

ULTRA-LOW PHASE-LOCKED DIELECTRIC RESONATOR OSCILLATORS

PLDRO SERIES: 13.4 – 26.8 GHz

FEATURES

- Lowest phase noise
- Very fine frequency resolution
- Reference from 5 to 100 MHz
- Internal reference available
- Small package
- Low power consumption
- 100% Burn-in & Environmentally tested
- Three Year Warranty



PLDRO SERIES		
PARAMETERS	UNITS	MULTIPLIED X2
Output Frequency range	GHz	13.4 to 26.8
Output power (minimum)	dBm	+13
Harmonics (maximum)*	dBc	-20
Fundamentals (maximum)	dBc	-20
Spurious (maximum)	dBc	-75
Phase noise	dBc/Hz	See next page
Reference frequency**	MHz	5 to 100
Reference input power	dBm	0± 3
Voltage	VDC	+8, +12, or +15
Voltage tolerance (maximum)	VDC	+/- 0.2
Current (maximum)	mA	600
Load VSWR (maximum)		2:1
Alarm***		TTL "high" in-lock
Connectors		
RF in/out		SMA/SMA
Voltage/Alarm/Phase voltage		Solder pin feedthru

* For better harmonics consult factory.
 ** Reference frequency above 100 MHz is available, consult factory
 *** Reverse logic available

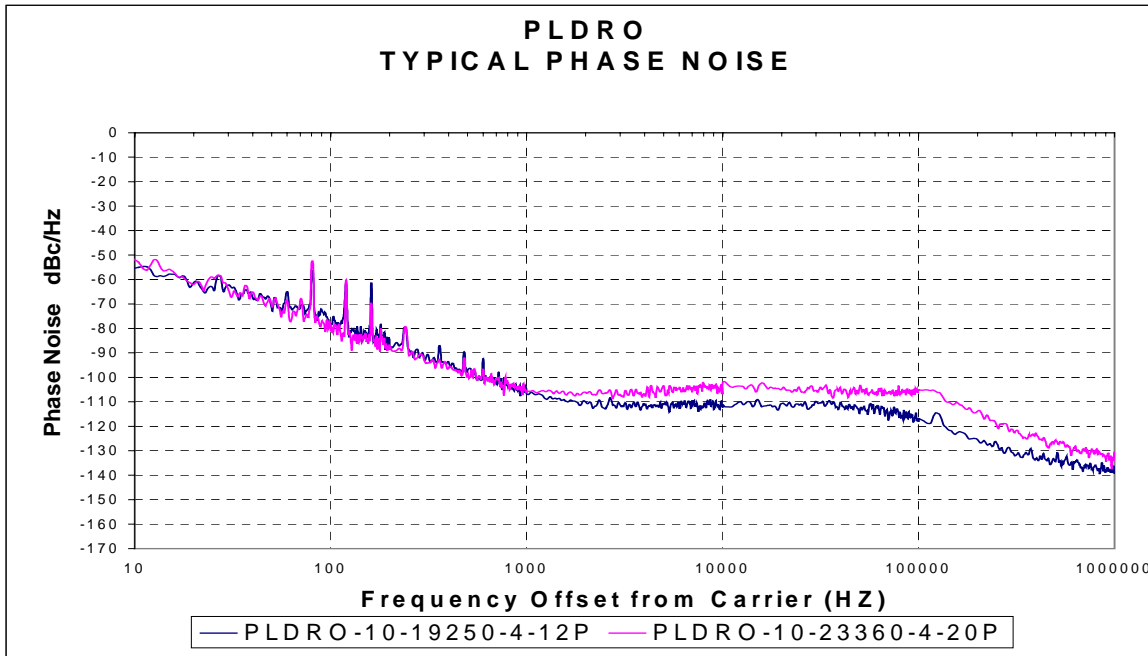
ENVIRONMENTAL CONDITIONS

Operating temperature**** -20 to +70°C
 Storage temperature -50 to +100°C
 Humidity 95% at 40°C, noncondensing
 Shock (survival)..... 30 g's, 10 ms pulse
 Vibration (survival) 20 to 2000 Hz random to 4 g's rms
 Weight 125 grams (typical)

**** Extended temperature ranges available, consult factory.



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Maximum Phase Noise Data			
Phase Noise @	PLDRO MULTIPLIED X 2		
	13.5GHz – 16GHz	16GHz - 23GHz	23GHz –26.8GHz
10Hz	-47dBc/Hz	-42dBc/Hz	-42dBc/Hz
100Hz	-70dBc/Hz	-67dBc/Hz	-66dBc/Hz
1KHz	-104dBc/Hz	-102dBc/Hz	-99dBc/Hz
10KHz	-111dBc/Hz	-109dBc/Hz	-100dBc/Hz
100KHz	-114dBc/Hz	-112dBc/Hz	-100dBc/Hz
1MHz	-137dBc/Hz	-135dBc/Hz	-124dBc/Hz

ORDERING INFORMATION

External Reference Option:

PLDRO - - - - **P**

External Reference Frequency (MHz) Output Frequency (MHz) ALARM D.C. Supply (+volts)

Internal Reference Option:

PLDRO - I - - - **P**

Output Frequency (MHz) ALARM D.C. Supply (+volts)

Alarm:

3. TTL; Low in Lock, High out of Lock
4. TTL; High in Lock, Low out of Lock



OUTLINE DRAWING

156650 PLDRO SERIES (MULTIPLIED)

