

SMARTTAP PT Series

Features

Summation allows monitoring of up to 16 channels in real-time thru an audio jack

Voltage Sense: Positive Start/Stop works with 24V & 48V systems

High Impedance interfaces providing On-Hook recording capability

On-board DSP providing Tone Detection & Voice Processing of up to 16 full-duplex channels

Passive Connection for non-intrusive monitoring and live monitoring

Caller ID / FSK /DTMF/MF

Full-Time/On-Demand Recording/Event Driven record

Uses SmartWORKS API (Common to all SmartWORKS products)

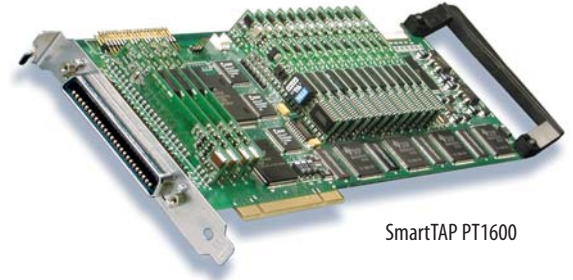
Expansive Speech CODEC support (20+)

Automatic Gain and Volume Control (AGC/AVC)

Advanced Streaming to prevent data loss regardless of system resource demand

Available for Windows NT® 4.0, Windows 2000, Windows XP, Linux

Medium Density Analog Passive Tap Card

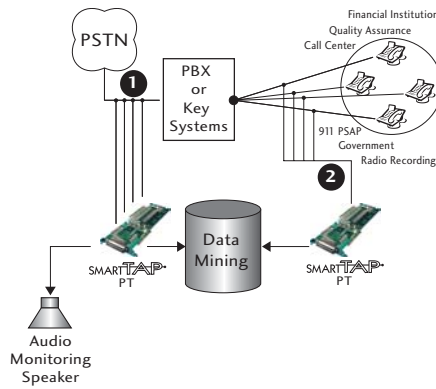
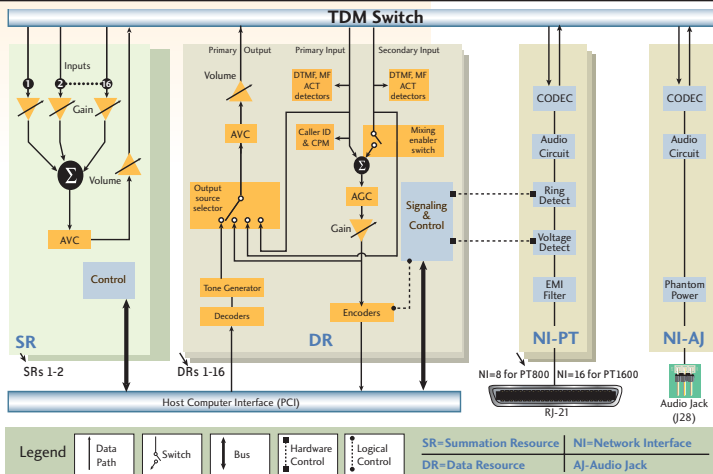


SmartTAP PT1600

Overview

The Ai-Logix SmartTAP PT, a member of the SmartWORKS family of products, is ideally suited for discreet analog call recording. The combination of its high impedance line interface and powerful on-board DSPs make it a complete hardware solution for any call recording application. The SmartTAP PT passively taps an analog loop or ground start 2-wire trunk in parallel, providing audio data while never interrupting service.

The PT uses Ai-Logix's Voltage-Sense technology which provides a positive method of Start/Stop. Combined with the powerful SmartWORKS API, the SmartTAP PT series contains all the necessary features to build high-density intelligent Call-Logging systems while eliminating the need for costly external conversion hardware.



The PT card is connected between the Central office (CO) and the PBX where it is bridged passively between the two (see 1). Additional connections can be made between the PBX and station set (see 2).

The diagram at left shows the PT's Logical Card Model, which shows how the PT functions with the SmartWORKS API.

