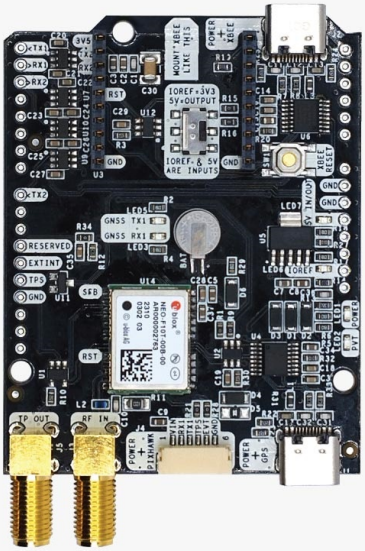
simpleGNSS Timing

Includes:
– 1 simpleGNSS Timing board (NEO-F10T)

More info about the product!



simpleGNSS Timing has several different configurations to provide you with flexibility:

SKU	Variation Name
AS-GNSS-F10T-L1L5-NH-00	Without headers
AS-GNSS-F10T-L1L5-HS-00	Headers soldered (+26€)

Get a discounted bulk price on this product for orders of 50 units or more. Contact us at info@ardusimple.com to get a quote.

Description

simpleGNSS Timing allows you to evaluate sub-meter dual band (L1/L5) GNSS positioning technology including secure nanosecond timing and RAW data. It's based on u-blox NEO-F10T module and can be used standalone. Or connected with Arduino, Ardupilot / Pixhawk (JST connector), Raspberry Pi, Nvidia, STM32 and ESP32 platforms, as a shield. It can provide up to 10 positions every second.

Thanks to its impedance controlled timepulse output with nanosecond accuracy, this board is ideal for accurately timestamping sensor data, or synchronizing different base stations in the same timescale. Get extra performance when inside operational area of SBAS by using the ionospheric corrections provided by the free service.

Applications:
– Remote sensor time synchronization
– 5G Network synchronization
– System time synchronization
– Timestamping of external pulses

Good to know:
– This product doesn't do RTK, but can be used for postprocessing PPK-RTK thanks to its RAW data output.
– This product is compatible but doesn't include multiband GNSS antenna, which is necessary to use the product.
– The module will not give good performance with any GNSS antenna, for optimum performance we recommend our Budget Survey Tripleband or ANN-MB1 antenna.
– This board is recommended if you want to test u-blox NEO-F10T performance.
– The board has a SMA connector for GNSS antenna input, and a second SMA connector for a high output drive (24mA) timepulse.
– This product is a lower cost alternative to NEO-M8T, ZED-F9T or RCB-F9T board.

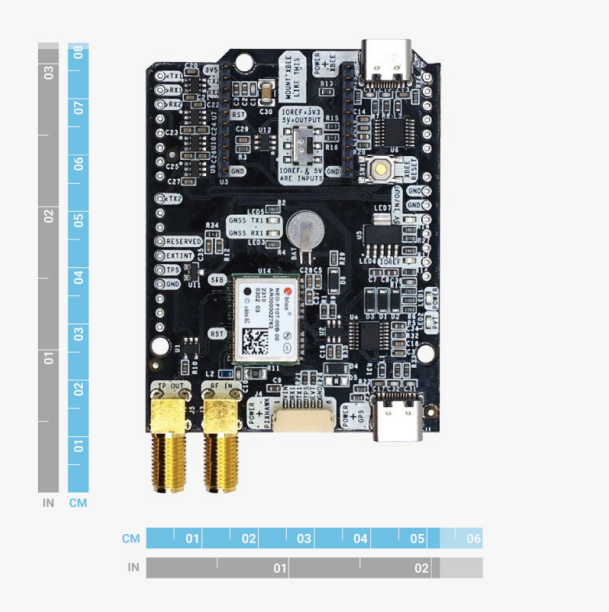
AS-GNSS-F10T-L1L5-NH-00 AS-GNSS-F10T-L1L5-HS-00

