



Typical Characteristics On PLO-9G-CD-1

PMI MODEL PLO-9G-CD-1 IS A PHASE LOCKED OSCILLATOR WHICH OPERATES IN AT 9 GHz. SEE FULL SPECIFICATIONS BELOW.



JUNE 27, 2014

Designed by: PMI Engineering

Tested By: Kevin Mansfield



Typical Characteristics On PLO-9G-CD-1

DESCRIPTION
 PMI MODEL PLO-9G-CD-1 IS A PHASE LOCKED OSCILLATOR WHICH OPERATES IN THE FREQUENCY UP TO 9 GHz. SEE FULL SPECIFICATIONS BELOW.

SPECIFICATIONS

- OUTPUT FREQUENCY (fo): 9 GHz
- OUTPUT POWER: +21dBm MIN, +25dBm MAX
- REFERENCE (f_r): 100 ±0.01 MHz, 0 ±3dBm
- VSWR: < 1.5:1 (All Phases)
- SPURIOUS: -60dBc MIN
- HARMONICS: -25dBc MIN
- PHASE NOISE: 20 log(f_o/f₁)+6dB Typ, @ 10KHz-100KHz
 -100 dBc/Hz MIN @ 100KHz
 -120 dBc/Hz MIN @ 1MHz
- LOCK ALARM: TTL "H" : OUT OF LOCK
 TTL "L" : LOCK
- PRIMARY POWER: +12 to +15.5 Vdc @ 500mA MAX
 -12 to -15.5 Vdc @ 100mA MAX
- RF INPUT/OUTPUT: SMA (F)
- PRIMARY POWER CONNECTION: EMI/RFI SOLDER TERMINALS
- LOCK ALARMS: EMI/RFI SOLDER TERMINAL
- WEIGHT: 250g (10 oz) MAX
- SIZE: (L) 2.25" X (W) 2.25" X (H) 0.63"
- FINISH: BLUE EPOXY POLIMIDE COATING IAW MIL-C-22750,
 TYPE I OVER EPOXY POLIMIDE PRIMER
 IAW MIL-P-23377, TYPE I, CLASS 1 OR 3.

ENVIRONMENTAL RATINGS

- TEMPERATURE ● MOUNTING SURFACE: . . . -15°C TO + 85°C (CONTINUOUS OPERATING)
 -20°C TO + 85°C (STORAGE)
- HUMIDITY: MIL-E-8400T 3.2,34.4, 100%RH
 MIL-E-8400T 3.2,24.5,1
- SHOCK: 15g, 11±ms, 6 Directions
 MIL-E-8400T 3.2,24.5 FIGURE 2
 SHEET 1 OF 3, CURVE III
- VIBRATION: 0 ~ 30,000 ft
- ALTITUDE:

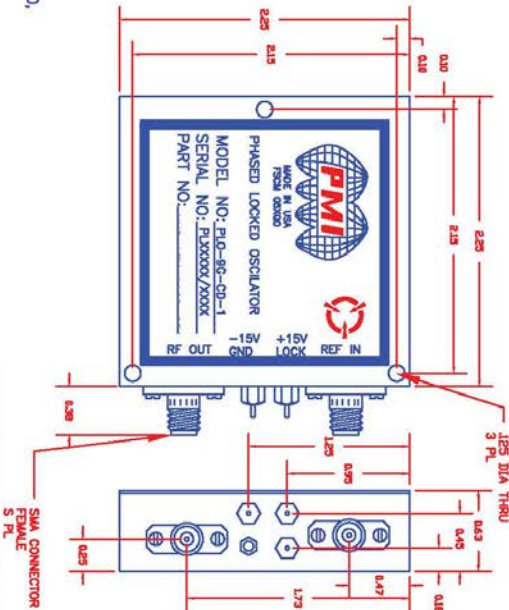
WITH SPECIFICATIONS HOLD VIBR OPERATING TEMPERATURE
 INTO THE ABOVE SPECIFICATIONS ARE SUBJECT TO CHANGE IN REVISION

ALL DIMENSIONS ARE IN INCHES

TOLERANCES:
 XXX .45.000
 XXXX .45.010

REVISIONS		
NO.	DESCRIPTION	DATE
1	ORIGINAL RELEASE	06/04/18

MECHANICAL OUTLINE



PMI CONFIDENTIAL AND PROPRIETARY

PLANAR MONOLITHICS INDUSTRIES, INC.

