

DNT24



New! 2.4 GHz frequency hopping module

Low cost, long-range, multi-purpose for cost-sensitive applications

Featuring Murata advanced networking features and robust FHSS technology

- Remote Control
- Industrial/Commercial Wireless Sensing
- AMI and Smart Grid
- Electronic Signs
- Scoreboards
- Agricultural Monitoring
- Irrigation Control
- Tank Farm Monitoring
- Oil and Gas Pipeline Monitoring
- Purified air for more comfortable breathing

Exceptional performance at a very low cost

The DNT24 is a low cost, long range, multi-purpose, 2.4 GHz frequency hopping OEM RF module from Murata. The DNT24 provides a 250 kb/s RF data rate with configurable RF power from 10 mW to 100 mW coupled with a receive sensitivity of -100 dBm to provide exceptional range and performance all in an FCC / IC / ETSI certified module.

The DNT24 uses frequency hopping technology with a unique TDMA/CSMA hybrid multiple access scheme that delivers low latency yet a virtually unlimited number of nodes in a single network. Point-to-point and multi-point networks are supported as well as peer-to-peer and store-and-forward repeating.

Best value 2.4 GHz frequency hopping module on the market

For cost-sensitive applications the DNT24 delivers FHSS reliability without breaking the bank. But that does not mean it is a limited performance module: Best-In-Class RF Power, -100 dBm receive sensitivity, AES-128 encryption, and sophisticated networking features allow this low-cost module to wear the DNT nameplate.

100mW RF power + store forward repeating

A superior combination of 100 mW RF power, -100 dBm receive sensitivity, and Murata's proven frequency hopping technology deliver a module that is small in size but big on reliability and robustness. And if that is not enough, the DNT24's store-and-forward repeating can extend the range

Analog and digital I/O for serial and sensor data

The DNT24 supports wireless applications needing to send over-the-air analog and digital data and/or serial data. The DNT24 offers 4 analog inputs and 6 GPIOs to not only report signal status but also to initiate actions without the need for additional intelligence. With a standard UART serial port supporting standard baud rates and SPI interfaces, plus a collection of 2 ADC inputs, 2 DAC outputs and 6 GPIO, the DNT24 is well suited for any sensor application. When you add the DNT24's ability to auto-report sensor data and to sleep in between reports and I/O binding, you get a low-power radio that is suitable for battery operation.

Murata's advanced networking features and robust frequency hopping technology, along with a full 24-bit CRC and ARQ error detection and correction scheme, provide an extremely reliable radio with sophisticated features at a remarkably low price. AES-128 encryption is included along with analog and digital IO and UART and SPI ports. The DNT24 offers the best value in a 2.4 GHz frequency hopping module.

- 2.4 GHz Frequency Hopping Spread Spectrum Transceiver
- Point-to-Point, Point-to-Multipoint, Peer-to-peer, and Store-and-Forward Repeating
- Configurable Transmitter Power from 10mW to 100mW
- RF Data Rate of 250kb/s
- Over-the-air module programming and configuration
- Auto reporting of module inputs
- 128-Bit AES Encryption
- Analog and Digital I/O for Sensor Applications
- FCC/IC/ETSI Certified for Unlicensed Operation
- Drop-in replacement for RFM DNT90/900 MHz FHSS, LPR2430ER 2.4 GHz 802.15.4, and WSN802 802.11b/g WI-FI modules

Robust frequency hopping technology from industry leader Murata

In spite of its low cost, the DNT24 delivers robust Frequency Hopping technology and sophisticated networking features typically only found in more expensive modules. The speed at which the DNT24 hops is software configurable to provide the exact match of throughput and latency for your application. 20+ years of FHSS know-how learned in the harshest RF environment overcoming multi-path and Interference is in each DNT24 module.

Sophisticated networking features including heartbeat/join announcements, store and forward repeating, over-the-air module programming, over-the-air configuration and reading of analog and digital inputs, auto-reporting of module inputs, and transparent data mode let the DNT24 out perform modules costing more than twice the DNT24.

Fast-track your design -- order a developer kit

- Everything you need to get a wireless link going in less than 10 minutes
- Two development boards providing a simple means to interface to your device and showcasing the features of the DNT24
- Utility programs that demonstrate network operation and performance
- Documentation, including source code to the utility programs, to speed your development

DNT24DK (or DNT24ADK*) contains

- 2 DNT (or DNT24A*) modules with pins
- 2 DNT24 (or DNT24A*) development boards
- 2 USB and 2 Serial Cables
- 9V Batteries and Wall-mount Power Supplies
- Antennas and RF Cables
- Program CD with software and manuals
- Quick Start Guide

**DNT24ADK includes DNT24A chip antenna version modules and development boards*



How To Buy

Murata products are sold through a world-wide network of sales reps and distributors. Go to the Murata website at www.murata.com and visit the "Products - Wireless Connectivity Platforms" section to locate a sales/distribution partner near you.