

PMI MODEL PDRO-6800M-13DBM-SFF IS A PDRO WITH AN OUTPUT FREQUENCY OF 6800 MHZ AND A MINIMUM OUTPUT LEVEL OF +13DBM. THIS MODEL IS OUTFITTED WITH SMA FEMALE CONNECTORS.



Reported By
Y Li
3/21/2023

**TYPICAL CHARACTERISTICS
ON
PDRO-6800M-13DBM-SFF**

PRODUCT FEATURE

DESCRIPTION

PMI MODEL NO. PDRO-6800M-13DBM-SFF IS A PDRO WITH AN OUTPUT FREQUENCY OF 6800 MHz AND A MINIMUM OUTPUT LEVEL OF +13 dBm. THIS MODEL IS OUTFITTED WITH SMA FEMALE CONNECTORS.

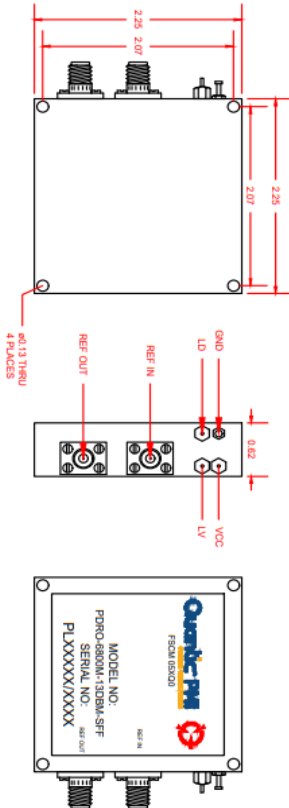
SPECIFICATIONS

- OUTPUT FREQUENCY: 6800 MHz
- REFERENCE FREQUENCY: 100 MHz (SINEMWAVE)
- INPUT LEVEL: +3 TO +13 dBm
- OUTPUT LEVEL: +13 dBm MIN
- SPURIOUS: 75 dbc MIN
- HARMONICS: 20 dbc MIN
- LOAD VSWR: 1.5:1 MAX
- PHASE NOISE (REF INPUT 8 dBm MIN @ 25°C): 20logN+3 dbc/Hz @ 100 Hz MAX
20logN+3 dbc/Hz @ 1 kHz MAX
20logN+3 dbc/Hz @ 10 kHz MAX
-140 dbc/Hz @ 1 MHz MAX
- FREQUENCY STABILITY: SAME AS REFERENCE
- SUPPLY VOLTAGE: +12 V TO 15V
- CURRENT: 300 mA MAX
- LOCK DETECTOR: TTL HIGH - LOCK
- CONNECTOR: RF CONNECTOR: SMA FEMALE
POWER THROUGH CAP
- DIMENSIONS: 2.25" x 2.25" x 0.62"
- REFERENCE PHASE NOISE: -135 dbc/Hz @ 100 Hz MAX
-160 dbc/Hz @ 1 kHz MAX
-164 dbc/Hz @ 10 kHz MAX
-165 dbc/Hz @ 100 kHz MAX
- FINISH: NICKEL PLATED

ENVIRONMENTAL RATINGS

- TEMPERATURE: -40°C TO +70°C (OPERATING)
-55°C TO +125°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. B
- TEMPERATURE CYCLE: MIL-STD-202, METHOD 107D COND. A

REVISIONS				
ZONE	REV	DESCRIPTION	DATE	APPROVED
	A1	ORIGINAL RELEASE	01/12/18	



PMI CONFIDENTIAL AND PROPRIETARY

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

7309-A GROVE ROAD
FREDERICK, MARYLAND 21704 USA
TEL: (301)-662-5019, FAX: (301)-662-1731
WEB: www.quanticmpi.com, EMAIL: sales@quanticmpi.com

