

45 mm x 75 mm flexible antenna reference board for the M24LR04E-R Dual Interface EEPROM

Data brief

Features

- Ready-to-use flexible printed circuit board (PCB) including
 - 45 mm x 75 mm 13.56 MHz inductive antenna etched on the PCB
 - 100 μm thickness PCB (Kapton)
 - M24LR04E-R Dual Interface EEPROM
 - Connection for I²C bus
 - Energy harvesting output (V_{OUT}) with a 10 nF capacitance filtering circuit
 - RF WIP/BUSY output with 20 k Ω pull-up resistor, to indicate that an RF operation is ongoing



The FLEX-M24LR04E antenna allows system designers to evaluate the M24LR04E performance and capabilities, and to get started with their design.

To demonstrate the energy harvesting function, the FLEX-M24LR04E can be used in conjunction with ST DEMO-CR95HF-A demonstration board.

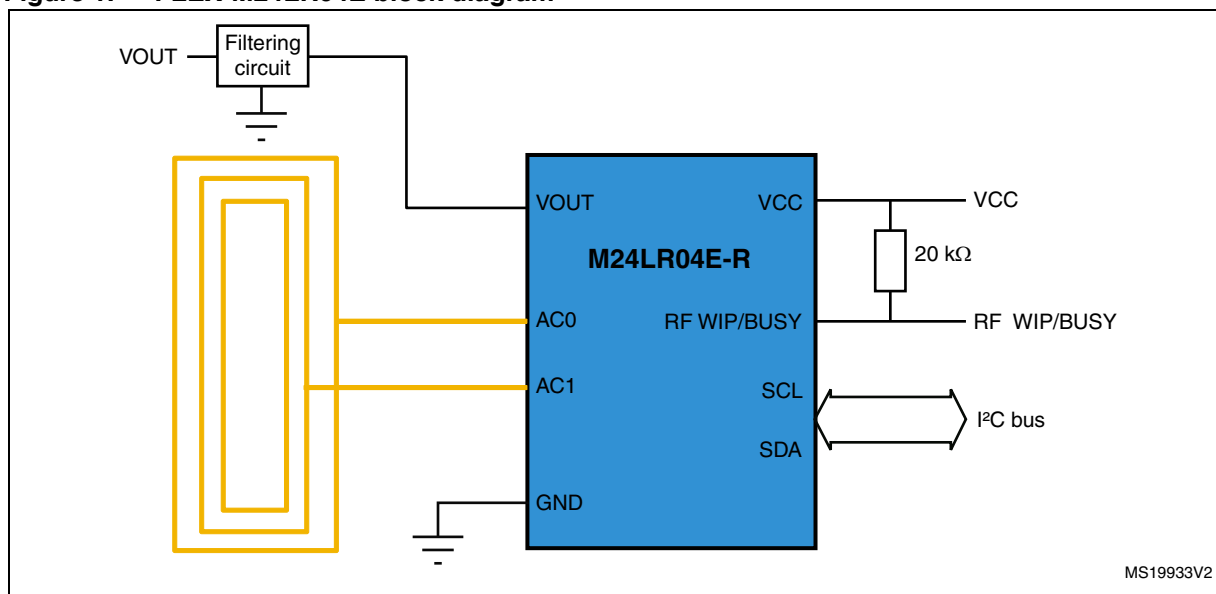
The application can be powered directly from the M24LR04E V_{OUT} pin.

The FLEX-M24LR04E Gerber files can be downloaded from www.st.com.

Description

The FLEX-M24LR04E antenna reference board is a ready-to-use flexible PCB that features an M24LR04E Dual Interface EEPROM IC connected to a 45 mm x 75 mm 13.56 MHz etched RF antenna on one side, and to an I²C bus on the other side.

Figure 1. FLEX-M24LR04E block diagram



Associated firmware and PC software

The FLEX-M24LR04E board is supported by a PC software, the Dual Interface EEPROM tool software, that allows to configure and control the energy harvesting. This software is available from www.st.com.

Refer to application note AN3954 “Developing your own Visual Basic or C/C++ application on a DEMO-CR95HF-A demonstration board”, for how to adapt the PC software for your application.

Revision history

Table 1. Document revision history

Date	Revision	Changes
2-Jul-2012	1	Initial release.

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