

# AES-2220-C4

Intel Celeron Braswell N3160 Quad-Core CPU  
Fanless Industrial Computers, 4COM, 2LAN  
VGA/HDMI, 2USB3/4USB2, wide DC-IN 12-24V



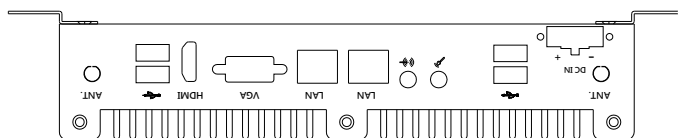
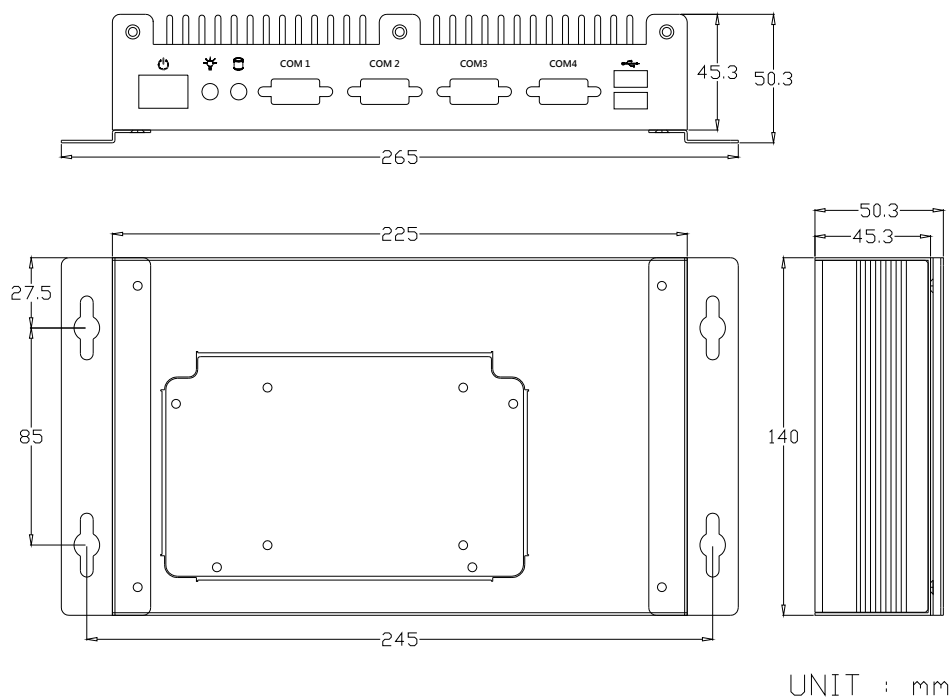
## Features

- With Intel Braswell Celeron Quad-Core N3160 1.6GHz 6W CPU
- Optimized performance and low power system
- Triple display VGA/HDMI, 2x USB 3.0, 4x USB 2.0
- Dual Gigabit LAN Intel I210
- 4x COM, COM1 by RS-485/422/232, COM2/3/4 by RS-232
- Wide DC 12-24V Input by 2-Pin phoenix connector
- Supports Windows10, Win 10 IoT Ent LTSB 64-bit
- Supports Windows Embedded WS7P, WS7E 64-bit
- Automation control and performance management system
- ATM, Kiosk, self-service, machine automation, IoT gateway platform

## Specifications

	CPU	AES-2220-C4
Processor System	CPU Max. Speed(Core)	1.6GHz Quad Core
	L2 Cache	2MB
	CPU/ TDP	Celeron N3160 / 6W
	BIOS	AMI 16Mb AMI UEFI with GUI support
	Graphics Processor	Intel HD Graphics
Expansion Slot	mSATA	1 x full-size Mini-PCIe
	Mini-PCIe (Full-size)	1 x full-size
Memory	Specification (SO-DIMM)	1 x DDR3L-1333/1600
	System Max. Capacity	8GB
Graphics	VGA	1 x VGA(1920x1200)
	HDMI	1 x HDMI (1920x1200 )
	LVDS(internal connector)	1 x Dual channel 24-bit LVDS up to1920 x 1200, (customized LVDS solution for LCD)
Ethernet	LAN Gigabit Controller	2 x Intel i210
Storage	2.5" Driver	1 x SATA1 for 2.5" SATA drive
	mSATA	1 x full-size
	SATADOM	Options 32GB SATAIII on SATA2 (disable mSATA)
System Rear I/O	VGA	1 x DB-15
	HDMI	1 x HDMI
	Ethernet	2 x RJ45
	USB Type A	2 x USB 3.0, 2 x USB 2.0
	Audio (Line-out)	1 x Audio jack (Line-out)
	Audio (MIC-in)	1 x Audio jack ( MIC-in)
	System Power Input	1 x 2-pin phoenix connector 12-24Vdc Input
	Antenna	2 x Antenna holes (options)
System Front Bezel	Power-On Button	1x Moment button switch to turn-on system
	System Power LED	1x LED for system power status
	HDD LED	1x LED for SATA HDD data access status
	COM1 Ports	1 x DB-9 ( 1 x RS-485/422/232, Pin9 +5/+12V selectable,)
	COM2-4 Ports	3 x DB-9 ( 3 x RS-232)
	USB Type A	2 x USB 2.0
	Option GPIO 8-bit	1 x DB-9 or DB-15 by request on front bezel, 4 x GPI + 4 x GPO and GND
Operation System	Win 7	Win 7 64-bit, WS7E/WS7P 64-bit
	Win 10	Win 10, Win 10 IoT Ent LTSB 64-bit
Watchdog Timer	Output and Interval	System reset, programmable 1 ~ 255 sec/min; 1 sec. or 1min. /step
Power Requirement	DC Input	12-24Vdc input (option DC12V 60W adapter)
Environment	Operating Temperature	-10°C ~60°C(32~140°F)
	Air Flow condition	60°C with 0.7m/s air flow
	Storage Temperature	-40 ~ 85°C ( -40 ~ 185°F )
Physical Size	Dimensions	225mm(W) x 140mm(D) x 45mm(H)
Packing Size	Dimensions	300mm(W) x 260mm(D) x 130mm(H)
Weight	N.W / G.W.	Single packed: 3Kg / 4Kg
Certifications	EMC	CE, FCC Class B

## Dimensions Outlook



## Ordering Information

Part Number	CPU	VGA	HDMI	GbE	USB 3.0	USB 2.0	COM	RAM	mSATA	2.5" SSD/HDD	DC Input
AES-2220-C4-M0-m00P0	N3160	1	1	2	2	4	4	Option	Enabled	Option	12-24Vdc
AES-2220-C4-M4-m064P0	N3160	1	1	2	2	4	4	4GB	64GB	Option	12-24Vdc
AES-2220-C4-M4-SD064P0	N3160	1	1	2	2	4	4	4GB	Disabled	2.5" SSD 64GB	12-24Vdc
AES-2220-C4-M4-HD320P0	N3160	1	1	2	2	4	4	4GB	Disabled	2.5" HDD 320GB	12-24Vdc

\*With 2.5" SSD or HDD will disable mSATA (enable Mini-PCIe) by production before shipment

## Optional Items

Part Number	Description
AES-WM-BK	AES-1210 Wall Mount Bracket Kits, Black, with Screws
SODIMM-DDR3-2GBL / 4GBL / 8GBL	204-Pin SODIMM DDR3-1333, 2GB / 4GB / 8GB (1.35V)
MSD-M032 / MSD-M064	mSATA SSD Module MLC, Toshiba TSOP 19mn, 32GB / 64GB
SA-HD320/HD500	2.5" SATA HDD 7mm height, 320GB / 500GB
SA-SD064 /SD128	2.5" SATA SSD 7mm height, 64GB / 128GB
WPEA-121N	Wi-Fi Module Atheros AR9382, Mini-PCIe Half-size, 2T2R up to 300Mbps, with wire and antenna, LAN 802.11a/b/g/n
WPEA-152GN(BT)	Wi-Fi / BT, Mini-PCIe Half-size Atheros AR9495 + AR3012, wire and antenna, LAN 802.11b/g/n, BT 4.0LE/3.0HS/2.1EDR
DBAE1-60W-2P	AC-DC 60W Adapter, 90V-264Vac input by C14 socket, DC 12V@5A output with 2-pin phoneix connector