



Industrial Edge

Rugged Edge Computing and OT Security Appliances for Critical Infrastructure







Purpose-built Computing and OT Security for Industrial Edge

The rapid adoption of industrial IoT technology in recent years is driving solution providers to reallocate the resources for data analysis from the centralized cloud to the distributed edges, where tremendous volume of data is generated from the edge devices and sensors. Reallocating computing and analytics to Intelligent Edges can reduce the latency, cost and security arise from communications between the data source and the data centers.

Over the past ten years, Lanner has dedicated itself in supplying millions of state-of-the-art industrial computing platforms that have been deployed worldwide as Intelligent Edge Appliances to perform analysis, connectivity and storage of the data generated within proximity of sensor and devices. Our comprehensive rugged computing platforms have met various specifications and standards required by the mainstream Intelligent Edge verticals. Today, we have comprehensive product lines designed and manufactured for industrial AI, machine vision, transportation, intelligent video analytics, substation automation and OT network security.

As we are entering the age of 5G, Lanner's Intelligent Edge BU will continue to strengthen our product range by designing tailor-made hardware platforms that consolidate the latest technologies in x86 computing, versatile I/Os, rugged design and LTE connectivity, to help accelerate real-time data analysis at the edge, while reducing deployment efforts and costs for intelligent edge solutions.

Jeans Tseng
CTO

Industrial Edge Solution Overview



Industrial IoT Appliances

Lanner delivers top-of-the-line x86 industrial Appliances designed for data acquisition and analysis. Featuring compact design, flexible I/O and PCIe expansion, Lanner fanless industrial platforms have been meeting many challenging specifications required by most IIoT edge computing applications.



- Machine Automation Controller
- Building Automation
- Substation Automation
- Environment Monitoring
- Physical Security

In-vehicle Computers

Lanner offers E-Mark and EN50155 certified computers designed to revolutionize edge computing and network security in the realm of smart transportation. These rugged computers will enable the deployment of roadside traffic monitoring, in-vehicle surveillance and railway network cybersecurity.



- Fleet Management
- Traffic Monitoring
- Public Transit NVR/Surveillance
- Passenger Information System
- Railway Cybersecurity

The rise of industrial IoT has been an enormous driving force for automation, control technology and industrial communications. To meet the requirements for mission-critical applications for smart manufacturing, substation automation, intelligent transportation and industrial cyber security, Lanner offers a wide selection of fanless industrial computing platforms featuring the cutting-edge technologies, rugged design, versatile I/Os and customizable options.



Industrial SD-WAN Platforms

Lanner provides fanless rugged Multi-WAN uCPE platforms, featuring IoT-enhanced CPU with 5G/LTE connectivity and environmental endurance. These uCPE platforms consume low volume of power and delivers the required performance for SD-WAN deployed at remote, distributed locations or mobile vehicles



- 5G Outdoor Gateway for Remote Sites
- Mobile SD-WAN and 5G/LTE Failover
- Rugged Gateway for Vehicle and Railway
- Wayside / Roadside communication Gateway

Industrial OT Security Appliances

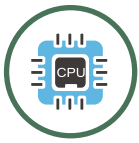
Our rugged industrial cyber security platforms provide the needed network security protection for ICS/SCADA networks in critical infrastructures. Our platforms are designed to conduct protocol filtering, packet inspection, white-listing and network traffic monitoring.



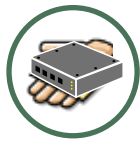
- Critical Infrastructure Cyber Security
- Industrial UTM / Firewall / DPI
- ICS/SCADA Cyber Security
- IIoT Security Gateway
- IT-OT Security Convergence

Industrial IoT Appliances

Lanner's industrial computing appliances are designed for edge gateway and smart manufacturing applications, offering stability, longevity, high availability and a perfect balance between size, cost, performance and power consumption.



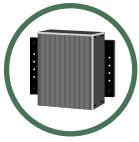
High-Performance CPU



Compact Design



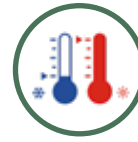
MIO Expansion Layer



Mounting Options



Easy-to-open Chassis



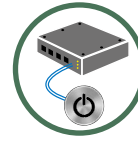
Wide Temperature Range



Fanless Design



5G/LTE/Wifi6 Ready



Easy Access to Power Switch



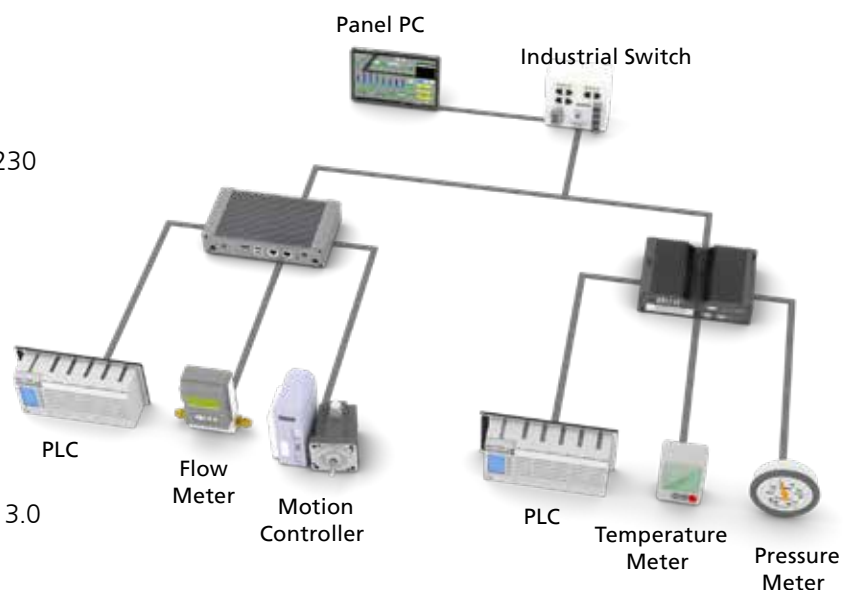
Factory Automation

IIoT-I300

- Intel® Celeron® N3350/J3455
- 3x/2x GbE LAN, 2x RS232/422/485 COM
- 2x USB 3.0 & 2x USB 2.0, 2x Display Ports, 4x DIO
- 1x M.2 3042 B Key For LTE w/ Dual SIM, 1x M.2 2230 E-Key For WiFi
- 1x mSATA, 1x 2.5" SATA Drive Bay (Optional)
- 1x DDR3L SODIMM, Max. 8GB

