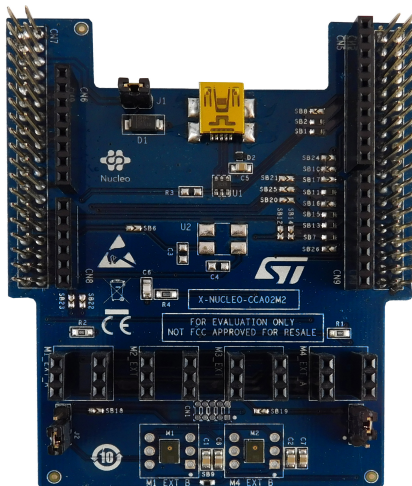


## Digital MEMS microphone expansion board based on MP34DT06J for STM32 Nucleo



### 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 I<sup>2</sup>S, 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	<b>X-NUCLEO-CCA02M2</b>
MEMS audio sensor omnidirectional stereo digital microphone	<b>MP34DT06J</b>
Microphone coupon board based on MP34DT05-A	<b>STEVAL-MIC001V1</b>
Microphone coupon board based on MP34DT06J	<b>STEVAL-MIC002V1</b>
Microphone coupon board based on IMP34DT05	<b>STEVAL-MIC003V1</b>

# 1 Schematic diagrams

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

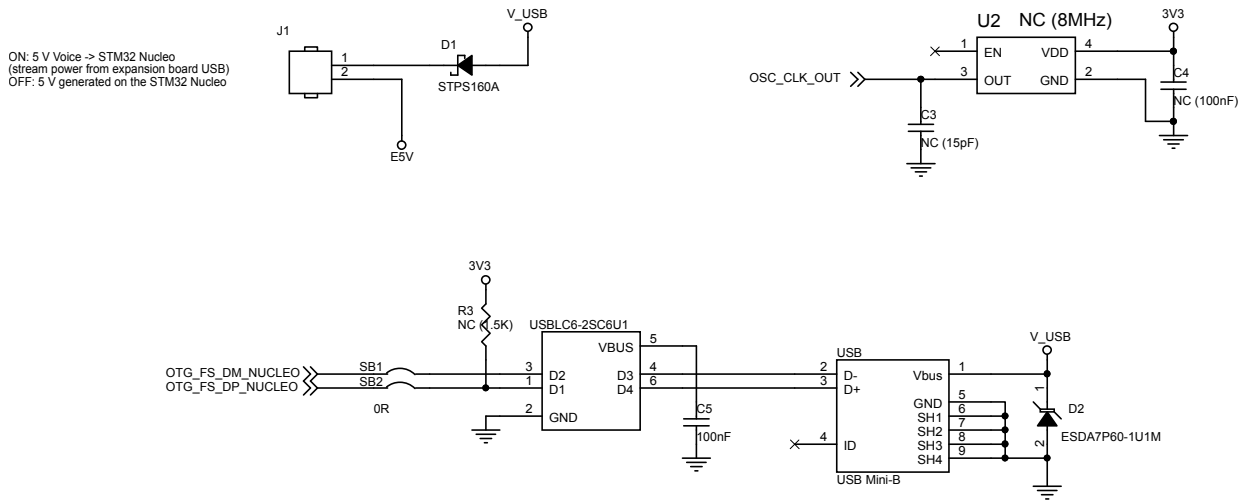


Figure 2. X-NUCLEO-CCA02M2 circuit schematic (2 of 3)

