



- Standard 3.5" AIoT smart motherboard, with excellent stability and reliability.
- Based on Rockchip powerful octa-core(quad-core Cortex-A76 + quad-core Cortex-A55)
- Superb AI computing power, built-in self-developed high-performance NPU providing 6 Tops computing power
- Outstanding video capability, supporting 8K HDR 60fps ultra-high-definition video playback
- Rich industry application peripheral interfaces, such as UART/RS232, USB, CAN, GPIO, RS485, I2C and etc.

Introduction

DJ-3588K smart motherboard is designed with standard 3.5-inch motherboard specifications and is a high-performance and cost-effective industrial motherboard. Base on Rockchip new generation high-performance RK3588 processor. RK3588 is an octa-core 64-bit large and small core architecture (quad-core Cortex-A76 + quad-core Cortex-A55) processor with the 8nm advanced process, frequency up to 2.4GHz@ Cortex-A76 + 1.8GHz@Cortex-A55. RK3588 supports 8K@60FPS decoding and 8K@30FPS encoding, has a high-quality JPEG encoder/decoder, a professional image preprocessor, supports multi-screen differential display, and supports 8K display output. The built-in GPU (ARM Mali-G610 MC4) is fully compatible with OpenGL ES 1.1/2.0/3.1/3.2. RK3588 has super image processing capabilities, 48MP ISP, and supports multi-camera input. RK3588 has built-in NPU, three-core architecture, has 6TOPS computing power, and supports int4/int8/int16/FP16/BF16/TF32 mixed operations.

DJ-3588K motherboard integrates M.2 KEY-E 2230, M.2 KEY-M 2280, dual 2.5G ethernet, HDMI input, HDMI output, Mini PCIe, SIM CARD, TYPE-C, USB 3.0&2.0, Micro SD, CAN, UART/RS232, RS485, AUDIO, Camera, LVDS, eDP, backlight, MIPI, GPIO, LED, IR, RTC, I2C, buttons and other interfaces, supports many peripheral expansions.

DJ-3588K motherboard has the advantages of stable and reliable industrial-grade product performance, high cost performance and low power consumption. It is equipped with Android and Linux operating systems and can be widely used in artificial intelligence, media playback, digital signage, interactive advertising machines, LCD large screens, and communications, medical instruments, industrial control, traffic control, information systems, financial equipment, automobiles, digital control and various terminal markets and other fields.

Specificatio

Processor	CPU	Rockchip RK3588 Octa-core 64-bit ARM architecture processor 4*Cortex-A76 @2.4GHz 4*Cortex-A55 @1.8GHz
	GPU	ARM Mali-G610 MC4, supporting OpenGL ES 1.1/2.0/3.1/3.2, Vulkan 1.1, 1.2, OpenCL 1.1, 1.2, 2.0, embedded with high-performance 2D image acceleration module
	NPU	6 Tops computing power, supporting int4/int8/int16/FP16/BF16/TF32
Storage	Memory	8GB (12GB/16GB)

	eMMC	32GB (64GB/128GB)
	M.2 SSD	1 x M.2 SSD Slot
	SD Card	1 x Micro SD Slot
Ethernet	LAN	2 x 2.5GbE RJ45 High-speed Ethernet port
	WIFI6/BT	1 x M.2 KEY-E2230 Slot, A dual-mode WiFi/BT module, supporting 2.4G/5G dual-band WiFi and BT5.1, compatible with 802.11 a/b/g/n/ac standards
	5G/4G	1 x Mini PCIe Slot, Supports 4G module, with SIM card slot
Display	HDMI OUT	1 x HDMI2.1 OUT (up to 7680x4320@60Hz)
	HDMI IN	1 x HDMI2.0 IN (up to 4K@60fps)
	eDP	1 x eDP1.3 (up to 4K@60Hz)
	LVDS	1 x LVDS (up to 1920x1200@60Hz)
	MIPI DSI	2x 4Lane MIPI DSI (up to 4K@60Hz)
Audio	Earphone	1 x 3.5mm Earphone slot (Stereo, microphone input)
	Speaker	1 x Speaker slot (Stereo Channel Output with Built-in 8Ω/2W Power Amplifier)
	MIC	1 x MIC slot (Various types of external microphones)
Onboard I/O	USB	1 x Type-C
		1 x USB Type-A (USB3.0&USB2.0)
		4 x USB2.0 Host (pin)
	UART	1 x RS485
		3 x RS232
		2 x TTL
		1 x RS232 for debugging
	CAN	2 x CAN
	MIPI CSI	2x MIPI CSI
GPIO	5 x GPIO	
Button	Power、 Reset、 Recovery、 Maskrom	
RTC	Support	
Sleep/ Wake up	Support	
Power Supply	DC 12V	
Environment	Operating Temperature:-10°C~60°C Operating Humidity :10%~90%RH@31°C ,no condensation Storage Temperature:-40°C~85°C Storage Humidity :5%~95%RH@39°C ,no condensation	
OS	Android、 Linux	
Size	146 x 102mm	

