

User Manual

13.3' Android



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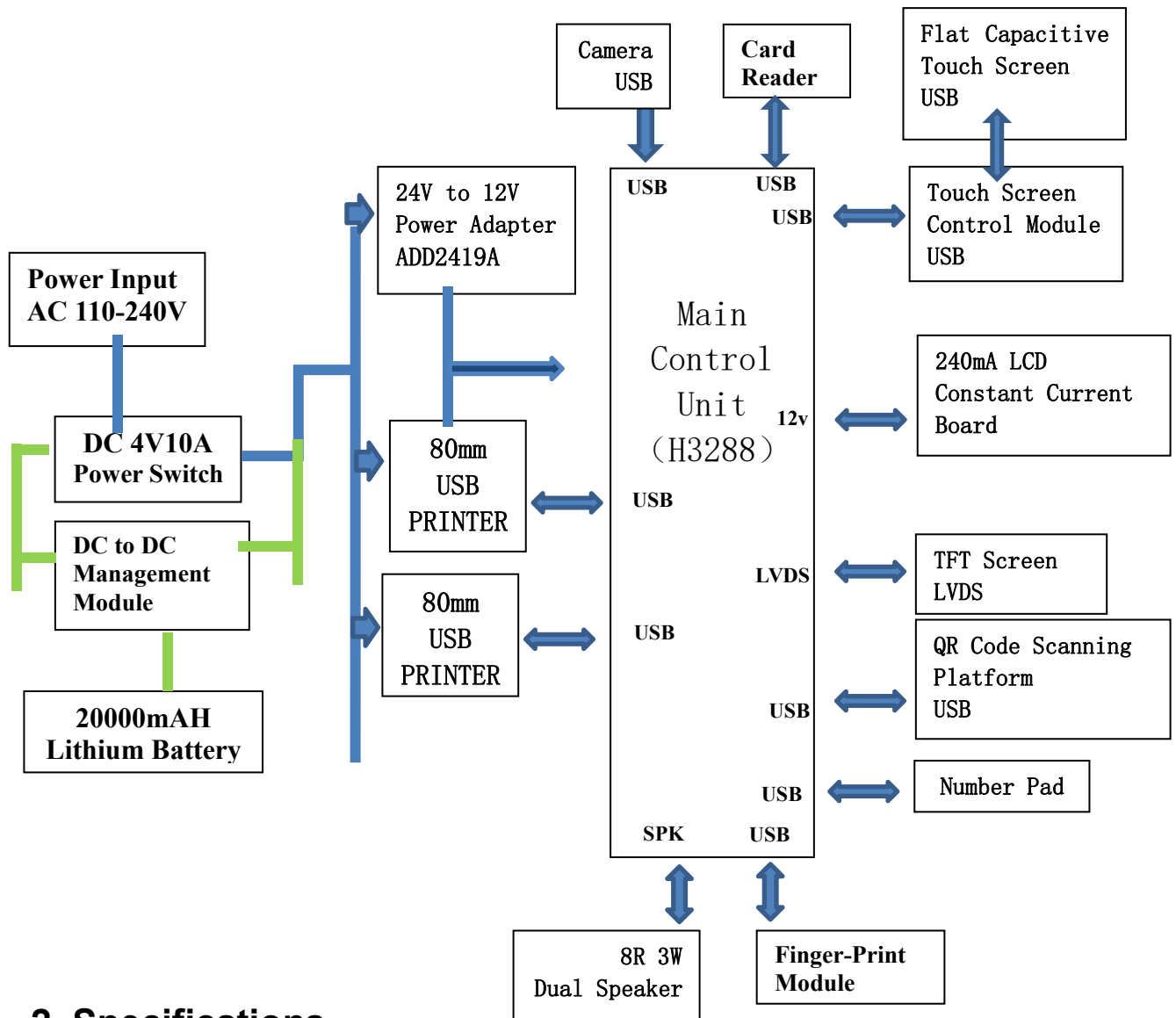
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1.Introduction

1.1 Description

A Smart Terminal for Election propose. This touch screen POS Terminal is capable for print out of Vote, digital encryption, face recognition, finger-print recognition, Identity recognition, bar-code/QR CODE scan. It is used for Associations/cooperation/political/National elections, and provided with wireless transfer, Cloud-App, 4G/LTE network and extra-long endurance.

