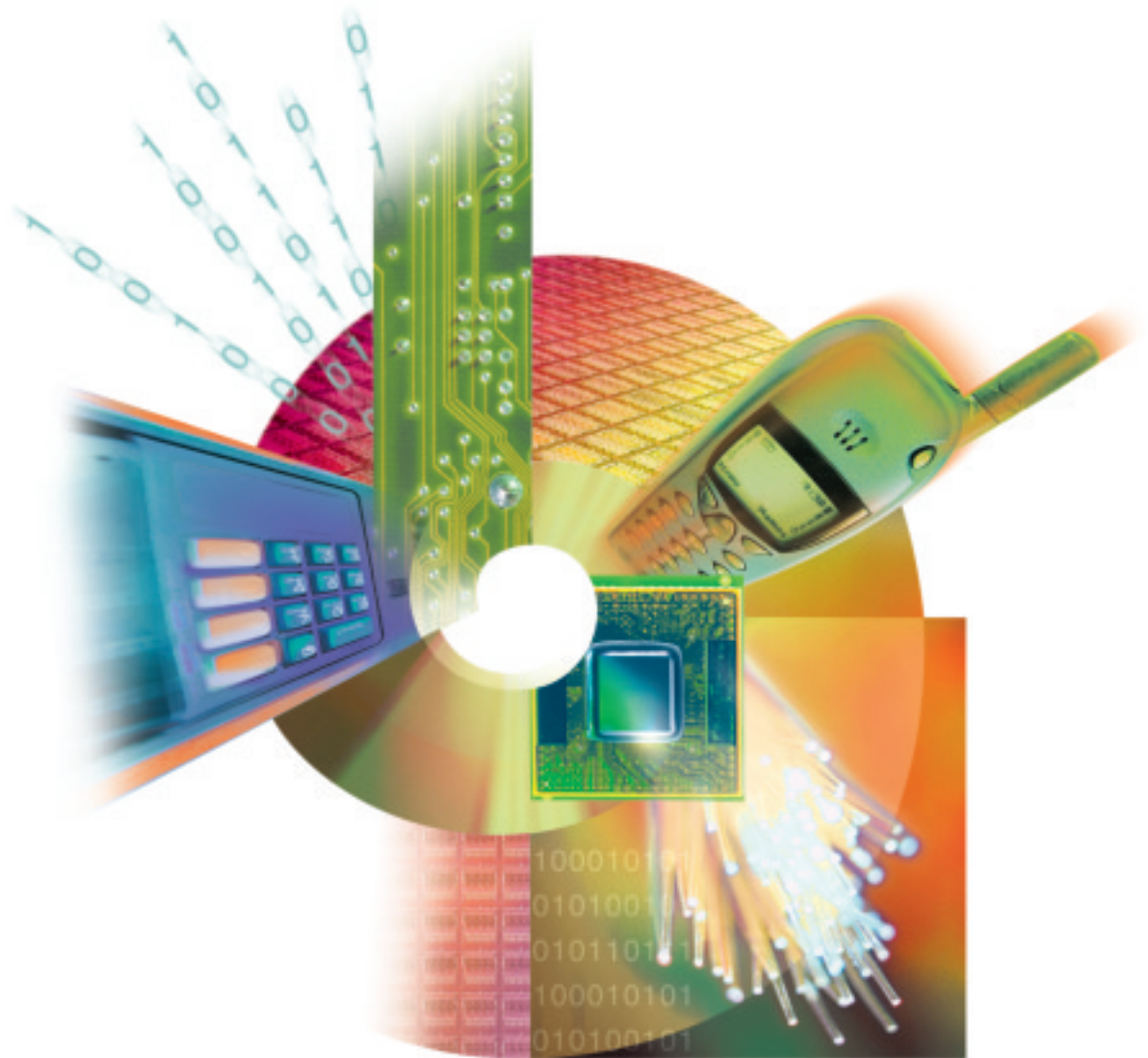




intel®

May 2002

Intel® Communications and Media Building Block Products Source Book



Intel® Communications and Media Building Block Products Source Book

Intel, the world's largest chipmaker, is also a leading manufacturer of computer, networking and communications products. Intel® communications systems products offer developers, service providers, resellers, and communications system owners what they need to succeed in the new world of converged voice and data communications. This includes a broad family of building blocks, a global network of solutions providers, and comprehensive support and consulting services. Ranging from boards to server software, Intel® building blocks meet the converged communications needs of environments as diverse as enterprise organizations and service providers. These building blocks include voice, fax, conferencing, and speech technologies; telephone and IP network interfaces; PBX integration products; carrier-class, board systems-level products; and more. Intel communications building blocks enable new, converged Web services including Internet voice browsing. For more information on these products and services, visit <http://www.intel.com/network/csp/products/index.htm>

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Conferencing Boards

HIGH-DENSITY CONFERENCING PRODUCTS

The DM3 Conferencing solution consists of software and firmware features on select Intel® Dialogic® communications boards which, when packaged with open computing systems, support high-performance conferencing applications. DM3 communication products offer high-density voice, speech processing, network interfaces and now conferencing on a single platform. This enables Intel's customers to deploy network grade conferencing systems with comparable features, audio quality, and density as typical proprietary solutions at significantly reduced costs.

The DM3 conferencing solution offers an advanced feature set, promising a pleasurable conferencing experience for the end user. The state-of-the-art algorithm is optimized to prevent noise build-up and echo in the conference, equalize participant voice volumes, and offers optional DTMF clamping to limit DTMF tones from being heard during conference. Intel® Dialogic® DM3 products are known for their proven and powerful voice processing and speech recognition platform allowing developers to deploy applications with user-friendly interfaces.

Resource Only (DM/V-A Multifunction Resource Series)

When combined with a board with digital network interfaces, such as the Intel® Dialogic® DM/N or DM/T Digital Telephony Interface Board, the Intel® Dialogic® DM/V-A Multifunction Resource Boards are one of the industry's most powerful media platforms for developers who seek to rapidly build and globally deploy high-density media server solutions for the enterprise and PSTN networks. The Intel Dialogic DM/V-A Multifunction Resource Series provide a true universal-port solution with a robust media feature set that includes voice processing, speech recognition and conferencing capabilities. Support for the innovative Intel® Continuous Speech Processing (CSP) technology, which is a DSP-based signal processing solution optimized for speech recognition, enables a friendlier user interface and the seamless integration of speech recognition software from the leading speech technology vendors.

Resource with On-board PRI Interfaces (DM/V-A Multifunction Series)

The Intel Dialogic DM/V-A Multifunction Series are among the industry's most powerful media platforms for developers seeking to rapidly build and globally deploy high-density media server solutions for the enterprise and PSTN networks. They provide a true universal port solution with a robust media feature set, including voice processing, speech recognition and conferencing capabilities, combined with an extensive suite of network protocols with digital network interfaces in a single PC slot. Support for the innovative Intel Continuous Speech Processing (CSP) technology, which is a DSP-based signal processing solution optimized for speech recognition, enables a friendlier user interface and the seamless integration of speech recognition software from the leading speech technology vendors.

High-Density Conferencing Product Line Summary

The following table summarizes the high-density conferencing product features. For full information refer to the product data sheets. <http://www.intel.com/network/csp/products/index.htm>

INTEL® DIALOGIC® DM/V-A MULTIFUNCTION RESOURCE SERIES

APPLICATIONS	PART NUMBER	FEATURES
DM/V2400A-PCI, DM/V2400A-CPCI <ul style="list-style-type: none"> ▪ Messaging and Enhanced Services ▪ Voice Portal ▪ Contact Center and e-Business ▪ PC-PBX ▪ Audio Conferencing Server ▪ Web Conferencing 	DMV2400APCI DMV2400ACPCI	<ul style="list-style-type: none"> ▪ 240 channels of basic voice, or ▪ 120 channels of conferencing, or ▪ Up to 120 channels of simultaneous conferencing and speech recognition ▪ PCI or Compact PCI (cPCI) form factor ▪ H.100 and H.110 Compliant ▪ Universal connectivity (support for 3.3 and 5 volt signaling environments) ▪ Tone signaling, GTD, GTG (Global Tone Detection and Generation) ▪ Call progress analysis ▪ 1200+ ports per chassis ▪ Software development kits (SDKs) for Windows NT*, Windows* 2000 and Linux* yield faster time-to-market. ▪ Dialogic® R4 API for media control

INTEL® DIALOGIC® DM/V-A MULTIFUNCTION SERIES

APPLICATIONS	PART NUMBER	FEATURES
DM/V480A-2T1-PCI, DM/V480A-2T1-CPCI, DM/V600A-2E1-PCI, DM/V600A-2E1-CPCI <ul style="list-style-type: none"> ▪ Messaging and Enhanced Services ▪ Voice Portal ▪ Contact Center and e-Business ▪ PC-PBX ▪ Audio Conferencing Server ▪ Web Conferencing ▪ Switching and Call Completion ▪ Prepaid/Debit Card ▪ Gateway Switch 	DMV480A2T1PCI DMV480A2T1CPCI DMV600A2E1PCI DMV600A2E1CPCI	<ul style="list-style-type: none"> ▪ Up to 60 channels of simultaneous conferencing and speech recognition ▪ Two digital network interfaces ▪ PCI or Compact PCI (cPCI) form factor ▪ H.100 and H.110 Compliant ▪ Universal connectivity (support for 3.3 and 5 volt signaling environments) ▪ Tone signaling, GTD, GTG (Global Tone Detection and Generation) ▪ Call progress analysis ▪ 1200+ ports per chassis ▪ Software development kits (SDKs) for Windows NT, Windows 2000 and Linux yield faster time-to-market. ▪ Dialogic R4 API for media control ▪ Unified call control access through GlobalCall interface provides worldwide application portability and shortens development time.

Digital Telephony Interface Boards

HIGH-DENSITY DIGITAL TELEPHONY INTERFACE PRODUCTS

The Intel® Dialogic® DM/N and DM/T Series includes boards with and without tones. The boards with tone (such as the Intel Dialogic DM/T Telephony Interface Products) are typically required for E1-R2MF and T1-CAS protocol signaling, and to implement advanced features such as call progress analysis and ANI/DNIS (Automatic Number Identification/Dialed Number Identification Service) information retrieval. With ISDN protocols, such information is typically included in the SETUP message, making it possible to use boards without tone (such as the Intel Dialogic DM/N Telephony Interface Products) support—providing significant savings. When Intel Dialogic DM/N or DM/T Telephony Interface boards are combined with a resource board, such as the Intel® Dialogic® DM/V-A Multifunction Resource Series or the Intel® Dialogic® JCT Resource Series, customers are presented with a truly powerful and flexible media server solution with digital network interfaces and media resources.

Intel® Dialogic® DM/N Digital Telephony Interface Board Series

The Intel Dialogic DM/N Digital Telephony Interface Board Series provides telephony networking features that developers can use to create large-scale switching solutions for enterprise and public networks. Offered on single-slot PCI and CompactPCI (cPCI) format boards, each board provides access to four T-1 (1.544 Mb/s) or E-1 (2.048 Mb/s) digital network interfaces.

Intel® Dialogic® DM/T Digital Telephony Interface Board Series

The Intel Dialogic DM/T Digital Telephony Interface Board Series provides a powerful set of advanced call processing and telephony networking features that developers can use to create large-scale switching solutions for enterprise and public networks. Powerful digital signal processors (DSPs) provide a rich set of call processing features, telephony tone signaling, reliable DTMF detection using local echo cancellation, and automated outbound call progress analysis with Positive Voice Detection and Positive Answering Machine Detection. Offered on single-slot PCI and CompactPCI (cPCI) format boards, each board provides access to four T-1 (1.544 Mb/s) or E-1 (2.048 Mb/s) digital network interfaces.

High-Density Digital Telephony Interface Product Line Summary

The following table summarizes the high-density digital telephony interface product features. For full information refer to the product datasheets. <http://www.intel.com/network/csp/products/index.htm>

INTEL® DIALOGIC® DM/N AND DM/T DIGITAL TELEPHONY INTERFACE SERIES

APPLICATIONS	PART NUMBER	KEY FEATURES
DM/N960-4T1-PCI, DM/N960-4T1-CPCI DM/N1200-4E1-PCI, DM/N1200-4E1-CPCI <ul style="list-style-type: none"> ▪ Switching/Call Completion ▪ Network Call Center ▪ Prepaid/Debit Card ▪ Gateway Switch 	DMN9604T1PCI DMN9604T1CPCI DMN12004E1PCI DMN12004E1CPCI	<ul style="list-style-type: none"> ▪ 4 digital network interfaces ▪ PCI or Compact PCI (cPCI) form factor ▪ H.100 and H.110 Compliant ▪ Works in solutions with 1200+ ports per chassis ▪ Software development kits (SDKs) for Windows NT*, Windows* 2000 and Linux* yield faster time-to-market ▪ Dialogic® R4 API for media control ▪ Unified call control access through GlobalCall* interface provides worldwide application portability and shortens development time
DM/T960-4T1-PCI, DM/T960-4T1-CPCI DM/T1200-4E1-PCI, DM/T1200-4E1-CPCI <ul style="list-style-type: none"> ▪ Switching/Call Completion ▪ Network Call Center ▪ Prepaid/Debit Card ▪ Gateway Switch 	DMT9604T1PCI DMT9604T1CPCI DMT12004E1PCI DMT12004E1CPCI	<ul style="list-style-type: none"> ▪ 4 digital network interfaces ▪ Tone signaling, GTD, GTG (Global Tone Detection and Generation) ▪ Call progress analysis ▪ PCI or Compact PCI (cPCI) form factor ▪ H.100 and H.110 Compliant ▪ Works in solutions with 1200+ ports per chassis ▪ Software development kits (SDKs) for Windows NT, Windows 2000 and Linux yield faster time-to-market ▪ Dialogic R4 API for media control ▪ Unified call control access through GlobalCall interface provides worldwide application portability and shortens development time

Fax Boards

HIGH-DENSITY FAX PRODUCTS

Fax Resource Only (DM3 F Series)

The DM3 F Series is a family of high-density fax resource products that offer 24 or 30 resources of full feature Fax on a single board. The products are available for the PCI or the Compact PCI form factor. The DM3 F Series gives fax-intensive applications robust processing power and messaging flexibility. Users can take advantage of a span of either 24 or 30 ports of feature-rich fax capabilities on a single board. Customers can deploy fewer boards per chassis and ultimately fewer and smaller chassis overall. This lowers the cost of ownership and enables more endusers to deploy CT applications. Up to eight DM3 F Series boards (up to 196 or 240 ports of fax) can be combined in a single chassis. DM3 F Series products feature digital signal processing (DSP) and general-purpose RISC microprocessors to handle all telephony signaling. Because of this approach to hardware design, adding advanced new features and functions requires a simple firmware download. Customers need not replace their existing hardware to comply with emerging new standards that allow them to take advantage of the latest CT technology. By providing instant upgrades, DM3 F Series products enable customers to minimize their investment in hardware and maximize the life of the system.

