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Laboratoire de Moirans
Z.I. Centr'Alp
170, Rue de Chatagnon
38430 MOIRANS - FRANCE

GENERAL INFORMATION

FCCID: XKB-OPE15CLV2

1.1. Product description

ingenico
aWorldlinebrand

OPEN1500
OPEN2500

Quick start and installation guide



www.ingenico.com

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Ingenico - SA au capital de 47 656 332 / 317 218 758 RCS Nanterre

● SEAMLESS PAYMENT



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The OPEN1500 or OPEN2500 can be powered by different sources please respect these recommendations:

- The power sources should comply with Standards IEC60950-1:2013 Edition 2.2 and EN60950-1:2006 + A11/2009 + A1/2010 + A12/2011 + A2:2013. Moreover, they should be Safety Extra-Low Voltage circuits and Power Limited Sources according to clauses 2.2 and 2.5 of these standards.
- The power source should be powered thanks to socket-outlets installed near the equipment and easily accessible.
- OPEN power ratings: 12 – 24 Vdc max /2A or POE 48 Vdc /13W

Der OPEN1500 wo OPEN2500 kann an verschiedene Stromquellen angeschlossen werden; beachten Sie bitte diese Empfehlungen.

- Die Stromquellen sollten den Normen IEC60950-1:2013 Auflage 2.2 und EN60950-1:2006 + A11/2009 + A12/2011 + A2:2013 entsprechen. Zudem sollte es sich dabei um Schutzkleinspannungen und begrenzte Stromquellen gemäß den Bestimmungen 2.2 und 2.5 dieser Normen handeln.
- Die Stromquelle sollte über Steckdosen fließen, die in der Nähe des Geräts installiert und leicht zugänglich sind.
- Nennleistungen der OPEN:
12 – 24 Vdc max /2A or POE 48 Vdc /13W

Les OPEN1500 ou OPEN2500 peuvent être alimentés par différentes alimentations électriques. Merci de respecter les recommandations suivantes :

- Les alimentations électriques doivent être conformes aux normes IEC60950-1:2013 Edition 2.2 et EN60950-1:2006 + A11/ 2009 + A12/2011 + A2:2013. De plus, elles doivent être des circuits Très Basse Tension de Sécurité et être des Sources à Puissance Limitée conformément aux chapitres 2.2 et 2.5 de ces normes.
- Les alimentations électriques doivent être connectées via des socles de prises de courant installés à proximité du matériel et aisément accessibles.
- Caractéristiques électriques d'alimentation des OPEN:
12 – 24 Vdc max /2A or POE 48 Vdc /13W



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Part of new generation of unattended devices, the Open/1500 offers the best of transport and payment worlds to meet all your open payment requirements.

Highest security

PCI PTS 5.1 certified, the Open/1500 is natively designed to meet local regulations and ensure long-term compliance.

Contactless, NFC Payment

The Open/1500 enables all contactless payments methods: Visa, Mastercard, Amex, Discover, CUP, Interact, Flash, ApplePay, GooglePay... and many more!

All ticketing media and applications

The Open/1500 is able to manage all digital tickets: closed-loop cards (Mifare®, Desfire®...), NFC devices, contactless tickets, QR codes (through external optional camera), mobile apps (through Bluetooth)... Thanks to Paragon ID's expertise, provided as part of the fruitful partnership with Ingenico, the open payment terminals are able to handle all kinds of future ticketing media and new transport applications.

Customer version

The Open/1500 consumer version add the Power over Ethernet (PoE) to ease integration and supply the device up to 48V DC. Fits for toll, access control, EV charging.

Transportation version

The Open/1500 transportation version is compliant with automotive and railways standards. Thanks to the additional removable battery, the internal battery lifetime is extended to the device's lifetime and avoid any removal from the field to change it.



Easy mechanical integration in embedded validators

Thanks to its sleek design, the Open/1500 fits in a plastic validator which will be embedded in a bus, a tramway, a train or a ferry. Only the blacklit RVB and RVB LEDs are visible.

Powerful, with multiple connections

Based on the most powerful processor of Telium TETRA range with a large amount of memory, the Open/1500 has many interfaces to fit all open payment usage cases.

Highly ruggedized and durable

Thanks to its robust design (IK10) and high protection against water (IP65) the Open/1500 stands up to the most demanding indoor and outdoor environments.



The Open/1500 is supported by our Cloud Services





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Part of new generation of unattended devices, the Open/2500 offers the best of transport and payment worlds to meet all your open payment requirements.

Highest security

PCI PTS 5.1 certified, the Open/2500 is natively designed to meet local regulations and ensure long-term compliance.

Contactless, NFC Payment

The Open/2500 enables all contactless payment methods: Visa, Mastercard, Amex, Discover, CUP, Interact, Flash, ApplePay, GooglePay... and many more!

