

# Beeta™ Box

Edge Computer for IoT Ecosystems



## Main features:

- Multiprotocol (wireless and wired)
- OTA upgradable
- 4 on-board sensors
- Loudspeakers & Multicolor programmable Led
- Interoperable with off-the-shelf devices
- Internal rechargeable battery
- Electricity meter reading

*embedded available protocols*



*some of the protocols available via USB ports*



Designed for indoor applications, the **Beeta™ Box** is equipped with 4 **on-board sensors** (temperature, humidity and air pressure, microphone) and a multi-sensorial interface that informs users about anomalies (programmable multicolor led and loudspeakers). The use of standardized communication protocols and interfaces makes this electronic control unit an **unprecedented multiprotocol edge computer** that allows full **configurability, modularity** and **scalability**. The built-in software is OTA upgradable and interoperable with third-party software and hardware devices, being the complete solution for monitoring environmental conditions, appliances, specific loads or to control actuators.

The powerful processing unit allows to execute the algorithms locally on device for controlling and monitoring any machine or appliance. Through simple programmable visual signals, it warns in case of anomalies of the system and at the same time on its web portal and mobile app, where users can always watch trends and updated insights .

**Beeta™ Box** is able to receive and store the data provided by **1G and 2G electricity billing meters** via Power Line.

General Features	
Hardware	ARM dual core @1,008 GHz
	1 (up to 2) GB DDR3 RAM
	8 (up to 32) GB onboard eMMC Flash + up to 128 GB SDHC internal memory
	up to 128 GB microSDHC externally accessible (without removing enclosure)
	Real Time Clock (72 hours backup)
	Linux Embedded & JVM, OTA upgrade capable, OSGi compliant
	1 LED RGB for smart visualization programmable events
	3 status LED: 1 power state (power on/battery low), LDN (Local device Network), LAN/internet
	2 speakers
	1 microphone
	1 Temperature and humidity sensor
1 Pressure sensor	
Software	Linux Embedded & JVM, OTA upgrade capable, OSGi compliant
	MQTT(s) publication/subscription
	Software on board for a local interaction: - hub/gateway/edge computing configuration - local device configuration - data monitoring
Connectivity	
Wired	1x 10/100/1000 Ethernet (RJ-45)
	2x isolated (5kV) RS485 on I/O expansion connector
	3x USB 2.0 Host Ports
	1xFPC internal connector for LVDS 1xFPC internal connector for SPI+TWI/I2C
Wireless	Embedded Wi-Fi 802.11 b/g/n (concurrent client and access point functionality) with onboard antenna; optional 802.11ac
	Embedded Bluetooth 2.1/3.0 EDR/4.2 BLE with onboard antenna;
	Embedded 802.15.4 (ZigBee and 6LoWPAN ready) transceiver with onboard antenna; THREAD ready
	Embedded ZWave
	Embedded 169MHz WM-Bus
	Embedded NB-IoT (cat NB1) or alternately 868MHz LoRaWAN
Input/output	
Input	4xS0 on I/O expansion connector
	2x Dry Contact on I/O expansion connector
Output	1x Open Collector on I/O expansion connector
	1x Dry Contact (Max 2A @250Vac) on I/O expansion connector
Environment	
Operating	Temperature Range -20 ÷ 70 °C (or 0-50°C if battery operated), RH range 10%-90% not condensing
Storage	Temperature Range -25 ÷ 85 °C (or 0-55°C if battery operated), RH range 5%-95% not condensing
Power	
Input Power	5 Volt DC micro-usb input power (external power supply 230Vac/5Vdc ≥ 2000 mA)
Internal Optional Battery	Lipo 3,7V 2000mAh; battery life: 5hrs @1GHz (16hrs @350 MHz)
Case	
Material	Plastic (ABS or optionally other)
Dimensions	max: 155mm x 150mm x 46mm; weight 0,3 Kg

MADE IN ITALY



Beeta™ Box is totally designed and manufactured in Italy and is compliant with the standards: ISO 9001, ISO 14001, IATF 16949, IPC Membership. Beeta™ Box is compliant with the Directive: 2014/53/EU and with the Directive 2011/65/EU. Two-year warranty services for Beeta™ standard products. Extended warranty on request.

Tera reserves the right to change or modify specifications without prior notice. The latest product specifications can be found by contacting us.

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