

P12800HY101P_T01

10.1 Inches, 1280xRGBx800, 16.7M Colors, Android LCM



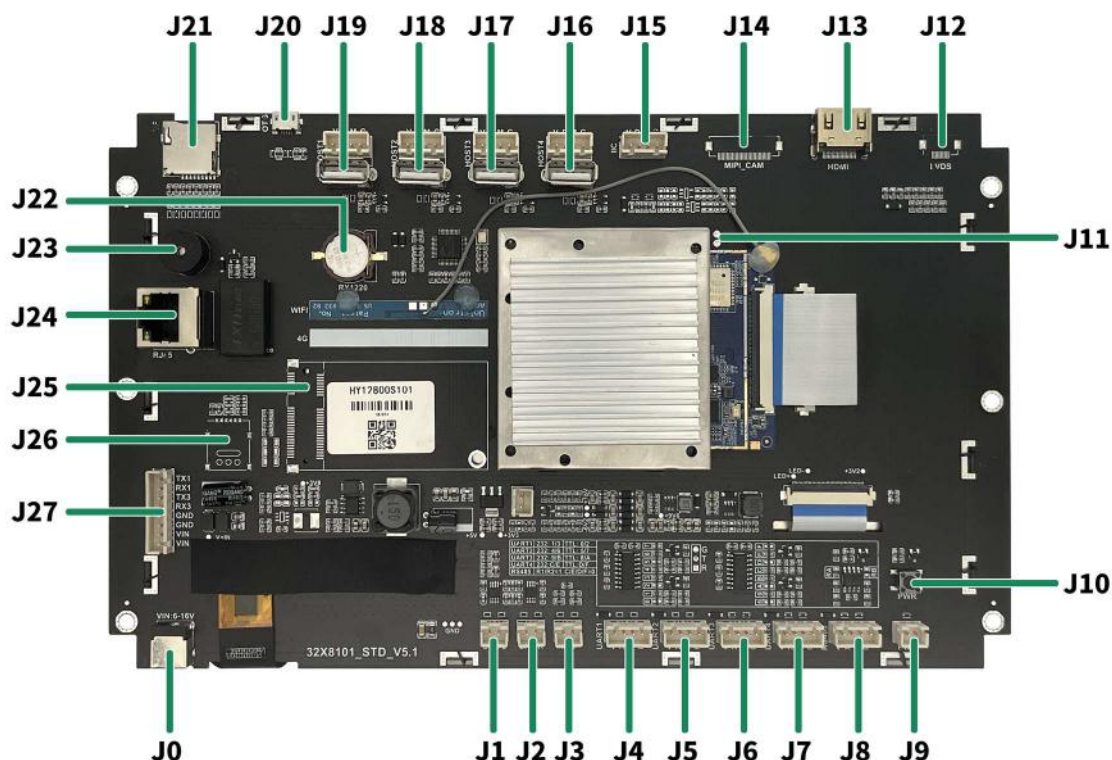
P12800HY101P_T01 is an industrial level Android LCM based on Rockchip RK3288 ARM. It is equipped with Quad-core Cortex-A17, supports most decoding solutions under 1080p@60fps, H.265/H.264/MVC/VP8 solutions under 1080p@60fps and many other great features of Rockchip RK3288. Meanwhile, with good jpeg picture processing performance and 3D GPU, it supports OpenGL ES2.0 and 1.1 OpenVG1.1.

RK3288 has high-performance external memory interface (DDR3/DDR3L/LPDDR2) capable of sustaining demanding memory bandwidths, also provides a complete set of peripheral interface to support very flexible applications.

Core Board						
CPU		1.8GHz Quad-core A17 ARM				
RAM		2GB DDR3				
eMMC		8GB				
GPU		Mali-T764 MP4				
Power Management		ACT8846 PMU				
System Version						
Android		Android 5.1/7.1/8.1				
Ubuntu		Ubuntu 18.04 (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.)		216.96 mm(W)×135.60 mm(H), 1280×800.				
View Area (V.A.)		219.46 mm(W)×138.10mm(H), 1280×800.				
Resolution		1280×800				
Backlight		LED				
Brightness		300nit				
Optical Specifications						
Item	Symbol	Condition	Min.	Typ.	Max.	Unit
Viewing Angle (CR≥10)	θL	Φ=180° (9 o’ clock)	75	85	—	Degree
	θR	Φ=0° (3 o’ clock)	75	85	—	
	θT	Φ=90° (12 o’ clock)	75	85	—	
	θB	Φ=270° (6 o’ clock)	75	85	—	
Voltage & Current						
Item	Condition		Min.	Typ.	Max.	Unit
Power Voltage			6	12	16	V
Operation Current	—		—	400	—	mA