All ticketing media and applications

The Open/2500 is able to manage all digital tickets: closed-loop cards (Mifare®, Desfire®...), NFC devices, contactless tickets, QR codes (through external optional camera), mobile apps (through Bluetooth)... Thanks to Paragon ID's expertise, provided as part of the fruitful partnership with Ingenico, the open payment terminals are able to handle all kinds of future ticketing media and new transport applications.

Customer version

The Open/2500 consumer version add the Power over Ethernet (PoE) to ease integration and supply the device up to 48V DC. Fits for toll, access control, EV charging.

Transportation version

The Open/2500 transportation version is compliant with automotive and railways standards. Thanks to the additional removable battery, the internal battery lifetime is extended to the device's lifetime and avoid any removal from the field to change it.



Easy mechanical integration in validators and gates

Thanks to its flush design and visible hitting area, the Open/2500 fits in gates (metro, railways) where its I/O ports can control the turnstile opening. The wide visible part includes the RGB backlit landing zone and 6 rows of 4 LEDs, for a better user information.

Powerful, with multiple connections

Based on the most powerful processor of the Telium TETRA range with a large amount of memory, the Open/2500 has many interfaces to fit all open payment usage cases.

Highly ruggedized and durable

Thanks to its robust design (IK10) and high protection against water (IP65) the Open/2500 stands up to the most demanding indoor and outdoor environments.



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1.2. Tested System Details

2. EQUIPMENT UNDER TEST: CONFIGURATION (DECLARED BY PROVIDER)

2.1. INFORMATIONS

All test are performed with 48VDC PoE (worst case).

AC power Line conducted Emissions and Field strength outside of the bands 13.110-14.010 MHz are also performed with 24VDC on DC connector

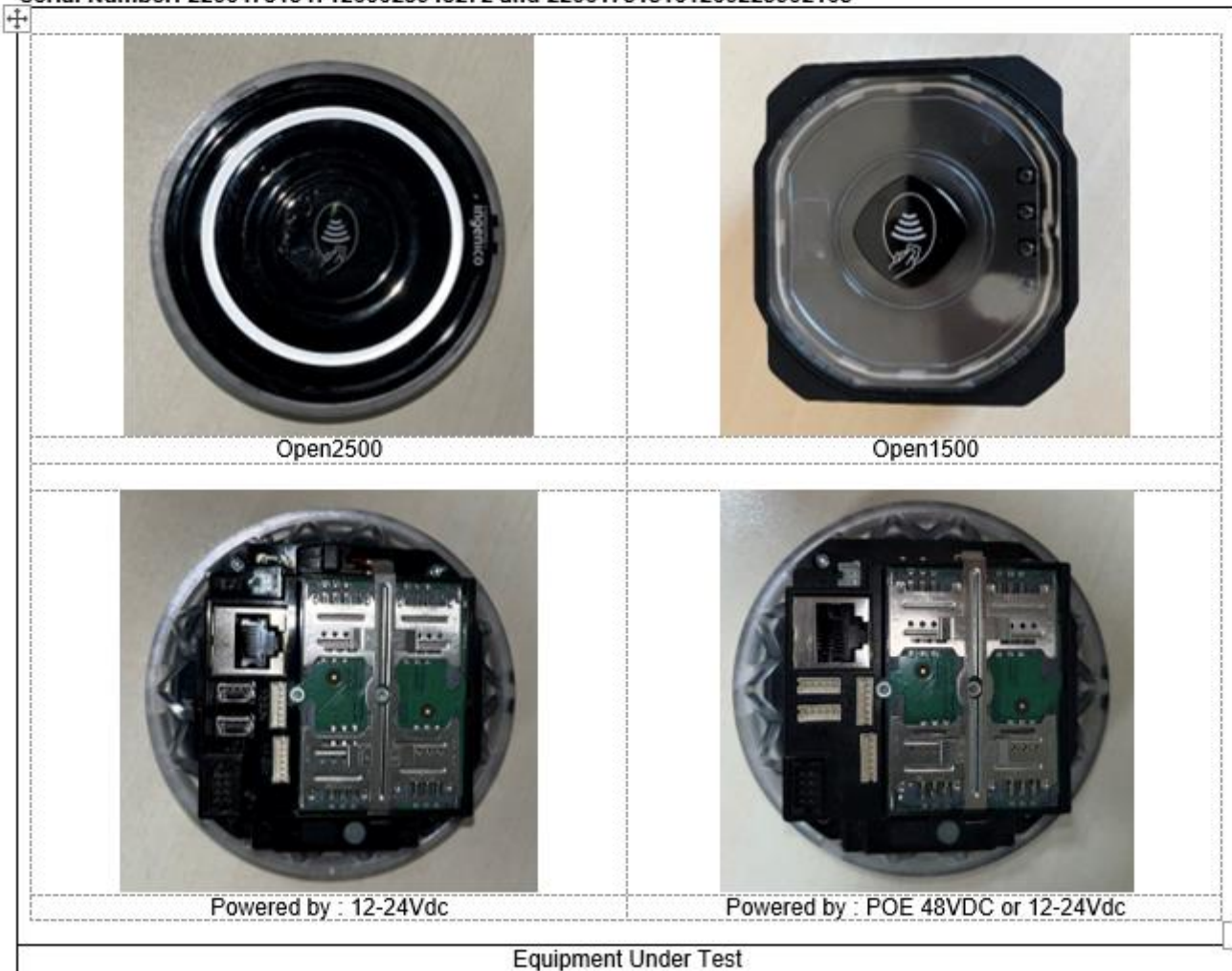
Open1500 and OPEN 2500 are same electronics, difference is plastic casing.

