

AmITX-RL-WV

Wide-voltage Mini-ITX supporting Intel® Core™ Series 2 (Bartlett Lake-S) and 14/13/12th Gen Core™ Processors with H610 chipset

Features

- Intel® Core™ Processor Series 2 and 14/13/12th Gen Core™ i9/i7/i5/i3 Processors and H610 chipset, up to 65W
- 2x DDR5 4800/DDR4 3200 MHz SO-DIMM memory, up to 64GB (optional)
- Triple independent display: HDMI 2.0b, DP 1.4a, LVDS, eDP1.4b
- Dual LAN ports
- Expansion slots: 1x PCIe x16 slot, 2x USB 3.2 Gen2, 1x USB 3.2 Gen1, 5x USB 2.0, 1x M.2 B-key, 1x M.2 E-key, 1x M.2 M-key
- Support 12 to 28V DC-In power input

Ordering Information

PN	Model Name	Chipset	Memory	PCIe x16	DP	HDMI	LVDS	eDP	LAN	COM	SATA	M.2	USB2.0	USB3.2 (Gen1)	USB3.2 (Gen2)	RAID
95-16008-1000	AmITX-RL-WV	H610	Non-ECC DDR4 3200 MHz	1	2	1	1	1	2	4	2	3	5	1	2	No
95-16008-1010	AmITX-RL-WV-DDR5	H610	Non-ECC DDR5 4800 MHz	1	2	1	1	1	2	4	2	3	5	1	2	No

Packing Lists

PN	Description	QTY
95-16008-1000	AmITX-RL-WV	1
N/A	M.2 screws kits	1
N/A	I/O shield	1
95-16008-1010	AmITX-RL-WV-DDR5	1
N/A	M.2 screws kits	1
N/A	I/O shield	1

Optional Accessories

PN	Description
30-21625-0000-B0	USB 2.0 Cable (2 ports)
30-21597-1000-A0	USB2.0/3.0 Cable (2 ports)
30-10057-7000	SATA Cable
30-22156-0000-A0	SATA Power Cable
30-22155-0000-A0	COM Port Cable (1 port)
32-21100-0000-A0	CPU 1U cooler for 65W CPU

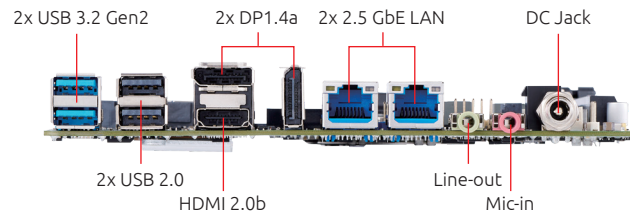
Embedded OS

PN	Description
92-56094-0010	Windows 10 IoT Ent LTSC 2021 High End PKEA
92-56094-2010	Windows 10 IoT Ent LTSC 2021 Value PKEA
92-56094-4010	Windows 10 IoT Ent LTSC 2021 Entry PKEA
92-56102-0010	Windows 11 IoT Ent LTSC 2024 High End PKEA
92-56102-2010	Windows 11 IoT Ent LTSC 2024 Value PKEA
92-56102-4010	Windows 11 IoT Ent LTSC 2024 Entry PKEA

