

Single Board Computer



SBC-A44-pITX

Pico-ITX SBC with Intel® Atom™ E3800 family (formerly Bay Trail) SoCs and ECC DDR3L memory

Limitless Embedded applications



HIGHLIGHTS

- Born for the industrial market with native -40° to +85 °C temperature range
- ECC memory support
- Broad range of video and native serial connectivity options
- Designed for harsh environments
- Ideal for critical applications
- For designs that require data coherence and security
- Also for headless applications and IIoT smart gateways



Windows 8.1

Windows 10

Windows IoT



Windows Embedded Standard 8



Linux

yocto PROJECT

MAIN FIELDS OF APPLICATION



Transportation



Telco



Surveillance



Internet of Things



Industrial Automation and Control



Info Kiosks

FEATURES

Processor	Intel® Atom™ E3845, Quad Core @1.91GHz, 2MB Cache, 10W TDP Intel® Atom™ E3827, Dual Core @1.75GHz, 1MB Cache, 8W TDP Intel® Atom™ E3826, Dual Core @1.46GHz, 1MB Cache, 7W TDP Intel® Atom™ E3825, Dual Core @1.33GHz, 1MB Cache, 6W TDP Intel® Atom™ E3815, Single Core @1.46GHz, 512KB Cache, 5W TDP Intel® Atom™ E3805, Dual Core @1.33GHz, 1MB Cache, 3W TDP	Other Interfaces	8 x GPIO FAN connector Switch / LED Front Header I2C connector with INT and RST# signals
Max Cores	4	Serial Ports	2 x optional RS-232 / RS-422 / RS-485 Serial ports on internal pin Header
Max Thread	4	Power Supply	12V _{DC} ± 5% RTC Battery with lead cable and connector
Memory	Up to 8GB on DDR3L-1333 ECC SO-DIMM Slot (DDR3L-1333 with E3845 and E3827, DDR3L-1067 the others) Integrated Intel® HD Graphics 4000 series controller (not for E3805)	Operating System	Microsoft® Windows 7 (32 / 64 bit) Microsoft® Windows 8.1 (32 / 64 bit) Microsoft® Windows 10 (32 / 64 bit) Microsoft® Windows 10 IoT Microsoft® Windows Embedded Standard 7 (32 / 64 bit) Microsoft® Windows Embedded Standard 8 (32 / 64 bit) Microsoft® Windows Embedded Compact 7 Linux (32 / 64 bit) Yocto
Graphics	Dual independent display support HW decoding of H.264, MPEG2, MVC, VC1, VP8, MJPEG formats HW encoding of H.264, MPEG2 and MVC formats	Operating Temperature*	0°C ÷ +60°C (Commercial temperature) -40° ÷ +85°C (Industrial temperature)
Video Interfaces	HDMI connector Single / Dual Channel 18- / 24-bit LVDS connector	Dimensions	72 x 100 mm (2.83" x 3.93")
Video Resolution	HDMI, resolution up to 1080p @ 60Hz LVDS, resolution up to 1920 x 1200	*Measured at any point of SECO standard heatspreader for this product, during any and all times (including start-up). Actual temperature will widely depend on application, enclosure and/or environment. Upon customer to consider application-specific cooling solutions for the final system to keep the heatspreader temperature in the range indicated.	
Mass Storage	Optional eMMC drive on-board 1 x standard SATA connector mini mSATA interface on miniCard slot (shared with miniPCI-e) microSD Card slot		
Networking	Dual Gigabit Ethernet connector		
USB	2 x USB 3.0 Host ports on Dual Type-A socket 2 x USB 2.0 Host ports on internal pin header 1 x USB 2.0 Host port on miniPCI-e slot		
PCI-e	Half miniPCI-e slot (shared with mSATA)		
Audio	Optional HD Audio Codec Cirrus Logic CS4207 Mic In, Line out internal pin header connector		

