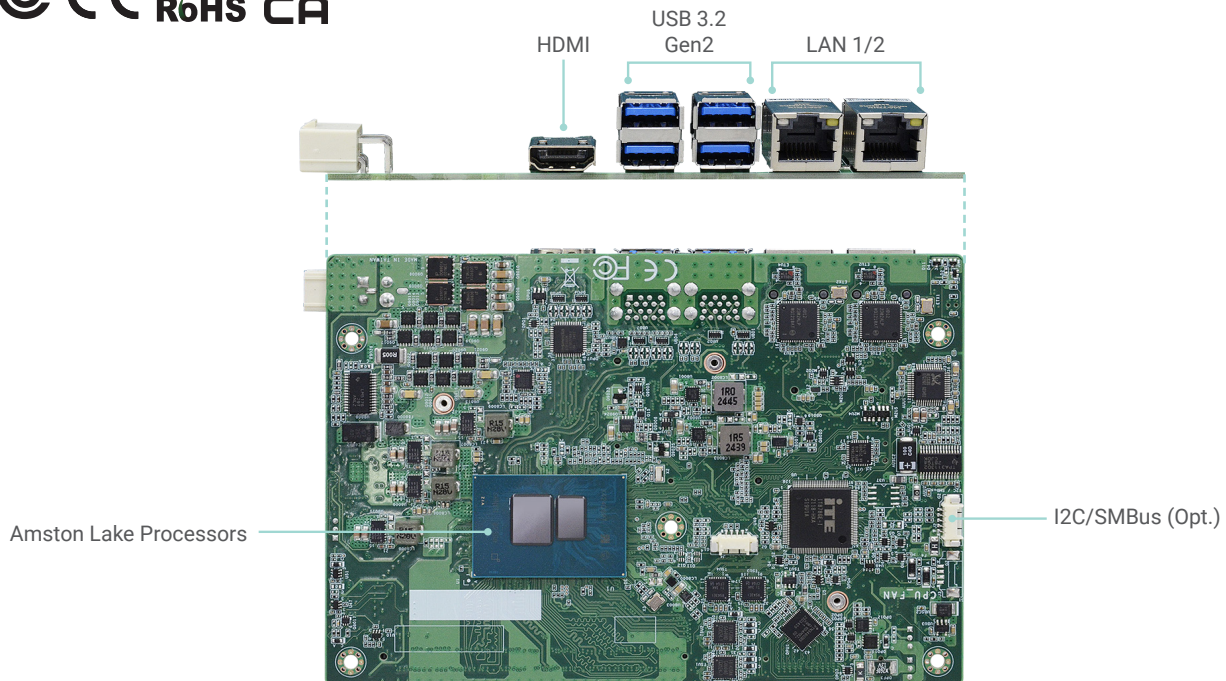


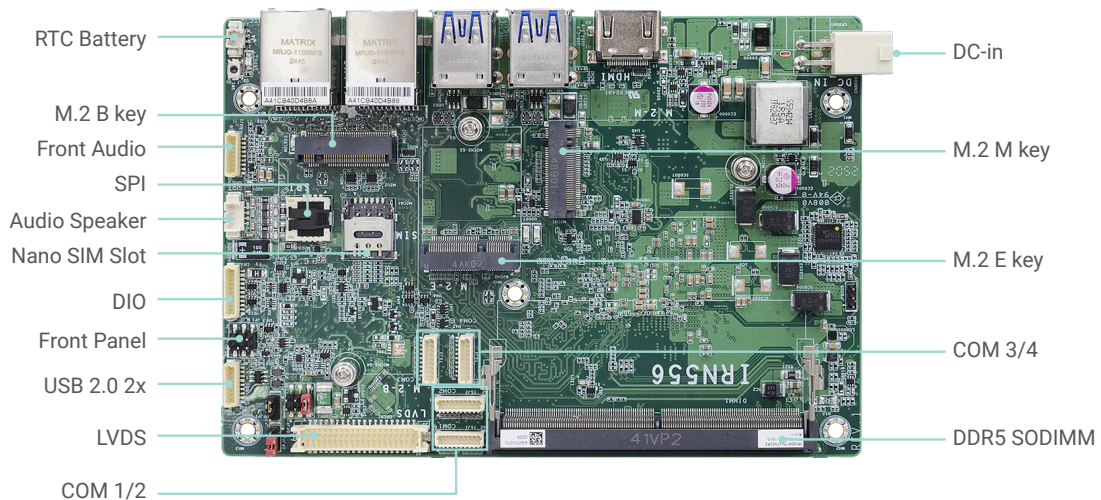
IRN556

Atom

Intel® Atom® Amston Lake Processors
3.5" SBC



Bottom View



Top View

KEY FEATURES



DDR5

1 DDR5 SO-DIMM



4K High Resolution

Supports 4K/ 2K resolution



Dual Display

1 HDMI, 1 LVDS



Rich I/O Connectivity

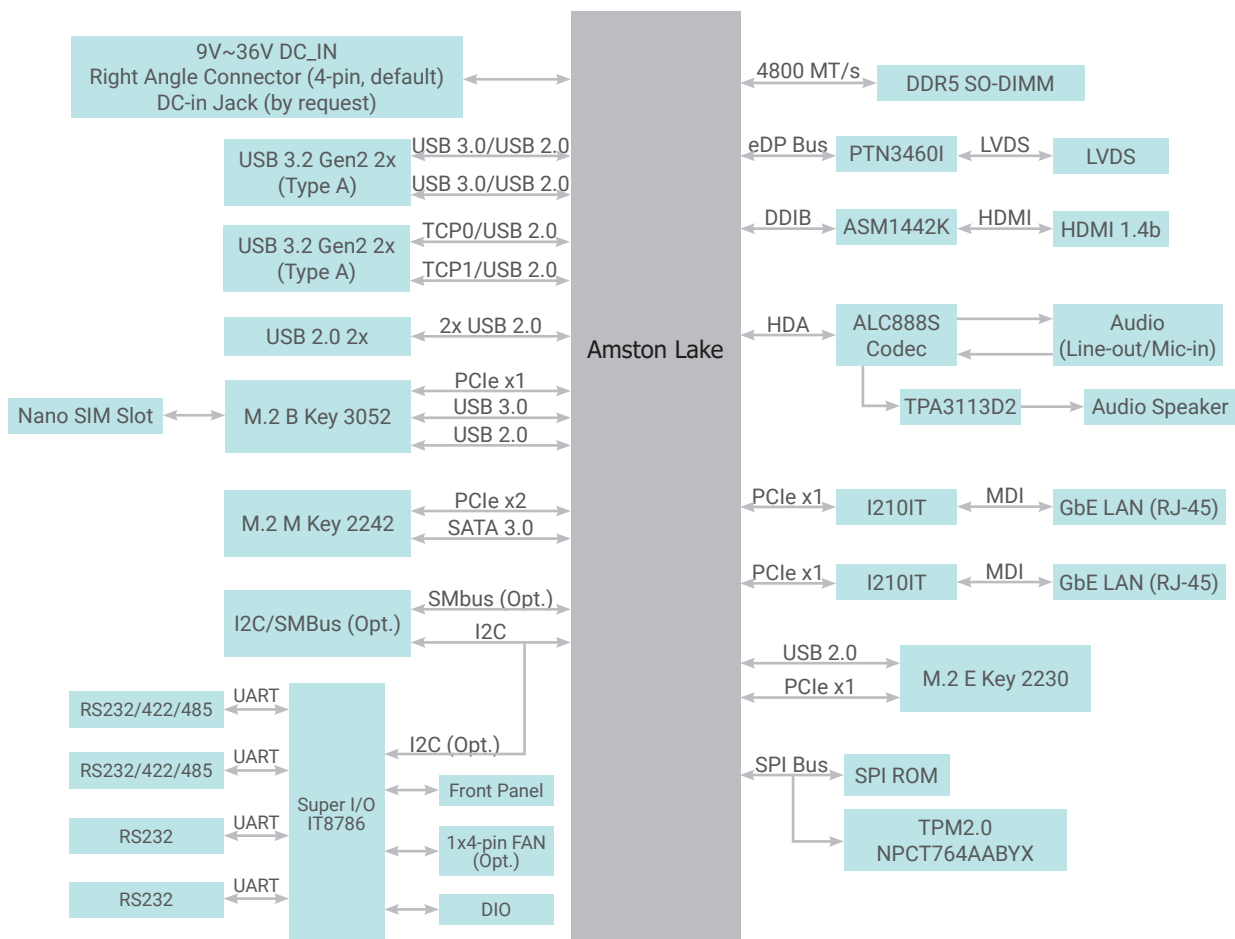
2 GbE LAN, 4 USB 3.2, 2 USB 2.0



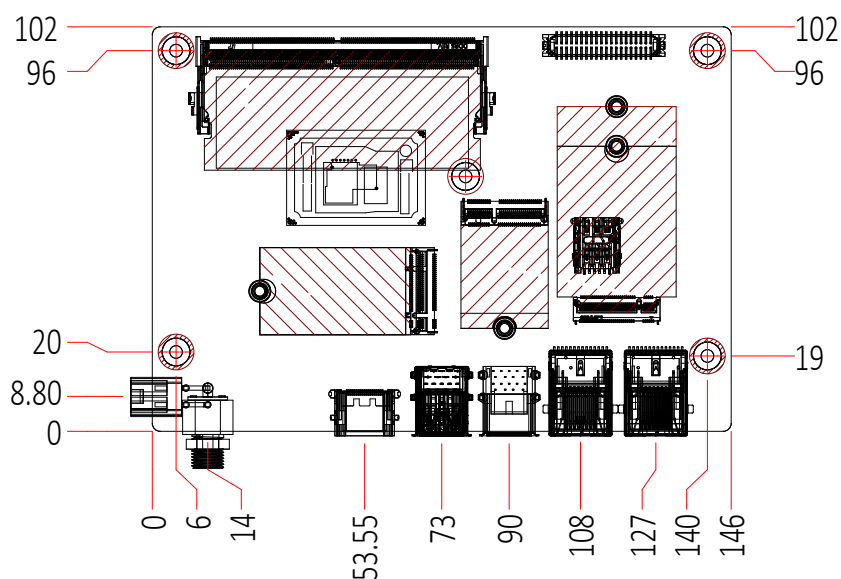
Multiple Expansion

1 M.2 M Key,
1 M.2 B Key,
1 M.2 E Key

BLOCK DIAGRAM



MECHANICAL DRAWING



SPECIFICATION

SYSTEM	Processor	Intel® Atom x7000RE series processors (Code Name: Amston Lake) Intel® Atom Processor x7211RE, 2 Cores, 1.0~3.2 GHz, 6 W Intel® Atom Processor x7433RE, 4 Cores, 1.5~3.4 GHz, 9 W Intel® Atom Processor x7835RE, 8 Cores, 1.3~3.6 GHz, 12 W Intel® Atom N series processors (Code Name: Twin