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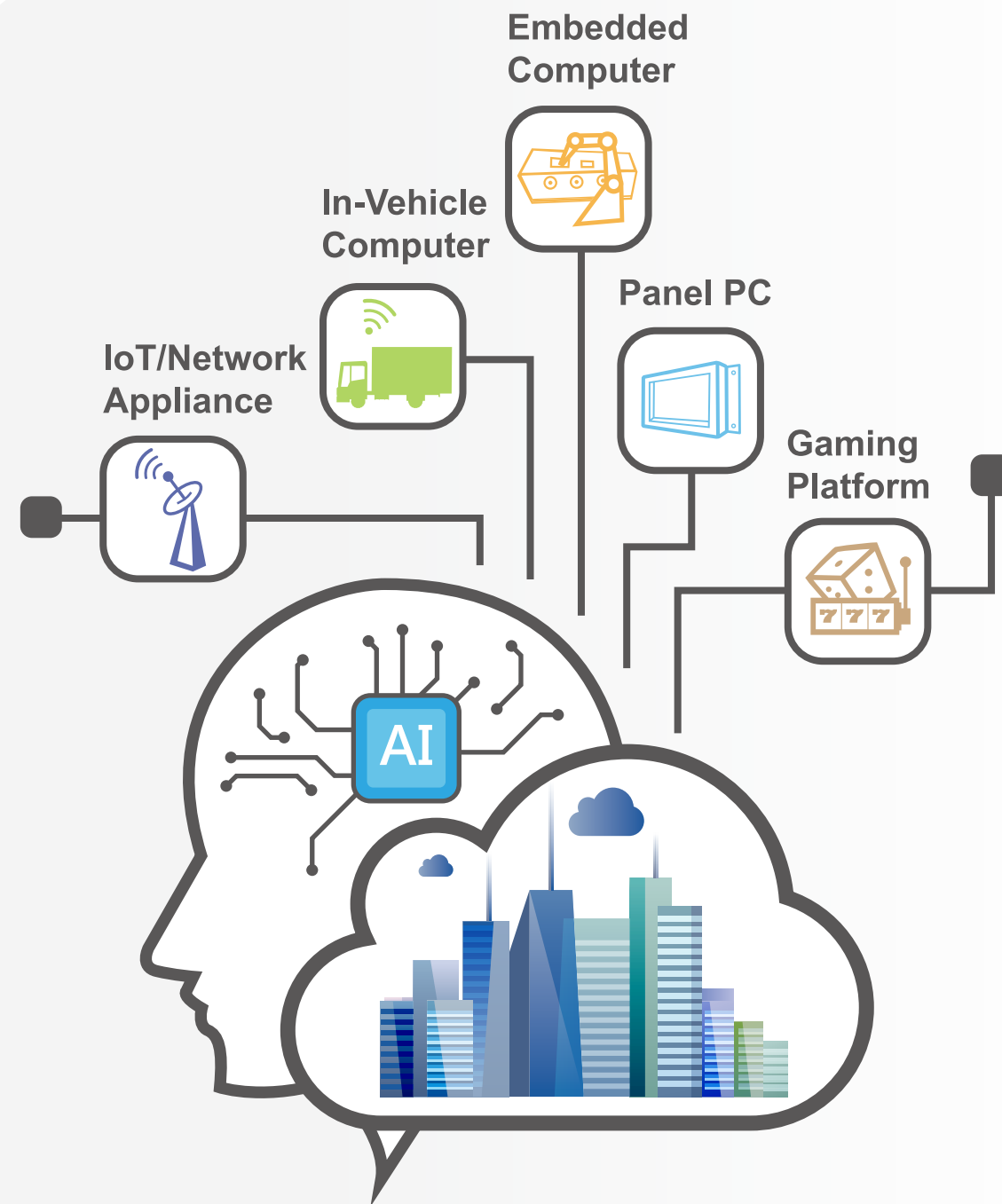
To Make Your
Embedded
Idea a Reality



ACROSSER

Acrosser Product Guide

2020 To Make Your Vol. 1.0 *Embedded Idea a Reality*



Company Profile

Founded in 1987, Acrosser is a global pioneer in the evolution of industrial computing. For several decades now, Acrosser had provided innovative embedded computer solutions and high-quality hardware products at very competitive prices to over thousands of customers world-wide, substantially helped them reduce time-to-market and gain high-level competence to succeed and win in the marketplace.



Business Scope



Wide Array of Standard Industrial PC Products

Acrosser designs a wide array of commercially-off-the-shelf(COTS) single board computer (SBC) products, all following International Open Standards. Acrosser manufactures SBCs; such as embedded PC/104(+), EPIC, embedded ATX, mini-ITX, industrial ISA, PCI, PCI-Express, among others. These products/ solutions provide easy-maintenance, faster-upgrade and offer international compatibility advantages; thereby saving your initial investment/s. Acrosser offers a broad range of product lines (SBCs, embedded) computers, panel PCs, networking appliances) that efficiently performs in various widely-used major operating systems such as: Windows®7, Windows®8, Windows®10, Linux Fedora, Linux Ubuntu, and many others.



In-Depth and Versatile Applications Experience

Since 1987, Acrosser had and continues to assist its customers develop various embedded systems for different automation, such as: network security, wireless appliance, gaming, medical, industrial automation, surveillance, POS, KIOSK, digital signage, home and building automation, instrumentation, marine, military, transportation, etc. Acrosser's team of professionals has the necessary knowledge of the vertical markets, and can help its customers develop the right solutions to easily pass the required certificates in projects, such as: FDA for medical, GLI, Comma 6A for gaming, and FCC/ CE for all products.



Top Quality Assurance with Long Life-Cycle Supply

Acrosser, through the years, had been and continues to be among preferred vendors of thousands of customers world-wide, some of which rank among the top Fortune 500 companies. Acrosser's implementation of 100% ESS (Environmental Stress Screen) burning, dynamic vibration and various functional tests on every mass production unit help its customers save from costly RMA repairs. As for its commitment to high quality products, Acrosser designs all products based on its embedded roadmap with a minimum 5-year product life. Along with a very strict revision control system, Acrosser provides its customers with stable, long term products supply.

Acrosser values and encourages participation from all its employees, and believes that everyone contributes to Acrosser's overall success. With a mission statement "Making Your Embedded Idea a Reality", Acrosser keeps its major promise to all its customers by continuously developing innovative solutions, and providing professional and cost-effective OEM/ODM/JDM custom design services in a timely manner. In the bottom-line, Acrosser will assist you and your company in becoming a market leader, and substantially help in building and achieving a win-win business partnership together.

ACROSSER

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In-Vehicle Computer

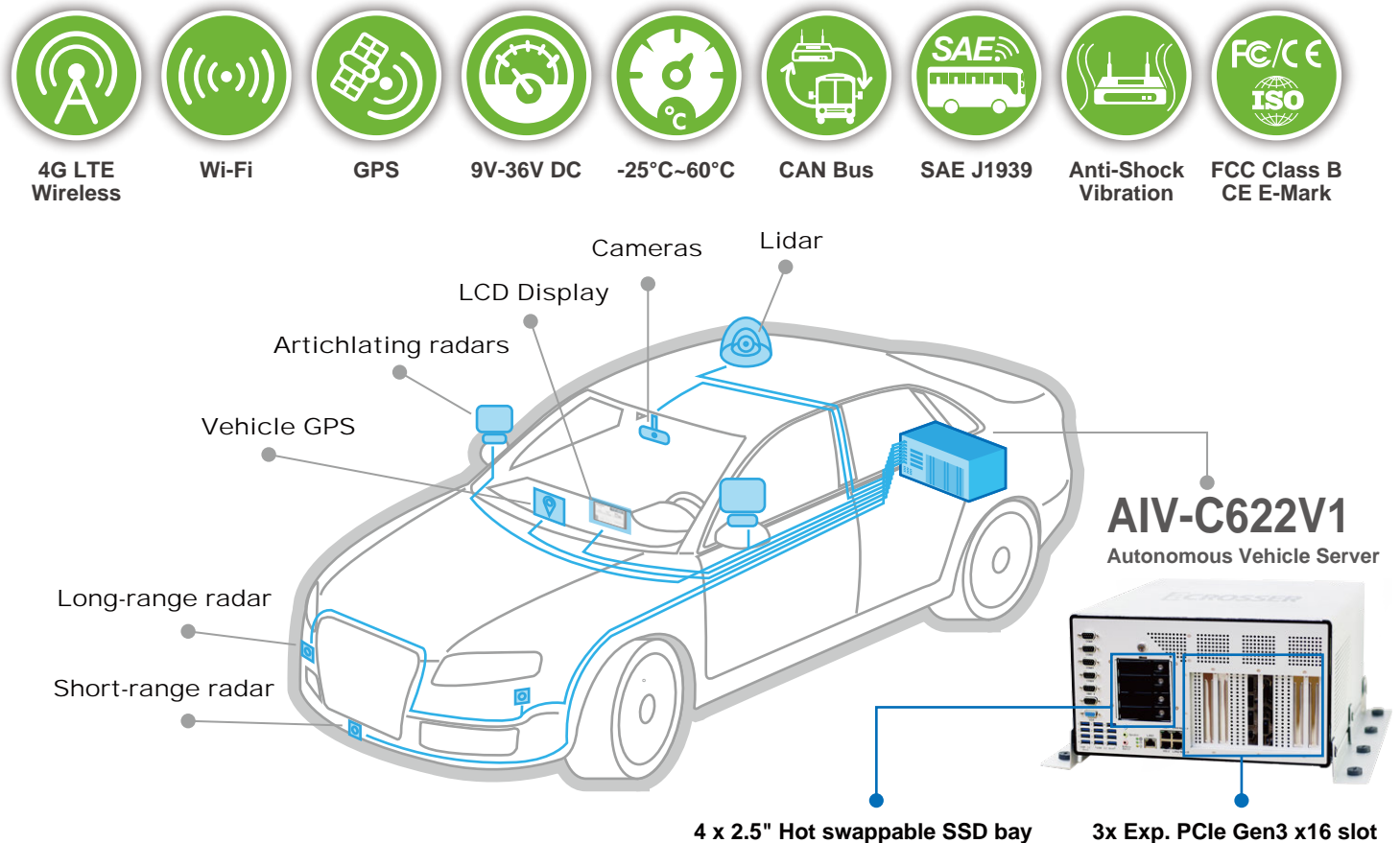
Acrosser In-Vehicle Computer is designed to perform multiple in-car functions, including infotainment, fleet management, telematics, video surveillance, taxi dispatch and law enforcement. A newer unique needs in intelligent traffic system, asset management, job dispatch, video surveillance and fuel saving has come to the market recently, and Acrosser will help customers to enter this new market.

With the compliance of ISO 7637-2 and E-Mark, Acrosser provides solid car pc solutions for its customer to shorten time-to-market. Common features of Acrosser on board computer includes: CAN Bus, GPS, GPRS/3.5G/LTE, Wi-Fi, Bluetooth, anti-shock and anti-vibration. Acrosser In-Vehicle computers integrates wide range DC input with surge protection, which resolves the critical power management issue within each vehicle. Therefore, Acrosser's car pc was embedded into multiple applications, from taxi, police car, ambulance to fire fighter truck, heavy duty truck, bus, construction vehicle and train.

Furthermore, in 2020, Acrosser integrated its long-term experience in making in-vehicle pc and network appliance to develop innovative autonomous vehicle server-AIV-C622V1 which is the most advanced autonomous vehicle server in the market.

Autonomous Vehicles Application

Acrosser In-Vehicle PC Plays Significant Role in Telematics



Product Matrix

In-Vehicle Computers



Form Factor	In-Vehicle Computer		
Model Name	AIV-C622V1	AIV-Q170V1FL	AIV-APL1V1FL
Specification			
CPU	Intel®2nd Gen Xeon Scalable processor Intel Xeon Gold 5217 8C/16T	Intel® Sky-lake-S i7-6700 TE / i5-6500 TE / i3-6100 TE	Intel® Atom™ x7-E3950 Intel® Atom™ x5-E3930
Memory	6 x DDR4-2933 RDIMM (up to 384GB)	2 x DDR4-SO-DIMM support up to 32GB	1 x DDR3L SO-DIMM, support up to 8GB
Video			
Video Interface	1 x VGA	1 x HDMI (With locking bracket) 1 x VGA 1 x DVI-D	1 x VGA port (DB15) 1 x DVI connector
Storage			
SATA	4 x SATA III port	2 x SATA III port	2 x SATA II port
SSD	-	-	-
CF	1 x CFast	1 x CF	-
Disk Bay	4 x 2.5" Hot swappable SSD bay (All in one)	2 x Anti-shock 2.5" HDD Bay with easy swappable bracket	2 x Anti-shock 2.5" HDD Bay with easy swappable bracket
I/O			
Expansion Slot	1 x mini PCIe, 1 x M.2_B_Key	3 x mini PCIe	3 x mini PCIe
Ethernet	2 x GbE RJ-45 (intel i210-iT) 2 x 10GbE RJ-45 (PCH C622) 1 x GbE RJ-45 Management port	4 x POE GbE LAN	2 x GbE LAN
Serial Port	4 x RS232/RS422/485	3 x RS232 4 x RS232/422/485	3 x RS232 1 x RS232/422/485
USB	8 x USB 3.0 4 x USB 3.1	8 x USB 3.0	4 x USB 3.0
GPIO	4 In, 4 Out	4 In, 4 Out	4 In, 4 Out
Audio	3 x Audio jack	3 x Audio jack	1 x MIC in, 1 x Audio out
Remote Control	1 x Remote control switch	1 x Remote control switch	1 x Remote control switch
SIM	1 x SIM card Socket	2 x External SIM Slot	2 x External SIM Slot
Can Bus (2.0A/2.0B)	YES	YES	YES
Power Requirement			
Power Input	DC 36 ~ 72V PSU	DC 9V ~ 36V	DC 9V ~ 36V
Software			
OS Support	Windows 10 Enterprise Linux Kernel 1.8	Windows 10 Enterprise Linux Kernel 4.4	Windows 10 Enterprise Linux Kernel 4.4
Mechanical & Environment			
Dimension	400 x 190 x 510 mm	270 x 170 x 63 mm	260 x 195 x 80 mm
Weight	20 Kg	6.2 Kg	4 Kg
Operating Temp	-25 ~ 60°C (-13 ~ 140°F)	-25 ~ 60°C (-13 ~ 140°F)	-25 ~ 60°C (32 ~ 140°F)
Vibration/Shock/Safety	Comply IEC 60068-2-64 / Comply IEC 60068-2-27 / CE, FCC Class B, E-Mark 13		
Optional Wireless Module			
4G	GPRS/EDGE/WCDMA/HSUPA/HSDPA		
GPS / WiFi / Bluetooth	YES, IEEE 802.11 b/g/n, YES		
Reference			
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Product Matrix



AIV-QM97V1FL

Intel Core i7 5650U / i5 5350U / i3 5010U

2 x DDR3L SO-DIMM, up to 16GB

1 x HDMI type A connector
1 x DVI-D connector

1 x SATA III port

1 x M.2 SSD

1 x External CF socket

1 x Anti-shock 2.5" SDD Bay with Anit-vibration / Anit-shock

1 x mini PCIe

2 x GbE LAN

2 x RS232

1 x RS422/485

2 x USB 3.0

2 x USB 2.0

4 In, 4 Out

1 x MIC in, 1 x Audio out

1 x Remote control switch

1 x External SIM Slot

YES

DC 9V ~ 32V

Windows 7 / Windows 8.1

Fedora 21 / Ubuntu 15.04

290 x 190 x 45 mm

4 Kg

0 ~ 60°C (32 ~ 140°F)

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In-Vehicle Monitors



Form Factor	In-Vehicle Monitors	
Model Name	AR-DP071VW	AR-DP080V
Panel Size	7" Wide Screen (16:9)	8" Screen (4:3)
Resolution	640 x 480~1920 x 1080 pixels	640 x 480~1600 x 1024 pixels
Luminance	400 nits (cd/m2)	600 nits (cd/m2)
View Angle(T/B/L/R)	50/70/70/70 deg.	40/60/60/60 deg.
Backlight Lifetime	20,000 hours	20,000 hours
Operating Temp	-30~85°C	-10~60°C
Power Consumption	12W	10W
I/O Combo cable (One-to-VGA / USB / Audio / DC interface)		
Video	VGA (DB15)	VGA (DB15)
Touch Screen	4-Wire Resistive USB interface	4-Wire Resistive USB interface
Audio	3.5mm stereo Jack	3.5mm stereo Jack
DC	DC Jack (12V ~ 24V)	DC Jack (12V)
Reference		
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In-Vehicle Monitors



Form Factor	In-Vehicle Monitors	
Model Name	AR-DP080VW	AR-DP100V / VD
Panel Size	8" Wide Screen (16:9)	10.4" Screen (4:3)
Resolution	640 x 480~1600 x 1024 pixels	640 x 480 pixels~1024 x 768 pixels
Luminance	400 nits (cd/m2)	300 nits (cd/m2)
View Angle(T/B/L/R)	40/60/60/60 deg.	50/60/75/75 deg.
Backlight Lifetime	20,000 hours	LED
Operating Temp	-30~85°C	-10~ 60°C
Power Consumption	10W	12W
I/O Combo cable (One-to-VGA / USB / Audio / DC interface)		
Video	VGA (DB15)	VGA (DB15) + DVI (Optional)
Touch Screen	4-Wire Resistive USB interface	4-Wire Resistive USB interface
Audio	3.5mm stereo Jack	3.5mm stereo Jack
DC	DC Jack (12V)	DC Jack (12V ~ 24V)
Reference		
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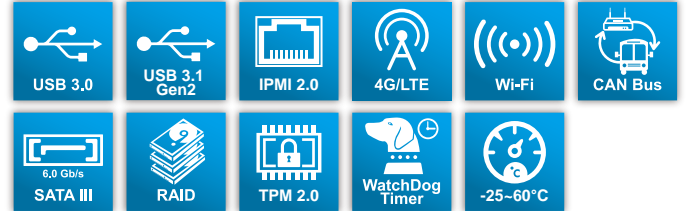
AIV-C622V1

Autonomous Vehicle Server



Features

- Intel® C622 Platform
- Intel® 2nd Gen Xeon Scalable Processor
- 6 x RDIMM DDR4-2933 (up to 384GB)
- 3x Exp. PCIe Gen3 x16 slot (GPU Card)
- 8 x USB3.0 (5Gbps)
- 4 x USB3.1 (10Gbps)
- 4 x 2.5" SATA-III Hot-swappable with All-In-One Storage Bay
- 2 x 10GbE, 2 x GbE RJ-45
- 1 x Management port
- DC+DC/Redundant PSUs



Others

WatchDog Timer	1-255 sec. software programmable(O=Disable)
Security	TPM 2.0 (Infineon chipset)
Mgmt	IPMI 2.0 (ASPEED AST2500 BMC)

Software

OS Support	Ubuntu 18.04LTS.
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Power Requirement

Power Input	DC 36~72v PSU
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Mechanical & Environment

Dimension	400 (W) x 190 (H) x 510 (D) mm
Operating Temp.	-25 ~ 60°C (-13~140°F)
Chassis	Aluminum extrusion heat sink & metal chassis
Thermal Design	Smart Cooling Fan
Storage Temp	-40~80°C (-40~176°F)
Safety	CE / FCC class B / E Mark / cULus / RoHS
Vibration	IEC 60068-2-64, 5~500Hz, 3GRMS(CF/SSD)
Shock	IEC 60068-2-27, 50G 500m/s2 11MS

Specification

System

CPU	Intel®2nd Gen Xeon Scalable processor Ex. Intel Xeon Gold 5217 8C/16T,3.0GHz
Chipset	Intel® C622 PCH
Memory	6 x DDR4-2933 RDIMM (up to 384GB)

Video

Video Memory	Integrated
Video Interface	1 x VGA

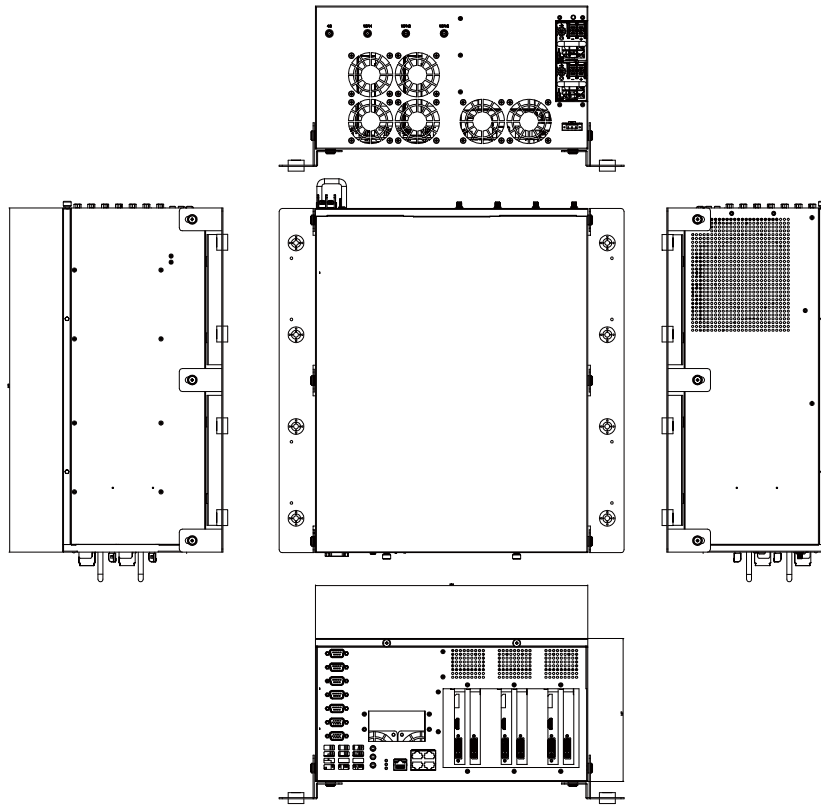
Storage

SATA	4 x SATA III port (RAID 0/1/5/10)
Disk Bay	4 x 2.5" Hot swappable SSD bay (All in one)

I/O

Ethernet	2 x GbE RJ-45 (intel i210-iT) 2 x 10GbE RJ-45 (PCH C622) 1 x GbE RJ-45 Management port
USB	8 x USB 3.0, (5Gbps) 4 x USB 3.1, (10Gbps)
Serial Port	4 x COM - DB9 (RS232/RS422/485)
CAN Bus	CAN Bus 2.0B OBD II (Option)
GPIO	GPIO 4-in / 4-out,
Audio	3 x Audio jack • Green: Audio out • Blue: Remote switch • Pink : Mic in
Mini-PCIe	1 x Mini PCIe socket (for WiFi) 1 x M.2 socket (for 4G,)
Exp. PCIe slot	3 x Exp. PCIe Gen3 x16 slot (GPU Card)
SIM Card	1 x SIM card Socket

Dimension



I/O Connectors



Packing List

- 1 x AIV-C622V1
- 1 x System Driver CD
- 1 x Terminal block female 3pin
- 1 x HDMI locking bracket
- 1 x 8 bit GPIO/CAN Cable
- 1 x Remote switch cable

Optional Module List

- Sierra MC7430 (4G + GPS + Glonass module)
- Sierra MC7455 (4G + GPS + Glonass module)
- Jwx6058 (Qualcomm. QCA6174A-5)Wi-Fi5+BT5.0
- 8/16/32GB DDR4 2933 RDIMM

AIV-Q170V1FL

Fan-less PC Sky-lake S TE Ver CPU with 4 x POE smart power system



Features

- Support 4 X POE GbE LAN port with RJ45 connector
- Support 2 x swappable 2.5 inch SSD bay
- Support 3 x Mini PCI-e (For 4G & GPS module with 2 x SIM card Socket)



Specification

System

CPU	Intel® Sky-lake-S 6th Gen Core™ i7-6700 TE Intel® Sky-lake-S 6th Gen Core™ i5-6500 TE Intel® Sky-lake-S 6th Gen Core™ i3-6100 TE
Chipset	Intel® Q170 chipset
Memory	2 x DDR4-SO-DIMM

Video

Chipset	Intel® HD Graphics 530
Video Memory	Integrated
Video Interface	1 x HDMI (With locking bracket) 1 x VGA 1 x DVI-D

Storage

SATA	2 x SATA III port
Disk Bay	2 x swappable 2.5 inch SSD bay
CF	1 x CFast

I/O

Ethernet	2 x GbE, RJ45, Intel i210IT chipset
PoE	4 X POE GbE LAN port with RJ45 connector (802.3at ,total 60W max)
USB	8 X USB 3.0
Serial Port	4 X COM - DB9 (RS232/RS422/485)
CAN Bus	CAN Bus 2.0B / OBD II (J1939) for BOM Option
GPIO	GPIO 4-in / 4-out,
Audio	3 x Audio jack Green: Audio out Blue: Remote switch Pink : Mic in
Mini-PCI-e	3 x Mini PCI-e socket
SIM Card	2 x SIM card Socket

Others

WatchDog Timer	1~255 sec. software programmable(0=Disable)
TPM	On-board TPM 1.2 / 2.0 for optional
G Sensor	1 x G Sensor board

Software

OS Support	Windows 10 (64 bit) / Linux kernel to 4.4 or above(64 bit)
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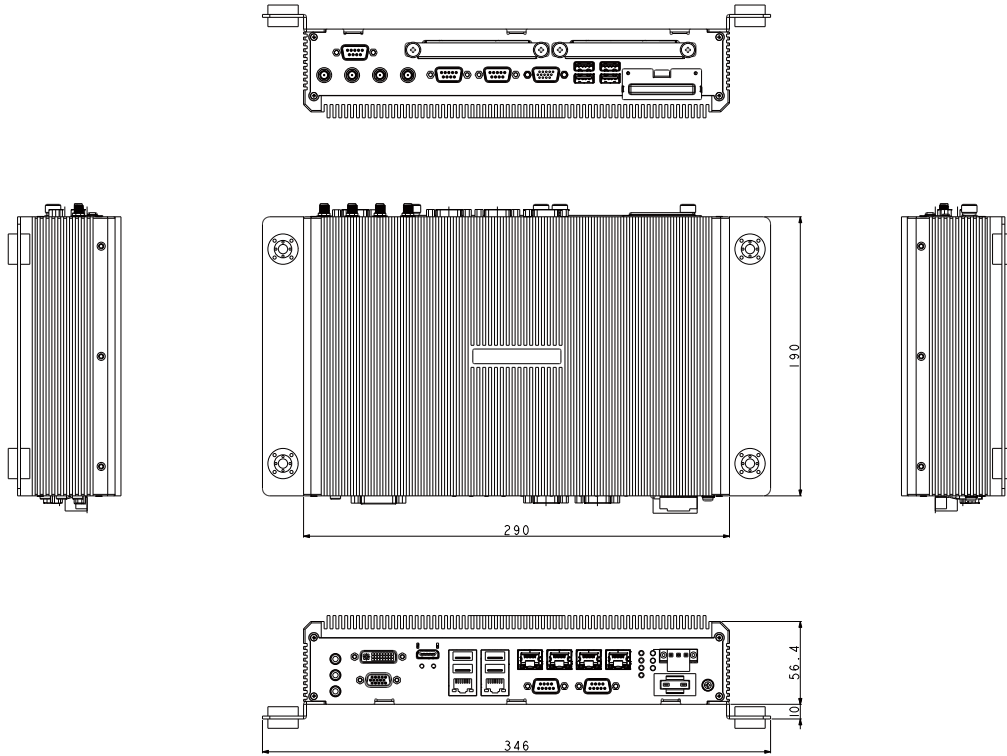
Power Requirement

Power Input	Power sub system spec:16~75 V power input
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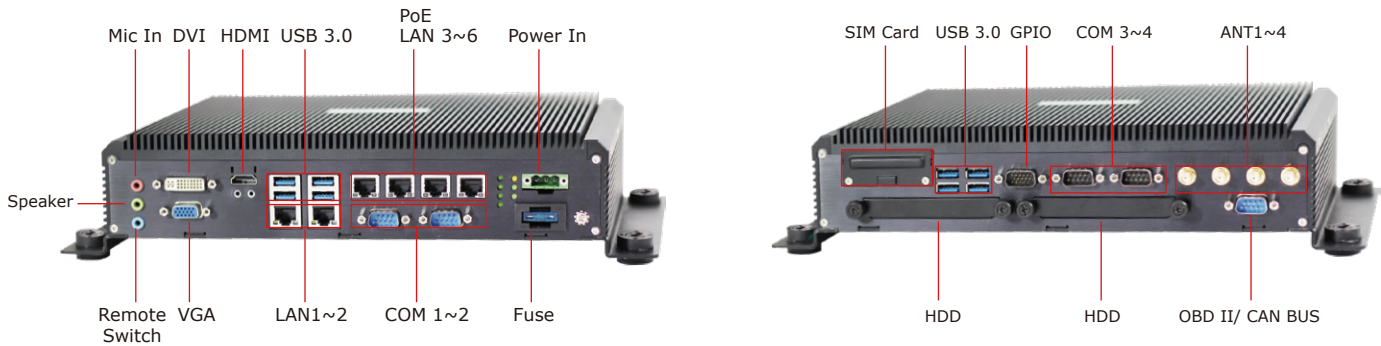
Mechanical & Environment

Dimension	270mm x 170 mm x 63 mm
Operating Temp.	-25 ~ 60°C
Chassis	Aluminum extrusion heat sink & metal chassis
Thermal Design	Fan less
Weight	6.2 Kg
Storage Temp	-40~80°C (-40~176°F)
Safety	CE / FCC class B / E Mark ,

Dimension



I/O Connectors



Packing List

- 1 x AIV-Q170V1FL
- 1 x System Driver CD
- 1 x Terminal block female 3pin
- 1 x HDMI locking bracket
- 1 x 8 bit GPIO/CAN Cable
- 1 x Remote switch cable

Ordering Information

AIV-Q170V1FL	AIV-Q170V1FL (CAN BUS 2.0)
AIV-Q170V1FL-OBDD	AIV-Q170V1FL-OBDD (OBD II)
AIV-Q170V1FLS	AIV-Q170V1FLS (CAN BUS 2.0)
AIV-Q170V1FLS-OBDD	AIV-Q170V1FLS-OBDD (OBD II)

Optional Module List

- EC20/EC25 (Quectel)(4G + GPS + Glonass)module
- Sierra MC7430(APAC)(4G + GPS + Glonass)for s moodel only
- Sierra MC7455(America)(4G + GPS + Glonass)for s moodel only
- Jwx6058 (Qualcomm. QCA6174A-5)Wi-Fi5+BT5.0
- G sensor Board (ADXL345)
- 4GB DDR4 2133 SO-DIMM 1Rx8
- 8GB DDR4 2133 SO-DIMM 2Rx8

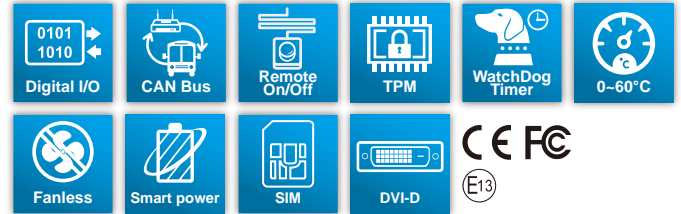
AIV-APL1V1FL

New Intel Pentium-N4200 Fan Less In-Vehicle Computer



Features

- Rugged fan-less design
- Support New Intel Pentium N4200 processors
- 1 x DDR3L 1866 MHz SO-DIMM, up to 8GB
- Support CAN 2.0A/2.0B & J1939 protocol(Optional)
- VGA & DVI video output
- Support 4 Channel analog Capture card
- 2 x swappable 2.5" HDD bay
- TPM 1.2 / 2.0
- Variety Wireless Communication



Others Feature

WatchDog Timer 1~255 sec. software programmable

Software

OS Support Windows 10 (64 bit)& Linux kernel to 4.4 or above(64 bit)

Power Requirement

Power Input 9~36 V

Mechanical & Environment

Dimension 260mm x 195mm x 63mm
 Operating Temp. -25°C ~ 60°C
 Vibration IEC 60068-2-64, 5~500Hz, 3GRMS(SSD)
 Shock IEC 60068-2-27, 50G 500m/s² 11MS
 Storage Temp -40~80°C (-40~176°F)
 Safety CE, FCC class B, E-Mark

Smart In-Vehicle Power Management

O/S Anti-Crash Smart O/S boot/shut-down control by power subsystem
 System boot / Shut-down delay Delay time from 0 seconds to 60 minutes setting in BIOS
 System boot fail retry 3 times boot fail retry
 Power on/off switches

- System power switch by remote cable switch
- System power input serial connection to car battery and ignition switch

 Car battery protection Low battery voltage monitoring and configurable auto shutdown low battery voltage level

Specification

System

CPU	Intel® Pentium™-N4200
Chipset	Intel Apollo lake SoC
Memory	2 x DDR3L 1866 MHz ,SO-DIMM, support up to 8GB

Video

Graphic Controller	Intel HD Graphics 505
Video Interface	1 x VGA port (DB15) ,1 x DVI

