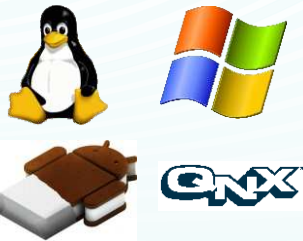


# Development Platform RainboW-G15D-Q7 i.MX6 Qseven Development Kit



The Development Platform incorporates Qseven compatible i.MX6 SOM which is based on Freescale's i.MX6 Series 1.0GHz multimedia focused processor and Generic Qseven compatible Development Board. 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 :** Industrial HMI, Automotive IVI, Video & Navigation, Graphical Instrument Clusters, Portable Medical Devices, Intelligent Industrial Control Systems and Home Energy Management Systems



## iW-RainboW-G15D-Q7 HIGHLIGHTS

Ideal for Quick Proof of concept (POC) development.

Shortens 60% of the new product development life cycle

Suitable for validation of any R1.2 Qseven compatible module

Quick customization services in a very shorter period

## 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)  
Video Processing Unit(H.264, VC1, Rv10 etc)  
RAM: 512MB/1GB DDR3 RAM (Expandable)<sup>+</sup>  
Storage:  
MicroSD  
4GB eMMC Flash (Expandable)

### Storage:

SATA 3.0 - 1Port  
Standard SD/MMC or  
WiFi(WYSAAVDX7) -1 Port

### Communication Interfaces:

Gigabit Ethernet - 1 Port  
USB 2.0 Host - 2 Ports  
USB 2.0 OTG - 1 Port  
USB Debug Port (Serial to USB conversion)  
UART - 2 Ports  
4 Wire Resistive Touch  
CAN - 2 Ports  
4 Port PCIe Gen2.0 Switch:  
PCIe x 1 Slot  
Mini PCIe Slot  
- PCIe Interface  
- USB Host Interface  
- IIM Interface  
- SMB Interface  
PCIe to USB 3.0 Controller  
- USB 3.0 Host - 2 Ports

**Power Input:**12V@ 2A DC Input

### Sensors:

3-Axis Accelerometer  
Digital e-Compass  
Ambient Light Sensor  
Altimeter/Barometer  
**Audio and Video:**  
Ac'97 codec- Audio IN/OUT Jacks  
TV-IN RCA Jack (NTSC/PAL Input)  
Parallel Camera ZIF Connector- CSI1 (8Bit)  
MIPI Camera Connector  
LVDS1 - 7" 800x480 Display with Capacitive TP  
Backlight PWM Control  
HDMI v1.4 - Port  
LVDS-2 Connector

