

## E1/T1 PCI

The E1/T1 PCI digital network access card brings with it the entire protocol heritage you would expect from Aculab. With the widest range of protocols available, developers can confidently specify this card with 1, 2, or 4 trunks (up to 120 channels), if complex on-board speech resources are not required.

### Familiarity breeds benefits

The digital network access modules employed on this single slot card were first introduced on the award winning Prosody PCI card. The range of type approvals and protocols already achieved are carried across to this trunk only card. This ensures customer familiarity from appearance through to integration, with minimum application change owing to use of Aculab's generic API.

### Networking options

When looking to select a digital network access card, planning of international product roll out should be fully considered. The PCI card offers public or private network connectivity via primary rate signalling modules, which are available in one (PM1), two (PM2) or four (PM4) network line interface (trunk) options. Configuration of trunks is software selectable in terms of termination impedances and for E1 or T1 presentation. Therefore, the same hardware module can be used as either an E1 or T1 trunk interface, under software control. Moreover, with a PM2 or PM4, E1 and T1 trunks can be simultaneously supported on the same hardware module. Benefits can be gained from the increased flexibility in deployed platform hardware, with possible reductions in system card count. Furthermore, this inherent flexibility in configuration of the E1/T1 PCI card ensures the roll out of a truly global product. Optional tone based signalling DSPs for inter working into legacy CAS and R2 derivative infrastructures are also provided. To view the full range of protocols, including SS7, see the protocols and approvals page on Aculab's website.

### Faster time to market

In seeking to assist developers and integrators to swiftly bring their solutions to market, Aculab has always employed a single, generic API across the whole product range, so the learning curve has a low gradient. All available protocols from our portfolio are posted on our website, enabling developers to collect the software free of charge, when they need it.

### On-line help

In case of query, our expert technical support teams are experienced and available to assist via telephone or email with no annual support fees.

### H.100 interconnection

Synonymous with PCI, H.100 specifies the PCM interconnection between computer telephony cards. The E1/T1 PCI card takes full advantage of the increased timeslot count (4096) over MVIP (512) and SCBus (1024) – important when aiming to architect high density solutions. For developers wishing to use one of these legacy buses, Aculab offers a 'CT bus legacy adapter' and the software option to function in either MVIP or SCBus modes.

### Basic signal processing functions

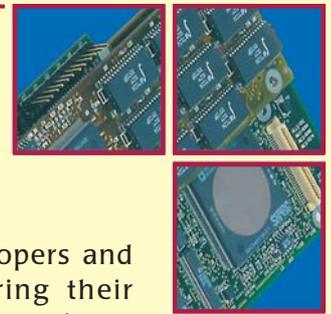
In addition to the optional DSPs used in support of signalling in tone based networks, a second set of optional DSPs (up to four) are offered to fulfil some basic speech functions. Each function is written in a free downloadable algorithm that runs on a per DSP basis.

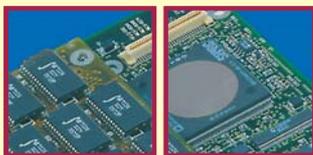
**Conferencing** of two parties can be achieved, with an added warn tone where there is a need to monitor a two-way conversation.

**A/μ, μ/A law conversion** allows incoming PCM streams in one format to be changed to the other format (with or without gain), prior to being connected to another network, or speech resource.

**Tone generation and detection** are required to support applications where single and dual frequency tones are needed for handshaking or navigating through user menus.

**Fax tone detection** allows the application to control the routing of calls by allocating a DSP resource to 'listen' to each incoming channel.





## Technical summary

### Hardware delivery options

- E1/T1 PCI card supplied with PM1, or PM2, or PM4 trunk modules
- Optional DSP module for tone based protocol signalling
- Optional DSP module for basic signal processing functions

Note: The optional DSP modules are the same, but perform different functions in different card locations. Either or both may be employed.

### Software options

- Drivers and numerous signalling protocols are available free of charge to download – see the software downloads area of our website
- Basic speech function algorithms can also be downloaded free of charge – build options are:
  - **2-party conferencing:** 2-party conversation monitoring
  - **Tone generation and detection:** DTMF detection, call progress detection, and combined DTMF and call progress generation
  - **A/μ, μ/A law conversion:** with gain control
  - **Fax tone detection:** Group 3 carrier frequency detection at 1100Hz and 1300Hz

### Digital network access support

Network line interfaces	1, 2 or 4 E1/T1 trunks
Network connectors	1, 2 or 4 RJ45/RJ48C; BNC via adapter
E1/T1 – software selectable?	Yes
Network terminations	75R, 100R or 120R – software selectable
Protocols supported	We have a wide range of protocol coverage – see <a href="http://www.aculab.com/products/protocols_and_approvals.htm">www.aculab.com/products/protocols_and_approvals.htm</a>
Telecom approval	We have a wide range of approvals – see <a href="http://www.aculab.com/products/protocols_and_approvals.htm">www.aculab.com/products/protocols_and_approvals.htm</a>

### Signal processing

Optional DSP resource*	2-party conferencing	2-party conversation monitoring (with added warn tone)
	Tone generation and detection	DTMF detection, call progress detection, and combined DTMF and call progress generation
	A/μ, μ/A law conversion	With or without gain control
	Fax tone detection	Group 3 carrier frequency detection at 1100Hz and 1300Hz

### Physical

CT card interconnections	H.100 (SCBus and MVIP via adapter)
CT bus loading factor	1
Power consumed (maximum in Watts)	20W
Card format	PCI full size
Bus type	PCI 32 Universal (3V3/5V), 32 bit, 33MHz
Single card slot?	Yes
Arbitrary matrix switching between all timeslots?	Yes
Bridged chassis backplane working?	Yes
EMC standard	Meets all mandatory international standards
Safety standard	Meets all international certification schemes e.g., CB, UL, CUL
Operating environment	Temperature: 0-50°C. Humidity: 10 to 95% RH non-condensing. Altitude: 0 to 2500m
Operating systems supported	Windows XP/2000/; Windows Server 2003; Linux; Sun SPARC Solaris

\* Either DSP32 or DSP65 will be supplied

For more information, please contact your Account Manager or view our website:

<http://www.aculab.com>