IIoT-I530

- 11th Gen Intel® Core i CPU
- 2x DDR4 2133/2400 SO-DIMM, Max. 64GB
- 6x PoE+, 2x 2.5 Gbps RJ45, 2x COM Ports, 4x USB 3.0
- Intel® Iris® Xe Graphics, 2x HDMI, 8x DI & 4x DO
- 1x M.2 B-Key w/ Nano SIM For 5G, 1x M.2 E-Key For WiFi-6
- 1x M.2 M-Key For PCIe Gen4 x4 NVMe SSD



Industrial IoT Appliances



Intel Bay Trail



Intel Bay Trail



Intel Apollo Lake

Model Name	LEC-7230/7230M/7230L	LEC-7233	LEC-7242
Processor System	Intel® Celeron® J1900/N2930 or Intel® Atom™ E3845/E3825	Intel® Celeron® N2807	Intel® Celeron® N3350/J3455 or Intel® Atom® X5-E3940
Memory	8GB/4GB	4GB	8GB
Graphics	1x VGA, 1x HDMI	1x HDMI	1x HDMI, 1x DP
Storage	1x 2.5" HDD/SSD Drive Bay 1x CF Type I/II Socket	1x mSATA 1x SATA Connector (Reserved)	Onboard 64GB eMMC 1x SATA (Reserved)
Ethernet	2x RJ45	3x RJ45	2x RJ45
I/O	2x COM, 2x DIO 2x USB 2.0, 1x USB 3.0	2x COM, 4x DIO, 2x USB 2.0, 1x USB 3.0	1x COM, 2x USB 3.0
Expansion	1x Full-sized Socket or Mini-PCIe	1x mini-PCIe Full-sized Socket 1x mini-PCIe Half-sized Socket	1x M.2 3042 Socket for LTE/WiFi 1x mini-PCIe Socket for LTE
Power Supply	12VDC	12VDC	+12VDC
Dimensions (W x H x D)	LEC-7230: 198 x 42 x 144.8 mm LEC-7230L: 195.6 x 41 x 146.8 mm LEC-7230M: 198 x 42 x 145 mm	164.5 x 30 x 143 mm	168 x 40 x 145 mm
Weight	LEC-7230: 1.07 kg LEC-7230L: 0.9 kg LEC-7230M: 1.2 kg	0.9 kg	1 kg
Operating Temperature	LEC-7230: 0°C~55°C, LEC-7230L: 0°C~40°C, LEC-7230M: 0°C~60°C	0°C ~ 50°C	0°C ~ 50°C / -20°C ~ 70°C
Driver Support	WES 7 E/Win 7 Pro FES Windows 10 IoT Enterprise, Linux	WES 7 E/Win 7 Pro FES WE 8.1 Industry Pro, Win 10 IoT, Linux	Win 10 IoT 2019, Linux
Certification	CE/FCC Class A	CE, FCC Class A	CE/FCC Class A, UL, PTCRB

Industrial IoT Appliances



Intel Apollo Lake



Intel Tiger Lake



Intel Tiger Lake

Model Name	IIoT-I300	IIoT-I530	IIoT-I531 NEW
Processor System	Intel® Celeron® N3350/J3455	11th Gen Intel® Core™ i (Up to i7-1185GRE)	11th Gen Intel® Core™ i (Up to i7-1185GRE)
Memory	8GB	64GB	64GB
Graphics	2x DP	2x HDMI	2x HDMI
Storage	1x SATA, 1x mSATA	1x 2.5" HDD/SSD Drive Bay 1x CF Type I/II Socket	1x mSATA, 1x SATA
Ethernet	3x/2x RJ45	2x 2.5Gbps RJ45, 6x GbE RJ45 For PoE+	2x 2.5Gbps RJ45, 4x GbE RJ45 For PoE+
I/O	2x COM, 4x DIO, 2x USB 2.0, 2x USB 3.0	2x COM, 8x Isolated DI, 4x Isolated DO 4x USB 3.0	2x COM, 4x DIO, 4x USB 3.0
Expansion	1x M.2 3042/3052 B-Key For LTE 1x M.2 2230 E-Key For WiFi	1x 3042/3052 B-Key For 5G 1x 2230 E-Key For WiFi-6 1x 2280 M-Key For PCIe Gen4 x4	1x PCIe 3.0 x1 FHHL 1x 3042/3050/3052 B-Key For 5G 1x 2230 E-Key For WiFi-6
Power Supply	24VDC	24VDC	24VDC
Dimensions (W x H x D)	198 x 45.8 x 142 mm	270 x 76 x 180 mm	270 x 76 x 220 mm
Weight	1 kg	TBC	TBC
Operating Temperature	0°C ~ 55°C	-40°C ~ 55°C	-40°C ~ 70°C
Driver Support	Win 10 IoT, Linux Debian 11	Linux	Win 10 IOT, Linux Dabian 11
Certification	UL, CB, CE/FCC Class A	CE/FCC, Class A	CE/FCC, Class A, UL

Industrial IoT Appliances



Intel Apollo Lake



Intel Skylake



Intel Coffee Lake S

Model Name	LEC-2137	LEC-2580	LEC-2290A
Processor System	Intel® Celeron® N3350 or Atom™ x7-E3950	Intel® Core™ i7-6600U/ i5-6300U/i3-6100U	Intel® Core™ i7-8700T/i7-8700/i7-9700TE Intel® Xeon® E-2278GEL
Memory	8GB	16GB	32GB
Graphics	1x HDMI	2x HDMI	2x HDMI
Storage	1x mSATA Socket (Half Size) 1x 2.5" HDD/SSD Drive Bay	1x mSATA Socket 2x 2.5" HDD/SSD with RAID 0/1	2x Removable HDD/SSD Drive Bays
Ethernet	6x RJ45 / 2x RJ45 + 4x PoE	6x RJ45	2x GbE RJ45, 4x PoE RJ45
I/O	1x COM, 2x USB 2.0, 2x USB 3.0	4x COM, 2x USB 2.0, 4x USB 3.0	6x COM, 8x DIO, 4x USB 3.0
Expansion	1x mini-PCIe Full-sized Socket with SIM Card Reader	1x mini-PCIe Full-sized Socket with SIM Card Reader 1x Half-sized Socket	1x Mini-PCIe, 1x M.2 B-Key 1x PCIe*16
Power Supply	12VDC ~ 36VDC	12VDC ~ 30VDC	9VDC ~ 30VDC
Dimensions (W x H x D)	198 x 57 x 143.8 mm	240 x 60 x 173.8 mm	400 x 385 x 291 mm
Weight	1.6 kg	2 kg	6.2 kg
Operating Temperature	0°C ~ 55°C/-20°C~55°C	0°C ~ 60°C	-20°C ~ 55°C (35W CPU) -20°C ~ 45°C (65W CPU)
Driver Support	WES7E, Win 7 Pro FES, WE 8.1 Industry Pro (64-bit), Linux	WES7, Win 7 Pro FES, WE 8.1 Industry Pro, Win10 IoT, Linux	Windows 10 IoT 64bits, Ubuntu 16, Fedora 25, Cent OS 7, Linux
Certification	CE/FCC, Class A	CE/FCC, Class A, UL/CB (62368)	CE/FCC, Class A, UL/CB (62368)

