# Hisense



# HM518 Mobile POS Tablet System

System Integration Manual

Document version 1.0

## Part 1. System Introduction

- 01. Safety Notices Before Installation or Use
- 02. System Introduction
- 03. General Specifications
- 04. Front View
- 05. Back View
- 06. Dimension
- 07. I/O View

### Part 2. System Installation

- 01. Checking the Location for Installation
- 02. Before Connecting Peripherals
- 03. Connecting DC power supply cable
- 04. Package

## Part 3. Modules & Functions

- 01. Docking station
- 02. 3G function
- 03. Using WiFi
- 04. Using the Bluetooth
- 05. Using Card reader (NFC MSR IC )
  - 5.1 Using MSR
  - 5.2 Using NFC
  - 5.3 Using IC card
- 06. Using 1D Barcode scanner
- 07. Using rear camera (1D/2D barcode reader function)
- 08. Using TF card

# Part 1. System Introduction

#### 01. Safety Notices Before Installation or Use

# A Caution:

- ☆ It is required grounded well and the supply voltage shall be stable, and you must confirm that the voltage of the outlet provides shall be in line with the voltage marked on the label of the unit.
- $\stackrel{\scriptstyle <}{\sim}$  Be sure not to sprinkle any liquid or fall any object into the unit.
- $\stackrel{\scriptstyle \wedge}{\sim}$  Be sure not to keep heavy, strenuous movement, shake & heavy strike away from the POS.
- Be sure not to unplug or plug in any live part or external device when they are in energized state, and the connecting cables of the POS between parts shall be connected securely.
- $\Rightarrow$  Be sure neither to lengthen cable nor to replace parts at your will, if you have any demand, please contact with the reseller.
- $\stackrel{\scriptstyle <}{\sim}$  The unit shall be used under dry, ventilated & clean environment away from sunlight.
- ☆ In case of safety fault, such as peculiar smell, abnormal sound, leakage and other faults, you must switch off the power supply at once and then contact with reseller.
- The RJ11 port at the back of the host is connected with the cash drawer, as it is not a communication port, users shall not use the port for dial-up networking.
- The product is a Level B one, it may cause radio interference in living environment. In such case, users may need to take practical & feasible measures against the interference.
- $\stackrel{\scriptstyle <}{\sim}$  When the POS is not in use, you shall switch off power supply.
- $\cancel{k}$  Static may damage to the integrated circuit in the host machine.
- ☆ Please use common USB Cable or original charger, Otherwise, It may result to danger. When you use a charger for charging, adapter shall be installed near the equipment and shall be easily accessible.
- This product conforms with standard EN50332. Use careful with the earphone maybe possible excessive sound pressure from earphones and headphones can cause hearing loss.
- $\stackrel{\wedge}{\sim}$  Extreme Operating Temperature : 40  $^{\circ}$ C

- $\stackrel{\scriptstyle <}{\sim}$  The device complies with RF specifications when the device used at 10mm from your body.
- ☆ Declaration Of Conformity Hereby, This Tablet POS is in compliance with the essential requirements and other relevant provisions of directive 1995/5/EC.

CAUTION: RISK OF EXPLOSION IF BATTERY IS REPLACED BY AN INCORRECT TYPE.

#### DISPOSE OF USED BATTERIES ACCORDING TO THE INSTRUCTIONS.



1. For continued protection against risk of electrostatic, it can result in system or POS terminal damaged

2. Danger of explosion if battery is incorrectly replaced. Replace only with the same or equivalent type as recommended by the manufacturer, Discard used batteries according to the manufacturer's instructions.

3. Do not remove the peripheral device before turn off the system.

Turn on the system after turning on peripheral device, and turn off peripheral device after turn off the system

#### FCC Warning:

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Caution: Any changes or modifications to this device not explicitly approved by manufacturer could void your authority to operate this equipment.

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

The manufacturer has the right to modify contents of the instruction book but without prior announcements!

# 02. System Introduction

The exterior design and specifications of product can be changed without prior notice in order to improve quality.



# **03.** General Specifications

Item			Description								
	СР	U	Intel Baytrail-M N2807 1.58GHz								
	Men	nory	2G Byte RAM								
Storage			32GByte eMMC								
	Syst	em	Win8.1 Embedded/with Bing								
	Operating Temperature		0°C ~ +40°C								
	Operating	Humidity	10% ~ 90%								
		TFT LCD	10.1"TFT LCD, 1280*800								
D	isplay	Brightness	330cd/m <sup>2</sup>								
		Touch Screen	Multi-touch capacitive touch panel(10 points)								
		MSR	3 Tracks								
		Scanner	1x1D Scanner								
		Camera	Rear:5MP, AF focus								
		NFC	Supports MIFARE one and MIFARE CPU card								
		IC Card Reader	1 x IC Card Reader								
		Micro SD	1 x Micro SD slot								
	Tablet	SIM Card	1x SIM slot (WCDMA)								
Port		Audio	Built-in 1W speaker ; Microphone; 1 x 3.5-mm stereo headphone(OMTP)								
		USB	1x USB2.0 Host								
		WIFI	Wi-Fi <sup>®</sup> 802.11a/b/g/n/ac 2.4GHz/5GHz								
		BT	BT 4.1								
		DC input	1 x DC jack (12V)								
		VGA	1 * VGA reserved for 2nd display								
	Docking station	USB	3x USB2.0 Host								
		LAN	1 * RJ-45 (100Mbps LAN)								

