

Declaration of Conformity: Cello 4S - 2172

Document no. 2172DC9000

Rev. B

Sheet 1 of 5

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TECHNOLOG

1. Certificate & EU Declaration of Conformity



Model / series:	Cello 4S (2172)
Product type:	
Equipment designation:	General purpose data logger c/w wireless communications
Technolog works order no(s):	
Customer order no(s):	
Product serial no(s):	
Product batch no(s):	

The object of this declaration conforms with the requirements of Technolog generated build information 2099TP3000 manufacturing data pack – Rev.:__

Q.A. representative signature:

Q.A. representative name (print):



Herewith we declare that the object of the declaration as described above is in conformity with the relevant European Union harmonisation legislation as listed below. Alterations or repair of said object without prior consultation and the written agreement of Technolog, will invalidate this declaration with regards to that product. This declaration does not extend to any system in which said object is incorporated. This declaration of conformity is issued under the sole responsibility of the manufacturer.

Applied European Council Directive(s):

- 94/62/EC - on packaging and packaging waste.
- 97/23/EC - on the approximation of the laws of the Member States concerning pressure equipment ('PED').
- 1999/519/EC - on the limitation of exposure of the general public to electromagnetic fields (0Hz to 300GHz)
- 2006/66/EC - on batteries and accumulators and waste batteries and accumulators and repealing Directive 91/157/EC.
- 2011/65/EU - on the restriction of the use of certain hazardous substances in electrical & electronic equipment (recast) ('RoHS2').
- 2012/19/EU - on waste electrical & electronic equipment (recast) ('WEEE2').
- 2014/35/EU - on the harmonisation of the laws of the Member States relating to the making available on the market of electrical equipment designed for use within certain voltage limits (recast).
- 2014/53/EU - on the harmonisation of the laws of the Member States relating to the making available on the market of radio equipment and repealing Directive 1999/5/EC ('RED').

Signed for & on behalf of:
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Referred harmonised standards and / or other technical specifications used in relation to which conformity is declared:	<p><u>All variants</u> EN 60529: 1992 EN 62311: 2008 IEC 61010-1: Ed. 3</p> <p><u>2G / 3G variants</u> ETSI EN 301 511 v12.5.1 ETSI EN 301 908-1 v11.1.1 ETSI EN 301 489-1 v2.2.0 EN 301 489-52 v1.1.0 (draft)</p> <p><u>LTE (Cat M1 / NB1) / 2G variants</u> ANSI C63.4: 2014 ANSI C63.26: 2015 ETSI EN 301 489-1 v2.2.3 ETSI EN 301 489-52 v1.1.0 EN 50665: 2017 ETSI EN 301 908-1 v13.1.1 ETSI EN 301 511: v12.5.1 FCC 47 CFR Part 2: 2020 FCC 47 CFR Part 15B: 2020 FCC 47 CFR Part 22: 2020 FCC 47 CFR Part 24: 2020 FCC 47 CFR Part 27: 2020 IEEE C95.3: 2002</p>
Basis of self-attestation:	Quality Management System meeting the requirements of Annexes IV and VII of European Directives 94/9/EC (until April 19 th 2016) and 2014/34/EU (from April 20 th 2016), ISO / IEC 80079-34 and ISO 9001.
Third party approval(s):	<p><u>All variants</u> IECEE CB safety approvals against the requirements of IEC 61010-1: Ed. 3: Element Materials Technology certificate: GB-EMT-0814.</p> <p>Ingress protection rating IP68 (1m / 48 hours) against the requirements of EN 60529: 1992 (Inc. amendments 1 & 2): Sira Certification certificate 58D33130.</p> <p><u>2G / 3G variants</u> República Argentina Comisión Nacional de Comunicaciones, contiene módulo CNC ID: H-24515</p> <p>Malaysia "SIRIM QAS International" in-country certificate of conformity 'E098519' (certification of communications product) – standards SKMM WTS GSM-MT 1.01: 2007, SKMM WTS IMT-MT rev. 1.01: 2007</p> <p>Republic of the Philippines 'National Telecommunications Commission (NTC)' in-country type approval certificate 'ESD-CPE-2003596' (customer premises equipment)</p> <p>Socialist Republic of Vietnam "Ministry of Information and Communication" in- country VNTA type approval certificate C0337311219AA04A2 – complies with QCVN 12:2015/BTTTT; QCVN 15:2015/BTTTT</p> <p><u>LTE (Cat M1 / NB1) / 2G variants</u> US Equipment Authorisation FCC ID: XUV2172TT2400</p>
Equipment marking:	Not applicable
Special conditions for safe use;	Use of any battery pack other than those supplied by the manufacturer for the application will invalidate applicable warranties.
Installation guidelines:	Installation shall be carried out in accordance with the applicable code of practice by competent, and suitably trained, personnel.

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2. Essential Health & Safety Requirements

Installation:

Installation is to be carried out in accordance with the applicable code of practice by competent, and suitably trained, personnel.

Intended area under the expected operating conditions

The equipment may be operated in ambient temperatures in the range -20°C to +50°C and should not be used outside this range.

The equipment is designed for use indoors and outdoors having an ingress protection rating of IP68, submersible to 1 metre for 24 hours.

Use

If the equipment is likely to come into contact with aggressive substances, e.g. acidic liquids that may attack metals or solvents that may affect polymeric materials, then it is the responsibility of the user to take suitable precautions that prevent it from being adversely affected thus ensuring that the type of protection is not compromised. Examples of suitable precautions include regular checks as part of routine inspections or establishing from the materials data sheet that it is resistant to specific chemicals.

