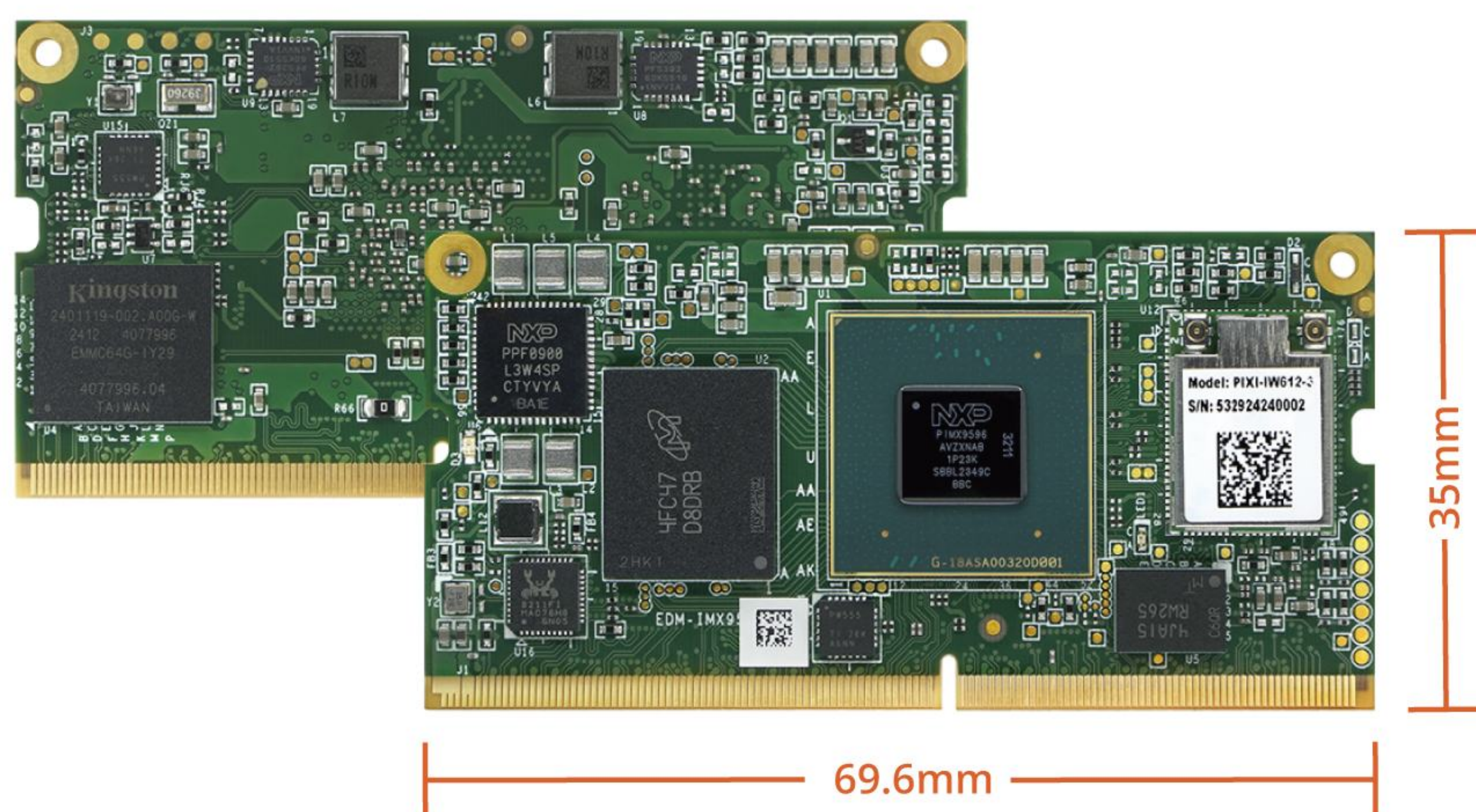


TechNexion

INNOVATORS OF TECHNOLOGY

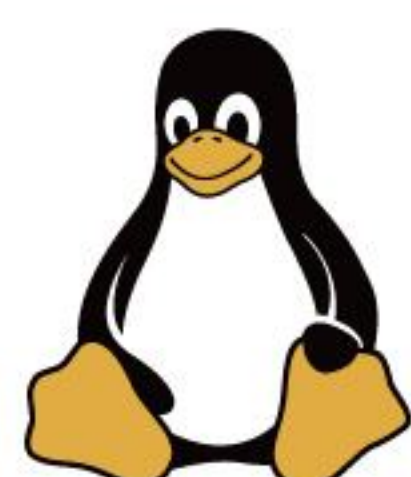


EDM Series

System on Modules

EDM System on Module Series

The EDM Module Family offers a scalable compact formfactor System-on-Module using a 260 pin SO-DIMM edge connector for embedded systems. Designed to meet complex application requirements, these modules combine powerful processors, standardized connectivity, and integrated components to simplify development and accelerate time to market.



