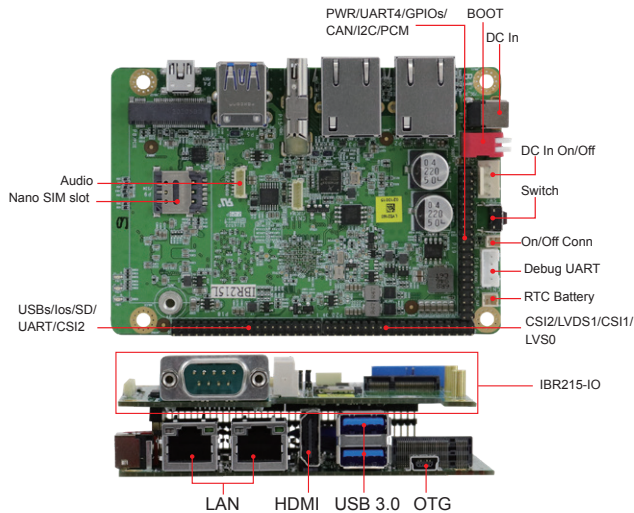


# IBR215L

## Single Board Computer

Low-Power 2.5" SBC  
with NXP i.MX 8M Plus QuadLite - ARM Cortex-A53 Processor



### Features

- NXP i.MX 8M Plus QuadLite - ARM Cortex-A53 Processor
- 3GB LPDDR4, 16GB eMMC & SD socket
- External connectivity for USB, HDMI & Ethernet
- Supports M.2 B-Key (3052) for 5G module, camera, NFC & QR-code functions
- IBR215-IO: Expansion board for wireless, 4G/LTE, LCD, camera, NFC & QR-code functions
- Ruggedized and fanless design
- Wide-range operating temperature (-40°C~85°C)

### Specifications

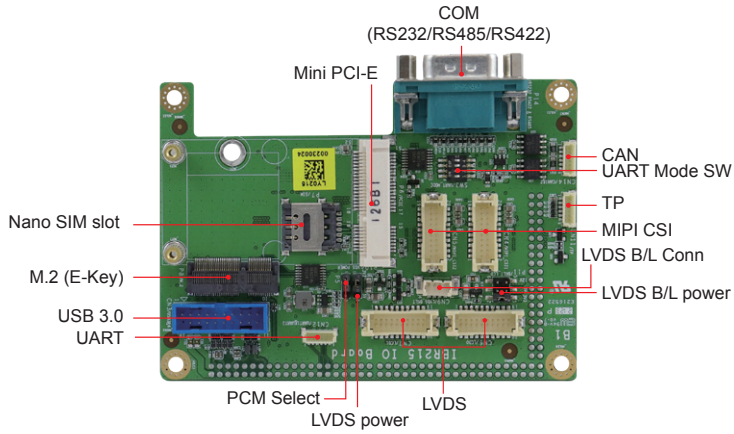
|               |  |
|---------------|--|
| Form Factor   | 2.5-inch SBC   |
| Processor     | NXP Cortex®-A53 i.MX8M Plus QuadLite processor   |
| System Memory | 3GB DDR4 on board (option: 1/2/4GB)  |
| Flash Memory  | 16GB eMMC on board (up to 128GB)   |
| Display       | 1x HDMI 1.4a<br>1x LVDS 2ch through IO   |
| Video Codec   | N/A  |
| Graphics      | OpenGL 3.1, OpenCL 1.2, Vulkan   |
| Edge I/O      | 1x On/Off button<br>1x 12V~24V DC-in jack<br>1x SD socket (UHS-I SDR-104, 104MB/s max.)<br>1x Boot select switch (boot from eMMC or SD)<br>1x HDMI 1.4a<br>2x USB 3.0 Type-A<br>2x RJ45 GbE LAN<br>1x Mini-USB OTG   |
| Internal I/O  | 1x M.2 B-Key(3052) with SIM socket (for 5G module)<br>2x I2C / 4x GPIO<br>1x Audio Line-in and Line-out 1x DC input<br>1x DC power (4-pin header)<br>3x IO expansion 2mm pitch 2x20 headers with following features (Contact us for design reference): <ul style="list-style-type: none"> <li>• 1x USB 2.0</li> <li>• 1x PCM</li> <li>• 2x UART(Rx, Tx)</li> <li>• 1x SDIO</li> <li>• 1x UART (Tx, Rx, CTS, RTS)</li> <li>• 2x USB 3.0</li> <li>• 1x 2ch LVDS with backlight control</li> <li>• 1x I2C</li> <li>• 2x PWM</li> <li>• 3x GPIO</li> <li>• 1x Cap touch IF</li> <li>• 2x MIPI-CSI for cameras</li> <li>• 2x CAN-FD</li> <li>• 1x 12V~24V DC-in jack</li> </ul> |

|                       |  |
|-----------------------|--|
| Expansion IO          | 1x M.2 E-Key(2230)w/ SDIO, UART for wireless<br>1x Mini PCI-E w/ USB 2.0, SIM, PCM for 4G/LTE<br>1x DB-9 RS232/422/485 port<br>2x USB 3.0 in 1x19-pin headers<br>1x 2ch LVDS with backlight control<br>1x Cap touch IF<br>2x MIPI-CSI<br>2x CAN-FD |
| Watchdog              | 256 levels, 0~128 seconds  |
| Dimensions            | IBR215L: 105mm(W) x 72mm(D)<br>4.13"(W) x 2.83"(D)<br>IBR215-IO: 100mm(W) x 72mm<br>3.94"(W) x 2.83"(D)<br>IBR215L+IBR215-IO: 105mm(W) x 72mm(D) x 35mm(H)<br>4.13"(W) x 2.83"(D) x 1.37"(H)   |
| Power Input           | 12V~24V DC-in jack   |
| Operating Temperature | With heat sink or through housing design: -40°C~85°C<br>(-40°F ~185°F)<br>Without heatsink: -40°C~65°C (-40°F ~149°F)  |
| Relative Humidity     | 10%~90% (non-condensing)   |
| OS Support            | Yocto v3.0<br>Android 11<br>Other OS (by request)  |
| Certification         | CE/ FCC Class-B  |

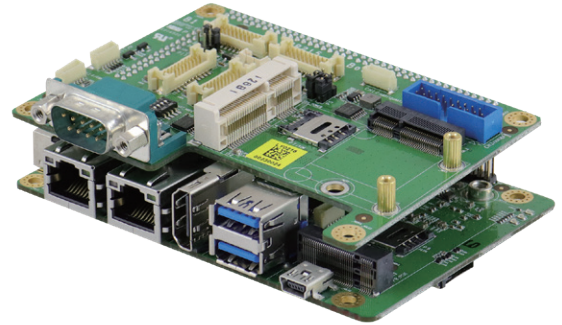
### Ordering Information

|               |   |
|---------------|---|
| IBR215L-Q316I | ARM-based IoT Gateway, NXP Cortex®-A53, i.MX 8M Plus QuadLite 1.6GHz processor, 3GB LPDDR4, 16GB eMMC |
| IBR215-IO     | Expansion Board for IBR215L   |

## Compatible I/O Expansion Board



IBR215-IO



IBR215L with IBR215-IO module

## Dimensions and Drawing

