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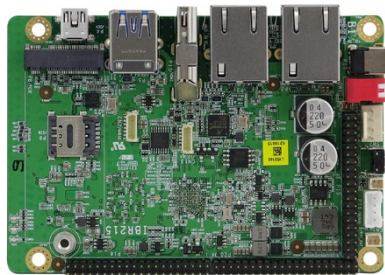


# Datasheet

## iBASE

### IBR215

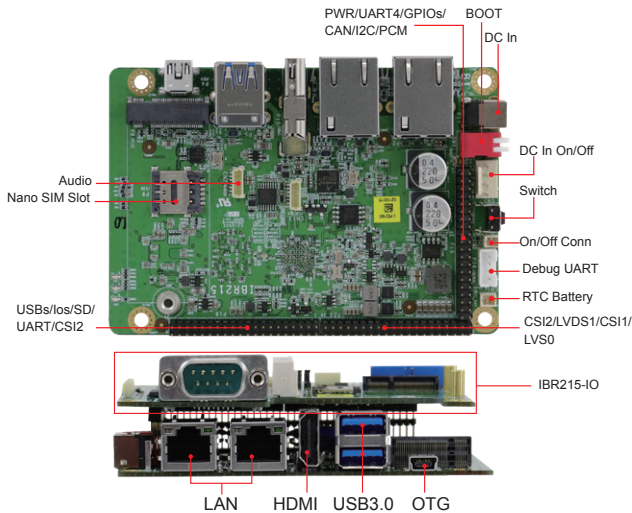
**2.5" Single-Board Computer with NXP ARM® Cortex®-A53 i.MX 8M Plus Quad 1.6GHz Processor**



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## Features

- NXP Cortex®-A53, i.MX 8M Plus Quad 1.6GHz processor
- 3GB LPDDR4, 16GB eMMC & SD socket
- External connectivity for USB, HDMI & Ethernet
- Supports M.2 B-Key (3052) for 5G module
- Expansion IO board for WiFi/BT, 4G/LTE, LCD, camera, NFC & QR-code functions
- Ruggedized and fanless design

## Specifications

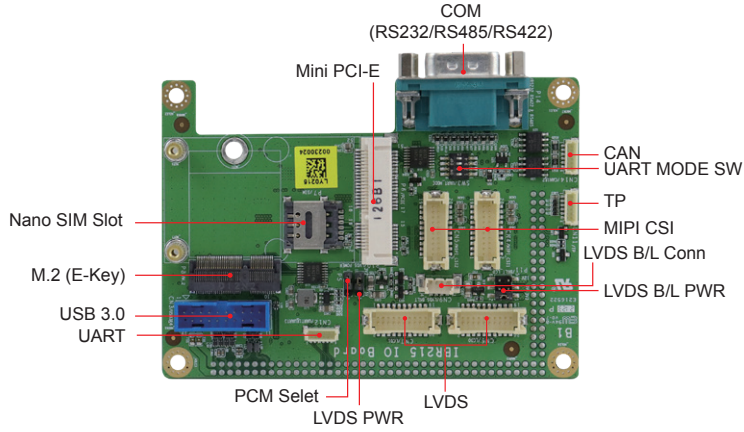
Form Factor	2.5-inch Disk-Size SBC
Processor	NXP Cortex®-A53 i.MX8M Plus 1.6GHz processor
System Memory	3GB DDR4 on board (option: 1/2/4GB)
Flash Memory	16GB eMMC on board (Up to 128GB)
Display	1x HDMI 1.4a 1x LVDS 2ch through IO
Video Codec	Decode: 1080p60, H.265, H.264, VP9, VP8 Encode: 1080p60, H.265, H.264
Graphics	OpenGL 3.1, OpenCL 1.2, Vulkan
Edge I/O	1x On/Off button 1x 12V~24V DC-in Jack 1x SD socket (UHS-I SDR-104, 104MB/s max.) 1x Boot select switch (boot from eMMC or SD) 1x HDMI 1.4a 2x USB 3.0 Type-A 2x RJ45 GbE LAN 1x Mini-USB OTG
Internal I/O	1x M.2 3052 B-Key with SIM socket (for 5G module) 2x I2C / 4x GPIO 1x Audio Line-in and Line-out 1x DC input 3x IO expansion 2mm pitch 2x20 headers with following features (Please contact us for IO board design reference): <ul style="list-style-type: none"> <li>• 1x USB2.0</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 5V DC</li> </ul>

Expansion IO	1x M.2 E-Key (SDIO, UART) for WiFi/BT module 1x mPCI-E (USB 2.0, SIM, PCM) for 4G/LTE/WiFi modules Board to board connection 1x DB-9 RS232/422/485 port 2x USB 3.0 in 2x10 headers 1x 2ch LVDS with backlight control 1x Cap touch IF 2x MIPI-CSI 2x CAN-FD
Watchdog	256 Levels, 0~128 Secs
Dimensions	IBR215: 105mm x 72mm (4.13" x 2.83") IBR215-IO: 100mm x 72mm (3.94" x 2.83")
Power Input	12V~24V DC-in Jack
Operating Temperature	-40°C~ 85°C (with heat sink or through housing design) -40°C~ 65°C (without heatsink)
Relative Humidity	10%~90% (non-condensing)
OS Support	Yocto v3.0 Android 11 Other OS supports by request
Certification	CE/ FCC Class-B
Devices	WiFi/Bluetooth module (option) 4G/5G module (option)

