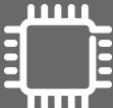# VEST OSM i.MX 8ULP

VEST continues to provide the embedded solutions market with its cutting-edge technology and streamlined design. Our VEST Open Standard Module (OSM), adhering to the SGeT definition, offers a compact and standardized platform that simplifies development and enhances manufacturing efficiency. By leveraging the i.MX 8ULP family's ultra-low power capabilities, this OSM enables the creation of energy-efficient, secure, and innovative solutions for the intelligent edge.

COMING SOON

Efficient Edge Computing

Rich Multimedia

Ultra-low Power

Robust Security Features

ABOUT OUR
PRODUCT

Experience the revolutionary i.MX 8ULP applications processor family, designed for ultra-low power consumption and fortified with EdgeLock® secure enclave for advanced security at the intelligent edge.

NXP's innovative Energy Flex architecture in the i.MX 8ULP processors optimizes energy efficiency at the chip level. This groundbreaking technology combines heterogeneous domain computing, advanced design techniques, and cutting-edge process technology. With a dedicated power management subsystem offering over 20 power mode combinations, the i.MX 8ULP delivers exceptional energy efficiency for a wide array of applications.

The i.MX 8ULP family features up to two Arm® Cortex®-A35 cores running at 800 MHz, an Arm Cortex-M33 core, 3D/2D Graphics Processing Units (GPUs), and a Cadence® Tensilica® Fusion DSP for low-power audio/voice, ML processing.

Introducing the VEST OSM (Small) i.MX 8ULP SOM, ideal for a diverse range of applications, such as:

- Smart Home and Building Automation
- Wearables and Health Monitoring
- Portable Test and Measurement Equipment
- Energy-Efficient Voice Solutions
- Human Machine Interfaces (HMI)

Key Features

- Ultra-Low Power Consumption by leveraging NXP's Energy Flex architecture
- Integrated EdgeLock® secure enclave for enhanced security
- Low-power audio/voice application with Tensilica® Fusion DSP
- SGeT-compliant OSM design for simplified development and manufacturing

Support

VESTConnect360
Cloud Management System

OPEN STANDARD MODULE™

SGeT STANDARDIZATION GROUP FOR EMBEDDED TECHNOLOGIES

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Specifications (VEST OSM i.MX 8ULP)

CPU Details	
CPU	2x Cortex®-A53 @ 800MHz, Cortex®-M33 @ 216MHz
GPU	GC7000UL with 2 shaders for 3D Graphics | GC520L for 2D | PXP

Memory	
Memory	2GB (up to 2GB) 32-bit LPDDR4
Storage	16GB (up to 256GB) eMMC 5.1
SD Card Storage	SDIO 3.0

Operating System / Driver	
BSP	Yocto Linux and Android

Security	
SOC	EdgeLock® Secure Enclave
Secure IOT/Cloud	EdgeLock® Secure Enclave

Multimedia	
Camera	MIPI CSI (2-lane)
Display	MIPI DSI (4-ane), 18-bit RGB
Hi-Fi Audio	Tensilica® Fusion DSP for low power audio
Audio	I2S

Connectivity	
Wireless	SDIO 3.0
Networking	10/100 Mbps Ethernet/RMII
USB	2x USB 2.0 OTG
Serial Communication	2x UART (TX,RX,CTS,RTS) | 3x UART (TX,RX) | CAN FD | 2x SPI | 6x PWM
I2C	2x I2C | 1x I3C
GPIO	24 GPIO (can use to configure 8 Ch DMIC) | 2x I2S
Debugging	JTAG
Power	5Vdc +/-5%

Physical	
Form Factor	OSM Size-S (small) module 30mm x 30mm
Operating Temperature	Commercial / Industrial (Optional)

Ordering Information	
Part No.	VPN8ULP3-OSM-42-0C

Scan here to purchase

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