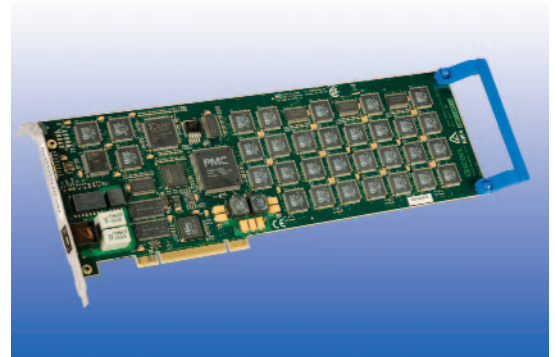


## Dialogic® Diva® V-PRI/E1-30 Media Board

The Dialogic® Diva® V-PRI/E1-30 Media Board is a building block for enabling speech and Voice over Internet Protocol (VoIP) applications.

The Diva V-PRI/E1-30 is based on the latest PCI and PCI Express standards, and provides connectivity to the telephony network via ISDN PRI or E1 interfaces. Powerful DSPs — one dedicated to each communications channel — ensure real-time voice processing while reducing system latency and improving overall system performance. An open and well-documented application programming interface (API), combined with support for a broad range of operating systems, facilitates development of leading-edge speech and VoIP applications.



Features	Benefits
<b>Handles voice either in PSTN standard coding or in compressed coding</b>	Allows adaptation to any kind of telephony system
<b>Onboard DSPs</b>	Performs complex operations in real time, enhancing overall system performance and lowering implementation cost
<b>Full-duplex voice channels</b>	Enables barge-in
<b>Enhanced echo cancellation and voice activity detection</b>	Improves recognition accuracy and effectively uses host platform resources
<b>Line connection and conferencing on a single board and across boards with Automatic Gain Control (AGC)</b>	Enhances switching and conferencing
<b>Supports voice packetization into RTP, voice compression (G.726 and GSM), adaptive jitter buffer, and comfort noise generation</b>	Allows integration of established voice, speech, and conferencing applications with IP telephony clients and IP phones (VoIP)
<b>Supports CAPI, TAPI, and an open API</b>	Excellent for voice portals, speech-enabled IVR, and media servers
<b>Up to eight Dialogic® Diva® boards can operate concurrently in the same server</b>	Scales easily from 2 to 240 channels
<b>Conforms to plug and play standards</b>	Easy installation

## Technical Specifications

### Quick Reference

Voice resources	30
Fax resources	0
Conferencing resources	30
Maximum boards/system	8
CSP	Yes
Form factor	Full-size PCI or full-size PCI Express
Resource bus	PCI rev 2.2 up to 66 MHz or PCI Express 1.0a x1 lane (3.3/12 V)
Connection	RJ-45
Network interface	PRI and E1 (TE and NT Mode)
Signaling	ETSI, NI-1, 4ESS, 5ESS, and all major ISDN protocols; QSIG, T1/RBS, E1/R2, SS7 (ITU-T ISUP,) and many more
Operating system	Windows®; Linux. Details at <a href="http://www.dialogic.com/systemreleases">http://www.dialogic.com/systemreleases</a>
Volts	PCI: 3.3 V, 5 V or PCI Express: 3.3 V, 12 V
Required accessories	PRI/E1 cable (RJ-45/RJ-45)

### Hardware

- Active ISDN board for Primary Rate Interface (PRI) and E1 interface
- 1 X RJ-45 connector
- Bus type: PCI rev 2.2 up to 66 MHz or PCI Express 1.0a x1 lane (3.3/12 V)
- 64-bit RISC CPU, 300 MHz, 420 MIPS
- 31 x 33 MHz, 60 MIPS DSP
- 32 MB onboard SDRAM
- High-impedance mode for passive monitoring
- I/O addresses and interrupt are placed by the system
- Plug and play interface
- Scalable to 8 boards per system
- Power down management
- Physical dimensions:
  - 312.00 mm x 106.68 mm
  - 352.17 mm x 126.37 mm (including bracket and retainer)
- Production quality: ISO 9002

### Power Consumption and Environmental

- Power consumption: 0.97 A @ +5 V typical, 2,7 A @ +5 V maximum
- Operating temperature: 10°C to 50°C
- Storage temperature: 0°C to 70°C
- Maximum tolerance in voltage fluctuation: According to the respective PCI or PCI Express specification