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 ISO 9001 CERTIFIED

PMI

APPROVALS	DATE	TITLE	REV
DWN	09E	6/4/18/18	1
CHECKED	A	05X00	1
REVISED	SCALE	N:1S	SHEET
			1 OF 1

PRODUCT FEATURE
 PLO-9G-CD-1



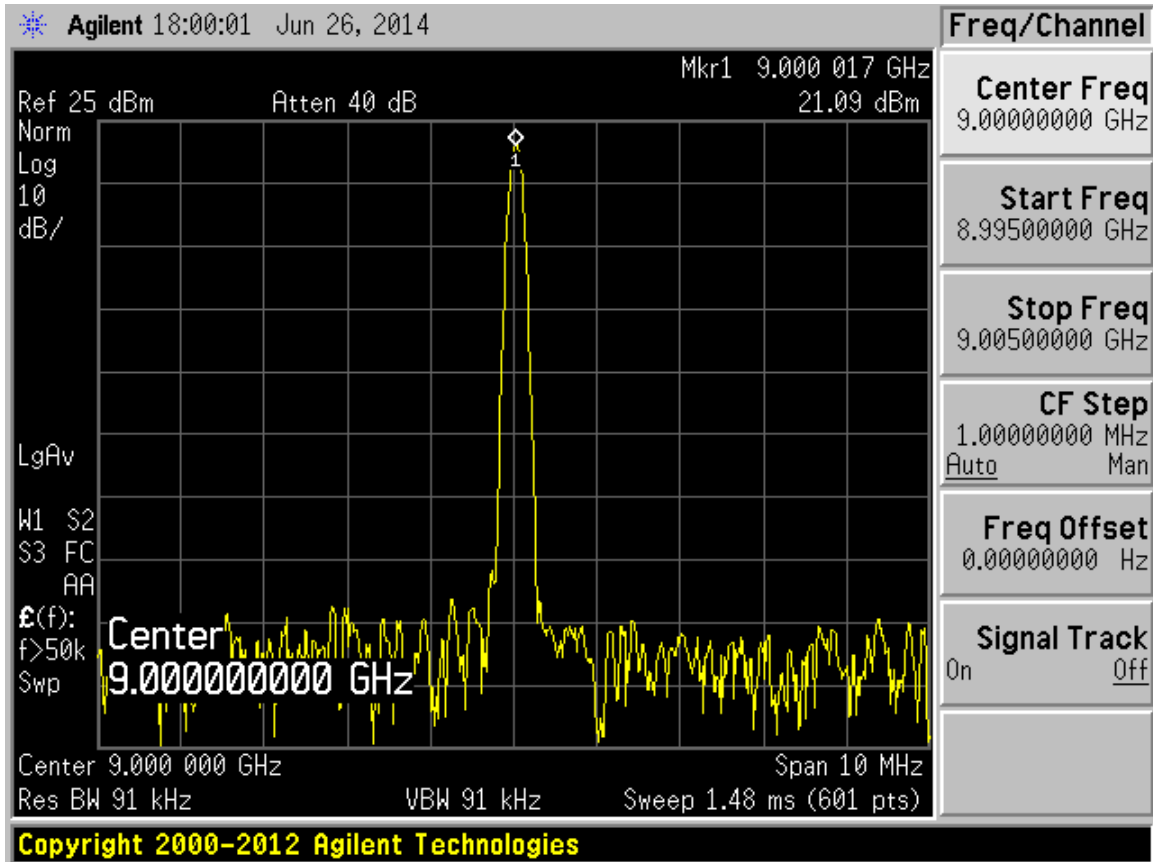
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TEST. ITEM NO	PARAMETERS	SPECIFIED VALUE	TEST RESULTS	QA QC
1	Output Frequency (fo):	9.0GHz	9.0GHz	
2	Output Power:	+21dBm Min +25dBm Max	+21.1 dBm (See Plot)	
3	Reference (fi):	100 ±0.01 MHz 0 ±3dBm	100 MHz	
4	VSWR:	< 1.5:1 (ALL PHASES)	1.4:1	
5	Spurious:	-60dBc Min	-72 dBc (See Plot)	
6	Harmonics:	-25dBc Min	-47 dBc (See Plot)	
7	Phase Noise:	20 log(fo/fi)+6dB Typ. @ 10KHz – 100KHz -100 dBc/Hz Min @ 100KHz -120 dBc/Hz Min @ 1MHz	-117 dBc @ 100KHz -140 dBc @ 1MHz (See Plots)	
8	Lock Alarm:	TTL "H" : Out Of Lock TTL "L" : Lock	Pass	
9	Primary Power:	+12 to +15.5 Vdc @ 500mA Max -12 to -15.5 Vdc @ 100mA Max	282 mA @ +12 to +15.5 Vdc 0 mA @ -12 to -15.5 Vdc	
10	Weight:	250g (10 oz) Max	3.5 oz	



