# Data Sheet
## FUJITSU Mainboard D3400-B µATX
### Classic Desktop Series

Available from 02/2017

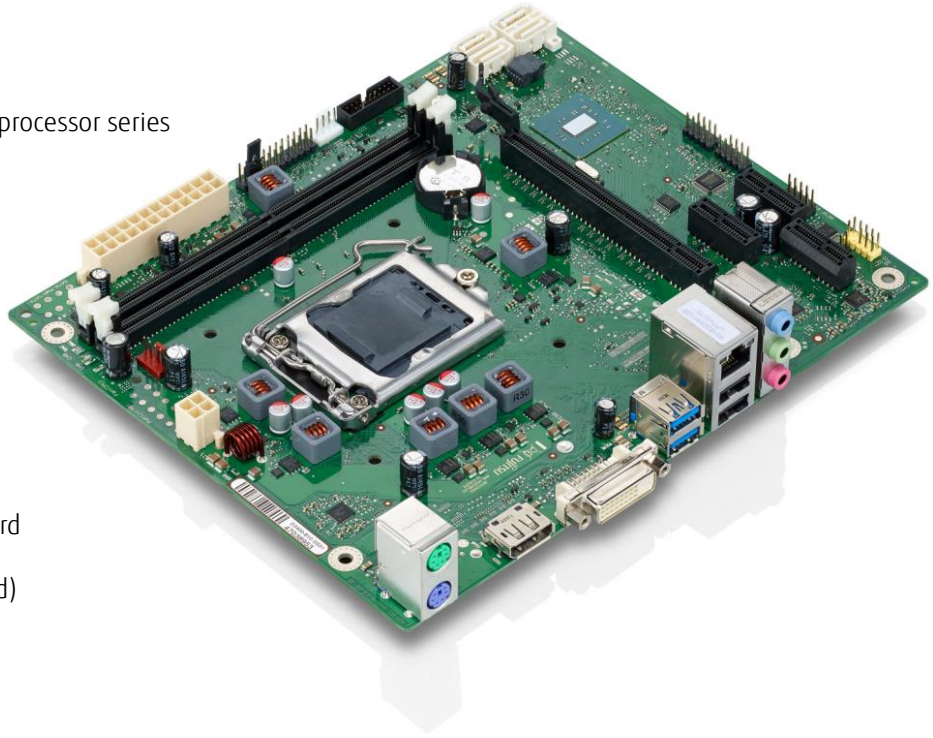
Powered by the Intel® H110 Express Chipset supporting DDR4 2133/2400 SDRAM Memory and 6th & 7th generation Intel® Core™ i3 / i5 / i7 Processors (Socket LGA1151)

**Chipset:**
Intel® H110 Express Chipset

**Processors:**
Intel® Core™ i7 / i5 / i3 – (6th gen. & 7th gen.) processor series
Intel® Pentium® / Celeron® processor series
Socket LGA1151 – up to 65W TDP

**Memory:**
DDR4 2133 SDRAM (UDIMM)
DDR4 2400 SDRAM (UDIMM)

**Product Features:**
Intel® HD Graphics (up to 2 digital displays)
PCI Express Gen3
Multichannel Audio & Realtek GbE LAN onboard
USB 2.0 and USB 3.0 onboard
Trusted Platform Module V2.0 (Intel integrated)



# Features and benefits

| | |
|---|---|
| Board Size | ultra small µATX: 218 x 183 mm |
| Chipset | Intel® H110 Express Chipset |
| Memory | 2 DIMM Sockets DDR4, max. 32GB, Dual Channel, 2133MHz (CL15) / 2400MHz (CL17), UDIMM, 1.2V / 2.5V, 288-pin, non-ECC.<br>Effective memory speed depends on installed processor |
| Processor | Intel® Core™ i7 / i5 / i3 – (6th generation) processor series<br>Intel® Core™ i7 / i5 / i3 – (7th generation) processor series (D3400-B2 only)<br>Intel® Pentium® / Celeron® processor series<br>Socket LGA1151, max. 65W TDP<br>(For details on supported processors please refer to OEM FTP Server) |
| Power Specification | ATX- 24 Pin or ATX- 20 Pin + 4 Pin (12V) Power Connector required<br>Support for Soft-Off Power Supplies<br>12V and 3.3V Supply Voltage on PCIe Slots<br>3.3V Auxiliary Supply Voltage on PCIe Slots (Wake-Up Function)<br>On board CPU Voltage Regulator, 5V / 2A Auxiliary Power required for USB Wake-Up from Save-to-RAM, Save-to-Disk |
| Power Supply Requirements | for onboard components (worst case incl. processor, memory, w/o USB devices; w/o PCIe cards, w/o SATA drives) |

| Source | Voltage | Min. PS Load | Max.Voltage Tolerance | Mainboard Capacitive Load | Max. Mainboard Current |
|---|---|---|---|---|---|
| Main Power Supply | + 12V | 0.05A | ± 5 % | 5.000µF | 8A/12A [1)] |
| | - 12V | 0A | ± 10 % | 470µF | 0.3A |
| | + 5V | 0.2A | ± 5 % | 3.000µF | 6.0A |
| | + 3.3V | 0A | ± 5 % | 3.000µF | 0.5A |
| Aux. Power | + 5Vaux | 0A | +5 % / -3% | 3.000µF | 2.5A |