1.2 Terminal Working Structure



2. Specifications

2.1 Power in-put Requirement

In-put: AC 110-240V~ 50/60Hz 3A

2.2 LEVEL OF Water/Dust Resistance

Comply with IP protection certification

2.3 Specification of technical parameters

NAME	ITEM	DESCRIPTION	
ANDROID MOTHERBOARD	CPU	RK3288 @ 1.8GHZ	
	RAM	4G	
	ROM	64G EMMC	
	Memory card	TF-CARD with max 32G	
	Video Out-put	Support LVDS,EDP format video output	
	Video Out-put Resolution	1920 X 1080	
	NETWORK	10MHZ/100MHZ/1000MHZ LAN 2.4G WIFI 4G Mobile Network	
	I/O Port	External	1×DC2.5 in (12V)
			6×USB
			1×RJ45 Lan
			1×Series Port
			1×TF CARD
			1×SIM CARD
		Internal	3×USB
1×LVDS			
4×Series Port			
1×Speaker			
1×MIC			
1×WIFI IPEX			
1×EDP			
1×GPS			
1×3G/4G PCIE			
OS	Android 7.1		
Working Environment	Working Temperature: -20 ~ 80 °C		

LCD Display	Display Dimension	13.3 inch, 16:9 Portrait screen display
	Display	IPS Display
	Resolution	1920×1080
	Brightness	250 cd/m
	Display color	16.7M
	Respond time	20 ms
	Display Lifetime	40000H、
	Working Environment	Working Temperature: 0 ~ +50 °C

TOUCH SCREEN	Display Dimension	13.3 inch Full Flat Capacitive touch screen with Multi Touch (Default 3 points, Max 10 points)
	Connection	USB
	Structure	Glass+Glass
	Touch Responds time	15ms
	Temper Type	Chemical Temper
	Surface Hardness	>6H
	Transmittance	≥86%
	Working Environment	Working Temperature: -10 ~ +60℃ Storage Temperature: -20 ~ +70℃

Ticket Printer	Printing method		Thermal Line Printng
	Print Resolution		203 dpi
	Print Speed		150mm\S (max)
	Print Width		576dots (72mm)
	Paper	Requirement	Thermal paper
		Width	79.5 ± 0.5 mm
		Thickness	60~120um (Adjustable to 58mm and 80mm,with different Bracket)
	Roll	Roll Size	80X80
	Sensor	Printhead temperature detection	Temperature Sensor
		Out of Paper Detection	Mechanical photoelectric sensor
		Bar Lifting Detection	Micro Switch
	Print baud rate		9600、19200、38400、115200
	Font Database		FONT A, FONT B, GB18030 Simplified Chinese、 GB2312 Simplified Chinese, and Fonts for othe countries
	Command Set		Compatible with ESPON ESC/POS command set
	Print Length		100KM
	Life time for Ticket printer cutting knife		1 million Times
Communication port		USB	
Working Environment		Working Temperature -10~50℃ (No condensation) Working Humidity: 20%~85%RH (85%RH at 40℃)	

Ticket Printing Module	Printing method		Thermal Line Printng
	Print Resolution		203 dpi
	Print Speed		250mm\S (max)
	Print Width		576dots (72mm)
	Paper	Feed Method	Auto Feed (Direct in/out)
		Requirement	Thermal paper
Width		79.5 ± 0.5 mm	

		Thickness	55~200um (Adjustable to 58mm and 80mm,with different Bracket)
	Roll	Roll Size	80X150 (Max)
	Sensor	Printhead temperature detection	Thermistor
		Paper Detection	Paper Approaching Detection / Out of paper Detection / Black Label Detection / Seam Label Registration
		Bar Lifting Detection	Micro Switch
		Print baud rate	9600、19200、38400、115200
		Font Database	ASCII code, BIG5, FONT A, FONT B, GB18030 Simplified Chinese、GB2312 Simplified Chinese and Fonts for other countries
		Command Set	Compatible with ESPON ESC/POS command set
		Print Length	100KM
		Life time for Ticket printer cutting knife	1 million Times
		Communication port	USB+RS232
	Working Environment	Working Temperature -10~50°C (No condensation) Working Humidity: 20%~85%RH (85%RH at 40°C)	

Camera	Communication port	USB2.0
	Working Distance	0.28m~1m
	Measurement Accuracy	2mm@1m
	Data Depth	Raw Data 16bit
	Pixel	200WWide Dynamic
	Color Data Format	MJPEG
	Depth Map	FOV: H66°X V44°640X400@30fps、640X400@15fps、320X200@30fps、640X400@15fps
	Color Image	FOV: H84.5°X V53.8°1920X1080@30fps、1280X720@30fps、640X480@30fps、320X240@30fps
	Platform	Windows、Android、Linux
	Hot Start Time	600ms

Scanner	Sensor	COMS Array sensor infrared scanning
	Supplementary light source	640mm Red Light LED
	Communication Port	USB
	Sensor Pixel	640X480
	Reading accuracy	≥3.9mil
	Motion Tolerance	>2m/s
	Barcode Contrast	≥25%

