



Preliminary

Description

The EM4298 Development Kit provides the hardware and software to demonstrate the features of EM4298 UHF reader encoder/decoder IC and simplify the prototype development of UHF reader designs.

The EM4298 Development Kit hardware comprises two printed boards; the demo board 2 equipped with the ARM7 based microcontroller and EM4298 IC, and the tag board.

General Function

The microcontroller controls the high level UHF protocol processing by issuing the selected protocol commands to the EM4298 IC. EM4298 IC generates corresponding Tx serial signal that can be used as the UHF analog front end modulator input. In the EM4298 Development Kit, digital Tx signal is driving the UHF transponders directly. In opposite direction, the UHF transponder "backscatter" digital modulation signal is connected from the tag board to the EM4298 IC I and Q digital channel inputs. EM4298 IC detects and samples such responses automatically so that the microcontroller can process them.

The reader firmware can be upgraded via the USB port.

The EM4298 Development Kit supports the following directly connected transponder ICs:

EM4122 / EM4222: iPX 64 bit Read Only UHF transponder

EM4444: iPX 512 bit RW UHF transponder

EM4223: ISO18000-6A Read Only UHF transponder

All the latest documentation versions are published on EM Microelectronic website www.emmicroelectronic.com

Reader items

- EM4298 DemoBoard2 PCB
EM4298 Tag Board
Interconnection rebound cable
2 EM4222 transponder ICs (without the antenna, mounted on dedicated PCBs)
5V AC/DC power supply (100-240V AC)
USB cable
CDROM

CDROM content

- Development application software
Demonstration application software
Microcontroller firmware source files (written in C language)
Hardware schematic and PCB Gerber Files (layout)
Product Datasheets
Application Notes

Ordering Information

To order, please, use exact Part Number:

Table with 2 columns: Description, Part Number. Row 1: EM4298 RFID Development Kit, EMDB411

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