# Dialogic® Diva® PRI/T1-24 Media Board

The Dialogic® Diva® PRI/T1-24 Media Board streamlines network administration without sacrificing performance. It provides a simple, flexible, and cost-effective solution that allows one server to manage the fax, messaging, and remote access needs of an organization.

The Diva PRI/T1-24 is a board that supports one ISDN Primary Rate Interface (PRI) or T1 interface, and is available in a PCI and PCI Express version. It enables one server to support up to twenty-four concurrent communications with a mix of ISDN devices, V.90 modems, GSM mobile phones, and fax machines, making it an excellent choice for medium to large businesses. Because it is based on open-systems architecture, most industry-leading fax, unified messaging, computer telephony integration, and Voice over IP (VoIP) applications integrate easily when the Diva PRI/T1-24 is used.
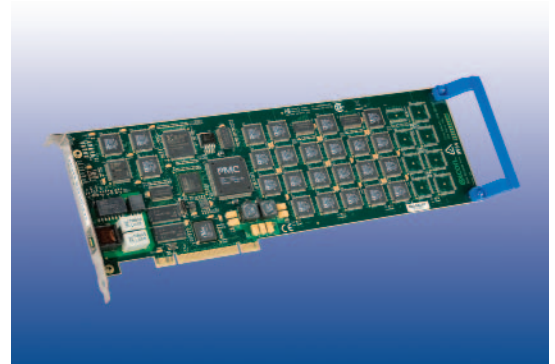
Features	Benefits
Supports standardized software interfaces	Has the flexibility to work with many different software packages
Multiple Diva PRI/T1-24 boards can be mixed in one system with other Dialogic® Diva® boards	Provides easy upgrade and scalability
On-board 32-bit RISC CPU, 64 MB RAM, and 24 Digital Signal Processors (DSPs), providing one dedicated DSP per channel	Removes performance bottlenecks by performing real-time tasks that would excessively burden the host server on DSP
Group 3 fax, voice mail, and email including DTMS, ECM, RMR, MMR, MH, and 33.6 kbps fax	Suitable for fax and unified messaging applications
Modem up to V.90, V.42bis compression, and V.42 error-correction	Enables fast and reliable transmission for modems and fax
CAPI, TAPI, and Dialogic® Diva® Software Development Kit - Version 4.5, including high-level functions	Excellent for Interactive Voice Response (IVR) and contact center application
Implements a set of supplementary services	Ensures application compatibility with major PBXs and lines
Echo cancellation (G.168) and voice compression in the DSP	Provides high performance and high quality for VoIP
Conforms to plug and play standards	Allows easy installation and GUI-based configuration
All multinational ISDN protocols	Ready for worldwide use

Technical Specifications

Quick Reference

Voice resources	24
Fax resources	24
Conferencing resources	24
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 (3.3/12V)
Connection	RJ-45
Network interface	PRI and T1 (TE and NT Mode)
Signaling	NI-1, 4ESS, 5ESS, and all major ISDN protocols; QSIG, T1/RBS, and many more
Operating system	Windows®; Linux. Details at http://www.dialogic.com/systemreleases
Volts	PCI: 3.3 V, 5 V; PCI Express: 3.3 V, 12 V
Required accessories	PRI/T1 cable (RJ-45/RJ-45)

Hardware

- Active ISDN board for Primary Rate Interface (PRI) and T1 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 V / 12 V)
- 64-bit RISC CPU, 300 MHz, 420 MIPS
- 24 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
- Scaleable 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: 0.92 A @ +5 V typical, 2,6 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, 4ESS (AT&T), 5ESS (AT&T), 5ESS (Lucent), DMS100 (Nortel), T1 – Robbed Bit Signaling, QSIG, 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-adapter feature (patent pending): Combined Virtual Adapter, Internal Call Transfer, Explicit Call Transfer Emulation
- SNMP support: Windows®: v2c; Linux: Net-SNMP v1, v2c and v3
- Dialogic® Diva® SIPcontrol™ Software: 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.

Technical Specifications (cont.)

Fax and Modem Features

- Fax Group 3 support
  — Up to 33.6 kbps with each B-channel (send and receive)
  — Fax compression MH, MR, MMR
  — Error Correction Mode (ECM)
  — Fax polling / fax on demand
  — Fax tone detection
  — Standard, fine, super-fine and ultra-fine resolution

- Support for fax class 1 and 2

- Fax Group 4 support (via third party application)

- Support for fax over IP (FoIP), T.38 (when using SIPcontrol)
  — Up to 33.6 kbps with each channel (send and receive)

- Remote access (via HDLC, V.90, GSM, V.120, X.75)
  — GSM support (V.110) up to 38.4 kbps
  — Communicates with analog modems up to V.90 (up to 56 kbps on each B-channel)

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, μ-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
United States	FCC Part 15 Class B UL60950-1
Europe	EN60950-1, EN55022, EN55024

Dialogic®

Technical Specifications (cont.)

Telecommunications

United States	TIA-968
Canada	CS03

Approvals, Compliance, and Warranty

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

Ordering Information

Dialogic® Diva® Product	Order Code
PRI/T1-24 – North America	306-208
PRI/T1-24 – Japan	306-277
PRI/T1-24 PCI Express – North America	306-306
PRI/T1-24 PCI Express – Japan	306-329

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

Dialogic Corporation
9800 Cavendish Blvd., 5th floor
Montreal, Quebec
CANADA H4M 2V9