

SIGM-U3550-F4

3U CPCI-S.0 R2.0 Enclosure, 3U CPCI-S.0 R2.0 Processor Blade ,
Intel Coffee lake-H CPU, 9-slot CPCI-S. 0 Backplane,
1+1 redundant 300W PSU, Intelligent Cooling design

JHCTECH

IoT Computer
Connecting the Dots

Embedded In-vehicle Computer-SIGM



Key Features

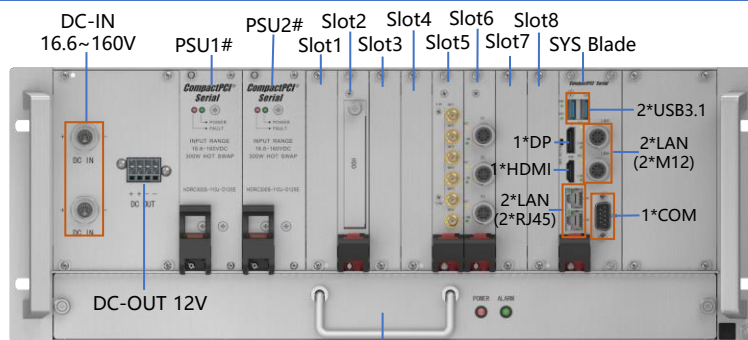
- PICMG CompactPCI Serial(CPCI-S.0R2.0) standard
- 3U 84HP Enclosure with 9-slot CPCI-S.0 backplane and 2-slot power backplanes
- Intel®Coffee Lake-H CPU+CM246 PCH Processor Blade
- On-board 8G DDR4+1*DDR4 SODIMM, Ram. up to 40G
- 1*DP+1*HDMI, 2 display, 4*G-LAN, 2*USB3.1
- 1*mSATA, optional 4*2.5" SATA3.0 Storage Blades
- 8*3U CPCI-S.0 standard expansion slots
- 1+1 Redundant rail-way standard ultra-wide voltage 300W power supply DC 16.6~160V
- 3*12025 double Ball Bearing temperature control Fans, 1U chassis easy-plug design
- EN-50155:2021, E-Mark certification



Overview

SIGM-U3550 is a 4U rack-mounted in-vehicle system conforms to the PICMG CompactPCI Serial standard. 3U Enclosure with 9-slot CPCI-S.0 backplane, 1 system slot and 8 expansion slots, 2 power supply slots. Standard with Intel Coffee Lake-H+CM246 3U CPCI-S.0 Processor blade, 2*PCIeX8, 2*PCIeX4, 2*PCIeX1, 2~4*2.5" SATA drive bay, memory on-board, 4*LAN, 1+1 redundant ultra-wide DC 16.6-160V 300W PSU. Aviation-grade reliability, suitable for rail-way and ship transportation, aviation, telecommunications industrial automation and other fields.