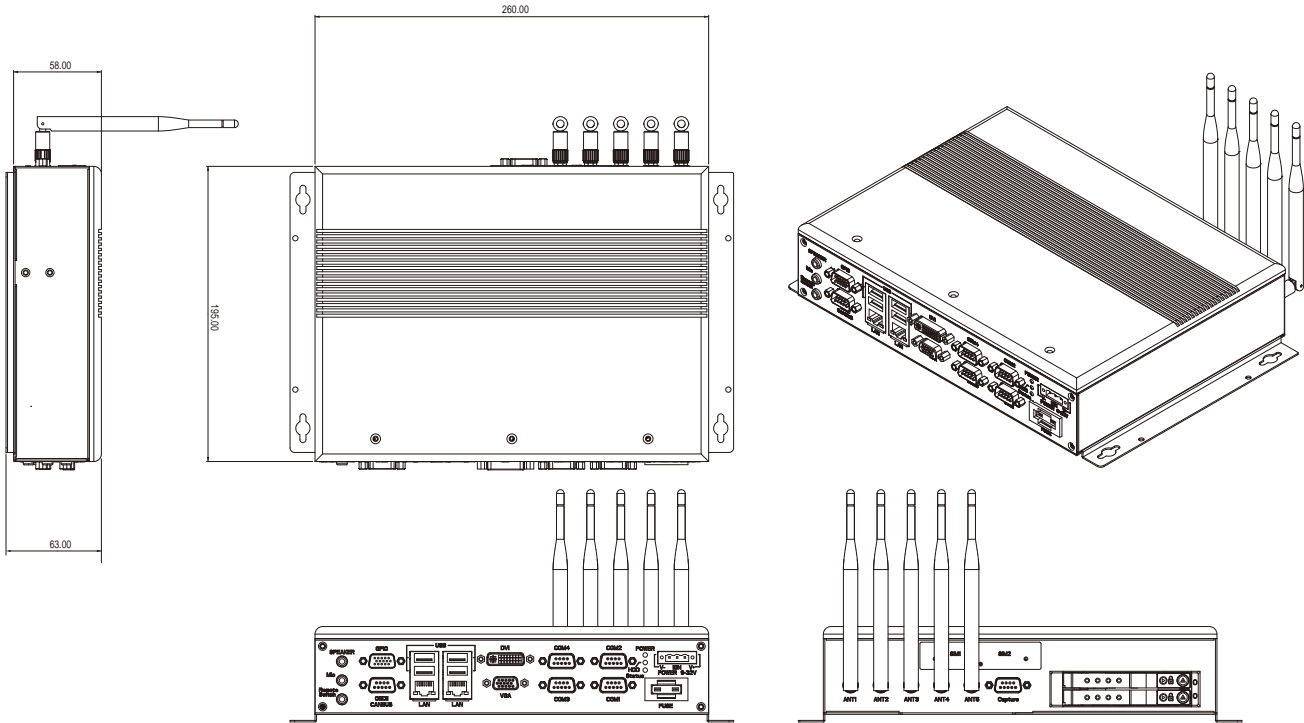
Storage

SATA	2 x SATA III port
Disk Bay	2 x swappable 2.5" Disk bay with Anti-vibration/ Anti-shock solution for SSD only

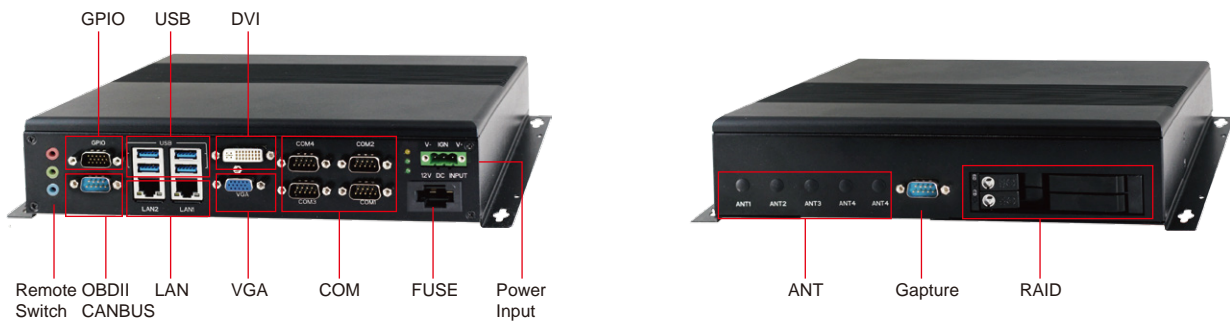
I/O

Expansion Slot	3 x Mini PCI-e(Reserve for Wi-Fi and 4G LTE)
Ethernet	2 x GbE RJ45, Intel i210AT
Serial Port	1 x RS-232/422/485 3 x RS-232
USB	4 X USB 3.0
GPIO	8-bit GPIO (4 In, 4 Out)
Audio	1 x MIC in 1 x Audio out
Antenna Hole	1 x SMA for GPS 1 x SMA for 4G 2 x SMA for Wi-Fi & Bluetooth
SIM	SIM Slot x 2, SIM card changeable without opening case, latch to protect SIM uncertainly touch
CAN BUS	DB9 connector, support CAN 2.0A/2.0B protocol (J1939 for optional)
TPM	On-board TPM 1.2 / 2.0(Optional)

Dimension



I/O Connectors



Packing List

- 1 x AIV-APL1V1FL
- 1 x User Guide CD with driver
- 1 x GPIO/CAN Cable
- 1 x Terminal block (Plug-DC connector)
- 1 x Remote Switch Cable
- 1 x Antenna for GPS (option)
- 2 x Antenna for Wi-Fi & Bluetooth (option)
- 1 x Antenna for 4G LTE (option)
- 1 x Spare Fuse

Ordering Information

AIV-APL1V1FL-PT1 AIV-APL1V1FL- Intel Pentium N4200+CAN 2.0
 AIV-APL1V1FL-PT1OB AIV-APL1V1FL- Intel Pentium N4200+OBD II

Optional Modules

EC20/EC25	Quectel 4G + GPS + Glonass module
MC7455/MC7430	Sierra 4G + GPS + Glonass module
Jwx6058	Qualcomm. (QCA6174A-5) Wi-Fi5+BT5.0
SC330N4	Yuan Analog Capture card 4ch With Testing Cable
G-SenSor	G-SenSor board

AIV-QM97V1FL

All new Fanless In-Vehicle system, Intel Core i3/i5/i7 Broadwell U with smart power system, GPS/ 4G LTE/ WiFi/ Bluetooth/ M.2 SSD option module



Features

- Rugged fanless design
- Support Intel 5th generation Core i Broadwell U processors
- 2 x DDR3L-1600MHz, SO-DIMM, up to 16GB
- Support CAN 2.0A/2.0B protocol and i-Button for driver ID
- HDMI & DVI-D output
- Wide variety of wireless communication options
- M.2 SSD & M.2 4G LTE support



Specification

System

CPU	Intel Core i3 5010U / i5 5350U / i7 5650U
Chipset	Intel QM97
Memory	2 x DDR3L-1600MHz, SO-DIMM, up to 16GB (non-ECC)

Video

Graphic Controller	Intel® HD Graphics 6000
Video Memory	DVMT
Video Interface	1 x HDMI type A connector 1 x DVI-D connector

Storage

SATA	1 x SATA III port with power connector
SSD	1 x M.2 SSD
Disk Bay	1 x swappable 2.5" SSD bay with Anti-vibration / Anti-shock solution

Communication

Ethernet	2 x Intel GbE chip via RJ-45 connector (Intel i210IT)
USB	2 x USB 3.0, 2 x USB 2.0
Serial Port	2 x RS232 (2 x DB9) 1 x RS422/RS485 (Select by GPIO)

I/O

Expansion Slot	mini PCIe Socket supported for WiFi+BT.
GPIO	8-bit GPIO (4 In, 4 Out)
Antenna Hole	1 x SMA for GPS, 1 x SMA for 4G LTE, 2 x SMA for WiFi, 1 x SMA for Bluetooth
SIM	SIM Slot x 1, SIM card changeable without opening case
Security	Support i-Button for driver ID
CAN Bus	Support CAN 2.0A/2.0B protocol

Software

OS Support	Windows 7, Windows 8.1, Fedora 21, Ubuntu 15.04
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Others Feature

Audio	Audio Codec (Line-out & MIC)
Hardware Monitor	CPU voltage and temperature
WatchDog Timer	0~255 sec. software programmable
Indicator	Power / HDD/ Status LED

Power Requirement

Power Input	9~32 V (+/-5%) single voltage input, 3 poles terminal block
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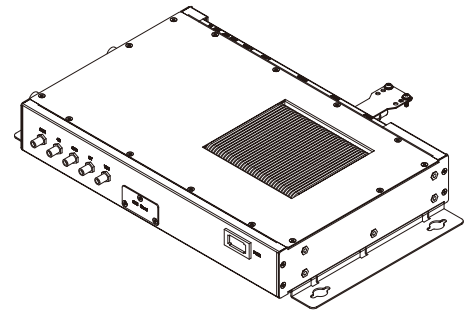
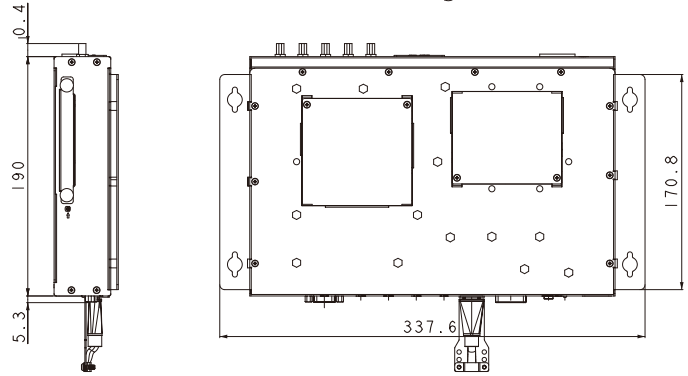
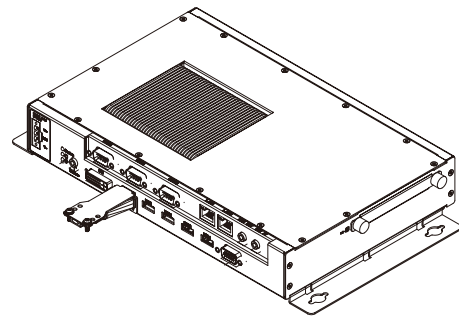
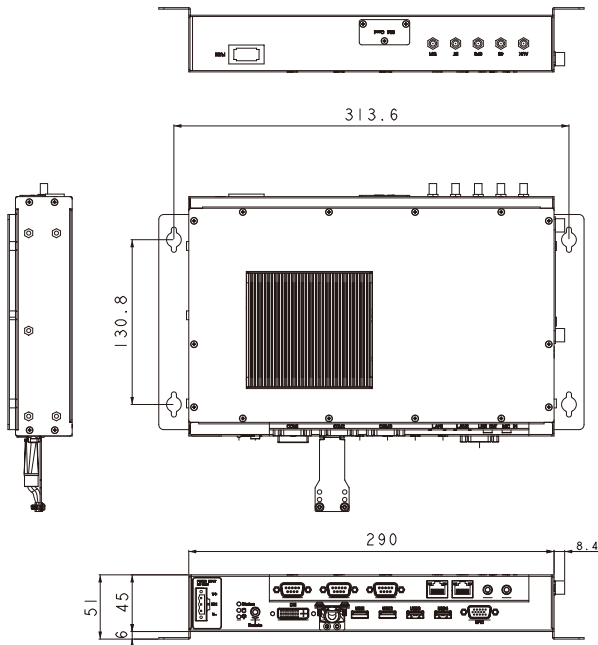
Mechanical & Environment

Thermal Design	Fanless
Chassis Material	Metal SPGC (Black printing color)+ Aluminum heatsink
Vibration	IEC 60068-2-64, 5~500Hz, 3GRMS(CF/SSD), Operating with SSD
Shock	IEC 60068-2-27, 50G 500m/s ² 11MS, Operating with SSD
Dimension	290mm x 190mm x 45mm
Weight	4 kg
Operating Temp.	0~60°C
Storage temp.	-40~80°C
Relative Humidity	0~90% @ 40°C, non-condensing
Safety	CE, FCC class B, E-Mark

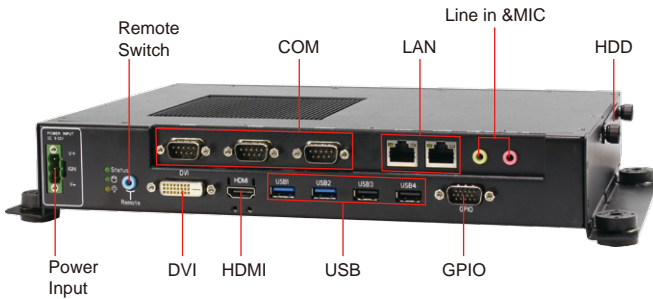
Smart In-Vehicle Power Management

O/S Anti-Crash	Smart O/S boot/shut-down control by power subsystem
System boot / Shut-down delay	Delay time from 0 seconds to 60 minutes setting in BIOS
Power on/off switches	<ul style="list-style-type: none"> • System power switch by remote cable switch • System power input serial connection to car battery and ignition switch
Car battery protection	Low battery voltage monitoring and configurable auto shutdown low battery voltage level

Dimension



I/O Connectors



Packing List

- 1 x AIV-QM97V1FL
- 1 x User Guide & System Driver CD
- 1 x Screw pack(2.5" HDD bracket: 4pcs)
- 1 x Terminal block female 3pin
- 1 x Spare Fuse 10A
- 1 x GPIO/CAN/Driver ID DB15 Cable
- 1 x Remote Switch Cable
- HDMI locking bracket

Ordering Information

AIV-QM97V1FLCi3 AIV-QM97V1FLCi3 with Intel Core i3 5010U

AIV-QM97V1FLCi5 AIV-QM97V1FLCi5 with Intel Core i5 5350U

AIV-QM97V1FLCi7 AIV-QM97V1FLCi7 with Intel Core i7 5650U

Optional Modules

Sierra EM7430 / EM7455 4G LTE & GPS module

Jwx6058 Qualcomm. (QCA6174A-5) Wi-Fi5+BT5.0

Transcend TS128GMTS800 /M.2 TYPE 2280-D2-B-M / SATA SSD / 128GB

AR-DP071VW

7-Inch (16:9) Monitor with VGA, USB Touch Screen



Features

- 7-Inch (16:9) Wide Screen
- LED Backlight with Low Power Consumption
- Resistive Touch Screen
- VESA75 Mounting and Stand
- DC 12~24V Power Input



Specification

Panel

Panel Size	7-Inch Screen (16:9)
Resolution	Supports 640 x 480 ~ 1920 x 1080 pixels
Luminance (cd/m2)	400 nits
View Angle (H/V)	H:140 / V:120
Backlight Lifetime	20,000 hours
Touch Screen Type	4-wire Resistive

I/O

Video Interface	1 x VGA
USB	1 x USB for Touch Screen
Audio	1 x Audio Input Jack

Power Requirement

Power Input	DC 12~24V, with Adapter
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Software

TouchKit Driver Support	Windows vista / 9X / Me / NT4.0 / 2000 / XP / E.NET / CE 2.12/3.0, Embedded/ Dos, Mac OS 9X / OS X(Intel CPU) Linux Readme / Mandrake / Red Hat / Fedora Core / SuSE / Debian / (K)Ubuntu / Yellow Dog
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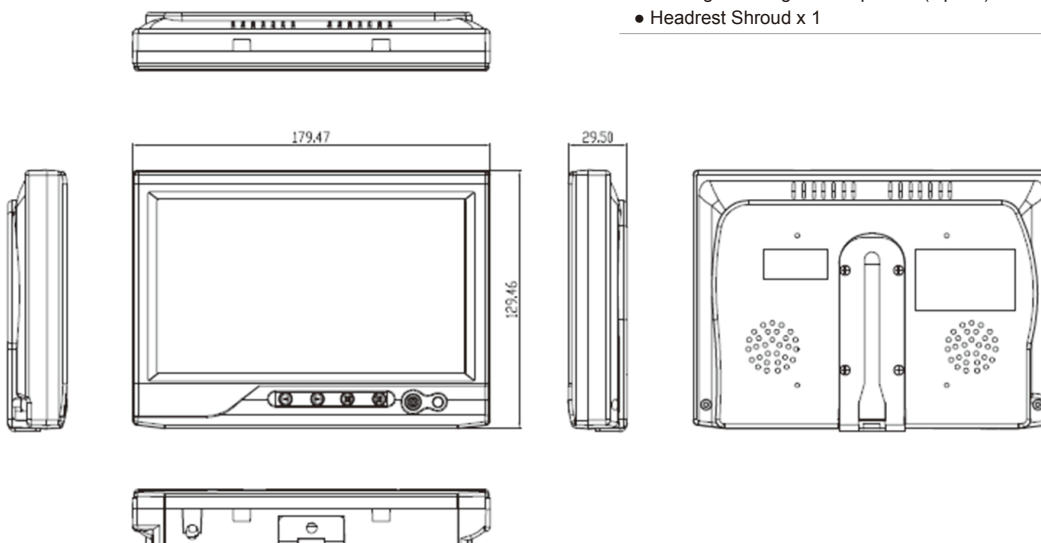
Mechanical & Environment

Chassis Material	Plastic
Dimension (W x H x D)	179.43mm x 129.43mm x 29.5mm
Mounting	VESA75 mount
Operating Temp.	-30~85°C (-22~185°F)
Storage temp.	-30~85°C (-22~185°F)
Safety	CE, FCC, E13, RoHS

Packing List

- User Manual x 1
- Metal Stand x 1
- All-in-One Cable x 1
- Remote Controller x 1
- Touch Driver CD x 1
- Touch Stylus Pen x 1
- AC/DC switching Power Supply x 1
- Car Cigarette Lighter Adapter x 1(Option)
- Headrest Shroud x 1

Dimension



AR-DP080V

8-Inch(4:3) Display Monitor with VGA, USB Touch Screen



Features

- 8-Inch(4:3) Wide Screen
- LED Backlight with Low Power Consumption
- Resistive Touch Screen
- VESA75 Mounting and Stand
- DC 12~24V Power Input



Specification

Panel

Panel Size	8-Inch Screen (4:3)
Resolution	Supports from 640 x 480~1600 x 1024 pixels
Luminance (cd/m2)	400 nits
View Angle (H/V)	H:110 / V:50
Backlight Lifetime	20,000 hours
Touch Screen Type	4-wire resistive

I/O

Video Interface	1 x VGA
USB	1 x USB for Touch Screen
Audio	1 x 3.5mm stereo Jack

Power Requirement

Power Input	DC 12V
Power Consumption	10W

Software

TouchKit Driver Support

Windows: Vista, 9X, Me, NT4.0, 2000, XP, CE.net, CE 2.12, CE 3.0, Embedded, Dos.
Mac: Mac OS 9X, OS X (Intel CPU).
Linux: Linux Redme, Mandrake, Red Hat, Fedora Core, SuSE, Debian, Ubuntu, Yellow Dog

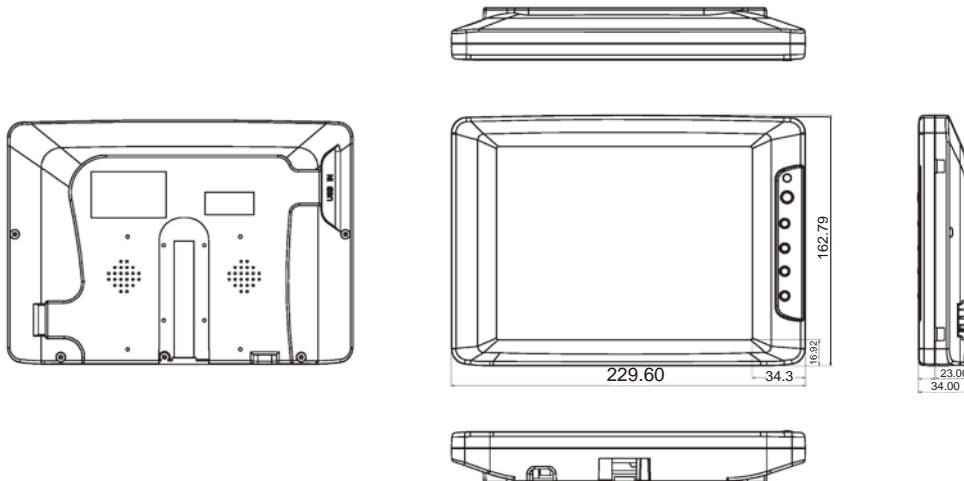
Mechanical & Environment

Chassis Material	Plastic
Dimension (W x H x D)	229.6mm x 162.8mm x 33.9mm
Mounting	VESA 75, Metal Stand
Operating Temp.	-10~60°C
Storage temp.	-30~70°C
Safety	CE, E-Mark, FCC

Packing List

- User Manual x 1
- Metal Stand x 1
- All-in-One Cable x 1 (VGA / USB / DC Jack / Audio)
- Remote Controller x 1
- Touch Driver CD x 1
- Touch Stylus x 1
- Car Cigarette Lighter Adapter x 1(Option)
- AC Switching Power Supply x 1

Dimension



AR-DP080VW

8-Inch(16:9) Display Monitor with VGA, USB Touch Screen



Features

- 8-Inch(16:9) Wide Screen
- CCFT Backlight
- Resistive Touch Screen
- VESA75 Mounting and Stand
- DC 12V Power Input



Specification

Panel

Panel Size	8-Inch Wide Screen (16:9)
Resolution	Supports from 640 x 480 ~ 1600 x 1024 pixels
Luminance (cd/m2)	500 nits
View Angle (H/V)	H:120 / V:100
Backlight Lifetime	20,000 hours
Touch Screen Type	4-wire Resistive

I/O

Video Interface	1 x VGA
USB	1 x USB for Touch Screen
Audio	1 x 3.5mm stereo Jack

Power Requirement

Power Input	DC 12V
Power Consumption	7.2W

Software

TouchKit Driver Support

Windows: Vista, 9X, Me, NT4.0, 2000, XP, CE.net, CE 2.12, CE 3.0, Embedded, Dos.
Mac: Mac OS 9X, OS X (Intel CPU).
Linux: Linux Readme, Mandrake, Red Hat, Fedora Core, SuSE, Debian, Ubuntu, Yellow Dog

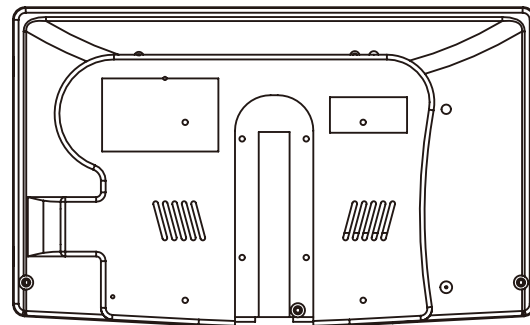
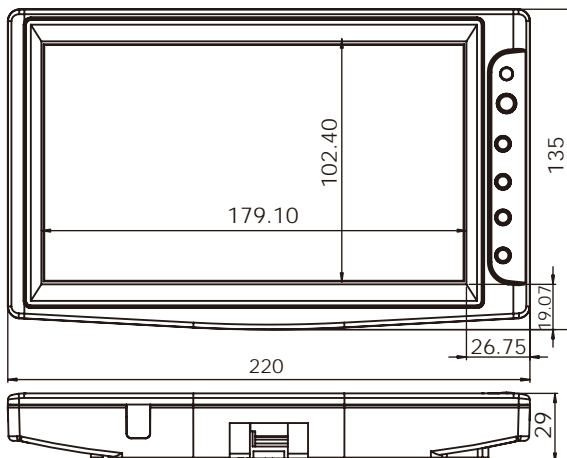
Mechanical & Environment

Chassis Material	Plastic
Dimension (W x H x D)	220mm x 135mm x 29 mm
Mounting	VESA 75, Metal Stand
Operating Temp.	0~70°C
Storage temp.	-20~70°C
Safety	CE, E-Mark, FCC

Packing List

- User Manual x 1
- Metal Stand x 1
- All-in-One Cable x 1 (VGA / USB / DC Jack / Audio)
- Remote Controller x 1
- Touch Driver CD x 1
- Touch Stylus x 1
- Car Cigarette Lighter Adapter x 1(Option)
- AC Switching Power Supply x 1

Dimension



AR-DP100V/VD

10.4-Inch(4:3) Display Monitor with VGA, Touch Screen



Features

- 10.4-Inch TFT LCD
- LED Backlight with Low Power Consumption
- Resistive Touch Screen
- VESA75 Mounting and Stand
- DC12-24V Power Input



CE FCC

Specification

Panel

Panel Size	10.4-Inch Screen (4:3)
Resolution	800 x 600
Luminance (cd/m2)	300 nits
Backlight Lifetime	50,000hrs
Touch Screen Type	4-wire Resistive

I/O

Video Interface	1 x VGA + 1 x DVI (optional)
USB	1 x USB for Touch Screen
Audio	2 x Audio Input Jack

Power Requirement

Power Input	DC 12~24V, with Adapter
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Software

TouchKit Driver Support	Windows vista / 9X / Me / NT4.0 / 2000 / XP / CE.NET/CE 2.12/3.0, Embedded/ DosMac OS 9X / OS X(Intel CPU)Linux Readme / Mandrake / Red Hat / Fedora Core / SuSE / Debian / (K)Ubuntu / Yellow Dog
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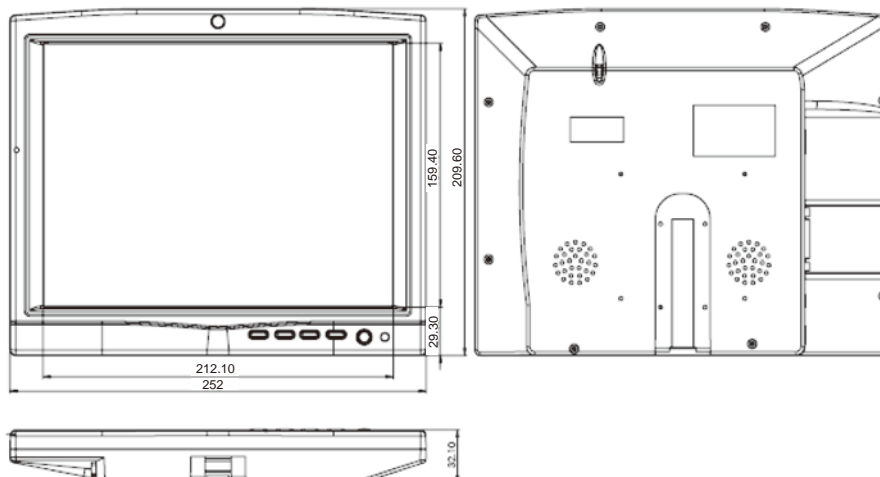
Mechanical & Environment

Chassis Material	Plastic
Dimension (W x H x D)	252mm x 209.6mm x 32.1mm
Mounting	VESA75 mount
Operating Temp.	-10~60°C
Storage temp.	-20~70°C
Safety	CE, FCC

Packing List

- User Manual x 1
- VESA Stand x 1
- All in One Cable x 1
- Remote Controller x 1
- Touch Driver CD x 1
- Touch Stylus Pen x 1
- AC/DC switching Power Supply x 1
- Car Cigarette Lighter Adapter x 1(Option)

Dimension



Gaming Platform

Acrosser All-In-One Gaming Platform(Gaming Computer) integrates the features required for any type of gaming machine, such as Casino Gaming, Lottery System and Pachinko System. These features include Gaming I/O controller, cc-Talk and intrusion logger with Gaming Board / Gaming Embedded PC. From gaming box to our board level products, Acrosser provides sufficient software development kits and experienced engineers to design its gaming products.

With the comply of gaming jurisdiction (e.g. Comma 6a+ and GLI-11), Acrosser's embedded gaming platform is always ready all types of gaming machine and gaming box, anytime, anywhere. We also co-work with gaming OEM/ODM customers, by utilizing the latest Gaming Computer technology, Acrosser always carries out the best gaming solution that reduces not only the owning cost, but also the time-to-market.

All-in-One ACE Gaming Platform

All-in-One ACE Gaming platform/Gaming Board /Gaming Computer with Gaming I/O controller.



Intrusion Detect



Battery Backup



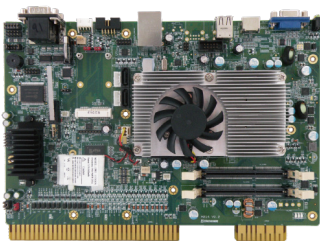
Digital I/O



Watch Dog Timer

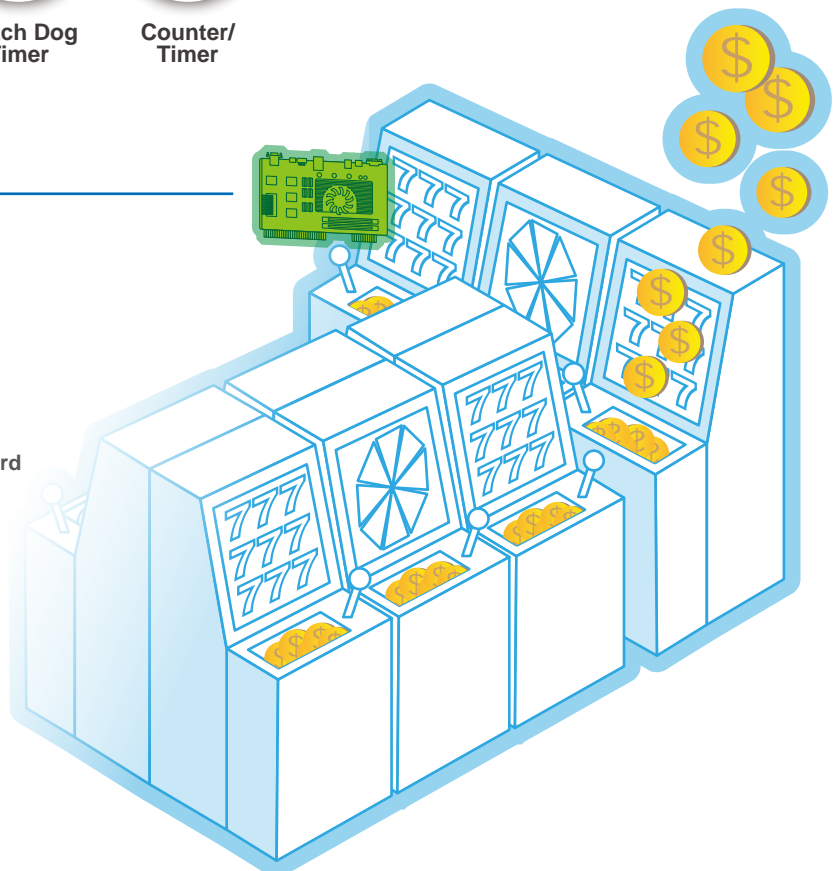


Counter/Timer



AMB-A55EG1

AMD Embedded G-Series T56N all-in-one gaming board



Product Matrix

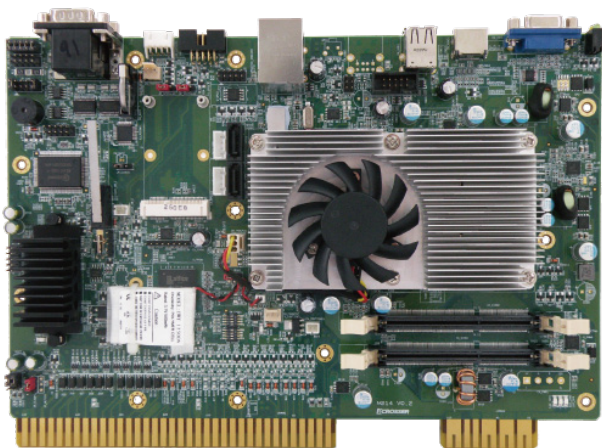
Gaming Platform



Form Factor	Gaming Platform
Model name	AMB-A55EG1
Board	AMB-A55EG1
CPU	AMD Dual Core T56N 1.6GHz
Chipset	AMD Fusion Control Hub A55E
System Memory	2 x DDR3L-1333MHz, SO-DIMM, up to 8GB
Graphic Controller	Integrated Radeon HD 6320 Open GL 4.0, Direct X11
Display Interface	1 x VGA & 1 x HDMI
Expansion Slot (PCI-E x16)	N/A
USB	4 x USB 2.0 port, 2 x USB 2.0 pin header
Ethernet	1 x GbE
Audio	5.1 channel audio without amplifier
I/O Connector	Golden fingers
I/O Definition	Proprietary
Serial Port	1 x RS232 with DB9 connector 1 x RS232/422/485 DB9 connector 1 x 4-pin ccTalk connector 1 x 10-pin ccTalk connector
Digital I/O	Follow golden fingers definition
Readable DIP switch	N/A
GPIO (TTL level)	N/A
Battery Backup SRAM	256KB (Max 1MB)
EEPROM	N/A
Jurisdiction Chip	N/A
Intrusion Logger	Yes
Secure Real Time Clock	N/A
Smart card reader	N/A
Reel Mechanism control	N/A
Hardware Random Number Generator (RNG)	N/A
Page	20

AMB-A55EG1

AMD Embedded G-Series T56N all-in-one gaming board with 2 x COM, 6 x USB, 1 x LAN, 2 x ccTalk, golden fingers for 17 protected input & 16 output, battery backup SRAM, 2 x Intrusion Detection.



Features

GAMB-A55EG1 provides great computing and graphic performance which is suitable for casino gaming and amusement applications. It is designed to comply with the most of gaming regulations such as GLI & BMM.



Specification

Specification

CPU	AMD G-Series Dual Core T56N 1.65GHz processor
Chipset	AMD Fusion Control Hub A55E
Memory	2 x DDR3L-1333MHz, SO-DIMM, up to 8GB

Video

Graphic Controller	Integrated Radeon HD 6320 supports OpenGL 4.0, DirectX 11
Video Memory	shared memory
Video Interface	<ul style="list-style-type: none"> 1 x VGA DB15 connector 1 x HDMI connector

Storage

SATA	2 x SATA II port with SATA II power connector
mSATA	1 x mSATA connector

Communication

Ethernet	1 x GbE LAN Port
USB	4 x USB 2.0 connector & 2 x USB 2.0 pin header
Serial Port	<ul style="list-style-type: none"> 1 x RS232 with DB9 connectors 1 x RS232/422/485 DB9 connector 1 x 4-pin cc-Talk 1 x 10-pin cc-Talk

Audio

Output	5.1 channel audio without amplifier (pin header)
Amplifier	6W audio amplifier (golden finger)

Gaming I/O

Digital Input	Follow golden fingers definition <ul style="list-style-type: none"> 14 x Button 2 x Coin 1 x Hopper
Digital Output	Follow golden fingers definition <ul style="list-style-type: none"> 10 x Lamp 5 x Meter 1 x Hopper
Intrusion Detection	<ul style="list-style-type: none"> 1 x onboard door switch 1 x pin header
SRAM	battery backup 256KB SRAM (max 1MB)

Other Feature

Hardware Monitoring	CPU voltage and temperature
WatchDog Timer	Software programmable 1~255 sec.

