

## (IRT63M)

**Contactless Card (ISO14443A/B) Reader with 128x64 dots graphic LCD,  
Keyboard, UART and an Ethernet Communication**

## Datasheet



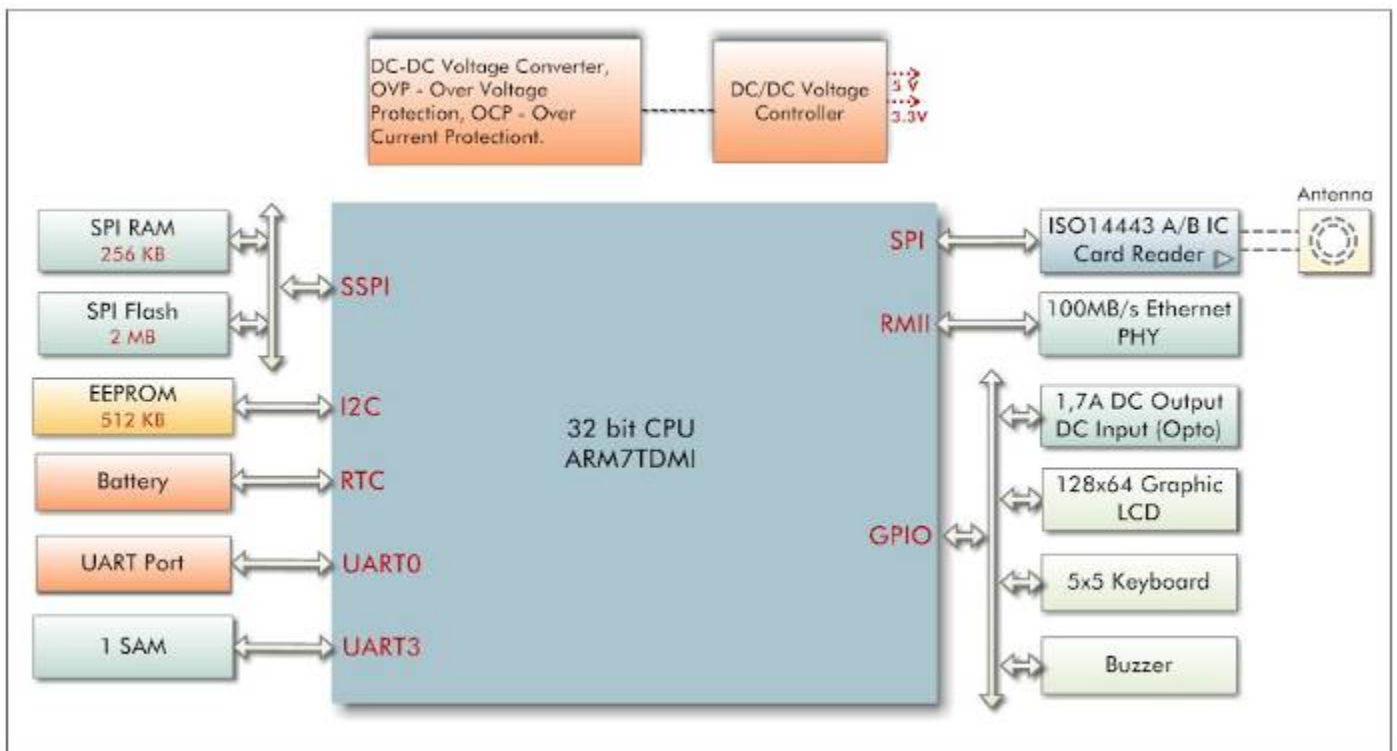
## 1. Introduction

Based on the powerful 32 bit ARM7 MCU and the integrated ISO14443A/B reader, **IRT63M** is an ideal choice for your system applications with contactless cards. It's affordable price, small size, rich command set, and support of standard TCP/IP communication protocol greatly helps building reliable systems. Additionally, software development kit (SDK), including all necessary documentation, application notes, example applications with source codes, software drivers and dll, helps developers to easily develop new products, which remarkably reduces Time To Market.

### Applications

- Cashless Payment Systems
- Access Control Systems
- Time and Attendance Systems
- Data Collection / Storage / Processing Systems

## 2. Block Diagram



IRT63M block diagram

### 3. Technical Specifications

#### IRT63M

<b>CPU</b>	: 72MIPS ARM7 TDMI,
<b>Memory</b>	: 2 MBytes serial data flash, 512kBytes high endurance EEPROM, 256kBytes SPI SRAM,
<b>Communication</b>	: 100 Mb/sec full duplex Ethernet communication port, 1 x RS-232 port,
<b>RFID Card Reader</b>	: Fully supports ISO14443A/B contactless protocol, Additionally supports all types of Mifare cards (1kByte, 4kByte, Ultralight, DesFire), Up to 70mm reading range, depending on antenna and card,
<b>Data Encryption</b>	: 1 x SAM (Security Access Module) slots,
<b>I/O</b>	: 1 x 1.7A power MOSFET open-drain output with a tight over current protection, 1 x optically isolated input,
<b>LCD</b>	: 128 x 64 dots graphic LCD with blue adjustable backlight and contrast,
<b>Keyboard</b>	: 5 x 5 matrix keyboard support,
<b>Indicators</b>	: Piezoelectric buzzer,
<b>RTC</b>	: With a battery back-up (3V CR2032-Li battery),
<b>Supply Voltage</b>	: DC 9V - DC 30V, consumption – 100mA / 12V average, a tight over current, an over voltage and a load dump protections provided,
<b>Operating t°</b>	: (-25 C° ÷ + 75 C°),
<b>Storage t°</b>	: (-55 C° ÷ +110 C°),
<b>Housing</b>	: ABS plastic,
<b>Dimesions</b>	: 104 x 123 x 28 [mm].

#### 4. Connector Description

J1 – Main Connector		
No	Signal	Description
1	Vin	Controlled supply voltage V(DC 12V-24V).
2	Gnd	Supply voltage - (0V, ground)
3	Out	Supply voltage (DC +9V ... +30V )
4	Inp	Optically isolated digital input (logic 0 - 0V...1V, logic 1 - 4V...30V)
5	Rx+	ETH Rx+
6	Rx-	ETH Rx-
7	Tx+	ETH Tx+
8	Tx-	ETH Tx-
9	Tx	RS-232 UART0 transmit signal
10	Rx	RS-232 UART0 receive signal



**5. Mechanical Drawings**

