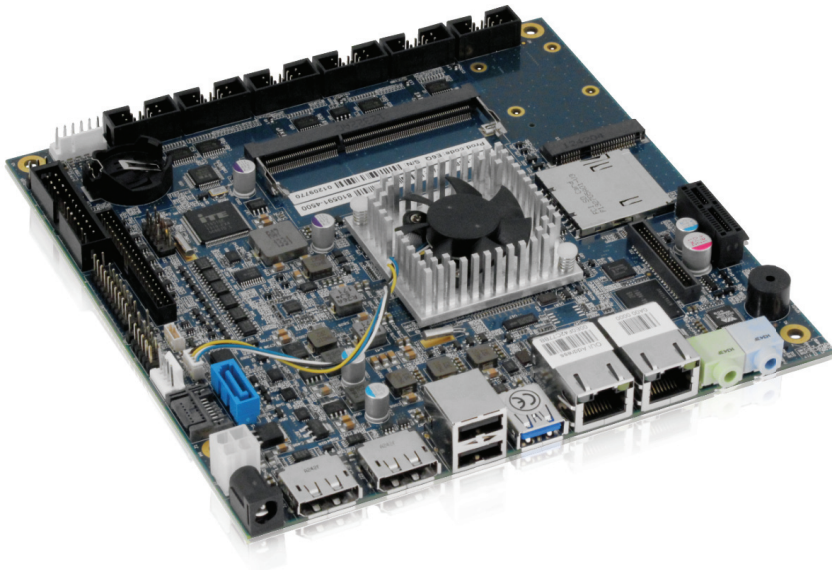


» mITX-E38 «



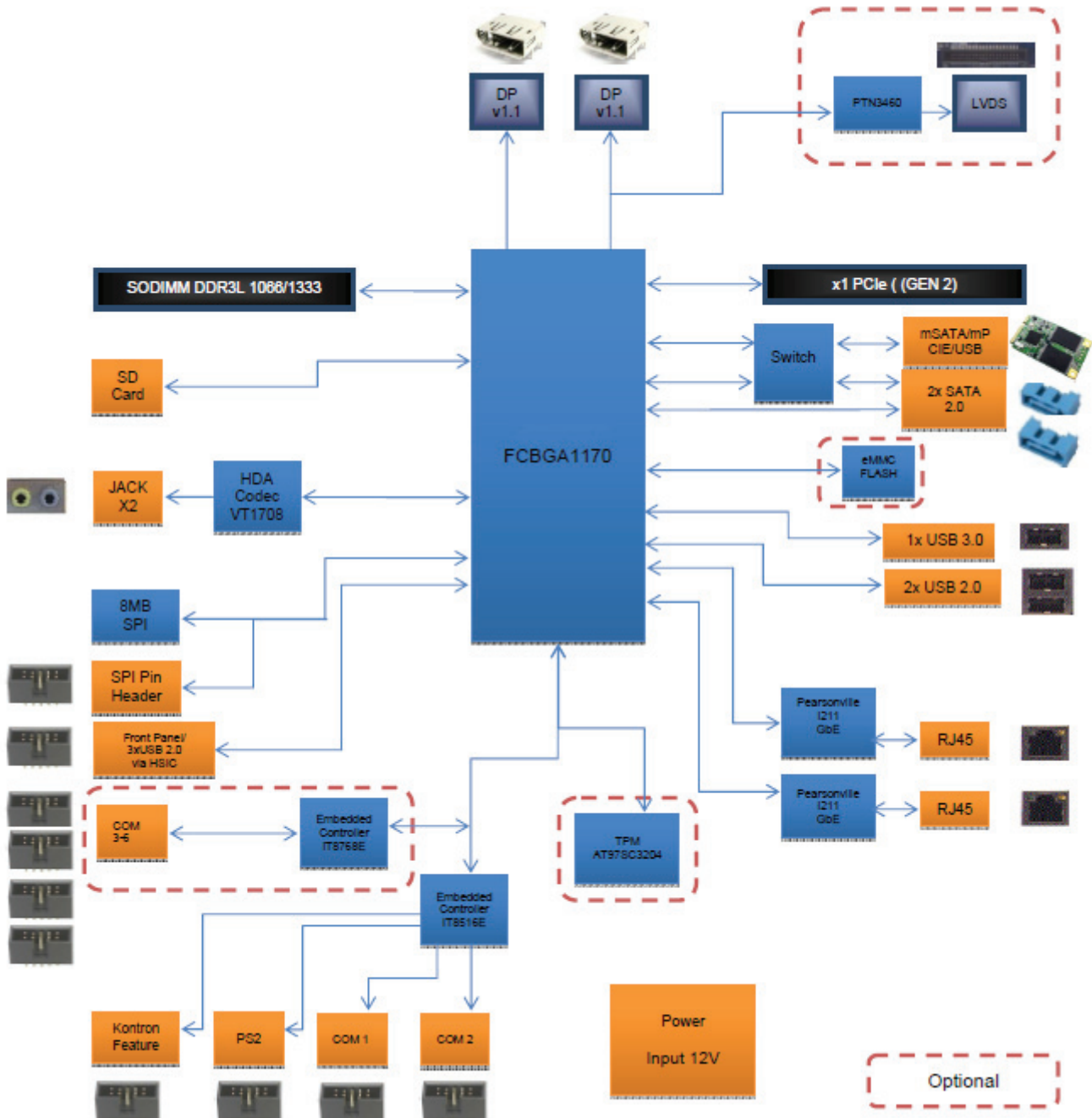
mITX board with Intel Atom™ E38XX System on Chip (SoC)

