



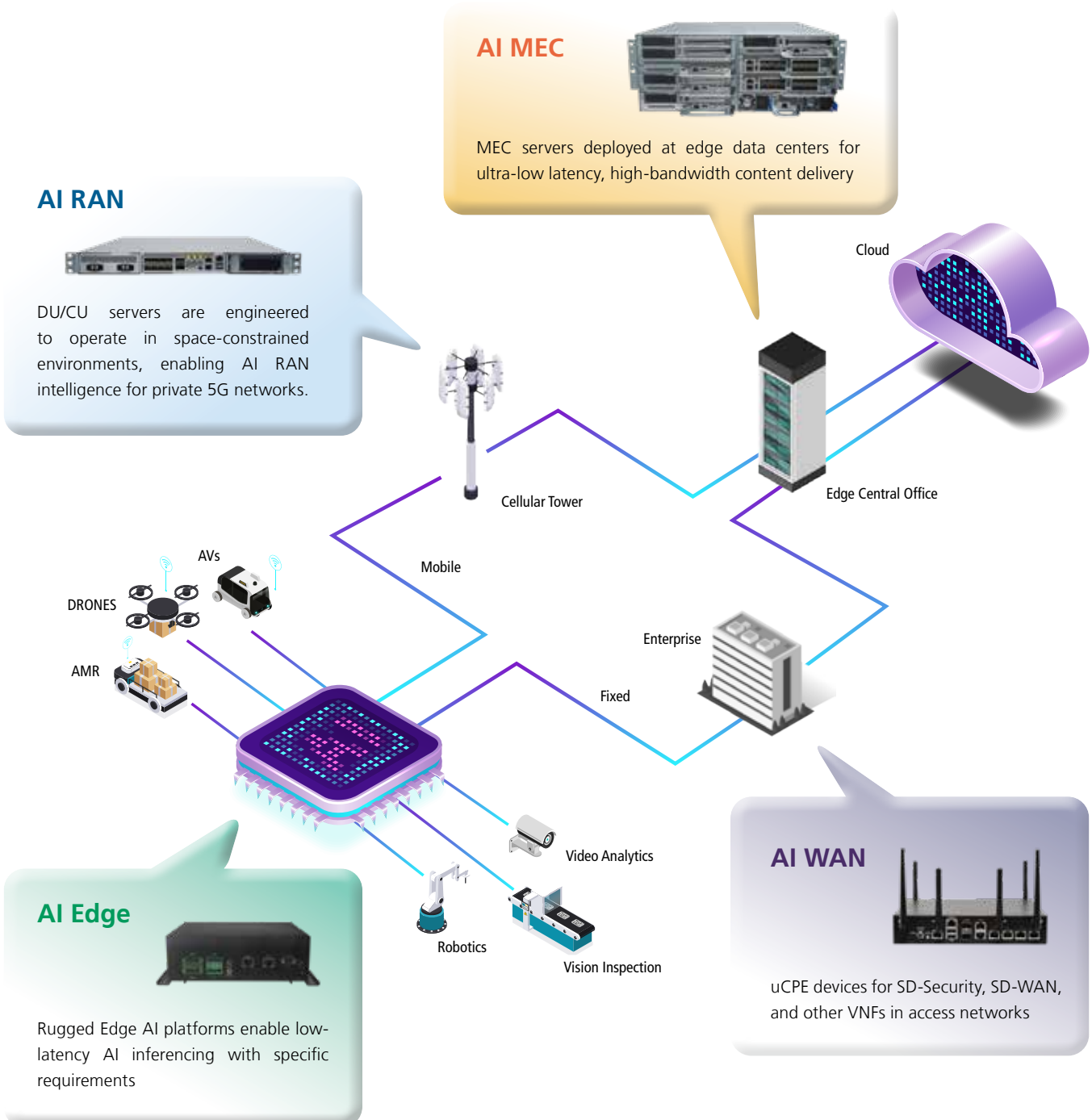
Telecommunication

Accelerating AI-Driven Telecom Infrastructure



AI-accelerated Telecom Infrastructure

The telecom industry is undergoing a transformative shift with the integration of AI-driven solutions across its infrastructure. AI Edge empowers localized processing, enabling real-time analytics and intelligent decision-making closer to the user. AI RAN (Radio Access Network) optimizes network efficiency by leveraging AI to enhance signal quality, allocate resources dynamically, and reduce latency in 5G and beyond. AI WAN (Wide Area Network) improves traffic management, predictive maintenance, and adaptive bandwidth allocation for superior performance and reliability. Meanwhile, AI MEC (Multi-access Edge Computing) accelerates content delivery and enhances user experiences by combining AI with ultra-low latency applications at the network edge.



Ecosystem Partners



Intel

Lanner is a Titanium Partner of the Intel® Network Builders, a community of SDN/NFV developers, system integrators, OEMs and solution providers committed to the development of modular, standards-based solutions on Intel® technologies.



NVIDIA

NVIDIA has been a pioneer in accelerated computing. The company's invention of the GPU in 1999 sparked the growth of the PC gaming market, redefined computer graphics, ignited the era of modern AI and is fueling the creation of the metaverse.



Verizon

Verizon is one of the world's leading providers of technology and communications services. The company offers voice, data and video services and solutions on its award-winning networks and platforms.



Juniper Networks

Juniper Networks is dedicated to dramatically simplifying network operations and driving superior experiences for end users.



Versa Networks

Versa SASE connects Enterprise branches, teleworkers, and end users securely and reliably to applications in the cloud or data centers around the world.



Zscaler

Zscaler Zero Trust Exchange software enables secure access for users, workloads, and devices to the internet and multi-cloud applications with zero trust connectivity.



Ekinops

Ekinops OneAccess offers a wide choice of physical and virtualized deployment options for Layer 2 and Layer 3 access network functions.



Arrcus, Inc.

The Arrcus Connected Edge (ACE) platform offers best-in-class networking with the most flexible consumption model at the lowest total cost of ownership.



E.C.I. Networks Inc.

E.C.I. NETWORKS delivers the Open Networking solutions with the network optics you need for tomorrow's Data Center, Wired and Wireless Networks.

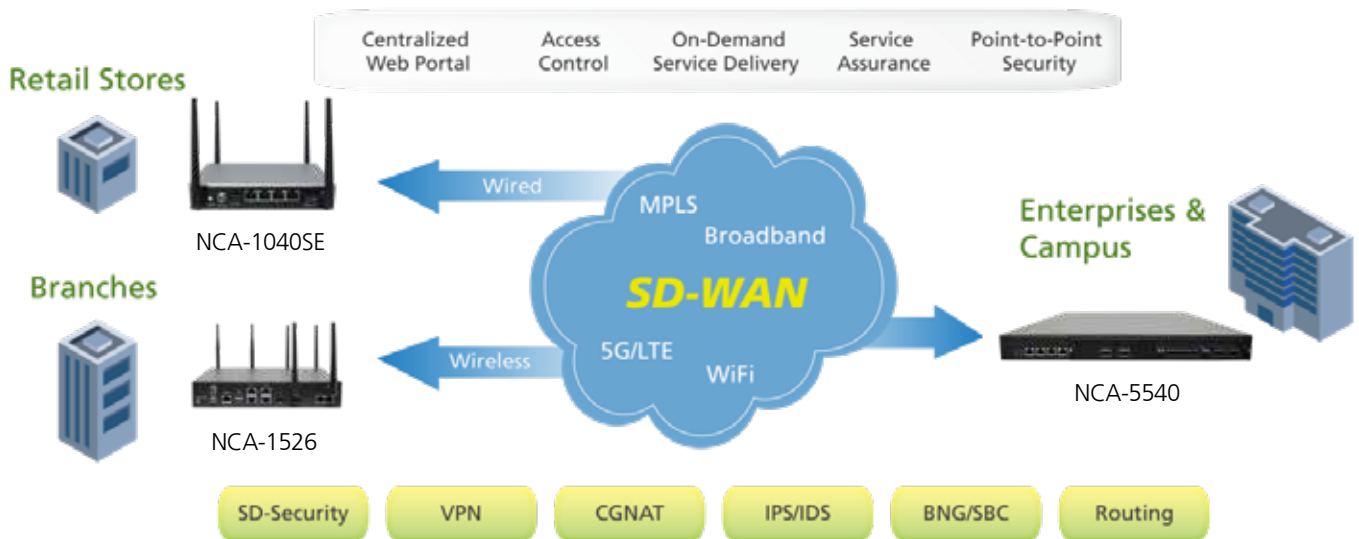


Nybsys Inc.

Nybsys provides cutting-edge telecommunications solutions covering LTE and 5G technologies, spanning RAN, transport network, customer-premises equipment, and core systems.

AI WAN

AI-powered WAN (AI WAN) are rapidly emerging as the most highly anticipated WAN services today. According to the latest Gartner Report on WAN Edge Infrastructure, over the next five years, more than 90% of WAN edge infrastructure is expected to transition to uCPE platforms or SD-WAN, displacing traditional routers. This shift reflects the move towards effectively managing network connectivity and resources, spanning from distributed branches to data centers, the cloud, and AI-driven optimization for more efficient, intelligent networking.



uCPE Platforms Designed Specifically for SD-WAN

Lanner has played a significant role in SD-WAN deployment methodologies, ranging from designing dedicated network appliances tailored for managed service providers to constructing NFV-based platforms capable of hosting VNFs from multiple vendors. These uCPE platforms have been embraced by world-leading SD-WAN solution providers, spanning traditional WAN optimization firms, communication service providers, software start-ups, and cloud-based services.



NCA-5540 Emerald Rapids



NCA-4035 Skylake-D



NCA-1526 Parker Ridge



NCA-1250 Amston Lake



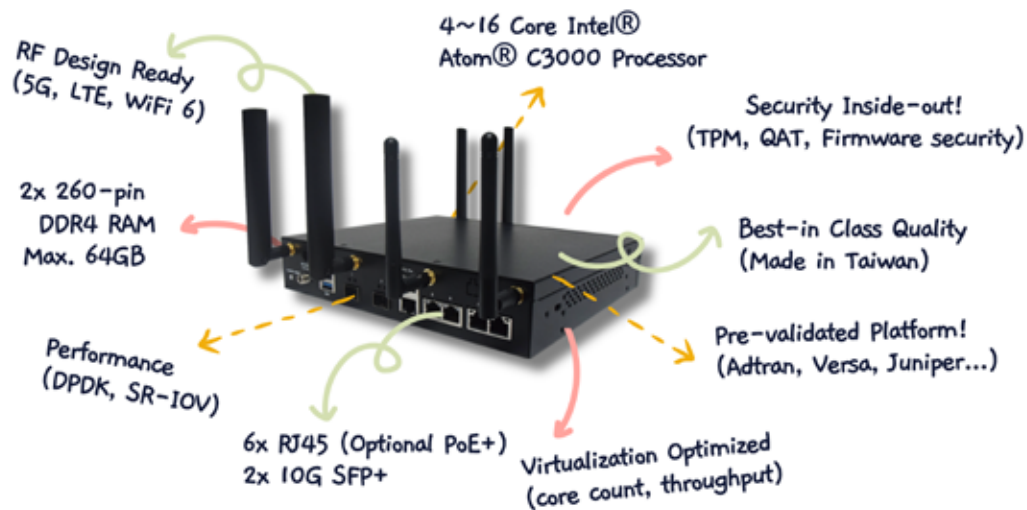
NCA-1040 Elkhart Lake

Whitebox Solutions for SD-WAN, uCPE and SASE

Drawing upon our proficiency in uCPE, SD-WAN and SASE deployments, Lanner Whitebox Solutions™ offer genuine white box networking platforms that fulfill a majority of the specifications sought by customers. These platforms are complemented by WiFi and LTE certifications, enabling their global utilization.