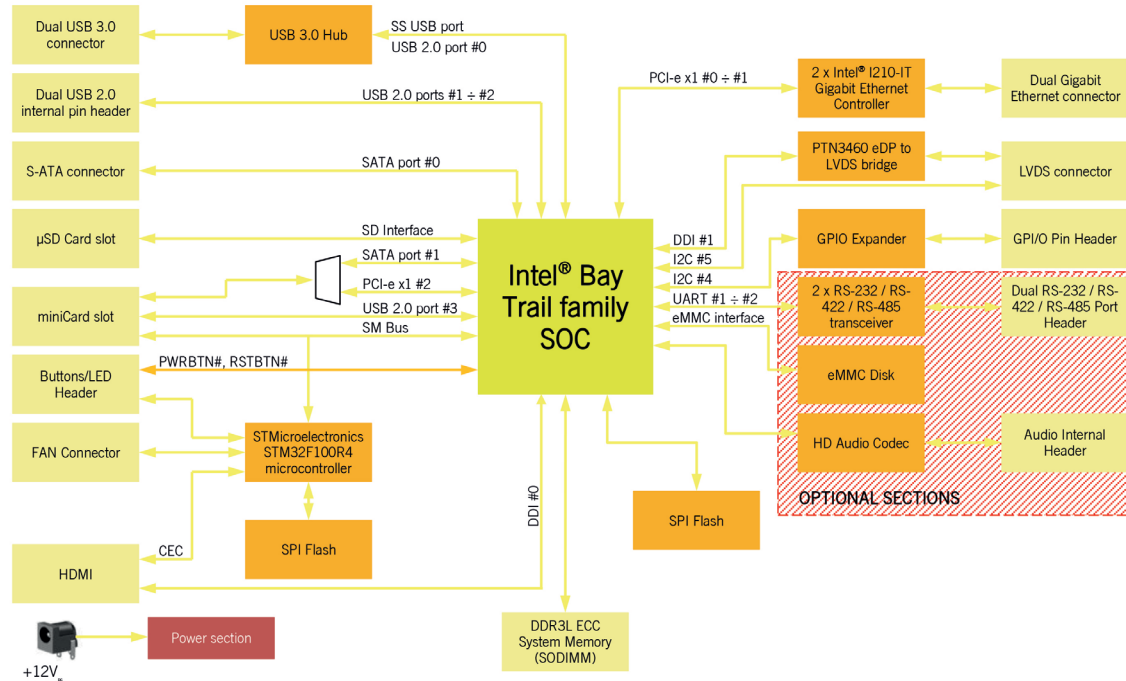


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BLOCK DIAGRAM



ORDERING INFORMATION

PN*	DESCRIPTION
SA44-6030-1110-C0	pITX - SBC-A44-pITX w/Bay Trail E3805 @1.33 GHz DC - eMMC 16GB - Mini-Fit power connector - serials present - Audio - Comm. Temp
SA44-1040-0110-I0	pITX - SBC-A44-pITX w/Bay Trail E3815 @1.46 GHz SC - eMMC 32GB - power jack - serials present - audio present - Ind. Temp
SA44-3040-0110-I0	pITX - SBC-A44-pITX w/Bay Trail E3825 @1.33 GHz DC - eMMC 16GB - Mini-Fit power connector - serials present - audio present - Ind. Temp
SA44-3040-1100-C0	pITX - SBC-A44-pITX w/Bay Trail E3826 @1.46 GHz DC - eMMC 32GB - Mini-Fit power connector - serials present - Comm. Temp
SA44-3040-1110-I0	pITX - SBC-A44-pITX w/Bay Trail E3826 @1.46 GHz DC - eMMC 32GB - Mini-Fit power connector - serials present - audio present - Ind. Temp
SA44-5040-0110-C0	pITX - SBC-A44-pITX w/Bay Trail E3845 @1.91 GHz QC - eMMC 32GB - power jack - serials present - Audio - Comm. Temp
SA44-6030-1110-C0	pITX - SBC-A44-pITX w/Bay Trail E3805 @1.33 GHz DC - eMMC 16GB - Mini-Fit power connector - serials present - Audio - Comm. Temp
SA44-4030-1110-C0	pITX - SBC-A44-pITX w/Bay Trail E3827 @1.75 GHz DC - eMMC 16GB - Mini-Fit power connector - serials present - Audio - Comm. Temp
SA44-5040-1100-C0	pITX - SBC-A44-pITX w/Bay Trail E3845 @1.91 GHz QC - eMMC 32GB - Mini-Fit - serials present - Comm. Temp
SA44-5020-1100-C0	pITX - SBC-A44-pITX w/Bay Trail E3845 @1.91 GHz QC - eMMC 8GB - Mini-Fit power connector - serials present - Comm. Temp

*Additional configurations may be available. Please inquire for more information.

ACCESSORIES

PN	DESCRIPTION
CABKITA44	Cables Kit for SBC-A44-pITX
PWK-003/SA44	Power supply kit for SBC-A44-pITX: Power brick (60W, 12V 5A) w/ adapter cable for SA44 and Power cord w/ adapters (EU-US-JPN etc.)
SA44-DISS-1-PK	pITX - SBC-A44-pITX Heat Spreader (PASSIVE)
SA44-DISS-2-PK	pITX - SBC-A44-pITX Heat Sink (PASSIVE)
SA44-DISS-3-PK	pITX - SBC-A44-pITX Heat Sink (ACTIVE)
VA13-0000-1100-C0	USB to RS232 serial port converter with DB9 connector
VA13-0000-1200-C0	USB to RS422 serial port converter with DB9 connector
VA13-0000-1300-C0	USB to RS485 serial port converter with DB9 connector
VA13-0000-2300-C0	USB to RS485 serial port converter with RJ-45 connector
VA13-0000-2200-C0	USB to RS422 serial port converter with RJ-45 connector
VA13-0000-2100-C0	USB to RS232 serial port converter with RJ45 connector



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