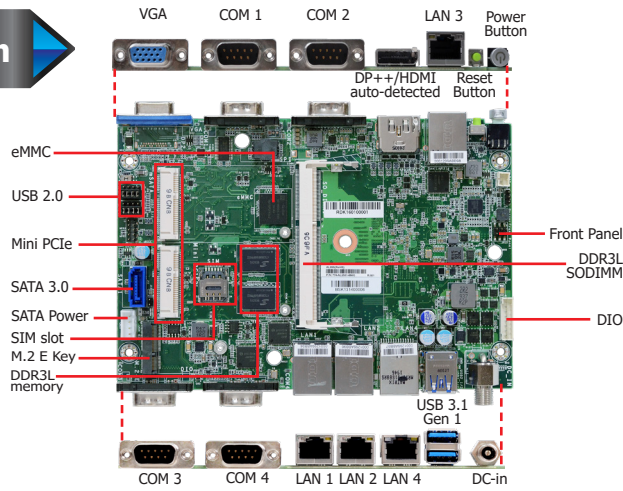
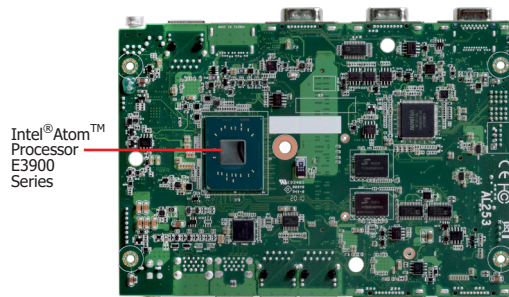


AL253

Atom



Top View



Bottom View

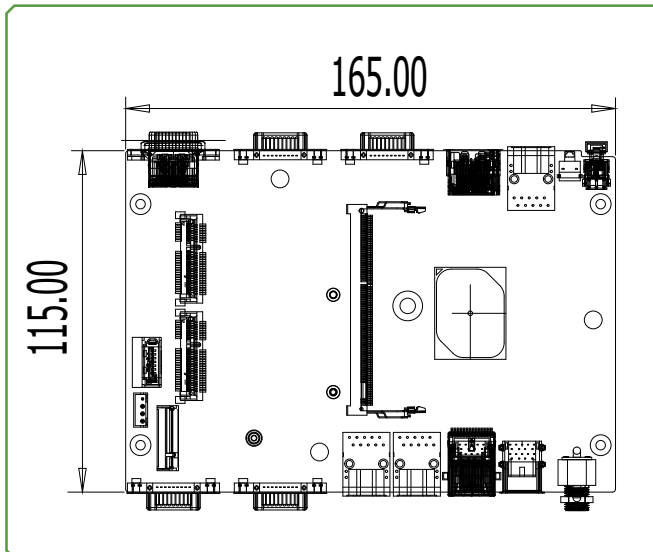
Features

- Memory up to 8GB: Single channel DDR3L SODIMM + 2G/4G/8G DDR3L memory on board
- Two independent displays: DP/HDMI (auto-detection) + VGA/DP
- DP resolution up to 4096x2160 @ 60Hz
- Multiple OS support: Win 7/Win 10/Linux
- Rich I/O: max. 4 Intel GbE, 5 COM, 4 USB 3.0, 2 USB 2.0