Lake) Intel® Atom Processor N150, 4 Cores, 1.0~3.6 GHz, 6W (Coming Soon) Intel® Atom Processor i3-N355, 8 Cores, 1.8~3.9 GHz, 15W (Coming Soon)	
	Memory	One 262-pin SODIMM up to 16GB Single Channel DDR5 4800MHz	
	BIOS	AMI SPI 256Mbit	
GRAPHICS	Controller	Intel® UHD Graphics	
	Feature	OpenGL 4.6, Direct X 12.1, OpenCL 3.0 HW Decode: HEVC, VP9, AV1, AVC HW Encode: HEVC, VP9, AVC	
	Display	1 x HDMI 1 x LVDS	HDMI: resolution up to 4096x2160 @ 24Hz LVDS: dual channel 24-bit, resolution up to 1920x1200 @ 60Hz
	Dual Display	HDMI + LVDS	
EXPENSION	Interface	1 x M.2 M key 2242 (PCIe Gen3 x2/SATA3.0) 1 x M.2 B key 3052 (PCIe x1/USB3.0/USB2.0) 1 x nano SIM slot 1 x M.2 E key 2230 (USB2.0/PCIe x1)	
AUDIO	Audio Codec	Realtek ALC888S	
ETHERNET	Controller	2 x Intel® i210IT(10/100/1000Mbps)	
REAR I/O	Ethernet	2 x GbE (RJ-45)	
	USB	4 x USB 3.2	
	Display	1 x HDMI	
