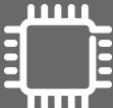


## VEST OSM i.MX 8ULP

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.



  
**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

**OS** OPEN  
STANDARD  
MODULE™

**SGeT** STANDARDIZATION  
GROUP FOR  
EMBEDDED  
TECHNOLOGIES



**Scan here  
to purchase**

## Specifications (VEST OSM i.MX 8ULP)

CPU Details	
CPU	2x Cortex®-A35 @ 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
External Storage	2x SDIO 3.0
Operating System / Driver	
BSP	Yocto Linux, Android and RTOS
Security	
SOC	EdgeLock® Secure Enclave
Secure IOT/Cloud	EdgeLock® Secure Enclave
Multimedia	
Camera	MIPI CSI (2-lane)
Display	MIPI DSI (4-lane), 18-bit RGB
Hi-Fi Audio	Tensilica® Fusion DSP for low power audio
Audio	I2S
Connectivity	
Networking	1x 10/100 Mbps RMII for Ethernet
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, I3C	2x I2C   1x I3C
GPIO	24 GPIO (can use to configure 8 Ch DMIC)   2x I2S
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

