NMO	OIML Certification System
OIML Member State United Kingdom of Great Britain and Northern Ireland	**OIML Certificate No.** **R21/2007-B-GB1-19.04**

OIML CERTIFICATE ISSUED UNDER SCHEME B

OIML Issuing Authority	**NMO** **Stanton Avenue** **Teddington** **TW11 0JZ** **United Kingdom**
Person responsible:	**Mannie Panesar – Head of Technical Services**
Applicant	**ITALTAX SRL** **Via dell'Industria, 16** **62017 Porto Recanati (MC)** **Italy**
Manufacturer	**The applicant**
Identification of the certified type	**X-One Android** *(the detailed characteristics are defined in the Descriptive Annex)*

This OIML Certificate attests the conformity of the above identified type (represented by the sample(s) identified in the OIML type evaluation report) with the requirements of the following Recommendation of the International Organization of Legal Metrology (OIML):

OIML R21 – Edition 2007(E)

Issue date: 01 October 2019

The OIML Issuing Authority

Grégory Glas
Lead Technical Manager
For and on behalf of the Head of Technical Services

This OIML Certificate relates only to metrological and technical characteristics of the type of measuring instrument covered by the relevant OIML Recommendation identified above.

This OIML Certificate does not bestow any form of legal international approval.

The conformity was established by the results of tests and examinations provided in the associated OIML type evaluation report:

No. P02593 dated 01 October 2019 that includes 16 pages.

The technical documentation relating to the identified type is contained in documentation file:

No. P02593-D dated 01 October 2019.

OIML Certificate History

Revision No.	Date	Description of the modification
0	01 October 2019	OIML Certificate first issued.
-	-	No revisions have been issued.

No revisions have been issued.

Important note:
Apart from the mention of the Certificate's reference number and the name of the OIML Member State in which the Certificate is issued, partial quotation of the Certificate and of the associated OIML type evaluation report(s) is not permitted, although either may be reproduced in full.

DESCRIPTIVE ANNEX

Characteristics of the instrument:

The pattern is a taximeter designated the X-One Android designed to be installed in a road vehicle for the calculation of fares. The fares are calculated based on measurement of distance and time; the instrument operates in calculation modes S (single application of tariff) or D (double application of tariff). The instrument is powered via the vehicle battery.

The distance measuring device (transducer) is not covered by this certificate.

Model variants and designation:

Construction:

The instrument comprises a PCB housed within a plastic enclosure, one LED displays and push buttons allowing user operation.

The plastic enclosure consists of front and rear parts held together with screws, with removable parts on the right and on the left-hand sides preventing access to the PCB, communication ports and test connector.

The taximeter sealing points are:

- Tariff Cover Seal
- Taximeter Head Seal

The PC sealing points are:

- USB seal
- SD sealing cover
- SIM Cards sealing cover

Note: Sealing of the PC is not required under this certificate.

The display uses Android operating system and comprises two distinct areas: one legally relevant area for the taximeter application, one non-legally relevant area for additional user applications. The taximeter area cannot be obscured by non-legally relevant information.

The legally relevant area of the display may be set to various positions (and colours).

Devices:

- Display check
- Calculation modes S or D
- Fare calculation (initial fare, fare increments, extras)
- Segregated display (legally relevant for taximeter application, non-legally relevant for additional user applications)
- Display of rate, mode (For Hire, Hired, Stopped) and fare (actual fare and total fare with extras)
- Display of distance and time for the journey
- Loading of tariffs and software (via sealed interface)
- Real time clock
- Long-term totalisers (non-resettable)

- Display of parameters, software and tariff information (read-only)
- Test connector

Interfaces:

- RS232
- Passenger Sensor input
- External Lights Input
- External Lights Power Output
- Odometer input
- Optional CAN Bus input
- Test Connector
- Service/programming keys

Technical data:

Power supply	9 to 16 VDC (12 V nominal)
Taximeter constant k	500 to 65,535 pulses/km
Maximum speed	200 km/h
Pulse voltage amplitude (low/high)	0 - 0.3 VDC / 5 -12 V DC
Pulse frequency	≤ 1 kHz
Minimum pulse width	50 µs
Electromagnetic environment	E3
Mechanical environment	M3
Climatic environment	-25°C to +70 °C
	Non-condensing (closed)

Software:

The legally relevant software is held in the firmware and is unambiguously identified by its release name and CRC-16 checksum value.

The firmware release name and CRC versions programmed in the taximeter can be displayed as follows:

- From For Hire Position press at the same time F3+F4+F5
- Wait a few seconds
- In the left part of the display will be shown the CRC Firmware number
- In the right part of the display will be shown the Country identification with 3 letters and 2 numbers.

The software identification shall be as follows:

Software release name	CRC (checksum value)	Country / Language
XPA01	20263	Generic / Programmable

Software download is only possible via the Service programming key, which is protected by the mechanical seal described in the Sections Construction and Sealing.

Tariff:

The tariff is protected by a CRC-16 checksum, the value for the tariff checksum can be displayed as follows:

- From For Hire Position press at the same time F2+F5
- The display will start showing the numbers from 0 to 9 then STOP
- The left part of the display will then show the tariff checksum and the right part of the display will show the Country identification with 3 letters and 2 numbers.

Sealing:

The taximeter is fitted with two sealing points (Tariff Cover and Taximeter Head seals) preventing access to the metrological components and parameters. Additional sealing points may be present.

Alternatives:

There are currently no authorised alternatives.