TYPICAL CHARACTERISTICS
ON
PLDRO-1D645-13DBM-INT-SFF

PMI MODEL PLDRO-1D645-13DBM-INT-SFF IS A PLDRO WITH AN OUTPUT FREQUENCY OF 1.645 GHz AND FITTED WITH SMA CONNECTORS.



DATE: 10/22/2026
TESTED BY: V. PRATAP
REPORTED BY: V. PRATAP

7309-A Grove Road Frederick, MD 21704 USA Phone: (301)662-5019 Fax: (301)662-1731
Email: sales@pmi-rf.com

TYPICAL CHARACTERISTICS
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PLDRO-1D645-13DBM-INT-SFF

PRODUCT FEATURE

DESCRIPTION:

PMI MODEL PLDRO-1D645G-13DBM-INT-SFF IS A PLDRO WITH AN OUTPUT FREQUENCY OF 1.645 GHz. PACKAGE SIZE IS 2.25" X 2.25" X 0.62" WITH SMA CONNECTORS.

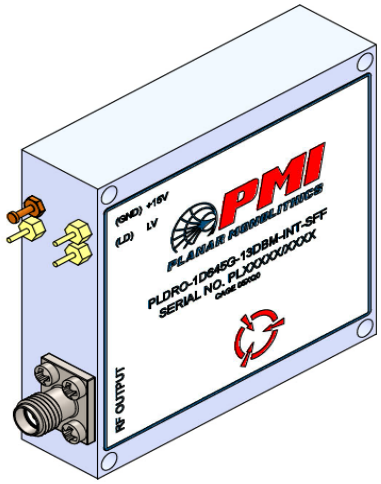
ZONE	REV.	DESCRIPTION	DATE	APPROVED
	A1	ORIGINAL RELEASE	6/24/2025	

SPECIFICATIONS:

- OUTPUT FREQUENCY: ..... 1.645 GHz
- REFERENCE FREQUENCY: ..... INTERNAL
- WARM UP TIME: ..... 5 MINUTES MAX.
- FREQUENCY ACCURACY @ 25°C: ..... ±1 ppm MAX.
- FREQUENCY STABILITY: ..... ±2 ppm MAX. OVER OPERATING TEMP
- OUTPUT LEVEL: ..... + 13 dBm MIN.
- SPURIOUS: ..... -80 dBc MAX.
- HARMONICS: ..... -20 dBc MAX.
- LOAD VSWR: ..... 1:1.5 MAX.
- PHASE NOISE: ..... -102 dBc/Hz MAX. @ 100 Hz
  -126 dBc/Hz MAX. @ 1 kHz
  -131 dBc/Hz MAX. @ 10 kHz
  -131 dBc/Hz MAX. @ 100 kHz
  -140 dBc/Hz MAX. @ 1 MHz
- SUPPLY VOLTAGE: ..... + 15V ± 10%
- CURRENT: ..... 450 mA MAX. STEADY; 850 mA MAX. SURGE
- LOCK DETECTOR: ..... TTL HIGH IN LOCK
- CONNECTOR: ..... RF CONNECTOR: SMA FEMALE

ENVIRONMENTAL RATINGS:

- TEMPERATURE: ..... -40°C TO +70°C (OPERATING)
  -50°C TO +80°C (STORAGE)
- HUMIDITY: ..... MIL-STD-202, METHOD 103 COND. B
- SHOCK: ..... MIL-STD-202, METHOD 213 COND. B
- VIBRATION: ..... MIL-STD-202, METHOD 204 COND. B
- ALTITUDE: ..... MIL-STD-202, METHOD 105 COND. B
- TEMPERATURE CYCLE: ..... MIL-STD-202, METHOD 107 COND. A



