Mini-ITX Form Factor

Intel® Desktop Board DG41AN
Classic Series

Enhanced features provide an extraordinary computing experience

The Intel® Desktop Board DG41AN is designed to support a wide range of processors based on the LGA775 package, including the Intel® Core™2 Quad** and Intel® Core™2 Duo processors.

With enhanced DDR3 memory support for higher bandwidth and a small form factor, the Intel Desktop Board DG41AN brings you a unique computing experience.

Your PC is cool for work and entertainment

- Features Intel® Graphics Media Accelerator X4500 (Intel® GMA X4500) with Intel® Clear Video Technology.
- Enhance your gaming experience with DirectX® 10.
- Enjoy smooth high-definition video thanks to built-in hardware video acceleration.
- Gain flexibility with the VGA and DVI-D graphic outputs.
- Get super fast network connectivity with an integrated 10/100/1000 Network Connection.

- Experience the rich sound quality of Intel® High Definition Audio® with 5.1-channel surround sound and 2-channel multi-streaming.
- Microsoft® Windows® 7 and Windows Vista® Premium WHQL certified.
Intel® Desktop Board DG41AN Classic Series

The boxed Intel® Desktop Board DG41AN solution includes:
• ATX 2.2 compliant I/O shield
• SATA cables
• Board and back panel I/O layout stickers
• Quick reference guide
• Intel® Express Installer driver and software DVD
• Microsoft® Windows® 7 and Windows Vista® Premium WHQL certified

The takeaway software included with the Intel® Desktop Board DG41AN works best for your everyday computing.

<table>
<thead>
<tr>
<th>CAPABILITY</th>
<th>SOFTWARE INCLUDED</th>
</tr>
</thead>
<tbody>
<tr>
<td>Productivity</td>
<td>• Intel® Integrator Assistant (Internet Download)</td>
</tr>
<tr>
<td></td>
<td>• Laplink® PCmover® Express</td>
</tr>
<tr>
<td>Entertainment</td>
<td>• DivX® for Windows®</td>
</tr>
<tr>
<td>Antivirus</td>
<td>• ESET Smart Security®</td>
</tr>
</tbody>
</table>
Intel® Desktop Board DG41AN Classic Series
Features and Benefits

1. Supports the Intel® Core™2 Quad** and Intel® Core™2 Duo processors:
   Features quad-core and dual-core processing with 1333 / 1066 / 800 MHz system bus in the LGA775 package.

2. Intel® G41 Express Chipset featuring Intel® Graphics Media Accelerator X4500 (Intel® GMA X4500)

3. Dual-channel DDR3 with two connectors for 1333 / 1066 / 800 MHz memory support (4 GB max):
   Two DIMM connectors designed to support the latest DDR3 technology.

4. Three SATA ports (3.0 Gb/s):
   Facilitate high-speed storage and data transfers at up to 3.0 Gb/s for each port.

5. Integrated 10/100/1000 Network Connection

6. Six-channel Intel® High Definition Audio**: Audio subsystem with three analog audio outputs (5.1 + 2 independent multi-streaming).

7. One PCI connector

8. Eight Hi-Speed USB 2.0 ports:
   Four back panel ports and four additional ports via two internal headers.

9. VGA port

10. DVI-D port:
    Built-in HDCP support enables viewing of protected HD Video multimedia content.

11. PS/2 port:
    Supports keyboard or mouse.

12. Parallel port:
    Provides legacy device compatibility.

13. Mini-ITX form factor
Intel® Desktop Board DG41AN Classic Series

Technical Specifications

**PROCESSOR**

<table>
<thead>
<tr>
<th>Processor Support</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>Intel® Core™2 Quad</em>* processors in the LGA775 package</td>
</tr>
<tr>
<td>*Intel® Core™2 Duo processors in the LGA775 package</td>
</tr>
<tr>
<td>*Intel® Pentium® processors in the LGA775 package</td>
</tr>
<tr>
<td>*Intel® Celeron® processors in the LGA775 package</td>
</tr>
</tbody>
</table>
| *Supports Intel® 64 architecture

