LBE-1420

GPS Locked Clock Source

FEATURES

- Fast Time to Usable Output
- NMEA Data Over Virtual Serial Port
- Supports Multiple GNS systems
- Powered Antenna Port (3.3V up to 50mA)
- USB-C Connectivity
- Low Power 250mA @ 5V
- Output Stability Achieving an Accuracy of 0.000001ppm
- Internal High-Quality TCXO Ensures Clean Clock Signal
- 3.3V Cmos Square Wave Output With 50Ω 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

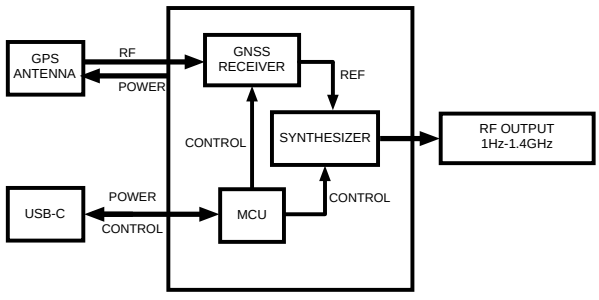
APPLICATIONS

- 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-1420 is a high-performance GPS-disciplined oscillator designed for precision frequency calibration and RF reference applications. With GPS-locked output frequencies and exceptional stability, it is ideal for demanding environments requiring both accuracy and reliability.

BLOCK DIAGRAM



SPECIFICATIONS

POWER	
Connector	USB-C (USB 2.0)
Voltage	5V ±10%
Current	250mA ±10% @ 5V
OUTPUT	
Connector	SMA Female
Frequency Range	1Hz to 1.4GHz
Frequency Resolution	1µHz
Amplitude	1.65V into 50Ω, 3.3V into High Impedance
Stability	$1x10^{-12}$ at 1000s
OUTPUT POWER	
< 400 MHz	+11dBm, +6dBm (Low Power Mode)
400MHz - 1GHz	+10dBm, +5dBm Low Power Mode
> 1GHz	+10dBm, +3dBm Low Power Mode
ANTENNA PORT	
Connector	SMA Female
Voltage	3.3V ±5%
Current	Up to a maximum of 30mA
DIMENSIONS	
With Connectors	69x40x12mm
Without Connectors	53x40x12mm
Weight (Main Device)	40g

PHASE NOISE