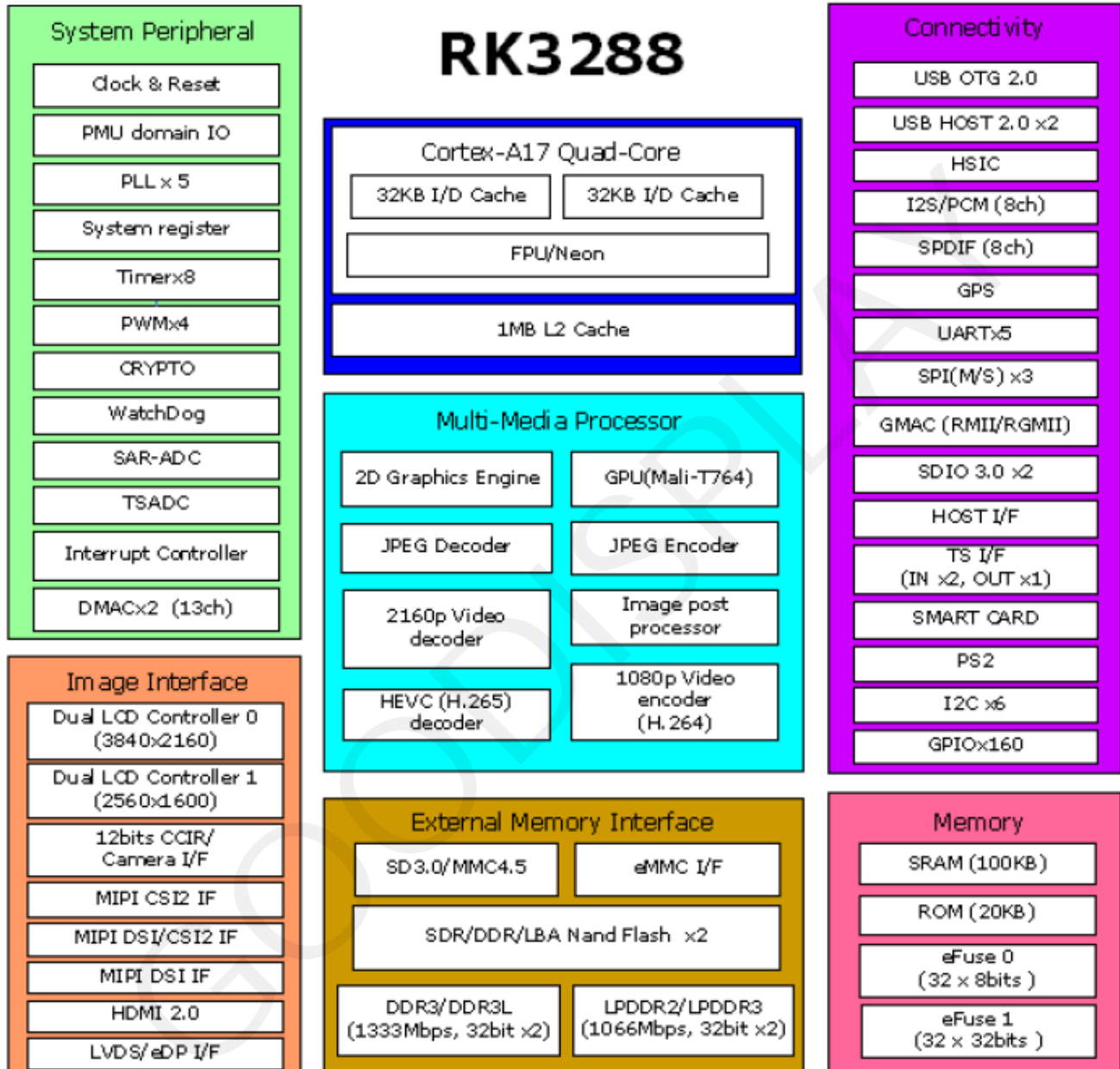




Datasheet for
RK3288
Main Board

Dalian Good Display Co., Ltd.

Architecture diagram



Parameters

Size	160mm*95mm*19mm
CPU	Rockchip quad-core 32-bit Cortex A17 with a maximum frequency of 1.8G
GPU	Mali-T764
Memory	2GB LPDDR3
Storage	8GB eMMC
Power	ACT8846 supports standby, power on, switch on and off
Voltage	Input 12V, maximum power consumption 15 W
System	Andriod 5.1/7.1 Ubuntu16.4
Pin	Lead out all pin functions of the CPU
Opt. Temp.	-25°C~ +80°C
Storage Temp.	-40°C~ +100°C
EPD Configuration	Built-in e-paper display driver, supports XY-1T1, XY-1T2, XY-1T4 T-CON boards, can be equipped with multiple EPD devices, supports 31.2-inch, 42-inch EPD.

