

EU-TYPE EXAMINATION (MODULE B) CERTIFICATE

Radio Equipment Directive (RED) 2014/53/EU

PHOENIX TESTLAB
Notified Body Number **0700**



This is to certify that:
PHOENIX TESTLAB did undertake the relevant type examination procedures for the radio equipment identified below which was found to be in compliance with the essential requirements of Radio Equipment Directive (RED) 2014/53/EU subject to any conditions in the annex attached hereto.

Certificate No.	19-211384
Manufacturer	Tersus GNSS Inc.
Address	Rm 210, Building A, No. 666 Zhangheng Road, Zhangjiang Hi-tech Park, Pudong, Shanghai, China
Product Description	Ruggedized In-vehicle Tablet; with GSM, WCDMA, LTE, Bluetooth, WIFI, GPS and BDS
Brand Name / Model Name	TERSUS / APOLLO 10L, TP20, TP20L, TP20 Pro, TP20S, TP20AS

The radio equipment meets the following essential requirements

Article 3.1 a): Health and Safety	Conform
Article 3.1 b): Electromagnetic Compatibility	Conform
Article 3.2: Effective and Efficient Use of Radio Spectrum	Conform
Additional Essential Requirements:	Not applicable

Date of issue	2019-08-07	Expiry date:	2024-08-06
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This certificate remains valid unless cancelled or revoked, provided the conditions in the attached annex are complied with. The conditions for the validity of this certificate are listed in the Annex.



The attached Annex forms part of this certificate. This certificate consists of 3 pages.

Signed by Wayne Hsu
Notified Body

Annex

Technical description

Frequency Range	GSM 850/900/1800/1900 MHz UTRA FDD Band I/II/IV/V/VIII E-UTRA FDD Band 1/3/5/7/8/20 E-UTRA TDD Band 38/40/41 Bluetooth: 2402 - 2480 MHz WiFi: 2412 - 2472 MHz GPS: 1575.42 /1227.6 MHz(Rx) BDS: 1561.098/ 1207.52 MHz(Rx)
Transmit Power	Max. 2W/Max. 1W UTRA FDD: 24 dBm E-UTRA FDD/TDD: 23 dBm Bluetooth: 5.03 dBm EIRP WiFi: 16.31 dBm EIRP
Hardware Version	V1.3
Software Version	APPOLO-D01L01C00G01ENB190213

System Components

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Optional Components

PORT 1 (Power Input) Cable	0.5 meter, unshielded cable, without ferrite core
PORT 2 Cable	0.5 meter, unshielded cable, without ferrite core
PORT 3 Cable	0.5 meter, unshielded cable, without ferrite core
PORT 4 Cable	0.5 meter, unshielded cable, without ferrite core
External Omni-Directional Antenna for GSM/WCDMA/LTE	1.5 meter, unshielded cable, without ferrite core
External Active Antenna for GPS(RX)/BDS(RX)	1.5 meter, unshielded cable, without ferrite core

Approval documentation

External / Internal Photos	Provided, 22 pages
User Manual	Ruggedized In-vehicle Tablet User Guide, 10 pages
Block Diagram	Provided, 1 page
Circuit Diagram	Provided, 51 pages
Operational Description	Operation of Description, 2 pages
PCB Layout	Provided, 70 pages
Parts Placement	Provided, 21 pages
Parts List	EC25-A BOM, 15 pages
EU Declaration of Conformity	3 pages, August 1, 2019
Explanation of compliance Article 10(2) and Article 10(10)	Description in the User Manual
Further Documents	Risk Assessment, 6 pages, August 1, 2019 Authorization Letter, 1 page, August 1, 2019


Applied Standards and Test Reports

Specification	Laboratory	Test Report Number / Version
EN 62368-1:2014/A11:2017	Shenzhen LCS Compliance Testing Laboratory Ltd.	LCS190605020AS100
EN 50663: 2017	Shenzhen LCS Compliance Testing Laboratory Ltd.	LCS190605019AEB100
ETSI EN 301 489-1 V2.1.1 ETSI EN 301 489-17 V3.1.1 ETSI EN 301 489-19 V2.1.1 Draft ETSI EN 301 489-52 V1.1.0	Shenzhen LCS Compliance Testing Laboratory Ltd.	LCS190605019AEA100
ETSI EN 300 328 V2.1.1	Shenzhen LCS Compliance Testing Laboratory Ltd.	LCS190605019AEC100 LCS190605019AED100 LCS190605019AEE100
ETSI EN 301 511 V12.5.1	Shenzhen LCS Compliance Testing Laboratory Ltd.	LCS190605019AEF100
ETSI EN 301 908-1 V11.1.1 ETSI EN 301 908-2 V11.1.2	Shenzhen LCS Compliance Testing Laboratory Ltd.	LCS190605019AEG100
ETSI EN 301 908-1 V11.1.1 ETSI EN 301 908-13 V11.1.2	Shenzhen LCS Compliance Testing Laboratory Ltd.	LCS190605019AEH100
ETSI EN 303 413 V1.1.1	Shenzhen LCS Compliance Testing Laboratory Ltd.	LCS190605019AEI100

Limitations / Restrictions

- This device also contains frequency bands that are not operational in EU member states. Only the frequency bands used in European Union have been assessed for this Certificate.
- Operating Temperature range is -30 - +70 degree Celsius.
- Body Separation distance is 40cm by using the procedure of MPE calculation.

Notes

1. This certificate will not be valid if the manufacturer makes any changes or modifications to the approved equipment, which have not been notified to, and agreed with PHOENIX TESTLAB.
2. Should the specified regulations or standards be amended during the validity of this certificate, the product(s) is/are to be re-approved prior to it/them being placed on the market.
3. The manufacturer shall take all measures necessary so that the manufacturing process and its monitoring ensure conformity of the manufactured radio equipment with the approved type described in the EU-type examination certificate and with the requirements of Directive 2014/53/EU that apply to it.
4.  The manufacturer shall affix the CE marking to each item of radio equipment that is in conformity with the type described in the EU-type examination certificate and satisfies the applicable requirements of the Directive.
5. The manufacturer shall draw up a written EU declaration of conformity for each radio equipment type and keep it at the disposal of the national authorities for 10 years after the radio equipment has been placed on the market. The EU declaration of conformity shall identify the radio equipment type for which it has been drawn up. A copy of the EU declaration of conformity shall be made available to the relevant authorities upon request.