



CT-10

Customer terminal

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Customer terminal - CT-10

The CT-10 is a home terminal with a built-in powerline channel for real-time data reading from DCU-1 concentrator of various consumption data profile, for storing, analyzing and bringing consumer with a smart tool for efficient management and energy savings.

The terminal can be used also for token transaction operations of prepayment mode.

The device includes a large TFT display module with virtual keyboard and a built-in powerline channel to communicate with customer meter.

The device is based on an ARM 7 series controller with large memory for storing historical records allowing comparison between current and past consumption.

Utilities can now communicate directly with customers via the in-home display unit to notify them of tariff changes or outages.

Prepaid transaction is performed according to token mode when vending station uploads NTR endpoints with credit and transaction secure number for relevant meter, this secure number is validated with number received by operator via the CT unit and operates the usage breaker.

Highlights

- Consumer home terminal with two-way powerline link of real-time consumption reading and analyzing for efficient energy saving management and credit transaction in case of prepayment mode.
- Storing consumption tariff data of billing periods over two years
- Graphic display of consumption according to window periods
- Valid tariff price and real-time data on demand
- Acting as dynamic repeater as all smart end nodes in the powerline network.



Specifications

- Power supply: 115/230V (L..N) +10% -20% / 50/60 Hz - 2VA
- Microprocessor: ARM 7 series running under C++
- Flash memory: 2MB EEprom for storage and parameters.
- Display - 240xRGBx320 Full color graphic TFT module 41.7mm x 56.16mm x 2.5mm
- Keyboard 16 keys Membrane Switch technology with 1 million operation.
- RTC with accuracy of +/- 1 Min. per 6 month over full Temp. range, checked and synchronized by DCU for each communication cycle.
- Comm. port RS 232 9600 Baud to operate parameters download.
- PLC communication:
 - ✦ Network capacity – up to 1023 endpoint nodes
 - ✦ Compliance to FCC, ARIB, CENELEC- EN50065-1bands and power
 - ✦ Spread Spectrum direct sequence with DCSK modulation.
 - ✦ Implementing the CSMA/CA collision detection protocol for multi master network
 - ✦ Dynamic baud rate - 2.5-7.5 Kbps with forward -block soft decoding error correction code and CRC
 - ✦ Dynamic range > 95 dB
 - ✦ Power transmission up to 125dBi into load > 1Ω
 - ✦ Auto node hopping for stability healing according to grid environment
 - ✦ Up to 10 hopping nodes per branch
 - ✦ Intelligent and fast rout scenario
- Meets standards as: EN 50065-1:2001, EN 50065-2-3:2003, EN 61000-6-3:2007, EN 60950-1:2001
- Operation Temp. : -25°C -- 70°C, IP65

