

# Single Board Computer iW-RainboW-G46S

## i.MX 8XLite Pico ITX SBC



The i.MX 8XLite Pico ITX SBC integrates NXP's i.MX 8XLite offerings Dual/ Solo Cortex A35 @ 1.2GHz and 1 x Cortex-M4F cores with on board Dual 10/100/1000 Mbps Ethernet PHY.

The i.MX 8XLite SBC is aimed to offer for Automotive applications, building control and robotics requiring controller area network (CAN). With the 100mm x 72mm Pico-ITX form factor, the SBC is packed with all the necessary on-board connectors.

### iW-RainboW-G46S HIGHLIGHTS

- i.MX 8XLite Dual/Solo CPU
- 64-bit ARMv8 Architecture
- Dual 1000/100/10 Mbps Ethernet
- 10+ years of Product Longevity Program

### SPECIFICATIONS

<b>CPU</b>
<b>i.MX 8XLite Dual:</b> 2 x Cortex-A35, 1 x Cortex-M4F
<b>i.MX 8XLite Solo:</b> 1 x Cortex-A35, 1 x Cortex-M4F
<b>Memory &amp; Storage</b>
LPDDR4 -2GB
eMMC Flash - 8GB (Expandable)
<b>Network &amp; Communication</b>
Gigabit Ethernet x2 (Dual RJ45 Mag-jack Connector)
USB 2.0 OTG (micro AB Receptacle Connector)
RS232 Header x 1 <sup>1</sup>
USB Header x 1
CAN Header x 1
<b>Audio/Video Features</b>
3.5mm Audio IN/OUT Jack
Speaker Out Header

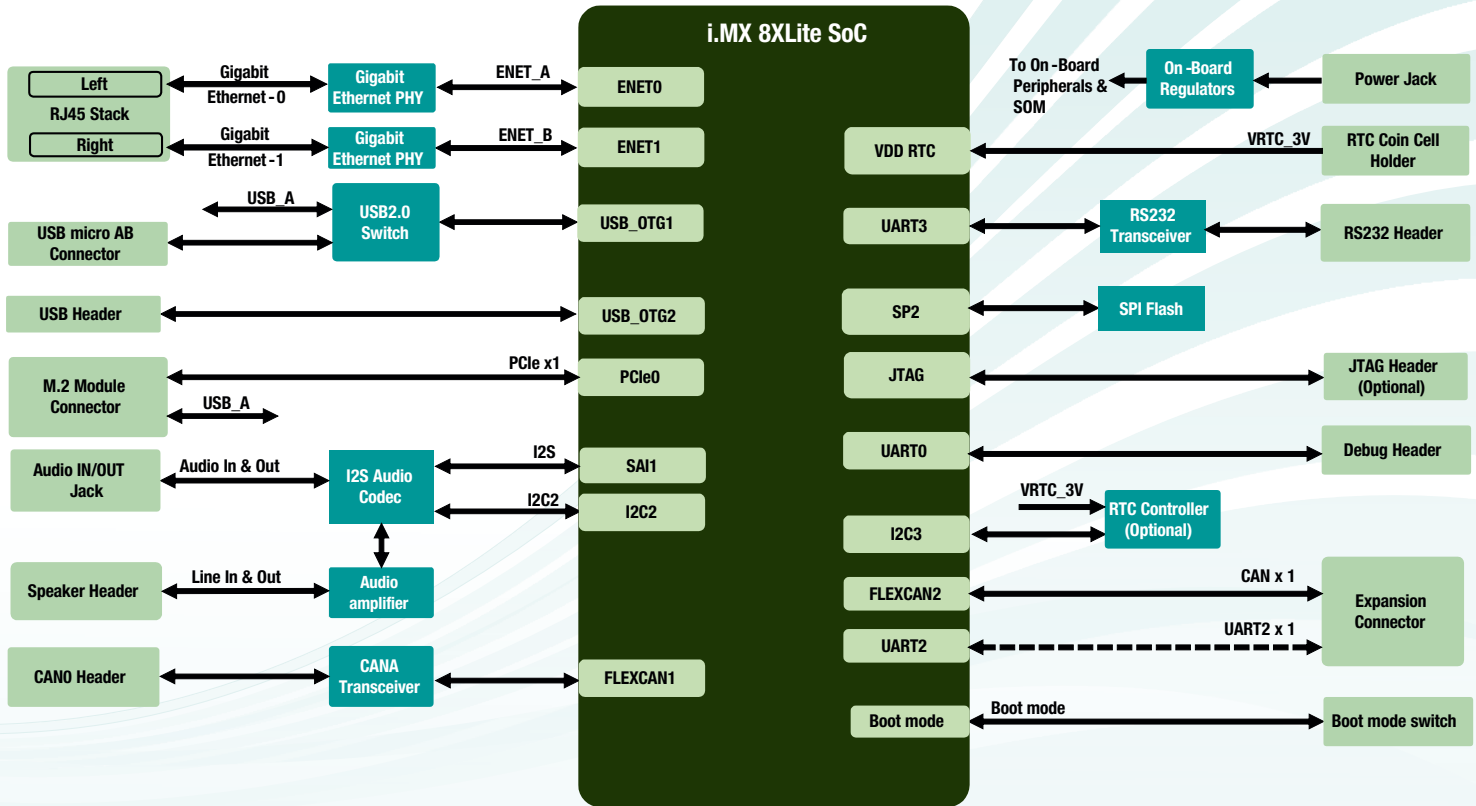
<b>Expansion Connector Features</b>
CAN x1 Port
UART x 1 (optional)
<b>Miscellaneous Interfaces</b>
Debug UART Connector
RTC Battery Connector
JTAG Header
M.2 Connector Key B Connector
<b>OS Support</b>
Linux 6.1.22
<b>Power Input:</b>
12V,2A input through External Adaptor <sup>2</sup>
<b>Form Factor:</b>
100mm x 72mm
<b>Operating Temperature:</b>
-40°C to +85°C
<b>Environment Specification:</b>
REACH & RoHS3 Compliant