	Decoding Capacity	1D: Code 128、Code 39、Code 93、Code 11、Matrix 2 of 5 、Codabar interleaved 2 of 5、Mis Plessey 、GSI DataBar、 etc 2D: QR Code、PDF417、Data Matrix、Maxi code、 etc
	Scan Angle	53°(Horizontal), 41°(Vertical)
	Working Environment	Working Temperature: 0 ~ +40℃ Storage Temperature: -40 ~ +70℃

4G Model	Type	Mini Pcle LET cat 4(EC20)
	Max Download speed	LTE FDD 150Mbps、 LTE TDD 130Mbps
	Max Upload speed	LTE FDD 50Mbps、 LTE TDD 30Mbps
	Bandwidth	1.4/3/5/10/15/20MHz
	Protocol stack	TCP/UDP/PPP/FTP/HTTP/NTP/PING/QMI/CMUX/HTTPS/SMT P/MMS/FTPS/SSL/FILE
	Certificate	CCC/SRRC/NAL (CHINA)
	Working Environment	Working Temperature: -20 ~ +85℃ Storage Temperature: -25 ~ +90℃

Camera	Assembly technique	SMT (ROSH)
	Focus	Auto Focus
	Object distance	15CM-130CM
	Resolution	1100LW/PH (Center)
	interface	USB 2.0
	Power	USB bus power
	Error Rate FAR	<0.0001%
	Sensor Type	OV5640(1/4")
	Active Array Size	2592*1944
	Sensitivity	TBD
	Pixel Size	1.4μm x 1.4μm
	Lens Construction	4P+IR
	F/No	2.8
	EFL	3.29 mm
	FOV	68.7°
	TV Distortion	<1%
	Relative Illumination (Sensor)	42.3%
IR Filter	650±10nm	
Working Environment	Working Temperature: -20 ~ +85℃ Storage Temperature: -25 ~ +90℃	

	Sensor Type	Semiconductor (Area/Pressure)
	Usage Life Time	> 1 million times (by Manufacture)
	Collection Area	10.64 * 14 mm
	Image Pixel	508DPI
	Comparison speed	1:1<4ms / Finger Print

Finger Print Module	Boot Time	<140ms
	Collection time	<150ms
	Error Rate FAR	<0.0001%
	Rejection Rate FRR	<1%
	Storage capacity	100 finger print data with standard configuration
	Working Environment	Working Temperature: -20 ~ +85℃ Storage Temperature: -25 ~ +90℃

ID Card Scan Module	Type	Motorized scan card reader
	Scan Component	CIS (Contact Image Sensor) Contact Image Sensor
	Scan Speed	80mm/s
	Light Source	RGB
	Scan Resolution	≥100*100dip ≤300*300dip
	Scan Width	54.8mm
	Scan Type	Color
	RFID	2 ND & 3 RD Generation Chinese national ID Card / Hongkong & Macau home return permit / Permanent Resident card for Foreign passport holder
	Card-in	Auto Suction
	Card-Out	Front end exit
	Auto Card-out when Power off	Supported with optional backup power module
	Force Card-out with button	Supported with optional backup power module
	CIS Auto adjust	Support
	Card Read time	≤4s
	ID Size	Width 54.8mm(max) / Length 85.6mm / Thickness 0.8mm 12.mm
	Radio Frequency Standard	Accord with IOS/IEC 14443 TYPE B Standard Contactless Card
	Product Certification	China Public Safety Product Certification Certificate
Working Environment	Working Temperature: -5 ~ +50℃ Storage Temperature: -30 ~ +70℃	

