

Dialogic® MSP 1010 Multi-Services Platform

The Dialogic® MSP 1010 Multi-Services Platform is a flexible, high-density media resource platform with integrated signaling capabilities, which is designed to enable developers to bring new services to market quickly and cost-effectively. The MSP 1010 is suitable for deployment in TDM, IP, and converged networks as a service node, intelligent peripheral, and application server. Supporting the same API as the popular Dialogic® Converged Services Platforms (CSP), the MSP 1010 offers a modern, modular design in a small (1U) footprint with an excellent price/performance ratio, easy scalability, and GUI-based installation and maintenance.



The MSP 1010 can serve as a single development environment for both media processing and signaling traffic. This versatility allows the development of many types of revenue-generating services quickly for both legacy and next-generation networks.

Applications that can be deployed with the MSP 1010 include prepaid voice and data services, PBX switching, and voice applications such as call center, IVR, Multi-Ring Back Tone (MRBT), voice mail, and conferencing solutions. Also supported are a wide range of services based on SS7 monitoring, including welcome roamer and missed call alert, and signaling services such as SMS-C, SMS Router, IN applications, and signaling converters.

Features

Benefits

Integrated Digital Signal Processor (DSP) for real-time file recording, playback, conferencing, DTMF processing, echo cancellation, and T.30 fax

Allows the development of advanced voice-based applications with rich media processing capabilities

Integrated VoIP module for transcoding PCM-coded traffic to most common IP coders

Enables the development of next-generation services over IP or converged networks, and next-generation applications on a single platform; makes the use of external gateways for interfacing with IP networks unnecessary

Integrated signaling and call control protocols for circuit- and packet-switched networks

Allows service providers to implement a complete voice-based and/or signaling service on a single platform, reducing costs and development time

Includes non-intrusive SS7 monitoring probe with 16 configurable embedded filters

Lets service providers implement a wide variety of applications and facilities such as welcome roamer and missed call alert services, optimal routing, network billing solutions, and network performance monitoring tools

One MSP 1010 can control up to 16 other MSP 1010 units

Enables a small, entry-level deployment to scale capacity easily and seamlessly as demand grows with no changes to network architecture

The MSP 1010 includes the Dialogic® Programmable Protocol Language (PPL), which is GUI-based protocol development software. PPL allows developers to create and/or customize signaling variants rapidly in the lab or in the field, significantly improving deployment time and expediting network compliance. For example, developers can customize SS7 support for local variants prior to deployment, dramatically accelerating time-to-market.

PPL can also automatically convert a graphical state machine flow chart into a state table configuration that can be downloaded and activated in the MSP 1010.

Technical Specifications

Protocol Compliance

SS7 (ITU & ANSI)

MTP (including China and Japan)
SCCP (Class 0, 1, 2)
TCAP
MAP, ANSI-41
CAMEL, WIN
INAP, AIN
ISUP (and different local national variants)

PRI

NI2 - User and Network side
DMS 250 - User side
DMS 100 - User side
Lucent 5ESS - User side
Lucent 4ESS - User side
Euro-ISDN - User and Network side
JATE ISDN - User side

CAS Signaling

E&M wink start
FXO loop start and ground start
FXS loop start and ground start
Multi-frequency tones - R1, R2, DTMF
Feature Group D

IP Signaling

SIP: RFC3261
SIGTRAN M3UA (AS)
Host based third party vendor H.323 is enabled

DSP Specifications

Three hours onboard voice recording (temporary and permanent)
Network File System Storage (NFS): Unlimited Network-Attached Storage for voice files
128 conferences per DSP, 128 conferees per conference, and maximum of 256 conferees per DSP chip
Tone detection: 512 receivers per DSP chip
Tone generation: 512 per DSP chip
672 concurrent announcements/play files
96 fax sessions (eight DSP chips)
Echo cancellation (G.168) with tail lengths up to 128 ms
Positive voice detection
Answering machine detection

Technical Specifications (cont.)

VoIP Module Specifications

Selectable coders: G.711, G.723.1, G.726, G.729, iLBC, AMR, EVRC
Fax T.38
DTMF relay
Adaptive jitter buffer
Echo cancellation
Silence suppression
Comfort noise generation
Up to 1536 ports with only G.711 and 1024 with coder (other than wireless coders)

Physical Interfaces

32 T1, 24 E1/J1 (all can be used for loop timing)
Four 10/100 Mb/s Ethernet
Two 10/100/1000 Mb/s Ethernet
1+1 redundancy connection
One USB port
One DS3 connector

Physical Specifications

Height: 1.72 in. (43.7 mm)
Width: 17.25 in. (438.2 mm)
Depth: 19.00 in. (482.6 mm)
Weight: 18 lb (8.1 kg)

Power Requirements

-48 VDC with voltage range (-40 V to -60 V)
100 - 240 VAC 50/60 Hz with voltage range (90 V to 260 V)
Power consumption: 105 W (including the DSP module and two VoIP modules)

Environmental Requirements

Operating temperature: 0°C to 50°C, 32°F to 122°F
Storage temperature: -40°C to 70°C, -40°F to 158°F
Humidity, operational: 5% to 85%

System Performance

32 k simultaneous TCAP dialogues per SS7 stack
Four SS7 stacks
2000 TCAP transactions per second (without SK)

Capacity

96 -768 TDM channels per 1U shelf
ISUP remote control: controls the ISUP signaling of up to 16 MSP 1010s
64 SS7 links (128 in a redundant configuration)
SS7 monitoring:

- 64 SS7 monitoring bi-directional links (128 uni-directional links)
- 16 configurable filters
- 5 different application servers
- Advanced filtering capabilities
- Up to 100% link-occupancy for SS7 monitored traffic (non-circuit-related signaling)

1536 IP ports of G.711 coder
1024 IP ports of any coder (not including wireless coders)

Technical Specifications (cont.)

Approvals and Compliance

For information about RoHS compliance and global approvals, contact your Dialogic sales representative.

EMC/EMI

United States/Canada: FCC Part 15 ICES- 003

European Union: EN55022: 1998/AI:2000/A2:2003, EN55024: 1998/AI:2000/A2:2003, EN300386: 2001 Ver. 1.3.3

Australia/New Zealand: AS/NZS CISPR 22:2002

Japan: VCCI

Safety

United States/Canada: CSA-C22.2 No. 60950-1

European Union: EN60950-1

Australia/New Zealand: AS/NZS 60950.1:2003

CB Scheme

International CB Scheme IEC 60950-1

Telecom

United States/Canada: FCC Part 68 IC CS03

European Union: TBR 4,12,13

Australia/New Zealand: AS/ACIF S-106 and S-038

Japan: JATE Green Book

Reliability/Warranty

MTBF information available upon request.

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

For more information about Dialogic® products, visit www.dialogic.com

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