Whitebox Solutions™ encompass performance-optimized desktop and rackmount appliances, driven by cutting-edge, high core-count x86 processors. Leveraging packet delivery and virtualization technologies, our white box appliances achieve substantial throughput improvements, particularly when executing numerous compute-intensive VNFs within SDN/NFV infrastructure.

PRE-ZERO-DAY READY UCPE PLATFORMS



Pre-Validated Solutions for Rapid Time-to-Market Deployment

Lanner's whitebox solutions are pre-validated and meticulously optimized in collaboration with leading uCPE, SD-WAN and SASE vendors. These solutions are purposefully engineered to expedite the deployment process for communication service providers, ensuring swift entry to the market.



uCPE Appliances



Feature	Description	NCA-1040/NCA-1040SE	NCA-1050	NCA-1250
Form Factor		Desktop	Desktop	Desktop
Platform	Processor Options	Intel® Atom X6413E Or Celeron N6210 (Elkhart Lake)	Intel® Atom X7835RE/X7405C/X7203C	Intel® Atom® x7425E/N97 (Alder Lake N) Intel® Atom® x7405C/x7835RE (Amston Lake)
	CPU Socket	onboard	onboard	onboard
	Chipset	SoC	SoC	SoC
	Security Acceleration	N/A	N/A	N/A
BIOS		AMI SPI Flash BIOS	AMI SPI Flash BIOS	AMI SPI Flash BIOS
System Memory	Technology	DDR4 3200 MHz SODIMM	DDR5 4800MHz SODIMM	DDR5 4800MHz SODIMM
	Max. Capacity	32 GB	16 GB	16 GB
	Socket	1 x 260-pin SODIMM	1 x 262-pin SODIMM	1 x 262-pin SODIMM
Networking	Ethernet Ports	NCA-1040: 4 x GbE RJ45 Intel® i210AT NCA-1040SE: 4 x 2.5GbE RJ45 Intel i226V (Support For 1x PoE+)	1 x 2.5GbE RJ45, 4x 1GbE RJ45	5 x 2.5GbE RJ45 Via Intel® I226-V 1 x 2.5GbE RJ-45 Via GPY211 SGMII Interface (SKU A/C/D)
	Bypass	N/A	N/A	N/A
	NIC Module Slot	N/A	N/A	N/A
LOM	I/O Interface	N/A	N/A	N/A
	OPMA Slot	N/A	N/A	N/A
I/O Interface	Reset Button	1	1	1
	LED	Power/Status/Storage/M.2/Mini PCIe	Power/Status/Storage	Power/Status/Storage
	Power Button	1	1	1
	Console	1 x RJ45	1 x RJ45	1 x RJ45
	USB	1 x USB 3.0	1 x USB 3.1	1 x USB 3.0
	LCD Module	N/A	N/A	N/A
	Display	1 x Display Port (No Audio)	1 x Display Port 1.2 (SKU A)	N/A
	Power Input	1 x DC Jack With Lock	1 x DC Jack With Lock	1 x DC Jack With Lock
	Storage	HDD/SSD Support	N/A	N/A
Onboard Storage		1 x M.2 (SATA) 2280 B key, 1 x SATA connector (reserved)	1 x M.2 2280 B-Key	1 x M.2 (SATA) 2280, 1 x EMMC 16GB Onboard (By SKU)
Expansion	PCIe	N/A	N/A	N/A
	mini-PCIe or M.2	1 x mini-PCIe (PCIex1/USB2.0), 1 x M.2 (USB 3.1) 3042/3052 B key 2 x nano SIM	1 x M.2 (PCIe x1) 2230 E Key 1 x M.2 (USB 3.1) 3042/3050/3052 B Key	1 x M.2 3042/3050/3052 for 5G/LTE (USB3.2) 1 x M.2 2230 E key for Intel AX201 (CNVlo) 1 x Nano SIM
Miscellaneous	Watchdog	Yes	Yes	Yes
	Internal RTC with Li Battery	Yes	Yes	Yes
	TPM	YES (TPM 2.0)	Yes	YES (TPM 2.0)
Cooling	Processor	Passive CPU heatsink	Passive CPU heatsink	Passive CPU heatsink
	System	Fanless (Default); 1 x 5-pin Fan Connector (Optional)	Fanless	Fanless
Environmental Parameters	Temperature	0~40°C Operating -40~70°C Non-Operating	0~40°C Operating -20~70°C Non-Operating	0~40°C Operating -20~70°C Non-Operating
	Humidity (RH)	5~90% Operating 5~95% Non-Operating	5%~90%, Operating 5%~95%, Non-operating	10~90% Operating 5~95% Non-Operating
System Dimensions	(WxHxD)	183 x 32 x 168 mm	183 x 32 x 168 mm	231 x 44 x 200 mm
	Weight	0.9 kg	0.88 kg	1.1 kg
Power	Type / Watts	60W Power Adapter/40W Power Adapter	40W Power Adapter	40W Power Adapter
	Input	AC 100~240V @50~60Hz	AC 100~240V @50~60 Hz	AC 100~240V @50~60Hz
Approvals and Compliance		RoHS, CE/FCC Class B (Class A with PoE), UL, VCCI, UKCA	CE/FCC Class B (Class A with PoE) RoHS, UL, VCCI, UKCA	RoHS, CE/FCC Class B



NCA-1252	NCA-1513	NCA-1515	NCA-1516
Desktop	Desktop	Desktop	Desktop
Intel® Atom® X7809C/X7405C	Intel® Atom® C3000 (Denverton)	Intel® Atom® C3000 (Denverton)	Intel® Atom® C3000 (Denverton)
onboard	onboard	onboard	onboard
SoC	SoC	SoC	SoC
N/A	Intel® QuickAssist Technology (by SKU)	Intel QuickAssist Technology	Intel QuickAssist Technology
	AMI SPI Flash BIOS	AMI SPI Flash BIOS	AMI SPI Flash BIOS
DDR4 3200MHz SODIMM	DDR4 2133/1866 MHz ECC/Non-ECC SODIMM (By SKU)	DDR4 2400/2133/1866 MHz ECC/Non-ECC SODIMM (By SKU)	DDR4 2400/2133/1866 MHz ECC/Non-ECC SODIMM (By SKU)
32 GB	32 GB	64 GB	64 GB
1 x 262-pin SODIMM	1 x 260-pin SODIMM	2 x 260-pin SODIMM	2 x 260-pin SODIMM
SKU A: 2x 2.5GbE RJ45, 4x GbE RJ45, 2x 10GbE SFP+ SKU B: 2x2.5GbE RJ45, 2x GbE RJ45, 2x GbE SFP	4 x GbE RJ45 Intel® SoC Integrated MAC 2 x GbE RJ45 Intel® i210AT or i211AT (by SKU) 2 x GbE SFP Intel® i210-IS(by SKU)	4 x GbE RJ45 Intel® SoC Integrated MAC 2 x GbE RJ45 Intel® i350 and (by SKU) 2 x GbE SFP Intel® i350 (by SKU)	4 x GbE RJ45 Intel® i350 2 x GbE RJ45 SoC Integrated MAC (Optional PoE+ Support) 2 x SFP+ SoC Integrated MAC
1 pair Gen3SE (SKU A)	2 pair Gen3 (By SKU)	1 pair Gen3 (By SKU)	N/A
N/A	N/A	N/A	N/A
N/A	N/A	1 x RJ45 (By SKU)	N/A
N/A	N/A	Yes	N/A
1	1	1	1
Power/Status/Storage	Power/Status/Storage	Power/Status/Storage	Power/Status/Storage
1	1	1	1
1 x RJ45	1 x RJ-45	1 x RJ-45	1 x RJ-45
1 x USB 3.2	2 x USB 2.0	2 x USB 2.0	2 x USB 3.0
N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A
1 x DC Jack With Lock	1 x DC Jack	1 x DC Jack	2 x DC Jack (Optional 2nd DC Jack)
EMMC 64GB (SKU A)	1 x 2.5" Internal (Optional)	1 x 2.5" Internal (Optional)	N/A
1 x M.2 SATAIII 2280 B Key	1 x EMMC 8G onboard(By SKU), 1 x M.2-2242/2280(SATA), B Key	1 x M.2-2242(SATA) B Key	1 x Onboard EMMC 8G (By Request), 1 x 2242 M.2 (SATA)
1 x PCIe*4 Gen3 (SKU A)	N/A	N/A	N/A
2 x M.2 3042/3052 B Key For 5G/LTE 1 x M.2 2230 E Key 3 x Nano SIM Slots	1 x Mini-PCIe (PCIe/USB2.0), 1 x M.2 3042 (USB3.0), 1x nano SIM	2x Mini-PCIe (PCIe/USB2.0), 1 x M.2 2242 B Key (USB3.0) 1 x M.2 3042 B Key (USB3.0), 2x nano SIM	1 x Mini-PCIe (PCIe/USB2.0), 1x M.2 3052/3580 B Key (PCIe/USB 3.0), 1x M.2 3042 B Key (USB 3.0), 2x nano SIM
Yes	Yes	Yes	Yes
Yes	Yes	Yes	Yes
YES (TPM 2.0)	YES (TPM 2.0)	YES (TPM 2.0)	YES (TPM 2.0)
Passive CPU heatsink	Passive CPU heatsink	Passive CPU Heatsink	Passive CPU Heatsink
1 x Cooling Fan w/ Smart Fan	1 x Cooling Fan w/ Smart Fan	1 x Cooling Fan w/ Smart Fan (SKU A~E) 2 x Cooling Fans w/ Smart Fan (SKU F)	2 x Cooling Fans w/ Smart Fan or Fanless (By Request)
0~40°C Operating -20~70°C Non-Operating	0~40°C Operating -20~70°C Non-Operating	0~40°C Operating -20~70°C Non-Operating	0~40°C Operating -20~70°C Non-Operating
10~90% Operating 5~95% Non-Operating	5~90% Operating 5~95% Non-Operating	5~90% Operating 5~95% Non-Operating	5~90% Operating 5~95% Non-Operating
275 x 44 x 202 mm	231 x 44 x 200 mm	231 x 44 x 200 mm	231 x 44 x 200 mm
1.8 kg	1.2 kg	1.2 kg	1.2 kg
Default: 60W Adapter, SKU B: 40W Adapter	40W Power Adapter	36W or 60W Power Adapter (By SKU)	60W Power Adapter
AC 110~240V@50~60Hz	AC 100~240V @50~60Hz, 1.7A	AC 100~240V @50~60 Hz	AC 100~240V @50~60 Hz
RoHS, CE/FCC Class B, UL, UKCA	RoHS, CE/FCC Class B, UL	RoHS, CE/FCC Class A, UL	RoHS, CE/FCC Class B, UL

