EU – TYPE EXAMINATION CERTIFICATE

RADIO EQUIPMENT DIRECTIVE 2014/53/EU

Annex III Module B

MANUFACTURER

Name	:	Tersus GNSS Inc.
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PRODUCT DESCRIPTION

Trademark/Trade Name	:	Tersus
Model Number	:	TC50
Product Description	:	TD-LTE Wireless Data Terminal

NOTIFIED BODY

Certificate issued by	:	Notified Body 1177, TIMCO Engineering, Inc.		
Certificate number	:	E1177-210519		
Name and Signature	:	Bruno Clavier	Date:	May 26, 2021

The device shall be marked as follows: CE

Based on the evidence presented in the Technical Documentation, TIMCO Engineering, Inc., as appointed Notified Body, has issued this EU-Type Examination Certificate in accordance with Annex III Module B. The product described appears to be in conformity with the essential requirements Article 3.1(a), 3.1(b), and 3.2 of RED 2014/53/EU. This certificate relates only to the documents as provided to Timco Engineering, Inc. and is valid up to (1) the date of cessation of presumption of conformity of any of the superseded standards which were used for testing this product and assessed by Notified Body or (2) the date of modifications to the approved type that may affect the conformity of the apparatus with the essential requirements of this Directive or the conditions for validity of that certificate, whichever comes first.

TIMCO ENGINEERING, INC. P.O. BOX 370 NEWBERRY, FL 32669 www.timcoengr.com	This Certificate is issued under the provision that TIMCO Engineering Inc. nor its subsidiary companies accept any liability concerning the contents of this document other than forced by law. Reproduction of the Certificate (with Annex) in full is allowed. Reproduction of parts of this certificate may only be allowed by written permission of TIMCO Engineering, Inc.

TIMCO ENGINEERING, Inc
AN IIA COMPANY

INDUSTRIAL INSPECTION & ANALYSIS

EU – TYPE EXAMINATION CERTIFICATE
E1177-210519

Date: May 26, 2021

PRODUCT SPECIFICATIONS

Intended Use / Category	:	GSM, GPRS, EDGE
RF output power	:	GSM900: 32.31dBm, GSM1800: 28.80dBm EDGE900: 27.16dBm, EDGE1800: 25.68dBm (Conducted)
Frequency range (MHz)	:	GSM900: Tx: 880-915MHz, Rx: 925-960MHz DCS1800: Tx: 1710-1785MHz, Rx: 1805-1880MHz
Modulation	:	GMSK, 8PSK
Antenna type	:	Integral, GSM900: -0.72dBi, DCS1800:-0.31dBi

Intended Use / Category	:	WCDMA, HSDPA, HSUPA
RF output power	:	WCDMA Band 1: 23.05dBm, WCDMA Band 8: 23.37dBm (Conducted)
Frequency range (MHz)	:	WCDMA Band 1: Tx: 1920-1980MHz, Rx: 2110-2170MHz WCDMA Band 8: Tx: 880-915MHz, Rx: 925-960MHz
Modulation	:	BPSK, QPSK, 16QAM
Antenna type	:	Integral, WCDMA Band 1: -0.26dBi, WCDMA Band 8: -0.72dBi

Intended Use / Category	:	FDD-LTE Band 1, 3, 7,8 TDD-LTE Band 38, 40
RF output power	:	FDD-LTE Band 1: 21.49dBm, FDD-LTE Band 3: 22.68dBm, FDD-LTE Band 7: 22.78dBm, FDD-LTE Band 8: 23.41dBm, TDD-LTE Band 38: 22.54dBm, TDD-LTE Band 40: 22.01dBm (Conducted)
Frequency range (MHz)	:	FDD-LTE Band 1: Tx: 1920-1980MHz, Rx: 2110-2170MHz FDD-LTE Band 3: Tx: 1710-1785MHz, Rx: 1805-1880MHz FDD-LTE Band 7: Tx: 2500-2570MHz, Rx: 2620-2690MHz FDD-LTE Band 8: Tx: 880-915MHz, Rx: 925-960MHz TDD-LTE Band 38: Tx: 2570-2620MHz, Rx: 2570-2620MHz TDD-LTE Band 40: Tx: 2300-2400MHz, Rx: 2300-2400MHz
Modulation	:	QPSK, 16QAM
Antenna type	:	Internal, FDD-LTE Band 1: -0.26dBi, FDD-LTE Band 3: -0.32dBi, FDD-LTE Band 7: 0.34dBi, FDD-LTE Band 8: -0.72dBi, TDD-LTE Band 38: 0.31dBi, TDD-LTE Band 40: 0.18dBi

Intended Use / Category	:	Bluetooth V4.1
RF output power	:	6.96dBm (EIRP)
Frequency range (MHz)	:	2402-2480MHz
Modulation	:	GFSK, π/4 DQPSK, 8DPSK
Antenna type	:	Integral, 0.68dBi

Intended Use / Category	:	Wi-Fi (2.4G)
RF output power	:	16.17dBm (EIRP)
Frequency range (MHz)	:	2412-2472MHz for 802.11b/g/n(HT20) 2422-2462MHz for 802.11n(HT40)
Modulation	:	DBPSK, BPSK, DQPSK, QPSK, 16QAM, 64QAM
Antenna type	:	Integral, 0.68dBi

