

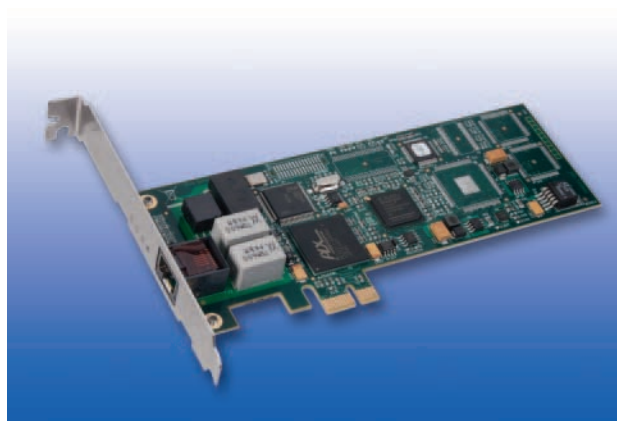
Dialogic® Blue™ Telephony Boards

Datasheet

The Dialogic® Blue™ OneSpan-24/30-S-LP Telephony Board Inaugurates a New Product Line for Open Source Markets

The Dialogic® Blue™ OneSpan-24/30-S-LP Telephony Board is an efficient one-span host-based call-processing board for the open source market, which includes features for Interactive Voice Response (IVR) along with call transfer emulation, G.711 support, Automatic Gain Control (AGC), and software-based echo cancellation.

The form factor of the OneSpan-24/30-S-LP Telephony Board is Low Profile PCI Express (PCIe), which is half the length and half the height of a standard PCIe board. The OneSpan Board is very well suited for installations in which one or two telephony boards are needed to provide from 24 to 60 channels (phone line connections) for a single server.



Features

Supports a variety of standard APIs

Low Profile PCIe form factor

Supports most of the signaling stacks in use today

Feature set well suited for use with the Asterisk telephony server

Plug-and-play

Compatible with Dialogic® Diva® Media Boards

Benefits

Usable in many environments

Uses space efficiently (half the length and half the height of a standard PCIe board)

Compatible with major PBXs and phone lines worldwide

Brings Dialogic® technology to the Asterisk market

Easy to install and operate

Facilitates upgrading to a more powerful Diva Media Board for increased scalability or extended feature set

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The OneSpan-24/30-S-LP Telephony Board supports features required for most communications applications and for use in many Asterisk environments. Because it supports many standard APIs, the OneSpan Board is very useful when developing new applications.

The OneSpan-24/30-S-LP Telephony Board is supported under the Linux operating system. Support for Windows® is planned for Q4 2010.

Choosing a Host Processor

Because it is a “passive” board without an onboard CPU or DSPs, the OneSpan-24/30-S-LP Telephony Board relies on the host CPU to provide the computing power for the functionality that an application requires, such as echo cancellation and line interconnect. For this reason, the host CPU must be carefully selected to provide an appropriate feature set and system load capabilities. A system with 3MB L3 cache and 2.26GHz processor speed and 4 GB of DDR3 memory, for example, should be sufficient for many applications.

Generally the OneSpan-24/30-S-LP Telephony Board is suitable for applications such as IVR systems designed to handle a maximum of 50 calls simultaneously, low-density conferencing servers with a maximum of six attendees, monitoring applications (two One Span Boards are required), and other telephony applications that use only a moderate amount of host resources.

Applications such as large conferencing servers with echo cancellation normally require a more powerful system and possibly more powerful telephony boards. For help in choosing an appropriate host system and/or telephony boards for your application, contact Dialogic. [Local Dialogic contact information](#) is available online.

Great care has been taken to allow for an easy upgrade from Dialogic® Blue™ Telephony Boards to Dialogic® Diva® Media Boards when increased scalability or an extended feature set is required. Information on [Diva Media Boards](#) is available on the Dialogic website.

