

## ATX Industrial Mainboard m. Q67

## Fujitsu DS 3236 -S



### Features

- Intel® Q87 Express-Chipsatz 4. Generation
- DDR3 1600 SDRAM max 32 GB
- HD-Grafiken (abhängig vom Prozessor)
- PCI Express Gen3,
- Mehrkanal-Audio
- Dual Intel GbE LAN Onboard (Teaming Support, WOL & PXE-Unterstützung),
- USB 2.0 und USB 3.0 Onboard,
- Trusted Platform Module (TPM) V1.2 (Infineon) Onboard,
- Intel® iAMT 9 / vPro, Intel®
- HW Watchdog Onboard

### Allgemein

Das Industrial Mainboard D3236-S ist die beste Wahl für industrielle Anforderungen. Das Board wird in Deutschland produziert und erfüllt die höchsten Qualitätsansprüche. Ausgestattet mit dem Intel® Q87 Express-Chipsatz, der die 4. Generation der Intel® Core™ Prozessoren unterstützt. Um die Anforderungen im Hinblick auf stabile und überschaubare Netzwerkverbindungen zu erfüllen, ist das D3236-S mit zwei Intel® GbE-LAN-Controller ausgestattet, der die jüngste Intel® Active-Management-Technologie (iAMT9.0) unterstützt. das Mainboard D3236-S. Es ist konzipiert und zugelassen für den Dauerbetrieb (24/7) - auch für einen erweiterten Betriebstemperaturbereich bis 60 C. Und der Thermal Management & System Monitoring Microcontroller bietet dem Anwender einen Gesamtüberblick über den Systemzustand.

### Verw. Prozessoren

Intel® Core™ i7 – 4xxx Prozessorserie  
Intel® Core™ i5 – 4xxx Prozessorserie  
Intel® Core™ i3 – 4xxx Prozessorserie  
Intel® Pentium® – Prozessorserie  
Intel® Celeron® – Prozessorserie

# Technische Daten

**Board Size** ATX: 9.6" x 12" (243.8 x 304.8 mm)

**Chipset** Intel® Q87 Express Chipset

## Memory

4 DIMM Sockets (1.5V), 1GB - 32GB, Single Channel / Dual Channel DDR3-1333 (CL9) and DDR3-1600 (CL11) SDRAM, unbuffered, no ECC

## Processor

Intel® Core™ i5 / i7 - 4xxx processor series  
 Intel® Core™ i3 - future gen4 processor series  
 Intel® Pentium® - future Haswell processor series  
 Intel® Celeron® - future Haswell processor series  
 Socket LGA1150, max. 95W TDP  
 (For details on supported processors please refer to our website)

## Power Specification

ATX- 24 Pin or ATX- 20 Pin 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 incl. processor, memory, 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 %	10.000µF	14A/18A <sup>1)</sup>
	- 12V	0A	± 10 %	500µF	0.3A
	+ 5V	0.2A	± 5 %	10.000µF	10A
Aux. Power	+ 3.3V	0A	± 5 %	6.000µF	2A
	+ 5Vaux	0A	+5 % / -3%	7.000µF	2.5A

1) 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 PCI Configuration, BIOS Support for S.M.A.R.T., Advanced Power Management, ACPI S3/S4, Wake on time from S5, BIOS integrated HW Diagnostic Tool

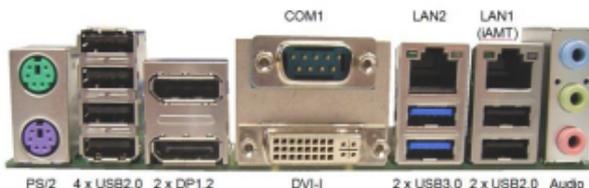
## Security Features

Recovery BIOS, System and BIOS Password, Boot Sequence Control, Serial-/ Parallel-/ USB- Port Access Protection, Boot Sector Virus Warning, Write Protection for Flash BIOS, EraseDisk (BIOS Feature), Infineon TPM V1.2.

