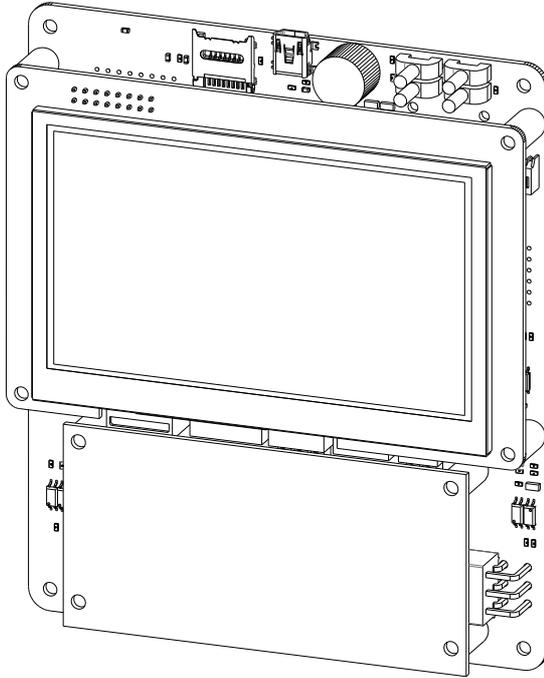


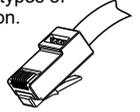
# MCR08 contactless MIFARE<sup>®</sup> card reader



## Connectors

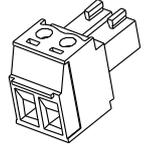
MCR08 terminals may have five types of connectors based on configuration.

Ethernet Connector  
Standard UTP Modular Plug



3,81mm Terminal Block Plug  
Molex Part Nr. 39510

Cable Size: 0,20 - 1,31 mm<sup>2</sup>  
AWG: 16,18,20,22,24



## Key Features

- 4.3" TFT Color LCD with Touch Screen
- ISO14443A/B Contactless Interface
- Real Audio & Buzzer Support
- LEDs for Visual Indication
- USB 2.0 Full Speed Interface
- 2xRS232 Communication
- MDB Slave Interface
- RS485 Communication
- 2xRelay Output with NO & NC
- 4xDigital Opto-Isolated Input
- 10Mbps Ethernet Connectivity
- Up to 8M internal Flash
- Up to 4GB SD/MMC Flash
- FRAM Memory Support
- RTC with Battery
- Capacitive Touch Button Support
- GPRS Connectivity Support with GT1 Series
- Supplied with Frame Mount / Enclosure

## Applications

Cashless Payment Systems  
Access Control Systems  
Time and Attendance Systems  
Ticket Vending Machines (TVM)  
Turnstile Gates  
Parking Meters  
Telemetry Systems  
Programmer for Card Issuing Systems

## Description

MCR08 is a high performance and flexible ISO14443-A OEM contactless smart card reader terminal supporting read-write capabilities. The terminal is designed to integrate into Vending Machines that support MDB standard and also provides easy integration in different cashless payment and access control systems, such as turnstile gates, time and attendance systems, value added machines. It is fully compliant to MDB interface standard. The terminal series can support all industry standard communication interfaces such as RS232, RS485, Ethernet, USB and MDB.

The terminal is based on the 13.56 MHz contactless technology and is fully compatible with the entire MIFARE<sup>®</sup> family, as well as supporting ISO14443A contactless standard. The terminal comes with an ethernet connectivity and has extensive software support package that is optimized for easy integration.

MCR08 terminals meet the demand for secure and high speed transactions, providing system integrators and solution providers a reliable contactless smart card terminal that can easily be interfaced with different cashless payment and access control applications. The terminal is also available with RS485, RS232.

MCR08 ethernet based terminals can run in

different modes. One of common usage is that upon RFID card detected by the reader, it will send a GET request to the web server and requesting the page such as request.php. The server responses with standart HTTP reply to the reader to control relay, LCD or buzzer.

MCR08 ethernet based terminals can operate online or offline. For offline mode, terminal can be operated using blacklist or whitelist. Transactions are stored in log file which is transferred to server when device goes online. The terminal is capable of downloading all parameter files and updating the firmware over the network.

MCR08 unit has two distinct relay outputs and optional 4 digital inputs to control turnstiles, slide doors, barriers etc.

The MCR08 series allows for stand-alone use via industry standard interconnects or system integration via standard 3.81 mm terminal plugs, further reducing the need for additional hardware costs.

miFinder software is available for setting and reading all the parameters of any number of units connected to local area network.

