

**TYPICAL CHARACTERISTICS  
ON  
DRO-3-13DBM-SF-SAG**

**PMI MODEL NUMBER DRO-3-13DBM-SF-SAG IS A DIELECTRIC RESONATOR OSCILLATOR WITH A CENTER FREQUENCY OF 3.0 GHz. IT HAS A POWER OUTPUT OF +9 dBm AND A MECHANICAL TUNING RANGE OF  $\pm 10$  MHz. THIS MODEL IS OUTFITTED WITH AN SMA FEMALE CONNECTOR.**



**REPORTED BY: V. PRATAP  
TESTED BY: E. KRETZ  
DATE: 10/17/2025**

## TYPICAL CHARACTERISTICS ON DRO-3-13DBM-SF-SAG

### PRODUCT FEATURE

**DESCRIPTION:**

PMI MODEL NUMBER DRO-3-13DBM-SF-SAG IS A DIELECTRIC RESONATOR OSCILLATOR WITH A CENTER FREQUENCY OF 3.0 GHz. IT HAS A POWER OUTPUT OF +9 dBm AND A MECHANICAL TUNING RANGE OF ± 10 MHz. THIS MODEL IS OUTFITTED WITH A SMA FEMALE CONNECTOR.

**SPECIFICATIONS @ 25°C:**

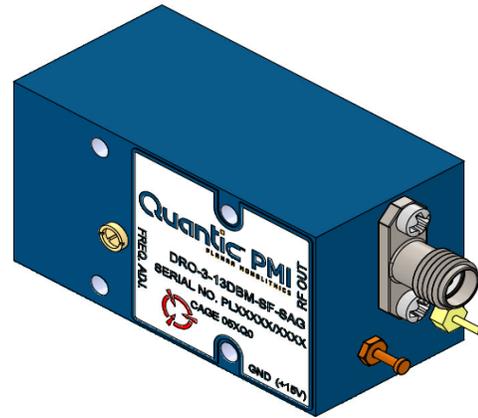
- CENTER FREQUENCY:..... 3 GHz NOMINAL
- POWER OUTPUT:..... +9 dBm MIN.
- MECHANICAL TUNING RANGE:..... ±10 MHz MIN.
- FREQUENCY STABILITY:..... ±10 ppm/°C MAX
- PHASE NOISE AT 100 kHz OFFSET:..... -95 dBc/Hz MAX
- SPURIOUS:..... -75 dBc MAX
- HARMONICS:..... -20 dBc MAX
- BIAS VOLTAGE:..... +10 V<sub>DC</sub> MIN.  
+12 V<sub>DC</sub> TYP.  
+15 V<sub>DC</sub> MAX
- BIAS CURRENT:..... 200 mA MAX
- CONNECTORS:..... SMA FEMALE
- FINISH:..... PAINTED BLUE,  
MOUNTING SURFACE NICKEL PLATED
- SIZE:..... 1.75" (L) X 1.00" (W) X 0.86" (H)

**ENVIRONMENTAL RATINGS:**

- TEMPERATURE:..... 0°C TO +50°C (OPERATING)
- 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. B
- TEMPERATURE CYCLE:..... MIL-STD-202, METHOD 107D COND. A

