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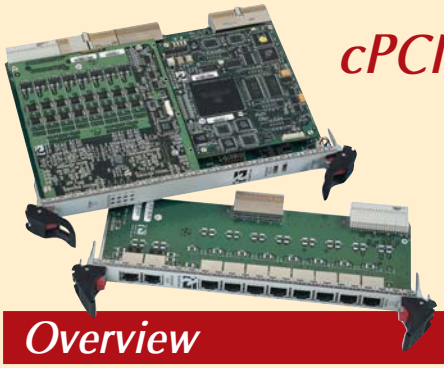
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Find the *AudioCodes AudioCoded TP-610* at our website: *Click HERE*

AudioCoded™ TP-610

cPCI VoIP/VoATM Communication Board



Overview

The **TP-610** Voice over IP (VoIP) and Voice over ATM (VoATM) Communication Board is a high-density, hot-swappable, compactPCI resource board with a capacity of up to 192 ports, supporting all necessary functions for voice and fax streaming over IP or ATM networks. The board is powered by AudioCodes' Voice over Packet Processors, and supports up to 192 independent and concurrent channels with the most demanding algorithms, such as G.168 compliant echo cancellation and G.723.1 and G.729A voice compression. A 128 channel configuration is available to enable cost-effective entry level solutions.

A packet processor implements packet-streaming functions through the dual 100Base-T interface or multi mode OC-3c interface. The processor implements the industry standard RTP/ RTCP packet streaming protocol, advanced adaptive jitter buffer management and T. 38 fax relay over IP. VoATM streaming is implemented using AAL2 according to ITU-T standard I.366.2 and AF-VMOA 145.000 developed by the ATM Forum, also known as BLES (Broadband Loop Emulation Service) by the DSL Forum. The **TP-610** also supports the ATM adaptation layer 5 (AAL5) for applications and services using ATM as the transport of choice between central offices.

The basic configuration includes an H.110 interface for connection to adjacent network interface cards. An optional E1/T1 trunk interface module is available for up to 8 T1 or 6 E1 trunks, allowing for full gateway streaming functions in a single cPCI slot. The **TP-610** is equipped with a passive rear transition I/O module. The trunk interfaces support various telephony protocol terminations such as ISDN PRI; CAS, T1 robbed bits, E1 MFC/R2.

The **TP-610** board complies with industry standard control protocols including MGCP (RFC-2705), MEGACO (H.248) or AudioCodes' proprietary TPNCP. These allow for the implementation of a distributed gateway architecture that separates call-processing functions from media streaming functions, resulting in better redandancy, scalability and higher system availability.

Like all AudioCodes products, the **TP-610** supports the AudioCodes API Library, which enables software download, provisioning and control. By maintaining API backward compatibility, AudioCodes protects its customers' investments in software development.

Enabling accelerated design cycles with high-density and reduced costs, the **TP-610** is an ideal building block for scalable, reliable VoP solutions. With the **TP-610**'s comprehensive feature set, customers can quickly design a wide range of solutions for migration to VoP networks.

Benefits

- High Channel Density
- Reduced System Cost and Increased Reliability
- Fast Time-to-Market
- Flexible and Easy Migration to VoP Networks

Features

- Up to 192 voice/fax ports
- Simultaneous support for G.711, G.723.1, G.729A, G.726/727
- VoIP packet streaming (RTP/ RTCP) or VoATM AAL2 encapsulation
- Dual Redundant 100Base-T interfaces
- OC-3c ATM interface
- Support for ATM forum LES profiles and DSL Forum BLES profiles
- AAL5 signaling transport support
- Integrated 6 E1 or 8 T1 interfaces for the 192 port configuration
- Integrated 4 E1 or 5 T1 for the 128 port
- On-board ISDN, CAS or V5.2 signaling support H. 110 Bus
- Hot swap capability
- Single-slot compactPCI, 6U card
- Rear transition I/O module
- API Control via PCI or IP (hostless mode)
- MGCP (RFC 2705), Megaco (H.248) or TPNCP enabled

