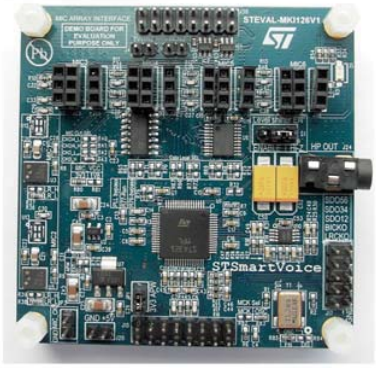
STEVAL-MKI126V1

STSmartVoice demonstration board based on MP45DT02

Data brief



Features

- 2 on-board MEMS MP45DT02 microphones
- Capable of driving up to 6 digital MEMS microphones
- 3 independent I2S outputs
- Up to 10 independent 32-bit user programmable biquads per channel
- The board is fully compatible with the:
  - STEVAL-MKI129V1/V2/V3
  - STEVAL-MKI131V1/V2/V3
  - STEVAL-MKI116V1
  - STEVAL-MKI117V1/V2
  - STEVAL-CCA035V1
- Controllable via APWorkbench software suite
- RoHS compliant

Description

The STEVAL-MKI126V1 demonstration board allows the connection of up to six microphones using the sockets provided, or through the connection of a dedicated six-microphone array.

The digital interface of the board allows the interfacing of the MIC output to the most widely used audio receivers and digital amplifiers, or permits evaluation of the MIC with generic audio measurement equipment. The filtered PWM signals allow the connection of a headset to listen to audio received through the microphones.

The fully digital path ensures a high level of processing with sound preconditioning, filtering and voice enhancement.

The main function of the STEVAL-MKI126V1 is to convert the PDM signals from the microphones into more common I^2S and PWM signals.

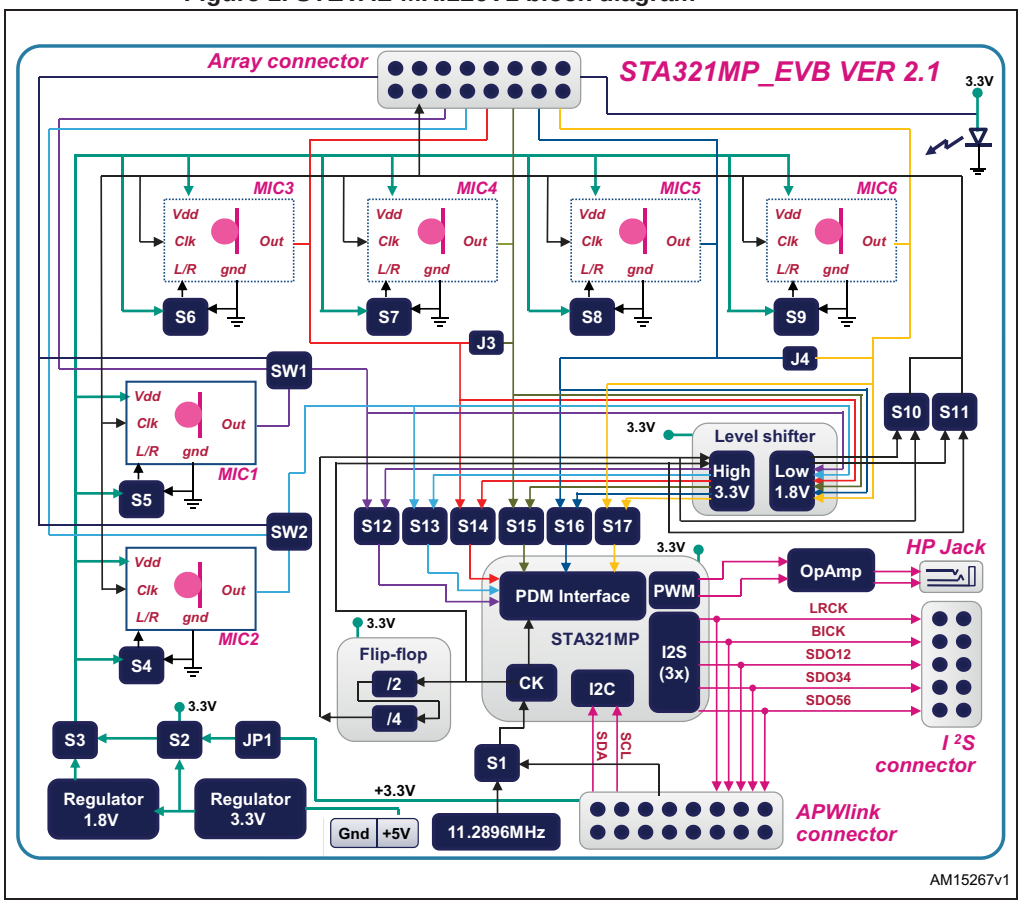
The I^2S signal is routed both on a general and interface connector. The appropriately filtered PWM signals provide an analog interface.

