

ACO-6011E series

Surveillance Applied System with LGA 1151 for Intel® 6th/7th Gen Processor and Q170 PCH, 2x LAN, 1x PCIe x16 Expansion



SPECIFICATIONS

System

Processor

Support 6th & 7th Gen Intel® Core™ i7 / i5 / i3 / Pentium® / Celeron® Desktop Processor (LGA 1151)

- 7th Gen Intel® Core™ i7-7700T, Quad Core, 8MB cache, up to 3.8 GHz
- 7th Gen Intel® Core™ i5-7500T, Quad Core, 6MB cache, up to 3.3 GHz
- 7th Gen Intel® Core™ i3-7101TE, Dual Core, 3MB Cache, 3.4 GHz
- 6th Gen Intel® Core™ i7-6700TE, Quad Core, 8MB cache, up to 3.4 GHz
- 6th Gen Intel® Core™ i5-6500TE, Quad Core, 6MB Cache, up to 3.3 GHz
- 6th Gen Intel® Core™ i3-6100TE, Dual Core, 4MB Cache, 2.7 GHz
- Intel® Pentium® G4400TE, Dual Core, 3MB Cache, 2.4 GHz
- Intel® Celeron® G3900TE, Dual Core, 2MB Cache, 2.3 GHz

System Chipset Intel® Q170 Express Chipset

LAN Chipset GbE1: Intel® I210-AT (Support Wake-on-LAN and PXE)
GbE2: Intel® I219LM (Support Wake-on-LAN and PXE)
GbE3-GbE10: Intel® I350-AM4 (Optional)

Audio Codec Realtek ALC888S

System Memory 2x 260-Pin DDR4 1866/2133MHz SODIMM. Max. up to 32GB

BIOS AMI 128Mbit SPI BIOS

Watchdog Software Programmable Supports 1~255 sec. System Reset
TPM TPM 2.0

Display

VGA Yes (by optional split cable)

DVI 1x DVI-I

DisplayPort 2x DisplayPort

Multiple Display Triple Display

Storage

SSD/HDD 2x Internal 2.5" SATA HDD Bay
2x Removable 2.5" SATA HDD Bay
Support RAID 0, 1, 5, 10

mSATA 2x mSATA (Shared by 2x Mini PCIe)

SIM Socket 2x External SIM socket, 1x Internal SIM socket

Expansion

Mini PCI Express 3x Full-size Mini PCIe

PCI Express 1x PCIe x16

4-Port GbE (Optional) 4-port GbE module with Intel® I350-AM4 Chipset, RJ-45 or M12 connector (PoE optional)
Occupied one Universal I/O Slot

2-Port GbE (Optional) 2-Port RJ45 10GbE with Intel X710-AT2 Chipset
Occupied one Universal I/O Slot

4-Port USB (Optional) 4-Port USB with Renesas uPD720201K8 host controller
Occupied one Universal I/O Slot

FEATURES

- LGA 1151 socket for 6th/7th Gen. Intel® Core™ i7/i5/i3 or Pentium® / Celeron® Desktop Processor
- Intel® Q170 chipset
- 2x 260-pin DDR4 SODIMM. max up to 32GB
- Triple independent display supported by 1x DVI-I and 2x DisplayPort
- 2x Intel® GbE supporting Wake-on-LAN and PXE
- 4x 2.5" SATA HDD bay and 2x mSATA supporting RAID 0, 1, 5, 10
- 3x full-size mini PCIe for communication or expansion modules, 3x SIM socket
- 2x universal bracket (for mini PCIe application)
- 5x RS-232/422/485 (w/ 3x internal), 6x USB 3.0, 2x USB 2.0 (internal), TPM 2.0
- 1x PCIe x16 expansion
- 8x DI + 8x DO with isolation
- 9 to 48VDC wide range power input supporting AT/ATX mode
- -25°C to 70°C extended operating temperature
- Power ignition management

Card Dimension 235 (L) x 112 (H) mm

I/O

COM 2x RS-232/422/485, 3x RS-232/422/485 (internal)

USB 6x USB 3.0, 2x USB 2.0 (internal)

LAN 2x RJ45

Audio 1x Mic-in, 1x Speaker-out

DIO 8 in / 8 out (Isolated)

Universal I/O Bracket 3x Universal I/O Bracket (By mini PCIe interface)

Others 6x WiFi Antenna Holes
1x Power Switch, 1x AT/ATX Switch, 1x Remote Power On/Off

Operating System

Windows 6th Gen CPU: Windows 10, Windows 7, WES7
7th Gen CPU: Windows 10

Linux Linux kernel 4.X

Power

Power Mode AT, ATX

Power Supply Voltage 9~48VDC

Power Ignition Power Ignition Management
Sensing

Power Connector 3-pin Terminal Block

Power Adaptor Optional AC/DC 24V/5A, 120W
Optional AC/DC 24V/9.2A, 220W

Power Protection OVP (Over Voltage Protection)
OCP (Over Current Protection)
Reverse Protection

