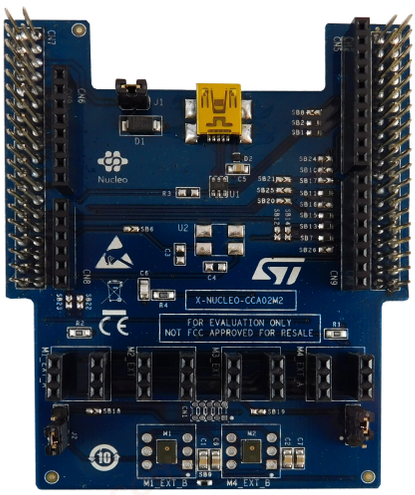
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# X-NUCLEO-CCA02M2

Data brief

## Digital MEMS microphone expansion board based on MP34DT06J for STM32 Nucleo




## Features

- 2 on-board MP34DT06J digital MEMS microphones
- 6 slots to plug in digital microphone coupon boards such as STEVAL-MIC001V1, STEVAL-MIC002V1 and STEVAL-MIC003V1
- Synchronized acquisition and streaming of up to 4 microphones
- Free comprehensive development firmware library and audio capture plus USB streaming sample application compatible with STM32Cube
- 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 and WEEE compliant

## Description

The X-NUCLEO-CCA02M2 expansion board has been designed around MP34DT06J digital MEMS microphone.

It is compatible with the ST morpho connector layout and with digital microphone coupon boards such as STEVAL-MIC001V1, STEVAL-MIC002V1 and STEVAL-MIC003V1.

The X-NUCLEO-CCA02M2 embeds two MP34DT06J microphones and allows synchronized acquisition and streaming of up to 4 microphones through I²S, SPI, DFSDM or SAI 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.

| Product summary | |
|---|---|
| Digital MEMS microphone expansion board based on MP34DT06J for STM32 Nucleo | X-NUCLEO-CCA02M2 |
| MEMS audio sensor omnidirectional stereo digital microphone | MP34DT06J |
| Microphone coupon board based on MP34DT05-A | STEVAL-MIC001V1 |
| Microphone coupon board based on MP34DT06J | STEVAL-MIC002V1 |
| Microphone coupon board based on IMP34DT05 | STEVAL-MIC003V1 |

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# 1 Schematic diagrams

**Figure 1. X-NUCLEO-CCA02M2 circuit schematic (1 of 3)**

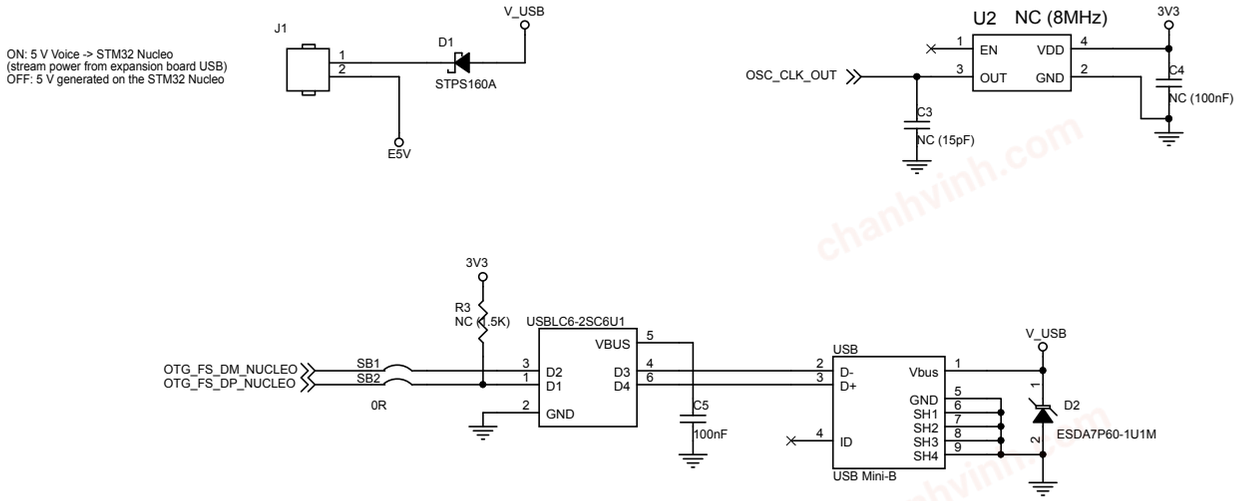
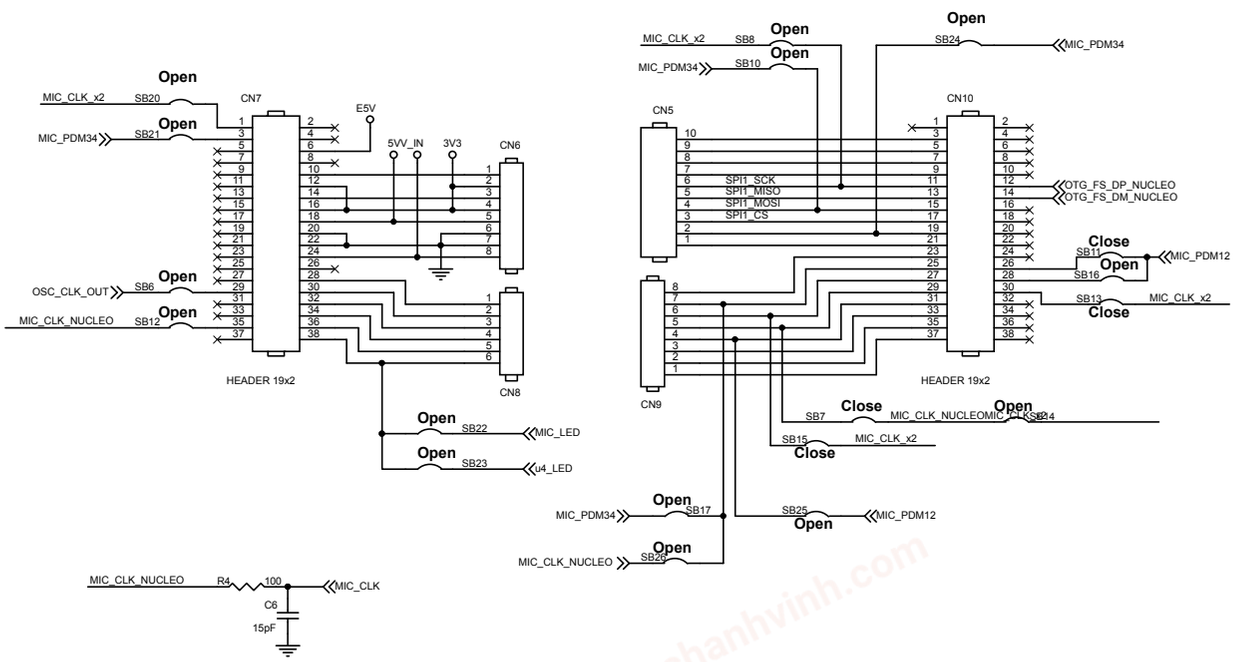