Industrial IoT Appliances



Intel Bay Trail



Intel Bay Trail



Intel Apollo Lake

Model Name	LEC-3030	LEC-3031	IIoT-I330
Processor System	Intel® Celeron N2807 or Intel Atom E3815	Intel® Atom™ E3825	Intel® Atom™ X7-E3950/N3350
Memory	4GB	8GB	8GB
Graphics	1x VGA	1x VGA	1x Display Port
Storage	1x SATA port and HDD kit	1x SATA, 1x mSATA mini	Onboard eMMC 64GB 1x SATA, 1x mSATA
Ethernet	2 x RJ45	2 or 4 x RJ45 1.5KV Magnetic Isolation Protection	4x RJ45 (1x pair Bypass) or 2x RJ45 (one pair Bypass)+ 2x SFP
I/O	2x COM, 4x DIO, 1x USB 2.0, 1x USB 3.0	4~8x COM, 2x DIO, 1/3x USB 2.0, 1x USB 3.0	2x COM, 2x CAN Bus 4x DIO, 2x USB 3.0
Expansion	N/A	N/A	1x M.2 B-Key For LTE, 1x M.2 E-Key For Wifi-6
Power Supply	12VDC ~ 36VDC	12VDC ~ 36VDC	12VDC ~ 24VDC
Dimensions (W x H x D)	52 x 130 x 127 mm	69 x 169.5 x 127 mm	160 x 156.5 x 81 mm
Weight	1 kg	1.2 kg	2 kg
Operating Temperature	-20°C ~ 55°C/-40°C ~ 70°C	-20°C ~ 70°C	-40°C ~ 70°C (Industrial-grade SKU) 0°C ~ 50°C (Commercial grade SKU)
Driver Support	Windows 7, Windows 7 Embedded, Linux	Windows 7, Windows 7 Embedded, Linux	Win 10 IoT, Linux Debian 10
Certification	CE/FCC Class A	CE/FCC Class A	CE/FCC Class A, UL+CB, UKCA, ICES issue 7, C1D2 (for SKU B)

In-Vehicle Computers

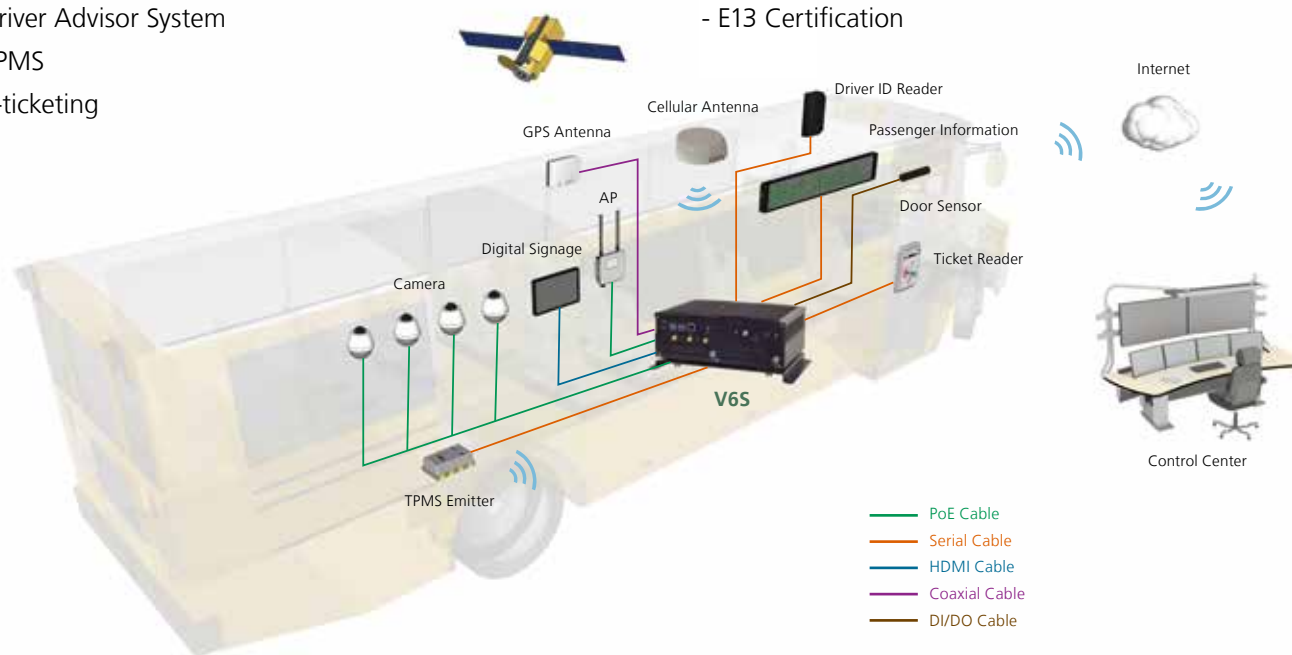
Vehicle Video Analytics

Target Applications

- Passenger Information
- Wi-Fi Hot Spot & LTE Connectivity
- Job Dispatch & GPS Tracking
- Emergency Alarm System
- Driver Advisor System
- TPMS
- E-ticketing

