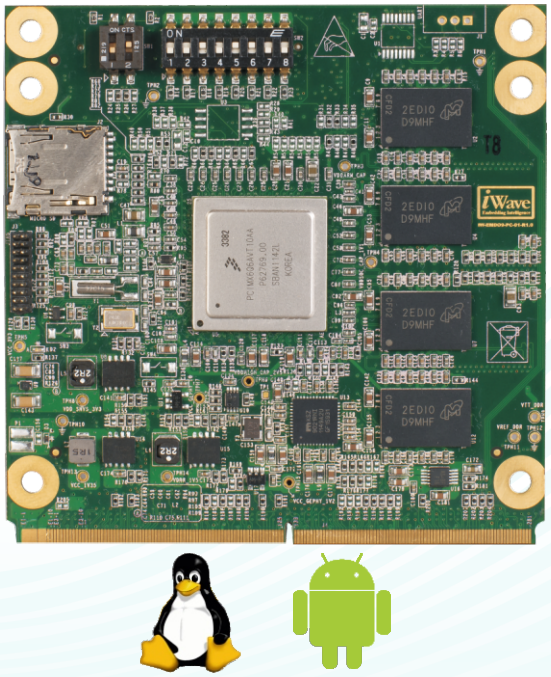
iWave
Embedding Intelligence

System On Module RainboW-G15M-MXM

i.MX6 MXM SOM Module



The i.MX6 MXM SOM is based on Freescale's i.MX6 Series Quad/Dual/Solo core processor running at 1GHz.A single ruggedized MXM connector provides the carrier board interface to carry all the I/O signals to and from the MXM module. With 1080p HD decoding & encoding and 2D/3D graphics an enhanced and optimized user experience is achieved.

The MXM connector pinouts are fully compatible with iWave i.MX53 MXM SOM. The i.MX6 MXM SOM has an additional expansion connector to bring out the special/extra features of i.MX6 Series Quad/Dual/Solo core processor. The i.MX6 MXM SOM is simple and low cost yet rugged.

APPLICATIONS : Automotive Infotainment, Advanced HMI, Telematics, Digital Signage, Healthcare and Medical Equipments

iW-RainboW-G15M-MXM HIGHLIGHTS

ARM Cortex A9@ 1GHz Dual/Quad core

64-bit DDR3-1066 support

OpenGL® ES 2.0 3D, OpenVG™ 1.1graphics accelerators

Multi format HD1080p HW decode and encode

Four simultaneous display support

Integrated high bandwidth connectivity peripherals

Industry latest HDMI1.4, SDXC, MIPI CSI/DSI interfaces

Technical &quick customization support

5+ years, Long term support

SPECIFICATIONS

CPU
i.MX6 1GHz/800MHz Cortex A9 Q/D/U/S
Memory
1GB DDR3-Expandable upto 4GB
4GB eMMC Flash- Expandable upto 32GB
On-Board Micro SD slot
Optional SPI Flash*
Optional NAND Flash*
Expansion Connector - 100 Pins**
HDMI 1.4
MPI CSI & DSI
MLB differential
RGMII interface
ENET interface
GPIOs
Form Factor
85mmx85mm MXM3 compatible
Power Input
5V, 1A Typical
Debug Support
Onboard JTAG header**

MXM 3.0 RVS Edge Connector- 314 Pins
PCIe v2.0 x 1 Lane
SATA 3.0 x 1 port
Gigabit Ethernet
Dual LVDS ports
USB 2.0 Host
USB 2.0 OTG
Audio ports -3
SD/SDIO/MMC ports- 3
RGB interface 24bit
CAN and CSI -2
MLB , SPDIF -1
UART , SPI -5
I2C -3
Memory Bus, GPIOs
Temperature
-40°C to +85°C
Operating Systems
Linux 3.0.35, Android 4.0.4

**Optional features not supported by default*
*** Not populated in mass production SOM*
Note: device drivers provided are for specific interface chipsets which are used in iWave's carrier board