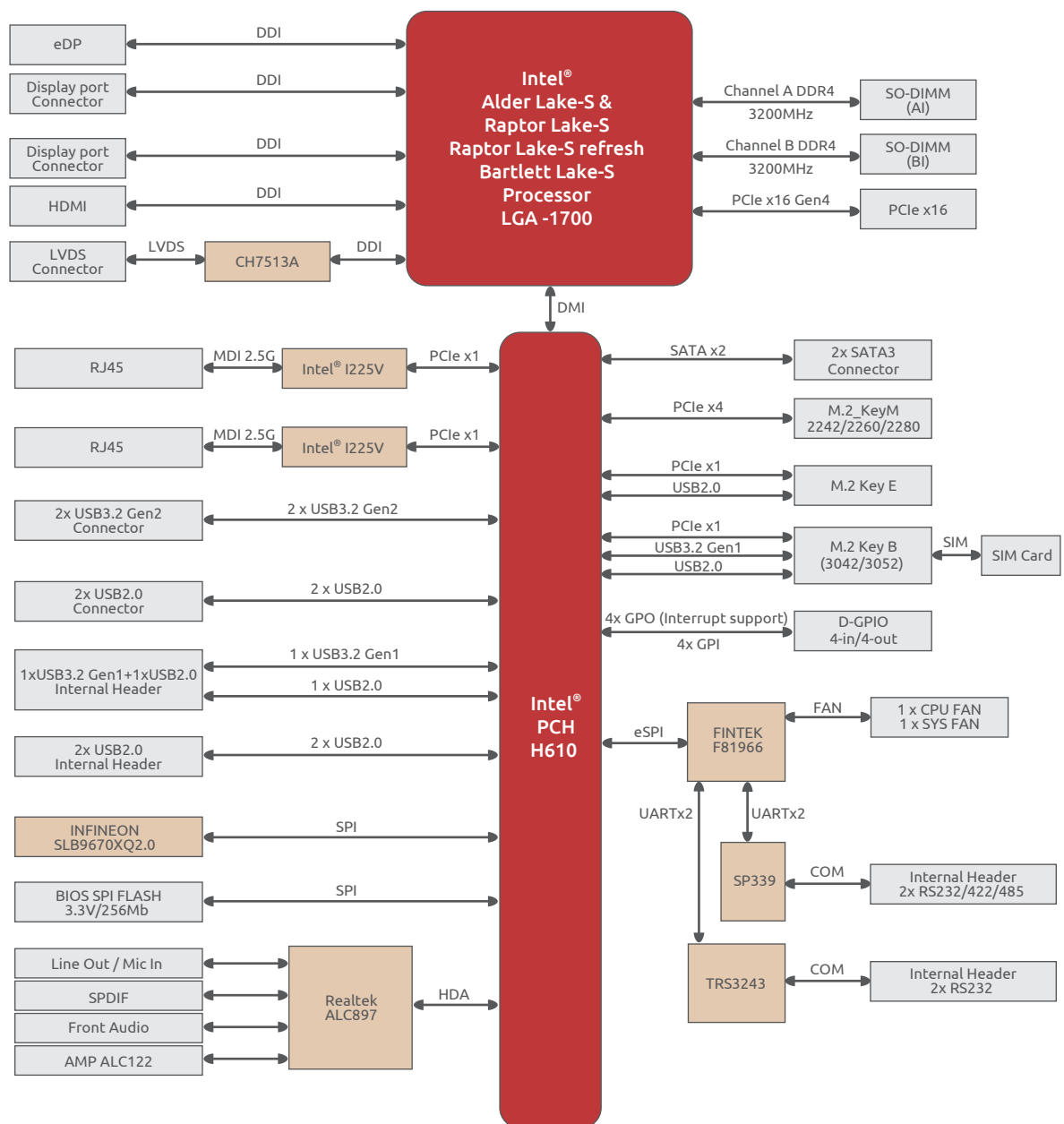
Specifications

Model	AmITX-RL-WV		AmITX-RL-WV-DDR5	
Processor System				
CPU	Intel® Core™ Series 2 (Bartlett Lake-S) and 14/13/12th Gen Core™ Processors, up to 65W			
Socket	LGA 1700			
Chipset	H610			
Memory	2x DDR4 SO-DIMMs 3200 MHz, up to 64GB, non-ECC		2x DDR5 SO-DIMMs 4800 MHz, up to 64GB, non-ECC	
OS Support	Windows® 10/11 64-bit			
Display				
HDMI	1x HDMI 2.0b			
DisplayPort	2x DP 1.4a			
LVDS	1			
eDP	1			
No. of Displays	3			
Ethernet				
GbE Port	2		2	
Controller/Frequency	2.5 GbE (i225V)		1x 1GbE (i219V) 1x 2.5GbE (i226V)	
Storage				
SATA	2		2	
RAID	-		-	
I/O Interfaces				
USB	2x USB 3.2 Gen2, 2x USB 2.0 (rear I/O) 1x USB 3.2 Gen1, 3x USB 2.0 (via headers)			
COM	2x RS-232/422/485 (via headers) 2x RS-232 (via headers)		2x RS-232/422/485 (via headers)	
Audio	Realtek® ALC897; 1x Mic-in, 1x Line-out			
GPIO	8-bit			
TPM	TPM 2.0 onboard IC			
Expansion Slots				
PCIe	1x PCIe 4.0 x16		1x PCIe 5.0 x16	
M.2	1x M.2 2242/2280 M Key (PCIe Gen3 x4) 1x M.2 2230 E Key (PCIe x1, USB 2.0, CNVi) 1x M.2 3042/3052 B Key (PCIe x1, USB 3.2 Gen1, USB 2.0) 1x SIM socket (connected to M.2 B Key)			
Mechanical and Environmental				
Dimension	170 x 170mm (W x L)			
Operating Temperature	0°C to 60°C			
Storage Temperature	-40°C to 85°C			
Relative Humidity	Operating: 45°C @ 95%R.H., non-condensingStorage: 55°C @ 95%R.H., non-condensing			
Power Supply				
	12 to 28V DC-In with DC Jack (Screw type) or ATX 4pin connector		12 to 28V DC-In with ATX 4pin connector	
Certification				
	CE & FCC Class B			

