OPERATIONAL DESCRIPTION

1.1. EUT description

Mobility payment

iCMP

With iCMP, the smallest & lightest Chip & PIN mobile payment device on the market, Ingenico enables merchants to accept payment on-the-go.

• Compatible With Leading Mobile Operating Systems

iCMP connects via Bluetooth to any iOS or Android-based tablet or smartphone. By offering the most advanced payment capabilities, it turns a tablet or smartphone into a Smart Mobile POS.

• Universal Payment Platform

iCMP accepts all payment methods: EMV Chip & PIN, magstripe and contactless. This device is based on Telium2, Ingenico's highly secure payment platform and is compatible with its existing worldwide portfolio of payment applications. iCMP meets all payment and security standards: EMV level 1, EMV level 2, PCI PTS 3.1, PayPass™ 2.1, payWave 2.1.1. and many more...

• Bluetooth Connectivity

Embedded Bluetooth technology enables effortless connectivity to external devices. iCMP uses a Bluetooth class II chip with a 128 bits key Bluetooth Encryption for secure connection to external peripherals including smartphones, tablets & printers. The Bluetooth pairing process is designed specifically to prevent connection of unauthorized devices. iCMP complies with PCI DSS Wireless Guidelines.

• Designed For Mobility

As the smallest and most lightweight Chip and PIN mobile payment device on the market, iCMP is built for the most demanding use, wherever you go.

End-to-End Mobile Point of Sale Solution

Integrated with the ROAM Mobile Commerce Platform, the iCMP provides the mobile card acceptance piece of an end-to-end mobile point of sale solution that includes a mobile POS application, an integrated suite of mCommerce management tools and payment processing – all of which can be fully branded and localized to meet the needs of any merchant worldwide.

ROAM
An Ingenico company

mCommerce Platform

Main Processor	RISC 32-bits ARM9 processor - 380 MHz - 450 MIPS
Crypto Processor	RISC 32-bits ARM7 processor - 57 MHz - 50 MIPS
Memory	16 + 16 MB (standard configuration)
OS	Telium2
Smart Card Reader	ISO7816, EMV L1 certified
Magnetic Card Reader	ISO 7810, 7811 and 7813 Track 1/2/3
Contactless Reader	Factory option ISO 14443 A&B with leds: green or multicolor for Visa Wave support
OS Compatibility	iOS : IAP integrated, connection via Bluetooth Android, connection via Bluetooth
Display	Monochrome 128x64 / Reflective display
Keypad	16 keys + 4 functions keys - capacitive 1 hard key
Buzzer	Yes
Terminal Connectivity	Bluetooth class II. PCI DSS Wireless guidelines compliant.
USB	Micro-USB
Battery	Li-ion - 550mAh min, not accessible to customer 50 transactions over 3 days minimum before recharging
Lifetime	30k minimum on Smart Card Reader & Magnetic Card Reader 3 years / 500 cycles for battery
Dimensions / Weight	116x68x14 mm - 115g
Environment	Operating temperature: 0°C to +40°C (charging) -10° / + 45°C (standalone) Storage temperature: -20° to +70°C
Certification	EMV L1 Contact, EMV L2, EMV Contactless PCI PTS 3.1, SRED, Interac, APACS CC, CECS, OK, ABI, EP2 CE, FCC, IC, UL, EMV L1, EMV L2 PayPass, payWave, Visa Wave, Expresspay, Discover Zip Apple MFi - Bluetooth SIG
Power Supply	via µUSB cable

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ICMP Presentation

Introduction :

The ICMP is a small handheld secured payment terminal. ICMP accepts all payment methods: EMV Chip & PIN, magstripe and contactless. This device is based on Telium2, Ingenico's highly secure payment platform and is compatible with its existing worldwide portfolio of payment applications. ICMP meets all payment and security standards: EMV level 1, EMV level 2, PCI PTS 3.1, PayPass™2.1, payWave 2.1.1. and many more…

Figure n°1: Top side of the product

Figure n°2: Bottom side of the product

Models presented:

	ICM122-01T2263A	ICM122-11T2265A
Bluetooth Class II	YES	YES
RFID 13,56MHz	NO	YES
Smart Card Reader	YES	YES
Magnetic Card Reader	YES	YES

Accessories (to include in the test plan):

µUSB câble	296109815	GOLDEN BRIDGE : GB-A8004

Certifications required :

	CE	FCC	IC	RCM	CB Certificate*	CSA	Bluetooth SIG
Required	YES	YES	YES	YES	YES	YES	YES
Priority	1	3	3	3	2	3	2

Note :
* Deviations required :
  - AT, AU, BE, CA, CH, CZ, DE, DK, ES, FI, FR, GB, HU, IT, NL, NO, PL, SE, SK, SI, US

For Model : **ICM122-11T2265A**
FCC ID: XKB – ICM122BTCL and IC Number: 2586D – ICM122BTCL

For Model : **ICM122-01T2263A**
- FCC ID: XKB – ICM122BT and IC Number: 2586D – ICM122BT

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

This is payment terminal with Bluetooth + RFID like RF communications, powered by battery and loaded by MicroUSB, both configuration s are tested and worst case is presented in this test report.

Configuration n°1: Alone, battery
Configuration n°2: Loaded

- Internal max frequencies: 387MHz

- **Power supply:**

- Battery lithium-ion 3.7VDC
- Loaded by MicroUSB

During all the tests, EUT is supplied by battery with or without load, worst case presented.

- **Input/output:**

- Micro USB, load only, not used with PC

- **Auxiliaries used for testing:**

- USB power adapter A1205 Apple
- Contact card
- Contactless card
- CMU200 for Bluetooth communication

- **I/O cables used for testing:**

- 1 x MicroUSB cable, shielded, length: 1.5m

Equipment information:

RFID

- Frequency band:	[13.553 -13.567] MHz
- Modulation type:	ASK
- RF mode:	☒TX/RX ☒Standby
- Antenna type:	Internal
- Antenna connector:	☐Permanent external ☐Permanent internal ☒None ☐Temporary (only for tests)

Bluetooth

- Frequency band:	[2400.0-2483.5] MHz		
- Standard:	☐Wifi	☒Bluetooth v3.0	☐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, 2480MHz and 2441MHz with DH5 packet type		
- RF mode:	☒TX/RX	☐RX	☐Standby
- Antenna type:	Internal		
- Antenna connector:	☐Permanent external ☐Permanent internal ☒None ☐Temporary (only for tests)		

Configuration n°1:

- CAM0, reading in loop of contact card
- RFID, reading in loop of contactless card
- Bluetooth, hopping mode or permanent channel 0, 39 or 78

Configuration n°2:

- CAM0, reading in loop of contact card
- RFID, reading in loop of contactless card
- Bluetooth, hopping mode or permanent channel 0, 39 or 78
- Loade by MicroUSB with adapter

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 May 13th to 30th, 2013.

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 C63.4-2003 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.