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Wi-Fi Terminus NT-220LT Ruggedized Wi-Fi Enabled GPS Module

Description

The rugged Wi-Fi Terminus NT-220LT combines state-of-the-art 16 channel GPS receiver technology with 802.11 Wi-Fi transport protocol. Incorporating NavSync's own ultra-sensitive navigational GPS receiver, the Wi-Fi Terminus provides Wi-Fi transportation of standard, user-configurable NMEA information (longitude, latitude, and UTC time). The 802.11 b/g compliant Wi-Fi supports WPA2 encryption and is fully configurable to virtually any Wi-Fi network.

Operation

The Wi-Fi Terminus NT-220LT is designed to communicate GPS (NMEA) data via TCP or UDP transmission. Users are able to configure appropriate NMEA messages and message rate, along with other features.

The Wi-Fi Terminus LT series offers continuous operation with exceptional tracking accuracy. The Wi-Fi Terminus power management capability allows the unit to enter an ultra-low power standby mode, enabling long term operation with periodic reporting.

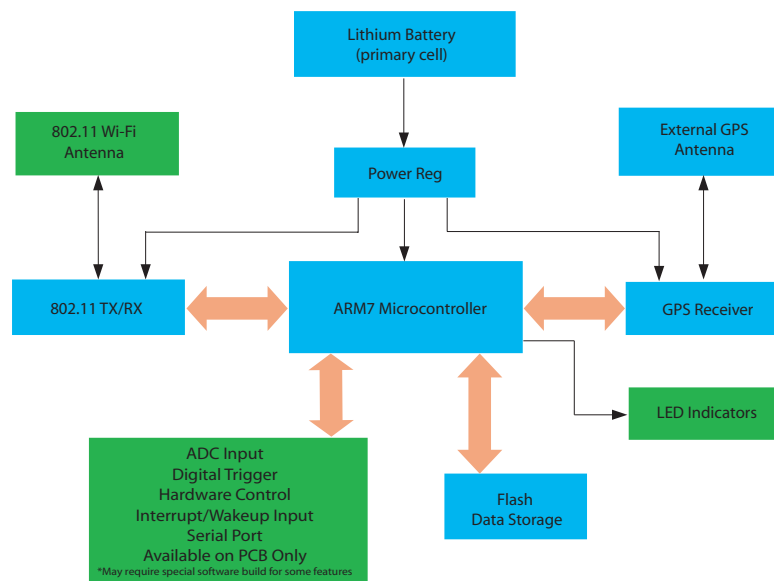
The NT-220LT features additional on-board flash memory to enable capture and storage of GPS location information when a Wi-Fi network is not available. The saved data is stored until another Wi-Fi network is detected and the information can be transmitted.



Features

- Sensitive GPS receiver with tracking as low as -150dBm
- 802.11b/g compliant
- WPA2 encryption
- Integrated primary cell battery
- User programmable update rates
- Internal flash memory for saving GPS data
- Indicators for GPS fix status, and network status operation
- The NT-220LT is designed for longer battery life than the NT-110 versions of the Wi-Fi Terminus
- Dimensions: 4.27" x 3.36" x 1.77" (108.50mm x 85.45mm x 45.00mm)

Block Diagram



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2111 Comprehensive Drive
Aurora, Illinois 60505
630.499.2121
Fax: 630.851.5040
www.janus-rc.com

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Making machines talk.

NT-220LT Wi-Fi Terminus Wi-Fi ENABLED GPS SPECIFICATIONS

GPS Performance

| | | Notes |
|--------------------------------------|---------------------------|-------|
| GPS Channels | 16 | |
| Frequency | 1575.42 MHz – L1 C/A Code | |
| TTF Cold Start @ -135 dBm | 46 seconds | 1, 4 |
| Re-acquisition Time @ -147 dBm | < 3 seconds | 2 |
| Tracking Sensitivity (dBm) | -150 dBm | 3 |
| Static Accuracy 50% Confidence (CEP) | 2 m | 4 |
| 95% Confidence | 4 m | |
| Maximum Horizontal Speed | 515 m/s | 5 |
| Maximum Vertical Speed | 15 m/s | 6 |
| Maximum Altitude | 18 Km | 5 |
| Maximum Acceleration (g) | 2 g | |

Wi-Fi Performance

| | |
|------------------------------|---|
| Maximum RF Transmit Power | 15 dBm |
| Transmission Speed | 1Mbps |
| Wireless Transmission Period | Default is once per second, configurable via SNMP |

General Specifications

| | |
|---------------------------------|---------------|
| Power (Avg.) When Transmitting: | ~1.1W |
| Power When Not Transmitting | <0.5W |
| Standby Mode | <50 uA |
| Operating Temperature Range | -30°C to 60°C |

Physical

| | |
|----------------------|--|
| Module Dimensions | 4.27" x 3.36" x 1.77" (108.50mm x 85.45mm x 45.00mm) |
| GPS Fix Rate Maximum | Once per second |

Battery Information

| | | |
|------------------------------------|---|---|
| Internal Lithium Battery | 14 AH | |
| Battery Life (activation interval) | 30 days (3 minutes) over 1 year (1 hour) over 2 years (1 day) | 7 |

Antenna Requirements

| | |
|----------------|---------------------------|
| 802.11 Antenna | N-type, 6.0 dBi maximum |
| GPS Antenna | External antenna provided |

Notes:

1. These are RMS values
2. Maximum sensitivity -147 dBm
3. Simulator test, continuous fix with all signals at specified power level.
4. Open sky, 24 hr field test. No sky-view obstructions.
Accuracy relative to ACTUAL surveyed position, not self-relative survey.
5. Limited by International Traffic in Arms Regulation (ITAR)
6. Defined by navigation integrity check
7. GPS fix within 60 seconds; configuration traps up to 1 hour; 27°C: preliminary estimates

Disclaimer

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Division of The Connor-Winfield Corporation
2111 Comprehensive Drive • Aurora, Illinois 60505
630.499.2121 • Fax: 630.851.5040

www.janus-rc.com

Janus Remote Communications Europe

Bay 143
Shannon Industrial Estate
Shannon, Co. Clare, Ireland
Phone: +353 61 475 666