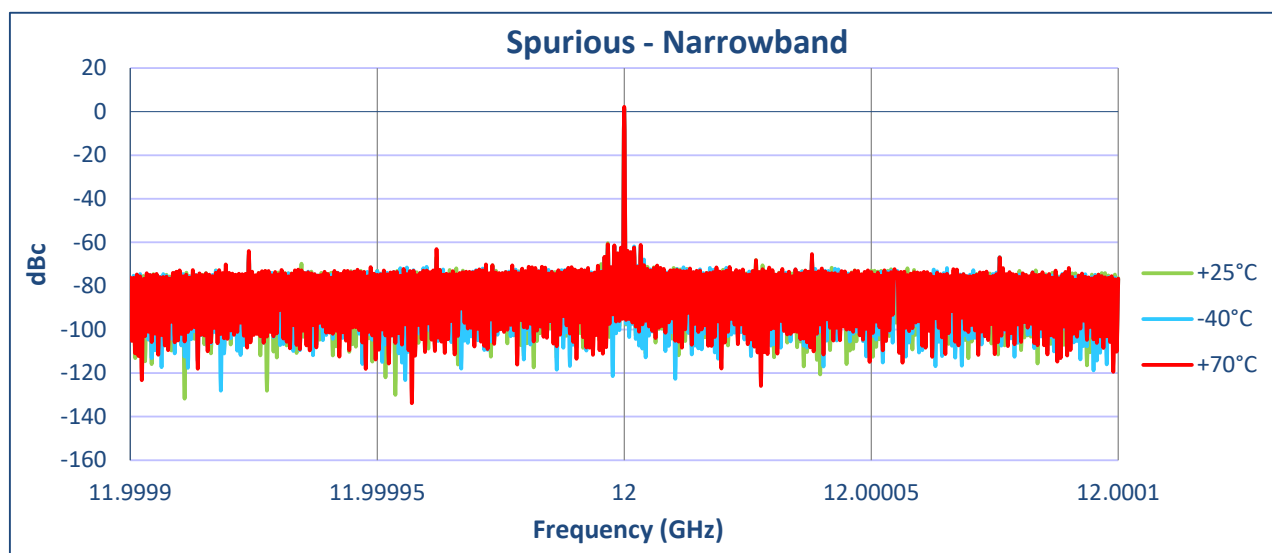
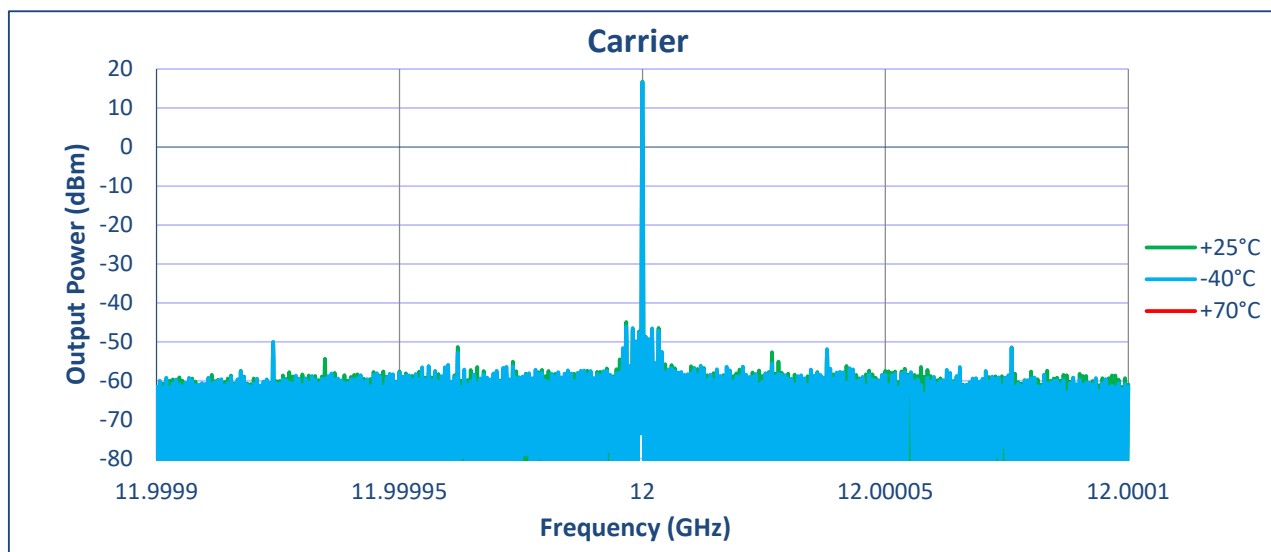
PMI CONFIDENTIAL AND PROPRIETARY			
Quantic PMI PLANAR MONOLITHICS 7309-A GROVE ROAD, FREDERICK, MD 21704 USA PHONE: (301) 662-5019 FAX: (301) 662-1731 WWW.QUANTICPMI.COM EMAIL: SALES@QUANTICPMI.COM (ISO 9001 CERTIFIED)			
APPROVALS	DATE	TITLE	
DRAWN M LAULIS	8/12/2008	OUTLINE	
ISSUED		SIZE B	REV A1
		PCB NO. 05XQ0	QWS NO. 27043460
		SCALE 2:1	
		SHEET 1 OF 1	