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

ZONE	REV.	DESCRIPTION	DATE	APPROVED
	A1	ORIGINAL RELEASE	8/19/95	



PMI CONFIDENTIAL AND PROPRIETARY

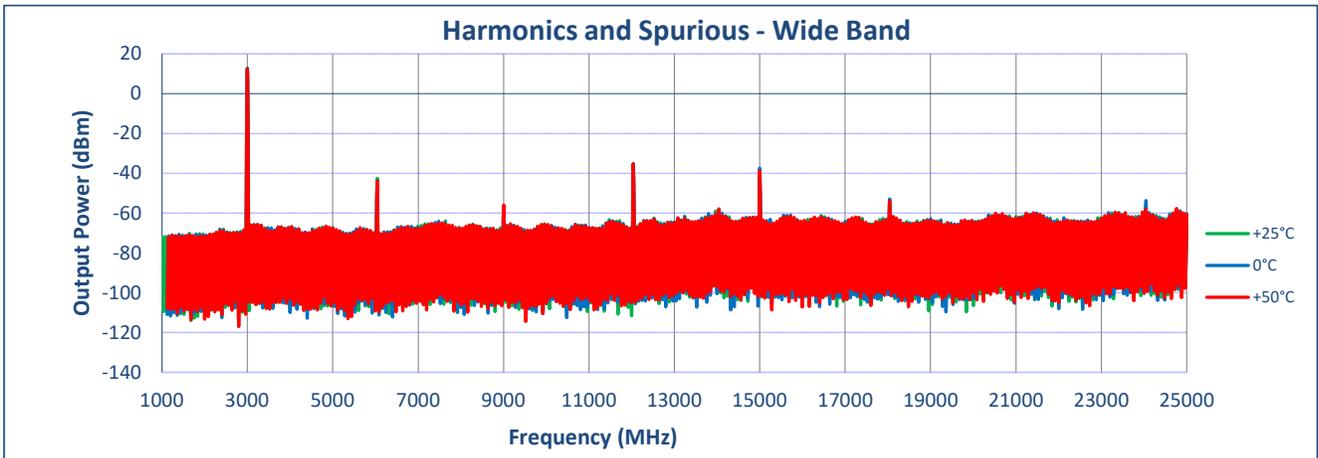
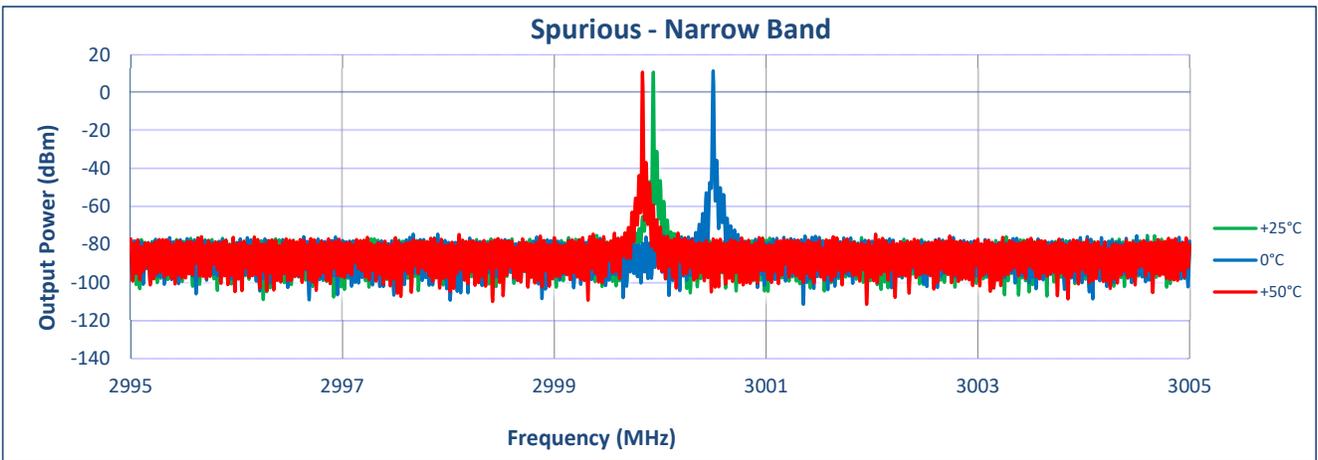
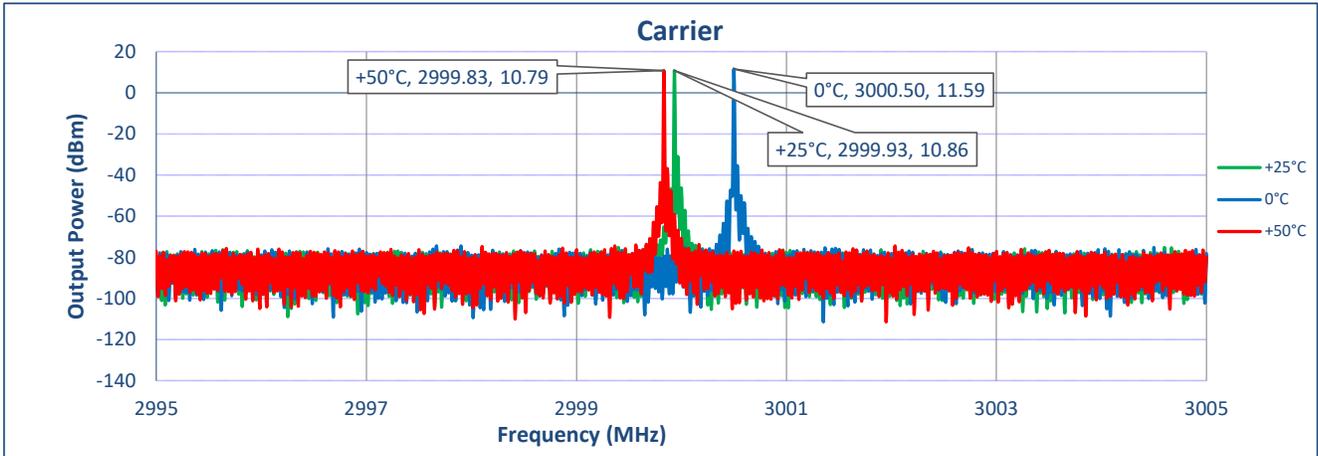
APPROVALS		DATE	TITLE	
DESIGNED	VP	8/19/95	OUTLINE	
REVISED			SIZE	PSOM NO.
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				DWG NO.
				27051820
			SCALE	1:1
				SHEET 1 OF 2

