GENERAL INFORMATION

1.1. Product description

Payment Solutions

PINPad

iPP320-350 Retail

The Ipp3 series combines smart card, magnetic card and contactless readers, with mobile phone (NFC) payment 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 IPP3 series features an easily accessible contactless reader – with MasterCard PayPass and Visa payWave (approval in progress) – for card or mobile phone payments together with a front load EMV smart card reader that supports both simple (SDA) or dynamic (DDA) authentication, and an easy to use multidirectional magnetic card swipe. A large backlit screen (iPP320) or a impressive color graphics screen (Ipp350) helps consumers with the choice of the option and the PIN entry, while a large 16-key backlit ergonomic keypad – complete with menu and navigation keys – guarantees fast error-free operations. All this, plus an extensive choice of communication interfaces, makes the IPP3 series a truly impressive transaction.

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FCC ID: XKB-iPP3x0-01Txxx

PINPad

iPP 320-350 series

Security

Built around Ingenico's industry proven high Secure Core to provide assured secure data and application management, the IPP3 series delivers the ultimate in secure transactions for retail. Fully EMV and PCI PED V2.1 (certification in progress), and supporting the latest international security algorithms (DES, TDES, RSA, DUKPT and Master/Session, the IPP 3 series feature an optional PIN privacy shield for additional peace of mind.

Performance

Thanks to Ingenico's Telium2 architecture and its EMV level 2 kernel, the IPP3 series delivers the super fast processing of powerful cryptographic algorithms to make fast-paced transactions a reality. Tamper resistant and tamper responsive, the IPP3 range series steps up the security and transaction versatility of your payment system by providing additional confidentiality at the PIN entry stage.

Design/ergonomics

Lightweight and stylish, the IPP3 series is designed to be handled or. Its intuitive backlit keypad and crisp LCD display make PIN-entry and menu navigation: simplicity itself. Designed to deliver a world of payment versatility, the IPP3 series features an EMV smart card reader high performances, magnetic card reader, and an optional contactless reader easily upgradeable

Communications

This all-in-one PIN pad encompasses a wealth of connectivity. Alongside powered serial, USB ports and Ethernet connection interfaces, the Ipp3 series delivers truly impressive integration capabilities.

Software development

Ingenico delivers incremental revenue today and future proofs the terminal investments of tomorrow. Uniquely, the IPP3 series is backwards compatible with all 800+ Ingenico Telium services and applications, while providing the rapid development environment on which to build a compelling portfolio of targeted, new generation services.

Field Services

To reduce total cost of ownership and enable banks and merchants to maximize their terminal investments, Ingenico provides a comprehensive range of terminal and software update and management services – both remotely and in the field. Fully certified professional and local language helpdesks operate in every territory to ensure Ingenico is on hand to support customers 24 hours a day, seven days a week, 365 days a year.

NAME			IPP 320	IPP 350
Processor	Main processor	Thunder (ARM9), 450 MIPS	.	.
	Crypro processor	Booster (ARM7), 50 MIPS	.	.
Memory	Internal	128 Mbytes Flash NAND, 16Mbytes SDRAM	.	.
	External	µSD supporting up to 4G	.	.
OS		Telium 2	.	.
SAM slots		3	.	.
Card Reader(s)	Magnetic stripe	Triple track	.	.
	Smart card	EMV L1, 500 000 insertions	.	.
	Contactless	Optional integrated reader	.	.
Display	Color	TFT Colour display QVGA 2.7" (320 x 240) 4096 Colours		.
	Monochrome	LCD 128 x 64, white backlite	.	
Keypad		15 keys, raised Marking, Backlit	.	.
Audio		Powerfull buzzer	.	.
Connectivity	USB device	USB2.0 - Device	.	.
	Serial	RS232	.	.
	Ethernet	10/100 BT	.	.
	Tailgate	Factory option	.	.
Power supply	Powered USB	5V 500 mA	.	.
	Powered RS 232	5V or 12 V	.	.
	Powered Ethernet	POE Compliant with 802.3af	.	.
	External power supply		.	.
Size		160 x 75 x 35 mm	.	.
Weight		270 Grs	.	.
Environment	Operationg temperature	0 to +50°C	.	.
	Storage temperature	-20 to +50°C	.	.
	Relative humidity	5% to 90% (non condensing)	.	.
Optional Privacy shield	PCI Compliant	Additional privacy shield	.	.
	ZKA Compliant	Factory option	.	.
PCI Pin transaction security		2.1 Compliant (certification in progress)	.	.