Power Requirement

Power Input	<ul style="list-style-type: none"> 5V (4.35A~5.8A) 12V (3.3A~4.4A)
Power Consumption	43W

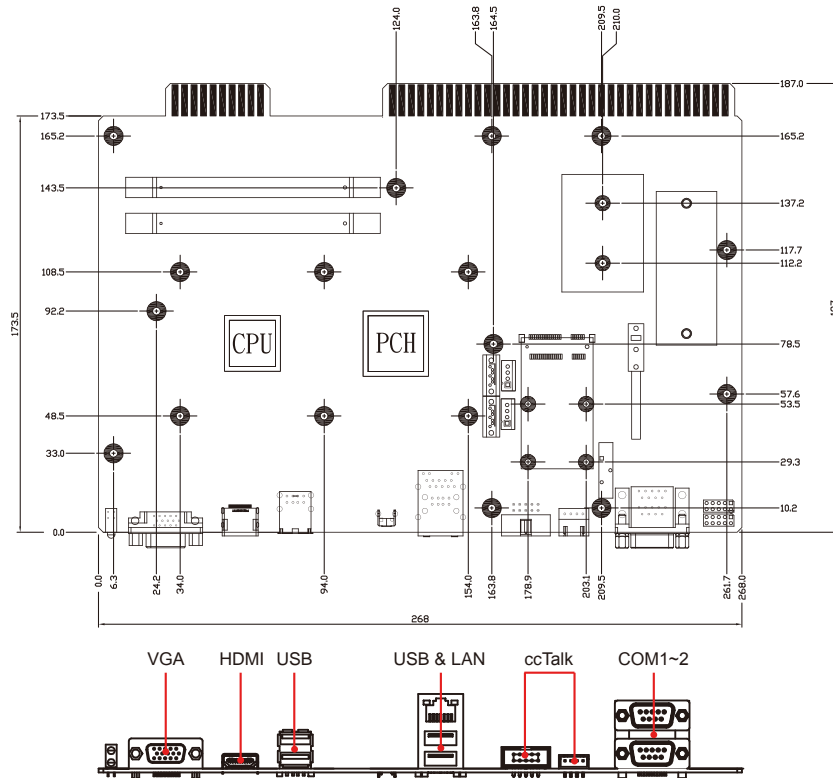
Software

OS Support	Windows XP, Fedora 14, Ubuntu 10
Software Development Kit	<ul style="list-style-type: none"> Device Driver Application Program Interface (API) Demo Program

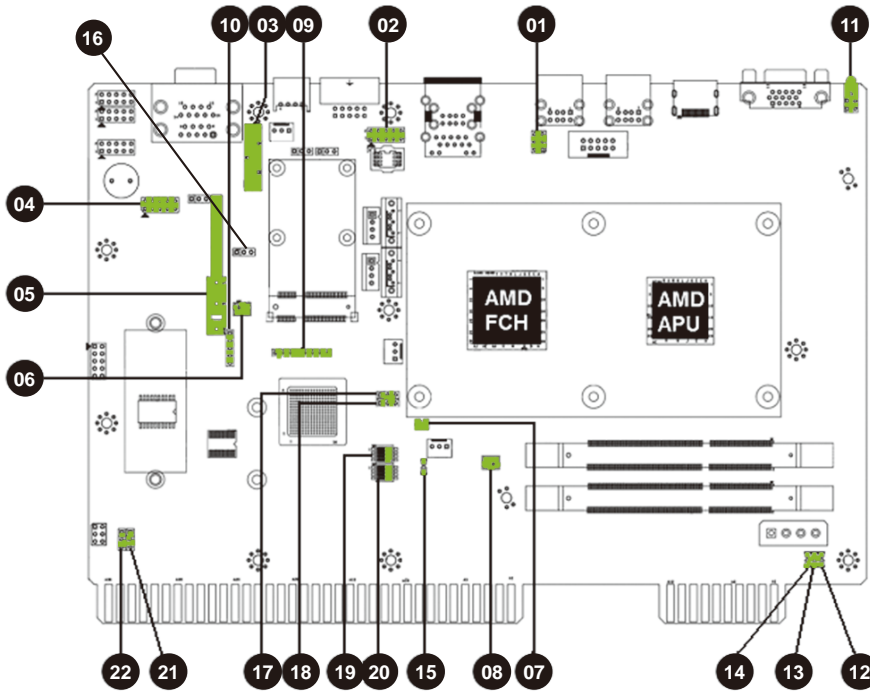
Mechanical & Environment

Thermal Design	FAN
Dimension	187 mm x 268 mm
Weight	1 KG
Operating Temp.	0~60°C (32~140°F)
Storage temp.	-40~80°C (-4~176°F)
Relative Humidity	0~90% @ 40°C, non-condensing
Safety	CE, FCC compliant

Dimension



I/O Connectors



- 01. Reset Button connector
- 02. SPI Interface connector
- 03. CR2032 Battery socket
- 04. LPC Interface connector
- 05. Case open Log switch
- 06. External Log input connector
- 07. 3.7V 500mAh Re-chargeable battery connector
- 08. iButton signal connector
- 09. FPGA firmware recoded Header
- 10. PIC firmware recoded Header
- 11. System status indicated
- 12. 5V Power IN LED
- 13. 24V Power IN LED
- 14. 12V Power IN LED
- 15. Battery charging LED
ON: Battery charging
- 16. Clear CMOS
- 17. SRAM1 data clear
- 18. SRAM1 data clear
- 19. METER OUT setting 1
- 20. METER OUT setting 2 & HOPPER SSR setting
- 21. (Reserved)
- 22. Edge connector GPO pins Clamping voltage setting

Packing List

- 1 x AMB-A55EG1
- 1 x System Driver CD
- 1 x Quick User Guide

Ordering Information

AMB-A55EG1

AMD Embedded G-Series T56N all-in-one gaming board with 2 x COM, 6 x USB, 1 x LAN, 2 x cctalk, golden fingers for 17 protected input & 16 output, battery backup SRAM, 2 x Intrusion Detection (Door Switch), iButton and Security.

Network Appliance

Acrosser manufactures network appliances and network applications for your UTM and Next Generation Firewall (NGFW). Under the x86 based structure, these Microbox Network and network appliance can perform applications from UTM appliance, rackmount server, firewall, VPN, gateway security, VOIP, SD-WAN to bandwidth management and intrusion detection.

Acrosser provides high quality Network Server Hardware/ Network Appliance for network security applications. Currently Acrosser supply customers with 2 main network products: Rackmount and Micro Box. These high quality network server hardware and network appliances are ideal for network security hardware and network communication applications. All products feature scalable platform including Intel Atom, Core i or Xeon Scalable Processor.

NGFW Platform

The Essential Features of Next-Generation Firewalls



Intrusion Prevention



Anti-Spam



Firewall



Anti-Virus



VPN



Web Filtering



VOIP

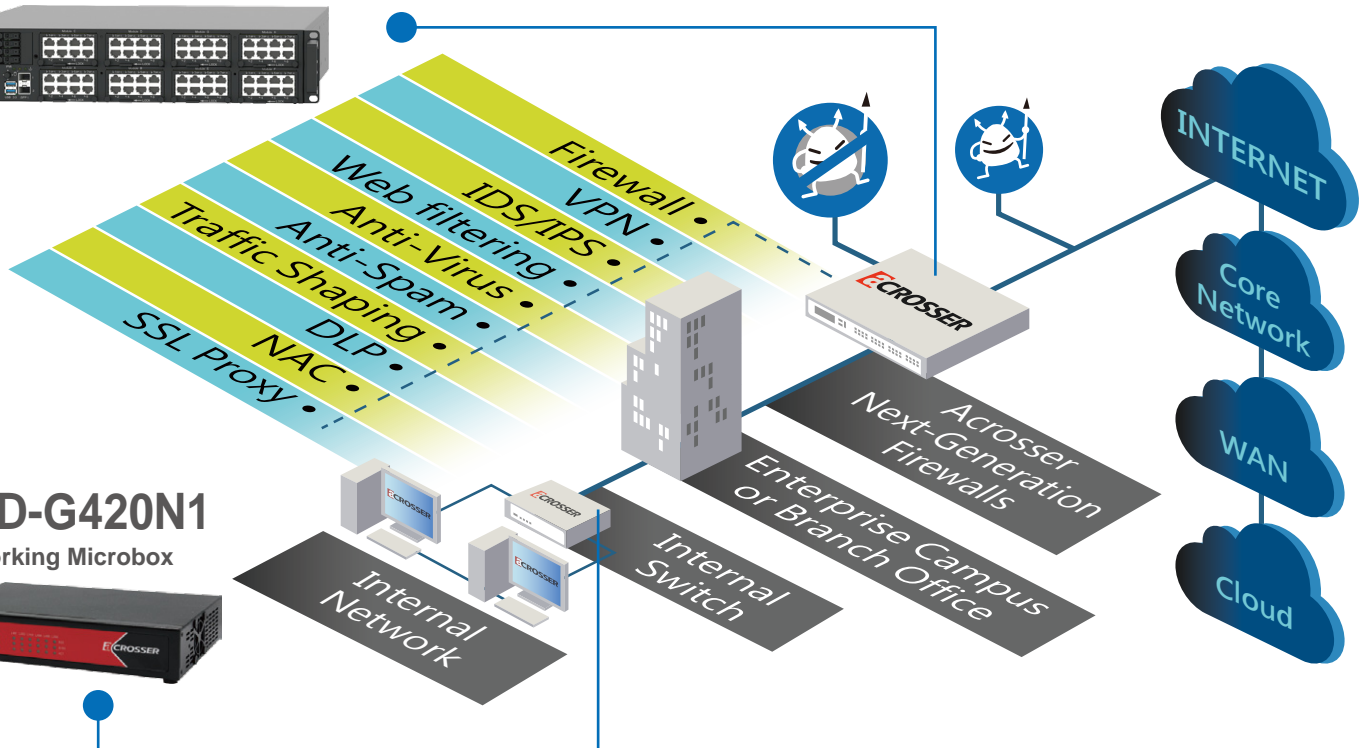
ANR-C627N1- series

Networking 2U Rackmount



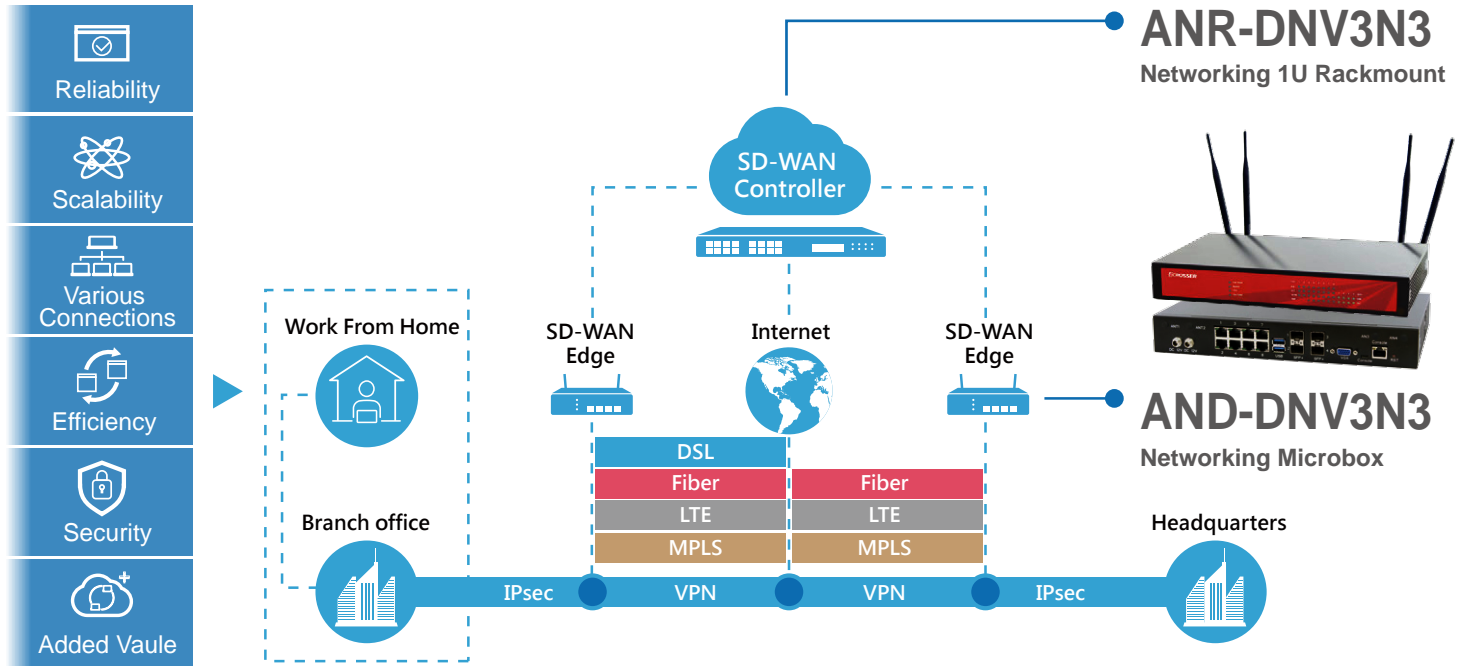
AND-G420N1

Networking Microbox



SD-WAN White-box solution

(VPN, UTM, uCPE and SD-WAN solutions.)



Product Matrix

Network Appliance



Form Factor		2U Rackmount	
Model Name		ANR-C627/622N1	ANR-C627/622N1U
System	CPU type	2 x Intel® Xeon® Scalable Processors	2 x Intel® Xeon® Scalable Processors
Chipset	Chipset	Intel® PCH C627/C622	Intel® PCH C627/C622
Memory	Technology	24 x RDIMM/LRDIMM DDR4-2666/2400	24 x RDIMM/LRDIMM DDR4-2666/2400
	Maximum support	768GB (RDIMM) / 1536GB (LRDIMM)	768GB (RDIMM) / 1536GB (LRDIMM)
Ethernet	SFP+ 10G Fiber	2	2
	RJ45 GbE	-	-
	Bypass	-	-
Expansion	PCIe	1	1
	Mini PCIe	-	-
	Networking Module	8 x Exp. NIM (1G/10G/40G, Fiber / Copper / Bypass)	8 x Exp. NIM (1G/10G/40G, Fiber / Copper / Bypass)
LCM	LCM	Graphic LCM	Graphic LCM
Storage	HDD	4 x 2.5" SATA-III Hot-swappable (S/W RAID 0/1/5/10)	
	CF / CFAST / mSATA	CFAST & mSATA	CFAST & mSATA
	Console	RJ45 & micro-USB	RJ45 & micro-USB
	Video out	VGA	VGA
	USB	2 x USB 3.0 (front-side), 2 x USB 2.0 (rear-side)	2 x USB 3.0 (front-side), 2 x USB 2.0 (rear-side)
Dimension		440mm x 670mm x 89mm	440mm x 670mm x 89mm
Thermal		PWM Smart Cooling Fan	PWM Smart Cooling Fan
Reference page			28

Product Matrix

Network Appliance



Form Factor		1U Rackmount	
Model Name		ANR-C236N1 series	ANR-EP3KN1 series
System	CPU type	Intel® Xeon® E3-1275v6 Intel® 7th Gen. KabyLake-S Core i7 / i5 / i3	AMD Snowy Owl EPYC™ 3000 SoC
Chipset	Chipset	Intel® PCH C236	AMD Snowy EPYC™ 3000 SoC
Memory	Technology	4 x UDIMM DDR4-2400, ECC/non-ECC	8/4 x UDIMM DDR4-2666/2400
	Maximum support	64GB	128GB
Ethernet	SFP+ 10G Fiber	2/0	-
	RJ45 GbE	12/8	-
	Bypass	4/2	-
Expansion	PCIe	1	1
	Mini PCIe	-	-
	Networking Module	1 x Exp. NIM (1G/10G/40G, Fiber / Copper / Bypass)	4/3 x Exp. NIM (1G/10G/40G, Fiber / Copper / Bypass)
LCM	LCM	16 x 2 characters LCD module with 4 buttons	16 x 2 characters LCD module with 4 buttons
Storage	HDD	2 x 2.5" SATA III Hot-swappable (S/W RAID 0/1)	4/2 x 2.5"/3.5" SATA-III
	CF / CFAST / mSATA	1 x CFAST & 1 x mSATA	1 x CF / CFAST (for Optional)
I/O	Console	RJ45	RJ45
	Video out	HDMI	VGA
	USB	2 x USB 3.0 (front-side), 2 x USB 2.0 (rear-side)	2 x USB 3.0
Dimension		440mm x 500mm x 44mm	440mm x 550mm x 44mm
Thermal		PWM Smart Cooling Fan	Smart Cooling Fan
Reference page		30	32

Network Appliance



Form Factor		1U Rackmount	
Model Name		ANR-DNN3N3	
System	CPU type	Intel® Atom® C3958 Processor / Intel® Atom® C3858 Processor Intel® Atom® C3758 Processor / Intel® Atom® C3558 Processor	
Chipset	Chipset	Intel® Denverton SoC	
Memory	Technology	4 x ECC DIMM DDR4	
	Maximum support	-	
Ethernet	SFP / SFP+ GbE	2/4	
	RJ45 GbE	9	
	Bypass	2	
Expansion	PCI-E	1(C3758 or above)	
	PCI	-	
	Mini PCI	-	
LCM	LCM	Graphic LCM	
Storage	HDD	3 x 2.5" SATA-III Hot-swappable(Drive bay)	
	CF / CFAST / mSATA	1 x CFAST socket	
I/O	Console	RJ45 / micro-USB	
	Video out	VGA	
	USB	2 x USB 3.0	
Dimension		430mm x 400mm x 44mm	
Thermal		2 x smart cooling fan	
Reference page		34	

Product Matrix

Network Appliance



Form Factor		1U Rackmount	
Model Name		ANR-SKB1Nx-ACN	ANR-SKB2Nx-ACN
System	CPU type	Intel® 7th Gen CPU Kabylake-S Core™ i7-7700 Intel® 7th Gen CPU Kabylake-S Core™ i5-7500 Intel® 7th Gen CPU Skylake-S Pentium™ G4400	Intel® Xeon® Processor E3-1268 v5 / E3-1275 v6 Intel® 7th Gen CPU Kabylake-S Core™ i7-7700 Intel® 7th Gen CPU Skylake-S Pentium™ G4400
Chipset	Chipset	Intel® H110 PCH	Intel® C236 PCH
Memory	Technology	2 x UDIMM DDR4-2666, non-ECC	2 x UDIMM DDR4-2666, non-ECC,
	Maximum support	32GB	32GB
Ethernet	SFP / SFP+ GbE	-	2/0
	RJ45 GbE	6	6
	Bypass	3	3
Expansion	PCI-E	-	1
	PCI	-	-
	Mini PCI	-	-
LCM	LCM	-	-
Storage	HDD	2 x 2.5" HDD Bay	2 x 2.5" HDD Bay
	CF / CFast / mSATA	1 x mSATA socket	1 x mSATA socket
I/O	Console	RJ45	RJ45
	Video out	VGA	VGA
	USB	2 x USB 3.0	2 x USB 3.0
Dimension		440mm x 358mm x 44mm	440mm x 358mm x 44mm
Thermal		2 x Smart cooling fan	2 x Smart cooling fan
Reference page		36	38

Network Appliance



Form Factor		1U Rackmount	
Model Name		ANR-APL1N1FL	ANR-J190/J180N2-C612
System	CPU type	Intel® Apollo Lake SoC J-series/N-series/E-series	Intel® Bay Trail J1900 SoC, 4-core @2.0GHz. Intel® Bay Trail J1800 SoC, 2-core @2.4GHz
Chipset	Chipset	Intel® Apollo Lake SoC	-
Memory	Technology	1 x SO-DIMM DDR3L-1866	1 x SO-DIMM DDR3L-1600
	Maximum support	8GB	8GB
Ethernet	SFP / SFP+ GbE	-	-
	RJ45 GbE	6	6
	Bypass	3	2
Expansion	PCI-E	1	1
	PCI	-	-
	Mini PCI	-	-
LCM	LCM	16 x 2 characters LCM with 4-key button	-
Storage	HDD	1 x 2.5" SATA III	1 x 2.5" SATA II
	CF / CFast / mSATA	1 x CF Card / CFast (for Optional)	CF
I/O	Console	RJ45	RJ45
	Video out	-	VGA
	USB	2 x USB 3.0	2 x USB 2.0
Dimension		440mm x 266mm x 44mm	440mm x 250mm x 45mm
Thermal		Fanless	Cooling Fan
Reference page		40	42

Product Matrix

Network Appliance



Form Factor		Desktop	Microbox
Model Name		AND-DNV3N1 series	AND-DNV3N3 series
System	CPU type	Intel® Atom C3558/C3308 Processor	Intel® Atom C3758/C3558/C3338 Processor
Chipset	Chipset	Intel® Denverton SoC	Intel® Denverton SoC
Memory	Technology	1 x So-DIMM DDR4	1 x SO-DIMM DDR4(C3338) / 2 x SO-DIMM DDR4(C3558,C3758)
	Maximum support	-	-
Ethernet	SFP GbE	0/2	2/4
	RJ45 GbE	4/6/8	8
	Bypass	1	1
Expansion	PCIe	-	-
	Mini PCIe	1	2
	Networking Module	-	-
LCM	LCM	-	-
Storage	HDD	1 x 2.5" SATA-III	1 x 2.5" SATA-III
	CF / CFast / mSATA/M.2	1 x M.2	1 x CFast socket
I/O	Console	RJ45	RJ45 / mUSB
	Video out	-	VGA
	USB	2 x USB 3.0 (rear-side)	2x USB 3.0
Dimension		220mm x 44mm x 140mm	300mm x 44mm x 201mm
Thermal		Fanless	Smart cooling fan(C3758)/Fanless(C3338, C3558)
Reference page		44	46

Network Appliance



Form Factor		Microbox	Microbox
Model Name		AND-J190/J180N2-C612	AND-G420N1
System	CPU type	Intel® Bay Trail J1900 SoC, 4-core @2.0GHz. Intel® Bay Trail J1800 SoC, 2-core @2.4GHz	AMD G-Series GX-420MC Quad-core, clock speed 2.00GHz
Chipset	Chipset	-	-
Memory	Technology	1 x SO-DIMM DDR3L-1600	2 x SO-DIMM DDR3L-1600
	Maximum support	8GB	16GB
Ethernet	SFP GbE	-	-
	RJ45 GbE	6	6
	Bypass	2	2
Expansion	PCIe	-	-
	Mini PCIe	1	1
	Networking Module	-	-
LCM	LCM	-	-
Storage	HDD	1 x 2.5" SATA-III	1 x 2.5" SATA-II
	CF / CFast / mSATA	CF	CF
I/O	Console	RJ45	RJ45
	Video out	VGA	-
	USB	1 x USB 3.0 (front-side), 2 x USB 2.0 (rear-side)	2 x USB 3.0,
Dimension		235mm x 152mm x 44.5mm	242mm x 149.5mm x 44mm
Thermal		Cooling Fan	Cooling Fan
Reference page		48	50

Product Matrix

Network Appliance



Form Factor		Microbox
Model Name		AES-APL1E2FL
System	CPU type	Intel Apollo Lake N4200,Pentium 4-core @2.5GHz SoC
Chipset	Chipset	Intel Apollo Lake N4200
Memory	Technology	1 x DDR3L-1866 SO-DIMM
	Maximum support	-
Ethernet	SFP GbE	-
	RJ45 GbE	2
	Bypass	-
Expansion	PCIe	-
	Mini PCIe	1
	Networking Module	-
Storage	HDD	1 x 2.5" SATA-III
	CF / CFast / mSATA	CF
I/O	Console	RJ45
	Video out	-
	USB	1 x USB 3.0,
	Dimension	148mm x 38mm x 108mm
Thermal		Fanless
Reference page		52

Exp. NIM

ACC-NM1Z1-01C8B

1G Copper x8 (RJ-45 w/4-pair Bypass)



ACC-NM1Z1-01C8

1G Copper x8 (RJ-45)



ACC-NM1Z1-01F8

1G Fiber x8(SFP)



ACC-NM1Z1-01H8B

1G Hybrid x8 (RJ-45, Bypass + SFP x4)



ACC-NM1Z1-01H8

1G Hybrid x8 (RJ-45 x4 + SFP x4)



ACC-NM1Z1-10F2

10G Fiber x2 (SFP+)



ACC-NM1Z1-10F4

10G Fiber x4 (SFP+)



ACC-NM1Z1-40F1

40G Fiber x1 (QSFP+)



ACC-NM1Z1-40F2

40G Fiber x2 (QSFP+)



ACC-NM1Z1-01C4B

1G Copper x4 (RJ-45 w/ 2-pair Bypass)



ACC-NM1Z1-01C4

1G Copper x4 (RJ-45)



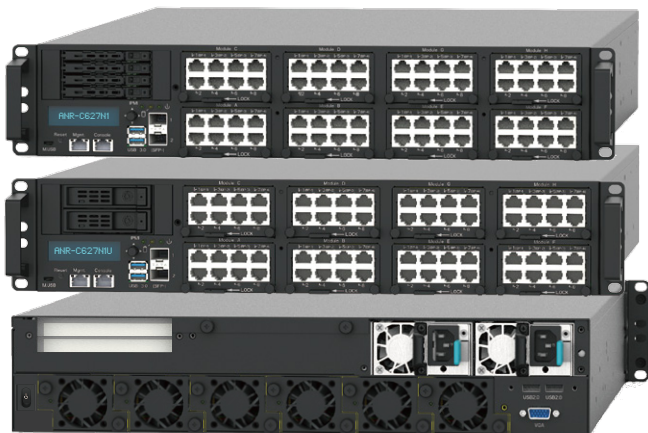
ACC-NM1Z1-01F4

1G Fiber x4 (SFP)



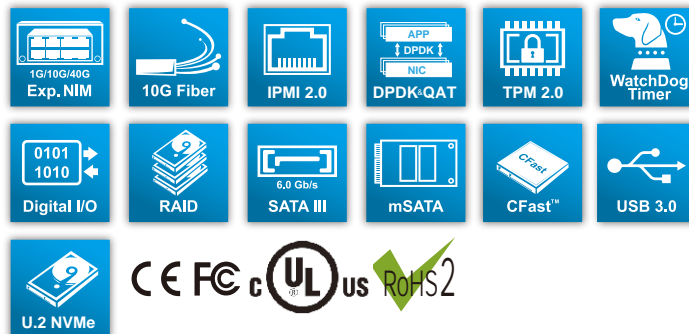
ANR-C627N1/N1U ANR-C622N1/N1U

2U Rackmount IoT Gateway/Network Server Intel® PCH C627/C622 + Purley Platform, 8 Exp. NIM, & 1+1 Redundant PSU & U.2 NVMe



Features

- Intel® C627/C622 Platform
- 2 x Intel® Xeon® Scalable Processors
- 24 x RDIMM/LRDIMM DDR4
- 8 x Exp. NIM (1G/10G/25G/40G, Fiber/Copper/LAN Bypass)
- 1 x Management port
- 2 x 10G Fiber (SFP+)
- 4 x 2.5" SATA-III Hot-swappable / 2 x U.2 NVMe Hot-swappable
- 1 x mSATA & 1 x CFAST
- Hot-swappable smart cooling fan
- 1+1 Redundant Platinum PSU (800W)



Others

Battery	Lithium Battery, 3V 220mAH (CR2032)
Hardware Monitoring	CPU Volt. CPU & SYS Temp. FAN Speeds
Security & Mgmt.	TPM 2.0 (Infineon chipset) IPMI 2.0 (ASPEED AST2500 BMC) Chassis Intrusion Detection
DPDK & QAT	Support DPDK & QAT

Power Requirement

Power Supply Unit	1+1 Redundant Platinum PSU (800W) 100-240VAC
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Software

OS Support	Linux Kernel 4.4 or above, (64-bit)
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Mechanical & Environment

Dimensions	440 (W) x 89 (H) x 670 (D) mm
Operating Temp.	0~ 40°C (32~104°F)
Storage Temp.	-20~80°C (-4~176°F)
Relative Humidity	0 to 90% @40°C, non-condensing
Certifications	CE, FCC Class A, RoHS 2, cULus

Model Name

ANR-C627N1 ANR-C622N1	2U Rackmount IoT Gateway/Network Server .Intel® PCH C627/C622 + Purley platform .8 x Exp. NIM (1G/10G/25G/40G, Fiber/Copper/LAN Bypass) .1 x Management port .2 x 10G Fiber (SFP+) .4 x 2.5" SATA-III Hot-swappable (S/W RAID 0/1/5/10) .1+1 Redundant Platinum PSU (800W)
ANR-C627N1U ANR-C622N1U	2U Rackmount IoT Gateway/Network Server .Intel® PCH C627/C622 + Purley platform .8 x Exp. NIM (1G/10G/25G/40G, Fiber/Copper/LAN Bypass) .1 x Management port .2 x 10G Fiber (SFP+) .2 x U.2 NVMe Hot-swappable (S/W RAID 0/1) .1+1 Redundant Platinum PSU (800W)

Specification

System

CPU	Two way Intel® Xeon® Scalable Processors
Chipset	Intel® PCH C627 (QAT:100Gbps) Intel® PCH C622 (QAT:n/a)
Memory	24 x RDIMM/LRDIMM DDR4
BIOS	AMI
WatchDog Timer	Software programmable 0~255 sec.

Video

Video Interface	VGA
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Ethernet

Chipset	1 x Intel® I210
1G	1 x GbE Copper (RJ-45) via BMC (Mgmt.) via I210 (option)
10G	2 x 10G Fiber (SFP+)
LAN bypass	Support with Exp. NIM

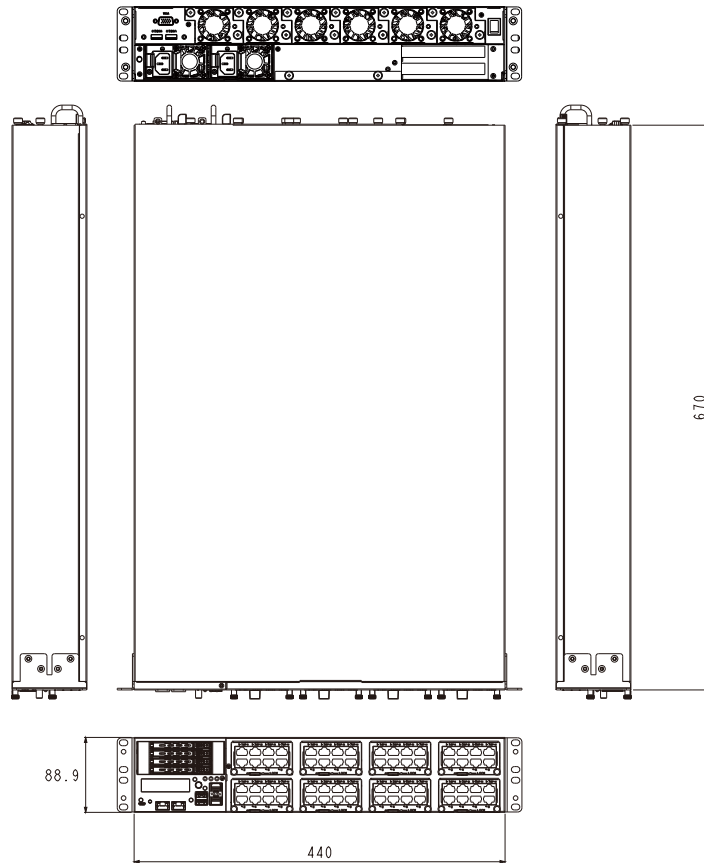
Storage

HDD Bay	4 x 2.5" SATA-III Hot-swappable or 2 x U.2 NVMe Hot-swappable(option)
mSATA	1 x mSATA socket
CFAST	1 x CFAST socket

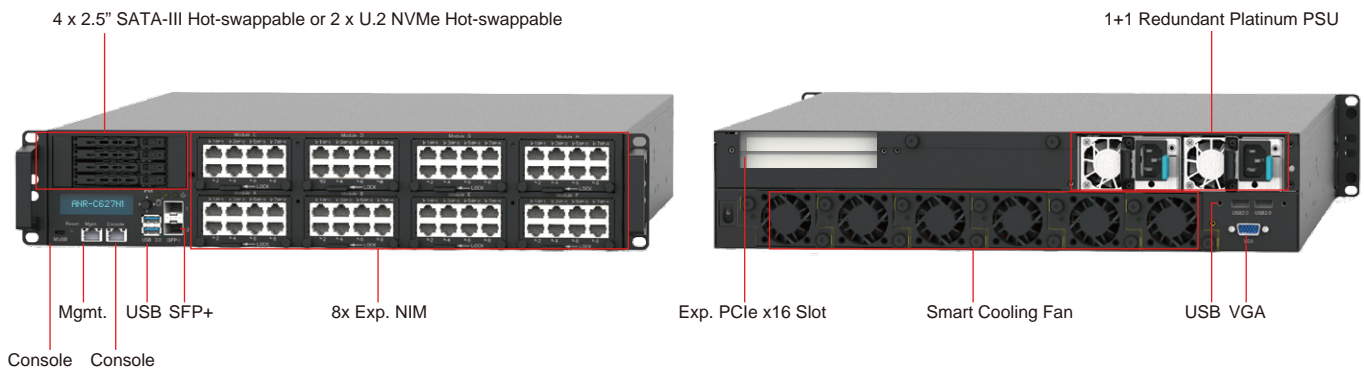
I/O

Console port	1 x Serial console (RJ-45) 1 x USB console (micro-USB)
USB port	2 x USB 3.0 (front-side) 2 x USB 2.0 (rear-side)
LCM	Graphic LCM
GPIO	8-bit GPIO (4-In, 4-Out), on-board pin header
Exp. NIM	8 x Exp. NIM Hot-swappable (1G/10G/25G/40G, Fiber/Copper/LAN Bypass)
Exp. PCIe slot	1 x Exp. PCIe Gen3 x16 slot (FHFL)

Dimensions



I/O Connectors



ANR-C627N1/N1U
ANR-C622N1/N1U

Packing List

- ANR-C62xN1/N1U system x 1
- SATA cable x 4/SATA cable x 2
- CD utility x 1
- RJ45 console cable (RJ45 <-> DB9) x 1
- USB console cable (Micro-B <-> Type A) x 1
- USA / EU / JPN / UK / AS / NZS / SA / India power cord x 2
- Rack bracket x 1
- Box packing x 1
- Screw pack x 1
- Slide Rail x 1

Ordering Information

ANR-C627N1	2U Rackmount IoT Gateway/Network Server, Intel® PCH C627 + Purley platform, 8x Exp. NIM, 1xMgmt., 2 SFP+, 4 SATA-III, 1+1 Redundant Platinum PSU
ANR-C622N1	2U Rackmount IoT Gateway/Network Server, Intel® PCH C622 + Purley platform, 8x Exp. NIM, 1xMgmt., 2 SFP+, 4 SATA-III, 1+1 Redundant Platinum PSU
ANR-C627N1U	2U Rackmount IoT Gateway/Network Server, Intel® PCH C627 + Purley platform, 8x Exp. NIM, 1xMgmt., 2 SFP+, 2 U.2 NVMe, 1+1 Redundant Platinum PSU
ANR-C622N1U	2U Rackmount IoT Gateway/Network Server, Intel® PCH C622 + Purley platform, 8x Exp. NIM, 1xMgmt., 2 SFP+, 2 U.2 NVMe, 1+1 Redundant Platinum PSU

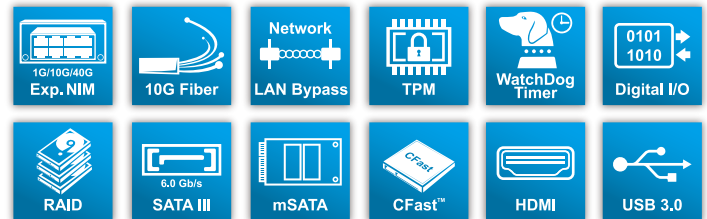
ANR-C236N1- series

Networking 1U Rackmount Intel® PCH C236 + Kabylake Platform, 1 Exp. NIM, 2 SFP+, 12 GbE LANs & 1+1 Redundant PSU



Features

- Intel® C236 Platform
- Intel® Xeon® E3-1275 v6
- Intel® 7th Gen CPU Kabylake-S Core™ i7/i5/i3
- 4 x UDIMM DDR4-2400, ECC/non-ECC, (up to 64GB)
- 1 x Exp. NIM (1G/10G/40G Fiber/Copper/LAN Bypass)
- 2 x SFP+ (10G Fiber)
- 12 x GbE Copper (4-pair bypass) & 1 Mgmt. port
- 2 x 2.5" Hot-swappable (RAID 0/1), 1 x mSATA & 1 x CFAST
- 3 x Smart cooling fan
- 1+1 Redundant PSU



Others

Battery	Lithium Battery, 3V 220mAH (CR2032)
Hardware Monitoring	CPU Volt. CPU & SYS Temp. FAN Speeds
Security & Mgmt.	TPM 1.2 (default) / 2.0 (Optional) IPMI 2.0 Compliance (by project) Chassis Intrusion Detection

Power Requirement

Power Supply Unit	1+1 Redundant PSU (250-300W) 100-240VAC
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Software

OS Support	Linux Kernel 4.4 or above, (64-bit)
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Mechanical & Environment

Dimensions	440 (W) x 44 (H) x 500 (D) mm
Operating Temp.	0~ 40°C (32~104°F)
Storage Temp.	-20~80°C (-4~176°F)
Relative Humidity	0 to 90% @40°C, non-condensing
Certifications	CE, FCC Class A, RoHS 2, cULus

Model Name

ANR-C236N1-K2D0T	Networking 1U Rackmount, Intel® C236 PCH + Kabylake platform, .1x Exp. NIM (1G/10G/40G, Fiber/Copper/LAN Bypass) .12x GbE LANs (4-pair bypass) + 1x Mgmt. .2x SFP+ (10G Fiber) .1+1 Redundant PSU
ANR-C236N1-K2D00	Networking 1U Rackmount, Intel® C236 PCH + Kabylake platform, .1x Exp. NIM (1G/10G/40G, Fiber/Copper/LAN Bypass) .12x GbE LANs (4-pair bypass) + 1x Mgmt. .1+1 Redundant PSU
ANR-C236N1-K1D00	Networking 1U Rackmount, Intel® C236 PCH + Kabylake platform, .1x Exp. NIM (1G/10G/40G, Fiber/Copper/LAN Bypass) .12x GbE LANs (4-pair bypass) + 1x Mgmt. .Single PSU,

Specification

System

CPU	Intel® Xeon® E3-1275 v6 Intel® 7 th Gen CPU Kabylake-S Core™ i7-7700 Intel® 7 th Gen CPU Kabylake-S Core™ i5-7500 Intel® 7 th Gen CPU Kabylake-S Core™ i3-7101E
Chipset	Intel® PCH C236
Memory	4 x 288-pin UDIMM DDR4-2400, ECC/non-ECC, (up to 64GB)
BIOS	AMI
WatchDog Timer	Software programmable 0~255 sec.

