



**Typical Characteristics  
On  
PLO-840M-150-15DBM-  
12V-SF**

**PMI MODEL NUMBER PLO-840M-150-15DBM-12V-SF IS AN 840 MHz. PHASE LOCKED OSCILLATOR. THIS MODEL IS OFFERED IN A SLIM LINE HOUSING MEASURING 0.6" IN HEIGHT.**



**January 24, 2019**

**Designed By: PMI Engineering**

**Tested By: E. Kretz**



# Typical Characteristics On PLO-840M-150-15DBM- 12V-SF

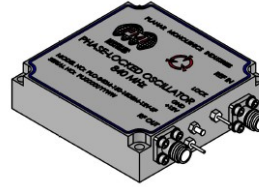
**DESCRIPTION:**

PLANAR MONOLITHICS INDUSTRIES MODEL NUMBER PLO-840M-150-15DBM-12V-SF IS AN 840 MHz OSCILLATOR. THIS MODEL IS OFFERED IN A SLIM LINE HOUSING MEASURING ONLY 0.6" HEIGHT.

ZONE	REV	DESCRIPTION	DATE	APPROVED
	A1	ORIGINAL RELEASE	9/29/2018	
	A2	ECN # 23-0021	10/26/20	

**SPECIFICATIONS:**

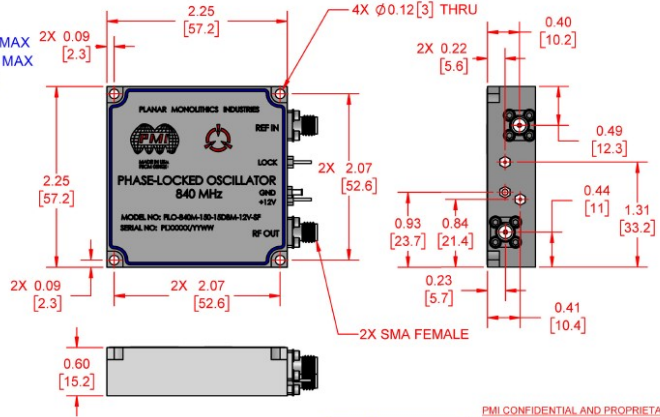
- FREQUENCY:..... 840 MHz
- STABILITY:..... SAME AS REFERENCE
- REFERENCE:..... 10 MHz +3dBm, +/- 3 dB
- REF. INPUT IMPED:..... 50 OHMS
- REF. PHASE NOISE:..... <-140 dBc/Hz @ 1 KHz  
<-150 dBc/Hz @ 10 KHz
- OUTPUT POWER:..... +15 dBm +/- 2.5 dB, 50 OHMS
- HARMONICS:..... <-25 dBc
- SUB HARMONICS:..... <-60 dBc
- SPURS:..... <-80 dBc
- PHASE NOISE:..... <-125 dBc/Hz @ 10 KHz TYP, <-120 dBc/Hz MAX  
<-145 dBc/Hz @ 100 KHz TYP, <-140 dBc/hZ MAX
- VCC:..... +12V +/- 0.5V @ 300 mA TYP, 380 mA MAX
- LOCK DETECT:..... 3.3V TTL, HIGH = LOCK
- CONNECTORS:..... 2 SMA FEMALE
- SIZE:..... 2.25" X 2.25" X 0.60"
- FINISH:..... PAINTED BLUE



**ENVIRONMENTAL RATINGS:**

- TEMPERATURE:..... -40°C TO +85°C (OPERATING)  
-65°C TO +125°C (STORAGE)
- HUMIDITY:..... MIL-STD-202G, METHOD 103B COND. B
- SHOCK:..... MIL-STD-202G, METHOD 213B COND. B
- VIBRATION:..... MIL-STD-202G, METHOD 204D COND. B
- ALTITUDE:..... MIL-STD-202G, METHOD 105C COND. B
- TEMPERATURE CYCLE:..... MIL-STD-202G, METHOD 107D COND. A

NOTE: THE ABOVE SPECIFICATIONS ARE SUBJECT TO CHANGE OR REVISION



PMI CONFIDENTIAL AND PROPRIETARY

APPROVALS		DATE	TITLE	
DESIGNED BY	<b>M. HANKEN</b>		OUTLINE	
DESIGNED BY			PLO-840M-150-15DBM-12V-SF	
DESIGNED BY			REV	
DESIGNED BY			B	05X00
DESIGNED BY			SCALE	1:1
DESIGNED BY				SHEET 1 OF 1

NOTE: CHANGES TO DRAWING OR SPECIFICATIONS MUST BE APPROVED BY END USER.