		Cash Drawer	1 * RJ-11 12V/24V for cash drawer(24V default)							
		Serial Ports	2* RS-232 COM, COM1(RX/TX/GND),COM2(RX/TX/GND/DTR/DSR)							
		DC input	1 x DC jack (12V)							
Power adapter(tablet, docking station)		et, docking station)	AC 100-240V / DC 12V 3.33A							
Battery		ery	4000mAh 7.4V							
	T	Tablet (mm)	276 x 193 x 23.8							
	Tablet Weight (kg)		1.0							
Dimensior	<sup>1S</sup> Docki	ng station (mm)	280 x 170.8 x 72.3							
	C	Oocking station Weight(kg)	0.8							

## 04. Front View



#### 05. Back View



# 06. Dimension



## 07. I/O View



#### IO interface function:

NO.	Name	Description
1	DC +12V	+12V Power input
2	RJ11	For cash drawer
3	VGA	For 2 <sup>nd</sup> display
4	COM1	COM1(RX/TX/GND)
5	COM2	COM2(RX/TX/GND/DTR/DSR)
6	RJ45	100Mbps LAN

7	USB	USB2.0*2
8	DC Jack	+12V Power input
9	Headset Jack	Audio(OMTP)
10	USB	USB2.0*1

# Part 2. System Installation

#### 01. Checking the Location for Installation

It is important to choose a safe and secure place to install the terminal.

•• Choose a desk or table big and strong enough to support the weight of the system and peripherals.

•• Choose a flat, hard surface. Carpeted area can generate static electricity that can alter memory or damage system components.

•• Make sure a system installed in a well-ventilated place and keep the space free around the system.

•• Choose appropriate environmental conditions such as cool and dry places. Avoid humid and dusty places. Also avoid direct sunlight, rapidly changing temperatures, or placing the system near heat sources.

•• Select the appropriate voltage. Connect all the equipment into an isolated outlet to prevent static electricity and short circuit.

•• where sufficient power outlets are available for printers and other peripheral devices.

•• Do not install near electromagnetic and electrical devices, such as phones and electric motors that can cause system damage.

•• The socket-outlet shall be installed near the equipment and shall be easily accessible.



# 02. Before Connecting Peripherals

To connect peripherals first remove the 'Interface cover', which is in the bottom of the system.



## **03.** Connecting DC power supply cable

**Docking station**: Connect the DC power cable to the DC power input connector at the bottom of the system. (Adapter 100V - 240V free voltage of the system can be used.)



**Tablet :** when using 12V adapter for tablet charging, Connect the DC power input cable to the DC power input Port at the side of the tablet.



## 04. Package

a. Docking station Package:

AC adapter, Power Cord, Docking station



# b. Tablet Package:

AC adapter, Power Cord, Tablet



# Part 3. Modules & functions

# 01. Docking station

# Interface pin define

CASH DRAWER	Description										
Connector type	RJ11 12V/24V for cash drawer(24V default)										
PIN defined	1.GND 2.CD_OPEN 3.CD_SENSE 4.+24V 5.NC 6.GND										

VGA	Description
Connector type	DB15
PIN defined	1.R       2.G       3.B       4.NC       5.GND       6.GND       7.GND       8.GND       9.NC       10.GND       11.NC         12.DDC_SDA       13.HSYNC       14.VSYNC       15.DDC_SCL

COM1&2	Description
Connector type	COM1:DB9 ;2 line RS232
connector type	COM2:DB9 ;4 line RS232
PIN defined	COM1: 1.NC 2.RXD 3.TXD 4.NC 5.GND 6.NC 7.NC 8.NC 9NC
rin defined	COM2: 1.NC 2.RXD 3.TXD 4.DTR 5.GND 6.DSR 7.NC 8.NC 9NC

USB & LAN	Description
Connector type	USB: 3*Standard USB2.0
Connector type	RJ45: 1 * RJ-45 (100Mbps LAN)

### 02.3G function

1. Please keep tablet in shutdown mode, put in the WCDMA3G SIM card into the SIM card socket.



2. In system you should be have the information of CHN-UNICOM(HSPA)



3. Connect automatically or Roam automatically are optional setting.



### 03 Using WiFi

1. According to haixi hotspot, choose connect automatically.



2. Connect successful



## 04. Using the Bluetooth

#### How to connect the tablet bluetooth?

1. Open the bluetooth icon on the lower right corner of desktop, see below pictures.



2. Choose the "show Bluetooth devices"



3. Find out the other proper bluetooth device.



Manage Bluetooth devices

Your PC is searching for and can be discovered by Bluetooth devices.



