



Embedded Motherboard

IB3-771

ARM EMBEDDED MOTHERBOARD



Rockchip®
RK3588 processor



1 x HDMI (7680 x 4320 @60 Hz)
1 x HDMI (3840 x 2160 @60 Hz)
1 x HDMI-IN (3840 x 2160 @60Hz)



Onboard Wi-Fi/BT module
Support 3G/4G module



Small form-factor
160 mm x 108 mm (6.30" x 4.25")

CPU

CPU	Rockchip® RK3588 processor
Frequency	2.50 GHz
Processing Units	4 Cores Cortex-A76 & 4 Cores Cortex-A55
TDP	15 W

System

GPU	Mali-G610 MC4
Graphic Engine	OpenGL ES 1.1/2.0/3.2, OpenCL 2.0, Vulkan 1.1
Multi-Media	H.265/VP9 by 8K @60fps, H.264 by 8K @30fps decoder H.265/H.264 encoder by 8K @30fps
System Memory	8 GB, Onboard LPDDR4x (Optional: 4 GB)
Storage	1 x SATAIII 128 GB, Onboard eMMC (Optional: 64 GB) 1 x TF Card Reader
Watchdog Timer	Yes
Auto Power On	Yes
RTC	Set up independently every day, a week as a cycle
Power Requirement	DC-IN, 12 V
Dimensions	160 mm x 108 mm (6.30" x 4.25")
Operating system	Android 12
Operating Temperature	0°C ~ 60°C (32°F~104°F) @0.7m/s Air Flow
Storage Temperature	-20°C ~75°C (-4°F~167°F)
Humidity	95% @ 60°C (non-condensing)

Network

Network Controller	1 x Realtek RTL8211F Gigabit Ethernet 1 x Realtek RTL8111H Gigabit Ethernet
Wi-Fi/BT	Onboard Wi-Fi/BT module
Cellular Network	1 x Full-size Mini-PCIe for 3G/4G 1 x SIM Slot

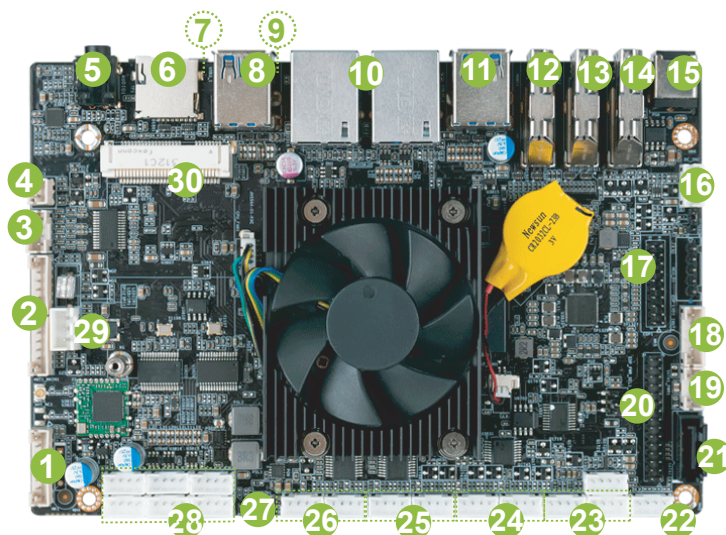
Rear I/O

USB	1 x USB3.2 Gen1 OTG, 3 x USB3.2 Gen1,
Display	1 x HDMI (Max.7680 x 4320 @60 Hz) 1 x HDMI (Max.3840 x 2160 @60 Hz) 1 x HDMI-IN (Max. 3840 x 2160 @60 Hz)
Audio	1 x 2-IN-1 Headset (AUDIO-OUT & MIC-IN)
Ethernet Interface	2 x RJ45
Button	1 x Power on, 1 x Recovery

Internal I/O

USB	6 x USB2.0, signal by 6 x 4pin USB header
Display	1 x 20pin eDP (Max. 2560 x 1440 @60 Hz) 1 x 30pin dual channel 24bit LVDS (Max. 1920 x 1200@24 Hz)
Camera	1 x MIPI-CSI jack
Serial port	2 x 4pin RS232 header, 2 x 4pin RS485 header 2 x 4pin TTL, 2 x 6pin SPI
IO	1 x 8pin IO-KEY,
Audio	1 x 2pin MIC-IN, 1 x 4pin SPK (5W),
Others	1 x 4pin CAN, 2 x 4pin I²C 1 x 3pin IR, 1 x 4pin DC-IN 1 x 6pin LVDS/eDP_BL,

Dimensions and Drawing



No.	Dimensions	No.	Dimensions
1	IO-KEY	20	LVDS
2	2*SPI	21	SATAIII
3	SPK	22	CAN
4	MIC	23	2*I2C
5	HEADSET	24	2*TTL
6	TF Card Reader	25	2*RS485
7	SIM Slot (Bottom)	26	2*RS232
8	USB3.2 Gen1 OTG	27	PWR_BUTTON
9	USB3.2 Gen1 (Bottom)	28	6*USB2.0
10	2*RJ45	29	IR
11	2*USB3.2 Gen1	30	Mini-PCIe for 3G/4G
12	HDMI2.1 for 8K		
13	HDMI2.0 for 4K		
14	HDMI-IN		
15	DC-IN		
16	DC-IN header		
17	eDP		
18	LVDS/eDP_BKL		
19	SATA_PWR		

Order information

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CPU: Rockchip RK3588
RAM: 8 GB, Onboard LPDDR4x
Storage: 128 GB, Onboard eMMC
Wi-Fi/BT: Onboard Wi-Fi/BT module (Wi-Fi: Wi-Fi 5 2.4GHz/5GHz, BT: Bluetooth 4.2)
Operation System: Android12

Optional items

Cellular network module

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Assured Systems

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