contact@lannerinc.com

Hardware Manufacturing Excellence for the Transportation Industry

IP67 Rail Controller

10ch PoE Rail NVR

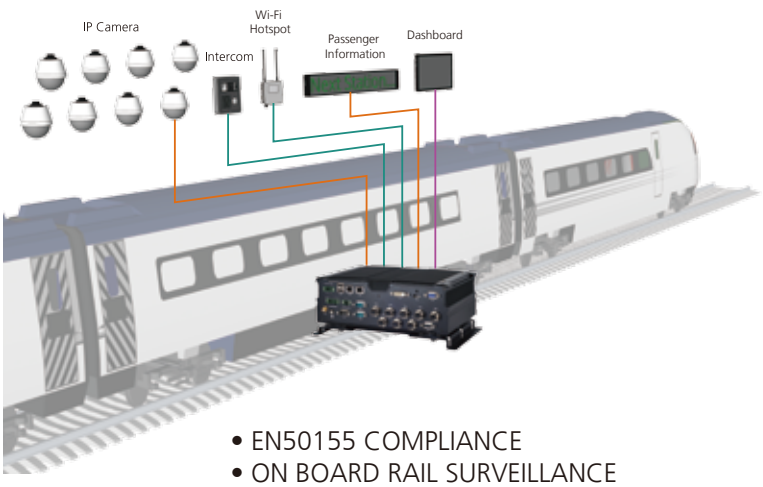
Rail Comm. Platform

ODM/OEM Services for Rugged Vehicle/Rail Computers

Founded in 1986, Lanner is a publicly-traded hardware manufacturer that provides design, engineering and production services for ruggedized in-vehicle and rail computer solutions. Leveraging its acknowledged industry leadership in network security, Lanner has developed an in-vehicle portfolio built on open platforms and which feature multiple integration points for customization and secure connectivity.

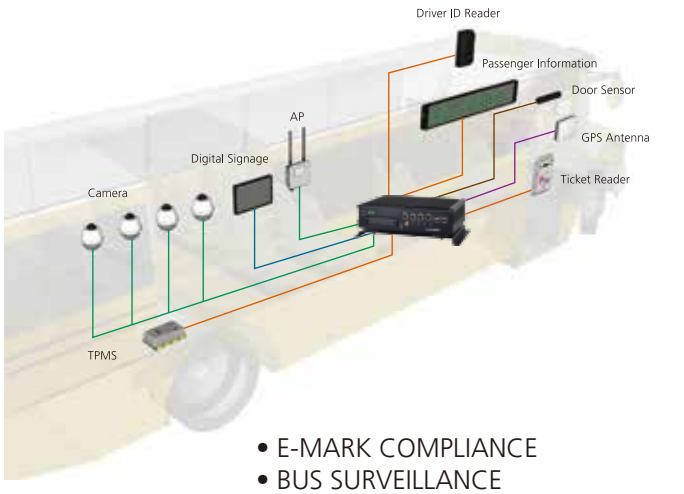
The ideal hardware partner for compute-intensive solutions including rail control, mobile surveillance and communications gateways, Lanner fully controls its design and manufacturing process, allowing OEM clients to be more flexible and dynamic in the design stage and achieve significant reductions in development costs, support costs and time to market.

RAIL COMMUNICATIONS



- EN50155 COMPLIANCE
- ON BOARD RAIL SURVEILLANCE
- PASSENGER INFORMATION
- PUBLIC ADDRESS
- WI-FI HOT SPOT SHARING
- GPS TRACKING

INTELLIGENT BUS



- E-MARK COMPLIANCE
- BUS SURVEILLANCE
- DRIVER BEHAVIOR MONITORING
- PAYMENT SYSTEM INTEGRATION
- PEOPLE COUNTING
- GPS TRACKING