Power Supply	12V 3A 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	1200	115200	115200	bps
	User Defin	1200	—	115200	bps
Serial Mode	Serial Port*4 (3*RS232/TTL, 1* RS232/TTL/RS485).				
User Interface	Standard serial communication protocol. 4Pin_2.54mm/8Pin_2.54mm socket.				
USB	USB DEBUG*1. USB HOST*4.				
Ethernet	Support 10m/100m/1000m Ethernet.				
Wi-Fi/Bluetooth	Support 802.11b/g/n Wi-Fi wireless network; Bluetooth is optional.				
4G LTE Module	4G LTE Module/GPS. (Optional)				
Peripherals					
Microphone	Audio input interface.				
Loudspeaker	4Ω/3W loudspeaker.				
HDMI	HDMI output interface.				
IIC	Reserved				
TF card	Yes				

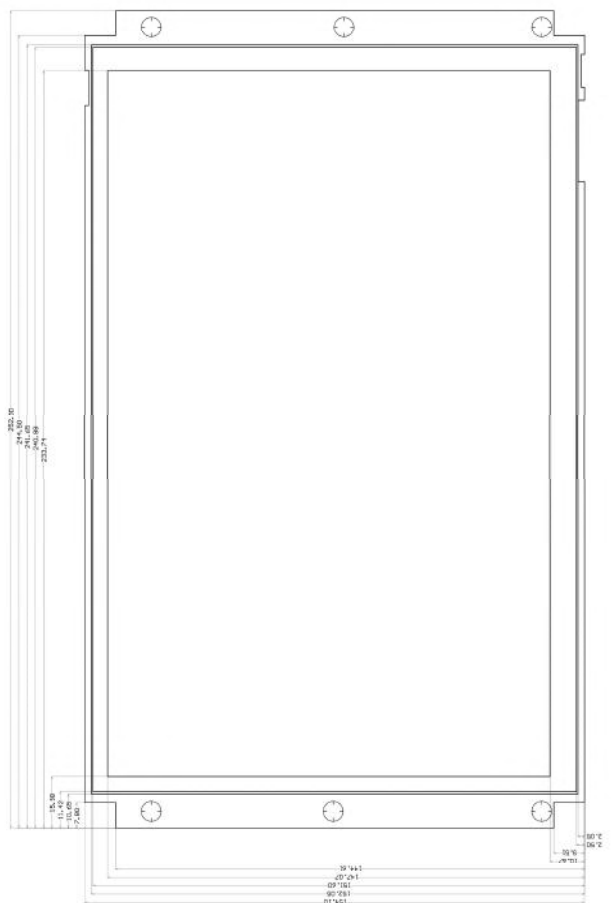
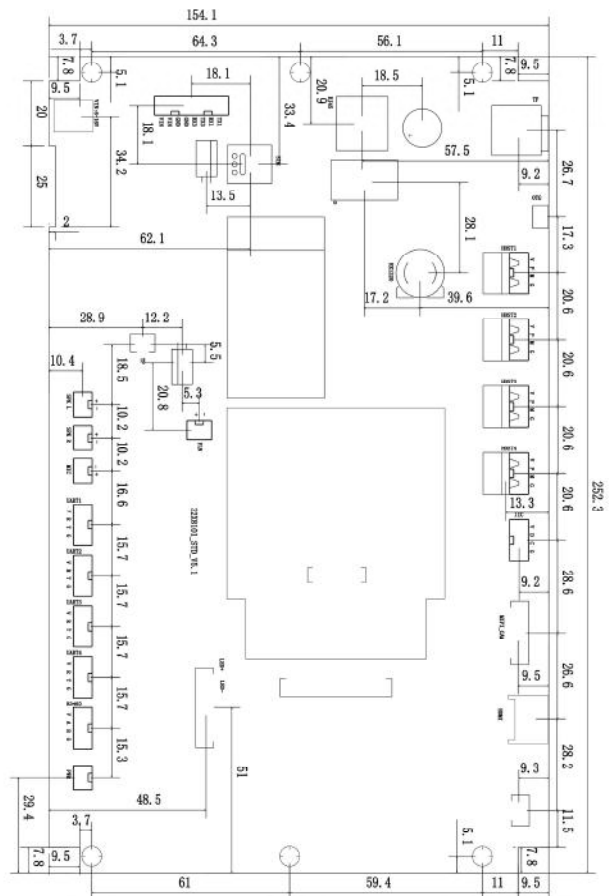
Interface Description



