BR262RD1 Quick Start Guide

The BelaSigna R262 Reference Design 1 (RD1) is a miniature, self-contained unit that can be integrated into a product or prototype to evaluate the performance of the BelaSigna R262 DSP from ON Semiconductor. The RD1-board has been designed with a pronounced focus to minimize the production cost, by using components and component classes with very short lead times.

Key Features

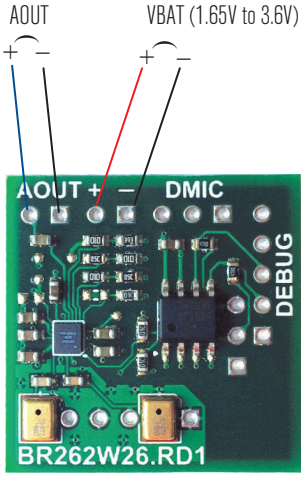
The Reference Design 1 has the following key features:

- A miniature size of only 25 mm by 25 mm
- The 26-ball WLCSP version of BelaSigna R262 (BR262W26A103E1G)
- Two MEMS microphones spaced 10 mm apart (Knowles part number SPU0410HR5H-PB)
- Through-hole test points for external connections
- Configured to boot directly to the ROM application using the internal clock
- I2C and GPIO signals available on test points
- An onboard I2C EEPROM for optional custom application

Getting started

Apply a DC voltage of 1.65V to 3.6 V at the pin marked by "+" and your supply ground to the pin marked by "-". The board contains two microphones that filter the sound scape and outputs a single-ended noise reduced signal on the two pins marked AOUT with the leftmost terminal being the positive of AOUT and the rightmost terminal being the analog ground of AOUT.

Should you wish to change the default sound processing settings, you will need a I2C to USB translator such as the Promira from Total Phase, Inc., to connect to the DEBUG pins on the board's right side (note that this also requires changing some of the resistor values on the board!). DMIC output signals are available as three pins.



We also provide design-in-services, should you need assistance while designing your product using the Belasigna R262 chip.

Feel free contacting us with any questions or comments to this product.

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