ULTRA-LOW PHASE-LOCKED DIELECTRIC RESONATOR OSCILLATORS

PLDRO SERIES 6.7 – 13.4 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**	**Fundamental**
Output Frequency range	GHz	6.7 to 13.4
Output power (minimum)	dBm	+13
Harmonics (maximum)*	dBc	-20
Fundamentals (maximum)	dBc	N/A
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	+5.6, +8, +12, or +15
Voltage tolerance (maximum)	VDC	+/- 0.2
Current (maximum)	mA	370
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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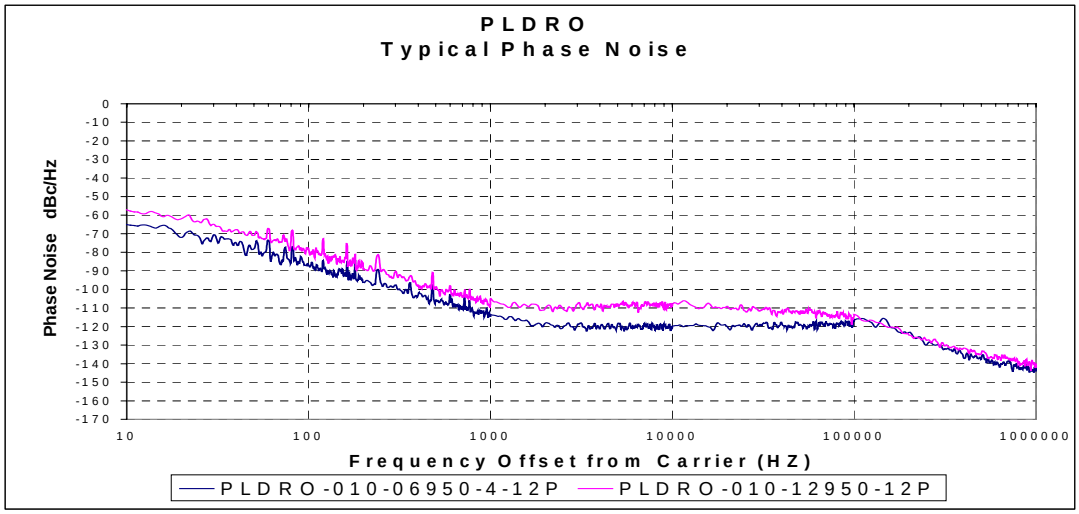

Maximum Phase Noise Data			
	PLDRO FUNDAMENTAL		
Phase Noise @	6.7GHz – 8.0GHz	8.0GHz – 11.5GHz	11.5GHz –13.4GHz
10Hz	-53dBc/Hz	-48dBc/Hz	-48dBc/Hz
100Hz	-76dBc/Hz	-73dBc/Hz	-72dBc/Hz
1KHz	-110dBc/Hz	-108dBc/Hz	-105dBc/Hz
10KHz	-117dBc/Hz	-115dBc/Hz	-106dBc/Hz
100KHz	-120dBc/Hz	-118dBc/Hz	-106dBc/Hz
1MHz	-143dBc/Hz	-141dBc/Hz	-130dBc/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

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OUTLINE DRAWING

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PLDRO SERIES (FUNDAMENTAL)