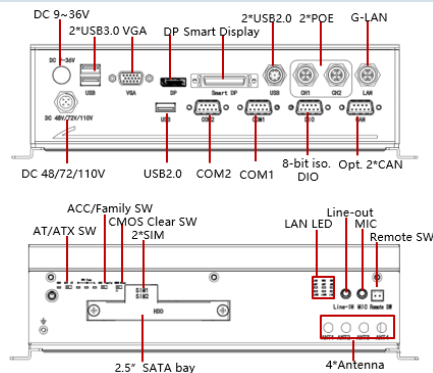## High-Performance Box Computer

IVTK-BC-2650

Intel® Apollo Lake E3950 CPU, 1*LAN, 2*POE, 2*USB3.0, DP, VGA, Smart Display, 2*COM, 8-bit Iso.DIO, DC 9~36V, ITPS management, Optional DC 48/72/110V input.

RoHS COMPLIANT 2011/65/EU CE FCC

Key Features

- Aluminum chasiss, Fanless design
- Intel® Apollo Lake E3950 CPU
- 2-Ch DDR3L, On-board+SODIMM, up to 8GB
- 1*DP, 1*VGA, 1*Smart Display, three displays
- 3*GbE LAN(two with POE function), 5*USB
- 2*Iso.COM, 8-bit Iso. DIO, optional 2*CAN
- 4*Mini PCIe(opt. 1*mSATA), support GPS/WiFi/4G
- EN50155, E-Mark certification
- TPM2.0, DC 9~36V, ITPS power management
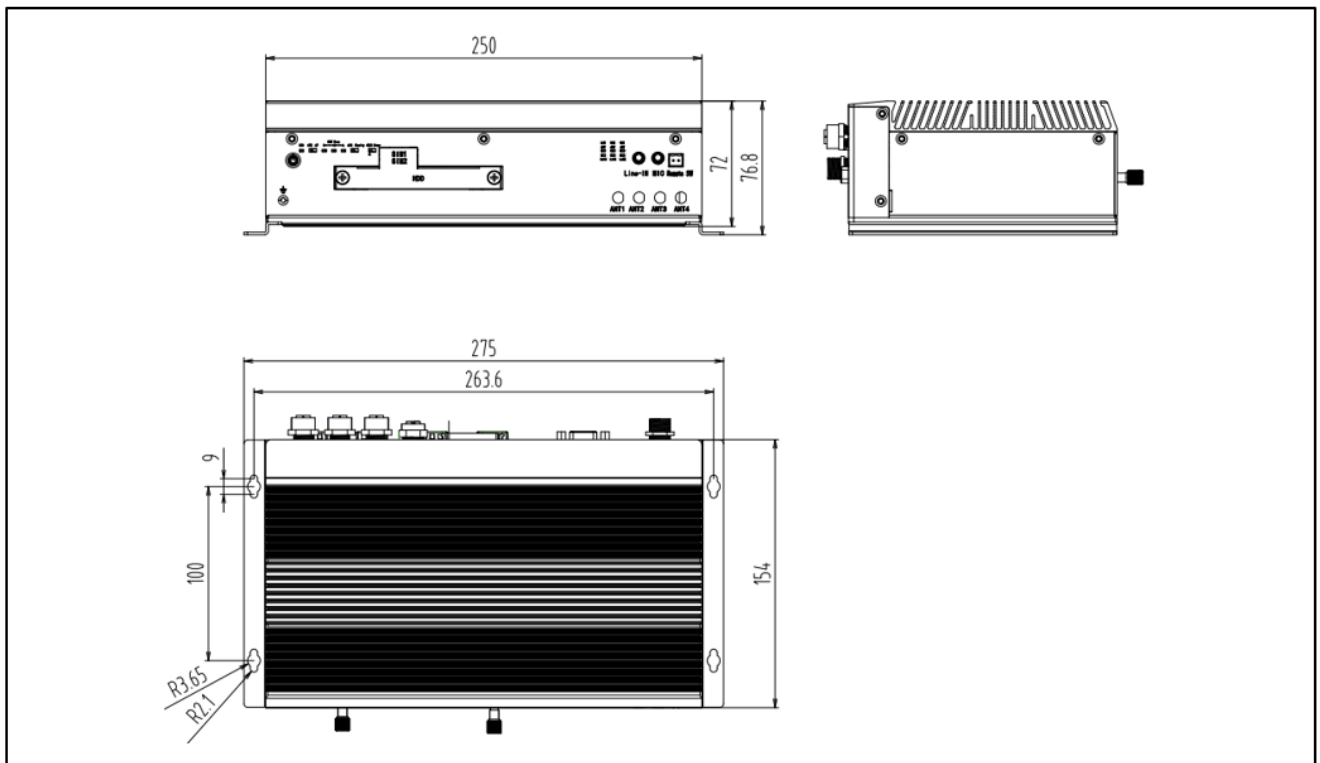- Optional Railway power DC 48/72/110V

The IVTK-BC-2650 is a fanless-Vehicle rugged computer, Powered by Intel® Apollo Lake E3950 processor and dual-channel (On-board+SODIMM) DDR3L, supporting 1866MHz, up to 8GB. DP+VGA+Smart Display, three display interfaces, 1*LAN, 2*POE, 5*USB, 4*Mini PCIe, support dual 4G VPN/Wifi/BT/GPS and other wireless functions, 2*COM with isolation function, 8-bit isolated DIO, Optional 2*CAN. 1*mSATA, 1* easy-swap 2.5-inch SATA3.0 for storage. DC 9~36V wide voltage power supply, ITPS power management, optional Railway standard power input DC 48/72/110V, E-mark vehicle certification, EN50155 certification, suitable for road vehicle, Railway vehicle applications.