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TEST DATA

TEST ITEM	PARAMETERS	SPECIFIED VALUE	TEST RESULTS		
			+25°C	-40°C	+70°C
1	Output Frequency	12000 MHz	12000 MHz	12000 MHz	12000 MHz
2	Reference Frequency	100 MHz (Sine Wave)	100 MHz (Sine Wave)		
3	Input Level	-3 to +3 dBm	-3 to +3 dBm	-3 to +3 dBm	-3 to +3 dBm
4	Output Level	+13 dBm Min.	18.1 dBm	18 dBm	18.1 dBm
5	Harmonics	-20 dBc MAX	-28.45 dBc	-28.59 dBc	-28.17 dBc
6	Spurious	-60 dBc Max. (FO $\pm$ 100kHz) -75 dBc Max. (FO >100kHz)	-81.6 dBc	-82.4 dBc	-82.8 dBc
8	Output Phase Noise	-130 dBc/Hz Max. @ 1 MHz	-142 dBc/Hz	-137 dBc/Hz	-144 dBc/Hz
10	Supply Voltage	+12 V @ 300 mA Max.	+12 V @ 225 mA	+12 V @ 224 mA	+12 V @ 222 mA
11	Lock Detector	TTL High = Lock	TTL High = Lock		

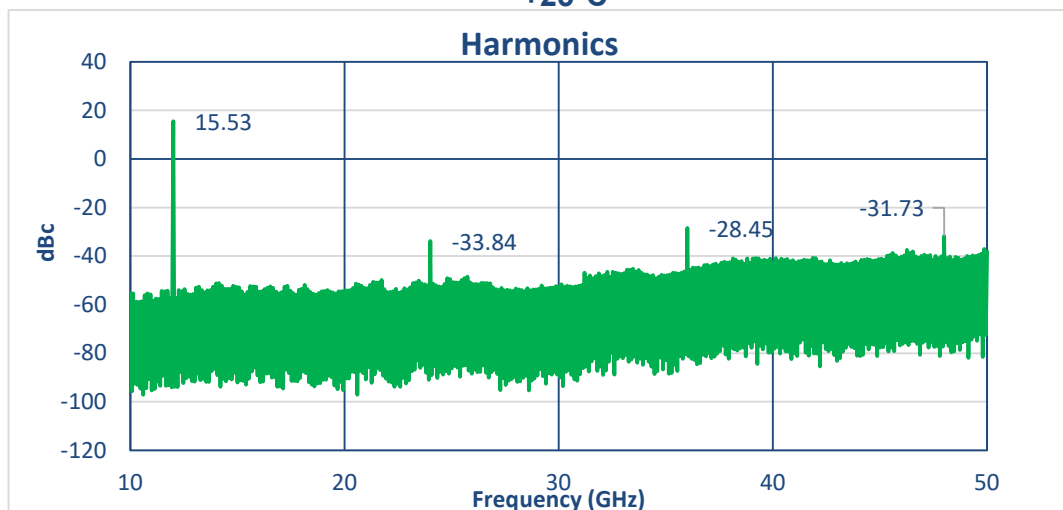
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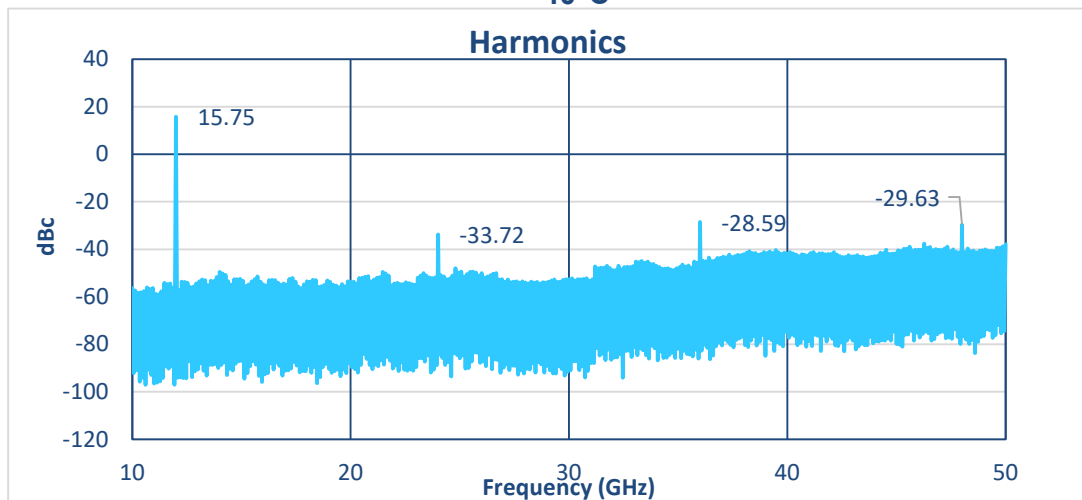
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Harmonics

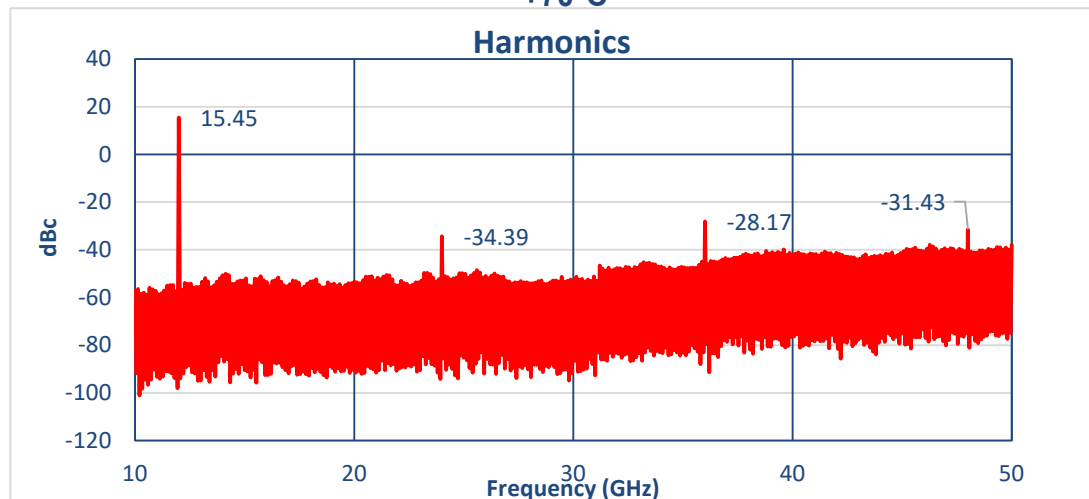
+25°C



-40°C



+70°C



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Phase Noise