Key Highlights



Faster Time to Market

A complete design that is ready to deploy assists you to focus on application from day one. Helping you to bring products to your customers much faster.



Scalable and Pin-Compatible

A complete family stretching multiple generations of SOC technology enabling true scalability and futureproof your design.



Comprehensive Interface

Packed with versatile interfaces, including serial ports, CAN bus, I2C, SPI, and USB, for diverse connectivity.



Camera-Ready

Seamless integration with TechNexion vision modules — built for machine vision, robotics, and edge AI from day one.



Longevity

15+ years availability from the start of production ensuring the same product to be available during the lifetime of your embedded project.



Sourcecode Software

Yocto Linux, Debian or Android sourcecode can be easily obtained from our github account for seamless development.



Pre-Certified Wi-Fi

Pre-certified wireless options simplify design and reduce costs for end-device certifications.



Online Technical Help

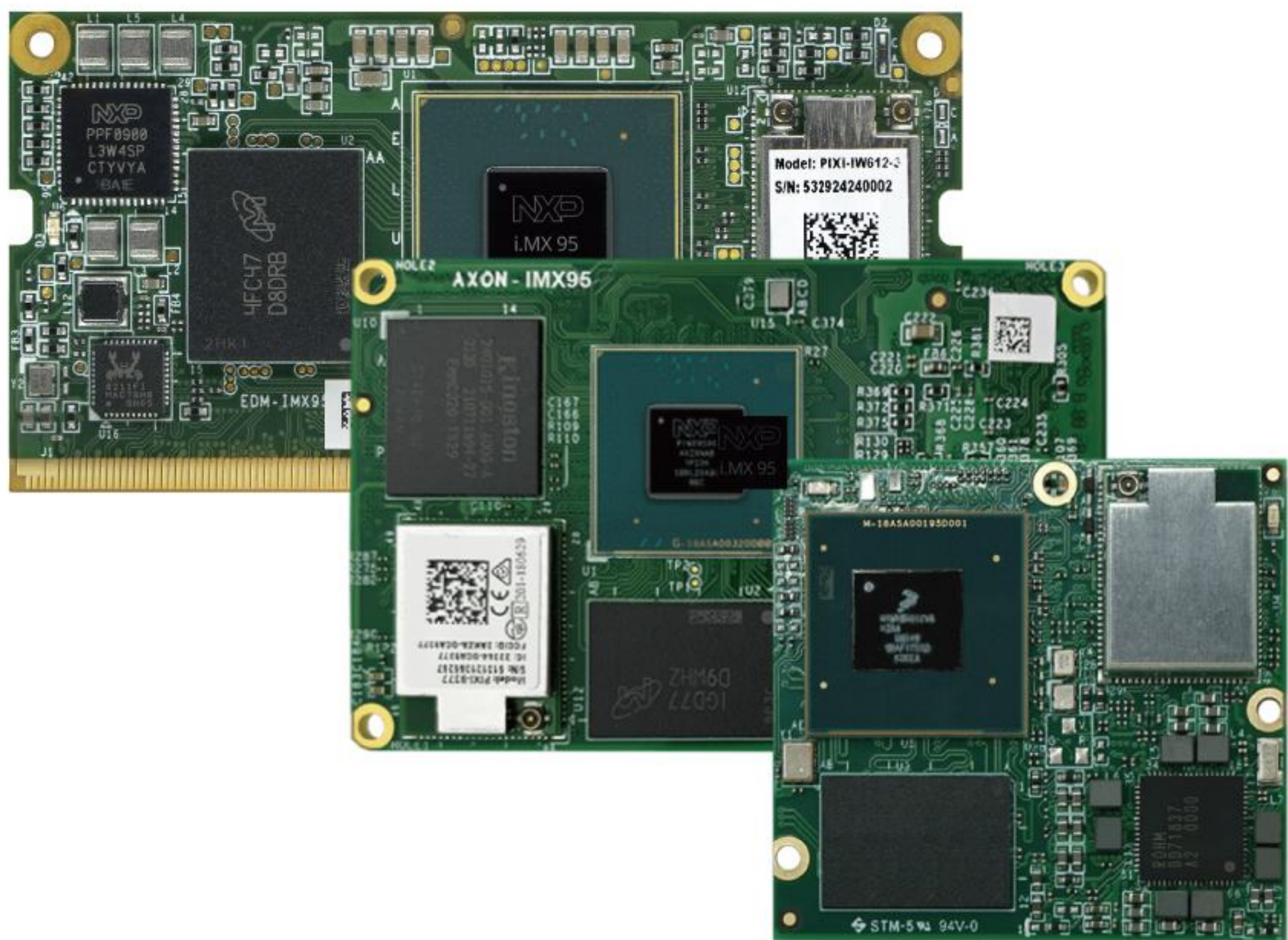
Provides expert resources and guidance to streamlined development and integration.

