

Beeta™ Reader

IoT Device for electric Smart Metering



Main features:

- Plug & Play Smart Meter Reader
- AC-DC Power Supply (USB output)
- WiFi, ETH, USB
- Simultaneous monitoring of Energy Consumptions and Productions
- 2 LED (Power and Modem)
- APP for initialization and use of the device
- Up to 10 minutes power backup (blackout tolerant)

Beeta™ Reader is the latest generation *plug & play device*, able to read smart meters for electric energy through powerline communication (PLC), both in A band and C band, according to CEN/CLC/ETSI/TR 50572, EN 62056-7-5. In Italy Beeta™ Reader is already **compliant with the 1G and 2G fiscal smart meters** from e-distribuzione, by only inserting the plug into an electric socket.

In case of photovoltaic plant, **Beeta™ Reader** simultaneously reads smart meters, both for **consumption** and for energy **production**. It also delivers up to 1A @ 5Vdc via USB while exchanging data (meter readings and settings) on cellular networks. This opens up a new scenario in the energy sector, since it makes users aware of their own consumption and performance, allowing them to obtain savings from 10% up to 30% and to consider the possibility of actively participating in the **energy market**.

General Features

ARM Cortex A7 dual core @650 MHz (optional 800 MHz) processor
256 MB(up to 1GB) DDR3
8 (up to 32) GB onboard Flash memory (eMMC)
Real Time Clock (7 years backup with onboard CR1220 coin battery)
Linux Embedded, JVM (OTA upgradable)
1 push button (Power On/Off)
cyan LED for power state (grid power)
Tri-color LED for 2G smart meter operations

Connectivity

Wired	1x Gbit Ethernet (RJ-45 connector with standard leds)
	1xUSB connector to use external UBS-Dongle 3G/4G modem (1A max load)
Wireless	Embedded Wi-Fi 802.11b/g/n (optional 802.11ac) with internal antenna.

Environment

Operating	Temperature Range -40 ÷ 85 °C, RH range 5%-55% not condensing
Storage	Temperature Range -40 ÷ 85 °C, RH range 5%-90% not condensing

Power Input

V, f, A	230 Vac ± 10% , 50 Hz, 90 mA (max value @ 265Vac)
power consumption	From 0,6 W in "Stand-by" to 20W when operating on powerline and delivering full load on USB
SAFETY	Overvoltage protections: 5.25V max ; Overcurrent protecion: Auto shut-down; Short Circuit protection: Auto shut-down; Isolation voltage 3000V
Energy backup	Internal Supercapacitor (max 3 Wh, about 10' autonomy in case of power fail no grid network)

Case

Material	Plastic (ABS or optionally other) UL94 V0
Dimensions	max 119.4 x 88.6 x 61mm

Environmental

Operating	Temperature Range -20/70 °C (or 0-50°C if battery operated), RH range 5%-95% non condensing
Storage	Temperature Range -25/85 °C (or 0-55°C if battery operated), RH range 5%-95% non condensing

MADE IN ITALY

