

## IPM-1610 16 E1/T1 cPCI VoIP Media Processing Blade



- IP-enabled, cost-effective technology
- Field-proven PSTN interface blade
- High-density, high performance blade
- Independent call-by-call basis LBR ports
- Carrier grade applications
- Concurrent toll quality voice and fax support
- Enables scalable distributed architecture
- Shorter development cycle

The **IPM-1610** is a complete VoIP media processing solution providing IP and PSTN interfaces as needed to build next generation applications for both today's and tomorrow's networks. Moreover, introducing a packet interface for voice streaming the blade enables a smooth evolution from legacy PCI bus architecture to distributed, scalable, packet-based architecture.

### DELIVER FEATURE-RICH SOLUTIONS

A broad selection of firmware-based media processing capabilities is available with the IPM-1610 including: message record/playback, conferencing, on-board announcements storage, voice coding, echo cancellation, fax processing and call progress tone detection. Each channel resource on the IPM-1610 is universal and can perform media processing functions while utilizing full flexibility in endpoints.

### COMPLY WITH INDUSTRY STANDARDS

The IPM-1610 blade complies with industry standard network control protocols including MGCP, MEGACO (H.248), SIP or AudioCodes' proprietary TPNC. These allow for the implementation of a distributed media server architecture that separates call-processing functions from media processing functions, resulting in better redundancy, scalability and higher system availability.

### PROTECT CUSTOMER INVESTMENT

The IPM-1610 is based on the VoIPerfect™ architecture, AudioCodes' underlying, best-of-breed, core media gateway technology for all of its products. The IPM-1610 supports AudioCodes' API, which enables software download, provisioning and control. It was designed to maintain essential API backward compatibility in order to protect customers' investment in the development of products based on former generations.

### ENABLE FAST & EASY INTEGRATION

Enabling accelerated design cycles with high-density and reduced costs, the IPM-1610 is an ideal building block for scalable, reliable VoIP enabled media processing solutions. With the IPM-1610's comprehensive feature set, customers can quickly design a wide range of solutions combining PSTN and VoIP networks.

### IPM-1610 FEATURES

- Up to 480 IVR streaming ports
- Up to 240 Universal media processing ports
- Voice Record/Playback
- Interchangeable RTP or PSTN or H.110 endpoints
- Real-time, multi-party conferencing
- Comprehensive IVR control
- VoIP packet streaming (RTP/RTCP) per RFC 3550/3551
- MGCP, MEGACO, SIP and AudioCodes' proprietary TPNC
- cPSB PICMG 2.16 compliant Ethernet on the backplane
- Automatic Speech Recognition (ASR) <sup>1</sup>
- Text To Speech (TTS) <sup>1</sup>

# AudioCodes Enabling Technology Products

## IPM-1610

### SPECIFICATIONS

#### Software Specifications

Configuration	“Streaming” – 480 Voice/Fax Messaging ports “Universal” – 120, 240 universal ports
Voice Messaging, Recording	Host-based record/play, WAV format (G.711, G.726, MS-GSM) Fast slow playback with pitch correction Timeslot summation – Record RX+TX of the call On-board announcement storage – 10 Mb: 20 minutes of G.711, 200 minutes of G.723 RTP forking replications for lawful intercept (CALEA) Recording/playback using standard HTTP or NFS streaming
N-way Conferencing	Supports up to 240 ports of Mixed IP, PSTN and TDM (H.110) participants Maximum simultaneous 3-way conferences per blade: 80 Maximum full-duplex parties per conference bridge: 64 endpoints Supports various conference control modes
Fax Relay and Termination	Real-time Fax over IP/T.38 compliant, automatic fallback to G.711 and VBD for up to super G-3 fax machines Support for Fax Termination (Available with AudioCodes S/W based stack)
ASR - 3 <sup>rd</sup> party <sup>1</sup>	Host-based Architecture – Media Stream over PCI
Recognition Engines	Distributed Architecture – Media Stream over VoIP RTP
Voice Processing	Voice Activity Detection (VAD) and Comfort Noise Generation (CNG) Trans-coding of LBR/HBR to any LBR/HBR stream
Voice Compression	• G.711, G.723.1, G.729A/B, G.726/G.727, NetCoder® MS-GSM, GSM-FR, iLBC • Additional coders supported – contact AudioCodes for further information
Echo Cancellation	G.168 with tail of 30 msec, 64 msec and 128 msec <sup>3</sup>
Gain Control	Automatic (AGC) or Programmable
In-band/Out-band Signaling Control	Packet side or PSTN side, DTMF and tone detection and generation, RFC 2833 AudioCodes’ proprietary TPNC, MGCP (RFC 3435), MEGACO (H.248), SIP
Management Interfaces	• SNMP V2c: Standard MIB-2: system, interfaces, if-MIB, entity-MIB, RTP-MIB, DS1-MIB, snmpV2-MIB and AudioCodes’ proprietary MIB • On-board embedded secure Web Server
Operating System	• Windows™ 2000, XP, 2003 • Linux™ <sup>2</sup> RH8, RH9, Debian, Enterprise • Solaris™ <sup>2</sup> 8,9 on Intel™/Sparc™ 32/64

#### Signaling

PSTN	<b>CAS</b> T1 robbed bit, MFC/R2 numerous country variants <b>CCS</b> ISDN PRI: numerous country variants including ETSI EURO ISDN, ANSI N12, DMS, 5ESS, Japan INS1500 <b>SS7</b> MTP2 and MTP3 link termination ISUP and SCCP/TCAP termination (Available with AudioCodes S/W based stack)
SIGTRAN	M2UA, M3UA, IUA and DUA over SCTP per RFC 2960

#### Hardware Specifications

Ethernet	Dual redundant 100 BASE-T ports
Hot Swap	Full hot swap supported per PICMG 2.1
Physical Interfaces	Form factor – 6U PICMG 2.0 single cPCI slot TDM Interface – H.110 CT Bus Telephony – two 50-pin Telco connectors on rear panel Ethernet – cPSB PICMG 2.16 on the backplane, Dual RJ-45 on rear panel
Power	40.7W, 3A at 5V, 7.8A at 3.3V ]

### APPLICATIONS

- Contact Centers
- Conference Servers
- IVR Servers
- Unified Communications/Messaging
- Voice Portals
- CTI Applications
- Voice Recording

### ABOUT AUDIOCODES

AudioCodes Ltd. (NASDAQ: AUCD), Your Gateway to VoIP, provides innovative, reliable and cost-effective Voice over Packet (VOP) technology and Voice Network products to OEMs, Network Equipment Providers, Service Providers and System Integrators worldwide. AudioCodes provides a diverse range of flexible, comprehensive media gateway and media processing technologies (based on VoIPerfect™ – AudioCodes’ underlying, best-of-breed, core media gateway architecture) and Session Border Controllers (SBCs). The company is a market leader in product development, focused on VoIP Media Gateway, Media Server and SBC technologies and network products. AudioCodes has deployed tens of millions of media gateway and media server channels globally over the past few years and is a key originator of the ITU G.723.1 standard for the emerging Voice over IP market. The Company is a VoIP technology leader focused on quality, having recently received a number one ranking from ETSI for outstanding voice quality in its media gateways and media servers. AudioCodes voice network products feature media gateway and media server platforms for packet-based applications in the converged, wireline, wireless, broadband access, enhanced voice services and video markets. AudioCodes enabling technology products include VoIP and CTI communication blades, 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.

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What's Inside Matters™

<sup>1</sup> Integrated Partner Technologies

<sup>2</sup> See release note for specific OS releases supported

<sup>3</sup> Future release, may affect density