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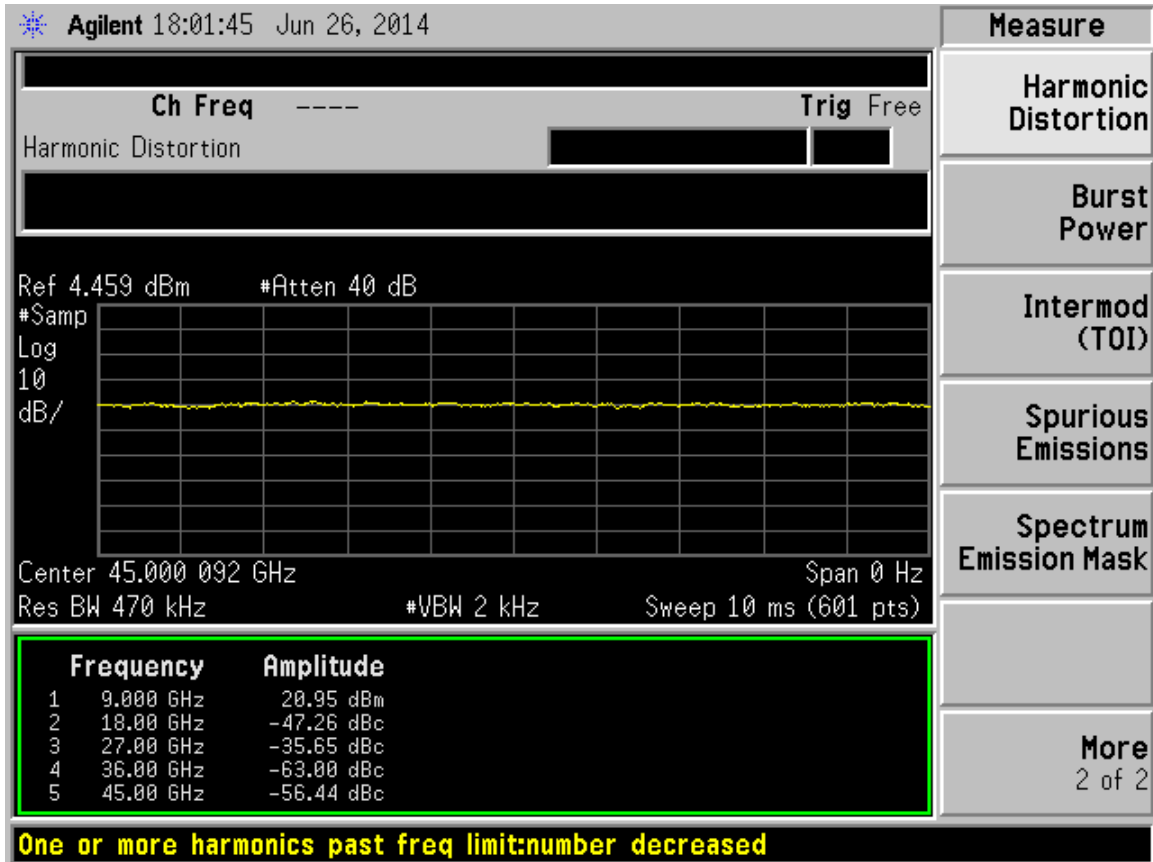
Carrier