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

PMI CONFIDENTIAL AND PROPRIETARY

APPROVALS	DATE
DRAWN VP	6/24/2025
REDRAWN	
ISSUED	

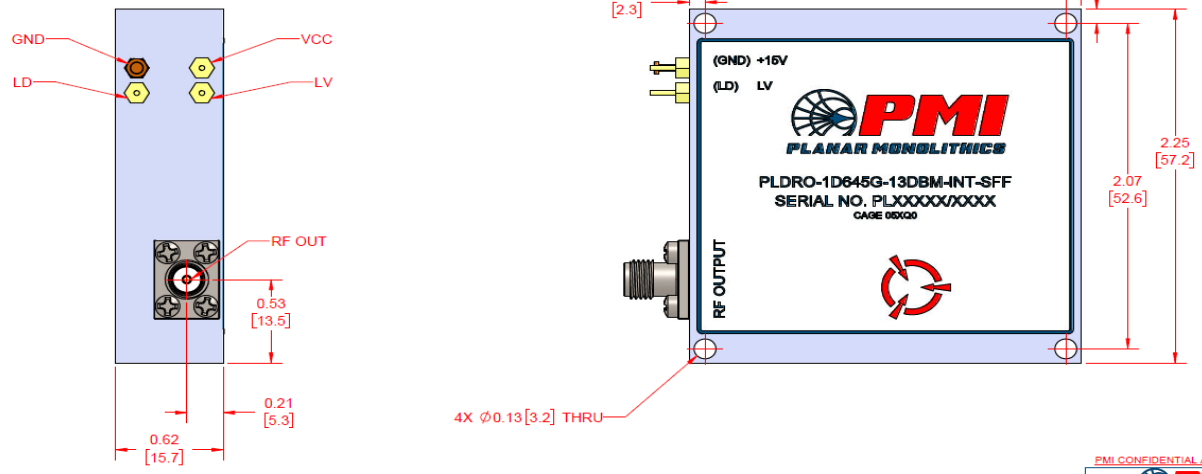
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES. TOLERANCES ARE: FRACTIONS ± DECIMALS .XX ± 0.02 .XXX ± 0.01 ANGLES ±

PLANAR MONOLITHICS INDUSTRIES, 7309-A GROVE ROAD, FREDERICK, MD 21704 USA, WEB: WWW.QUARTZCRYSTALSOLUTIONS.COM, EMAIL: SALES@QUARTZCRYSTALSOLUTIONS.COM

TITLE: OUTLINE
PLDRO-1D645G-13DBM-INT-SFF

SIZE	FSCM NO.	DWG NO.	REV.
B	05XQ0	27055500	A1

SCALE 2:1 SHEET 1 OF 2



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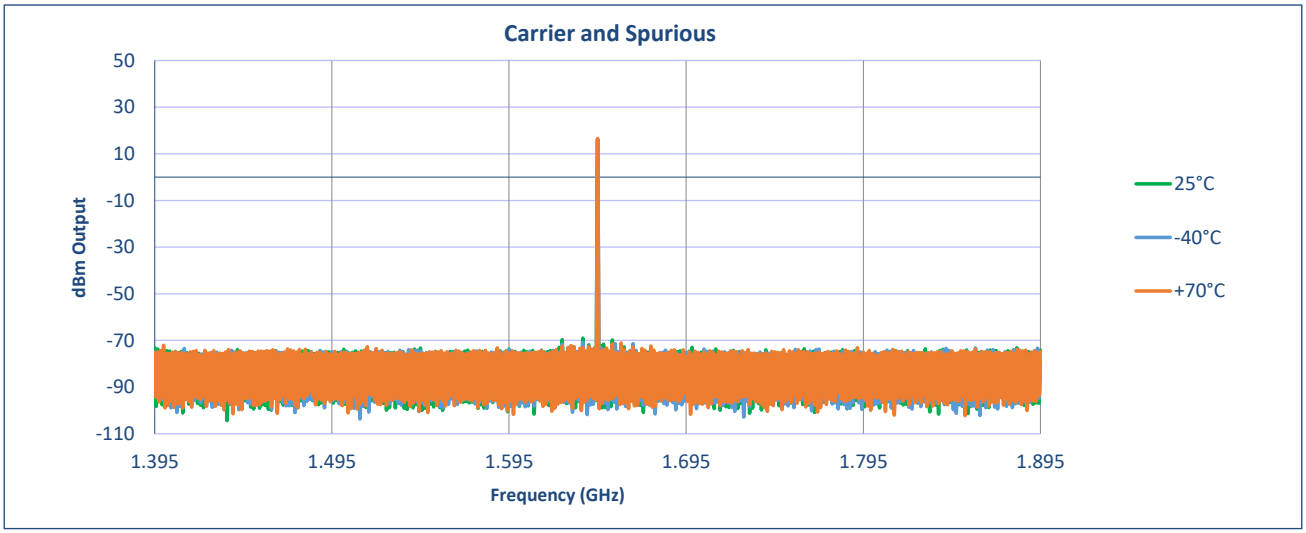
SCALE 2:1 SHEET 2 OF 2