1) Max. Cont. Current = 8A; max. Surge Current = 10A (< 100sec) / 12A (< 10ms)

| | |
|---|---|
| BIOS | AMI Aptio 5.x (UEFI) BIOS<br>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, Serial-/ USB- Port Access, Boot Sector Virus Warning, Write Protection for Flash BIOS, EraseDisk (optional BIOS Feature)<br>Intel integrated TPM V2.0 |

| | | |
|---|---|---|
| **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 |

| **Operating Systems** | **OS** | **"Runnable"** | **"Tested/Released by Fujitsu"** |
|---|---|---|---|
| | MS Windows XP | -- | -- |
| | MS Windows 7-32 [1)] | X | X [2)] |
| | MS Windows 7-64 [1)] | X | X [2)] |
| | MS Windows 8.1-64 [1)] | X | X |
| | MS Windows 10-64 | X | X |
| | Linux-32 | X | -- |
| | Linux-64 | X | -- |

1) *Requires Skylake (= 6th gen.) processor!* 2) *MS Windows 7 release for D34xx-B2 scheduled for Q2/2017*

**Further Features**

| Feature | Mainboard Versions | |
|---|---|---|
| | D3400-B1x | D3400-B2x |
| UDIMM DDR4-2133 / DDR4-2400 | x / - | x / x |
| Intel® Core™ i processor series – 6th gen. / 7th gen. | x / - | x / x |
| Intel® Pentium® / Celeron® processor series – 6th gen. / 7th gen. | x / - | x / x |
| *Skylake* Drivers / *Kabylake* Drivers (MS Windows) | x / x | - / x |

| | |
|---|---|
| **Graphics** | Intel® HD Graphics (depends on installed processor), DX12.<br>Supporting up to 2 independent digital displays |
| **Audio** | Realtek ALC671, 5.1-channel, High Definition Audio Codec |
| **LAN** | Realtek RTL8111G with 10/100/1000 MBit/s,<br>Wake-on-LAN (WoL) by interesting Packets, Link Status Change and<br>Magic Packet™, PXE Support, BIOS MAC Address Display, Jumbo Frames (up to 9KB) |
| **Drives** | 4 x Serial ATA III 600 Interface (up to 6GBit/s), NCQ, AHCI |

| | | |
|---|---|---|
| **Features D3400-B** | Chipset | iH110 |
| | Board Size | ultra small µATX |
| | VGA[1] / DVI-I / DVI-D / DP V1.2 / 2nd DP V1.2 / LVDS | - / - / ✓ / ✓ / - / - |
| | Stereo Audio / 5.1 Multichannel Audio | - / ✓ |
| | Buzzer / int. Speaker Support | - / ✓ |
| | LAN Gbit / 100 Mbit / 10 Mbit / WoL / LAN Boot | ✓ / ✓ / ✓ / ✓ / ✓ |
| | iAMT 11.0 vPro / Intel Standard Manageability / DASH V1.1 | - / - / - |
| | SATA / ATA / RAID / eSATA-support / M.2 (PCIe x4 or SATA) | ✓ / - / - / ✓ / - |
| | FireWire™ / USB 2.0 / USB 3.0 | - / ✓ / ✓ |
| | FAN monitored & controlled PSU / CPU / AUX1 / AUX2 | - / ✓ / ✓ / - |
| | TEMP monitored CPU / onboard sensors / external sensor | ✓ / ✓ / - |
| **Special Features D3400-B** | Silent Fan / Silent Fan LT / System Guard / Silent Drives | - / ✓ / ✓ / ✓ |
| | Recovery BIOS / Desk Update / Multi Boot | ✓ / ✓ / ✓ |
| | HDD Password / HDD Encryption / EraseDisk[2] / 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 |
| | ILM - Backplate / ILM + Heatsink combined[3] | ✓ / - |
| **Internal Connectors D3400-B** | DIMM Sockets (DDR4-2133/2400) | 2 |
| | PCI Express x16 Slot (Gen3) | 1 |
| | PCI Express x1 Slot (Gen2) / PCI Express x1 Slot (Gen3) | 2 / - |
| | PCI Slots (32Bit, 33 MHz, Rev. 2.3) | - |
| | SATA-600 / SATA-300 / ATA / Floppy / M.2 SSD | 4 / - / - / - / - |
| | S/PDIF (digital Audio) OUT / IN | - / - |
| | Frontpanel Audio (9-Pin, HD Audio) | 1 |
| | USB 2.0 channels / USB 3.0 channels / USB Stick (3.0) | 4 / 2 / - |
| | Serial (COM2, RS232) | 1 |
| | FAN PSU / CPU / AUX1 / AUX2 | - / 1 / 1 / - |
| | SMBus (Case Temperature) | - |
| | Intrusion (Case Open) | - |
| | Parallel Port Pin Connector | - |
| | ATX Power Supply (24 pin + 4 pin) / 12V-only Power Supply[4] | ✓/ - |
| **External Connectors D3400-B** | VGA Sub D[1] / DVI-I / DVI-D / DisplayPort V1.2 | - / - / 1 / 1 |
| | Audio Mic. In / Line in / Line out (or driver configuration) | 1 / 1 / 1 |
| | LAN (RJ-45) | 1 |
| | PS/2 Mouse / Keyboard | 1 / 1 |
| | USB 2.0 / USB 3.0 | 2 / 2 |
| | Serial (COM1, RS232) | - |
| | Parallel (EPP/ECP) | - |

