

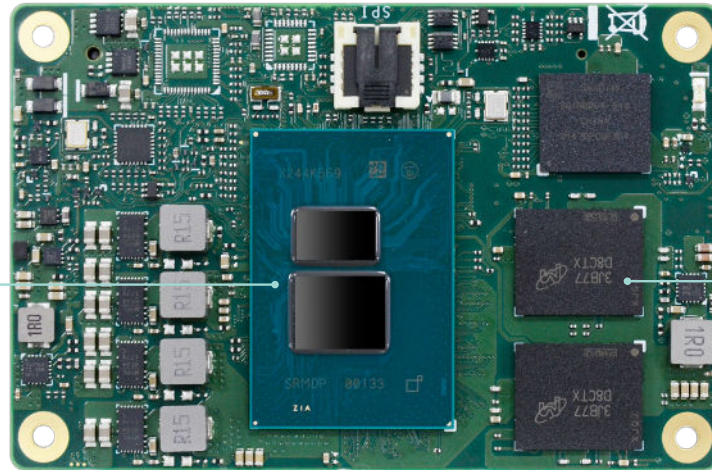
ASL9A2



Intel® Atom® Processor Amston Lake Series
COM Express® Mini

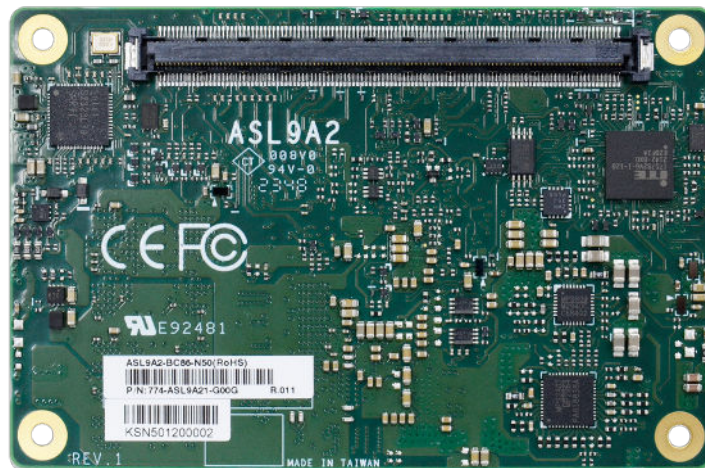


Intel® Atom® Processor



LPDDR5

Top View



Bottom View

KEY FEATURES



DDR5

LPDDR5-4800 up to 16GB



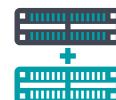
4K High Resolution

Supports 4K/ 2K resolution



High Speed Ethernet

Supports 100M/1000M/2.5Gbps



Multiple Expansion

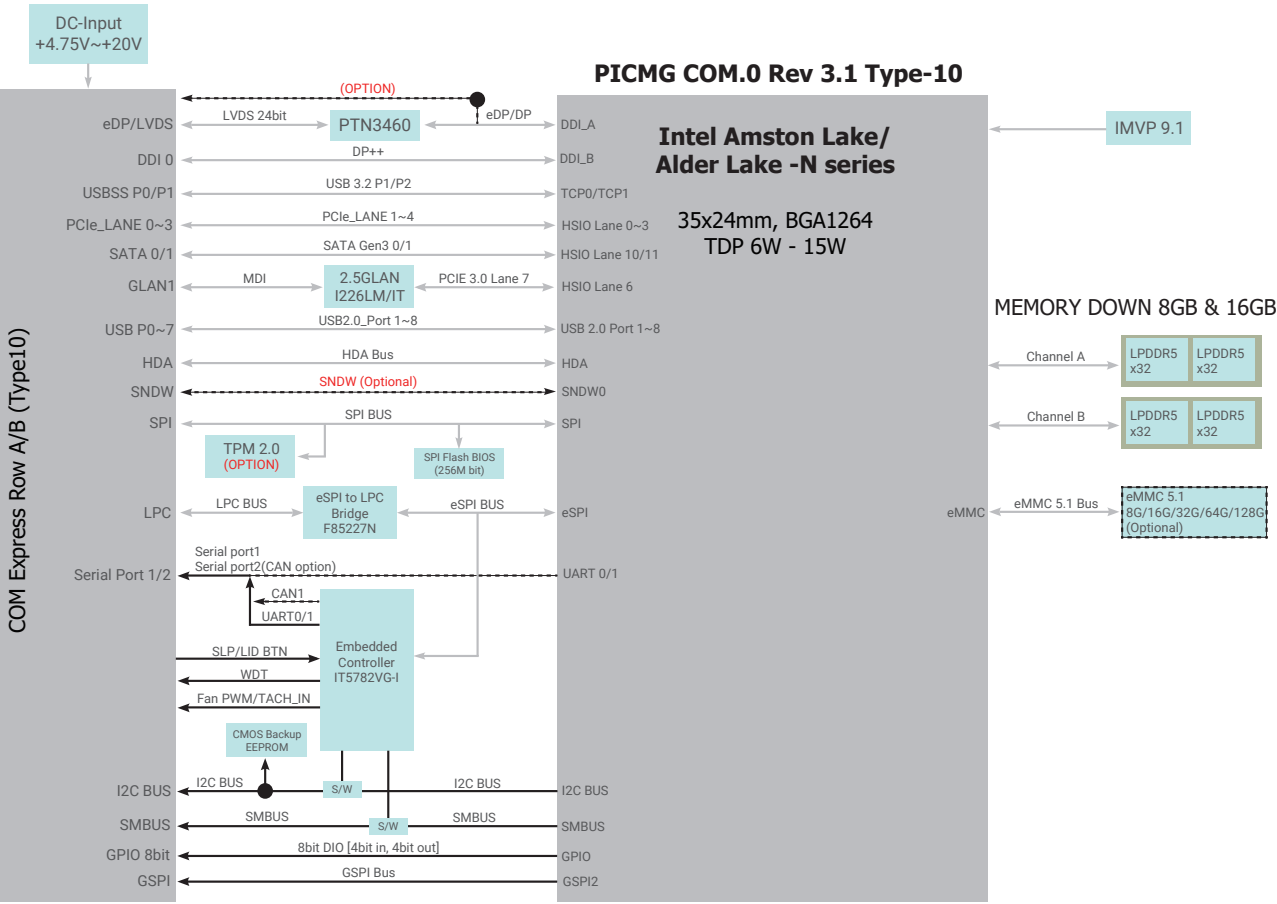
4 PCIe x1, 1 SMBus, 1 I²C, 1 eMMC



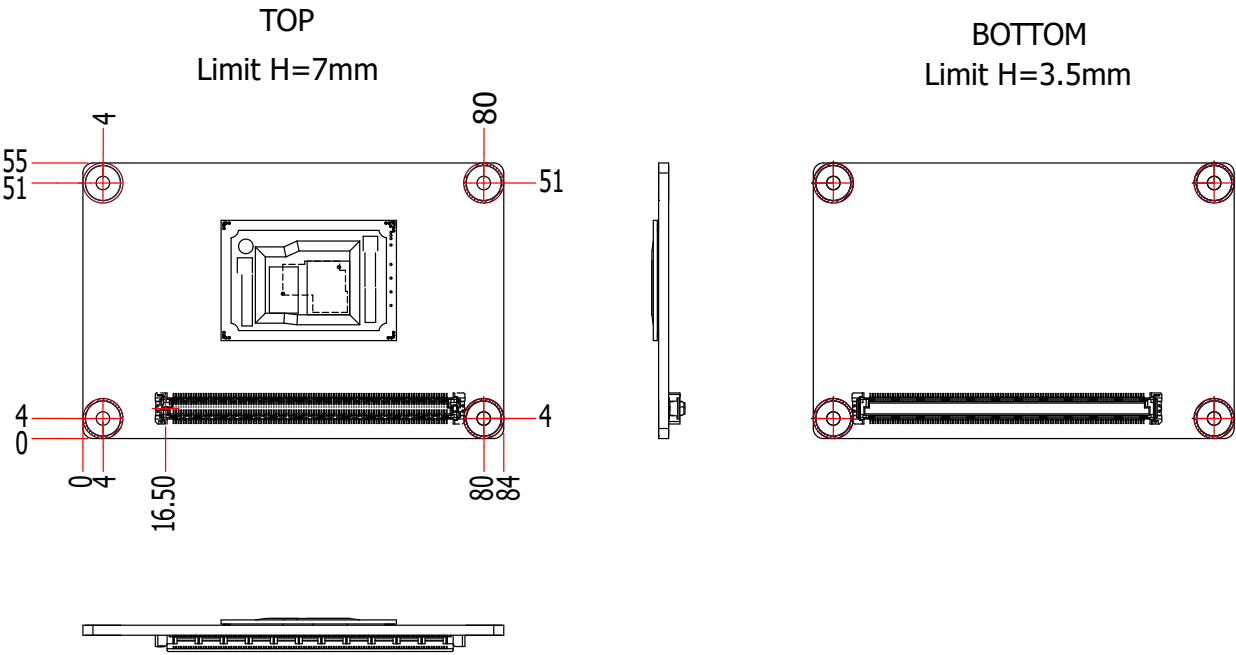
Rich I/O

2 USB 3.2, 8 USB 2.0

BLOCK DIAGRAM



MECHANICAL DRAWING



SPECIFICATION

SYSTEM	Processor	Intel® Atom x7000RE series processors (Code Name : Amston Lake) Intel® Atom Processor x7835RE, 8 Cores, 1.3~3.6GHz, 12W Intel® Atom Processor x7433RE, 4 Cores, 1.5~3.4GHz, 9W Intel® Atom Processor x7213RE, 2 Cores, 2.0~3.4GHz, 9W Intel® Atom Processor x7211RE, 2 Cores, 1.0~3.2GHz, 6W Intel® Atom x7000E / Core-i / Pentium / Celeron series processors (Code Name : Alder Lake-N) Intel® Atom Processor x7425E, 4 Cores, 1.5~3.4GHz, 