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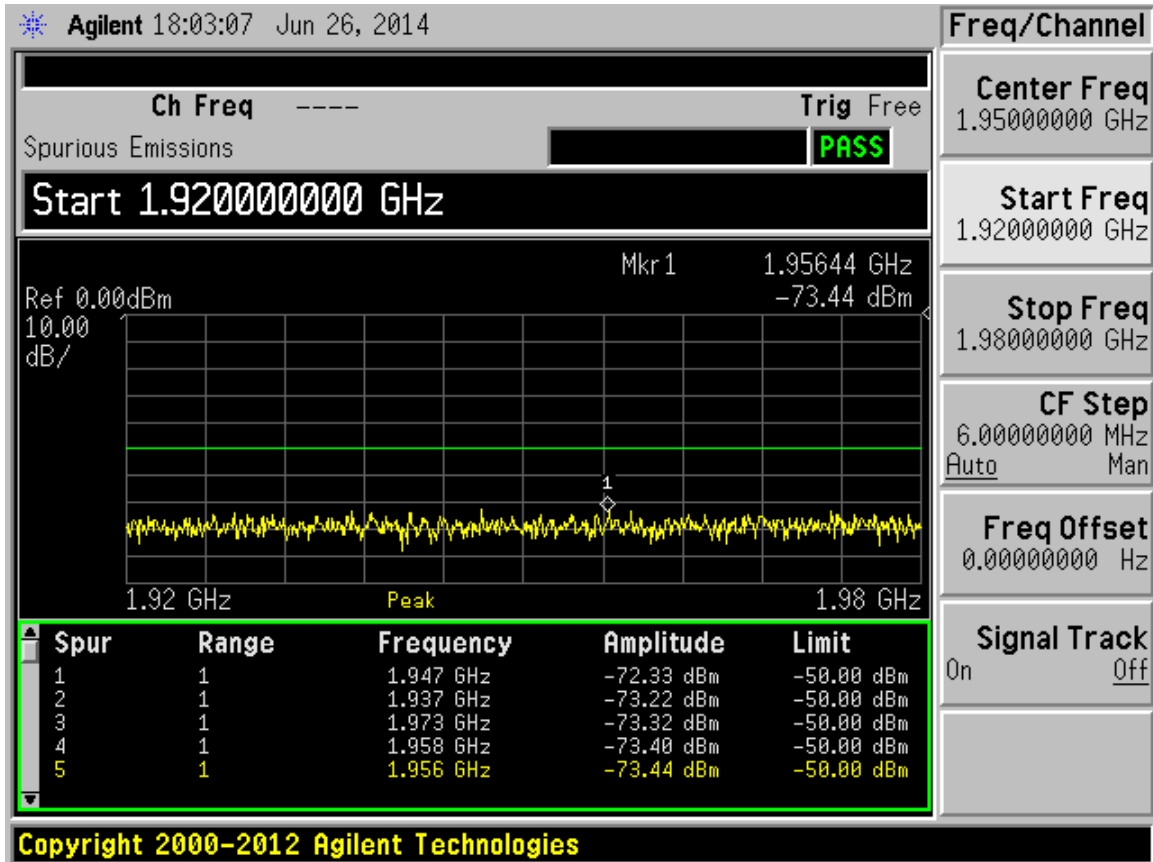
Harmonics