Video

Video Interface	HDMI 1.4
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Ethernet

Chipset	Intel® I210/I350 (10/100/1000Mbps), LAN[1:8] / LAN[9:12] Intel® X710-BM2 (10G Fiber), SFP+[1:2]
Connector	12x GbE Copper (RJ-45) 2x 10G Fiber (SFP+)
LAN bypass	4-pair

Storage

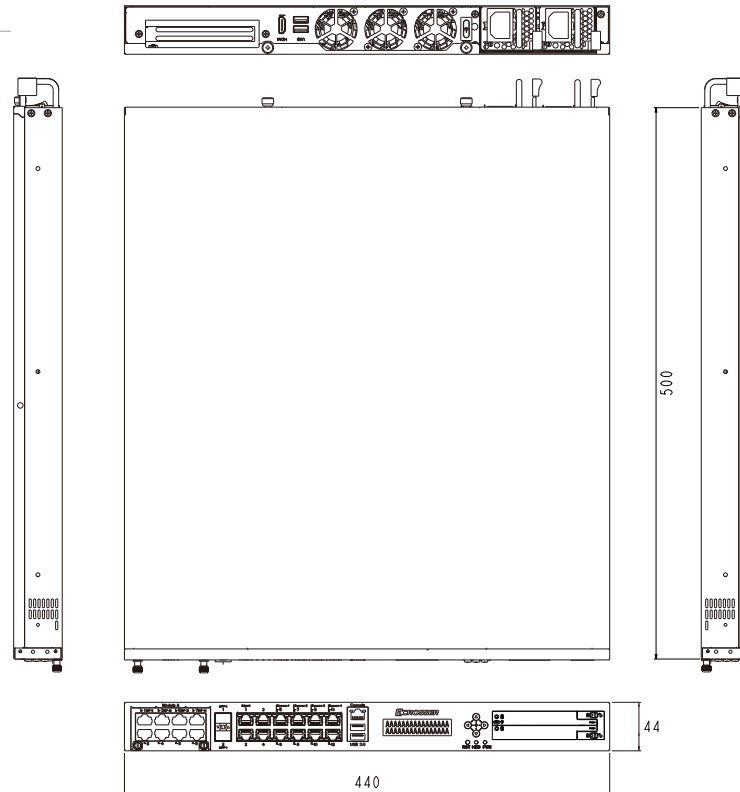
HDD Bay	2 x 2.5" SATA-III Hot-swappable (S/W RAID 0/1)
mSATA	1 x mSATA socket (support full-size module)
CFAST	1 x CFAST socket

I/O

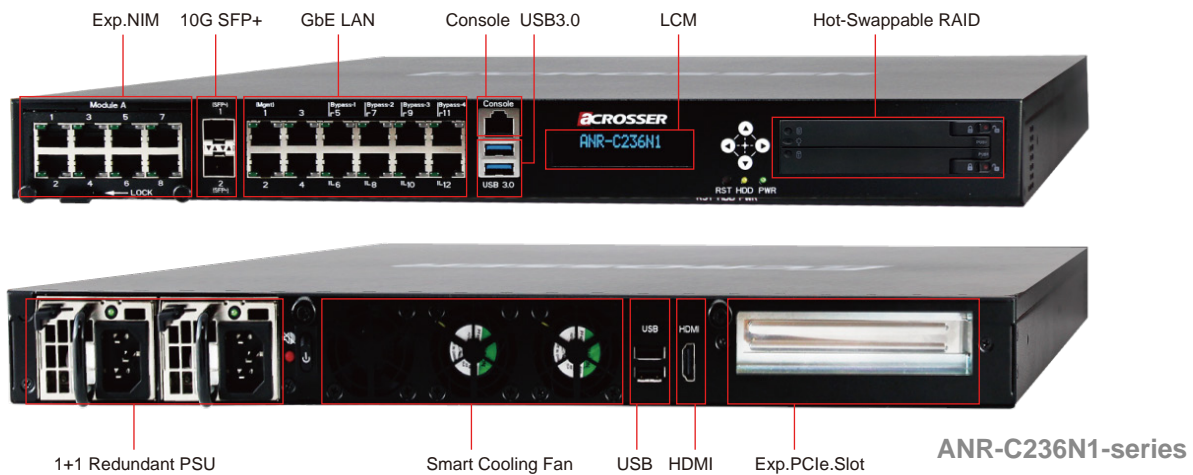
Console port	1 x Serial console (RJ-45)
USB port	2 x USB 3.0 (front-side) 2 x USB 2.0 (rear-side)
LCM	16 x 2 characters LCM with 4-key button
GPIO	8-bit GPIO (4-In, 4-Out), on-board pin header
Exp. NIM	1 x Exp. NIM (1G/10G/40G, Fiber/Copper/LAN Bypass)
Exp. PCIe slot	1 x Exp. PCIe slot
OPMA slot	1 x OPMA slot (for IPMI 2.0 module, by project)

Specifications are subject to change without notice.

Dimensions



I/O Connectors



Packing List

- ANR-C236N1 series system x 1
- SATA cable x 2
- CD utility x 1
- Console cable (RJ-45 <-> DB9) x 1
- USA / EU / JPN / UK / AS / NZS / SA / India power cord x 2
- Rack bracket x 1
- Box packing x 1
- Screw pack x 1
- Slide Rail x 1

Ordering Information

ANR-C236N1-K2D0T	Networking 1U Rackmount Intel® C236 PCH + Kabylake platform 1 Exp. NIM, 12 GbE LANs + 1 Mgmt., 2 SFP+ 1+1 Redundant PSU
ANR-C236N1-K2D00	Networking 1U Rackmount Intel® C236 PCH + Kabylake platform, 1 Exp. NIM, 12 GbE LANs + 1 Mgmt., 1+1 Redundant PSU
ANR-C236N1-K1D00	Networking 1U Rackmount Intel® C236 PCH + Kabylake platform 1 Exp. NIM, 12 GbE LANs + 1 Mgmt., Single PSU

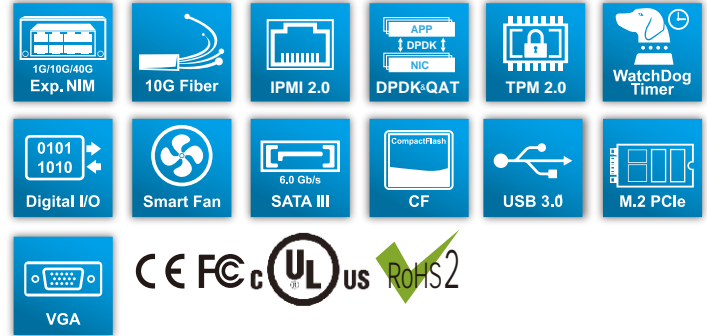
ANR-EP3KN1

1U Rackmount IoT Gateway/Network Server AMD Snowy Owl EPYC™ 3000 Platform, 4/3 Exp. NIMs & 1+1 Redundant PSU



Features

- AMD Snowy Owl EPYC™ 3000 SoC
- 8/4 x UDIMM DDR4-2666/2400
- 4/3 x Exp. NIMs (1G/10G/40G, Fiber/Copper/LAN Bypass)
- 1 x Management port
- 2 x 10G Fiber (SFP+)
- 2 x M.2 NVMe
- 3 x Smart Cooling Fan
- 1+1 Redundant PSU / 1 x Single PSU



Specification

System

CPU	AMD Snowy Owl EPYC™ 3451 (16C, 2.15G) AMD Snowy Owl EPYC™ 3351 (12C, 1.90G) AMD Snowy Owl EPYC™ 3251 (8C, 2.50G) AMD Snowy Owl EPYC™ 3151 (4C, 2.70G)
Chipset	SoC
Memory	ANR-EP3KN1-16/12 (4 NIMs SKU) 8 x UDIMM DDR4-2666/2400 ANR-EP3KN1-08/04 (3 NIMs SKU) 4 x UDIMM DDR4-2666/2400
BIOS	AMI
WatchDog Timer	Software programmable 0~255 sec.

Video

Video Interface	VGA
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Ethernet

LAN bypass	Exp. NIMs supported
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Storage

HDD Bay	ANR-EP3KN1-16/12 (4 NIMs SKU) 4 x 2.5" / 2 x 3.5" SATA-III Hot-swappable ANR-EP3KN1-08/04 (3 NIMs SKU) 2 x 2.5" / 2 x 3.5" SATA-III Hot-swappable
M.2	2 x M.2 M-Key support NVMe (4 NIMs SKU only)
CF/CFast	1 x CF socket (CFast for optional)

I/O

Console port	1 x Serial console (RJ-45) 1 x USB console (Micro-USB)
USB port	2 x USB 3.0 (front-side)
LCM	Graphic LCM
GPIO	8-bit GPIO (4-In, 4-Out), on-board pin header
Exp. NIM	4/3 x Exp. NIMs (1G/10G/40G, Fiber/Copper/LAN Bypass)
Exp. PCIe slot	1 x Exp. PCIe Gen3 [16X] slot (FHFL)

Mini PCIe	LTE module supported (optional)
Battery	Lithium Battery, 3V 220mAH (CR2032)
Hardware Monitoring	CPU Volt. CPU & SYS Temp. FAN Speeds
Security & Mgmt.	TPM 2.0 (Infineon chipset) Chassis Intrusion Detection
DPDK	Support DPDK

Power Requirement

Power Supply Unit	ANR-EP3KN1-16/12 (4 NIMs SKU) 1+1 Redundant Platinum PSU (400W) 100-240VAC ANR-EP3KN1-08/04 (3 NIMs SKU) 1 x Single PSU (300W)
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Software

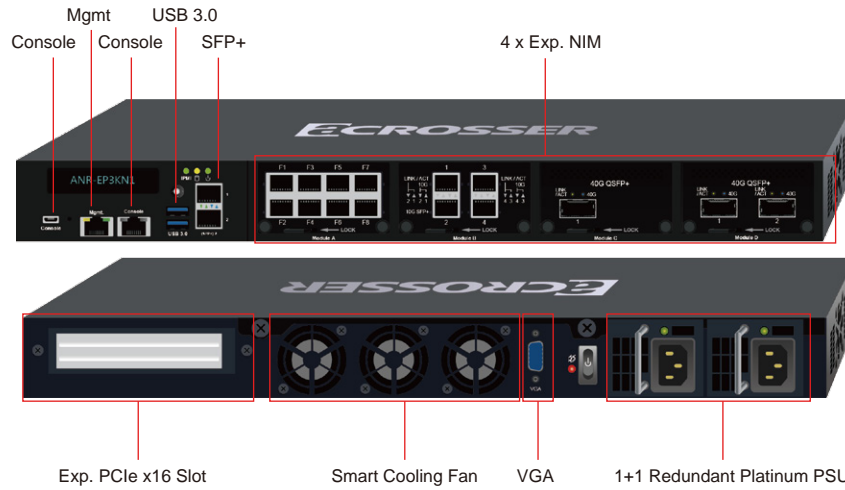
OS Support	Linux Kernel 4.4 or above(64-bit)
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Mechanical & Environment

Dimensions	440± 0.5 (W) * 44± 0.2 (H) * 550± 0.5 (D) mm
Operating Temp.	0~ 40°C (32~104°F)
Storage Temp.	-20~80°C (-4~176°F)
Relative Humidity	0 to 90% @40°C, non-condensing
Certifications	CE, FCC Class A, RoHS 2, cULus

Model Name

ANR-EP3KN1	.1U Rackmount IoT Gateway/Network Server
-16/12	.AMD Snowy Owl EPYC™ 3000 SoC
ANR-EP4KN1	.4/3 x Exp. NIM (1G/10G/40G, Fiber/Copper/LAN Bypass)
-08/04	.1 x Management port
	.2 x M.2 NVMe
	.1+1 Redundant PSU (400W)/1 x Single PSU (300W)



Packing List

- ANR-EP3KN1 system x 1
- SATA cable x 2
- CD utility x 1
- RJ45 console cable (RJ45 <-> DB9) x 1
- USB console cable (Micro-B <-> Type A) x 1
- USA / EU / JPN / UK / AS / NZS / SA / India power cord x 2
- Rack bracket x 1
- Box packing x 1
- Screw pack x 1
- Slide Rail x 1

Ordering Information

ANR-EP3KN1-16/12	1U Rackmount IoT Gateway/Network Server, AMD Snowy Owl EPYC™ 3000 SoC, 4x Exp. NIM, 1xMgmt., 4 SATA-III, 2 M.2 NVMe, 1+1 Redundant Platinum PSU
ANR-EP3KN1-08/04	1U Rackmount IoT Gateway/Network Server, AMD Snowy Owl EPYC™ 3000 SoC, 3x Exp. NIM, 1xMgmt., 2 SATA-III, 1 Single PSU

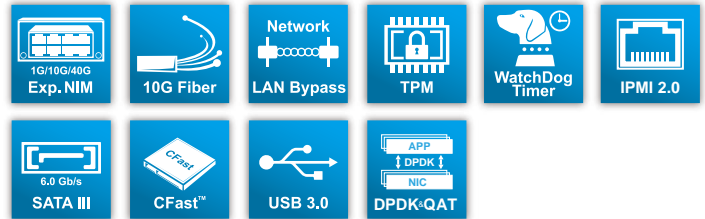
ANR-DNV3N3

1U Rackmount IoT Gateway/Network Micro Server Intel® Denverton Platform, 1 Exp. NIM, & 1U Redundant PSU



Features

- Intel® Denverton C3000 Platform
- 4~16 core SoC options
- 4 x UDIMM DDR4
- 1 x Exp. NIM (1G/10G/25G/40G Fiber/Copper/LAN Bypass)
- 1 x Mgmt. port (Reserved)
- 3 x 2.5" Hot-swappable(Drive Bay), 1 x CFast
- 2 x smart cooling fan
- 1+1 Redundant PSU



Others

Battery	Lithium Battery, 3V 220mAH (CR2032)
Hardware Monitoring	CPU Volt. CPU & SYS Temp. FAN Speeds
Security & Mgmt.	TPM 2.0 (Infineon chipset) IPMI 2.0 (Reserved) Chassis Intrusion Detection
QAT & DPDK	Support QAT & DPDK

Power Requirement

Power Supply Unit	1+1 Redundant ATX PSU (280W) 100-240VAC
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Software

OS Support	Linux Kernel 4.8 and above, (64-bit)
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Mechanical & Environment

Dimensions	430 (W) x 44 (H) x 400 (D) mm
Operating Temp.	0~ 40°C (32~104°F)
Storage Temp.	-20~80°C (-4~176°F)
Relative Humidity	0 to 90% @40°C, non-condensing
Certifications	CE, FCC Class A, RoHS 2, cULus

Model Name

ANR-DNV3N3	1U Rackmount IoT Gateway/Network Micro Server .Intel® Denverton-NS platform .1 x Exp. NIM (1G/10G/25G/40G,Fiber/Copper/LAN Bypass) .9 x GbE, 2~4 x SFP+ .ATX or 1+1 Redundant PSU
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Specification

System

CPU	Intel® Atom® C3958 Processor Intel® Atom® C3858 Processor Intel® Atom® C3758 Processor Intel® Atom® C3558 Processor
Chipset	Intel® Denverton SoC
Memory	4 x ECC DIMM DDR4
BIOS	AMI
WatchDog Timer	Software programmable 0~255 sec.

Video

Video Interface	VGA
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Ethernet

Chipset	Intel® I210, I211, X553
Connector	8 x GbE Copper (RJ-45)(optional 4xPoE) 1 x GbE/Management port(Reserved) 1 x GbE Fiber(SFP) 2/4 x SFP+(C3558/C3758 or above)
LAN bypass	2 pairs

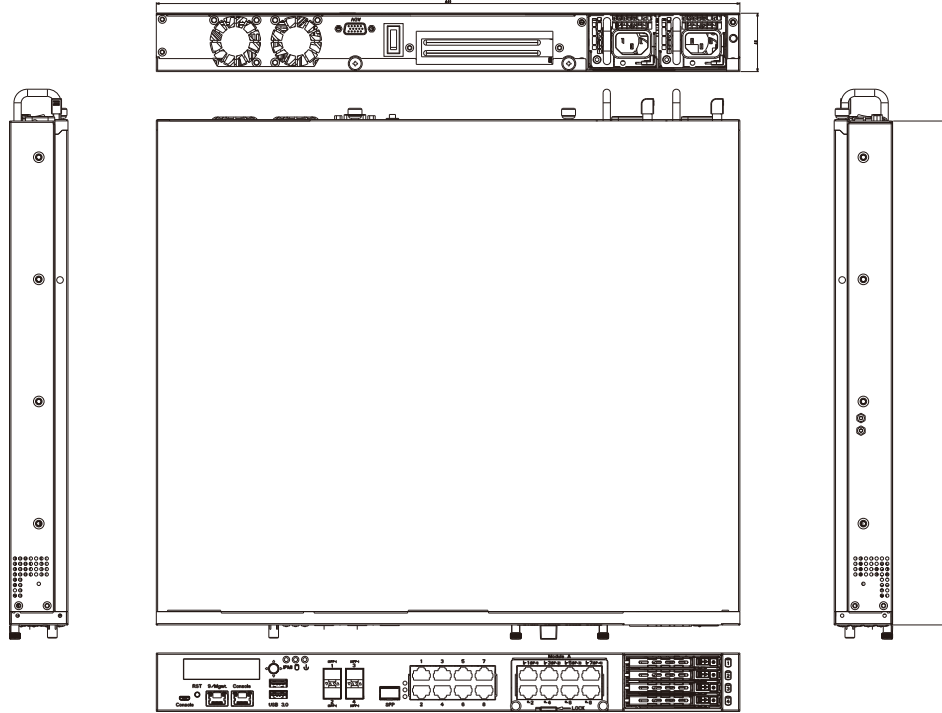
Storage

HDD Bay	3 x 2.5" SATA-III Hot-swappable(Drive bay)
CFast	1 x CFast socket

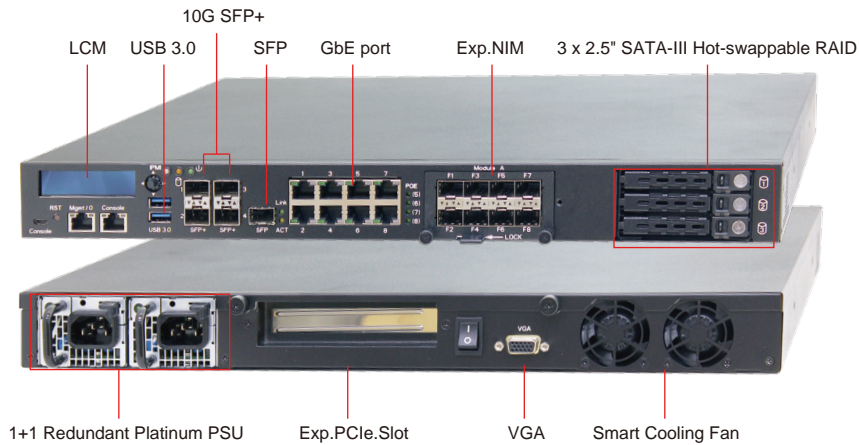
I/O

Console port	1 x Serial console (RJ-45)
USB port	1 x USB console (micro-USB)
LCM	Graphic LCM
GPIO	8 bit GPIO (4-In, 4-Out), on-board pin header
Exp. NIM	1 x Exp. NIM Hot-swappable (Not for C3558) (1G/10G/25G/40G, Fiber/Copper/LAN Bypass)
Expansion	1 x Exp. PCIe Gen3 x8(FHHL)(Not for C3558) (Not available if NIM is used)

Dimensions



I/O Connectors



ANR-DNV3N3

Packing List

- ANR-DNV3N3 series system x 1
- Console cable (RJ-45 to Serial) x 1
- Rackmount bracket
- CD with Driver and Manual
- USA / EU / JPN / UK / AS / NZS / SA / India power cord x 1
- Screw Pack x 1
- Screw Pack

Ordering Information

ANR-DNV3N3-04	Intel Atom C3558 (4-core) Soc, 9 GbE Copper (2-pair bypass), 1 SFP and 2 SFP+, 2 USB 3.1, 3x2.5" SATA III, 1 VGA and ATX PSU.
ANR-DNV3N3-08P	Intel Atom C3758 (8-core) Soc, 9 GbE Copper (2-pair bypass & 4xPoE), 1 SFP and 4 SFP+, 1NIM/1 PCIe x8 Exp. Slot, 2 USB 3.1, 3x2.5" SATA III, 1 VGA, and ATX PSU.
ANR-DNV3N3-12R	Intel Atom C3558 (12-core) Soc, 9 GbE Copper (2-pair bypass), 1 SFP and 4 SFP+, 1NIM/1 PCIe x8 Exp. Slot, 2 USB 3.1, 3x2.5" SATA III, 1 VGA, and 300W Redundant PSU.
ANR-DNV3N3-16R	Intel Atom C3958 (16-core) Soc, 9 GbE Copper (2-pair bypass), 1 SFP and 4 SFP+, 1NIM/1 PCIe x8 Exp. Slot, 2 USB 3.1, 3x2.5" SATA III, 1 VGA, and 300W Redundant PSU.

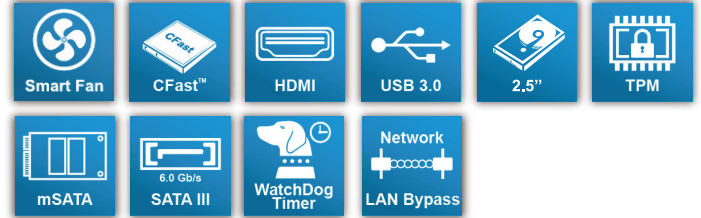
ANR-SKB1Nx-ACN

1U Rackmount Intel® PCH H110 Networking, 6 GbE LANs with Bypass



Features

- Intel® H110 Platform
- Intel® 7th Gen CPU Kabylake-S Core™ i7-7700
- 2 x UDIMM DDR4-2666, non-ECC, (up to 32GB)
- 6 x GbE Copper with Bypass
- 2 x 2.5" HDD
- 2 x Smart cooling fan



Others

Battery	Lithium Battery, 3V 220mAh (CR2032)
Hardware Monitoring	CPU Volt. CPU & SYS Temp. FAN Speeds
Security & Mgmt.	TPM 2.0

Power Requirement

Power Supply Unit	Single ATX PSU (250-300W) 100-240VAC
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Software

OS Support	Linux Kernel 4.4 & above, (64-bit)
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Mechanical & Environment

Dimensions	440 (W) x 44 (H) x 358 (D) mm
Operating Temp.	0~ 40°C (32~104°F)
Storage Temp.	-20~80°C (-4~176°F)
Relative Humidity	0 to 90% @40°C, non-condensing
Certifications	CE, FCC Class A, cULus, RoHS 2

Model Name

ANR-SKB1N1-ACN	Networking 1U Rackmount w/ Intel® H110 PCH, 6x GbE LANs w/Bypass 1 x Exp. NIM Single ATX PSU
ANR-SKB1N2-ACN	Networking 1U Rackmount w/ Intel® H110 PCH, 6x GbE LANs w/Bypass 2 x Exp. NIM Single ATX PSU

Specification

System

CPU	Intel® 7th Gen CPU Kabylake-S Core™ i7-7700 Intel® 7th Gen CPU Kabylake-S Core™ i5-7500 Intel® 7th Gen CPU Skylake-S Pentium™ G4400
Chipset	Intel® H110 PCH
Memory	2 x 288-pin UDIMM DDR4-2666, non-ECC, (up to 32GB)
BIOS	AMI
WatchDog Timer	Software programmable 0~255 sec.

Video

Video Interface	HDMI 1.4
-----------------	----------

Ethernet

Chipset	Intel® I211-AT (10/100/1000Mbps), LAN[1:6]
Connector	6x GbE Copper (RJ-45)
LAN Bypass	(1 st LAN bypass) by LAN[1:2] (2 nd LAN bypass) by LAN[3:4] (3 rd LAN bypass) by LAN[5:6]

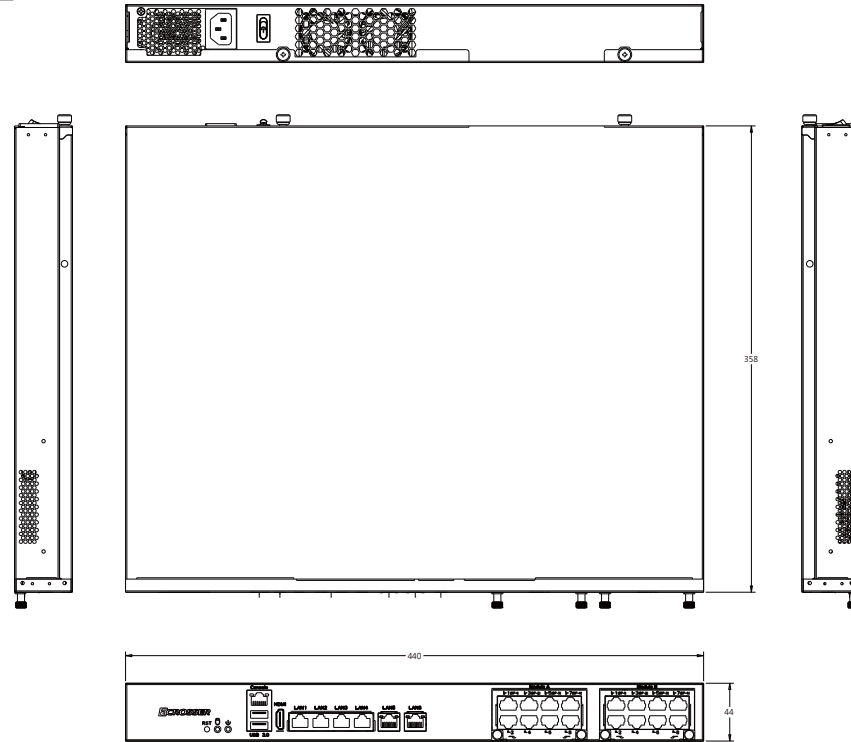
Storage

HDD Bay	2 x 2.5" HDD Bay
mSATA	1 x mSATA socket
CF	1 x CFast socket

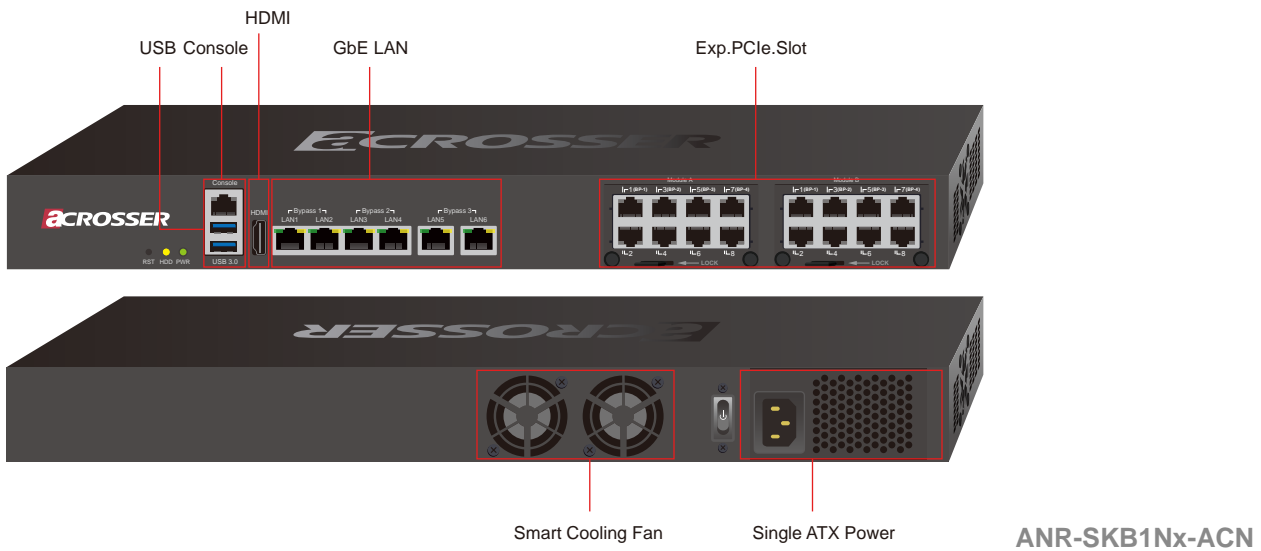
I/O

Console port	1 x Serial console (RJ-45)
USB port	2 x USB 3.0 (front-side)
Exp. NIM	1/2 x Exp. NIM

Dimensions



I/O Connectors



Packing List

- ANR-SKB1Nx-ACN-system x 1
- SATA cable x 2
- CD utility x 1
- Console cable (RJ-45 to DB9) x 1
- EU power cord x 1
- Rack bracket x 1
- Box packing x 1
- Screw for bracket (for rack + HDD bracket) x 14

Ordering Information

ANR-SKB1N1-ACN	Networking 1U Rackmount w/ Intel® H110 PCH, 6x GbE LANs w/Bypss 1 x Exp. NIM Single ATX PSU
ANR-SKB1N2-ACN	Networking 1U Rackmount w/ Intel® H110 PCH, 6x GbE LANs w/Bypss 2 x Exp. NIM Single ATX PSU

ANR-SKB2Nx-ACN

1U Rackmount Intel® PCH C236 Networking, 6 GbE LANs with Bypass, 2 SFP



Features

- Intel® C236 Platform
- Intel® Xeon® Processor E3-1275 v6
- Intel® 7th Gen CPU Kabylake-S Core™ i7-7700
- 2 x UDIMM DDR4-2666, non-ECC, (up to 32GB)
- 6 x GbE Copper with Byass
- 2 x 1G SFP
- 2 x 2.5" HDD
- 2 x Smart cooling fan



Others

Battery	Lithium Battery, 3V 220mAH (CR2032)
Hardware Monitoring	CPU Volt. CPU & SYS Temp. FAN Speeds
Security & Mgmt.	TPM 2.0

Power Requirement

Power Supply Unit	Single ATX PSU (250-300W) 100-240VAC
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Software

OS Support	Linux Kernel 4.4 & above, (64-bit)
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Mechanical & Environment

Dimensions	440 (W) x 44 (H) x 358 (D) mm
Operating Temp.	0~ 40°C (32~104°F)
Storage Temp.	-20~80°C (-4~176°F)
Relative Humidity	0 to 90% @40°C, non-condensing
Certifications	CE, FCC Class A, cULus, RoHS 2

Model Name

ANR-SKB2N1-ACN	Networking 1U Rackmount w/ Intel® C236 PCH, 6x GbE LANs w/Byppss, 2x 1G Fiber 1 x Exp. NIM Single ATX PSU
ANR-SKB2N2-ACN	Networking 1U Rackmount w/ Intel® C236 PCH, 6 x GbE LANs w/Byppss, 2x 1G Fiber 2 x Exp. NIM Single ATX PSU

Specification

System

CPU	Intel® Xeon® Processor E3-1268 v5 Intel® Xeon® Processor E3-1275 v6 Intel® 7th Gen CPU Kabylake-S Core™ i7-7700 Intel® 7th Gen CPU Skylake-S Pentium™ G4400
Chipset	Intel® C236 PCH
Memory	2 x UDIMM DDR4-2666, non-ECC, (up to 32GB)
BIOS	AMI
WatchDog Timer	Software programmable 0~255 sec.

