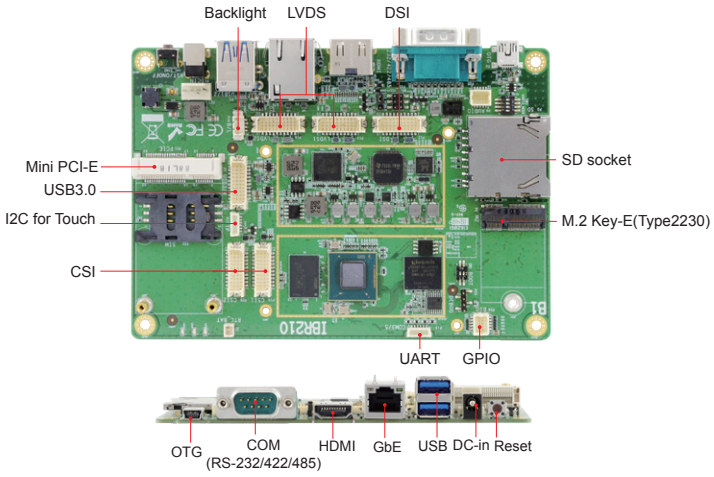
IBR210

Single Board Computer

Low-Power Multimedia IoT 3.5“ SBC with
NXP ARM® Cortex-A53/Cortex-M4 i.MX 8M Dual/Quad 1.5GHz Processor



Features

- With NXP Cortex™-A53/Cortex™-M4, i.MX 8M Dual/Quad 1.5GHz Processor
- Supports 4K HDMI, dual channel FHD LVDS
- Supports 3GB LPDDR4, 8/16/32/64GB eMMC and SD socket
- Supports embedded I/O for COM, GPIO, USB3.0, USB-OTG, Audio and Ethernet
- Supports M.2 Key-E (2230) and mini-PCI-E with SIM socket for wireless/4G/LTE connectivity

System

Form Factor	3.5-inch Disk-Size SBC
Processor	NXP i.MX 8M Dual/Quad Cortex™-A53 and Cortex™-M4, 1.5GHz
System Memory	3GB LPDDR4 on board
Flash Memory	8GB eMMC on board (optional 16/32/64 GB)
Display	1x Dual Channel LVDS (FHD) 1x HDMI V2.0a, support HDCP2.2 and HDCP1.4
Video Codec	• 4Kp60 HEVC/H.265 main, and main 10 decoder • 4Kp60 VP9 decoder • 4Kp30 AVC/H.264 decoder • 1080p60 MPEG-2, MPEG-4p2, VC-1, VP8, RV9, AVS, MJPEG, H.263 decoder
Graphics	• GC7000Lite • OpenGL ES 1.1, 2.0, 3.0, 3.1, Open CL 1.2, and Vulkan
Edge I/O	1x RJ45 GbE LAN 2x USB 3.0 Type-A 1x USB OTG (mini-USB Type-B) 1x HDMI V2.0a 1x RS232/422/485 (D-SUB 9 male connector) 1x SD socket (UHS-I SDR-104, 104MB/s max.) 1x On/Off button
Header, Expansion & LEDs	1x Dual Channel LVDS 1x Backlight, 3.3V/1A, 5V/1A, 12/1A (jumper selection) 1x MIPI-DSI (2*10 pin header) 2x MIPI-CSI (2*10 pin header) 2x USB3.0 header 1x M.2 Key-E (2230) w/ USB, SDIO, UART, PCI-E 1x Mini PCI-E w/ SIM socket 1x I²C header 1x 2-wire UART header (for Debug Console Port) 2x 2-wire UART header 1x Audio header (Line-in and Line-out) 8x GPIO (2*5 pin header 1.0mm) 3x Green LEDs (for power On/Off, wireless status, and programmable)

Watchdog	256 Levels, 0~128 secs
Dimensions	147mm x 102mm (5.8” x 4”)
Power Input	12~24V DC-in Jack and Internal Header
Operating Temperature	0°C ~ 70°C (Option: -40°C ~ 85°C)
OS Support	Yocto v2.5 (Kernel 4.14.62) Android 9 (Kernel 4.14.62)
Relative Humidity	10%~90% (non-condensing)
Certification	CE/FCC Class B

Ordering Information

IBR210-D308	3.5” SBC, i.MX 8M Dual 1.5GHz, 3GB LPDDR4, 8GB MLC eMMC
IBR210-D308I	Industrial Grade 3.5” SBC, i.MX 8M Dual 1.3GHz, 3GB LPDDR4, 8GB MLC eMMC
IBR210-Q316	3.5” SBC, i.MX 8M Dual 1.5GHz, 3GB LPDDR4, 16GB TLC eMMC
IBR210-Q316I	Industrial Grade 3.5” SBC, i.MX 8M Quad 1.3GHz, 3GB LPDDR4, 16GB TLC eMMC

Remarks: 1. Specifications are subject to change without prior notice. 2. ODM/OEM is available. 3. For user’s manual & datasheet download, visit www.ibase.com.tw.