Quantic PMI
PLANNAR MONDLITHICS

APPROVALS	DATE	TITLE
<i>MJP</i>	01/12/18	PRODUCT FEATURE PDRO-6800M-13DBM-SFF
DESIGN		
RESERVA		
ISSUED		

SIZE	FORM NO.	DWG NO.	REV
A	06X00	27045420	A1
SCALE	N/S	SHEET	1 OF 1

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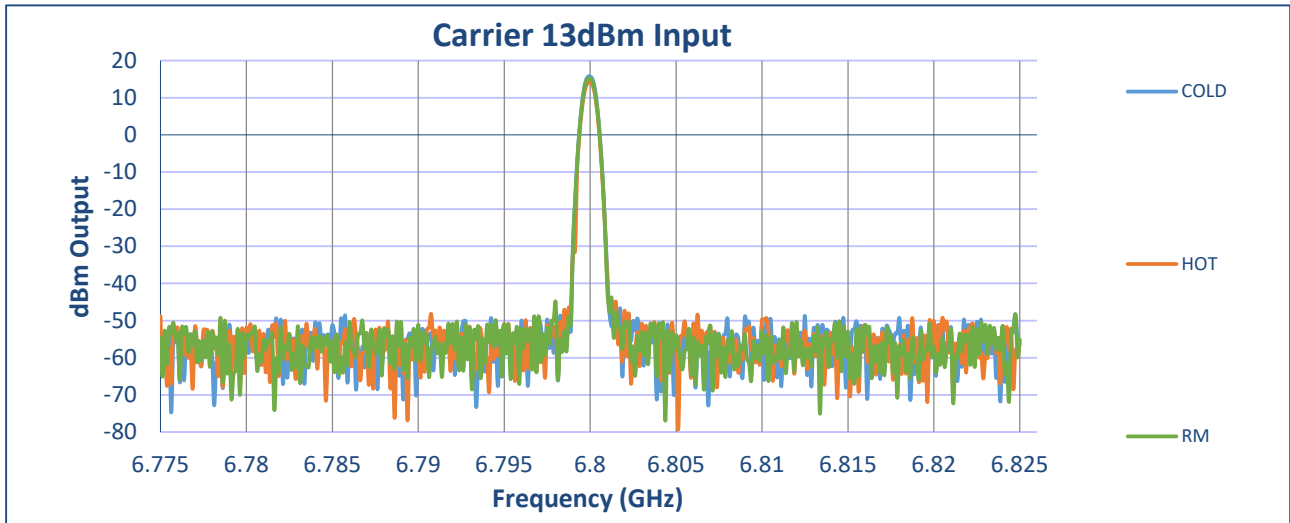
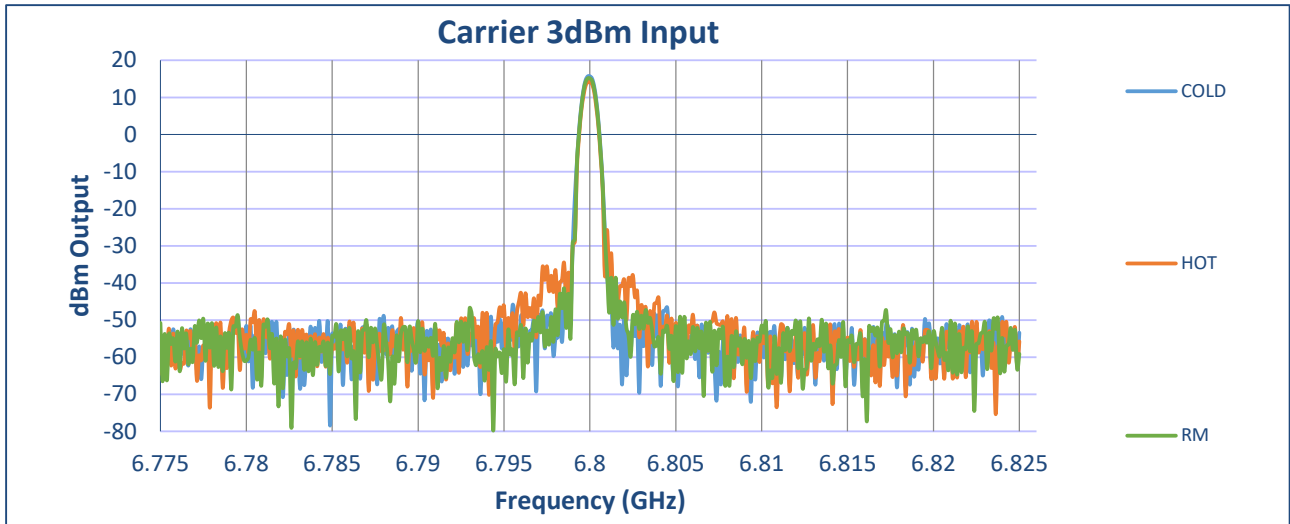
TEST DATA