XS~S uCPE Appliances



NEW

Feature	Description	NCA-1525/1526	VP-210	NCA-2510
Form Factor		Desktop	Desktop	1U 19" Rackmount
Platform	Processor Options	Intel® Atom® C5325/C5315 (Parker Ridge)	Marvell OCTEON CN102 Series	Intel® Atom™ C3000, 4~16 Cores (Denverton)
	CPU Socket	onboard	onboard	onboard
	Chipset	SoC	SoC	SoC
	Security Acceleration	Intel® QuickAssist Technology	Crypto 50G IMIX Unidir + ~12K RSA 2K OPS	Intel® QuickAssist Technology
BIOS		AMI SPI Flash BIOS	N/A	AMI SPI Flash BIOS
System Memory	Technology	DDR4 2933/2400 MHz ECC/Non-ECC SODIMM	DDR5 4800 MHz SO-DIMM	DDR4 2400MHz ECC or Non-ECC UDIMM/RDIMM
	Max. Capacity	64 GB	128 GB	128GB Or 64GB
	Socket	2 x 260-pin SODIMM	1 x 262-pin SODIMM	4 x 288pin DIMM
Networking	Ethernet Ports	4 x GbE RJ45, 2 x 10G SFP+, NCA-1525: 2 x 2.5G RJ45 (PoE+ Optional) NCA-1526: 2 x GbE RJ45 (PoE+ Optional)	8 x 2.5 GbE RJ45, 2 x 10G Combo (RJ45/SFP+), 2 x 10G SFP+ (By SKU)	1 x GbE RJ45 Intel® i210 4 x GbE RJ-45 Intel® i350-AM4 4 SFP+ Intel® Denverton Integrated (By SKU)
	Bypass	N/A	2x Pairs Of Gen 3	2 pairs Gen3 (By SKU)
	NIC Module Slot	N/A	N/A	1
LOM	I/O Interface	N/A	N/A	1 x RJ45 (By SKU)
	OPMA Slot	N/A	N/A	Yes
I/O Interface	Reset Button	1	1	1
	LED	Power/Status/Storage	Power/Status/Storage	Power/Status/Storage
	Power Button	1	1	1 x ATX Power switch
	Console	1 x RJ-45	1 x RJ-45	1 x RJ45
	USB	2 x USB 3.0	1 x USB 3.0	2 x USB 2.0
	LCD Module	N/A	N/A	2x20 character LCM 4 x keypads
	Display	N/A	N/A	From OPMA slot (Optional)
	Power Input	2 x DC Jack With Lock	2 x Or 1 x DC Jack (By SKU)	AC power inlet on PSU
Storage	HDD/SSD Support	N/A	N/A	2 x 2.5" bays
	Onboard Storage	1 x M.2 2280 B Key (SATA),	1 x M.2 M Key (2280) For NVMe Storage	1 x mSATA
Expansion	PCIe	N/A	N/A	1 x PCI-E*8 HH/HL (Optional)
	mini-PCIe	1 x Mini-PCIe (PCIe/USB2.0) 2 x M.2 3042/3052 B Key (USB3.0) 2 x Nano SIM for M.2	1 x Or 2 x M.2 B Key (3042/3050/3052) For LTE/5G (By SKU) 1 x M.2 E Key (2230) For Wi-Fi	N/A
Miscellaneous	Watchdog	Yes	Yes	Yes
	Internal RTC w/ Li Battery	Yes	Yes	Yes
	TPM	Yes	Yes	Yes (optional)
Cooling	Processor	Passive CPU heatsink	Passive CPU Heatsink	Passive CPU heatsink
	System	2 x Cooling Fan w/ Smart Fan	2 x Cooling Fan w/ Smart Fan	2 x cooling fans with smart fan
Environmental Parameters	Temperature	0~40°C Operating -40~70°C Non-Operating	0~40°C Operating -40~70°C Non-Operating	0~40°C Operating -20~70°C Non-Operating
	Humidity (RH)	5~90% Operating 5~95% Non-Operating	5~90% Operating 5~95% Non-Operating	5~90% Operating 5~95% Non-Operating
System Dimensions	(WxDxH)	250 x 44 x 200 mm	310 x 44 x 265 mm	438 x 321 x 44 mm
	Weight	1.5 kg	TBD	4.4 kg
Package Dimensions	(WxDxH)	360 x 310 x 140 mm	480 x 340 x 145 mm	540 x 500 x 230 mm
	Weight	2.75 kg	6 kg	8 kg
Power	Type / Watts	90W Power Adapter	90W/60W Power Adapter (By SKU)	150W ATX Single PSU
	Input	AC 100~240V @50~60 Hz	AC 100~240V @50~60 Hz	AC 90~264V @47~63Hz
Approvals and Compliance		RoHS, CE/FCC Class B (Without PoE+), UL, VCCI, UKCA	RoHS, CE/FCC Class B (Without PoE+), UL, UKCA, VCCI	RoHS, CE/FCC Class A, UL



NCA-2513	NCA-2520/2522	NCA-2523
1U 19" Rackmount	1U 19" Rackmount	1U 19" Rackmount
Intel® Atom™ C3000 2~8 Cores (Denverton-R)	Intel® Atom P5300 (Snow Ridge NS)	Intel® Atom C5325/C5315 (Parker Ridge)
onboard	onboard	onboard
SoC	SoC	SoC
Intel® QuickAssist Technology	N/A	Intel® QuickAssist Technology
AMI SPI Flash BIOS	AMI SPI Flash BIOS	AMI SPI Flash BIOS
DDR4 2400MHz ECC or Non-ECC UDIMM/RDIMM	DDR4 2933MHz REG Or Non-ECC UDIMM	DDR4 2933MHz ECC Or Non-ECC SODIMM
64GB	256GB	64GB
2 x 288-pin DIMM	4 x 288-pin DIMM	2 x 260pin DIMM
2 x GbE RJ45 Intel® i210 2 x GbE RJ45 Intel® i350-AM2 (By SKU) 4 x GbE RJ45 Intel® SoC Integrated MAC	8 x GbE RJ45 Intel i350-AM4, 4 x 10G SFP+ Intel SoC Integrated MAC, 4 x 10G SFP+ Intel C827 Via SFI Signal (By Project)	Default: 8 x GbE RJ45, 2x 10GbE SFP+ Customizable for: - 4 x GbE RJ45 & 4x 10GbE RJ45, 2 x 10GbE SFP+ - 4 x GbE RJ45 & 4x 10GbE SFP+, 2x 10GbE SFP+
2 pairs Gen3 (By SKU)	2 pairs Gen3	2 pairs Gen3
1	1	1 (By SKU)
N/A	Optional	N/A
N/A	N/A	N/A
1	1	1
Power/Status/Storage	Power/Status/Storage	Power/Status/Storage
1 x ATX Power switch	1 x ATX Power switch	1
1 x RJ45	1 x RJ45	1 x RJ45
2 x USB 3.0 or 2.0 (By SKU)	2 x USB 2.0	2 x USB 3.0
2x20 character LCM 4 x keypads	N/A	N/A
N/A	1 x VGA From OPMA Slot (Optional)	N/A
AC Power Inlet on PSU	AC Power Inlet on PSU	AC power inlet on PSU
2 x 2.5" bays (By SKU)	2 x 2.5" Internal	1 x 2.5" bays
1 x M.2	1 x M.2 (SATA III/PCIe*2 Signal)	1 x M.2 2280 (SATA/PCIe*1 Signal)
1 x PCI-E*8 or *4 FH/HL (By SKU)	1 x PCI-E*8 Or 2x PCI-E*4 FH/HL (By Project)	1 x Gen3 PCI-E*4 With NCS2 NIC Support (SKU A/C Only)
Yes (By SKU)	1 x Mini-PCIe (PCIe/USB2.0)	1 x M.2 (USB3.0) 3042/3050/3052 For 5G/LTE 1 x Nano SIM Slot
Yes	Yes	Yes
Yes	Yes	Yes
Yes	N/A	Yes
Passive CPU Heatsink	Passive CPU heatsink	Passive CPU heatsink
1 x Cooling Fan	3 x cooling fans with smart fan	3 x cooling fans with smart fan
0~40°C Operating -20~70°C Non-Operating	0~40°C Operating -20~70°C Non-Operating	0~40°C Operating -40~70°C Non-Operating
5~90% Operating 5~95% Non-Operating	5~90% Operating 5~95% Non-Operating	5~90% Operating 5~95% Non-Operating
438 x 321 x 44 mm	438 x 429 x 44 mm	438 x 321 x 44 mm
4.4 kg	10.1 kg	8 kg
540 x 500 x 230 mm	TBD	600 x 550 x 185 mm
8 kg	TBD	10.88 kg
150W ATX Single PSU	300W 1+1 AC/DC Redundant CRPS PSU	300W Redundant PSUs (SKU A/B) 350W Single PSU (SKU C/D)
AC 90V~264V @47~63Hz	AC 90~264V @47~63Hz	AC 90~264V @47~63 Hz
RoHS, CE/FCC Class A, UL	RoHS, CE/FCC Class A, UL	RoHS, CE/FCC Class A, UL, UKCA