**CHIPSET**

<table>
<thead>
<tr>
<th>Intel® G41 Express Chipset</th>
</tr>
</thead>
<tbody>
<tr>
<td>Designed to support up to 4 GB of system memory using DDR3 1333/1066 / 800 MHz SDRAM</td>
</tr>
<tr>
<td>*Intel® B2C41 Graphics and Memory Controller Hub (GMCH)</td>
</tr>
<tr>
<td>*Intel® Graphic Media Accelerator X4500 with Intel® Clear Video Technology</td>
</tr>
<tr>
<td>*Intel® Fast Memory Access</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Intel® I/O Controller Hub (ICH)</th>
</tr>
</thead>
<tbody>
<tr>
<td>*Intel® B8201GB/I0 Controller Hub (ICH7)</td>
</tr>
<tr>
<td>*Three SATA ports (3.0 Gb/s)</td>
</tr>
<tr>
<td>Integrates 10/100/1000 Network Connection</td>
</tr>
<tr>
<td>Eight Hi-Speed USB 2.0 ports (four back panel ports and four additional ports via two internal headers)</td>
</tr>
</tbody>
</table>

**System BIOS**

<table>
<thead>
<tr>
<th>System BIOS</th>
</tr>
</thead>
<tbody>
<tr>
<td>*8 Mb Flash EEPROM with Intel® Platform Innovation Framework for EFI Plug and Play</td>
</tr>
<tr>
<td>*Advanced configuration and power interface V2.0b, DMI 2.0, multilingual support</td>
</tr>
<tr>
<td>*Serial Peripheral Interface (SPI) Flash</td>
</tr>
</tbody>
</table>

**SYSTEM MEMORY**

<table>
<thead>
<tr>
<th>Memory Capacity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Two 240-pin DIMM connectors supporting up to two double-sided DIMMs (4 GB* max)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Memory Types</th>
</tr>
</thead>
<tbody>
<tr>
<td>DDR3 1333/1066 / 800 SDRAM memory support</td>
</tr>
<tr>
<td>Non-ECC Memory</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Memory Modes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dual-channel memory operation support</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Memory Voltage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.35 V to 1.65 V</td>
</tr>
</tbody>
</table>

**Hardware Management Features**

| Processor fan speed control |
| System chassis fan speed control |
| Voltage and temperature sensing |
| Fan sensor inputs used to monitor fan activity |
| Power management support for ACPI 1.0b |

**Expansion Capabilities**

| One PCI bus add-in card connector |
| One serial header |
| Six-channel Intel® High Definition Audio® codec |

**Front-Panel Connectors**

<table>
<thead>
<tr>
<th>Jumpers and Front-Panel Connectors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Single configuration jumper design</td>
</tr>
<tr>
<td>Jumper access for BIOS maintenance mode</td>
</tr>
</tbody>
</table>

**Environmental**

**REGULATIONS AND STANDARDS**

For ordering information, visit www.intel.com
For a complete list of solutions and opportunities, visit www.intel.com/go/upgradesreseller or www.intel.com/go/idb

**Processor Support**

* Intel® Core™2 Quad** processors in the LGA775 package
* Intel® Core™2 Duo processors in the LGA775 package
* Intel® Pentium® processors in the LGA775 package
* Intel® Celeron® processors in the LGA775 package
* Supports Intel® 64 architecture

**Chipset**

*Intel® G41 Express Chipset* Designed to support up to 4 GB of system memory using DDR3 1333/1066 / 800 MHz SDRAM.
*Intel® B2C41 Graphics and Memory Controller Hub (GMCH)*
*Intel® Graphic Media Accelerator X4500 with Intel® Clear Video Technology*
*Intel® Fast Memory Access* **System BIOS**

* 8 Mb Flash EEPROM with Intel® Platform Innovation Framework for EFI Plug and Play
* Advanced configuration and power interface V2.0b, DMI 2.0, multilingual support
* Serial Peripheral Interface (SPI) Flash

**System Memory**

* Memory Capacity: Two 240-pin DIMM connectors supporting up to two double-sided DIMMs (4 GB* max)
* Memory Types: DDR3 1333/1066 / 800 SDRAM memory support
* Non-ECC Memory