TEST ITEM	PARAMETERS	SPECIFIED VALUE	TEST RESULTS		
			25°C	-40°C	70°C
1	Passband Frequency Range	6800 MHz	6800 MHz	6800 MHz	6800 MHz
2	Ref Frequency	100 MHz	100 MHz	100 MHz	100 MHz
3	Input Level	3 to 13 dBm	3 to 13 dBm	3 to 13 dBm	3 to 13 dBm
4	Output level	13 dBm Min	15.1 dBm	15.7 dBm	14.1 dBm
5	Spurious	75 dBc Min	89.5 dBc	83.5 dBc	90.7 dBc
6	Harmonics*	20 dBc Min	30.6 dBc	32.4 dBc	29 dBc
7	Frequency Pulling**	Not Specified; Into 1.5:1 Load Vswr	20 Hz difference from matched load		
8	Phase Noise (Ref in 8dBm MIN @ 25C)	20 logN + 3 dBc/Hz Max, @ 100 Hz - 100kHz -140 dBc/Hz Max@ 1 Mhz	100 Hz: -100 dBc/Hz 1 KHz: -123 dBc/Hz 10 KHz: -128 dBc/Hz 100 KHz: -128 dBc/Hz 1 MHz: -145 dBc/Hz		
9	Frequency Stability	Same As Reference	Not Tested		
10	Supply Voltage	12 to 15 V	12 to 15 V	12 to 15 V	12 to 15 V
11	Current	300 mA Max	280 mA	288 mA	274 mA
12	Lock Detector	TTL High Lock	TTL High Lock	TTL High Lock	TTL High Lock

