

**Manufacturer** : Bleep (UK) PLC  
**Address** : Unit 1, Rowan House, 9-31 Victoria Road, London, NW10 6DP

**Product Name** : POS. Terminal  
**Model Number** : TS813

**WARNING**

This is a Class A product. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.

**WARNUNG**

Dies ist ein Klass A Produkt. In einer örtlichen Umgebung kann dieses Gerät Funkstörungen verursachen.

**ATTENTION**

Ce produit est de classe A. Dans un environnement domestique, il peut causer des interférences radio. Auquel cas, l'utilisateur sera amené à prendre les mesures adéquates.

**Atención**

Este es un producto de la clase A. En ambientes domésticos éste producto puede causar radio interferencias en cuyo caso el usuario deberá tomar las medidas oportunas.

**FCC Notice**

This equipment has been tested and has been found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at the user's own expense.

Changes or modifications not expressly approved by manufacturer for compliance could void the user's authority to operate the equipment.

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## High Voltage & Static Electricity Precautions

Before removing the cover of this unit, please ensure that all electrical supply cords are disconnected. High voltage is present inside the machine. Also please note that static electricity is a constant danger to any computer system. The charge that can build up in your body may be more than sufficient to damage integrated circuits on any PC board. It is, therefore, important to observe basic precautions whenever you use or handle computer components. Although areas with humid climates are much less prone to static build-up, it is always the best to safeguard against accidents, which may result in expensive repairs. The following measures should generally be sufficient to protect your equipment from static discharge:

- Touch a grounded metal object to discharge the static electricity in your body (or ideally, wear a grounded wrist strap).
- When removing or handling any boards or other system components, place all materials on an antic static surface.
- Be careful not to touch the components on the boards, especially the “golden finger” connectors on the bottom of some boards.

## Important Notice (Lithium Battery)

### **CAUTION**

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

### **ATTENTION**

Il y a un danger d'explosion si le remplacement de la pile n'est pas effectué correctement; Remplacer uniquement avec une pile du même type ou d'un type recommandé par le constructeur. Mettre au rebut les batteries usagées conformément aux instructions du fabricant.

# Environment specifications

Feature	Storage		Operating		Comment
	Min	Max	Min	Max	
Ambient Temperature	-20°C	60°C	5°C	35°C	See note 1
Humidity	See Note 2		See Note 2		No condensation

Note 1: Care should be taken to ensure that the unit might not be subjected to temperatures outside of this specification. Extreme hot or cold (particularly whilst operational) may cause permanent damage to the system and could invalidate your warranty.

Note 2: Where;      Ambient temperature <= 35°C : 80% RH  
                           Ambient temperature > 35°C : < 80% RH

## Hardware Requirements

Feature	Priority	Comments
Form Factor	Must have	Android POS
PCBA Size	Must have	170*92
Operating System	Must have	Android6.0
Processor / Chipset	Must have	Amlogic S912-2GHZ ARM Cortex-A53 octa core
Display	Must have	Support 13.3" LCD panel (eDP)1366*768
Touch panel	Must have	13.3" USB interface PCAP touch screen
DRAM	Must have	2GB DDR3
Storage	Must have	8GB flash
Wireless connectivity	Must have	2.4G Wi-Fi: 802.11b/g/n
Ethernet	Must have	10/100M Ethernet
Speaker	Must have	8Ω/2W Audio output (stereo)
Buzzer	Must have	Internal buzzer
Interface(External,Internal)		External Connector
	Must have	12V DC input socket DC-005 Ø2.5mm External
	Must have	2×RS232 External (RX,TX) RJ45 Interface
	Must have	2× 10/100M Ethernet (RJ45) External
	Must have	1×T-flash card External max 32GB
	Must have	2×USB External

	Must have	1× key upgrade External
	Must have	1×MINI USB Device External
		Internal Connector
	Must have	5×USB Internal
	Must have	2×RS232 Internal (RX,TX) connector for printer board
	Must have	2×12v output connector
	Must have	2×5V output connector
	Must have	4×GPIO connector
	Must have	1×RTC connector 2PIN 2.0mm
	Must have	1×ON/OFF Key output connector 2PIN 2.0mm
	Must have	1×I2C output for capacitance touch screen(OPTIONAL)
	Must have	1×Ethernet connector 6PIN 2.0mm Internal
HDMI board Interface	Must have	1×eDP output for 13.3" inch panel(1366*768)
	Must have	1×Audio output for speaker (8Ω/2W) Stereo