Battery	Capacity	20000mA/H
	In Put	25.2V
	Out Put	24V

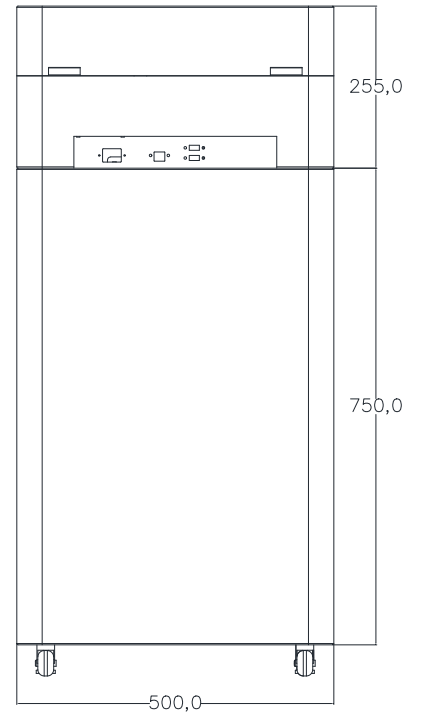
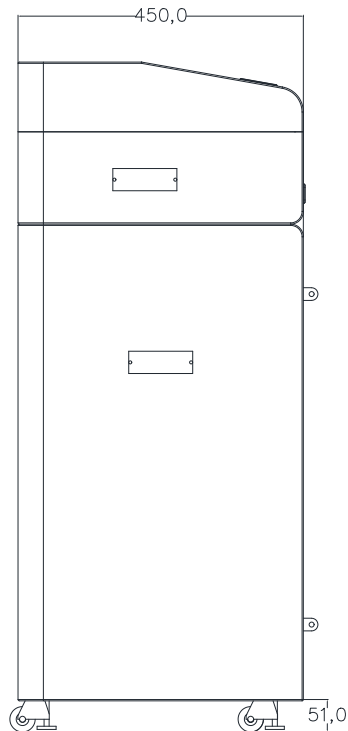
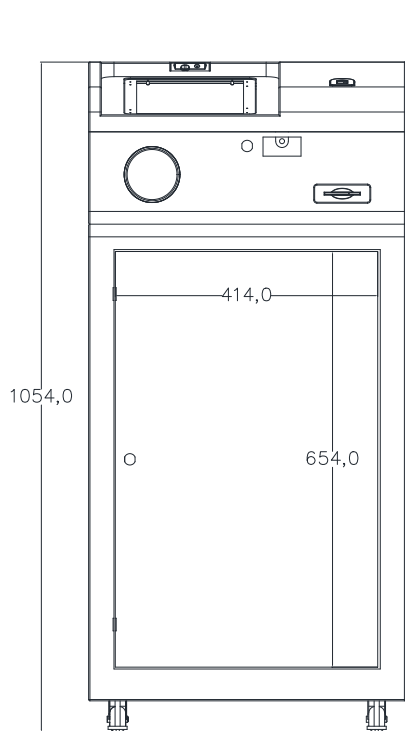
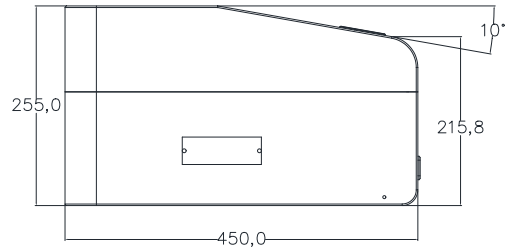
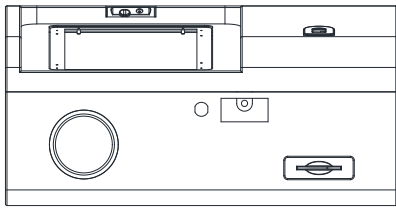
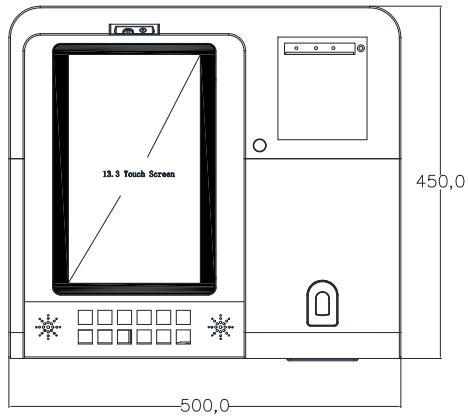
Speaker	Power	3W Dual Speaker
	Volume Control	SPK port on motherboard, System Adjustment
	Frequency response	150Hz~20KHz

3.Component & Dimension

3.1 Physical Instruction



3.1.2 Dimensional description









3.1.3 Cooling System

Fan less Design, Thermally conductive heat diffusion.

Instruction: CPU Cooling Aluminum is attached to metal cover of motherboard with Thermal Silica, enlarge the cooling area

3.1.4 Accessories instruction

					
AC POWER CABLE	User's Manual / Warranty Card	Thermal Printing paper	Paper Shaft	Instruction CD	Printer Key

3.1.5 Transportation Environment

Temperature: -20~60°C / Humidity: 5%~85%RH

Vibration Test: - IEC60721-3-2 Class 2M2

3.1.6 Working and Storage Temperature/humidity

Working Environment: Temperature: 0 ~ 40°C / Humidity: 35% ~ 85% RH (No condensation)

Storage Environment: Temperature: -10 ~ 50°C / Humidity: 15% ~ 90% RH (No condensation)

3.1.7 WEIGHT

Terminal with package: Approx. 50KG (Including Cabinet)

3.1.8 Package Size

Terminal Packaging Size: 620 X 570 X 1220mm (Including Cabinet)

4.Certification and Standard instruction

Certification: CCC / CB / CE

Static Level:

Level of Contact Discharge: Level 2

Level of Air Discharge: LEVEL 3