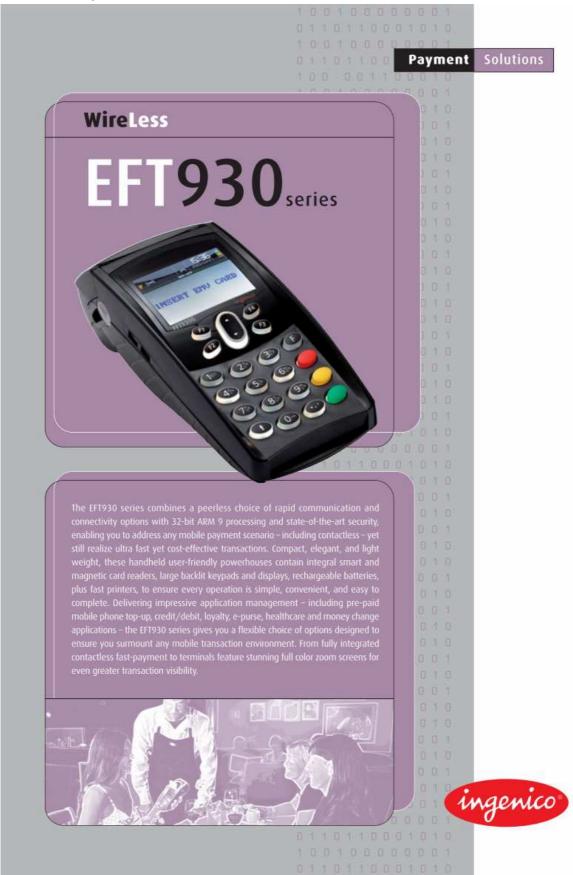| OPERATIONAL DESCRIPTION |
|---|

1.1. EUT description

WireLess

EFT930 series

Security

Ingenico's payment systems terminals are all EMV and PCI PED approved. The EFT930 series delivers the ultimate in secure transactions, with a 32-bit RISC security co-processor to support powerful RSA, DES and 3DES encryption. The WiFi communication model (EFT930-W) is fully protected by WEP, WPA or WPA2 security.

Performance

Utilizing ARM9 and ARM7 microprocessor technology, the EFT930 series combines innovation and performance with multiple connectivity options – assuring a faster, more convenient and more reliable transaction every time, plus truly impressive future-proofed application management.

Design/Ergonomics

Trim, portable, and easy-to-use, the EFT930 series features integrated smart card and long swipe magnetic card readers and Li-Ion rechargeable batteries – to power you through up to 300 transactions – giving you highly efficient mobile transactions. Color display options (EFT930-B and EFT930-G) deliver even greater visibility for error-free transactions, while the EFT930-G features optional in-vehicle charging for additional flexibility.

Communication

The EFT930 series offers a host of wired and wireless connectivity configurations. From the EFT930-B Bluetooth, Ethernet and modem, to the EFT930-G (anywhere GPRS, modem, plus contactless option), the EFT930-P (infra red and modem), to the WiFi connectivity and modem communications of the EFT930-W.

Software development

Ingenico delivers incremental revenue today and future proofs the terminal investments of tomorrow. Compatible with previous Ingenico applications, the EFT930 series can support today's applications with ease, as well as tomorrow's next generation services.

Field Services

To reduce total cost of ownership and enable 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 professionals 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.