# MCR08 contactless MIFARE® card reader

## Technical Specifications

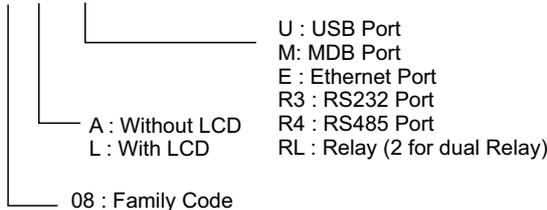
- MIFARE® ISO14443A, Classic, Plus and Ultralight Contactless Cards Read/Write
- TFT Color LCD with 480 x 272 pixel Resolution
- LED Backlight
- 6-35V DC Operation
- 32-bit ARM Cortex High Performance CPU
- Up to 8MB internal Flash
- Up to 4GB SD/MMC Memory Support
- Audio (Speaker or Buzzer) and LED visualisation
- Up to 12 cm contactless card read/write operating distance
- Communications:
  - Ethernet 10BaseT Communications
  - USB 2.0 Full Speed
  - RS232 Port (300-115200 Baud)
  - RS485 Port (300-115200 Baud)
  - MDB Slave
  - GPRS Connection with GT1xx GSM Modem\*
- MDB Interface:
  - Compliant to MDB standard
  - Configurable MDB parameters
  - Standard MDB connector
  - Easy integration into any MDB Compliant Vending Machines
- Inputs & Outputs ( See Schematic Section For Details )
  - Relay Outputs with NO and NC (1.5A Dry Contact)
  - 4xDigital Opto-isolated inputs
- Offline Operation with internal Flash
- Built-in Real Time Clock (RTC) with Battery Back-up
- Etherhet:
  - Ethernet 10BaseT
  - Globally Unique MAC Address
  - Integrated TCP/IP Stack
  - TCP/IP Client-Server Communication
  - UDP Support
  - DHCP or Static IP Operation
  - ICMP Ping Support
  - Configurable over Local Network with miFinder Software
- -40 °C ... +85 °C Industrial Operating Temperature

### NOTES:

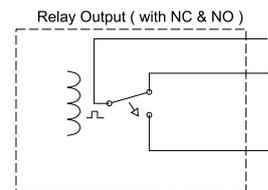
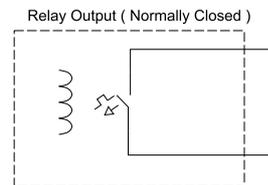
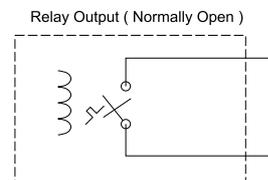
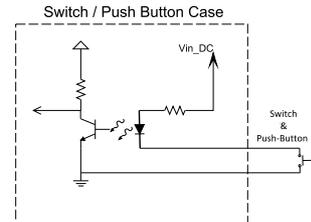
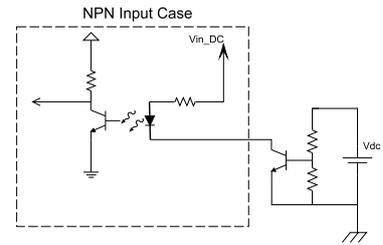
- For GSM/GPRS connectivity option GT1XX series are recommended. Please refer to the GT1XX datasheet for further information.
- Enclosure is also available.