2.2. HARDWARE IDENTIFICATION (EUT AND AUXILIARIES):

Equipment under test (EUT):

INGENICO OPEN2500 CL/POE/BT / OPEN2500 CL/Eth/BT

Serial Number: 220647313471260623948272 and 220617313161260223902168





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Power supply:

Name	Type	Rating	Reference / Sn	Configuration	Comments
Supply1	<input checked="" type="checkbox"/> DC	12-24VDC	/	Configuration n°1	Power supply 24Vdc on DC connector
Supply2	<input checked="" type="checkbox"/> DC	48VDC	/	Configuration n°2	Power supply 48Vdc on POE (<u>Power Over Ethernet</u>)

Inputs/outputs - Cable:

Access	Type	Length used (m)	Declared <3m	Shielded	Under test	Comments
Supply1	2wires	1.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	/
Ethernet_cable	RJ45 (Ethernet)	1.8	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	/
COM0_cable	RS232	1	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	/
USB_Device_cable	USB	0.9	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	/
Access4	microSD (MMC)		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	/
Access5	SAM1		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	/
Access6	SAM2		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	/

Auxiliary equipment used during test:

Type	Reference	Sn	Comments
Contactless card	Type B	296116026	INGENICO
POE adapter	TP-LINK / TL-POE200A	2168528003068	48VDC
AC/DC power source	KEYSIGHT	AC6802A -	A7042305
Laptop	DELL	/	INGENICO

⊕ Equipment information (declaration of provider):

Type:	<input checked="" type="checkbox"/> RFID		
Frequency band:	[13.553 to 13.567] MHz		
Number of Channel:	1		
Antenna Type:	<input checked="" type="checkbox"/> Integral	<input type="checkbox"/> External	<input type="checkbox"/> Dedicated
Transmit chains:	1		
Receiver chains:	1		
Type of equipment:	<input checked="" type="checkbox"/> Stand-alone	<input type="checkbox"/> Plug-in	<input type="checkbox"/> Combined
Equipment arrangement:	<input checked="" type="checkbox"/> Tabletop	<input type="checkbox"/> Floor-standing	<input type="checkbox"/> Multiple orientations
Equipment type:	<input checked="" type="checkbox"/> Production model	<input type="checkbox"/> Pre-production model	
Operating temperature range:	<u>Tmin</u> :	<input checked="" type="checkbox"/> -30°C	<input type="checkbox"/> X°C*
	<u>Tnom</u> :	20°C	
	<u>Tmax</u> :	<input type="checkbox"/> 50°C	<input checked="" type="checkbox"/> +70°C*
Operating voltage:	<u>Vmin</u> :	<input checked="" type="checkbox"/> 10.2Vdc	<input checked="" type="checkbox"/> 40.8Vdc
	<u>Vnom</u> :	<input checked="" type="checkbox"/> 24 Vdc	<input checked="" type="checkbox"/> 48Vdc
	<u>Vmax</u> :	<input checked="" type="checkbox"/> 27.6Vdc	<input checked="" type="checkbox"/> 55.2Vdc

Hardware information	
Software (if applicable):	<u>v.:</u> -0000- => 1 OS VERSION: 050501 -c101- -0001- 2 OS CRC: 0xc417 -c102- -0002- 3 APPLI VERSION: 030400 -c103- -0003- 4 APPLI CRC: 0xCC85



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1.3. Test Methodology

Both conducted and radiated testing were performed according to the procedures in ANSI C63.4 or/and ANSI C63.10, FCC Part 15 SubPart 15C.

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.

1.4. Test facility

Tests have been performed: **May 5, 2022 to May 24, 2022**

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 or/and ANSI C63.10.

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, as compliant with test site criteria and competence in 47 CFR Part 15/ANSI C63.4 and EN55032/CISPR32 norms for 89/336/EEC European EMC Directive application. All pertinent data for this test facility remains unchanged.