4. Ready to match with tablet.



#### Manage Bluetooth devices

Your PC is searching for and can be discovered by Bluetooth devices.



#### 5. Connecting.



#### 6. Connected successful



#### Manage Bluetooth devices

Your PC is searching for and can be discovered by Bluetooth devices.



#### How to send file?

#### 1. Data transfer



Sarah McLachlan-Surfacing-Angel-320			-	7 New Bitmap
<ul> <li>Aihanna-Only Girl (In The World)-Only Girl (In TI</li> <li>Lenka-Lenka-Trouble Is A Friend-320</li> <li>Imagine (Album Version)</li> </ul>	Play Add to Windows Media Player list Open with			limage (B)
	Share with	×		
	Send to	×	0	Bluetooth device
	Cut Copy			Compressed (zipped) folder Desktop (create shortcut) Documents
	Create shortcut Delete		•	
MB	Rename		100	man recipient
	Properties		-	(4)

#### 2. Find out the proper device.

	×
8 Bluetooth File Transfer	
Select where to send your files	
Hisense Phone	
Use authentication to ensure that you are sending the file to the correct device. The authentication also protects the file from being viewed by others while it is sent to the othe device.	r®
Use authentication	
	Next Cancel

## 3. Data sending

📀 🚯 Bluetooth File	
The file is being	sent
Sending to:	Hisense
File name:	Rihanna-Only Girl (In The World)-Only Girl (In The World)-256.mp3
Sending	
	Next Cancel

# 10. File successfully transferred

8 Bluetooth File Transfer												×
File successfully transferred												
Sent to: Hisense Files sent: File Name	Size			1								
File Name Rihanna-Only Girl (In The World)												
										Fini	sh	

#### How to receive file?

1. Click the bluetooth icon, choose "receive a file"





2. Waiting for receive file status.



3. When the other bluetooth sending to tablet. It will be start to receive.

The file is being re	ceived		
Receiving from:	Hisense		
File name:	IMG_20151016_123247.jpg		
Receiving			
5 B			

4. File received successful.

			×
📀 🚯 Bluetooth File	Transfer		
Save the received	file		
Save the file to th	e location below, or click Browse to cl	hoose a different loca	tion
Save the file to th	e location below, of click browse to cl	noose a uniferent loca	
File name:	File Name	Size	]
	IMG_20151016_123247.jpg	1.44 MB	
Location:	C:\Users\john\Documents		Browse
			Finish Cancel

## 05. Using Card reader (MSR NFC IC)

# Card reader test demo

1. Open the "HM518\_cardReader\_setup\_EN.exe" file



#### 2. Click "NEXT"



3. Click "NEXT", choose the default install path, and then click "next"



4. Choose default then click next



5. Select "create a desktop icon", then next



6. Click "Install"



#### 7. Click "NEXT"



8. Click "finish", if choose "launch cardReader", then it will be start the program immediately

📶 Setup - cardReader	
	Completing the cardReader Setup Wizard Setup has finished installing cardReader on your computer. The application may be launched by selecting the installed icons. Click Finish to exit Setup. Launch cardReader
	< Back Finish

# Demo test

Open the demo software.

11			cardreader&barcode	- (	5 ×
IC card reader:					
firmware versio	• n:				
S2314V12					
• mifare card					
○ IC card					
CHECK IC C	ARD				
ontion 10 C	a sander				
	C: BCR:	Mifare: MSF	2.		
count: I	DUR.	milare. Mor			EAR

#### 1. Using MSR

Reverse the card and make the back of the card to you.

Put the card into the slot which on the top of HM518.(Figure 1)

Swipe the card via the slot left-to-right or right-to-left .



Figure 1

First make the cursor in the white right frame. Swipe the magnetic stripe card, it will be shown the card information in the white right frame.

