ECE TYPE-APPROVAL CERTIFICATE

E24

Communication Concerning: Approval granted
~~Approval extended~~
~~Approval refused~~
~~Approval withdrawn~~
~~Production definitively discontinued~~

Of a type of electrical/electronic sub-assembly with regard to Regulation No.10.

Approval No: ***E24*10R05/01*2904*00***

Reason for extension: ***-N/A***

1.	Make (trade name of manufacturer):	***Teltonika***
2.	Type and general commercial description:	***MTB100*** *MTB100*
3.	Means of identification of type, if marked on the component:	***Printed on the label by letters and digits***
3.1	Location of that marking:	***Printed on the label by letters and digits***
4.	Category of vehicle:	***See Appendix***
5.	Name and address of manufacturer:	***UAB Teltonika*** ***Saltoniskiu st. 9B,*** ***LT-08105,*** ***Vilnius,*** ***Lithuania***
6.	In the case of components and separate technical units, location and method of affixing of the ECE approval mark:	***Label affixed to the housing***
7.	Address(es) of assembly plant(s):	***UAB Teltonika*** ***Liepkalnio st. 132A,*** ***LT-02121*** ***Vilnius,*** ***Lithuania***

NSAI, 1 Swift Square, Northwood, Santry, Dublin 9, Ireland. Telephone: (+353+1) 807 3800, Facsimile: 01-807 3844

Approval No: ***E24*10R05/01*2904*00***

8.	Additional information (where applicable):	***See appendix***
9.	Technical service responsible for carrying out the tests:	***TÜV NORD Mobilität GmbH & Co. KG IFM-Institut für Fahrzeugtechnik und Mobilität, Schönscheidtstr. 28, D-45307 Essen***
10.	Date of test report:	***28.05.2019***
11.	Number of test report:	***CS010-A0-2019-00729***
12.	Remarks (if any):	***See Appendix***
13.	Place:	***Dublin***
14.	Date:	***19th June, 2019***
15.	Signature:	

16. The index to the information package lodged with the approval authority, which may be obtained on request is attached.

NSAI, 1 Swift Square, Northwood, Santry, Dublin 9, Ireland. Telephone: (+353+1) 807 3800, Facsimile: 01-807 3844

Approval No: ***E24*10R05/01*2904*00***

Appendix

To type-approval communication concerning the type approval
of an electrical/electronic sub-assembly under Regulation No.10.

1.	Additional information	
1.1.	Electrical system rated voltage:	***6V-30V, negative ground***
1.2.	This ESA can be used on any vehicle type with the following restrictions:	***See manufacturer's specifications.***
1.2.1	Installation conditions, if any:	***See manufacturer's specifications.***
1.3.	This ESA can only be used on the following vehicle types:	***N/A***
1.3.1	Installation conditions, if any:	***N/A***
1.4.	The specific test method(s) used and the frequency ranges covered to determine immunity were:	***Bulk Current Injection Method:*** *Frequency: (20 - 400MHz)* ***Absorber Chamber Test:*** *Frequency: (400 – 2000MHz)*
1.5.	Laboratory accredited to ISO 17025 and recognized by the Approval Authority responsible for carrying out the tests:	***TÜV NORD Mobilität GmbH & Co. KG***
2.	Remarks:	***N/A***

Appendix to type-approval communication concerning the
type approval of a vehicle under Regulation No.10.

1.	Additional information	
2.	Special devices for the purpose of Annex 4 to this Regulation:	***N/A***
3.	Electrical system rated voltage:	***N/A***
4.	Type of bodywork:	***N/A***
5.	List of electronic systems installed in the tested vehicle(s) not limited to the items in the information document:	***N/A***
5.1	Vehicle equipped with 24 GHz short-range radar equipment (yes/no):	***N/A***
6.	Laboratory accredited to ISO 17025 and recognized by the Approval Authority responsible for carrying out the tests:	***N/A***
7.	Remarks:	***N/A***

NSAI, 1 Swift Square, Northwood, Santry, Dublin 9, Ireland. Telephone: (+353+1) 807 3800, Facsimile: 01-807 3844

Approval No: ***E24*10R05/01*2904*00***

Index to the Information Package

Date of issue:	***19th June, 2019***
Date of latest amendment:	***N/A***
Reason for extension/revision:	***N/A***

1. Additional conditions, and advisory notes on legal alternatives.

2. Test report(s)

- numbers(s):	***CS010-A0-2019-00729***
- date of issue:	***28.05.2019***
- date of latest amendment:	***N/A***

3. Information document

- number(s):	***R10-MTB100-00***
- date of issue:	***16.05.2019***
- date of latest amendment:	***N/A***
Documentation:	***31 pages***

NSAI, 1 Swift Square, Northwood, Santry, Dublin 9, Ireland. Telephone: (+353+1) 807 3800, Facsimile: 01-807 3844

Approval No: ***E24*10R05/01*2904*00***

Appendix: **Additional conditions, and advisory notes on legal alternatives**

A: Additional conditions:

1. The attached technical report, with any of its attachments, forms part of this Type Approval certificate.
2. Each device from series production shall be to the measurements specified in the attached drawings, and shall be manufactured only from the materials specified in the Approval documents.
3. Changes in the type are permitted only with the explicit permission of NSAI. Breaches of this requirement will lead to a withdrawal of the Type Approval, and in addition may be subject to criminal prosecution.
4. At regular intervals, any tests or associated checks prescribed by the applicable legislation to verify continued conformity with the approved type shall be carried out. The manufacturer shall demonstrate compliance with this by submitting to NSAI evidence of adequate arrangements and documented control plans for each type approved.
5. Any set of samples or test pieces showing evidence of non-conformity shall give rise to further sampling and testing and all steps shall be taken to restore conformity of production.
6. This Type Approval will expire when it is surrendered by the holder, or withdrawn by NSAI, or when the approved type no longer conforms to legal requirements. The recall of the Type Approval can be issued by NSAI when the conditions required for the issuing or continuation of the Type Approval are no longer current, or when the Approval holder is in breach of the duties attached to the Type Approval, or when it is established that the approved type no longer meets the requirements of traffic safety.
7. Changes in the company name, address or manufacturing site, as well as in any of the sales or other agents specified in the issuing of the approval must immediately be notified to NSAI.
8. The duties imposed by the issuing of this certificate are not transferable. The legal protection of third parties is not affected by this certificate.
9. When the manufacture or sale of the system, component or separate technical unit has not been started within one year of the date of issue of this certificate, then NSAI is to be informed. This requirement also applies when the manufacture or sale has been halted for more than one year, or when it ought to have been halted for more than one year. The initial commencement of manufacture or sale, or the resumption of manufacture or sale, shall then be notified to NSAI within one month of commencement or resumption.

B: Legal Options:

Any objection to the requirements set out in this certificate shall be made within one month of the date of issue. The objection shall be made, in writing, to NSAI in Dublin.

NSAI, 1 Swift Square, Northwood, Santry, Dublin 9, Ireland. Telephone: (+353+1) 807 3800, Facsimile: 01-807 3844

Test Report

Agreement concerning the adoption of uniform technical prescriptions for the wheeled vehicles, equipment and parts which can be fitted and/or be used on wheeled vehicles and the conditions for reciprocal recognition of approvals granted on the basis of these prescriptions

UNIFORM PROVISIONS CONCERNING THE APPROVAL OF VEHICLES WITH REGARD TO ELECTROMAGNETIC COMPATIBILITY

ECE-R10

including all amendments up to

Revision 5 - Amendment 1, Supplement 01 to the 05 series of amendments

Structure of report:

0. General information
1. Test object(s)
2. Test minutes
3. Remarks concerning tested object(s)
4. Appendices
5. Statement of conformity

0. General information

0.1.	Make (trade name of the manufacturer)	:	Teltonika
0.2.	Type and general commercial description(s)	:	MTB100
	- commercial description(s)	:	MTB100
	- version(s)	:	N/A
0.3.	Name and address of the manufacturer	:	UAB Teltonika Saltoniskiu g. 9B, LT-08105, Vilnius, Lithuania
0.4.	In the case of components and separate technical units, location and method of affixing of the approval mark	:	Label affixed to the housing
0.5.	Address(es) of assembly plant(s)	:	UAB Teltonika Liepkalnio g. 132A, LT-02121 Vilnius, Lithuania
0.6.	This ESA shall be approved as a	:	Component
0.7.	Any restrictions of use and conditions for fitting	:	No restriction

Type : MTB100
Manufacturer : UAB Teltonika

1. Test object(s)

1.1.	Test object(s)	: ~~motor vehicle~~ / component / ~~separate technical unit~~
1.2.	Type	: MTB100
1.3.	Version	: Not applicable
1.4.	Worst case	: All the main parts and accessories were electrical
1.5.	Test date	: May 15, 2019
1.6.	Test site	: EMTEK (Shenzhen) Co., Ltd. Building. 69, Majialong Industry Zone, Nanshan
1.7.	Remark	: The results of the test refer exclusively to the object(s) mentioned under point 1.2 of this report.