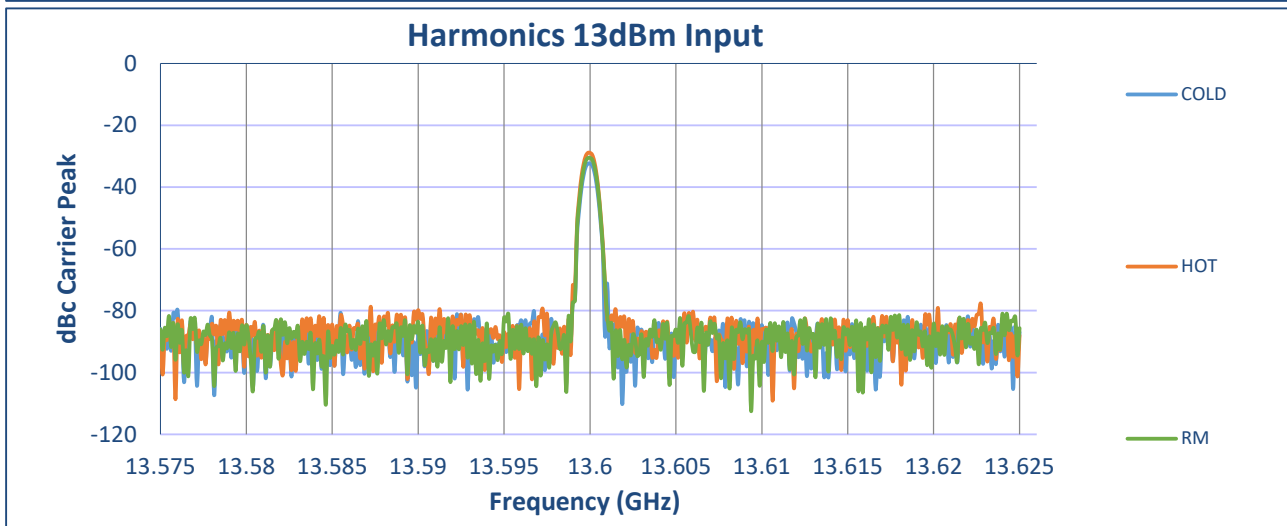
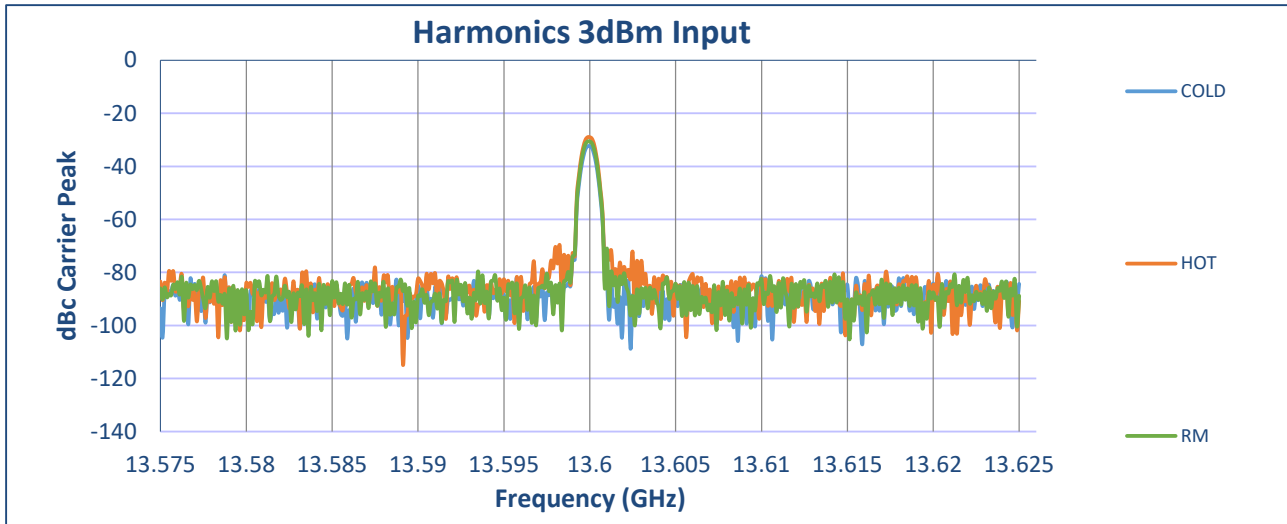
*Note: Harmonic content at 100 MHz and 3.4GHz indistinguishable from -70dBm noise floor