INTERNAL I/O	Serial	2 x RS-232/422/485 (1.0mm pitch) 2 x RS-232 (1.0mm pitch)	
	USB	2 x USB 2.0 (1.0mm pitch)	
	Display	1 x LVDS LCD Panel Connector	
	Audio	1 x Audio (Line-out/Mic-in) 1 x Speaker out (5W/8ohm)	
	DIO	1 x 8-bit DIO	
WATCHDOG TIMER	Output & Interval	System Reset, Programmable via Software from 1 to 255 Seconds	
SECURITY	TPM	dTPM2.0	
POWER	Type	9~36V DC	
	Connector	Right Angle Connector (4-pin) DC-in Jack (available upon request)	
	RTC Battery	CR2032 Coin Cell	
OS SUPPORT	OS Support (UEFI Only)	Windows 11 & 10 IoT Enterprise (64-bit) Linux	
ENVIRONMENT	Temperature	Operating: -40°C ~ 85°C Storage: -40°C ~ 85°C	
	Humidity	Operating: 5% ~ 90% RH Storage: 5% ~ 90% RH	
	MTBF	TBD	
MECHANISM	Dimensions	3.5" SBC Form Factor 146mm (5.75") x 102mm (4.02")	
	Height	PCB: 1.6mm	
STANDARDS AND CERTIFICATIONS	Certifications	CE, FCC, RoHS, UKCA	