M~L uCPE Appliances



NEW

Feature	Description	NCA-4035	NCA-4112	NCA-4240
Form Factor		1U 19" Rackmount	1U 19" Rackmount	1U 19" Rackmount
Platform	Processor Options	Intel® Xeon® D2800/D2700 4~22 Cores (Eddy Lake D/Ice Lake D)	AMD EPYC™ 3000 Series (4~8 Cores)	Intel® 14th Gen Core™ i9/i7/i5/i3, Pentium® Or Celeron® Processor (Alder Lake S/Raptor Lake S/Raptor Lake Refresh)
	CPU Socket	1 x Onboard	onboard	1 x LGA1700
	Chipset	N/A	SoC	Intel® H610E/Q670E
	Security Acceleration	Intel® QuickAssist Technology (By SKU)	10Gbps Encryption + 10Gbps Decryption	N/A
BIOS		AMI SPI Flash BIOS	AMI SPI Flash BIOS	AMI SPI Flash BIOS
System Memory	Technology	DDR4 3200 MHz REG ECC Or Non-ECC UDIMM/ RDIMM	DDR4 2666 MHz ECC/U/R DIMM	DDR5 4800 Non-ECC UDIMM
	Max. Capacity	256GB	128GB	64GB
	Socket	4 x 288-pin DIMM	4 x 288-pin DIMM	2 x 288pin DIMM
Networking	Ethernet Ports	2 x GbE RJ45 Via I210-AT 8 x GbE RJ45 Via I350-AM4 4 x 10G SFP+ (Default) 4 x 25G SFP28 (By OEM Project)	8 x GbE RJ45 Intel® i350-AM4 2 x 10G SFP+	1 x GbE RJ45 With LED MGMT Via i219 8 x 2.5GbE RJ45 With LED Via i226
	Bypass	N/A	3 x Pairs of Gen3	3 Pairs Gen3 SE
	NIC Module Slot	2	1	1
LOM	I/O Interface	1 x RJ45	1 x RJ45	N/A
	OPMA Slot	Yes	Yes	N/A
I/O Interface	Reset Button	1	1	1
	LED	Power/Status/Storage	Power/Status/Storage	Power/Status/Storage
	Power Button	1 x ATX Power switch	1 x ATX Power Switch	1 x ATX Power switch
	Console	1 x RJ45	1 x RJ45	1 x RJ45
	USB	2 x USB 3.0	2 x USB 3.0	2 x USB 3.0
	LCD Module	N/A	1 x LCM, 4 x Keypads	2x20 character LCM 4 x keypads
	Display	N/A	From OPMA Slot for VGA (Optional)	N/A
	Power Input	AC power inlet on PSU	AC Power Inlet on PSU	AC power inlet on PSU
Storage	HDD/SSD Support	N/A	2 x 2.5" Swappable Bays	2 x 2.5" bays
	Onboard Storage	2 x M.2 2280 / 1 x M.2 2242	N/A	SKU A: 1 x M.2 2242 (M Key) SATA SKU B: 1 x M.2 2242 (M Key) SATA & 1 x M.2 2280 (M Key) NVME (PCIe Gen4 x 4)
Expansion	PCIe	1 x Gen4 PCIe*8 & 1 x Gen4 PCIe*16	N/A	1 x PCIe x8 Gen4 FH/HL (SKU B Only)
	mini-PCIe	N/A	1 x 2242 M.2, 1 x Mini-PCIe, 1 x LTE (Optional)	1 x M.2 2230 E Key (SKU B Only)
Miscellaneous	Watchdog	Yes	Yes	Yes
	Internal RTC w/ Li Battery	Yes	Yes	Yes
	TPM	Yes	TPM 1.2/2.0	N/A
Cooling	Processor	Passive CPU heatsink	Passive CPU Heatsink	Passive CPU heatsink
	System	4 x cooling fans with smart fan	2 x Cooling Fans w/ Smart Fan	4 x cooling fans with smart fan
Environmental Parameters	Temperature	0~40°C Operating -20~70°C Non-Operating	0~40°C Operating -20~70°C Non-Operating	0~40°C Operating -40~70°C Non-Operating
	Humidity (RH)	5~90% Operating 5~95% Non-Operating	5~90% Operating 5~95% Non-Operating	5~90% Operating 5~95% Non-Operating
System Dimensions	(WxDxH)	438 x 321 x 44 mm	438 x 431 x 44 mm	438 x 321 x 44 mm
	Weight	8.6 kg	8.6 kg	4.71 kg
Package Dimensions	(WxDxH)	739 x 215 x 582 mm	582 x 548 x 182 mm	588 x 494 x 185 mm
	Weight	15 kg	13 kg	8.55 kg
Power	Type / Watts	300W 1+1 Redundant PSUs Or 350W Single PSU	300W Redundant PSUs	220W ATX Single PSU
	Input	Redundant: AC 100~240V @50~60Hz Single: AC 100~240V @47~63Hz	100~240VAC @50~60Hz, 5~3A	AC 90~264V @47~63 Hz
Approvals and Compliance		CE/FCC Class A, UL, RoHS	RoHS, CE, FCC, UL	RoHS, CE/FCC Class A, UKCA, UL



NCA-5310	NCA-5330	NCA-5540
1U 19" Rackmount	1U 19" Rackmount	1U 19" Rackmount
AMD EPYC 7000 series(Rome/Milan)	AMD EPYC 9004 Series Processors	4th/5th Gen Intel® Xeon® Scalable processor (Sapphire Rapids-SP/Emerald Rapids-SP)
1 x FCLGA-4094	1 x LGA-6096	1 x LGA4677
N/A	N/A	Intel® C741
N/A	40Gbps Encryption + 40Gbps Decryption/ AMD Enhanced Security	Intel® QuickAssist Technology
AMI SPI Flash BIOS	AMI SPI Flash BIOS	AMI SPI Flash BIOS
DDR4 3200 MHz REG DIMM	DDR5 4800MHz R-DIMM	DDR5 4800MHz R DIMM
512GB	512GB	768GB
8 x 288-pin DIMM	8 x 288-pin DIMM	12 x 288pin DIMM
1 x GbE RJ45 Intel® i210	1 x GbE RJ45 Intel® i210	2x GbE RJ45 Intel® I226-LM
N/A	N/A	Depends on NIC Module Specifications
Default: 2, max up to 4	4	4
1 x RJ45 (Optional) *Share with ETH0	1 x RJ45 (Optional) *Share with ETH0	Yes, 1 x LOM Port (Via BMC Chip)
Yes	Yes	Yes (Support AST2600 IPMI Card)
1	1	1
Power/Status/Storage	Power/Status/Storage	Power/Status/Storage
1 x ATX Power Switch	1 x ATX Power Switch	1 x ATX Power switch
1 x RJ45	1 x RJ45	1 x RJ45
2 x USB 3.0	2 x USB 3.0	2 x USB 3.0
N/A	N/A	N/A (Optional)
N/A	N/A	1x VGA via IPMI card
AC Power Inlet on PSU	AC Power Inlet on PSU	AC power inlet on PSU
2 x 2.5" Swappable Bays	2 x 2.5" Swappable Bays	2 x 2.5" Internal
1 x M.2 2280	1 x M.2 2280	1 x M.2 (SATA) 2280 B+M Key 2 x M.2 NVMe (PCIe) 2280 M Key
1 x PCI-E*8 HH/HL (Optional)	1 x PCI-E*8 HH/HL (Optional)	1 x PCI-E*8 HH/HL (Optional)
N/A	N/A	N/A
Yes	Yes	Yes
Yes	Yes	Yes
Yes (Optional)	Yes (Optional)	Yes (Optional TPM2.0)
Passive CPU Heatsink	Passive CPU Heatsink	Passive CPU heatsink
5 x Individual Hot-swappable Cooling Fans	5 x Individual Hot-swappable Cooling Fans	5 x Smart Fan
0~40°C Operating -20~70°C Non-Operating	0~40°C Operating -20~70°C Non-Operating	0~40°C Operating -20~70°C Non-Operating
5~90% Operating 5~95% Non-Operating	5~90% Operating 5~95% Non-Operating	5~90% Operating 5~95% Non-Operating
438 x 610 x 44 mm	438 x 650 x 44 mm	438 x 610 x 44 mm
10 kg	11.27 kg	10.5kg
739 x 582 x 215 mm	841 x 588 x 215 mm	739 x 215 x 582 mm
15.7 kg	17.59 kg	18.5kg
550W 1+1 ATX Redundant PSUs	1300W 1+1 ATX Redundant PSUs	1300W Redundant PSUs
AC 100V~240V @47~63Hz	AC 100V~240V @47~63Hz	AC 100~240V @47~63 Hz
RoHS, CE/FCC Class A, UL	RoHS, CE/FCC Class A, UL	RoHS, CE/FCC Class A, UL

L~XL uCPE Appliances



Feature	Description	NCA-6040 NEW	NCA-6120	NCA-6130 NEW
Form Factor		2U 19" Rackmount	2U 19" Rackmount	2U 19" Rackmount
Platform	Processor Options	4th/5th Gen Intel® Xeon® Processor Scalable Family (Sapphire Rapids-SP/Emerald Rapids-SP)	AMD EPYC 7000 Series With Support For Milan & Rome (64C/128T)	AMD EPYC 9005 Series
	CPU Socket	1 x LGA 4677	2 x FCLGA-4094	SP5/SP6
	Chipset	Intel® C741	N/A	SoC
	Security Acceleration	Intel® QuickAssist Technology	40Gbps Encryption + 40Gbps Decryption	N/A
BIOS		AMI SPI Flash BIOS	AMI SPI Flash BIOS	AMI SPI Flash BIOS
System Memory	Technology	DDR5 4800MHz RDIMM	DDR4 3200MHz ECC REG DIMM	DDR5 6000MHz RDIMM
	Max. Capacity	768GB	1024GB	768GB
	Socket	12 x 288pin DIMM	16 x 288-pin DIMM	12 x 288-pin DIMM
Networking	Ethernet Ports	2x GbE RJ45 Intel® I226-LM	1 x GbE RJ45 Intel® i210	2 x GbE RJ45 Intel® i210AT
	Bypass	Depends on NIC module specifications	N/A	N/A
	NIC Module Slot	8	8 Or 4 (By SKU)	8 x NCS2 Or 4 x N25
LOM	I/O Interface	1 x RJ45	1 x RJ45	1 x RJ45 (Optional) *Share With ETH0
	OPMA Slot	Yes (By SKU)	Yes	Yes
I/O Interface	Reset Button	1	1	1
	LED	Power/Status/Storage	Power/Status/Storage	Power/Status/Storage
	Power Button	1 x ATX Power switch	1 x ATX Power Switch	1 x ATX Power Switch
	Console	1 x RJ45	1 x RJ45	1 x RJ45
	USB	2 x USB 3.0	2 x USB 3.0	2 x USB 3.0
	LCD Module	N/A	N/A	N/A
	Display	1 x VGA via IPMI card	1 x VGA (Optional)	N/A
	Power Input	AC power inlet on PSU	AC Power Inlet on PSU	AC Power Inlet On PSU
Storage	HDD/SSD Support	2 x 2.5" Internal	SKU A: 4 x 2.5" or 3.5" SKU B: 2 x 2.5" or 3.5"	2 x 3.5" HDD/SSD
	Onboard Storage	2 x M.2-2280(NVME) 1 x M.2-2280(SATA)	1 x M.2 (SATA/PCIe) 2280	1 x M.2 (SATA/PCIe*5) 2280/22110
Expansion	PCIe	1x PCIe*16 HH/HL (Optional) Support GPU Cards up to 150W	2x PCIe*8 FHHL or 1x PCIe*16 FHHL	2 x PCIe Gen5*16 FHHL (Optional) Or 1 x 3/4 PCIe Card
	mini-PCIe	N/A	N/A / Max. 1TB	
Miscellaneous	Watchdog	Yes	Yes	Yes
	Internal RTC with Li Battery	Yes	Yes	Yes
	TPM	TPM2.0 (Optional)	Yes (Optional)	Reserved
Cooling	Processor	Passive CPU heatsink	Passive CPU Heatsink	Passive CPU Heatsink
	System	4 x Individual Hot-swappable Cooling Fans with Smart Fan	4 x Individual Hot-swappable Cooling Fans	4 x Cooling Smart Fans
Environmental Parameters	Temperature	0~40°C Operating -40~70°C Non-Operating	0~40°C Operating -20~70°C Non-Operating	0~40°C Operating -40~70°C Non-Operating
	Humidity (RH)	5~90% Operating 5~95% Non-Operating	5~90% Operating 5~95% Non-Operating	5~90% Operating 5~95% Non-Operating
System Dimensions	(WxDxH)	438 x 650 x 88 mm	438 x 600 x 88 mm	438 x 670 x 88 mm
	Weight	24 kg	24 kg	18 kg
Package Dimensions	(WxDxH)	588 x 827 x 356 mm	825 x 600 x 270 mm	944 x 606 x 333 mm
	Weight	30.1kg	26 kg	TBD
Power	Type / Watts	1300W Redundant PSUs	850W 1+1 ATX Redundant PSUs	1300W
	Input	AC 230V @50~60Hz	AC 100V~240V @47~63Hz	AC 90V~264V @47~63Hz
Approvals and Compliance		RoHS, CE/FCC Class A, UL	RoHS, CE, FCC, UL	RoHS, CE/FCC, UL, UKCA



