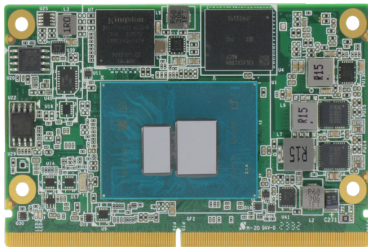


# uCOM-ADN

SMARC Module with Intel Atom® Processor X Series, Intel® Processor N-series, & Intel® Core™ i3-N305 Processor

COM Express CPU Modules



## Features

- LPDDR5x x 1, up to 8GB
- eMMC, up to 64GB
- DP++ x 2, eDP x 1
- USB 3.2 Gen 2 x 2, USB 2.0 x 6
- PCIe Gen 3 [x1] x 3, max 1x PCIe[x2]
- Intel® Ethernet Controller I226-V/IT x 2
- 5V input
- SMARC Module size 82mm x 50mm



## Specifications

| System                      |                                                                                                                                                                      |
|-----------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Form Factor                 | SMARC Module                                                                                                                                                         |
| CPU                         | Intel® Core™ i3-N305 Processor (8C/8T, up to 3.8 GHz, 15W)<br>Intel Atom® x7425E Processor (4C, up to 3.4 GHz, 12W)<br>Intel® Processor N97 (4C, up to 3.6 GHz, 12W) |
| Chipset                     | Integrated with Intel® SoC                                                                                                                                           |
| Memory                      | Onboard LPDDR5x 4800MHz, up to 8GB                                                                                                                                   |
| Onboard Storage             | eMMC, up to 64GB                                                                                                                                                     |
| BIOS                        | AMI UEFI                                                                                                                                                             |
| Wake on LAN                 | Yes                                                                                                                                                                  |
| Watchdog Timer              | 255 Levels                                                                                                                                                           |
| Dimension                   | 3.23" x 1.97" (82mm x 50mm)                                                                                                                                          |
| Security                    | TPM 2.0                                                                                                                                                              |
| Power                       |                                                                                                                                                                      |
| Power Requirement           | +5V for ATX / AT                                                                                                                                                     |
| Power Type                  | AT (default)/ATX, switch by BIOS                                                                                                                                     |
| Power Consumption (Typical) | Intel® Core™ i3-N305, 4.23A @+5V                                                                                                                                     |
| Display                     |                                                                                                                                                                      |
| Graphics Controller         | Intel® UHD Graphics                                                                                                                                                  |
| Video Output                | Display:<br>DP++ x 2, up to 3840 x 2160<br>eDP x 1, up to 3840 x 2160                                                                                                |
| I/O                         |                                                                                                                                                                      |
| Ethernet                    | Intel® Ethernet Controller I226-V/IT 2.5GbE x 2                                                                                                                      |
| Audio                       | High Definition Audio Interface                                                                                                                                      |
| USB Port                    | USB 2.0 x 6, USB 3.2 x 2                                                                                                                                             |
| Serial Port                 | 2-Wire UART x 2 (Tx/Rx)<br>4-Wire UART x 2 (Tx/Rx/CTS)                                                                                                               |
| HDD Interface               | SATA 6Gb/s x 1                                                                                                                                                       |
| Expansion                   | PCIe Gen 3 [x1] x 3 (Max PCIe [x2] x 1)<br>MIPI CSI x 2<br>Note: To get a fourth PCIe Gen 3 [x1] interface, please contact the AAEON support team.                   |
| GPIO                        | 7-bit (up to 14-bit by customization)                                                                                                                                |
| SMBus/I2C                   | GP_I2C x 1<br>SMBus x 1                                                                                                                                              |

| Environment           |                                                                                   |
|-----------------------|-----------------------------------------------------------------------------------|
| Operating Temperature | -4°F ~ 158°F (-20°C ~ 70°C)<br>-40°F ~ 185°F (-40°C ~ 85°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) / Windows 11(enterprise)<br>Linux Ubuntu 22.04.2/Kernel 5.19 |
| Weight                | 0.14 lb. (0.06Kg)                                                                 |