Don't see what you are looking for ? Talk to us.

SOM Family Comparison: AXON vs. EDM vs. PICO

Feature	AXON	EDM	PICO
Connector	4*80-pin Hirose connectors	260-pin Edge connectors	70-pin Hirose connectors
Size	58 x 37 mm	69.6 x 35 mm	37 x 40 mm
Key Advantages	Interface Superset	Low-cost single connector	Smallest size
Applications	• Edge Computing • Vehicle vision applications • Drone / UAV / Robotics	• General Embedded • Edge AI / Vision Applications • Smart manufacturing	• Small compact embedded devices • Vibration prone applications • Low-power mobile applications

Deliver your embedded system to market faster because...



- ✓ Readily available evaluation kits
- ✓ Source code Software
- ✓ Online Support (resources and manuals)
- ✓ Schematic and design reviews for Carrier board design
- ✓ Short lead-time delivery
- ✓ Pre-certified Wireless / Bluetooth



Overview



	EDM-G-IMX8M-MINI		EDM-G-IMX8M-PLUS		EDM-IMX91		EDM-IMX93		EDM-IMX95	
Core System										
Processor	NXP i.MX8M Mini		NXP i.MX8M Plus		NXP i.MX91		NXP i.MX93		NXP i.MX95	
Architecture	ARM Cortex-A53 + M4		ARM Cortex-A53 + M7		Arm Cortex-A55		ARM Cortex-A55 + M33		6 x ARM Cortex-A55 + M33 + M7	
PMIC	NXP PCA9450		NXP PCA9450		NXP PF9453		NXP PCA9451		NXP PPF0900 NXP PPF5302 NXP PPF5301	
Memory	Up to 8GB LPDDR4		Up to 8GB LPDDR4		1GB LPDDR4 (16bit)		Up to 2GB LPDDR4x		Up to 16GB LPDDR5	
Storage	32GB eMMC (default)		32GB eMMC (default)		16GB eMMC (default)		32GB eMMC (default)		32GB eMMC (default)	
Debug Interface	JTAG / UART		JTAG / UART		JTAG / UART		JTAG / UART		JTAG / UART	
AI / Vision Capabilities										
AI / ML	OpenCL CPU: 32 GOPS		NN Accel 2.3 TOPS				NPU Ethos U-65 0.5 TOPS		2.0 TOP/s NPU (1GHz)	
Camera	MIPI CSI-2 (4 lane)		2x MIPI CSI-2 (4 lane)				MIPI CSI-2 (2 lanes)		2 x MIPI CSI-2 (4 lanes)	
Connectivity										
Network LAN	1x Realtek RTL8211		1x Realtek RTL8211		1x Realtek RTL8211		1x Realtek RTL8211		1x Realtek RTL8211	
Wi-Fi	Qualcomm Atheros QCA9377 Wi-Fi 5 – 802.11 a/b/g/n/ac (optional) NXP IW416 Wi-Fi 4 – 802.11 a/b/g/n (optional)		Qualcomm Atheros QCA9377 Wi-Fi 5 – 802.11 a/b/g/n/ac (optional) NXP IW416 Wi-Fi 4 – 802.11 a/b/g/n (optional)		NXP IW416 Wi-Fi 4 – 802.11 a/b/g/n (optional)		NXP IW416 Wi-Fi 4 – 802.11 a/b/g/n (optional)		NXP IW611 Wi-Fi 6 – 802.11 a/b/g/n/ac/ax (optional)	
Bluetooth	Qualcomm Atheros QCA9377 Bluetooth (optional) NXP IW416 Bluetooth (optional)		Qualcomm Atheros QCA9377 Bluetooth (optional) NXP IW416 Bluetooth (optional)		NXP IW416 Bluetooth (optional)		NXP IW416 Bluetooth (optional)		NXP IW611 Bluetooth (optional)	
Antenna	MHF4 connector (optional)		MHF4 connector (optional)		MHF4 connector (optional)		MHF4 connector (optional)		MHF4 connector (optional)	
Signaling										
