

This high-end module for a faster and easier geolocation!

This high-end module embedded all TD next skills in Sigfox network, GPS & accelerometers sensors and design of antennas.

Just add a battery to your TD1205... and that's all! The world of geolocation awaits you!



### Product description

TD next's TD1205 devices are high performance, low current SIGFOX<sup>™</sup> gateways, RF transceiver and GPS receiver with integrated antennas.

The combination of a powerful radio transceiver, a state-of-the-art ARM Cortex M3 baseband processor and a high-efficiency GPS receiver achieves extremely high performance while maintaining ultra-low active and standby current consumption.

The TD1205 device offers an outstanding RF sensitivity of -126 dBm while providing an exceptional power radiated from integrated antenna of up to +14 dBm.

The TD1205 device versatility provides the gateway function from a local Narrow Band ISM network to the long-distance Ultra Narrow Band SIGFOX<sup>™</sup> network at no additional cost.

Moreover the fully integrated on-board GPS receiver combines outstanding sensitivity with ultra low power which allows you to achieve excellent accuracy and Time-To-First-Fix performance.

Combining the SIGFOX<sup>™</sup> network possibilities with accurate geolocation will give you access to a brand new world of embedded applications.

The TD1205 also embeds an ultra-low power 3D accelerometer with motion and free fall detection to further extend application range.

Featuring an AES encryption engine and a DMA controller, the powerful 32-bit ARM Cortex-M3 baseband processor can imple ment highly complex and secure protocols in an efficient environ mental and very low consumption way. Eventually the integrated antennas for both SIGFOX<sup>™</sup> and GPS make the TD1205 a turnkey solution which does not require any additional design.



# TD1205 Features

# Sigfox certified Gateway & RF transceiver with antennas

Frequency range = ISM 868 MHz Receive sensitivity = -126 dBm

Modulation

- (G)FSK, 4(G)FSK, GMSK
- 00K

Max output power

• + 14 dBm

Low active radio power consumption

- 20 μA RX (windowed mode)
- 95 mA TX @ +10 dBm



# Multi-GNSS GPS Receiver with active antenna

Multi-GNSS support

- GPS/GLONASS
- SBAS augmentation services

Ultra-low power consumption

- 29 mA Acquisition
- 12 µA Backup

High sensitivity

ТΧ

RX DB2 DB3

- 56-channel engine
- -162 dBm Tracking
- -148 dBm Cold start

## **Board characteristics**

Power supply = 2.3 to 3.6 V 2.5  $\mu$ A idle state consumption Small form factor: 30x38x10.5mm Green and red led

### Ultra-low power 3D Accelerometer

Up to +/- 16g full scale



Bat +





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