## AudioCodes Enabling Technology Products



# TP-12610 AdvancedTCA™ VoIP Communication Blade



- Very high channel density scalable up to 4032 LBR VoIP channels
- AdvancedTCA® (PICMG® 3.0) compliant
- Concurrent toll quality voice and fax support on all
- Integrated Video processing capabilities for 3G media server applications
- STM-1/OC-3,T3, E1\T1 PSTN interface
- Built on 4 previous generations of field-proven and widely deployed VoP technology

The TrunkPack®-12610 AdvancedTCA® PICMG® 3.0 compliant VoIP Media Gateway and media processing blade is an ideal building block for deploying advanced high-density, high availability Voice over Packet (VoP) systems. The TP-12610 is designed to meet the requirements of engineers designing high-density VoIP trunking and access gateways, voice and video media servers, cable telephony gateways and wireless gateways. Offering integrated voice and signaling gateway functionality, the TP-12610 supports all necessary functions for voice and fax streaming over IP networks.

### **DELIVER FEATURE-RICH SOLUTIONS**

The TP-12610 supports a wide array of voice processing-related algorithms, including G.711, G.723.1, and G.729AB, AMR, QCELP and GSM Vocoders, G.168-compliant echo cancellation, T.38 real-time Fax over IP; a wide selection of In-band and Out-band tone detection and generation. In addition, the TP-12610 supports signaling protocols including: ISDN PRI, SIGTRAN (xUA), and CAS protocols. All media processing, signaling and control protocols are applied independently and simultaneously on all of the 4032 LBR channels.

### **COMPLY WITH INDUSTRY STANDARDS**

The TP-12610 blade complies with industry standard network control protocols, i.e. MEGACO (H.248), SIP, as well as AudioCodes' proprietary API (TPNCP). This allows for the implementation of distributed gateway architecture that separates call-processing functions from media streaming functions resulting in better redundancy, scalability and higher system availability.

### **PROTECT CUSTOMER INVESTMENT**

The TP-12610 is based on the VolPerfect™ architecture, AudioCodes' underlying, best-of-breed core media gateway technology for all of its products. The TP-12610 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 and platforms.

### **ENABLE FAST & EASY INTEGRATION**

Combining the Advanced Telecommunication Computing Architecture (ATCA) integrated management and provisioning features and AudioCodes VoIP media Gateway expertise, the TP-12610 is an ideal building block for cost-effective carrier-grade VoIP solutions.

### TP-12610 FEATURES

- 4032 voice/fax independent multiple LBR channels
- OC-3/STM-1, T3 and T1/E1/J1 trunks for PSTN interface
- Scalable offering supporting lower channel counts than 4032
- MEGACO (H.248) and SIP2 compliant
- Complete "Media Gateway on a blade"
- Video streaming, conferencing and transcoding<sup>2</sup>
- MPEG 4, H.264, H.264 video coding<sup>2</sup>
- G.168-2002 compliant echo cancellation
- Real-time fax over IP/T.38
- Transcoding between various coders
- PSTN Signaling: CAS, ISDN PRI and SS7 layer 2/3 termination
- Tone detection and generation (MF, DTMF, RFC 2833)
- SIGTRAN IUA, M2UA, M3UA2 over SCTP
- Dual redundant PICMG 3.0 Base interface
- Dual star PICMG 3.1 Fabric interface
- Optional 2 AMC sites for Application CPU and storage



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### TP-12610

#### SPECIFICATIONS

SPECIFICATIONS	
Software Specifications	
Capacity	Up to 4032 independent digital voice, fax and data ports
	2016 channels with 2 AMC sites
Voice Compression	G.711, G.723.1, G.729AB, G.726/G.727, iLBC
	EVRC, QCELP8, QCELP13, NB-AMR, GSM-FR, GSM-EFR
Video Processing <sup>2</sup>	H.263, H.264, MPEG 4
	Resolution: SQCIF, QCIF, CIF
	Video conferencing, trans-coding and streaming
Echo Cancellation	G.168-2002 compliant 32, 64, 128 msec echo tail
Fax Relay and Termination	Real-time fax over IP/T.38 compliant, automatic fallback to G.711
	Support for Fax Termination (Available with AudioCodes S/W based stack)
In-band/Out-band signaling	Packet side or PSTN side, DTMF and tone detection and generation
VoIP Standards Compliance	RTP/RTCP per RFC 3550/3551
	DTMF over RTP per RFC 2833
Control Protocols	MEGACO (H.248)
	SIP <sup>2</sup>
	AudioCodes' proprietary VoIP API Library over IP (TPNCP)
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	<ul> <li>Windows™ 2000, XP, 2003</li> <li>Linux™¹RH8, RH9, Debian, Enterprise</li> </ul>
	<ul> <li>Solaris™<sup>1</sup> 8,9 on Intel™/Sparc™ 32/64</li> </ul>
Signaling	
PSTN	CAS T1 robbed bit, MFC/R2 numerous country variants
	CCS2 ISDN PRI: ANSI N12, DMS100, 4ESS, 5ESS, ETSI Euro ISDN
	SS7 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
Selected Hardware Specificati	ons
Ethernet	Dual redundant PICMG 3.0 Base interface
Fabric	Dual star PICMG 3.1 fabric interface
Physical Interfaces	PSTN - OC-3/STM-1 Dual Optical Replaceable LC connectors on rear panel, T3
	T1/E1/J1
On-Board Processor Module	2 AMC compliant sites for application processor and storage
Form Factor	PICMG 3.0 single slot

<sup>1</sup> See release note for specific OS releases supported

### **APPLICATIONS**

- Next Generation Switches
- VoIP Access Gateways
- Trunking Gateways
- Voice and Video Media Servers
- Wireless Gateways

### **ABOUT AUDIOCODES**

AudioCodes Ltd. (NASDAQ: AUDC), Your Gateway to VoIP, provides innovative, reliable and costeffective 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 VolPerfect™ 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 packetbased 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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