	LVDS LAN MIPI CSI MIPI DSI PCIe USB 2.0 USB OTG	I²S SDIO UART SPI I²C PWM GPIO	HDMI LVDS MIPI DSI MIPI CSI-2 LAN PCIe USB 3.1/2.0 I²S PDM	S/PDIF CAN UART SPI I²C SDIO/SD/MMC PWM GPIO	TTL RGB LAN USB 2.0 I²S CAN	UART I²C SDIO GPIO	LVDS TTL RGB MIPI DSI MIPI CSI-2 LAN USB 2.0 I²S	CAN UART I²C SDIO PWM GPIO	LVDS MIPI CSI-2/DSI MIPI CSI-2 LAN MDI PCIe (Gen3) USB 3.1/2.0 I²S PDM S/PDIF	CAN UART SPI I²C SDIO PWM GPIO RGMII USXGMII I³C
Video										
GPU Engine	GC NanoUltra (1 shader) GC328 (2D)		GC520L (2D) Vivante GC7000UL				PXP - Hardware Compositor		Arm Mali-G310 Graphic Processing Unit 3D GPU supporting 50 GFLOPs FP32 OpenGL® ES 3.2 Vulkan® 1.3, OpenCL 3.0	
Video Decode	1080p60 H.265, H.264, VP9, VP8		1080p60 H.265, H.264, VP9, VP8						4Kp30 H.265, H.264	
Video Encode	1080p60 H.264, VP8		1080p60 H.265, H.264						4Kp30 H.265, H.264	
Audio										
Audio Codec	On carrier board		On carrier board		On carrier board		On carrier board		On carrier board	
Audio Interface	I²S (2 channel)		I²S (2 channel)		I²S		I²S		I²S	
Operation Systems										
Standard Support	Linux, Yocto, Android, Ubuntu/Debian		Linux, Yocto, Android, Ubuntu/Debian		Linux, Yocto		Linux, Yocto, Debian		Linux, Yocto, Debian	
Extended Support	Commercial Linux Real Time OS (FreeRTOS)		Commercial Linux Real Time OS (FreeRTOS)							
Mechanical										
Dimensions	69.6 (W) x 35 (H) x 4.45 (D) mm		69.6 (W) x 35 (H) x 4.45 (D) mm		69.6 (W) x 35 (H) x 4.46 (D) mm		69.6 (W) x 35 (H) x 4.47 (D) mm		69.6 (W) x 35 (H) x 6.25 (D) mm	

Starter Kits that Deliver

Proof of concept within a day. It's possible with TechNexion's System on Module Starter kits that bring all bits of hardware to the table. Backed up with demo Yocto Linux and Debian pre-installed on your evaluation kit and take literally a minute to boot after you receive your kit on your doorstep.

Need a touch display or a camera solution, You can easily add these to the kit and software driver is already made available, assisting you quickly with your proof of concept validation steps.



Embedded Vision Made Easy

Integration of Embedded vision camera sensors in your system with TechNexion SOMs is made easy with the TechNexion unified camera driver that comes pre-installed and packaged with your TechNexion System-on-Module.

All TechNexion Embedded Vision products are supported with VizionViewer and VizionSDK, giving your engineering team full control over the camera settings by using C# or Python.

Learn more about TechNexion MIPI CSI-2 Sensors online or ask your Sales Representative for a consultation how we can help you.

< 2 MP	5 MP	8 MP	10 ~ 20 MP
 AR0144 Global Color	 AR0521 Rolling Color	 AR0821 Rolling Color	 AR1335 Rolling Color
 AR0145 Global Mono	 AR0522 Rolling Color/Mono	 AR0822 Rolling Color/Mono	
 AR0234 Global Color		 AR0830 Rolling Color/Mono	
 AR0235 Global Mono			



VizionSDK



VizionViewer™