The STEVAL-MKI126V1 is equipped with two MP45DT02 microphones and an STA321MPL scalable digital microphone processor.

For further information contact your local STMicroelectronics sales office. www.st.com

1 Block diagram

Figure 1. STEVAL-MKI126V1 block diagram



2 Schematic diagrams

Figure 2. Schematic diagram 1/5

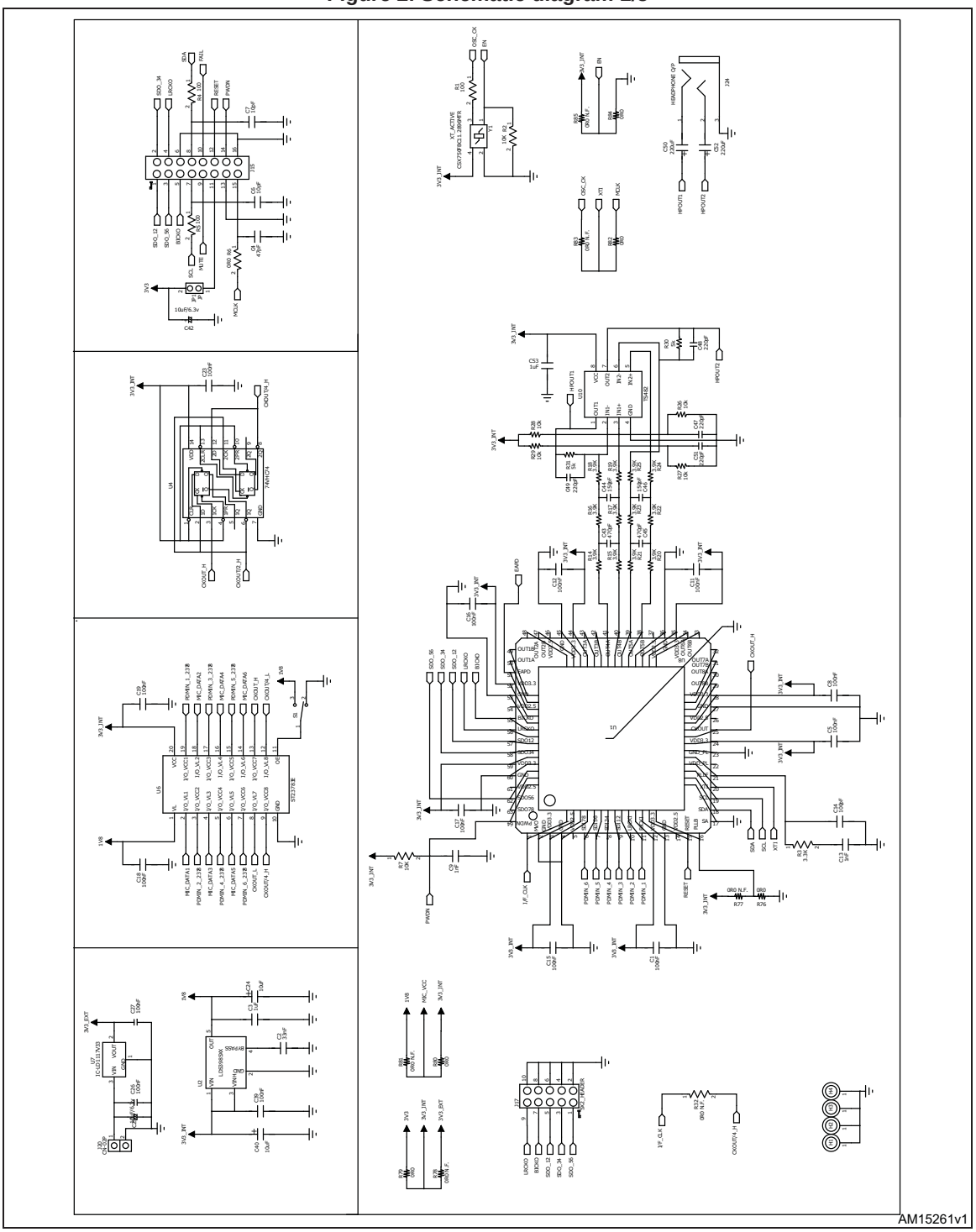