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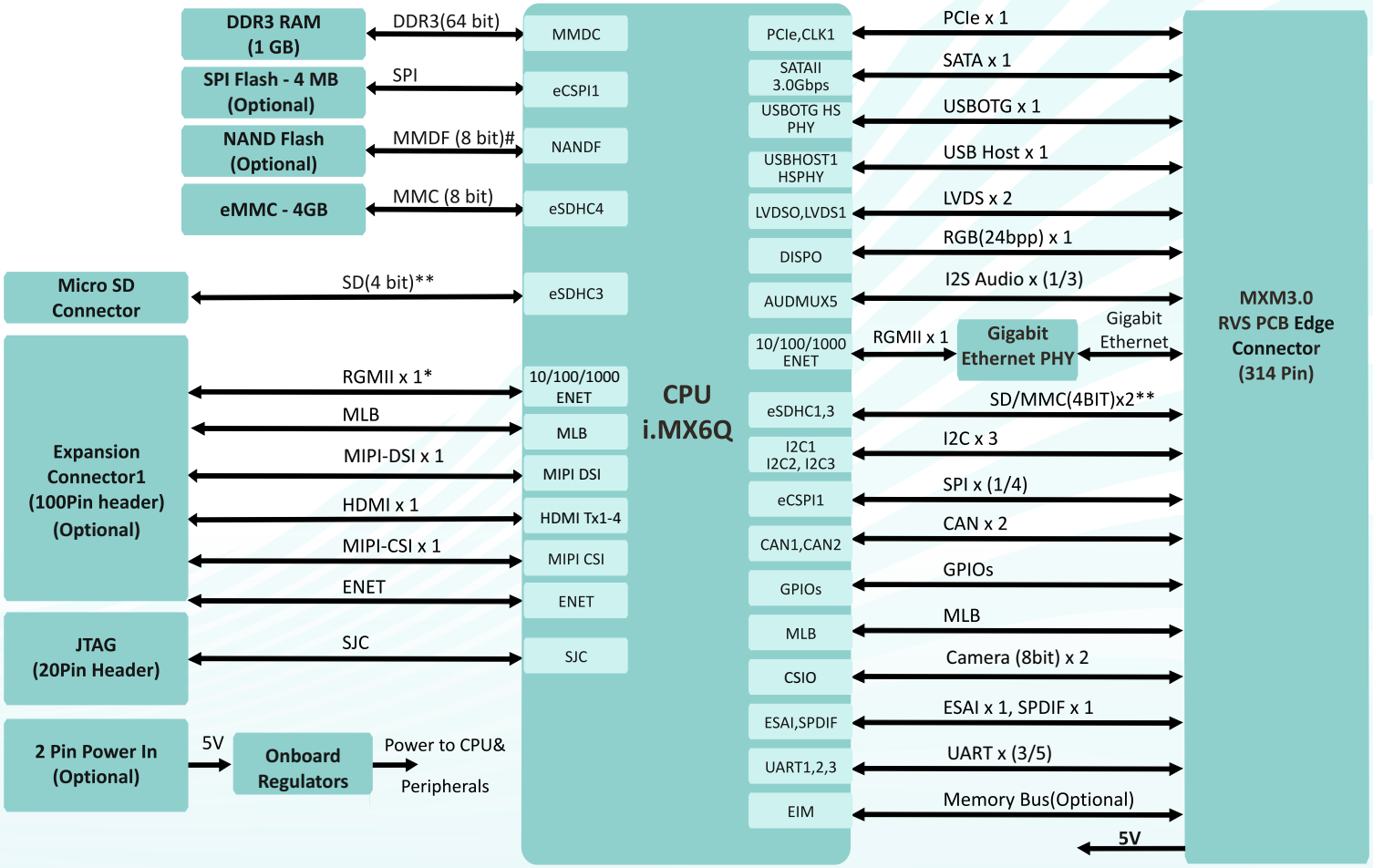
Windows Embedded Silver Partner

freescale Connect Proven Partner

i.MX6 MXM Module BLOCK DIAGRAM



** RGMII signals are shared with on board Gigabit Eth PHY & expansion connector*
*** eSDHC3 port will be share uSD and MXM connector*
 # NAND Flash is optional & these signals are also routed to MXM connector & some of the signals are shared with eMMC

OS SUPPORT

Linux 3.0.35
Android 4.0.4*
WEC7*

** Optional*

DELIVERABLES

i.MX6 MXM SOM module
Board support packages
User manual

OPTIONAL KITS

RainboW-G15D-MXM
(i.MX6 MXM Development Kit)

CUSTOM DEVELOPMENT

BSP Development/OS Porting
Custom SOM/Carrier development
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 not included in the standard deliverables*

Ordering the i.MX6 MXM SOM

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

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iW-G15M-MXM-BR-R1.0