Video

Video Interface	HDMI 1.4
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Ethernet

Chipset	Intel® I211-AT (10/100/1000Mbps), LAN[1:6] Intel® I210-IS (1000Mbps), SFP[1:2]
Connector	6x GbE Copper (RJ-45) 2x 1G Fiber
LAN Bypass	(1 st LAN bypass) by LAN[1:2] (2 nd LAN bypass) by LAN[3:4] (3 rd LAN bypass) by LAN[5:6]

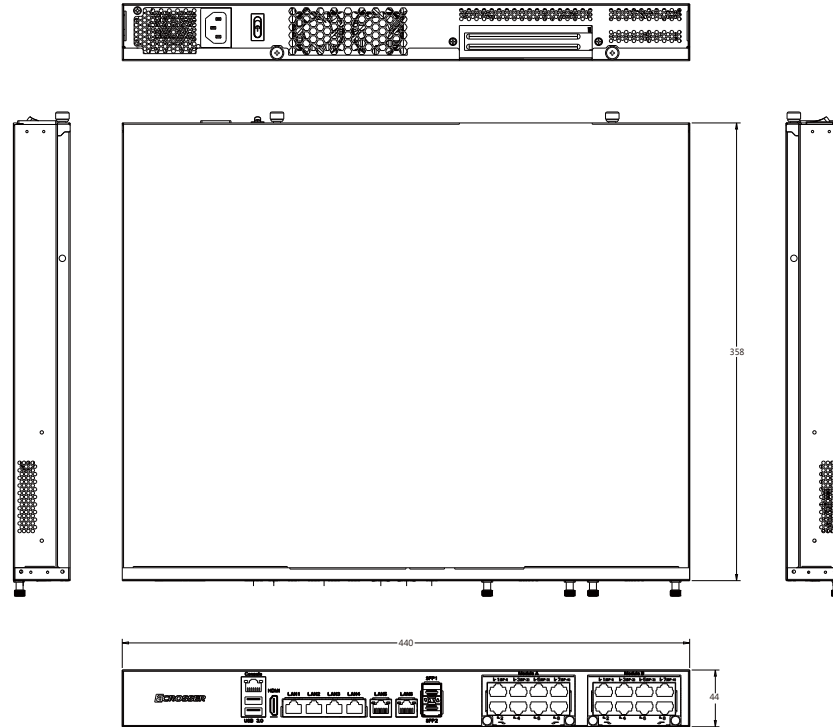
Storage

HDD Bay	2 x 2.5" HDD Bay
mSATA	1 x mSATA socket
CF	1 x CFAST socket

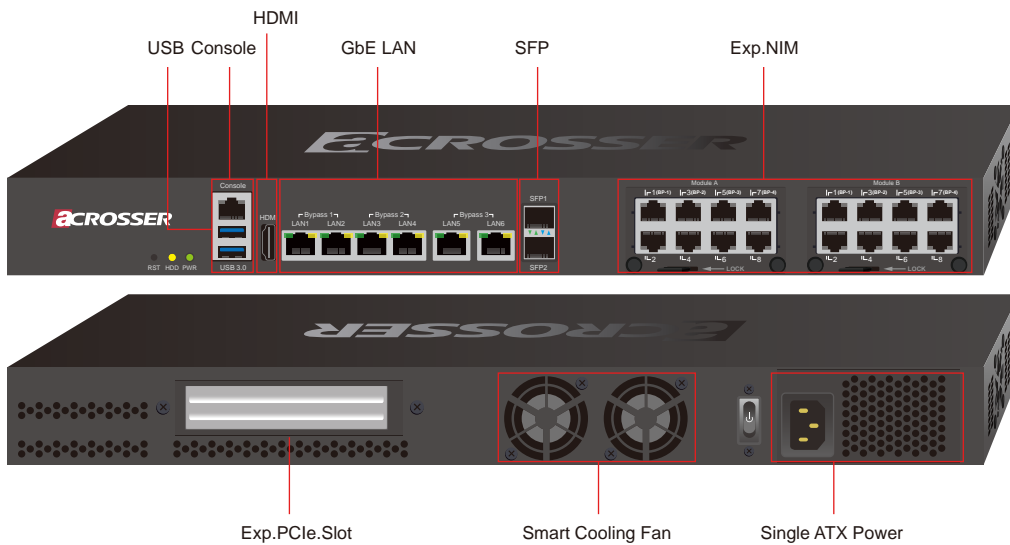
I/O

Console port	1 x Serial console (RJ-45)
USB port	2 x USB 3.0 (front-side)
Exp. NIM	1/2 x Exp. NIM
Exp. PCIe slot	1 x Exp. PCIe x8 slot

Dimensions



I/O Connectors



ANR-SKB2Nx-ACN

Packing List

- ANR-SKB2Nx-ACN-system x 1
- SATA cable x 2
- CD utility x 1
- Console cable (RJ-45 to DB9) x 1
- EU power cord x 1
- Rack bracket x 1
- Box packing x 1
- Screw for bracket (for rack + HDD bracket) x 14

Ordering Information

ANR-SKB2N1-ACN	Networking 1U Rackmount w/ Intel® C236 PCH, 6x GbE LANs w/Bypass, 2x 1G Fiber 1 x Exp. NIM Single ATX PSU
ANR-SKB2N2-ACN	Networking 1U Rackmount w/ Intel® C236 PCH, 6 x GbE LANs w/Bypass, 2x 1G Fiber 2 x Exp. NIM Single ATX PSU

ANR-APL1N1FL series

Intel® Apollo Lake SoC series Networking 1U Rack Mount Fanless Solution,
6 x GbE LANs with 3-pair Bypass

Features

- Intel® Apollo Lake SoC J-series/N-series/E-series
- 1 x SO-DIMM DDR3L-1866 MHz, up to 8GB
- 6 x GbE, 2 x USB 3.0
- 1 x PCIe Expansion Slot
- 8 x GPIO
- 1 x LCM



Power Requirement

Power Input 60W Open Frame Power Supply

Software

OS Support

- Windows 10 IoT Enterprise LTSC Entry
- Ubuntu 18.04 64bit

Mechanical & Environment

Security TPM 2.0
 Dimension 440 x 266 x 44mm
 Operating Temp. 0~40°C (32~104°F)
 Storage Temp. -20~80°C (-4~176°F)
 Safety CE, FCC class A



Specification

System

CPU	<ul style="list-style-type: none"> • Intel® Apollo Lake SoC J3455 CPU • Intel® Apollo Lake SoC J3355 CPU • Intel® Apollo Lake SoC N4200 CPU • Intel® Apollo Lake SoC N3350 CPU • Intel® Apollo Lake SoC E3950 CPU • Intel® Apollo Lake SoC E3940 CPU • Intel® Apollo Lake SoC E3930 CPU
Chipset	Intel® Apollo Lake SoC
Memory	1 x SO-DIMM DDR3L-1866 MHz, up to 8GB

Video

Graphic Controller	Intel® HD Graphics
Video Interface	1 x VGA (1 x internal header)

Storage

SATA	1 x SATAIII / mSATA (Optional)
CF	1 x CF Card / CFast (Optional)

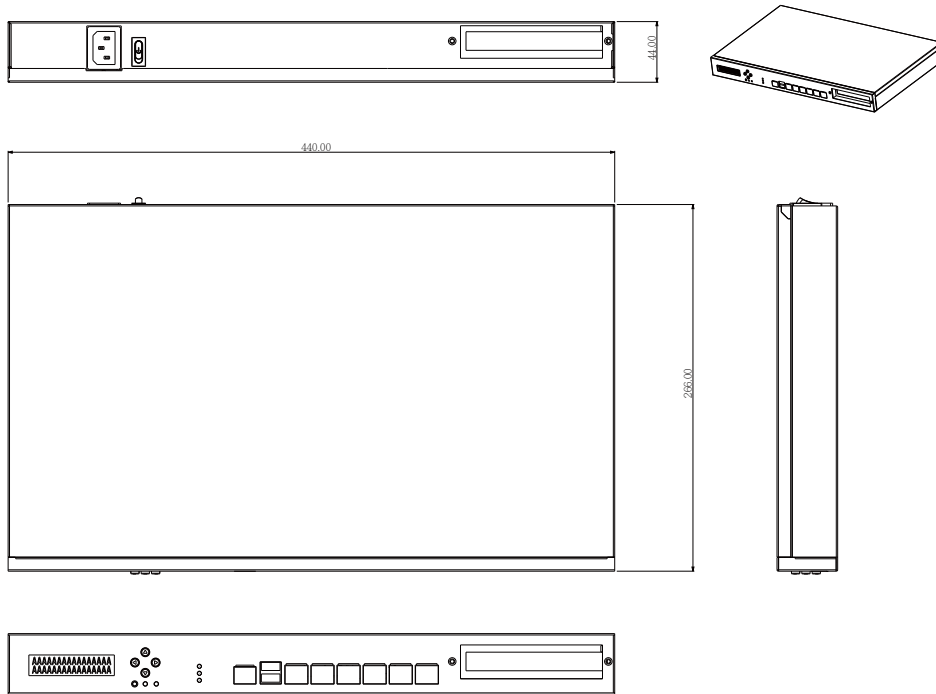
I/O

Ethernet	6 x GbE, Intel® I210-AT Ethernet Controllers
3rd LAN Bypass	3-pair
Expansion Slot	1 x PCIe x 8 Slot (x1 Signal)
Serial Port	1 x Console Port (RJ45)
USB	2 x USB 3.0 Port
GPIO	8-bit Digital I/O
LCM	16 x 2 characters LCM with 4-key button

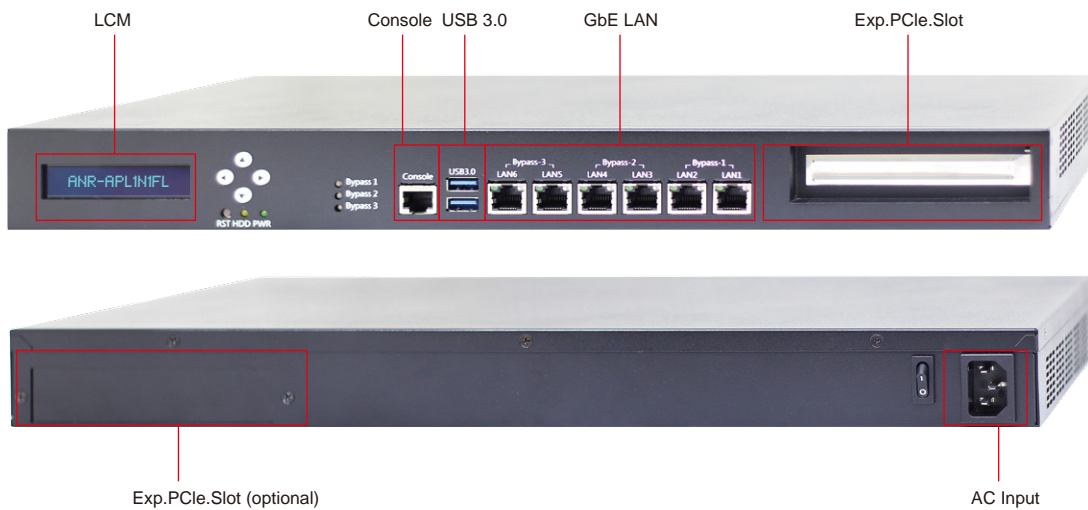
Hardware Feature

Hardware Monitoring	1) CPU Voltage
	2) CPU Temperature
	3) System Temperature
	4) RTC Battery Voltage
WatchDog Timer	Software programmable 1~255 sec.

Dimension



I/O Connectors



Packing List

- ANR-APL1N1FL system
- 1 x Driver CD
- 1 x Quick Guide
- 1 x Console Cable (DB9)
- 1 x SATA Cable
- 1 x SATA Power Cable

Ordering Information

ANR-APL1N1FL series

1U Rack Mount Fanless Solution with Intel® Apollo Lake SoC J-series/N-series/E-series, GbE, USB 3.0, SO-DIMM DDR3L-1866, SATA III, CF, PCIe Expansion Slot

Option

- 2GB DDR3L-1866 memory (non-ECC SO-DIMM)
- 4GB DDR3L-1866 memory (non-ECC SO-DIMM)
- 8GB DDR3L-1866 memory (non-ECC SO-DIMM)
- Arosser LOGO sticker x2 (Top & Front)

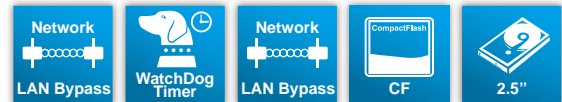
ANR-J190/J180N2-C612

Intel® Celeron® Bay Trail J1900/J1800 Networking 1U Rackmount,
6 x GbE LANs



Features

- Intel® Celeron® Bay Trail J1900/J1800
- 1 x 204-pin DDR3L-1600 MHz, 1 x SO-DIMM Slot, Up to 8GB
- 6 x GbE, 2 x USB
- 1 x Mini PCIe Expansion
- 8 x GPIO
- 1 x COM (internal header)



CE FC

Power Requirement

Power Input	Internal 250W power supply, input range 100V AC 60Hz ~ 240V AC 50Hz
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Software

OS Support	1. Windows 7 (32/64-bit) 2. Linux Kernel 3.11 (32/64-bit)
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Mechanical & Environment

Dimension	440 x 250 x 45 mm
Operating Temp.	0~40°C
Storage temp.	-20~80°C

Specification

System

CPU	1. Intel® Celeron® Bay Trail J1900, Quad-core, clock speed 2.00GHz 2. Intel® Celeron® Bay Trail J1800, Dual-core, clock speed 2.41GHz
Memory	1 x 204-pin SO-DIMM socket support 1600MHz DDR3L up to 8GB
BIOS	AMI UEFI
WatchDog Timer	Software programmable 0~255 sec.

Video

Graphic Controller	Integrated graphics support for processors with Intel Graphics Technology
Video Interface	1 x VGA (1 x internal header)

Ethernet

Chipset	6 x Intel GbE chip
Connector	6 x RJ45 with LED
Bypass LAN	Yes (2-pair: LAN3&LAN4, LAN5&LAN6)

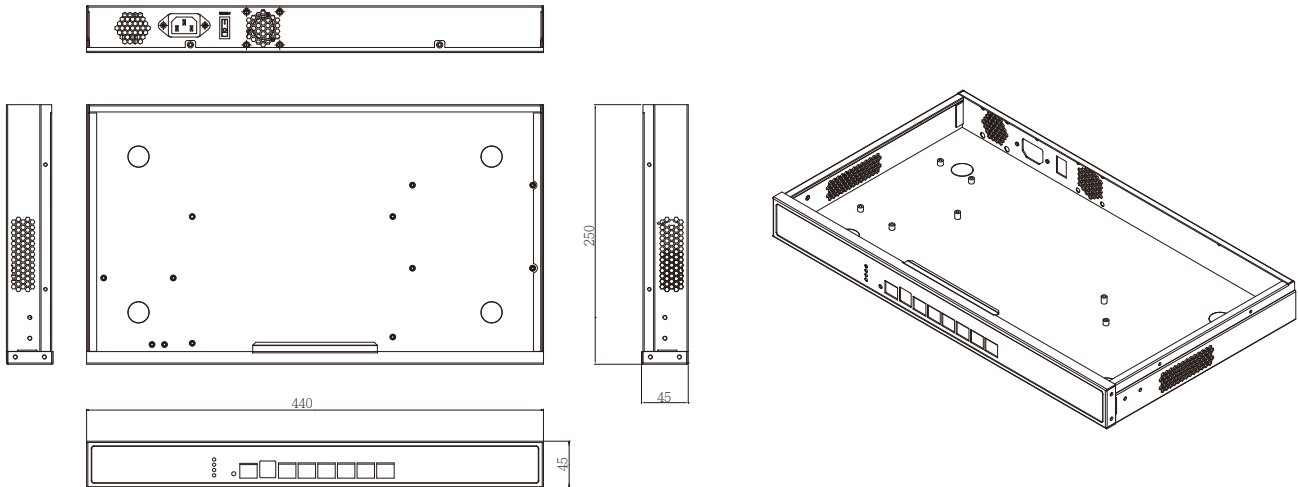
Storage

SATA	1 x SATAII port
Compact Flash	1 x Compact Flash Type II socket
HDD Bay	1 x 2.5" HDD Bay

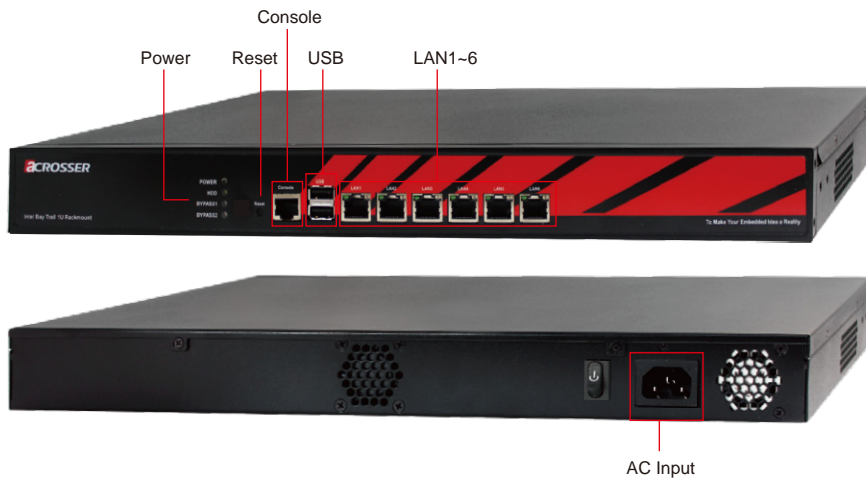
I/O

Expansion	1 x Mini PCIe socket
Console Port	1 x Console (1 x RJ45)
USB	2 x USB 2.0

Dimension



I/O Connectors



Packing List

- 1 x ANR-J190/J180N2-C612 system
- 1 x Driver CD
- 1 x Console Cable (DB9)
- 1 x SATA Cable
- 1 x SATA Power Cable
- 2 x Bracket Ears
- 1 x Power Cord (Option for USA/UK/EU/JPN/AU/RSA/IND)

Option

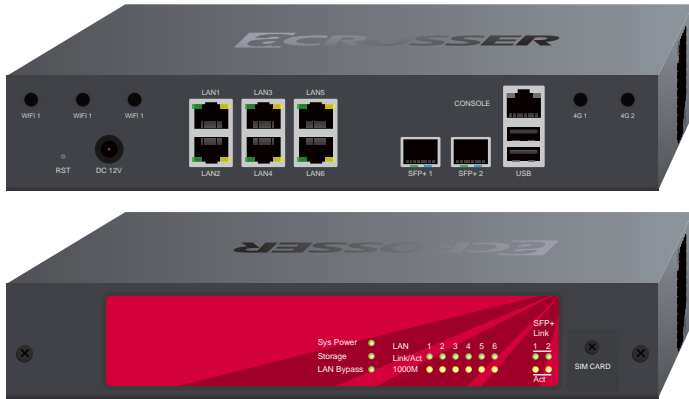
- | | |
|-----------------|---|
| ANR-J190N2-C612 | 2GB DDR3L-1600 memory (non-ECC SO-DIMM) |
| ANR-J180N2-C612 | 4GB DDR3L-1600 memory (non-ECC SO-DIMM) |
| | 8GB DDR3L-1600 memory (non-ECC SO-DIMM) |

Ordering Information

- | | |
|-----------------|--|
| ANR-J190N2-C612 | Intel® Celeron® Bay Trail J1900/J1800 Networking |
| ANR-J180N2-C612 | 1U Rackmount, DDR3L, GbE, USB 2.0, SATA II, CF, Mini PCIe PCIe |

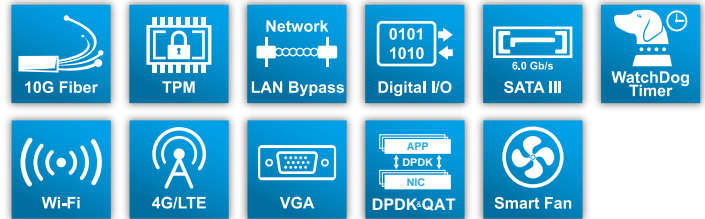
AND-DNV3N1

Intel® Denverton Platform Desktop Networking Appliance



Features

- Intel® Denverton C3000 Platform
- 2-4 core SoC options
- 1 x SO-DIMM DDR4
- 1 x 2.5" SSD
- Fanless Design



Others

Battery	Lithium Battery, 3V 220mAh (CR2032)
Hardware Monitoring	CPU Volt. CPU & SYS Temp.
Security	TPM 2.0 (Infineon chipset)
QAT & DPDK	Support QAT & DPDK

Power Requirement

Power Supply Unit	12V(40W)
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Software

OS Support	Linux Kernel 4.8 or above, (64-bit)
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Mechanical & Environment

Dimensions	220 (W) x 44 (H) x 140 (D) mm
Operating Temp.	0~ 40°C (32~104°F)
Storage Temp.	-20~80°C (-4~176°F)
Relative Humidity	0 to 90% @40°C, non-condensing
Certifications	CE, FCC Class A, RoHS 2, cULus

Model Name

AND-DNV3N1-02/04	Desktop Networking Appliance Intel® Denverton-NS platform 4/6 x GbE Copper 2 x SFP+,40W AC Adopter
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Specification

System

CPU	Intel® Atom® C3558 Processor (4 core) Intel® Atom® C3308 Processor (2 core)
Chipset	Intel® Denverton SoC
Memory	1 x SO-DIMM DDR4
BIOS	AMI
WatchDog Timer	Software programmable 0~255 sec.

Ethernet

Chipset	Intel® I211, X553
Connector	4/6 x GbE Copper (RJ-45) 2 x 10GbE Fiber (SFP+)for(C3558)
LAN bypass	One Pair

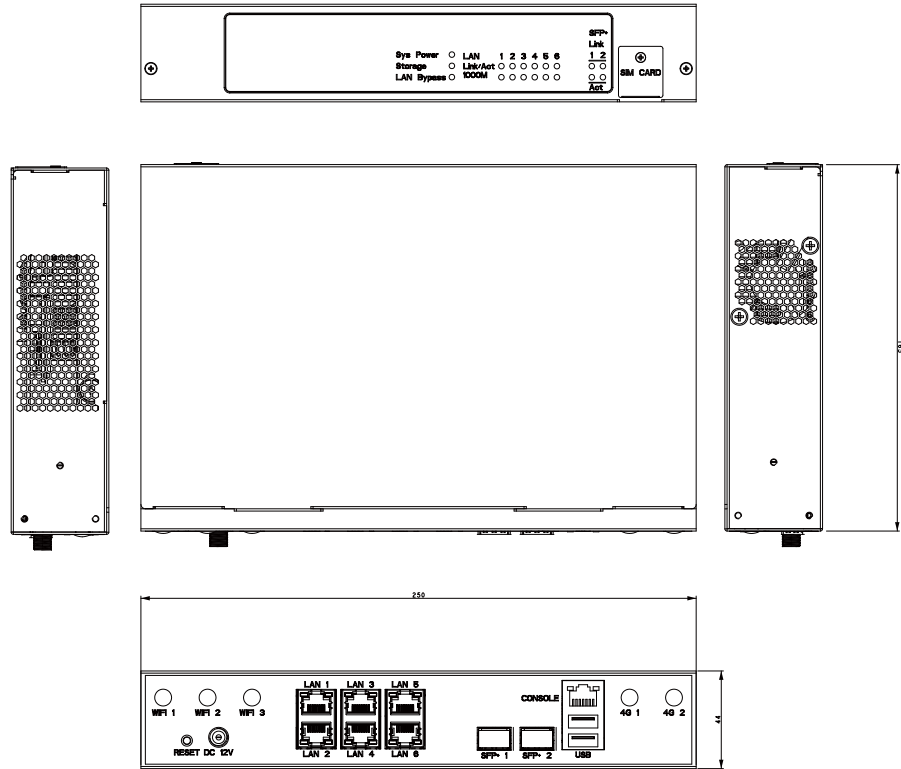
Storage

HDD Bay	1 x 2.5" SATA-III port
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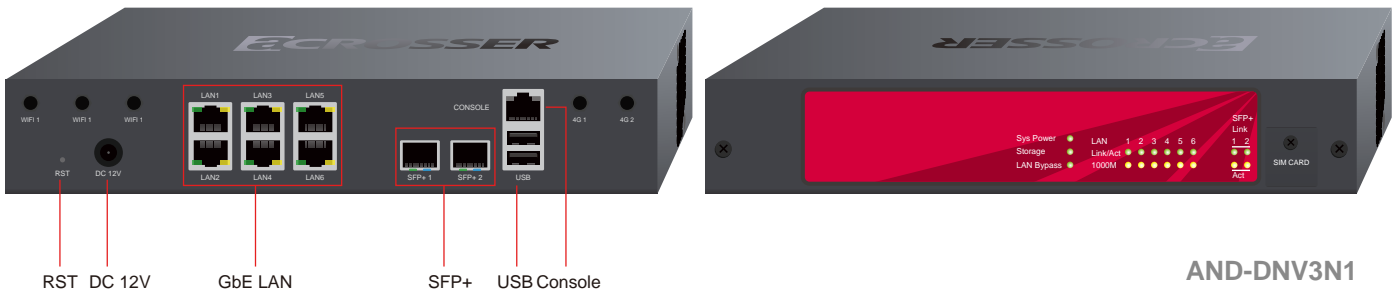
I/O

Console port	1 x Serial console (RJ-45)
USB port	2 x USB 2.0 (rear-side)
Antenna port	4 x SMA for WLAN (IEEE 802.11a/b/g/n/ac)&4GLTE
GPIO	4-bit GPIO (2-In, 2-Out), on-board pin header
Expansion	1 x Mini PCIe Socket 1 x M.2 Bkey Socket with SIM Socket

Dimensions



I/O Connectors



Packing List

- AND-DNV3N1 series system x 1
- SATA cable x 1
- CD utility x 1
- Console cable (RJ-45 to DB9) x 1
- USA / EU / JPN / UK / AS / NZS / SA / India power cord x 2
- Box packing x 1
- Screw for bracket (for rack + HDD bracket) x 14

Ordering Information

AND-DNV3N1-04	Desktop Networking Appliance Intel® Denverton-NS platform 6 x GbE Copper 2 x SFP+,40W AC Adopter
AND-DNV3N1-02	Desktop Networking Appliance Intel® Denverton-NS platform 4 x GbE Copper ,40W AC Adopter

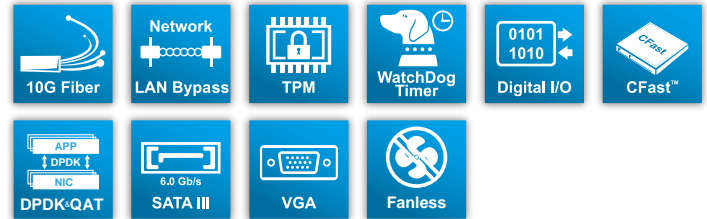
AND-DNV3N3

Intel® Denverton Platform, PoE Desktop Networking Appliance



Features

- Intel® Denverton C3000 Platform
- 2~8 core SoC options
- 1/2 x SO-DIMM DDR4
- 1 x 2.5" SSD, & 1 x CFAST
- smart cooling fan(C3758)
- Fanless Design (C3338, C3558)
- Dual DC-in for redundancy



Others

Battery	Lithium Battery, 3V 220mAH (CR2032)
Hardware Monitoring	CPU Volt. CPU & SYS Temp.
Security	TPM 2.0 (Infineon chipset)
QAT & DPDK	Support QAT & DPDK

Power Requirement

Power Supply Unit	12V(40 or 60W),54V(150W)for PoE
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Software

OS Support	Linux Kernel 4.8 or above, (64-bit)
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Mechanical & Environment

Dimensions	300 (W) x 44 (H) x 201 (D) mm
Operating Temp.	0~ 40°C (32~104°F)
Storage Temp.	-20~80°C (-4~176°F)
Relative Humidity	0 to 90% @40°C, non-condensing
Certifications	CE, FCC Class A, RoHS 2, cULus

Model Name

AND-DNV3N3-02/04/08	Desktop Networking Appliance Intel® Denverton-NS platform 8 x GbE Copper 2/4 x SFP+,Optional PoE AC Adapter
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Specification

System

CPU	Intel® Atom® C3758 Processor (8 core) Intel® Atom® C3558 Processor (4 core) Intel® Atom® C3338 Processor (2 core)
Chipset	Intel® Denverton SoC
Memory	1 x SO-DIMM DDR4(C3338) 2 x SO-DIMM DDR4(C3558,C3758)
BIOS	AMI
WatchDog Timer	Software programmable 0~255 sec.

Video

Video Interface	VGA
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Ethernet

Chipset	Intel® I211, X553
Connector	8 x GbE Copper (RJ-45) 2/4 x 10GbE Fiber (SFP+)for(C3558/C3758) 6 x GbE PoE Copper (RJ-45)(optional)
LAN bypass	One Pair

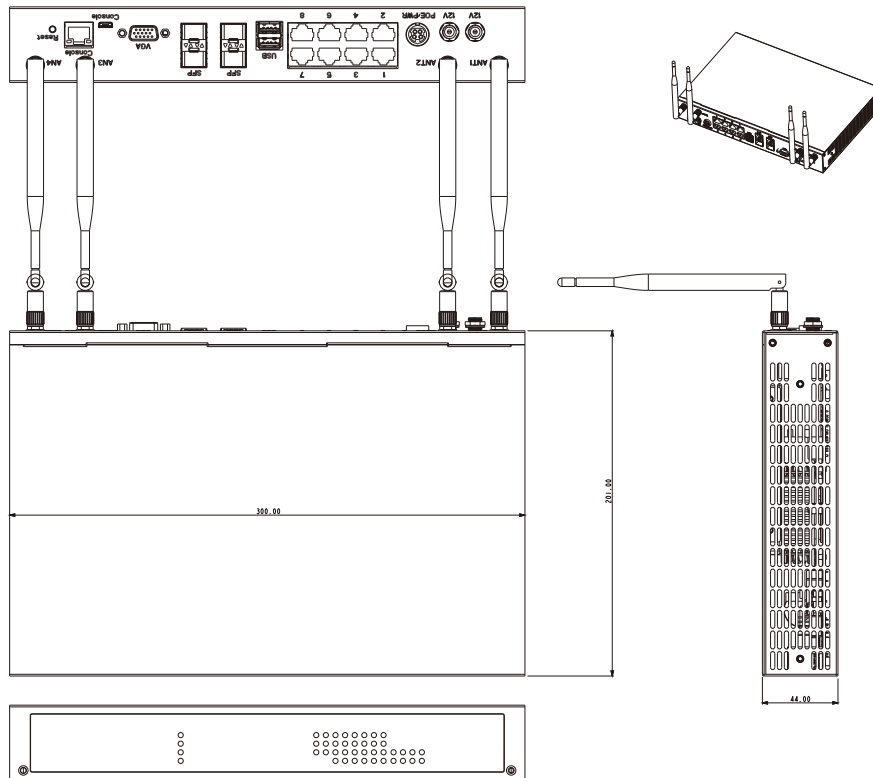
Storage

HDD Bay	1 x 2.5" SATA-III port
CFAST	1 x CFAST socket
M.2 NVME	1 x M.2 2280 socket (C3758 only)

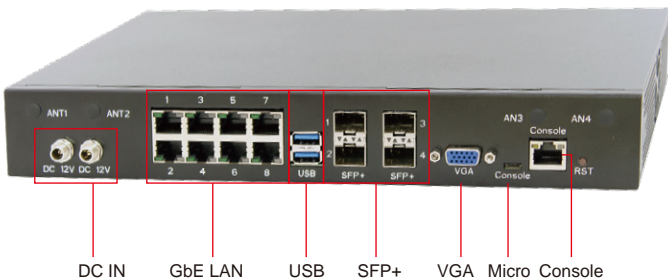
I/O

Console port	1 x Serial console (RJ-45), 1 x USB console (micro-USB)
USB port	2 x USB 3.0
Antenna port	4 x SMA for WLAN (IEEE 802.11a/b/g/n/ac)&4GLTE
GPIO	8-bit GPIO (4-In, 4-Out), on-board pin header
Expansion	2 x Mini PCIe Socket, one with SIM Socket

Dimensions



I/O Connectors



AND-DNV3N3

Packing List

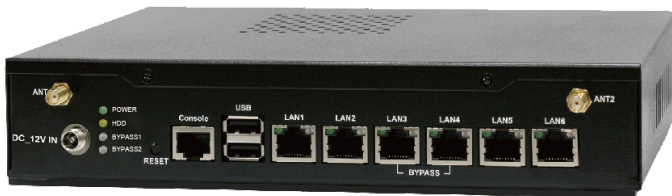
- AND-DNV3N3 series system x 1
- SATA cable x 1
- CD utility x 1
- Console cable (RJ-45 to DB9) x 1
- USA / EU / JPN / UK / AS / NZS / SA / India power cord x 2
- Box packing x 1
- Screw for bracket (for rack + HDD bracket) x 14

Ordering Information

AND-DNV3N3-02	Intel Atom® C3338(2-core) SoC, 8GbE Copper (1-pair bypass), 2 USB 3.0, 1x2.5" SATAIII,1xCFAST, 2xmPCIe socket (for WLAN and 4G LTE),1 VGA and 2x DC-In
AND-DNV3N3-04	Intel Atom® C3558(4-core) SoC, 8GbE Copper (1-pair bypass), 2xSFP+,2 USB 3.0, 1x2.5" SATAIII ,1xCFAST, 2x mPCIe socket (for WLAN and 4G LTE) ,1 VGA and 2x 12V DC-In
AND-DNV3N3-04P	Intel Atom® C3558(4-core) SoC, 8GbE Copper (1-pair bypass & 6xPoE),2x SFP+, 2 USB 3.0, 1x2.5" SATAIII,1xCFAST, 2x mPCIe socket (for WLAN and 4G LTE),1 VGA and 2x 12V DC-In and 48V DC-In.
AND-DNV3N3-08	Intel Atom® C3758(8-core) SoC, 8GbE Copper (1-pair bypass), 4 SFP+,2 USB 3.0, 1 VGA, 1x2.5" SATAIII,1xCFAST,1xM.2(for NVME SSD) 2x mPCIe socket (for WLAN and 4G LTE), 1 VGA and 2x 12V DC-In

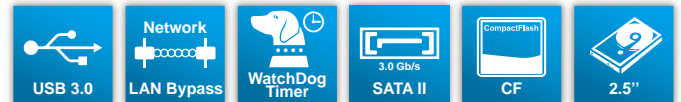
AND-J190/J180N2-C612

Intel® Celeron® Bay Trail J1900/J1800 Networking Microbox,
DDR3L, GbE, USB 3.0, SATA II, CF, Mini PCIe



Features

- Intel® Celeron® Bay Trail J1900/J1800
- 1 x 204-pin DDR3L-1600 MHz, 1 x SO-DIMM Slot, Up to 8GB
- 6 x GbE, 3 x USB
- 1 x Mini PCIe Expansion
- 1 x COM (1 x internal header)
- 8 x GPIO



Specification

System

CPU	1. Intel® Celeron® Bay Trail J1900, Quad-core, clock speed 2.0GHz 2. Intel® Celeron® Bay Trail J1800, Dual-core, clock speed 2.41GHz
Memory	1 x 204-pin SO-DIMM socket support 1600MHz DDR3L up to 8GB
BIOS	AMI UEFI
WatchDog Timer	Software programmable 1~255 sec.

