



# ANT1-M24LR16E

## 45 mm x 75 mm antenna reference board for the M24LR16E-R Dual Interface EEPROM

Data brief

### Features

- Ready-to-use printed circuit board (PCB) including
  - 45 mm x 75 mm 13.56 MHz inductive antenna etched on the PCB
  - M24LR16E-R Dual Interface EEPROM
  - I<sup>2</sup>C connector
  - Energy harvesting output (V<sub>OUT</sub>) with a 10 nF capacitance filtering circuit
  - RF WIP/BUSY output with 20 k $\Omega$  pull-up resistor, to indicate that an RF operation is ongoing

### Description

The ANT1-M24LR16E antenna reference board is a ready-to-use PCB that features an M24LR16E-R Dual Interface EEPROM IC connected to a 45 mm x 75 mm 13.56 MHz etched RF antenna on one side, and to an I<sup>2</sup>C bus on the other side.

The ANT1-M24LR16E antenna allows system designers to evaluate the M24LR16E-R



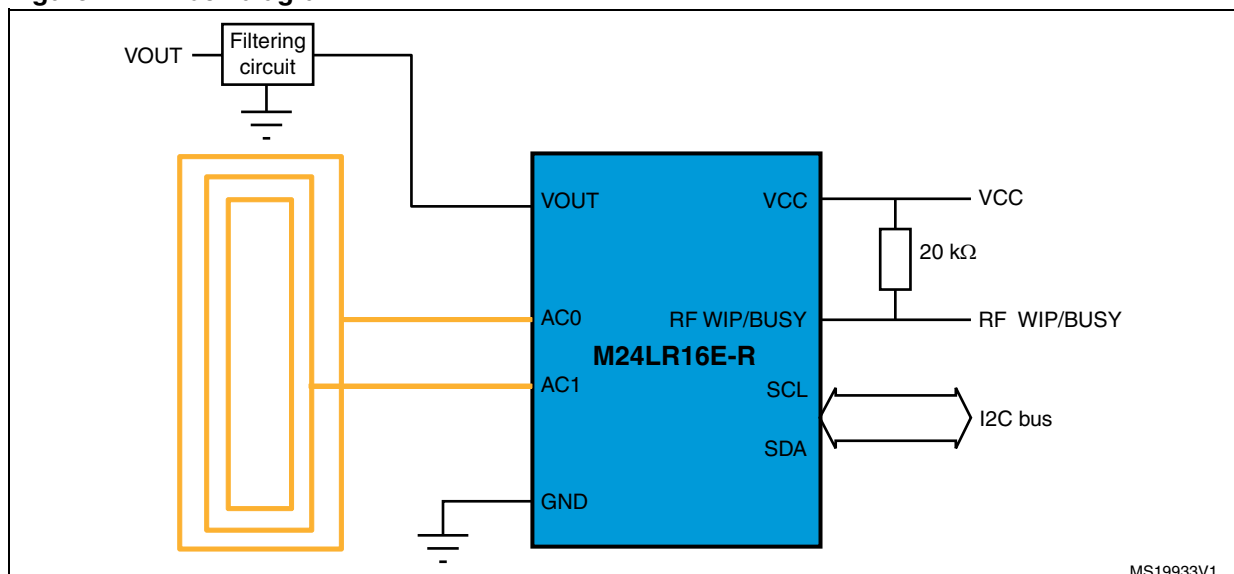
performance and capabilities, and to get started with their design.

To demonstrate the energy harvesting function, the ANT1-M24LR16E can be used in conjunction with ST DEMO-CR95HF-A demonstration board.

The application can be powered directly from the M24LR16E-R V<sub>OUT</sub> pin.

The ANT1-M24LR16E Gerber files can be downloaded from <http://www.st.com>.

Figure 1. Block diagram



## Associated firmware and PC software

The ANT1-M24LR16E 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 <http://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.

# 1 Revision history

Table 1. Document revision history

Date	Revision	Changes
27-Sep-2011	1	Initial release.
23-Jan-2012	2	Added value of filtering capacitance in <i>Features</i> .

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