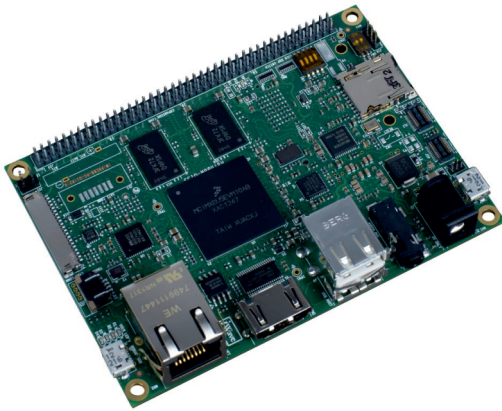


# Single Board Computer iW-RainboW-G15S i.MX6 Pico-ITX SBC



iWave's new i.MX6 Quad/Dual/Dual Lite/Solo based Pico-ITX SBC integrates all standard interfaces into a single board with ultra compact yet highly integrated platform that can be utilized across multiple embedded PC, system and industrial designs. It has got all the necessary functions that the embedded world demands on a single board. It also provides an expansion header through which interfaces can be used according to their applications. Measuring just 100mm x 72mm, the Pico-ITX is currently the smallest complete ARM Cortex A9 main board in the industry, smaller than all existing ATX, BTX and ITX form factors.

**APPLICATIONS:** Intelligent Industrial Control Systems, Industrial Human-Machine interface, Ultra Portable Devices, Home Energy Management Systems, Portable Medical Devices