Video

Graphic Controller	Integrated graphics support for processors with Intel Graphics Technology
Video Interface	1 x VGA (1 x internal header)

Ethernet

Chipset	6 x Intel GbE chip
Connector	6 x RJ45 with LED
Bypass LAN	Yes (2-pair: LAN3&LAN4, LAN5&LAN6)

Storage

SATA	1 x SATAII port
Compact Flash	1 x Compact Flash Type II socket
HDD Bay	1 x 2.5" HDD Bay

I/O

Expansion	1 x Mini PCIe socket
Console Port	1 x Console (1 x RJ45)
USB	1 x USB 3.0, 2 x USB 2.0
Antenna Hole	2 x SMA for Wi-Fi (IEEE 802.11a/b/g/n/ac)

Power Requirement

Power Input	DC in 12V / 60W Adapter
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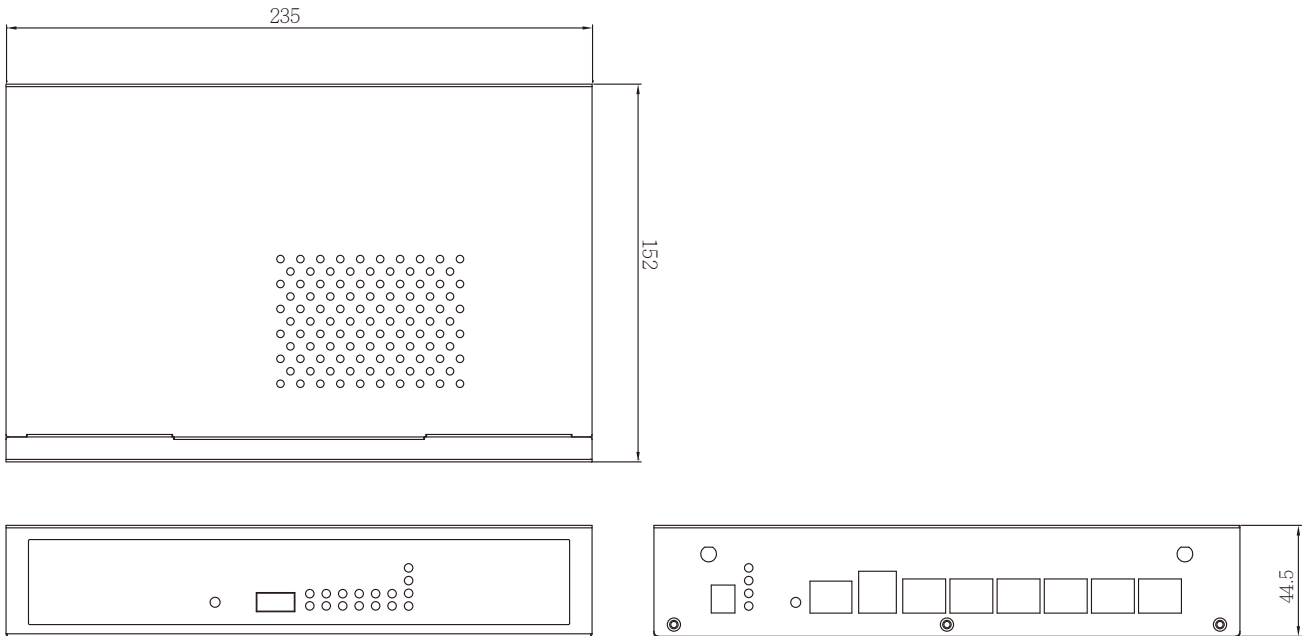
Software

OS Support	1. Windows 7 (32/64-bit) 2. Linux Kernel 3.11 (32/64-bit)
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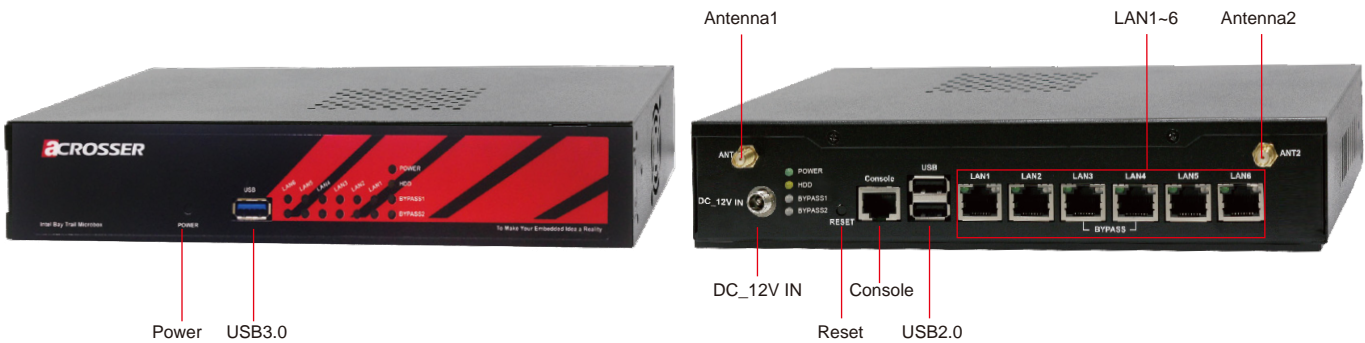
Mechanical & Environment

Dimension	235 x 152 x 44.5 mm
Operating Temp.	0~40°C
Storage temp.	-20~80°C

Dimension



I/O Connectors



Packing List

- 1 x AND-J190/J180N2-C612 system
- 1 x Driver CD
- 1 x Console Cable (DB9)
- 1 x SATA Cable
- 1 x SATA Power Cable
- 1 x Power Adaptor
- 1 x Power Cord (Option for USA/UK/EU/JPN/AU/RSA/IND)

Option

- | | |
|-----------------|---|
| AND-J190N2-C612 | 2GB DDR3L-1600 memory (non-ECC SO-DIMM) |
| AND-J180N2-C612 | 4GB DDR3L-1600 memory (non-ECC SO-DIMM) |
| | 8GB DDR3L-1600 memory (non-ECC SO-DIMM) |

Ordering Information

- | | |
|-----------------|---|
| AND-J190N2-C612 | Intel® Celeron® Bay Trail J1900/J1800 Networking |
| AND-J180N2-C612 | Microbox, DDR3L, GbE, USB 2.0/USB 3.0, SATA II, CF, Mini PCIe |

AND-G420N1

Networking Microbox, AMD® G-Series GX-420MC,
6 x Intel® GbE LAN (2-pair bypass)



Features

- AMD® G-Series GX-420MC, 4-core@2.0GHz, 2MB L2
- 2 x DDR3L-1600MHz, SO-DIMM, up to 16GB
- 6 x Intel® GbE LAN
- 2 x USB 3.0
- 2 x USB 2.0 (internal pin header)
- 1 x Console (RJ45)
- 8 x GPIO (4-In, 4-Out) internal pin header



CE FCC

Power Requirement

Power Input 1 x DC 12V/60W input

Software

OS Support Ubuntu 14.04 (32/64-bit), Linux Kernel 3.13 (32/64-bit)
Fedora 20 (32/64-bit), Linux Kernel 3.11 (32/64-bit)

Mechanical & Environment

Dimension 242 x 149.5 x 44mm
Operating Temp. 0~40°C (32~104°F)
Storage Temp. -20~80°C (-4~176°F)
Relative Humidity 0 to 90% @40°C, non-condensing
EMC & Safety CE, FCC class A

Specification

System

CPU	AMD G-Series GX-420MC Quad-core, clock speed 2.00GHz
Memory	2 x DDR3L-1600MHz, SO-DIMM, up to 16GB
BIOS	AMI® UEFI BIOS
WatchDog Timer	Software programmable 0~255 sec. (0=Disable Timer)

Ethernet

Chipset	6 x Intel® I210-AT GbE chip
Connector	6 x RJ45 with LED
LAN Bypass	2-pair(LAN1&LAN2, LAN3&LAN4)

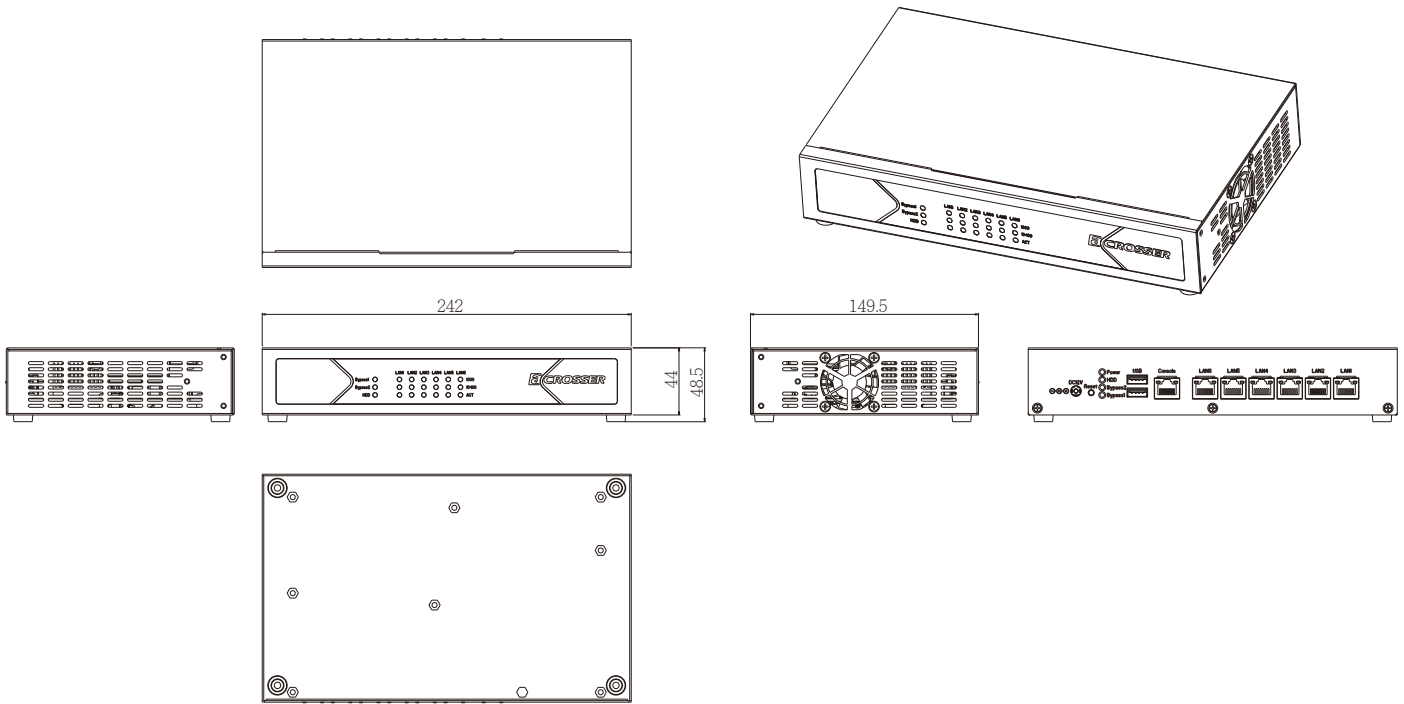
Storage

SATA	1 x SATAII port
Compact Flash	1 x Compact Flash Type-II socket (Support UDMA)
HDD Bay	1 x 2.5" HDD Bay

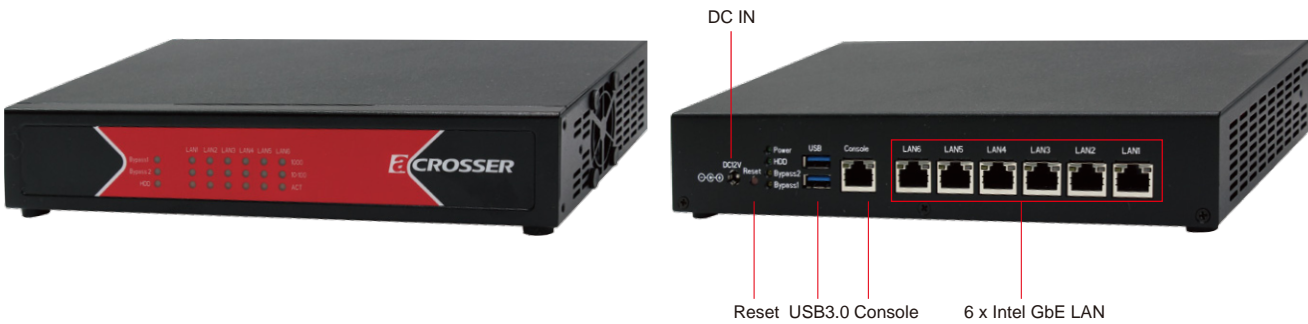
I/O

Console Port	1 x Console (RJ45)
USB	2 x USB 3.0
USB	2 x USB 2.0 (internal pin header)
GPIO	8-bit GPIO (4-In, 4-Out) internal pin header

Dimension



I/O Connectors



Packing List

- 1 x AND-G420N1 System
- 1 x Console Cable
- 1 x Quick User Manual
- 1 x CD with Driver and Manual
- 1 x Power Adaptor
- 1 x Power Cord (Option for US/EU/UK/JPN)
- 1 x Screw Pack
- 1 x Pull-tab Opener

Ordering Information

AND-G420N1 Networking Microbox, AMD® G-Series GX-420MC, 6 x Intel GbE LAN (2-pair bypass)

AES-APL1E2FL

Fanless Embedded System for Network Control, Intel Apollo Lake N4200, PoE+



Features

- Intel® Apollo Lake N4200, Pentium 4-core @2.5GHz SoC
- Support DDR3L-1866 Memory
- 1 x SSD Bay (SATA III)
- 2 x GbE Copper
- 12V DC-IN or PoE+ (PD mode, 802.3at compliant)
- Fanless design



CE FCC

Specification

System

CPU	Intel® Apollo Lake N4200, Pentium 4-core @2.5GHz SoC
Memory	1 x DDR3L-1866 SO-DIMM

Video

Graphic Controller	Intel® HD Graphics 505
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Storage

HDD Bay	1 x 2.5" SATA III HDD Bay
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I/O

Ethernet	2 x GbE Copper (RJ45), Intel i211-AT chipset
LAN Bypass	N/A
PoE port	1 x PoE+(PD mode, 802.3at compliant) via LAN 1
Console Port	1 x Serial Console (RJ45)
USB	1 X USB 3.0

Others

WatchDog Timer	1~255 sec. software programmable(0=Disable)
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Power Requirement

Power Input	12V DC-IN or PoE+ (PD mode, 802.3at compliant)
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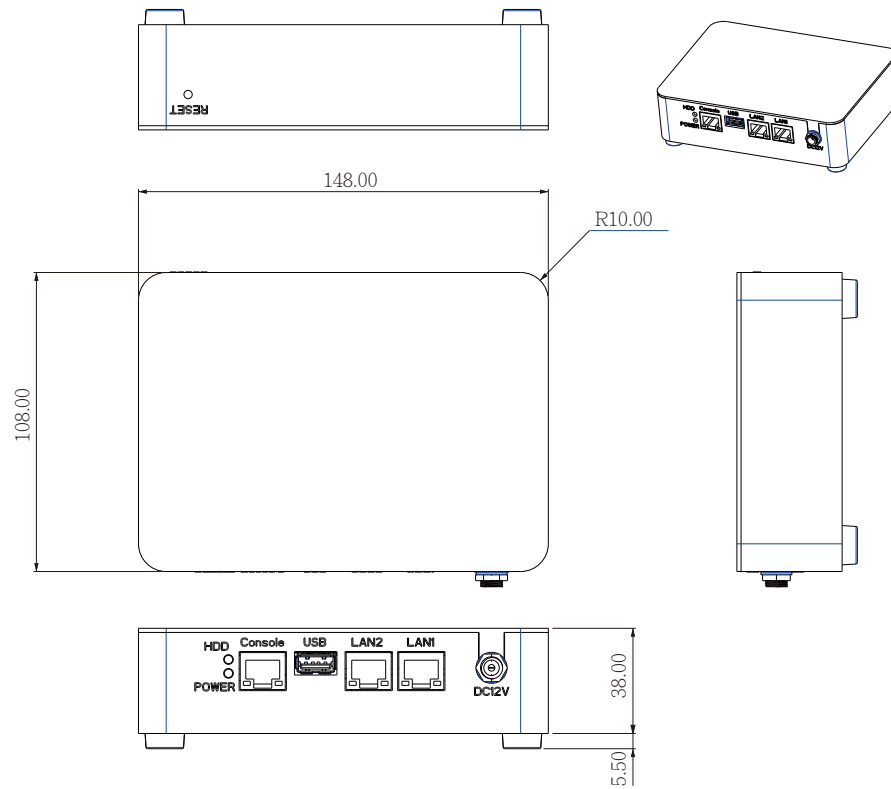
Software

OS Support	Linux Kernel to 4.4 or above, (64-bit)
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Mechanical & Environment

Thermal Design	Fanless
Dimension	148(W) x 38(H) x 108(D)mm (5.83" x 1.49" x 4.26")
Operating Temp.	0~40°C
Storage temp.	-40~80°C (-40~176°F)
Relative Humidity	0~90%, non-condensing
Safety	CE, FCC class A
Weight	TBD

Dimensions



I/O Connectors



Packing List

- 1 x AES-APL1E2FL Screw pack(2.5"HDD bracket: 8 pcs)
- 1 x User Guide CD with driver
- 1 x Screw pack(2.5"HDD bracket: 8 pcs)

Ordering Information

AES-APL1E2FL

Fanless Embedded System for Network Control
Intel® Apollo Lake N4200 4-core SoC
12V DC-IN or PoE+ (PD mode, 802.3at)

Embedded Computer

Acrosser Embedded Computer plits into 2 categories: fanless embedded system and embedded system with fan. Through strict embedded computing technologies, Acrosser Embedded Computer products are designed for harsh environment and industrial automation controls.

Currently we provide scalable Intel Atom, Celeron, Core i, Core 2 Duo platforms to fulfill your various needs. Flexible expansions include: Mini PCIe, PCIe, PCI, Wi-Fi, 3.5G, etc. As for the OS, our embedded computer and embedded systems can perform either with Windows or Linux. The variety of optional OS leaves immense possibilities for system integrators and software programmer to develop their ideal project.

Factory Automation system

IoT-enabled Automation Solution



Digital Signage



KIOSK



HOME Automation



Industrial

ACM-XD15B7

Intel Xeon D COM Express Basic Type 7 Module



AES-APL1E1FL

All new Fanless Embedded system



Product Matrix

Embedded System



Form Factor	Fanless Embedded System	
Model	AES-APL1E1FL	
Chipset	Intel Apollo lake	
CPU Type	Pentium N4200 Processor	
Memory	Type	2 x DDR3L 1866 MHz, SO-DIMM
	Installed / Max. Capacity	1GB / 8GB
Video	VGA	1
	HDMI	1
	LVDS	-
	TV-Out	-
Ethernet	2 x GbE RJ45	
Storage	IDE	-
	SATA	2 x SATA II
	Flash	-
I/O	Serial Port	1 x RS-232/422/485 3 x RS-232
	USB Port (ext/int)	4
	Expansion Slot	3 x mini PCIe
Operating Temp.	-25~60°C (-13~140°F)	
Page	58	

Embedded SBC



Form Factor	Mini-ITX	
Model Name	AMB-BT18T2 Series	AMB-H81T3
CPU	Intel Celeron J1800	Intel Haswell CPU Pentium /Celeron®/4 Gen Core CPU
Chipset	Intel Bay Trail SoC	Intel® H81
Memory	1 x DDR3L-1333MHz, SO-DIMM, up to 8GB	1 x DDR3-1066/1333MHz, UDIMM, up to 8GB
Graphics	Intel HD Graphics	Intel HD Graphics
Video Interface	1 x VGA, 1 x HDMI, 1 x 24-bit LVDS	1 x VGA, 1 x HDMI
E-IDE(44pin) / IDE(40pin)	- / -	- / -
SATA	1 x SATA II, 1 x mSATA	2 x SATA II, 2 x SATA III
CF	-	-
Expansion Slot	1 x mini PCIe	1 x mini PCIe
Ethernet	2 x GbE LAN	1 x GbE LAN
USB	9 x USB 2.0	2 x USB 3.0, 8 x USB 2.0
GPIO	8 x GPIO	8 x GPIO
Serial Port	4 x RS232 + 1 x RS232/RS485 + 1 x RS232/TTL	6 x RS232
Parallel Port	1	1
Audio	Realtek ALC662	Realtek ALC662
WatchDog Timer	1 ~ 255 seconds	1 ~ 255 seconds
Hardware Monitor	YES	YES
Page	60	62

Product Matrix

Embedded SBC



Form Factor	3.5"	ISA Half-Size
Model Name	AMB-BT19S1	AMB-VDX3H1
CPU	Intel® Celeron® J1900 2.42 GHz	Onboard DM&P Vortex86DX3 1GHz
Chipset	Intel Bay Trail SoC	-
Front Side Bus	-	-
Memory	1 x DDR3L-1333MHz, SO-DIMM, up to 8GB	Onboard 1GB DDR3 SDRAM
Graphics	Intel HD Graphic	Integrated
Video Interface	1 x VGA, 1 x 24-Bit LVDS	1 x VGA
E-IDE(44pin) / IDE(40pin)	- / -	1 x IDE(44pin) support Ultra DMA33/66/100
SATA	1 x SATA II, 1 x mSATA	1 x Sata
CF	-	1 x Compact Flash Type I/II socket
Floppy	-	-
Expansion Slot	2 x mini PCIe	1 x PC/104
Ethernet	2 x GbE LAN	1 x RJ45 10/100Mbps LAN
USB	2 x USB 3.0, 6 x USB 2.0	4(USB 2.0)
GPIO	8-bit Digital I/O	16-bit Digital I/O
Serial Port	COM1(DB9), COM1~COM5(RS232) COM6(RS232/485)	2 x RS-232, 2 x RS-232/422/485
Parallel Port	-	1 x LPT
Audio	Realtek ALC888	-
WatchDog Timer	1 ~ 255 seconds	0 ~ 255 seconds
Hardware Monitor	YES	YES
Page	64	65

Embedded SBC



Form Factor	COM Express type 7	COM Express type 6	COM Express type 6
Model Name	ACM-XD15B7	ACM-XE21B6	ACM-B6360
CPU	Xeon® D1548	Intel® Core i7-8850H	Intel Core i7-3615QE
Chipset	Intel Xeon D SoC	Intel CM246	Intel QM77
Memory	2 x DDR4-2400MHz, SO-DIMM, up to 32GB Default configuration: 2 x 8GB	2 x 2666 DDR4 SODIMM up to 64GB, Default configuration: 32GB (2 x 16GB) : ACM-XE21B6 64GB (2 x 32GB) : ACM-XE21B6-64G	2 x SO-DIMM support DDR3 1600/1333SDRAM, with ECC, up to 16GB
Video Interface	-	3 x DDI/1 x VGA	3 x DDI/1 x VGA
E-IDE(44pin) / IDE(40pin)	-	-	-
SATA	2	4	4
CF	-	-	-
Expansion Slot	24 x PCI-e 3.0 Lanes, 7 x PCI-e 2.0 Lanes	16 x PCI-e 3.0 Lanes, 8 x PCI-e 2.0 Lanes	1 x PCI-e x 16 Gen 3, 6 x PCI-e x 1
Ethernet	2 x 10 GbE LAN	-	-
USB	4 x USB 3.0, 8 x USB 2.0	4 x USB 3.1, 8 x USB 2.0	4 x USB 3.0, 8 x USB 2.0
GPIO	8-bit Digital I/O, 4-bit DI and 4-bit DO	8-bit Digital I/O, 4-bit DI and 4-bit DO	8-bit Digital I/O, 4-bit DI and 4-bit DO
Serial Port	2 x COM Interface (TX/RX only)	2 x COM Interface (TX/RX only)	2 x COM Interface (TX/RX only)
Parallel Port	-	-	-
Audio	-	-	-
WatchDog Timer	1 ~ 255 seconds	0 ~ 255 seconds	1 ~ 255 seconds
Hardware Monitor	YES	YES	YES
Page	66	67	68

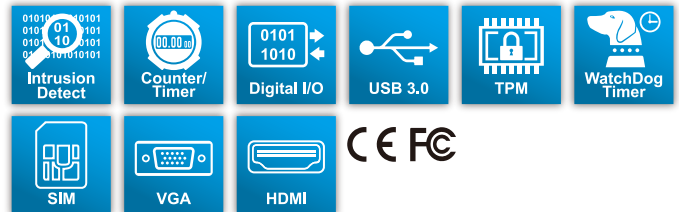
AES-APL1E1FL

Intel Pentium N4200 (Fan Less Embedded System Computer)



Features

- Rugged fan-less design
- Support New Intel Pentium / N4200 processors
- 2 x DDR3L 1866 MHz SO-DIMM, up to 8GB
- VGA & HDMI video output
- 2 x swappable 2.5" HDD bay
- TPM 1.2 / 2.0
- Variety Wireless Communication



Specification

System

CPU	Intel® Pentium™-N4200 Intel®ATOM. X7-E3950 / X5-E3930
Chipset	Intel Apollo lake SoC

Video

Graphic Controller	Intel HD Graphics 505
Video Interface	1 x VGA port (DB15) , 1 x HDMI

Storage

SATA	2 x SATA II port
Disk Bay	2 x 2.5" Disk bay with Anti-vibration/Anti-shock solution for SSD only

I/O

Expansion Slot	3 x Mini PCI-e(Reserve for Wi-Fi and 4G LTE)
Ethernet	2 x GbE RJ45, Intel i210AT
Serial Port	1 x RS-232/422/485 3 x RS-232
USB	4 X USB 3.0
GPIO	8-bit GPIO (4 In, 4 Out)
Audio	1 x MIC in 1 x Audio out
Antenna Hole	1 x SMA for GPS 1 x SMA for 4G 2 x SMA for Wi-Fi & Bluetooth
SIM	SIM Slot x 2, SIM card changeable without opening case, latch to protect SIM uncertainly touch
TPM	On-board TPM 1.2 / 2.0(Optional)

Others Feature

WatchDog Timer 1~255 sec. software programmable

Power Requirement

Power Input 12 V

Software

OS Support Windows 10 (64 bit)& Linux kernel to 4.4 or above(64 bit)

Mechanical & Environment

Dimension 260 mm x 195 mm x 62 mm

Operating Temp. -25~60°C

Vibration 5~500Hz, 2GRMS

Shock 30G ,6MS

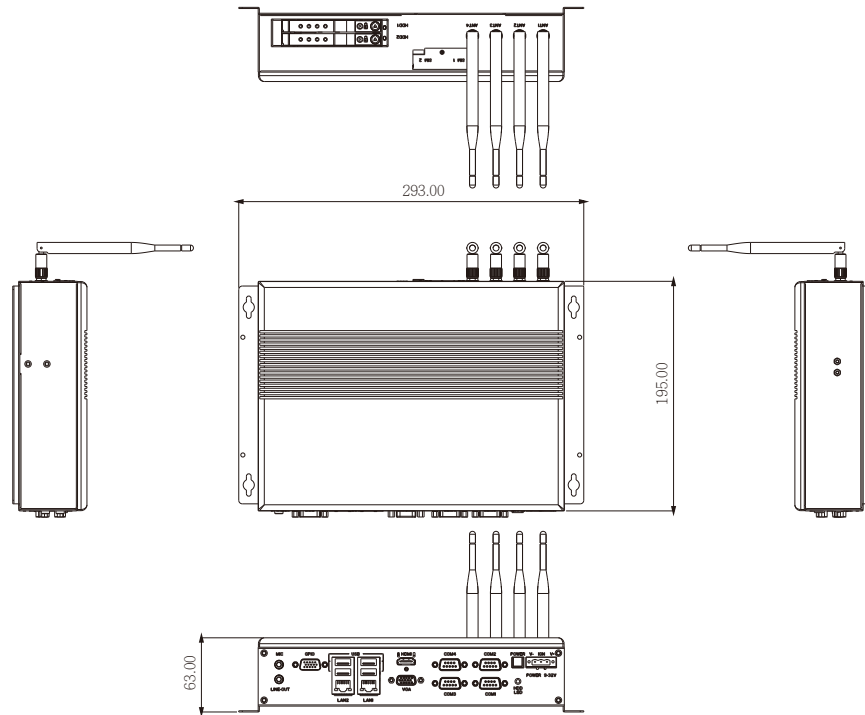
Storage temp. -40~80°C (-40~176°F)

Safety CE, FCC class B,

Power Management

Power on/off switches Power Button
RESET Button

Dimension



I/O Connectors



Packing List

- 1 x AES-APL1E1FL
- 1 x User Guide CD with driver
- 1 x Utility CD
- 1 x GPIO Cable
- 1 x Antenna for GPS (option)
- 2 x Antenna for Wi-Fi & Bluetooth (option)
- 1 x Antenna for 4G LTE (option)

Ordering Information

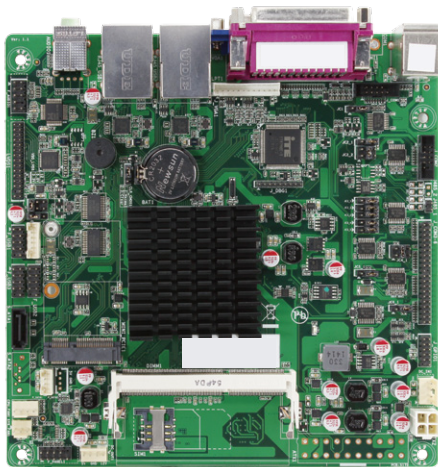
AES-APL1E1FL-PT1 AES-APL1E1FL - intel Pentium N4200
 - intel Atom x7 E3950 / x5 E3930

Optional Modules

EC20/EC25	Quectel 4G + GPS + Glonass module
MC7304/MC7354	Sierra 4G + GPS + Glonass module
RTL8812AEACC-01	Realtek (2T2R) Wi-Fi+BT a/b/g/n/ac
251NBT	Sparklan (2T2R) Wi-Fi+BT a/b/g/n

AMB-BT18T2

Intel Bay Trail SoC, 1 x VGA, 1 x HDMI, 1 x LVDS, 2 x GbE, 6 x COM, 9 x USB 2.0, 1 x mini PCIe, 1 x SATA II, 1 x mSATA



Features

- Intel Bay Trail SoC, low power consumption.
- 1 x DDR3L-1333MHz, SO-DIMM, up to 8GB
- 9 x USB 2.0
- 4 x RS232, 1 x RS232/485, 1 x RS232/TTL
- 2 x GbE LAN, 1 x mini PCIe, 1 x SIM slot
- 1 x SATAII, 1 x mSATA
- 12V Input
- Fanless design



CE FC

Software

OS Support	Window 7 (32bit/64bit), windows 8.1 (32bit/64 bit), windows10
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Mechanical & Environment

Dimension	170mm x 170mm (6.69" x 6.69")
Operating Temp.	0~60°C
Storage Temp.	-20~75°C
Safety	RoHS

Packing List

- AMB-BT18T2
- Quick User Guide
- Driver CD
- SATA Cable
- SATA Power Cable
- 3 x COM Cable
- VGA Cable

Ordering Information

AMB-BT18T2	Intel Celeron J1800, Dual Core, 1M cache, 2GHz (2.41GHz), 1 x VGA, 1 x HDMI, 1 x LVDS, 2 x GbE, 6 x COM, 9 x USB2.0, 1 x mini PCIe, 1 x SATA, 1 x mSATA
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Specification

Specification

CPU	1. Intel® Celeron® J1800, Dual-Core, 1M Cache, 2GHz (2.41GHz), 10W(AMB-BT18T2)
Chipset	Intel Bay Trail SoC
Memory	1 x DDR3L-1333MHz, SO-DIMM, up to 8GB
BIOS	AMI UEFI BIOS
Real Time Clock	1 x System RTC