V6S

- Intel® Core i7-7600U CPU
- 10 x PoE, 1x Mini-PCle with 2 SIM sockets for 4G/LTE
- 1x Removable 2.5" Drive Bay
- Suspension Kit
- E13 Certification



In-Vehicle Computers



Intel Bay Trail



Intel Apollo Lake, 4x PoE



Intel Kaby Lake, 10x PoE

Model Name	LVC-2001	V3S	V6S
Processor System	Intel® Atom™ E3845	Intel® Atom™ x7-E3950	Intel® Core™ i7-7600U
Memory	4GB	8GB	32GB
Graphics	1x VGA, 1x HDMI	2x DVI-D	1x DVI-D, 1x VGA
Storage	1x Internal 2.5" 9.5 mm Drive Bay	1x Removable 2.5" Drive Bay	1x 2.5" HDD/SSD Drive Bay(optional) 1x mSATA socket
Ethernet	2x RJ45	6x RJ45 (4x PoE or 2x PoE+)	11x RJ45 (5x PoE & 5x PoE+)
I/O	2x COM, optional CAN Bus, 1x USB 2.0, 1x USB 3.0	2x COM, optional CAN Bus, 8x DIO, 2x USB 2.0,	2x COM, 1x CAN Bus 6x DIO, 2x USB 2.0, 2x USB 3.0
Expansion	2x Full-size mini-PCle socket, 1x Half-size mini-PCle socket	1x Full-size Mini-PCle, 1x Half-size Mini-PCle	1 x Full-sized mini-PCle, 1x Removable PGN Caddy
Power Supply	9VDC ~ 36VDC	9VDC ~ 36VDC	9VDC ~ 36VDC
Dimensions (W x H x D)	198 x 52 x 185 mm	273.8 mm x 73 mm x 185 mm	307 x 188 x 105.2 mm
Weight	1.8 kg	4 kg	5.5 kg
Operating Temperature	-20°C ~ 60°C	-40°C ~ 70°C	-20°C ~ 60°C
Driver Support	WES7 (WS7E)/W7 Pro SP1/WES7 STD/WIN 10 IOT, Linux	Windows 10, Linux	Win10 IoT, Linux
Certification	CE/FCC Class A, E13	CE Class A, FCC Class A, E13 include ISO 7637-2, SAE J1455&J1113-11	CE Class A, FCC Class A

In-Train Computers

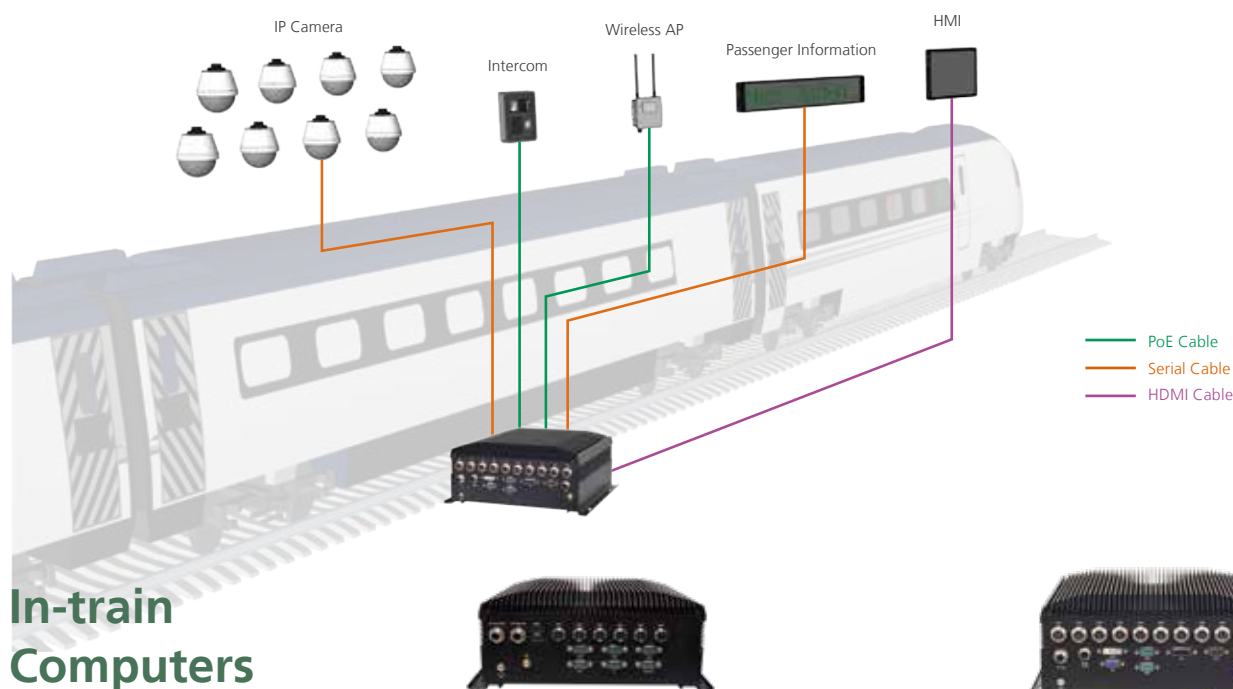
Railway Video Analytics

Target Applications

- Onboard Video Surveillance
- Audio Intercom
- GPS Location-Based Service
- Emergency Alarm System
- Passenger Information System
- Wi-Fi Hot Spot

R6S

- Intel® Core i7-7600U Processor
- EN50155 and EN45545 Certified
- 10x PoE, CAN Bus, 4x USB, 2 x COM, VGA, DVI-D
- 3x Mini-PCIe with SIM Card Readers
- Wide Operating Temperature -40 to 70°C
- Onboard GPS and G-sensor, 1x Removable 2.5" Drive Bay



