

# Data Sheet

## Fujitsu Mainboard D3230-A $\mu$ ATX

### Classic Desktop Series

Powered by the Intel® H81 Express Chipset supporting DDR3 1600 SDRAM Memory and 4<sup>th</sup> generation Intel® Core™ i3 / i5 / i7 Processors (Socket LGA1150)

**Chipset:**

Intel® H81 Express Chipset

**Processors:**

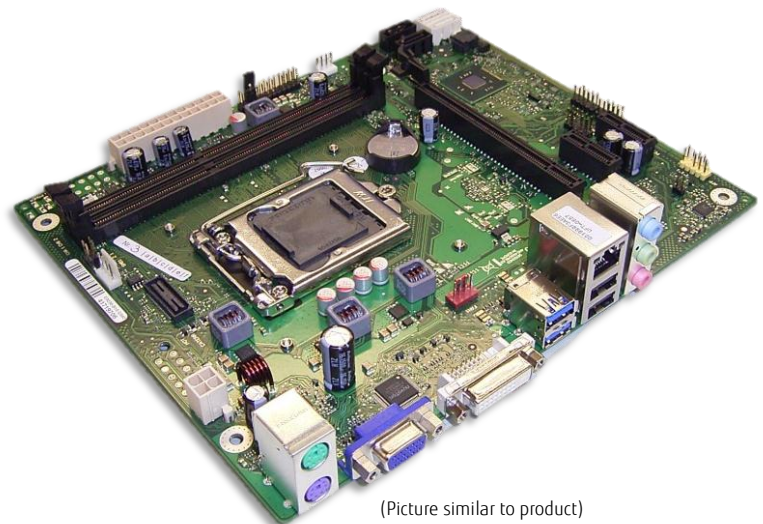
- Intel® Core™ i7 / i5 / i3 – 4xxx processor series
- Intel® "TE" Haswell-based embedded series
- Intel® Pentium® – G3xxx processor series
- Intel® Celeron® – G18xx processor series

**Memory:**

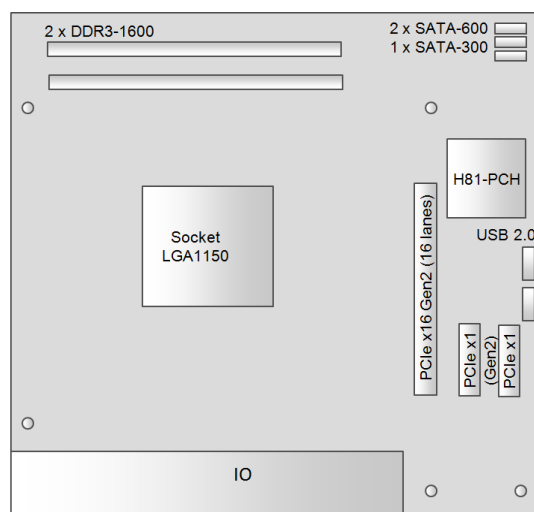
DDR3 1333/1600 SDRAM

**Product Features:**

- Intel® HD Graphics (e.g. HD4600)
- PCI Express Gen2
- Multichannel Audio & Realtek GbE LAN onboard
- USB 2.0 and USB 3.0 onboard
- Specific 12V-only Powersupply required



(Picture similar to product)



SERIAL ATA

PCI EXPRESS

intel inside CHIPSET H81

Compatible with Windows 7

Windows 8 Compatible

Silent Fan LT

SYSTEM GUARD

SILENT DRIVES

MULTI BOOT

HDD PASSWORD

RECOVERY BIOS

DESK UPDATE

Erasedisk

USB 3.0

# Features and benefits

**Board Size** ultra small µATX: 218 x 183 mm

**Chipset** Intel® H81 Express Chipset

**Memory**

2 DIMM Sockets (1.5V), 1GB - 16GB, Single Channel / Dual Channel DDR3-1333 (CL9) / DDR3-1600 (CL11) SDRAM, unbuffered, no ECC