Fanless Railway Computers

IP67 Rated Rail Controller

10ch PoE Rail NVR

16ch PoE Rail Comm. Platform

Railway Solution		R2G Series	R6S Series	R8S Series
Chassis	Dimensions (W x H x D)	268 x 86 x 210 mm (10.55" x 3.4" x 8.27")	272.4 x 121.3 x 228 mm (10.72" x 4.77" x 8.97")	482.6 x 132 x 282 mm (19" x 5.2" x 15.7")
	IP Rated	IP67	IP50	N/A
System	Processor Number	Intel Atom Bay Trail-I E3845 Processor	Intel Core i7-6600U Processor	Intel Core i7-6600U Processor
	Chipset	N/A	N/A	N/A
	Processor Graphics	Intel integrated HD Graphics	Intel integrated HD Graphics 520	Intel integrated HD Graphics 520
Memory	Technology	DDR3L 1333 SO-DIMM x 1	DDR4 1866/2133 SODIMM Socket x 1	DDR4 1866/2133 SODIMM Socket x 1
	Max. Capacity	Up to 4 GB (Factory default: 2 GB module pre-installed)	Up to 16 GB (Factory default: 8 GB module pre-installed)	Up to 16 GB (Factory default: 8 GB module pre-installed)
Storage	CF/ SD / mSATA Socket	mSATA socket x 1	mSATA socket x 1, SDXC Socket x1	mSATA socket x 1
	2.5" Drive Bay	Internal 2.5" drive bay x 1	Removable 2.5" drive bay x1 for 2x storages	Removable 2.5" drive bay x4 for 4x storages
Ethernet Controller		Intel i210-IT x 2	Intel i210-IT x 4	Intel i210-IT x 3
Audio Controller		Realtek ALC886 HD codec	Realtek ALC886 HD codec	N/A
I/O	Display	VGA x 1, resolution up to 2048 x 1536 HDMI/DP x 1, resolution up to 1920 x 1200	VGA x 1, resolution up to 2048 x 1536 DVI-D x 1, resolution up to 1920 x 1200	DVI-D x 2, resolution up to 1920 x 1200
	LAN	GbE RJ45 x 2	GbE RJ45 x1	GbE RJ45 x 2
	PoE	N/A	IEEE 802.3af standard PoE ports x10	IEEE 802.3af POE ports x 12 IEEE 802.3af POE ports x 4
	Audio	Mic-in and Line-out with 2-watt by HD Audio	Mic-in and Line-out with 2-watt by HD Audio	N/A
	Serial I/O	COM_A: RS232/422/485 x2 COM_B: RS232/422/485 x2 COM_C: RS232 (TX-RX only) x6	RS-232/422/485 x2 with RI/5V/12V	RS-232/422/485 x2 with RI/5V/12V
	GPS	u-blox NEO-M8N; 3 GNSS (GPS, Galileo, GLONASS, BeiDou), default @ GPS + GLONASS dual band	u-blox NEO-M8N; 3 GNSS (GPS, Galileo, GLONASS, BeiDou), default @ GPS + GLONASS dual band	u-blox NEO-M8N; 3 GNSS (GPS, Galileo, GLONASS, BeiDou), default @ GPS + GLONASS dual band
	G-sensor	ADXL 345	ADXL 345	ADXL 345
	CAN	CAN Bus J1939 / J1708 x1	CAN Bus J1939 / J1708 x1	N/A
	Digital I/O	4x DI 5V Level TTL and 4x DO 12V Level TTL 2x DI (from MCU) 3.3V Level TTL	7x DI 12V TTL selectable 7x DO 24V TTL, Max. 100mA 2x IGN-DI of ignition control to MCU	8x isolated DIO 5V/ 12V TTL selectable 2x relay out
	USB	USB 2.0 Type A x2 USB 3.0 Type A x1	USB 2.0 Type A x1 USB 3.0 Type A x4	USB 3.0 Type A x2
	Expansion	Full-size Mini-PCIe Socket x2 with 2 SIM card readers Half-size Mini-PCIe Socket x1	Full-size Mini-PCIe Socket x2 with dual SIM card readers on each	Full-size Mini-PCIe Socket x6 with 12x SIM card readers
	Antenna	SMA antenna hole x4 (includes GPS x1)	SMA antenna hole x4 (includes GPS+GLONASS x1)	SMA antenna hole x13 (includes GPS+GLONASS x1)
	Power Input	DC 9-36V (+ , - , ignition) with option at DC 12/ 24/ 36/ 48/ 52/ 72/ 96/ 110V level, ATX mode support ignition delay on/ off control	DC 16-160V (+ , - , ignition) supports DC 24/ 36/ 48/ 72/ 96/ 110V level, ATX mode support ignition delay on/ off control	DC 16-160V (+ , - , ignition) supports DC 24/ 36/ 48/ 72/ 96/ 110V level, ATX mode support ignition delay on/ off control
	Power Output	N/A	12V/2A DC out	N/A
Hardware Monitoring / WDT		Fintek F81865F integrated watchdog timer 1~255 level	Fintek F81866AD-1 integrated watchdog timer 1~255 level	Fintek F81866AD-1 integrated watchdog timer 1~255 level
OS Support		Windows: FES WES7 (WS7E) / W7 Pro SP1 / WE8 STD Linux: Redhat Enterprise 5, Fedora 14, Linux Kernel 2.6.18 or later	Windows: FES WES7 (WS7E) / W7 Pro SP1 / WE8 STD Linux: Redhat Enterprise 5, Fedora 14, Linux Kernel 2.6.18 or later	Windows: FES WES7 (WS7E) / W7 Pro SP1 / WE8 STD / W8.1 Linux: Redhat Enterprise 5, Fedora 14, Linux Kernel 2.6.18 or later
Certifications	EMC	CE, FCC Class A, RoHS	CE, FCC Class A, RoHS	CE, FCC Class A, RoHS
	Safety	N/A	N/A	N/A
Compliance	Ambient Internal Temperature	EN 50155 Tx (-40 ~ 70°C)	EN 50155 Tx (-40 ~ 70°C), EN 50125-3	EN 50155 Tx (-40 ~ 70°C), EN 50125-3
	Shock and Vibration	EN 61373 / MIL-STD-810G	EN 61373 / MIL-STD-810G	EN 61373
	Interruptions of Voltage Supply	EN 50155 Class S2	EN 50155 Class S2	EN 50155 Class S2
	Supply Over Change	EN 50155 Class C2	EN 50155 Class C2	EN 50155 Class C2
	EMC	EN 50121-3-2	EN 50121-3-2, EN 50121-4	EN 50121-3-2, EN 50121-4
	Fire protection	N/A	EN 45545-2	EN 45545-2
Environmental	Operating Temperature	-40~70°C / -40~158°F	-40~70°C / -40~158°F	-40~70°C / -40~158°F
	Storage Temperature	-40~85°C / -40~185°F	-40~85°C / -40~185°F	-40~85°C / -40~185°F
	Humidity	5%~95% @ 40°C / 104°F (Storage Level)	5%~95% @ 40°C / 104°F (Storage Level)	5%~95% @ 40°C / 104°F (Storage Level)
Net Weight (kg)		4	TBD	7.5

Also Available

Rackmount Appliance for Rail Traffic Signal Controllers

V4G Series

- Intel 8-core low-power CPU
- Supports up to 16 GB ECC DDR3 Memory
- Feature 10x GbE plus 4x SFP+ ports
- Intel QuickAssist Crypto Acceleration
- Gen.3 LAN Bypass function
- Linux/Virtualization software supported