Video

Graphic Controller	Intel® HD Graphics
Video Interface	<ul style="list-style-type: none"> • 1 x VGA, resolution up to 2560x1600 @ 60Hz • 1 x HDMI, resolution up to 1920x1080 @ 60Hz • 1 x LVDS (24 Bit Dual channel LVDS, resolution up to 1920x1200 @ 60Hz)

Storage

SATA	1 x SATA II Port + 1 x mSATA
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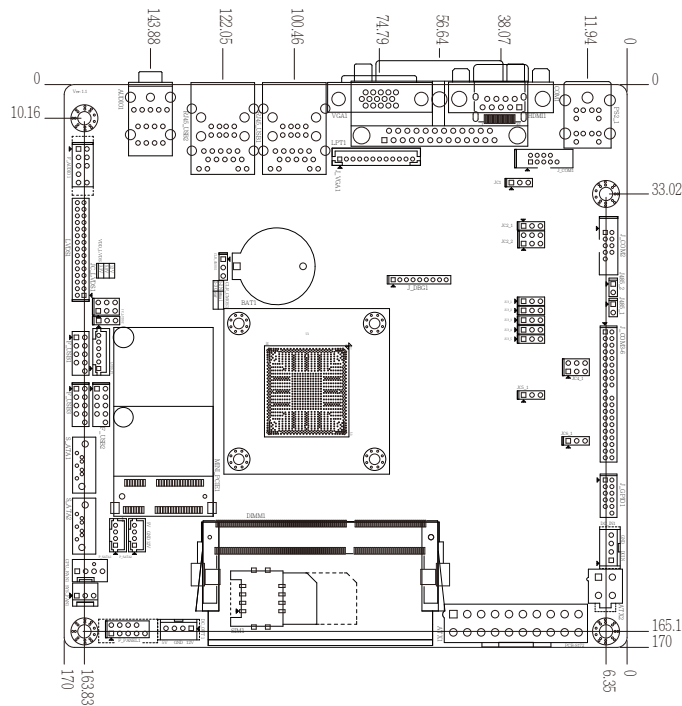
I/O

Ethernet	2 x GbE LAN
Expansion Slot	1 x mini PCIe
Ethernet Chip	2 x Realtek GbE LAN Chip (8105E/8111E)
Serial Port	4 x RS232 + 1 x RS232/RS485 + 1 x RS232/TTL
Parallel Port	1 x Parallel Port
USB	9 x USB2.0 (4XReal I/O + 5 x Pin Header.)
Audio	Realtek ALC662 5.1-channel High Definition Audio 1 x Line-out, 1 x MIC-in
GPIO	8 x GPIO
Keyboard	1 x PS/2 connector for Key Board/Mouse
SIM	1 x SIM slot

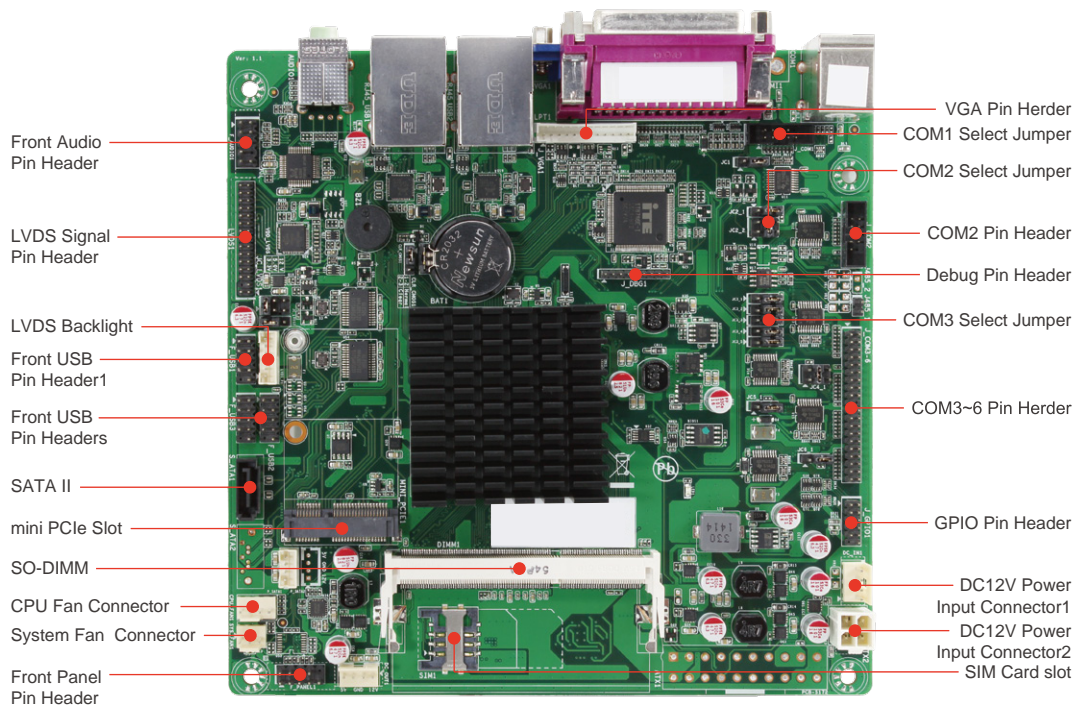
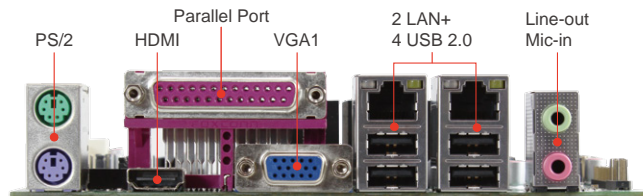
Power Requirement

Power Input	2 x 4-Pin AT power connector
Power Output	DC 12V/5V power output Connector, System Fan & CPU Fan connector

Dimension

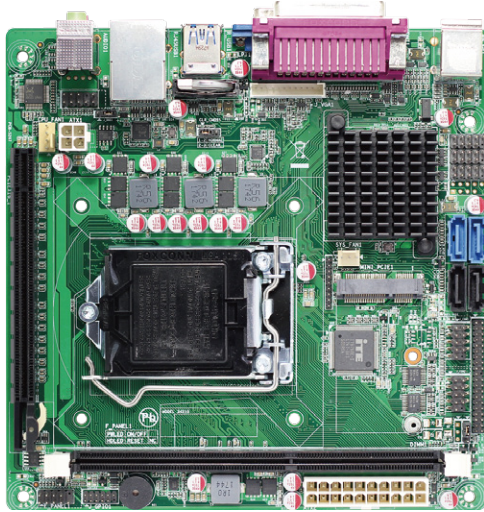


I/O Connectors



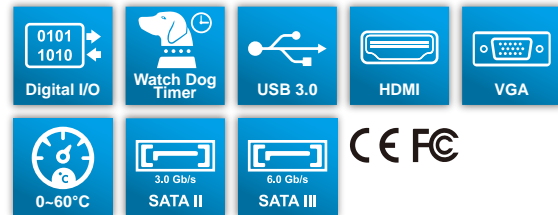
AMB-IH81T3

Intel® H81 Chipset with Haswell CPU Pentium®/ Celeron®/4th Generation Core i3/5/7,
1 x GbE, 6 x COM, 8 x USB2.0, 2 x USB3.0, 1 x PCIe x16, 1 x mini PCIe,



Features

- 1 x DDR3-1066/1333MHz, UDIMM, up to 8GB
- 1 x PCIe [16X]
- 1 x Mini PCIe,
- 1x GbE, 6 x COM
- 2 x USB 3.0, 8 x USB 2.0
- 2 x SATA 3.0, 2 x SATA 2.0



Specification

Specification

CPU	Intel® Haswell CPU Pentium®/Celeron®/4 th Gen Core CPU i3/5/7 Support Intel LGA1150 socket
Chipset	Intel® H81
Memory	1 x DDR3-1066/1333MHz, UDIMM, up to 8GB
BIOS	AMI UEFI BIOS

Video

Graphic Controller	Intel® HD Graphics
Video Interface	1 x VGA, 1 x HDMI

Storage

SATA	2 x SATA 2.0 Port + 2 x SATA 3.0 Ports
------	--

I/O

Expansion Slot	<ul style="list-style-type: none"> • 1 x PCIe Gen2 [16X] slot • 1 x Mini PCIe (PCIe + USB signal)
Ethernet	1 x GbE LAN
Ethernet Chip	1 x Realtek PCIe NIC RTL8105E
Serial Port	<ul style="list-style-type: none"> • 6 x RS232 ,(COM2: RS485 optional)
USB	<ul style="list-style-type: none"> • 6 x Header(USB2.0) • 2 x Rear I/O(USB2.0) • 2 x Rear I/O(USB3.0/USB2.0)
GPIO	8-bit Digital I/O
Audio	Realtek ALC662 5.1 Channel HDA Code 1 x MIC-in, 1 x Line out
Parallel Port	1 x Parallel Port
Keyboard	1 x PS/2 Header for Key Board/Mouse

Hardware Feature

WatchDog Timer	Software programmable from 1~255 seconds
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Power Requirement

Power Input	ATX PSU
Power Output	System Fan & CPU Fan connector

Software

OS Support	Windows 7 (32bit/64bit), Windows 8.1(32bit/64 bit), Windows 10 (32bit/64 bit)
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Mechanical & Environment

Dimensions	170mm x 170mm (6.69" x 6.69")
Weight	TBD
Operating Temp.	0~60°C
Storage Temp.	-20~ 70°C
Relative Humidity	5 to 90% , non-condensing
Safety	RoHS

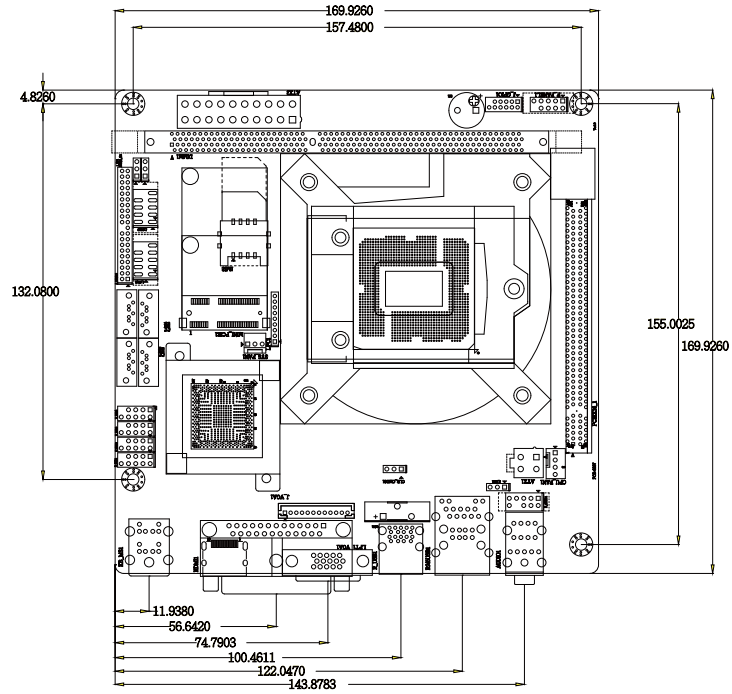
Packing List

- 1 x AMB-H81T3 M/B
- 1 x SATA cable
- 1 x SATA power cable
- 2 x COM cable
- 1 x 1 to 4 COM cable
- 1 x Driver CD
- 1 x Quick Guide
- 1 x I/O Shielding

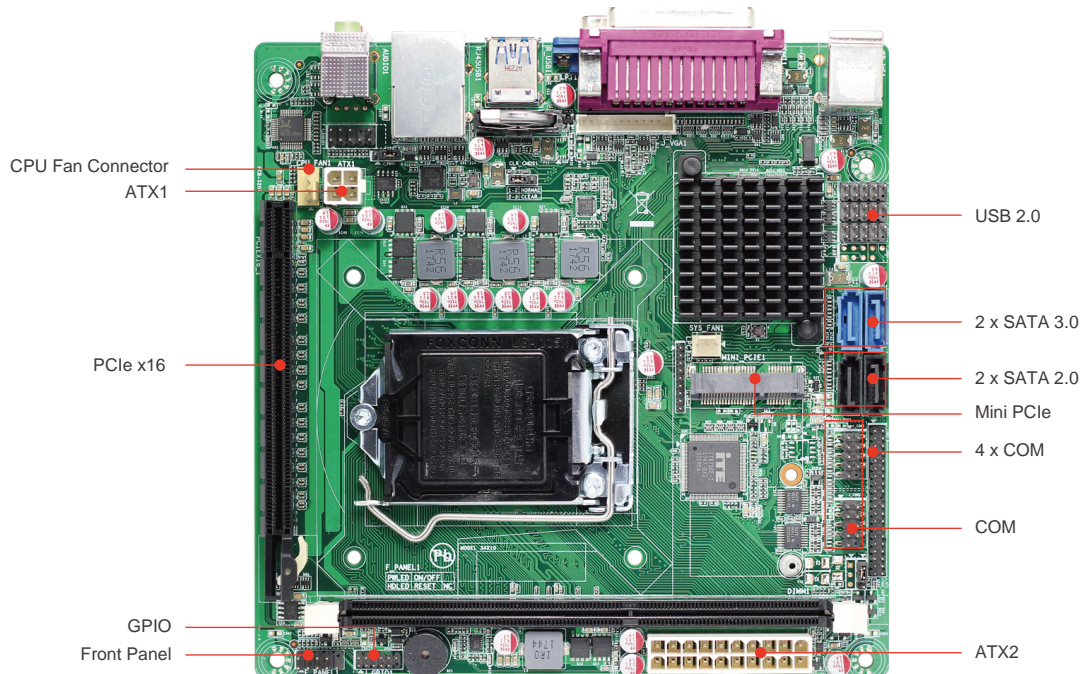
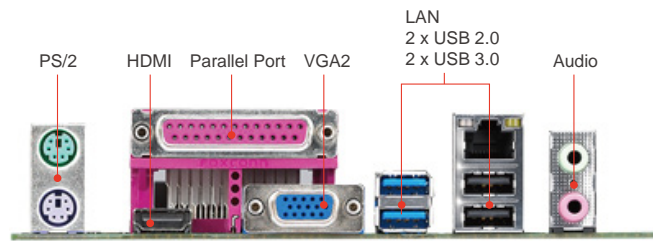
Ordering Information

AMB-IH81T3	Intel® H81 Chipset with Haswell CPU, 1 x GbE, 6 x COM, 8 x USB2.0, 2 x USB3.0, 1 x PCIe x16,1 x Mini PCIe,
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Dimensions

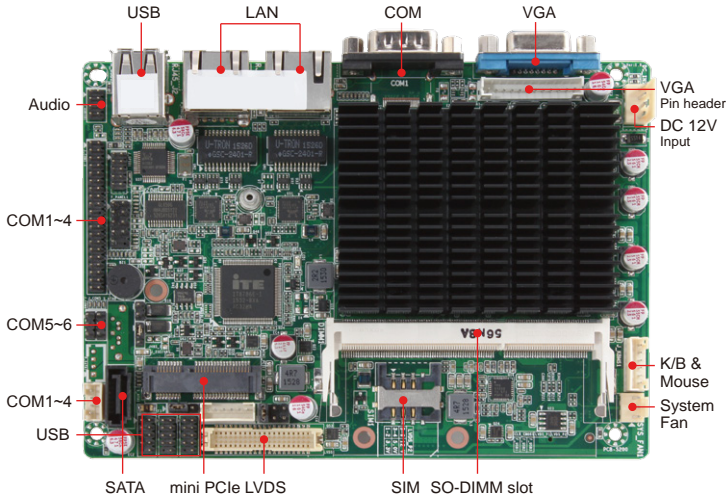


I/O Connectors



AMB-BT19S1

3.5" SBC Intel Bay Trail SoC, 1 x VGA, 1 x LVDS, 2 x GbE, 6 x COM, 8 x USB, 2 x mini PCIe, 1 x SATA II, 1 x mSATA



Features

- Intel Bay Trail SoC, low power consumption.
- 1 x DDR3L-1333MHz, SO-DIMM, up to 8GB
- 8 x USB port(2 x USB 3.0, 6 x USB 2.0), 6 x COM
- 2 x GbE LAN, 2 x mini PCIe, 1 x SIM slot
- 1 x SATA II, 1 x mSATA
- 12V Input
- Fanless design



Specification

Specification

CPU	1. Intel® Celeron® J1800, Dual-Core, 1M Cache, 2GHz (2.41GHz), 10W(AMB-BT18S1)
	2. Intel® Celeron® J1900, Quad-Core, 2M Cache, 2GHz (2.41GHz), 10W(AMB-BT19S1)
	3. Intel® Atom™ E3815, Single-Core, 0.5M Cache, 1.46GHz, 5W (AMB-BT15S1)
	4. Intel® Atom™ E3845, Quad-Core, 2M Cache, 1.91GHz, 10W (AMB-BT45S1)
Chipset	Intel Bay Trail SoC
Memory	1 x DDR3L-1333MHz, SO-DIMM, up to 8GB (AMB-BT19S1)
BIOS	AMI UEFI BIOS
Video	
Graphic Controller	Intel® HD Graphics
Video Memory	Shared Memory
Video Interface	<ul style="list-style-type: none"> • 1 x VGA (Resolution up to 2560 x 1600 @ 60Hz) • 1 x LVDS (24-Bit Dual channel LVDS, Resolution up to 1920x1200 @ 60Hz)
Storage	
SATA	1 x SATA II Port + 1 x mSATA
I/O	
Ethernet	2 x GbE LAN(Optional)
Expansion Slot	2 x mini PCIe
Ethernet Chip	2 x Realtek GbE LAN Chip
Serial Port	<ul style="list-style-type: none"> • COM1(DB9 connector) • COM6(RS232/485) • COM1~COM5 x RS232 2.0 pitch pin header
USB	• 8 x USB port(2 x USB 3.0, 6 x USB 2.0)
GPIO	8 bit Digital I/O
Audio	Realtek ALC888 5.1-channel High Definition Audio 1 x Line in, 1 x Line out
Keyboard	1 x PS/2 Header for Key Board/Mouse
SIM	1 x SIM slot
Power Requirement	
Power Input	4-Pin power connector
Power Output	1 x System FAN 3-Pin Power connector
Software	
OS Support	Windows 7 (32 bit/64 bit), Windows 8.1 (32 bit/64 bit) Linux (by request)

Mechanical & Environment

Dimension	146 x 105 mm (5.7" x 4")
Operating Temp.	0~60°C
Storage Temp.	-20~75°C
Safety	RoHS

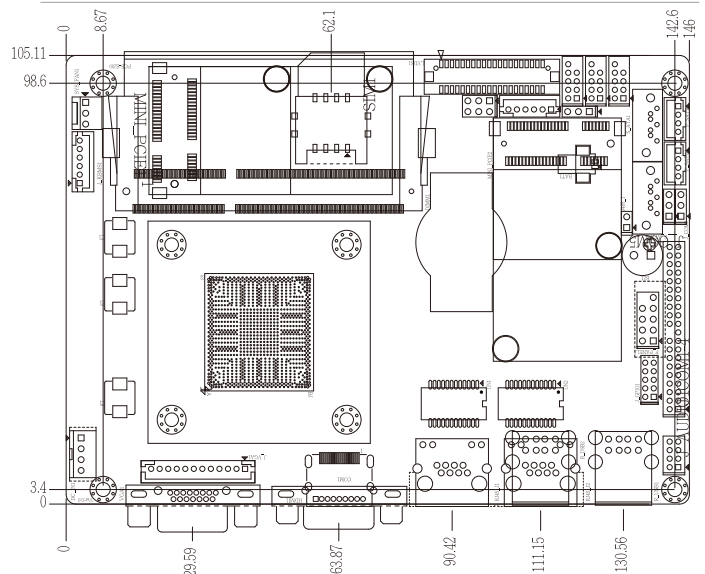
Packing List

- AMB-BT19S1
- Quick User Guide
- Driver CD
- SATA Cable

Ordering Information

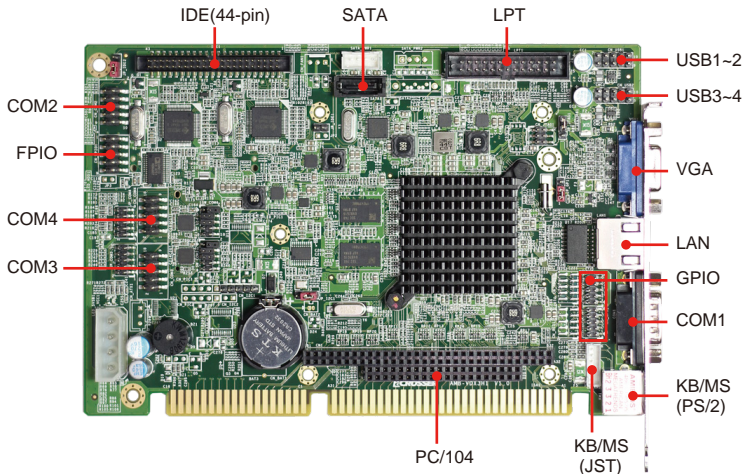
AMB-BT18S1	Intel Celeron J1800, Dual Core, 1M cache, 2GHz (2.41GHz), 10W (2 x LAN, 6 x COM)
AMB-BT19S1	Intel Celeron J1900, Quad Core, 2M cache, 2GHz (2.41GHz), 10W (2 x LAN, 6 x COM)
AMB-BT15S1	Intel Atom E3815, Single Core, 0.5M cache, 1.46GHz, 5W (2 x LAN, 6 x COM)
AMB-BT45S1	Intel Atom E3845, Quad Core, 2M cache, 1.91GHz, 10W (2 x LAN, 6 x COM)

Dimension



AMB-VDX3H1

Fanless ISA Bus DM&P Vortex86DX3 Dual core 1GHz SBC



Features

- Fanless Design
- Onboard DM&P Vortex86DX3 800MHz 1GHz dual core
- Onboard 1GB DDR3 SDRAM
- IDE, CF, SATA
- PC/104 & ISA Interface
- 4 x COM, 4 x USB 2.0, VGA, 1 xRJ45 10/100 Mbps LAN



Specification

System

CPU	Onboard DM&P Vortex86DX3 1GHz, dual core
Memory	Onboard DDR3 1GB SDRAM
BIOS	AMI
WatchDog Timer	Software programmable 0~255 sec.(0=disable)

Video

Graphic Controller	Integrated
Video Memory	shared with main memory(16/32MB)
Video Interface	1 x VGA (DB15)

Storage

IDE	1 x IDE (44-pin)
SATA	1 x SATA
CF	1 x CF Card

I/O

Ethernet	1 xRJ45 10/100 Mbps LAN
Expansion Slot	1 x PC/104, 1 x ISA gold finger
Serial Port	• 2 x RS-232 (1 x DB9) • 2 x RS-232/422/485 (Pin header)
USB	4 x USB 2.0 (4 x pin header)
GPIO	16-bit Digital I/O
Parallel Port	1 x LPT (1 x pin header)
Keyboard/Mouse	• 1 x PS/2 • 1 x JST

Power Requirement

Power Input	AT:5V + 12V input
-------------	-------------------

Software

OS Support	Windows XP, Wince 6.0, Windows 7 (32 bits)DOS,
------------	--

Mechanical & Environment

Dimension	185mm x 122mm (7.29" x 4.81")
Operating Temp.	0~60°C (32~140°F)
Storage Temp.	-20~80°C (-4~176°F)
Relative Humidity	0 to 90% @40°C, non-condensing
Safety	CE, FCC compliant

Packing List

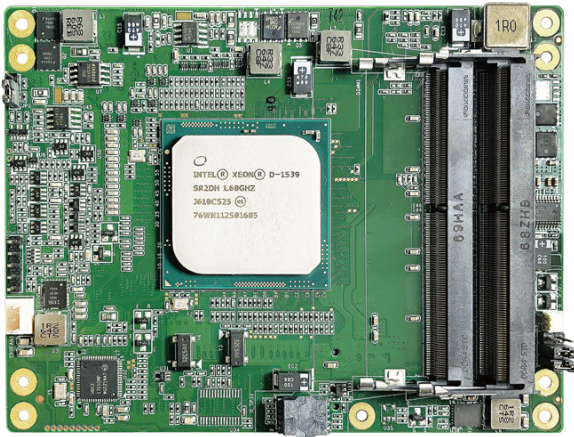
- 1 x AMB-VDX3H1
- 1 x Quick user guide
- 1 x Driver CD

Ordering Information

AMB-VDX3H1	1 x AMB-VDX3H1 (1GB Memory, 2 x RS232 + 2 x RS232/RS422/ RS485) 1 x Quick User Guide 1 x Utility CD
AMB-VDX3H1A	1 x AMB-VDX3H1A (1GB Memory, 2 x RS232) 1 x Quick User Guide 1 x Utility CD
AMB-VDX3H1B	1 x AMB-VDX3H1B (512MB Memory, 2 x RS232 + 2 x RS232/RS422/ RS485) 1 x Quick User Guide 1 x Utility CD
AMB-VDX3H1C	1 x AMB-VDX3H1C (512MB Memory, 2 x RS232) 1 x Quick User Guide 1 x Utility CD
Accessory	ACC-VDX3H1: 1 x 44-pin IDE cable 1 x Parallel port + DB9 cable w/bracket 1 x 2 port USB cable w/bracket 1 x KB/MS Y-cable

ACM-XD15B7

Intel Xeon D COM Express Basic Type 7 Module



Features

- Newest platform and highest performance
COM Express Basic Type 7
- The Intel Xeon D Processor
- Xeon® D1548 2.0/2.6GHz 12MB(8 core)
- Support Two DDR4 ECC SODIMM , up to 32GB
- 32 PCI-e Lanes
- 2 x 10 GbE KR & NC-SI



Specification

System

CPU	Xeon® D1548 (8 Core, 2.0/2.6GHz, 12MB cache, TDP 45W)
Chipset	Integrated in SoC processor
Memory	2 x 2400 DDR4 SODIMM(Support ECC function) up to 32GB Default configuration: 2 x 8GB
BIOS	AMI
WatchDog Timer	Software programmable 1~255 sec

Storage (Support by Carrier Board)

SATA	• 2 x SATA III with 6Gb/s
------	---------------------------

I/O (Support by Carrier Board)

Ethernet Chip	1 x Intel I210AT GbE Lan, supports PXE Boot 2 x 10 GbE with KR interface & NC-SI
Expansion Interface	24 x PCI-e 3.0 Lanes • 1 x PCI-e 3.0 x16 (or 2 x PCI-e x 8) • 1 x PCI-e 3.0 x 8 7 x PCI-e 2.0 Lanes • 6 x PCI-e 2.0 x1(AB connector) • 1 x PCI-e 2.0 x1(CD connector)
Serial Interface	2 x COM port Interface (TX/RX only)
USB	4 x USB 3.0, 8 x USB 2.0
GPIO	8-bit Digital I/O, 4-bit DI and 4-bit DO
Audio Codec	Intel HD Audio Channel

Software

OS Support	• Linux Kernel 4.9 & above
------------	----------------------------

Mechanical & Environment

Dimension	125 mm x 95 mm (4.92" x 3.74") COM Express Basic
Weight	TBD
Operating Temp.	0~60°C (32~140°F)
Storage Temp.	-20~80°C (-4~176°F)
Relative Humidity	0 to 90%, non-condensing
Safety	CE, FCC compliant

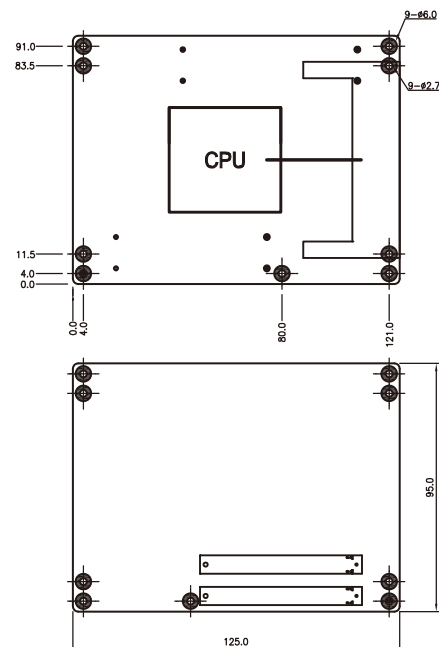
Packing List

- 1 x ACM-XD15B7
- 1 x CD Title
- 1 x Quick Guide

Ordering Information

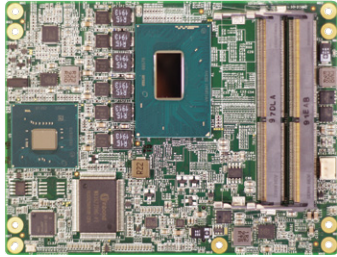
ACM-XD15B7	Intel Xeon D 1548 , COM Express Basic Type 7 Module
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Dimension



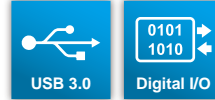
ACM-XE21B6

Intel Core i7 COM Express Basic Type 6 Module



Features

- Newest platform and highest performance COM Express Basic Type 6
- The Intel CM246 Chipset
- Intel® Core™ i7- 8850H Processor, 6T/12C, 9M Cache, 2.6GHz
- Support Two DDR4 SODIMM , up to 64GB
- 24 PCI-e Lanes
- 1x GbE



Specification

System

CPU	Intel® Core™ i7-8850H Processor (6 Core, 2.6/4.3GHz, 9MB cache, TDP 45W)
Chipset	Intel CM246
Memory	2 x 2666 DDR4 SODIMM up to 64GB, Default configuration: 32GB (2 x 16GB) : ACM-XE21B6 64GB (2 x 32GB) : ACM-XE21B6 64G
BIOS	AMI
WatchDog Timer	Software programmable 0~255 sec

Video(Support by Carrier Board)

Graphic Controller	Intel® UHD Graphics 630
Video Interface	1 x Analogic RGB Display Output,supports max resolution 2048 x 1536@75Hz 3 x DDI Port Output,supports max resolution up to 4096x2304@60Hz

Storage (Support by Carrier Board)

SATA	• 4 x SATA III with 6Gb/s
------	---------------------------

I/O (Support by Carrier Board)

Ethernet Chip	1 x Intel I210AT GbE Lan, supports PXE Boot
Expansion Interface	16 x PCI-e 3.0 Lanes • 1 x PCI-e 3.0 x16 (or 2 x PCI-e x 8)Select by Bios setting 8 x PCI-e 2.0 Lanes • 6 x PCI-e 2.0 x1(AB connector) • 2 x PCI-e 2.0 x1(CD connector)
Serial Interface	2 x COM port Interface (TX/RX only)
USB	4 x USB 3.1, 8 x USB 2.0
GPIO	8-bit Digital I/O, 4-bit DI and 4-bit DO
Audio Codec	Intel High Definition Audio

Software

OS Support	• Linux Kernel 4.14 & above
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Mechanical & Environment

Dimension	125 mm x 95 mm (4.92" x 3.74") COM Express Basic
Weight	TBD
Operating Temp.	0~60°C (32~140°F)

Storage Temp.	-20~80°C (-4~176°F)
Relative Humidity	0 to 90%, non-condensing
Safety	CE, FCC compliant

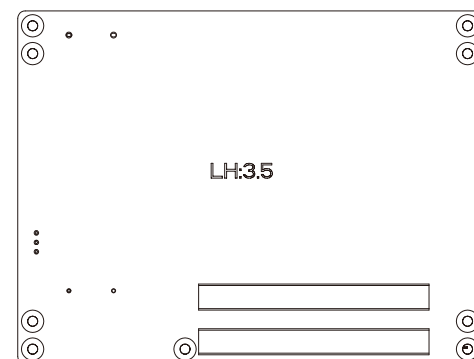
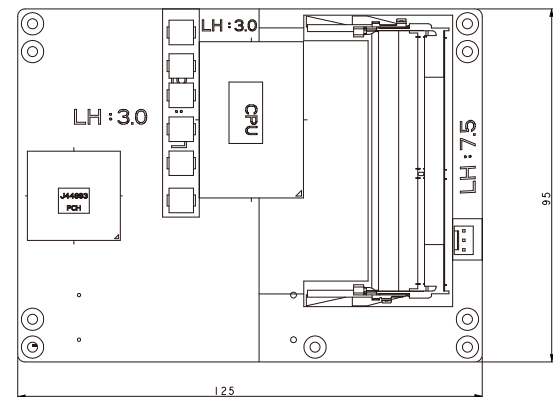
Packing List

- 1 x ACM-XE21B6
- 1 x CD Title
- 1 x Quick Guide

Ordering Information

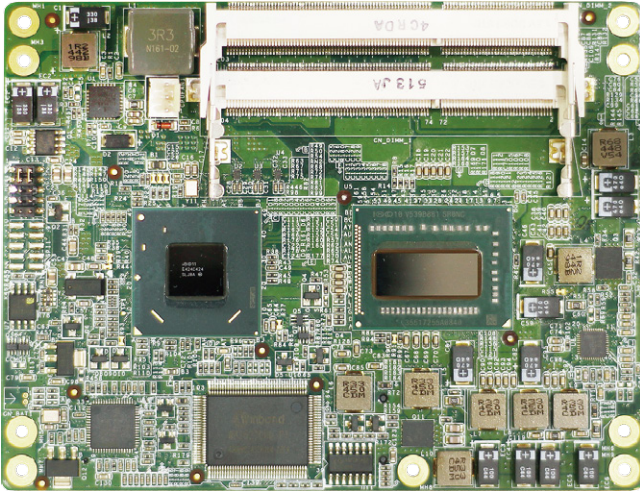
ACM-XE21B6	Intel core i7 8850H , COM Express Basic Type 6 Module with 32GB DDR4 Memory
ACM-XE21B6 64G	Intel core i7 8850H , COM Express Basic Type 6 Module with 64GB DDR4 Memory

Dimension



ACM-B6360

COM Express Intel QM77 Basic Type 6 Module



Features

- Newest platform and highest performance COM Express Basic Type 6
- The 3rd generation Intel Core platform + Intel QM77 Chipset
- Intel Core i7-3615QE processor
- Two 204-pin SO ECC-DIMM sockets support DDR3 SDRAM, up to 16GB



Specification

System

CPU	Intel Core i7-3615QE (Quad Core, 2.3GHz, 6MB L2 cache, TDP 45W)
Chipset	Intel 7 Series Mobile Express Chipset, QM77 Chipset
Memory	Two 204-pin SO-DIMM support DDR3 1600/1333 SDRAM, with ECC, up to 16GB
BIOS	AMI
WatchDog Timer	Software programmable 1~255 sec.