** Tested room temperature only

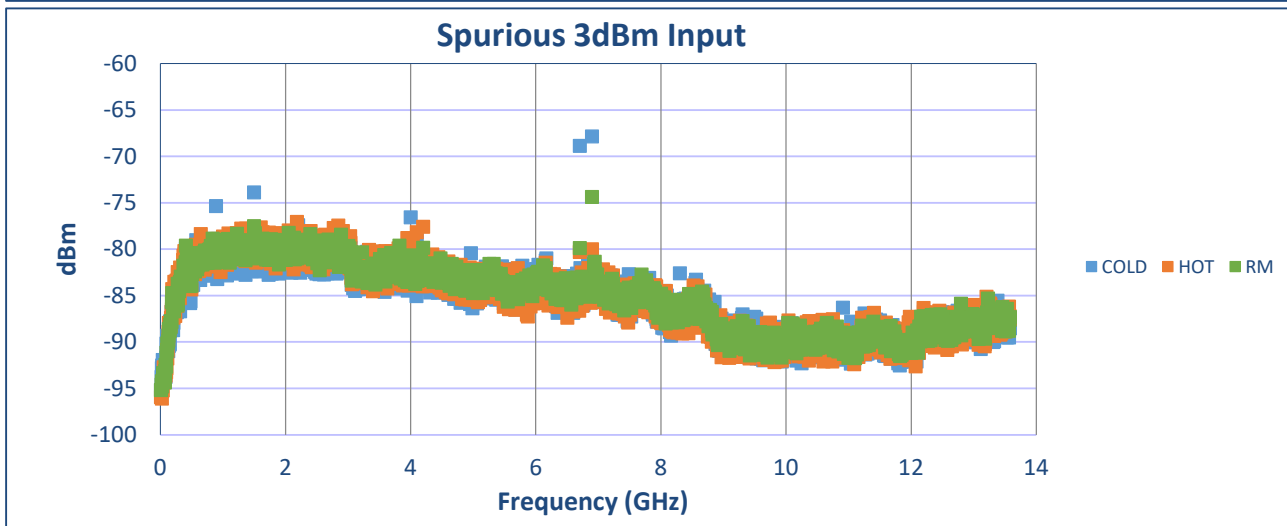
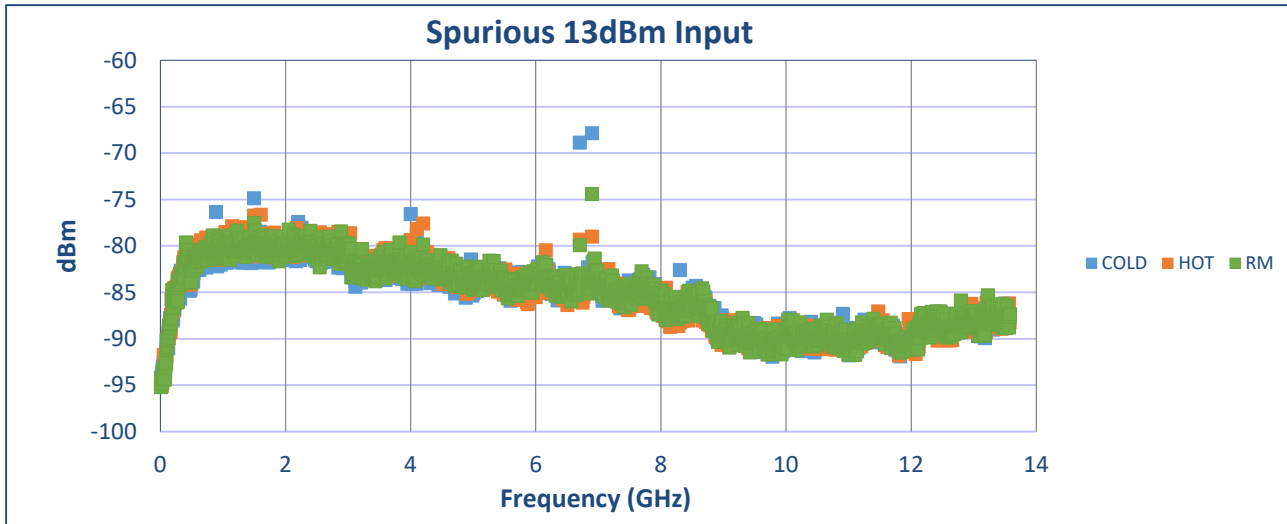
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Phase Noise

R&S FSUP 50 Signal Source Analyzer			LOCKED	
Settings	Residual Noise [T1 w/o spurs]	Spur List		
Signal Frequency: 6.800000 GHz	Int PHN (30.0 .. 30.0 M) -67.8 dBc	36.923 Hz	-69.75 dBc	
Signal Level: 9.25 dBm	Residual PM 33.165 m°	49.962 Hz	-69.51 dBc	
Cross Corr Mode Harmonic 1	Residual FM 3.636 kHz	69.512 Hz	-74.38 dBc	
Internal Ref Tuned Internal Phase Det	RMS Jitter 0.0135 ps	73.853 Hz	-71.33 dBc	