Products include the DMF240PCI, DMF240CPCI, DMF300PCI, DMF300CPCI

Fax Resource with on-board PRI Interface (DM3 FN Series)

The DM3 FN Series is a family of high-density fax resource products that offer 24 or 30 resources of full feature Fax on a single board with an on-board Digital Network Interface. The products are available for the PCI form factor. The high-density, single-slot hardware Intel® Dialogic® DM/F240-1T1-PCI and Intel® Dialogic® DM/F300-1E1-PCI fax boards are a set of high-capacity Fax boards that are useful for large-scale deployments of fax-enabled applications. The boards allow users to take advantage of a span of either 24 or 30 ports of feature-rich fax capabilities, plus an integrated network interface on a single board. The increased resource density on the DM/F240-1T1-PCI and DM/F300-1E1-PCI fax boards lowers per-port costs as customers can deploy fewer boards per chassis, and ultimately fewer and smaller chassis overall. Up to eight DM3 FN Series boards (up to 196 or 240 ports of fax) can be combined in a single chassis.

Products include the DMF2401T1PCI, DMF3001E1PCI

Fax and Voice Resource with on-board PRI Interface (DM3 VFN Series)

The DM3 VFN Series is a family of highly integrated platform with 24 or 30 Universal Ports of Voice, Fax, and Digital Network Interface. The platform offers a universal set of voice, fax, tone resources, and network interface in a 1:1:1:1 ratio, available on any call at any time. The Intel® Dialogic® DM/VF240-1T1-PCI and Intel® Dialogic® DM/VF300-1E1-PCI boards provide a highly integrated universal port platform. These boards are ideal for developers seeking to provide cost-effective, highly scalable, high-density communications applications that require multimedia resources such as voice, fax, and digital network interface in a single PCI slot. They offer a rich set of advanced voice and full fax features and support state-of-the-art digital signal processing (DSP) technology and industry-standard PCI and CT Bus technologies. Support under Global Call, a unified call control programming interface and protocol engine, lets the same application work on multiple signaling systems worldwide (i.e., ISDN PRI, T-1 robbed-bit, R2/MF, pulsed, and more) and offers the flexibility to scale systems to meet the growing needs of your business. The platform offers a universal set of voice, fax, tone resources, and network interface in a 1:1:1:1 ratio, available on any call at any time. Create high-density, multimedia solutions that support from 24 to 192 T-1 or 30 to 240 E-1 channels per chassis. These boards are positioned to fulfill the needs and demands of the fax server and unified messaging market segments.

Products include the DMVF2401T1PCI, DMVF3001E1PCI

High-Density Fax Product Line Summary

The following table summarizes the high-density fax product features. For full information refer to the product datasheets. <http://www.intel.com/network/csp/products/index.htm>

FAX RESOURCE ONLY

APPLICATIONS	PART NUMBER	FEATURES
Intel® Dialogic® DM/F240-PCI <ul style="list-style-type: none"> ▪ Unified Messaging ▪ Fax Servers ▪ Fax-On-Demand ▪ Fax Broadcast 	DMF240PCI	<ul style="list-style-type: none"> ▪ 24 fax resource ▪ PCI form Factor, 5V operation ▪ Dialogic R4 API ▪ On-board, on-the-fly MH, MR, MMR compressions ▪ ECM (Error Correction Mechanism) ▪ V.17 transmission (14.4 Kbps) ▪ Up to 8 board per chassis = 196 channels ▪ Windows* and Linux* support ▪ All features available on all channels, regardless of load. ▪ ITU T.30, T.4 compliance
Intel® Dialogic® DM/F300-PCI <ul style="list-style-type: none"> ▪ Unified Messaging ▪ Fax Servers ▪ Fax-On-Demand ▪ Fax Broadcast 	DMF300PCI	<ul style="list-style-type: none"> ▪ 30 fax resource ▪ PCI form Factor, 5V operation ▪ Dialogic R4 API ▪ On-board, on-the-fly MH, MR, MMR compressions ▪ ECM (Error Correction Mechanism) ▪ V.17 transmission (14.4 Kbps) ▪ Up to 8 board per chassis = 240 channels ▪ Windows and Linux support ▪ All features available on all channels, regardless of load. ▪ ITU T.30, T.4 compliance
Intel® Dialogic® DM/F240-cPCI <ul style="list-style-type: none"> ▪ Unified Messaging ▪ Fax Servers ▪ Fax-On-Demand ▪ Fax Broadcast 	DMF240CPCI	<ul style="list-style-type: none"> ▪ 24 fax resource ▪ Compact PCI form Factor ▪ Dialogic R4 API ▪ On-board, on-the-fly MH, MR, MMR compressions ▪ ECM (Error Correction Mechanism) ▪ V.17 transmission (14.4 Kbps) ▪ Up to 8 board per chassis = 196 channels ▪ Windows and Linux support ▪ All features available on all channels, regardless of load. ▪ ITU T.30, T.4 compliance
Intel® Dialogic® DM/F300-cPCI <ul style="list-style-type: none"> ▪ Unified Messaging ▪ Fax Servers ▪ Fax-On-Demand ▪ Fax Broadcast 	DMF300CPCI	<ul style="list-style-type: none"> ▪ 30 fax resource ▪ Compact PCI form Factor ▪ Dialogic R4 API ▪ On-board, on-the-fly MH, MR, MMR compressions ▪ ECM (Error Correction Mechanism) ▪ V.17 transmission (14.4 Kbps) ▪ Up to 8 board per chassis = 240 channels ▪ Windows and Linux support ▪ All features available on all channels, regardless of load. ▪ ITU T.30, T.4 compliance

FAX RESOURCE WITH ON-BOARD PRI INTERFACE

APPLICATIONS	PART NUMBER	FEATURES
Intel® Dialogic® DM/F240-1T1-PCI <ul style="list-style-type: none"> ▪ Unified Messaging ▪ Fax Servers ▪ Fax-On-Demand ▪ Fax Broadcast 	DMF2401T1PCI	<ul style="list-style-type: none"> ▪ 24 fax resource ▪ On-board T1 network Interface (ISDN, T1 CAS) ▪ PCI form Factor, 5V operation ▪ Dialogic R4 API for Fax, Global Call for call control ▪ Fully exportable fax resources ▪ On-board, on-the-fly MH, MR, MMR compressions ▪ ECM (Error Correction Mechanism) ▪ V.17 transmission (14.4 Kbps) ▪ Up to 8 board per chassis = 196 channels ▪ Windows and Linux support ▪ All features available on all channels, regardless of load. ▪ ITU T.30, T.4 compliance
Intel® Dialogic® DM/F300-1E1-PCI <ul style="list-style-type: none"> ▪ Unified Messaging ▪ Fax Servers ▪ Fax-On-Demand ▪ Fax Broadcast 	DMF3001E1PCI	<ul style="list-style-type: none"> ▪ 30 fax resource ▪ On-board E1 network Interface (ISDN, R2 MF) ▪ PCI form Factor, 5V operation ▪ Dialogic R4 API for Fax, Global Call for call control ▪ Fully exportable fax resources ▪ On-board, on-the-fly MH, MR, MMR compressions ▪ ECM (Error Correction Mechanism) ▪ V.17 transmission (14.4 Kbps) ▪ Up to 8 board per chassis = 240 channels ▪ Windows and Linux support ▪ All features available on all channels, regardless of load. ▪ ITU T.30, T.4 compliance

FAX AND VOICE RESOURCE WITH ON-BOARD PRI INTERFACE

APPLICATIONS	PART NUMBER	FEATURES
Intel® Dialogic® DM/VF240-1T1-PCI <ul style="list-style-type: none"> ▪ Unified Messaging ▪ Fax Servers ▪ Voice Response Servers ▪ Fax-On-Demand ▪ Fax Broadcast 	DMVF2401T1PCI	<ul style="list-style-type: none"> ▪ 24 fax resource and 24 voice resource ▪ Play voice, record voice prompts ▪ On-board T1 network Interface (ISDN, T1 CAS) ▪ PCI form Factor, 5V operation ▪ Dialogic R4 API for Fax, R4 for Voice, Global Call for call control ▪ Fully exportable fax and voice resources ▪ On-board, on-the-fly MH, MR, MMR compressions ▪ ECM (Error Correction Mechanism) ▪ V.17 transmission (14.4 Kbps) ▪ Up to 8 board per chassis = 196 channels ▪ Windows and Linux support ▪ All features available on all channels, regardless of load. ▪ ITU T.30, T.4 compliance
Intel® Dialogic® DM/VF300-1E1-PCI <ul style="list-style-type: none"> ▪ Unified Messaging ▪ Fax Servers ▪ Voice Response Servers ▪ Fax-On-Demand ▪ Fax Broadcast 	DMVF3001E1PCI	<ul style="list-style-type: none"> ▪ 30 fax resource and 30 voice resource ▪ Play voice, record voice prompts ▪ On-board E1 network Interface (ISDN, R2 MF) ▪ PCI form Factor, 5V operation ▪ Dialogic R4 API for Fax, R4 for Voice, Global Call for call control ▪ Fully exportable fax and voice resources ▪ On-board, on-the-fly MH, MR, MMR compressions ▪ ECM (Error Correction Mechanism) ▪ V.17 transmission (14.4 Kbps) ▪ Up to 8 board per chassis = 240 channels ▪ Windows and Linux support ▪ All features available on all channels, regardless of load. ▪ ITU T.30, T.4 compliance

High Impedance Boards

CALL LOGGING AND QUALITY ASSURANCE ENTERPRISE HIGH IMPEDANCE LINE TAP BOARDS

Call Logging Products Introduction

Intel offers a wide breadth of products in the call logging and call center market. The Intel® Dialogic® HiZ boards are at the top in quality assurance for digital and analog-based enterprises in the call recording industry. By providing a high-impedance tap of stations and/or trunks, these PCI and ISA compatible boards are designed to raise the level of quality assurance within call centers by providing transparent access to target call information and to provide for voice recording in environments where logging is required by law or is desired to reduce liability and resolve disputes. With a powerful set of features and functionalities, including low bit rate coders, developers can create medium to large call logging systems. Quality and stability help to make Intel a vendor of choice for call logging and quality assurance hardware.

Target Applications

- Call logging/recording environments (e.g., finance, legal, public safety, air traffic control, government)
- Call Center/Quality Assurance (agents are recorded and monitored by supervisors for training and customer service purposes)

PRODUCTS

Analog HiZ Line Tap (D160SCLSHIZ)

The Intel® Dialogic® D/160SC-LS-HiZ is a rich set of advanced features, including state-of-the-art digital signal processing (DSP) technology and signal processing algorithms, for building the core of any computer telephony (CT) call logging system. The D/160SC-LS-HiZ board provides 16 channels of call processing interfaces in a single ISA PC slot. A unique dual-processor architecture comprised of DSPs and a general-purpose microprocessor handles all telephony signaling and performs all DTMF (touchtone) and audio/voice signal-processing tasks. The D/160SC-LS-HiZ boards use Signal Computing System Architecture* (SCSA), which allows developers to use products from multiple vendors to build unified CT solutions. This SpringWare* architecture-based voice board connects to 16 analog telephone channels, detects touchtone and digitizes, compresses and records voice signals. Up to 16 boards per system.

Use the D/160SC-LS-HiZ board to develop sophisticated, multi-function CT systems incorporating capabilities such as voice processing, speech recognition and text-to-speech (TTS).

D/160SC-LS-HiZ Key features:

- 16 ports of voice processing and analog high-impedance interface
- ISA form factor
- On-board DSP
- SCbus
- SpringWare-based downloadable signal and call processing firmware

FEATURES AND BENEFITS

16 independent HiZ telephone interfaces, combined with 16 channels of voice processing in one ISA slot, provide effective solutions for building high-density applications.

High Impedance, on-hook record capability enables high-density call logging and transaction record applications.

High density platform enables system integrators and developers to lower costs by incorporating more ports per chassis.

Create more cost-effective switching solutions via access to the SCSA* SCbus* with its 1024 time slot capability; Scxbus* interbox communications provides the capability to build higher density systems and large, multimode systems.

Downloadable signal and call processing firmware, SpringWare*, provides easy feature enhancement and field proven performance based on over 4 million installed ports.

Playback via SCbus.

Intel 486™ GX microprocessor off-loads call processing tasks from the host PC, giving more power to the application.

