

P80480MS050I_T01

5.0 Inches, 800xRGBx480, 16.7M Colors, Android LCM



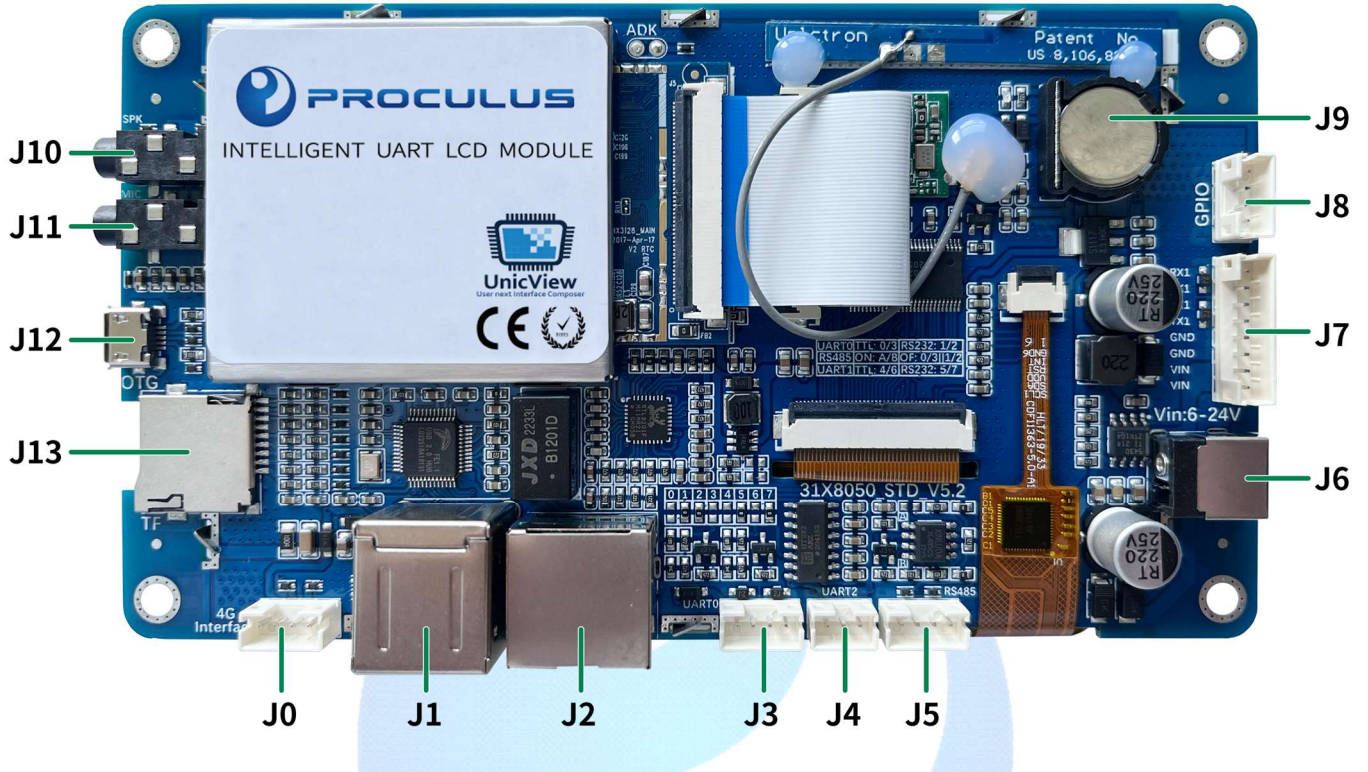
P80480MS050I_T01 is an industrial level Android LCM based on Rockchip RK3188 ARM. It is equipped with Quad-core Cortex-A9, supports most decoding solutions under 1080p@60fps, H.264/MVC/VP8 solutions under 1080p@30fps and many other great features of Rockchip RK3188. Meanwhile, with good jpeg picture processing performance and 3D GPU, it supports OpenGL ES2.0 and 1.1 OpenVG1.1.

RK3188 has high-performance external memory interface (DDR3/LPDDR2/LVDDR3) capable of sustaining demanding memory bandwidths, also provides a complete set of peripheral interface to support very flexible applications.