**Processor**

Intel® Core™ i7 / i5 / i3 - 4xxx processor series  
 Intel® "TE" Haswell-based embedded processor series  
 Intel® Pentium® - G3xxx processor series  
 Intel® Celeron® - G18xx processor series  
 Socket LGA1150, max. 95W TDP  
 (For details on supported processors please refer to our website)

**Power Specification**

Fujitsu 12V only concept adopted Power Supply required  
 Support for Soft-Off Power Supplies  
 3.3V Auxiliary Supply Voltage on PCIe Slots (Wake-Up Function)  
 On board CPU Core Voltage Regulator

**Power Supply Requirements**

for onboard components (worst case)

Source	Voltage	Min. PS Load	Max.Voltage Tolerance	Cont./ Peak Mainboard Current
Main Power Supply	+ 12 V <sub>Rail1</sub>	0.1 A	± 5 %	15 A / 18 A
Main Power Supply	+ 12 V <sub>Rail2</sub>	0.1 A	± 5 %	15 A / 18 A
Aux. Power Supply	+ 11 V <sub>aux</sub>	0 A	10.2 V-11.8 V	1 A

<sup>1)</sup> 18A = Surge Current for 20 sec!

**BIOS**

AMI Aptio 4.x (UEFI) BIOS  
 modified and adapted by Fujitsu Technology Solutions; Recovery BIOS, SM-BIOS (DMI), BIOS and CPU Microcode Update, Quick Boot, Logo Boot, Quiet Boot, Plug & Play, Automatic DRAM and PCIe Configuration, BIOS Support for S.M.A.R.T., Advanced Power Management, ACPI S3/S4, Wake on time from S5

**Security Features**

Recovery BIOS, System and BIOS Password, Boot Sequence Control, USB- Port Access Protection, Boot Sector Virus Warning, Write Protection for Flash BIOS, EraseDisk (optional BIOS Feature)

**Special Features**

Silent Fan LT	Independent temperature related processor fan and system fan supervision
System Guard	View Silent Fan LT features
Silent Drives	Noise reduction for optical and hard disk drives
Recovery BIOS	Restores a corrupted BIOS
Desk Update	Simple driver update with Driver&Utilities DVD
Multi Boot	Comfortable boot from any boot device
HDD Password	Access protection for disk drives

**External Connectors**



**Graphics**

Intel® HD Graphics ( e.g. HD4600, depends on installed processor), DX11.1

**Audio**

Realtek ALC671, 5.1-channel, High Definition Audio Codec

**LAN**

Realtek RTL8111G with 10/100/1000 MBit/s,  
 Wake-on-LAN (WoL) by interesting Packets, Link Status Change and Magic Packet™, PXE Support, BIOS MAC Address Display

