UHF RFID Developer Kit

A complete UHF RFID demonstration featuring the EM4122, EM4444 and ePC C1 Gen2 family of tags

Setup and Installation.

The following items are needed for installation and setup:
- SkyeModule M9 reader module (MH)
- Host Interface Board and USB or Serial cable
- External UHF antenna
- EM UHF tag kit
- SkyeWare CD

Software Installation:

1. Insert the CD on a Microsoft Windows XP PC
2. Follow the Install wizard prompts to complete the installation proce-dure (note: this installs all necessary applications and documentation in the user specified folder)
3. If the CD doesn't Autorun, open the CD directory and click the "Skye-Setup.exe" file

Hardware Setup:

1. Plug in the DC Power plug and connect to the Host Interface Board
2. Connect the SkyeModule M9 (MH) to the Host Interface Board
3. Connect USB cable to the Host Interface Board and connect opposite end of USB cable to the host (PC or SBC).
4. Connect the UHF Antenna Cable to both the SkyeModule M9 and the external UHF Antenna

Getting Started.

1. Select the SkyeDemo icon from the Start menu.
2. SkyeDemo will appear if everything is properly connected
3. With one EM tag parallel to the reader select the Timed Select co-mand to discover the tag in the field.
4. The EM tag in the vicinity of the antenna will be seen in the Tag IDs field with the TID and tag type listed.
5. To explore more on the functionality of the reader and EM tag, select the SkyeWare icon from the Start menu and follow prompts.

Troubleshooting.

For more information on the products and troubleshooting, please review the pro-duct reference guides and accompanying documentation located on the CD.
If you have any additional questions please contact EM at:

System Requirements:

→ Windows KP

→ 10Mbytes of Available Hard Disk Space

Kit Contents:

→ 1 SkyeModule M9 UHF reader module

→ 10 Sample EM tag kit

→ 1 Host interface board

→ 1 External UHF Antenna and cable

→ 1 External Inductive/ Near Field UHF Antenna

→ 1 DC power supply

→ 1 USB cable

→ 1 RS-232 serial cable

→ 1 SkyeWare CD containing: Demo software, drivers, software libraries and documentation

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Product Overview.

The EM UHF RFID RFID Developer Kit is a complete RFID solution that allows for quick demonstration and proof-of-concept development when integrating RFID into applications or products. The EM UHF Demonstration Kit features SkyeTek's M9 reader module and EM's UHF tag assortment based on the 4x22, 4x44 and ePC C1 Gen2 family of tags. One of the most high performing and low cost platforms on the market, this solution targets the following applications and industries:

- Access Control
- Airline Baggage
- Anti-counterfeiting
- Handheld Reading/Encoding
- Item-Level Inventory (including Inductive UHF)
- Supply Chain Management

EM UHF RFID ICs.

EM Microelectronics offers a complete portfolio of read-only UHF RFID ICs that enable transponders for any application requiring long range and high speed identification. The EM4122 and EM4444 are the hallmark UHF RFID ICs and have the following features and benefits:

- Factory programmed 64 bit serial unique ID number
- High reading data rates up to 256 kbit/s
- 7 pages of user programmable and lockable memory
- Low voltage operation down to 1.3V
- Designed for easy of antenna development
- -40 to +85°C operating temperature range

M9 SkyeModule & SkyeWare.

SkyeTek's SkyeModule M9 is the world's smallest, globally compliant UHF reader module. Its one-of-a-kind combination of high performance, security, and cost/space/power efficiency makes it the industry's price performance leader delivering upparralled size. Furthermore, SkyeTek's SkyeWare software enables simple demonstration of tags and easy application integration with its common and intuitive APIs.

About EM Microelectronic

EM Microelectronic is a Swiss semiconductor manufacturer that designs and produces ultra-low-power, low-voltage, digital, analog and mixed-signal integrated circuits for battery-operated and field-powered devices in consumer, automotive and industrial applications.

The company's product portfolio includes RFID circuits, RF devices for low-power communication, ultra-low-power microcontrollers, voltage reset IC and microcontroller supervisory IC supervisor, watchdog, regulator, smart card ICs, LCD drivers and displays, sensor and optoelectronic ICs, mixed analog and digital gate arrays and application-specific integrated circuits.

EM also produces LCD modules and offers bumping services.

EM Microelectronic is one of the electronic systems companies within the Swatch Group, producing and assembling ultra-low power, miniaturized and accurate microelectronic components and systems.

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