Payment Solutions

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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:

- **Equipment under test (EUT):**

E.U.T. : **iPP350-01T1108A**
Serial number: **Erreur ! Source du renvoi introuvable.**
Model with all options

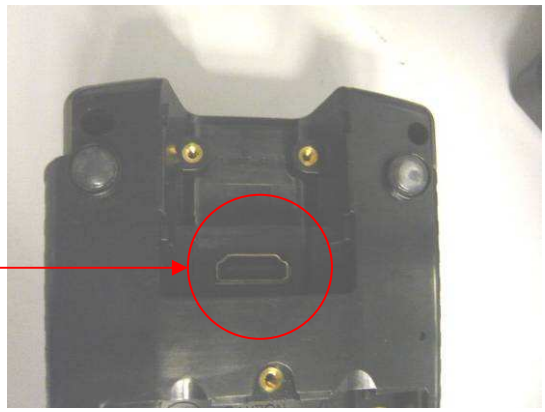
E.U.T. : iPP320-01T1185A
Serial number: 09350PP40063626
Model with all options

With Power supply FRIWO	153051	120V / 50-60Hz <-> 8Vdc	(Configuration n°1)
With Power supply PHIHONG	PSC16E-080	100-240V / 50Hz <-> 8Vdc	(Configuration n°4)

Highest internal frequency: 387 MHz

- **Input/output:**

1 x Power supply / Data port (Type HDMI, “1”)



- **Auxiliaries used for testing:**

- Laptop TOSHIBA SATELLITE PS141E-04YC sn: 13594938G
- POE Injector POE30U-560 (56Vdc 0.55A) PHIHONG sn: P71400110B1

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

- **Configuration 1**: 1 x Ethernet cable (2m) (AC/DC adapter input), shielded, Ref: IPP3xx-A-XXX-X

- **Configuration 2**: 1 x Ethernet cable (2m) (POE) shielded, Ref: IPP3xx-P-XXX-X
- **Configuration 2**: 1 x Ethernet cable (2m), FTP Cat 5e, Type CM shielded

- **Configuration 3**: 1 x USB cable (2m), shielded, Ref: IPP3xx-X-XXX-X

- **Configuration 4**: 1 x RS232 cable (2m), shielded, Ref: IPP3xx-XX-XXX-X

1.4. RUNNING MODE

Sequence n°1 :

A reading and writing process are performed on
- SAM1
- SAM2
- SAM3
bypassed)
- CAM0
- Cless

Sequence n°2 :

Sequence n°1 + a continuous ping process to EUT IP address from Laptop (TOSHIBA) (Ethernet link) is performed.

Sequence n°3:

sequence n°1 + serial communication on COM0

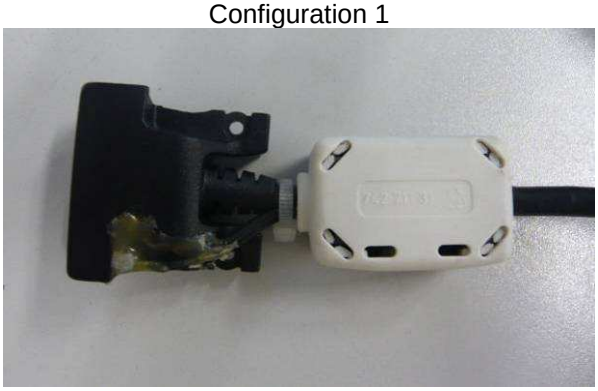
Serial communication (RS232, COM0) consists to performed a self communication (RX and TX are

Configuration / Running mode	1	2	3	4
Sequence n°1			x	
Sequence n°2	x	x		
Sequence n°3				x

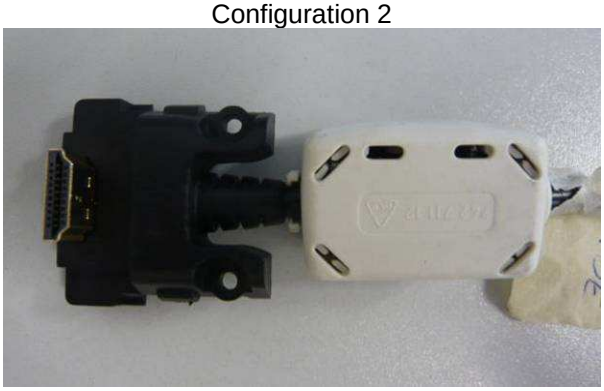
1.5. EQUIPMENT MODIFICATIONS

A ferrite (ref: wurth 742 711 12) on EUT cable has been necessary during testing for configuration 1 & 2.

Configuration 1



Configuration 2



1.6. EUT EXERCISE SOFTWARE

Pack OS 3777 0900 + driver Cless 8200490207

Appli test CEM: TESTCAM0107

1.7. EUT CONFIGURATION

Configuration 1 :

Communication access : - Ethernet

Power supply : - Power supply adapter Type FRIWO 153051 (8Vdc <-> IPP3x)

Option Cable: - Ref: IPP3xx-A-XXX-X

Configuration 2 :

Communication access : - Ethernet

Power supply : - Power over Ethernet (POE) provided by a POE injector type PHIHONG POE30U-560

Option Cable: - Ref: IPP3xx-P-XXX-X

Configuration 3 :

Communication access : - USB

Power supply : - Power provided by a Laptop (USB, 5Vdc <-> IPP3x)

Option Cable: - Ref: IPP3xx-X-XXX-X

Configuration 4 :

Communication access : - RS232

Power supply : - Power supply adapter Type PSC16E-080 (8Vdc <-> IPP3x)

Option Cable: - Ref: IPP3xx-XX-XXX-X

1.8. Test Methodology

Both conducted and radiated testing were performed according to the procedures in ANSI C63.4-2009, 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.

1.9. Test facility

Tests have been performed from April 26th to 28th, 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.