List of common interfaces

Name	No.	Description
Serial port	4 channel	
SPI	2 channel	Support up to 25M data transmission
I2C	3 channel	
GPIO	10 channel	Can be used independently
SDIO	2 channel	SDIO0 TF card , SDIO1 WIFI
PWM	3 channel	
ETHERNET	1 channel	GMAC 10/100/1000M ethernet
I2S	1 channel	Support 8 digital voice input
CAMERA	2 channel	One channel of MIPI CSI, one channel of parallel port DVP camera
MIPI DSI	2 channel	Dual MIPI DSI supports up to 4K output
eDP DSI	1 channel	Supports up to 2K output
USB 2.0	5 channel	Independent HOST 2.0, support USB T-CON EPD

Basic Specifications

CPU

- . Quad-core Cortex-A17, up to 1.8GHz

GPU

- . Mali-T764 GPU, support AFBC (frame buffer compression)
- . Supports OpenGL ES 1.1/2.0/3.1, OpenCL,

DirectX9.3

- . Embedded high-performance 2D acceleration hardware

Multimedia

- . Support 4K 10bits VP9/H265/H264 video decoding, high Up to 60fps
- . 1080P multi-format video decoding (VC-1, MPEG-1/2/4, VP8). 1080P video encoding, support H.264, VP8 format
- . Video post-processor: de-interlacing, denoising, edge/detail/color optimization

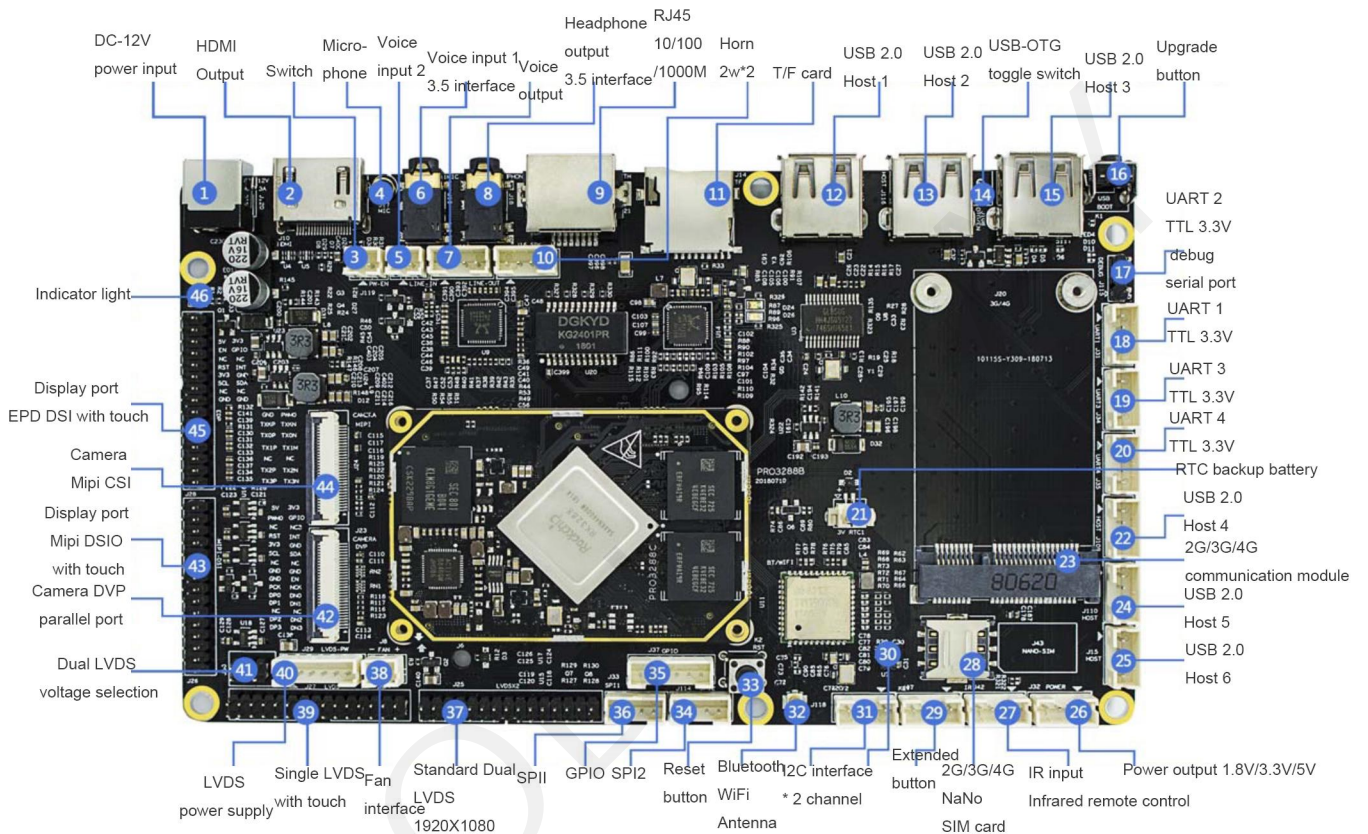
Display

- . HDMI 2.0 supports 2K 4K 60Hz display, supports HDCP 1.4/2.2
- . Support 2-way EPD electronic ink screen T-CON interface, support 31.2/42 inch

