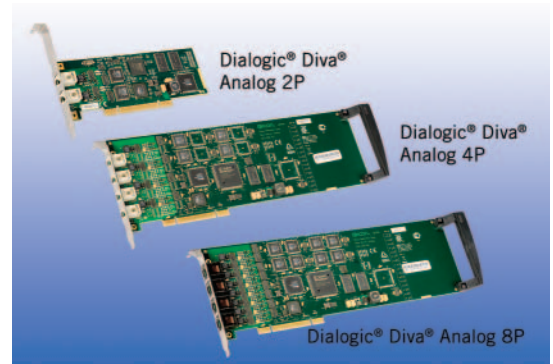


## Dialogic® Diva® Media Boards

The Dialogic® Diva® Media Boards for analog applications provide a universal 2-port, 4-port, and 8-port communications platform that offers advanced telephony support, high-performance media processing capacity, and VoIP support.



### Products Discussed in This Datasheet

- Dialogic® Diva® Analog-2P Media Board
- Dialogic® Diva® Analog-4P Media Board
- Dialogic® Diva® Analog-8P Media Board

### Features

### Benefits

#### Pulse and tone dialing

Handles enterprise fax, voice, and remote access applications for any PBX offering analog trunk interfaces

#### Sophisticated hardware design

Operates with low power consumption

#### Onboard CPU and Digital Signal Processors (DSPs)

Removes performance bottlenecks by performing key real-time tasks that would ordinarily place an excessive burden on the host server

#### Powerful DSP dedicated to each communications channel

Ensures real-time processing of complex operations (such as V.90 data modem, V.34 fax receiver and transmitter, voice compression, or echo cancellation) while enhancing overall system performance, which lowers implementation costs

#### Supports same programming interfaces as other Dialogic® Diva® boards: CAPI, TAPI, and Dialogic® Diva® API

Minimizes porting efforts and reduces time to market

#### Up to eight Diva® boards of the same or mixed types can operate concurrently in a single server

Easy scalability to meet an organization's increasing communications needs

#### Conforms to plug and play standards

Easy installation and operation

Based on the latest industry standards, the Diva Analog-2P, Analog-4P, and Analog-8P boards work in any PCI and PCI-X-based server with low power consumption and excellent heat dissipation. Equipped with a powerful onboard CPU and Digital Signal Processors (DSPs), these boards can perform even the most demanding media processing functions, including V.90 modem, high-speed V.34 fax, echo cancellation, and Voice over Internet Protocol (VoIP) processing.

The Analog-2P, Analog-4P, and Analog-8P boards support the same set of programming interfaces as other Dialogic® Diva® boards: CAPI, TAPI, the Dialogic® Diva® API, and SIP. Because of this consistent support, any application written for another Diva® board will either work without modifications or is easily portable to systems using the Diva analog boards.

## Technical Specifications

### Quick Reference

Voice resources	2, 4, or 8
Fax resources	2, 4, or 8
Conferencing resources	2, 4, or 8
Maximum boards/system	8
CSP	Yes
Form factor	2-port: low-profile PCI; 4- or 8-port: full-size PCI
Resource bus	PCI rev 2.2 up to 66 MHz
Connection	2, 4, or 8 RJ-11/14
Network interface	Analog
Signaling	Loopstart
Operating system	Windows®; Linux. Details at <a href="http://www.dialogic.com/systemreleases">http://www.dialogic.com/systemreleases</a>
Volts	3.3 V, 5 V
Required accessories	None

