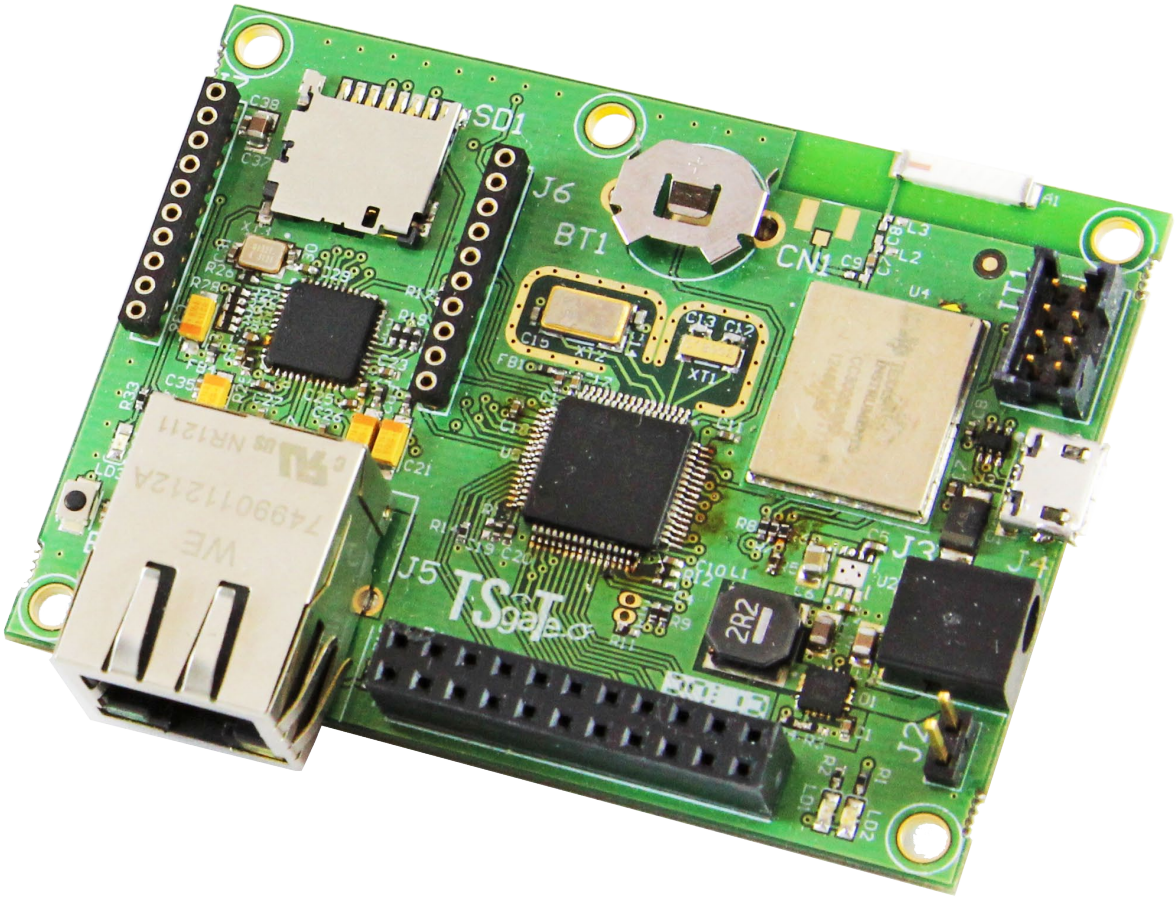
CLOUD-ENABLED DEVELOPMENT TOOL FOR WIRELESS MONITORING, REMOTE CONTROL AND M2M/IOT APPLICATIONS



The new TSgaTe is an embedded system that enables a fast and simple development of wireless applications and reduces the time-to-market.

It consists on a low-power but powerful 32 bit microcontroller with an ARM Cortex-M3 core at 72 MHz with 96 KB RAM and 1 MB Flash memory and Ethernet and WiFi connectivity on board. Sensors, actuators and other devices can be connected to the new TSgaTe through I/Os and serial ports. There are multiple expansion modules available for the TSgaTe: ZigBee, IEEE 802.15.4, TinyMesh, Wireless MBus, GPRS, RFID/NFC, GPS, RS485,...

At software level, the new TSgaTe includes TCP/IP, HTTP and Modbus stacks, as well as the drivers for the expansion modules. Everything runs on top of a Real Time Operating System and comes with an open and free IDE.

Due to its modular design it is possible to combine the communication technologies needed for a certain application. Thanks to the software libraries and API provided by TST, programming the user application is extremely simple.

KEY FEATURES

Fast development of wireless applications.

Support of multiple communication technologies.

Direct connection to sensors and actuators.

Simple programming with TST software libraries.

Direct Ethernet and WiFi connectivity on board

ELECTRICAL	
Input voltage	4.5 - 12 VDC
Internal voltage	3.3 VDC
Current MCU On	40 mA
Current MCU stand-by	23 uA
Coin cell	CR1025

MECHANICAL	
Dimensions	70 x 52 mm
Connectors	22 pins female slot for expansion modules
	Double row female slot for expansion modules
	8 pin JTAG connector
	Micro USB

MCU	
Microcontroller	32 bits STM with ARM Cortex-M3 core
Clock	72 MHz
Flash	1 MB
RAM	96 KB
SD card	Slot for microSD cards up to 2 GB
Ethernet	100 MB
Wi-Fi	802.11 b/g (ceramic or external antenna)
Serial interfaces	3 UART, 2 I2C, 1 SPI
I/Os	Up to 6 analog, up to 20 digital

EXPANSION MODULE
ZigBee, IEEE802.15.4, W-MBus GPRS, NFC/RFID, GPS, RS485, Industrial sensor adapter

EMBEDDED SOFTWARE
TCP/IP, HTTP, Modbus stacks
FreeRTOS operating system
TST software libraries and free IDE based on Open Source

ENVIRONMENTAL	
Operation temperature	-20ºC / +70ºC
Storage temperature	-40ºC / +85ºC
Certifications	CE, RoHS

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