Specifications

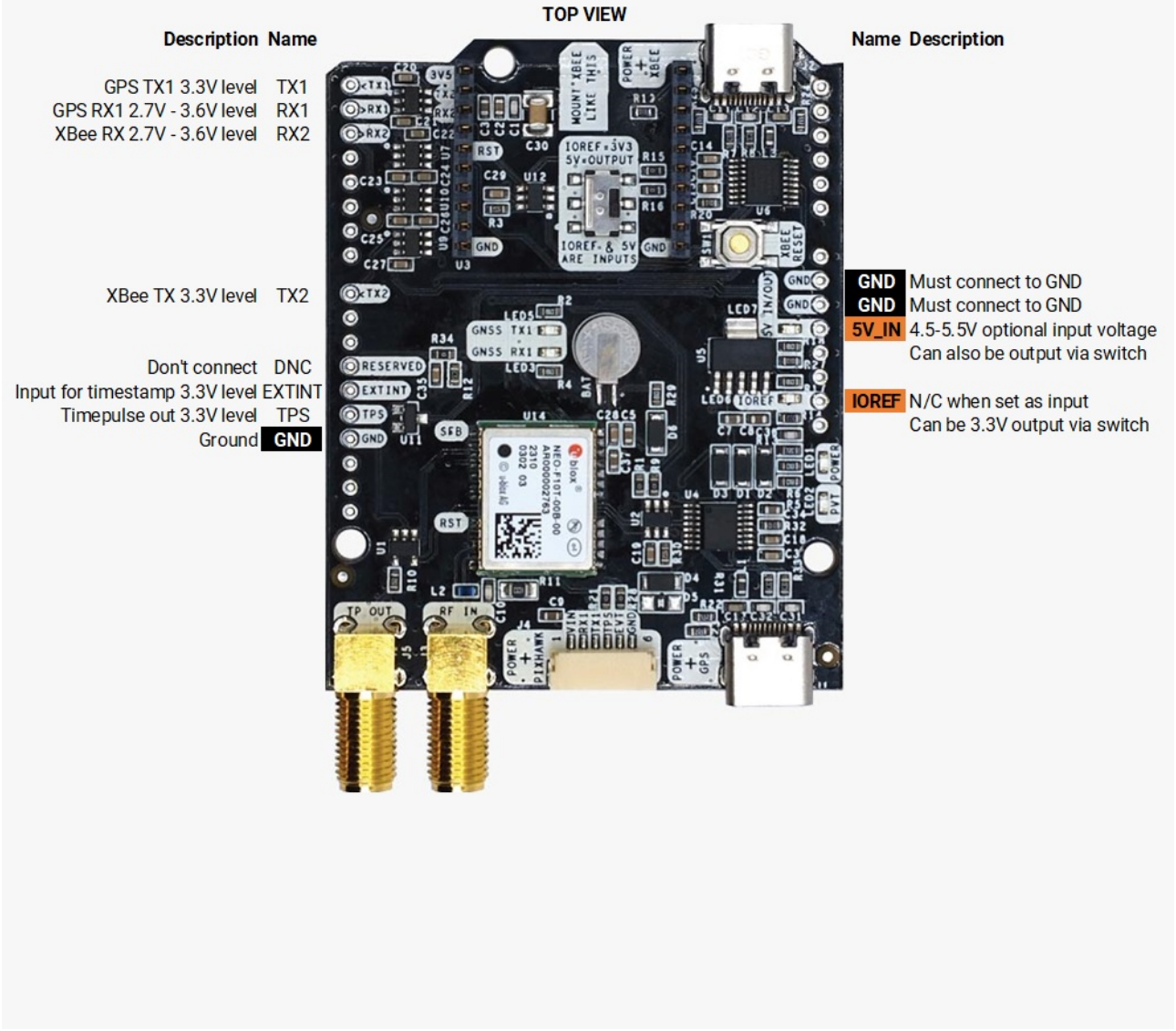
NEO-F10T features

- Sub meter level precision
  - <1.5m in standalone mode
  - <0.9m standalone with SBAS coverage
- Update rate
  - Default: 1Hz
  - With maximum performance: up to 8Hz
  - With reduced performance: up to 10Hz
- Multi band: L1, L5 support
- Multifrequency and Multiconstellation:
  - GPS: L1C/A L5
  - Galileo: E1-B/C E5a
  - BeiDou: B1C B2I
  - NavIC: SPS-L5
  - QZSS: L1Sb
  - SBAS: WAAS, EGNOS, MSAS, GAGAN and SouthPan
- Start-up times:
  - First position fix: 27 seconds (cold), 2 seconds (hot)
- RAW data output in UBX format
- Timepulse:
  - Accuracy: 10ns
  - Accuracy (jitter removed): 5ns
  - Jitter: +-8ns
  - Frequency: from 0.25Hz to 10MHz (default 1Hz)
- Operating temperature Range: -40 to +85deg
- Documentation: RED, RoHS, UKCA

Image Gallery



Pinout



Documentation

User Guide	https://www.ardusimple.com/user-guide-simplegnss/
Download CAD model	https://www.ardusimple.com/wp-content/uploads/2024/11/AS-GNSS-F10T-L1L5-NH-00-R00.step

simpleGNSS Timing includes free basic technical support. Contact info@ardusimple.com for more information.
Data and descriptions in this document are subject to change without notice. Product photos and pictures are for illustration purposes only and may differ from the real product appearance.

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