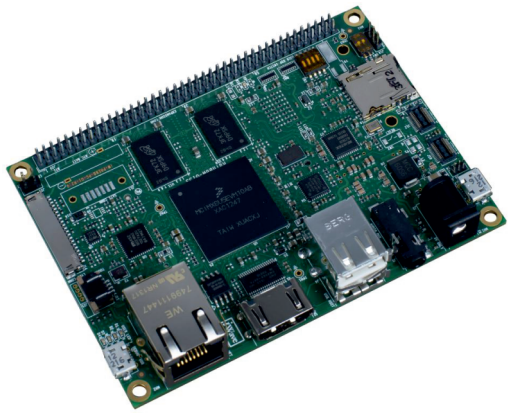
iWave
Embedding Intelligence

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

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

*Optional features are not supported by default

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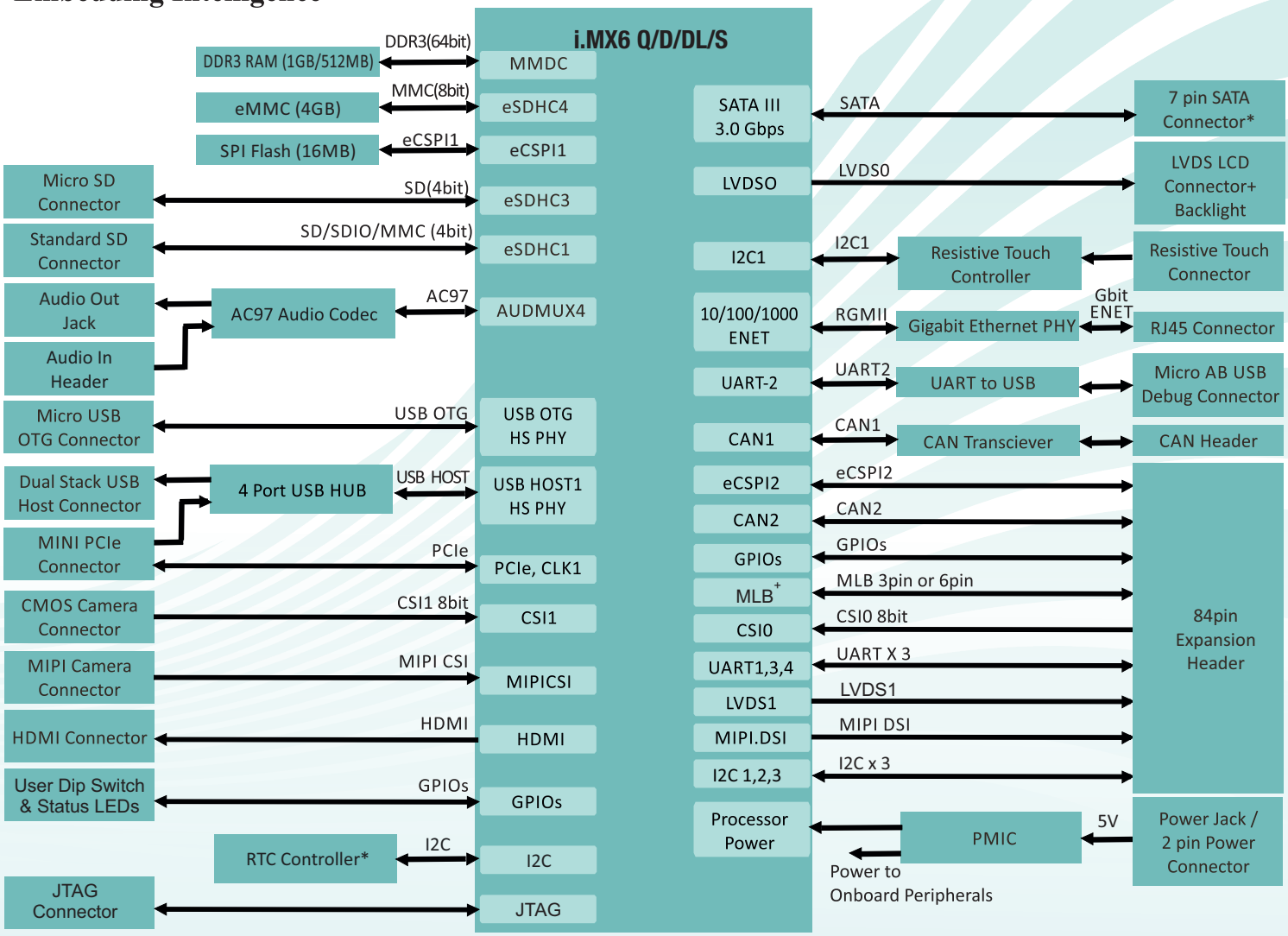
i.MX6 PICO-ITX SBC BLOCK DIAGRAM



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 Enclsoure
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.

*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

IW-G15S-BR-R1.5

iWave Systems Tech. Pvt. Ltd.,
7/B, 29th Main, BTM Layout 2 nd Stage,
Bangalore-560076, India.
Ph:+91-80-26683700, 26786245
Email: mktg@iwavesystems.com
www.iwavesystems.com

iWave Japan, Inc.
8F-B, Kannai Sumiyoshi Building,
3-29, Sumiyoshi-cho, Naka-ku,
Yokohama, Kanagawa, Japan.
Ph: +81-45-227-7626
Email: info@iwavejapan.co.jp
www.iwavejapan.co.jp

iWave Europe
Postbus 6197
3130 DD Vlaardingen
The Netherlands
Ph: +31 10 28403383
Email: info@iwavesystems.eu