## iW-RainboW-G15S HIGHLIGHTS

ARM Cortex A9 @ 1GHz/800MHz  
Quad/Dual/Dual Lite/Solo core

100mmx72mm Pico-ITX form-factor  
Single Board Computer

HD 1080p encode and decode

3D video playback in high definition

Technical and quick customization  
support

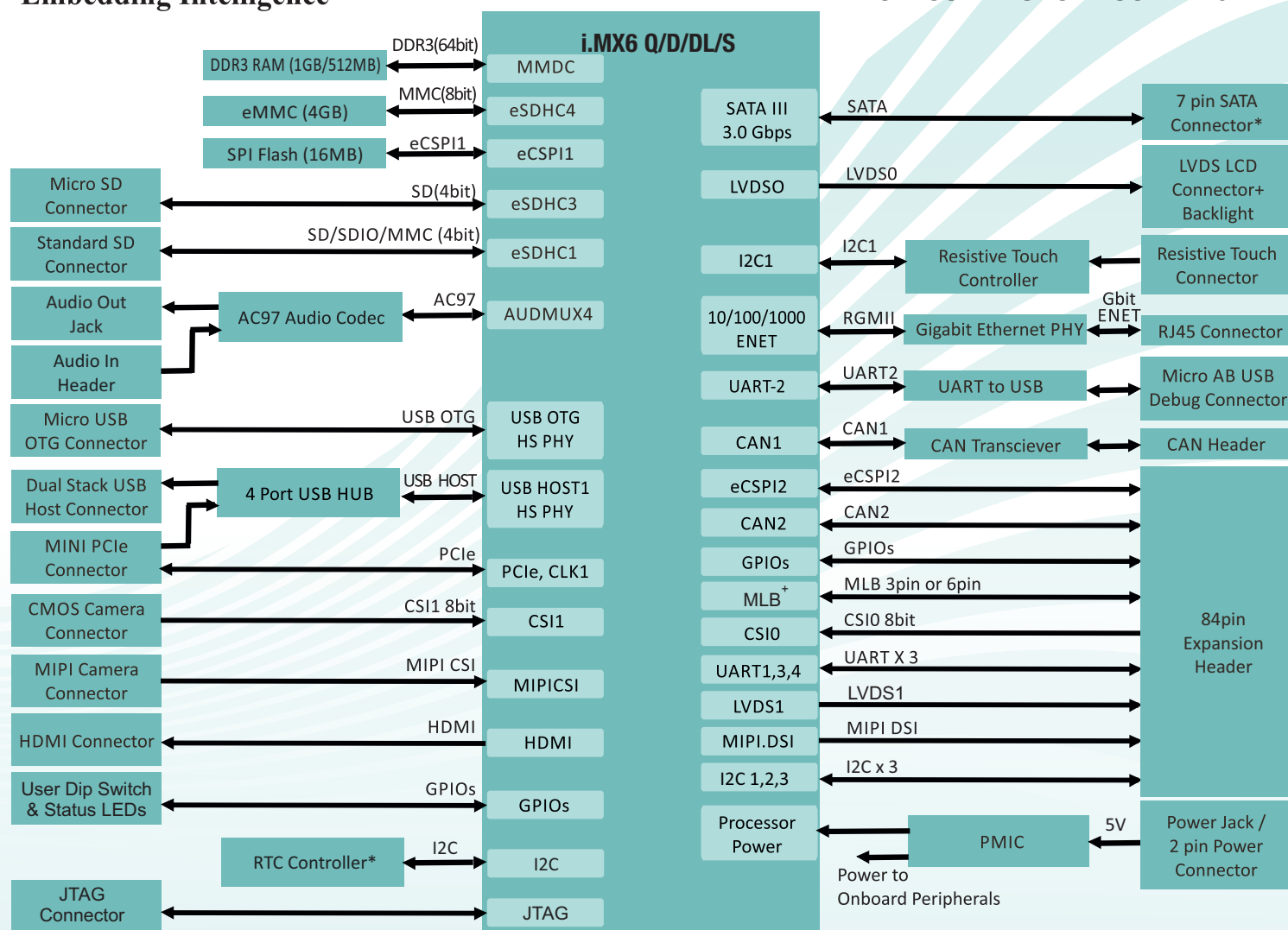
5+ years, long term support

## SPECIFICATIONS

<b>CPU:</b>	2 Lanes MIPI Camera Connector
i.MX6 Q/D/DL/S @1GHz/800MHz ARM-Cortex-A9	<b>Debug &amp; Status Indication Support:</b>
<b>PMIC:</b>	Micro USB Debug Port
Freescale MMPF0100	JTAG Header
<b>RAM:</b>	4 Pos User Dip Switch & Status LEDs
1GB DDR3 for Q/D/DL (Expandable up to 4GB*)	<b>Expansion Header-84 Pin:</b>
512MB DDR3 for Solo (Expandable up to 2GB*)	MIPI DSI
<b>Storage:</b>	SPI Interface-1No
On-board Micro SD Slot	CSI0 Camera interface
Standard SD/SDIO Slot	CAN2 Interface
SPI Flash 16Mbit	UART- 3 Nos
4GB eMMC Flash	I2C- 3 Nos
Optional SATA 7 Pin Connector*	GPIOs
<b>Communication Interfaces:</b>	LVDS1 Interface
10/100/1000 Mbps Ethernet	Optional MLB interface*
Half mini PCIe card Connector	<b>Miscellaneous:</b>
Dual USB Host Connector	RTC Controller*
Micro USB OTG Connector	<b>Operating Temperature:</b>
CAN Transceiver - 1 Port	-20°C to +85°C
<b>Audio &amp; Video Interfaces:</b>	<b>Power Input:</b>
AC97 Audio Codec with Audio Out Jack & Audio In Header	5V, 2A
HDMI Port	<b>Form Factor:</b> Pico-ITX (100mmx72mm)
LVDS Connector with Backlight Support [LVDS0]	<b>Operating Systems:</b>
4 Wire Resistive Touch Controller	Linux 3.14.38
8 Bit CMOS Camera Connector [CSI1]	Android 5.0 Lollipop

\*Optional features are not supported by default

## i.MX6 PICO-ITX SBC BLOCK DIAGRAM



### OS SUPPORT

Linux 3.14.38  
Android 5.0 Lollipop

### DELIVERABLES

i.MX6 Pico-ITX SBC  
Board Support Packages  
5V @2A Power Adapter  
User Manual

### OPTIONAL ADD ON MODULES

Pico ITX Enclosure  
Camera Module  
Power Module

### CUSTOM DEVELOPMENT

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

iWave Systems Technologies, established in 1999, focuses on Product Engineering Services involving Embedded Hardware, Software & FPGA. The company designs and develops cutting edge products and solutions. iWave has been an innovator in the development of highly integrated, high performance, low power and low cost System On Modules and Development Platforms. iWave's expertise has brought out multiple SOMs based on ARM, Freescale, Intel Atom, Marvell and TI Processors.

iWave Systems has won the confidence of its customers over the years by being a reliable partner in developing innovative products. Our engineers combine outstanding System design experience to deliver Quality Solutions. iWave specializes across Industrial, Automotive and Medical domains. We support our customers by being time efficient, which in turn helps our customers accelerate time to market their products. iWave is a Windows embedded Silver partner and a winner of the Partner Excellence Award.

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

\*Optional items are not included in the standard deliverables

### Ordering the i.MX6 Pico-ITX SBC

The board can be ordered online from the iWave Website  
<http://www.iwavesystems.com/webforms>

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