**Drives**

2 Serial ATA III 600 Interface (up to 6Gbit/s), 1 Serial ATA II 300 Interface (up to 6Gbit/s), NCQ, AHCI

**Features**

Features	D3230-A
Chipset	iH81
Board Size	ultra small µATX
VGA / DVI-I / DVI-D / DisplayPort V1.2 / LVDS	✓ / - / ✓ / - / -
Stereo Audio / 5.1 Multichannel Audio	- / ✓
Buzzer / int. Speaker Support	- / ✓
LAN Gbit / 100 Mbit / 10 Mbit	✓ / ✓ / ✓
LAN ASF / DASH V1.1 / WoL / Boot / iAMT	- / - / ✓ / ✓ / ✓ / -
SATA / ATA / RAID / eSATA-support	✓ / - / - / ✓
FireWire™ / USB 2.0 / USB 3.0	- / ✓ / ✓
FAN monitored PSU <sup>1)</sup> / CPU / AUX1 / AUX2	- / ✓ / ✓ / ✓ / -
FAN controlled PSU <sup>1)</sup> / CPU / AUX1 / AUX2	- / ✓ / ✓ / ✓ / -
TEMP monitored CPU / ONB / OFFB	✓ / ✓ / -
<b>Special Features</b>	
Silent Fan / Silent Fan LT / System Guard / Silent Drives	- / ✓ / ✓ / ✓ / ✓
Recovery BIOS / Desk Update / Multi Boot	✓ / ✓ / ✓ / ✓
HDD Password / HDD Encryption / EraseDisk <sup>2)</sup> / TPM	✓ / - / ✓ / ✓ / -
BIOS POST Watchdog / BIOS Boot Watchdog / OS HW Watchdog	- / - / -
Logo Boot Option / Intel On Screen Branding	✓ / ✓
High Efficiency Core Voltage Regulator Design	-
Operating Mode 24-7 / 8-5 (hrs per day - days per week)	- / ✓
Mainboard operating temperature range (chassis inside)	10°C - 45°C
<b>Internal Connectors</b>	
DIMM Sockets (DDR3-1600)	2
PCI Express x16 Slot (Gen3) / PCI Express x16 Slot (Gen2)	- / 1
PCI Express x16 Slot (4 Lanes, Gen2) / x1 Slot (Gen2)	- / 2
PCI Slots (32Bit, 33 MHz, Rev. 2.3)	-
SATA-600 / SATA-300 / ATA / Floppy	2 / 1 / - / -
S/PDIF (digital Audio) OUT / IN	- / -
Frontpanel Audio (9-Pin, HD Audio)	1
FireWire™ (9-Pin, Intel standard header)	-
USB 2.0 channels / USB 3.0 channels / USB Stick (2.0)	4 / - / -
Serial (FIFO, 16550 compatible)	-
FAN PSU <sup>1)</sup> / CPU / AUX1 / AUX2	- / 1 / 1 / -
SMBus (Case Temperature)	-
Intrusion (Case Open)	-
Parallel (EPP/ECP) Pin Connector	-
ATX Power Supply (24 pin + 4 pin) / 12V-only PowerSupply	- / ✓
<b>External Connectors</b>	
VGA Sub D / DVI-I / DVI-D / DisplayPort V1.2	1 / - / 1 / -
Audio Mic. In / Line in / Line out (or driver configuration)	1 / 1 / 1
S/PDIF (digital Audio) OUT / IN	- / -
LAN (RJ-45)	1
PS/2 Mouse / Keyboard	1 / 1
USB 2.0 / USB 3.0	2 / 2
Serial (RS232, FIFO, 16550 compatible)	-
Parallel (EPP/ECP)	-

1) Not supported by standard Power Supplies  
 2) EraseDisk = optional BIOS feature (license required)

# More information

## Fujitsu platform solutions

In addition to Fujitsu Mainboards Fujitsu provides a range of platform solutions. They combine reliable Fujitsu products with the best in services, know-how and worldwide partnerships.

### Dynamic Infrastructures

With the Fujitsu Dynamic Infrastructures approach, Fujitsu offers a full portfolio of IT products, solutions and services, ranging from clients to datacenter solutions, Managed Infrastructure and Infrastructure-as-a-Service. How much you benefit from Fujitsu technologies and services depends on the level of cooperation you choose. This takes IT flexibility and efficiency to the next level.

### Computing products

[www.fujitsu.com/global/services/computing](http://www.fujitsu.com/global/services/computing)

- PRIMERGY: Industrial standard server
- SPARC Enterprise: UNIX server
- PRIMEQUEST: Mission-critical IA server
- ETERNUS: Storage system

### Software

[www.fujitsu.com/software/](http://www.fujitsu.com/software/)

- Interstage: Application infrastructure software
- Systemwalker: System management software

## More information

Learn more about Fujitsu Mainboards, please contact your Fujitsu sales representative, Fujitsu business partner, or visit our website.  
<http://ts.fujitsu.com/>

## Fujitsu green policy innovation

Fujitsu Green Policy Innovation is our worldwide project for reducing burdens on the environment. Using our global know-how, we aim to resolve issues of environmental energy efficiency through IT. Please find further information at:  
[www.fujitsu.com/global/about/environment](http://www.fujitsu.com/global/about/environment)



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2014-04-24 CE EN

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