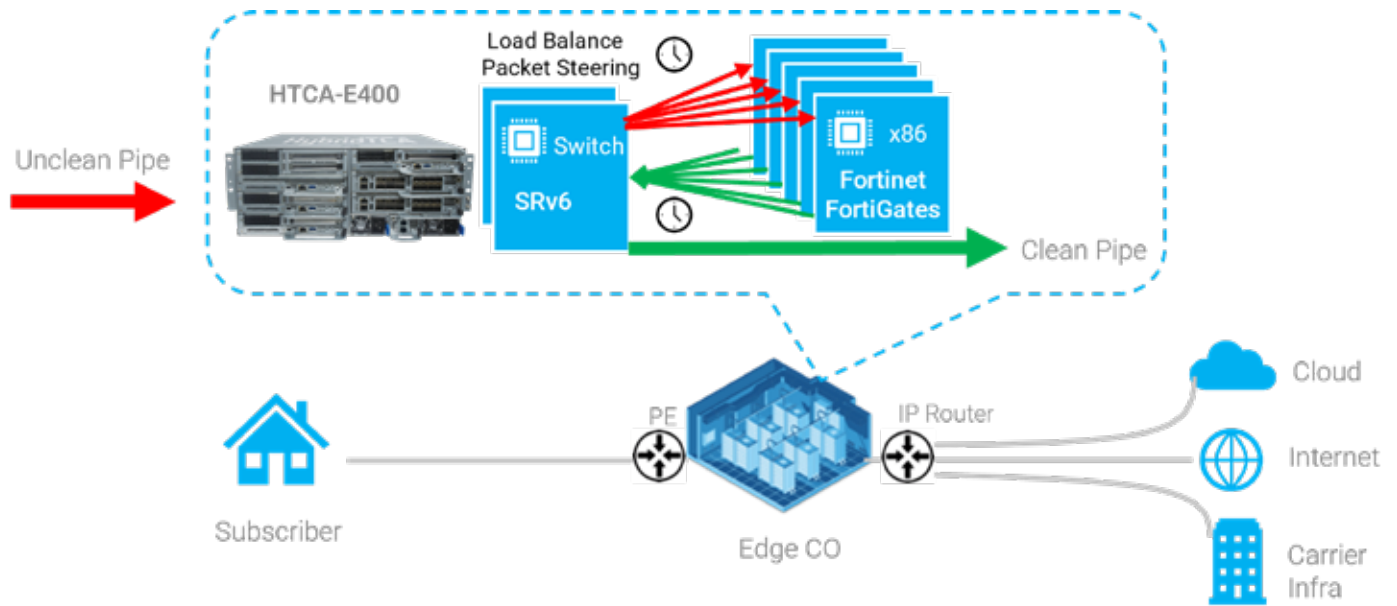
NCA-6250

NCA-6530

2U 19" Rackmount	2U 19" Rackmount
2x Intel® Xeon®6 Processor (Sierra Forest SP/Granite Rapid-SP/Clearwater forest-SP)	4th/5th Gen Intel® Xeon® Processor Scalable Family (Sapphire Rapids-SP/Emerald Rapids-SP)
2 x LGA4710	2 x LGA 4677
N/A	Intel® C741
Intel® QuickAssist Technology	Intel® QuickAssist Technology
AMI SPI Flash BIOS	AMI SPI Flash BIOS
DDR5 6400 MT/s REG DIMM or MCR 8000 MT/s	DDR5 4800MHz RDIMM
1536GB (RDIMM) Or 1024GB (MCR DIMM)	1536GB
16 x 288-pin DIMM	24 x 288-pin DIMM
2 x GbE RJ45 Intel® i350-AM2	2 x GbE RJ45 Intel® i350-AM2
Depends on NIC Module Specifications	Depends on NIC Module Specifications
8	8
1 x RJ45	1 x RJ45
IPMI Onboard	IPMI Onboard
1	1
Power/Status/Storage	Power/Status/Storage
1 x ATX Power switch	1 x ATX Power switch
1 x RJ45	1 x RJ45
2 x USB 3.0	2 x USB 3.0
N/A	Yes
1 x VGA (Optional)	1 x VGA (Internal Pin Header)
AC power inlet on PSU	AC power inlet on PSU
2 x 2.5" U.2 NVME SSD Hot-swappable	SKU A & C: 2 x 2.5" Swappable
- 1x M.2 22110/2280/2242, M Key NVME (1x PCIe4 Gen5) - 1x M.2 2280/2242, M Key NVME (1x PCIe4 Gen5) - 1x M.2 2242 For PCIe To SATA*4 Module	2 x M.2 NVME 2280; 1x M.2 2280 SATA
2x PCIe*16 Gen5 For 2x FHHL PCIe Card Or 1x 3/4 PCIe Card Support GPU Cards up to 150W	A/B SKU: N/A (default); up to 2x PCIe x16 card in FH/HL single/dual-slot size bracket(Optional) C/D SKU: N/A (default); up to 2x PCIe x16 card with FH/FL single/dual-slot size bracket(Optional) Support GPU Cards up to 350W
N/A	N/A
Yes	Yes
Yes	Yes
N/A	TPM2.0 (Optional)
Passive CPU heatsink	Passive CPU heatsink
4 x Individual Hot-swappable Cooling Fans with Smart Fan	6 x Individual Hot-swappable Cooling Fans with Smart Fan
0~40°C Operating -20~70°C Non-Operating	0~40°C Operating -20~70°C Non-Operating
5~90% Operating 5~95% Non-Operating	5~90% Operating 5~95% Non-Operating
438 x 610 x 88 mm	438 x 760 x 88 mm
21.2 kg	21.2 kg
588 x 997 x 250 mm	588 x 926 x 303 mm
31.2 kg	31.2 kg
1200W/1300W/2000W 1+1 ATX Redundant PSUs	1600W/2000W 1+1 ATX Redundant PSUs
AC 200~240V @50~60Hz	AC 200~240V @50~60Hz
RoHS, CE/FCC Class A, UL, UKCA, VCCI	RoHS/RoHS, CE, FCC Class A, UL

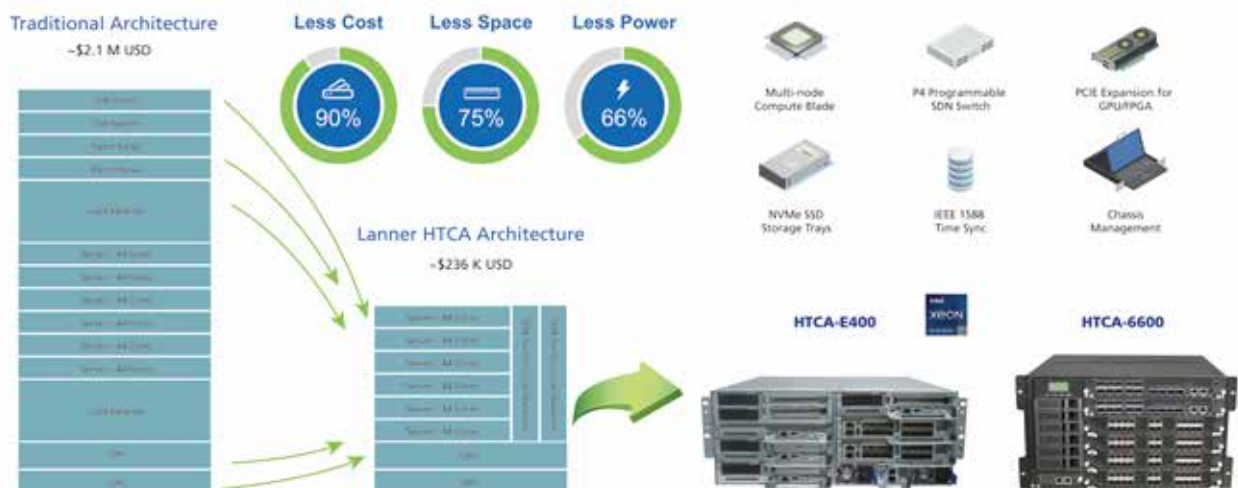
AI MEC

AI-powered Multi-access Edge Computing (AI MEC) combines artificial intelligence with edge computing to deliver ultra-low latency and high-performance applications at the network edge. By processing data closer to end-users, AI MEC minimizes response times, reduces bandwidth use, and enables real-time decision-making for applications like autonomous vehicles, smart factories, and AR/VR. Integrating AI enhances analytics, predictive maintenance, and resource optimization, redefining telecom infrastructure for smarter, faster, and more responsive networks.



