

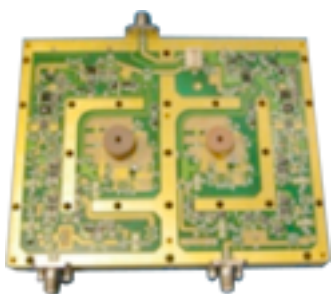
# Product Specification Summary

## Phase-Locked Dielectric Resonator Oscillators (PLDROs)

Narda has more than 30 years of experience in the design and manufacture of dielectric resonator oscillators (DROs) and more than 14 years' experience in PLDROs. Both have undergone extensive qualification testing for temperature cycling, shock, and vibration and are well suited for ground mobile and other microphonic-rich environments. They have instantaneous frequency deviation of just +/-500 Hz with a direct 0.5 J impact and will remain phase-locked even during a direct 1 J impact.

All models are fabricated using highly-reliable SMT components and assembly rather than hybrid chip-and-wire techniques, are highly repeatable, and offer outstanding long-term performance. The PLDROs are based on fundamental loop frequencies operating between 4.5 GHz and 7.0 GHz and use silicon dipolar junction transistors (BJTs), varactor diodes, and sampling phase detectors to produce the lowest possible phase noise, and high short-term stability phase detector gain to maintain PLL stability over time and temperature. Output frequencies to 28 GHz or higher are available.

This series features two independent PLDROs operating at 5 GHz and 6.3 GHz that employ a common 100-MHz external reference.



## PLDRO Series

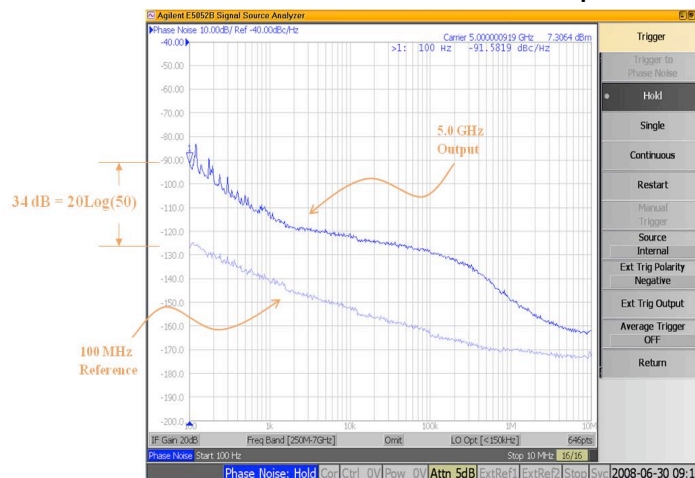
### Key features/applications

- Designed for military ground-based and airborne platforms
- High-repeatable SMT components and fabrication
- Extremely low phase noise
- Built to withstand hostile environmental conditions
- Qualification tested for temperature cycling, shock, and vibration
- Highly stable over time and temperature
- Output frequencies available to above 28 GHz

### Key Specifications

Fixed output frequencies (GHz)	5.0 and 6.3
Output power (dBm)	+8 ± 2
Spurious rejection (dBc)	>70
Reference frequency (MHz)	100
Reference power (dBm)	0 ± 4

### Phase noise of 5-GHz output locked to 100-MHz reference input



Please consult the factory for detailed product specifications.

**narda**  
microwave-east

an **L3** communications company

Address: 435 Moreland Road, Hauppauge, NY 11788

Phone: (631) 231-1700

Fax: (631) 231-1711

Web: <http://www.nardamicrowave.com>

E-Mail: [nardaeast@l-3com.com](mailto:nardaeast@l-3com.com)

Cleared by DoD/OSR for public release under OSR case number 10-S-1085 on 4 May 2010