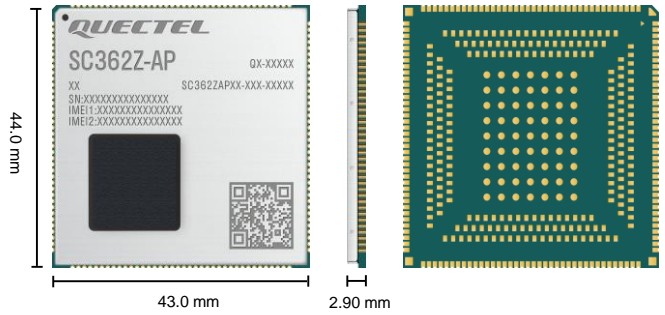


# Quectel SC362Z-AP

## Smart Module



SC362Z-AP is Quectel’s new generation smart module with embedded Linux/ Android operating system. The module integrates Rockchip IoT chip RK3562/ RK3562J. Based on high-performance quad-core ARM Cortex-A53 CPU, ARM Mali G52 GPU, 13 M ISP HDR, 1 TOPS NPU as well as supporting external WiFi and Bluetooth, the module is ideal for industrial applications requiring automation and consumer applications requiring high data rate and multimedia functions.

SC362Z-AP module integrates abundant peripheral interfaces, including 1 × LVDS/ RGB/ MIPI, dual 1000 M/ 100 M ethernet interfaces, multiple industrial serial interfaces, 2 × USB, 1 × PCIe, 10 × UART, etc. With 4K video decoder and 1080P video encoder, and combined with 1 TOPS NPU and complete deep learning algorithm, the module can fully meet the requirements for the localization of edge devices in the field of AI industrial control. Featuring the embedded Linux/ Android operating system, and compatible with the external Quectel Cat 4/ 1, 5G, Wi-Fi 6 and GNSS modules, the module can be extensively applied to M2M use cases in smart business displays, express cabinets, electricity, vehicle center consoles, tablet PCs, industrial control terminals, smart home and other industries.



### Key Features

- ✓ Quad-core ARM Cortex-A53 CPU
- ✓ ARM Mali G52 GPU
- ✓ 13 M ISP HDR
- ✓ 1 TOPS NPU
- ✓ 4K @ 60 fps video decoder
- ✓ 1080p @ 60 fps video encoder
- ✓ PCIe 2.1/ USB 3.0/ SD 3.0
- ✓ MIPI DSI 1.2/ LVDS/ RGB
- ✓ MIPI CSI 1.2
- ✓ Dual 1000 M/ 100 M ethernet interfaces



Quad-core ARM Cortex-A53 CPU



ARM Mali G52 GPU



Linux/ Android



PCI Express



Multimedia Processing Engine



Dual 1000 M/ 100 M Ethernet Interfaces

# Quectel SC362Z-AP

Module	SC362Z-AP	
Grade	Commercial-grade	Industrial-grade
CPU	RK3562, 4 × A53 @ 2.0 GHz	RK3562J, 4 × A53 @ 1.2 GHz
Memory	LP4/ LP4x, default 2 GB + 32 GB (4 GB + 64 GB, 4 GB + 32 GB and 1 GB + 8 GB are optional)	LP4/ LP4x, default 2 GB + 16 GB (4 GB + 32 GB and 1 GB + 8 GB are optional)
Temperature Range		
Operating Temperature	-25 °C ~ +75 °C	-40 °C ~ +85 °C
Electrical Features		
Power Consumption	3.09 mA (2 GB + 32 GB) @ sleep mode 4.29 mA (4 GB + 32 GB) @ sleep mode	2.61 mA (2 GB + 16 GB) @ sleep mode 3.24 mA (4 GB + 32 GB) @ sleep mode

Module	General Features	
Region/ Operator	Global	
NPU	1 TOPS	
OS	Linux (Kernel 5.10)/ Android 13	
Dimensions (mm)	44.0 × 43.0 × 2.90	
Package	LCC + LGA	
Weight (g)	Approx. 11.6	
Certifications		
Regulatory/ conformance	CE/ RCM	
Interfaces		
	1 × 4-lane MIPI DSI/ LVDS; MIPI DSI 1.2: Max. (2048 × 1080) @ 60 Hz LVDS: TIA/ EIA-644-A, Max. (1280 × 800) @ 60 Hz 1 × RGB; RGB: Max. (2048 × 1080) @ 60 Hz 1 × BT.656/ BT.1120; BT.656: Max. 576 dpi BT.1120: Max. 1080 dpi Supports dual screens displaying the same content	
LCM		
Camera	2 × 4-lane MIPI CSI, which can be divided into 4 × 2-lane MIPI CSI Max. 2.5 Gbps/ lane, Max. 13 M pixels DVP (BT.656/ 1120) analog camera*	
Audio	Loudspeaker, earpiece, analog microphones and digital audio	
Video	<b>Encoder:</b> H.264, Max. 1920 × 1080 @ 60 fps <b>Decoder:</b> H.264 AVC/ MVC Main Profile yuv400/ yuv420/ yuv422 @ L5.0, Max. 1920 × 1080 @ 60 fps H.265 HEVC/ MVC Main Profile yuv420 @ L5.0, Max. 4096 × 2304 @ 30 fps × 2, compliant with USB 3.0/ 2.0	
USB	USB0: USB 2.0/ 3.0, and USB OTG only (multiplexed with PCIe function pin) USB1: USB 2.0, and USB HOST only	
PCIe	× 1 PCIe1: 1-lane, Gen 2; RC mode only (multiplexed with USB 3.0 OTG function pin)	
RMII	Max. × 2	
RGMII	Max. × 1	
UART	Max. × 10	
SD Card	× 1, SD 3.0	
SDIO	Max. × 2	
I2C	Max. × 5	
I2S	Max. × 3	
ADC	× 13, general-purpose ADC interfaces	
SPI	Max. × 3, both master and slave modes	
PWM	Max. × 16	
CAN	Max. × 2	
RTC	Supported	
Keypad	PWRKEY/ RESET_N/ VOL_UP/ BOOT/ VOL_DOWN	
GPIO	Max. × 86	
Electrical Features		
Supply Voltage Range	3.3–3.5 V, typ. 3.4 V	

NOTE:

\*: Under development/ in progress