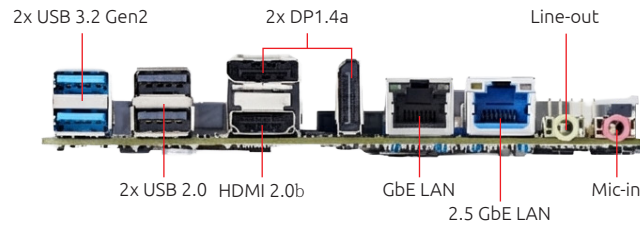
Product Illustration: AMITX-RL-WV



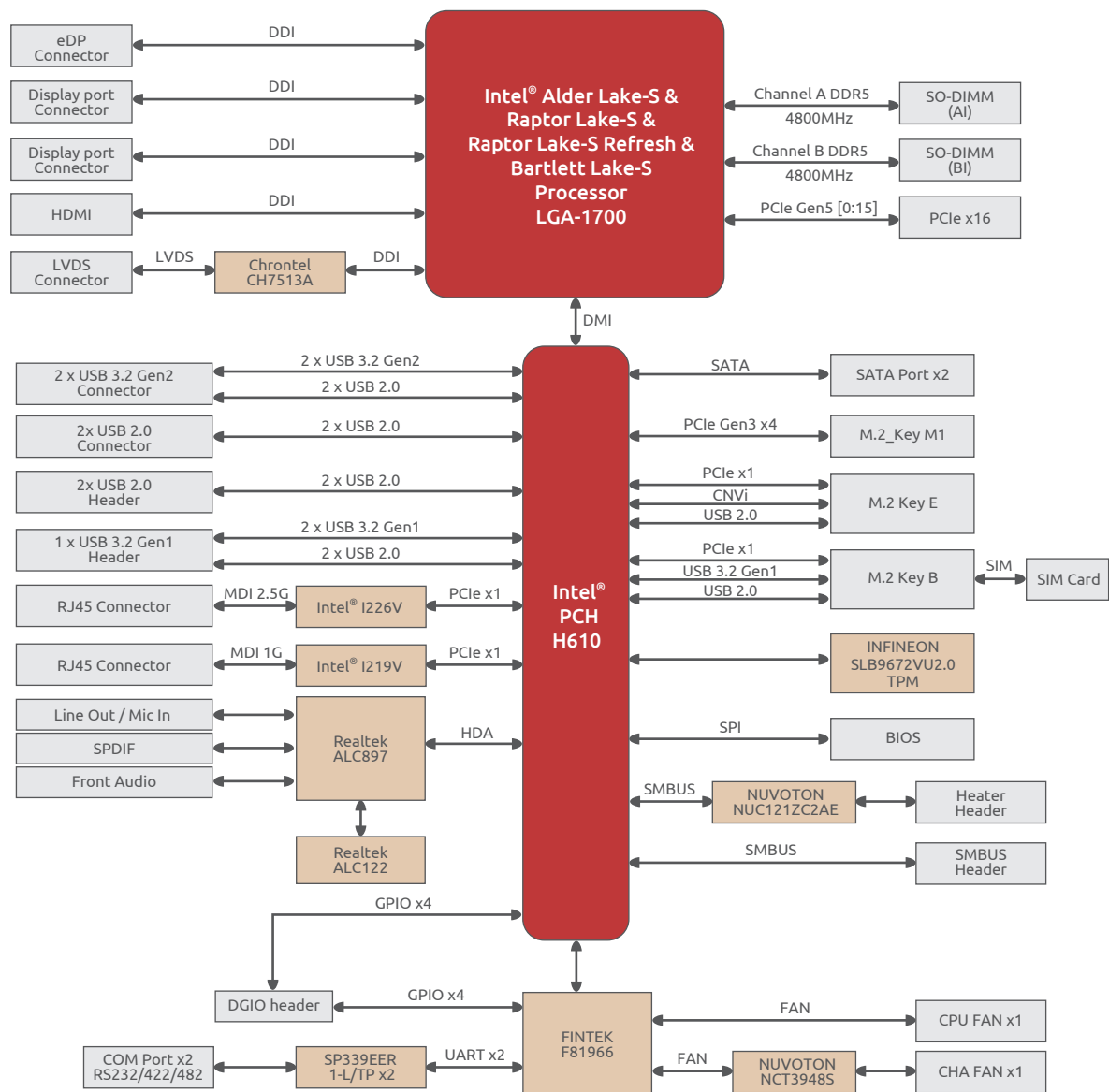
Block Diagram: AMITX-RL-WV



Product Illustration: AmITX-RL-WV-DDR5



Block Diagram: AmITX-RL-WV-DDR5



CPU Support List

Family	Number	CPU Core	Frequency	Cache	Processor Base Power	Since BIOS
Bartlett Lake-S	273PE	12	2.3GHz	36MB	65	2.01.10
Bartlett Lake-S	273PTE	12	1.4GHz	36MB	45	2.01.10
Bartlett Lake-S	253PE	10	2.5GHz	33MB	65	2.01.10
Bartlett Lake-S	253PTE	10	1.8GHz	33MB	45	2.01.10
Bartlett Lake-S	223PE	8	2.9GHz	24MB	65	2.01.10
Bartlett Lake-S	223PTE	8	2.3GHz	24MB	45	2.01.10
Bartlett Lake-S	213PE	8	2.7GHz	24MB	65	2.01.10
Bartlett Lake-S	213PTE	8	2.1GHz	24MB	45	2.01.10
Bartlett Lake-S	251E	24	2.1 GHz	36MB	65	2.01.10
Bartlett Lake-S	251TE	24	1.4 GHz	36MB	45	2.01.10
Bartlett Lake-S	221E	14	2.7 GHz	24MB	65	2.01.10
Bartlett Lake-S	221TE	14	1.8 GHz	24MB	45	2.01.10
Bartlett Lake-S	211E	10	2.7 GHz	20MB	65	2.01.10
Bartlett Lake-S	211TE	10	1.7 GHz	20MB	45	2.01.10
Bartlett Lake-S	201E	4	3.6 GHz	12MB	60	2.01.10
Bartlett Lake-S	201TE	4	2.9 GHz	12MB	45	2.01.10
