





iW-RainboW-G15D-Q7

Ideal for Quick Proof of concept (POC)

Shortens 60% of the new product

Quick customization services in a very

**HIGHLIGHTS** 

development.

shorter period

development life cycle

# **Development Platform iW-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 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

# **SPECIFICATIONS**

#### i.MX6 CPU Module:

i.MX6 Quad/Dual/Dual Lite/Solo ARM®Cortex™-A9 core @1GHz/800MHz

1GB DDR3 for Q/D/DL (Expandable up to 4GB\*) 512MB DDR3 for Solo (Expandable up to 2GB\*)

4GB eMMC Flash (Expandable\*)

2MB SPI Flash (Expandable\*)

On-board Micro SD Slot

#### **Carrier Board:**

#### **Storage**

SATA 3.0 - 1Port

Standard SD/MMC or

On -board 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 Connector\*

CAN - 2 Ports

PCle x 1 Slot

Mini PCle Slot\*

- PCIe Interface
- USB Host Interface
- SIM Interface
- SMB Interface

**OS:** Linux 4.1.15, Android Nougat 7.1.1

#### **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\*

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 50°C

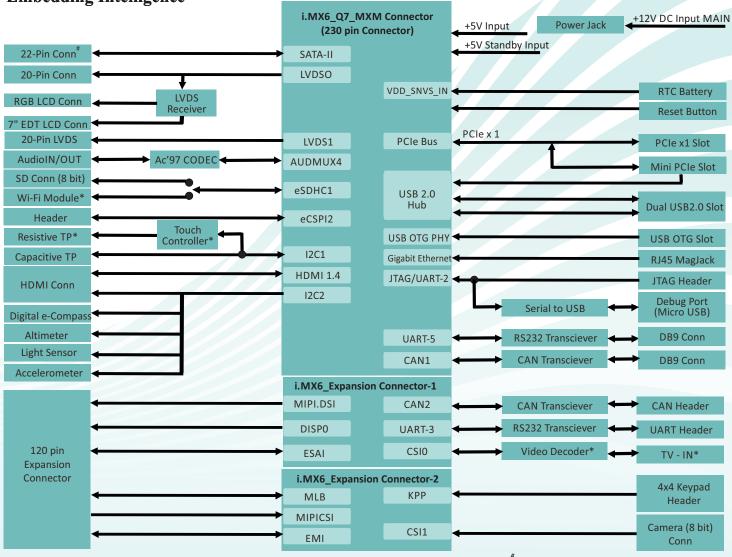
Form Factor: Nano ITX 120mmx120mm

Power Input: 12V @2A DC Input

\*Optional items are not included in the standard deliverables



#### i.MX6 Oseven DEVELOPMENT BOARD BLOCK DIAGRAM



"Support available only for i.MX6 Quad and Dual CPUs

### **OS SUPPORT**

Linux 4.1.15 Android Nougat 7.1.1

#### **DELIVERABLES**

iW-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

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.

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 $\hbox{$^*$Optional items are not included in the standard deliverables}$ 

#### **Ordering the i.MX6 Qseven Development Board**

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

# iWave Systems Tech. Pvt. Ltd.,

7/B, 29<sup>th</sup>Main, BTM Layout 2 <sup>nd</sup> 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@iwavesvstems.eu