## Ordering Information

### MCRXX X-XXX-OEM

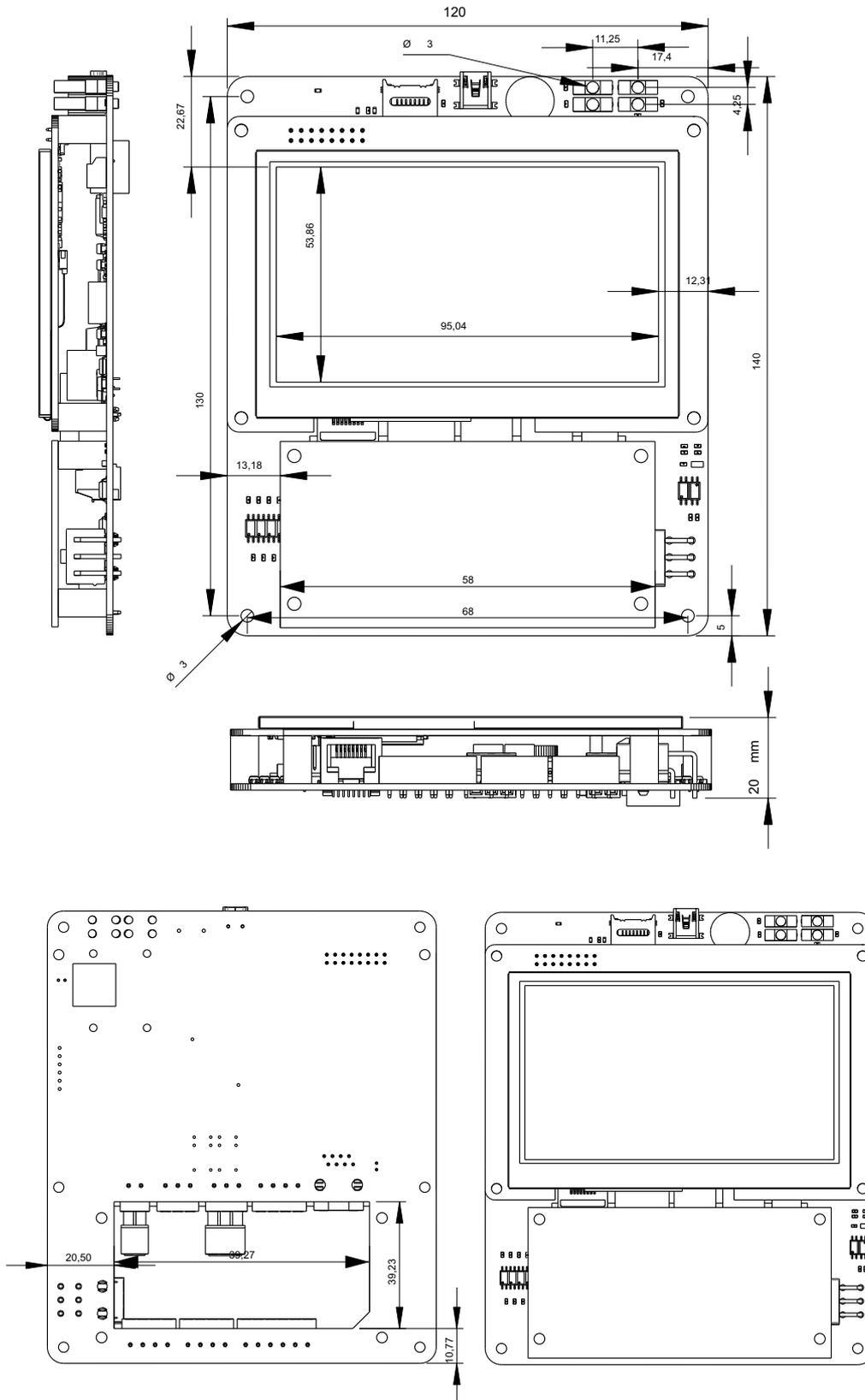


## Input / Output Schematics

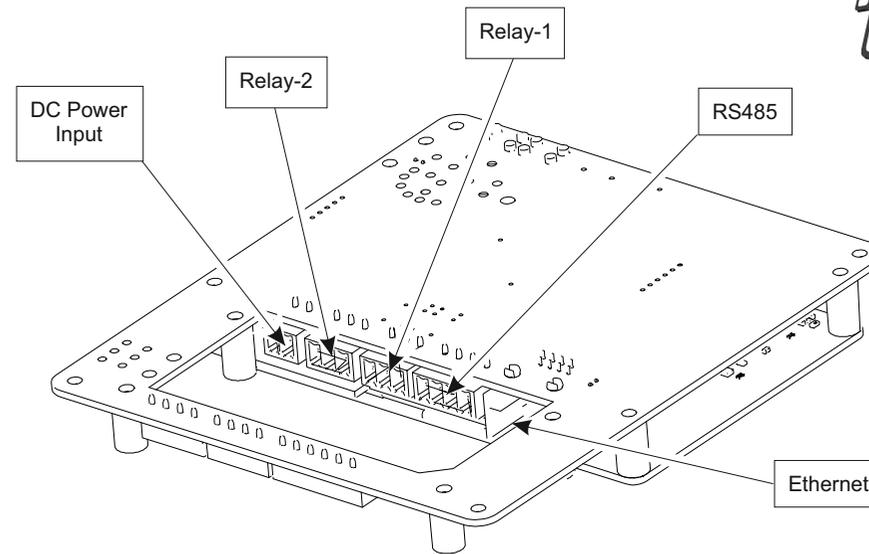


# MCR08 contactless MIFARE<sup>®</sup> card reader

## Dimensions (mm)

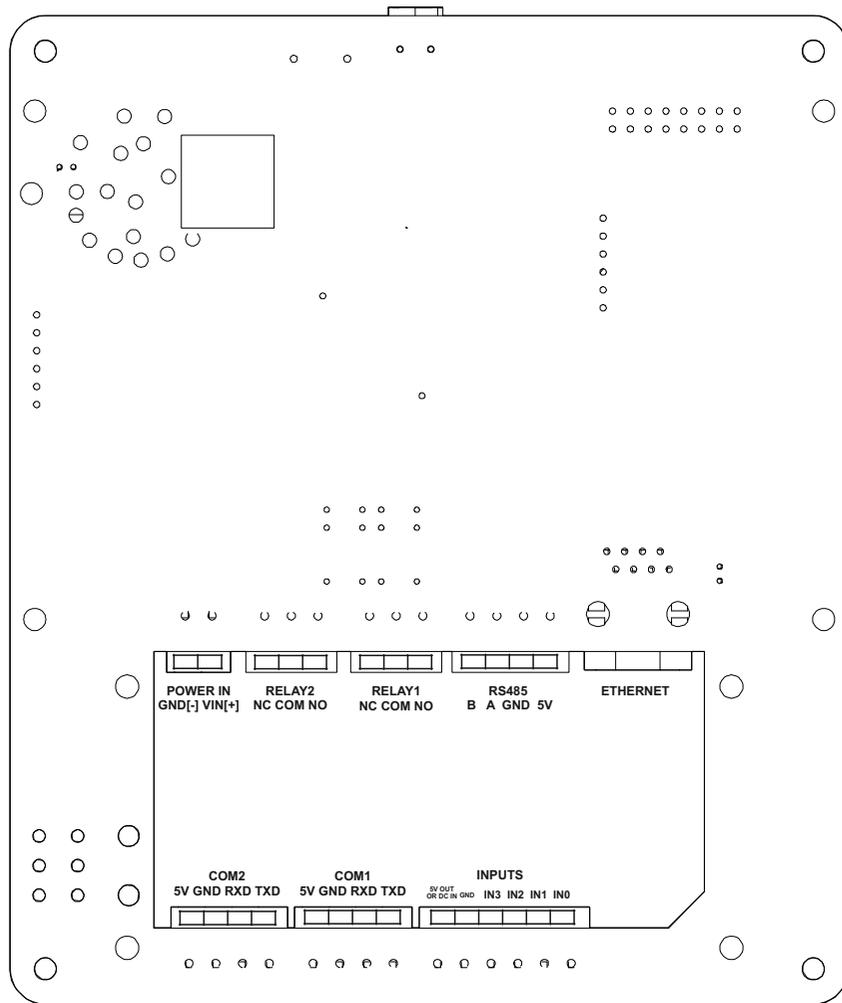
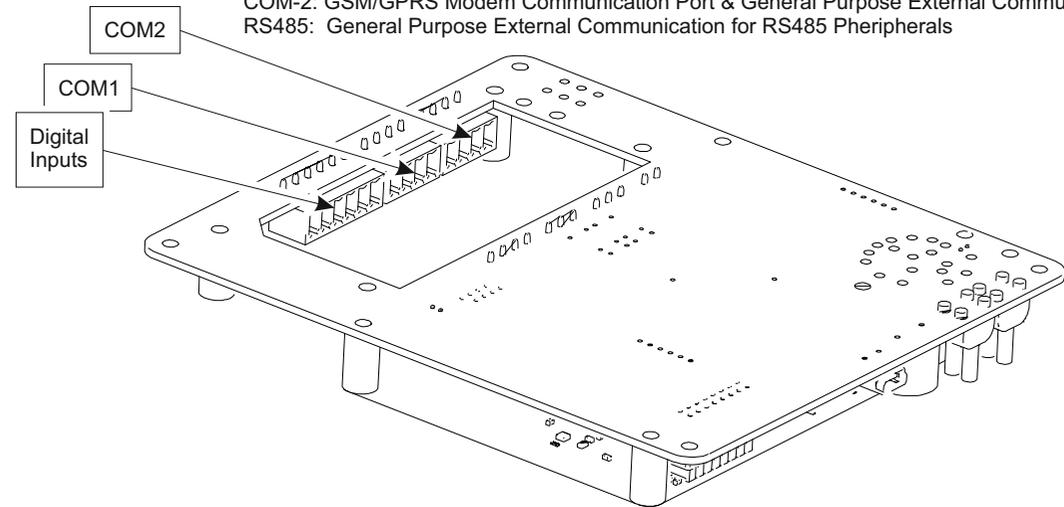


Notes:  
 1- All voltages and signals are given as related to GND  
 2- All terminal block plugs are 3.81mm type such as OSTTJ0231530



**Notes About Communication Options:**

COM-1: Device Programming & General Purpose External Communication  
 COM-2: GSM/GPRS Modem Communication Port & General Purpose External Communication  
 RS485: General Purpose External Communication for RS485 Pheripherals



Board Rear View

Board Isometric Views

MCR08/V800 Terminal Block Connector Pinouts