

Increased Stability Dual Output GPS Locked Clock Source

FEATURES

- High-Quality Oscillator Ensures Stable Signal Without GPS
- Fast Time to Stable Usable Output
- ± 5 ppb Stability (-20°C to 40°C)
- 0.2ppb Daily Ageing (With no GPS)
- NMEA Data Over Virtual Serial Port
- Supports Multiple GNS systems
- Powered Antenna Port (3.3V up to 50mA)
- USB-C Connectivity
- 3.3V CMOS Square Wave Output With 50 Ω Impedance for Direct Compatibility With RF and Lab Equipment
- Handles Temporary GPS Signal Loss Seamlessly With No Frequency or Phase Jumps
- Low Phase Noise
- Outputs 1Hz to 1.4GHz

APPLICATIONS

- Indoor Applications Where GPS is Unavailable but Precision is Required
- High Uptime Applications When GPS is Susceptible to Jamming
- Precision Frequency Reference for Lab Equipment
- RF Transmitter and Receiver Systems (E.g., Ham Radios, VHF/UHF Transconverters)
- Calibration Sources for Radio Receivers and Propagation Beacons
- Master Clocks for Audio/Video Systems, DACs, and Recording Gear
- Referencing Radio Equipment

DESCRIPTION

The LBE-1425 is a high-performance GPS-disciplined oscillator engineered for precision frequency calibration and RF reference applications. It maintains exceptional accuracy and reliability even when GPS signals are intermittent or unavailable, making it ideal for critical operations in challenging environments.



SPECIFICATIONS

POWER

Connector	USB-C
Voltage	5V DC
Current	0.4A maximum

OUTPUT

Connectors	2 x SMA Female
Frequency Range	1Hz to 1.4GHz
Frequency Resolution	1 μ Hz
Amplitude	1.65V into 50 Ω , 3.3V into High Impedance
Stability	0.5ppb over -20°C to 40°C range
Ageing (No GPS)	0.2ppb per day

OUTPUT POWER


Out 1&2	+11dBm, +6dBm (Low Power Mode)
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ANTENNA PORT

Voltage	3.3V \pm 10%
Current	30mA max
Connector	SMA Female

DIMENSIONS

Size	69x40x12mm
Weight (Main Device)	40g

 Datasheet Version: V1.0-Initial-26-09-2025