

Contact Name: Taylor Randolph
AAEON Technology Europe B.V.
Phone Number: +31 648 063 370
Email: taylorrandolph@aaeon.eu

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UP Xtreme i11 Edge Compute Enabling Kit

[UP Bridge the Gap](#), a brand belonging to a professional embedded computing ODM [AAEON Technology Europe](#), has unleashed the fastest and smartest member of the UP Product family with the launch of the [UP Xtreme i11 Edge Compute Enabling Kit](#), powered by 11th Generation Intel® Core™ processors with Iris® X^e graphics (formerly Tiger Lake). It's the latest generation in edge computing with unmatched capabilities for retail, health, transportation, robotics, and industrial automation. This kit will be available for pre-order at the [UP Shop](#) by Q1 2021.

With the release of the latest 11th Gen Intel® Core™ processors, UP Bridge the Gap has built an innovative kit with 5G capabilities to deliver the ultimate modern edge solution. It is now possible for developers to connect masses of IoT devices and seamlessly share data between the edge and the cloud. The introduction of 5G brings astonishing gigabyte speed, ultra-low latency, and reliable transmission of data in order to provide a solid foundation for artificial intelligence (AI) to evolve.

The integration of [Iris® X^e graphics](#) provides up to 96 EUs, the most powerful version yet. Leveraging Intel's new technology, UP Xtreme i11 Compute Enabling Kit is powerful enough to enable workload consolidation in applications like computer numerical control (CNC) machines, real-time controls, human machine interfaces, tool applications, medical imaging and diagnostics, and other applications requiring high resolution, HDR output with AI capabilities.

Specification Highlights

- 11th Generation Intel® Core™ processors (industrial SKU by default, embedded SKU optional)
- Integrated Iris® X^e graphics
- Up to 64GB memory (In-band ECC support)
- 1x Gbps LAN (Intel® i219), 1x 2.5Gb LAN (Intel® i225)
- 4x USB 3.2 Gen 2 (10 Gbps), 1x USB 4.0 Type C
- 1x HDMI (2.0b), 1x DP, 1x DP1.4 (via USB Type C), 1x eDP
- 1x M.2 2280 M key (support NVME SSD), 1x M.2 2230 E key, 1x M.2 3052 B Key, PCIE [x4] slot
- 1x 40-pin GP-bus (available in board level product), 2x RS232/422/485, 1x line in/out
- 12V DC-in

[Download the datasheet here](#)

Key Strengths

UP Xtreme i11 Edge Compute Enabling Kit provides developers access to this new generation of Intel processors and delivers a balance of power, performance, and responsiveness. There is a broad range of impressive features that make this the most industrious system yet:

Powerful: Astonishing clock speeds up to 4.4 GHz using only 28 watts TDP and 15 watts cTDP. Intel® Iris® Xe graphics provide up to 96EU, which is nearly twice the performance of corresponding Ice Lake Gen 11 at the same TDP.

Fast: Take advantage of high-speed storage and memory with NVMe via M.2 2280 slot. Get faster data transmission with USB 3.2 Gen 2 and USB 4.0 Type C input/outputs. It is 5G enabled for ultra-reliable, low latency communications.

Industrial & Security: Combines Integrity Features and Intel® Functional Safety Essential Design Package to support Functional Safety. Other features include 12V power input with lockable power connector, vPRO¹, TSN and TCC Enabled LAN ports for real-time networking support, COM ports (RS232/422/485), and 40-pin GP-bus (available in board level product). Hardware TPM 2.0 and In-Band ECC are supported, as well.

AI-Ready: Optimize resource allocation for AI Inference at the edge via [Intel® Distribution of OpenVINO™ toolkit](#) across multiple platforms, including CPU, GPU, and VPU. Optional VPU is available with UP AI Core XM2280/KB2280, which comes with samples and various pre-trained models to speed up AI development. Intel's third Generation Movidius® VPU (formerly Keem Bay) offers 10 times the AI Performance than Intel® Movidius® Myriad™ X but with up to 4.7 times more power efficiency.

Expandable: Expansion boards are available in M.2 2230 E Key, M.2 2242/2280 B+M Key, and M.2 3052 B Key, and PCIe [x4] to allow seamless integration for any kind of project requirements. A 40-pin I/O expansion (available in board level product), powered by Intel® Altera MAX 5, provides compatibility with all the expansions. It is ready to connect to 5G, WiFi, and Bluetooth.

Production-Ready Computing System: UP Xtreme i11 Edge Compute Enabling Kit is production-ready for multiple vertical markets for robotics, automation, retail, AI, and IoT. Worldwide shipping takes only 7 days. The kit comes with Intel® Distribution of OpenVINO™ Toolkit pre-loaded to make your AI and computer vision application faster. It is also compatible with [Intel® OneAPI](#), which is easy to install via command line.

[Shop for UP Xtreme i11 Edge Compute Enabling Kit](#)

[UP Xtreme i11 Edge Compute Enabling Kit](#) will be available for pre-order in the [UP Shop](#) by Q1 2021. It ships directly to your door from anywhere in the world within 7 days.

It's also possible to customize your UP Xtreme i11 Edge Compute Enabling Kit for production. Advance your prototype to the next stage through custom software and hardware offered by AAEON. Find out more about [Customization Services for Hardware](#) from AAEON.

¹ VPro only available in i5, i7 model

For more information:

www.up-board.org

www.up-community.org

www.up-shop.com

About AAEON:

Established in 1992, AAEON is one of the leading designers and manufacturers of advanced industrial and embedded computing platforms today. In 2011, AAEON became a member of the ASUS group, this enabled the company to further strengthen its leadership, access advanced technology from ASUS and grow its focus towards AI and IoT. AAEON has built a comprehensive AI & IoT ecosystem ranging from IHV, CSP, and ISV and continues to showcase many use cases in AI.

When working with AAEON, you gain access to hundreds of computing boards with validated software solutions. Apart from the off-shelf product range, a fully custom designed board is also made at your service!

About UP Bridge the Gap

Founded by AAEON Technology Europe in 2015, UP Bridge the Gap aims to bring innovation in technology, business model, and integrated solutions. With its agility, the UP team collaborates with market leaders in different vertical markets to bring integrated solutions. It continues to grow a large online community to work closely with developers.