Caller-ID capability for “screen pop” applications—supports Bellcore CLASS protocols.

Board Locator technology (*TM) eliminates confusing DIP switch or jumper settings and simplifies installation.

Digital Station Set HiZ Line Tap (DSL162CTUHIZ)

Intel® Dialogic® DSLT/162CT-U-HiZ Digital Set Line Tap (DSL162CTUHIZ™) is a 16 port high-impedance line-tap PCI board for digital station sets. Record up to 128 simultaneous conversations via separate DSP. Provides voice and digital telephone display data.

The Digital Set Line Tap board (DSL162CTUHIZ) is a cost-efficient, technological breakthrough providing constant line access essential to the effective management of large call centers. By providing a high-impedance tap of a digital agent line, this PCI-compatible board is designed to raise the level of quality assurance within call centers and call logging applications, by providing transparent access to target call information. By providing both voice and digital telephone display data, call center managers can access highly detailed and specific information useful for targeted data mining. Designed for medium to large call centers, the DSL162CTUHIZ board is an internal, PC-based solution that operates independently of the PBX via a hard-wired connection. When placed between the PBX and the digital telephones, the DSL162CTUHIZ board provides transparent access to the call and its resident information without occupying any additional PBX resources (i.e., port space and conference bridges). The board remains totally transparent to parties involved in the targeted telephone call. The DSL162CTUHIZ board raises the bar for the call center recording industry by supporting management personnel as they monitor call center performance, train new agents, settle disputes, verify transactions, and conduct market research. The DSL162CTUHIZ is compatible with Siemens, Nortel, Avaya (formerly Lucent), and NEC PBXs, the DSL162CTUHIZ board provides 16 ports, with a maximum of 128 ports per chassis. The DSL162CTUHIZ SDK is available for Windows NT* and Windows* 2000, and includes advanced diagnostic and field troubleshooting capabilities.

DSL162CTUHIZ Key features:

- 16 ports
- PCI form factor
- 128 ports per chassis
- Records up to 128 simultaneous conversations
- H.100 compatible
- Windows NT/Windows 2000 compatible
- API is Native API (i.e., VTG API)

FEATURES AND BENEFITS

Record all agents “smartly” by knowing who is logged in and when

Verify legitimate call activity occurring on each line

Record up to 128 simultaneous conversations per server

Advanced scaling with networked servers

Capture digital voice and call data for data mining purposes

Functions as an internal, PC-based solution that operates independently of the PBX via a hard-wired connection

Developers can:

- Increase market opportunities by targeting large call centers without using limited PBX resources
- Introduce new application features and solutions quickly into the market
- Decrease support costs by using proven technology
- Work with Intel, the world leader in converged communications

Digital T1 HiZ line tap (DMV4802T1PCIHIZ)

The Digital HiZ (Intel® Dialogic® DM/V480-2T1-PCI-HiZ) provides a powerful set of features that developers can use to create call logging systems. Offered on single-slot PCI format board, the Digital HiZ board provides call recording capability for two T-1 (1.544 Mb/s) digital interfaces with a high-impedance (HiZ) line tap functionality for non-intrusive call recording. Ninety-six actual ports per board—tap up to 48 full duplex connections/conversations.

Powerful DSPs provide a rich set of voice processing features, including various rates of voice compression, recording, telephony tone signaling, and reliable DTMF detection.

The Digital T1 HiZ product is based on the Dialogic DM3 architecture, which provides a development environment that accelerates application development and provides a path for future growth. An SDK is available for Windows NT, and Windows 2000 offering full interoperability with the broad Dialogic CT product line.

The Digital T1 HiZ board is accompanied by software which monitors the signal on the trunk to determine the moment a call is setup, connected and disconnected. This information is then used to determine when to start recording the call, as well as to obtain various information such as ANI and DNIS. The board supports ISDN Primary Rate Interface (PRI) access. PRI enables applications to take advantage of the speed, power, and flexibility of ISDN. Intel maintains an extensive number of product approvals in international markets.

Voice processing features, downloaded to the onboard DSPs at power up, allow the Digital HiZ board to record voice messages to and from callers through the digital network interface. Messages can be stored using G.711 μ -law or A-law PCM, at a rate of 64 Kb/s, as is used by the PSTN; or to reduce storage requirements, voice coding algorithms can compress recordings to 24 or 32 Kb/s, using adaptive differential pulse code modulation (ADPCM). Other standards-based low-bit-rate coders like G.276 for VPIM-compliant applications and GSM for unified messaging applications are also available.

T1 HiZ board Key features:

- 48 T1 ports per board
- PCI long-card form factor
- Signal Monitoring
- Audio Interface detects call progress and DTMF tones for host application
- H.100 Compatible
- Dialogic standard Global Tone Detection
- R4 API
- Records both sides of a conversation (transaction record)
- Digitally compresses and records voice signals
- Call Logging API library software with GUI and Demo program

FEATURES AND BENEFITS

Supports two digital trunks per board for recording up to 48 voice channels

High-impedance interface allows undetectable call monitoring

T-1 digital network interface supports CAS and ISDN Primary Rate Interface protocols

Unified call control access through GlobalCall interface provides worldwide application portability and shortens development time

Determines call status and abstracts protocol-specific information for simple application deployment

Monitors all signaling events that occur on line for logging or network diagnostics

Built on the DM3 Mediasream architecture for unmatched performance and reliability

Software development kit (SDK) for Windows NT* and Windows* 2000 yields faster time-to-market

Call Logging Library provides easy to use software and GUI demo which significantly shortens application development time.

Digital E1 HiZ line tap (DMV6002E1PCIHIZ)

The Digital HiZ (Intel® Dialogic® DM/V600-2E1-PCI-HiZ) provides a powerful set of features that developers can use to create call logging and quality assurance systems. Offered on single-slot PCI format board, the Digital HiZ board provides call recording capability for two E-1 (2.048 Mb/s) digital interfaces to record 60 voice channels per board.

Powerful DSPs provide a rich set of voice processing features, including various rates of voice compression, recording, telephony tone signaling, and reliable DTMF detection.

The Digital E1 HiZ is based on the Dialogic DM3™ architecture, which provides a development environment that accelerates application development and provides a path for future growth. SDKs are available for Windows NT, and Windows 2000, offering full interoperability with the broad Dialogic CT product line. The board supports ISDN Primary Rate Interface (PRI) access. PRI enables applications to take advantage of the speed, power, and flexibility of ISDN. Intel maintains an extensive number of product approvals in international markets.

Voice processing features, downloaded to the onboard DSPs at power up, allow the Digital HiZ board to record voice messages to and from callers through the digital network interface. Messages can be stored using G.711 μ -law or A-law PCM, at a rate of 64 Kb/s, as is used by the PSTN; or to reduce storage requirements, voice coding algorithms can compress recordings to 24 or 32 Kb/s, using adaptive differential pulse code modulation (ADPCM). Other standards-based low-bit-rate coders like G.276 for VPIM-compliant applications and GSM for unified messaging applications are also available.

E1 HiZ board Key features:

- 60 E-1 ports per board
- PCI long-card form factor
- E1 (120 ohm) digital network interface
- Signal Monitoring
- Audio Interface detects call progress and DTMF tones for host application
- H.100 Compatible
- Dialogic standard Global Tone Detection
- R4 API
- Records both sides of a conversation (transaction record)
- Digitally compresses and records voice signals
- Call Logging API library software with GUI and Demo program

FEATURES AND BENEFITS

Supports two digital trunks per board for recording up to 60 voice channels

High impedance interface allows undetectable call monitoring

E-1 digital network interface supports ISDN Primary Rate Interface protocol

Unified call control access through GlobalCall interface provides worldwide application portability and shortens development time

Determines call status and abstracts protocol-specific information for simple application deployment

Monitors all signaling events that occur on line for logging or network diagnostics

Built on the DM3 Medistream architecture for unmatched performance and reliability

Software development kit (SDK) for Windows NT* and Windows* 2000 yields faster time to market

Call Logging Library provides easy to use software and GUI demo which significantly shortens application development time.

Call Logging Product Line Summary

The following table summarizes the networking product application features. For full information refer to the product data sheets. <http://www.intel.com/network/csp/products/index.htm>

CALL LOGGING HIGH IMPEDANCE LINE TAP PRODUCT FAMILY

APPLICATIONS	PART NUMBER	FEATURES
Digital Station Set HiZ Line Tap	DSL162CTUHIZ	DSL162CTUHIZ Key features: <ul style="list-style-type: none"> ▪ Taps Proprietary digital PBX station sets ▪ 16 ports ▪ PCI form factor ▪ 128 ports per chassis ▪ Records up to 128 simultaneous conversations ▪ H.100 compatible ▪ Windows NT*/Windows* 2000 compatible ▪ API is Native API (i.e. VTG API)
Digital T1 HiZ line tap board Digital E1 HiZ line tap board	DMV4802T1PCIHIZ DMV6002E1PCIHIZ	DMV4802T1PCIHIZ/DMV6002E1PCIHIZ Key features: <ul style="list-style-type: none"> ▪ 48 T1 or 60 E1 ports per board ▪ PCI form factor ▪ Built on DM3 mediastream architecture ▪ Signal Monitoring ▪ Dual interface—two digital network interfaces for each digital trunk tapped ▪ Audio Interface detects call progress and DTMF tones for host application ▪ H.100 Compatible ▪ Dialogic standard Global Tone Detection ▪ R4 API ▪ Call Logging API with GUI
Analog HiZ Line Tap Board	D160SCLSHIZ	D160SCLSHIZ Key features: <ul style="list-style-type: none"> ▪ 16 ports of voice processing and 16 ports analog hi-impedance interface ▪ ISA form factor ▪ SpringWare*-based architecture, with downloadable signal and call processing firmware ▪ Onboard DSP ▪ SCbus

IP Boards

DM/IP boards offer a standards-based software and hardware development platform for building IP-based communications servers for the next generation enterprise and service provider ethernet network. Featuring 24–60 ports-per-slot of both PSTN and Internet connectivity plus on-board voice, fax, and speech processing, the DM/IP series readily scales to support 480 port call completion applications such as Access Gateways and IP-PBXs; and media server applications such as Unified Messaging, IVR, CRM, and Speech solutions.

The DM/IP series offers many optimized, low-bandwidth vocoder algorithms for transmitting high quality audio over an IP network, including the ITU-T G.711, G.723.1, G.729a, ITU GSM, and real-time fax over IP (ITU T.38). These algorithms use a variety of coding techniques, bit rates, and frame sizes to compress audio for managing data network bandwidth. The wide algorithm support of the board series gives you the ability to deploy IP-based applications throughout the world tailored to specific network bandwidth and voice quality requirements.

Support for standard IP transport mechanisms such as Transmission Control Protocol/Internet Protocol (TCP/IP), User Datagram Protocol (UDP), and Real Time Protocol/Real Time Control Protocol (RTP/RTCP) are offered with the DM/IP series. The series features a flexible approach to IP call control, enabling a developer to choose from any of Intel's H.323, MGCP, and SIP supported call control stacks or the ability to develop or port another of choice by offering call control management on the server host rather than embedded on the board.

The DM/IP series offers improved Quality of Service (QOS) performance over IP networks. Threshold alarms alert an application when network QOS parameters (jitter, latency, and packet loss) deteriorate below user-administered levels. These alarms help to improve traffic engineering, allowing more efficient use of IP networks. They also enable dynamic decision-making, which allows IP calls to be rerouted onto the PSTN in the event of network congestion. IP packets carrying real-time voice and fax can be routed with higher priority by setting IP Precedence bits. These settings can be made on a call-by-call basis. It is also possible to define default IP Precedence bits for voice and fax calls when they are set to different priorities. The series also features a sophisticated packet recovery algorithm to ensure voice is transported effectively over data networks.

DM/IP interoperates with a wide range of popular IP phones, including Microsoft NetMeeting, the PingTel Phone, and the Intel Video Phone. IP Link also works seamlessly with H.323-, MGCP-, H.248- and SIP-compliant terminals. With the introduction of a SIP-based phone client on Windows* XP desktop software, the DM/IP series enables fast, cost effective deployment of IP phone service in the enterprise.

In addition to these leading IP voice networking features, The DM/IP series also provides a true universal port solution with a robust media feature set, including voice processing, fax, speech recognition and conferencing capabilities, combined with an extensive suite of PSTN digital network interfaces and globally approved signaling protocols in a single slot. Support for the innovative Intel® Continuous Speech Processing (CSP) technology, which is a DSP-based signal processing solution optimized for speech recognition, enables a friendlier user interface and the seamless integration of speech recognition software from the leading speech technology vendors. All of these features combined make the DM/IP series among the most powerful media processing platforms bridging legacy networks and communications solutions to the next-generation Internet.