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NAME		EFT 930 P	EFT930 B EFT930B CTL	EFT930 W	EFT930 G EFT930 G CTL
Processor	ARM 9 & ARM 7	●	●	●	●
	200 MIPS & 50 MIPS	●	●	●	●
Memory RAM/Flash (in MB)	8/16 (not available for CTL version)	●	●		●
	16/16 (not available for CTL version)	●	●	●	●
	16/32		●		●
Removable Memory	SD Card (standard on color and CTL)	option	●	option	option
Communication Mode	Infra red	●			
	Dial-up Modem	with base	with base	with base	
	Ethernet	with base	with base		
	Wi-Fi			●	
	Bluetooth		●		
	GPRS				●
SAM		up to 4	4	up to 4	up to 3
Card readers	Smart card	1 or 2	1 or 2	1 or 2	1 or 2
	Magstripe Track 1/2	●	●	●	●
	Track 1/2/3	●	●	●	●
	Contactless		EFT930 B CTL		EFT930 G CTL
Display	Graphic 128 x 64 (not available for CTL version)	●	●	●	●
	Backlit	●	●	●	●
	Yellow/Green or White (not available for CTL version)	●	●	●	●
	TFT Colour QVGA 320 x 240 pixels 4096 colours	option	option		option
Fast Wake up			●	●	
Keyboard	Number of keys	16	16	16	16
	Navigation keys	6	6	6	6
	Backlit	●	●	●	●
Buzzer		●	●	●	●
Thermal Printer	Lines/second	18 l/s	18 l/s	18 l/s	18 l/s
Connections on terminal	Mini USB Host	●	●	●	●
	Mini USB Slave	●	●	●	●
Base	Type	M* or E*	B-M* or B-E*	charger or M*	charger or M*
Connections on base	Power supply	●	●	●	●
	Line In	●	●	●	●
	Phone out (option)	●	●	●	●
	RS232	1 or 2	1 or 2	1 or 2	1 or 2
	USB slave	option on base M*	●	option on base M*	option on base M*
Power Supply	Car charger				●
	Travel charger	●	●	●	●
Batteries	NiMH	●	option	option	option
	Li-Ion	option	●	●	●
Size (in mm)	Terminal: L 180 x l 79 x H 57	●	●	●	●
	Base: L 140 x l 80 x H 23	●	●	●	●
Weight (in gr)	Terminal	360	465	410	410
	Base	100	100	125	100
Customization	Lens (option)	●	●	●	●
	Printer cover flap (option)	●	●	●	●
	Casing (option)	●	●	●	●
Environment	Operating temperature: +5 to +45°C	●	●	●	●
	Storage temperature: -20 to +55°C	●	●	●	●
	Relative humidity, NC: 85% HR at +40°C	●	●	●	●
PCI PED	Online & offline	●	●	●	●

* Type of Base: Modem: M, Bluetooth: B, Ethernet: E / CTL stands for Contactless

Payment Solutions

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beyond payment

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 FCC IDs for all equipment, plus description of all cables used in the tested system are:

Power supply: FRIWO FW7601/151964, 100-240VAC, 50-60Hz, 5VDC 1A
Power supply: PHIHONG PSA105E-050/251360796, 100-240VAC, 50-60Hz, 5VDC 1A
Internal frequencies: < 500MHz
Dimensions: 180 x 80 x 80 mm

- **Input/output:**
- DC power input (8Vdc) on base
- 1 x Serial link (COM0) on base
- 1x Modem line (LINE IN) on base
- 1x Telephone line OUT on base
- 2 x USB ports on portable terminal
- 2 x SAM ports
- 1 x SIM port

- **Cables:**
- 1x DC power supply cable (fixed on mains power unit), unshielded: 2m or 2.8m
- 1x RS232 Com cable, RJ11, unshielded, 1.5m
- 2x USB cables, Mini A&B connectors, shielded: 1m
- 2x Telephone line cables, unshielded, length: 5m and 2m

- **Auxiliaries equipment used during test:**

- Smartcards (EFT Contactless and EMV card)
- SAM cards (x2)
- TELTON Telephone line simulator TLS-5B-01   Sn: 014184
- Universal Communication Tester Rhode & Schwarz CMU200   Sn: 8375860047

Note: The equipment contains a GPRS module certified (FCCID: VW3HILOC). The transmission GPRS is set in IDDLE mode during all the tests.

1.4.   EUT CONFIGURATION

The inboard software (EMC TEST) performed the followings tests and activates the followings functions:
- Printer ON
- Smartcards reading: CAM0, SAM1&2 (Power ON and reading)
- USB ON (Host to slave ports looped back)
- Backlight and display are ON
- Modem ON
- Contact less ON (ATR reading in loop)

1.5.   EQUIPMENT MODIFICATIONS

Added ferrite clamps on following cable:
- Ferrite Würth Elektronik 742 711 12 2 ways near the input power supply port of base. (for both power supplies)

1.6.   SPECIAL ACCESSORIES

None

1.7.   Test Methodology

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

1.8.   Test facility

Tests have been performed on May 6th, 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.