



MU960 Smart Module

MU960 is a smart wireless module, support CAT 4, adoption of quad-core 1.1G Cortex™ -A7 MCU through 28nm CMOS technology, internal integrated quad-core, dominant frequency reach up to 1.1GHz, support LTE, UMTS,TD-SCDMA, EVDO, CDMA, GPRS, GSM and else. It is a high level integration chip product that support rich multimedia function: low-power audio and video play with 1280×720 high resolution, 800W pixel camera. Mainly used in intelligent POS, handheld terminals, smart wireless phones and the other products, own extraordinary cost performance.



Characteristics	Description
MCU	Quad-core 1.1G Cortex™ -A7
Storage	8GB EMMC+8Gb LPDDR3
Power Supply	Voltage range: 3.4V~4.2V
Operating System	Android OS 5.1 or over
TP	Support
Display Screen	At most support 1280x720 resolution
Camera	Support 800W pixel
Key	Support, multipath GPIO can reuse keyboard sequence
Package	SMT, stamp hole welding plate, 130 pins
Wi-Fi/WAPI / BT / MIMO / FM / Bluetooth	Support
Positioning	GPS+BeiDou



GNSS ²	Working frequency: 1575.42MHz CN0: 39dB/Hz Sensitivity: Acquisition, -148dBm (cold) Acquisition, -156dBm (hot) Tracking, -160dBm Startup time: hot start <5s, warm start <15s, cold start <50s
Basic Communication Service	Voice/Message/Phone book
Media Player (MP3、MP4)	Support MP4 30 frame
MP3 Audio Format	AMR/MIDI/WAV/MP3/AAC/AAC+
MP4 Video Format	MPEG-4/H.263, H.264
UIM Card	Support dual SIM card dual standby
SIM / USIM -1&2	Support, 1.8V, 3V, dual SIM cassette, card 1 support Micro hot-swap, card 2 SIM.
TFLASH Memory Card Extension Interface	Support, at most 32GB
U Flash Disk Function / USB	Support
UART 1&2	Support, UART interface for system debugging
SPI	Support, 1 path
I2C	Support, 4 path
MIC	Support, 3 path
RECEIVER	Support, 1 path
SPEAKER	Support, 1 path
GPIO	Support, multipath, else vacant control pin can be used as GPIO
Vibrator	Support
Sensors	Support, acceleration, geomagnetic, A&P, gyroscope and so on
NFC	Supportability, but need to take up more GPIO
Bar Code Reader	Support, optional external components, support UART way
USB OTG	Supportability
Reset	Support
Temperature Range	Working: -25°C~+75°C Storage: -40°C~+90°C
Physical Dimensions	44 × 39 × 2.8mm
Software Upgrade	USB upgrad / FOTA upgrad



Smart Module Family - Mode&Band

	MU960C (People's Republic of China)	MU960EMEA (Europe&Middle East& Africa& India)	MU960A (America&Canada&Mexico)	MU960S (SouthAmerica&Australia&Taiwan)
LTE-TDD	38/39/40/41	38/40/41	-	40
LTE-FDD	1/3	1/3/5/7/8/20	2/4/5/7/12/13/17	1/3/5/7/8/28
TD-SCDMA	34/39	-	-	-
WCDMA	1/8	1/5/8	2/4/5	1/2/5/8
EVDO	BC0	-	-	-
CDMA 1x	BC0	-	-	-
GSM	900/1800	900/1800	-	900/1800 850/1900

注 1 : MU960 TDD-LTE Band41, bandwidth: 100MHz (2555~2655MHz) , channel : 40240~41240 ;