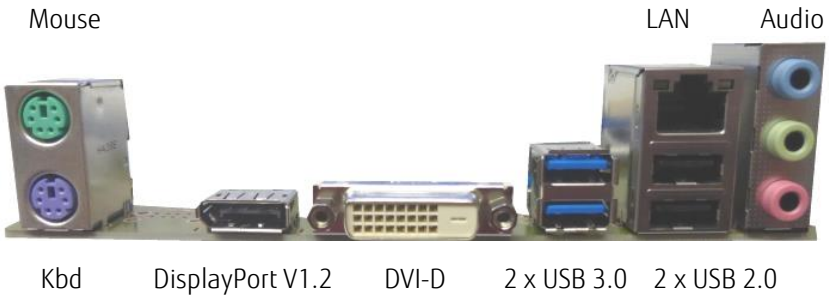
1 VGA possible via optional converter board D3463 or DP-VGA-converter (dongle)

2 Optional BIOS Feature, License required

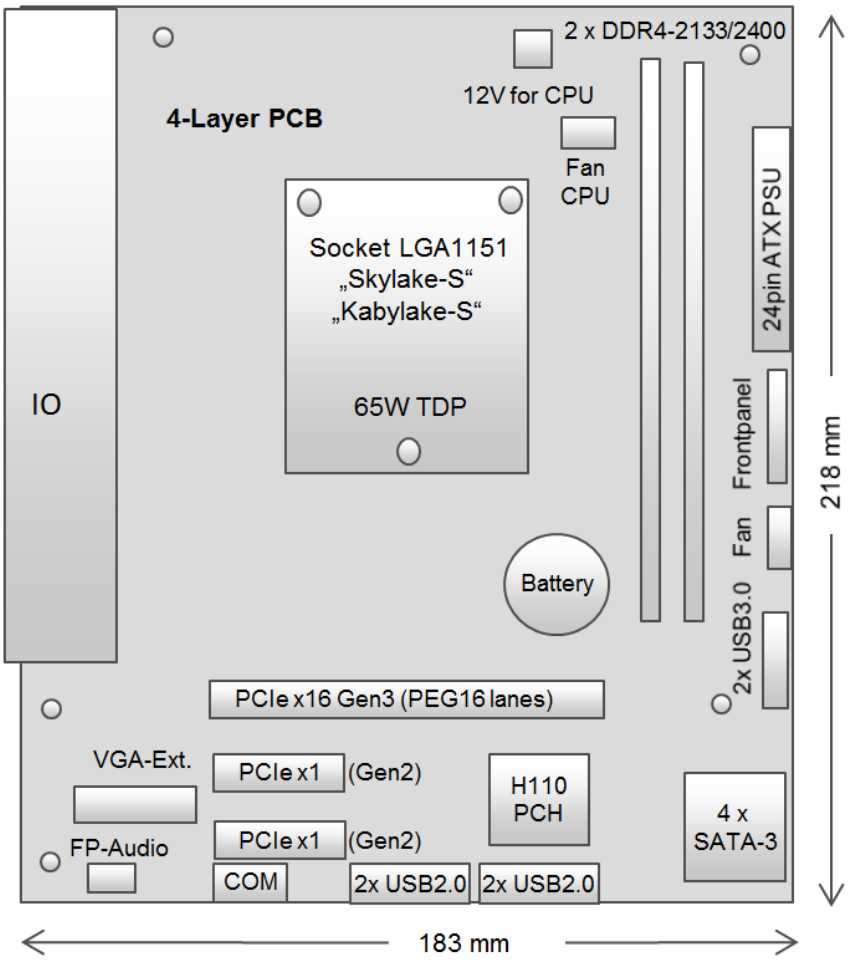
3 Combined backplate: Can't be used for pushpin heatsink

4 Plus additional onboard drive power connector

## External Connectors




## Connector / Socket Diagram




## Further industrial products offered by Fujitsu

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- Wireless Modules



*24 Volt Kiosk Printers*



*Multi-Input Touch Panels*

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