12W Intel® Atom Processor x7213E, 2 Cores, 1.7~3.2GHz, 10W Intel® Atom Processor x7211E, 2 Cores, 1.0~3.2GHz, 6W Intel® Processor Core i3-N305, 8 Cores, 1.0/1.8~3.8GHz, 9/15W Intel® Processor N200, 4 Cores, 1.0~3.7GHz, 6W Intel® Processor N97, 4 Cores, 2.0~3.6GHz, 12W Intel® Processor N50, 2 Cores, 1.0~3.4GHz, 6W	
	Memory	LPDDR5 up to 16GB Dual Channel LPDDR5 4800MHz 8GB/16GB supported by project basis. In-band ECC (IB ECC) Supported by all CPU SKUs	
	BIOS	AMI SPI 256Mbit	
GRAPHICS	Controller	Intel® UHD	
	Feature	Open GL 4.6, DirectX 12.1 Vulkan 1.2 (Windows) Mesa 3D, Open GL 4.6, Vulkan 1.2 (Linux) HW Decode: 4K60 10b 4:2:0, 4:4:4 HEVC/VP9/SCC, 4K60 10b 4:2:0 AV1 HW Encode: 4K60 10b 4:2:0, 4:4:4 HEVC/VP9/SCC	
	Display	1 x DDI 1 x LVDS/eDP LVDS: single channel 24-bit, resolution up to 1920x1200 @ 60Hz eDP: resolution up to 4096x2160 @ 60Hz HDMI: resolution up to 4096x2160 @ 30Hz DP++: resolution up to 4096x2160 @ 60Hz, 3840x2160 @60Hz	
	Dual Displays	DDI + LVDS/eDP	
EXPANSION	Interface	4 x PCIe x1 (Gen 3) 1 x I2C 1 x SMBus 1 x LPC 1 x SNDW (available upon request) 1 x GSPI 2 x UART (TX/RX)	
