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1.1.   EUT description

iSMP Companion

Choose your mobile point of sales.

> **Ingenico provides the secure payment companion.**

Free customer experience by providing retailers with secure payment for any innovative mobile point of sales: tablet, smartphone or PDA.

- **Streamline checkout**
- **Increase revenue anywhere**
- **Design unique & customized customer experience**

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Security   Smartcard   Magstripe   Signature Capture   Contactless

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iSMP Companion

• Bluetooth connectivity
Embedded Bluetooth® technology to easily connect to an open world of Tablet or PDA

• Universal Payment Platform
iSMP accepts all forms of payments: EMV Chip & PIN, magstripe and contactless. iSMP is based on Telium2, Ingenico's highly secure payment platform and is compatible with its existing worldwide portfolio of payment applications. iSMP meets all security & payment standards: EMV, PCI PTS, Paypass, payWave…

• Integrated 1D/2D barcode reader
Integrating a high-end 1D/2D barcode reader, iSMP meets the most demanding professional needs such as scanning multiple items or loyalty customer scheme coupons (barcodes, QR codes).

• Long lasting battery life
Equipped with a lithium-ion (1150 mAh) battery, the iSMP works over one day non-stop, even in the most demanding retail use cases.

Main Processor	RISC 32-bits ARM9 processor - 380 MHz - 450 MIPS
Crypto Processor	RISC 32-bits ARM7 processor - 57 MHz - 50 MIPS
Memory	SDRAM: 32Mb - Flash: 128Mb
OS	Telium2
SAM/SIM slots	None
Smart card reader	ISO7816 EMV L1 certified
Magnetic card reader	ISO 7810, 7811 and 7813 Track 1/2/3
Contactless reader	ISO 1443 A&B
LEDs for contactless	Yes – green or multicolor for Visawave support
iOS compatibility	Yes via Bluetooth
Display	Black and white, backlit 128x64 full graphic
Keypad	16 keys + 4 functions keys
Buzzer	Yes
Terminal Connectivity	Bluetooth class II
USB	Micro-USB B Slave
Barcode reader	Optional - 1D/2D – all major standards supported
Battery	Li-ion - 1150mAh
Dimensions	132x72x28 mm (l x w x h)
Weight	208g without barcode reader 214g with barcode reader
Environment	Operating temperature: +5°C to +40°C Storage temperature: -20° to +55°C Operating humidity : 85% RH at +40°C
Certification	PCI PTS 2.x, PCI PTS 3.x, SRED, Interac, APACS CC, CECS CE, FCC, IC, UL, EMV L1, EMV L2 PayPayss 2.1, payWave 2.1.1, VisaWave, Expresspay 2.x, Discover Zip
Power supply	Multi-plug EU/US/UK via µUSB

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1.2. Related Submittal(s) / Grant(s)

All host equipment used in the test configuration are FCC granted, when relevant.

1.3. Tested System Details

The system was configured for testing in a typical fashion (as a customer would normally use it). All configurations of EUT is considered, worst cases are presented in this test report.

There are two different hardware versions (with or without barcode) with different activation software:

- **IMP322-01T2004A** *(No barcode / With Contact less / With Bluetooth)*
    - **IMP322-01T2067A** *(Contactless and IAP chip not activated)*
    - **IMP322-01T2091A** *(Contactless not activated)*
    - **IMP322-01T2092A** *(IAP chip not activated)*
- **IMP352-01T2005A** *(With barcode / With Contact less / With Bluetooth)*   ***Full options (EUT)***
    - **IMP352-01T2093A** *(Contactless not activated)*

- **Power supply:**
- **Base with power supply adaptor:**
    PHIHONG PSC12R-050, 100-240VAC / 5A / 50-60Hz, output 5VDC / 2A, Sn: 192014382.
- **Micro USB power supply adaptor:**
    PHIHONG PSAC05R-050, 100-240VAC / 300mA / 50-60Hz, output 5VDC / 1A, Sn: 192011352.
- **Battery Lithium Ion 3.7VDC**

- **Internal max frequencies:**
- Clock: 400MHz
- RFID   13.56MHz
- Bluetooth: 2400-2483.5MHz

- **Input/output:**
- 2 x Power supply contacts (Base and Terminal)
- 1 x Mini USB, only used for recharge with power supply PHIHONG PSAC05R-050

- **Cables:**
- None

- **Auxiliaries equipment used during test:**
- 1 x IMP300-BCSN1476A (Base), FCCID: XKB-IMP3XXCX, Sn: 11208KT60000910

- **Functions:**
- 1 x Contact less RFID reader at 13.56MHz, disabled during the recharge, tested only in configuration n°2.
- 1 x Bluetooth at 2400-2483.5MHz, always ON.
- 1 x Barcode, disabled during the recharge, tested only in configuration n°2.
- 1 x Contact card reader, disabled during the recharge, tested only in configuration n°2.

- **Equipment information - Bluetooth:**
- Frequency band: [2400.0 – 2483.5] MHz
- Standard: ☐Wifi ☒Bluetooth ☐Zigbee
- Spectrum Modulation: ☒FHSS ☐DSSS
- Modulation type: ☒GFSK ☒Pi/4 DQPSK ☒8DPSK
  - Packet type: DH1 DH3 DH5
  - Transfert data rate: 1Mbps 2Mbps 3Mbps
- Number of channel: 78
- Channel separation: ☐5MHz ☐2MHz ☒1MHz
- Channel bandwidth: ☐10MHz ☐20MHz ☒1MHz
- Channel tested: Full test on 2402MHz / 2441MHz and 2480MHz
- RF mode: ☒TX/RX ☐RX ☐Standby
- Antenna type: Integral
- Antenna Gain: 0dBi declaration of provider
- Antenna connector: ☐Permanent external ☐Permanent internal
  ☒None ☐Temporary
  (only for tests)
- Normal power source: Battery Lithium Ion 3.7VDC

- **Equipment information - RFID:**
- Frequency band: [13.553 – 13.567] MHz
- Standard: RFID
- Modulation type: ASK
- Number of channel: 1
- RF mode: ☒TX/RX ☐RX ☐Standby
- Antenna type: Integral
- Antenna Gain: 0dBi declaration of provider
- Antenna connector: ☐Permanent external ☐Permanent internal
  ☒None ☐Temporary
  (only for tests)
- Normal power source: Battery Lithium Ion 3.7VDC

1.4. Test Methodology

Both conducted and radiated testing were performed according to the procedures in ANSI C63.4-2003 FCC Part 15 Subpart B and C.
Radiated testing was performed at an antenna to EUT distance of 10 meters. During testing, all equipment's and cables were moved relative to each other in order to identify the worst case set-up.

1.5. Test facility

Tests have been performed from July 20th to 26th, 2012.

This test facility has been fully described in a report and accepted by FCC as compliant with the radiated and AC line conducted test site criteria in ANSI C63.4-2009 in a letter dated March 25th, 2008 (registration number 94821). This test facility has also been accredited by COFRAC (French accreditation authority for European Union test lab accreditation organization) according to NF EN ISO/IEC 17025, accreditation number 1-1633 as compliant with test site criteria and competence in 47 CFR Part 15/ANSI C63.4 and EN55022/CISPR22 norms for 89/336/EEC European EMC Directive application. All pertinent data for this test facility remains unchanged.