

Xtra module Technical Guide



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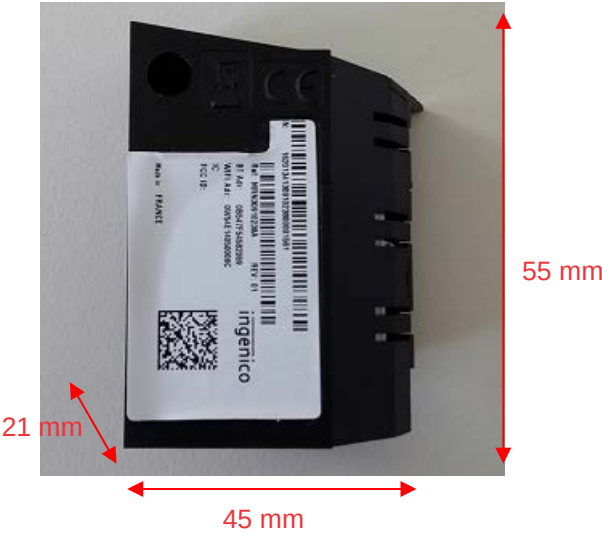
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1_Introduction

This technical guide is a document that describes the features of the terminal.

2_Xtra module general information

2_1 Physical dimensions



Mechanical characteristics	External dimensions	55 (L) x 45 (W) x 21 (H) mm
	Weight	15g (full options)
	Casing material	ABS-PC + TPU



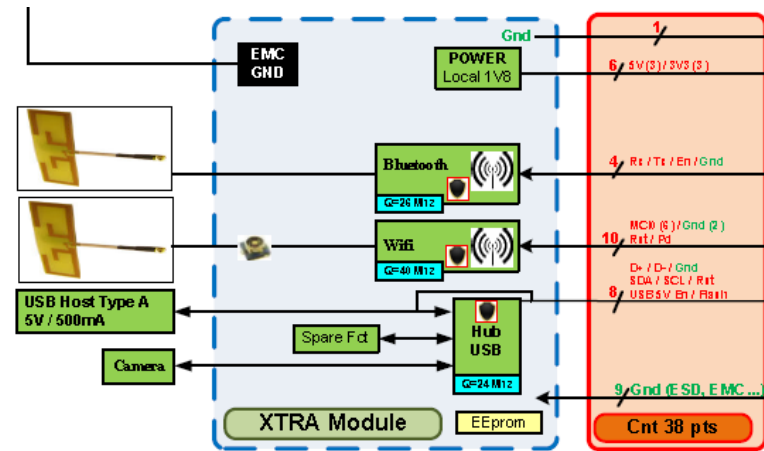
2_2 Xtra module Features

- Wireless connectivity
 - o Wifi
 - o Bluetooth

3_Xtra module Technical information

Name			Xtra module
Environment	Operating temperature	0°C to +40°C (32°F to 104°F)	●
	Storage temperature	-20°C to +55°C (-4°F to 131°F)	●
	Operating humidity	85% non-condensing at +40°C (104°F)	●

3_1_1 Hardware architecture:

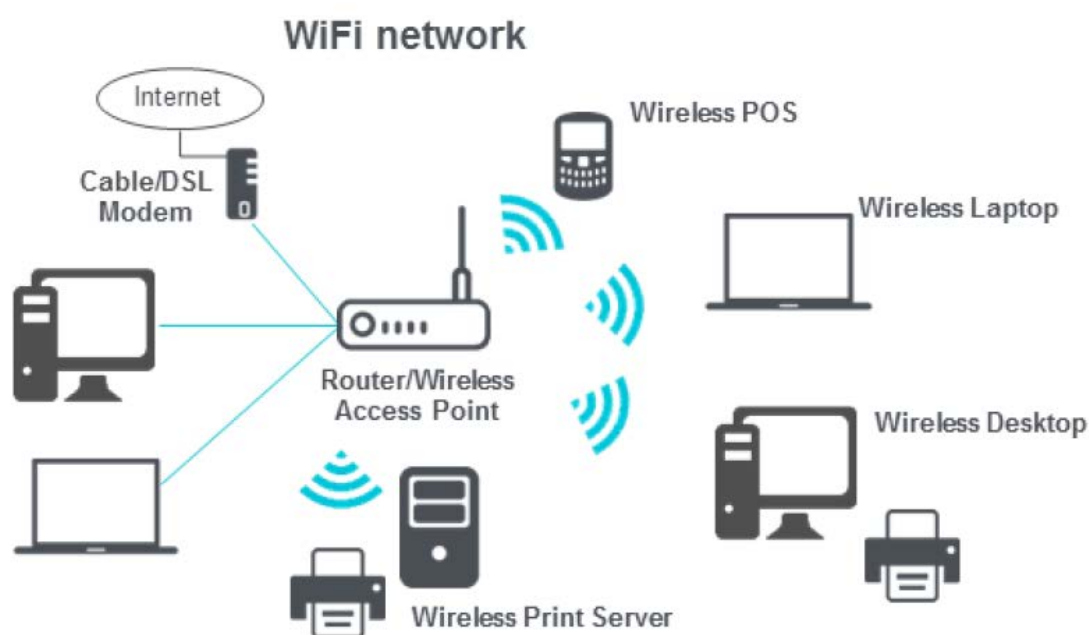


3_1_2 Wireless Connectivity

/ Wi-Fi

WiFi connection is optional in Lane/7000 or Lane/8000.