Product	Part Number
PT800 8-channel Passive Tap:	910-0305 001
PT1600 16-channel Passive Tap:	910-0306-001
PT409 4-channel Passive Tap (w/G.729a support):	910-0327-001
PT809 8-channel Passive Tap (w/G.729a support):	910-0320-001
PT1609 16-channel Passive Tap (w/G.729a support):	910-0319-001

Product Specifications All product specifications are subject to change without notice

HARDWARE SYSTEM REQUIREMENTS

Pentium II or equivalent 400 MHz or better
 ATX PCI motherboard or passive backplane with 3.3V ATX power supply
 PCI 2.2 bus

OPERATING SYSTEMS

Windows NT® 4.0 · Windows 2000 · Windows XP · Linux

SDK

Ai-Logix Native SmartWORKS API

TECHNICAL SPECIFICATIONS

Max boards per system: PT1600=16 boards (256 ports)
 PT800=16 boards (128 ports)
 Resource Sharing Bus: MVIP or H.100
 Boards Status: On-board LEDs
 Clocking: Master/Slave

ENVIRONMENTAL CONDITIONS

Operating Temperature: 0C to +60C
 Storage Temperature: -20C to +85C
 Humidity: 8% to 80% non-condensing
 Storage humidity: 8% to 80% non-condensing

PHYSICAL CHARACTERISTICS

Form Factor: Full-size PCI card

HOST INTERFACE

Bus Compatibility: Complies with PCISIG Bus Specifications, Rev. 2.2
 Bus Speed: 33 MHz
 Bus Mode: 32 bit bus master/target

TELEPHONY INTERFACE

Trunk type: Loop Start / Ground Start
 Trunk Interface: High Impedance (Z)
 AC Impedance: >6k Ohms
 Voltage Detection: Nom 16.5V Threshold

DC Leakage Current: Guaranteed Off Hook: <13.5V
 Guaranteed On Hook: >19.0V
 Min Operating Voltage 4.5Vdc
 (during live state) < 1mA
 DC Leakage Current: (during idle state) < 35µA
 Echo return loss: 32dB +/- 3 dB @ 1400 Hz
 Signal/Noise ratio: 35dB referenced to -15dBm
 Idle channel noise: Less than 20dBnc
 Crosstalk coupling: Less than -70 dB (0dBm, 1004Hz)
 Frequency response: 300Hz to 3400Hz +/- 3dB
 Ring detection: 30Vrms (min), 16 to 68Hz
 Ringer Equivalence Number: < 0.5
 External Connector: RJ-21X 25 Pair Female

ANALOG JACK

Audio Connector: 3-pin to 3.5mm female
 Output impedance: 300
 Input gain: +9dB
 Output gain: 2.73dBm @ 300

POWER REQUIREMENTS

+3.3 VDC: 1 Amp
 +5 VDC: 40 mA
 -12 VDC: 0.22 A
 +12 VDC: 0.22 A

TRIGGER CONDITIONS

Voltage Change: Fixed Thresholds
 VOX trigger: Min/Max silence · Min/Max activity

AUDIO SIGNAL

Receive range: -68 dBm to +3 dBm
 Input gain control: +24 to -64 dB
 Silence Detection: Programmable from API
 Transmit volume control: +24 to -64 dB
 Automatic Gain Control (AGC): Programmable from API
 Automatic Volume Control (AVC): Programmable from API
 Activity Detection: Programmable from API
 Alert Tone: Programmable from API

AUDIO DIGITIZING (ENCODING & DECODING)

8 Kb/s: G.729a**
 13 Kb/s: GSM 6.10, Microsoft GSM
 16 Kb/s: G.726
 24 Kb/s: G.726, OKI
 32 Kb/s: G.726, OKI
 40 Kb/s: G.726
 64 Kb/s: µ-law or A-law per G.711, 8 bit linear PCM
 128 Kb/s: 16 bit linear PCM
 Wave file formats: Microsoft GSM, 16-bit PCM
 Digitization selection: Programmable per channel, independent for encode and decode

DTMF TONE DETECTION

DTMF digits: 0 - 9, *, #, A, B, C, D
 Dynamic range: -38 dBm to 0 dBm
 Minimum tone detection: 40 ms
 Interdigit timing: 40 ms min.
 Acceptable twist: Per LSSGR sec. 6, 8 dB forward, 4 dB reverse
 Frequency variation: Accept all +/- 1.5%, reject all +/- 2.5%
 Noise tolerance: Per LSSGR sec. 6
 Talk off: Bellcore TR-TSY-000762

MF DETECTION

R1 digits: Per Q.151

SAFETY AND CERTIFICATIONS

Telecom: CFR Part 68 · DOC
 Emissions: FCC Part 15 class A · EN 55022
 Immunity: EN 55024
 Safety: EN 60950
 Estimated MTBF: 250,000 hours per Bellcore Method I

WARRANTY:

3 years standard

** PT809 and PT1609 only

