

Enables High-Precision IEEE1588v2 and SyncE Support

Clock Card CLK-100

Datasheet



Features

- Small footprint in OCP NIC 2.0 form factor
- Supports IEEE1588 v2 to provide time and frequency synchronization
- Supports SyncE to provide frequency synchronization
- Supports external clock input from an external local source
- 24h or 8h hold-over clock capability to sustain clock accuracy

Specifications

Key Module	GNSS	Ublox NEO-M8T concurrent GNSS modules Active antenna used Supports GPS, Galileo, GLONASS and BeiDou signals Phase accuracy 20ns
	OCXO	(SKU1) Dapu CM55F-Z129-10.00Mhz with holdover: $\pm 1.5\mu\text{s}/24\text{h}$ @ $\Delta T = \pm 10^\circ\text{C}$; Temperature Stability: $\pm 0.2\text{ppb}$ (SKU2) Dapu CM22B-G328-10.00MHz with holdover: $\pm 1.5\mu\text{s}/8\text{h}$ @ $\Delta T = \pm 10^\circ\text{C}$; Temperature Stability: $\pm 0.3\text{ppb}$
	PLL	Silicon Labs Si5383 based Three DSPLLs can function independently Synchronous Ethernet (SyncE) ITU-T G.8262 IEEE 1588 (PTP) master/slave clock synchronization
LEDs		Onboard 1x LED indicator for OCXO lock Onboard 3x LED indicators for PLL lock
I/O Interfaces	Motherboard	GNSS antenna SMA header External PPS input from motherboard SyncE input/output from/to motherboard IEEE1588 clock/PPS/TOD output to motherboard
	Onboard	DIP switch to change PPS source 1x PPS MMCX output header 1x PPS MMCX input header 1x 10M MMCX output header 1x 8-pin header for GNSS PPS/TOD and PLL I ² C

Specifications

Temperature and Humidity	Operating: -5°C to +55°C, 10%-85% RH @40°C, non-condensing Storage: -40°C to +70°C, 5%-90% RH, non-condensing
Mechanical and Environmental	Form Factor: 68mm x 82mm Power: 5V

Block Diagram

