



The AM62Ax SoC based LGA Module is designed as per The Open Standard Module™ specification v1.1 (OSM). It integrates TI AM62Ax offerings Quad/ Dual/ single Cortex A53 @ up to 1.4GHz, dual Cortex R5F @ up to 800MHz for MCU Channel with FFI & Device Management, embedded Deep Learning (DL) with up to 2 TOP/s, Vision Processing Accelerators (VPAC) with Image Signal Processor (ISP), Functional Safety, Security, IEEE 802.11 a/b/g/n/ac/ax Wi Fi + BT 5.3 + IEEE 802.15.4 module, High-Speed Interfaces & General Connectivity with AEC - Grade components.

The AM62Ax SoC based LGA Module is aimed to offer for applications mainly focusing on analytics, Driver Monitoring System (DMS), Barcode scanner and vision system, advanced multimedia and industrial automation with high reliability.

### iW-RainboW-G55M HIGHLIGHTS

AM62Ax with 64-Bit Quad Arm Cortex-A53

Dual core ARM Cortex-R5F Subsystem

2GB LPDDR4 Expandable up to 8GB and 16GB eMMC Flash

C7xV-256 Deep Learning Accelerator (2 TOPS)

Supports Low power mode by Device Manager

IEEE 802.11 a/b/g/n/ac/ax Wi-Fi + BT 5.3 + IEEE 802.15.4 AEC-Q104\*

OSM v1.1 Size-LF LGA Solderable Module

### SPECIFICATIONS

#### CPU

4 x Arm Cortex-A53@1.4GHz

1 x Arm Cortex-R5F (Integrated as part of MCU Channel with FFI) @800MHz

1 x Arm Cortex-R5F (Integrated to support Device Management) @800MHz

#### Memory

2GB LPDDR4 expandable up to 8GB

16GB eMMC Flash expandable up to 128GB

16Mb QSPI Flash

#### Others

IEEE 802.11 a/b/g/n/ac/ax Wi-Fi + BT 5.3 + IEEE 802.15.4

#### OSM LGA Features - Processor Domain

RGMI x 2

SD(4bit) x 1

USB2.0 x 2

MIPI CSI x 1(4 Lane)

RGB-18 bit

CAN x 1

I2C x 2

QSPI x 1 (With CS1)

Audio x 1

UART x 2

Debug UART x 1

JTAG x 1

GPIO x 3

PWM x 2

Boot Mode

#### OSM LGA Features - MCU Domain

MCU\_MCAN x 1

MCU\_I2C x 1

MCU\_SPI x 1 (With 2 chip selects)

MCU\_UART x 1

WKUP\_UART x 1

MCU\_GPIO x 8

#### OS Support

Linux 5.10.153 (or higher), Free RTOS, QNX

#### Power Input

5V, 2.5A through OSM LGA

#### Form Factor

45mm x 45mm

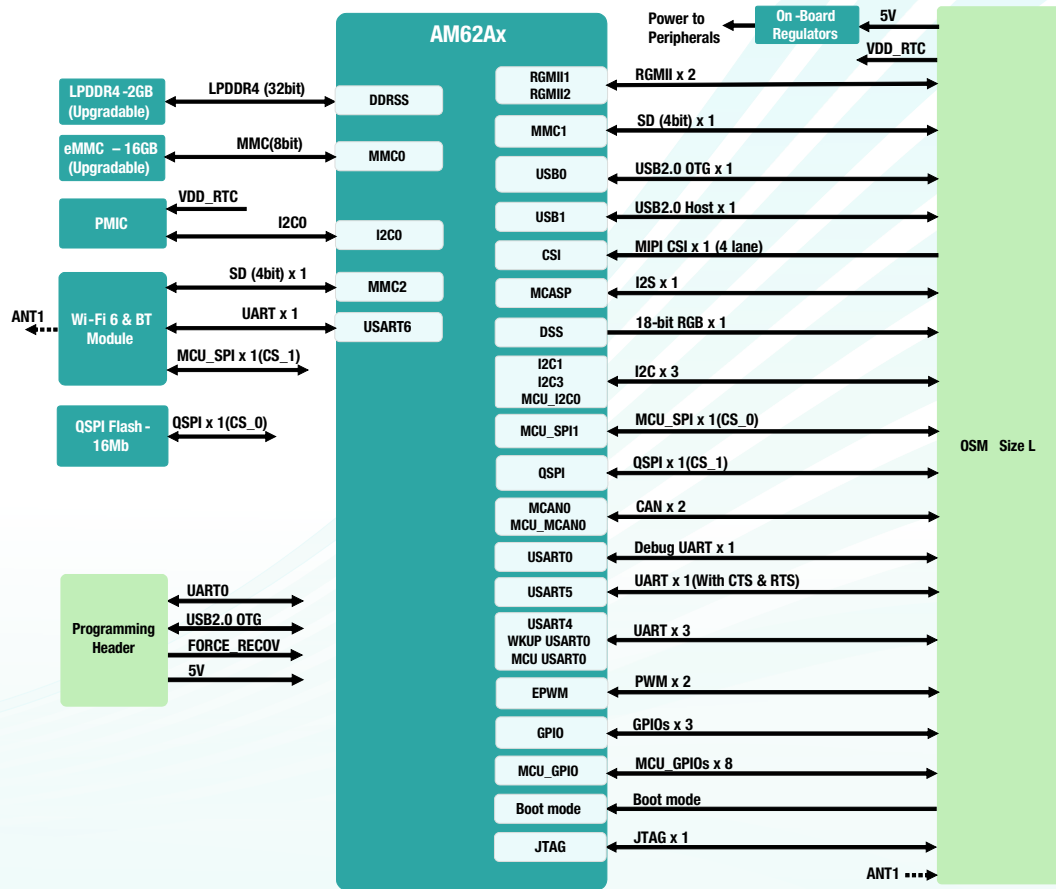
#### Operating Temperature

-40°C to +85°C (AEC-Grade 3)

#### Environment Specification

REACH & RoHS3 Compliant

## TI AM62Ax OSM LGA Module Block Diagram



### OS SUPPORT

Linux 5.10.153 (or higher)  
Free RTOS

### DELIVERABLES

TI AM62Ax OSM Module  
Board Support Package  
User Manual

### OPTIONAL KITS/Modules

TI AM62Ax OSM Development Kit  
Heat Sink  
Camera Module

### 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.*

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### TI AM62Ax OSM LGA Module

The device can be ordered online from the iWave Website

<https://www.iwavesystems.com/product/ti-am62ax-based-osm-lf-module/>

Or from our Local Partners in your region

<http://www.iwavesystems.com/about-us/business-partner.html>

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