GENERAL INFORMATION

1.1. Product description

The ML30 Contactless series combines smart card, magnetic card and contactless readers in a single integrated package. This all-in-one intelligent PIN pad is perfect for small and mid-size merchants looking to connect to a payment terminal, or retailers who want PC or POS device connectivity.
Extremely user-friendly, the ML30 Contactless series features an easily accessible contactless reader – certified by most major card associations – for card payments together with a front load EMV smart card reader that supports both simple (SDA) or dynamic (DDA) authentication, and an easy to use multi-directional magnetic card swipe.
A backlit graphics screen helps consumers with PIN entry, while a large 16-key ergonomic keypad – complete with menu and navigation keys – guarantees fast error-free operations. All this, plus an extensive
choice of communication interfaces, makes the ML30 Contactless series a truly impressive transaction powerhouse.

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

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

1.3. Tested System Details

The FCC IDs for all equipment, with description of all cables used in the tested system are:
ML30-312B-0101 sn: 10014PP10000220

Power supply unit:
INGENICO 153051 P/N: 179901469 120VAC/60Hz – 8VDC/2A
DC cable attached on adapter: 2m; used for RS232 mode with ferrite adapter side.

- **Input/output:**

- 1 x RJ45 port (Power supply / data), 5Vdc/USB mode – 8VDC/RS232 mode
- 1 x Power supply port on RS232 connector for power supply unit

- **Cables:**

- 1 x USB cable, unshielded, length: 2m sn: 252292872 1008
- 1 x RS232 cable, unshielded, length: 2.5m sn: 252678837 2806
- 1 x Power supply unit cable with ferrite, unshielded, length: 2m. sn: None

- **Auxiliaries equipment used during test:**

- 1 x Laptop DELL VOSTRO 1710 sn: T932DA00 FCC ID: None
- 1 x Smartcard Opuce EMV card
- 1 x Contactless card
- 2 x SAM card

1.4. EUT CONFIGURATION

Configuration USB:
EUT powered by laptop USB port.
The parameters of test sequence software are the followings:

- Reading in loop CAM0
- Reading in loop SAM1
- Reading in loop SAM2
- Reading in loop Contactless (reading parameters: emission during 70ms separated by 700ms)

Configuration RS232+power supply unit:
EUT powered by power supply unit connected on the RS232 connector.
The parameters of test sequence software are the followings:

- Reading in loop CAM0
- Reading in loop SAM1
- Reading in loop SAM2
- Reading in loop Contactless
- Reading in loop COM0 (Pin 2 and 3 connected)

1.5. EQUIPMENT MODIFICATIONS

Configuration USB:
One ferrite Würth Elektronik 742 711 42 is fixed on the USB cable EUT side.

Configuration RS232+power supply unit:
One ferrite Würth Elektronik 742 711 42 is fixed on the RS232 cable EUT side.

1.6. Test Methodology

Both conducted and radiated testing were performed according to the procedures in ANSI C63.4-2003, FCC Part 15 Subpart 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.

1.7. Test facility

Tests have been performed on February 9th, 2010

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.