



Brief Operational Description

The Inepro Omni ISO reader is a device for reading and writing data on 13.56 or 125 KHz chip cards. The device consist of two boards stacked on top of each other.

The micro controller (ARM 32 bit cortex CPU) controls both boards.
The micro controller interacts with a host devices by USB or Serial or Wiegand interface.

The Inepro Omni ISO reader needs a voltage of 5 volt (4.75V – 5.25V)

The 13.56MHz RFID chip takes care for all communication with 13.56MHz chip cards. The chip contains a RF front-end and a controller.

The 125 KHz RFID part takes care for all communication with 125KHz chip cards. The electronics communicates with ASK, FSK or PSK with RFID cards.

For this the 125 KHz RFID part is made of a chip that takes care of driving the power to the antenna and decoding ASK signals.

For FSK and PSK a few additional circuit are added.

USB handles according to the USB 2.0 standard.

Serial interface uses 115K2 baud rate but can be adjusted to lower speed.

Internal LDO voltage regulators takes care for the different needed voltages on the Inepro Omni ISO reader.

A number of crystals are used to get the different chips running. 32 KHz and 16 MHz for the micro controller, 13.56 MHz for the 13.56 RFID chip and 16 MHz for the 125 KHz RFID part.