**Memory Modes**

* Dual-channel memory operation support

**Memory Voltage**

* 1.35 V to 1.65 V

**Hardware Management Features**

* Processor fan speed control
* System chassis fan speed control
* Voltage and temperature sensing
* Fan sensor inputs used to monitor fan activity
* Power management support for ACPI 1.0b

**Expansion Capabilities**

* One PCI bus add-in card connector
* One serial header
* Six-channel Intel® High Definition Audio® codec

**Front-Panel Connectors**

* Jumpers and Front-Panel Connectors: Single configuration jumper design, Jumper access for BIOS maintenance mode

**EMC Regulations (Class B)**

**United States**

* FCC CFR Title 47, Chapter I, Part 15, Subparts A / B

**Canada**

* ICES-003

**Europe**

* EN 55022 and EN 55024

**Australia / New Zealand**

* EN 55022

**Japan**

* VCCI V-3, V-4

**South Korea**

* KN-22 and KN-24

**Taiwan**

* CNS 13438

**International**

* C-111906

**Environmental Compliance**

**Europe**

* Europe RoHS (Directive 2002 / 95 / EC)

**China**

* China RoHS (MII Order # 39)

---

1 Intel® High Definition Audio requires a system with an appropriate Intel® chipset and a motherboard with an appropriate codec and the necessary drivers installed. System sound quality will vary depending on actual implementation, controller, codec, drivers, and speakers. For more information about Intel® HD Audio, visit www.intel.com/design/chipsets/hdaudio.htm

2 DDR3 1333 is supported through overclocking in BIOS.

3 WARNING: Altering PC memory frequency, voltage and/or latency may: (i) reduce system stability and useful life of the system, memory and processor; (ii) cause the processor and other system components to fail; (iii) cause reductions in system performance; (iv) cause additional heat or other damage; and (v) affect system data integrity. Intel has not tested, and does not warrant, the operation of the memory beyond its specifications. Intel assumes no responsibility that the memory, including if used with altered clock frequencies and/or voltages, will be fit for any particular purpose. Check with memory manufacturer for warranty and additional details.

4 System resources and hardware (such as PCI and PCI Express*) require physical memory address locations that can be not available addressable system memory. This could result in a reduction of as much as 1 GB or more of physical addressable memory being available to the operating system and applications, depending on the system configuration and operating system.

5 64-bit computing on Intel® architecture requires a computer system with a processor, chipset, BIOS, operating system, device drivers, and applications enabled for Intel® 64 architecture. Processors will not operate (including 32-bit operation) on Intel® 64 architecture-enabled BIOS. Performance will vary depending on your hardware and software configurations. Visit http://developer.intel.com/technology/intel64/index.htm for more information.

INFORMATION IN THIS DOCUMENT IS PROVIDED IN CONNECTION WITH INTEL® PRODUCTS. NO LICENSE, EXPRESS OR IMPLIED, BY ESTOPPEL OR OTHERWISE, TO ANY INTELLECTUAL PROPERTY RIGHTS IS GRANTED BY THIS DOCUMENT. EXCEPT AS PROVIDED IN INTEL’S TERMS AND CONDITIONS OF SALE FOR SUCH PRODUCTS, INTEL ASSUMES NO LIABILITY WHATSOEVER, AND INTEL DISCLAIMS ANY EXPRESS OR IMPLIED WARRANTY, RELATING TO SALES AND/OR USE OF INTEL PRODUCTS INCLUDING LIABILITY FOR SPECIAL, INDIRECT, OR CONSEQUENTIAL DAMAGES, OR INFRINGEMENT OF ANY PATENT, COPYRIGHT, OR OTHER INTELLECTUAL PROPERTY RIGHT.

Intel products are not intended for use in medical, life-saving, or life-sustaining applications. Intel may make changes to specifications and product descriptions at any time, without notice. All products, dates, and figures specified are preliminary based on current expectations, and are subject to change without notice. Availability in different channels may vary. Actual Intel® Desktop Board may differ from the image shown.

Intel, the Intel logo, Intel Core, Pentium, and Celeron are trademarks of Intel Corporation in the U.S. and other countries.

* Other names and brands may be claimed as the property of others.

** Supports 65 W Thermal Design Power Intel® Core™2 Quad processors with 1333 / 1066 MHz System Bus. For information, visit http://processormatch.intel.com.