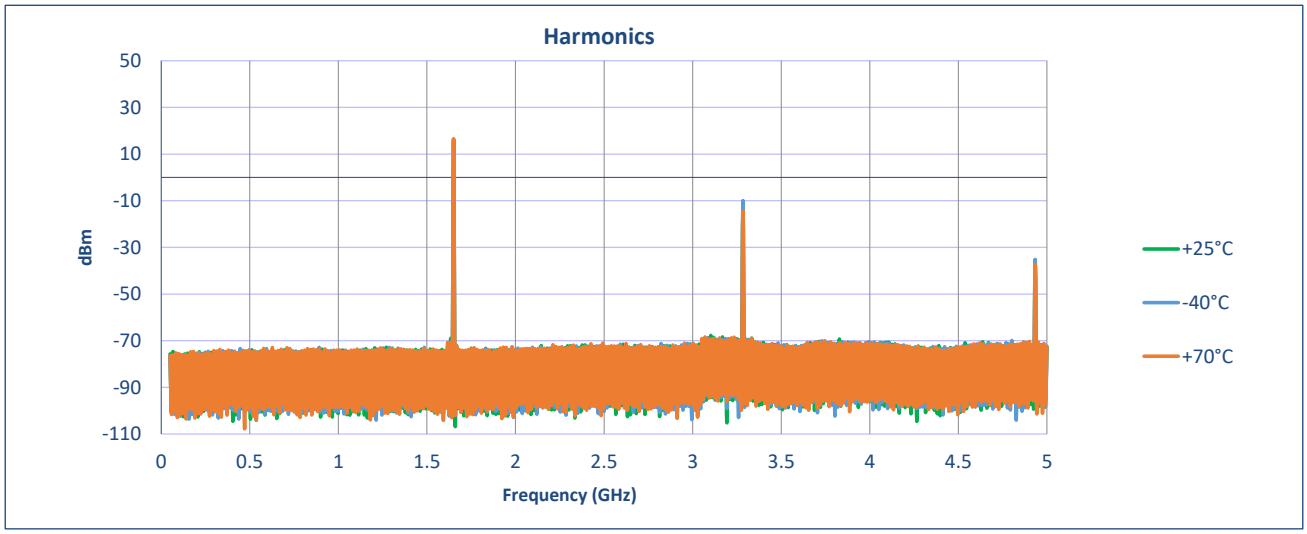
TYPICAL CHARACTERISTICS
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TECHNICAL SPECIFICATIONS

TEST ITEM	PARAMETERS	SPECIFIED VALUE	TEST RESULTS		
			-40°C	+25°C	+70°C
1	Output Frequency	1.645 GHz	**1.645 GHz**		
2	Frequency Accuracy @ 25°C	±1ppm MAX.		**10^{-6} ppm**	
3	Frequency Stability	±2ppm MAX.	**10^{-6} ppm**		**10^{-6} ppm**
4	Output Level	+13 dBm MIN.	**15.4 dBm**	**16.3 dBm**	**16.5 dBm**
5	Spurious	-80 dBc MAX.	**-86.2 dBc (See Graph)**	**-85.3 dBc (See Graph)**	**-87.6 dBc (See Graph)**
6	Harmonics	-20 dBc MAX.	**-25.3 dBc (See Graph)**	**-29.1 dBc (See Graph)**	**-30.9 dBc (See Graph)**
7	Phase Noise	At 25°C -102 dBc/Hz MAX. @ 100 Hz -126 dBc/Hz MAX. @ 1 kHz -131 dBc/Hz MAX. @ 10 kHz -131 dBc/Hz MAX. @ 100 kHz -140 dBc/Hz MAX. @ 1 MHz	**At 25°C -115 dBc/Hz @ 100 Hz -132 dBc/Hz @ 1 kHz -140 dBc/Hz @ 10 kHz -141 dBc/Hz @ 100 kHz -146 dBc/Hz @ 1 MHz**		
8	DC Supply Voltage	+15V @ 450 mA MAX. (Steady); 850 mA MAX. (Surge)	**15V @ 430 mA Steady, 15V @ 530 mA Surge**	**15V @ 350 mA Steady, 15V @ 525 mA Surge**	**15V @ 280 mA Steady, 15V @ 520 mA Surge**
9	Lock Detector	TTL HIGH In Lock	**TTL HIGH In Lock**		

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TYPICAL CHARACTERISTICS
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Phase Noise Curve

