

We are excited to launch our latest System on Module powered by the new i.MX 95 Applications Processor from NXP.

**iW-RainboW-G61M**: The System on Module built on the SMARC v2.1.1 helps you leverage the multi-core architecture of the **NXP i.MX 95 applications processor family**, offering high-speed data processing alongside secure, real-time, and low-power modes. The SoM offers high-speed connectivity options such as 10GbE,

USB 3.0, PCIe<sup>®</sup> Gen 3, together with Wi-Fi 6 and Bluetooth 5.3 wireless connectivity. The System on Module caters to a wide range of products and applications ranging from automotive connectivity and infotainment systems to Industry 4.0 applications.



# >><u>We are now shipping samples of the development kit to help</u> you get started on evaluation!

The i.MX 95 family combines high-performance compute, immersive Arm<sup>®</sup> Mali<sup>TM</sup>powered 3D graphics, innovative NXP NPU accelerator for machine learning, and high-speed data processing with safety and security features alongside integrated EdgeLock<sup>®</sup> secure enclave. The i.MX 95 family is the first i.MX applications processor family to integrate NXP's eIQ<sup>®</sup> Neutron neural processing unit (NPU) and a new image signal processor (ISP) developed by NXP, helping developers to build these powerful, next-generation edge platforms.

# Key Features of the <u>iW-RainboW-G61M</u>

 $\bullet$  6 x Cortex-A55, 1 x Cortex-M33 & 1 x Cortex-M7 Cores

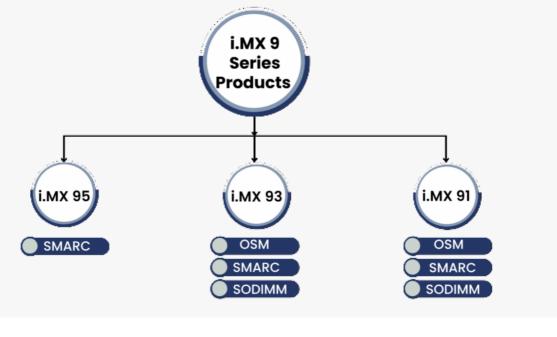
- $\bullet\mbox{ eIQ}^{\ensuremath{\mathbb{R}}}$  Neutron NPU delivering up to 2.0 TOPS for AI workloads
- 8GB / 16GB LPDDR5 RAM
- 16GB eMMC Flash (Expandable up to 256GB)
- Wi-Fi 6 & Bluetooth 5.3 Wireless Connectivity
- 2 x Gigabit Ethernet, 2 x PCIe 3.0
- 2 x LVDS, 1 x MIPI CSI, 1 x HDMI
- TPM Module
- SMARC v2.1.1 Standard (82mm x 50mm)
- Linux 6.6 BSP support for a robust
- development environment



### Extensive portfolio of System on Modules powered by i.MX 9 Applications Processors

iWave has built a strong portfolio of System on Modules powered by i.MX 91,

**i.MX 93** and **i.MX 95**, which are available in various standards such as OSM, SMARC and SODIMM. The family provides the scalability and modularity to customers depending on the requirements. The i.MX 93 applications processors deliver a strong combination of performance and power optimization to accelerate processing and machine learning at the edge, while the i.MX 91 family of applications processors enables the rapid creation of new Linux<sup>®</sup>-based edge devices, such as smart home controllers, connected appliances, home entertainment, industrial and medical platforms.



#### Custom i.MX Powered Boards and Solutions in just 8 Weeks



Custom board design becomes essential when businesses need to integrate specific features, optimize performance, or enhance product differentiation. iWave, with its highly skilled work force and expertise, can customize any i.MX based hardware and deliver the fully working prototypes with BSP enabled in just 8 to 10 weeks based on the complexity involved. iWave differentiates itself through a combination of deep technical expertise, industry knowledge and a well-established ecosystem of certification and production.

#### i.MX 93 SoM: A Building Block for Gateways & HMI Solutions



A powerful compute engine and integrated NPU, rich set of display, multi-media and high-speed interfaces and robust system security makes the i.MX 93 System on Module a good building block for gateways and HMI Solutions. The SoM family integrated with Wi-Fi and Bluetooth connectivity, support for necessary interfaces and software support helps in increased go-to-market with reduced development risk, cost and time.

**DVFS for a wide range of CPU Frequencies on i.MX 8M Plus SoM** 



Dynamic Voltage and Frequency Scaling (DVFS) is a power management technique that dynamically adjusts a processor's voltage and frequency based on workload demands in embedded systems. Lowering the frequency reduces power consumption and heat generation, which is crucial for battery-operated and thermally constrained environments. Implementing DVFS on the i.MX 8M Plus involves configuring the device tree source (DTS) file, which describes the hardware configuration to the Kernel.

## iWave: A gold partner of NXP and your ODM Partner

As an **<u>NXP Gold Partner</u>**, iWave has access to the latest technology and is an early adopter and innovator on i.MX powered boards and solutions.



Our expert engineering team specializes in tailoring i.MX SoMs to meet the unique requirements of various verticals, including Avionics, Medical, IoT, Industrial Automation, Automotive & Video/Vision and also supports wide range of operating systems such as Linux, Android, Ubuntu, Debian, QNX, and VxWorks.

By partnering with iWave, businesses gain the advantage of faster time-to-market, flexibility in design, and seamless integration of i.MX solutions, enabling them to lead in innovation and bring next-generation products to market quickly and efficiently, and a smooth path from concept to completion.

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