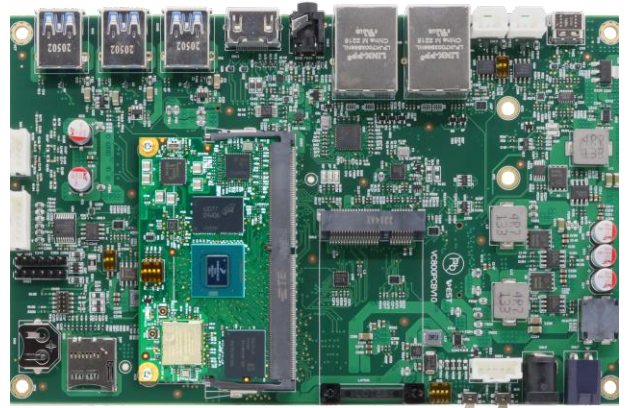**Your Partner in Innovation**
SMART . CONNECTED

VEST i.MX 8M Plus Dev Kit

VEST-8MP-00-DEV-00

VEST is a leading embedded solutions provider, committing to excellence and innovation. Our Development Kits expedite product development, enabling swift market entry for your products and ensuring a competitive advantage.

Ai/ML Support

Rich Multimedia

High Performance CPU

Robust Security Features

ABOUT OUR PRODUCT

Introducing the VEST i.MX 8M Plus Development (Dev) Kit. This comprehensive solution comprises a System on a Module (SOM) and a Carrier board.

Unleash the full potential of the NXP i.MX 8M Plus, featuring ARM® Cortex™-A53 processor and Neural Processing Unit (NPU). This empowers Artificial al Intelligence (AI) and Machine Learning (ML) capabilities, enhances multimedia performance, supports cutting-edge Edge Computing, provides robust video graphics, and enables rapid processing – all within a compact, cost-efficient, and power-efficient package.

This Dev Kit is versatile and suitable for diverse range of appliances, such as

- Video / Audio Conferencing
- Advance Human Machine Interface Panels
- Point of Sales
- Digital Signage
- Portable Test and Mesurement Instrumentals
- Automation for Industry 4.0.

Key Features

- Dedicated NPU to accelerate AI and machine learning
- Accelerate real-time data processing, with dual display
- Rich multimedia capabilities
- 4K Ultra HD video capture and playback
- Built-in 10W audio amplifier (plug and play speaker driver)
- Secured data integrity, safeguard against unauthorized access
- Multiple high-speed interfaces that comply with industrial standards facilitate seamless integration with various peripherals

Support

Linux Yocto	Android	Ubuntu	QT	Tensor Flow	**VESTConnect360** Cloud Management System
Linux Yocto	Android	Ubuntu	QT	Tensor Flow	VestConnect360

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Specifications

CPU Details	
CPU	i.MX 8M Plus | 4x Cortex-A53 @ 1.8GHz, Cortex-M7 @ 800MHz
GPU	16 GLOPS (high-precision) OpenGL® ES 3.1/3.0, Vulkan®, Open CL™ 1.2 FP, Open VG™ 1.1
NPU	Neural Processing Unit (NPU) operating at up to 2.3 TOPS

Memory	
Memory	2GB (up to 8GB) 32-bit LPDDR4 2133-10MHz – 17GB/s
Storage	8GB (up to 128GB) eMMC5.1
Storage	Micro SD 3.0 Socket push-push type

Operating System	
BSP	Linux Yocto, Ubuntu and Android

Multimedia	
Video Encoder	1080p60, h.265/4
Video Decoder	1080p60, h.265/4, VP9, VP8
Hi-Fi Audio	Cadence® Tensilica® Hifi 4 DSP @ 800MHz
Camera	2x MIPI CSI with Dual Image signal processors
Display	MIPI-DSI, up to UWHD and WUXGA | HDMI 2.0a Tx, up to 4kp30 LVDS (4/8-lane) Tx, up to 1920x1080p60
Display	LCD display controller (up to WXGA 1366x768)
Display and Touch	On board LVDS and I2C Touch Connector for 7" & 10" LCD Panel | M.2 Display Daughter Board | Socket | Dual Channel 4-lane LVDS | 4-lane MIPI-DSI | I2C Touch | PWM | Up to 1A Backlight Output
Audio and Video	HDMI 2.0a Type A | 3.5mm Headphone Jack with Microphone Input | 2mm pitch, 4 pin header for Speaker L&R, Up to 10W/ch into 8ohm load

Connectivity	
Connectivity (Wifi)	On Board Dual Band Wi-Fi / Bluetooth Module (optional) | Full Size M ini PCIe with Nano SIM Card Socket
UPHY	1x PCIe Gen3 – 1 lane, 2 x USB 3.0/2.0
Networking	2x 10/100/1000 BaseT RJ45 Ethernet
USB	USB 3.0 OTG, Type C | 3 USB 3.0 Host, Type A
Serial Communication	RS485 (default) or RS232 | CAN- 2x 2mm pit ch 3 pin heade
Debugging & Programming	Debug- 2x UART Header, 2.54mm pitch 5pin header | JTAG- 1.27 mm pitch 2 x 5 pin header
Buttons and Indicators	1x On/Off Button | 1x Reset Button | On/Off, Reset, Power LED Control Signal Connector- 1x 2mm pitch 5 pin header | Power LED Indicator- x 2, 3.3V & 5V
Power	12 – 24VDC, 2.0mm DC Jack or 2 Pin 4.2 mm pitch Mini Fit JR Header
Ethernet	2x Gigabit Ethernet with AVB, IEEE 1588, EEE and 1x w/ TSN
Expansion	M.2 Expansion Daughter Board Socket | 4-lane MIPI CSI x 2

Physical	
Form Factor	180 mm x 112 mm (Carrier Board) , 69.6mm x 40mm (SOM)

Development Kit

| **VEST i.MX8M Plus Dev Borad** | **Heat Sink** | **Power Adapter** | **Plug and Socket** | **Antenna x2** |

Our Main Office:
5006 ANG M O KIO AVENU E 5, #05 - 01/ 12 TECHPLACE II, SINGAPORE (569873)

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