### Driver Software

- Supported operating systems: Windows®; Linux. Details at <http://www.dialogic.com/systemreleases>
- D-channel and Signaling Protocols: ETSI-DSS1 (Euro-ISDN), NI-1 (North America National ISDN 1), 1TR6 (Germany), NET3 (Belgium), VN3/4/6 (France), 4ESS (AT&T), 5ESS (AT&T), 5ESS (Lucent), DMS100 (Nortel), T1 – Robbed Bit Signaling, INS-64 (Japan), INS-1500 (Japan), Australia on-ramp, QSIG, E1-R2 (China), E1-R2 (India), Channelized E1, External Signaling (transparent D-channel), Direct Access Mode (no signaling), Network Termination (NT Mode)
- B-channel protocols: HDLC, Synchronous PPP and MLPPP, X.75 (LAPB), Transparent, X.25, T.30, T.90NL, T.70NL, Rate adaptation (56 kbps), up to V.90, V.42, V.42bis, V.110, V.120, PIAFS
- Application interfaces: Microsoft®: WAN Miniport, COM Port, TAPI, CAPI 2.0, extended CAPI, Dialogic® Diva® API, Component API (VB6 and VB.NET), VoIP (SIP/RTP); Linux: TTY, CAPI 2.0, extended CAPI, Diva API, VoIP (SIP/RTP)
- Diagnostic tools: B-channel and D-channel trace program
- M-adaptor feature (patent pending): Combined Virtual Adapter, Internal Call Transfer, Explicit Call Transfer Emulation
- SNMP support: Windows®: v2c; Linux: Net-SNMP v1, v2c and v3

## Technical Specifications (cont.)

### Driver Software (cont.)

- Dialogic® Diva® SIPcontrol®: VoIP and FoIP (T.38) Gateway Software. For up to 8 channels per system, the licenses are free of charge. If more than 8 channels are required, licenses can be ordered from Dialogic. Diva SIPcontrol can be downloaded from <http://www.dialogic.com>.

### Voice Features

- DTMF/MF transmission, detection and generation
- Voice Activity Detection (VAD)
- Generic tone detection and generation
- Fax signal detection
- Full-duplex voice, barge-in
- G.168 echo cancellation, up to 128 ms tail length
- Pitch control
- Audio tap
- ISDN supplementary services
  - Number identification services (CLIP, CLIR, COLP, COLR, KEY, MSN, DDI, SUB)
  - Call offering services (TP, CFU, CFB, CFNR)
  - Call completion services (CW, HOLD, ECT)
  - Charging services (AoC)
  - Three-party conference
  - Large conference
- Special Information Tone (SIT) detection
- DTMF clamping and filtering
- Silence detection
- Automatic Gain Control (AGC)
- Cross-board switching
- Onboard switching and conferencing via line interconnect (call tromboning)
- VoIP support (features available when used in VoIP installations)
  - G.711 voice coder (64 kbps,  $\mu$ -law, A-law)
  - G.726 voice coder (32 kbps)
  - GSM voice coder (13 kbps)
  - G.168 echo cancellation, up to 128 ms tail length
  - Adaptive jitter buffer
  - Voice Activity Detection (VAD)
  - Comfort Noise Generation (CNG)
  - Real-time Transport Protocol (RTP) framing

### Safety and EMC

Canada	ICES-003 Class B, CSA 60950-1
Europe	EN60950-1, EN55022, EN55024
United States	FCC Part 15 Class B UL60950-1

### Telecommunications

United States	TIA-968
Canada	CS03

### Approvals, Compliance, and Warranty

Hazardous substances	RoHS compliance information at <a href="http://www.dialogic.com/rohs">http://www.dialogic.com/rohs</a>
Country-specific approvals	Global product approvals database at <a href="http://www.dialogic.com/declarations">http://www.dialogic.com/declarations</a>
Warranty	Warranty information at <a href="http://www.dialogic.com/warranties">http://www.dialogic.com/warranties</a>

## Ordering Information

Dialogic® Diva® Product	Order Code
V-PRI/E1-30	306-214
V-PRI/E1-30 – China	306-265
V-PRI/E1-30 – Australia	306-215
V-PRI/E1-30 – New Zealand	306-270
V-PRI/E1-30 PCI Express	306-315

To learn more, visit <http://www.dialogic.com>

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