Applications

- Next Generation Switches
- IP Services Platforms
- Access Gateways
- Trunking Gateways

AudioCodes

TP-610 Selected Specifications

All Boards

Voice Compression
G.723.1 - MP-MLQ, 6.3 kbps/ACELP, 5.3 kbps
G.729A - CS-ACELP, 8kbps
G.711 - PCM, 64 kbps (μ/A-law)
G.726/G.727 - ADPCM / E-ADPCM, 16-40 kbps
NetCoder® - Proprietary, 6.4-9.6 kbps, 800 bit steps

Silence Suppression
G.723.1 Annex A
G.729 Annex B
PCM and ADPCM - Proprietary
NetCoder ® - Proprietary

Echo Cancellation
G.168 25 mSec

Gain Control
Programmable

Fax/Modem - Transparency (IP and ATM)
Auto-switch to PCM or ADPCM on V.34/V.90/Fax modem detection

In-band Signaling
DTMF per TIA464B
MFR1, MFR2
Call Progress

CAS
T1 robbed bit, E1 CAS/MFC-R2

CCS
ISDN PRI

V5.2
Access Network

Control Protocols
MGCP (RFC 2705), MEGACO (H.248), AudioCodes' proprietary TPNCP

Management Interfaces
Embedded Web Server
SNMP v2: MIB2, RTP MIB, TRUNK MIB, AudioCodes' Proprietary MIB

Host Interface
Via PCI bus, using Win-NT library

Mechanical
PICMG 2.0, R2.1 compactPCI

PCI Bus Interface
Max 33 MHz, 32 bit, master/slave mode

Telephony Interfaces
Up to 6 E1 or 8 T1 spans from rear panel RJ-48C connectors, 4 E1 or 5 T1 for the 128 port configuration

TDM Interfaces
H.110 CT Bus interface

H.110 Controller
Lucent Ambassador T8105 with 256 full-duplex connections to backplane

Ethernet
Dual Redundant 100Base-T, *for media streaming* (VoIP Board only) and call control

Hot Swap
Yes

Typical Power

120 Channels	19W
192 Channels	23W
192/ATM	25W

Power Supply
5V, 3.3

Physical
6U single cPCI slot

Operating System
Windows NT 4.0, Win-NT library, Linux
Solaris/INTEL
Solaris/SPARC

VoIP Board only

Capacity
128 independent digital voice/fax ports

Fax Relay (IP Only)
Group 3 real time fax relay up to 14.4 kbps with auto fallback
Tolerant to delays up to 5 seconds
T.38 compliant

VoIP Standards Compliance
RTP over IP per RFC 1889/1890

H.323 support
API includes interface to 3rd party H.323 stack running off-board

VoATM Board only

Capacity
192 independent digital voice/fax ports

Voice Over AAL2 Pre-defined Profiles
ITU-T : Profile Ids 1, 2,3,7,8
BLES/LES : Profile Ids 6,7,8,9,10,11,12

ATM
Optical Multimode OC-3c on the front panel

Selected VoAAL2 functions (BLES/LES and I.366.2)
Audio, Dialed digits and CAS services
Type 1 and Type 3 packets (including type 3 CRC-10)
Support for ATM OAM Cells

Ordering Information

TP-610 - 128- H.110 I/F, 100BT, 120ohms

Device Name	Channels (#)	Configuration
TP-610A-128XXHFU-R	128	VoIP, NO TRUNK I/F
TP-610A-1285THFU-R	128	VoIP, 5 T1, 4 E1 TRUNKS I/F
TP-610A-192XXHFU-R	192	VoIP, NO TRUNK I/F
TP-610A-1928THFU-R	192	VoIP, 8 T1, 6 E1 TRUNKS I/F
TP-610A-192XXHO-R	192	VoATM, NO TRUNK I/F
TP-610A-1928THO-R	192	VoATM, 8 T1, 6 E1 TRUNKS I/F

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