



## System

Form Factor	3.5-inch Disk-Size SBC
CPU	NXP Cortex™-A53 i.MX 8M Dual 1.5GHz processor
System Memory	2GB DDR4 on board
Data Memory	8GB eMMC on board
Display	1x 18-/24-bit Dual LVDS, 4K HDR10 1x HDMI V2.0a, support HDCP2.2 and HDCP1.4
Video Codec	Encoder: FHD 1080p 30 H.264. Decoder: UHD 4Kp 60 HEVC/ H.265 10-bit MP, RV9, AVC/ H.264, VP8, MPEG-2, MPEG-4p2, VC-1, AVS/ AVS+, MJPEG, H.263
Graphics	OpenGL 3.1, OpenCL 1.2, Vulkan
LAN	10/100/1000 Mbps
Touch	USB
Audio	2x 5 pin header, pitch 1.0 mm for Line-in/out
RTC	IDT 1337AGDVG18
Watchdog	256 Levels, 0~128 secs
Edge I/O	1x GbE by RJ45 connector 2x USB 3.0 Type-A, 1x USB OTG Mini-USB 1x HDMI V2.0a 1x RS232 port (D-SUB 9 male connector) 1x SD socket (UHS-I SDR-104, 104MB/s max.) 1x Reset button for power on/off
Header, Expansion & LEDs	1x backlight, 3.3V/1A, 5V/1A, 12/1A (jumper selection) 1x 4-pin wafer (for Debug Console Port) 1x Audio pin Header (1x line-in / 1x line-out) 2x 2-wire UART pin header 2x USB 3.0 by pin header 1x M.2 Key-E (2230) w/ USB, SDIO, UART, PCI-E 1x Mini PCI-E (USB only) w/ SIM Socket 3x Green LEDs (1x for Power on/off, 1x for wireless status, 1x Programmable) 8x GPIO (2x5 pin header 1.0mm) 1x Mipi-CSI 2x10 pin header
Dimensions	147mm x 102mm (5.8" x 4")
Power	12V DC-in by DC-Jack

## Features

- With NXP Cortex™-A53, i.MX 8M Dual 1.5GHz processor
- Supports HDMI, Dual LVDS to 4K HDR
- Supports 2GB DDR4, 8GB 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 w/ SIM socket for wireless connectivity

Operating Temperature	0°C ~ 60°C (32°F ~ 140°F) -40°C ~ 85°C (-40°F ~ 185°F)
Devices	WiFi/BT Cellular Module (option)
Software Support	Android / Yocto Linux
Relative Humidity	10%~90% (non-condensing)
Certification	CE/ FCC Class B

## Ordering Information

IBR210	3.5" ARM-based SBC, Cortex™-A53 i.MX 8M Dual 1.5GHz, 2GB DDR4, 8GB eMMC, Dual LVDS, HDMI, RS-234/422/285, USB, M.2 Key-E(2230) and Mini PCI-E w/ SIM socket
Cable	PK1-100A, Debug IVT-76, Backlight LCD403, Panel cable for 7" LCD404, Panel cable for 15" PK1-124, GPIO PK1-133, COM port USB-81, USB OTG cable
RF module	ENL-B4356M21, Wifi + BT (M.2 card Type 2230) UC20G, Cellular UMTS/HSPA+, (Mini PCI-E)
Display	AM-1024600ATMOW-A0H: - 7" Capacitive LVDS TFT LCD, 1024 x 600 M150GNN2 R1: - 15" Capacitive LVDS TFT LCD, 1024 x 768 LM215WF3-SLS1: - 21.5" Transmissive LVDS TFT LCD, Full HD