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Technical Specifications

Quick Reference

Voice resources	24 (T1), 30 (E1)
Boards per system	1 for a mid-size system; 2 for a larger system; the number of boards depends on the application in use and server hardware performance
CSP	Yes
Form factor	Low Profile (shipped with mounted standard-size bracket; a low-profile bracket is also included)
Resource bus	PCIe 1.0a x1 lane (3.3/12 V)
Connection	1 RJ-45 connector
Network interface	E1/T1 and ISDN PRI in TE and NT Mode
Signaling	ETSI, NI-1, 4ESS, 5ESS, and major ISDN protocols; QSIG; and many more
Operating system	Linux; Windows® support planned for Q4 2010.
Volts	3.3 and 5
Required accessories	1 shielded RJ-45/RJ-45 cable

Hardware

- FPGA for fast streaming of TDM packets
- Physical dimensions:
 - 167.65 mm x 68.90 mm (PCB)
 - 181.38 mm x 80.06 mm (with low profile bracket)
 - 180.96 mm x 120.88 mm (with standard bracket)
- High-impedance mode for passive monitoring
- I/O addresses, memory, and interrupt allocated automatically
- Plug-and-play interface
- Production quality: ISO 9002

Power Consumption and Environmental

- Power consumption: 0.58 A @ 3.3 V (typical), 0.04 A @ 12 V (typical)
- Operating temperature: 10°C to 50°C
- Storage temperature: 0°C to 70°C
- Maximum tolerance in voltage fluctuation: according to the PCI Express specification

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Technical Specifications *(continued)*

Dialogic® Diva® System Release Software and Dialogic® Diva® SDK Software

To allow an easy upgrade from Dialogic® Blue™ Telephony Boards to Dialogic® Diva® Media Boards, which is a more powerful product line with a richer feature set, the Dialogic® Blue™ OneSpan-24/30-S-LP Telephony Board uses the Dialogic® Diva® System Release and Dialogic® Diva® SDK Software. Capabilities of the Diva System Release and Diva SDK include:

- Supported operating systems: Linux and Windows® (planned for Q4 2010)
- 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
- Application interfaces
 - Microsoft® operating systems: Dialogic® Diva® API, Diva API for .NET, Diva Component API (VB.NET), COM Port, WAN Miniport, TAPI, CAPI 2.0, extended CAPI, VoIP (SIP/RTP)
 - Linux: Diva API, TTY, CAPI 2.0, extended CAPI, VoIP (SIP/RTP)

Note: The OneSpan-24/30-S-LP Telephony Board does not currently support Windows and other Microsoft® technology. Support is planned for Q4 2010.

Signaling

- DSS1 (Euro-ISDN), NI-1 (North America National ISDN 1), 5ESS (North America), 1TR6 (Germany), INS Net 64 (Japan), VN3 (France), CT1 (Belgium), QSIG
- Call progress analysis:
 - Busy tone detection
 - Ring back tone detection
 - Special Information Tone (SIT) detection
 - Fax/modem detection
 - Dial tone detection
- 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

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Technical Specifications *(continued)*

Media Processing

Because the OneSpan-24/30-S-LP Telephony Board is a “passive” board, most of the tasks required for the features listed below are executed on the host CPU. For information about the level of performance of the host CPU needed for various feature sets, contact Dialogic.

- Fax tone detection
- DTMF tone detection and transmission
- Collection of DTMF post-dial digits
- Host-based switching and conferencing (line interconnect)
- Host-based cross-board switching (line interconnect on multiple boards)
- Automatic Gain Control (AGC) for conferencing
- G.168 echo cancellation (up to 256ms, depending on host CPU performance)
- Real-time protocol (RTP/RTCP)
- Comfort Noise Generation (CNG) [voice codecs only]
- Voice Activity Detection (VAD) [voice codecs only]
- Dynamic anti-jitter buffer (reduces required buffer space)
- Audio tap
- Full-duplex voice, barge-in
- G.711 coding (a-Law and μ -Law)
- Call transfer emulation
- Clear Channel Data (transparent), HDLC, X.75/V.42bis, ISO8208, X.25
- SS7 MTP1/MTP2
- International protocol code support (ISDN, R2, T.1 RBS, Line Side E.1)

If you require features that are not available with the Dialogic® Blue™ OneSpan-24/30-S-LP Telephony Board (for example, high-density fax, high-density modem support, or high voice quality), you may want to use a Dialogic® Diva® Media Board instead.

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Technical Specifications *(continued)*

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

Ordering Information

Dialogic® Blue™ Telephony Board	Order Code	Description
OneSpan-24/30-S-LP	306-420	PCI Express