**Note:**

1.RS232 is supported without CTS/RTS

2.The i.MX 8XLite OSM based SBC can support input power 7V to 24V. By default, it is designed to support 12V.

## i.MX 8XLite Pico ITX SBC Block Diagram



### OS SUPPORT

Linux 5.4.24 (or Higher)

### DELIVERABLES

i.MX 8XLite Pico ITX SBC  
Board Support Package  
User Manual

### OPTIONAL KITS/Modules

Heat Sink  
Enclosure

### 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.

iWave Systems offers various state of art ready ODM solutions such as Connected Telematic Control Unit / OBD II devices for the automotive edge analytics, Comprehensive ARINC818 solutions for the low latency Aerospace applications and Rugged IP rated performance scalable HMI solutions for Industrial applications.

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 Pico ITX SBC

The device can be ordered online from the iWave Website  
<https://www.iwavesystems.com/product/i-mx-8xlite-pico-itx-sbc/>  
Or from our Local Partners in your region  
<http://www.iwavesystems.com/>

#### INDIA

iWave Systems Technologies Pvt Ltd.  
#7/B, 29th Main, BTM Layout  
2nd Stage,  
Bangalore - 560 076  
mktg@iwavesystems.com

#### JAPAN

iWave Japan Inc.  
8F Kannai Sumiyoshi Building,  
3-29 Sumiyoshi-cho, Naka -ku,  
Yokohama Kanagawa, Japan  
mktg@iwavesystems.com

#### EUROPE

International Sales & Marketing Europe  
Venkelbaan 55 2908KE Capelle  
aan den IJssel,  
The Netherlands  
info@iwavesystems.eu

#### USA

iWave USA  
1692 Westmont Ave. Campbell  
Ca95008  
USA  
info@iwavesystems.us