

Tagmate USB Reader Description

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The Tagmate USB RFID Reader unit consists of one PC board and a 1 button / 3 LED membrane keypad mounted into a plastic enclosure. The PC board that makes up the reader unit is the Main Board. The board is secured to the enclosure by means of threaded fasteners. The reader unit can be configured to operate from six 1.5 volt internal batteries or from a 9 volt DC external power supply.

Main Board – The Main board consists of the following sub-systems: Microcontroller (8 bit), 3.3 and 5 volt regulators, USB Protocol Controller and USB interface connector, Flash Memory, Keypad Interface circuit, Real Time Clock circuit with 32kHz oscillator, Loop Antenna on PC board, Tank Circuit, RFID Voltage Regulator, ISO15693 Protocol Controller, GPRS module interface, and mini Barcode Scanner interface. The Main board provides all of the functions required to interface with the keypad, USB port, and the RFID Link, GPRS option module, and barcode scanner option module. The purpose of the Main Board is to provide all of the data processing and storage functions required and the RF link between the reader and the passive RFID tag. The board demodulates and converts the RF signal to a CMOS level clocked serial data stream for use by the Microcontroller(See schematic).