Reduction in Total Cost of Ownership

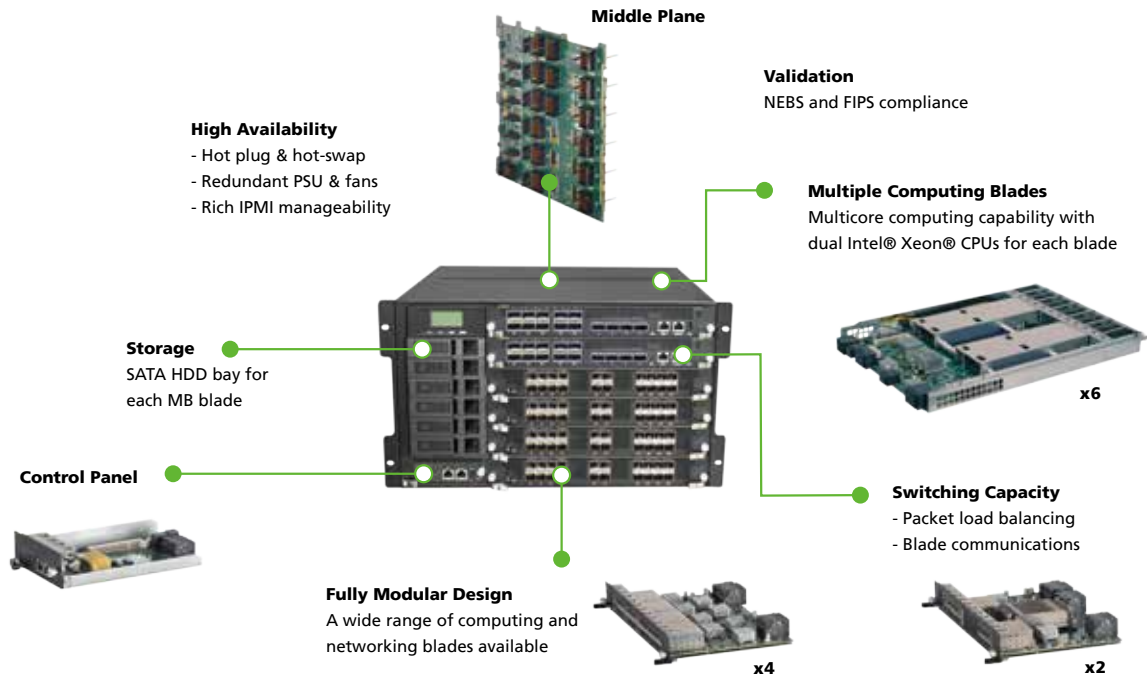
The implementation of virtualization technology, combined with AI-powered Multi-access Edge Computing (AI MEC), has significantly reduced telecom deployment costs compared to traditional core-driven architectures. By leveraging high-performance, virtualized MEC servers with AI capabilities, the total cost of ownership (TCO) can be slashed by over 90%, while also achieving savings of 75% in space utilization and a remarkable 66% reduction in power consumption.



HybridTCA Architecture

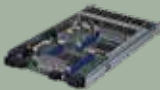




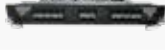
HTCA-6600 6U Multi-Node Edge Server

Lanner's HybridTCA Platforms seamlessly integrate control, management, and data processing within a unified system, enabling applications like AI-powered Multi-access Edge Computing (AI MEC). These advantages provide distinct benefits over the prevailing AdvancedTCA infrastructure, including superior hardware design, enhanced customization options, and improved cost and energy efficiency.



Compute and Networking Blades

Lanner's lineup of HTCA-compatible and swappable blades offers a heightened level of redundancy, interoperability, flexibility, increased bandwidth, and performance enhancements.

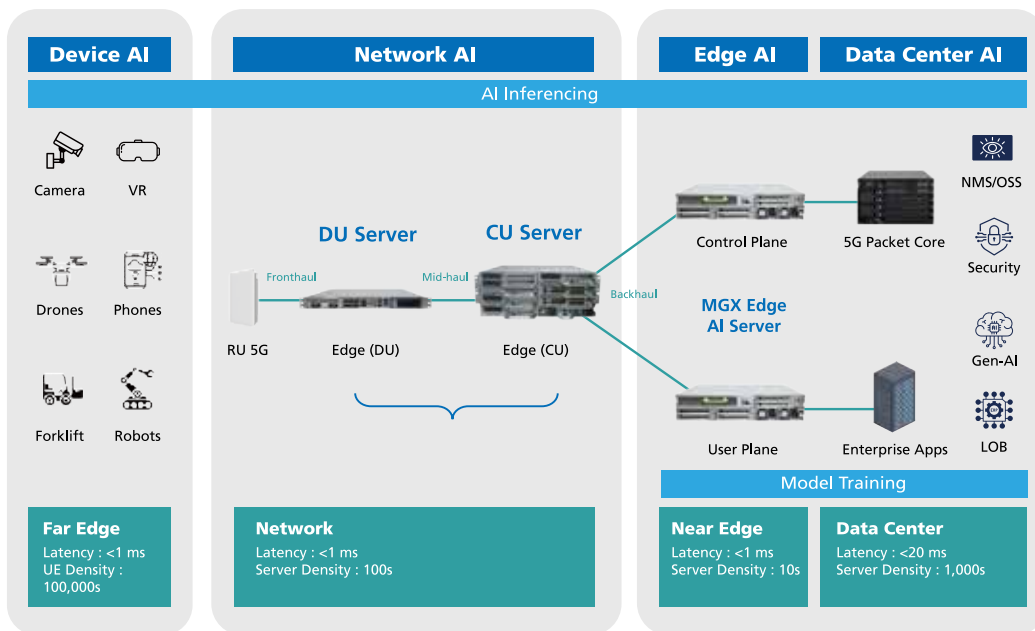
Blades	Picture	Features/Ports	Chipset
NEW HMB-6130		2 x 4th/5th Gen Intel® Xeon® Scalable Processor (Sapphire Rapids)	Intel C741
HCM-1030		6x 100GbE QSFP28, 4x 40GbE QSFP+, 16x 10GbE SFP+, IEEE 1588 expansion module	Broadcom StrataXGS Tomahawk BCM56960
NEW HDM-1006		Hot Swappable 6x NVMe SSD Trays Max up to 3.2TB/18W NVMe SSD	N/A
HLM-1101		14x 100GbE QSFP28	Intel Tofino T10-032D switch controller
HLM-1021		2x 100GbE QSFP28, 16x 25/10GbE SFP28, 4x 10GbE RJ45	Broadcom StrataXGS Trident-III BCM 56770
NEW HLM-1001		20 port 10GbE SFP+	Intel XL710 Ethernet Controller

The Compute, I/O blades or NIC modules shown in this material are not designed to operate independently without a compatible Lanner appliance. Please make sure a compatible Lanner appliance is in place before purchasing the modules.

AI RAN

As 5G evolves, it delivers ultra-low latency, faster speeds, and massive connectivity. However, traditional CPU-based systems struggle with computationally intensive virtualized RAN (vRAN) functions, causing performance bottlenecks. AI at the edge addresses these challenges by optimizing latency, bandwidth, and software-programmable NOS for RAN operations.

AI in RAN (AI-RAN) brings high-performance computing and generative AI inferencing to the edge, enhancing vRAN capabilities and improving spectral efficiency. As we move toward 6G, AI-RAN is vital to achieving ubiquitous AI in cellular networks.



DU/CU Servers for AI RAN

Lanner's Edge AI Servers are purpose-built for 5G edge networks, delivering AI-driven real-time data analysis and decision-making at the network edge. These short-depth servers are optimized for deployment in space-constrained 5G edge locations, supporting low-latency, high-bandwidth applications essential for industries relying on real-time insights.



CU Server - HTCA-E400

- Carrier-grade, full redundancy and high performance
- Support 5x1U compute sleds or 2x2U compute sleds
- Support 2x 1U switch sleds for redundancy
- 450mm Short Chassis for Edge Deployment



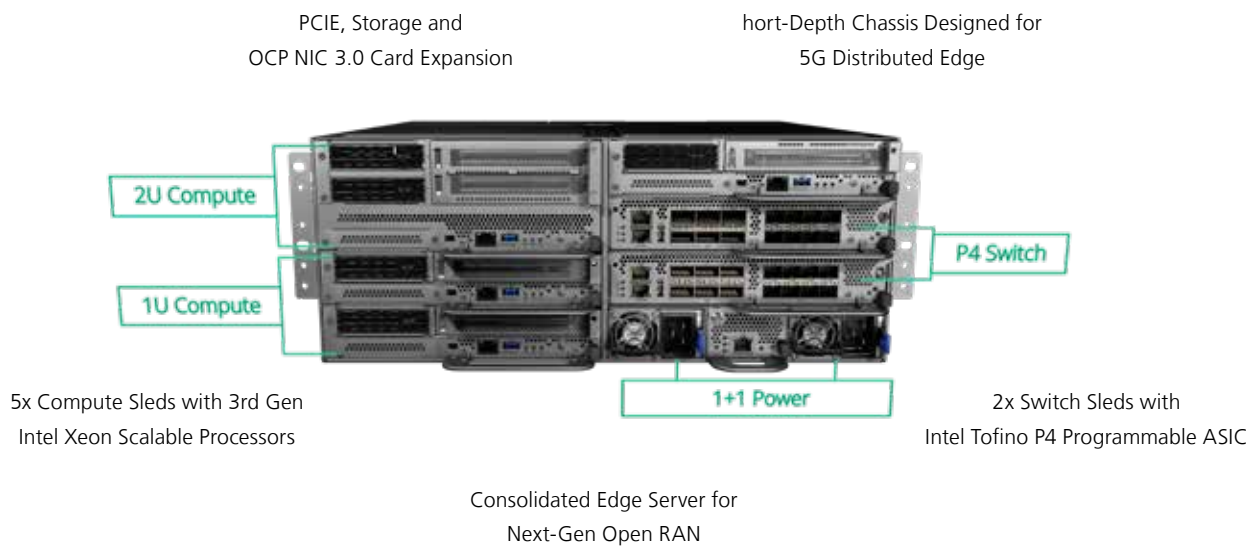
DU Server - ECA-5555

- Intel Granite Rapids-D Processor
- 8x DDR5 6400MHz RDIMM, Max. 512GB
- 8x 25G SFP28, 2 x 100G QSFP28
- 1 x PCI-E*16 Slot FHFL

HybridTCA Architecture

HTCA-E400 4U Multi-Node Edge Server

Lanner's HTCA-E400, driven by five Intel Xeon Scalable Processors, stands as a consolidated hyper-converged edge server meticulously crafted for AI-powered Multi-access Edge Computing (AI MEC) applications. This versatile platform is further empowered by Broadcom Switch and DPU/GPU acceleration, boasting programmable and intelligent switching capabilities. This distinct architecture aids in offloading open architecture CPUs, ensuring long-term cost-effectiveness. The HTCA-E400's support for protocol-independent and multi-Tbps networking performance eliminates hardware bottlenecks, presenting a robust and future-proof solution.



Compute and Switch Sleds

Lanner's HTCA-E400 compatible and swappable sleds lineup offers improved redundancy, interoperability, flexibility, increased bandwidth, and enhanced performance.

Blades	Picture	Features/Ports	Chipset
HTCA-E400		HybridTCA™ 4U telecom network appliance chassis	N/A
HMB-E100		1U Compute sled for HTCA-E400	Intel Ice Lake
HMB-E200		2U Compute sled for HTCA-E400	Intel Ice Lake
HLM-E110		1U Switch sled for HTCA-E400 Fabric interface with 6x 100GbE QSFP28, 8x 10/25GbE SFP+ Optional IEEE 1588	Intel Tofino Series

The Compute, I/O blades or NIC modules shown in this material are not designed to operate independently without a compatible Lanner appliance. Please make sure a compatible Lanner appliance is in place before purchasing the modules.