Safety

- . ARM TrustZone (TEE), Secure Video Path, Cipher Engine, Secure boot

Structure

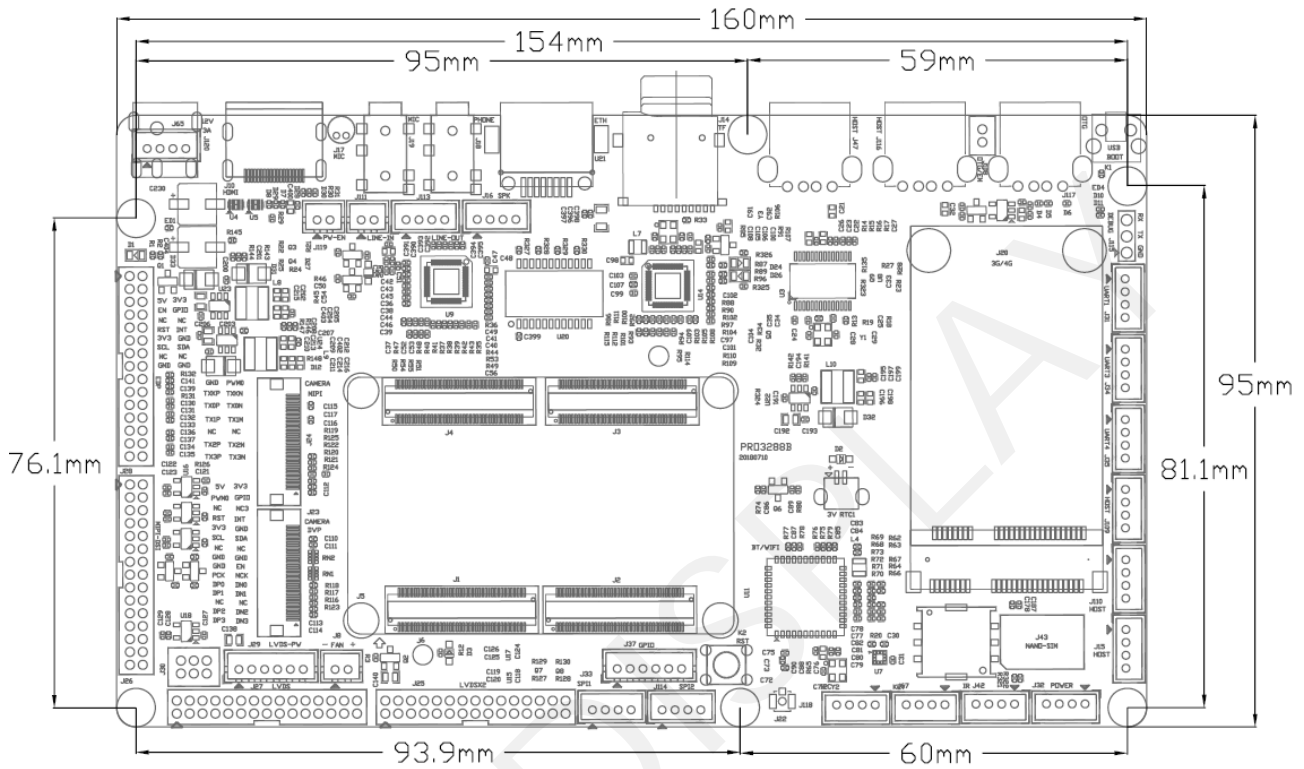


Motherboard Function Pins

1. DC-12V power input (maximum power 15W, external dual 8 needs to be equipped with 48W)
2. HDMI output supports up to 4K
3. Power switch, short circuit power off
4. Microphone
5. Voice input 2LINE-IN
6. Voice input 1, 3.5 headphone jack
7. Voice output LINE-OUT
8. Voice output 3.5 headphone left and right stereo
9. RJ45 10/100/1000M Ethernet interface
10. Speaker interface 2W*2
11. TF card up to 128G
12. USB 2.0 EPD only
13. USB 2.0 EPD only
14. OTG main weight switching
15. USB 2.0 OTG
16. Upgrade key
17. UART2 TTL3.3V debug serial port
18. UART1 TTL 3.3V
19. UART3 TTL 3.V
20. UART4 TTL 3.V
21. RTC backup battery interface
22. USB 2.0 HOST4
23. 2G/3G/4G communication module
24. USB 2.0 HOST5
25. USB 2.0 HOST6

26. Power output 1.8V/3.3V/5V
27. IR input Infrared remote control
28. 2G/3G/4G NANO SIM card holder
29. Extended buttons
30. Gravity sensor
31. I2C interface 2 channels
32. Bluetooth WIFI Antenna
33. Reset key
34. SPI2 channel interface
35. GPIO interface
36. SPI1 channel interface
37. Standard dual-channel LVDS interface (not open)
38. Fan connector
39. Single channel LVDS interface + touch screen
40. LVDS power interface (not open)
41. Dual LVDS voltage selection (not open)
42. CAMERA DVP Parallel camera input
43. MIPI DSI display interface + touch
44. CAMERA MIPI CSI camera input
45. EDP display interface + touch
46. Indicator light

Product Dimensions



Support

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