

## ULTRA-LOW PHASE-LOCKED DIELECTRIC RESONATOR OSCILLATORS

### PLDRO SERIES: 26.8 - 40 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 X4
Output Frequency Range	GHz	26.8 to 40
Output power (minimum)	dBm	+10
Harmonics (maximum)*	dBc	-20
Fundamentals (maximum)	dBc	-20
Spurious (maximum)	dBc	-70
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/K
Voltage/Alarm/Phase voltage		Solder pin feedthru

\* For better harmonics consult factory.

\*\* Reference frequency above 100 MHz is available, consult factory

\*\*\* Reverse logic available

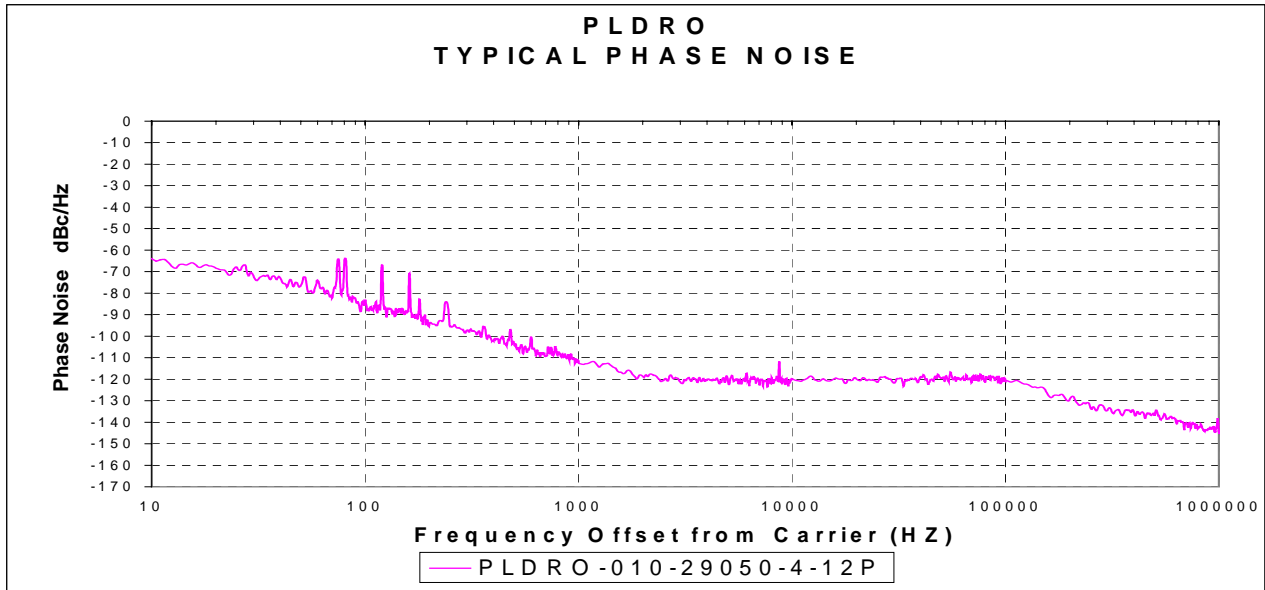
## ENVIRONMENTAL CONDITIONS

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.



# ULTRA-LOW PHASE-LOCKED DIELECTRIC RESONATOR OSCILLATORS



Maximum Phase Noise Data		
Phase Noise @	PLDRO MULTIPLIED X4	
	26.9GHz – 32GHz	32GHz - 40GHz
10Hz	-41dBc/Hz	-36dBc/Hz
100Hz	-64dBc/Hz	-61dBc/Hz
1KHz	-98dBc/Hz	-96dBc/Hz
10KHz	-105dBc/Hz	-103dBc/Hz
100KHz	-108dBc/Hz	-106dBc/Hz
1MHz	-131dBc/Hz	-129dBc/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)