2. Test minutes

2.1.	Test facilities	: The test equipment used was in compliance with the requirements of the regulation.
2.2.	Test results	: Tests of immunity and radiated narrowband & broadband electromagnetic emission have been conducted and results refer to Appendix 1. ~~The actual measurement test of the ESA was not required. The test results of the previous test are still valid.~~
2.2.1.	Markings	: The approval mark is marked clearly legible and indelible on the housing
2.2.2.	Conclusions	: Pass

3. Remark concerning tested object(s) : All versions of the ESA(s) type as stated in the information document are covered with the tested ESA(s) version(s).

4. Appendices

0 List of modifications

1 Test minutes

Information folder : R10-MTB100-00

5. Statement of conformity

The type described in this test report and the appendices attached are in compliance with the test specification mentioned above.

The Test Report comprises pages 1 to 19.

The samples used, were representative in terms of the type to be approved.

The Test Report shall be reproduced and published in full only and by the client only. It shall be reproduced partially with the written permission of the Test Laboratory only.

TEST LABORATORY

TÜV NORD Mobilität GmbH & Co. KG
IFM - Institut für Fahrzeugtechnik und Mobilität,
Schönscheidtstr. 28,
D-45307 Essen

Approval authority	Country	Registration-number	Actual scope list
Kraftfahrt-Bundesamt (KBA)	Germany	KBA-P 00004-96	http://www.kba.de
Approval Authority of the Netherlands (RDW)	The Netherlands	RDWT-T04	http://ec.europa.eu/enterprise/sectors/automotive/approval-authorities-technical-services/technical-services/index_en.htm
National Standards Authority of Ireland (NSAI)	Ireland	Technical Service Number: 115	

Guangzhou, May 28, 2019

B.S.M.E. Paul He

Type : MTB100
Manufacturer : UAB Teltonika

List of modifications **Appendix 0**

More details for application of : **Date : May 28, 2019**

Correction of : ---

Modification of : ---

Addition of : ---

Deletion of : ---

Test minutes **Appendix 1**

Test object

Trade name	:	Teltonika
Version(s)	:	---
Identification No.	:	N/A
Electrical system rated voltage	:	DC 6V~30V,
This ESA can be used on any vehicle type with the following restrictions	:	No restriction
Installation condition	:	Connected to battery

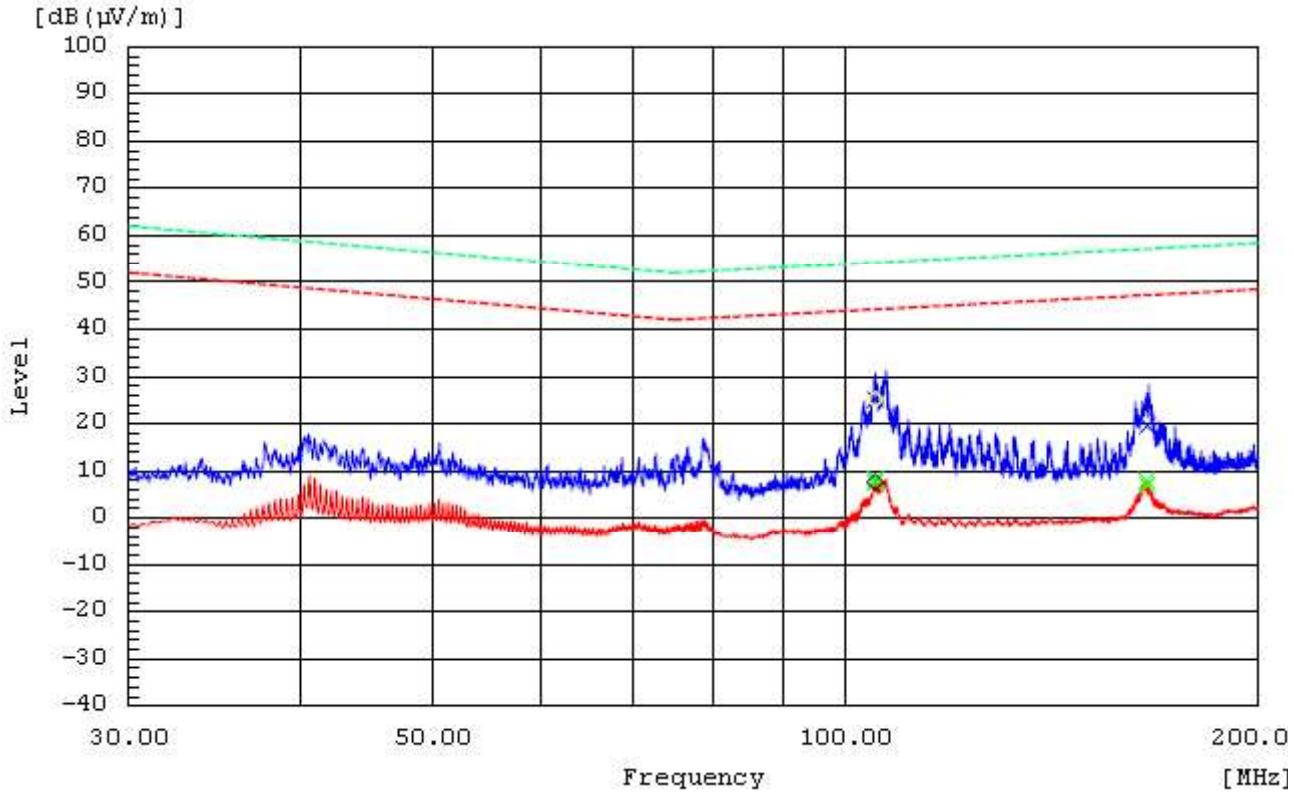
1. Radiated broadband & narrowband electromagnetic emissions

1.1. Test condition

Test method	:	According to ECE R10.05 Annex 7 and Annex 8.
Test voltage	:	13.5V & 27V
Operation mode	:	simulation operation with CAN Communication
Frequency range	:	30Mhz – 1000Mhz
Detector type	:	Quasi-peak and Average
Bandwidth	:	120khz
Antenna height	:	1000mm
Distance between antenna and the ESA wiring harness	:	1000mm
The length of the ESA harness parallel to the front edge of the ground plane	:	1500mm
The height of the ground plane above floor	:	900mm
The height of ESA harness above the ground plane	:	50mm