Num.	Interface Name	Description
J0	Power	12V3A power supply
J1	SPK_R	Right channel audio output interface
J2	SPK_L	Left channel audio output interface
J3	MIC	Audio input interface
J4	UART1	Device name: ttyS1. Pin definition: 5V, RX, TX, GND
J5	UART2	Device name: ttyS2. Pin definition: 5V, RX, TX, GND
J6	UART3	Device name: ttyS3. Pin definition: 5V, RX, TX, GND
J7	UART4	Device name: ttyS4. Pin definition: 5V, RX, TX, GND /Same as J8
J8	RS485	Pin definition: 5V, A, B, GND
J9	Wake-up	Control screen system on/off
J10	Wake-up	Control screen system on/off
J11	Recovery	Short-circuit to enter firmware burning mode
J12	Reserved interface	Reserved
J13	HDMI	HDMI output interface
J14	Reserved interface	Reserved
J15	IIC communication	Pin definition: 5V, SDA, SCL, GND (Reserved)
J16	USB_HOST4	Horizontal USB2.0 (Vertical 4P2.54mm). Support USB Peripherals
J17	USB_HOST3	Horizontal USB2.0 (Vertical 4P2.54mm). Support USB Peripherals
J18	USB_HOST2	Horizontal USB2.0 (Vertical 4P2.54mm). Support USB Peripherals

J19	USB_HOST1	Horizontal USB2.0 (Vertical 4P2.54mm). Support USB Peripherals
J20	USB_Micro	OTG /App debugging/ Firmware upgrade interface
J21	TF Card	TF Card
J22	RTC	Supply system RTC
J23	Buzzer	Buzzer
J24	RJ45 interface	Support 10M/100M/1000M network
J25	MINI PCIE 4G	4G LTE Module/GPS (Optional)
J26	SIM card	Nano-SIM supported (Optional)
J27	User interface	Pin Definition: TX1,RX1,TX3,RX3,GND,GND,VIN,VIN



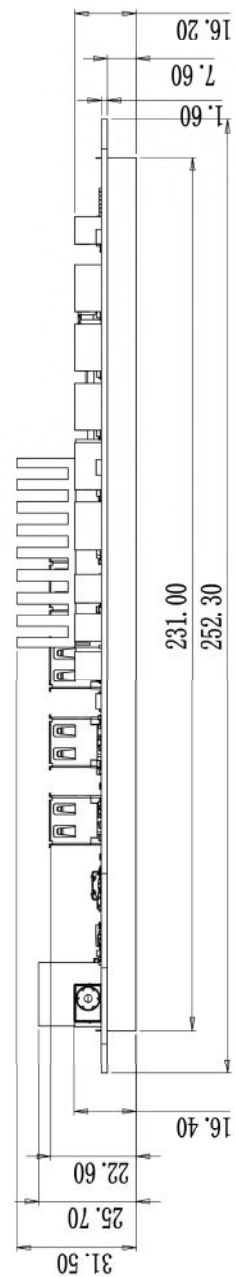
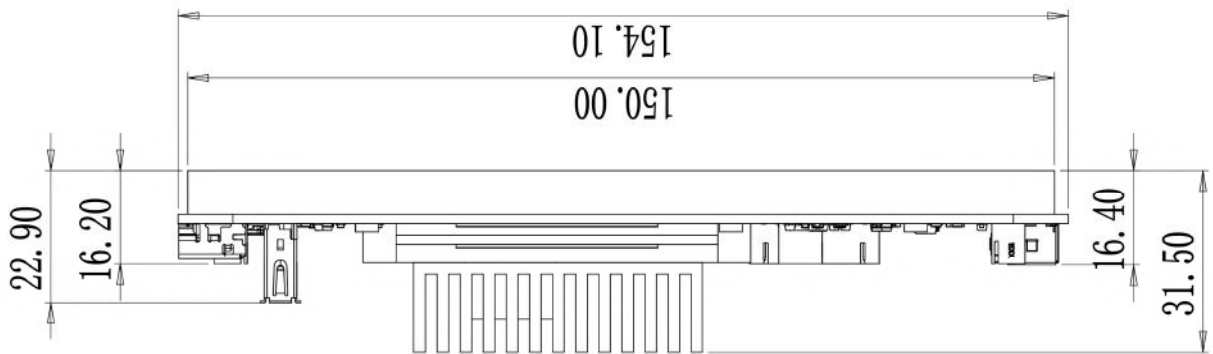


1. Location hole is used as position reference

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

Active area is marked in Dash lines

Part No.	P12800HY101P_T01_V5.1				 PROCULLUS
Datasheet	A4	Drawn by	Procullus	Date	
Proportion	1:1	Verified by		Date	
Unit	mm	Confirmed by		Date	



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Datasheet	A4	Drawn by	Proculus	Date	
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