## AudioCoded™ Enabling Technology Products

# TPM-1100 VoP Media Gateway Modules



- Complete media gateway on a module
- IP Telephony, DSL, cable and wireless
- VoIP and VoATM
- Best of breed components
- Field-proven hardware and software
- Fast time-to-market
- Low per channel cost and power

The **TPM-1100** is a highly integrated VoP media gateway on a module ideal for high density Voice over IP and Voice over ATM applications. Featuring high port density, low power consumption, superior voice quality and rich feature set, the TPM-1100 is an excellent choice for trunking gateways, access gateways, wireless gateways, cable gateways and broadband DLCs. Based on AudioCodes' award-winning, field-proven TrunkPack® architecture, with over seven years and five million ports of field deployments, the TPM-1100 reduces development risks and accelerates time-to-market.

## COMPLETE MEDIA GATEWAY ON A MODULE

The TPM-1100 completely integrates all media gateway technologies into a single device. The TPM-1100 accepts 64 kbps voice band traffic, removes the echo, compresses and packetizes the voice, subsequently sending it over the packet network, eradicating the need for external processors. By incorporating standard control protocols such as MEGACO and MGCP with signaling processing, a single module can be used for integrated media gateways and signaling gateway solutions. Being a single integrated solution, the TPM-1100 is the preferred choice over competing discrete solutions, while maintaining a competitive price.

## **FEATURE-RICH SOLUTION**

The TPM-1100 processes up to 672 uncompressed channels and up to 336 compressed channels with a G.168-2000 compliant echo canceller, and complete voice band processing functions. Field-proven G3 Fax Relay, compliant with the T.38 ASN.1 standard, assures successful worldwide fax transmission. Broadband and Narrowband SS7 Signaling is processed in compliance with SIGTRAN. Control and provisioning is completed by MGCP, MEGACO/H.248, SNMP or AudioCodes proprietary API - TPNCP protocols. The field-proven feature-rich software assures rapid time-to-market while completely addressing customer requirements.

## **CARRIER CLASS**

The TPM-1100 is designed to comply with stringent carrier requirements. The TrunkPack® software includes special enhancements to support redundancy requirements delivering carrier class reliability. Incorporating best of breed components with AudioCodes field-proven software results in reduced development risks.

## BENEFIT FROM EXTENSIVE EXPERIENCE

AudioCodes, established in 1993, is one of the world's leading providers of VoIP DSP solutions. 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 is a market leader in voice compression technology and the key originator of the ITU G.723.1 standard. AudioCodes has deployed more than 5 million VoP ports to date.

## **TPM-1100 FEATURES**

- Density: Up to 672 uncompressed ports, up to 336 compressed LBR ports
- Control: AudioCodes' API TPNCP, MGCP, MEGACO and SNMP
- Interfaces: PCM Highway, MII and Utopia
- 0.022 watts per channel
- PMC module compliant with IEEE 1386.1 physical specification



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## TPM-1100

#### SPECIFICATIONS

PECIFICATIONS	
Software Specifications	
Capacity	Up to 672 uncompressed channels
	Up to 336 compressed channels
Voice Compression	G.711 PCM (µ/A-law) at 64 kbps
	G.723.1 MP-MLQ at 6.3 kbps, ACELP at 5.3 kbps
	G.726 ADPCM at 16-40 kbps
	G.727 E-ADPCM at 16-40 kbps
	G728 LD-CELP at 16 kbps*
	G.729A CS-ACELP at 8 kbps
	G.729E at 11.8 kbps*
	GSM 6.10 FR at 13.2 kbps*
	GSM-EFR at 12.2 kbps*
	AMR at 4.75, 5.15, 5.9, 6.7, 7.4, 7.95, 12.2 kbps*
	QCELP8 up to 8.55 kbps & QCELP13 up to 13.3 kbps*
	EVRC up to 8.55 kbps*
	NetCoder® at 6.4-9.6, kbps, 800 bps steps
Voice/Fax/Data	Automatic switching
Fax Support	Group 3 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.168-2000 compliant
	Configurable tail lengths of 30, 64 & 128 msec
Jitter Buffer	Dynamic Programmable, Up to 600 msec
VoIP	RTP / RTCP per RFC 1889/1890
VoATM	I.366.2 and AF-VMOA-0145.000
Packet/Frame Size	Variable
Media Gateway Control	MGCP, MEGACO/H.248 or AudioCodes' Proprietary TPNCP
Management Interface	SNMPv2
Signaling	DTMF (TIA 464B), MFR1, MFR2, Call progress tones, AC15,
	CAS/ABCD bits, SS7
	Detection and generation of user defined tones
Caller ID Detection	Bellcore Type 1 & 2
and Generation	ETSI Type 1 & 2
	NTT Number Display
Wireless	SSCOP, SSCF-NNI, MTP3b, lu-UP, TFO/TrFO
Hardware Specifications	
TDM Interface	PCM highways at 8 MHz
Ethernet Interface	100 Mb/s MII port
ATM Interface	Utopia Level 2, 16 bit
Power Supply	3.3v, 1.6v
Form Factor	PMC Module (74 x 149 mm)
Connectors	4 x 64-pin PMC connectors

<sup>\*</sup> Optional

## **APPLICATIONS**

- Voice over IP Gateways
- Trunking Gateway
- Access Gateway
- Cable Gateway
- · Wireless Gateway
- Broadband DLC
- IP Enabled Call Centers / Contact Centers

## **ABOUT AUDIOCODES**

AudioCodes Ltd. (NASDAQ: AUDC) designs, develops and markets Voice over Packet media gateway technologies and systems for converged networks. The company is a market leader in voice compression technology and the key originator of the ITU G.723.1 standard for the emerging Voice over IP market. AudioCodes' product line includes enabling technology products such as Voice over Packet chip processors, VoIP communication boards, VoIP media gateway modules and CPE devices. In addition, AudioCodes provides OEMs with media gateway system solutions for packet networks in the wireline, wireless, broadband access and media server markets.

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