1.2 Peak and average value scan graph (Vertical) – 12V System

30Mhz - 200Mhz



Final Result

--- Vertical Polarization (QP) ---

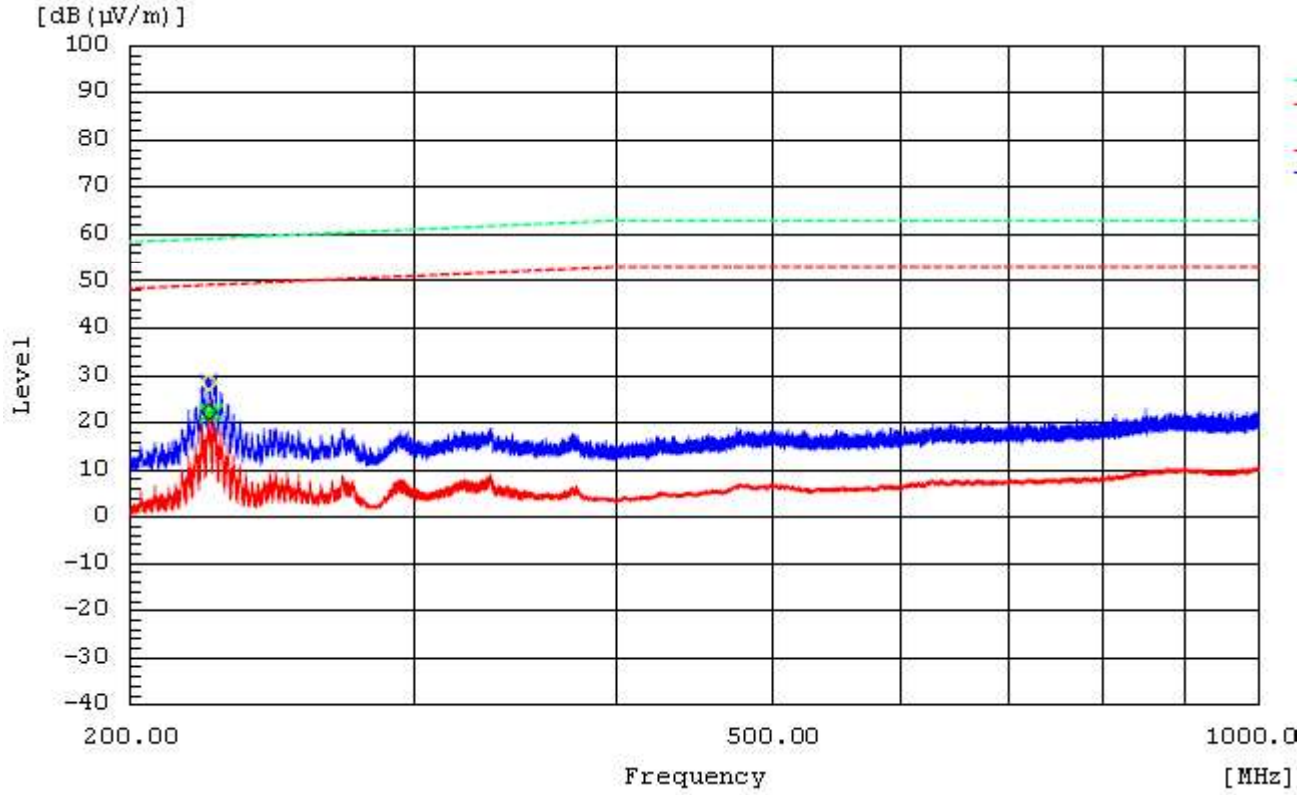
No.	Frequency [MHz]	Reading [dB(µV)]	c.f [dB(1/m)]	Result [dB(µV/m)]	Limit [dB(µV/m)]	Margin [dB]
1	105.141	51.7	-26.6	25.1	54.2	29.1
2	166.124	43.0	-23.4	19.6	57.2	37.6

--- Vertical Polarization (AV) ---

No.	Frequency [MHz]	Reading [dB(µV)]	c.f [dB(1/m)]	Result [dB(µV/m)]	Limit [dB(µV/m)]	Margin [dB]
1	105.141	34.2	-26.6	7.6	44.2	36.6
2	166.124	30.5	-23.4	7.1	47.2	40.1

Type : MTB100
Manufacturer : UAB Teltonika

200Mhz – 1000Mhz



Final Result

--- Vertical Polarization (QP) ---

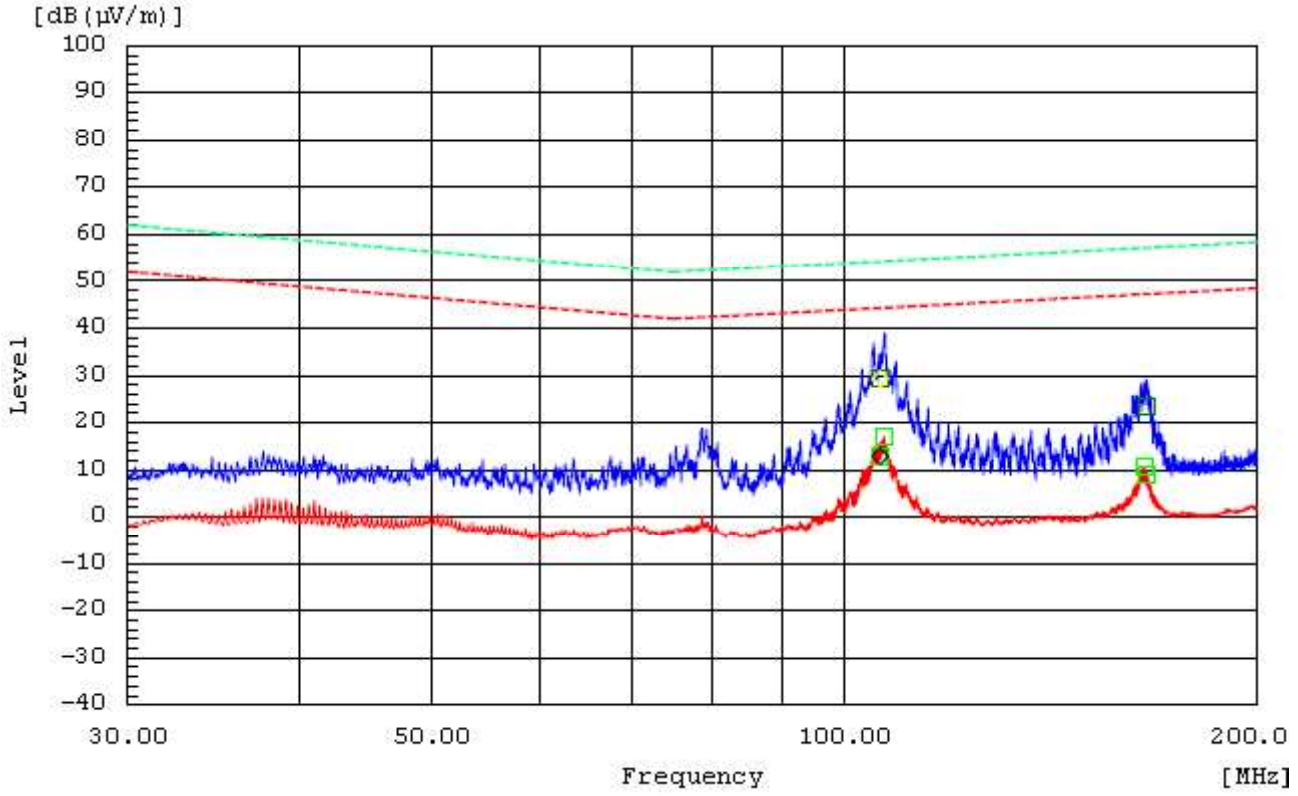
No.	Frequency [MHz]	Reading [dB(µV)]	c.f [dB(1/m)]	Result [dB(µV/m)]	Limit [dB(µV/m)]	Margin [dB]
1	223.594	50.5	-22.0	28.5	59.2	30.7
2	223.539	50.1	-22.0	28.1	59.2	31.1

--- Vertical Polarization (AV) ---

No.	Frequency [MHz]	Reading [dB(µV)]	c.f [dB(1/m)]	Result [dB(µV/m)]	Limit [dB(µV/m)]	Margin [dB]
1	223.594	44.3	-22.0	22.3	49.2	26.9
2	223.539	44.2	-22.0	22.2	49.2	27.0