Interface



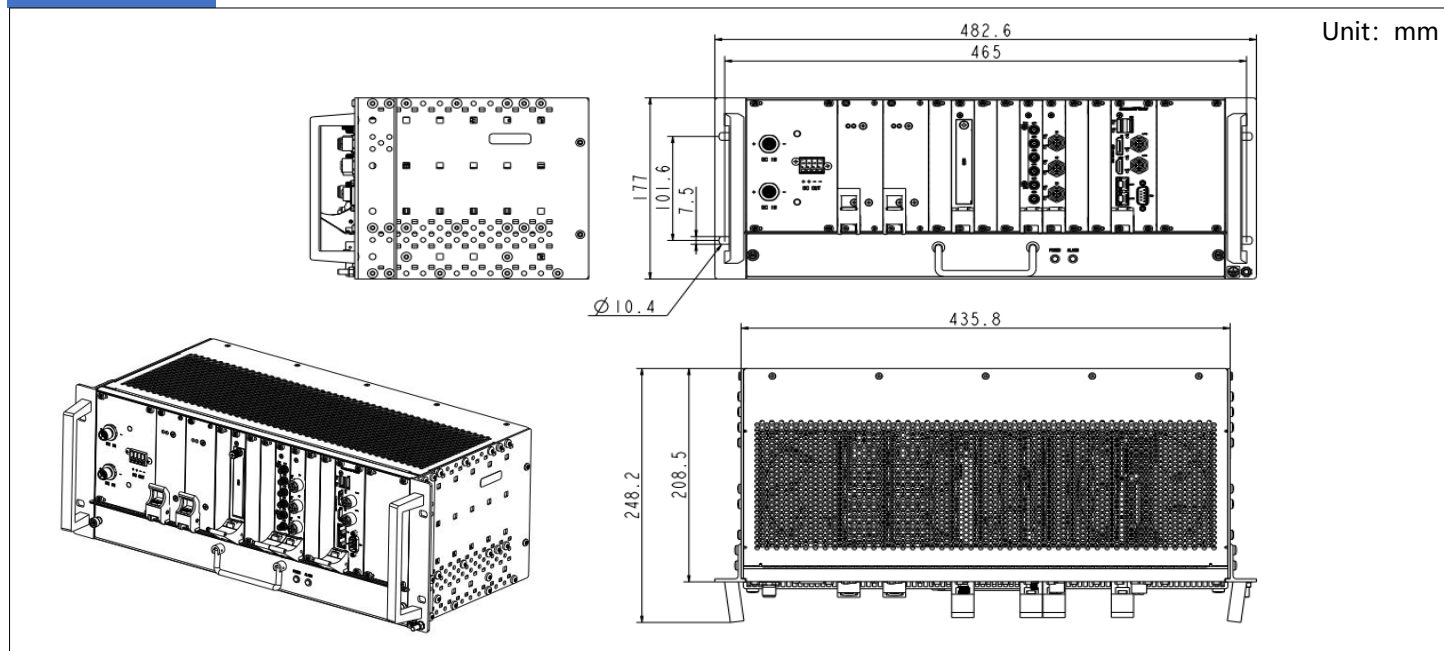
1U Intelligent Temperature Control Fan Chassis

SPEC.

CPU	Intel Coffee lake-H Core I3/I5/I7 or Xeon CPU, up to 8 cores and 16 threads, TDP 25W or 45W
Chipset	Intel CM246 high performance chipset
System memory	Dual-channel DDR4, On-board 8GB+1*SODIMM, up to 40GB, Xeon and Core I3 CPU support ECC
Expansion	Slot 7 and 8: 1*PCIeX8 (PCIe Gen3 from CPU)+1*USB3.1+1*USB2.0 in P1 and P2, 1*G-LAN in P6; Slot 6: 1*PCIeX4+1*USB3.1+1*USB2.0 in P1 connector, 1*G-LAN in P6 connector; Slot 5: 1*PCIeX4+1*USB3.1+1*USB2.0 in P1 connector; Slots 3 and 4: 1*PCIeX1+SATA3.0+1*USB2.0 in P1 connector; Slots 1 and 2: 1*SATA3.0+1*USB2.0 in P1 connector; Slot 9 is system slot: 2*PCIeX8+2*PCIeX4+2*PCIeX1+4*USB3.1+4*SATA3.0+8*USB2.0+3*G-LAN, CPCI-S.0 R2.0 standard specification, allocated to P1, P2, P3, P4, P5, and MP6 connectors.
Graphics	Intel UHD Graphics, Supports DirectX11.1, OpenGL 5.0,OpenCL 2.1 DP max.res. 4096*2304@60Hz, HDMI max.res. 4096*2160@24Hz, support 2 independent displays
Audio	NC
LAN	1*Intel I210AT(IT) and 1*Intel I219LM PCIe Gig. Ethernet, 2*RJ45 w/LED, 3U Processor Blade rear 2*Intel I210AT(IT) PCIe Gig. Ethernet, 2*M12 w/LED, Mezzanine-2 of 3U Processor Blade rear 3*Intel I210AT(IT) PCIe Gig. Ethernet w/LED signal assigned to P6 in slot 6/7/8 by Mezzanine-2 P6
Storage	1* Full-size mSATA on Mezzanine-2 card of the 3U Processor Blade, through the 3U expansion slots supply up to 4*2.5" SATA bay, support RAID0/1/5/10
I/O ports	4*Gig-LAN (2*M12 X-coded+2*RJ45 w/LED on 8HP), 3*Gig-LAN in P6 connector in slot 6/7/8 2*USB3.1 (Type A on 8HP); 4*USB3.1 signals in P1 connector of slot 5/6/7/8; 8*USB2.0 signals in P1 connector of slot 1/2/3/4/5/6/7/8; 1*DP+1*HDMI on the 8HP; 1*RS232/RS485 DB9 on 8HP rear
LED	1*Power LED, 1*HDD LED, 4* Network Connection LED (ACT/LINK), LED are all on the 8HP rear
Control SW	AT Power form, 1*Clear CMOS SW
Power Supply	Default single rail-way standard isolated PSU ultra-wide voltage 16.6-160V DC input, 4-pin M12, optional 1+1 dual redundant PSU; TDP: TBD