In-train Computers

Intel Apollo Lake, 6x PoE

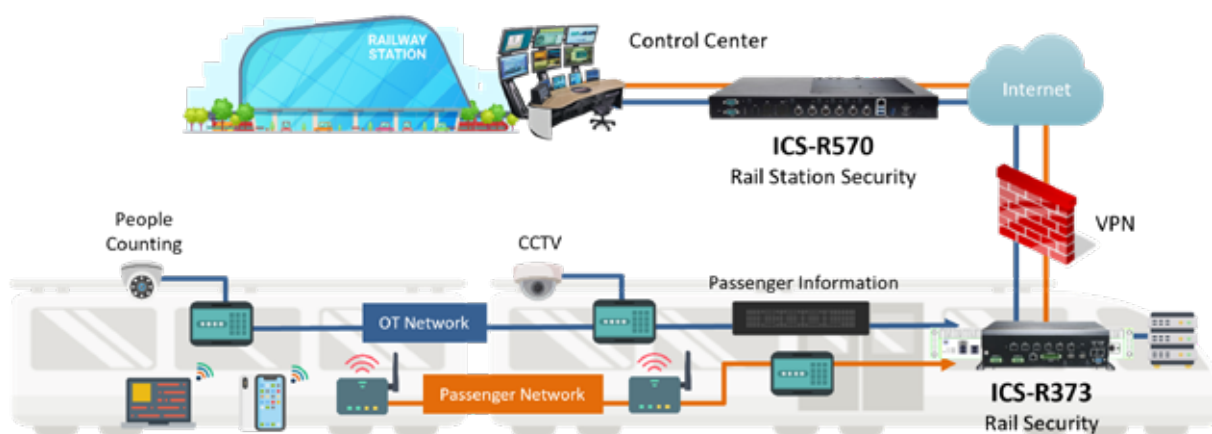
Intel Kaby Lake, 10x PoE



Model Name	R3S	R6S
Processor System	Intel® Atom™ x7-E3950	Intel® Core i7-7600U
Memory	8GB	16GB
Graphics	2x HDMI	1x VGA, 1x DVI-D or 2x HDMI
Storage	1x Removable 2.5" Drive Bay 1x mSATA Socket	1x Removable 2.5" Drive Bay 1x mSATA, 1x SDxC
Ethernet	6x PoE/PoE+	10x PoE with M12 connectors 1x RJ45
I/O	3x COM, optional CAN Bus 4x USB 2.0, 12xDI & 4xDO	2x or 4x COM (by SKU), optional CAN Bus 7x DIO, 2x USB 2.0, 2x USB 3.0
Expansion	2x M.2 3042 B-Key	2x Full-size mini PCIe or 4x M.2 Socket For LTE + 1x Full-size mPCIe For WiFi
Power Supply	9VDC ~ 50VDC / 43VDC ~ 154VDC	32VDC ~ 96VDC or 24VDC ~ 36VDC or 72VDC ~ 110VDC
Dimensions (W x H x D)	272.4 x 114.3 x 228 mm	272.4 x 121.3 x 230 mm
Weight	7 kg	20.8 kg
Operating Temperature	-40°C ~ 70°C	-40 ~ 70°C
Driver Support	Win 10 IoT, Linux	Win 10 IoT, Linux
Certification	E13, CE Class A, FCC Class A, MIL-STD-810G, EN50155, EN50121-3-2, EN50121-4, EN50125-3, EN 45545	MIL-STD-810G, EN 50155, EN 45545, EN 50121 CE Class A, FCC Class A, E13

Railway Cybersecurity

Railway cybersecurity is imperative and risk mitigation strategies need to be implemented to ensure secured operations and service continuity public safety. ICS-R373 Series is designed as a cost-effective embedded system, powered by Intel Denverton CPU, providing quality performance with low power consumption for rolling stock cybersecurity application. ICS-R373 has passed extensive vibration and shock testing, earning compliance for EN50155 standard, making it exceptionally suitable for cybersecurity application in railway vehicles.



In-Train OT Security Computers



Intel Apollo Lake



Intel Denverton



AMD Ryzen

Model Name	ICS-R372	ICS-R373	ICS-R570
Processor System	Intel Atom™ x7-E3950	Intel® Atom™ C3708/C3508/C3308	AMD Ryzen™ Embedded V1404I
Memory	8GB	64GB/32GB	32GB
Graphics	2x HDMI	N/A	2x HDMI(by SKU)
Storage	1x 2.5" SSD Drive Bay 1x mSATA	1x EMMC 128GB onboard (by SKU) 1 x M.2 (SATA) (by SKU)	1 x M.2 (NVME)
Ethernet	6x GbE RJ45 with M12 X-coded	4x GbE RJ45, 2x 2.5GbE RJ45	6x 2.5GbE RJ45 with M12 Connectors 1x RJ45 Console, 1x OOB(by SKU)
I/O	4x USB 2.0	2x USB 2.0, 1x OOB(by SKU)	8x COM, 6x DIO, 2x USB 3.2, 2x CAN bus
Expansion	2x M.2 3042 B-Key	1x M.2 2230 E-Key For WiFi 2x M.2 3042/3050/3052 B-Key For LTE/5G	2x M.2 304(5)2 B-Key Socket For 5G 1x M.2 2230 E-Key Socket For WiFi
Power Supply	24VDC ~ 36VDC or 72VDC ~ 110VDC	24VDC ~ 110VDC	24VDC ~ 110VDC
Dimensions (W x H x D)	272.4 x 228 x 88 mm	450 x 324 x 195 mm	535 x 391 x 135 mm
Weight	5 kg	TBD	7.5 kg
Operating Temperature	-40°C ~ 70°C	-40°C ~ 70°C	-40°C ~ 75°C
Driver Support	Win 10 IoT, Linux	Dabian 10 pre-installed, Win 10 IoT	Windows 10 IoT, Linux
Certification	E13, CE Class A, FCC Class A, MIL-STD-810G, EN50155, EN50121-3-2, EN50121-4, EN50125, EN 45545	CE/FCC Class A, UL/CB, E13, UKCA, ICES issue 7, C1D2 (SKU A only), EN50155, EN50121-3-2, EN 45545, EN50121-4, MIL-STD-810G, IEC-61850-3	CE Class A, FCC Class A, E13, UL/CB 62368-1 EN50155, EN45545-2, EN50121-3-2, EN50121-4, EN50125-3, IP-40, MIL-STD-810G

Industrial SD-WAN Platforms

Rugged 5G Outdoor Gateway

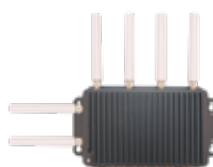
Lanner's ISD-O370 rugged gateway with 5G and micro SIM functionality is designed to provide backup cellular connectivity for intelligent traffic management infrastructure because it is reliable and secure. Indeed, operators are more motivated to offer attractive data service plans for large scale projects compatible with carrier aggregation technology, and backup SIM functionality can further provide uninterrupted connectivity by switching to a redundant operator service as needed.