### On-Board Headers:

10 Pin JTAG Header (Optional)  
SPI Header  
4x4 Keypad Interface Header  
RTC Coin cell Holder

### 120 Pin Expansion Connector Interface:

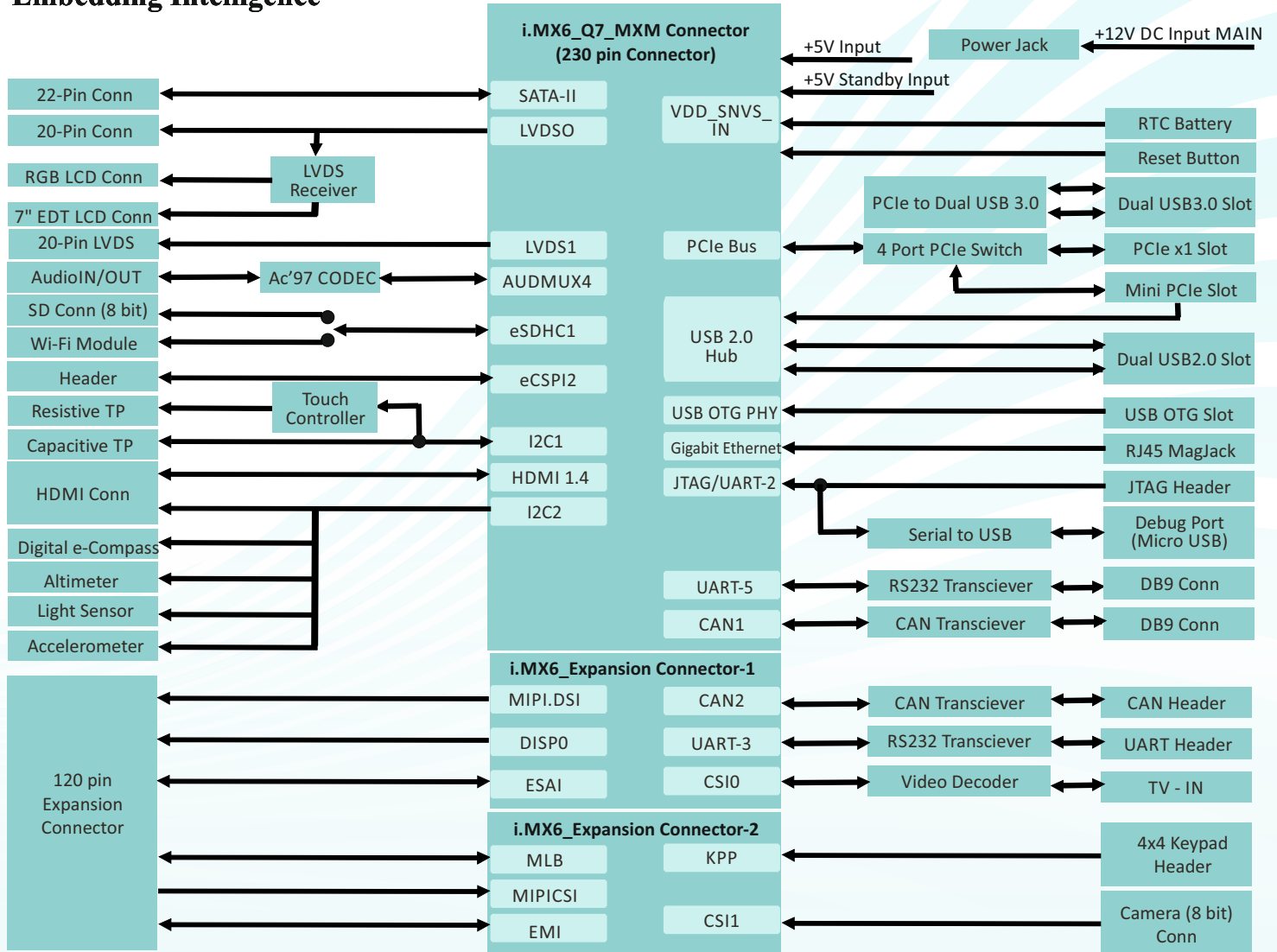
24bpp RGB LCDIF  
ESAI  
MIPI-DSI  
MIPI-CSI  
CSI2 (8 Bit)  
Memory Interface (Address/Data Muxed)  
MLB (Supported only in Automotive CPU)

**Operating Temperature:** 0 to 60°C

**Form Factor:** Nano ITX 120mmx120mm

<sup>+</sup> 512MB DDR3 supported for i.MX6 Solo SOMs and for other CPU configurations 1GB DDR3 is supported

## i.MX6 Qseven DEVELOPMENT BOARD BLOCK DIAGRAM



### OS SUPPORT

Linux Kernel 3.0.35  
 Android 4.0.4  
 WEC7  
 QNX 6.5.0\*

\* Optional

### DELIVERABLES

RainboW-G15D-Q7 Platform  
 Board Support Packages  
 Power Adapter  
 User Manual

### OPTIONAL ADD ON MODULES

Camera Add On Module  
 24BPP LCD Add On Module  
 Wi-Fi Add On Module  
 3G and GPS Add On Module

### CUSTOM DEVELOPMENT

Custom SOM/ Carrier Card Development  
 BSP Development/ OS Porting  
 Design Review & Support

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\*Optional items not included in the standard deliverables

### Ordering the i.MX6 Qseven Development Board

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

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