- » Intel® Atom™ E38xx SoC (1, 2 or 4 cores), TDP: 5-10W
- » SO-DIMM Socket DDR3L-1333 Memory (up to 8GB)
- » Intel® Gen7 Graphics, OpenGL 3.0, OpenCL 1.2, DX11, H.264, MPEG2, MCV, VC-1, VP8
- » LVDS 24Bit dual channel and Display Port 1.1a
- » 10/100/1000MBit RJ45 Ethernet LAN, SATA, mSATA or mPCIe in mPCIe connector
- » SIMCARD Socket supporting 3G/4G modules in mPCIe connector
- » Bootable onboard 16GB eMMC NAND Flash
- » Long-term available up to 7 years

mITX-E38

Typical Applications

- » **POS/POI:** Higher Graphics and CPU core performance, Low power, multi display support
- » **Medical:** Higher Graphics and CPU core performance, longevity
- » **Industrial Automation:** Wide range of I/Os, compact size, longevity
- » **Digital signage:** Multi display support, low power, wide range of I/Os
- » **Future-oriented Devices:** Display Port and LVDS, low power, compact size



Technical Information

| mITX-E38xx | mITX-E3815 | mITX-E3826 | mITX-E3845 |
|------------------------------|---|---|---|
| SOC | E3815 SKU (1core), 1.46 GHz, max. 5W TDP | E3826 SKU (2 cores), 1.46 GHz, max. 7W TDP | E3845 SKU (4 cores), 1.91 GHz, max. 10W TDP |
| Memory | 1x 8GB SODIMM slot supporting DDR3L-1066 | 1x 8GB SODIMM slot supporting DDR3L-1066 | 1x 8GB SODIMM slot supporting DDR3L-1333/1066 |
| Graphics Interface | 2x independent graphic outputs (2x Display Port 1.1a) | 2x independent graphic outputs (2x Display Port 1.1a) | 2x independent graphic outputs (1x Display Port 1.1a up to 2560x1600, 1x LVDS up to 1920x1200 dual channel 24bit) |
| Ethernet | 2x RJ45 10/100/1000 Mb/s Ethernet | 2x RJ45 10/100/1000 Mb/s Ethernet | 2x RJ45 10/100/1000 Mb/s Ethernet |
| Mass Storage | - | 1x SD card slot (SDXC) | 1x SD card slot (SDXC) |
| Onboard flash, eMMC | - | - | 16GB TLC Nand |
| SATA ports | 2x SATA Gen 2 (1 port shared with mSATA) | 2x SATA Gen 2 (1 port shared with mSATA) | 2x SATA Gen 2 (1 port shared with mSATA) |
| mPCIe / mSATA slot | 1x mPCIe / mSATA slot | 1x mPCIe / mSATA slot | 1x mPCIe / mSATA slot |
| Serial Ports | 2x Serial ports UART 16550 | 6x Serial ports UART 16550 | 6x Serial ports UART 16550 |
| LAN ports | 2x GBE | 2x GBE | 2x GBE |
| USB ports | 4x USB 2.0, 1x USB 3.0 | 4x USB 2.0, 1x USB 3.0 | 8x USB 2.0, 1x USB 3.0 (4 on front I/O, 5 internal) |
| Audio | HD Analog audio interface (Line-In, Line-Out, Mic-In, SPDIF) | HD Analog audio interface (Line-In, Line-Out, Mic-In, SPDIF) | HD Analog audio interface (Line-In, Line-Out, Mic-In, SPDIF) |
| PCIe slots | 1x PCIe1 slot | 1x PCIe1 slot | 1x PCIe1 slot |
| TPM | No | No | Yes |
