

SIGM-3555

Intel® Comet lake Celeron/Pentium/Core™ i9/i7/i5/i3 CPU,
11*LAN, 8*USB, 4*COM, 2*CAN, 3*M.2, 8 bit DIO, DC110V

JHCTECH

IoT Computer
Connecting the Dots

Fanless In-Vehicle Computer-SIGM



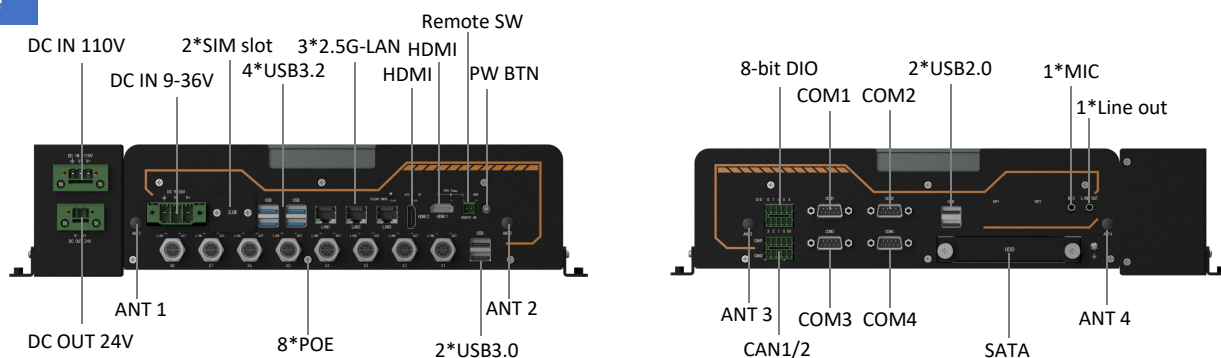
Key Feature

- Intel® Comet lake 10th-Gen Celeron/Pentium/Core™ i9/i7/i5/i3 CPU
- Aluminum frame, fan-less
- 3*2.5G-LAN+8*Gig-LAN with POE function
- 8-bit DIO, 4*USB3.0, 2*USB3.0, 2*USB2.0, 4*COM
- 2*CAN, supports both CAN2.0A and CAN2.0B protocols, conforms to ISO/DIS 11898-1/2/3 standards
- 2*HDMI, 2 independent display
- 3*M.2 supports Gigabit WiFi6, 4G LTE, 5G NR and other wireless modules
- DC 110V rail-way standard isolated power supply, with reverse connection, overcurrent, overvoltage protection

Overview

SIGM-3555 is a high-performance fanless AI edge computing system, equipped with Intel® Comet lake series processors, multi-network ports, multi-display and multi-I/O functions, 110V DC power supply, It is suitable for rail transit, vehicle-road cooperation C-V2X, special vehicle onboard, intelligent security, high-precision machine vision, medical imaging and other industries.

Interface

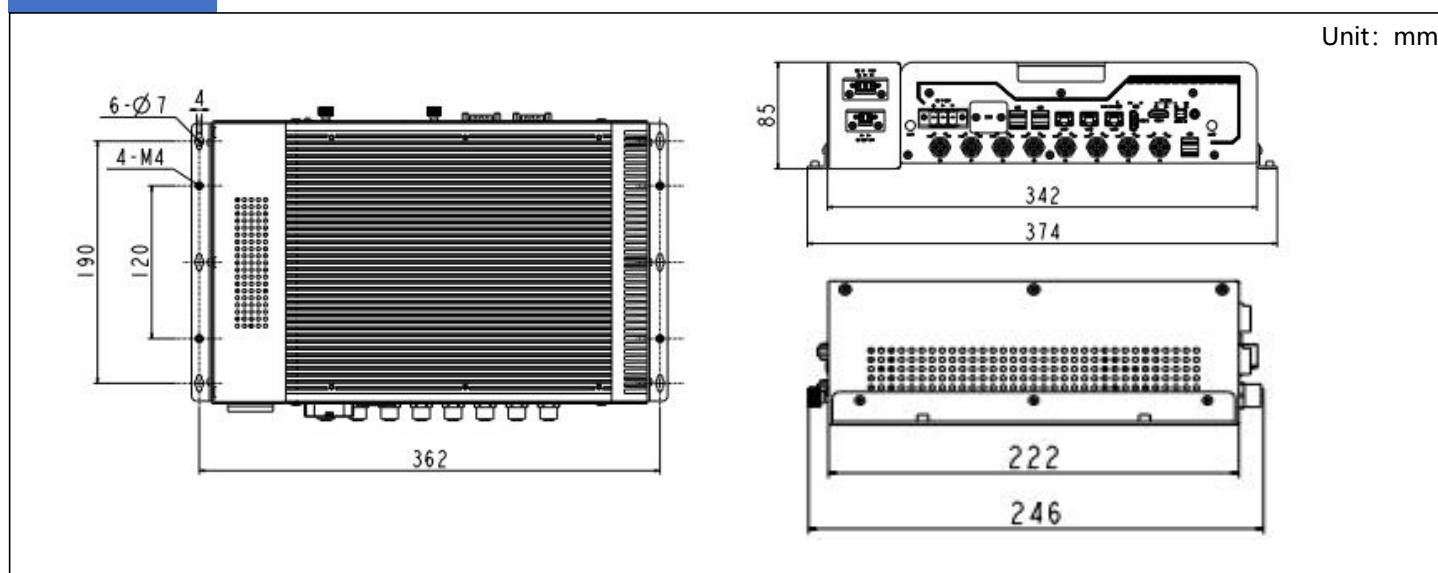


SPEC.

