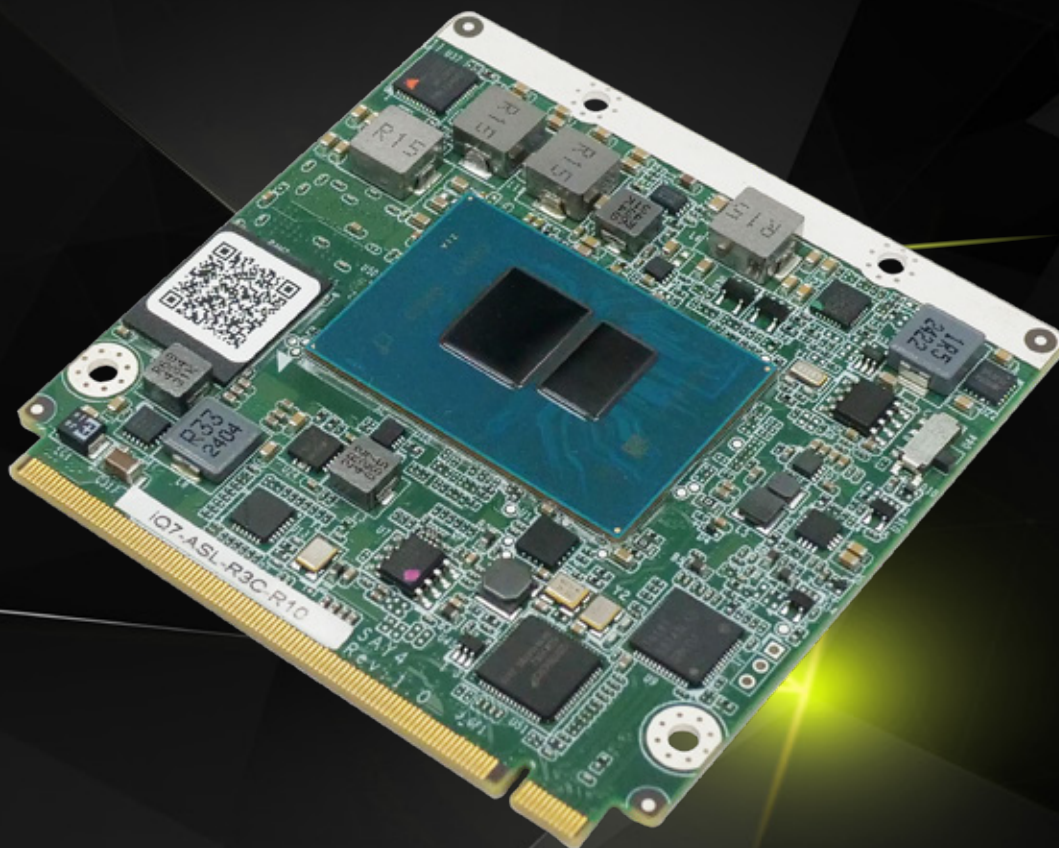


# iQ7-ASL

## Qseven<sup>®</sup> Rev. 2.1 module

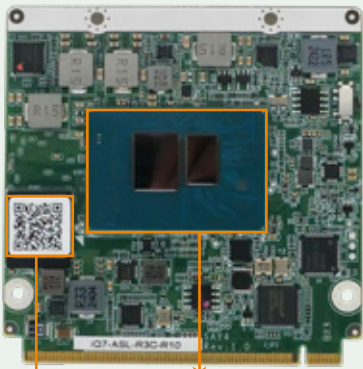
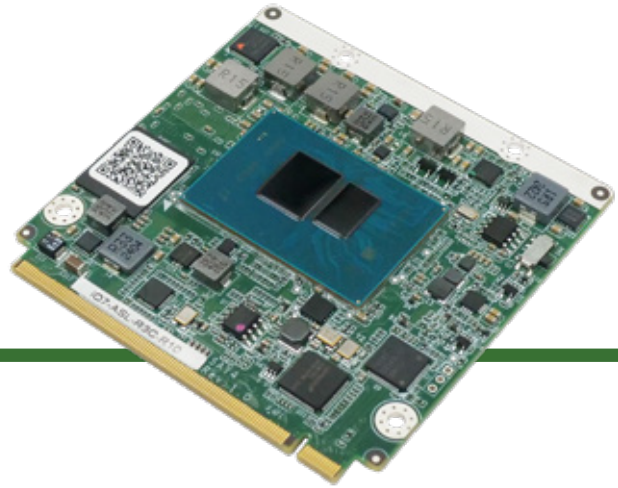
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- Support Intel<sup>®</sup> Amston Lake & Alder Lake-N on-board SoC
- Qseven connector pinout according to Qseven Specification Revision 2.1
- With 8GB 5500 LPDDR5 memory on board default(up to 16 GB)
- With optional on board eMMC as storage (up to 256 GB)



# iQ7-EHL

Qseven® Rev. 2.1 module with Intel® Amston Lake & Alder Lake-N on-board SoC, with 8GB LPDDR5 memory on board default, Support HDMI, LVDS, 2.5GbE, SATA 6Gb/s, USB 3.2, Audio and RoHS



Intel® Amston Lake & Alder Lake-N on-board SoC

LPDDR5-5500 8G pre-installed(system max.16G)

On board eMMC (option)



## Low-power Intel® Amston Lake & Alder Lake-N Processor

8 Gracemont core configuration to Atom product line with scalability from 2 cores to 8 cores



## Support Intel® I226V 2.5GbE Controller

With PCIe 2.5 GbE Intel i226V signal to baseboard, achieving up to 2.5GbE network transmissionrate.



