
Product Specification

FOR

UPT1000



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Revision

Version	Date	Revision Description
1.0	Sep. 14, 2016	First Release
1.1	Oct. 4, 2016	Molex Connector PIN assignment
1.2	Mar. 16, 2017	Spacer
1.3	Jun. 12, 2017	3.5" Touch
1.4	Jul. 19, 2017	Update IP & IK



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1. Introduction

UPT1000 UPT device offers multifunctional capabilities for your unattended payment needs such as vending, ticketing, multimedia kiosks, public transportation, laundromats and any other self service solutions.

UPT1000 is based on a Castles' secure Linux platform and has integrated PIN pad, magnetic stripe, chip and contactless card reader functions.

2. Specification

2.1 Standards

- | | |
|---------------------|-----------------------------------|
| ● PIN Pad: | PCI PTS v4.x certified |
| ● Chip Card: | EMV Contact L1 v4.3 certified |
| ● Contactless Card: | EMV Contactless L1 v2.5 certified |

2.2 Functions

- | | |
|---------------------|---|
| ● MCU/Memory | |
| ■ MCU: | 32-bit Secure Processor, 400MHz |
| ■ Memory: | 128MB Flash; 64MB RAM |
| ■ OS: | Castles Secure Linux |
| ● Display | |
| | ◆ 3.5" Touch : 3.5" TFT Color Display (320x480 Pixels), with Capacitive touch Screen |
| | ◆ 2.4" Lite : 2.4" TFT Color Display (320x240 Pixels) |

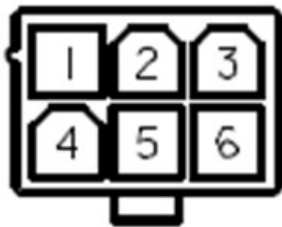


- **Keypad**
 - ◆ **3.5" Touch** : No Keypad
 - ◆ **2.4" Lite** : 16 keys –
10 numeric keys (0-9),
3 function keys,
3 keys of "Cancel" "Clear" "Enter"
With white LED backlight
- **Magnetic Stripe Reader**
 - **Specification:** ISO 7810,7811, and 7813 Triple Track,
Bi-Directional reading
- **Chip Card Reader**
 - **Specification:** ISO 7816 ID-1 1.8 V/3V/5V T=0, T=1
 - **SAM Slots:** 2 (up to 4)
- **Contactless Reader**
 - **Specification:** ISO 14443 Type A, B, ISO 18092 NFC and Mifare®,
SONY® FeliCa Working Frequency 13.56MHz
 - **Contactless Payment:** PayPass, PayWave (qVSDC+MSD+AP), PBOC,
ExpressPay, J-Speedy, D-PAS, QuickPass, Interac
Flash
 - **Indicators:**
 - ◆ **3.5" Touch** : Virtual Indicator
 - ◆ **2.4" Lite** : Physical Indicator –
General Version: 4 Color LEDs
VISA Europe Version: 4 Green LEDs
- **Communication Interface**
 - **Wire**
 - **RS232** x 2 : RJ45
(Up to 3 if no Bluetooth required)
 - **Ethernet** x 1 : 10/100
 - **USB** x 2 : 2.0 Full Speed Type B Female, OTG x 1/Host x 1~2
(Up to 3 if no wireless required)
 - **Wireless**
 - **GPRS/3G/4G LTE** :
 - ◆ **External Antenna:** SMA male connector
 - ◆ **SIM:** Dual SIM Support
 - **Bluetooth:** BT2.1+EDR (Power Class 1.5)

- ◆ External Antenna: SMA male connector
- **Security**
 - Security Algorithm: TDES/AES/RSA
 - Key Management: MK/SK, DUKPT
 - Data Retention Battery: At Least 5 years
- **Audio** Mono Speaker

2.3 Power

- Operating Voltage: 9V to 34V@1.5A~0.5A
- Maximum Power Consumption:
 - All LEDs and backlight on
 - ◆ 3G Communication On: 9V@317.5mA (Maximum Value)
 - ◆ 3G Communication Off: 9V@217.5mA (Maximum Value)
- Connector Type: Molex 39-28-1063
- PIN Assignment:



PIN	Function
1	V _{IN} 9 to 34V DC
2	GND
3	NA
4	NA
5	NA
6	NA

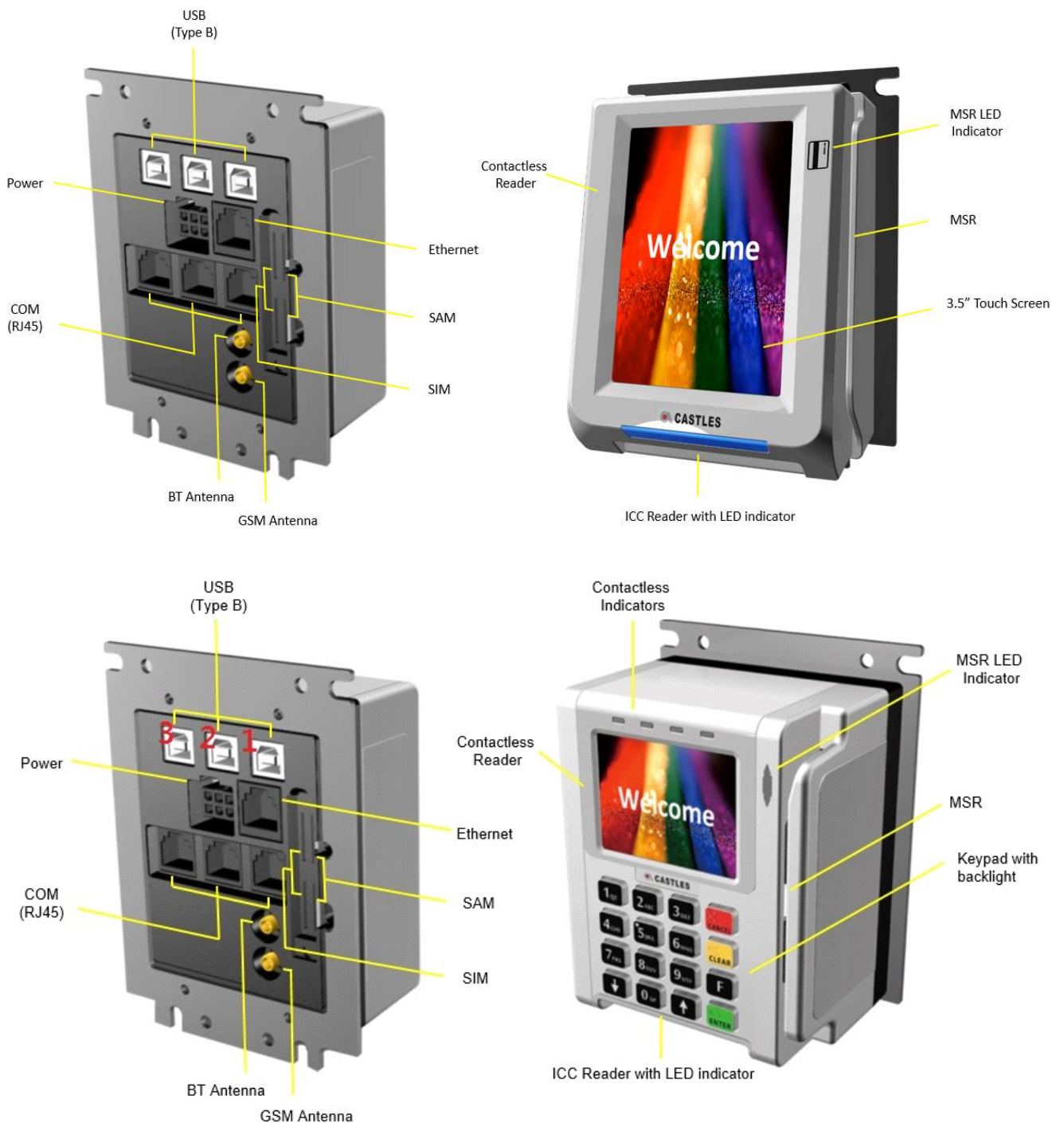
2.4 Environmental Specification

- Operating Temperature: -20°C to 65 °C
- Storage Temperature: -40°C to 65 °C
- Operating Humidity: 5% to 90% non-condensing
- Storage Humidity: 5% to 95% non-condensing
- IP Ingress Protection: IP54
- IK Shock Protection: IK08
- Regulation and Safety: CE, FCC, UL