1.3 Peak and Average value scan graph (Horizontal) – 12V System

30Mhz – 200Mhz



Final Result

--- Horizontal Polarization (QP) ---

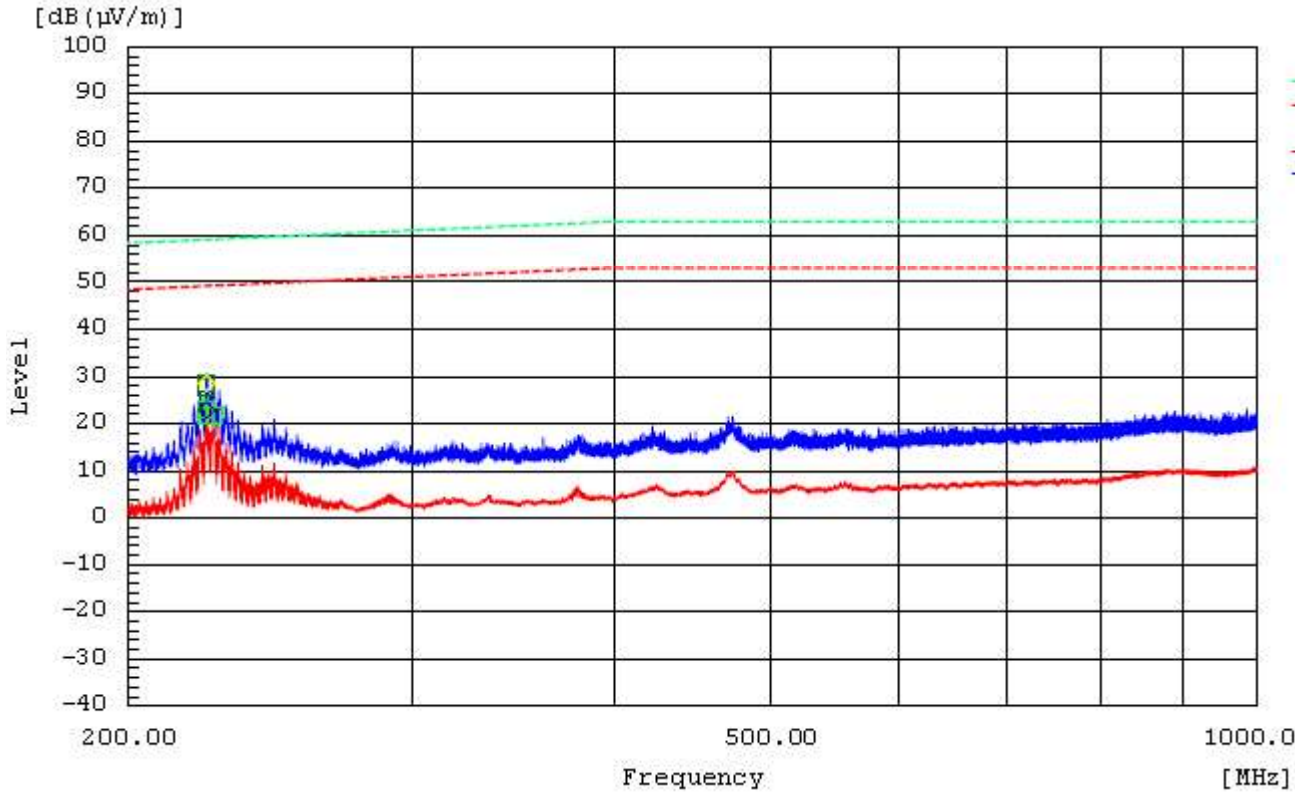
No.	Frequency [MHz]	Reading [dB(µV)]	c.f [dB(1/m)]	Result [dB(µV/m)]	Limit [dB(µV/m)]	Margin [dB]
1	106.221	55.9	-26.6	29.3	54.3	25.0
2	166.285	47.0	-23.4	23.6	57.2	33.6

--- Horizontal Polarization (AV) ---

No.	Frequency [MHz]	Reading [dB(µV)]	c.f [dB(1/m)]	Result [dB(µV/m)]	Limit [dB(µV/m)]	Margin [dB]
1	106.221	39.5	-26.6	12.9	44.3	31.4
2	166.285	32.3	-23.4	8.9	47.2	38.3

Type : MTB100
Manufacturer : UAB Teltonika

200Mhz -1000Mhz



Final Result

--- Horizontal Polarization (QP) ---

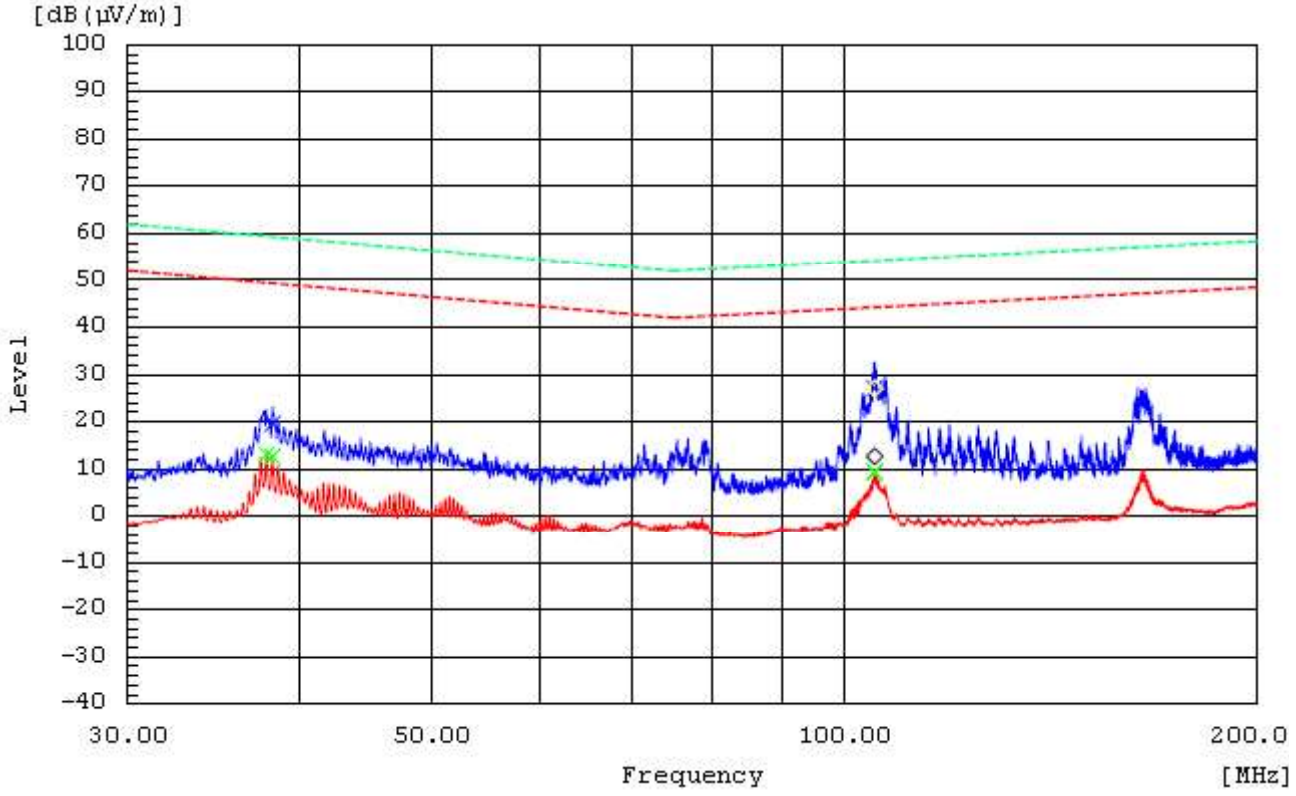
No.	Frequency [MHz]	Reading [dB(µV)]	c.f [dB(1/m)]	Result [dB(µV/m)]	Limit [dB(µV/m)]	Margin [dB]
1	223.532	50.6	-22.0	28.6	59.2	30.6
2	223.587	49.7	-22.0	27.7	59.2	31.5

--- Horizontal Polarization (AV) ---

No.	Frequency [MHz]	Reading [dB(µV)]	c.f [dB(1/m)]	Result [dB(µV/m)]	Limit [dB(µV/m)]	Margin [dB]
1	223.532	44.9	-22.0	22.9	49.2	26.3
2	223.587	43.9	-22.0	21.9	49.2	27.3