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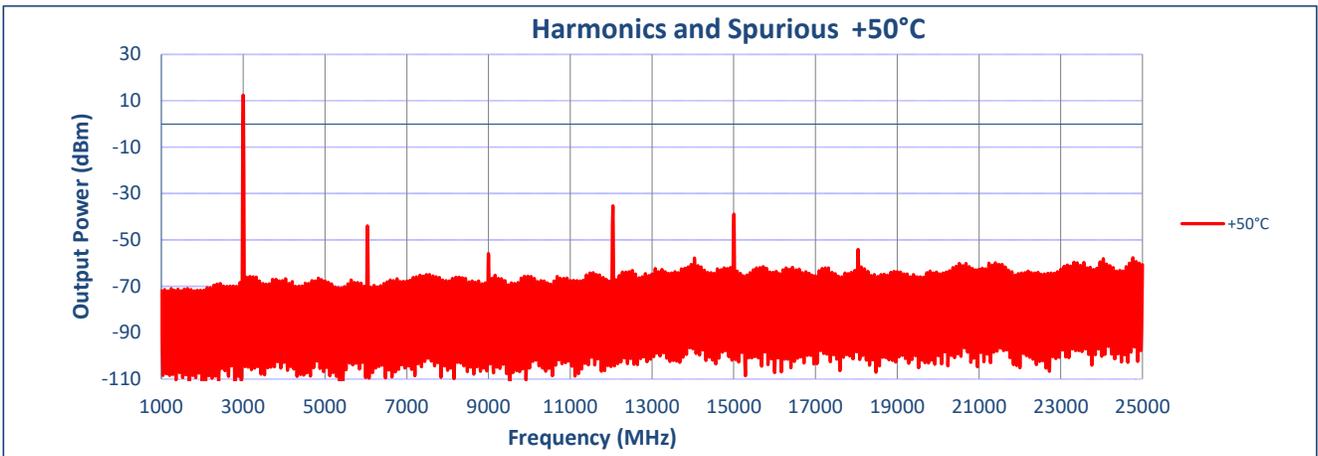
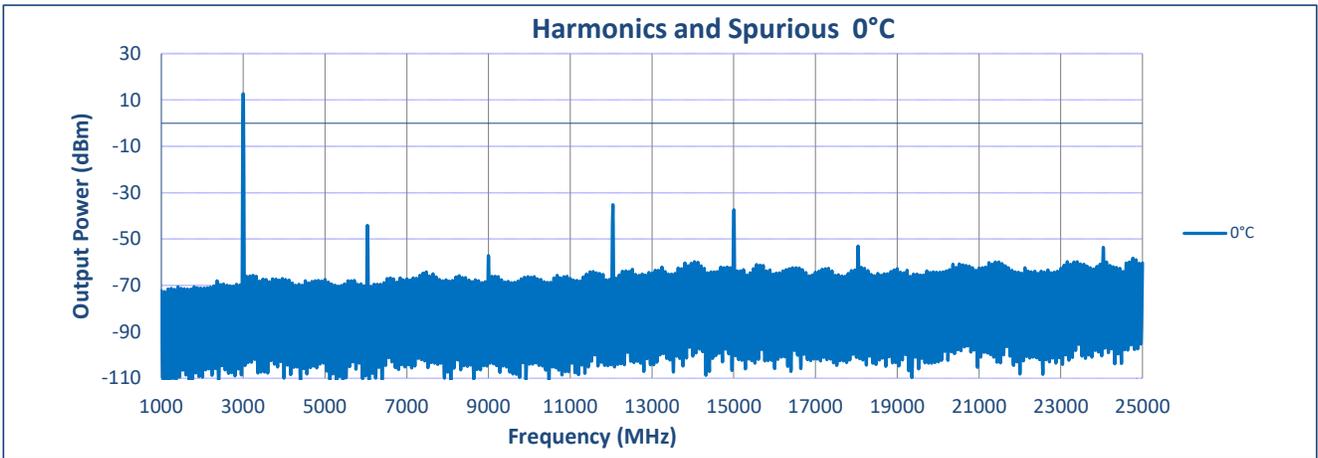
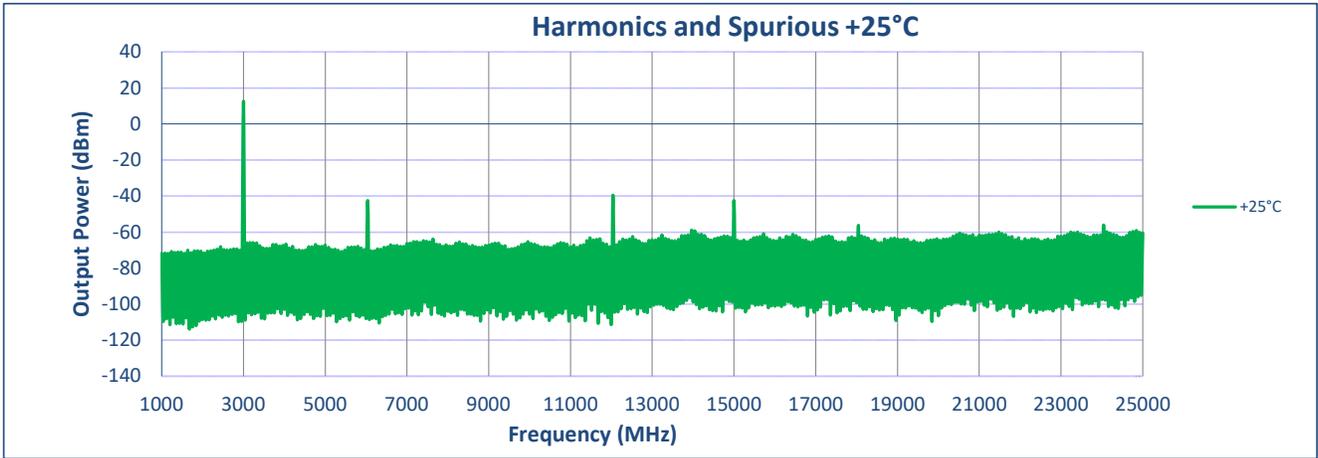
**TECHNICAL SPECIFICATIONS**

TEST ITEM	PARAMETERS	SPECIFIED VALUE	TEST RESULTS		
			0°C	+25°C	+50°C
1	Center Frequency	3 GHz NOM.	3.0005 GHz	2.999933 GHz	2.999833 GHz
2	Power Output	+9 dBm MIN.	11.59 dBm	10.86 dBm	10.79 dBm
3	Mechanical Tuning Range	±10 MHz MIN.	±10 MHz	±10 MHz	±10 MHz
4	Frequency Stability	±10 ppm/°C MAX.	7.6 ppm/°C	0 ppm/°C	-1.3 ppm/°C
5	Phase Noise @ 100kHz Offset	-95 dBc/Hz MAX.	<b>-115.35 dBc/Hz</b>		
6	Spurious	-75 dBc MAX.	<-75 dBc (See Graph)	<-75 dBc (See Graph)	<-75 dBc (See Graph)
7	Harmonics	-20 dBc MAX.	-47.9 dBc (See Graph)	-52.1 dBc (See Graph)	-47.6 dBc (See Graph)
8	DC Supply Voltage	+10 to +15 V @ 200 mA MAX.	+10 to +15V @ 137mA	+10 to +15V @ 137mA	+10 to +15V@ 136mA

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**Phase Noise Curve**