Environment

Operating Temp. -25°C to 70°C

Storage Temp. -30°C to 85°C

Relative Humidity 10% to 95% (non-condensing)

Vibration With SSD: 5 Grms, 5 - 500 Hz, 0.5 hr/axis
With HDD: 1 Grms, 5 - 500 Hz, 0.5 hr/axis

Shock With SSD: 50G, half sine, 11ms

Standards / Certification CE, FCC Class A, E-Mark,
EMC Conformity with EN50155 & EN50121-3-2

Physical

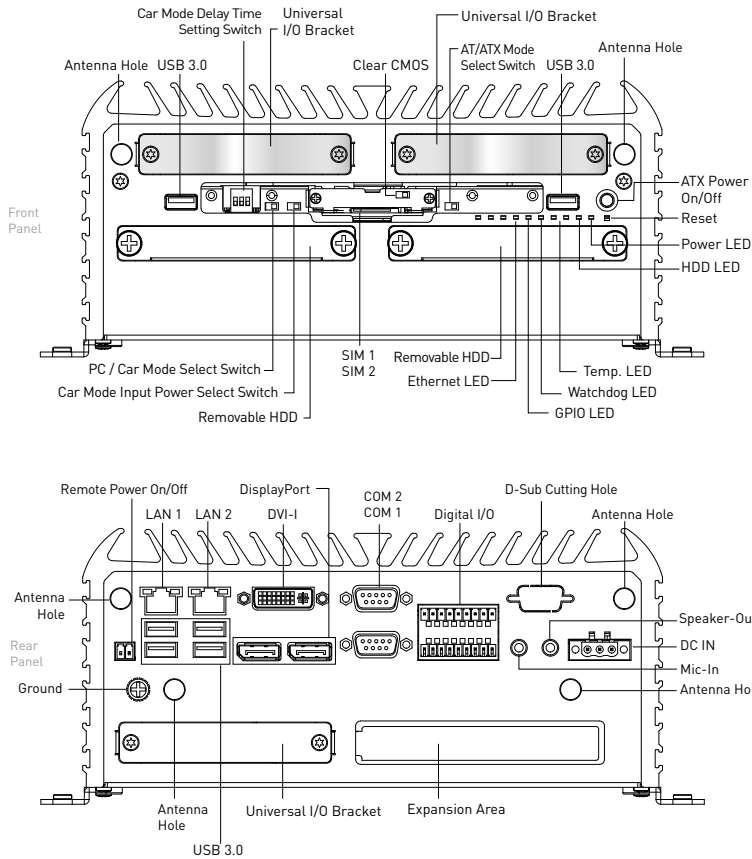
Construction Extruded Aluminum with Heavy Duty Metal

