

## Product Overview

### BELASIGNA 300 AM: Audio Processor with AfterMaster HD

For complete documentation, see the data sheet.

BelaSigna® 300 AM is a DSP-based audio processor which is able to execute the AfterMaster HD algorithm within a system that also includes a host processor and/or external I<sup>2</sup>S- based mono or stereo A/D converters and D/A converters.

AfterMaster HD is an algorithm which processes audio signals in real-time to provide a significant increase in loudness, clarity, depth, and fullness.

BelaSigna 300 AM is specifically designed for use in applications requiring a solution to overcome the limitations of small or downward-facing speakers, including flat-screen televisions or headphones.

### Features

- Ultra-Low-Power: Typically 4-8 mA when executing AfterMaster HD
- Miniature Form-Factor: Available in a miniature 3.63 mm x 2.68 mm x 0.92 mm (including solder balls)
- Full Range of Configurable Interfaces: Including a fast I<sup>2</sup>C-based interface for download and general configuration of the AfterMaster HD algorithm, a highly-configurable PCM interface to stream data into and out of the device, a high-speed UART, an SPI port, and 5 GPIOs.
- These devices are Pb-Free, Halogen Free/ BFR Free and are RoHS Compliant

### Applications

- Digital Audio Processing

### End Products

- Smartphones
- Tablets
- Automotive Infotainment Systems
- Over-Ear Headphones and Earbuds
- Bluetooth Speakers

### Part Electrical Specifications

Product	Compliance	Status	DSP Core (bits)	Coprocessor or Type	MIPS	Dynamic Range (dB)	RAM (kB)	I <sub>standby</sub> Typ (μA)	Audio Inputs	Audio Outputs	Package Type
B300W35A109A1G	Pb-free Halide free	Active									WLCSP-35

For more information please contact your local sales support at [www.onsemi.com](http://www.onsemi.com).

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