This feature is useful to wirelessly connect your terminal to the IP network avoiding the cabling task:



Feature	Dualband :2.4 GHz and 5 GHz Wi-Fi
Chipset	Marvell 88W8782
Standard compliance	802.11 a/b/g/n, SISO, 2.4Ghz and 5Ghz, HT20&HT40
Frequency band	20Mhz Channel : 2412-2472 Ghz / 5180-5320 Ghz / 5500-5700 Ghz / 5700 Ghz / 5745-5805 Ghz 40Mhz Channel : 2442-2452 Ghz / 5190-5310 Ghz / 5510-5670 Ghz / 5755-5795 Ghz

Radio transfer rate	From 1 Mbit/s to 135 Mbit/s
Distance	Indoor: 70m typical, mini 100m in free sight
Max output power	2.4Ghz : 23dBm 5Ghz : 13 dBm
Home security	WPA, WPA2
Enterprise security	EAP-MD5, EAP-TLS, EAP-TTLS, EAP-PEAPv0, EAP-SIM

/ Bluetooth

Feature	Bluetooth V2.0
Chipset	BC08, CSR8811: http://www.csr.com/sites/default/files/csr8811.pdf
Standard compliance	Bluetooth 4.0 (Frequency : 2.4Ghz) Bluetooth 4.2 planned on roadmap (Frequency: 2.4Gz)
Profile	SPP A2DP Other profile to be analyzed on request
Radio transfer rate	1 Mbit/s 3Mbit/s (EDR)
Number of supported links on SPP	1 open link to PCL 4 reserved for peripherals (barcode, printer, ...)
Range	Bluetooth Class 2 – max 10m in free sight
Maximum output power	GFSK : 1.5 dBm Pi/4 DQPSK : 1.8 dBm 8 DPSK : 2.1 dBm

3_1_3 Internal Frequencies

- Bluetooth :
 - o Quartz = 26Mhz
- Wifi :
 - o Quartz = 40Mhz

4_Norms&Marking

4_1 1 Federal Communications Commission (FCC) Statement & Industry Canada (IC) Statement

Modular transmitter 15.212

Changes or modifications made to the equipment not expressly approved by INGENICO may void the FCC / IC authorization to operate this equipment.

The use of the transceiver module is authorized in mobile or fixed host devices taking into account the conditions listed below:

- OEM Integrator must ensure that the end user manual may not contain any information about the way to install or remove the module from the final product.
- Depending on the final host device additional authorization requirements for the non-transmitter functions of the transmitter module may be required (i.e., Verification, or Declaration of Conformity) The OEM integrator is responsible for ensuring that after the module is installed and operational the host continues to be compliant with the Part 15B unintentional radiator requirements.
- The information on the label and in the user manual is required to be incorporated in the user manual of the final host. see 47 CFR15 requirements for more details (e.g. 15.19 / 15.21 / 15.101 / 15.105 / RSS-GEN / ICES)
- Additional label with the words 'Contains FCC ID: XKB-M7002WIBT' and 'Contains IC: 2586D-M7002WIBT' shall be applied and visible from the outside of the host product.
- The module must be installed and used in strict accordance with the manufacturer's instructions as described in the user documentation that comes with the module.
- The end user manual for the final host product operating with this transmitter must include operating instructions to satisfy RF exposure compliance requirements.

Radiofrequency radiation exposure Information :

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance of 20 cm between the radiator and your body.

This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

Cet équipement est conforme aux limites d'exposition aux rayonnements IC établies pour un environnement non contrôlé. Cet équipement doit être installé et utilisé avec un minimum de 20 cm de distance entre la source de rayonnement et votre corps.

- The antenna of the module may not be removed, replaced nor modified. The antenna must not be co-located or operating in conjunction with any other antenna or transmitter. No additional antenna must be used.

- When the final host product operating with this transmitter deviate from above, installation of this module into specific final hosts may require the submission of a Class II permissive change application containing data pertinent to RF Exposure, spurious emissions, ERP/EIRP, and host/module authentication, or new application if appropriate.
Feel free to contact us if additional guidance is required.