IP Board Product Line Summary

The following table summarizes the IP Board product features. For full information refer to the product datasheets.
<http://www.intel.com/network/csp/products/index.htm>

INTEL® IP BOARD PRODUCTS

APPLICATIONS	PART NUMBER	FEATURES
Intel® Dialogic® DM/IP241-1T1-PCI-100BT <ul style="list-style-type: none"> ▪ IP-based unified messaging and conferencing ▪ Interactive voice response services ▪ Web CRM centers and help desks ▪ Debit/calling card applications ▪ Voice portals ▪ Fax over Internet Protocol (FOIP) ▪ Access Gateway ▪ IP PBX 	DMIP241T1P100	<ul style="list-style-type: none"> ▪ Up to 24 Voice Resources ▪ Full Size, PCI Form Factor ▪ Vocoders: G.723.1, G.729a, G.711, GSM ▪ T.38 real-time fax over IP ▪ Continuous Speech Processing (CSP) ▪ Host based Call Control ▪ R4 Media and Global Call Call Control API ▪ G.711 Multicast ▪ QoS: IP Precedence/ Type of Service (TOS)
Intel® Dialogic® DM/IP301-1E1-PCI-100BT <ul style="list-style-type: none"> ▪ IP-based unified messaging and conferencing ▪ Interactive voice response services ▪ Web CRM centers and help desks ▪ Debit/calling card applications ▪ Voice portals ▪ Fax over Internet Protocol (FOIP) ▪ Access Gateway ▪ IP PBX 	DMIP301E1P100	<ul style="list-style-type: none"> ▪ Up to 30 Voice Resources ▪ Full Size, PCI Form Factor ▪ Vocoders: G.723.1, G.729a, G.711, GSM ▪ T.38 real-time fax over IP ▪ Continuous Speech Processing (CSP) ▪ Host based Call Control ▪ R4 Media and Global Call Call Control API ▪ G.711 Multicast ▪ QoS: IP Precedence/ Type of Service (TOS)
Intel® Dialogic® DM/IP481-2T1-PCI-100BT Intel® Dialogic® DM/IP481-2T1-cPCI-100BT <ul style="list-style-type: none"> ▪ IP-based unified messaging and conferencing ▪ Interactive voice response services ▪ Web CRM centers and help desks ▪ Debit/calling card applications ▪ Voice portals ▪ Fax over Internet Protocol (FOIP) ▪ Access Gateway ▪ IPPBX 	DMIP4812T1P100 DMIP4812T1C100	<ul style="list-style-type: none"> ▪ Up to 48 Voice Resources ▪ Full Size, cPCI Form Factor ▪ Vocoders: G.723.1, G.729a, G.711, GSM ▪ T.38 real-time fax over IP ▪ Continuous Speech Processing (CSP) ▪ Host based Call Control ▪ R4 Media and Global Call Call Control API ▪ G.711 Multicast ▪ QoS: IP Precedence/ Type of Service (TOS) ▪ cPCI High Availability
Intel® Dialogic® DM/IP601-2E1-PCI-100BT Intel® Dialogic® DM/IP601-2E1-cPCI-100BT <ul style="list-style-type: none"> ▪ IP-based unified messaging and conferencing ▪ Interactive voice response services ▪ Web CRM centers and help desks ▪ Debit/calling card applications ▪ Voice portals ▪ Fax over Internet Protocol (FOIP) ▪ Internet gateways for toll bypass (voice and fax over IP) ▪ Access Gateway ▪ IP PBX 	DMIP6012E1P100 DMIP6012E1C100	<ul style="list-style-type: none"> ▪ Up to 60 Voice Resources ▪ Full Size, PCI and cPCI Form Factors ▪ Vocoders: G.723.1, G.729a, G.711, GSM ▪ T.38 real-time fax over IP ▪ Continuous Speech Processing (CSP) ▪ Host based Call Control ▪ R4 Media API ▪ G.711 Multicast ▪ QoS: IP Precedence/ Type of Service (TOS)
Intel® Dialogic® DM/IP601-cPCI-100BT <ul style="list-style-type: none"> ▪ IP-based unified messaging and conferencing ▪ Interactive voice response services ▪ Web CRM centers and help desks ▪ Debit/calling card applications ▪ Voice portals ▪ Fax over Internet Protocol (FOIP) ▪ Internet gateways for toll bypass (voice and fax over IP) ▪ Access Gateway ▪ IP PBX 	DMIP601C100BT	<ul style="list-style-type: none"> ▪ Up to 60 Voice Resources ▪ Full Size, PCI and cPCI Form Factors ▪ Vocoders: G.723.1, G.729a, G.711, GSM ▪ T.38 real-time fax over IP ▪ Continuous Speech Processing (CSP) ▪ Host based Call Control ▪ R4 Media API ▪ G.711 Multicast ▪ QoS: IP Precedence/ Type of Service (TOS) ▪ cPCI High Availability

Media + Telephony Interface Boards

LOW-DENSITY MEDIA + TELEPHONY INTERFACE BOARDS

Voice with Analog Interface

The low-density voice resource boards offer four resources of voice processing and four channels of loop start network interfaces on a single board. The products are half-size boards with no SCbus or CTbus support and are available for the ISA and PCI form factor. The low-density boards with SpringWare technology are targeted at small to midrange enterprise developers who require high-end features such as AGC, Caller ID, GDPD and international approvals. The boards can be scaled from one to 16 boards in a PC chassis for building systems up to 64 ports and provide the ideal platform for today's Unified Messaging, voicemail, IVR and call center applications.

Products include the Intel® Dialogic® Dialog/4 and Intel® Dialogic® D/4PCI

Resource with Analog Interface (JCT Series)

The Intel® Dialogic® JCT Analog Series is a family of low-density products that provide a robust media feature set that includes voice processing, speech recognition and fax capabilities. The low-density JCT Series boards with SpringWare technology are available for the PCI form factor and are targeted at developers who seek to rapidly build and globally deploy small to midrange enterprise solutions. The boards can be scaled from one to 16 boards in a PC chassis for building systems up to 64 ports and provide a CTbus connector, allowing for interoperability with other CTbus/SCbus compatible boards. The JCT Analog Series of boards provide the ideal platform for today's Unified Messaging, voice mail, IVR and call center applications.

Products include the D/41JCT-LS, D/120JCT-LS, VFX/41JCT-LS

Low-Density Analog Product Line Summary

The following table summarizes the low-density analog product features. For full information refer to the product data sheets. <http://www.intel.com/network/csp/products/index.htm>

VOICE AND ANALOG LOOP START INTERFACE

APPLICATIONS	PART NUMBER	FEATURES
Intel® Dialogic® Dialog/4 <ul style="list-style-type: none"> ▪ Unified Messaging ▪ Voice Mail ▪ IVR ▪ Call Center 	DIALOG4	<ul style="list-style-type: none"> ▪ Up to 4 channels of voice ▪ 4 loop start telephone line interfaces ▪ Half-Size, ISA form Factor ▪ Dialogic® R4 API for media control ▪ Voice coding at dynamically selectable data rates ▪ DTMF detection and cut-through ▪ AGC support ▪ TAPI/WAVE support ▪ Up to 16 boards per chassis = 64 channels ▪ Internationally approved ▪ Software development kits for Windows NT*, Windows* 2000, MS-DOS, and OS/2 yield faster time-to-market
Intel® Dialogic® D/4PCI <ul style="list-style-type: none"> ▪ Unified Messaging ▪ Voice-Mail ▪ IVR ▪ Call Center 	D4PCI	<ul style="list-style-type: none"> ▪ 4 channels of voice ▪ 4 analog loop start network interfaces ▪ Half-Size, PCI form Factor ▪ Dialogic R4 API for media control ▪ Supports Caller ID for intelligent call handling ▪ Supports Global Dial Pulse Detection ▪ Worldwide approvals means expanded markets ▪ Tone signaling, GTD, GTG (Global Tone Detection and Generation) ▪ Call progress analysis ensures reliability ▪ TAPI/WAVE support ▪ Up to 16 boards per chassis = 64 channels ▪ Software development kits for Windows NT, Windows 2000 and Linux* yield faster time-to-market

RESOURCE WITH ANALOG INTERFACE (JCT SERIES)

APPLICATIONS	PART NUMBER	KEY FEATURES
Intel® Dialogic® D/41JCT-LS, Intel® Dialogic® D/120JCT-LS <ul style="list-style-type: none"> ▪ Unified Messaging ▪ Voice/Fax Mail ▪ Voice Portal ▪ IVR ▪ Contact Center and E-Business ▪ Dictation ▪ Speech-enabled auto-attendant 	D41JCTLS D120JCTLS	<ul style="list-style-type: none"> ▪ Up to 4 or 12 channels of enhanced voice (voice, speech recognition, fax) ▪ 4 or 12 channels of analog loop start network interfaces ▪ PCI form Factor, universal connectivity (support for 3.3 and 5 volt signaling environments) ▪ Dialogic R4 API for media control ▪ Up to 8 boards per system ▪ Tone signaling, GTD, GTG (Global Tone Detection and Generation) ▪ Call progress analysis ensures reliability ▪ A-law or μ-law voice coding at dynamically selectable data rates ▪ GSM and G.726 coding algorithms for support of Voice Profile for Internet Mail (VPIM) standard ▪ Software development kits for Windows NT, Windows 2000 and Linux yield faster time-to-market ▪ Worldwide approvals for cost-effective expansion to serve global markets
Intel® Dialogic® VFX/41JCT-LS <ul style="list-style-type: none"> ▪ Unified Messaging ▪ Voice/Fax Mail ▪ Voice Portal ▪ IVR ▪ Contact Center and E-Business ▪ Fax on Demand 	VFX41JCTLS	<ul style="list-style-type: none"> ▪ Up to 4 channels of voice, speech recognition and fax ▪ 4 channels of analog loop start network interfaces ▪ Same features and benefits as D/41JCT-LS plus enhanced fax capabilities ▪ ITU-T T.4 Group III Fax (T.4 and T.30) and ETSI NET/30 for send and receive operations ▪ V.17 transmission (14.4 Kbps) for sending and receiving faxes ▪ Software development kits for Windows NT, Windows 2000 and Linux yield faster time-to-market

HIGH-DENSITY MEDIA + NETWORK INTERFACE PRODUCTS

Resource Only (DM/V-A Multifunction Resource Series, JCT Resource Series)

When combined with a board with digital network interfaces, such as the Intel® Dialogic® DM/N or DM/T Digital Telephony Interface Boards, the Intel® Dialogic® DM/V-A Multifunction Resource Series and JCT Resource Series are some of the industry's most powerful media platforms for developers who seek to rapidly build and globally deploy high-density media server solutions for the enterprise and PSTN networks. The JCT Resource Series provide a media rich environment that supports a robust media feature set that includes voice processing and fax capabilities. The Intel Dialogic DM/V-A Multifunction Resource Series provides a true universal port solution by supporting speech recognition and conferencing in addition to the previously listed features for the JCT Resource Series. Support for the Intel innovative Continuous Speech Processing (CSP) technology, which is a DSP-based signal processing solution optimized for speech recognition, enables a friendlier user interface and the seamless integration of speech recognition software from the leading speech technology vendors. Support for conferencing enables Intel's customers to deploy network grade conferencing systems with comparable features, audio quality, and density as typical proprietary solutions at significantly reduced costs.

Resource with On-board PRI Interface(s) (DM/V-A Multifunction Series, JCT Single and Dual Spans)

The Intel Dialogic DM/V-A Multifunction Series and JCT Single and Dual Spans are some of the industry's most powerful media platforms for developers who seek to rapidly build and globally deploy high-density media server solutions for the enterprise and PSTN networks with an extensive suite of network protocols. The JCT Single and Dual Spans provide a media rich environment that supports a robust media feature set that includes voice processing, speech recognition and fax capabilities. The Intel Dialogic DM/V-A Multifunction Series Dual Span provides a true universal port solution by supporting conferencing in addition to the previously listed features for the JCT Single and Dual Spans. Support for the innovative Intel® Continuous Speech Processing (CSP), which is a DSP-based signal processing solution optimized for speech recognition, enables a friendlier user interface and the seamless integration of speech recognition software from the leading speech technology vendors. Support for conferencing enables Intel's customers to deploy network grade conferencing systems with comparable features, audio quality, and density as typical proprietary solutions at significantly reduced costs.

High-Density Media + Network Interface Product Line Summary

The following table summarizes the high-density media + network interface product features. For full information refer to the product datasheets. <http://www.intel.com/network/csp/products/index.htm>

INTEL® DIALOGIC® DM/V-A MULTIFUNCTION RESOURCE SERIES

APPLICATIONS	PART NUMBER	KEY FEATURES
DM/V2400A-PCI, DM/V2400A-CPCI <ul style="list-style-type: none"> ▪ Messaging and Enhanced Services ▪ Voice Portal ▪ Contact Center and e-Business ▪ PC-PBX ▪ Audio Conferencing Server ▪ Web Conferencing 	DMV2400APCI DMV2400ACPCI	<ul style="list-style-type: none"> ▪ 240 channels of basic voice, or ▪ 120 channels of conferencing, or ▪ Up to 120 channels of simultaneous conferencing and speech recognition ▪ PCI or Compact PCI (cPCI) form factor ▪ H.100 and H.110 Compliant ▪ Universal connectivity (support for 3.3 and 5 volt signaling environments) ▪ Tone signaling, GTD, GTG (Global Tone Detection and Generation) ▪ Call progress analysis ▪ 1200+ ports per chassis ▪ Software development kits (SDKs) for Windows NT*, Windows* 2000 and Linux* yield faster-time to-market. ▪ Dialogic® R4 API for media control

INTEL® DIALOGIC® JCT RESOURCE SERIES

APPLICATIONS	PART NUMBER	KEY FEATURES
D/160JCT, D/320JCT <ul style="list-style-type: none"> ▪ Messaging and Enhanced Services ▪ Contact Center and e-Business ▪ PC-PBX 	D160JCT D320JCT	<ul style="list-style-type: none"> ▪ Up to 16 and 32 channels of voice and fax ▪ PCI form Factor ▪ H.100 and H.110 Compliant ▪ Universal connectivity (support for 3.3 and 5 volt signaling environments) ▪ Tone signaling, GTD, GTG (Global Tone Detection and Generation) ▪ Call progress analysis ▪ Up to 6 boards per chassis ▪ Software development kits (SDKs) for Windows NT, Windows 2000 and Linux yield faster time-to-market ▪ Dialogic R4 API for media control

