



IN-VEHICLE COMPUTER

ACO-6000-KBL-1

In-Vehicle Computer with 6th/7th Gen Intel® Core™ Processor, 1x Expansion Slot



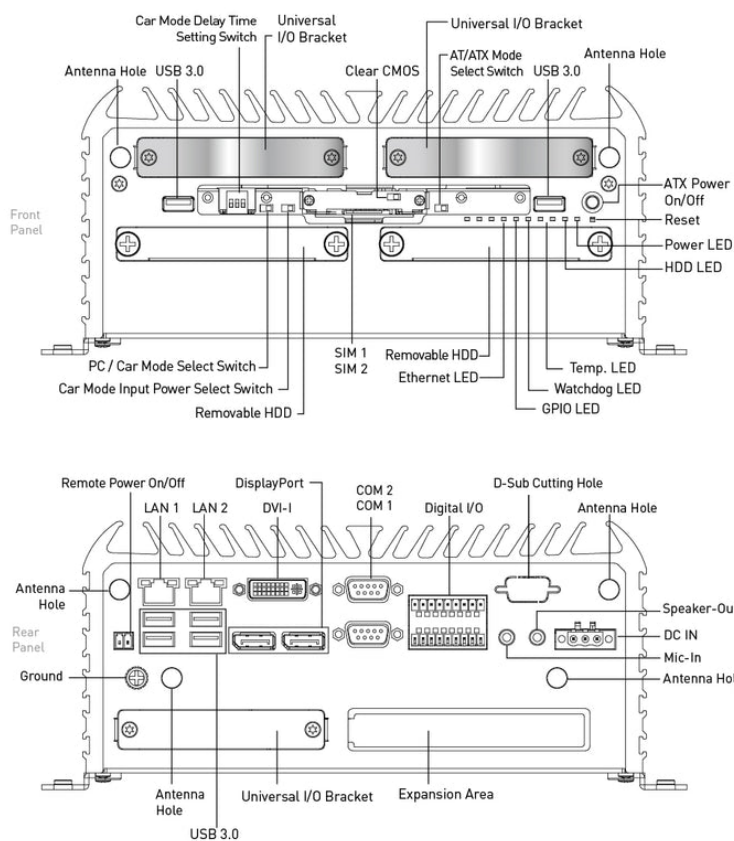
Features

- LGA 1151 socket for 6th/7th Gen. Intel® Core™ i7/i5/i3, Pentium®, or Celeron® Desktop Processor
- Intel® Q170 Chipset
- 2x 260-pin DDR4 SO-DIMM, up to 32GB
- Triple independent display
- 2x Intel® GbE supporting Wake-on-LAN and PXE
- 4x 2.5" SATA HDD bay and 2x mSATA supporting
- 4x Full-size mini PCIe
- 3x SIM socket
- 1x PCIe x16 (ACO-6011E) or 1x PCI (ACO-6011P) expansion slot
- 4x RS-232/422/485, 6x USB 3.0, 16-bit Isolated digital I/O
- 9 to 48 VDC wide range power input
- -25 °C to 70 °C extended operating temperature
- Over voltage/current, reverse polarity protection
- E-Mark and EN-50121-3-2 certified

Specifications

System		Others	6x WiFi Antenna Holes 1x Power Switch (front), 1x AT/ATX Switch (front) PC/Vehicle Mode, Vehicle Voltage, Delay Off Time (front) 1x Remote Power On/Off (rear)
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® I210-AT		
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		
Display			
Display Port	2x DP		
DVI	1x DVI-I		
Multiple Display	Triple Display		
Storage			
mSATA	2x mSATA (shared by 2x Mini PCIe)		
SIM Socket	2x External SIM socket 1x Internal SIM Socket		
SSD/HDD	2x Internal 2.5" SATA HDD Bay 2x Hotswap 2.5" SATA HDD Bay Support RAID 0, 1, 5, 10		
Expansion			
Mini PCIe	4x Full-size Mini PCIe		
PCI	1x PCI (1I-Model)		
PCIe	1x PCIe x16 (1E-Model)		
Expansion Modules			
• 4-port GbE module with Intel® I350-AM4 Chipset, RJ-45 or M12 connector (PoE optional) • 2-Port RJ45 10GbE with Intel X710-AT2 Chipset • 4-Port USB with Renesas uPD720201K8 host controller			
Card Dimension	235 (L) x 112 (H) mm		
I/O			
Audio	1x Mic-in, 1x Line-out		
COM	4x RS-232/422/485		
DIO	8 in / 8 out (Isolated)		
LAN	2x GbE RJ45 (Base Model) 4x GbE RJ45 (Module) 4x GbE M12 (Module) 8x GbE RJ45 (Module) 8x GbE M12 (Module)		
PoE	4x IEEE 802.3at (25.5W) GbE RJ45 (Module) 4x IEEE 802.3at (25.5W) GbE M12 (Module) 8x IEEE 802.3at (25.5W) GbE RJ45 (Module) 8x IEEE 802.3at (25.5W) GbE M12 (Module)		
Universal I/O Bracket	3x Universal I/O Bracket (Base Model)		
USB	6x USB 3.0		
Operating System			
Windows	6th Gen CPU: Windows 10, Windows 7, WES7 7th Gen CPU: Windows 10		
Linux	Linux kernel 4.X		
Power			
Power Adapter	Optional External Power Adapter 220W		
Power Mode	Vehicle/PC mode select		
Power Ignition Sensing	Delay On/Off Battery Voltage Monitoring (12V/24V)		
Power Supply Voltage	9 ~ 48 VDC		
Power Connector	3-pin Terminal Block		
Power Protection	Over-Voltage Protection (OVP) Over-Current Protection (OCP) Reverse Polarity Protection (RPP)		
Environment			
Operating Temperature	-13°F ~ 158°F (-25°C ~ 70°C)		
Storage Temperature	-22°F ~ 185°F (-30°C ~ 85°C)		
Relative Humidity	10% to 95% (non-condensing)		
Certification	CE, FCC Class A, E-Mark, EMC Conformity with EN50155 & EN50121-3-2		
Vibration	5 Grms, 5 ~ 500 Hz, 0.5 hr/axis (SSD) 1 Grms, 5 ~ 500 Hz, 0.5 hr/axis (HDD)		
Shock	50G, half-sine, 11 ms (SSD)		
Physical			
Dimensions	9.5" x 10.3" x 4.2" (240 x 261 x 107 mm)		
Weights	5.14 ~ 6.18 kg		
Construction	Extruded aluminum with heavy duty metal		
Mounting Options	Wall Mount		

