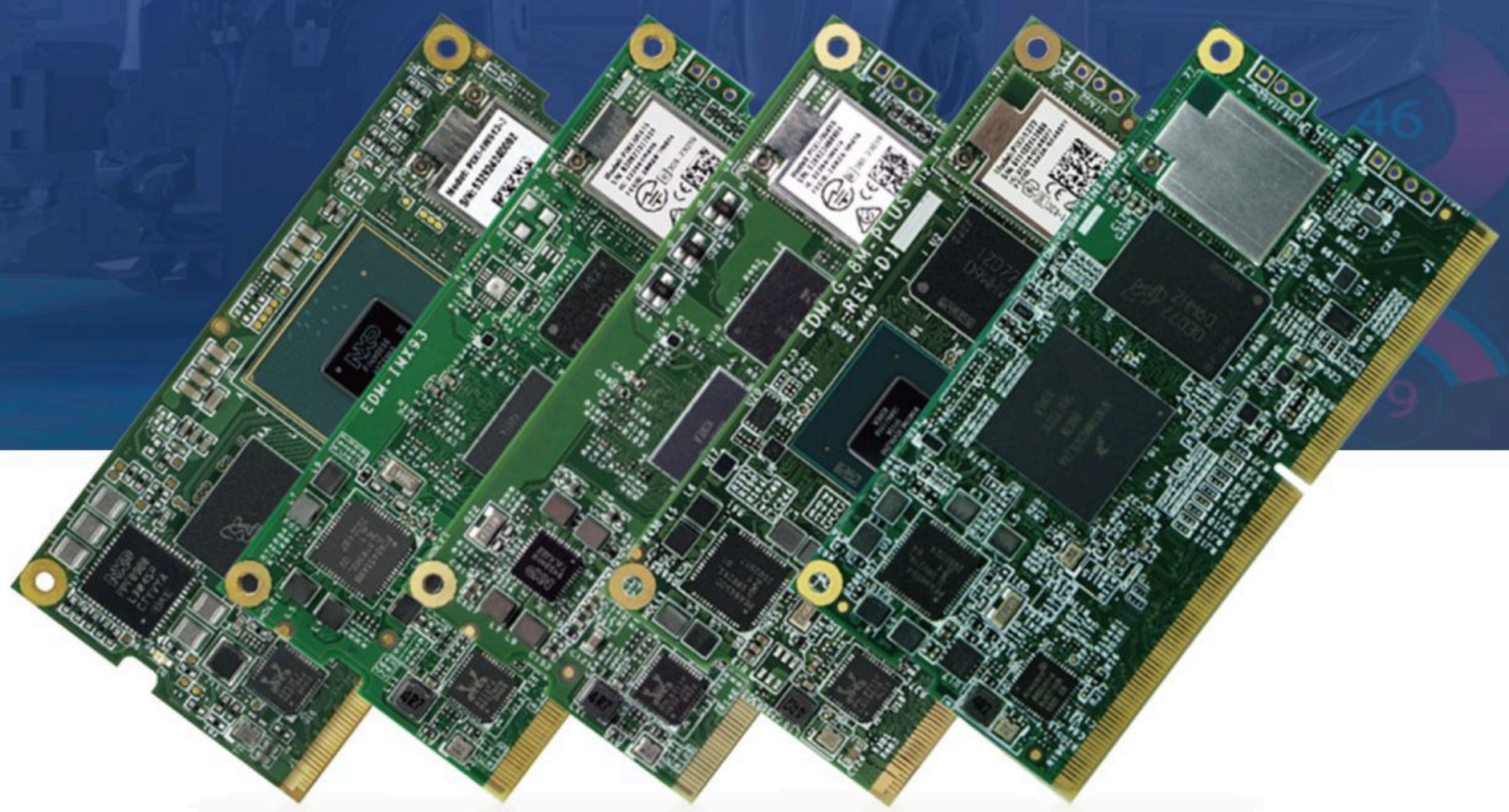
TechNexion

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.

Longevity

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

Scalable and Pin-Compatible

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

Sourcecode Software

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

Comprehensive Interface

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

Pre-Certified Wi-Fi

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

Power Efficiency

Low power consumption makes EDM Module perfect for battery-powered and energy-sensitive applications.

Online Technical Help

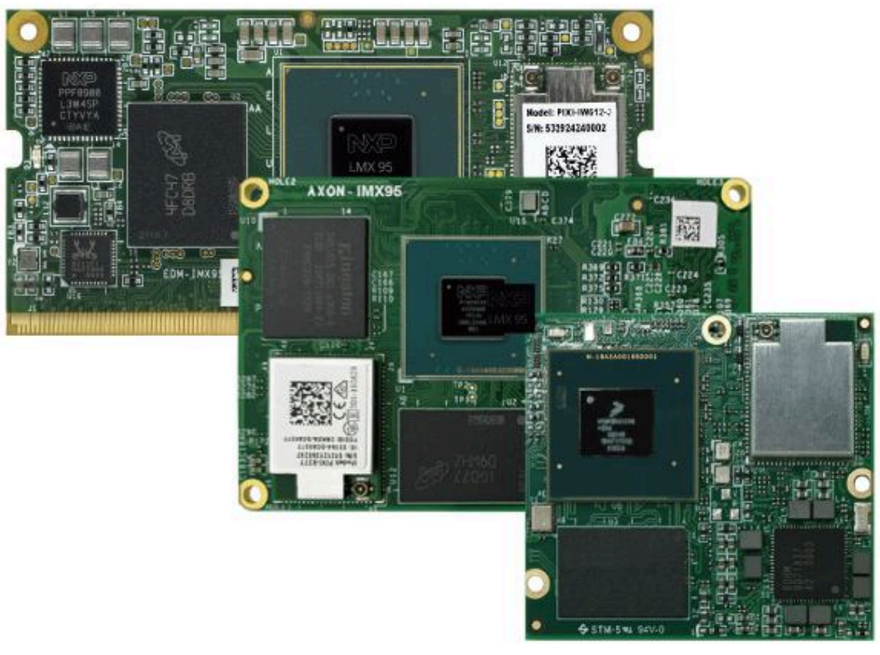
Provides expert resources and guidance to streamline development and integration.

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)	64GB 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 IW612 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 IW612 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 PCIe (Gen3) USB 3.0/2.0 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, Debian	Linux, Yocto, Debian	Linux, Yocto, Debian
Extended Support	Commercial Linux Real Time OS (FreeRTOS)	Commercial Linux Real Time OS (FreeRTOS)	Commercial Linux Real Time OS (FreeRTOS)	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.

VizionSDK

VizionViewer™

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ISO 9001 SGS

ISO 14001 SGS