Raptor Lake-S Refresh	i9-14900	24	2.0GHz	36MB	65	1.00.10
Raptor Lake-S Refresh	i9-14900T	24	1.1GHz	36MB	35	1.00.10
Raptor Lake-S Refresh	i7-14700	20	2.1GHz	33MB	65	1.00.10
Raptor Lake-S Refresh	i7-14700T	20	1.3GHz	33MB	35	1.00.10
Raptor Lake-S Refresh	i5-14500	14	2.6GHz	24MB	65	1.00.10
Raptor Lake-S Refresh	i5-14500T	14	1.7GHz	24MB	35	1.00.10
Raptor Lake-S Refresh	i5-14400	10	2.5GHz	20MB	65	1.00.10
Raptor Lake-S Refresh	i3-14100	4	3.5GHz	12MB	60	1.00.10
Raptor Lake-S Refresh	i3-14100T	4	2.7GHz	12MB	35	1.00.10
Raptor Lake-S Refresh	300	2	3.9GHz	6MB	46	1.00.10
Raptor Lake-S Refresh	300T	2	3.4GHz	6MB	35	1.00.10
Raptor Lake-S	i9-13900E	24	1.8GHz	36MB	65	1.00.10
Raptor Lake-S	i9-13900	24	2.0GHz	36MB	65	1.00.10
Raptor Lake-S	i9-13900TE	24	1.0GHz	36MB	35	1.00.10
Raptor Lake-S	i7-13700E	16	1.9GHz	30MB	65	1.00.10
Raptor Lake-S	i7-13700	16	2.1GHz	30MB	65	1.00.10
Raptor Lake-S	i7-13700TE	16	1.1GHz	30MB	35	1.00.10
Raptor Lake-S	i5-13500E	14	2.4GHz	24MB	65	1.00.10
Raptor Lake-S	i5-13500	14	2.5GHz	24MB	65	1.00.10
Raptor Lake-S	i5-13500TE	14	1.3GHz	24MB	35	1.00.10