1.4 Peak and Average value scan graph (Vertical) – 24V System

30Mhz – 200Mhz



Final Result

--- Vertical Polarization (QP) ---

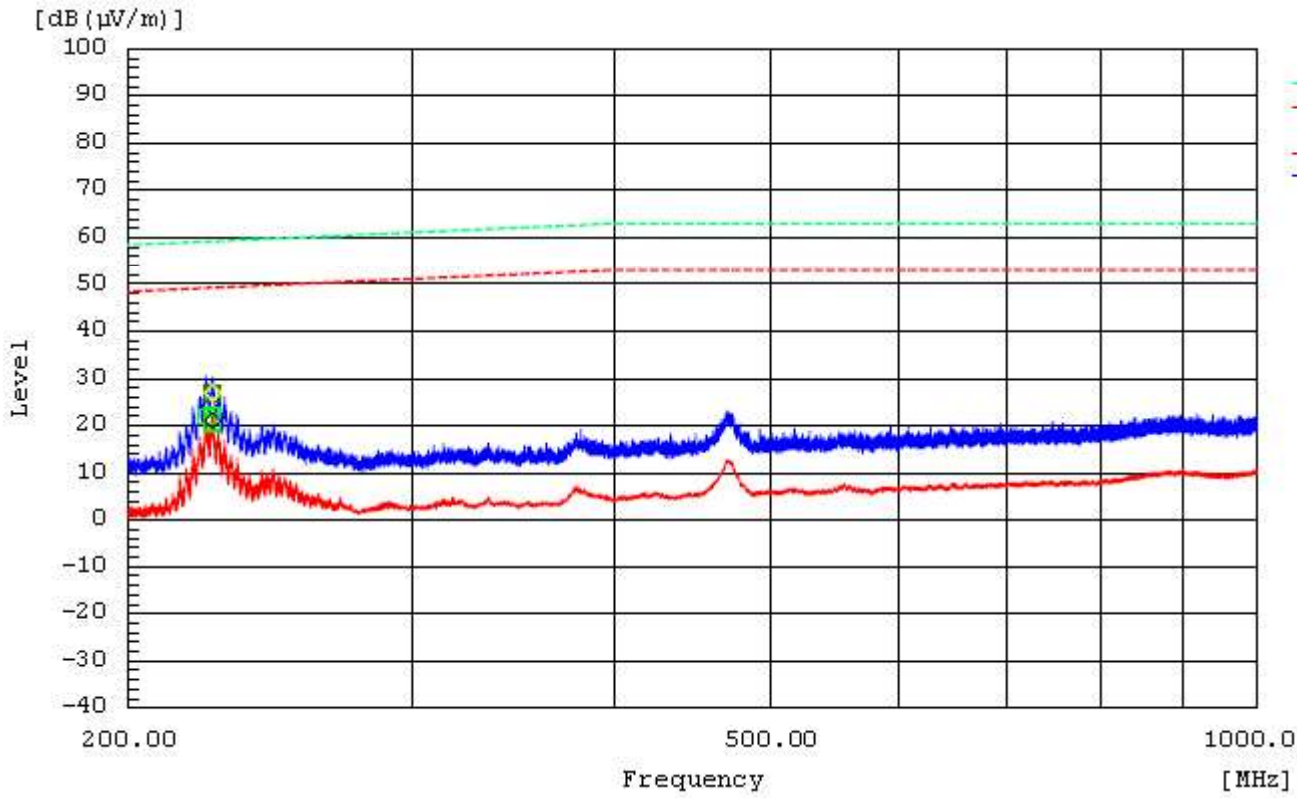
No.	Frequency [MHz]	Reading [dB(µV)]	c.f [dB(1/m)]	Result [dB(µV/m)]	Limit [dB(µV/m)]	Margin [dB]
1	105.231	53.7	-26.6	27.1	54.2	27.1
2	38.259	44.5	-24.9	19.6	59.3	39.7

--- Vertical Polarization (AV) ---

No.	Frequency [MHz]	Reading [dB(µV)]	c.f [dB(1/m)]	Result [dB(µV/m)]	Limit [dB(µV/m)]	Margin [dB]
1	105.231	36.1	-26.6	9.5	44.2	34.7
2	38.259	37.6	-24.9	12.7	49.3	36.6

Type : MTB100
Manufacturer : UAB Teltonika

200Mhz -1000Mhz



Final Result

--- Horizontal Polarization (QP) ---

No.	Frequency [MHz]	Reading [dB(µV)]	c.f [dB(1/m)]	Result [dB(µV/m)]	Limit [dB(µV/m)]	Margin [dB]
1	225.533	48.6	-21.9	26.7	59.2	32.5
2	225.457	48.8	-21.9	26.9	59.2	32.3

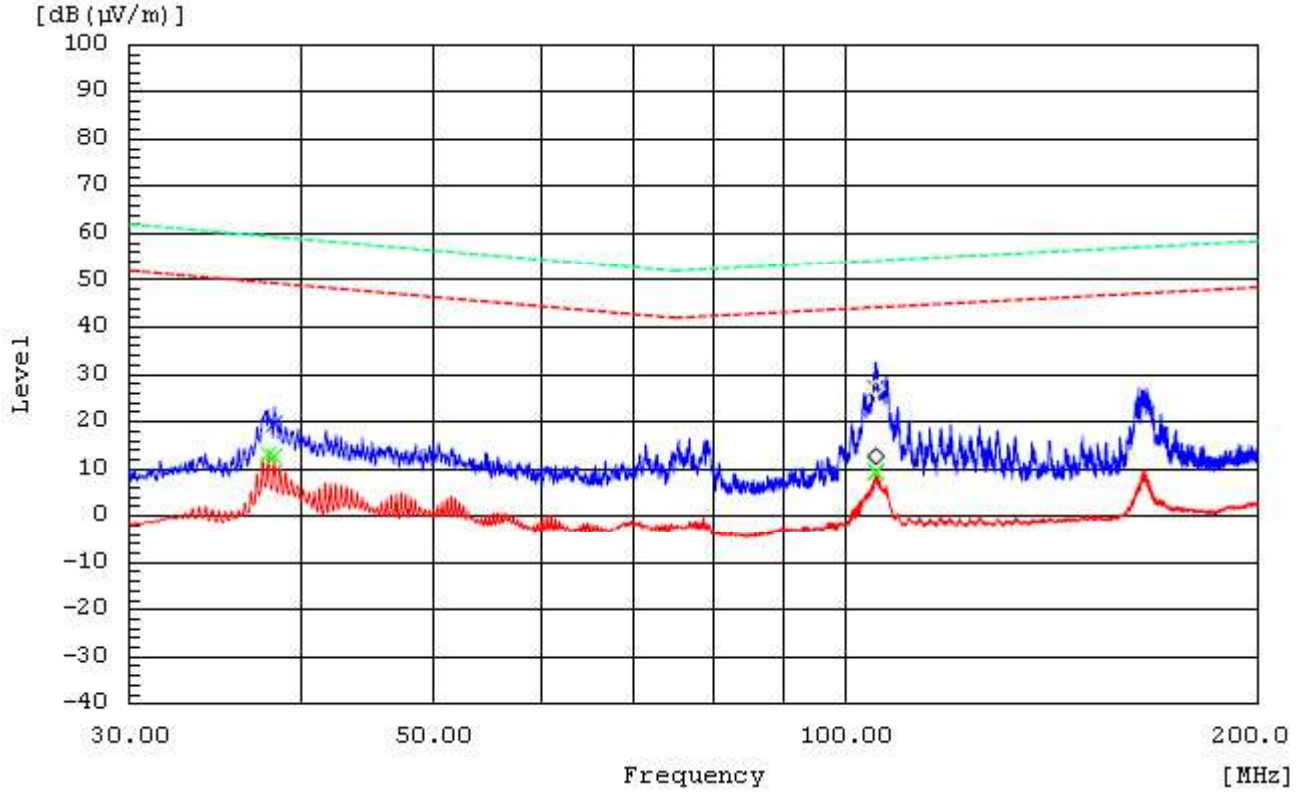
--- Horizontal Polarization (AV) ---

No.	Frequency [MHz]	Reading [dB(µV)]	c.f [dB(1/m)]	Result [dB(µV/m)]	Limit [dB(µV/m)]	Margin [dB]
1	225.533	42.2	-21.9	20.3	49.2	28.9
2	225.457	42.9	-21.9	21.0	49.2	28.2

