# Thundercomm launches RUBIK Pi 3 with AI capabilities



Thundercomm has officially launched the RUBIK Pi 3, a single-board computer designed for on-device artificial intelligence (AI) and machine learning (ML) tasks. The announcement was made at the Consumer Electronics Show (CES) in Las Vegas. This device is powered by the Qualcomm QCS6490 system-on-chip and is now available for order at a price of $179.

Pier Zhang, a representative from Thundercomm, described the RUBIK Pi 3 as "a major milestone for Thundercomm in on-device AI." He highlighted that the device is not just high-performance hardware but serves as “an accelerator for innovation,” enabling developers and enterprises to convert ideas into reality while enhancing operational efficiency.

The RUBIK Pi 3 follows the original RUBIK Pi, which was unveiled in October of the previous year. Following a limited "early bird" release and subsequent feedback from early users, Thundercomm implemented several hardware modifications while maintaining the device's core specifications. This prompted the update to the “3” suffix.

The board's architecture includes a Kryo 670 processor featuring four Arm Cortex-A78 cores and four Cortex-A55 cores, with one Cortex-A78 core capable of reaching a clock speed of up to 2.7GHz. It also incorporates an Adreno 643L graphics processor operating at a peak speed of 821MHz and a Hexagon machine learning accelerator capable of executing up to 12 tera-operations per second (TOPS). Accompanying these features, the RUBIK Pi 3 comes equipped with 8GB of LPDDR4x RAM and 128GB of onboard storage.

The device is designed for broad functionality with various ports, including a 4K-ready HDMI 1.4 output, a 4K60-capable USB Type-C connector, and two USB 3.0 Type-A ports, among others. Additionally, it offers connectivity through embedded Wi-Fi 5 and Bluetooth 5.2 modules, making the board adaptable to numerous applications.

On the software front, Thundercomm has expanded the RUBIK Pi 3's compatibility. The latest model supports an alpha build of Google's Android 13 and an early access Debian Linux image, while still being compatible with Qualcomm Linux. The board is also expected to work with selected models from Qualcomm's AI Hub model zoo and is claimed to be fully compatible with official accessories for the Raspberry Pi 5.

During CES, Thundercomm showcased the RUBIK Pi 3 through live demonstrations highlighting its capabilities. One demo featured a robotic hand that displayed colour perception, face detection, and gesture recognition while inviting visitors to participate in a game of rock-paper-scissors. Another demonstration presented a RUBIK Pi 3-powered Polaroid camera utilising an on-device vision language model for image analysis, whereas a further demo illustrated the simultaneous execution of four models from the Qualcomm AI hub, focusing on image classification, object detection, pose detection, and image segmentation.

As of now, the RUBIK Pi 3 can be ordered directly from the Thundercomm website, with a limited stock of beta version boards available at a promotional price of $159.

Source: [Noah Wire Services](https://www.noahwire.com)

## Bibliography

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