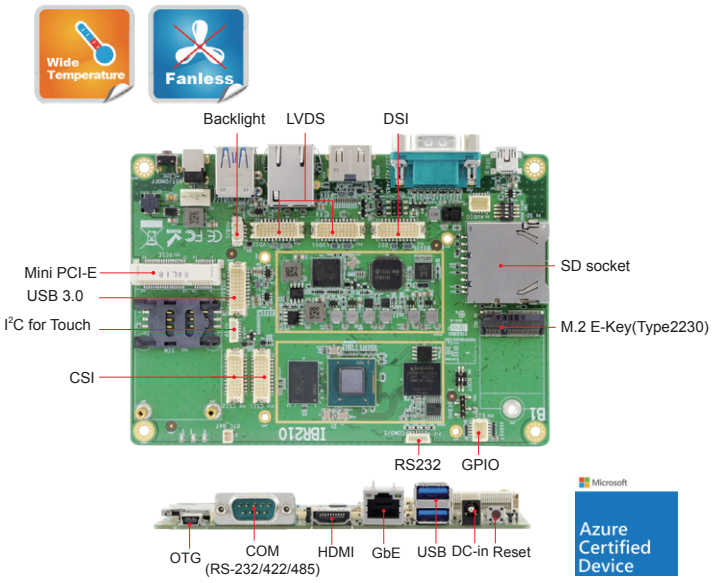
IBR210

Single Board Computer

Low-Power 3.5" SBC
with NXP ARM® Quad Cortex-A53/Cortex-M4 i.MX 8M Processor



Features

- NXP Cortex™-A53/-M4, i.MX 8M Quad processor
- 4K HDMI, Dual-channel FHD LVDS
- 3GB LPDDR4, 16GB eMMC and SD socket
- Embedded I/O for COM, GPIO, USB 3.0, USB-OTG, Audio and Ethernet
- M.2 E-Key (2230) and mini-PCI-E with SIM socket for wireless/4G/LTE connectivity
- Wide-range operating temperature (-20°C~80°C)

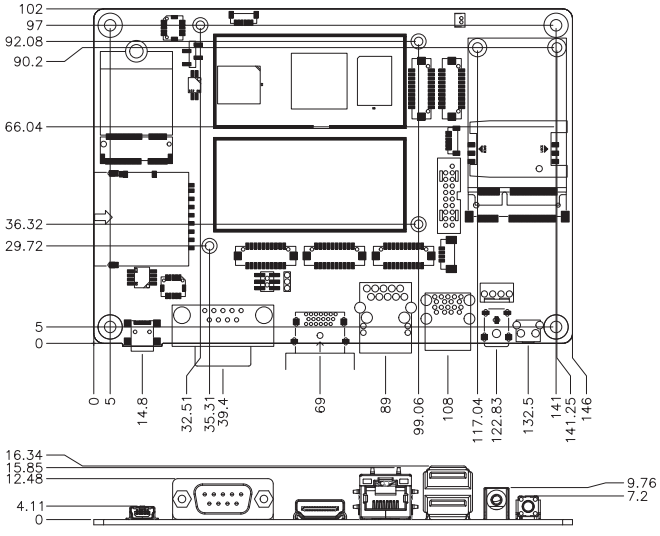
Specifications

Form Factor	3.5-inch SBC
Processor	NXP i.MX 8M Quad Cortex™-A53 and Cortex™-M4 processor
System Memory	3GB LPDDR4 on board
Flash Memory	16GB eMMC on board
Display	1x Dual-channel LVDS (FHD) 1x HDMI 2.0a
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 2.0a 1x RS232/422/485 (D-SUB 9 male connector) 1x SD socket (UHS-I SDR-104, max. 104MB/s) 1x On/Off button
Internal I/O	1x Dual-channel LVDS 1x Backlight, 3.3V/1A, 5V/1A, 12V/1A (jumper selection) 1x MIPI-DSI (2*10-pin header) 2x MIPI-CSI (2*10-pin header) 2x USB 3.0 header 1x M.2 E-Key (2230) w/ USB, SDIO, UART, PCI-E 1x Mini PCI-E w/ SIM socket 1x I²C header 1x 2-wire RS232 header (for debug console port) 2x 2-wire RS232 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)
Expansion IO	N/A
Watchdog	256 Levels, 0~128 secs
Dimensions	147mm x 102mm (5.8" x 4")
Power Input	12V~24V DC-in jack and Internal Header
Operating Temperature	-20°C ~ +80°C (-4°F ~ 176°F)
Relative Humidity	10%~90% (non-condensing)
OS Support	Yocto 2.5 Android 9 Ubuntu 18.04 evaluation Other OS (by request)
Certification	CE/FCC Class-B

Ordering Information

IBR210-Q316I	Industrial Grade3.5" SBC, i.MX 8M Quad 1.3GHz processor, 3GB LPDDR4, 16GB eMMC

Dimensions



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.