Type : MTB100
Manufacturer : UAB Teltonika

1.5 Peak and average value scan graph (Horizontal) – 24V System

30Mhz - 200Mhz



Final Result

--- Horizontal Polarization (QP) ---

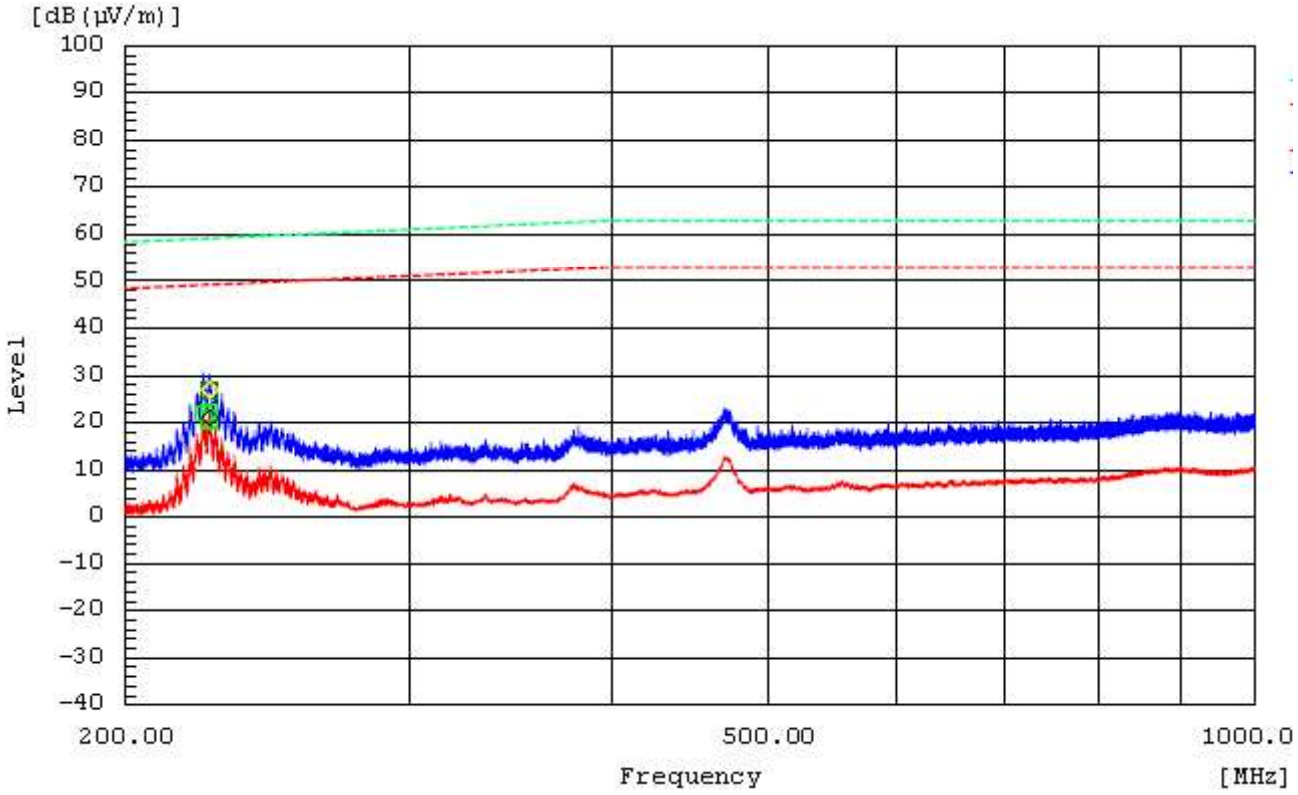
No.	Frequency [MHz]	Reading [dB(µV)]	c.f [dB(1/m)]	Result [dB(µV/m)]	Limit [dB(µV/m)]	Margin [dB]
1	105.197	63.0	-26.6	36.4	54.2	17.8
2	164.953	48.4	-23.5	24.9	57.2	32.3

--- Horizontal Polarization (AV) ---

No.	Frequency [MHz]	Reading [dB(µV)]	c.f [dB(1/m)]	Result [dB(µV/m)]	Limit [dB(µV/m)]	Margin [dB]
1	105.197	43.3	-26.6	16.7	44.2	27.5
2	164.953	35.6	-23.5	12.1	47.2	35.1

Type : MTB100
Manufacturer : UAB Teltonika

200Mhz – 1000Mhz



Final Result

--- Horizontal Polarization (QP) ---

No.	Frequency [MHz]	Reading [dB(µV)]	c.f [dB(1/m)]	Result [dB(µV/m)]	Limit [dB(µV/m)]	Margin [dB]
1	225.533	48.6	-21.9	26.7	59.2	32.5
2	225.457	48.8	-21.9	26.9	59.2	32.3

--- Horizontal Polarization (AV) ---

No.	Frequency [MHz]	Reading [dB(µV)]	c.f [dB(1/m)]	Result [dB(µV/m)]	Limit [dB(µV/m)]	Margin [dB]
1	225.533	42.2	-21.9	20.3	49.2	28.9
2	225.457	42.9	-21.9	21.0	49.2	28.2

1.6 Test result:

Broadband Emissions:

Frequency range	Detector type	Antenna polarity	Result
30Mhz – 1000Mhz	Quasi-peak	Horizontal & Vertical	Pass

Narrowband Emissions:

Frequency range	Detector type	Antenna polarity	Result
30Mhz – 1000Mhz	Average	Horizontal & Vertical	Pass

2. Conducted Transient emissions

Test method : ISO 7637-2 2nd edition: 2004
(According to ECE R10.05 Annex 10, paragraph 3.)

The ambient temperature : 23°C

Test voltage : 13.5V & 27V

Operation mode : simulation operation with CAN Communication

Test condition : All wiring connections between artificial network, switch, and the ESA were spaced 50mm above the metal ground plane.

The ESA was placed on a non-conductive material 50mm above the ground plane.

Polarity of pulse amplitude	Maximum allowed value for vehicles with 12V systems	Maximum measured pulse amplitude true value (V)	Result
Positive	+75V	8.1	Pass
Negative	-100V	-14.2	Pass

Polarity of pulse amplitude	Maximum allowed value for vehicles with 24V systems	Maximum measured pulse amplitude true value (V)	Result
Positive	+150V	22.92	Pass
Negative	-450V	-28.26	Pass

3. Immunity to electromagnetic radiation

3.1 Bulk current injection testing

Test method	:	ISO 11452-4 3rd edition: 2005 Bulk current injection testing method (According to ECE R10.05 Annex 9 paragraph 4.3)
Test condition		
The ambient temperature	:	23 °C
Test Voltage	:	13.5V & 27V
Operation mode	:	simulation operation with CAN Communication
Frequency range	:	20Mhz – 400Mhz
The distance between the injection probe and connector of the ESA	:	150mm
The length of the test harness between the ESA and the load	:	1000mm
The height of ESA above the ground plane	:	50mm
The height of the ground plane above the floor	:	900mm

Frequency range (MHz)	Test level	Type of modulation	Test distance	Antenna position	Result
20 - 400	60mA	AM, 1Khz, 80%	150mm	/	Pass*

Remark: * – no degradation of performance of “immunity-related functions”

3.2 Absorber chamber test

Test method	:	ISO 11452-2 2nd edition: 2004 Free field testing method (According to ECE R10.05 Annex 9 paragraph 4.1)
Test condition		
The ambient temperature	:	23 °C
Test Voltage	:	13.5V & 27V
Operation mode	:	simulation operation with CAN Communication
Frequency range	:	400Mhz – 2000Mhz
The distance between the ESA wiring harness and the antenna	:	1000mm
The length of the ESA harness parallel to the front edge of the ground plane	:	1500mm
The height of the ground plane above the floor	:	900mm
The height of ESA above the ground plane	:	50mm
The distance between the edge of the ground plane and test ESA harness	:	100mm

12V and 24V System

Frequency range (MHz)	Test level	Type of modulation	Test distance	Antenna position	Result
400 - 800	30volts/m	AM, 1Khz, 80%	1 m	Vertical	Pass*
800 - 2000	30volts/m	PM, 577µs	1 m	Vertical	Pass*

Remark: * – no degradation of performance of “immunity-related functions”

4. Immunity to transient disturbances

Test method : ISO 7637-2 2nd edition: 2004
(According to ECE R10.05 Annex 10, paragraph 2.)