Raptor Lake-S	i5-13400E	10	2.4GHz	20MB	65	1.00.10
Raptor Lake-S	i5-13400	10	2.5GHz	20MB	65	1.00.10
Raptor Lake-S	i3-13100E	4	3.3GHz	12MB	60	1.00.10
Raptor Lake-S	i3-13100	4	3.4GHz	12MB	60	1.00.10
Raptor Lake-S	i3-13100TE	4	2.4GHz	12MB	35	1.00.10
Alder Lake-S	i9-12900E	16	2.3GHz	30MB	65	1.00.10
Alder Lake-S	i9-12900	16	2.4GHz	30MB	65	1.00.10
Alder Lake-S	i9-12900TE	16	1.1GHz	30MB	35	1.00.10
Alder Lake-S	i7-12700E	12	2.1GHz	25MB	65	1.00.10
Alder Lake-S	i7-12700	12	1.6GHz	25MB	65	1.00.10
Alder Lake-S	i7-12700TE	12	1.4GHz	25MB	35	1.00.10
Alder Lake-S	i5-12500E	6	2.9GHz	18MB	65	1.00.10
Alder Lake-S	i5-12500	6	3.0GHz	18MB	65	1.00.10
Alder Lake-S	i5-12500TE	6	1.9GHz	18MB	35	1.00.10
Alder Lake-S	i5-12400	6	2.5GHz	18MB	65	1.00.10
Alder Lake-S	i3-12100E	4	3.2GHz	12MB	60	1.00.10
Alder Lake-S	i3-12100	4	3.3GHz	12MB	60	1.00.10
Alder Lake-S	i3-12100TE	4	2.1GHz	12MB	35	1.00.10
Alder Lake-S	G7400E	2	3.6GHz	6MB	46	1.00.10
Alder Lake-S	G7400TE	2	3.0GHz	6MB	35	1.00.10
Alder Lake-S	G6900E	2	3.0GHZ	4MB	46	1.00.10
Alder Lake-S	G6900TE	2	2.4GHz	4MB	35	1.00.10