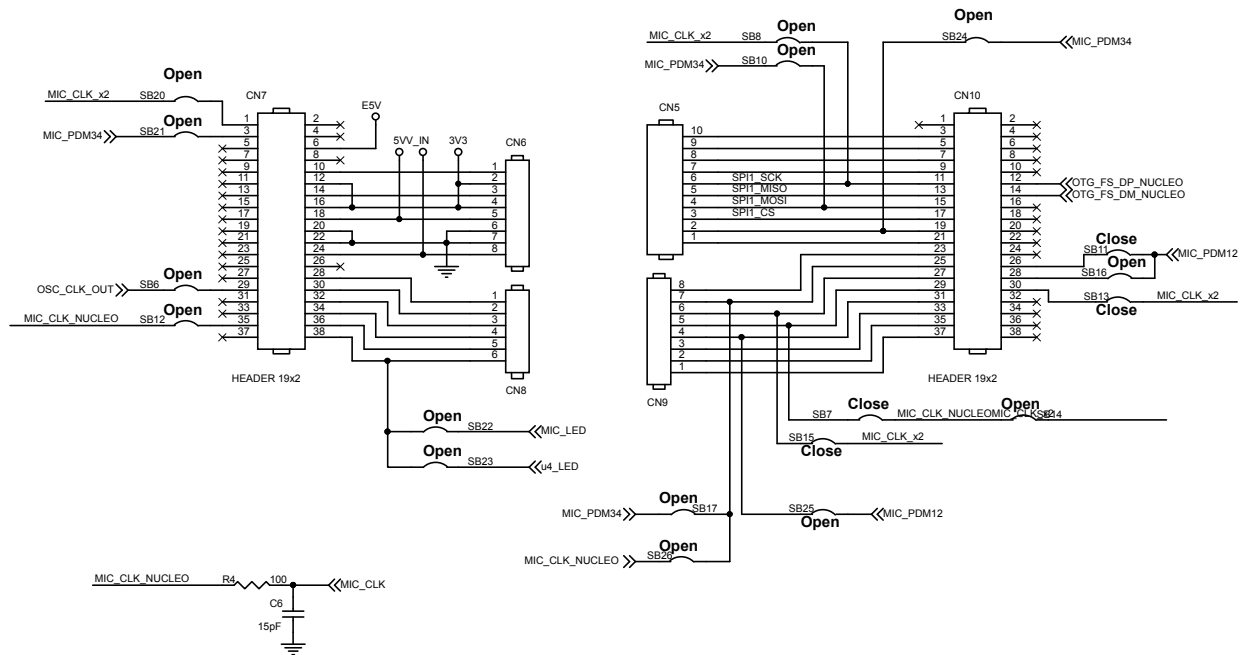
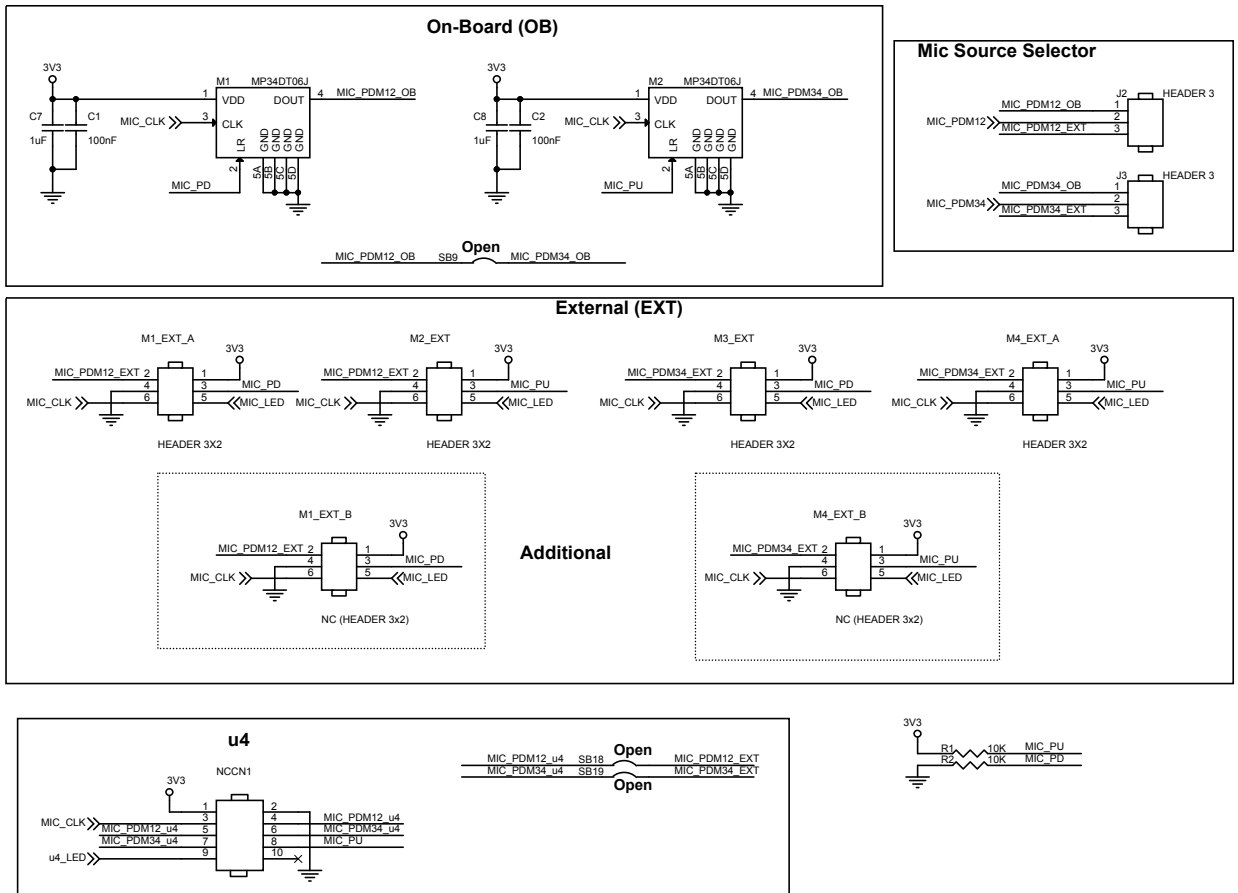


Figure 3. X-NUCLEO-CCA02M2 circuit schematic (3 of 3)



## Revision history

**Table 1. Document revision history**

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