INTEL® DIALOGIC® DM/V-A MULTIFUNCTION SERIES

APPLICATIONS	PART NUMBER	KEY FEATURES
DM/V480A-2T1-PCI, DM/V480A-2T1-CPCI, DM/V600A-2E1-PCI, DM/V600A-2E1-CPCI <ul style="list-style-type: none"> ▪ Messaging and Enhanced Services ▪ Voice Portal ▪ Contact Center and e-Business ▪ PC-PBX ▪ Audio Conferencing Server ▪ Web Conferencing ▪ Switching and Call Completion ▪ Prepaid/Debit Card ▪ Gateway Switch 	DMV480A2T1PCI DMV480A2T1CPCI DMV600A2E1PCI DMV600A2E1CPCI	<ul style="list-style-type: none"> ▪ Up to 60 channels of simultaneous conferencing and speech recognition ▪ Two digital network interfaces ▪ PCI or Compact PCI (cPCI) form factor ▪ H.100 and H.110 Compliant ▪ Universal connectivity (support for 3.3 and 5 volt signaling environments) ▪ Tone signaling, GTD, GTG (Global Tone Detection and Generation) ▪ Call progress analysis ▪ 1200+ ports per chassis ▪ Software development kits (SDKs) for Windows NT, Windows 2000, and Linux yield faster time-to-market ▪ Dialogic R4 API for media control ▪ Unified call control access through GlobalCall* interface provides worldwide application portability and shortens development time.
DM/V960A-4T1-PCI, DM/V960A-4T1-CPCI, DM/V1200A-4E1-PCI, DM/V1200A-4E1-CPCI <ul style="list-style-type: none"> ▪ Messaging and Enhanced Services ▪ Voice Portal ▪ Contact Center and e-Business ▪ PC-PBX ▪ Switching and Call Completion ▪ Prepaid/Debit Card ▪ Gateway Switch 	DMV960A4T1PCI DMV960A4T1CPCI DMV1200A4E1PCI DMV1200A4E1CPCI	<ul style="list-style-type: none"> ▪ Up to 120 channels of enhanced voice (voice and speech recognition) ▪ Four digital network interfaces ▪ PCI or Compact PCI (cPCI) form factor ▪ H.100 and H.110 Compliant ▪ Universal connectivity (support for 3.3 and 5 volt signaling environments) ▪ Tone signaling, GTD, GTG (Global Tone Detection and Generation) ▪ Call progress analysis ▪ 1200+ ports per chassis ▪ Software development kits (SDKs) for Windows NT, Windows 2000, and Linux yield faster time-to-market ▪ Dialogic R4 API for media control ▪ Unified call control access through GlobalCall interface provides worldwide application portability and shortens development time.

INTEL® DIALOGIC® JCT SINGLE AND DUAL SPANS

APPLICATIONS	PART NUMBER	KEY FEATURES
<p>D/240JCT-T1, D/480JCT-1T1, D/300JCT-E1-75, D/300JCT-E1-120, D/600JCT-1E1-75, D/600JCT-1E1-120</p> <ul style="list-style-type: none"> ▪ Messaging and Enhanced Services ▪ Voice Portal ▪ Contact Center and e-Business ▪ PC-PBX ▪ Switching and Call Completion ▪ Prepaid/Debit Card ▪ Gateway Switch 	<p>D240JCTT1U D480JCT1T1U D300JCTE175U D300JCTE1120U D600JCT1E175U D600JCT1E1120U</p>	<ul style="list-style-type: none"> ▪ Up to 30 channels of voice, speech recognition and fax ▪ One digital network interface ▪ PCI form Factor ▪ H.100 Compliant ▪ Universal connectivity (support for 3.3 and 5 volt signaling environments) ▪ Tone signaling, GTD, GTG (Global Tone Detection and Generation) ▪ Call progress analysis ▪ Up to 16 boards per chassis ▪ Software development kits (SDKs) for Windows NT, Windows 2000, and Linux yield faster time-to-market ▪ Dialogic R4 API for media control ▪ Unified call control access through GlobalCall interface provides worldwide application portability and shortens development time.
<p>D/480JCT-2T1 D/600JCT-2E1-75, D/600JCT-2E1-120</p> <ul style="list-style-type: none"> ▪ Messaging and Enhanced Services ▪ Voice Portal ▪ Contact Center and e-Business ▪ PC-PBX ▪ Switching and Call Completion ▪ Prepaid/Debit Card ▪ Gateway Switch 	<p>D480JCT2T1U D600JCT2E175U D600JCT2E1120U</p>	<ul style="list-style-type: none"> ▪ Up to 60 channels of voice, speech recognition and fax ▪ Two digital network interfaces ▪ PCI form Factor ▪ H.100 and H.110 Compliant ▪ Universal connectivity (support for 3.3 and 5 volt signaling environments) ▪ Tone signaling, GTD, GTG (Global Tone Detection and Generation) ▪ Call progress analysis ▪ Up to 10 boards per chassis ▪ Software development kits (SDKs) for Windows NT, Windows 2000, and Linux yield faster time-to-market ▪ Dialogic R4 API for media control ▪ Unified call control access through GlobalCall interface provides worldwide application portability and shortens development time.

Media + Telephony Interface + Station Interface Boards

INTEL® INTEGRATED STATION INTERFACE PRODUCTS

The Intel® Dialogic® Integrated (DI) family of multifunction telephony boards are designed specifically for small- to medium-sized enterprise applications, including server-based PBXs and contact centers. Equipped with a rich and targeted mix of telephone network interfaces and media processing resources, the DI series enables developers and resellers to create more efficient and complete system solutions that offer increased functionality at a lower cost to end users. The highly integrated DI products reduce the number of boards and server PCI slots used in the solution, thereby reducing the overall system cost. Since the media resources are combined with network and/or station interfaces on a single board, in a single slot, developers save time, money, and board space.

Overall benefits of Intel® Dialogic® Integrated product line

- Optimized for converged communications switching applications
- Both network and station interfaces in a single slot
- Lower system cost: higher densities and reduced cost per port
- Wide range of resources integrated onboard
- Easy to add system features and enhancements
- Built-in service reliability and availability

PRODUCTS

Intel® Dialogic® DI/0408-LS-A

This trunk and station board is a single slot switching solution for building a complete server-based PBX or contact center starting at four trunks and eight stations on a single board. An optimized mix of voice, conference and fax resources is included onboard, along with Caller ID, message waiting indicator control, and a music on-hold audio port. Four fail-over circuits ensure basic telephone service in the event of power loss. The solution can be scaled to allow multiple boards in a single chassis.

Key Applications

- Server-Based PBX
- Customer Contact Center

Intel® Dialogic® DI/SI32

The DI/SI32 is single-slot PCI solutions that connect analog telephone devices directly to converged communications platforms to create affordable, small- to mid-size, server-based PBX telemarketing systems and call centers. Intel® Integrated Station Interface products are highly reliable and cost-effective, and offer an optimized mix of analog station interfaces and resources on which to build highly scalable systems.

The DI/SI32 is a full size, single slot PCI board, which is based on DM3 architecture, and provides 32 station interfaces. It offers station interface connectivity to a maximum of 32 devices, and includes conferencing, voice play/record, tone detection and generation, as well as Caller ID capabilities. The DM3 architecture provides access to independent, high-performance, firmware-based network protocol and media processing resources that can be operated and integrated on compatible hardware platforms.

Key Applications

- Automatic call distributor (ACD)
- Server-based PBX
- Inbound and outbound telemarketing
- Customer service
- Help desks
- Teleconferencing/conferencing bridge

Product Line Summary

The following table summarizes the Intel Integrated Station Interface Products application features. For full information refer to the product datasheets. <http://www.intel.com/network/csp/products/index.htm>

INTEL® INTEGRATED STATION INTERFACE PRODUCTS

APPLICATIONS	PART NUMBER	KEY FEATURES
Intel® Dialogic® DI/0408-LS-A <ul style="list-style-type: none"> ▪ Server-based PBX ▪ Customer Contact Center 	DI0408LSA	<ul style="list-style-type: none"> ▪ 4 Voice Resources per board ▪ Full size, PCI form factor ▪ 4 loop start trunk connection with call control, caller ID detection. ▪ 8 analog station interfaces with call control and caller ID generation. ▪ Fail-over of 4 trunks to 4 stations. ▪ Full complement of voice play and record. ▪ Full complement of tone detections and generation. ▪ 9 Conferencing Resources ▪ OS Support, Windows NT* 4.0 Windows* 2000 ▪ API, R4 ▪ BUS Support, CTbus H.100 Compliant ▪ Phone Support, 2500 Sets; Caller ID Phones; Int'l Complex Impedance Phones
Intel® Dialogic® DI/SI32 <ul style="list-style-type: none"> ▪ Automatic call distributor (ACD) ▪ Server-based PBX ▪ Inbound and outbound telemarketing ▪ Customer service ▪ Help desks ▪ Teleconferencing/conferencing bridge 	DISI32	<ul style="list-style-type: none"> ▪ Full size, PCI form factor ▪ 32 (maximum) analog station interfaces with call control and caller ID generation. ▪ Full complement of voice play and record. ▪ Full complement of tone detections and generation. ▪ 16 parties of conferencing, 12 with echo cancellation. ▪ Music on-hold port.

PBX Integration Boards and Products

PBX INTEGRATION BOARDS

PBX integration boards enable developers of voice mail, unified messaging, auto-attendant and interactive voice response applications to build sophisticated enterprise applications that take advantage of advanced digital features of the PBX such as calling party identification, called party identification, message waiting lamp control and fast reliable transfers.

PBX integration boards are considered premium integration products and are used when an application requires more sophisticated call control and call information than is normally available through an analog connection. These advanced features are sometimes collectively referred to as “digital features.” The term “integration” describes any method for connecting an application to a PBX or key system unit (KSU), but is most often used when referring specifically to a product that offers advanced digital features.

These digital features are available without expensive upgrades to existing PBX equipment. This is possible because PBX integration boards use the same interface to the PBX as a digital telephone. This concept is known as “emulation” of a digital telephone. PBX integration boards emulate or behave like a digital telephone, thereby allowing the boards to provide advanced call control capabilities to an application through an Application Programmer’s Interface (API).

PRODUCT INFORMATION

DSE PBX Integration

The DSE PBX Integration board offers advanced digital connectivity to today’s most popular private branch exchanges (PBXs) for unified and Internet-ready call, voice, and fax processing applications in medium to large enterprises and call centers. The board provides 16 ports of digital access to the PBX by emulating the powerful digital display telephones used by attendants, and ACD/call center supervisors and agents.

Whether you are developing messaging, call center quality assurance, IVR, IP telephony, wireless, or other applications, the DSE board offers access to more telephony features than typical analog interfaces, while enhancing overall system performance. The DSE board provides maximum design flexibility with H.100, a choice between TAPI or Native API, and the ability to build your application with Windows NT* or Windows* 2000.

Applications

- Voice mail/voice messaging
- Internet-based unified messaging (UM)
- Interactive voice response/interactive media response (IVR/IMR)

Intel® Dialogic® D/82JCT-U

The D/82JCT-U board offers advanced digital connectivity to today's most popular private branch exchanges (PBXs) for unified and Internet-ready call, voice, and fax processing applications in small- to medium-sized enterprises. Featuring programmable soft-ports capable of supporting voice, fax, call handling, and host-based speech technologies, the D/82JCT-U board reduces the cost of ownership for systems requiring multimedia functionality. The D/82JCT-U board's universal PBX interface offers a downloadable selection of the switches that make up a large percentage of the North American telephone equipment market. Support for advanced PBX features such as called and calling number identification, message waiting notification, busy lamp fields, and disconnect supervision is useful for developing unique unified messaging, interactive voice response (IVR), and call management solutions. By choosing the D/82JCT-U board for enterprise applications, developers eliminate the complexities associated with analog or T-1 integration as well as costly investments in proprietary computer-telephone integration (CTI) links.

Applications

- Voice mail/voice messaging
- Internet-based unified messaging (UM)
- Interactive voice response/interactive media response (IVR/IMR)

Intel® Dialogic® D/42JCT-U

The D/42JCT-U board offers advanced digital connectivity to many popular private branch exchanges (PBXs) for unified and Internet-ready call, voice, and fax processing applications in small- to medium-sized enterprises. Featuring programmable soft-ports capable of supporting voice, fax, call handling, and host-based speech technologies, the D/42JCT-U board reduces the cost of ownership for systems requiring multimedia functionality. The universal PBX interface of the D/42JCT-U board offers downloadable firmware for a selection of widely used telephone equipment switches. Support for advanced PBX features such as called and calling number identification, message waiting notification, busy lamp fields, and disconnect supervision is useful for developing unified messaging, interactive voice response (IVR), and call management solutions. By choosing the D/42JCT-U board for enterprise applications, developers eliminate the complexities associated with analog or T-1 integration as well as costly investments in proprietary computer-telephone integration (CTI) links.

