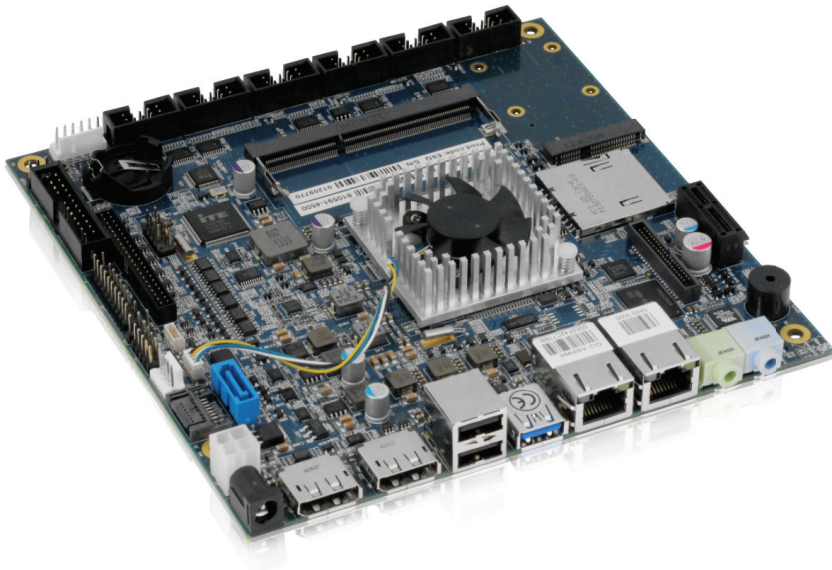


» mITX-E38 «



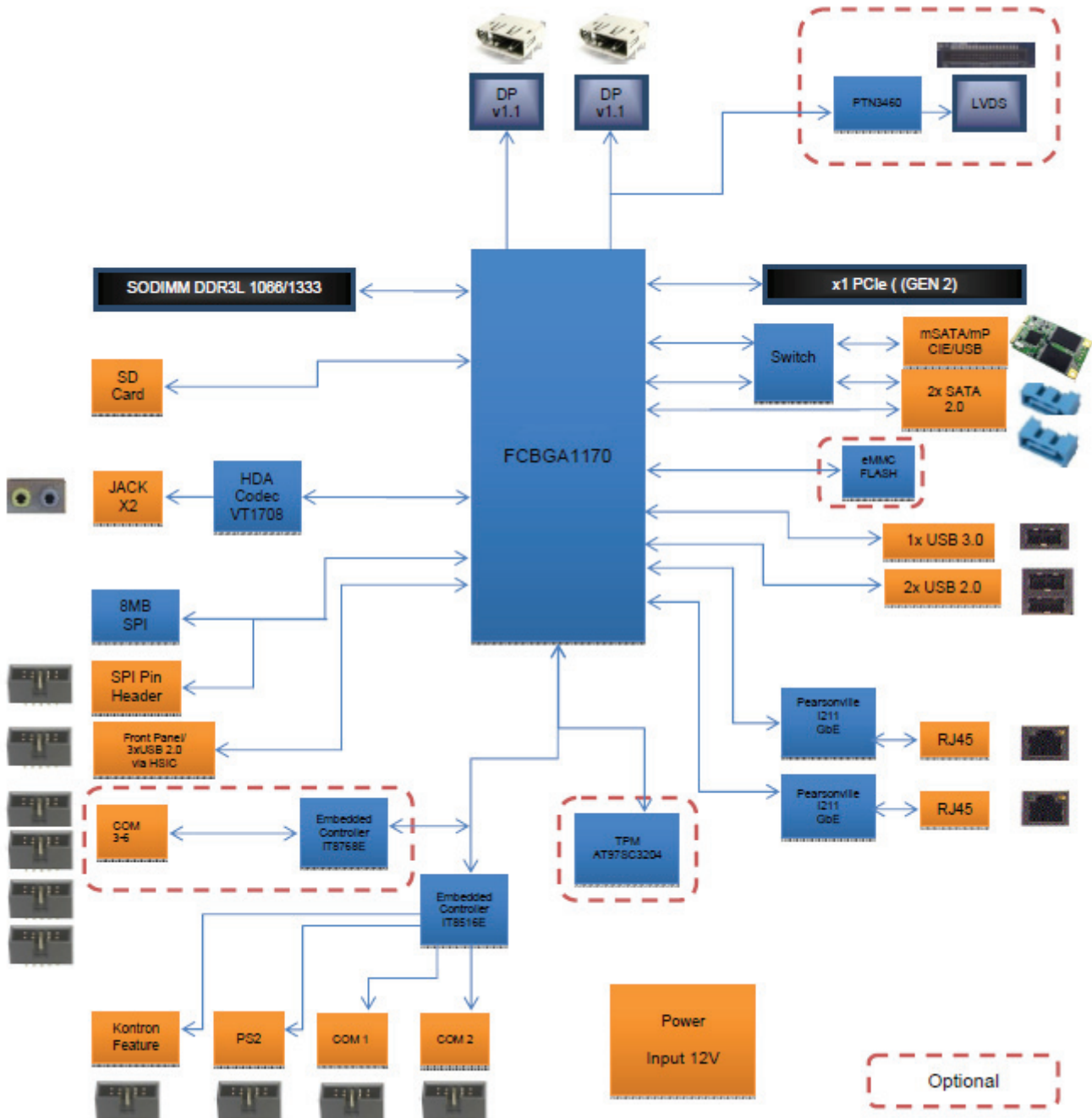
mITX board with Intel Atom™ E38XX System on Chip (SoC)

- » 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-1333/1066	1x 8GB SODIMM slot supporting DDR3L-1333/1066	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)	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
SD card slot		1x SD card slot	1x SD card slot
Serial Ports	6x 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	7x USB 2.0, 1x USB 3.0 (3 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
COM ports	2x RS232	6x RS232	6x RS232
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 TBD (5W SoC) and active (7-10W SoC) cooling solutions.	Passive TBD (5W SoC) and active (7-10W SoC) cooling solutions.	Passive TBD (5W SoC) and active (7-10W SoC) cooling solutions.
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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