<u>28.</u>		cardreader&barcode	- 0 ×
IC card reader:	I 6212263803001781933=23062206119991923	9         s96212263803001781933~156156000000000010351199910000023060-0000000000-00000000-00000000         9           9         s96212263803001781933~156156000000000001035119991010000023060-000000000-000000000-000000000         9           9         s96212263803001781933~156156000000000001015119991010000023060-00000000000-000000000-000000000         9           9         s96212263803001781933~15615600000000001015119991010000023060-00000000000000000000000000000	
firmware version:			
S2314V12			
• mifare card			
$\bigcirc$ IC card			
CHECK IC CAR			
count: IC:	BCR: Mifare:	MSR:	CLEAR
0	0 0	3	QUIT

2. Using the NFC (Mifare card)

Put card in the proper position, choose " mifare card",

It will be always shown the card information in the white right frame.

			cardreader&barco	de	- 0
IC card reader:			OxFFFFFFF6 OxFFFFFF84 Ox28 OxFFFFFF92 OxFFFFFF6 OxFFFFF84 Ox28 OxFFFFFF92	SAE: 0x20 SAE: 0x20	
irmware version:			0xFFFFFFF6 0xFFFFFFB4 0x2B 0xFFFFFFD2	SAR: 0x20	
2314712			0xFFFFFFF6 0xFFFFFFB4 0x2B 0xFFFFFFD2	SAE: 0x20	
			0xFFFFFFF6 0xFFFFFFB4 0x2B 0xFFFFFFD2	SAE: 0x20	
mifare card			OxFFFFFFF6 OxFFFFFFB4 Ox2B OxFFFFFFD2	SAE: 0x20	
IC card					
CHECK IC CA	RD				
CHECK IC CA		Mifare: MSR	:		CLEA

3. Using the IC card



will be enabled.

First choose the IC card in the left of test tool. Then the button named

At that time it can read the IC card information. And will show in the right frame.

<u>til</u>			cardreader&barcode	- ð ×
IC card reader:	Connect to IC card m	accessfully!		
Heng Yu Technology Sma	<ul> <li>Connect to IC card so Connect to IC card so</li> </ul>	accessfully!		
firmware version:	Connect to IC card su IC card disconnected	accessfully!		
S2314V12	IC card disconnected			
	IC card disconnected			
	And the second second second second second			
O mifare card	Connect to IC card so IC card disconnected	accessfully!		
	E			
IC card				
	_			
OUDON TO ON	20			
CHECK IC CA	KD .			
count: IC:	BCR:	Mifare:	MSR:	CLEAR
5	0	0	0	
o l	0	0	0	QUIT

Notice: normally for this card reader, the tool can read the firmware version, if not, you will see "get firmware failed". Then you need your Vendor to check

### 06. Using 1D Barcode scanner

To use 1D Barcode scanner: same test tool with card reader.

Make sure your device has 1D barcode scanner module.

Touch the scan button on the left of the device and confirm the red ray of light.

(Figure 1)

Scan the 1D barcode using the red ray of light and obtain the content. (Figure 2)





(Figure 1)

(Figure 2)

8				cardreader&barcode	- 0
IC card rea	der:	302505633901			
Hang Yu Tachna	logy Sear 🔻	302505633901 302505633901			
firmware ve	rsion:	30290563 3901			
52314712		302505633901 302505633901 302505633901 302505633901 30250563			
nifare o	ard	3901 302505633901 302505633901			
IC card		43100002 43100002 43100002 43100002			
CHECK I	C CARD				
	IC:	BCR:	Mifare:	MSR:	CLEAF
count:					

### 07. Using rear camera (1D/2D barcode reader function)

1. Click on 2D barcode\_reader\_setup program

2Dbarcode\_reader\_setup\_EN



#### Next

Select Destination Location	
Where should barcode_reader 1	
Satur will install be	rcode reader into the following folder.
To continue, click Next. If y folder, click Browse.	you would like to select a different
C:\Program Files (x86)\barco	de_reader Browse
At least 1.5 MB of free disk	space is required.

Set default is ok, next

Setup - barcode_reader	
Select Start Menu Folder Where should Setup place the program's show	rtcuts?
Setup will create the program's sho Start Menu folder. To continue, click Next. If you would like folder, click Browse.	
barcode_reader	Browse
<u>B</u> a	ck Next > Cancel

Selected "create a desktop icon" , then "next"

Setup - barcode_reader	
Select Additional Tasks Which additional tasks should be performed?	
Select the additional tasks you would like Setup installing barcode_reader, then click Next.	to perform while
Additional icons:	
🔽 Create a <u>d</u> esktop icon	
Sack Stark	Next > Cancel

Choose "Install"



Click "finish ", if choose "launch barcode\_reader, it will be open directly.



### Test method:

1. Open this program if finish install

2. Choose "start" button, it will be show a 2D barcode in left the video frame. And start to analyze decoding. If can Identify successful, it will show same barcode picture on the right frame. And you will be see the barcode information on the left bottom.

28 CodeCapture	- D ×
stop quit Tege pst: code type: 727_417 content: 123657390	

Image path

Client can select the local drive barcode image and analyze decoding. , also can test decoding function in Zxing library.

Image path:	1
	select

Finish.

#### 08. Using the SD card.

1. Insert the micro SD card to the micro SD slot



2. In system, you will be got the micro SD card information as below:



3. Then the SD storage device can be read and write.