3 Physical Characteristics

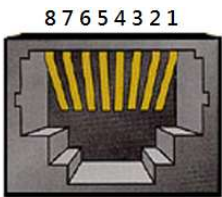
- Dimension: 106mm(L)x85.6mm(W)x62mm(H)
- Weight: 365g
- Color: Pantone 427C





4 Interface Connector PIN Assignment

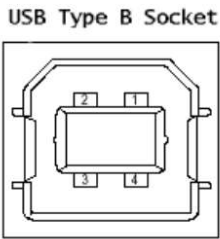
- RS232



PIN	Name	Type	Description
1	NC	-	NC
2	NC	-	NC
3	NC	-	NC
4	NC	-	NC
5	GND	Supply	Ground
6	NC	-	NC
7	TXD	O	Data Output
8	RXD	I	Data Input

- USB

- USB1: OTG
- USB2, USB3: Host



PIN	Name	Type	Description
1	VBUS	Supply	5V/500mA
2	D-	ANALOG	Data line -
3	D+	ANALOG	Data line +
4	GND	Supply	Ground

5 Accessories

- 850/900/1800/1900/2100 DIPOLE ANTENNA
- 2.4GHz BLUETOOTH ANTENNA
- MDB Box
- NAMA/EVA compliance Mounting Plate with screws
- Spacer (Appendix B)



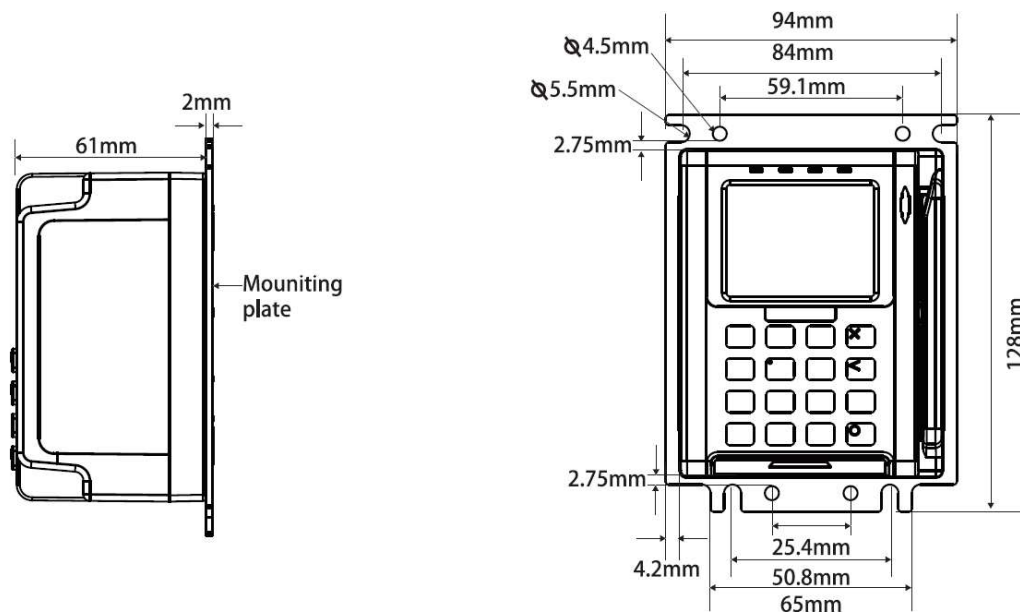
6 Packing

		Standard	Optional (With Accessories)
1 Set	Dimension	106*85.6*62mm	106*84*65mm
	Weight	365g	365g
Unit Package	Dimension	150*105*71mm	166*158*71mm
	Weight	773g (estimated)	773g
Carton	Dimension	555*321*391mm	527*385*344mm
	Weight	23.19kg (estimated)	23.19kg
	Packing	50pcs	30pcs

