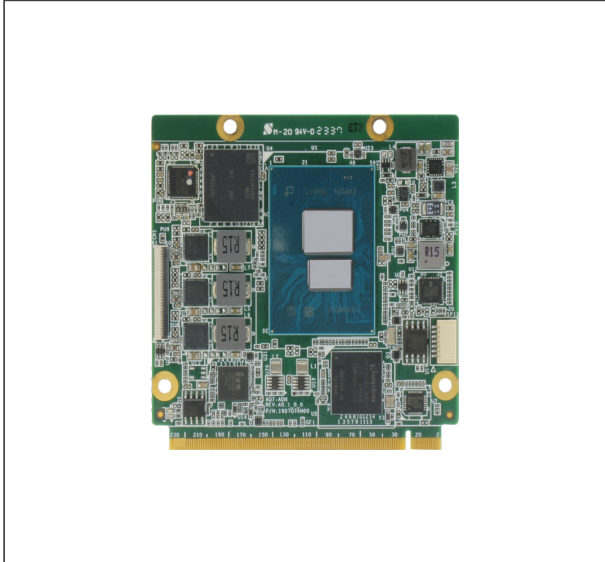


# AQ7-ADN

Qseven CPU Module with Intel Atom® X Series/N-series/Core™ i3-N305 processor

COM Express CPU Modules



## Features

- Intel Atom® X Series/N-series/Core™ i3-N305, Max TDP 15W
- Onboard LPDDR5x, up to 8GB
- Realtek RTL8111H-CG 1GbE x 1
- SATA 6Gb/s x 1
- USB 2.0 x 6, USB 3.2 x 2
- PCIe [x1] x 4
- DC +5V
- Qseven Module Size, 70mm x 70mm



## Specifications

System	
Form Factor	Qseven Module
CPU	Intel Atom® X Series/N-series/Core™ i3-N305 CPU Intel® Core™ i3-N305 (8C, up to 3.8 GHz, 15W) Intel Atom® x7425E (4C, up to 3.4 GHz, 12W) Intel® Processor N200 (4C, up to 3.7 GHz, 6W) Intel® Processor N97 (4C, up to 3.6 GHz, 12W) Intel® Processor N50 (2C, up to 3.4 GHz, 6W)
Chipset	Integrated with Intel® SoC
Memory	LPDDR5x up to 4800MT/s, 8GB
Onboard Storage	eMMC up to 64GB
BIOS	AMI UEFI
Wake on LAN	Yes
Watchdog Timer	255 Levels
Dimension	2.76" x 2.76" (70mm x 70mm)
Security	TPM 2.0 (Optional)
Power	
Power Requirement	+5V +/- 50mV, +3Vrvc
Power Type	AT (default) / ATX, switch by BIOS
Power Consumption (Typical)	Intel® Core™ i3-N305, LPDDR5x 8GB x1, 4.5A@ +5V
Display	
Graphics Controller	Intel® UHD Graphics
Video Output	Dual Display: DP x 1 eDP or LVDS x 1 (Change by BOM)
I/O	
Ethernet	Realtek RTL8111H-CG 1GbE x 1
Audio	High Definition Audio Interface
USB Port	USB 2.0 x 6, USB 3.2 x 2
Serial Port	4-Wire UART x 1 (Tx/Rx/CSR/RTS)
HDD Interface	SATA III x 1
Expansion	PCIe [x1] x 4 4-lane MIPI-CSI x 1
GPIO	8-bit (Change by BOM)
SMBus/I2C	I2C x 1, SMBus x 1
Environment	
Operating Temperature	32°F ~ 140°F (0°C ~ 60°C)
Storage Temperature	-40°F ~ 185°F (-40°C ~ 85°C)
Operating Humidity	0% ~ 90% relative humidity, non-condensing

EMC	CE/FCC Class A
OS Support	Windows® 10 (64-bit) Linux Ubuntu 22.04.x/Kernel 5.19.0
Weight	0.26 lb. (0.12Kg)

## Packing List

- AQ7-ADN

## Optional Accessories

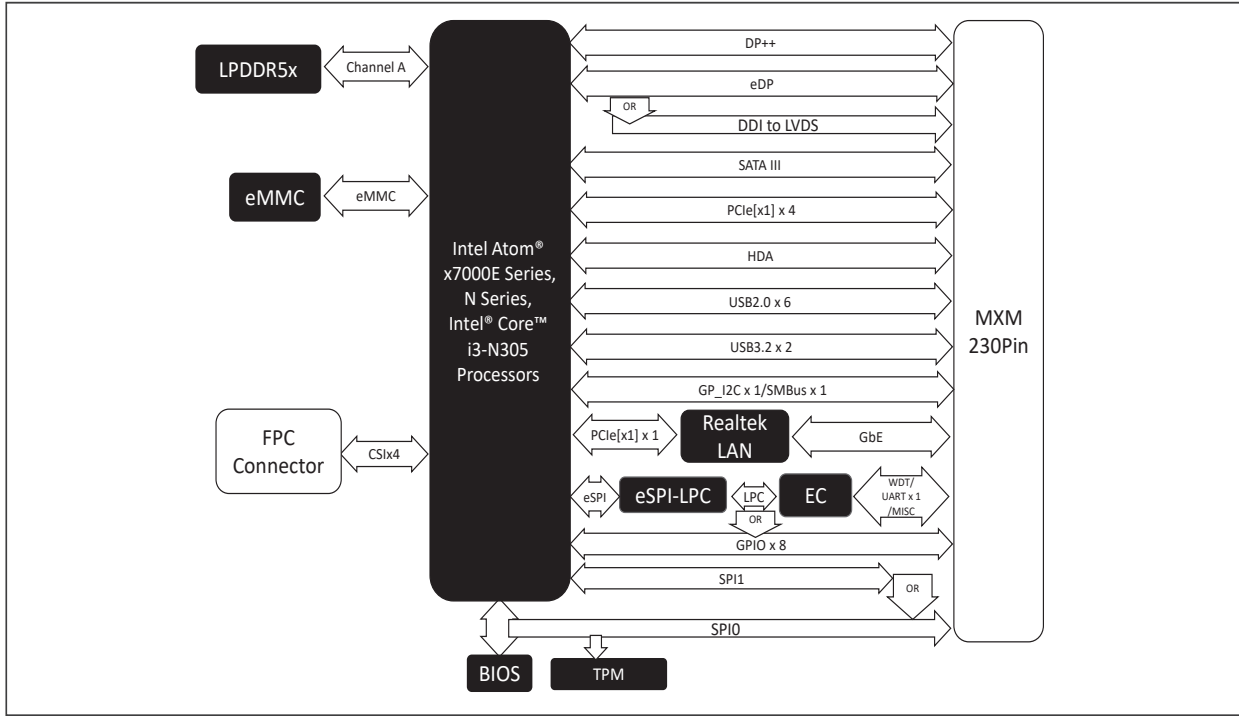
Part Number	Description
ECB-9706-A10-0001	COM Qseven Carrier Board, 2USB3, 2SATA, GbE, PCIe, AT/ATX, Rev A1.0
AQ7-ADN-FAN01	Cooler.60 x 70 x 19.1mm.4pin

# AQ7-ADN

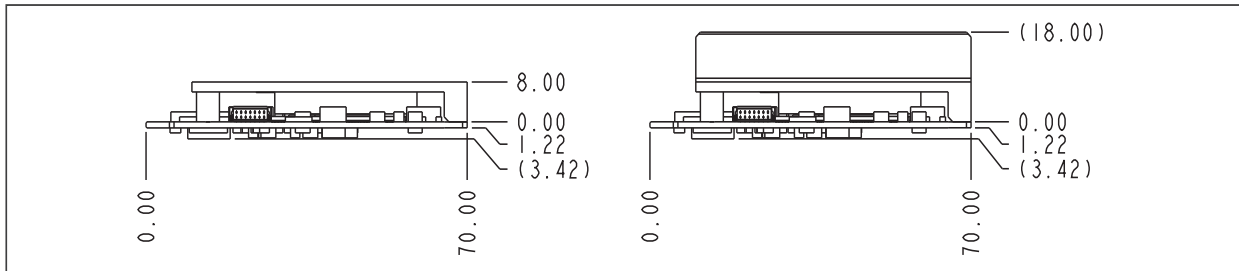
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COM Express CPU Modules

## Block Diagram Unit: mm



## Dimension Unit: mm



## Ordering Information

Part Number	COM Express Type	CPU	Memory	ECC support	Display	LVDS	Storage	LAN	USB	UART	Expansion	Power	Temperature	Others
AQ7-ADN-A10-0001	Oseven 2.1	Intel Core™ Processor i3-N305	LPDDR5x 8GB	—	DP x 1	LVDS x 1	eMMC 64GB	RTL8111H-CG 1GbE x 1	USB 2.0 x 6 USB3.2 x 2	4-Wire UART	PCIe [x1]x4 4-lane MIPI-CSI x 1	5V	0~60°C	I2C, SMBus, LPC, SPI0
AQ7-ADN-A10-0003	Oseven 2.1	Intel® Processor N97	LPDDR5x 8GB	—	DP x 1	LVDS x 1	eMMC 64GB	RTL8111H-CG 1GbE x 1	USB 2.0 x 6 USB3.2 x 2	4-Wire UART	PCIe [x1]x4 4-lane MIPI-CSI x 1	5V	0~60°C	I2C, SMBus, LPC, SPI0
AQ7-ADN-A10-0004	Oseven 2.1	Intel® Processor N50	LPDDR5x 4GB	—	DP x 1, eDP x 1	—	eMMC 32GB	RTL8111H-CG 1GbE x 1	USB 2.0 x 6 USB3.2 x 2	4-Wire UART	PCIe [x1]x4 4-lane MIPI-CSI x 1	5V	0~60°C	I2C, SMBus, GPIO 8-bit, SPI1
AQ7-ADN-A10-0005	Oseven 2.1	Intel Atom® Processor x7425E	LPDDR5x 8GB	—	DP x 1	LVDS x 1	eMMC 64GB	RTL8111H-CG 1GbE x 1	USB 2.0 x 6 USB3.2 x 2	4-Wire UART	PCIe [x1]x4 4-lane MIPI-CSI x 1	5V	0~60°C	I2C, SMBus, LPC, SPI0

## Assured Systems

Assured Systems is a leading technology company with over 1,500 regular clients in 80 countries, deploying over 85,000 systems to a diverse customer base in 12 years of business. We offer high-quality and innovative rugged computing, display, networking and data collection solutions to the embedded, industrial, and digital-out-of-home market sectors.

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