Industrial SD-WAN Platforms



Intel Elkhart Lake
MIL-STD-810G



Intel Denverton
IP67, MIL-STD-810G

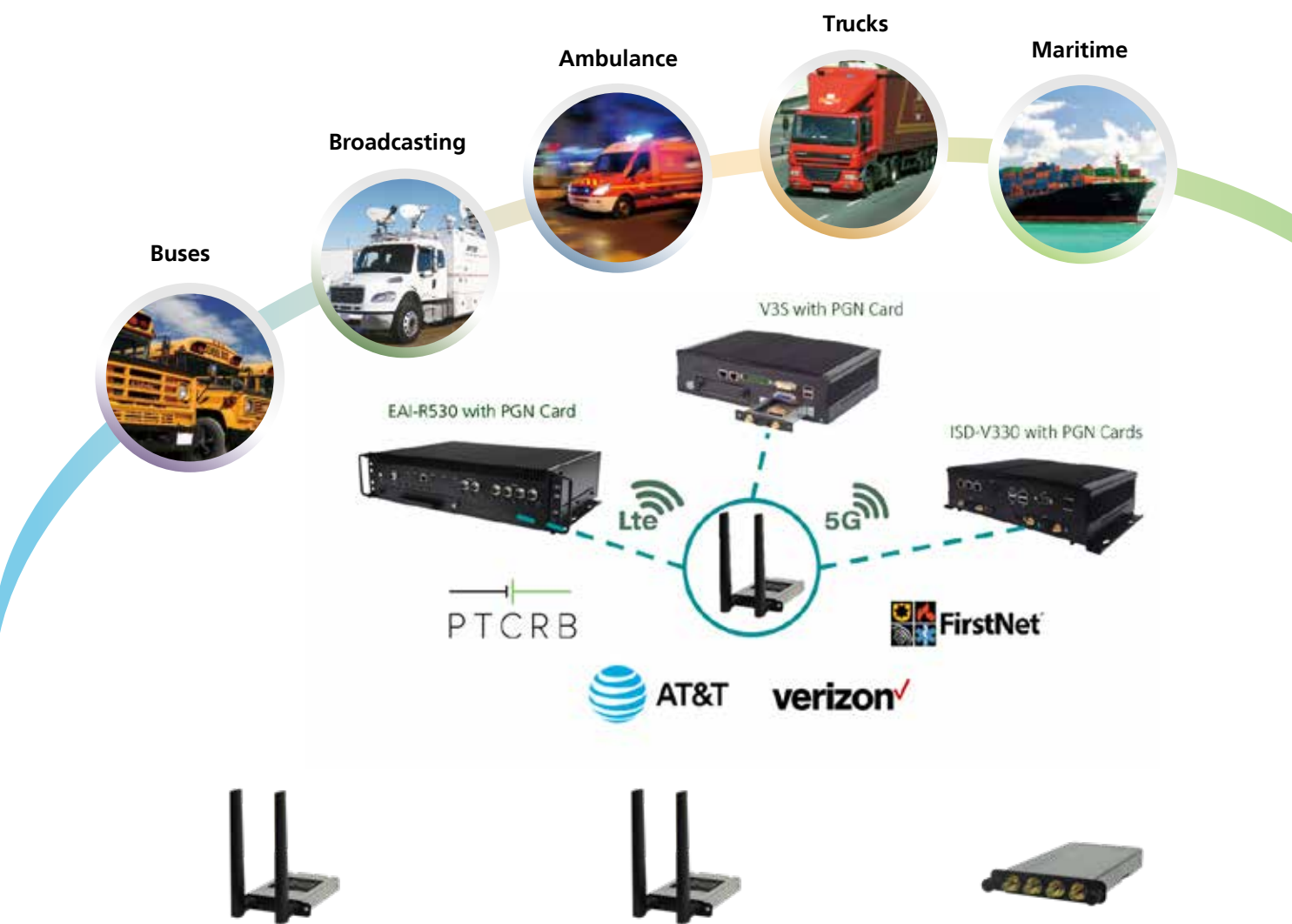


Intel Denverton
Wide Temperature

Model Name	ISD-V330	ISD-O370	NCR-1510
Processor System	Intel® Atom™ x6425E	Intel® Atom™ C3000 Series	Intel® Atom™ C3308/C3508/C3708
Memory	32GB	64GB	32/64GB
Graphics	2x HDMI	N/A	N/A
Storage	64GB eMMC, 1x SATA	eMMC 64/128GB, 1x M.2 2242 B-Key	1 x2.5" internal Bay HDD/SSD (Optional)
Ethernet	2x RJ45	6x GbE RJ45 (2x PoE+) or 4x GbE RJ45 (2x PoE+)+2x 2.5GbE RJ45	4x RJ45, 2x SFP or 2x RJ45 (By SKU), 1 Pair of Gen3 Bypass
I/O	2x COM, 1x CAN Bus, 4x DIO 3x USB 2.0, 1x USB 3.0	USB 2.0, 1x Console	2 x USB 3.0, 1x Mini USB
Expansion	1x M.2 3042 B-Key Socket For LTE 1x M.2 2230 E-Key Socket For WiFi	1x M.2 304(5)2 B-Key Socket For 5G 1x M.2 2230 E-Key Socket For WiFi 6	1x M.2 3042 B-Key For LTE, 1x mPCIe for WiFi,LTE 1x PGN
Power Supply	9VDC ~ 36VDC	24VDC ~ 36VDC	9VDC ~ 54VDC
Dimensions (W x H x D)	273.8 x 73 x 185 mm	370 x 210 x 83 mm	310 x 240 x 44 mm
Weight	4 kg	4.6 kg	3 kg
Operating Temperature	-40°C ~ 70°C	-40°C ~ 70°C / -40°C ~ 60°C (By SKU)	-40°C ~ 70°C / -40°C ~ 60°C (By SKU)
Driver Support	Windows 10 IoT Enterprise, Linux	Linux	Linux
Certification	CE/FCC Class A, E24, UL/cUL 62368-1, MIL-STD-810G	CE/FCC class A, UL 62368-1, CB, IP67, MIL-STD-810G	CE/FCC Class A

