

# JANUS REMOTE COMMUNICATIONS

## PRODUCT BRIEF

### Wi-Fi Terminus NT-110ST Wi-Fi Enabled GPS Module

#### Description

The Wi-Fi Terminus NT-110ST combines GPS technology with Wi-Fi transport. Incorporating NavSync's ultra-sensitive GPS receiver, the NT-110ST provides an 802.11 b/g transmission containing NMEA streams, giving device location (longitude and latitude) and UTC time. The 802.11 b/g supports WPA2 encryption and is fully configurable to a specific network.

The enhanced NT-110ST is intended for TCP or UDP transmissions of GPS data. The unit is capable of sending out a variety of NMEA GPS messages, selectable and at a rate configurable by the user.

The NT-110ST offers continuous operation and exceptional tracking accuracy. Additionally, the NT-110ST features a rechargeable lithium ion battery and flash storage on-board for storing GPS data when a Wi-Fi network is not detected. This data can be safely stored and sent out once the Wi-Fi network is detected.

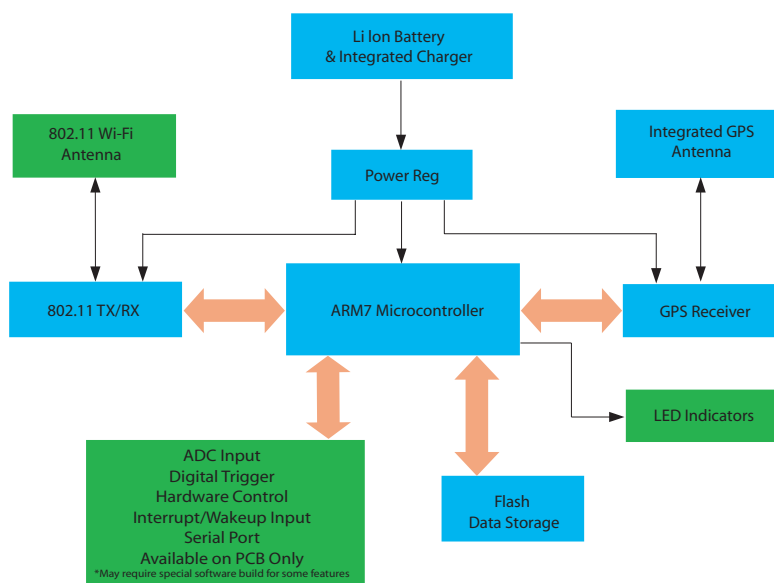
Please contact the factory for specifics as custom firmware may be required.



#### Features

- Sensitive GPS Receiver with Tracking as Low as -150dBm
- 802.11b/g Compliant
- WPA2 Encryption
- Integrated Rechargeable Battery
- User Programmable Update Rates
- Internal Flash Memory for Saving GPS Data
- Indicators for Battery Charging Status, GPS Fix Status, and Network Status Operation

#### Block Diagram



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

Bulletin	<b>JA10-PB ST</b>
Revision	<b>01</b>
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Making machines talk.

## Wi-Fi Terminus NT-110ST Wi-Fi Enabled GPS Specifications

### GPS Receiver Specifications

Physical	Description	Notes
Module Dimensions	3.773" (W) x 3.149" (H) x 1.253" (D) 95.83mm (W) x 79.98mm (H) x 31.83mm (D)	
<b>GPS Performance</b>		
GPS Channels	16	
Frequency	1575.42 MHz – L1 C/A Code	
TTFF 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	7
Maximum Acceleration (g)	2 g	

### Wi-Fi Specifications

<b>Wi-Fi Performance</b>		
Maximum Transmit Power	15 dBm	
Transmission Speed	1Mbps	
<b>General Specifications</b>		
Power (Avg.) Transmitting:	~1.1W	
Operation When Not Transmitting	<0.5W	
Internal Li Ion Rechargeable Battery	900 mAh	
Battery Life (continuous operation)	> 12 Hours	8
Operating Temperature Range	-15°C to 60°C	
GPS Fix Rate Maximum	Once per second	
Wireless Transmission Period	Default is once per second, configurable via SNMP	8

### Antenna Requirements

802.11 Antenna	Stubby 802.11 included, reverse SMA connection provided
GPS Antenna	Internal Antenna Provided

The specifications refer to the standard software builds of the NT-110ST. The performance and specification of the NT-110ST can be modified with the use of customized software builds.

#### 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. Limited by International Traffic in Arms Regulation (ITAR)
8. Continuous transmission, 1 fix per second @ 27°C

#### 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](http://www.janus-rc.com)

Janus Remote Communications Europe

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