DU/CU Edge Servers



Feature	Description	ECA-4027	ECA-4035 NEW	ECA-5540
Form Factor		1U Rackmount	1U 19" Rackmount	1U Rackmount
Platform	Processor Options	Intel® Xeon® D2100 12/16 Cores	Intel® Xeon® D2700/2800 8~22 Cores	Intel® Xeon® Scalable Processor (Sapphire Rapids-SP)
	Chipset	SoC	SoC	Intel C741
OS Support		Linux Kernel 2.6 or above	Linux	Linux Kernel 2.6 or above
System Memory	Technology	DDR4 2666MHz REG DIMM	DDR4 3200/2933MHz REG, RDIMM	DDR5 4400 MHz RDIMM
	Max. Capacity	64 GB	256 GB	1024 GB
	Socket	2 x 288-pin DIMM	4 x 288-pin DIMM 2 x 288-pin DIMM (SKU B/C/E)	16 x 288-pin DIMM
Storage	SATA/M2	2 x 2.5" Internal 2 x M.2 NVMe 2280 M key	2 x 2.5" Internal (SKU A/D) 1 x M.2 NVMe 2280 M Key 1 x M.2 SATA 2280 M key	2 x 2.5" HDD/SSD 2 x M.2 NVMe (PCIe) 2280 M key
Networking	Ethernet Ports	1 x GbE RJ45 (i210/BMC) 8 x 10G SFP+, 2 x 40G QSFP+	2 x GbE RJ45 Intel® i210-AT 4 x 10G SFP+, 2x 25G SFP28 4 x 10G SFP+ Intel® XL710	1 x 1GbE RJ45 for MGMT
	Bypass	N/A	N/A	N/A
	Controllers	Intel i210 and BCM56172	N/A	N/A
	NIC Module Slot / Blade	N/A	N/A	1x OCP NIC
	IPMI	1 x onboard IPMI port	1 x onboard IPMI port	1 x onboard IPMI port
	Management Port	N/A	Yes	N/A
I/O Interface	Reset Button	Yes	Yes	Yes
	Console	1 x RJ-45	1 x RJ-45	1 x RJ-45
	USB	1 x USB 3.0	2 x USB 3.0	2 x USB 3.0
Expansion	PCIe	1 x PCI-E*16 FH/HL, support 75W device (by project)	1 x FHFL (PCIe*16, Double Width, 350W) 1 x OCP 3.0 Slot	1 x FHFL (PCIe16, double width, 350W) 2 x LP (PCIe8) or 1x FHHL (PCIe8)
	mini-PCIe	N/A	N/A	N/A
Cooling	Processor	Passive CPU Heatsink	Passive CPU Heatsink	Passive CPU Heatsink
	System	5 x smart fans	8 x Or 6 x Smart Fans (By SKU)	5x swappable cooling fans with smart fan
Environmental Parameters	Temperature	-40~65°C Operating -40~70°C Non-Operating	SKU A/D: 0~40°C Operating SKU B/C: -40~65°C Operating -40~70°C Non-Operating	0~40°C Operating -40~70°C Non-Operating
	Humidity (RH)	5~90% Operating 5~95% Non-Operating	5~95% Operating 5~95% Non-Operating	5~90% Operating 5~95% Non-Operating
Miscellaneous	LCD Module	N/A	N/A	N/A
	Watchdog	Yes	Yes	Yes
	Internal RTC with Li Battery	Yes	Yes	Yes
Dimensions	Dimensions (WxHxD)	438 x 371 x 44 mm	438 x 44 x 382.2 mm	438 x 44 x 580 mm
	Weight	5 kg	10.7 kg	TBD
Power	Watts / Type	400W 1+1 Redundant PSU	600W Or 800W	1600W AC PSU
	Input	-57 VDC~-40VDC dual input feed	AC 90~264V @47~63Hz (SKU A/B/C/D) DC -57VDC~-40VDC (SKU E)	AC 110 -240V
Approvals & Compliance		CE/FCC Class A, UL	CE/FCC Class A, UL, RoHS	CE/FCC Class A, UL, RoHS



ECA-5540C NEW	ECA-5555 NEW	ECA-6040 NEW
1U Rackmount	1U Rackmount	2U Rackmount
Intel® Xeon® Scalable Processor (Sapphire Rapids-SP)	Intel® Xeon® Granite Rapids D	Intel® Xeon® Processor Scalable Family (Codenamed Sapphire Rapids-SP/Emerald Rapid-SP/ Sapphire Rapids-EE)
Intel C741	SoC	Intel® C741
Linux Kernel 2.6 or above	Linux	Linux
DDR5 4400 MHz RDIMM	DDR5 6400 MHz REG , RDIMM	DDR5 4800MHz RDIMM
1024 GB	256 GB	1024 GB
16 x 288-pin DIMM	4 x 288-pin DIMM	16 x 288pin RDIMM
2 x 2.5" HDD/SSD 2 x M.2 NVMe (PCIe) 2280 M key	2 x M.2 NVMe 22110/2280 M Key	4 x 2.5" HDD/SSD Or 4x U.2 1 x M.2 NVMe (PCIe) 2242/2260 M Key 1 x M.2 (PCIe) 2280 M Key
1 x GbE RJ45, 12x 10GbE SFP+	2 x GbE RJ45 Ports, 8x 25GbE SFP28 Ports, 2 x 100GbE QSFP28	1 x GbE RJ45 For MGMT
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
1 x onboard IPMI port	1 x LOM For IPMI	1 x LOM Port Via BMC Chip
N/A	N/A	Yes
Yes	Yes	Yes
1 x RJ-45	1 x RJ45	1 x RJ45
2 x USB 3.0	2 x USB 3.0	2 x USB 3.0
1 x FHHL PCIe	1 x PCIe*16 FHFL	2 x FHFL (PCIe*16, Double Width, 350W) 2 x LP (PCIe*8) 1 x OCP 3.0 Slot
N/A	N/A	N/A
Passive CPU Heatsink	Passive CPU Heatsink	Passive CPU Heatsink
5x swappable cooling fans with smart fan	8x swappable cooling fans with smart fan	6x swappable cooling fans with smart fan
-40~65°C Operating -40~70°C Non-Operating	0~55°C Operating -40~55°C Operating (By SKU) -40~70°C Non-operating	0~40°C Operating -20~70°C Non-Operating
5~90% Operating 5~95% Non-Operating	5~95% Operating 5~95% Non-Operating	5~90% Operating 5~95% Non-Operating
N/A	N/A	N/A
Yes	Yes	Yes
Yes	Yes	Yes
438 x 44 x 580 mm	438 x 44 x 480 mm	438 x 88 x 580.1 mm
TBD	TBD	20 kg
1600W AC PSU	800W	1600W AC Redundant
AC 110 -240V	DC 44~52V Dual Inlet	AC 200~240V @50~60 Hz
RoHS, CE/FCC Class A, UL	RoHS, CE/FCC Class A, UL	RoHS, CE/FCC Class A, UL

CU & MEC Edge Servers



Feature	Description	ECA-6050 NEW	ECA-6051 NEW	HTCA-6200
Form Factor		2U Rackmount	2U Rackmount	2U Rackmount
Platform	Processor Options	Intel® Xeon® 6 Processor (Sierra Forest- SP/Granite Rapid-SP)	Intel® Xeon® 6 Processor (Sierra Forest- SP)	Up to 4x Intel® Xeon® Scalable Processor (Ice Lake-SP/Sapphire Rapids-SP)
	Chipset	N/A	N/A	Intel C621/C627/C741
OS Support			Linux	Linux Kernel 2.6 or above
System Memory	Technology	DDR5 6400MHz RDIMM	DDR5 6400MHz REG RDIMM (Sierra Forest-SP CPU) DDR5 8000MHz REG RDIMM (Granite Rapids-SP)	DDR5 4800 MHz REG DIMM
	Max. Capacity	1024GB	1024GB (Sierra Forest-SP CPU) 2048GB (Granite Rapids-SP)	1024GB per blade
	Socket	8x 288pin DIMM	8x 288pin DIMM	16x 288pin DIMM per blade
Storage	SATA/M2	4 x E1.5 NVMe, 2x M.2 2280/22110 M Key	2 x E1.5 NVMe, 2 x M.2 2280 M Key	2 x 2.5" Swappable HDD drive bays
Networking	Ethernet Ports	1x GbE RJ45 MGMT (i210)	1x GbE RJ45 MGMT (i210)	Blade 1~2: Switch Fabric Blade or Ethernet I/O Blade
	Bypass	N/A	N/A	N/A
	Controllers	N/A	N/A	Depends on blade specification (HLM series)
	NIC Module Slot / Blade	N/A	N/A	N/A
	IPMI	NCSI To i210	NCSI To i210	1 x onboard IPMI port
	Management Port	N/A	N/A	1 x Management port
I/O Interface	Reset Button	Yes	N/A	Yes
	Console	1 x RJ-45	1 x Type-C	1 x RJ-45
	USB	2 x USB 3.0	1 x USB 3.0	1 x USB 2.0
Expansion	PCIe	4x FHFL (PCIex16, Double Width, 600W, Support NVlink) 1xFHHL (PCIex16, Double Width, 150W)	SKU A: 2x PCIe*16 FHFL (Double Width) 1x PCIe*16 FHHL SKU B: 1x PCIe*16 FHFL (Double Width) 1x PCIe*16 LP	N/A
	mini-PCIe	N/A	N/A	N/A
Cooling	Processor	Passive CPU Heatsink	Passive CPU Heatsink	CPU heatsink with fan duct
	System	5 x cooling fans	6 x cooling fans	5 x hot-swappable cooling fans per blade
Environmental Parameters	Temperature	0 to 40°C Operating -40~70°C Non-Operating	0~40°C Operating -40~70°C Non-Operating	0~40°C Operating -20~70°C Non-Operating
	Humidity (RH)	5~95% Operating 5~95% Non-Operating	5~95% Operating 5~95% Non-Operating	5~90% Operating 5~95% Non-Operating
Miscellaneous	LCD Module	N/A	N/A	2 x 20 characters
	Watchdog	Yes	Yes	Yes
	Internal RTC with Li Battery	Yes	Yes	Yes
Dimensions	Dimensions (WxHxD)	438 x 88 x 760 mm	438 x 88 x 420 mm	438 x 88 x 685 mm
	Weight	TBD	17 kg	26 kg
Power	Watts / Type	1600W CRPS AC/DC PSU (Support N+1)	1600W 1+1 Redundant PSU	AC 2000 watt N+1 Redundant per blade DC 1600 watt N+1 Redundant per blade PM bus support
	Input	AC: 110 - 240V	200-240 VAC , 9.5A 50Hz ~ 60Hz	AC 85 ~ 264 V DC -36V ~ -72V
Approvals & Compliance		CE/FCC Class A, UL, CB	CE/FCC Class A, UL, CB	CE Class A, FCC Class A, RoHS, NEBS design compliance



