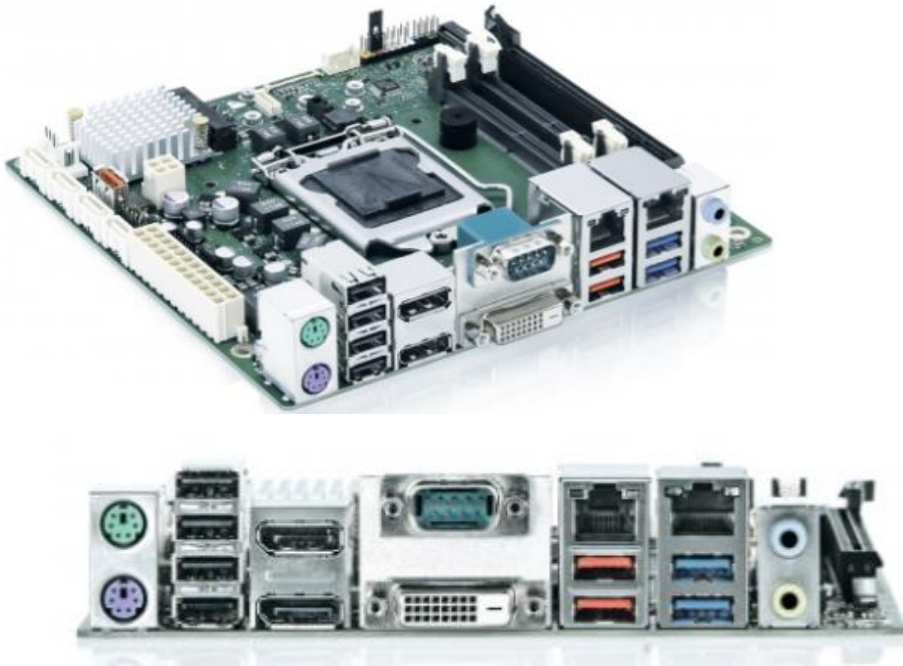


CEX – D3633-S mITX

Intel®Q370 Express Chipset and

Intel®8th/9th Gen Core™ i3/i5/i7/i9 Processors



• Features

- cTDP – Easy & flexible reduction of CPU TDP
- Supporting Intel® AMT 12.0 / vPRO
- Dual Channel LVDS & eDP
- M.2 SSD & Mini-PCIe Socket onboard
- ATX PSU or Single 12 V Supply

Specifications

System	
Processor	Intel® Core™ i9/i7/i5/i3 (8th/9th Gen) processor series Intel® Pentium®/Intel® Celeron® processor series Socket LGA1151 – up to 95 W TDP
Chipset	Intel® Q370 Chipset
Memory	DDR4-2666, Dual Channel 2 SO DIMM sockets, up to 64 GByte memory
Video	
Graphics	Intel® UHD Graphics, DX12
Audio	
Audio Codec	Realtek ALC671
Audio Interface	5.1-channel, High Definition Audio Codec
Network Connection	
Ethernet	Intel i219LM & i210AT with 10/100/1000 MBit/s, AMT 12.0 / vPro Support Wake-on-LAN (WoL) by interesting Packets, Link Status Change and Magic Packet™, PXE Support, BIOS MAC Address Display, Teaming Support
Peripheral Connection	
USB	4x USB 2.0, 2x USB 2.0 (by header), 2x USB 3.1 Gen1, 2x USB 3.1 Gen1 (by header), 2x USB 3.1 Gen2, 1x USB 3.1 Gen2 stick socket
Serial Port	1x RS232, 1x RS232/422/485 (by header)
Other I/Os	GPIO (by header)
Storage & Expansion	
SATA	4x Serial ATA III 600 Interface (up to 6Gbit/s), NCQ, AHCI, RAID 0/1/5/10, 1x M.2 PCIe (2242/2260/2280), 1x Mini PCIe (halfsize/fullsize)
PCIe/PCI Slots	PCIe x16: 1x Gen3, Support for lane split (8+8 or 8+4+4)
Power	
Connector	ATX Power Supply
Input Voltage	ATX (Multirail) or Single 12 V
Firmware	
BIOS	AMI Aptio 5.x (UEFI) BIOSmodified 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 Configuration, BIOS Support for S.M.A.R.T., Advanced Power Management, ACPI S3/S4, Wake on time from S5. Boot support for M.2 SSD (AHCI / NVME) BIOS integrated HW Diagnostic