CPU+PCH	Intel® Comet lake 10th-Gen Celeron/Pentium/Core™ i9/i7/i5/i3 CPU , Intel® Q470 PCH
Memory	2*DDR4 SO-DIMM, support 2933MHz, up to 64GB
Graphics	Intel® UHD Graphics, support DirectX 12, openGL 4.5, 2*HDMI 1.4(Dual 4K ultra HD display), max res. 4096 x 2304@24Hz
LAN	3*Intel I226V 2.5G-LAN, support iAMT 13.0, support vPro with Core I5/I7/I9 CPU 8*Intel I210AT IEEE 802.3af (15.4W/48V)
Storage	1*2.5" HDD/SSD SATA3(support RAID0,1), support 15mm HDD, 6.0Gbps transport speed; 1*M.2 Type 2280 M-Key(PClex4 signal), support NVMe SSD;
I/O ports	Front I/O: 3*2.5G-LAN(RJ45), 8*POE Gig-LAN(M12); 4*USB3.2(Type A),10Gbps transport speed; 2*USB3.0 (Type A); CPU graphics: 2*HDMI; 2*SIM slot; Rear I/O: 2*USB2.0(Type A); 2*RS232/422/485, can be set by BIOS (DB9 Male); 2*RS485(DB9 Male); 1*8-bit DIO (2*5Pin Phoenix ter);2*CAN(2*5Pin Phoenix ter); 1*Line out+1*Mic (3.5mm phone jack);
Expansion	1*M.2 Type 2230 E-key, PCIeX1, USB2.0 and CNVio, support Gig+ WiFi6 & BT5.0 1*M.2 Type 3052 B-key, PCIeX1, USB2.0+SIM, support 5G NR compatible 4G LTE 1*M.2 Type 2280 M-Key(PClex4 signal), support NVME, or PCIe expansion module
DIO	8-bit DIO, TTL signal programmable input and output
CAN	Support both CAN2.0A and CAN2.0B protocols, conforms to ISO/DIS 11898-1/2/3 standards
LED	1*Power LED, 1*HDD LED, 3*CPU temp LED (Red is warning, Yellow is high, Green is normal)
Control SW	1*Power button w/LED, 2-pin phoenix term remote SW, 1*F-panel header, AT-ATX SW, Clear Cmos SW
Power Supply	DC 110V rail-way standard isolated power supply (±40%), 3-pin 5.08 pitch Phoenix term, with reverse connection, overcurrent, overvoltage protection, maximum output power 250W. TDP: 110W (I7-10700 CPU)
Watchdog Timer	Watchdog timeout programmable via software1 to 255 second

OS Support	Windows 10 IoT Enterprise (64-bit), Windows 11 IoT Enterprise (64-bit), Windows Server 2019, Ubuntu, SUSE, Redhat Enterprise, Wind River Linux, Yocto Project (64-bit), Wind River VxWorks 7
Structure	Aluminum-magnesium alloy, SGCC frame
Color	Black
Mounting	Desktop Mounting
Dimension	(L*W*H) : 374*246*85mm (with mounting kit); 342*222*85mm (without mounting kit)
Net weight	7.76kg
Operating temperature	EN50155 QT1: -25~55°C (TDP 35W CPU, airflow)
Storage Temperature	-40°C~85°C
Storage Humidity	10~95%@40°C, Non-condensing
Vibration	5grms/5~500Hz/random/in working (SSD); 1grms/5~500Hz/random/in working (HDD)
Shock	50g peak acceleration(11ms duration)(SSD); 20g peak acceleration(11ms duration)(HDD)
EMC/ Certification	EN50155: 2021, CE/FCC Class A

Dimensions



Ordering Info.

Model No.	CPU	Introduction
SIGM-3555-S001	Intel® Comet lake 10th-Gen Celeron/Pentium/Core™ i9/i7/i5/i3 CPU	Intel Q470 PCH, Intel CML LGA1200 CPU, 4*USB3.2, 2*USB3.0, 2*USB2.0, 4*COM, 8*POE, 2*CAN 1*M.2 E-Key, 1*M.2 B-Key, 2*HDMI, 1*MIC和1*Audio-out, 1*M.2 M-Key, 1*2.5" SATA bay, DC 110V rail-way standard isolated power supply
M12X-8P LAN/POE Cable	LAN cable, M12 X-Code Male 8pin connector to RJ45 , 8-core CAT6, LSZH cable, 180cm	
PA-300DC48-M12A-4P	AC-DC switching power supply, DC48V@7.32A,85-305V AC input, DC 48V output, wide temperature without fan, 300W (non LSZH cable, no in-vehicle certification)	