Dimension 240 (W) x 261 (D) x 107 (H) mm

Weight 5.14 ~ 6.18 kg

Mounting Wall Mounting

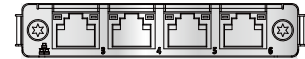
EXTERNAL I/O MECHANICAL LAYOUT



Universal I/O Bracket



LAN Port
PoE Port



ACO-6011E-4L / ACO-6011E-8L
ACO-6011E-4P / ACO-6011E-8P



M12 LAN Port
M12 PoE Port



ACO-6011E-4L-M12 / ACO-6011E-8L-M12
ACO-6011E-4P-M12 / ACO-6011E-8P-M12



D10G Port



ACO-6011E-D10G



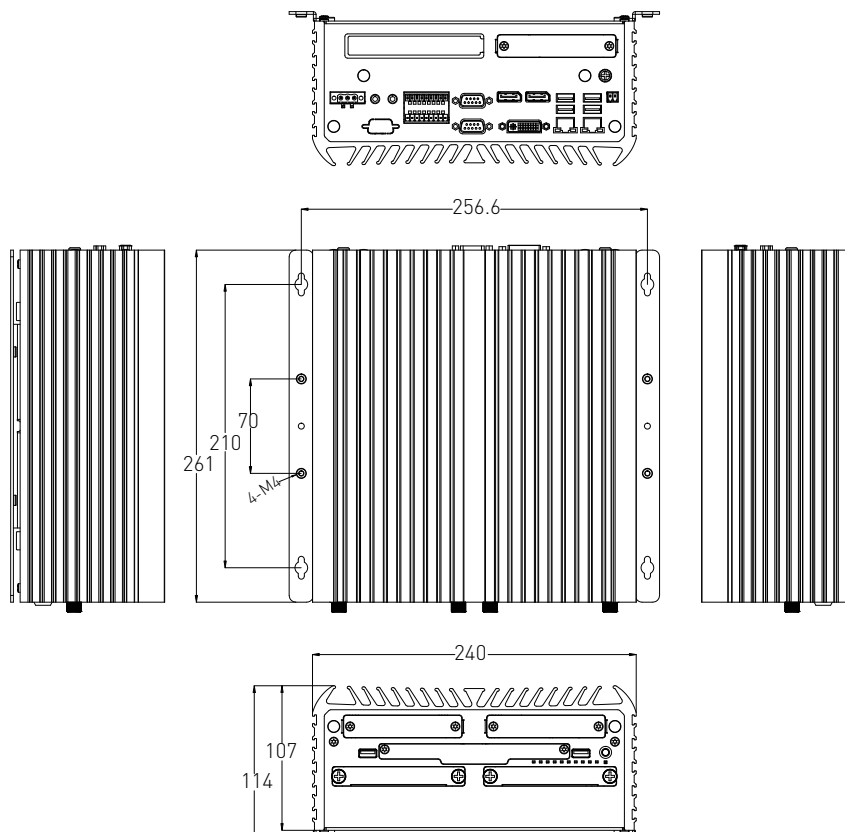
USB Port



ACO-6011E-4U3 / ACO-6011E-8U3

DIMENSION

Unit: mm



ORDERING INFORMATION

MODEL NO.	DESCRIPTION
1-E09A12002	Adapter AC/DC 24V 5A 120W with 3pin Terminal Block Plug 5.0mm Pitch
1-E09A22102	Adapter AC/DC 24V 9.2A 220W with 3pin Terminal Block Plug 5.0mm Pitch
SFICBL022	Power Cord, 3-pin US Type, 180cm
1-TPCD00002	Power Cord, European Type
1-TPCD00001	Power Cord, 3-pin UK Type, 180cm

PACKING LIST

- 1x ACO-6000 Series Embedded System
- 1x Utility DVD Driver
- 1x Wall Mount Kit
- 1x Accessory Kit
- 1x DVI to VGA Adapter

AVAILABLE MODELS

MODEL NO.	DESCRIPTION
ACO-6011E	Surveillance Applied Fanless System with LGA 1151 for Intel® 6 th /7 th Gen Processor and Q170 PCH, 2x LAN, 1x PCIe x16 Expansion
ACO-6011E-4L	Surveillance Applied Fanless System with LGA 1151 for Intel® 6 th /7 th Gen Processor and Q170 PCH, 6x LAN, 1x PCIe x16 Expansion
ACO-6011E-4L-M12	Surveillance Applied Fanless System with LGA 1151 for Intel® 6 th /7 th Gen Processor and Q170 PCH, 2x LAN, 4x M12 LAN, 1x PCIe x16 Expansion
ACO-6011E-8L	Surveillance Applied Fanless System with LGA 1151 for Intel® 6 th /7 th Gen Processor and Q170 PCH, 10x LAN, 1x PCIe x16 Expansion
ACO-6011E-8L-M12	Surveillance Applied Fanless System with LGA 1151 for Intel® 6 th /7 th Gen Processor and Q170 PCH, 2x LAN, 8x M12 LAN, 1x PCIe x16 Expansion
ACO-6011E-4P	Surveillance Applied Fanless System with LGA 1151 for Intel® 6 th /7 th Gen Processor and Q170 PCH, 2x LAN, 4x PoE, 1x PCIe x16 Expansion
ACO-6011E-4P-M12	Surveillance Applied Fanless System with LGA 1151 for Intel® 6 th /7 th Gen Processor and Q170 PCH, 2x LAN, 4x M12 PoE, 1x PCIe x16 Expansion
ACO-6011E-8P	Surveillance Applied Fanless System with LGA 1151 for Intel® 6 th /7 th Gen Processor and Q170 PCH, 2x LAN, 8x PoE, 1x PCIe x16 Expansion
ACO-6011E-8P-M12	Surveillance Applied Fanless System with LGA 1151 for Intel® 6 th /7 th Gen Processor and Q170 PCH, 2x LAN, 8x M12 PoE, 1x PCIe x16 Expansion
ACO-6011E-D10G	Surveillance Applied Fanless System with LGA 1151 for Intel® 6 th /7 th Gen Processor and Q170 PCH, 2x LAN, 1x PCIe x16 Expansion, 2x 10G LAN
ACO-6011E-4U3	Surveillance Applied Fanless System with LGA 1151 for Intel® 6 th /7 th Gen Processor and Q170 PCH, 2x LAN, 1x PCIe x16 Expansion, 10x USB
ACO-6011E-8U3	Surveillance Applied Fanless System with LGA 1151 for Intel® 6 th /7 th Gen Processor and Q170 PCH, 2x LAN, 1x PCIe x16 Expansion, 14x USB