HTCA-E400	HTCA-6400	HTCA-6600
4U Rackmount	4U Rackmount	6U Rackmount
Up to 5x Intel® Xeon® Scalable Processor (Ice Lake-SP)	Up to 4x Intel® Xeon® Scalable Processor (Ice Lake-SP/Sapphire Rapids-SP)	Up to 4x Intel® Xeon® Scalable Processor (Ice Lake-SP/Sapphire Rapids-SP)
Intel C621/C627	Intel C621/C627/C741	Intel C621/C627/C741
Linux Kernel 2.6 or above	Linux Kernel 2.6 or above	Linux Kernel 2.6 or above
DDR4 DIMMs	DDR5 4800 MHz REG DIMM	DDR5 4800 MHz REG DIMM
512GB per compute sled	1024GB per blade	1024GB per blade
8x 288pin DIMM per compute sled	16x 288pin DIMM per blade	16x 288pin DIMM per blade
2 x 2.5" Swappable HDD drive bays	8 x 2.5" Swappable HDD drive bays	6 x 3.5" Swappable HDD drive bays
2x Switch Fabric Sleds	Blade 1~2: Switch Fabric Blade Blade 3~4: Ethernet I/O Blade	Blade 1~2: Switch Fabric Blade Blade 3~6: Ethernet I/O Blade
N/A	N/A	N/A
Depends on blade specification	Depends on blade specification (HLM series)	Depends on blade specification (HLM series)
1x OCP NIC per compute sled	N/A	N/A
1 x onboard IPMI port	1 x onboard IPMI ports	1 x onboard IPMI ports
1 x Management port	1 x Management port	1 x Management port
Yes	Yes	Yes
1 x RJ-45	1 x RJ-45	1 x RJ-45
N/A	1 x USB 2.0	1 x USB 2.0
1x PCIe slot per sled 2U Compute sled: FH3/4L double or single width PCIe Card 1U Compute sled: single width PCIe Card	N/A	N/A
N/A	N/A	N/A
CPU heatsink with fan duct	CPU heatsink with fan duct	CPU heatsink with fan duct
4 x hot-swappable cooling fans per 1U Compute Sled 2 x hot-swappable cooling fans per 2U Compute Sled	5 x hot-swappable cooling fans per blade	5 x hot-swappable cooling fans per blade
0~40°C Operating -20~70°C Non-Operating	0~40°C Operating -20~70°C Non-Operating	0~40°C Operating -20~70°C Non-Operating
5~90% Operating 5~95% Non-Operating	5~90% Operating 5~95% Non-Operating	5~90% Operating 5~95% Non-Operating
N/A	2 x 20 characters	2 x 20 characters
Yes	Yes	Yes
Yes	Yes	Yes
438 x 88 x 685 mm	438 x 177.3 x 685 mm	438 x 265.9 x 685 mm
27.5 kg	40 kg	55 kg
AC 3000W 1+1 Redundant PSU DC 1600W 220V 1+1 Redundant PSU	AC 2000 watt N+1 Redundant per blade DC 1600 watt N+1 Redundant per blade PM bus support	AC 1200 watt N+1 Redundant per blade DC 1010 watt N+1 Redundant per blade PM bus support
DC -36V ~ -72V	AC 85 ~ 264 V DC -36V ~ -72V	AC 85 ~ 264 V DC -36V ~ -72V
CE Class A, FCC Class A	CE Class A, FCC Class A, RoHS, NEBS design compliance	CE Class A, FCC Class A, RoHS, NEBS design compliance

AI Edge

AI Edge video analytics, powered by 5G connectivity, leverages artificial intelligence and machine learning algorithms to analyze and interpret video data at the edge. This enables the automatic detection of objects, recognition of actions and behaviors, and generation of business intelligence, enhancing safety, security, and efficiency across various applications.

Lanner offers a full range of 5G connected AI-accelerated Edge AI platforms that enable video analytics solutions in industrial settings. With embedded AI accelerators to process deep learning inferencing in real-time, these edge AI computers are designed to handle multiple streams of video simultaneously, detecting and analyzing a wide range of objects, faces, and actions in industrial environments.



Edge AI Servers for Video Analytics

- ✓ Retail Ad Metrics & Dwell Analysis
- ✓ Factory Quality Inspection
- ✓ Traffic Management
- ✓ City Physical Security



Edge AI Computer



11th Gen. Intel Core



11th Gen. Intel Core



Intel® Core™ Ultra

Model Name	IIoT-I530	IIoT-I531	EAI-I500 NEW
Processor System	11th Gen Intel® Core i7-1185GRE (Tiger Lake)	11th Gen Intel® Core i7-1185GRE (Tiger Lake)	Intel® Core™ Ultra 7/5 (Meteor Lake-H/U)
AI Acceleration Support	M.2 Hailo-8 AI Accelerator (by request)	M.2 Hailo-8 AI Accelerator (by request)	Hailo-8 AI Accelerator (by request)
Fanless	Yes	Yes	Yes
Max. Memory	64GB	64GB	96GB
Storage	1x mSATA, 1x M.2 2280 M-key NVMe 1x SATA 2.5" Drive bay	1x mSATA, 1x SATA 2.5" Drive bay	1x M.2 2280 M-key NVMe 2x 2.5" SATA drive bay
Ethernet	2x 2.5GbE RJ45, 6x GbE RJ45 for PoE+	6x 2.5Gbps RJ45 (4x RJ45 For PoE+)	3x 2.5GbE RJ45, 1x GbE RJ45
I/O	2x COM, 8xDI, 4xDO, 4x USB 3.0	4x COM, 4xDIO, 4x USB 3.0	2x COM, 4x DIO, 4x USB
Expansion	1x M.2 3042/50/52 B-key for 5G Sub6 / LTE 1x M.2 2230 E-key for WiFi	1x M.2 3042/50/52 B-key for 5G Sub6 / LTE 1x M.2 2230 E-key for WiFi 1x PCIe X1 Gen 3	1x M.2 3042/50/52 B-key for 5G Sub6 / LTE 1x M.2 2230 E-key for WiFi
Power	+24VDC	+24VDC	+24VDC
Mechanical	270 x 76 x 180 mm	270 x 76 x 220 mm	287 x 76 x 180 mm
Environment	-40°C~55°C	-40°C~75°C	0°C~40°C
Driver Support	Depending on Intel Driver Release	Windows 10 IoT Linux Dabian 11 Pre-install	Windows10, Windows 11 Linux Ubuntu
Certification	CE/FCC, Class A	CE/FCC, Class A / UL	CE/FCC, Class A / UL

Edge AI Computer



Model Name	EAI-I131	EAI-I133 NEW	EAI-I731 NEW
Processor System	NVIDIA® Jetson Orin NX/Nano	NVIDIA® Jetson Orin NX/Nano	12th/13th/14th Gen Intel® Core i
AI Acceleration Support	NVIDIA Ampere Architecture	NVIDIA Ampere Architecture	Nvidia A2, L4, RTX 3000 or any FHHL GPU cards (up to 75W)
Fanless	YES	YES	YES
Max. Memory	16GB	16GB	64GB
Storage	1x M.2 M-key NVMe	1x M.2 M-key NVMe	1x M.2 B-key SATA 1x M.2 M-key NVMe 2x 2.5" SATA drive bay
Ethernet	2x GbE RJ45 for PoE+	3x GbE RJ45	2x 2.5 GbE RJ45, 1x RJ45 LOM
I/O	2x COM, Audio, 2x USB 2.0 1x HDMI, 4x DIO	3x COM, 4x USB, 1x HDMI	1x Console, 2x COM, 1x HDMI, 1x DP 1.4 8x USB 3.2 Gen1, 4x DIO, Audio
Expansion	1x M.2 B-key for 5G Sub6 / LTE 1x M.2 E-key for WiFi	1x M.2 B-key for 5G Sub6 / LTE 1x M.2 E-key for WiFi	1x M.2 B-key for 5G Sub6 / LTE 1x M.2 E-key for WiFi 1x PCIe X16 Gen 4, 1x PCIe X4 Gen 3
Power	Typical +12VDC	Typical +12VDC	Typical +12 or +24VDC
Mechanical	201 x 65 x 196 mm	167 x 179.5 x 30 mm	198 x 250 x 286 mm
Environment	-40°C~75°C	0°C~40°C	-25~65°C
Driver Support	Linux Open Source On NVIDIA SDK	Linux Open Source On NVIDIA SDK	Win 10 IoT Linux Dabian 11, Ubuntu 20.04
Certification	CE/FCC Class A, UL	CE/FCC Class A, UL	CE/FCC Class A, UKCA, UL, CB, RoHS

Edge AI Computer



Model Name	EAI-I730 NEW	EAI-V330	EAI-R530 NEW
Processor System	12th/13th/14th Gen. Intel® Core i	Intel® Atom® x6000 Series	13th Gen Intel® Intel Core i
AI Acceleration Support	NVIDIA L4, A2, A10, RTX 4000 or any FHFL GPU cards (Up to 300W)	M.2 Hailo-8 AI Accelerator	Hailo-8 AI Accelerator and Nvidia MXM A2000 GPU cards
Fanless	YES	YES	YES
Max. Memory	64GB	32GB	64GB
Storage	1x M.2 B-key SATA 1x M.2 M-key NVMe 4x 2.5" SATA drive bay	1x eMMC128GB onboard 1x 2.5" SATA drive bay	2x M.2 M-key NVMe 2x 2.5" SATA drive bay in a caddy
Ethernet	2x 2.5GbE RJ45	6x GbE RJ45(4x GbE PoE), 1x OOB Port	4x 2.5GbE RJ45, 2x 2.5GbE PoE
I/O	2x COM, 8x USB 3.2, 4x DIO	4x USB, 2x COM, 1x CAN 2.0 4xDI, 2xDO, 2x HDMI, DVI	3x USB, 2x HDMI
Expansion	1x M.2 B-key for 5G Sub6 / LTE 1x M.2 E-key for WiFi 2x PCIe X16 Gen 4, 2x PCIe X4 Gen 3	1x M.2 B-key for 5G Sub6 / LTE 1x M.2 E-key for WiFi 1x PGN module for 5G Sub6 / LTE	2x M.2 B-key for 5G Sub6 / LTE 1x M.2 E-key for WiFi 1x PCIe X8 Gen 3 MXM 4x PGN module for 5G Sub6 / LTE
Power	100~230VAC	12~48VDC	24-110VDC
Mechanical	374 x 250 x 419 mm	273.8 x 98 x 185 mm	438 x 300 x 111.25 mm
Environment	-25°C~65°C	-40°C~70°C	-40°C~70°C
Driver Support	Linux Kernel 5.x, Ubuntu Win 10	Linux kernel 2.6.X, Ubuntu 20.04, Debian 10, Win 10/11 IoT	Linux Debian 10, Win 11 IoT
Certification	CE/FCC Class A, UKCA, UL, CB, RoHS	CE/FCC Class A, UKCA, E13, RoHS3, UL/cUL (UL-62368-1) & CB, MIL-STD-810G	CE/FCC Class A, MIL-STD-810G, EN50155, EN45545-2, UL/cUL 62368-1

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