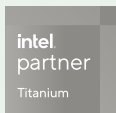
## On Board Memory And Storage

With 8GB LPDDR5 memory on board default, and optional on board eMMC as storage

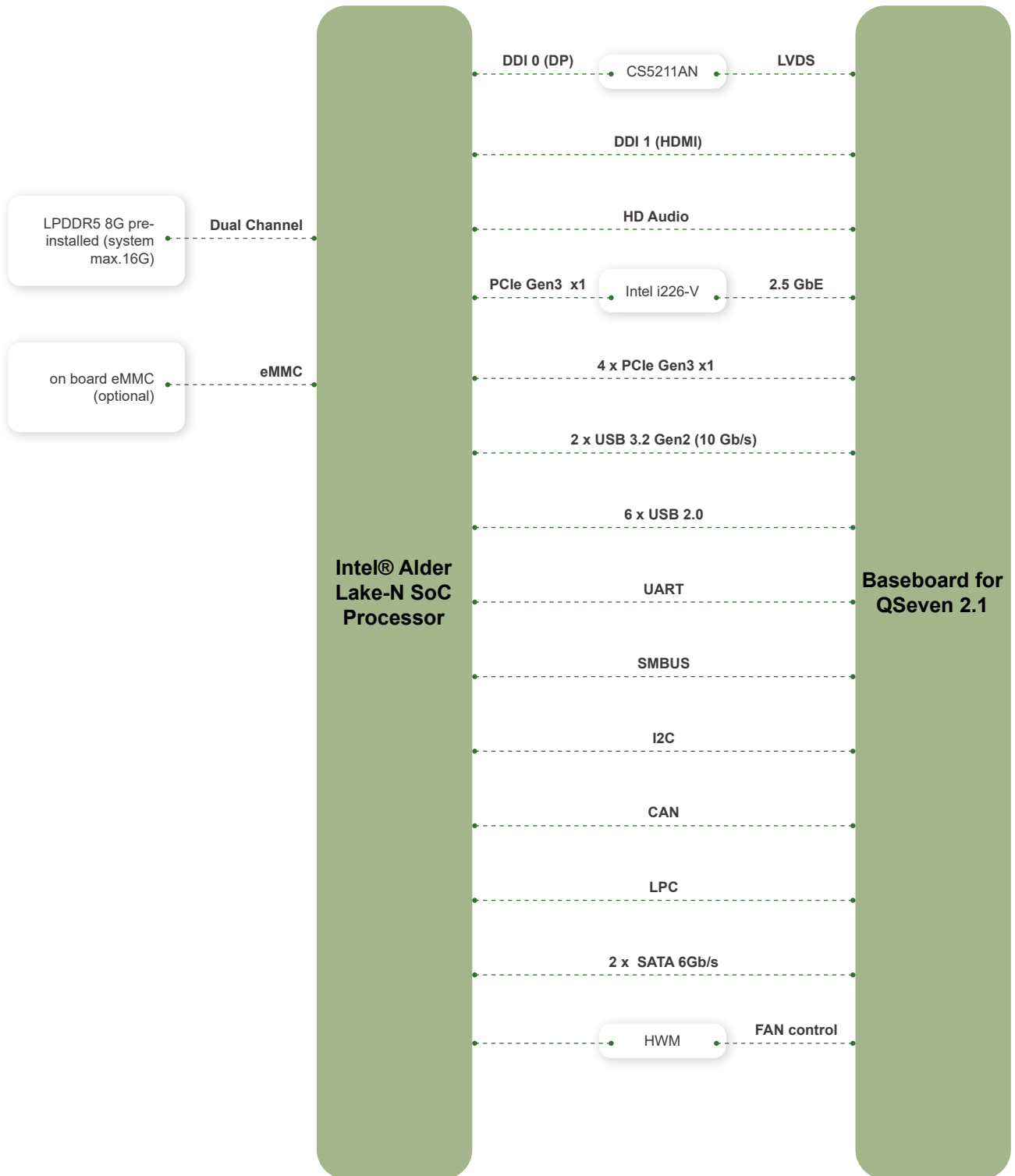


## Can be used flexibly with different baseboard

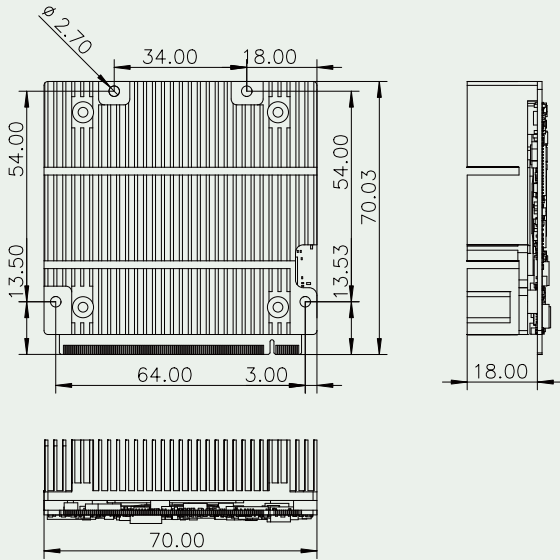
iQ7-ASL can use the backplane produced by IEI (compatible with the previous generation), or the backplane developed by the customer. In addition, enterprises can adapt to new processor and chipset technologies only by replacing modules.



# Block Diagram



### Dimensions



### Optional Accessories



### Specifications

| Model              | iQ7-ASL   |
|--------------------|---|
| Size               | Qseven 2.1<br>70*70mm   |
| CPU                | Intel® Amston Lake & Alder Lake-N on-board SoC<br>Intel® Alder Lake-N N97 SoC Processor (up to 2.9GHz, quad-core, TDP=12W)<br>Intel® Amston Lake 7433RE SoC Processor (up to 2.7GHz, quad-core, TDP=9W)<br>Intel® Alder Lake-N x7211E SoC Processor (up to 2.9GHz, dual-core, TDP=6W) |
| Memory             | On board LPDDR5-5500 8G pre-installed(system max.16G)   |
| BIOS               | UEFI BIOS   |
| Graphics engine    | Intel® UHD Graphics   |
| Display interfaces | Double independent display signal to baseboard<br>1 x HDMI 1.4a: up to 4096 x 2160@30Hz<br>1 x LVDS: 1920 x 1200 @ 60Hz or eDP: 4096 x 2160 @ 60Hz  |
| Ethernet           | 1 x PCIe 2.5 GbE with Intel i226-V signal to baseboard  |
| I/O Interface      | 2 x USB 3.2 Gen2(10 Gb/s) signal to baseboard<br>6 x USB 2.0 signal to baseboard<br>1 x UART signal to baseboard  |
| Storage            | 2 x SATA 6Gb/s signal to baseboard<br>on board eMMC (optional)  |
| Expansion          | 4 x PCIe Gen3 x1 signal to baseboard  |
| Audio              | 1 x HDA signal to baseboard   |
| CAN                | 1 x CAN Bus signal to baseboard   |
