

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 I²S- 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 I²C-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 Type | MIPS | Dynamic Range (dB) | RAM (kB) | I _{standby} 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.

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