

Digital Telephony Card E1

D-201E / D-401E digital telephony card featuring voice/data transmission interfaces over 4 E1 links and a hardware echo cancellation unit

Futures

- Up to 30 simultaneous calls to port 1E1 (and 120 for 4E1 cards)
- Support for E1 physical interface connection
- TDM protocol support: ISDN PRI, QSIG, CAS
- Standard Industrial Port RJ-45
- PCI Form Factor
- Available in ports 2E1, 4E1 and hardware echo cancellation module



Application

- Legacy PBX/IVR Services
- Voice over Internet Protocol (VoIP) services
- Complex IVR Trees
- "Meet-Me" Bridge Conferencing
- VoIP Gateways (SIP, H.323 and IAX supported)
- Calling Card Platforms
- Voice/Data Router
- PRI Switch Compatibility – Network or CPE
- Asterisk IP-PBX
- FreeSwitch

Overview

The D-201E/D-401E telephony card is designed to build digital telephony systems based on the Asterisk IP-PBX and performs data/voice exchange over E1 links.

The PCI 32/33 MHz bus is used as a host interface.

This card provides up to 120 links to transmit voice and data over four E1 interfaces.

The D-201E/D-401E telephony card is fully compatible with DAHDI/Zaptel drivers.

The D-201E/D-401E card is notable for its flexible installation options - it can be installed in both 5V and 3.3V slots. This allows to use the board in PCI as well as in PCI-X slots.

The PCI master mode is used to relieve the CPU from I/O operations and increase the PCI bandwidth.

The product allows for installing the hardware echo cancellation unit - ECM-128-OCT/ECM-064-OCT.

Specifications

- Two or four E1/T1 ports with one PCI interface optimized for voice and data applications.
- Support for Asterisk®, FreeSwitch™, and other open source applications for creating IP PBX, IVR applications, VoIP gateways and switches.
- PSTN protocol support: ISDN PRI, QSIG, CAS.
- Optional DSP hardware echo cancellation module.
- Autosense compatibility with 5 V and 3.3 V PCI busses
- Temperature range: 0 - 50 ° C.

Data Transfer Protocols

- SyncPPP
- Frame Relay
- Cisco HDLC
- Multi-link PPP

Voice Transfer Protocols

- Feature Group D
- E&M Wink
- a-Law, μ -Law
- Linear Modes Supported

Port Features

- Line coding: HDB3, AMI, B8ZS
- Frame alignment: CRC-4, CRC-4, ESF, SF, D4T1/E1

Hardware Requirements

- CPU 800 MHz or higher
- RAM 128 MB or higher
- PCI 2.2 slot 32-bit/33 MHz

Software Requirements





- Linux kernel 2.6.x

Hardware Echo Cancellation

The hardware echo cancellation module is designed to process conversational information simultaneously in 120 channels, which allows not to load the processor of a VoIP system.

The solution is based on the use of Octasic's DSP processor, which allows for 128ms (1024 taps) echo cancellation on all channels in accordance with recommendation G.168 ITU-T.

Execution options

Part Number	Photo	Description
D-201		2E1, 60 channels for voice and data transmission via 2 E1 interfaces without hardware echo cancellation module
D-201E		2E1, 60 channels for voice and data transmission via 2 E1 interfaces, G.168 echo cancellation unit
D-401		4E1, 120 channels for voice and data transmission via 4 E1 interfaces without hardware echo cancellation module
D-401E		4E1, 120 channels for voice and data transmission via 4 E1 interfaces, G.168 echo cancellation unit