

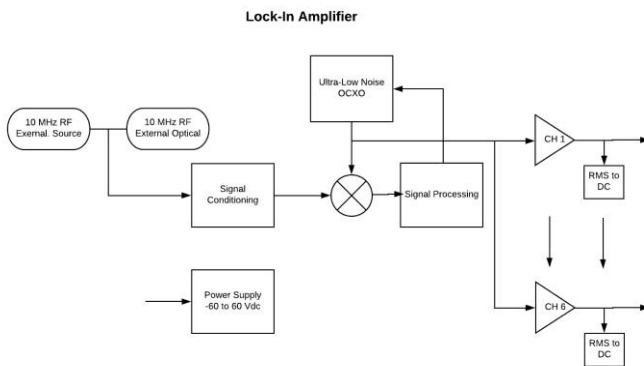
DATA SHEET	NL2306
REVISION	A
DATE	02-02-18

NL2306

Six-Channel 10 MHz Lock-IN Amplifier, GPSDO

Ultra-Low Noise

KEY FEATURES



A high-performance Lock-in or Clean-up amplifier that accepts a 10 MHz reference and locks-it to an ultra- low noise OCXO. The unit can include a Rubidium reference or a GNSS locked reference or an external 10 MHz reference (RF or Optical). Six transient and fault protected outputs. Vibration isolated OCXO to minimize fan and other vibration induced noise. Operates from – 60 to +60 Vdc. RS232 port provides unit status.

Product Highlights

Restores a reference noise levels while maintaining master synchronization.

Six Channels

Six transient and fault protected channels.

Multi-Sourced

External Reference, RF or 1300 nm Optical port

Low Phase Noise

Phase Noise dBc/Hz	
Offset Hz	Phase noise
1	-70
10	-115
100	-155
1000	-164
10K	-164

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Technical Specifications

10MHz sine	4 ±0.5 dBm ,50 Ohm - BNC
Harmonics	Less than -30 dBc
First year frequency stability	±50 ppb (long-term unlocked)
Temp stability	±10 ppb (long-term unlocked)
Yearly aging	±100ppb first year ±30 ppb after year 1 (long-term unlocked)
Phase noise	-85 @1 Hz
	-140@10 Hz
	-150 @ 100 Hz
	-160 @ 1000 Hz
Power requirements	90 to 264 VAC, 50/60Hz
Connectors	SMA 10 MHz output
	SMA 10 MHz input
Options	Fiber Optic option- ST 1300nm single of Multi-mode
	Embedded GNSS and/or Rubidium source

Environmental and Mechanical

Operating temperature	0 to 50°C non-condensing (extended temperature range available)
Storage temperature	-40 to 70°C
Height	1.73" (1 RU)
Width	19.0"
Depth	10.0"
Weight	~5 lbs.

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