Special conditions for safe use

Use of any battery pack other than that supplied by the manufacturer for the application will invalidate applicable warranties.

Where the lid of the unit has a "Warranty void..." tamper evident label fitted then the enclosure may only be entered by the manufacturer or their authorised agents.

Maintenance (servicing and emergency repair):

It is recommended that routine periodic inspection of the equipment, in accordance with the applicable code(s) of practice, is carried out on a regular basis in order to ensure it is maintained in a satisfactory condition.

Be aware that where the enclosure is entered by anybody other than the manufacturer or their authorised agents then the integrity of the ingress protection seal cannot be guaranteed hence any warranties will be void.

Subject to the applicable code of practice, the enclosure may be temporarily opened and the internal battery pack replaced whilst the equipment is 'live'. Use only a new battery pack, with a voltage not less than 3.6V, supplied by the manufacturer for the application.

Subject to the applicable code of practice, the enclosure may be temporarily opened and the 'SIM' card replaced whilst the equipment is 'live'. Be aware that the SIM card network, generation and frequencies must be of a type that is supported by the integral mobile telecommunications modem module and the internal and / or external antenna. Contact Technolog, or their authorised agents, for further details.

Subject to the applicable code of practice, the enclosure may be temporarily opened and the internal antenna, where fitted, replaced whilst the equipment is 'live'. Be aware that the operating frequency of the internal antenna must correspond with that of the integral mobile telecommunications modem module and the SIM card. Contact Technolog, or their authorised agents, for further details.

The equipment contains no other customer replaceable parts and is not intended to be repaired by the user. Repair of this equipment is only to be carried out by the manufacturer, or their approved agents, in accordance with the applicable code of practice.

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RF exposure considerations:

In order to keep exposure to RF below recommended levels where the Cello 4S features an internal antenna, installers should ensure that the equipment cannot be used by an individual, or close to a bystander, who is nearer than 20cm from the unit for a period of 6 minutes at any one time. This distance is dependent upon the antenna used so where an external antenna is used, and its gain is different to that fitted internally, the safe operating distance from that antenna may need to be increased. Contact Technolog for further details.

FCC Regulatory notices (only applicable to LTE + 2G variants)

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference where the equipment is operated in a commercial environment. The equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the product (instruction) manual, [2099PM9000](#), may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

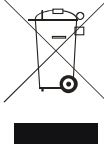


Lithium battery considerations:

Warning: the unit contains a lithium power source. Do not leave expended batteries in the products as this may lead to leakage of the battery contents. Refer to the battery manufacturer's 'Material Safety Data Sheet (MSDS)' / 'Control of Substances Hazardous to Health (COSHH)' information, available from Technolog.

Dismantling:

The unit contains a power source that should never be short circuited, punctured, dropped, crushed, deformed, exposed to high temperatures, incinerated, immersed or force discharged. Before dismantling the product, the battery manufacturer's 'Control of Substances Hazardous to Health (COSHH)' information, available from Technolog, should be consulted.

Environmental considerations:

	The 'crossed-out wheeled bin' symbol (shown left), in accordance with European Standard EN 50419, indicates the product is subject to the requirements of the European Union's waste electrical and electronic equipment ('WEEE') directive listed in this document. As such, it must not be disposed of as unsorted municipal waste but collected separately in order to facilitate correct environmentally sound treatment and recycling. Within the European Union, where possible, the product should be returned to the manufacturer, or their authorised agent, for disposal as it will then be ensured that this is carried out in accordance with the requirements of the WEEE directive. Where this is not possible, prior to disposal your local waste disposal authority should be contacted regarding any regulations in force at the time covering waste disposal procedures in relation to waste electrical and electronic equipment.
	The product contains a battery pack that, in accordance with the requirements of the European Union's 'batteries' directive listed in this document, must not be disposed of as unsorted municipal waste and collected separately in order to facilitate correct environmentally sound treatment and recycling. Within the European Union, where possible, the battery should be returned to the manufacturer, or their authorised agent, for disposal. Where this is not possible, prior to disposal your local waste disposal authority should be contacted regarding any regulations in force at the time covering waste disposal procedures in relation to lithium / thionyl chloride inorganic electrolyte batteries. Refer to the battery manufacturer's 'Control of Substances Hazardous to Health (COSHH)' information, available from Technolog, for further details of battery safe use and disposal guidelines.
	The product complies with the requirements of the European Union's "restriction of certain hazardous substances in electrical and electronic equipment (RoHS)" directive listed in this document.
Approved by:	M. Jeffcock (Technolog Approvals & Development Engineer)
Date:	11 / 03 / 22

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3. Cargo / transportation information

Proper shipping name:	UN3091 Lithium metal batteries contained in, or packed with, equipment
Hazard classification:	9

4. Additional information

Technolog application notes:

[TAN097](#)

Application note: CELLO Flow input connections

[TAN119](#)

Application note: Universal (Multi channel) Cello input cable

Technolog data sheets:

[2099DS9000](#)

Data sheet: Cello 4S (English)

[2099DS9001](#)

Data sheet: Cello 4S (French)

[2099DS9002](#)

Data sheet: Cello 4S (Spanish)

[2099DS9003](#)

Data sheet: Cello 4S (Portuguese)

[2099DS9005](#)

Data sheet: Cello 4S (Chinese)

Technolog product manuals:

[2099PM9000](#)

Product manual: Cello 4S data logger