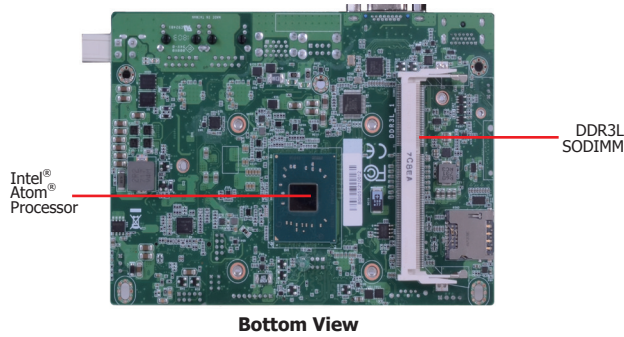
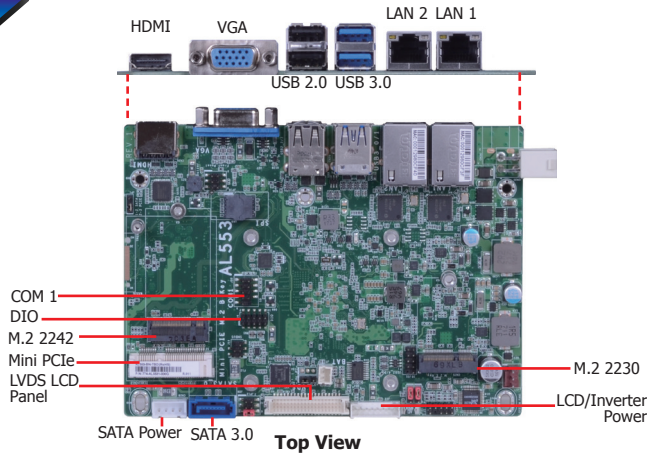


AL553

Atom

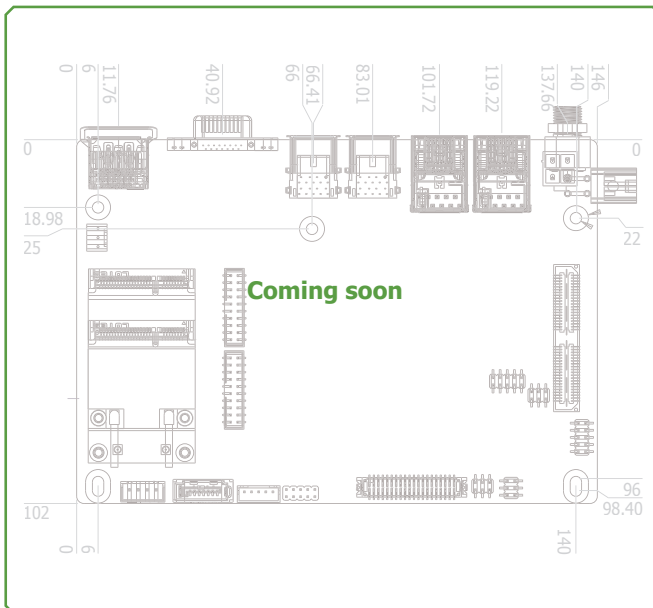


Features

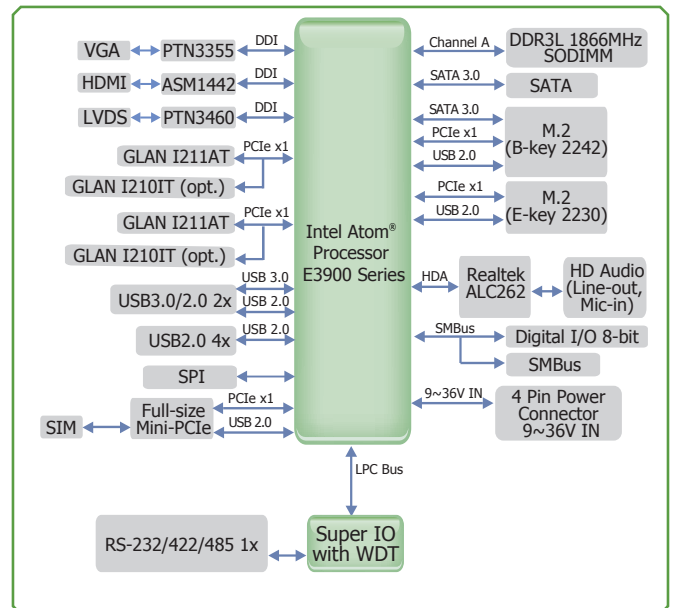
- 1 DDR3L SODIMM up to 8GB
- Three independent displays: VGA + LVDS + HDMI
- HDMI resolution up to 3840x2160 @ 30Hz
VGA resolution up to 1920x1200 @ 60Hz
LVDS resolution up to 1920x1200 @ 60Hz
- Multiple expansion: 1 M.2 B Key, 1 M.2 E Key, Mini PCIe
- Rich I/O: 2 Intel GbE, 1 COM, 2 USB 3.0, 4 USB 2.0