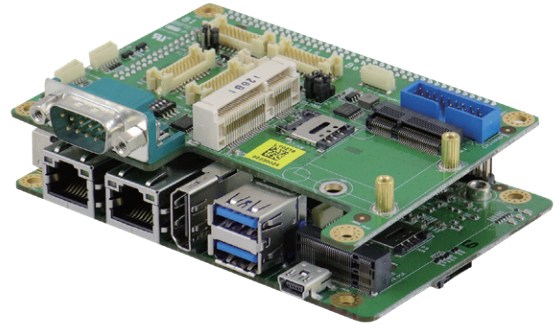
## Ordering Information

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

## Compatible I/O Expansion Board

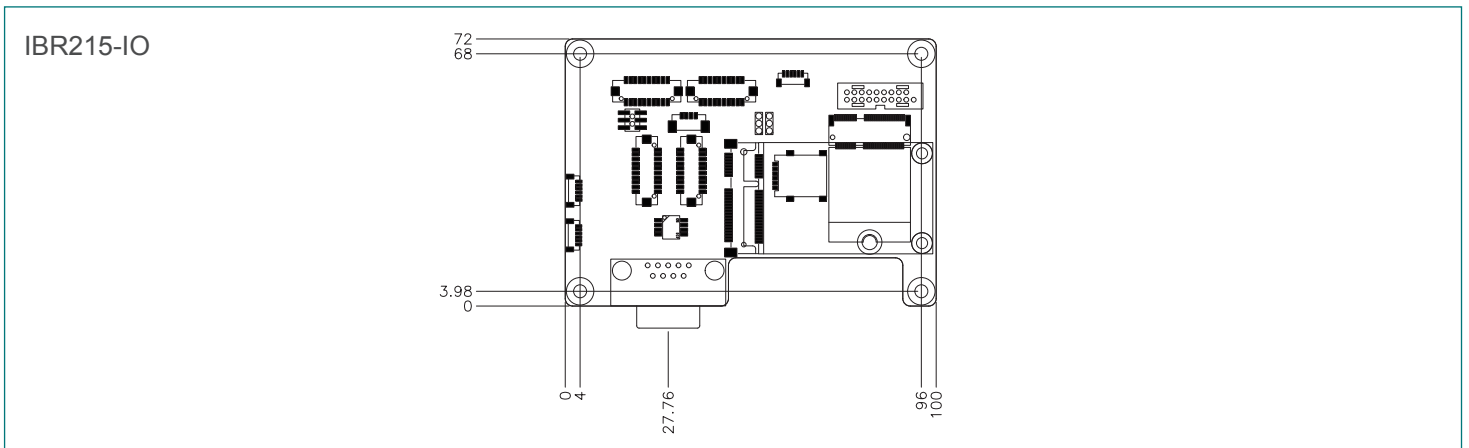
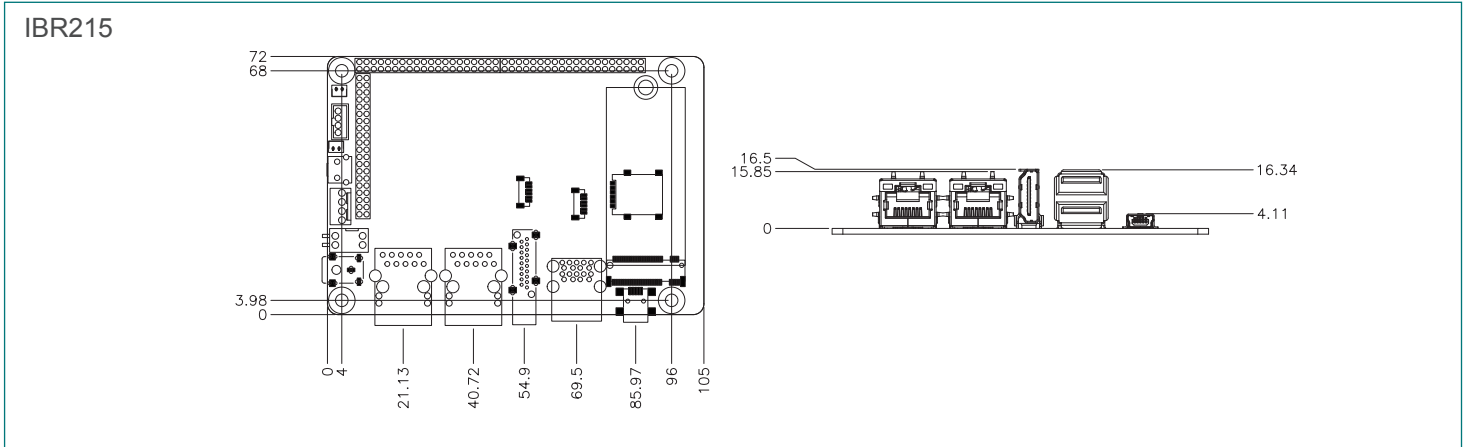


IBR215-I/O (Option)



IBR215 with IO module IBR215-I/O

## Dimensions and Drawing



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