Watchdog Timer	Watchdog timeout programmable via software 1 to 255 second
OS Support	Windows 10/11 Enterprise & IOT Enterprise, Ubuntu, SUSE, Redhat Enterprise , VxWorks
Structure&Color	Aluminum alloy mold, conductive oxidation process; Color: Silver + Grey
Cooling	Fan cooling design, 3*12025 double Ball Bearing fans, bottom-up linear air channel, resistance sensing probe for intelligent speed control
Mounting	Desktop and Rack Mounting
Dimension	(W*H*D): 435.8*208.5*177.0mm(without mounting kit), 482.6*248.2*177.0mm(with mounting kit)
Net weight	TBD
Operating temperature	EN50155 QT3: -25 ~ 70°C(25W CPU); QT1: -25 ~ 55°C(45W CPU)
Storage Temperature	-40°C~85°C
Storage Humidity	10~95%@40°C, Non-condensing
Vibration	MIL-STD-810G, EN50155
Shock	MIL-STD-810G, EN50155
EMC/Certification	EN50155: 2021, CE/FCC Class A

Dimensions



Ordering Info.

Model No.	CPU	Introduction
SIGM-U3550/S001-F4	Intel Core B-9100HL	Embedded In-Vehicle Computer, 3U CPCI-S.0 R2.0 Enclosure+1U Fan Chassis, Intel CM246 PCH+Coffee Lake H CPU,on-board DDR4 8GB+ 1*SODIMM, 1*DP+1*HDMI, 4*G-LAN, 2*USB3.1, 1*RS232/422/485, 1*mSATA, 8*3U CPCI-S.0 expansion slot,1+1 redundant power slot, default 1*300W PSU DC IN 16.6-160V.
SIGM-U3550/S002-F4	Intel Xeon E-2254ME	
SIGM-U3550/S003-F4	Intel Core I7-9850HE	
CPCIs-282	3*Intel I210AT(IT)Gig. chip, IEEE 802.3af (15.4W/48V), M12 X-Code CPCI-S.0 3U Peripheral Blade	
CPCIs-283	Single 2.5" SATA3.0 easy-plug design drive bay, CPCI-S.0 3U Peripheral Blade	
CPCIs-284	2*Full size Mini PCIe(1*w/SIM),1*M.2 2230 E-Key,1*M.2 3052 B-Key w/SIM, CPCI-S.0 3U Peripheral Blade	
OFX-DC300DC12V	DC 16.6-160V input, DC 12V&5VSB output, 300W PSU ,CPCI-S.0 3U Peripheral Blade	
M12A-4P DC Cable	DC cable with M12 A-Code Female 4 pin connector to bare wire, PVC Multicore Cable, 4-wires 18AWG PVC, non LSZH cable, 100cm	
M12X-8P LAN/POE Cable	Internet cable with M12 X-Code Male 8pin connector to RJ45 crystal head connector, 8-wires 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 fanless, 300W (non LSZH cable, no in-vehicle certification)	