External I/O Mechanical Layout



Universal I/O Bracket



LAN Port
PoE Port



AC0-6011-4L / AC0-6011-8L
AC0-6011-4P / AC0-6011-8P



M12 LAN Port
M12 PoE Port



AC0-6011-4L-M12 / AC0-6011-8L-M12
AC0-6011-4P-M12 / AC0-6011-8P-M12



D10G Port



AC0-6011-D10G



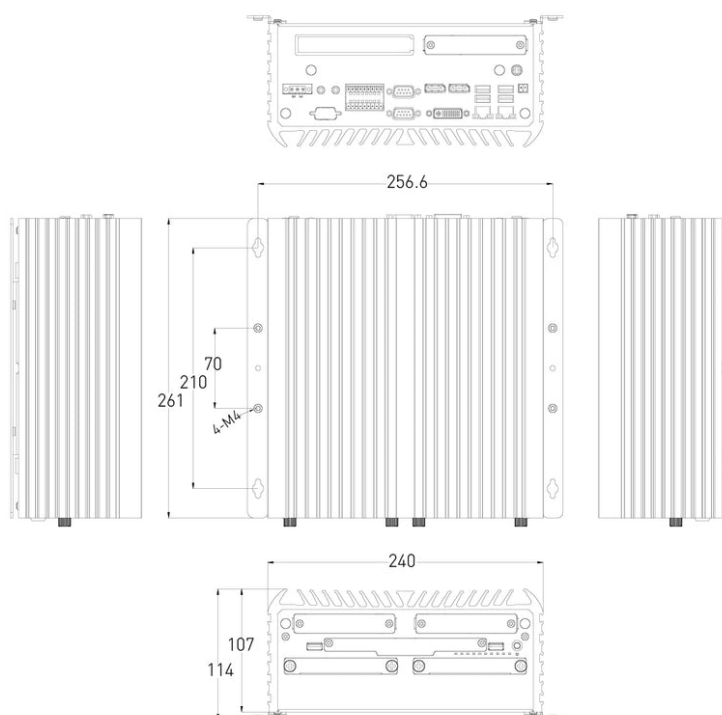
USB Port



AC0-6011-4U3 / AC0-6011-8U3

Dimension

Unit: mm



Available Models

Model No.	Description
ACO-6000-KBL-1E-P	In-Vehicle Computer with 7th Gen Intel® Core™ Processor, 1x PCIe x16 Expansion
ACO-6000-KBL-1I-P	In-Vehicle Computer with 7th Gen Intel® Core™ Processor, 1x PCI Expansion

Optional Accessories

Model No.	Description
1-E09A22801	Adapter AC/DC 24V/11.67A 280W 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
999930	Power Cord, 3-pin US Type, 180cm
1-TPCD00002	Power Cord, European Type, 180cm
1-TPCD00001	Power Cord, 3-pin UK Type, 180cm

Packing List

- 1x ACO-6000-KBL-1
- 1x Utility DVD Driver
- 1x Wall Mount Kit
- 1x Accessory Kit

Compliances and Standards

Shock	50G, half-sine, 11 ms (SSD) IEC60068-2-27:2008 Designed to comply with MIL-STD-810G Method 516.7 Procedure I
Vibration	5 Grms, 5 ~ 500 Hz, 0.5 hr/axis (SSD) 1 Grms, 5 ~ 500 Hz, 0.5 hr/axis (HDD) IEC60068-2-64:2008 Designed to comply with MIL-STD-810G Method 514.7 Procedure I
Operating Temperature	-13°F ~ 158°F (-25°C ~ 70°C) IEC60068-2-1:2007 (Cold test procedure) IEC60068-2-2:2007 (Dry heat test procedure) IEC60068-2-3:2007 (Damp heat, steady state, test procedure) IEC60068-2-14:2009 (Wide temperature range thermal shock)
EMI	• FCC Class A (47 CFR part 15.109 and part 15.107) • CE • ICES-003 • UKCA
EMC	• Railway EMC Compliance - EN 50155: 2017 - EN 50121-1: 2017 - EN 50121-3-2: 2016 • Industrial EMC Compliance - EN 61000-4-2: 2009 - EN IEC 61000-4-3: 2020 - EN 61000-4-4: 2012 - EN 61000-4-5: 2014 +A1: 2017 - EN 61000-4-6: 2014 • E-Mark (E13)

Exports And Tariff Codes

ECCN	5A992.c
HTS	8471.50.0150
ScheduleB	84.71

Premio Inc.

918 Radecki Ct., City of Industry
CA 91748, United States
Toll Free: 800.977.3646

Premio Taiwan Inc.

18F, No.176, Jianyi Road, Zhonghe District,
New Taipei City 235603, Taiwan
Toll Free: 886.2.7731.7888

Email: sales@premioinc.com
Website: <https://premioinc.com>