



## EMDB408 13.56MHz RFID Reader Reference Design

### General Description

EMDB408 is a 13.56MHz reference design reader built around EM4094 reader analog front-end IC. It delivers 200mW RF power signal towards PCB's printed antenna.

EMDB408 can be connected to PC through USB cable to interact with PC/Windows reader interface software.

Secure Access Module (SAM) card of format ID-1 can be accessed to support specific crypto algorithm without sharing security knowledge in reader firmware (Crypto, KDF, keys management etc...).

EMDB408 firmware is field upgradable via the USB port to support latest IC transponders from EM Microelectronic.

The reference design includes all necessary design views (hardware, firmware and PC software) to develop and build your own 13.56MHz RFID reader.

### Reader Items

- | RFID Demo Reader
- | 7.5V AC/DC power supply
- | USB cable

### EMDB408 Support Package content

- | User's Guide
- | Microcontroller source code files written in C language
- | USB drivers
- | Unified application software for ISO15693 and ISO14443 standards including source files in C++
- | Hardware schematic and PCB Gerber Files (Layout)
- | Product data sheet
- | Application Notes

Latest support package is available from:  
[emdirect@emmicroelectronic.com](mailto:emdirect@emmicroelectronic.com)

EM supported device range	ISO15693 (vicinity)	ISO14443-3 (proximity)
EM4133	●	-
EM4233	●	-
EM4233 SLIC	●	-
EM4237	●	-
EM4237 SLIC	●	-
EM4333	●	●
EM4830	-	●
EMNF4	-	●

### Ordering Information

Description	Part Number
EMDB408 RFID Demo Reader (EU power plug, 220V AC version)	EMDB408E+
EMDB408 RFID Demo Reader (US power plug, 110V AC version)	EMDB408U+