## Software Requirements

Feature	Priority	Comments
<b>Software Environment</b>		
Embedded OS	Must have	Android6.0
<b>Boot Time</b>		
Start-Up	Must have	<= 30s
<b>Audio Subsystem</b>		
Audio Channel(s)	Must have	Stereo
Browser		
Browser	Must have	HTML,Image
<b>Firmware Upgrade</b>		
Firmware update by memory card	Must Have	

## 1.3 Harness connection

### Important Notes

#### Power

As power surges, spikes and dropouts can interfere with system operation, it is important to ensure that the power circuit dedicated to the ECR network be clean and preferably on a separate spur from the main circuit box.

It is equally important to ensure that all peripherals (printers, computers, modems etc) are also on the same dedicated power circuit as the ECR units.

Where clean power is not available, ensure that you install stand-alone power filters or similar.

## **Mounting**

Since heat will build up inside the terminal during normal operation, ventilation holes are provided around the unit. Care should be taken to ensure that the unit is mounted on a solid, level floor and that any cables protruding from the machine are neatly tied and kept from blocking the base of the machine. Ideally a minimum 30mm gap should be present around the complete circumference of the unit.

## **Spillage**

Should any liquid be accidentally spilled onto the unit, rubber seals located around the machine will protect the internal systems to a degree. However, care should be taken to ensure that the unit is removed and dried quickly so as to avoid a build-up of fluid inside the machine. Liquid should never be poured directly onto the surface of the machine.

For cleaning, use a soft cloth with a non-abrasive cleaner such as isopropyl alcohol or water.

## **Touch Panel**

Do not place, lean or use any object other than a finger on the touch panel. The use of pens, pencils or any other type of pointing device is not recommended and could damage the unit.

The unit is fitted as standard with an anti-glare touch panel, however, it is not recommended that the machine be installed directly underneath an overhead light, particularly fluorescent strip lights. Changing the tilt angle of the terminal can compensate for glare but a little thought during installation can help avoid distracting reflections and assist the operator.



**TS-813**  
Touch  
Screen  
Terminal  
(Android)



Designed to cope with every aspect of the F&B industry

#### System Features

- 13.3" eDP TFT Colour LCD Panel (1366x768)
- 13.3" PCAP Touch Panel
- Wi-Fi 802.11b/g/n
- Android 6.0
- SD card socket
- 8GB built-in flash storage



#### Processor

- CPU: Amlogic ARM S912 Cortex-A53 Octa-core, 2GHz.
- 2Gb DDR3 RAM

#### I/O ports

- 3 x LAN (2 x external, 1 x internal)
- 7 x USB 2.0 HOST (4 x external, 3 x internal)
  - 1 x USB OTG
  - 1 x MINI USB
- 3 x RS232 (2 x external, 1 x internal)
- DC input (input 12V)
- 1 x cash drawer port

#### Optional built-in modules

- 20 x2 LCM Customer Display
- 7" Android customer display
- 58mm or 80mm thermal printer module
- Barcode / QR code scanner module
- RFID reader
- 2 or 3 track MSR
- Dallas magnetic sign-on reader

#### Bleep (UK) PLC

Rowan House, 9-31 Victoria Road, London NW10 6DP United Kingdom  
email: sales@bleepplc.com Tel:+44 208 961 5200 http://www.bleepplc.com

FCC Caution: To assure continued compliance, any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment. (Example - use only shielded interface cables when connecting to computer or peripheral devices).

#### FCC Radiation Exposure Statement

This equipment complies with FCC RF radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with a minimum distance of 20 centimeters between the radiator and your body.

This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

The antennas used for this transmitter must be installed to provide a separation distance of at least 20 cm from all persons and must not be co-located or operating in conjunction with any other antenna or transmitter.