Mobile SD-WAN Platform

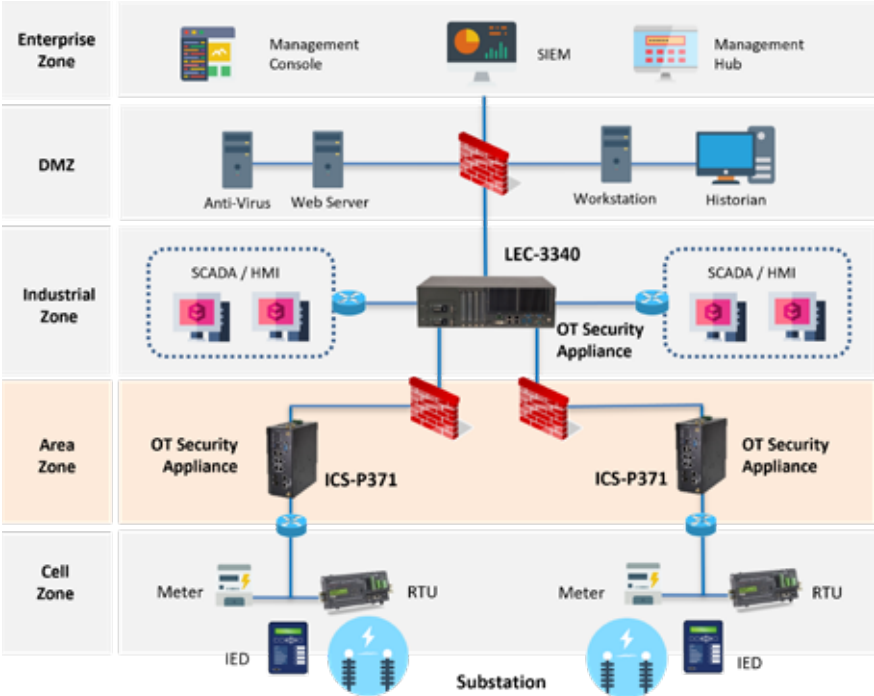
Certified by PTCRB, Verizon, AT&T and FirstNet, Lanner PGN Series is a swappable 4G LTE-ready radio modem for mission-critical communications. Optimally designed for intelligent VMS, mobility SD-WAN, 4G LTE failover for business continuity, the PGN Series is fully compatible with Lanner vehicle computers, industrial PCs and network appliances to offer scalability. The swappable caddy design makes the system maintenance easier in field change or upgrade for 24/7 uninterrupted operations.



Product Name	PGN-300 Swappable 4G LTE CAT-6 Radio Modem for Critical Communications	PGN-600 Swappable 4G/LTE CAT-12 Radio Modem for Mission-Critical Communications	PGN-750 Swappable 5G Radio Modem for Mission-Critical Communications NEW
Feature	4G LTE CAT-6 Radio Modem Compatible for Lanner Vehicle PC, Industrial PC and Network Appliances - PTCRB and AT&T Certification Ready 2x SIM Card Readers, 2x 4G LTE Antenna - SATA connector with USB 3.0 signal and Hot Swappable Capability 4G LTE Failover for Business Continuity - Designed for Network Failover, Surveillance and Vehicle Applications - Swappable Caddy - Certification: PTCRB, AT&T, Verizon - System Compatibility: V3S,V6S,LEC-2290,NCR-1510D/E/F,FW-7573B, ISD-V330	4G/LTE CAT-12 Radio Modem Compatible with Lanner Vehicle PC, Industrial PC and Network Appliances - Certified with AT&T and PTCRB, and Compliant with CBRS and FirstNet 2x SIM Card Readers, 2x 4G LTE Antenna - SATA connector with USB 3.0 signal and Hot Swappable Capability 4G/LTE Failover for Constant Operations - Designed for Network Failover, Surveillance and Vehicle Applications - Swappable Caddy - Certification: PTCRB, AT&T, FirstNet - System Compatibility: V3S,V6S,LEC-2290,NCR-1510D/E/F,FW-7573B, ISD-V330	5G sub6 Radio Modem Compatible with Lanner Vehicle PC 2x nano SIM Card Readers, 4x Antenna Jack, with antenna / cable kit - SATA connector with USB 3.0 signal and Hot Swappable Capability 5G Failover for Constant Operations - Designed for Network Failover and Vehicle Applications - Swappable Caddy - Supports NSA and SA modes - System Compatibility: V3S, V6S, ISD-V330, LEC-2290, EAI-V330, EAI-R530

Industrial OT Security Appliances

Lanner offers industry-certified OT (Operational Technology) security appliances meticulously designed to ensure zero-trust security for critical assets. These Lanner OT security appliances adhere to IEC 61850-3 and C1D2 certifications, ensuring compliance with industry-specific standards and guaranteeing reliability, durability, and robust security measures.



IIoT Network Security Gateway

- Antivirus/Malware
- SCADA Encryption
- Virtualization Security
- DLP / SIEM
- IDS / IPS / IAM
- DDoS Protection

Industrial OT Security Appliances



Intel Apollo Lake
IEC61850-3/C1D2



Intel Tiger Lake
IEC61850-3

Model Name	LEC-6041	LEC-3340
Processor System	Intel ® Atom™ x7-E3950/x5-E3930	Intel® Xeon® W-11865MLE/11555M-LE/11155MLE
Memory	8GB	64GB
Graphics	1x HDMI	2x HDMI
Storage	1x SATA (optional) mSATA (optional)	2x 2.5" Swappable HDD/SSD 1x SATA M.2 M-key, 1x PCIe x4 M.2 2280
Ethernet	5x RJ45 & 2x SFP 1x pair Bypass	4x 2.5GbE RJ45
I/O	2x COM, 2x USB 3.0	4x COM, 1x IRIG-B, 5x USB 3.0
Expansion	1x Mini-PCIe with SIM Slot For LTE	1x PCIe x16, 3x PCIe x4 Slots
Power Supply	Dual 20VDC ~ 54VDC	Dual Power Module: 100 - 240 VAC 16.6 - 160 VDC
Dimensions (W x H x D)	160 x 166 x 53.5 mm, 186 x 160 x 65 mm	438 x 131.8 x 300.1 mm
Weight	1.6 kg	8.5 kg
Operating Temperature	-40°C ~ 75°C	-40°C ~ 70°C
Driver Support	Windows 10 Pro, Linux	Windows 10 Embedded, Linux
Certification	CE, FCC Class A, CB, UL, C1D2 IEC 61850-3, IEEE 1613	CE, FCC ClassA, CB,UL, IEC 61850-3, IEEE 1613

Industrial GbE PCIe Cards



LEK-IG401

- Intel® i210IT
- 4x GbE RJ45 ports



LEK-IS401

- Intel® i210IS
- 4x GbE SFP ports



IEK-XF300

- HSR/PRP
- IEEE 1588

Industrial OT Security Appliances



Intel Amston Lake



Intel Apollo Lake



Intel Elkhart Lake



Intel Denverton

Model Name	ICS-I331 NEW	ICS-I370	ICS-I372	ICS-R373
Processor System	Intel® Atom® x7835RE/x7433RE/x7211RE	Intel® Atom™ x7-E3950/x5-E3940	Intel® Atom™ Processor X6425E/X6413E	Intel® Atom™ C3708/C3508/C3308
Memory	32GB	8GB	32GB	64GB/32GB
Graphics	1x DP	1x DP	1x DP	N/A
Storage	Onboard 128GB eMMC 1x M.2(SATA) B-Key	Onboard eMMC 64GB 1x mSATA, 1x SATA	Onboard eMMC 64GB 1x M.2 M-Key SATA 1x SATA or mSATA	1x eMMC 128GB onboard (by SKU) 1 x M.2 (SATA) (by SKU)
Ethernet	2x GbE RJ45/SFP 4x 2.5GbE RJ45	8x, 6x or 4x RJ45 w/ LAN Bypass, 2x SFP (by SKU)	8x, 6x or 4x 2.5GbE RJ45 2x SFP (by SKU)	4x GbE RJ45, 2x 2.5GbE RJ45
I/O	1x Console, 1x USB 3.0 2x USB 2.0	1x COM, 2x USB 3.0	1x COM, 2x USB 3.0	2x USB 2.0, 1x OOB(by SKU)
Expansion	1x M.2 2230 E-Key 1x M.2 3042/3050/3052 B-Key	1x M.2 B-Key For LTE/5G 1x M.2 E-Key For WiFi	1x M.2 3042/3052 B-Key For LTE/5G 1x M.2 2230 E-Key For WiFi	1x M.2 2230 E-Key For WiFi 2x M.2 3042/3050/3052 B-Key For LTE/5G
Power	12 - 48VDC	12VDC ~ 36VDC	Dual 12VDC ~ 36VDC	24VDC ~ 110VDC
Dimensions (W x H x D)	67 x 200 x 193 mm	160 x 156.5 x 81 mm	81 x 180 x 156.5 mm	450 x 324 x 195 mm
Weight	TBD	2 kg	2.5 kg	TBD
Environment	-40°C ~ 70°C	-40°C ~ 70°C	-40°C ~ 70°C	-40°C ~ 70°C
Driver Support	Win 10 IoT, Linux	Win 10 IoT, Linux	Windows 10 IoT 64bits/11 IoT Linux	Dabian 10 pre-installed, Win 10 IoT
Certification	CE/UKCA, FCC Class A, UL+CB 62368-1, C1D2	CE/FCC Class A, UL	CE/FCC Class A, UL/IEC 62368-1, C1D2	CE/FCC Class A, UL/CB, E13, UKCA, ICES issue 7, C1D2 (SKU A only), EN50155, EN50121-3-2, EN 45545, EN50121-4, MIL-STD-810G, IEC- 61850-3



Intel Elkhart Lake



Intel Amston Lake



AMD Ryzen



Intel Sierra Forest-SP

Model Name	ICS-P371	ICS-P375 NEW	ICS-P570	ICS-P770 NEW
Processor System	Intel® Atom™ X6211E/ X6413E/X6425E	Intel® Atom® X7835RE/X7433RE/X7211RE	AMD Ryzen V1404I	Intel® Xeon® 6 Processor
Memory	32GB	32GB	32GB	512GB
Graphics	1x Internal DP pin-header	1x DP	1 x internal HDMI pin-header	1x VGA
Storage	1x SATA For 2.5" Drive Bay, Micro SD, 1x M.2 2242 M-Key	On-board eMMC 128GB/32GB	1 x M.2 M Key 2242, Micro SD	4x 2.5" U.2 NVMe 1x M.2 M-Key (PCIe Gen5)
Ethernet	6 x RJ45, 2x SFP, 2x IPMI (By SKU)	4x 2.5GbE RJ45 & 2x GbE RJ45/SFP (By SKU)	6 x GbE RJ45 or 4 x GbE RJ45 & 2x GbE SFP	4x 2.5GbE RJ45 (default) + 2x GbE SFP or 2x GbE RJ45 + 2x 25GbE SFP28 or 2x 10GbE SFP+
I/O	1x COM, 1x USB 3.1, 1x USB 2.0	1x RJ45 Console, 2x RS-232, 1x USB 3.2, 2x USB 2.0	1x COM, 2x DIO, 1x USB 3.0	1x Console, 5x USB 3.1
Expansion	1x M.2 B-Key For LTE/5G 1x M.2 E-Key For Wi-Fi	1x M.2 B Key Dual Nano-SIM	1x M.2 3042 B-Key For LTE	2x FHHL PCIe Gen5 x16, 1x FHHL PCIe Gen5 x8, 1x FHHL PCIe Gen5 x4
Power	Dual 12VDC ~ 48VDC	24/48VDC	Dual 12VDC ~ 48VDC	110 to 240 VAC & VDC
Dimensions (W x H x D)	87 x 196 x 180 mm	210 x 70 x 190 mm	65 x 201 x 196 mm	438 x 131.8 x 455 mm
Weight	3.4 kg	TBD	2.5 kg	TBD
Environment	-40°C ~ 70°C	-40°C ~ 70°C	-40°C ~ 70°C	-25°C ~ 55°C
Driver Support	Windows 10/11 IoT, Linux	Windows 10/11 IoT, Linux	Linux	Linux
Certification	FCC/CE Class A, UL (IEC-62368), C1D2, IEC 61850-3, IEEE 1613	CE, FCC Class A, EN 50121-4, IEC 61850-3, IEEE 1613, MIL-STD-810H, C1D2, UL+CB	FCC/CE Class A, UL (IEC-62368) IEC 61850-3, IEEE 1613	CE/UKCA, MTBF, EN 50121-4, UL + CB, IEC-61850-3, IEEE 1613

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