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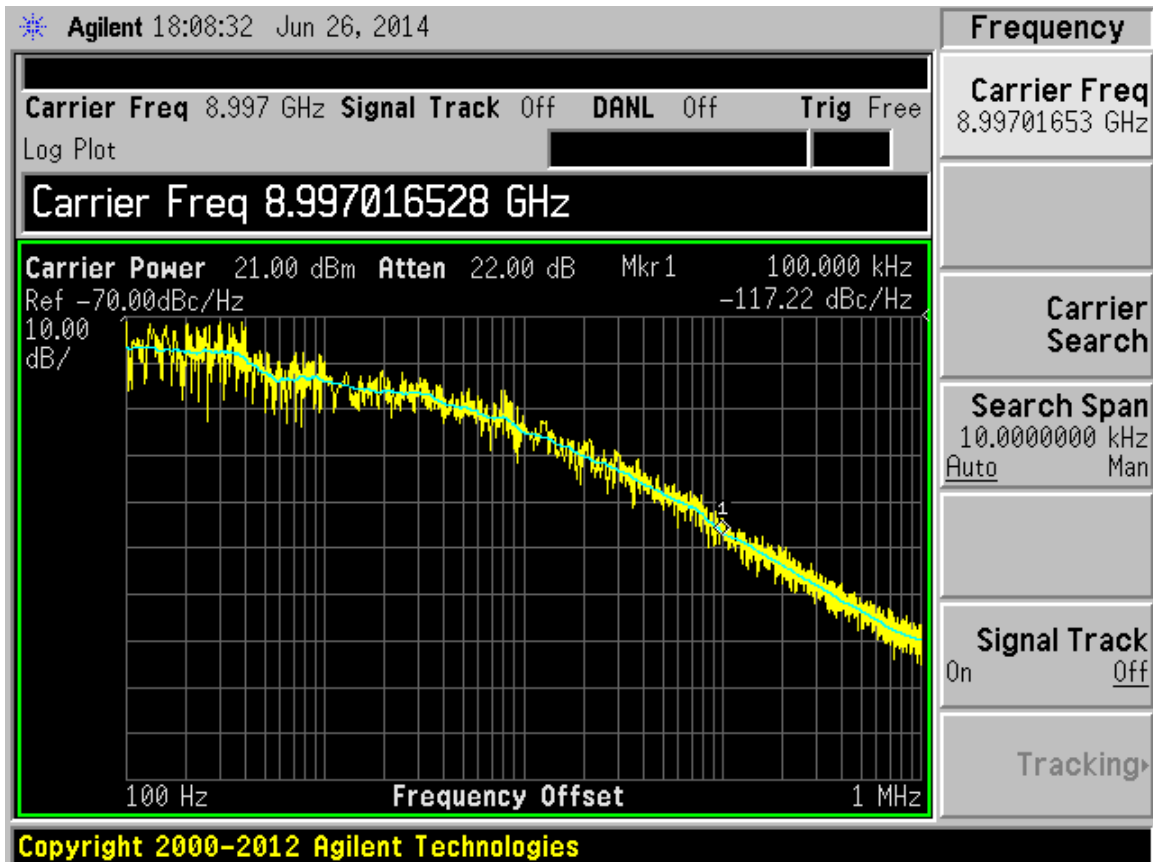
Spurious





Typical Characteristics On PLO-9G-CD-1

Phase Noise 100KHz





Typical Characteristics On PLO-9G-CD-1

Phase Noise 1MHz