## Packing List

- uCOM-ADN

## Optional Accessories

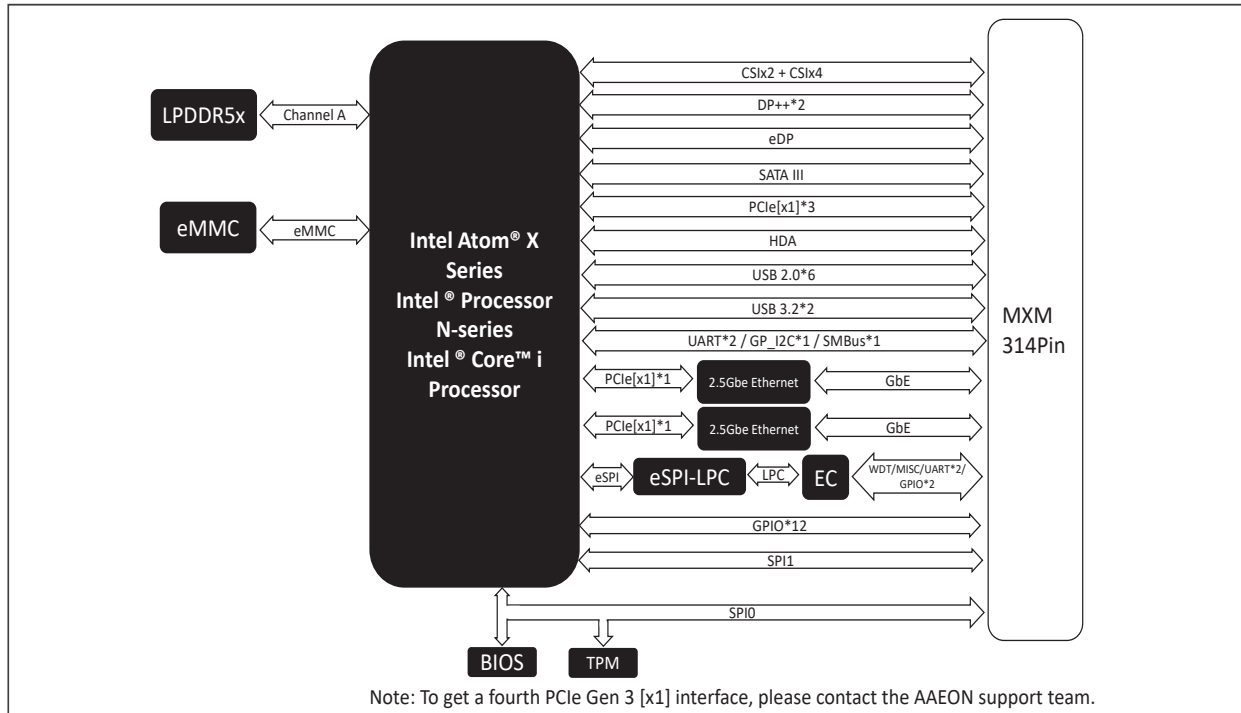
| Part Number    | Description            |
|----------------|------------------------|
| uCOM-ADN-FAN01 | Cooler.82*42*16mm.4pin |

# uCOM-ADN

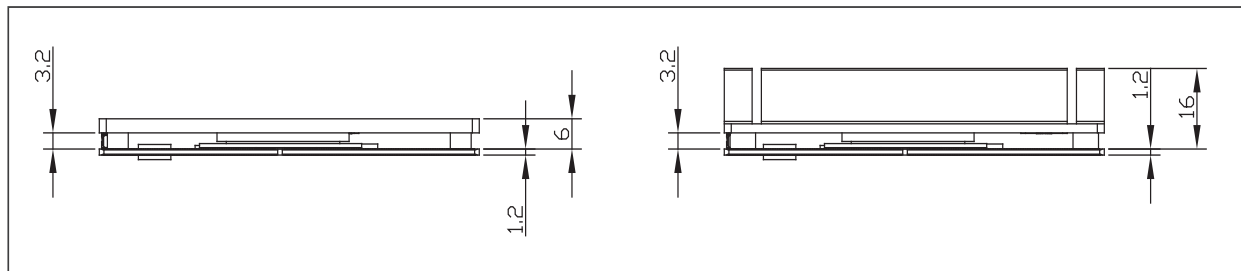
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COM Express CPU Modules

## Block Diagram Unit: mm



## Dimension Unit: mm



## Ordering Information

| Part Number       | Form Factor | CPU                           | Memory      | ECC support | Display             | Storage   | LAN                                    | USB                        | UART                                | Expansion     | Power | Temperature  | Others                      |
|-------------------|-------------|-------------------------------|-------------|-------------|---------------------|-----------|----------------------------------------|----------------------------|-------------------------------------|---------------|-------|--------------|-----------------------------|
| uCOM-ADN-B10-0001 | SMARC       | Intel Core™ Processor i3-N305 | 8GB LPDDR5x | —           | eDP x 1<br>DP++ x 2 | 64GB eMMC | Intel® Ethernet Controller I226-V x 2  | USB 3.2 x 2<br>USB 2.0 x 6 | 4-wire UART x 2,<br>2-Wire UART x 2 | PCIe [x1] x 3 | +5V   | -20°C ~ 70°C | LPC, GPIO 7-bit, I2C, SMBus |
| uCOM-ADN-B10-0002 | SMARC       | Intel® Processor N97          | 8GB LPDDR5x | —           | eDP x 1<br>DP++ x 2 | 32GB eMMC | Intel® Ethernet Controller I226-V x 2  | USB 3.2 x 2<br>USB 2.0 x 6 | 4-wire UART x 2,<br>2-Wire UART x 2 | PCIe [x1] x 3 | +5V   | -20°C ~ 70°C | LPC, GPIO 7-bit, I2C, SMBus |
| uCOM-ADN-B10-0003 | SMARC       | Intel Atom® Processor x7425E  | 8GB LPDDR5x | —           | eDP x 1<br>DP++ x 2 | 64GB eMMC | Intel® Ethernet Controller I226-IT x 2 | USB 3.2 x 2<br>USB 2.0 x 6 | 4-wire UART x 2,<br>2-Wire UART x 2 | PCIe [x1] x 3 | +5V   | -40°C ~ 85°C | LPC, GPIO 7-bit, I2C, SMBus |

## 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.

### US

[sales@assured-systems.com](mailto:sales@assured-systems.com)

Sales: +1 347 719 4508

Support: +1 347 719 4508

1309 Coffeen Ave  
Ste 1200  
Sheridan  
WY 82801  
USA

### EMEA

[sales@assured-systems.com](mailto:sales@assured-systems.com)

Sales: +44 (0)1785 879 050

Support: +44 (0)1785 879 050

Unit A5 Douglas Park  
Stone Business Park  
Stone  
ST15 0YJ  
United Kingdom

VAT Number: 120 9546 28

Business Registration Number: 07699660