| SDIO               | 1 x SDIO signal to baseboard  |
| LPC                | 1 x LPC signal to baseboard   |
| I2C                | 1 x I2C signal to baseboard   |
| SMBUS              | 1 x SMBUS   |
| Watchdog timer     | Software Programmable support 1~255 sec system reset  |
| Front Panel        | Front Panel signal to baseboard<br>(Power LED, HDD LED, Speaker, Power Button, Reset Button)  |
| FAN connector      | 1x FAN control signal to baseboard  |
| TPM                | Intel PTT   |
| Power supply       | 5V DC   |
| Temperature        | Operating Temperature: -10°C ~ 60°C<br>Storage Temperature: -30°C ~ 70°C  |
| Humidity           | 5% ~95 non-condensing   |
| Dimensions         | 70*70mm   |

### Packing List

|                                   |              |
|-----------------------------------|--------------|
| 1 x iQ7-ASL Single Board Computer | 1 x Heatsink |
| 1 x QIG                           |              |

### Ordering Informaiton

|                 |  |
|-----------------|--|
| iQ7-ASL-N2C-R10 | Qseven® Rev. 2.1 module with Intel® Processor N-series N97 SoC Processor (12W), with 8GB LPDDR5 memory on board default, Support HDMI, LVDS, 2.5GbE, SATA 6Gb/s, USB 3.2, Audio and RoHS |
| iQ7-ASL-R3C-R10 | Qseven® Rev. 2.1 module with Intel® Atom x7433RE (9W), with 8GB LPDDR5 memory on board default, Support HDMI, LVDS, 2.5GbE, SATA 6Gb/s, USB 3.2, Audio and RoHS                          |
| iQ7-ASL-E1C-R10 | Qseven® Rev. 2.1 module with Intel® Processor x7211E SoC Processor (6W), with 8GB LPDDR5 memory on board default, Support HDMI, LVDS, 2.5GbE, SATA 6Gb/s, USB 3.2, Audio and RoHS        |

### Optional Accessories

|                     |   |
|---------------------|---|
| iQ7-CB-R10          | Base Board for Qseven® Rev. 2.1 module            |
| 32102-000100-200-RS | SATA power cable, MOLEX 5264-4P to SATA15P, 150mm |