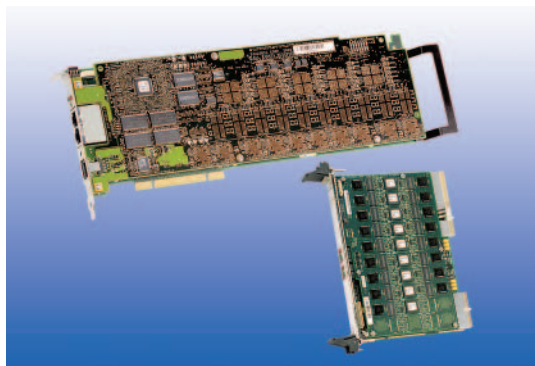


## Dialogic® DM/IP Boards

Dialogic® DM/IP boards can be used to build next-generation IP telephony solutions for the enterprise and service provider marketplace. Original Equipment Manufacturers (OEMs), application developers, and IP telephony integrators can use these open, standards-based IP-enhanced services platforms to create high-performance, next-generation media processing subsystems. These IP telephony boards support the ITU-T H.323 specification (including H.225 and H.245 protocols), Session Initiation Protocol (SIP) standards for communication across Internet Protocol (IP) networks, and a wide variety of voice coder algorithms.



### Products Discussed in This Datasheet

- Dialogic® DM/IP241-1T1-PCI-100BT IP Board
- Dialogic® DM/IP301-1E1-PCI-100BT IP Board
- Dialogic® DM/IP481-2T1-PCI-100BT IP Board
- Dialogic® DM/IP601-2E1-PCI-100BT IP Board
- Dialogic® DM/IP601-CPCI-100BT IP Board

DM/IP boards offer a full range of optimized, low-bandwidth voice coder algorithms for transmitting audio over an IP network, including the ITU-T G.711, G.723.1, G.729a, ITU GSM, and real-time Fax over IP (FoIP; ITU T.38).

Advanced features include Voice Activity Detection (VAD) for maximum bandwidth utilization (supported in G.729a and G.723.1 coders only), as well as embedded high-performance echo cancellation and out-of-band Dual-Tone Multi-Frequency (DTMF; touchtone) processing optimized for the IP network. The jitter buffers can be tuned for optimal performance. The boards also support IETF RFC2833 for out-of-band DTMF tones.

Features	Benefits
<b>Onboard media processing for both PSTN and IP interfaces</b>	Enables media gateway and IP messaging applications in a single slot
<b>H.323 or SIP under Dialogic® R4 and Dialogic® Global Call APIs</b>	Provides compatibility with leading Voice over IP (VoIP) standards
<b>IP protocols such as MGCP and Megaco (H.248) through the use of host-based split call control</b>	Allows use of any call control stack through the IP Media Library
<b>ITU T.38 real-time FoIP</b>	Enables unified messaging solutions and packet-based fax
<b>0, 1, or 2 PSTN interface(s) (T1 or E1), Ethernet connection, and media stream processing capability on a single card</b>	Reduces time-to-market and lowers cost by eliminating complexities associated with multiple resources

## Technical Specifications

Control processor	Intel i960CF processor at 33 MHz, 60 MIPS
Control processor memory	Up to 8 MB local to control processor
Digital signal processors	Motorola 56311, 1 K word program cache, 150 MIPS PowerQuick2: Motorola 8260 at 166/200 MHz
Control processor	133 MHz
Signal processor memory	DSP: 512 K word SRAM local to each DSP PowerQuick2: 4M word of SDRAM for core Control processor: 2M word of SDRAM
Baseboard global memory	4 MB, 8 MB, or 16 MB of 32-bit-wide DRAM accessible to all signal processors, control processor, and host 72-pin SO DIMM modules for easy upgrades
Real-time media bus	Up to 256 full-duplex channels at 64 kb/s onto ANSI SCbus Supports SCSA time slot bundling (N x 64 K channels) for high-bandwidth requirements ECTF H.100 CT Bus interoperability
CT Bus speed	Up to 8 MHz/256 Mb/s SCbus and MVIP+ bus mode supported
Voice resources	24, 30, 48, or 60
Fax resources	Yes
Conferencing resources	30 (DM/IP241 and DM/IP301 only)
IP channels	24, 30, 48, or 60
Resource bus	CT Bus
Connection	RJ-48C; Ethernet
Network interface	T1 or E1; 100Base-TX Ethernet
Required accessories	CompactPCI requires rear I/O, T1 or E1, and 100Base-TX
Supported operating systems	Windows®; Linux. Details at <a href="http://www.dialogic.com/systemreleases">http://www.dialogic.com/systemreleases</a>
CSP	Yes except for DM/IP481 and DM/IP601 PCIU
Signaling	SIP; H.323; MGCP; MEGACO

