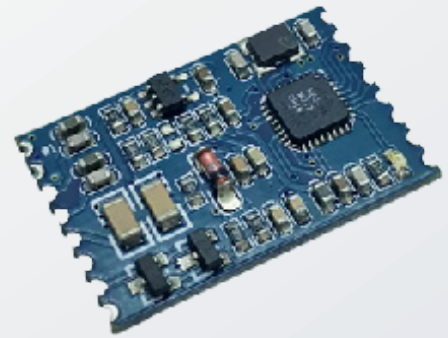


Embedded Module LF

M900



PRODUCT DESCRIPTION

The iDTRONIC LF Embedded RFID Module M900 is a small module for short range applications. Thanks to its tiny size and single-face laying components layout, it allows for embedding in various applications and devices. Especially for access control or asset tracking solutions, is this LF module applicable.

The LF Embedded RFID Module M900 is available in 125 kHz or 134.2 kHz RFID LF Frequency range. It also supports read-only EM4100, EM4200 and TK4100. M900 LF supports all functions of the Hitag family. It achieves reading ranges of up to 10 cm (depending on type of transponder).

The LF Embedded RFID Module M900 features one external antenna port. iDTRONIC Professional RFID offers a wide choice of antennas suitable for any purpose.

The LF Embedded RFID Module M900 is available with an TTL interface. In low power mode, the M900 modules consumes less than 1 mA.

iDTRONIC's hardware comes with a useful SDK for the development of controller, Linux or Windows based applications. Beside the documentation, command protocols and source codes, the SDK includes a Windows based demo application with full functionality over all supported LF RFID standards.

APPLICATIONS

- Asset Tracking
- Access Control
- Electronic Locks
- Personalization
- PC Log On

FEATURES

- Short Range Applications
- 3.3 V Power Supply
- RFID LF: 125 + 134.2 kHz
- 10 cm Reading Range
- TTL Interface

RFID OPTIONS

- Read & Write: Hitag-S 256, Hitag-S 2048, Hitag 1
- Read Only: EM4100, EM4200, TK4100

TECHNICAL DATA

ELECTRICAL SPECIFICATIONS

Power Supply	3.3 ... 5 Vdc
Power Consumption	< 45 mA
Operating Frequency	125 kHz + 134.2 kHz
Reading Distance	up to 10 cm*
Reader IC	Atmel Mega8A-MU
RF TX Speed	5.2 kbs
RF RX Speed	2, 4, 8 kbs
Antenna	External*
Antenna Inductivity	375 µH nominal value
Baudrate	9600...115200 bit/s, default: 9600 bit/s
Interface	UART TTL
PCB Connector	Soldering Pads (Suitable for SMD productions)

MECHANICAL SPECIFICATIONS

Material	FR-4, Blue
Dimensions	25 × 16.5 × 2.8 mm
Weight	3 g
Mounting Options	Soldering

ENVIRONMENTAL CONDITIONS

Operating Temperature	-25 °C ... +65 °C
Storage Temperature	-40 °C ... +85 °C
Humidity	up to 95 %, non-condensing
MTBF	200'000 h

SUPPORTED STANDARDS | TAGS

Read-only	EM4100, EM4200, TK4100
Read Write	Hitag-S 256, Hitag-S 2048, Nitag 1

SDK INFORMATION

Supported OS by Silabs USB VCP Driver	Windows 7/8/8.1/10 (v10.1.8)
	Windows 7/8/8.1/10 (v6.7.6)
	Windows XP/Server 2003
	Vista/7/8/8.1 (v6.7)
	Windows 2K (v6.3a)
	WinCE (5.0, 6.0)
Supported Languages	Macintosh OSX (v5.2.4)
	Linux (3.x.x., 2.6.x)
	Android 4.2
Demo Software	C++, Binary command protocol
	Windows

FIRMWARE COMMANDS

System	Get_VersionNum
	Buzzer Control
	LED Control
	Set Antenna
Read-Only Data Tags	Get UID
Hitag 1, Hitag S	Request
	Select
	Quiet
	ReadPage
	WritePage
	LockPage

APPLICABLE STANDARDS

EMC	EN 301489-1:2012-04 (v1.9.21)
	EN 301489-3:2013-12 (V1.6.1)
Radio Regulation	EN 300330-1:2015-08 (V1.8.1)
	EN 300330-2:2015-08 (V1.6.1)
Safety	EN 60950-1:2014-08
	EN 62369-1:2010-03
	EN 50364:2010-11
RoHS 2	EC Guideline 2011/65/EU
REACH	EC Guideline 2018/2005/EU
Certificates	FCC
	CE

*READING DISTANCE DEPENDS ON TAG, ANTENNA AND ENVIRONMENTAL CONDITIONS.

ORDER CODES

VERSIONS

LF Embedded RFID Module M900 - TTL: 125 kHz
LF Embedded RFID Module M900 - TTL: 134.2 kHz

ORDER CODES

OEM-LF-M900-TTL-125
OEM-LF-M900-TTL