

# Datasheet

## Whisper Series

### Phase Locked Dielectric Resonator Oscillators

#### Loud Performance, Barely a Whisper

The **Whisper Series Phase Locked Dielectric Resonator Oscillators (PLDROs)** are the premier choice for mission-critical frequency control and timing applications. Designed to meet and exceed stringent system requirements, Whisper Series PLDROs deliver exceptional frequency stability and low phase noise performance, even in the harshest environmental conditions.

Available in X-band and Ku-band frequencies ranging from 8 GHz to 18 GHz, these oscillators can be fully customized with integrated phase locked loops and tuning for enhanced performance.

Contact our expert sales engineers today to discuss your custom requirements and discover how Whisper Series PLDROs can elevate your RF and microwave system performance.

#### Applications

- Satellite Communications
- Radar Systems
- Base Stations
- Portable Transceivers
- Test Equipment



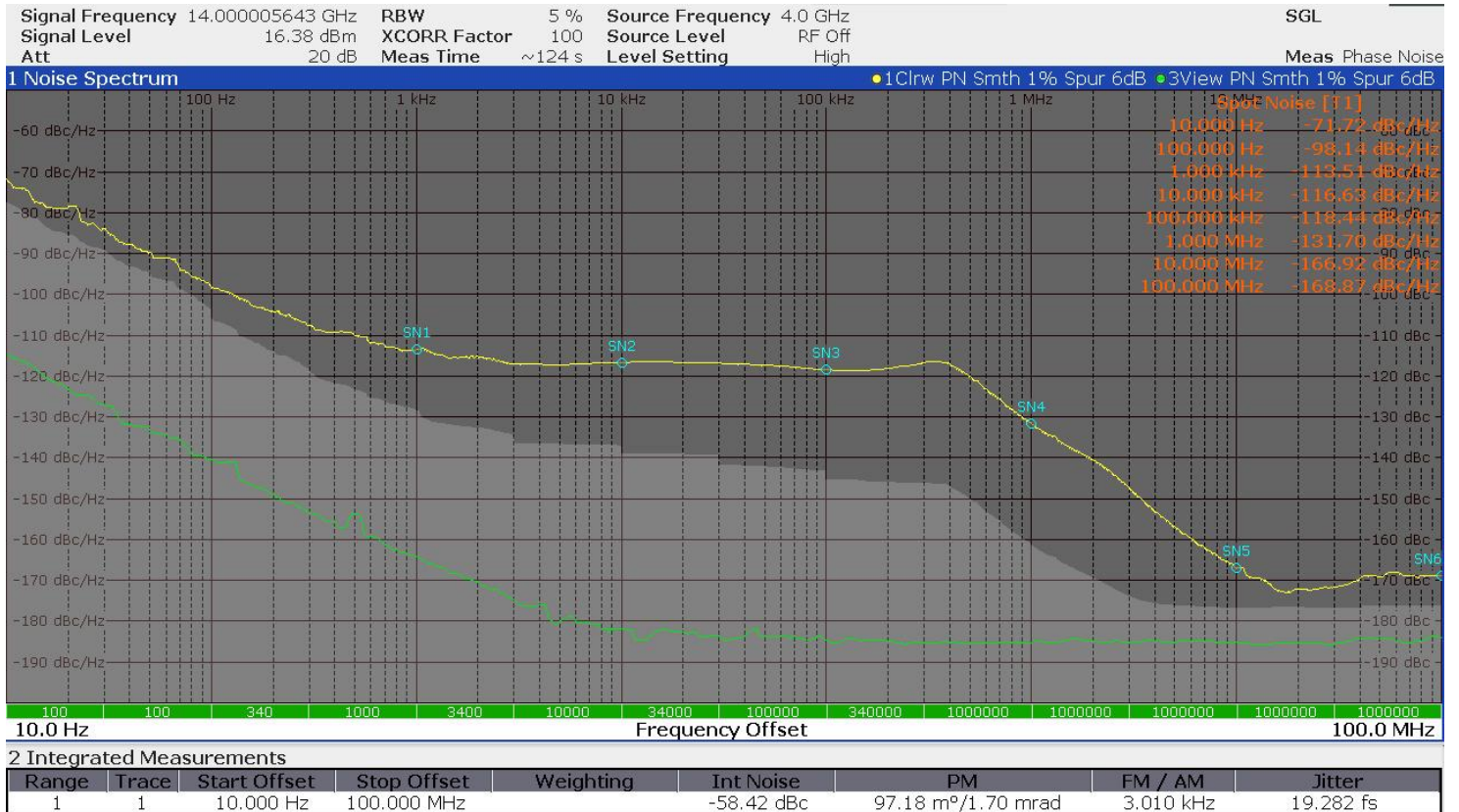
## Specifications

### Electrical

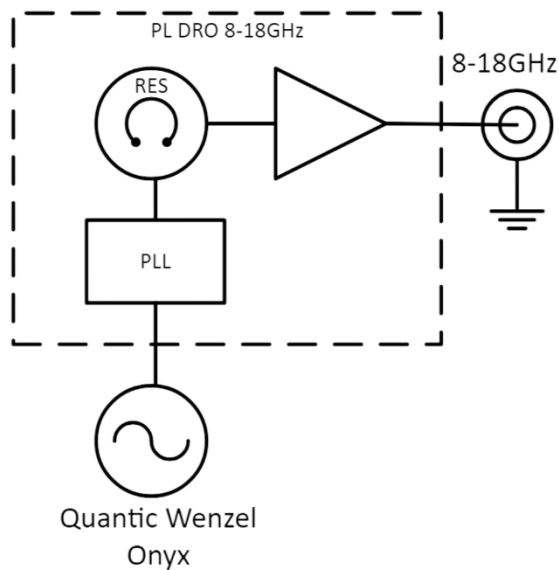
Parameter	Unit of Measure	Typical	Guaranteed
Fixed Frequency	GHz	14	14
Output Power @ 25°C	dBm	17	>15
Power Flatness 0°C - 50°C	dB	±0.75	±2
Frequency Stability	ppm/°C	Contact Factory	Contact Factory
Spurious	dBc	<-75	-60
Harmonics	dBc	<-40	-30
Phase Noise – 1kHz Offset	dBc/Hz	<-108	-105
Phase Noise – 10kHz Offset	dBc/Hz	<-113	-110
Voltage	VDC	12	12 ± 0.1
DC Current	mA	195	<200
Input Reference Frequency	MHz	100	100
Input Reference Power	dBm	3	0 ± 3dB

## Phase Noise

### 10 Hz – 100 MHz Offset Frequencies



## Circuit Outline



## Environmental and Mechanical

Parameter	Value
Operating Temperature	0°C to 50°C
Storage Temperature	-55° to +125°C
Connectors	SMA Female
Dimensions	2.25" x 2.25" .67"
Housing Material and Finish	Nickel

## Part Configurator

Part Number	Frequency Range	Option	Notes
PLW-2000	8.00-18.00	-	Available in X-band and Ku-band frequencies ranging from 8 to 18 GHz.
PLW-2040	8.00-18.00	Quantic Wenzel Citrine 100 MHz OCXO	External reference: Phase noise characteristics are notably affected at frequencies below 1 kHz offset from the carrier.
PLW-2050	8.00-18.00	Quantic Wenzel ONYX 100 MHz OCXO	

PLW-2000-pn.x

pn = Part Number

x = Frequency Range

**Example: Part number for a 10.50 GHz with Quantic Wenzel external ONYX 100 MHz OCXO reference is PLW-2050-10.50.**

## Outline Drawing

