X-NUCLEO-CCA02M1

Digital MEMS microphones expansion board based on MP34DT01-M for STM32 Nucleo

Data brief

Description

The X-NUCLEO-CCA02M1 is an evaluation board based on digital MEMS microphones. It is compatible with the ST morpho connector layout, and is designed around STMicroelectronics MP34DT01-M digital microphones. It has two microphones soldered onto the board and is compatible with digital microphone coupon boards such as STEVAL-MKI129Vx and STEVAL-MKI155Vx.

The X-NUCLEO-CCA02M1 allows synchronized acquisition and streaming of up to 4 microphones through I²S, SPI or DFSDM peripherals. It represents a quick and easy solution for the development of microphone-based applications as well as a starting point for audio algorithm implementation.

Features

- 2 on-board MP34DT01-M digital MEMS microphones
- 6 slots to plug in digital microphone coupon boards such as STEVAL-MKI129Vx and STEVAL-MKI155Vx
- Synchronized acquisition and streaming of up to 4 microphones
- Free comprehensive development firmware library and audio capture plus USB streaming sample application which is compatible with STM32Cube firmware
- Compatible with STM32 Nucleo boards
- Equipped with ST morpho connector (upwards and downwards)
- Equipped with Arduino UNO R3 connector (upwards) to allow multiple boards
- RoHS compliant
1 Schematic diagrams

Figure 1: X-NUCLEO-CCA02M1 circuit schematic (Part 1)

Figure 2: X-NUCLEO-CCA02M1 circuit schematic (Part 2)
Figure 3: X-NUCLEO-CCA02M1 circuit schematic (Part 3)

Figure 4: X-NUCLEO-CCA02M1 circuit schematic (Part 4)
2 Revision history

Table 1: Document revision history

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<tr>
<th>Date</th>
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<tbody>
<tr>
<td>13-May-2015</td>
<td>1</td>
<td>Initial release.</td>
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<tr>
<td>28-Jan-2016</td>
<td>2</td>
<td>Updated cover page Section &quot;Description&quot;</td>
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