

# System On Module iW-RainboW-G46M

## i.MX 8XLite OSM-SE LGA Module



The i.MX 8XLite SoC based LGA Module is designed as per the Open Standard Module™ specification (OSM). It integrates NXP's i.MX 8XLite offerings Dual/Solo Cortex A35 @ 1.2GHz, advanced multicore processing with V2X acceleration supported by Arm® cores.

The i.MX 8XLite OSM LGA module is aimed to offer for Automotive applications, Telematics, V2X Communications, building control and robotics requiring time-sensitive networking (TSN) Ethernet or controller area network (CAN).

### iW-RainboW-G46M

#### HIGHLIGHTS

AEC-Q104\*

Supports Cortex-A35 cores

Supports 1 x 1Gb Ethernet with AVB

i.MX 8XLite Dual/Solo with 64-bit ARMv8 Architecture

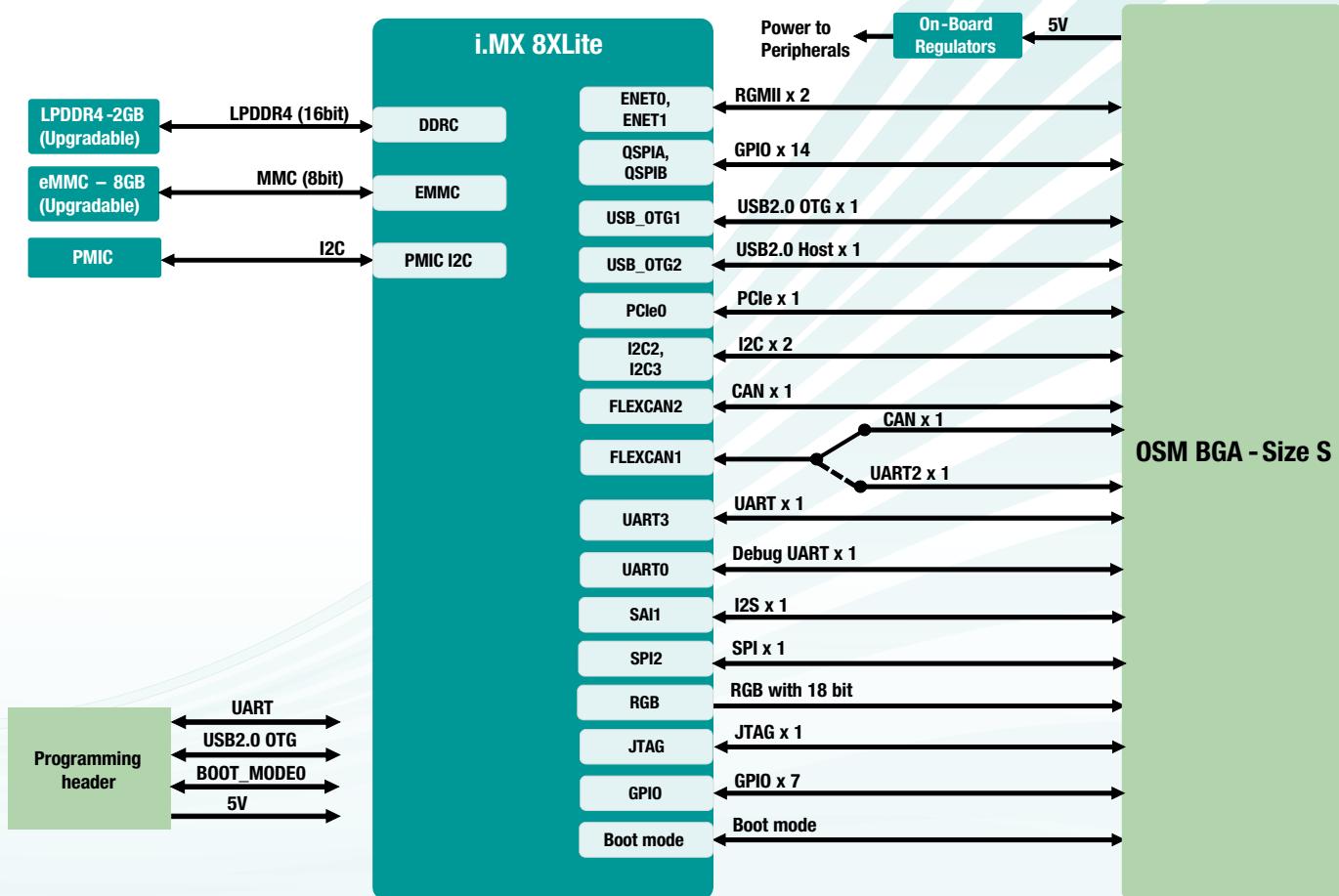
10+ years of Product Longevity Program

OSM v1.0 Size-SE LGA Module with 30mm x 30mm form factor

#### SPECIFICATIONS

<b>SoC</b>	18-bit RGB
<b>i.MX 8XLite Dual:</b> 2 X Cortex - A35, 1 X Cortex - M4F	I2S x 1
<b>i.MX 8XLite Solo:</b> 1 X Cortex - A35, 1 X Cortex - M4F	SPI x 1
<b>Memory &amp; Storage</b>	I2C x 2
LPDDR4 -2GB (Expandable)	JTAG x 1
eMMC Flash - 8GB (Expandable)	GPIOs
<b>OSM LGA Features</b>	<b>OS Support</b>
RGMII x 2	Linux 6.1.22
USB 2.0 OTG x 1	Android 11 (or higher)
USB 2.0 HOST x 1	<b>Power Input</b>
PCIe x 1	5V, 2.5A through OSM LGA
CAN x 2	<b>Form Factor</b>
UART x 3 (1 is optional)	30mm x 30mm (Size SE)
	<b>Operating Temperature</b>
	-40°C to +105°C (Automotive)
	<b>Environment Specification</b>
	REACH & RoHS3 Compliant

## i.MX 8XLite based OSM Block Diagram



### OS SUPPORT

Linux 5.4.24 (or higher)  
Android 11 (or higher)

### DELIVERABLES

i.MX 8XLite OSM - SE Module  
Board Support Package  
User Manual

### OPTIONAL KITS/Modules

i.MX 8XLite OSM - SE Development Kit  
Heat Sink

### CUSTOM DEVELOPMENT

BSP Development/OS Porting  
Custom SOM/Carrier Development  