Test voltage : 13.5V & 27V

Operation mode : simulation operation with CAN Communication

The ambient temperature : 23 °C

Test condition : The leads between the terminals of the test pulse generator and the ESA were laid out in a straight parallel line at a height of 50mm above the ground plane and have a length of 50 mm.

12V System

Test pulse	Test level	Number of pulse / test time	Burst cycle / pulse repetition time	Required minimum function status**	Status of function true value**	Result
1	-75V	5000 pulses	0.5 s	C	C	Pass
2a	+37V	5000 pulses	0.5 s	B	A	Pass
2b	+10V	10 pulses	2 s	C	C	Pass
3a	-112V	1 h	90 ms	A	A	Pass
3b	+75V	1 h	90 ms	A	A	Pass
4	-6V	1 pulse	2 s	C	A	Pass

24V System

Test pulse	Test level	Number of pulse / test time	Burst cycle / pulse repetition time	Required minimum function status**	Status of function true value**	Result
1	-450V	5000 pulses	0.5 s	C	C	Pass
2a	+37V	5000 pulses	0.5 s	B	A	Pass
2b	+20V	10 pulses	2 s	C	C	Pass
3a	-150V	1 h	90 ms	A	A	Pass
3b	+150 V	1 h	90 ms	A	A	Pass
4	-12V	1 pulse	2 s	C	A	Pass

Remark:

** - Class A: all functions of a device/system perform as designed during and after exposure to disturbance.

Class B: all functions of a device /system perform as designed during exposure. However, one or more

of them can go beyond specified tolerance. All functions return automatically to within normal limits after exposure is removed. Memory functions shall remain class A.

Class C: one or more functions of a device/system do not perform as designed during exposure but return automatically to normal operation after exposure is removed.

Class D: one or more functions of a device/system do not perform as designed during exposure and do not return to normal operation until exposure is removed and the device/system is reset by simple “operator/use” action.

5. Conclusions : Pass

PARTIAL MODEL INFORMATION DOCUMENT NO. R10-MTB100-00

UNIFORM PROVISIONS CONCERNING THE APPROVAL OF VEHICLES WITH REGARD TO ELECTROMAGNETIC COMPATIBILITY

ECE-R10
Including all amendments up to

(Revision 5 - Amendment 1, Supplement 01 to the 05 series of amendments)

Type: MTB100

This model information document consists of page 1 to 12

E24*10R05/01*2904*00

Information document for type approval of an electric/electronic sub-assembly with respect to electromagnetic compatibility

1	Make (trade name of the manufacturer)	:	Teltonika
2	Type	:	MTB100
	- commercial description(s)	:	MTB100
	- version(s)	:	Not applicable
3	Means of identification of type, if marked on the component:[1]	:	Printed on the label by letters and digits
3.1	Location of that marking	:	Printed on the label by letters and digits
4	Name and address of the manufacturer	:	UAB Teltonika Saltoniskiu g. 9B, LT-08105, Vilnius, Lithuania
	Name and address of authorized representative, if any	:	Not applicable
5	In the case of components and separate technical units, location and method of affixing of the approval mark	:	Label affixed to the housing
6	Address(es) of assembly plant(s)	:	UAB Teltonika Liepkalnio g. 132A, LT-02121 Vilnius, Lithuania
7	This ESA shall be approved as a	:	Component ~~/STU~~
8	Any restrictions of use and conditions for fitting	:	No restrictions
9	Electrical system rated voltage	:	6V~ 30V, ~~positive/~~negative[2] ground
10	Statement for model difference (if applicable)	:	Not applicable
Appendix 1: Description of the ESA chosen to represent the type (electronic block diagram and list of main component constituting the ESA (e.g. make and type of microprocessor, crystal, etc.).		:	See below ***List of attachments***

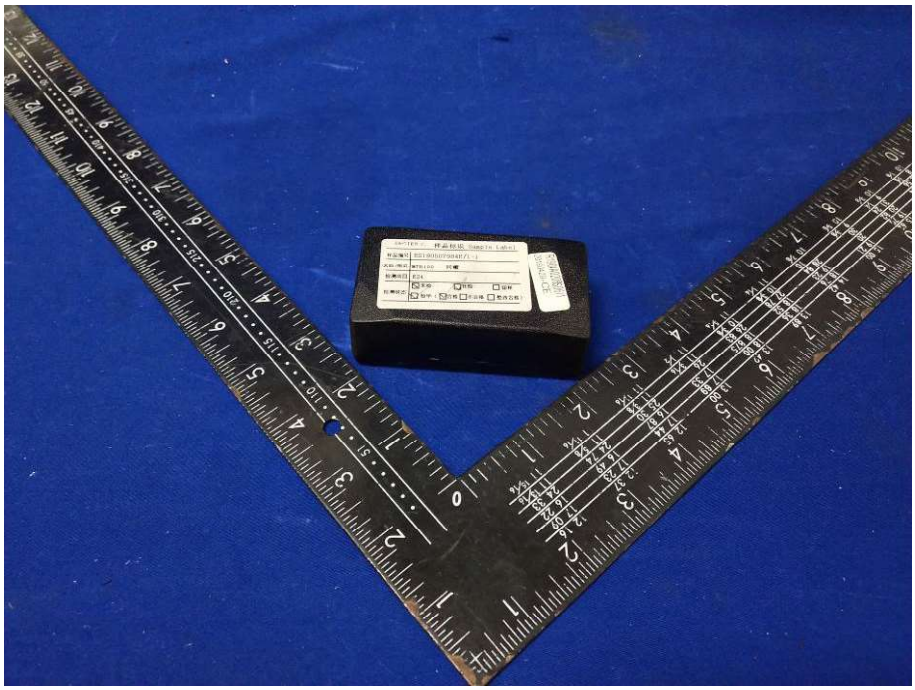
Only applicable for charging systems

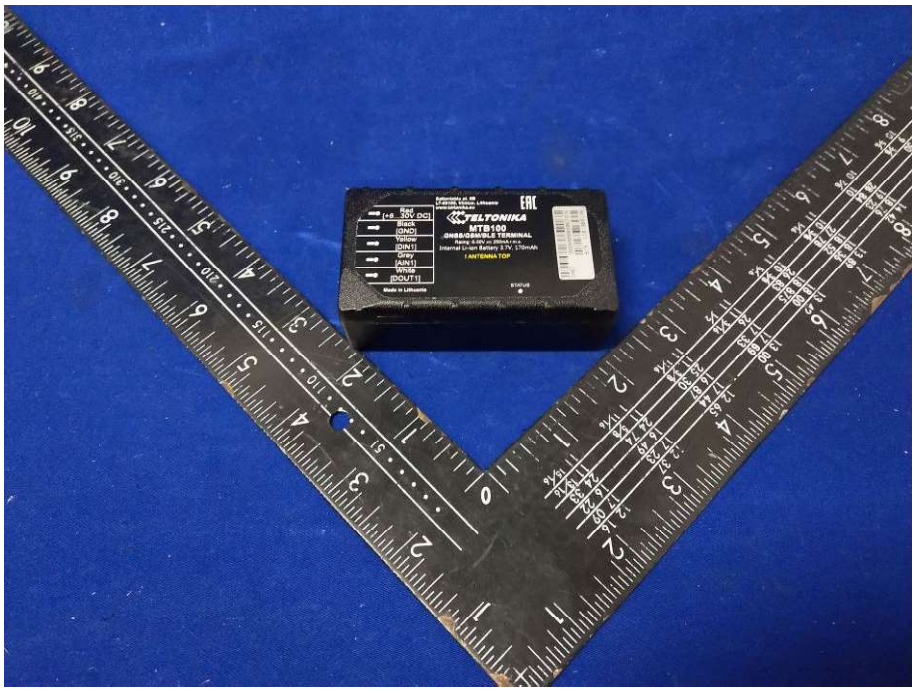
11.	Charger: on board/external[2]	:	N/A
12.	Charging current: direct current/alternating current (number of phases/frequency)	:	N/A
13.	Maximal nominal current (in each mode if necessary)	:	N/A
14.	Nominal charging voltage	:	N/A
15.	Basic ESA interface functions: ex. L1/L2/L3/N/PE/control pilot	:	N/A
16.	Minimum Rsce value (see paragraph 7.11. of this Regulation)	:	N/A

[1)] If the means of identification of type contains characters not relevant to describe the component or separate technical unit types covered by this information document, such characters shall be represented in the documentation by the symbol "?" (e.g. ABC??123??).

