

EU-Type Examination Certificate

2051-RED-222502

In compliance with Radio Equipment Directive 2014/53/EU of the European Parliament and of the Council of 16 April 2014 on the harmonisation of the laws of the Member States relating to the making available on the market of radio equipment, this certificate applies to the product(s)

Board with microcontroller to control airbag

Model: MAD Electronic Brain

Placed on the market under the name or trade mark of

Protechto S.r.l.
Largo Guido Camussi, 8
21013 - Gallarate (VA), Italy

This certificate attests that all provisions concerning the assessment and verification of performance described in the standard(s)

Art 3.1a:	EN IEC 62368-1:2020 + A11:2020 EN IEC 62311:2020
Art 3.1b:	ETSI EN 301 489-1 V2.2.3:2019 ETSI EN 301 489-17 V3.2.4:2020
Art 3.2:	ETSI EN 300 328 V2.2.2:2019

as per Annex III (Module B) for the performance set out in this certificate, are applied.

Certificate issued June 22, 2022

This Certificate was first issued on June 22, 2022

This certificate consists of 3 pages
Certificate revision: 1.0

Nemko S.p.A.
Authorized signatory: Marco De Angelis

NB 2051

This certificate has been granted by Nemko Spa a Socio Unico, Via del Carroccio 4, 20853 Biassono (MB), Italy

This certificate remains valid for ten years from the issue date, unless cancelled or revoked, provided the conditions indicated in the subsequent page(s) are complied with and the product remains satisfactory in service. This certificate will not be valid if the applicant makes any changes or modifications to the approved product, which have not been notified to, and agreed in writing with Nemko. Should the specified regulations or standards be amended, the products are to be re-approved prior to being placed on the market. Nemko S.p.A. is designated by the Italian Notifying Authority "Ministry of Economic Development".

Any person not a party to the contract pursuant to which this document is delivered may not assert a claim against Nemko for any liability arising out of errors or omissions which may be contained in said document, or for errors of judgement, fault or negligence committed by personnel in the establishment or issuance of this document, and in connection with any activities for which it may provide.

ANNEX 1 – PRODUCT SPECIFICATIONS

PRODUCT DESCRIPTION

Equipment identification: Board with microcontroller to control airbag
Model/type: MAD Electronic Brain
Variants: -
Brand/trade name:

Power supply: 5 Vdc, 2 A from microUSB, or
3.7 Vdc, 2600 mAh from internal Li-Ion battery

TECHNICAL CHARACTERISTICS

Type of radio interface: BLE
Intended purpose: Board with microcontroller to control airbag jacket
Class of equipment: Class I, Sub-class 22 (Wideband Data Transmission Systems) of Commission Decision 2000/299/EC
Frequency range: 2400 ÷ 2483.5 MHz
Transmit power: 4.77 dBm max
Modulation type: GFSK
Channel separation: 2 MHz
Antenna type: Integral
Firmware: v3.2.1

MANUFACTURER

Name: Protechto S.r.l.
Address: Largo Guido Camussi, 8 - 21013 - Gallarate (VA), Italy

ADDITIONAL INFORMATION

None.

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ANNEX 2 - SCHEDULE OF APPROVAL

SCOPE OF EXAMINATION

☒ Protection of Health and Safety, according to Article 3(1)(a).	COMPLIES
☒ Electromagnetic Compatibility (EMC), according to Article 3(1)(b).	COMPLIES
☒ Radio Spectrum Use, according to Article 3(2).	COMPLIES
☐ Special Radio Features, according to Article 3(3)(a)-(i).	N/A

APPLICATIONS/LIMITATIONS

Nil.

MARKING OF PRODUCT

The Manufacturer and Type Designation shall be applied to the product in a visible location.
The equipment shall carry the CE marking of the European Union.

TYPE EXAMINATION DOCUMENTATION

Test report(s)

- Safety test report by Nemko SpA (id: 463988TRFSAF, dated: 2022-05-25)
- Health test report by Nemko SpA (id: 452710TRFWL, dated: 2021-11-23)
- EMC test report by Nemko SpA (id: 452710TRFEMC, dated: 2021-11-23)
- Radio test report by Nemko SpA (id: 452710TRFWL, dated: 2021-11-23)

Additional documentation

- RED technical file by Protechto S.r.l. (id: File TCF-RED_MAD, Rev. 0, dated 2022-05-30)

The following document has been evaluated by Nemko SpA and is available to Authorities at the original radio module manufacturer:

- Radio test report by AGC (id: AGC00174200601EEE11, dated 2020-09-18)

ADDITIONAL INFORMATION

None.

<< End of certificate >>

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