

# Development Platform RainboW-G15D-MXM i.MX6 MXM Development Board



RainboW G15D is a multipurpose platform powered by automotive grade i.MX6 MXM SOM which is based on Freescale's i.MX6 Series 1GHz multimedia focused processor. This platform can be used for quick prototyping of any high end applications in verticals like Automotive, Industrial & Medical. Being a nano ITX form factor with 120mmx120mm size, the board is highly packed with all necessary onboard connectors to validate complete i.MX6 CPU features.

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



## iW-RainboW-G15D-MXM HIGHLIGHTS

Ideal for Quick Proof of concept (POC) development

Shortens 60% of the new product development life cycle

Quad Display Support

Quick customization services in a very shorter period

Compact (NanoITX 120mm X 120mm) form factor

Suitable for Wide Range of Applications

## SPECIFICATIONS

### i.MX6 CPU Module:

i.MX 6 Quad/Dual/Solo CPU  
ARM®Cortex™-A9 core @1GHz  
2D/3D GPU (OpenGL ES 2.0, OpenVG 1.1)  
Hardware Encoder and Decoder  
RAM: 1GB DDR3 RAM (Expandable)  
Storage:  
MicroSD  
4GB eMMC Flash (Expandable)

### Storage:

SATA 3.0 - 1Port  
Standard SD/MMC -1 Port

### Communication Interfaces:

Gigabit Ethernet - 1 Port  
USB 2.0 Host - 3 Ports  
USB 2.0 OTG - 1 Port  
RS232 Debug Console - 1Port  
CAN - 2 Ports (DB9, Header)  
Mini PCIe 2.0 - 1 Port  
Wi-Fi Module (Shared with Micro SD)

### Sensors:

3-Axis Accelerometer  
Digital e-Compass  
Ambient Light Sensor

### Audio and Video:

On-board Audio Codec  
Audio IN/OUT Jacks  
TV-IN RCA Jack - 1 Port  
Parallel Camera - 1 Port  
800x480 - RGB 7" LCD  
HDMI 1.4 - 1Port  
Audio Amplifier

### On-Board Headers:

UART Headers  
ESAI Header  
MLB Header  
RTC Coin cell Holder

### Expansion Connector-1\*:

Memory Bus,UART,I2C  
MLB(3 pin), SSI,GPIOs,12V

### Expansion Connector-2\*:

iMX6 RGMII,ENET Interface\*  
MIPI CSI, MIPI CSI,MLB-6pin,12V

### Operating Temperature:

0 to 60°C

### Power Input:

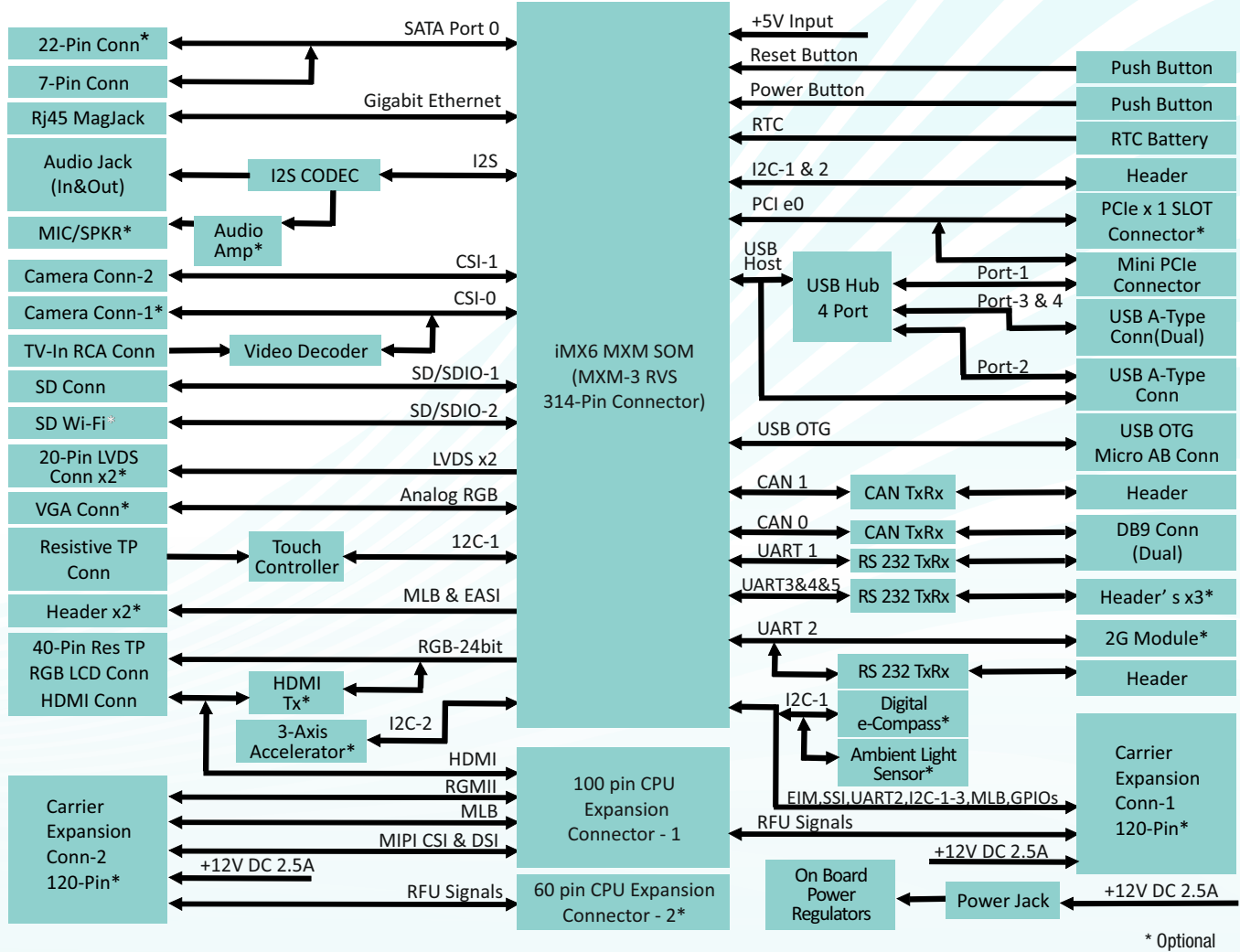
12V@ 2A DC Input

**Form Factor:** Nano ITX 120mmx120mm

\*Optional

\*\* Note: device drivers provided are for specific interface chipsets which are used in iWave's carrier board

### i.MX6 MXM DEVELOPMENT BOARD BLOCK DIAGRAM



\* Optional

#### OS SUPPORT

Linux 3.0.35  
 Android 4.0.4\*  
 QNX 6.5.0\*

\* Optional

#### DELIVERABLES

RainboW-G15D-MXM Platform  
 Board Support Packages  
 Power Adapter  
 User Manual

#### OPTIONAL KITS

Camera Add On Module  
 7"Capacitive Touch Add On Module  
 3G Add On Module

#### CUSTOM DEVELOPMENT

Custom SOM/ Carrier Card Development  
 BSP Development/ OS Porting  
 Design Review & 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 not included in the standard deliverables

#### Ordering the i.MX6 MXM Development Board

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

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