| I/O Features | 1x mPCIe® 2.0 port (x1 lane), PCIe® x1 connector, Kontron embedded feature connector with ADC, DAC and up to 160 GPIO | 1x mPCIe® 2.0 port (x1 lane), PCIe® x1 connector, Kontron embedded feature connector with ADC, DAC and up to 160 GPIO | 1x mPCIe® 2.0 port (x1 lane), PCIe® x1 connector, Kontron embedded feature connector with ADC, DAC and up to 160 GPIO |
| Power supply | Single supply 12V DC, Internal and external connector | Single supply 12V DC, Internal and external connector | Single supply 12V DC, Internal and external connector |
| MTBF | Prediction Model: Telcordia Issue 2 Method I Case 3, 40°C & 60°C | Prediction Model: Telcordia Issue 2 Method I Case 3, 40°C & 60°C | Prediction Model: Telcordia Issue 2 Method I Case 3, 40°C & 60°C |
| Safety | IEC 60950-1: 2005, 2nd Edition UL 60950-1, CSA C22.2 No. 60950-1 | IEC 60950-1: 2005, 2nd Edition UL 60950-1, CSA C22.2 No. 60950-1 | IEC 60950-1: 2005, 2nd Edition UL 60950-1, CSA C22.2 No. 60950-1 |
| Cooling solutions | Passive and active cooling solutions | Passive and active cooling solutions | Active cooling solution |
| Operating temperature | 0°C to 60°C | 0°C to 60°C | 0°C to 60°C |
| Regulatory | Comply with Emission: EN55022, Immunity EN55022. RoHS | Comply with Emission: EN55022, Immunity EN55022. RoHS | Comply with Emission: EN55022, Immunity EN55022. RoHS |
| Dimensions | Thin Mini-ITX, 170 x 170 mm | Thin Mini-ITX, 170 x 170 mm | Thin Mini-ITX, 170 x 170 mm |
| Operating systems | Win7, Win8, WES7, WES8, Linux, WxWorks | Win7, Win8, WES7, WES8, Linux, WxWorks | Win7, Win8, WES7, WES8, Linux, WxWorks |

Ordering Information

| Article | Part No. | Description |
|---|-------------|---|
| mITX-E38 QC 1.91GHz (E3845) | 810590-4500 | Board, mITX-E38 QC 1.91GHz (E3845) |
| mITX-E38 DC 1.46GHz (E3826) | 810591-4500 | Board, mITX-E38 DC 1.46GHz (E3826) |
| mITX-E38 SC 1.46GHz (E3815) | 810592-4500 | Board, mITX-E38 SC 1.46GHz (E3815) |
| Recommended Memory Modules | | |
| Grade W -40°C to +85°C | 1055-9445 | DDR3L, 1GB, 1600MHZ, PC3-12800 SODIMM G/W |
| Grade W -40°C to +85°C | 1055-9446 | DDR3L, 2GB, 1600MHZ, PC3-12800 SODIMM G/W |
| Grade W -40°C to +85°C | 1055-9447 | DDR3L, 4GB, 1600MHZ, PC3-12800 SODIMM G/W |
| Grade W -40°C to +85°C | 1055-9448 | DDR3L, 8GB, 1600MHZ, PC3-12800 SODIMM G/W |
| Standard Grade 0°C to +60°C | 1055-9939 | DDR3L, 2GB, 204P, 1600MHZ, PC3-12800 SODIMM |
| Standard Grade 0°C to +60°C | 1055-9941 | DDR3L, 4GB, 204P, 1600MHZ, PC3-12800 SODIMM |
| Standard Grade 0°C to +60°C | 1055-9942 | DDR3L, 8GB, 204P, 1600MHZ, PC3-12800 SODIMM |

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