Video (Support by Carrier Board)

Graphic Controller	Intel GMA integrated in Processor
Video Interface	<ul style="list-style-type: none"> • 1 x Analogic RGB Display Output, supports max resolution 2048 x1536@75Hz • 1 x Dual Channel LVDS Output • 2 x DisplayPort 1.1 Output • 1 x SDVO/DisplayPort 1.1 Output

Storage (Support by Carrier Board)

SATA	<ul style="list-style-type: none"> • 2 x SATA III with 6Gb/s • 2 x SATA II with 3Gb/s
------	---

I/O (Support by Carrier Board)

Ethernet Chip	Intel 82574L GbE LAN supports iAMT 8.0 and PXE Boot
Expansion Interface	<ul style="list-style-type: none"> • 1 x PCI-E x16 Gen.3 • 6 x PCI-E x1
Serial Interface	2 x COM port Interface (TX/RX only)
USB	4 x USB 3.0, 8 x USB 2.0
GPIO	8-bit Digital I/O, 4-bit DI and 4-bit DO
Audio Codec	Intel HD Audio Channel

Power Requirement

Power Input	<ul style="list-style-type: none"> • 1 x 24-pin ATX Power Connector • 1 x 4-pin ATX 12V Power Connector
Power Consumption	TBD

Software

OS Support	<ul style="list-style-type: none"> • Windows XP Professional 32 bit • Windows 7 32 / 64-bit • Fedora 14 32 / 64-bit • Ubuntu 10 32 / 64-bit
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Mechanical & Environment

Dimension	125 mm x 95 mm (4.92" x 3.74") COM Express Basic
Weight	TBD
Operating Temp.	0~60°C (32~140°F)
Storage Temp.	-20~80°C (-4~176°F)
Relative Humidity	0 to 90%, non-condensing
Safety	CE, FCC compliant

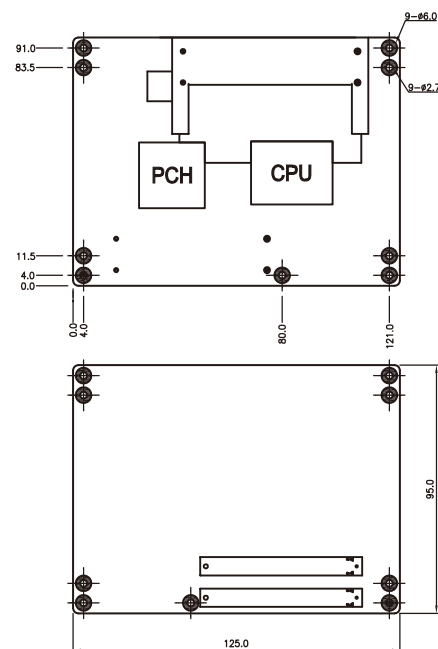
Packing List

- 1 x ACM-B6360
- 1 x CD Title
- 1 x Quick Guide
- 5 x Screw For Carrier Board

Ordering Information

ACM-B6360i73615	Intel QM77 with Core i7-3615QE COM Express Basic Type 6 Module
ACM-B4080	ATX Carrier Board COM Express Module

Dimension



Panel PC

Industrial Fanless Panel PC (PPC), Human Machine Interface (HMI) and Industrial Touch Screen PC / Stainless Panel PC range include Intel Atom, Celeron, Core 2 Duo, Core i. NEMA 4, IP65 enclosure with size of 5.7", 8", 10.4", 12.1", 15", 17" and 21" with touch screen. These panel PCs (Panel Computers) are designed specifically for industrial panel PC application such as industrial automation HMI, in vehicle, kiosk, digital signage, beverage and medical. Outstanding features of these industrial panel PCs include flat bezel, stainless steel, water proof and ultra slim. Open frame industrial PCs are also designed for flexibility.

Industrial Automation HMI

Human Machine Interface (HMI) and Industrial Touch Screen PC Solution



Fanless



FCC Class B
CE E-Mark



AR-PA807~817(P)FL

Intel Bay Trail N2930
7"/8"/10.1"/12.1"/15" /17" /21"
Industrial Compact Size Panel PC

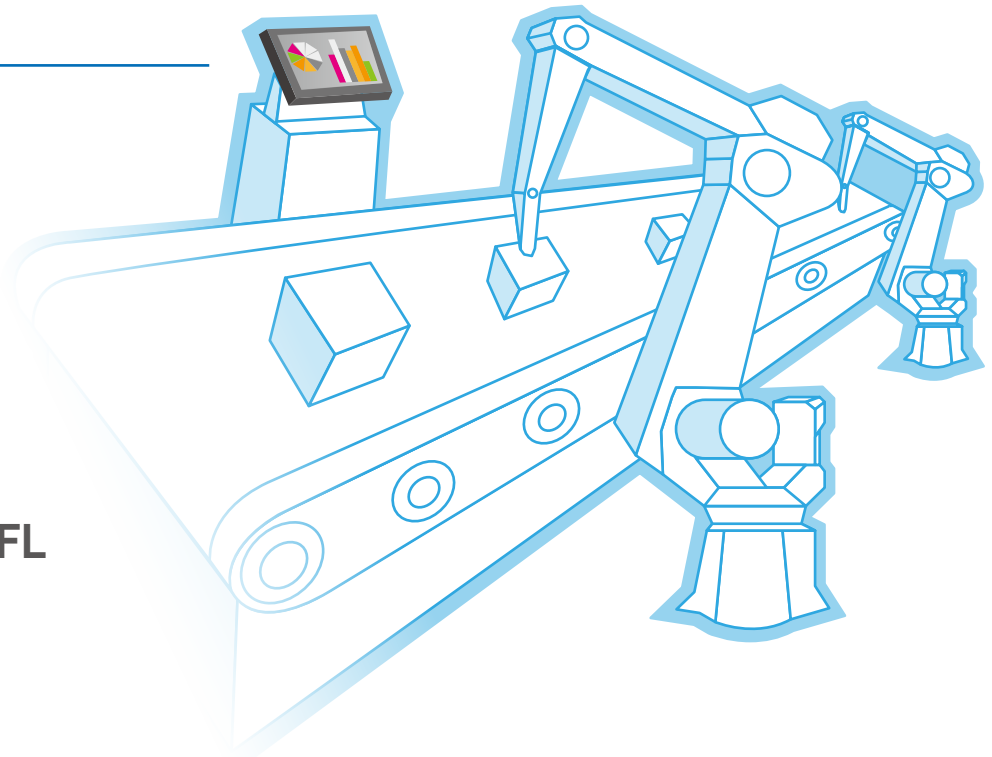


Table of Contents

Panel PC

CPU	LCD Size	Feature	Casing	Model Name	Page
Intel Bay Trail Atom Celeron N2930	7"	Industrial Panel PC	Aluminum Front / Metal Chassis	AR-PA807(P)FL	72
Intel Bay Trail Atom Celeron N2930	8"	Industrial Panel PC	Aluminum Front / Metal Chassis	AR-PA808(P)FL	72
Intel Bay Trail Atom Celeron N2930	10"	Industrial Panel PC	Aluminum Front / Metal Chassis	AR-PA810(P)FL	74
Intel Bay Trail Atom Celeron N2930	12"	Industrial Panel PC	Aluminum Front / Metal Chassis	AR-PA812(P)FL	74
Intel Bay Trail Atom Celeron N2930	15"	Industrial Panel PC	Aluminum Front / Metal Chassis	AR-PA815(P)FL	76
Intel Bay Trail Atom Celeron N2930	17"	Industrial Panel PC	Aluminum Front / Metal Chassis	AR-PA817(P)FL	76
Intel Celeron N2930	10"	Industrial Panel PC	Stainless steel enclosure	APC-MX810FL/GFL/PFL	78
Intel Celeron N2930	12"	Industrial Panel PC	Stainless steel enclosure	APC-MX812FL/GFL/PFL	78
Intel Celeron N2930	15"	Industrial Panel PC	Stainless steel enclosure	APC-MX815FL/GFL/PFL	78

AR-PA807~808(P)FL-N2930

Features

- 7"/8"/10.1"/12.1"/15" Industrial Compact Size Panel PC
- Flat front panel touch screen
- Fanless design
- Intel Bay Trail N2930(1.83GHz) CPU for option
- Onboard 4GB DDR3L-1600MHz / 4GB(option)
- 9~36VDC wide-ranging power input
- IP65 compliant front panel
- Optional projected capacitive touchscreen support 7H anti-scratch surface



Specification

Model Name	AR-PA807(P)FL-N2930	AR-PA808(P)FL-N2930
System		
CPU	Onboard Intel Bay Trail N2930(1.83GHz) Processor for option	
System Chipset	Intel Bay Trail SoC	
System Memory	Onboard 4GB DDR3L-1600MHz / 4GB(option)	
Display		
Display Type	7"	8"
Max. Resolution	800 x 480	800 x 600
Max. Color	262 K	262 K
Luminance (cd/m ²)	350	350
Contrast Ratio	400 : 1	500 : 1
View angle(H°/V°)	H:140° / V:110°	H:140° / V:125°
Backlight Lifetime	40,000(hrs)	40,000(hrs)
Touch screen - Resistive Touch Window Type		
Type	Resistive Touch Windows	
Interface	USB	
Light Transmission	Resistive Touch Windows: 80%	
Touch screen - Projected Capacitive Type		
Type	Projected Capacitive Touch(For P Model)	
Interface	USB	
Light Transmission	Projected Capacitive Touch: 90%	
I/O Port		
USB	1 x USB 2.0 type A + 1 x USB 3.0 type A	
Serial/Parallel	1 x RS-232 DB-9(COM2) + 1 x DB-9 RS-232/422/485 (Default RS-232)(COM1)	
Audio/HDMI	1 x Audio Line Out / 1 x HDMI Port (reserved, no printing)	
LAN	2 x GbE LAN RJ-45	
Power	1 x 3-pin Terminal Block DC Power input + 1 x 2-pin connector for power on/off button	
Storage		
HDD	1 x SATA MO-297 SSD bay (Easy Accessible)	
Movable device	1 x SD card slot, up to 32GB	
Expansion		
On board expansion bus	1 x Internal mini PCIe slot (full size)	
Power Requirement		
Power Input	9~36V DC	
Power Consumption	Max:14.1W / 13.7W(P)	Max:10.8W / 13.9W(P)
Software		
OS Support	Windows Embedded Compact 7, Windows Embedded Standard 7, Windows Embedded 8 Standard, Windows Embedded 8.1 Industry Windows 10 IoT Enterprise 2015 LTS13	

Mechanical

Color	RAL 9007		
Construction	Aluminum Die-casting Front Bezel and Chassis		
Mounting	Panel Mounting, VESA 75 x 75		
Dimension (mm)	202 x 149 x 40		231 x 176 x 50
Net Weight (KG)	1.2 Kg		1.9 Kg

Environmental

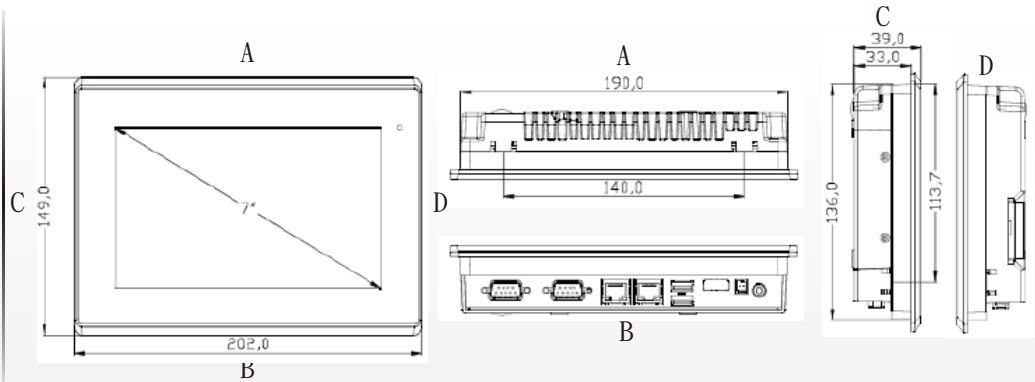
Operating temperature(°C)	0~50°C
Storage temperature(°C)	-20~60°C
Storage humidity	10 to 90% @ 40°C, non- condensing
Certification	CE, FCC CLASS A, CB, UL

Ordering Information

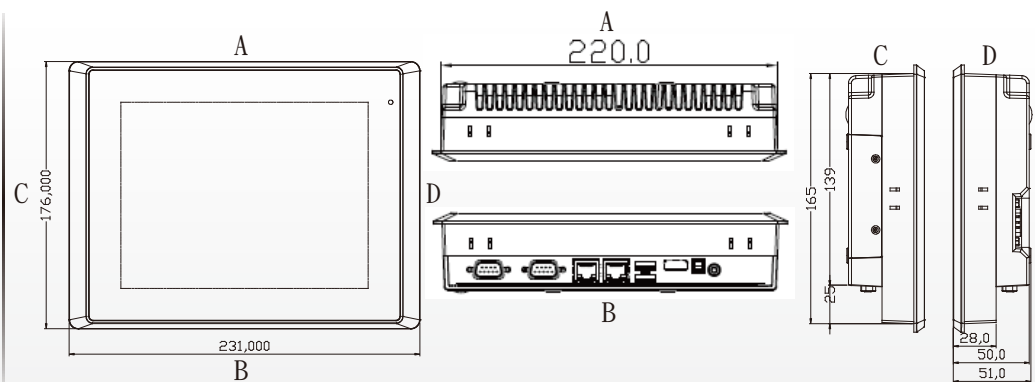
AR-PA807(P)FL	7" WVGA Fanless HMI barebone with Intel N2930 CPU, 4GB DDR3L RAM, Resistive touch screen, 9~36V DC input with adapter / Projected Capacitive touch screen, Aluminum chassis
AR-PA808(P)FL	8" SVGA Fanless HMI barebone with Intel N2930 CPU, 4GB DDR3L RAM, Resistive touch screen, 9~36V DC input with adapter / Projected Capacitive touch screen, Aluminum chassis

Dimension

AR-PA807(P)FL



AR-PA808(P)FL



AR-PA810~812(P)FL-N2930

Features

- 7"/8"/10.1"/12.1"/15" Industrial Compact Size Panel PC
- Flat front panel touch screen
- Fanless design
- Intel Bay Trail N2930(1.83GHz) CPU for option
- Onboard 4GB DDR3L-1600MHz / 4GB(option)
- 9~36VDC wide-ranging power input
- IP65 compliant front panel
- Optional projected capacitive touchscreen support 7H anti-scratch surface



Specification

Model Name	AR-PA810(P)FL-N2930	AR-PA812(P)FL-N2930
System		
CPU	Onboard Intel Bay Trail N2930(1.83GHz) Processor for option	
System Chipset	Intel Bay Trail SoC	
System Memory	Onboard 4GB DDR3L-1600MHz / 4GB(option)	
Display		
Display Type	10.1"	12.1"
Max. Resolution	1280 x 800	800 x 600
Max. Color	262 K	262 K
Luminance (cd/m ²)	350	450
Contrast Ratio	800 : 1	800 : 1
View angle(H°/V°)	H:160° / V:160°	H:160° / V:140°
Backlight Lifetime	40,000 (hrs)	50,000 (hrs)
Touch screen - Resistive Touch Window Type		
TS Control IC	Resistive Touch Windows	
Interface	USB	
Light Transmission	Resistive Touch Windows: 80%	
Touch screen - Projected Capacitive Type		
TS Control IC	Projected Capacitive Touch(For P Model)	
Interface	USB	
Light Transmission	Projected Capacitive Touch: 90%	
I/O Port		
USB	1 x USB 2.0 type A + 1 x USB 3.0 type A	
Serial/Parallel	1 x RS-232 DB-9(COM2) + 1 x DB-9 RS-232/422/485 (Default RS-232)(COM1)	
Audio/HDMI	1 x Audio Line Out / 1 x HDMI Port (reserved, no printing)	
LAN	2 x GbE LAN RJ-45	
Power	1 x 3-pin Terminal Block DC Power input + 1 x 2-pin connector for power on/off button (Only for AR-PA810(P)FL, AR-PA812(P)FL, and AR-PA815(P)FL)	
Option	2 x RS-232 DB-9 + 1 x mini PCIe slot via TB-528C2ME1 / 2 x CAN bus via TB-528CAN2 / 2 x USB 2.0 type A Via TB-528U2 2 x USB 2.0 type A + 1 x mini PCIe slot + 1 x RS-232 DB-9 via TB-528C1U2P1 for AR-PA812(P)FL 2 x USB 2.0 type A + 1 x mini PCIe slot + 1 x RS-232 DB-9 via TB-528C1U2 for AR-PA810(P)FL	
Storage		
HDD	1 x 2.5" SATA HDD bay for SATA HDD (Easy Accessible)	
Movable device	1 x SD card slot, up to 32GB	
Software		
OS Support	Windows Embedded Compact 7, Windows Embedded Standard 7, Windows Embedded 8 Standard, Windows Embedded 8.1 Industry Windows 10 IoT Enterprise 2015 LTS13	

Expansion

On board expansion bus 1 x Internal mini PCIe slot full size

Power Requirement

Power Input 9~36V DC

Power Consumption Max:11.2W / 14W(P) Max:14.6W / 15.2W(P)

Mechanical

Color RAL 9007

Construction Aluminum Die-casting Front Bezel and Chassis

Mounting Panel Mounting, VESA 100 x 100

Dimension (mm) 285 x 189 x 48.9 319 x 245 x 51.7

Net weight (Kg) 1.9 Kg 2.5 Kg

Environmental

Operating temperature(°C) 0~50°C

Storage temperature(°C) -20~60°C

Storage humidity 10 to 90% @ 40°C, non- condensing

Certification CE, FCC CLASS A, CB, UL

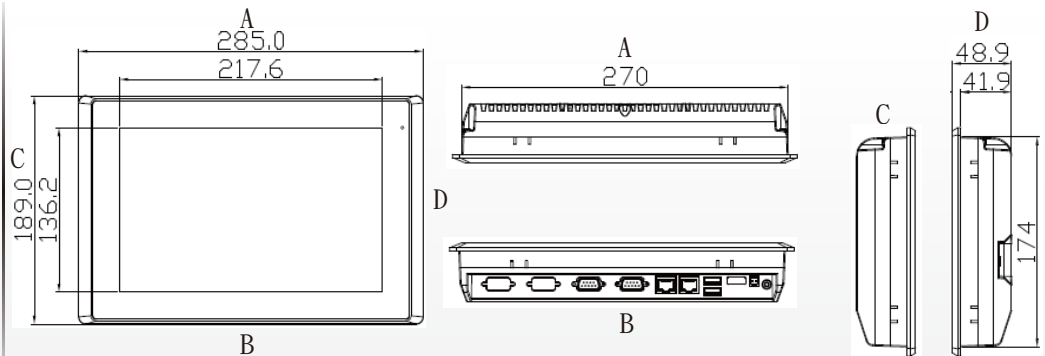
Ordering Information

AR-PA810(P)FL 10.1" WVGA Fanless HMI barebone with Intel N2930 CPU, 4GB DDR3L RAM, Resistive touch screen / Projected Capacitive touch screen, 9~36V DC input with adapter Aluminum chassis

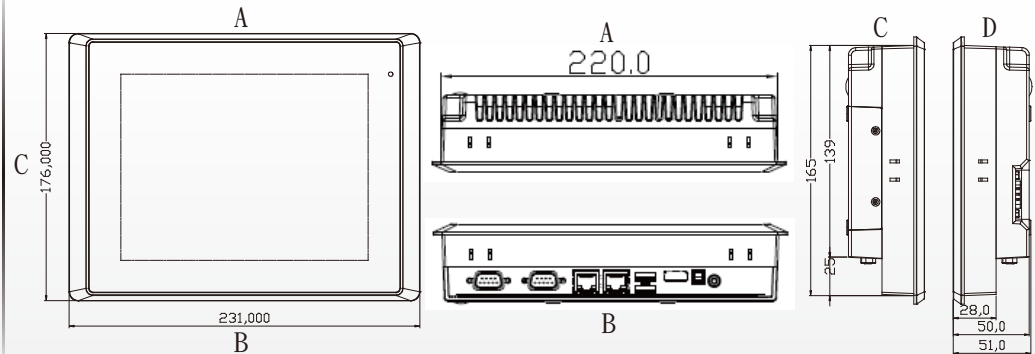
AR-PA812(P)FL 12.1" SVGA Fanless HMI barebone with Intel N2930 CPU, 4GB DDR3L RAM, Resistive touch screen / Projected Capacitive touch screen, 9~36V DC input with adapter Aluminum chassis

Dimension

AR-PA810(P)FL



AR-PA812(P)FL



AR-PA815~817(P)FL-N2930

Features

- 15"/17"/21" Industrial Compact Size Panel PC
- Flat front panel touch screen
- Fanless design
- Intel Bay Trail N2930(1.83GHz) CPU for option
- Onboard 4GB DDR3L-1600MHz / 4GB(option)
- 9~36VDC wide-ranging power input
- IP65 compliant front panel
- Optional projected capacitive touchscreen support 7H anti-scratch surface



Specification

Model Name	AR-PA815(P)FL-N2930	AR-PA817(P)FL-N2930
System		
CPU	Onboard Intel Bay Trail N2930(1.83GHz) Processor for option	
System Chipset	Intel Bay Trail SoC	
System Memory	Onboard 4GB DDR3L-1600MHz / 4GB(option)	
Display		
Display Type	15" color TFT LCD	17"
Max. Resolution	1024 x 768	1280 x 1024
Max. Color	262 K	16.2 M
Luminance (cd/m ²)	350	350
Contrast Ratio	800 : 1	1000 : 1
View angle(H°/V°)	H:160° / V:145°	H:160° / V:170°
Backlight Lifetime	50,000 hrs	30,000 hrs
Touch screen		
Type	Resistive Touch Windows / Projected Capacitive Touch(For P Model)	
Interface	USB	
Light Transmission	Resistive Touch Windows: 80% / Projected Capacitive Touch: 90%	
I/O Port		
USB	1 x USB 2.0 type A + 1 x USB 3.0 type A	
Serial/Parallel	1 x RS-232 DB-9(COM2) + 1 x DB-9 RS-232/422/485 (Default RS-232)(COM1)	
Audio/HDMI	1 x Audio Line Out / 1 x HDMI Port (Reserved, no printing)	
LAN	2 x GbE LAN RJ-45	
Power	1 x 3-pin DC Power input terminal + 1 x 2-pin connector for power on/off button	
Option	(Only for AR-PA815(P)FL, AR-PA817(P)FL) 2 x RS-232 DB-9 + 1 x mini PCIe slot via TB-528C2ME1 2 x CAN bus via TB-528CAN2 2 x USB 2.0 type A Via TB-528U2 2 x USB 2.0 type A + 1 x mini PCIe slot + 1 x RS-232 DB-9 via TB-528C1U2P1 for AR-PA815(P)FL 2 x USB 2.0 type A + 1 x mini PCIe slot + 1 x RS-232 DB-9 via TB-528C1U2P1	
Storage		
HDD	1 x 2.5" SATA HDD bay for SATA HDD (Easy Accessible)	
Movable device	1 x SD card slot, up to 32GB	
Software		
OS Support	Windows Embedded Compact 7, Windows Embedded Standard 7, Windows Embedded 8 Standard, Windows Embedded 8.1 Industry Windows 10 IoT Enterprise 2015 LTS13	

Expansion

On board expansion bus 1 x Internal mini PCIe slot (full size)

Power Requirement

Power Input 9~36V DC
 Power Consumption Max:17.8W | Max:20.3W / 18.1W(P)

Mechanical

Chassis Color RAL 9007
 Front Bezel Metal Aluminum / Panel Mounting
 Rear Panel Metal Aluminum / VESA Mount 100 x 100
 IP Rating IP65 Compliant Front Panel
 Dimension (mm) 410 x 310 x 54.7 | 412 x 277.5 x 60.4
 Net Weight (KG) 4.4 Kg | 4.8 Kg

Environmental

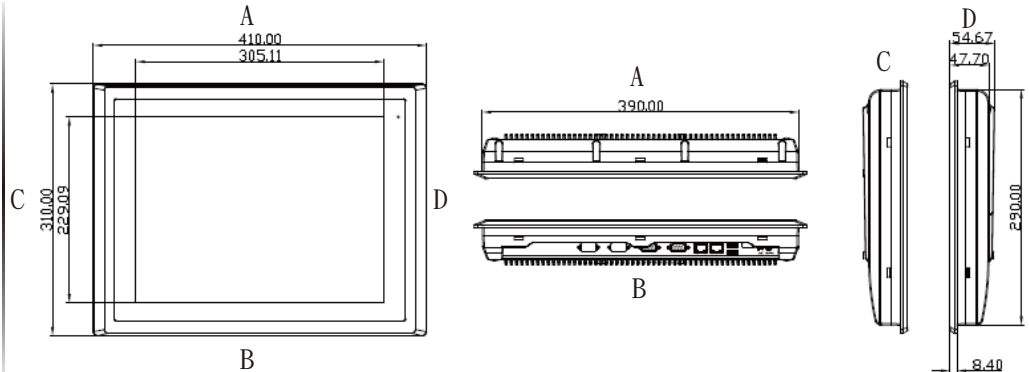
Operating temperature(°C) 0~50°C
 Storage temperature(°C) -20~60°C
 Storage humidity 10 to 90% @ 40°C, non- condensing
 Certification CE, FCC CLASS A, CB, UL

Ordering Information

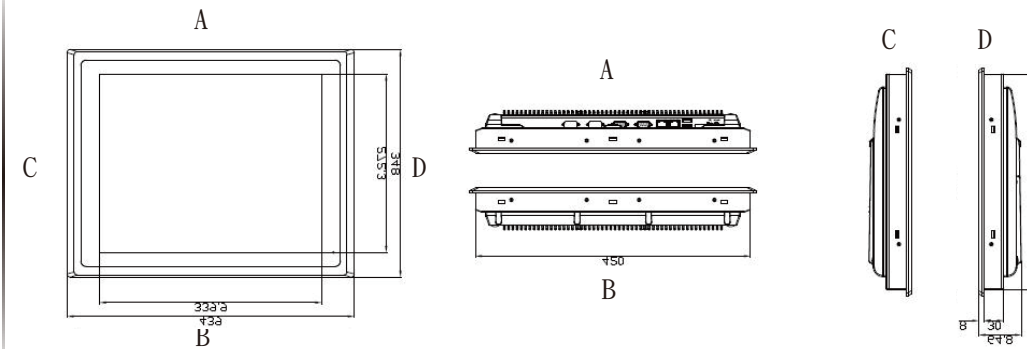
AR-PA815(P)FL 15.6" WXGA Fanless HMI barebone with Intel N2930 CPU, 4GB DDR3L RAM, Resistive touch screen / Projected Capacitive touch screen, 9~36V DC input with adapter Aluminum chassis
 AR-PA817(P)FL 17" SXGA Fanless HMI barebone with Intel N2930 CPU, 4GB DDR3L RAM, Resistive touch screen / Projected Capacitive touch screen, 9~36V DC input with adapter Aluminum chassis

Dimension

AR-PA815(P)FL



AR-PA817(P)FL



APC-MN8XXFL/GFL/PFL

Features

- 10.1"/12.1"/15" TFT-LCD Touch monitor(GFL w/o touch).
- Intel Celeron N2930 1.83GHz Onboard Processor.
- True Flat Front Bezel and Grade 304 Stainless Steel Enclosure (Grade 316 for Option).
- IP66/IP69K Rated with M12 Connectors.
- Touch on/off Button on the Side Edge for Hygienic Cleaning.



Specification

Model Name	APC-MN810FL / GFL / PFL	APC-MN812FL / GFL / PFL	APC-MN815FL / GFL / PFL
System			
CPU	Onboard Intel Celeron N2930(1.83GHz) Processor		
System Memory	Onboard 4GB DDR 3L 1600 MHz/8GB (optional)		
Display			
Display Type	10.1" TFT-LCD	12.1" TFT-LCD	15." TFT-LCD
Max. Resolution	1280 x 800	800 x 600 / 1024x768(optional)	1024 x 768
Max. Color	16.7 M	262K, 16.2M	16.7 M
Luminance (cd/m ²)	350	450, 500	420
Contrast Ratio	800:1	800:1, 700:1	800:1
View angle(H°/V°)	H:170° / V:170°	H:160° / V:150°, H:160° / V:140°	H:160° / V:160°
Backlight Lifetime	15,000(hrs)	50,000 / 30,000(hrs)	50,000(hrs)
Touch screen			
Type	FL:R Touch / PFL :P Touch		
Interface	USB		
Light Transmission(%)	80%		
Storage			
HDD	1 x 2.5" HDD/SSD		
I/O Port			
USB	1 x M12 8-pin for USB 2.0 with waterproof cap		
Serial/Parallel	1 x M12 8pin for COM 1, RS-232/422/485, Default RS-232, with waterproof cap		
LAN	1 x M12 8pin for LAN with waterproof cap		
Power	1 x Touch on/off button on the side		
Expansion			
On board expansion bus	1 x Mini PCIe slot for WIFI/BT (optional)		
Power Requirement			
Power Input	9~36V DC		
Power Consumption	TBD	Max:18.9W	TBD
Software			
OS Support	Windows 7 Embedded Enterprise,Windows Embedded Standard 7, Windows Embedded 8.1 Pro,Windows Embedded 8.1 Industry Pro,Windows 10 IoT 2016		
Mechanical			
Construction	Stainless steel enclosure		
IP Rating	IP66 / IP69K		
Mounting	VESA 75 x 75, Yoke mount	VESA 75 x 75, Yoke mount	VESA 75 x 75, Yoke mount
Dimension (mm)	300 x 220 x 53	335 x 265 x 53	399 x 324 x 53
Net weight(Kgs)	4 kg	5 kg	7 kg

Environmental

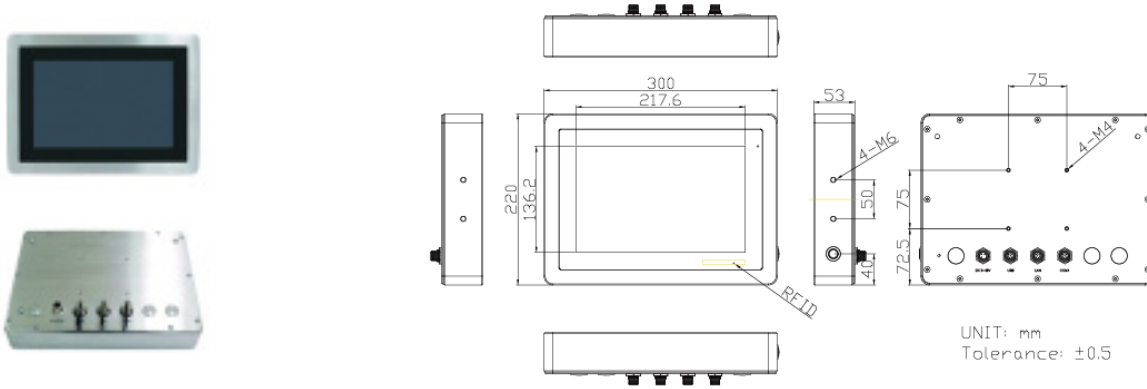
Operating temperature(°C)	-20~60°C
Storage temperature(°C)	-30~70°C
Storage humidity	10 to 90% @ 40°C, non- condensing
Certification	CE, FCC Class A,

Ordering Information

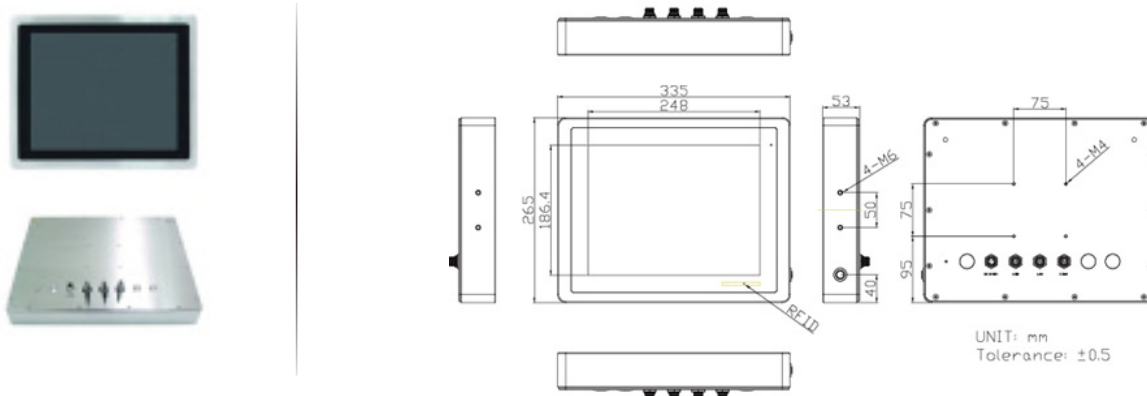
APC-MN810FL	10.1" WXGA IP66/IP69K stainless steel panel pc, Celeron N2930(1.83.GHz) CPU, 4GB DDR3L RAM, 32G MLC SSD, (FL:5 wire resistive touch , PFL= projected capacitive touch, GFL: w/o touch), 9~36V DC power input with Adapter. Accessory : 1 x M12 USB Cable
APC-MN812FL	12.1" SVGA IP66/IP69K stainless steel panel pc, Celeron N2930(1.83.GHz) CPU, 4GB DDR3L RAM, 32G MLC SSD, (FL:5 wire resistive touch , PFL= projected capacitive touch, GFL: w/o touch), 9~36V DC power input with Adapter. Accessory : 1 x M12 USB Cable
APC-MN815FL	15" XGA IP66/IP69K stainless steel panel pc, Celeron N2930(1.83.GHz) CPU, 4GB DDR3L RAM, 32G MLC SSD, (FL:5 wire resistive touch , PFL= projected capacitive touch, GFL: w/o touch), 9~36V DC power input with Adapter. Accessory : 1 x M12 USB Cable

Dimension

APC-MN810FL/GFL/PFL



APC-MN812FL/GFL/PFL



APC-MN815FL/GFL/PFL