## Special Features

**Silent Fan** Independent temperature related processor fan and system fan supervision and control  
**System Guard** View and adjust Silent Fan 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



## Designed for Industrial Applications

Longlife components Designed for 24/7 use in industrial applications  
 Tin-plated PCB Improved durability of PCB surface  
 Revision control Strict control and pre-announcement  
 Extended lifecycle Mainboard available for more than four years  
 Industrial grade EMI immunity  
 Enhanced operation temperature range (0°C - 60°C) <sup>4)</sup>

## Graphics

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

## Audio

Realtek ALC671, 5.1-channel, High Definition Audio Codec

## LAN

Intel i217LM / Intel i210AT Ethernet Controller with 10/100/1000 MBit/s, iAMT, Wake-on-LAN (WoL) by interesting Packets, Link Status Change and Magic Packet™, PXE Support, BIOS MAC Address Display, Teaming Support

## Drives

6 Serial ATA III 600 Interface (up to 6Gbit/s), NCQ, AHCI, RAID 0/1/5/10  
 1 mSATA (fullsize), ATA III 600 (shared with one SATA port), incl. USB2.0

## Features

Features	D3236-S
Chipset	iQ87
Board Size	ATX
VGA / DVI-I / DVI-D / DisplayPort V1.2 / LVDS	- <sup>3)</sup> / ✓ / - / 2x / -
Stereo Audio / 5.1 Multichannel Audio	- / ✓
Buzzer / Int. Speaker Support	✓ / ✓
Dual LAN Gbit / 100 Mbit / 10 Mbit	✓ / ✓ / ✓
LAN ASF / DASH / WoL / Boot / vPro 2013 (iAMT 9)	- / - / ✓ / ✓ / ✓
SATA / ATA / RAID / eSATA-support / mSATA	✓ / - / ✓ / ✓ / ✓
FireWire™ / USB 2.0 / USB 3.0	- / ✓ / ✓
FAN monitored PSU <sup>1)</sup> / CPU / AUX1 / AUX2 / AUX3 <sup>1)</sup>	✓ / ✓ / ✓ / ✓ / ✓
FAN controlled PSU <sup>1)</sup> / CPU / AUX1 / AUX2 / AUX3 <sup>1)</sup>	✓ / ✓ / ✓ / ✓ / ✓
TEMP monitored CPU / onboard sensors / external sensor	✓ / ✓ / -
<b>Special Features</b>	
Silent Fan / Silent Fan LT / System Guard / Silent Drives	✓ / - / ✓ / ✓
Recovery BIOS / Desk Update / Multi Boot	✓ / ✓ / ✓
HDD Password / HDD Encryption / EraseDisk / TPM	✓ / - / ✓ / ✓
Logo Boot Option / Intel On Screen Branding	✓ / ✓
High Efficiency Core Voltage Regulator Design	✓
BIOS POST- / BIOS Boot- / OS- HW Watchdog	✓ / ✓ / ✓
Operating Mode 24-7 / 8-5 (hrs per day - days per week)	✓ / -
Mainboard operating temperature range (chassis inside)	0°C - 60°C
<b>Internal Connectors</b>	
DIMM Sockets (DDR3 1600)	4
PCI Express x16 Slot (Gen3)	1
PCI Express x16 Slot (4 Lanes, Gen2) / x8 Slot (1 Lane, Gen2)	1 / 1
PCI Slots (32bit, 33 MHz, Rev. 2.3)	4
SATA-600 / SATA-300 / ATA / Floppy / mSATA	6 / 0 / 0 / 0 / 1
S/PDIF (digital Audio) OUT / IN	- / 1
Frontpanel Audio (9-Pin, HD Audio)	1
USB 2.0 channels / USB 3.0 channels / USB Stick (2.0)	2 / 2 / 1
Serial (FIFO, 16550 compatible)	1
FAN PSU <sup>1)</sup> / CPU / AUX1 / AUX2 / AUX3 <sup>1)</sup>	1 / 1 / 1 / 1 / 1
SMBus (Case Temperature)	-
Intrusion (Case Open) / GPIO (8Bit)	1 / 1
Parallel (EPP/ECP) Pin Connector <sup>2)</sup>	1
Power 24 pin (BTX) / 4 pin (12V processor supply)	1 / 1
<b>External Connectors</b>	
VGA Sub D <sup>3)</sup> / DVI-I / DVI-D / DisplayPort V1.2	- / 1 / - / 2
Audio Mic. In / Line in / Line out (or driver configuration)	1 / 1 / 1
S/PDIF (digital Audio) OUT / IN	- / -
LAN (RJ-45)	2
PS/2 Mouse / Keyboard	1 / 1
USB 2.0 / USB 3.0	6 / 2
Serial (RS232, FIFO, 16550 compatible)	1
Parallel (EPP/ECP) <sup>2)</sup>	-

- Not supported by standard Power Supplies; FAN PSU and FAN AUX3 cannot be used simultaneously (Selectable in BIOS Setup)
- External parallel port possible via optional connector cable
- Via optional DVI-I / VGA interface connector
- Forced cooling required, see technical documentation for detailed requirements