Figure 3. Schematic diagram 2/5

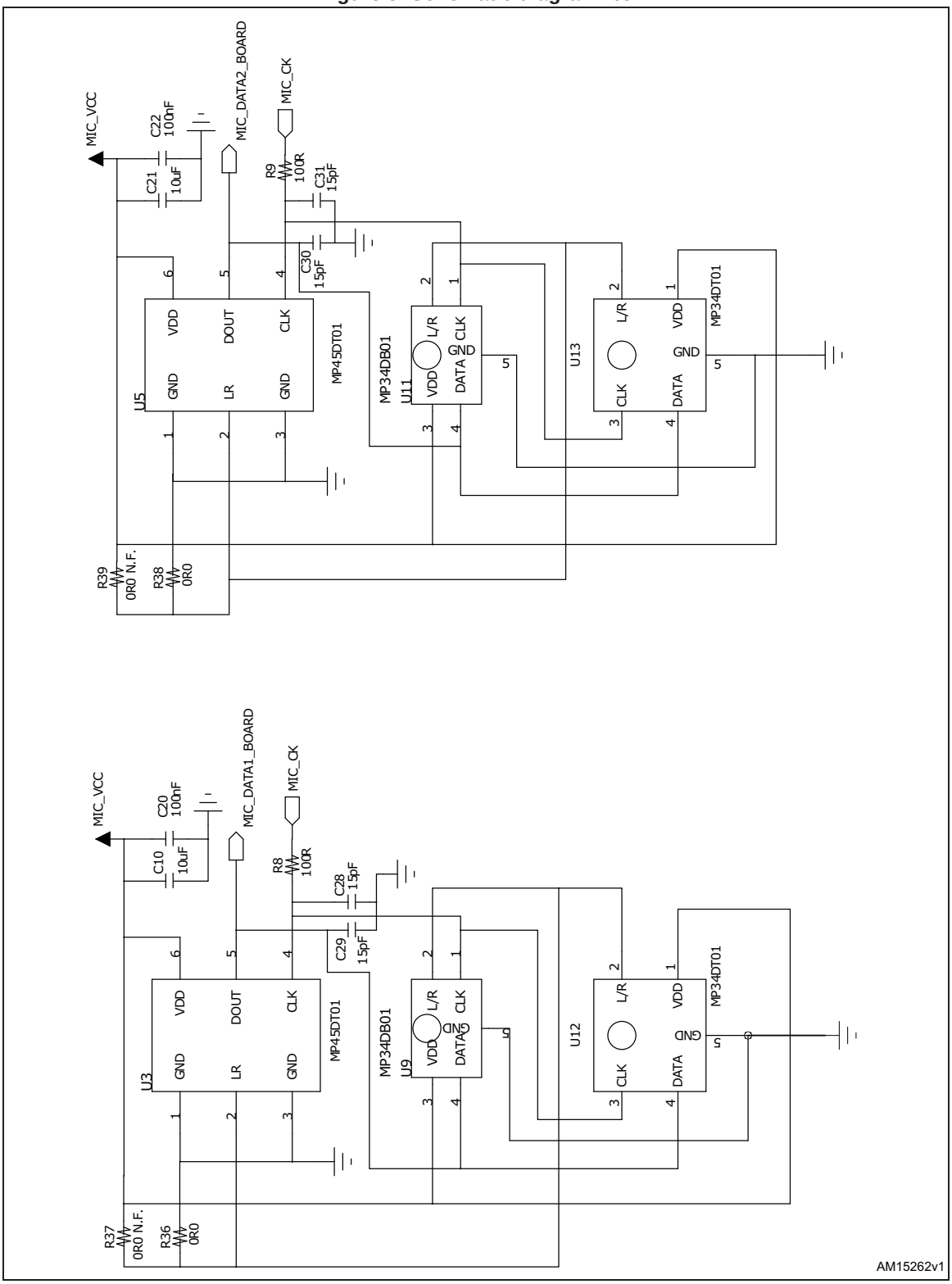


Figure 4. Schematic diagram 3/5

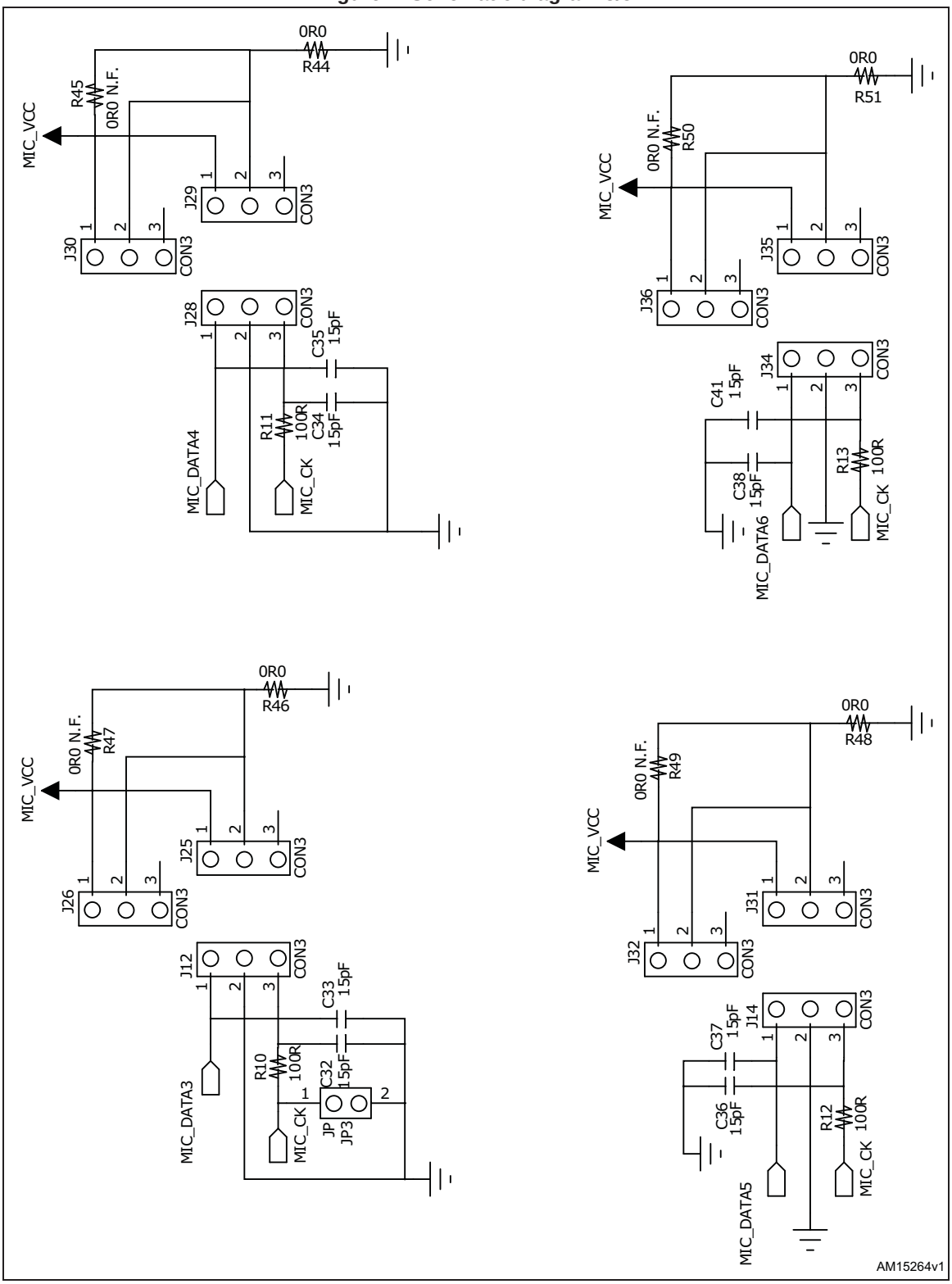