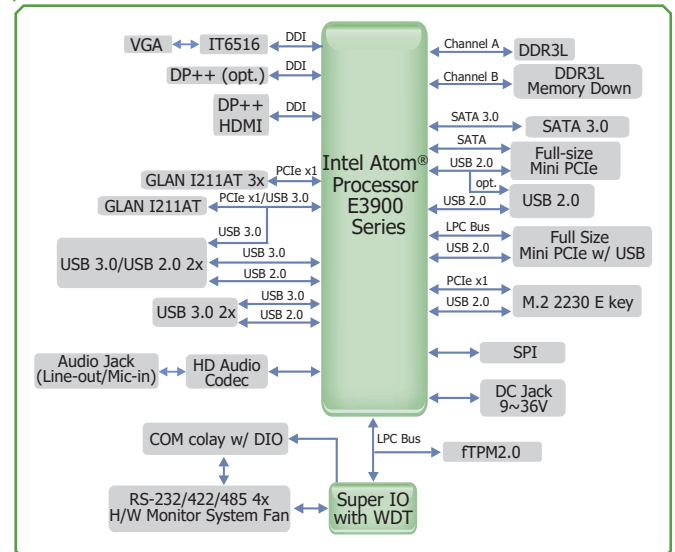
* Populated by default



Mechanical Drawing



Block Diagram



Specifications

SYSTEM	Processor	Intel Atom® Processor E3900 Series, BGA 1296 Intel Atom® x7-E3950 Processor, Quad Core, 2M Cache, 1.6GHz (2.0GHz), 12W Intel Atom® x5-E3940 Processor, Quad Core, 2M Cache, 1.6GHz (1.8GHz), 9.5W Intel Atom® x5-E3930 Processor, Dual Core, 2M Cache, 1.3GHz (1.8GHz), 6W Intel® Pentium® Processor N4200E, Quad Core, 2M Cache, 1.1GHz (2.5GHz), 6W	
	Memory	Single Channel DDR3L SODIMM 2G/4G/8G DDR3L memory on board	Total memory up to 8GB
	BIOS	AMI SPI 128Mbit (support UEFI/legacy mode)	
GRAPHICS	Controller	Intel® HD Graphics	
	Feature	OpenGL 4.2, Direct X 11.1, OpenCL 1.2, OGL ES 3.0 HW Decode: H.264, MPEG2, VC1, VP8, H.265, MPEG4 HW Encode: H.264, MPEG2, MPEG4	
	Display	1 x DP/HDMI (auto-detection) 1 x VGA/DP	DP: resolution up to 4096x2160 @ 60Hz HDMI: resolution up to 3840x2160 @ 30Hz VGA: resolution up to 1920x1200 @ 60Hz
	Dual Displays	DP++/HDMI + VGA/DP	
STORAGE	eMMC	1 x 8G/16G/32G/64G (opt.)	
EXPANSION	Interface	1 x Full-size mSATA (SATA/LPC, USB is available by BOM option) 1 x Full-size Mini PCIe (USB2.0/reset/nano-SIM, PCIe is available for config. with 4 LAN) 1 x M.2 (2230 E Key) (PCIe/USB2.0)	
ETHERNET	Controller	4 x Intel® I211AT PCIe, co-lay with I210IT (10/100/1000Mbps)	
REAR I/O	Ethernet	up to 4 x GbE (RJ-45) (1 x GbE colay 2 x USB 3.0)	
	Serial	4 x RS-232/422/485 (1 x RS-232/422/485 colay 1 x 8-bit DIO by jumper setting)	
	USB	up to 4 x USB 3.0 (2 x USB 3.0 colay 1 x GbE)	Support up to USB 3.0 Super Speed
	Display	1 x DP++/HDMI (auto-detection) 1 x VGA/DP	
INTERNAL I/O	USB	2 x USB 2.0 (2.0mm pitch)	
	SATA	1 x SATA 3.0 (up to 6Gb/s, support SSD only)	1 x SATA Power
	DIO	1 x 8-bit DIO	
	Other I/O	1 x Front Panel	
WATCHDOG TIMER	Output & Interval	System Reset, Programmable via Software from 1 to 255 Seconds	
SECURITY	TPM	fTPM2.0	
POWER	Type	9~36V DC input	
	Connector	DC Jack	
	Consumption	TBD	
	RTC Battery	CR2032 Coin Cell, link main board with cable	
OS SUPPORT	Microsoft/Linux	Windows 10 IoT Enterprise 64-bit Windows 7 (/WES7) 32/64-bit (project support only)	Linux
ENVIRONMENT	Temperature	Operating: -20 to 60°C/-40 to 70°C (E3930 only)	Storage: -40 to 85°C
	Humidity	Operating: 5 to 90% RH	Storage: 5 to 90% RH
	MTBF	TBD	
MECHANICAL	Dimensions	4" SBC Form Factor	165mm (6.49") x 115mm (4.53")
	Height	PCB: 1.6mm	Top Side: TBD, Bottom Side: TBD