

JANUS REMOTE COMMUNICATIONS

Tnode Wireless Mesh Network Device

Description

The Terminus Tnode is a communication control terminal with a compact, rugged enclosure that encapsulates everything needed for short range

M2M capabilities. The two orderable frequency types allow for system deployment in different networks with little change in design or investment.

Powered by the Synapse RF engine, the Tnode contains all circuitry required to operate in 2.4Ghz or 915Mhz frequency ranges. It can receive power from a 12v wall wart or a 5v mini USB connection, contains a serial RS-232 for programming and debugging, and has discrete and analog inputs for monitoring. With such versatility, the Tnode becomes an easy answer for mesh network needs.



Applications

- Fleet management
- Teleservice
- Security systems
- Telematics
- Telemetry and telecontrol
- Remote monitoring systems
- Remote meter reading
- Vending machines
- POS Terminals

Terminus Models & Ordering

Ordering	Description
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Bulletin	JA18-PB
Revision	01
Date	11 March 2015



Making machines talk.

Tnode Features

Environmental

- Operating Temperature: -40°C to +85°C

User Interfaces

- RS-232 9-pin Sub D
- DC Power 2.1mm barrel jack
- Mini USB (Power only)
- 30 Pin External Header

I/O (2.4 GHz)

- 3 x Direct Interface (0 - 3.3v)
- 5 x Open Collector (Pulled to 3.3v)
- 2 x 0-10v ADC in
- 2 x 0-1.8v ADC in (3.3v safe)

I/O (915 MHz)

- 5 x Open Collector (Pulled to 3.3v)
- 1 x 0-10v ADC in
- 2 x 0-3.3v ADC in

Enclosure

- Rugged ABS Plastic
- Flame retardant / UL94VO rated
- Size: 2.6" x 3.75" x 1.2" (66mm x 95.25mm x 30.84mm)
- Thru-case mountable with 2-#6 screws

Performance

- Operating Voltage:
 - Barrel Connector: 6 to 60 VDC
 - Mini USB: 4.75 to 5.25 VDC

Python Application Resources

- Python Interpreter with over the air programming/update
 - Direct access
 - 2.4Ghz: 58.5k Flash
 - 915Mhz: 64k Flash

Processor Features

- Orderable in either 2.4GHz or 915MHz ISM frequency types
- 3 mile range in open field environment
- Synapse Portal support
- External Antenna Connection (SMA)
- Bitrate
 - 2.4Ghz: Up to 2Mbps
 - 915Mhz: Up to 150Kbps
- Output Power
 - 2.4Ghz: 15dBm
 - 915Mhz: 20dBm
- Sensitivity
 - 2.4Ghz: -105dBm (250Kbps 1% PER)
 - 915Mhz: -99dBm (150Kbps 1% PER)

Approvals – Certifications

- FCC
- CE

Revision History

Revision	Date	Note
A00	10/02/14	Advanced Release - Product Brief
A01	03/11/15	Update to Approvals

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