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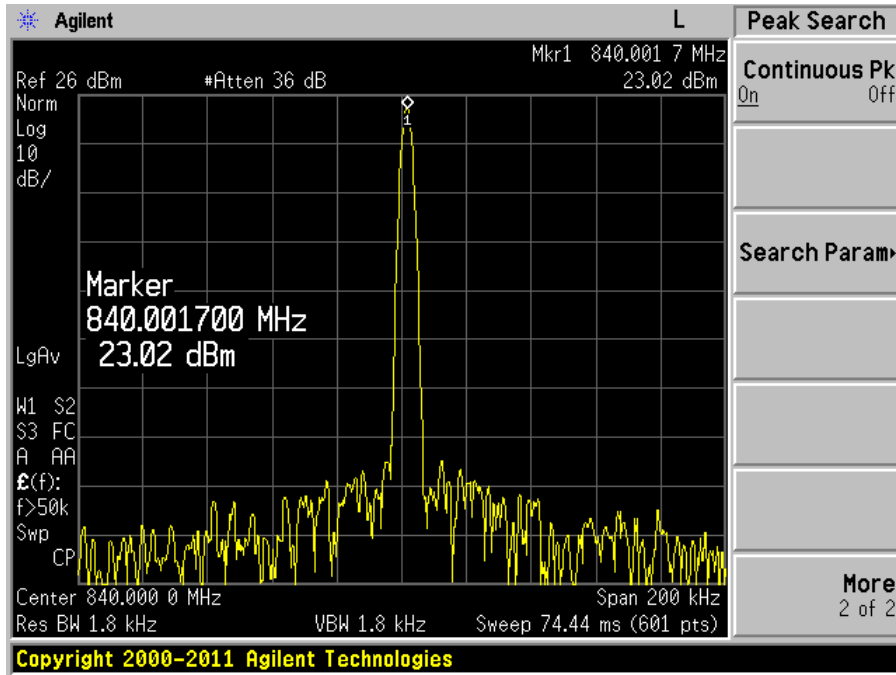
TEST. ITEM NO	PARAMETERS	SPECIFIED VALUE	TEST RESULTS	QA QC
1	Frequency:	840 MHz	<b>840 MHz</b>	
2	Output Power:	+20 dBm Min.	<b>21.8 dBm</b>	
3	Harmonics:	<-25 dBc	<b>-55 dBc</b>	
4	Sub Harmonics:	<-60 dBc	<b>-65 dBc</b>	
5	Spurs:	<-80 dBc	<b>-86 dBc</b>	
6	Phase Noise:	<-120 dBc/Hz @ 10 KHz TYP <-115 dBc/Hz MAX <-145 dBc/Hz @ 100 KHz TYP <-140 dBc/Hz MAX	<b>See Plots</b>	
7	DC Supply:	+12 VDC +/- 0.5 @ 200 mA TYP, 300 mA MAX	<b>294 mA</b>	
8	Lock Detect:	+3.3 V = LOCK	<b>Pass</b>	