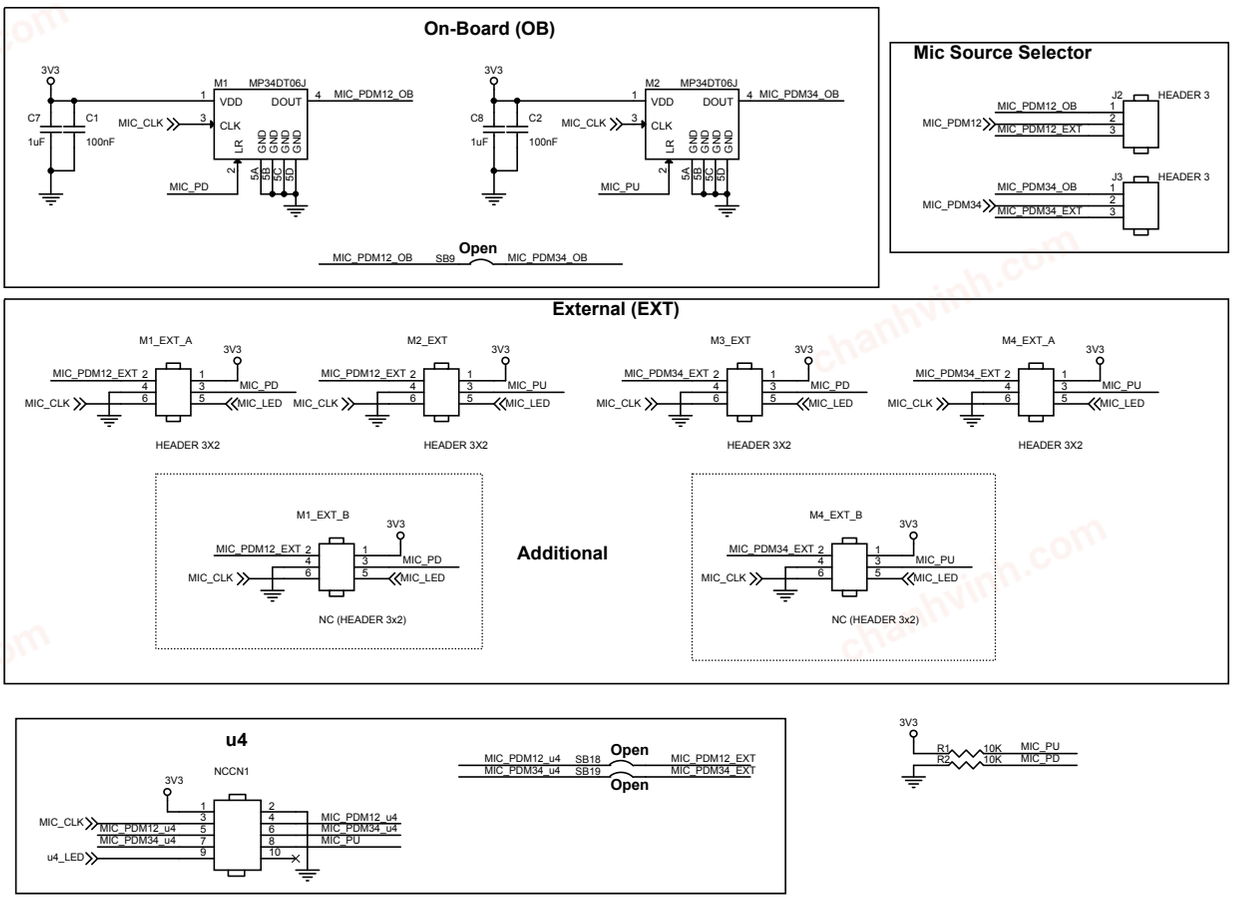

**Figure 2. X-NUCLEO-CCA02M2 circuit schematic (2 of 3)**



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Figure 3. **X-NUCLEO-CCA02M2 circuit schematic (3 of 3)**



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## Revision history

Table 1. **Document revision history**

| Date | Version | Changes |
|---|---|---|
| 18-Sep-2019 | 1 | Initial release. |

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