	Tool, Watchdog Support No legacy OS support, no MBR installation (UEFI only due to Intel restrictions)				
Watchdog	3-Level Watchdog (BIOS/BIOS Post/OW HW)				
Real Time Clock	Integrated				
TPM	TPM V2.0 (Infineon; TCG compliant)				
System Control					
FP HEADER	1x Header for Reset button, HDD LED & Internal Speaker, Power button, Power LED				
Security	Recovery BIOS, System and BIOS Password, Boot Sequence Control, Serial- / USB- Port Access Protection, Write Protection for Flash BIOS, EraseDisk (BIOS Feature), TPM V2.0 (Infineon; TCG compliant)				
Cooling					
Fan	2x PWM fan (CPU/System)				
Software					
OS Support	MS Windows 10 Linux-64				
Mechanical					
Dimensions (L x W)	Mini-ITX: 6.7" x 6.7" (170 x 170 mm)				
Certifications					
EMC & Safety	FCC-B verified cTÜVus acc. IEC62368-1 (upon request), CE Class B				
Power Supply Requirements					
Source	Voltage	Min. PS Load	Max. Voltage Tolerance	Motherboard Capacitive Load	Motherboard Max. Current
Main Power Supply (Multi Rail)	+ 12 V	0.05 A	± 5%	1.300 µF	10 A / 18 A**
	- 12 V	0 A			Not used
	+ 5 V	0.2 A	± 5%	900 µF	4.5 A
	+ 3.3 V	0 A	± 5%	350 µF	0.5 A
	+ 5 Vaux	0 A	+ 5%/-3%	330 µF	2.5 A
Single 12 V DC	+ 12 V	0 A	± 5%	1.300 µF	11 A / 19 A***
*) ATX PSU (multi rail) or single 12 V DC Supply					
**) Processor 95 W TDP: Max. Cont. Current = 10 A; max. Surge Current = 16 A (< 100 sec) / 18 A (< 10 ms) Processor 65 W TDP: Max. Cont. Current = 7 A; max. Surge Current = 14 A (< 100 sec) / 18 A (< 10 ms)					
Processor 35 W TDP: Max. Cont. Current = 4 A; max. Surge Current = 10 A (< 100 sec) / 14 A (< 10 ms)					

***) Max. load for single 12 V DC supply: approx. +1 A compared to multi rail supply

Features	Chipset Board Size VGA / DVI-I / DVI-D / DP V1.2 / 2nd DP V1.2 / LVDS / eDPBuzzer / int. Speaker Support / 5.1 Multichannel Audio Dual LAN Gbit / 100 Mbit / 10 Mbit / WoL / LAN Boot / Teaming iAMT 12.0 vPro / Intel Standard Manageability / DASH V1.1 SATA / SATA-RAID / eSATA-Support / mSATA / M.2 SSD (PCIe) USB 2.0 / USB 3.1 (gen1) / USB 3.1 (gen2) FAN monitored & controlled PSU / CPU / AUX1 / AUX2 TEMP monitored CPU / onboard sensors / external sensor	iQ370 Mini-ITX - / - / + / + / + / + / + + / + / + + / + / + / + / + / + + / + / - + / + / + / - / + + / + / + - / + / + / - + / + / -
Special Features	Silent Fan / System Guard / cTDP Recovery BIOS / Desk Update / Multi Boot HDD Password / EraseDisk / TPM V2.0 BIOS POST- / BIOS Boot- / OS HW Watchdog Logo Boot Option High Efficiency Core Voltage Regulator Design Operating Mode 24-7 / 8-5 (hrs per day - days per week) Motherboard operating temperature range (chassis inside)*	+ / + / + + / + / + + / + / + + / + / + + + + / - 0 °C – 60 °C
Internal connectors	SO DIMM Sockets (DDR4 2666) PCI Express® x16 (Gen3) / Support for lane split (8+8 or 8+4+4) mSATA / Mini PCI Express® Slot (halfsize / fullsize, incl.USB 2.0) SATA-600 / M.2 SSD 2280 (supports 2280/2260/2242, Key-M, PCIe/NVME) S/PDIF (digital Audio) OUT / IN Front Panel Audio (9-Pin, HD Audio) USB 2.0 / USB 3.1 (Gen1) / USB 3.1 (Gen2) / USB 3.1 (Gen2) Stick** Serial (COM2, RS-232 / RS-422 / RS-485) / Parallel Port Connector	2 1 / + - / 1 4 / 1 1 / 0 1 1 / 1 / - / 1 1 / -

	LVDS / LVDS Backlight (PWM controlled) / Embedded DisplayPort FAN PSU / CPU / AUX1 / AUX2 Intrusion (Case Open) / GPIO (8Bit) / SMBus (Case Temp.) Front Panel (Power Switch, Reset Switch, LEDs, Intel 10 pin compatible) ATX Power Supply (24 pin + 4 pin) / single 12 V PSU***	1 / 1 / 1 0 / 1 / 1 / 0 1 / 1 / - 1 1 / 1
External connectors	VGA Sub D / DVI-I / DVI-D / DisplayPort V1.2 Audio Mic. In / Line in / Line out (or driver configuration) LAN (RJ-45) PS/2 Mouse / Keyboard USB 2.0 / USB 3.1 Gen1 / USB 3.1 Gen2 Serial (COM1, RS232)	- / - / 1 / 2 - / 1 / 1 2 1 / 1 4 / 2 / 2 1