

Home (<https://www.lantronix.com/>) » Products (<https://www.lantronix.com/products/>) » Embedded IoT Solutions (<https://www.lantronix.com/products-class/embedded-iot-solutions/>) » Wireless & GNSS Modules (<https://www.lantronix.com/products-class/wireless-gnss/>) » GNSS / GPS Receivers (<https://www.lantronix.com/products-class/gnss-receivers/>) » A5100-A

[A5100-A](#) [Overview](#) [Tech Specs](#) [Downloads](#) [Part Numbers](#)

The A5100-A will track and follow GPS and GLONASS systems concurrently.



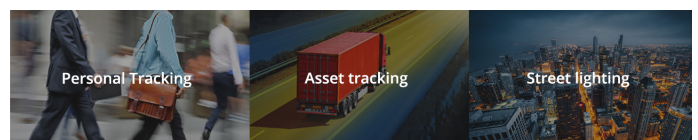
The A5100-A is a high-sensitivity concurrent GNSS receiver that integrates Qualcomm's SiRFstar V technology into a single, compact and easy to integrate SMT device.

By supporting simultaneous GLONASS, GPS, QZSS and SBAS measurements with the industry's best sensitivity engine, the highest accuracy, ground tracks and fastest time-to-first-fix (TTFF) are ensured even under tough operating conditions.

Product Highlights

- Concurrent GNSS receiver
- Pin-to-pin compatible with A2200-A
- Lowest tracking power consumption
- Download SiRF Live

Key Markets



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PERFORMANCE

COMMUNICATION



Channels 52

Frequency LI – 1,575 MHz

Sensitivity1 GPS GLONASS

Tracking – 165 – 163
dBm dBm

Navigation – 160 – 159
dBm dBm

Acquisition
(cold start) – 147
dBm

**Position Accuracy2
(horizontal)** < 2.5 m CEP
(autonomous)
< 2.0 m CEP SBAS

Time To First Fix

Hot Start2) < 1 s

Warm Start2) < 30 s

Cold Start2) < 35 s

Navigation

Update Rate 1 Hz / 5 Hz
Supported

UART – OSP

SiRFbinary protocol Protocol for SiRFstar product family up to SSIII

Open Socket Protocol Protocol extension for SiRFstarV

Baud rate Switchable 115.2k (default) 1,200 to 115.2k

Ports Tx (Binary output) Rx (Binary input)

UART – NMEA (default)

NMEA message Switchable GGA, RMC, GSA, GSV, VTG, GLL, ZDA

Baud rate Switchable 1,200 to 115.2k
Default 9600

Ports Tx (NMEA output) Rx (NMEA input)

HIGHLIGHTS

POWER





SiRFnav™
High availability and coverage; improved TTFF in weak signal environments

SiRFaware™
Keeps module in a state of readiness for rapid navigation (hot start)

Jammer remover technology
Detects and removes up to 8 in-band jammers with minimal loss of sensitivity

A-GPS
Embedded Extended Ephemeris (SiRFInstantFix) and Ephemeris Push support

MEMS I2C interface
Prepared to use additional sensor information for improved navigation

Supply voltage 3.0 to 3.6 VDC

Average Current Draw (typical)

Full power mode (Searching) Peak Current 40mA

Full power mode (Searching) Average Current 37mA

Full power mode (Tracking) Average Current 31mA

Micro Power Mode (SiRFaware™) 300uA

Hibernate Status 180uA

MECHANICAL

Dimensions

L x W x H 15 x 10.2 x 2.5 mm

L x W x H 0.59" x 0.4" x 0.1"

Weight 1.2 g / 0.04 oz.

ENVIRONMENT

Temperature

Operating -40°C to +85°C

Storage -40°C to +85°C

Humidity

Non condensing