AUDIO	Interface	HD Audio	
ETHERNET	Controller	1 x Intel® I226-IT / I226-LM (10/100/1000Mbps/2.5Gbps)	
I/O	USB	2 x USB 3.2 Gen2 8 x USB 2.0	
	SATA	2 x SATA 3.0 (up to 6Gb/s)	
	eMMC	1 x 8GB/16GB/32GB/64GB/128GB eMMC 5.1 (available upon request)	
	DIO	1 x 8-bit DIO	
WATCHDOG TIMER	Output & Interval	System Reset, Programmable via Software from 1 to 255 Seconds	
SECURITY	TPM	dTPM or fTPM (Optional)	
POWER	Type	4.75V~20V, 5VSB, VCC_RTC (ATX mode) 4.75V~20V, VCC_RTC (AT mode)	
	Consumption	TBD	
OS SUPPORT	OS Support (UEFI Only)	Windows: Windows 10 IoT Enterprise 64-bit Linux	
ENVIRONMENT	Temperature	Operating: -5 to 65°C, -40 to 85°C Storage: -40 to 85°C	
	Humidity	Operating: 5 to 90% RH Storage: 5 to 90% RH	
	MTBF	TBD	
MECHANISM	Dimensions	COM Express® Mini	84mm (3.3") x 55mm (2.16")
	Compliance	PICMG COM Express® R3.1, Type 10	
STANDARDS AND CERTIFICATIONS	Certifications	CE, FCC	

PACKING LIST

Heat Sink	TBD
Heat Sink	TBD
Cooler	TBD

OPTIONAL ITEMS

Heat Spreader	TBD
Heat Spreader	TBD
COM335 Carrier Board Kit	770-CM3351-000G