Multi-Channel Audio CODECs with S/PDIF Transceiver

A comprehensive solution for LCD-TV and AV Receivers, the WM8580 and WM8581 Multi-Channel Audio Signal Processors radically simplify audio path design.

Combining the features of up to 6 independent devices in one package, the WM8580 and WM8581 provide a complete audio signal processing solution. The CODECs use Wolfson’s renowned audio converter architecture and, along with world-class S/PDIF jitter rejection performance, are all packaged in a compact 48-lead TQFP.

PRODUCT BENEFITS
- Complete high performance Audio Signal Processor on a single chip
- Radically simplifies LCD-TV and AV receiver audio path design
- World-class S/PDIF jitter rejection enables accurate lock onto, and recovery of, poor quality input signals
- ADC and DACs can run at independent sample rates
- Unique second audio interface allows users to input independent digital sources for features such as Picture in Picture and HDMI
- Capable of processing and converting a range of audio formats from a variety of sources to outputs

APPLICATIONS
- Flat Panel TV
- AV Receivers
- Surround Sound Processors
- DVD Recorders
- Hi-Fi systems
- PC Soundcards

Flat Panel TV
AV Receivers
Surround Sound Processors
DVD Recorders
Hi-Fi systems
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Multi-Channel Audio CODECs with S/PDIF Transceiver

WM8580

WM8581

PRODUCT FEATURES

- 103dB SNR (‘A’ weighted @ 48kHz) DAC
- 103dB SNR (‘A’ weighted @ 48kHz) ADC
- DAC sampling frequency: 8kHz – 192kHz
- ADC sampling frequency: 8kHz – 192kHz
- Two independent master or slave audio data interfaces
- Both interfaces support I2S, left, right justified or DSP data formats
- Independent ADC and DAC sample rates and formats
- 16/20/24/32 bit word lengths
- S/PDIF transceiver with internal clock recovery
- Two digital audio interfaces
- Digital volume controls
- 2 and 3-wire serial control interface with readback, or hardware control interface

PRODUCT DETAILS

<table>
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<tr>
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<th>WM8580</th>
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<tbody>
<tr>
<td>DAC Channels</td>
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<td>Package</td>
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<td>48-TQFP</td>
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AUDIO ROUTING

Powerful routing inside the WM8580 and WM8581 allows audio data in multiple formats to be seamlessly routed to multiple destinations – greatly reducing design complexity and PCB space.

AUDIO CODEC

The core structure is a high quality multi-channel audio CODEC – perfect for 5.1 or 7.1 audio and providing solutions for line out, HP and AUX on modern DTV and PC sound cards.

S/PDIF TRANSCiever

Each device integrates a 4:1 S/PDIF transceiver based on Wolfson’s proprietary PLL technology ensuring industry leading S/PDIF performance.

DUAL AUDIO INTERFACE

Wolfson’s multiple audio interfaces allow seamless connection to multiple DSPs, memory cards and Nicam Decoders.

CONTACT DETAILS

www.wolfsonmicro.com

For more information please visit www.wolfsonmicro.com or sign up for Wolfson eNews at http://www.wolfsonmicro.com/enews/