### Host Interface

Host interface memory	512 KB
Bus compatibility	Rev 2.2 of PCI Bus Specification
Bus mode	Target and DMA master mode operation

### Platform

Form factors	<b>PCI:</b> Long card: 12.3 in. (31.24 cm) long (without edge retainer) or 13.3 in. (33.78 cm) long (with edge retainer) 0.79 in. (2 cm) wide (total envelope) 3.87 in. (9.83 cm) high (excluding edge connector) <b>CompactPCI:</b> 6U Eurocard form factor, single-slot width PBA, including faceplate, handles, and connectors 10.43 (265) mm long 8.27 in. (210 mm) wide .79 in. (20 mm) high
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### Power Requirements

DM/IP241-1T1-PCI-100BT	22.5 watts @ 5 V
DM/IP301-1E1-PCI-100BT	22.5 watts @ 5 V
DM/IP481-2T1-PCI-100BT	22 watts @ 3.3 V, 8 watts @ 5 V
DM/IP481-2T1-CPCI-100BT	22.5 watts @ 5 V
DM/IP601-2E1-PCI-100BT	22 watts @ 3.3 V, 8 watts @ 5 V
DM/IP601-2E1-CPCI-100BT	19 watts @ 5 V; 9.8 watts @ 3.3 V
DM/IP601-CPCI-100BT	19 watts @ 5 V; 9.8 watts @ 3.3 V

## Technical Specifications (cont.)

### Environmental Requirements

Cooling condition per maximum operating temperature

**PCI:** +122°F (+50°C) — 2.3 CFM per board

+104°F (+40°C) — 1.5 CFM per board

+86°F (+30°C) — 1.1 CFM per board

**CompactPCI:** +122°F (+50°C) — 3.1 CFM per board

+104°F (+40°C) — 2.1 CFM per board

+86°F (+30°C) — 1.6 CFM per board

### Environment

Operating temperature +32°F (0°C) to +122°F (+50°C)

Storage temperature -4°F (-20°C) to +158°F (+70°C)

Humidity 8% to 80% non-condensing

### Software Specifications

Control processor operating system VxWorks from Wind River Systems, Inc.

Signal processor operating system SPOX from Spectron Microsystems

Downloaders, drivers, and libraries Provided for each operating system

### Approvals and Compliance

Hazardous substances RoHS Compliance Information at <http://www.dialogic.com/rohs>

#### *Safety and EMC*

Canada ICES-003 Class A  
ULc 60950 File E96804

Europe EN60950  
EN5502  
EN55024

Japan VCCI Class A

United States FCC Part 15 Class A  
UL 60950 File E96804

International IEC60950  
CISPR 22  
CISPR 24

#### *Telecom Approvals*

United States EBZUSA-31207-XD-T

Canada IC: 885-7969A

European Union DoC 01/10/2003

Country-specific approvals See the Product Declarations & Global Approvals list at <http://www.dialogic.com/declarations/> or contact your Authorized Distributor

### Reliability/Warranty

Estimated MTBF Per Telcordia Method I

#### **PCI:**

DMIP241 PCI 108,000 hours

DMIP301 PCI 104,000 hours

DMIP481 PCI 102,000 hours

DMIP601 PCI 100,000 hours

#### **CompactPCI:**

DMIP601 cPCI 49,000 hours

Warranty Warranty information at <http://www.dialogic.com/warranties>

## Hardware System Requirements

- Pentium, PCI bus, CompactPCI bus, or compatible computer
- Operating system hardware requirements vary according to the number of channels being used

## Ordering Information

Product Code	Order Code	Description
DMIP241T1PW	882-707	Digital T1 plus 24 IP resource channels, PCI
DMIP241T1PWJP	882-741	Digital T1 plus 24 IP resource channels, PCI, Japan
DMIP301E1PW	882-705	Digital E1 plus 30 IP resource channels, PCI
DMIP4812T1PW	882-704	Two Digital T1 interfaces plus 48 IP resource channels, PCI
DMIP4812T1PWJP	882-740	Two Digital T1 interfaces plus 48 IP resource channels, PCI, Japan
DMIP6012E1PW	882-703	Two Digital E1 interfaces plus 60 IP resource channels, PCI
DMIP601CW	882-020	60 IP resource channels, cPCI

To learn more, visit our site on the World Wide Web at <http://www.dialogic.com>

**Dialogic Corporation**

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

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