**Carrier @ -40°C**

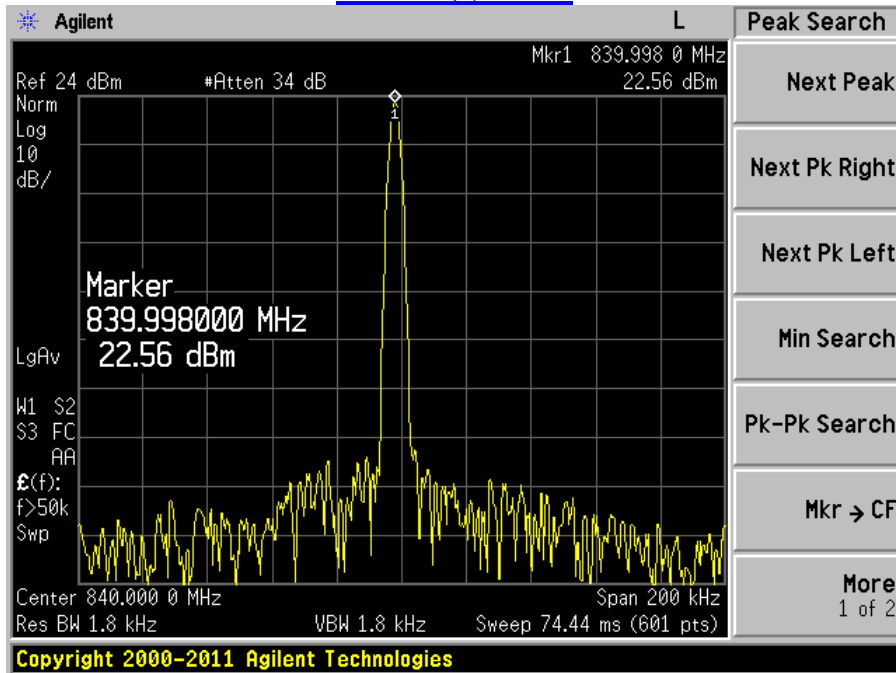
7311-F Grove Road Frederick, MD 21704 USA Phone: (301)662-5019 Fax: (301)662-1731  
email: [sales@pmi-rf.com](mailto:sales@pmi-rf.com)



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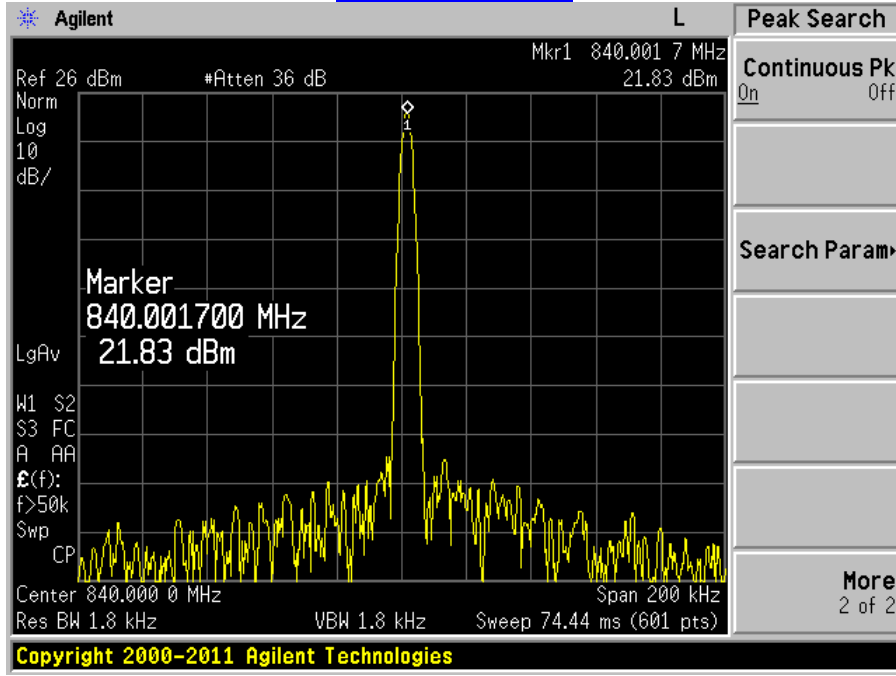
## Carrier @ +25°C