Figure 5. Schematic diagram 4/5

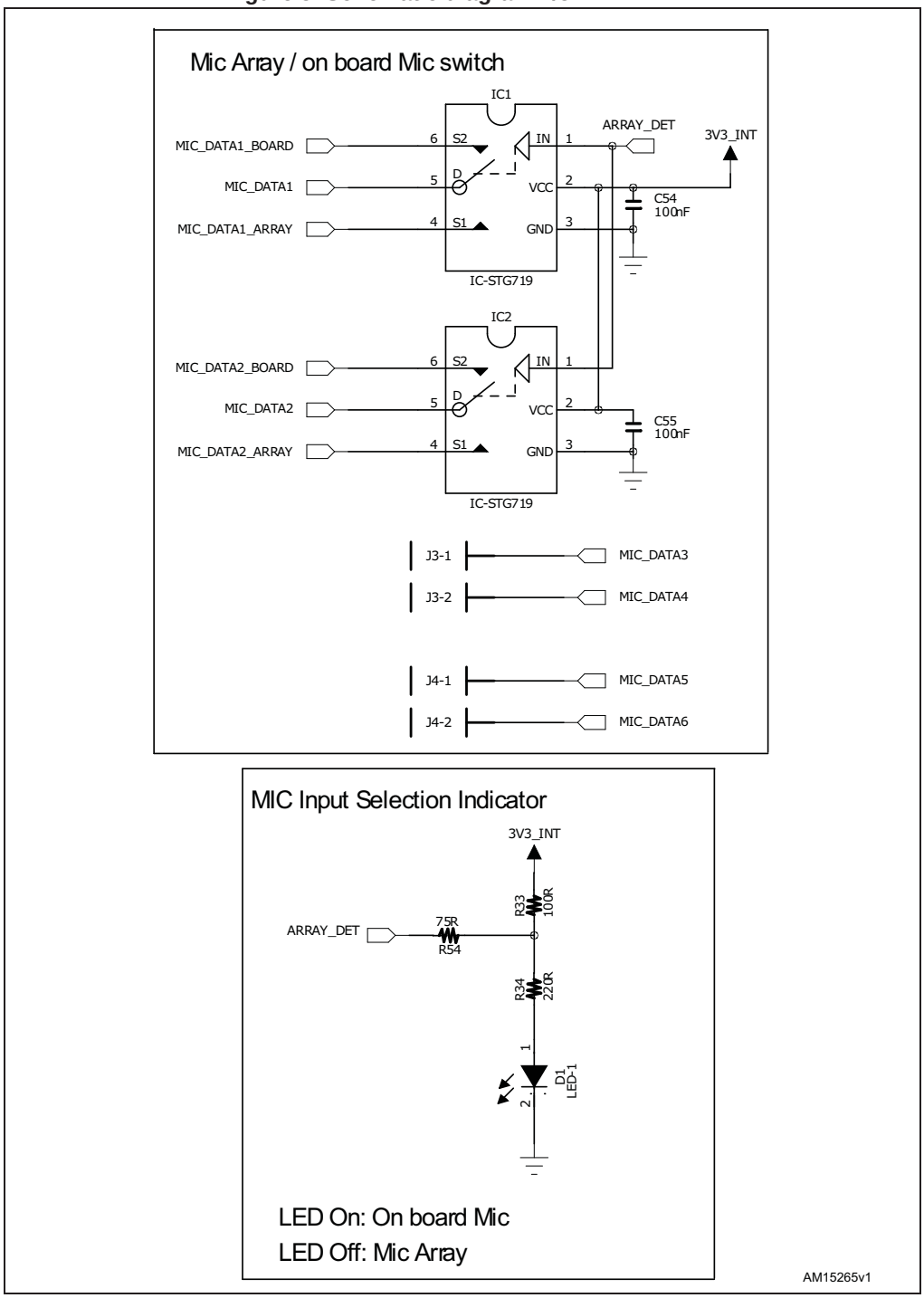
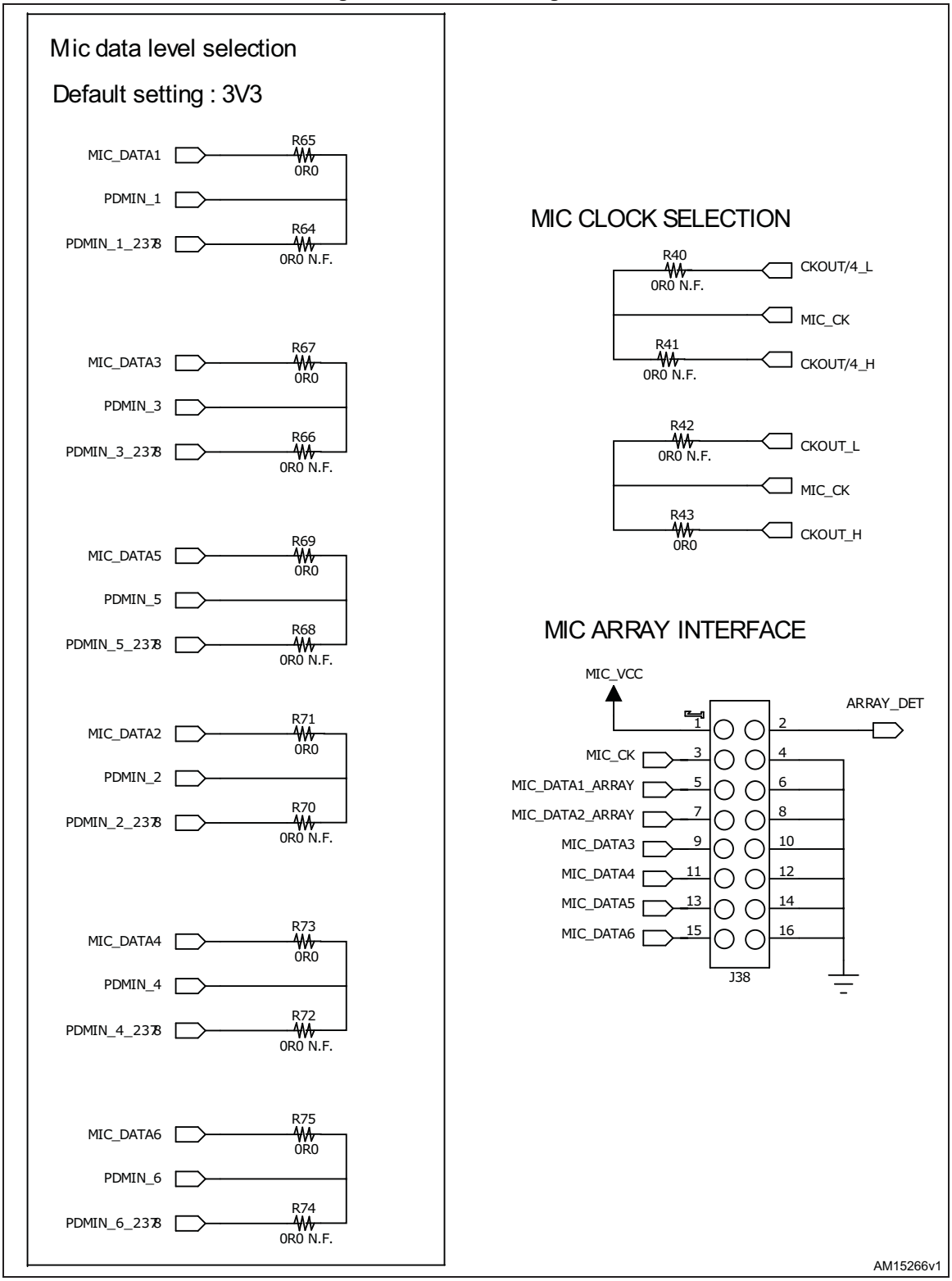


Figure 6. Schematic diagram 5/5



3 Revision history

Table 1. Document revision history

Date	Revision	Changes
18-Sep-2012	1	Initial release.
24-Jun-2013	2	Title has been changed.

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