### Hardware

- 32-bit RISC CPU, 100 MHz, 131 MIPS
- 16 MB onboard SDRAM Memory
- Telephony interface:
  - 2 x RJ-10 connectors (Diva Analog-2P), RJ-10 to RJ-11 cables supplied
  - 4 x RJ-10 connectors (Diva Analog-4P), RJ-10 to RJ-11 cables supplied
  - 4 x RJ-45 connectors (Diva Analog-8P), RJ-45 to RJ-10 adapters and RJ-10 to RJ-11 cables supplied
  - POTS trunk interface
  - Loopstart signaling
- Physical dimensions:
  - 167.52 mm x 64.41 mm (PCB of Diva Analog-2P)
  - 181.36 mm x 80.06 mm (Diva Analog-2P with Low Profile bracket)
  - 181.36 mm x 120.88 mm (Diva Analog-2P with standard bracket)
  - 312.00 mm x 106.68 mm (PCB of Diva Analog-4P and 8P)
  - 352.17 mm x 126.37 mm (Diva Analog-4P and 8P including bracket and retainer)
- 2/4/8 x 32.76 MHz, 65 MIPS DSP
- Host interface:
  - Low-profile (2P) or full-size PCI form factor (4P and 8P)
  - 3.3/5 V universal signaling
  - PCI plug and play
  - PCI 2.2 up to 66 MHz
  - Scaleable to 8 adapters per system

### Power Consumption and Environmental

- Power consumption: 340 (2P), 450 (4P) and 500 mA (8P) @ +5 V typical
- 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

## Technical Specifications (cont.)

### Driver Software

- Supported operating systems: Windows®; Linux. Details at <http://www.dialogic.com/systemreleases>
- Application interfaces: Microsoft®: WAN Miniport, COM Port, TAPI, CAPI 2.0, extended CAPI, Diva® API, Component API (VB6 and VB.NET), VoIP (SIP/RTP); Linux: TTY, CAPI 2.0, extended CAPI, Diva® API, VoIP (SIP/RTP)
- 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>.

### Features

- Call progress analysis
  - Busy tone detection
  - Ring back tone detection
  - Special Information Tone (SIT) detection
  - Fax/modem detection
  - Dial tone detection
- Pulse dialing
- Analog caller identification (via FSK and DTMF signaling)
- Tone (DTMF/MF) dialing
- Hold/retrieve (via hookflash)
- Collection of DTMF post dial digits
- Voice and speech
  - G.711 coding (A-law,  $\mu$ -law selectable)
  - DTMF detection and generation
  - DTMF clamping and filtering
  - Generic tone detection and generation
  - Pulse tone detection
  - Full-duplex voice, barge-in
  - Voice Activity Detection (VAD)
  - Silence detection
  - Human talker detection
  - Recording Automatic Gain Control (AGC)
  - Pitch control
  - Audio tap
  - G.168 echo cancellation, up to 32 ms tail length
- Voice over IP (VoIP)
  - G.711 voice coder (64 kbps,  $\mu$ -law, A-law)
  - G.726 voice coder (32 kbps)
  - GSM voice coder (13 kbps)
  - Adaptive jitter buffer
  - Voice Activity Detection (VAD)
  - Comfort Noise Generation (CNG)
  - Real-time Transport Protocol (RTP) framing
  - G.168 echo cancellation, up to 32 ms tail length
- Switching and conferencing
  - Onboard switching and conferencing
  - AGC
- Support for fax class 1 and 2
- Support for fax Group 3, T.30
  - V.17, V.29, V.27ter, V.21, V.34 modulation
  - Fax polling/ fax on demand
  - Up to 33.6 kbps with each channel (send and receive)
  - Page formats: ISO A4, B4, A3
  - Fax compression MH, MR, MMR
  - Error Correction Mode (ECM)
  - Standard, fine, super-fine and ultra-fine resolution
  - Color fax (JPEG-format)
- Support for FoIP, T.38 (when using SIPcontrol)
  - Up to 33.6 kbps with each channel (send and receive)
- Data modem
  - V.21, V.22, V.22bis, Bell 103, Bell 212A, V.32, V.32bis, V.34, V.42, V.42bis, V.90, MNP4, MNP5
  - Modem with extension: V.18, V.21, Bell 103, V.23, EDT, Baudot 45, Baudot 47, Baudot 50 incl. DTMF, V.42, V.42bis

## Technical Specifications (cont.)

### 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
Analog-2P (with additional LP bracket)	306-302
Analog-2P North America (with additional LP bracket)	306-303
Analog-4P	306-232
Analog-4P North America	306-234
Analog-4P China	306-260
Analog-8P	306-233
Analog-8P North America	306-235
Analog-8P China	306-259

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

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