Applications

- Voice mail/voice messaging
- Internet-based unified messaging (UM)
- Interactive voice response/interactive media response (IVR/IMR)

PBX Integration Board Product Line Summary

The following table summarizes the PBX integration board product features. For full information refer to the product datasheets. <http://www.intel.com/network/csp/products/index.htm>

INTEL® DIALOGIC® DSE SERIES

APPLICATIONS	PART NUMBER	KEY FEATURES
<p>Ideal for enterprise high-density voice mail, unified messaging, auto-attendant and interactive voice response applications from 16–128 ports per system. All DSE series boards contain network interfaces only (use separate H.100 enabled DSP board for media processing). Supported PBX models and densities are shown below.</p>	DL300916	16 digital interface ports ▪ supports Nortel* (Meridian-1), Avaya* (Definity), Siemens* (HiCom) and NEC* (NEAX) PBXs ▪ PCI long form factor ▪ H.100 compatible
	DL300912	12 digital interface ports ▪ supports Nortel (Meridian-1), Lucent* (Definity), Siemens (HiCom) and NEC (NEAX) PBXs ▪ PCI long form factor ▪ H.100 compatible ▪ Field expandible
	DL300908	8 digital interface ports ▪ supports Nortel (Meridian-1), Lucent (Definity), Siemens (HiCom) and NEC (NEAX) PBXs ▪ PCI long form factor ▪ H.100 compatible ▪ Field expandible
	DL300716	16 digital interface ports ▪ Mitel* (SX200, SX2000) PBXs ▪ PCI long form factor ▪ H.100 compatible
	DL300712	12 digital interface ports ▪ Mitel (SX200, SX2000) PBXs ▪ PCI long form factor ▪ H.100 compatible ▪ Field expandible
	DL300708	8 digital interface ports ▪ Mitel (SX200, SX2000) PBXs ▪ PCI long form factor ▪ H.100 compatible ▪ Field expandible
	DL300216	16 digital interface ports ▪ Siemens (ROLM) PBXs ▪ PCI long form factor ▪ H.100 compatible
	DL300212	12 digital interface ports ▪ Siemens (ROLM) PBXs ▪ PCI long form factor ▪ H.100 compatible ▪ Field expandible
	DL300208	8 digital interface ports ▪ Siemens (ROLM) PBXs ▪ PCI long form factor ▪ H.100 compatible ▪ Field expandible

INTEL® DIALOGIC® D/82JCT-U AND INTEL® DIALOGIC® D/42JCT-U

APPLICATIONS	PART NUMBER	KEY FEATURES
Ideal for low to medium density application from 4–16 ports. These boards contain network interfaces plus built-in DSP for advanced media processing including low bit rate coders and built-in softfax.	D82JCTU	8 digital interfaces plus 8 media processing channels ▪ supports Avaya (Definity), Nortel (Meridian-1 and NorStar), Mitel (SX200, SX2000, SX50), NEC (NEAX), and Siemens (ROLM and Hicom) PBXs ▪ Supports G.711, OKI linear, GSM and G.726 voice coders ▪ 2 channels of fax per card, sharable across CT Bus ▪ DTMF tone generation and detection ▪ Pitch corrected speed control on playback ▪ PCI long form factor ▪ H.100 compatible
	D42JCTU	4 digital interfaces plus 4 media processing channels ▪ supports Avaya (Definity), Nortel (Meridian-1 and NorStar), Mitel (SX200, SX2000, SX50), NEC (NEAX), and Siemens (ROLM and Hicom) PBXs ▪ Supports G.711, OKI linear, GSM and G.726 voice coders ▪ 1 channel of fax per card, sharable across CT Bus ▪ DTMF tone generation and detection pitch corrected speed control on playback ▪ PCI long form factor ▪ H.100 compatible

INTEL® NETSTRUCTURE™ PBX-IP MEDIA GATEWAY PRODUCT INTRODUCTION

Every day, the gap between IP Telephony and traditional communication routes grows smaller and smaller. It's the hot topic today and many people feel that, if they haven't already begun replacing their legacy telephone equipment with IP telephony solutions, they are way behind the competitive curve. User requirements have evolved beyond simple voice applications within the enterprise to sophisticated voice transport over local area, wide area and public packet data networks. Converged communications *is* on the horizon and enterprises *should* be planning their strategy for changing how they do business today. But companies don't have to throw away their PBXs and digital telephones and replace them overnight with LAN- or WAN-based IP telephony equipment.

Customers require a more graceful and cost-effective way to manage network migration to IP technology. Offering a true IP solution that allows customers to extend the life expectancy of their current legacy equipment, maintain reliability, and recover their investment, at a controlled and rational pace, is key.

Of vital interest to today's VARs, developers, and end users will be the ability to:

- Interface to the existing PBX without the need to upgrade everything, all at once.
- Utilize value-added productivity applications that are fully or largely deployed on the data network.
- Simplify system integration.
- Preserve full digital phone capabilities anywhere on the IP Network.
- Incorporate all of these capabilities in a PBX-to-data LAN/WAN appliance that accomplishes a complete network-to-network integration.

Target Applications:

- IP-enable existing PBX allowing cost-effective enterprise migration to IP
- Connect remote workers to main office PBX and messaging server
- Connect remote agents to the central switch at the main office in a Call Center environment
- Centralize networked voice messaging system that are VoIP enabled by allowing multiple sites to connect their PBX to enterprise WAN

PRODUCTS

Intel® NetStructure™ PBX-IP Media Gateway

The PBX-IP media gateway is an open, standards-based, stand-alone device that allows small to medium enterprises to control their transition to a converged network. It provides a cost-effective bridge between a legacy PBX and a managed packet network by converting signals from existing digital PBX equipment to an industry-standard protocol called H.323 that can be transmitted over a LAN or WAN to communications devices such as H.323 IP phones, H.323 compatible wireless phones, and IP servers running H.323 compatible applications in almost any location. The signal conversion allows the devices to act as digital extensions off the existing PBX. It offers companies a simplified, cost-effective solution for converging voice and data across the LAN/WAN while preserving their legacy PBX investment and controlling the pace of their IP migration.

The PBX-IP media gateway uses digital telephone set emulation technology (DSET) to communicate the call control and voice data from a legacy PBX to a managed packet network, giving H.323 terminal devices access to the PBX. The gateway has eight ports and connects to the PBX via its digital line card and to the network by a 10/100 BaseT-Ethernet connection. There are two skus available. The first sku, PBXIPMGEM8AMI, is for Nortel and Avaya PBXs and the second sku, PBXIPMGEM8MTL, is for Mitel PBXs.

The PBX-IP media gateway currently supports the following PBX systems:

- Nortel* Meridian* 1, SL1, Option 11, 21, 21A, 51, 61, 71, and 81—release 15 or greater (options 46 and 19 are required)
- Avaya* DEFINITY* G3—version 3 or greater with 2-wire line card
- Mitel* SX-200 and SX-2000—Lightware* release 17 or greater

FEATURES AND BENEFITS

8 Port Configuration

10/100 Base T Ethernet

Standards-based ITU H.323 v3

H.450 Supplementary Services including H.450.1/2/4/7 (call transfer, call hold, and message waiting indicator)

Support for Fast connect and H.245 tunneling

Real-time transport protocol/real-time control protocol (RTP/RTCP)

G.711 A-law and μ -law, G.723.1, and G.729AB

Web browser, SNMP, Telnet, and RS-232 for ease of install, configuration, and management

Silence detection, Line echo cancellation, Comfort noise generation, Call progress tones

Digital connection: Ensures a high voice quality and provides remote disconnect supervision so disconnected calls are detected faster which increases port availability

Investment protection of legacy telecom equipment allowing a managed migration approach to IP technology

IP-enable existing PBX cost-effectively without the need for a software or hardware upgrade to allow communication between a circuit-switched telephony network and a managed packet network

Deploys easily in an existing Nortel Meridian 1, Avaya DEFINITY G3, or Mitel SX 200 or 2000 PBX environment

Easy to install, configure and maintain

Synergy with other Intel® products

Intel® NetStructure™ PBX IP Media Gateway Product Line Summary

The following table summarizes the PBX IP Media Gateway product features. For full information refer to the product data sheets. <http://www.intel.com/network/csp/products/index.htm>

INTEL® NETSTRUCTURE™ PBX IP MEDIA GATEWAY PRODUCT LINE

APPLICATIONS	PART NUMBER	KEY FEATURES
PBX IP Media Gateway	PBXIPMGEM8AMI	<ul style="list-style-type: none"> ▪ 8 Port Stand-alone Unit ▪ 10/100 Base T Ethernet ▪ Standards-based ITU H.323 v3 ▪ H.450 Supplementary Services including H.450.1/2/4/7 (call transfer, call hold, and message waiting indicator) ▪ Support for Fast connect and H.245 tunneling ▪ Real time transport protocol/real-time control protocol (RTP/RTCP) ▪ G.711 A-law and μ-law, G.723.1, and G.729AB ▪ Web browser, SNMP, Telnet, and RS-232 for ease of install, configuration, and management ▪ Silence detection, Line echo cancellation, Comfort noise generation, Call progress tones ▪ Digital connection: Ensures a high voice quality and provides remote disconnect supervision so disconnected calls are detected faster which increases port availability ▪ Supported PBX's ▪ Nortel Meridian 1, SL1, Option 11, 21, 21A, 51, 61, 71, and 81—release 15 or greater (options 46 and 19 are required) ▪ Avaya DEFINITY G3—version 3 or greater with 2-wire line card ▪ Mitel SX-200 and SX-2000—Lightware release 17 or greater
	PBXIPMGEM8MTL	

Signaling Boards and Platforms

SS7 SOLUTIONS

SS7 Signaling Gateways

SS7 Signaling Gateways bridge IP networks, ISDN equipment and SS7 equipment. They are key enablers for building IP-based telecommunications service nodes, such as VAD platforms or wireless location/messaging services. They are also used to SS7-enable voice systems, giving access to the power and flexibility of the core telecommunications network. These systems include a SIGTRAN signaling gateway, an SS7 server with higher-level API access, and an ISDN and SS7 converter that will interwork different variants of SS7 as well as ISDN. All include a wide range of SS7 variants including ANSI and ITU/ETSI, as well as more specialized local ones. They support a suite of SS7 protocols, including ISUP, TUP, BT-IUP, SCCP, TCAP, GSM-MAP, IS41-MAP, INAP, and CAP.

SS7 Interface Cards

E1/T1/V.35 SS7 Intelligent Interface cards, along with SS7 protocol software give direct, high-performance access to the telecommunications network. These boards provide the platform for call-control, wireless applications and Intelligent Networking. The on-board processor will run a full range of protocols from MTP up to ISUP, SCCP, TCAP, GSM-MAP, IS41-MAP, INAP and CAP independently to the host. They also include H.100/H.110/ScBus interfaces for interworking with other standards-based boards in a system. The boards include run-time support for many local variants as well as the major ANSI and ITU versions.

SS7 Product Line Summary

The following table summarizes the SS7 product application features. For full information refer to the product datasheets. <http://www.intel.com/network/csp/products/index.htm>

SS7 SIGNALING GATEWAYS

APPLICATIONS	PART NUMBER	KEY FEATURES
SS7/IP Signalling Gateway <ul style="list-style-type: none"> ▪ Mobile short messaging/location-based services ▪ Distributed switch ▪ SS7 long haul and offload ▪ GPRS integration ▪ 2G–3G interworking ▪ IP telephony gateways ▪ Intelligent networking SCP ▪ IP-based application service provider 	SG430	<ul style="list-style-type: none"> ▪ SS7-to-IP interworking using open standards ▪ Simultaneous support for multiple SS7 variants—ANSI/ITU/ETSI/JAPAN ▪ Multiple interface formats—E-1/T-1/V.35 ▪ Supports connectivity to SIGTRAN-compatible application servers ▪ Enables multihost distributed application server systems ▪ STP-like operation ▪ Fault resilient configurations ▪ High performance in 2U form factor ▪ SS7/SIGTRAN application server software also available
Signaling Interface Unit <ul style="list-style-type: none"> ▪ Mobile short messaging/location-based services ▪ IP telephony gateways ▪ Intelligent networking SCP ▪ IP-based application service provider ▪ Multi-chassis service platforms ▪ VAD/IVR and Voice Mail systems 	SIU131/SIU231	<ul style="list-style-type: none"> ▪ Support for MTP, ISUP, TUP, BT-IUP, SCCP, TCAP, GSM-MAP, IS41-MAP, INAP and CAP + many local variants inc. ANSI and ITU/ETSI. ▪ Multiple interface formats—E1/T1/V.35 ▪ Fault resilient load-sharing configurations ▪ Common API with boards for applications scalability ▪ API over TCP/IP interface to up to 32 applications hosts.
SS7/ISDN converter <ul style="list-style-type: none"> ▪ Rapid deployment of ISDN equipment ▪ Interconnection of incompatible SS7 equipment ▪ Advanced network interworking 	DSC110/DSC210/ DSC310	<ul style="list-style-type: none"> ▪ Support for ANSI/ITU ISP, TUP and BT-IUP + other local variants ▪ Conversion to/from all supported SS7 variants ▪ Conversion to/from ISDN and DPNSS ▪ Parameter manipulation to bridge incompatible networks.

SS7 INTERFACE CARDS

APPLICATIONS	PART NUMBER	KEY FEATURES
E1/T1/V.35 SS7 Interface boards <ul style="list-style-type: none">▪ Voice Portals▪ Short Messaging Services▪ Prepaid calling card▪ VAD/IVR and voice mail systems▪ Intelligent Networking IP	Septel PCI, Septel cP and Septel ISA	<ul style="list-style-type: none">▪ Up to 8 E1/T1 interfaces per board▪ Onboard processor runs protocols independent of host▪ Support for MTP, ISUP, TUP, BT-IUP, SCCP, TCAP, GSM-MAP, IS41-MAP, INAP and CAP + local many local variants inc. ANSI and ITU/ETSI.▪ Up to 4 SS7 links per board▪ Common API between boards and SIUs

Station Interface Boards

HDSI PRODUCTS

High-Density Station Interface Boards Product Introduction

The High Density Station Interface (HDSI) is an open-architecture platform for computer telephony that integrates large-scale switching and voice processing resources under a single hardware and software architecture. The High Density Station Interface solution is offered in both PCI and Compact PCI (cPCI) configurations, which provide the industry's highest density analog station connectivity in a single computer chassis slot.

