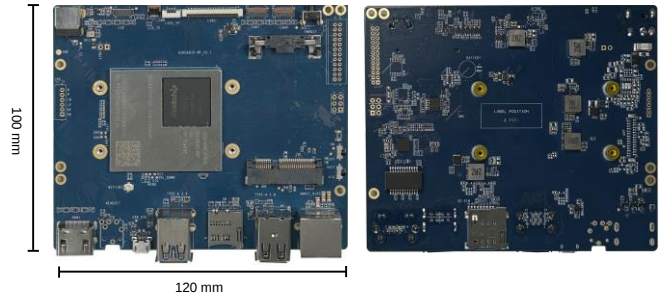


Quectel QSM368ZP-WF

Fully-Featured ARM Platform with Wi-Fi & Bluetooth



QSM368ZP-WF is Quectel's new generation of Linux/ Android smart product, which integrates Rockchip IoT chip RK3568, including high-performance quad-core ARM Cortex-A55 CPU, ARM Mali G52 GPU, 8M ISP HDR and 1 TOPS NPU computing power. Supporting Wi-Fi 5 and Bluetooth 4.2, the product is ideal for industrial applications requiring high levels of automation and consumer applications requiring high data rates and multimedia functions.

QSM368ZP-WF integrates abundant peripheral interfaces, including video output interfaces (HDMI/ LVDS/ MIPI/ eDP) supporting triple-screen concurrent displays, 1000 Mbps ethernet interface, multiple industrial UARTs, multiple USB interfaces, etc. With the capabilities of 4K video decoding and 1 TOPS NPU computing power, the product can run deep learning algorithms to satisfy the requirements of smart factories and industrial edge devices. Meanwhile, the product, integrating Linux/ Android operating system, can be used with Quectel LTE Cat 1/ 4, Wi-Fi 6 and GNSS modules, which extends the product's applicability to such use cases in M2M industry as IoT gateway, smart commercial display, industrial device terminal, smart manufacturing, smart factory, smart safety, NAS, NVR/ DVR and automotive NVR.



Key Features

- ✓ Quad-core ARM Cortex-A55 CPU @ 2.0 GHz
- ✓ ARM Mali G52 GPU
- ✓ 8M ISP HDR
- ✓ 1 TOPS NPU computing power
- ✓ 4K @ 60 fps video decoding
- ✓ 1080p @ 60 fps video encoding
- ✓ USB 3.0/ SD 3.0/ RGMII
- ✓ HDMI 2.0/ MIPI DSI 1.2/ eDP 1.3/ LVDS
- ✓ MIPI CSI 1.2
- ✓ IEEE 802.11a/ b/ g/ n/ ac
- ✓ Bluetooth 4.2

 Quad-core ARM Cortex-A55 CPU @ 2.0 GHz	 ARM Mali G52 GPU	 Linux/ Android
 PCIe Interface	 IEEE 802.11 a/ b/ g/ n/ ac	 Bluetooth 4.2 (BR/ EDR + BLE)
 Multimedia Processing Engine		

Product	QSM368ZP-WF
Region/ Operator	Global
CPU	RK3568, quad-core 64-bit ARM Cortex-A55 CPU @ 2.0 GHz
NPU	1 TOPS
OS	Linux (Kernel 4.19)/ Android 13
Memory	Commercial-grade: LP4/ LP4x, default 2 GB + 32 GB
Dimensions (mm)	120 × 100 × 22.25
Package	PCBA
Weight (g)	Approx. 90
Temperature Range	
Operating temperature	Commercial-grade: -10 °C ~ +75 °C
Frequency Bands	
WLAN	2.4 & 5 GHz, Wi-Fi 5, 802.11a/ b/ g/ n/ ac
Bluetooth	Bluetooth 4.2 (BR/ EDR + BLE)
Interfaces	
LCM	eDP, LVDS, HDMI, LCM display output and camera input
Camera	2 × 2-lane MIPI CSIs, up to 2.5 Gbs/ lane data rate, with 8 MP pixel
Audio	Loudspeaker, earpiece and microphone
Video	Encoding: 1080p @ 60 fps Decoding: 4K @ 60 fps H.264 AVC/ MVC Main10 Profile yuv400/ yuv420/ yuv422 @ L5.1, H.265 HEVC/ MVC Main10 Profile yuv420 @ L5.1, H.264/ AVC BP/ MP/ HP @ level4.2, H.265/ HEVC MP @ level4.1
LCM	1 × 4-lane MIPI DSI, up to 1920 × 1080 @ 60 fps output resolution
LVDS	1 × 4-lane LVDS TX, up to 1280 × 800 @ 60 fps output resolution
HDMI	1 × HDMI 2.0 interface, up to 4096 × 2160 @ 60 fps output resolution
eDP ^①	1 × 4-lane eDP interface, up to 2560 × 1600 @ 60 fps output resolution
USB	2 × USB 2.0 Type-A classic interfaces (USB2 和 USB3), host mode only 1 × USB 3.0 Type-A classic interface (USB1), host mode only 1 × USB 3.0 Type-A classic interface (USB0), host mode only 1 × Micro USB 2.0 classic interface (USB0), both host and slave modes
Ethernet	1 × 10M/ 100M/ 1000M ethernet interface
SD Card	1 × SD card interface, compliant with SD 3.0 specification, supporting hot swap
(U)SIM Card	1 × (U)SIM card interface, which can be connected to Mini PCIe modules
UART	4 × UART interfaces
I2C	2 × I2C interfaces
PDM	1 × PDM interface
ADC	4 × ADC interfaces
RTC	Supported
Push Button	PWRKEY (push button for turning on or turning off the product)
Switch	Firmware flashing switch, USB0 host and slave modes toggle switch
Antenna	1 × Wi-Fi/ Bluetooth antenna interface
Electrical Feature	
Power supply specification	DC 10–12 V (typical 12 V/ 5 A)
Power consumption	Typical 12.3 mA @ sleep mode

Notes:
*: Under development/ in progress/ planning
①: In case of using this function, contact Quectel Technical Support.