Custom Application/GUI Development  
Design Review and Support

iWave Systems Technologies is an ISO 9001:2015 certified company, head quartered in Bangalore India established in the year 1999. The company focuses on providing embedded solution and services for Industrial, Medical, Automotive and various other Embedded Computing applications. iWave Systems offers wide range of System On Modules and Single Board Computers built using wide range of CPU and FPGA SoC platforms with different form factors such as Qseven, SMARC, SODIMM and HPC by closely working with Tier-1 silicon companies such as NXP, Xilinx, Intel etc.

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iWave Systems also provides comprehensive Engineering design services involving Embedded Hardware, FPGA and Software development. iWave offers carrier board and custom hardware development with manufacturing and certification services. iWave's Hardware expertise spans complex board design up to 30 layers; Analog, Digital & RF Designs; FPGA Development up to 3+ million gates and VHDL / Verilog RTL Development & Verification. Our Software expertise ranges from OS Porting, Firmware & Device Drivers Development and Wireless & Protocol Stacks.

*\*Optional items not included in the standard deliverables.*

*Note: iWave reserves the right to change these specifications without notice as part of iWave's continuous effort to meet the best in breed specification. The registered trademarks are proprietary of their respective owners.*

### i.MX 8XLite OSM-SE LGA Module

The device can be ordered online from the iWave Website  
<https://www.iwavesystems.com/product/i-mx-8xlite-osm-se-lga-module/>  
Or from our Local Partners in your region  
<http://www.iwavesystems.com/about-us/business-partner.html>

iW-G46M-BR-R1

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