Intended Use / Category	:	Wi-Fi (5G)
RF output power	:	13.98dBm (EIRP)
Frequency range (MHz)	:	Band 1: 5180-5240MHz, Band 2: 5260-5320MHz, Band 3: 5500-5700MHz
Modulation	:	BPSK, QPSK,16QAM, 64QAM
Antenna type	:	Integral, 0.74dBi

Intended Use / Category	:	SRD(5.8G)
RF output power	:	13.81dBm (EIRP)
Frequency range (MHz)	:	5745-5825MHz
Modulation	:	BPSK, QPSK, 16QAM, 64QAM
Antenna type	:	Integral, 0.74dBi

Intended Use / Category	:	NFC
H-Field Strength	:	4.29dBuA/m(@3m)
Frequency range (MHz)	:	13.56MHz
Antenna type	:	Integral, -2.34dBi

Intended Use / Category	:	GPS
Frequency range (MHz)	:	1575.42MHz Receiving
Antenna type	:	Integral

According to the Technical Documentation compiled by the Manufacturer, this radio equipment was assessed for compliance with the following standards, which were applied in full:

ESSENTIAL REQUIREMENTS ASSESSED

Essential Requirement		Standard Number & Version
Radio (Article 3.2)	:	ETSI EN 301 511 V12.5.1 (2017-03) ETSI EN 301 908-1 V13.1.1 (2019-11) ETSI EN 301 908-2 V13.1.1 (2020-06) ETSI EN 301 908-13 V13.1.1 (2019-11) ETSI EN 301 893 V2.1.1 (2017-05) ETSI EN 301 893 V2.1.1 (2017-05) ETSI EN 300 328 V2.2.2 (2019-07) ETSI EN 300 330 V2.1.1 (2017-02) ETSI EN 300 440 V2.2.1 (2018-07) ETSI EN 303 413 V1.1.1 (2017-06)
EMC (Article 3.1b)	:	EN 55032:2015/AC:2016-07 EN 55035:2017 EN IEC 61000-3-2:2019 EN 61000-3-3:2013+A1:2019 ETSI EN 301 489-1 V2.2.3 (2019-11) ETSI EN 301 489-3 V2.1.1 (2019-03) ETSI EN 301 489-17 V3.2.4 (2020-09) ETSI EN 301 489-19 V2.1.1 (2019-04) Draft ETSI EN 301 489-52 V1.1.2 (2020-12)
Health (Article 3.1a)	:	EN 50663:2017 EN 62209-1 :2016 EN 62209-2 :2010 EN 50360 :2017 EN 50566 :2017
Safety (Article 3.1a)	:	EN 62368-1:2014+A11:2017

LIST OF DOCUMENTS REVIEWED

Item	Exhibit Description	
1	Copy of the Declaration of Conformity	☑
2	Letter from Manufacturer/Applicant authorizing the agent and/or representative, if application is filed by someone other than the Manufacturer.	☑
3	Attestation letter demonstrating compliance with Article 10(2)	☑
4	Letter of Attestation and/or exhibits for compliance with Article 10(10) (i.e. info on packaging with user instructions)	☑
5	A brief description of the radio equipment (e.g. Operational Description)	☑
6	Photographs or illustrations showing external features, marking and internal layout	☑
7	RED Annex VI Point 8 - Where applicable, a description/or declaration statement about the versions of software or accessories and components affecting compliance with essential requirements. Alternatively, indicate whether the manufacturer intends to allow the end-user to change or modify the hardware and software.	☑
8	User information and installation instructions	☑
9	Conceptual design and manufacturing drawings and schemes of components, sub-assemblies, circuits and other relevant similar elements (i.e. Schematics and Block Diagrams)	☑
10	Descriptions and explanations necessary for the understanding of those drawings and schemes and the operation of the radio equipment (i.e. a Circuit Description where applicable)	☑

Item	Exhibit Description (Cont.)		
11	RED Annex III module B - Analysis and assessment of the risk(s)		☑
12	Modification/Standard Update/Applicant or Manufacturer info change letter explaining the changes to the existing version of the product along with supporting exhibits (e.g. photos, schematics, new applicant details, etc.)		☐
13	Copy of the EU-type examination certificate and annexes as delivered by other notified bodies involved in the conformity assessment (e.g. original certificates in case of product modifications, modules certificates, etc.)		☐
14	**Test Reports**		☑
	Radio / EMC / Health / Safety	**Test Report Number**	**Issue Date/ Rev. No**
	Radio GSM	WTX21X04033412W-1	May 13, 2021 / Rev.00
	Radio WCDMA	WTX21X04033412W-2	May 13, 2021 / Rev.00
	Radio LTE	WTX21X04033412W-3	May 13, 2021 / Rev.00
	Radio 5GHz WIFI	WTX21X04033412W-4	May 13, 2021 / Rev.00
	Radio DFS	WTX21X04033412W-5	May 14, 2021 / Rev.00
	Radio 2.4GHz WIFI	WTX21X04033412W-6	May 14, 2021 / Rev.00
	Radio BT	WTX21X04033412W-7	May 14, 2021 / Rev.00
	Radio NFC	WTX21X04033412W-8	May 14, 2021 / Rev.00
	Radio 5.8G WIFI	WTX21X04033412W-9	May 14, 2021 / Rev.00
	Radio GPS	WTX21X04033412W-10	May 14, 2021 / Rev.00
	EMC	WTX21X04033412W-11	May 14, 2021 / Rev.00
	Health	WTX21X04033412W	May 14, 2021
	Safety	WTX21X04033414S	May 19, 2021