Target Applications:

- Inbound and outbound telemarketing
- PBX/Key systems
- Customer service, help desks
- Operator services, such as billing automation, directory assistance, and intercept treatments
- Automatic call distribution (ACD)
- Local information services

PRODUCTS

High-Density Station Interface

The HDSI is an Intel assembly consisting of either an HDSI-PCI board with H.100 compliant CTbus connectivity, or an HDSI-cPCI board assembly (including a cPCI Baseboard and a Rear I/O Module) with H.110 compliant CTbus connectivity, connected to a Station Interface Box (SIB). The CTbus provides switching between trunks and stations and also allows expansion for additional Intel® Dialogic® network and resource boards. Utilizing just one computer chassis slot, this solution can support up to 120 stations with tone detection and generation, and FSK Caller ID transmission. This product utilizes the Dialogic R4 on DM3 interface to provide support for the existing Dialogic Modular Station Interface (MSI) R4 API, as well as the Voice (dx_) R4 API (for tone detection and generation). The HDSI system is provided in four station densities. The HDSI480 (the base model) supports 48 stations; the HDSI720 supports 72 stations; the HDSI960 supports 96 stations; and the HDSI1200 supports 120 stations.

FEATURES AND BENEFITS

Connect up to 120 analog telephony devices directly to computer telephony (CT) systems and create large-scale, PC-based telemarketing systems and call centers

Build economical systems by sharing resources via the CTbus connectivity enables customized, integrated applications using a wide range of complementary technologies, like speech recognition, facsimile, and text-to-speech.

Programmable ringing with automatic ring trip requires no additional external circuitry.

Station status event detection allows collection of call traffic statistics via the application for cost-effective management of call setup and call termination

Programmable gain provides station volume control from the application and enables matching line levels from different devices

Supports programmable notification tones for metering time expired

Provides unobtrusive monitoring of connections

Provides battery feed to phone (termination) sets

C language application program interfaces (APIs) for Windows NT*

On-board DTMF detection recognizes tones generated by phones connected to the stations.

On-board tone generation provides for generating PBX like tones to the stations such as dialtone, ringback, and busy.

Programmable cadence allows selection of ring cadence options

Downloadable front-end impedance and gain settings—allows the HDSI to connect to commercially available phones worldwide

On-board FSK generation allows the transmission of Caller ID to Class, Clip and J-Clip type caller ID phones as well as the ability to turn on and off message waiting indicator.

HDSI Product Line Summary

The following table summarizes the HDSI product features. For full information refer to the product datasheets.

<http://www.intel.com/network/csp/products/index.htm>

HDSI PRODUCT LINE

APPLICATIONS	PART NUMBER	KEY FEATURES
HDSI PCI	HDSI1200PCI	<ul style="list-style-type: none"> ▪ Connectivity to 48, 72, 96, 120 analog stations ▪ Programmable ringing with automatic ring trip requires no additional external circuitry. ▪ Station status event detection allows collection of call traffic statistics via the application for cost-effective management of call setup and call termination ▪ Programmable gain provides station volume control from the application and enables matching line levels from different devices ▪ Supports programmable notification tones for metering time expired ▪ Provides unobtrusive monitoring of connections ▪ Provides battery feed to phone (termination) sets ▪ C language application program interfaces (APIs) for Windows NT* ▪ On-board DTMF detection recognizes tones generated by phones connected to the stations. ▪ On-board tone generation provides for generating PBX like tones to the stations such as dialtone, ringback, and busy. ▪ Programmable cadence allows selection of ring cadence options ▪ On-board FSK generation allows the transmission of Caller ID to Class, Clip and J-Clip type caller ID phones as well as the ability to turn on and off message waiting indicator.
	HDSI1200PCIJP	
	HDSI960PCI	
	HDSI960PCIJP	
	HDSI720PCI	
	HDSI720PCIJP	
HDSI cPCI HDSI960CPCI	HDSI1200CPCI	
	HDSI720CPCI	
	HDSI480CPCI	

MODULAR STATION INTERFACE BOARDS PRODUCT INTRODUCTION

The Intel® Dialogic® MSI-Global Series are modular station interface boards that incorporate a variety of analog devices, such as local 2500-type touchtone telephones, modems, and fax machines, into CT systems that are based on the open, industry-standard SCbus architecture.

The MSI-Global Series has SC boards as well as PCI boards. With these boards, applications can be extended to incorporate live agent stations or third-party- add-on technology. Up to 16 analog station devices (PCI version) or up to 24 analog station devices (SC version), such as local telephones, telesales agent headsets, modems, fax machines, or audio equipment can be connected to the SCbus and CTbus in SCbus mode. A conferencing feature enables applications to establish conferences between any of the time slots on the SCbus and the station devices connected to the MSI/SC-Global board or MSI/PCI-Global board.

Target Applications:

- Inbound and outbound telemarketing
- Customer service, help desks
- Dictation/transcription
- Operator services, such as billing automation, directory assistance, and intercept treatments
- Automatic call distribution (ACD)
- Teleconferencing/conferencing bridge
- Audiotex
- Local information services

PRODUCTS

Intel® Dialogic® MSI/SC Global

The MSI/SC-Global Series consists of an MSI80SCGBL baseboard, which contains a digital signal processor (DSP) and eight station interface circuits. Up to two MSI80SCGBL daughterboard modules (each daughterboard contains eight station interface circuits) can be added to the baseboard for a total of 24 stations. Preconfigured 16-station MSI160SCGLOBAL and 24-station MSI240SCGLOBAL models can also be ordered. The MSI/SC-Global board is an AT form factor board with a 16-bit bus that fits in a single AT (ISA) expansion slot (even with station daughterboards installed).

FEATURES AND BENEFITS

Connect up to 24 analog telephone devices directly to computer telephony (CT) systems and create affordable, low-end to mid-size, PC-based telemarketing systems and call centers

Expandable, modular design lets you deploy just the right number of ports today and efficiently add more tomorrow—with configurations of 8, 16, and 24 station interfaces in a single ISA slot

Build economical systems by sharing resources via the SCbus. SCbus connectivity enables customized, integrated applications using a wide range of complementary technologies, like speech recognition, facsimile, and text-to-speech.

Create more cost-effective switching solutions via access to the SCbus with its 1024 time slot capability and the capacity to build higher density systems and large, multinode systems through SCxbus communications

Power ringing with automatic ring trip requires no additional external circuitry

Station status event detection allows collection of call traffic statistics via the application for cost-effective management of call setup and call termination

Programmable channel gain provides channel volume control from the application and enables matching line levels from different devices

Supports programmable notification tones for metering time expired

Provides unobtrusive monitoring of connections

Provides battery feed to power station sets

Call conferencing supports up to 32 conferees in flexible configurations of two to eight parties per conference

Conferencing resources include advanced features, such as broadcast, coaching, and dynamic additions and deletions without annoying training tones

C language application program interfaces (APIs) for UNIX* and Windows NT* shorten your development cycle, so you can get your applications to market faster

Programmable cadence allows you to select and set ring cadence options

Downloadable front-end impedance—allows the MSI to connect to commercially available phones worldwide

Jumper can be used for dry audio input, ideal for playing music-on-hold

Intel® Dialogic® MSI/PCI Global

The MSI/PCI-Global Series consists of an MSI80PCIGBL baseboard, which contains a digital signal processor (DSP) and an eight-station interface daughterboard. An additional daughterboard (containing eight station interface circuits) can be added to the MSI80PCIGBL for a total of 16 stations. Preconfigured 16-station MSI160PCIGBL models can also be ordered. The MSI/PCI-Global board is a PCI form factor board with a 32-bit bus that fits in a single PCI expansion slot.

FEATURES AND BENEFITS

Connect up to 16 analog telephone devices directly to computer telephony (CT) systems and create affordable, low-end to mid-size, PC-based telemarketing systems and call centers

Expandable, modular design lets you deploy just the right number of ports today and efficiently add more tomorrow—with configurations of eight or 16 station interfaces in a single PCI slot

Build economical systems by sharing resources via the SCbus and CTbus. SCbus connectivity enables customized, integrated applications using a wide range of complementary technologies, like speech recognition, facsimile, and text-to-speech.

Create more cost-effective switching solutions via access to the CTbus/SCbus with its 1,024 time slots and capacity to build higher density systems and large, multinode systems through SCxbus communications

Power ringing with automatic ring trip requires no additional external circuitry

Station status event detection allows collection of call traffic statistics via the application for cost-effective management of call setup and call termination

Programmable gain provides station volume control from the application and enables matching line levels from different devices

Supports programmable notification tones for metering time expired

Provides unobtrusive monitoring of connections

Provides battery feed to phone sets

Call conferencing supports up to 32 conferees in flexible configurations of two to eight parties per conference

Conferencing resources include advanced features such as broadcast, coaching, and dynamic additions and deletions without annoying training tones

C language application program interfaces (APIs) for Windows NT* shorten your development cycle

Programmable cadence allows you to select and set ring cadence options

Downloadable front-end impedance and gain allow the MSI board to connect to commercially available phones worldwide

Dry audio input, ideal for playing music-on-hold

Intel® Dialogic® MSI Global Product Line Summary

The following table summarizes the MSI Global product features. For full information refer to the product datasheets. <http://www.intel.com/network/csp/products/index.htm>

INTEL® DIALOGIC® MSI GLOBAL PRODUCT LINE

APPLICATIONS	PART NUMBER	KEY FEATURES
MSI/SC Global	MSI80SCGBL	<ul style="list-style-type: none"> ▪ 8, 16, or 24 station interfaces in a single ISA slot ▪ Two- to eight-party conferencing ▪ Up to 32 conferencing resources, total ▪ Conferences of any combination of agents and network channels ▪ Hidden training for smooth entry of new conferees, without disruptive training noise ▪ Supervisory monitoring of agents, without disrupting the conversation ▪ Coaching feature that allows supervisors to speak to agents without the customer listening to the supervisor; customer can hear the agent at all times (no switching) ▪ Programmable channel gain to optimize volume levels for station devices ▪ Programmable cadence allows you to select and set ring cadence options (UNIX* and Windows NT* only)
	MSI160SCGLOBAL	
	MSI240SCGLOBAL	
MSI/PCI Global	MSI80PCIGBL	<ul style="list-style-type: none"> ▪ 8 or 16 station interfaces in a single PCI slot ▪ Two- to eight-party conferencing ▪ Up to 32 conferencing resources, total ▪ Conferences of any combination of agents and network channels ▪ Hidden training for smooth entry of new conferees without disruptive training noise ▪ Supervisory monitoring of agents without disrupting the conversation ▪ Coaching feature that allows supervisors to speak to agents without the customer listening to the supervisor; customer can hear the agent at all times (no switching) ▪ Programmable channel gain to optimize volume levels for station devices ▪ Programmable cadence allows you to select and set ring cadence options
	MSI160PCIGBL	

Boards and Platforms

COMPACTPCI* BOARDS, PLATFORMS, AND COMPONENTS OVERVIEW

CompactPCI* has emerged as a standard form factor in the communications industry. Influenced by needs for a highly reliable, scalable solution that enabled standard PCI implementation, CompactPCI was created to provide open standards, higher availability, and higher performance for telecom and datacom applications. The convergence of voice and data traffic (or circuit-switched and packet-switched traffic) produced a design to merge these two kinds of traffic. Intel's multiple chassis form factors enable a combination of solutions to meet most customer needs.

Intel® NetStructure™ CompactPCI solutions empower development of differentiated, reliable, intelligent network services for the converged IP network. Our embedded processor roadmap is built on performance scalability to ensure an extended product life cycle, while standards-based hardware and software building blocks support efficient and cost-effective time-to-market.

Processor Compatibility

Intel's family of Processor Boards and components seek to incorporate high-performance processors/chipsets while continuing to meet the needs of professional customers who value product stability and long-term availability. Currently, Intel's Processor Board products incorporate single and dual Intel® Pentium® III processor solutions ranging from 500 to 850 MHz (including low power options).

A Complete Solution

Intel provides technical and sales support for customers designing with its CompactPCI boards, platforms, and components. This support includes value-add OS support with device drivers for Redundant System Slot (RSS) applications, compactnet, system management features and functionality, hot swap, and BIOS innovations.

FEATURES	BENEFITS
Standards-based, open architecture meets reliability and scalability needs of Next Generation Network	Saves time and reduces cost. Shortens start-up time for new projects, development time of prototypes and overall system cost
Application-tailored standard products <ul style="list-style-type: none"> ▪ Core feature sets optimized for communications applications ▪ Key features customizable for specific requirements (speed, memory, expansion) 	Easy to use. Because of the availability of cPCI-compatible peripherals Allows easy integration. By defining a set of standards which define mechanical, electrical, and protocol specification for building modular highly reliable computing systems Saves valuable development time. Modular architecture allows economical and efficient system integration, which translates to faster time-to-money for telecom system designers
Well known and established ecosystem of developers and Operating System Support	Rapid Time-to-Market. Intel understands the important role of software when designing embedded computing solution, and continues to innovate with enhanced support for many of today's top operating systems (Linux*, Windows* 2000, Windows*.NET, Windows* Embedded, VXWorks*). CompactPCI is intended as an industrial bus for telecommunications, computer telephony, real-time machine control, industrial automation, real-time data acquisition, instrumentation, military systems and any other application requiring high-speed computing, modular and robust packaging design, and long-term manufacturer support.
Intel is committed to the architecture's longevity	Provides security. Assurance that the Intel® Architecture will be available for future generations of your designs

The Embedded Intel® Architecture Division (EID) Processor Board Family

CompactPCI offers powerful, cost-effective computing solutions for telco-grade and mission-critical applications. Based upon the Intel® Pentium® processor, our roadmap is committed to attaining the highest possible performance, power efficiency, and value.

