

# 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

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

### System

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

### Network

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

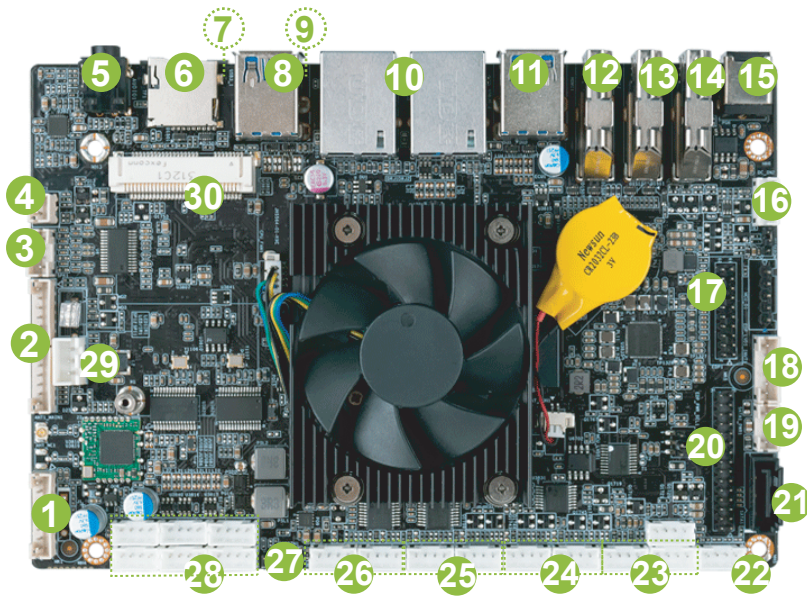
### Rear I/O

<b>USB</b>	1 x USB3.2 Gen1 OTG, 3 x USB3.2 Gen1,
<b>Display</b>	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)
<b>Audio</b>	1 x 2-IN-1 Headset (AUDIO-OUT & MIC-IN)
<b>Ethernet Interface</b>	2 x RJ45
<b>Button</b>	1 x Power on, 1 x Recovery

### Internal I/O

<b>USB</b>	6 x USB2.0, signal by 6 x 4pin USB header
<b>Display</b>	1 x 20pin eDP (Max. 2560 x 1440 @60 Hz) 1 x 30pin dual channel 24bit LVDS (Max. 1920 x 1200@24 Hz)
<b>Camera</b>	1 x MIPI-CSI jack
<b>Serial port</b>	2 x 4pin RS232 header, 2 x 4pin RS485 header 2 x 4pin TTL, 2 x 6pin SPI
<b>IO</b>	1 x 8pin IO-KEY,
<b>Audio</b>	1 x 2pin MIC-IN, 1 x 4pin SPK (5W),
<b>Others</b>	1 x 4pin CAN, 2 x 4pin I <sup>2</sup> C 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*12C
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_BUT
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		