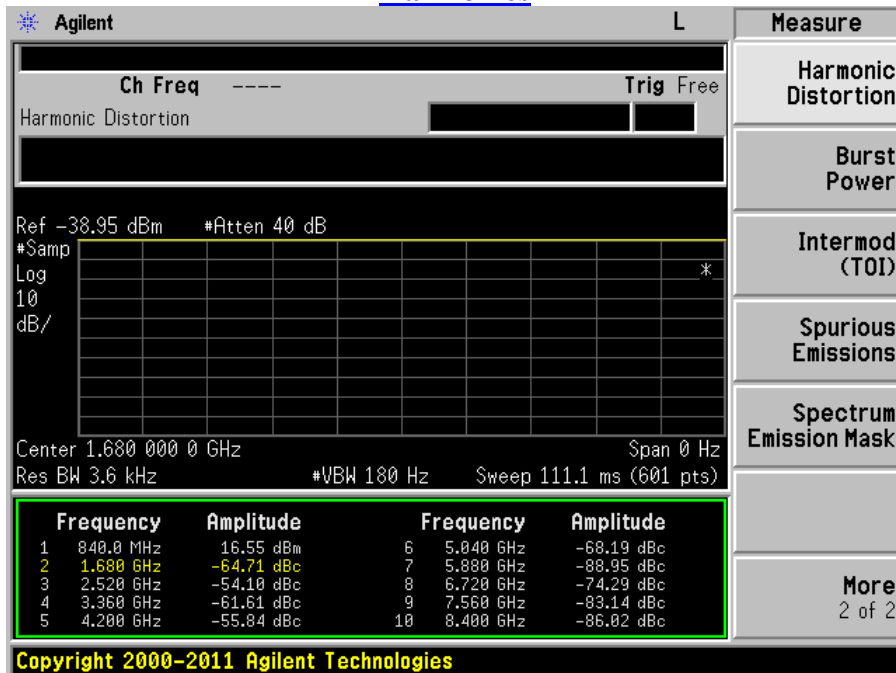


# Typical Characteristics On PLO-840M-150-15DBM- 12V-SF

Carrier @ +85°C



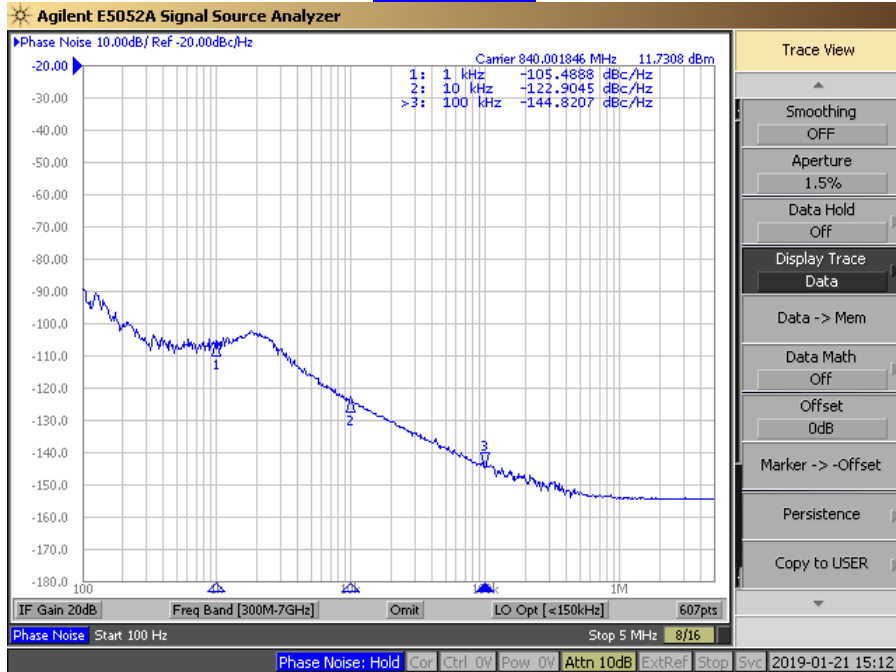
## Harmonics





# Typical Characteristics On PLO-840M-150-15DBM- 12V-SF

## Phase Noise



## Spurious