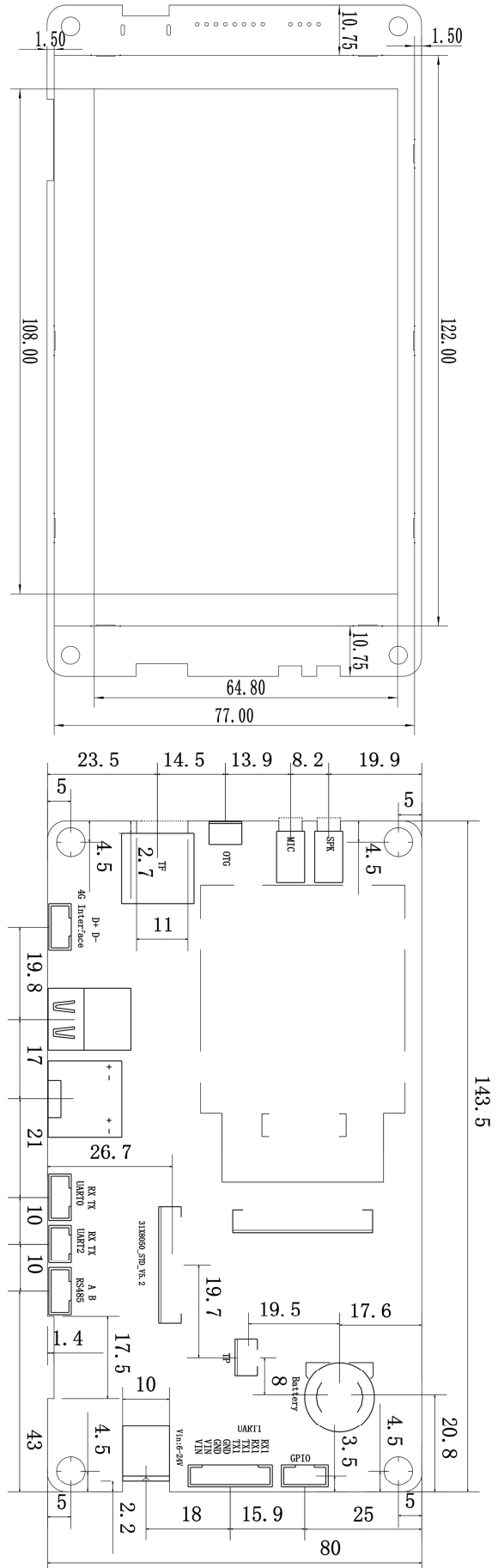
Core Board						
CPU	1.6 GHz Quad-core A9 ARM					
RAM	1GB DDR3					
eMMC	8GB					
GPU	Mali400MP4					
Power Management	ACT8846 PMU					
System Version						
Android	Android 5.1					
Ubuntu	Ubuntu 13.09 (Default system is Android. Need to refresh firmware to choose Ubuntu. Apps need to be developed separately.)					
Display						
Color	16.7M (16777216) colors, 24-bit color 8R8G8B.					
Active Area (A.A.)	108.0 mm(W)×64.8 mm(H), 800*480.					
View Area (V.A.)	110.4 mm(W)×67.1 mm(H), 800*480.					
Resolution	800*480					
Backlight	LED					
Brightness	300nit					
Optical Specifications						
Item	Symbol	Condition	Min.	Typ.	Max.	Unit
Viewing Angle (CR≥10)	θL	Φ=180° (9 o' clock)	—	70	—	Degree
	θR	Φ=0° (3 o' clock)	—	70	—	
	θT	Φ=90° (12 o' clock)	—	50	—	
	θB	Φ=270° (6 o' clock)	—	70	—	
Voltage & Current						
Item	Condition		Min.	Typ.	Max.	Unit
Power Voltage			6	12	24	V
Operation Current	—		—	400	—	mA
Power Supply	12V 2A DC (Recommended).					

Reliability Test					
Item	Condition	Min.	Typ.	Max.	Unit
Working Temperature	60%RH at 12V voltage	-20	25	70	℃
Storage Temperature	—	-30	25	85	℃
Working Humidity	25℃	10%	60%	90%	RH
Protection Paint	—	—	None	—	—
Interface					
Item	Condition	Min.	Typ.	Max.	Unit
Baud Rate	Standard	—	9600	—	bps
	User Defin	1200	—	115200	bps
Serial Mode	Serial Port*2 (1*RS232/TTL, 1*RS232/TTL/RS485)				
User Interface	Standard serial communication protocol. 8Pin_2.0mm socket.				
USB	USB DEBUG*1. USB HOST*2.				
Ethernet	Support 10m/100m Ethernet.				
Wi-Fi	Support 802.11b/g/n Wi-Fi wireless network.				
4G LTE Module	—				
Peripherals					
Microphone	3.5mm Audio input interface.				
Loudspeaker	3.5mm Audio output interface.				
IIC	—				
TF card	Yes				
GPIO	Reserved				

Interface Description



Num.	Interface Name	Description
J0	4G interface	4G Adapter plate interface
J1	USB interface	Support dual USB parallel use
J2	RJ45 interface	Support 10M/100M network
J3	UART0	Device Name: TTY0 /Pin Definition: 5V,RX0,TX0,GND
J4	UART2	-
J5	RS485	Device Name: TTY0 /Pin Definition: 5V,A,B,GND
J6	Power	12V2A power supply
J7	User interface	Device Name: TTY1 /Pin Definition: RX1,RX1,TX1,TX1,GND,GND,12V,12V
J8	GPIO interface	Pin Definition:GPIO1,GPIO2,GPIO3,GND
J9	Battery interface	RTC power supply
J10	Audio interface	3.5mm Audio interface
J11	MIC interface	3.5mm MIC interface
J12	OTG interface	OTG function /APP debugging interface/firmware upgrade interface
J13	TF interface	Memory Card



1. Location hole is used as position reference

2. Unmarked Tolerance is $\pm 0.3\text{mm}$

Active area is marked in Dash lines

Part No.	P80480MS050I_T01_V5.2				
Datasheet	A4	Drawn by	Proculus	Date	
Proportion	1:1	Verified by		Date	
Unit	mm	Confirmed by		Date	