

## 10x7.6mm I2S Digital Microphone Breakout Board



### Features

- High SNR of 64dbA
- I2S Output: No Codec Needed
- High PSRR -100dB FS
- 90dB Dynamic Range
- 1.65-3.63V Operation
- ICS43434 Package size 3.5x2.65x0.98mm
- Micro-Sized Eval Board(10x7.6mm)
- 2.54mm(0.1") headers on 7.62mm(0.3") spacing
- Ultra Low Power Consumption
  - 490uA @ 1.8V, No Load
  - 12uA Sleep

### Applications

- Digital Voice Recorder
- Digital Intercom
- Digital Phone
- Speech Recognition Devices
- Wearables
- Set-Top Boxes: TV, gaming, remote controls
- Smart Home Devices
- IoT Applications
- Security Monitoring

### Description:

The ICS-43434 is a digital I2S output bottom port microphone. The ICS-43434 provides a direct Audio to Digital solution in which no Codec is needed to get direct sampled audio straight to a MCU/DSP/FPGA/etc. It follows the industry standard 24-bit I2S interface for easy connection to any MCU/SOC that has an I2S interface. It provides 3 operation modes: High Performance(~490uA), Low Power(230uA) and Sleep(~12uA) with being powered from a 1.8V source. In a very small package size of 3.5x2.65x0.98mm it also provides a high SNR of 64dBA across a 20KHz bandwidth along with an exceptional Dynamic Range of 90dB.

The smMIC-ICS43434 provides an ultra-small form factor evaluation board for the ICS-43434 to easily incorporate into prototypes and wire into MCU/SOC evaluation kits. Or even solder directly into a prototype system.

### Design Services

*Custom Embedded PCB/Software, Wireless/Mobile Applications, and general design services can be provided by Sensor for your own application. To have Sensor Maestros review your project needs please go to [www.sensormaestros.com](http://www.sensormaestros.com) and fill out a Project Questionnaire form on the Design Services page. **Sensor Maestros has developed custom ICS-43434/I2S firmware drivers for multiple MCU/SOC platforms including Nordic, NXP/Kinetis, Microchip, ST, and ATMEL.***

**ICS-43434 Datasheet:**

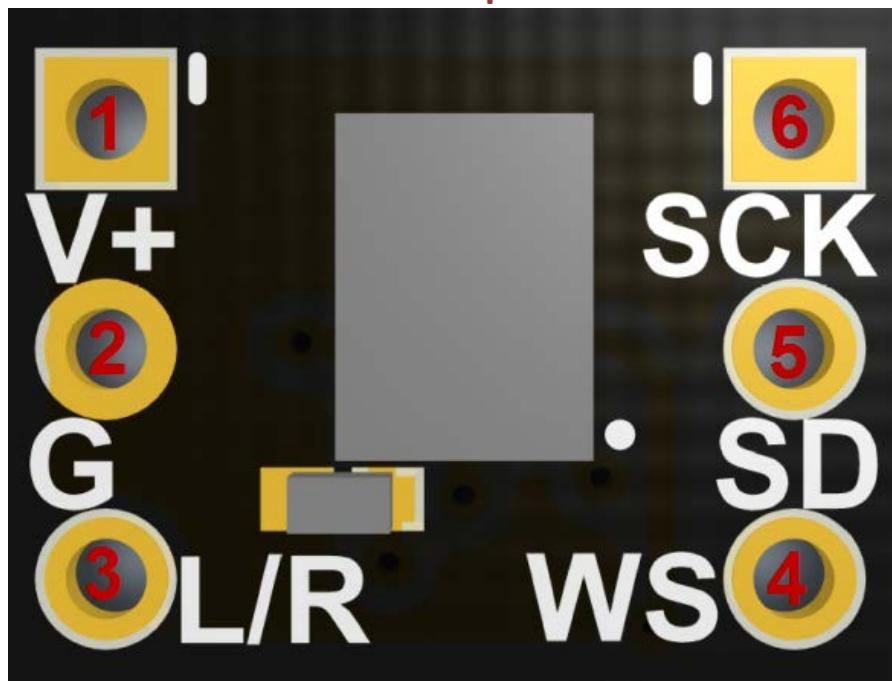
<http://www.invensense.com/download-pdf/ics-43434-datasheet/>

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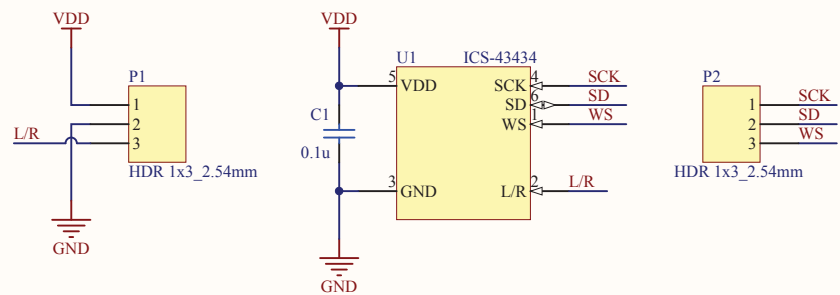
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## smMic-ICS43434 Pin Descriptions



Pin	Name	Type	Function
1	VDD	Power	Power Supply, 1.65-3.63V
2	GND	Power	Ground. Connect to System GND.
3	L/R	Input	Select L/R: High = Left Low = Right
4	WS	Input	Word Strobe
5	SD	Data Out	Serial Data Output
6	SCK	Input	Bit Clock(BCLK)



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