High Availability Processor Boards

The ZT 5550 High Availability CompactPCI System Master processor board is designed for redundant processing configurations where very high levels of system availability are required. The dual CompactPCI bus ZT 5550 supports up-to-12 CompactPCI peripheral boards and when used in conjunction with a second ZT 5550, can provide up to 99.999 percent (five-nines) system availability. It features the Intel Pentium III processor–Low Power module, is hot-swappable and includes on-board peripherals and optional I/O expansion features. The ZT 5550 supports Windows NT*, Linux*, and VxWorks* operating systems.

High-Performance Processor Boards

The ZT 5523 high-performance CompactPCI System Master processor board is designed for telecom and Internet applications requiring exceptional computing bandwidth, speed and processing power. Performance for the ZT 5523 comes from dual Intel Pentium III processors and the ServerWorks ServerSet* III LE chipset. A 64-bit PCI bridge and high-speed CompactPCI bus drive up-to-seven peripheral boards at 33 MHz, or four at 66 MHz. Standards-based, off-the-shelf architecture and a generous set of on-board embedded features address the system integration and reliability requirements of OEM system builders. Support is provided for major operating systems, including real-time software, speeds application development.

High Value Processor Boards

The Intel Pentium III-based ZT 5502, ZT 5503, and ZT 5504 CompactPCI System Master processor boards are designed for telecommunications and Internet applications requiring completely integrated processing solutions for increased performance and system reliability. They each can also operate in a CompactPCI peripheral slot as a stand-alone single board computer. In addition, the ZT 5504 supports the PICMG 2.16 packet switched backplane (PSB) architecture for switched Ethernet communications across the system backplane. The ZT 5504 is validated with the Intel NetStructure family of packet switched backplane products, and is designed to be interoperable with third-party 2.16-compliant components. Support is included for Windows* 2000, Linux, and VxWorks operating systems.

FEATURES	BENEFITS
Standards-based, open architecture	<ul style="list-style-type: none"> Boards can be interoperable between multiple vendors' systems, giving customers more choice flexibility Efficient and economical integration Configurable to custom configurations Faster Time-to-Market—using standards-based modules rather than custom components, customers can focus on their core competence of building their next-generation application set Continuous IA roadmap provides future security
High Density	<ul style="list-style-type: none"> Demand for floor space is at an all time high. Intel's high-density SBCs can reduce the overall cost of equipment space and minimize system volume
Low power/thermals	<ul style="list-style-type: none"> Intel's Processor boards make use of innovative designs to minimize power consumption and provide superior thermal characteristics
Serviceability	<ul style="list-style-type: none"> These modular boards are active FRUs, which can easily be replaced in the field in under 5 minutes; without disrupting the other pieces of the system
High Availability	<ul style="list-style-type: none"> Intel's High Availability Single Board Computers support 99.999 percent uptime, which is becoming increasingly important to customers. This is provided by redundant power supplies, CPUs, hard drives, etc. The RSS capabilities, which allow hot-swappable boards with minimal impact on applications or calls on other boards, also help provide this redundancy
IPMI Management	<ul style="list-style-type: none"> Allows operators to remotely monitor system health, individual sensor data, FRU data and exert power-up/down control. Enables full management of all IPMI-based SBCs and peripherals in a platform

PROCESSOR BOARD COMPARISON

PRODUCT NAME	ZT 5502A-1B	ZT 5503	ZT 5541	ZT 5550	ZT 5523	ZT 5504
Board Size	6U	6U	6U	6U	6U	6U
Board Type	System Master	System Master	Peripheral Master	RSS High Availability	System Master	System Master
# Skus	1	2	2	2	2	3
# CPUs	1	1	1	1	2	1
CPU	Intel® Pentium® III, LP 500 MHz	Intel Pentium III, 850 MHz	Intel® Pentium®, LP 500 MHz (1B) or Intel Pentium III, LP 700 MHz (1D)	Intel Pentium III, LP 500 MHz	Intel Pentium III, 733 MHz (1A) or Intel Pentium III, 866 MHz (1B)	Intel Pentium III, 850 MHz
CPU Type	Low-Power BGA2	BGA2	Low-Power BGA2	Mobile Module	FC-BGA	BGA2
PICMG 2.16 Compatible	No	No	No	No	No	Yes
FSB	100 MHz	100 MHz	100 MHz	100MHz	133 MHz	100 MHz
CompactPCI Bus Interface	64-bit/33 MHz	64-bit/33 MHz	64-bit/33 MHz	64-bit/33 MHz	64-bit/33 MHz (1B) or 64-bit/66 MHz (1A)	64-bit/33 MHz
Memory	256MB ECC SDRAM	512MB or 1GB ECC SDRAM	256MB ECC SDRAM	256MB ECC SDRAM	1GB ECC SDRAM	512MB or 1GB ECC SDRAM
Flash	4 Mbytes, On-board	4 Mbytes, On-board	4 Mbytes, On-board	4 Mbytes, On-board	4 Mbytes On-board	4 Mbytes, On-board
Hard Drive	10GB	10GB	10GB	10GB	10GB	10GB
PMC Slots	1	1	1	1 (1F)	None	1
Video	On-board (CHPS69000)	On-board (CHPS69000)	On-board (CHPS69000)	AGP Mezzanine	On-board (CHPS69000)	On-board (CHPS69000)
Chipset	440BX	440GX	440BX	440BX	ServerWorks Serverset III LE	440GX
Management Controller	No	No	No	No	No	IPMI-Based BMC

Front Panel I/O

Serial Ports	1	1	1	2	2	1
USB Ports	1	2	1	2	1	2
PS/2	1	0	1	1	1	0
Ethernet	1	2	1	2	2	2
VGA	1	1	1	Mezzanine	1	1
Companion RPIO	ZT 4805	ZT 4804/ZT 4806	ZT 4805	ZT 4802/ZT 4804 / ZT 4806	ZT 4804/ZT 4806	ZT 4807

Chassis Compatibility

ZT 5082C	Yes	Yes	Yes	No	Yes (1B Only)	No
ZT 5083	No	No	Yes	Yes	No	No
ZT 5084	No	No	Yes	Yes	No	No
ZT 5087	No	Yes	Yes	No	Yes (1B Only)	No
ZT 5090	No	No	No	No	No	Yes

Extended OS Support

Red Hat Linux*	Yes	Yes	Yes	Yes	Yes	Yes
VX Works*	Yes	Yes	Yes	Yes	Yes	Yes
Windows* 2000	Yes	Yes	Yes	Yes	Yes	Yes
Windows NT*	Yes	No	Yes	Yes	No	No

The Embedded Intel® Architecture Divison Chassis Family

Intel anticipates customer needs with modular, standards-based building block platforms featuring high availability, hot swap, and computer telephony capabilities, and NEBS-compliant designs. Intel's chassis are designed to support appropriate processor board applications thus ensuring more rapid time-to-market for customers.

High Availability Chassis—ZT 5083 and ZT 5084

Intel's ZT 5083 and ZT 5084 high availability (HA) CompactPCI platforms provide a carrier-grade computing system for demanding mission-critical applications. They support five-nines (99.999 percent) availability with built-in redundancy for active system components including system-slot CPU boards, power supplies, and alarming. All components are hot-swappable. Intel's HA platforms are ideal for telecom applications requiring high system availability such as enhanced services, media gateway and broadband access servers, or any critical computing platform destined for the central office.

General-Purpose Chassis—ZT 5082 and ZT 5087

The ZT 5082 and ZT 5087 are both ideal development platforms for Telecom applications that need high slot counts and integrated cooling solutions. The ZT 5082 is a 10U chassis with 425W of power and an integrated cooling system. The ZT 5087 is a 4U chassis with 600 total Watts of power in an N+1 redundant configuration supporting an H.110 cPCI backplane. Both products can meet the needs of telecom equipment providers that need a platform to support high-performance processors in products such as media servers and gateways, softswitches, cellular base station controllers, broadband access controllers, cable modem headends, and DSL access multiplexers.

Packet Switch Backplane Chassis (PICMG 2.16 Compliant)—ZT 5090

The newest addition to the CompactPCI specification, PICMG 2.16, blends the benefits of CompactPCI with the broad acceptance of Ethernet to provide an economical, scalable path to the next-generation Internet and voice communications network. Backplane interconnect speeds are user-definable and scalable from 10 Mbps to 2000 Mbps per node slot, allowing customers to start with a lower-cost, lower-speed set of components and upgrade as needed. The ZT 5090 4U General Purpose Packet Switch Platform is one of several telecom building blocks from Intel, providing OEM equipment designers with standards-based development solutions built on the PICMG 2.16 specification. This high-density CompactPCI platform features seven compute board slots and an eighth slot reserved for an integrated layer 2/3 Ethernet switch, transversely mounted in a 4U enclosure, making it ideal for carrier-grade telecom and Internet applications.

PLATFORM/CHASSIS COMPARISON

PRODUCT NAME	ZT 5082C	ZT 5083	ZT 5084	ZT 5087	ZT 5090
Chassis Height	10U	15U	10U	4U	4U
Platform Type	CompactPCI Development Platform	HA, Redundant System Slot Development Platform	HA, Redundant System Slot Production Platform	CompactPCI Production Platform	PICMG 2.16 Development Platform
Chassis Dimensions	160mm X 80mm	160mm X 80mm	160mm X 80mm	160mm X 80mm	160mm X 80mm
Total Slots	8	14	14	8	8
SBC Slots	8	12 Peripheral slots, 2 RSS	12 Peripheral slots, 2 RSS	7	8 (1 switch)
PICMG 2.16 Compatible	No	No	No	No	Yes
NEBS LEVEL*	Meets or exceeds GR-63-CORE and GR-1089-CORE	Meets or exceeds GR-63-CORE and GR-1089-CORE	Designed to Meet GR-63-CORE and GR-1089-CORE	Designed to Meet GR-63-CORE and GR-1089-CORE	Designed to Meet GR-63-CORE and GR-1089-CORE
Bus Segmentation	[8] 33MHz, 64-bit	[7,7]-RSS 33MHz, 64-bit	[7,7]-RSS 33MHz, 64-bit	[7] 33MHz, 64-bit	[4,4] 66MHz, 64-bit
H.110	YES	YES	YES	YES	YES
System Management	No	SMBus-based System Alarm via System Master Boards	SMBus-based System Alarm via System Master Boards	SMBus-based Alarming via the Media Carrier Alarm Board	IPMI-based Chassis Management Module
Total Power	425W	450W	450W	400W	750W
AC/DC Input	AC	AC/DC	AC/DC	AC/DC	AC/DC
Power/SBC Slot	45W	25W for Peripheral Boards	25W for Peripheral Boards	40W	45W
Airflow	Front to Rear	Front to Rear	Front to Rear	Side to Rear	Side to Rear
Components					
Power	One 425W ATX Supply	N+1, N=3 (150W each)	N+1, N=3 (150W each)	N+1, N=2 (200W each)	N+1, N=2 (250W each)
Cooling	1 tray, 2 fans	N+1, N=3 Fans	Card Cage: N+N, N=2 Power Supplies: 1	1 tray, 2 fans	1 tray, 2 fans
Chassis Mgmt Modules	No	2 RSS System Master Boards	2 RSS System Master Boards	1 Media Carrier Alarm Board	1 CMM
Ethernet Switches	0	0	0	0	1
Power Inputs	1 IEC-320 AC input	2 IEC-320 AC inputs, 2 DC Terminal Blocks		1 DC terminal block or 1 IEC-320 AC input	1 DC terminal block or 1 IEC-320 AC input
Media Bay	CD-ROM, Floppy Drive, HDD	2 CD-ROMs	2 slimline CD-ROMs	CD-ROM, HDD	No

*The platform meets or exceeds the following Network Equipment Building System (NEBS) Level 3 requirements:

GR-1089-CORE EMC Section 2 and 3, Electromagnetic Compatibility

GR-63-CORE, Physical Protection, section 4.1, 4.3, 4.4 (Earthquake Zone 4, Equipment Handling, Temperature, Humidity, Altitude)

The Embedded Intel® Architecture Division Component Family

Intel is pleased to provide a complete family of packet switched backplane (PICMG 2.16 specification-compliant) building blocks including a general-purpose platform, system master processor board, PICMG 2.9 specification-compliant chassis management module, rear-panel transition boards and 10/100 Ethernet switch. These building blocks support management and switching and can be augmented by EID's selection of off-the-shelf backplanes, rear-panel transition boards, and power supplies which can further promote customer design goals.

PRODUCT NAME	ZT 4802A	ZT 4804B	ZT 4805A	ZT 4806A	ZT 4807A
Production Release Date	Shipping Now	Shipping Now	Shipping Now	Shipping Now	Shipping Now
Board Size	6U	6U	6U	6U	6U
PICMG 2.16 Compatible	No	No	No	No	Yes
Interfaces					
Ethernet	0	2	2	2	2
Serial Ports	0	2	2	2	2
PS/2	0	2	1	2	1
VGA	1	0	1	0	1
USB	0	0	1	0	2
Parallel Port	0	0	1 (internal)	0	0
Floppy Drive Connector	0	1 (internal)	1 (internal)	1 (internal)	1 (internal)
IDE Connector	0	1 (internal)	2 (internal)	1 (internal)	1 (internal)
PC Speaker Interface	0	0	1 (internal)	0	1 (internal)
Power Connector for external interfaces	0		1	0	1
CompactFlash Connector	0	0	1 (internal)	0	1 (internal)
SMBus interface for alarm control	0	2 x 8-bit registers	0	0	0

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