7 Appendix

● A. Mounting Plate

■ Dimension



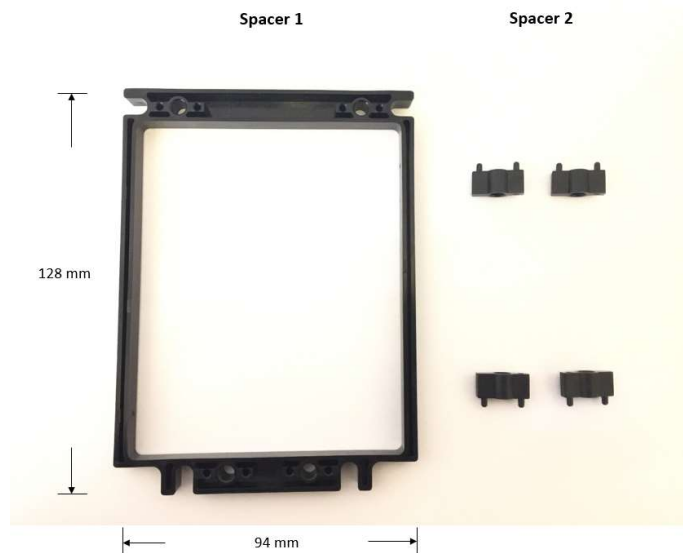
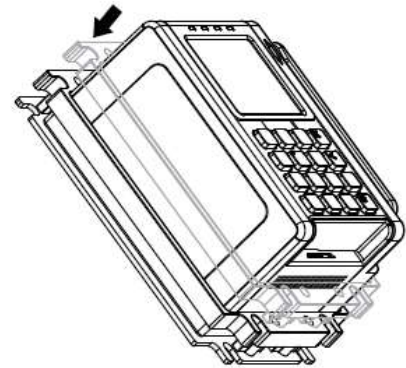
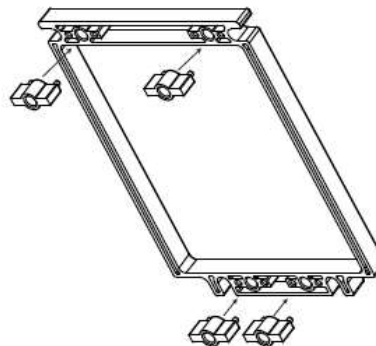
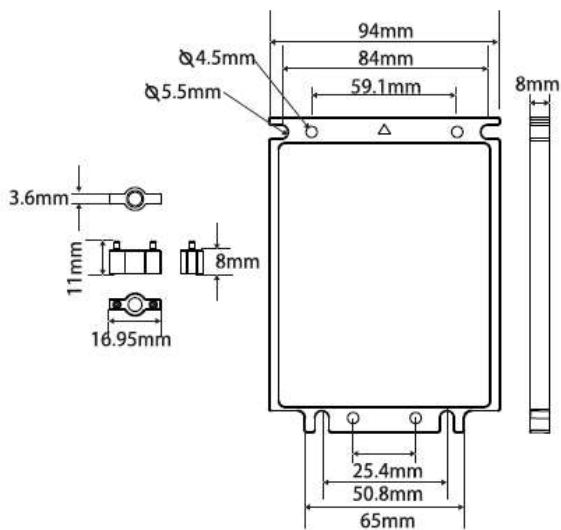
● B. Spacer

When or if the UPT1000 sticks out too much out of the vending, you may adjust the device by using the spacers between the UPT and the mounting plate.

■ Dimension:

Spacer 1: 128mm(L) x 94mm(W) x 8mm(H)

Spacer 2: 8mm(H)



■ Usage case:

