

AC48304 Voice over Packet Processor for Client Applications



- Low per-channel cost and power
- Independent channel operation
- Toll quality voice compression
- Robust bandwidth-saving fax relay
- Small footprint
- Proprietary evaluation & development tools
- Lead free available

The **AC48304** is an ideal voice processing engine for a variety of Voice over IP, Voice over DSL and other voice over packet client applications. The AC48304 VoP processor is a four ports voice over packet processor that combines toll quality low bit rate voice compression, T.38 compliant fax relay and other voice band processing functions. Field-proven, feature-rich software enables the rapid development and fast time-to-market of the complete solution. The AC48304 is based on VoIPerfect architecture, AudioCodes' underlying, best-of-breed, core media gateway technology for all of its products.

DELIVER FEATURE-RICH SOLUTION

The AC48304 voice over packet processor combines four channels of toll quality low bit rate voice compression, with an adaptive G.168-2002 compliant echo canceller, and complete voice band processing functions in a single device. Field-proven G3 Fax Relay, compliant with the T.38 ASN.1 standard, is a major enhancement to the AC48304 offering. Other advanced features include dynamic packet size programming, high quality DTMF/MF R1/MF R2/Call Progress Tones, detection and generation of user defined tones and Caller ID, silence suppression, and automatic voice/fax/data discriminator.

FAST INTEGRATION WITH SOFTWARE STACKS

The AC48304 is supported by the VoicePacketizer™ software stack which enables the processor to create a VoIP-compliant media stream as part of a client entity. The VoicePacketizer is an ANSI-C software stack that supports the RTP/RTCP protocol. The software stack also provides a simple API for initialization and configuration of the AC48304 and for run-time call control.

SOFTWARE UPGRADES

The complete functionality of the AC48304 is implemented in the internal DSP software. The software image is downloaded into the AC48304 by the host processor prior to start of operation. This allows the addition of new features in future product releases without any system hardware modifications.

BENEFIT FROM EXTENSIVE EXPERIENCE

AudioCodes is one of the world's leading providers of DSP solutions since 1996. During this period, the company successfully passed numerous interoperability tests while maintaining high levels of performance. AudioCodes' commitment to innovation yields consistently high-quality voice processing products that are feature-rich and field-proven. AudioCodes has deployed over 12 million VoP ports to date.

AC48304 FEATURES

- Low bit rate Vocoders
- Low power consumption & small footprint
- G.168-2002 compliant Echo Canceller
- T.38 compliant Fax Relay
- In Band Signaling detection & generation
- Caller ID detection & generation

AudioCodes Enabling Technology Products

AC48304

SPECIFICATIONS

Software Specifications

| | |
|--|--|
| Channel Density | Four low bit rate |
| Voice Coders | G.729 AB CS-ACELP at 8 kbps G.723.1 MP-MLQ at 6.3 kbps, ACELP at 5.3 kbps G.727 E-ADPCM at 16-40 kbps G.726 ADPCM at 16-40 kbps G.711 PCM (μ -Law/A-Law) at 64 kbps NetCoder® at 6.4-9.6 kbps, 800 bps steps |
| Voice/Fax/Data | Automatic switching |
| Fax Support | G3 2.4 - 14.4 kbps, T.38 compliant fax relay or automatic switch to PCM |
| Modem Support | Up to V.92 rates, automatic switch to PCM |
| Echo Canceller | G.168-2002 compliant 25 msec tail length |
| Caller ID Detection and Generation | Telcordia (Bellcore) Type 1 & 2, ETSI Type 1 & 2 NTT Number Display |
| In-band Signaling Detection and Generation | DTMF (TIA 464B), MFR1, MFR2, AC15, SS4, SS5, User Defined and Call Progress tones |
| Out-of-band Signaling | CAS ABCD (when connected to Standard Framers) |
| Three-Way Conferencing | Conferencing of two IP participants with one PSTN participant |
| E&M Sampling Resolution | 1 msec |
| Input/Output Gain Control | -31dB +31dB, 1.0 dB steps |

Hardware Specifications

| | |
|--------------------------|--|
| PCM Interface | 2.048, 4.096 or 8.192 Mbps, μ -Law/A-Law (selectable) |
| Host Port Interface | 8 bit Bidirectional |
| Power Supply | +1.8V (core), +3.3V (I/O) |
| Digital Interface Levels | 3.3V logic compatible |
| Power Consumption | 180 mW (typ) |
| Package | 144 pin TQFP |

APPLICATIONS

- Small Residential Gateways and IADs
- Cable Telephony Access Devices
- Voice over IP Gateways
- SOHO Voice/data/fax Access Devices
- DSL Access Devices
- Voice-enabled Set-top Boxes

ABOUT AUDIOCODES

AudioCodes Ltd. (NASDAQ: AUDC) enables the new voice infrastructure by providing innovative, reliable and cost-effective Voice over Packet technology and Voice Network products to OEMs, network equipment providers and system integrators. AudioCodes provides its customers and partners with a diverse range of flexible, comprehensive media gateway and media processing technologies, based on VoIPerfect™ – AudioCodes' underlying, best-of-breed, core media gateway architecture. The company is a market leader in voice compression technology and is a key originator of the ITU G.723.1 standard for the emerging Voice over IP market. AudioCodes voice network products feature media gateway and media server platforms for packet-based applications in the converged, wireline, wireless, broadband access, and enhanced voice services markets. AudioCodes enabling technology products include VoIP and CTI communication boards, VoIP media gateway processors and modules, and CPE devices. AudioCodes' headquarters and R&D facilities are located in Israel with an R&D extension in the U.S. Other AudioCodes' offices are located in Europe, the Far East, and Latin America.

International Headquarters

1 Hayarden Street, Airport City
Lod, Israel 70151
Tel: +972-3-976-4000
Fax: +972-3-976-4040

US Headquarters

2099 Gateway Place, Suite 500
San Jose, CA 95110
Tel: +1-408-441-1175
Fax: +1-408-451-9520

info@audiocodes.com
www.audiocodes.com

© 2005 AudioCodes Ltd. All rights reserved. AC, Ardito, AudioCodes, AudioCodes logo, AudioCoded, IPmedia, Mediant, MediaPack, MP-MLQ, NetCoder, Stretto, TrunkPack, VoicePacketizer and VoIPerfect are trademarks or registered trademarks of AudioCodes Ltd. All other marks are the property of their respective owners. The information and specifications in this document and the product(s) are subject to change without notice.

Ref # LTRT-36701.08/05 V.1