Mechanical Drawing



Block Diagram



Specifications

SYSTEM	Processor	Intel Atom® Processor E3900 Family, 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), 6.5W Intel Pentium® Processor N4200, Quad Core, 2M Cache, 1.1GHz (2.5GHz), 6W Intel® Celeron® Processor N3350, Dual Core, 2M Cache, 1.1GHz (2.4GHz), 6W
	Memory	One 204-pin SODIMM up to 8GB Single Channel DDR3L 1866MHz
	BIOS	Insyde SPI 128Mbit (supports UEFI boot only)
	GRAPHICS	Controller
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 VGA 1 x LVDS 1 x HDMI VGA: resolution up to 1920x1200 @ 60Hz LVDS: dual channel 24-bit, resolution up to 1920x1200 @ 60Hz HDMI: resolution up to 3840x2160 @ 30Hz
	Triple Displays	VGA + LVDS + HDMI
	EXPANSION	Interface
AUDIO	Audio Codec	Realtek ALC262
ETHERNET	Controller	2 x Intel® I211AT PCIe (10/100/1000Mbps) 2 x Intel® I210IT PCIe (10/100/1000Mbps) (available upon request)
REAR I/O	Ethernet	2 x GbE (RJ-45)
	USB	2 x USB 3.0 2 x USB 2.0
	Display	1 x VGA 1 x HDMI 1 x LVDS
INTERNAL I/O	Serial	1 x RS-232/422/485 (2.0mm pitch)
	USB	2 x USB 2.0 (2.0mm pitch)
	Display	1 x LVDS LCD Panel Connector 1 x LCD/Inverter Power
	Audio	1 x Audio (Line-out/Mic-in)
	SATA	1 x SATA 3.0 (up to 6Gb/s) 1 x SATA Power
	DIO	1 x 8-bit DIO
	SMBus	1 x SMBus
WATCHDOG TIMER	Output & Interval	System Reset, Programmable via Software from 1 to 255 Seconds
SECURITY	TPM 2.0	fTPM2.0
POWER	Type	Wide Range 9~36V DC
	Connector	Right Angle Connector (4-pin) DC-in Jack (available upon request) Vertical Type Connector (4-pin) (available upon request)
	Consumption	TBD
	RTC Battery	CR2032 Coin Cell
OS SUPPORT (UEFI Only)		Windows 10 IoT Enterprise (64-bit) Ubuntu 16.04
ENVIRONMENT	Temperature	Operating: 0 to 60°C, -20 to 70°C, -40 to 85 °C Storage: -40 to 85°C
	Humidity	Operating: 5 to 90% RH Storage: 5 to 90% RH
	MTBF	TBD
MECHANICAL	Dimensions	3.5" SBC Form Factor 146mm (5.75") x 102mm (4.02")
	Height	PCB: TBD Top Side: TBD, Bottom Side: TBD
CERTIFICATIONS		TBD

Ordering Information

Model Name	P/N	Processor	Memory	Display	RS-232/422/485	GbE	USB 3.0	USB 2.0	Power	Thermal	Temp.
AL553-BN-E3950	TBD	x7-E3950	1 SODIMM	VGA + LVDS + HDMI	1	2	2	4	9-36V DC	Fanless	0 to 60°C
AL553-BN-E3940	TBD	x5-E3940	1 SODIMM	VGA + LVDS + HDMI	1	2	2	4	9-36V DC	Fanless	0 to 60°C
AL553-BN-E3930	TBD	x5-E3930	1 SODIMM	VGA + LVDS + HDMI	1	2	2	4	9-36V DC	Fanless	0 to 60°C
AL553-BN-N4200	TBD	N4200	1 SODIMM	VGA + LVDS + HDMI	1	2	2	4	9-36V DC	Fanless	0 to 60°C
AL553-BN-N3350	TBD	N3350	1 SODIMM	VGA + LVDS + HDMI	1	2	2	4	9-36V DC	Fanless	0 to 60°C
AL553-EN-E3950	TBD	x7-E3950	1 SODIMM	VGA + LVDS + HDMI	1	2	2	4	9-36V DC	Fanless	-20 to 70°C
AL553-TN-E3950	TBD	x7-E3950	1 SODIMM	VGA + LVDS + HDMI	1	2	2	4	9-36V DC	Fanless	-40 to 85°C

Packing List

• 1 AL553 board	
• 1 COM port cable (Length: 300mm, 2 x COM ports)	TBD
• 1 Serial ATA data cable (Length: 500mm)	TBD
• 1 Serial ATA power cable (Length: 250mm)	TBD
• 1 Heat sink (Height: TBD)	TBD

Optional Items

• USB port cable (Length: 200mm)	TBD
• COM port cable (Length: 300mm, 2 x COM ports)	TBD
• Power adapter (60W, 12V, DC Jack)	TBD
• Heat spreader (Height: 8mm)	TBD
• Audio cable (Length: 160mm)	TBD