SPEC

System	CPU	Intel® Apollo lake E3950 CPU, 4 Cores, 4 Threads, up to 2.00GHz, 2 MB L2, TDP 12W
	System Memory	2-ch DDR3L, support 1866MHz, on board 4GB+1*SODIMM, up to 8GB
	Expansion	2*Mini PCIe with PCIe X1+USB signal, 2*SIM slot, support 2*4G/LTE/Wifi/BT/GPS 1*Mini PCIe with SATA+USB signal, support mSATA 1*Mini PCIe with PCIe+USB signal, when using 2*CAN, This slot is occupied
	Intel Graphics	Intel Gen.9 HD Graphics 505, DP max. res. 4096*2160@60Hz, Smart Display max. res. 1920*1200@60Hz, VGA max. res. 1920*1200@60Hz, support 3 displays
	Audio	Realtek ALC662VD controller, Audio out and MIC, support 5.1 channel
	LAN	3*Intel I210AT PCIe Gig. Ethernet, M12 connector, two of them with POE function, 802.3af (15.4W)
	Storage	1*2.5" HDD/SSD bay, 1*mSATA(SATA+USB)
	DIO	4-ch input/4-ch output, isolated (DB9), 2.5KV opto-isolated input(H: 5-24V, L: 0-1.5V), opto-isolated output(200mA)
	I/O ports	1*Gig-LAN (M12 X-coded), 2*Gig-LAN, with POE 802.3af (M12 X-coded) 2*USB3.0 (Type A); 1*USB2.0 (Type A); 2*USB2.0 (M12) 4-ch input/4-ch output, isolated (DB9 male), 2*SIM slot 1*RS232 isolated (DB9 male), 1*RS485 isolated (DB9 male), Optional 2*CAN 2.0(DB9 male) 1*Audio-out & 1*MIC (3.5mm phone jack) 1*DP+1*VGA+1*Smart Display
	LED	1*Power LED, 1*HDD LED, 3*CPU Temp. LED (Red is warning, yellow is High, Green is normal) 3*LAN LED (ACT/LINK)
	Control SW	1*Power button, 1*Remote SW signal, 1*AT/ATX SW, 1*Clear CMOS SW, 1*ACC/Family select SW
	Power Supply	DC 9~36V input, 5-pin connector (M12), TDP: TBD Optional Railway power module, DC 48/72/110V input, 4-pin connector(M12)
	Watchdog Timer	Watchdog timeout programmable via software 1 to 255 second
	OS Support	Windows 7, Windows 8.1, Windows 10, Linux Fedora, Ubuntu

Mechanical	Structure	Aluminum chassis, SGCC frame
	Color	Silver & Grey
	Mounting	Desktop Mounting
	Dimension	(W*H*D)：250*154*72mm
	Net weight	TBD
Environ-mental	Operating temperature	EN50155 TX: -40~70°C(Operating 10min in 85°C)
	Storage Temperature	-40°C~85°C
	Storage Humidity	10~90%@40°C, Non-condensing
	Vibration	MIL-STD-801G, EN50155
	Shock	MIL-STD-801G, EN50155
	Certification/EMC	EN50155, E-Mark, CE/FCC Class B

Dimension

Unit: mm

Odering Info

Modol No.	Introduction
IVTK-SIGM-2650/S001	Fanless Vehicle Computer, Intel® Apollo Lake E3950 CPU, 4GB+1*SODIMM DDR3L, 1*LAN, 2*POE, 2*USB3.0, 3*USB2.0, 2*COM, 3*Mini PCIe, 1*Smart Display,1*DP,1*VGA, Audio out, Mic, 8-bit iso. DIO, 1*2.5" SATA bay, 1*mSATA, DC 9~36V, ITPS, TPM2.0
IVTK-SIGM-2650/S002	Fanless Vehicle Computer, Intel® Apollo Lake E3950 CPU, 4GB+1*SODIMM DDR3L, 1*LAN, 2*POE, 2*USB3.0, 3*USB2.0, 2*COM, 3*Mini PCIe, 1*Smart Display,1*DP,1*VGA, Audio out, Mic, 8-bit iso. DIO, 1*2.5" SATA bay, 1*mSATA, DC 48/72/110V, TPM2.0
IVTK-PA-60DC12	AC/DC power adapter, DC 12V/5A 60W