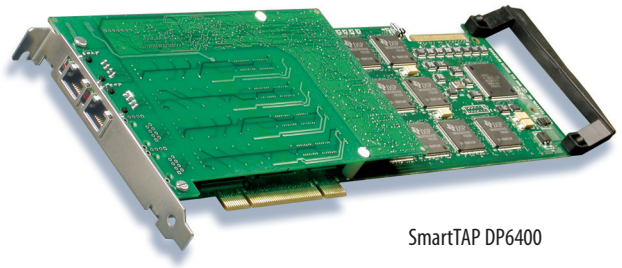
SMARTTAP DP Series

T1/E1 Passive Tap Card

Features

- Software Switchable between T1 and E1
- Auto-configures for all ISDN Variants
- High Density (Single/Dual span)
- On-board DSP providing Tone Detection & Voice Processing of up to 60 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

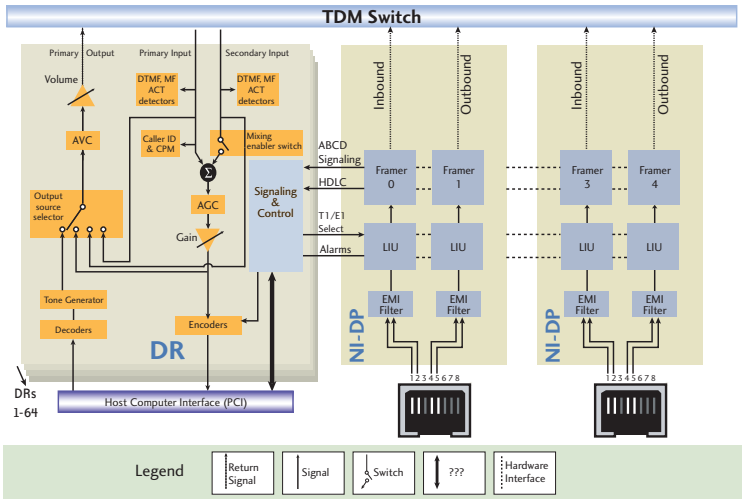


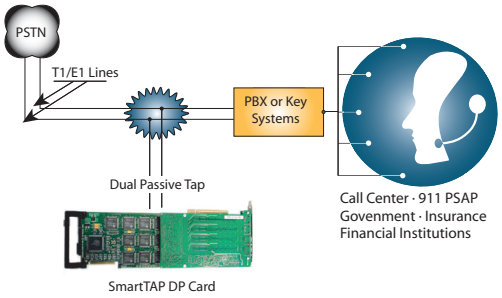
SmartTAP DP6400

Overview

Ai-Logix's high impedance (Z) SmartTAP family of PCI cards provides advanced features for building digital recording applications. The SmartTAP DP passively taps a T1 or E1 trunk in parallel, providing audio data without interrupting service.

The Smart TAP DP occupies a single PCI slot and up to 4 cards can be configured in a single system. The card uses high impedance inputs, each capable of monitoring inbound and outbound traffic. The High impedance receivers in each port monitor both downstream and upstream portions of a conversation independently. The monitored T1 or E1trunk remains unaffected in the event that a SmartTAP DP-equipped PC shuts down. Dedicated on-board DSPs allow for simultaneous recordings of up to 60 channels per card or 240 channels per system.





DP cards are connected between a T1/E1 trunk and the PBX where they passively monitor voice and data from both sides.

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

Product	Part Number	Available
DP3200 24/30 channel card:	910-0308-001	Now
DP6400 48/60 channel card:	910-0304-001	Now

Product Specifications

DP Series

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*

Technical Specifications

Max boards per system:	DP3200=4 boards (T1 96 ports/E1 120 ports) DP6400=4 boards (T1 192 ports/E1 240 ports)
Resource Sharing Bus:	MVIP or H.100
Boards Status:	2 LEDs per Trunk
Clocking:	Master/Slave

Environmental Conditions

Operating Temperature:	0C to +50C
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:	T1/E1
Trunk Interface:	Digital High Impedance (Z)
AC Impedance:	1k Ohms

Digital Trunk Interface

Receive clock rate	1.544 MHz +/-200ppm (2.048 +/-175ppm)
Input level	3.2 V down to 0.45V (LBO 0 dB to -22 dB)
Input impedance	1000 Ohm +/- 5%
Maximum tap length	30 m (100 feet) of CAT 3 cable
Framing	SF (D3/D4), ESF, CRC-4
Line Coding	AMI, B8ZS, HDB3
Clock and data recovery	Complies with AT&T TR62411 and Bellcore TA-TSY-000170
Connectors	Two RJ-48C connectors
Telephony bus connector	MVIP : 40 pin .025 sq. pin / Dual row H.100 : 68 pin fine pitch card edge connector
Loss of Signal Detection	Per ITU-T G.775 and ANSI T1.231
Alarm Detection and Integration	Red, Yellow and AIS, per ANSI T1.231
Binary Sequence Detector	Per ITU-T O.151

Robbed Bit T1

Signaling Mechanism	AB bits and MF/DTMF digits reported per channel. Inbound and outbound signaling bits and digits are reported separately.

ISDN Protocols*
4ESS/5ESS, DMS-100, ETS300 (Euro ISDN), NI-2, Q.SIG, ins1500, Austel TS013 & TS014

MF R2 Signaling · DTMF CAS Signaling

MF R2 Digits	All 15 digits, forward and reverse per Q.441
DTMF Digits	All 16 digits
Signaling Mechanism Supported	ABCD bits and DTMF digits reported per channel.
Dynamic range for detection	-25 to 0 dBm per frequency
Acceptable twist	10 dB
Acceptable frequency variation	1%

Power Requirements

+3.3 VDC:	2.5 Amp
+5 VDC:	5 mA
-12 VDC:	Not Required
+12 VDC:	20 mA

Trigger Conditions

Event Driven	Caller ID, 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
Frequency Response	300 - 3400 Hz (+/- 3dB)

Audio Digitizing (Encoding & Decoding)

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

Safety and Certifications

Telecom:	CFR Part 68 · DOC
Emissions:	FCC Part 15 class A · EN 55022
Immunity:	EN 55024
Safety:	EN 60950
MTBF:	536,000 hours per Bellcore Method TR332

Warranty:
3 years standard

*Call For availability

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