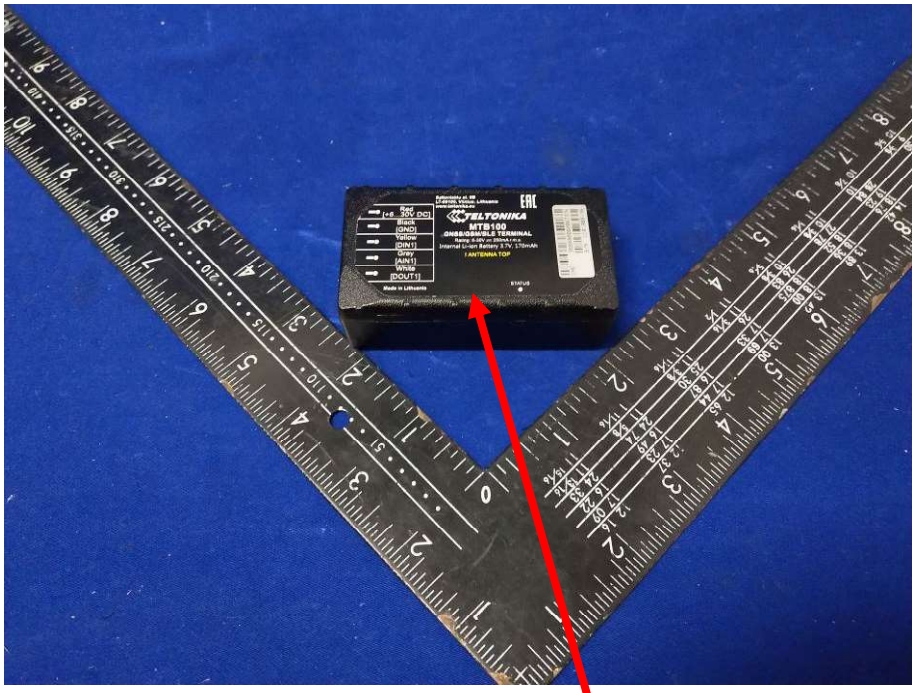
[2)] Delete where not applicable.

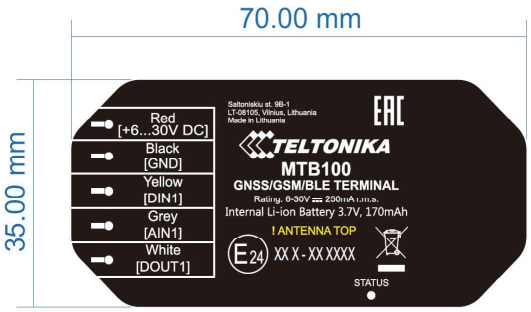
List of attachments:



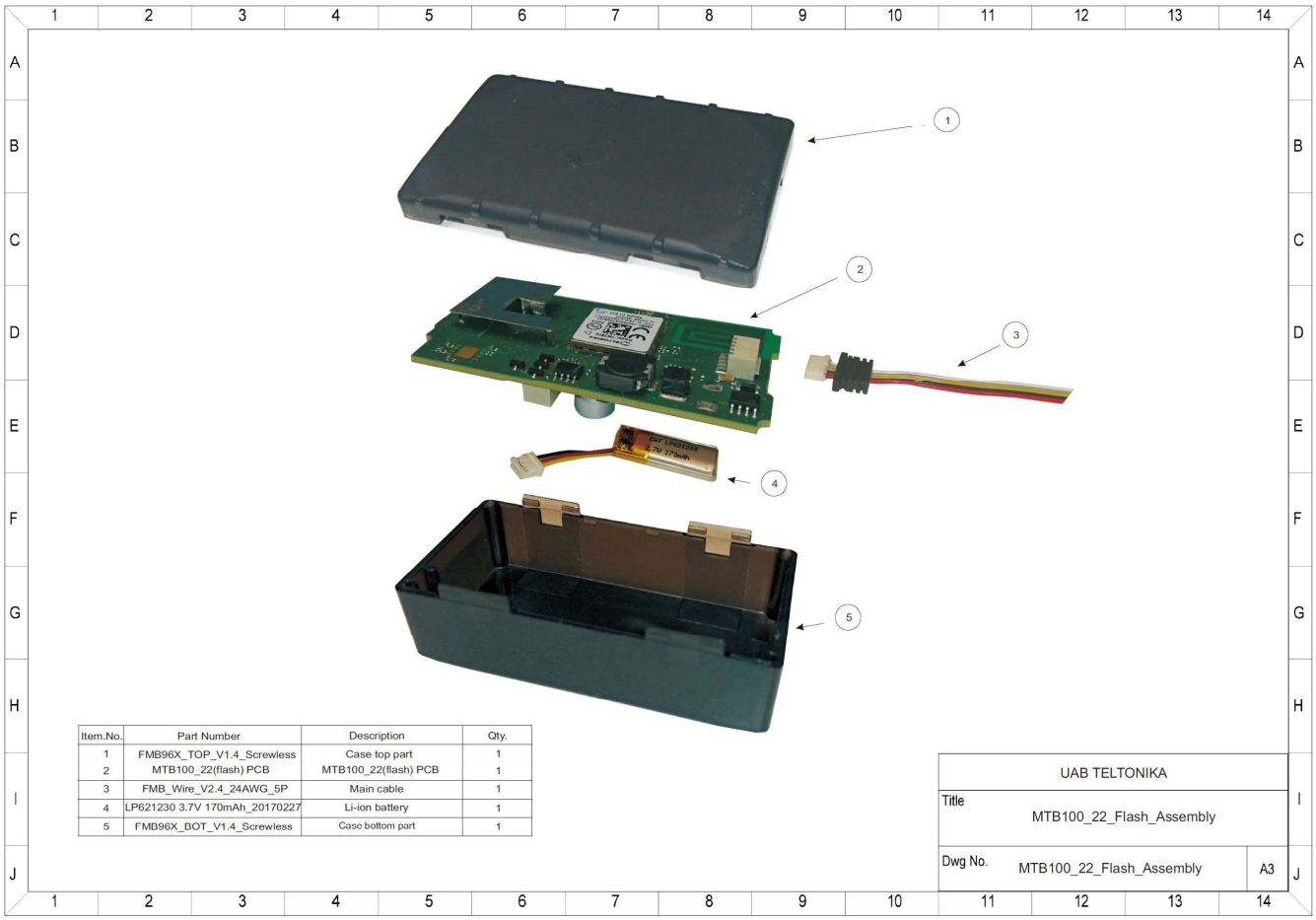


DRW.	**Annex A**	**Assembly**





DRW.	Annex B	Label



Item.No.	Part Number	Description	Qty.
1	FMB96X_TOP_V1.4_Screwless	Case top part	1
2	MTB100_22(flash) PCB	MTB100_22(flash) PCB	1
3	FMB_Wire_V2.4_24AWG_5P	Main cable	1
4	LP621230 3.7V 170mAh_20170227	Li-ion battery	1
5	FMB96X_BOT_V1.4_Screwless	Case bottom part	1

UAB TELTONIKA	
Title	MTB100_22_Flash_Assembly
Dwg No. MTB100_22_Flash_Assembly	A3

DRW.	Annex C	Constructed Profile