

THE NETHERLANDS  
(N E D E R L A N D)




COMMUNICATION

Concerning <sup>(1)</sup>:

- approval granted
- approval extended
- approval refused
- approval withdrawn
- production definitely discontinued

of a type of electrical/electronic sub-assembly <sup>(1)</sup> with regard to Regulation number 10.

Approval number: E4\*10R06/01\*4544\*00

1. Make (trade name of manufacturer) : 
2. Type and general commercial description(s) : **1001-6200**  
Front position lamp / Driving beam
3. Means of identification of type, if marked on the vehicle/component/  
separate technical unit <sup>(1)</sup> : **1001-6200**
- 3.1. Location of that marking : on the vacuum plating of the lamp  
(refer to the drawing)
4. Category of vehicle : Not applicable
5. Name and address of manufacturer :
6. In the case of components and separate technical units, location and method of affixing of the approval mark : Carve characters on the vacuum plating of the lamp (refer to the drawing)

**Approval number: E4\*10R06/01\*4544\*00**

7. Address(es) of assembly plant(s) :
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  
Schönscheidtstrasse 28, D-45307 Essen
10. Date of test report : March 08, 2021
11. Number of test report : TW010-A0-200079
12. Remarks (if any) : Not applicable
13. Place : Zoetermeer
14. Date : 23 March 2021
15. Signature :

  
L. Vellekoop



The logo of the RDW (Rijksdienst voor het Verkeer en de Weg) is circular and features a central emblem with a crown and two lions. Below the emblem, the text 'RDW' is printed. The logo is partially overlaid by the signature.

16. The index to the information package lodged with the approval authority, which may be obtained on request, is attached.
17. Reasons for extension : Not applicable

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<sup>(1)</sup> Strike out what does not apply.

## APPENDIX

to type-approval communication form number: E4\*10R06/01\*4544\*00

concerning the type-approval of an ~~electrical~~/electronic sub-assembly <sup>(1)</sup> under Regulation number 10.

1. Additional information
  - 1.1. Electrical system rated voltage : DC 12 V / 24 V, pos/neg ground <sup>(1)</sup>
  - 1.2. This ESA can be used on any vehicle type with the following restrictions : Vehicles with 12 V DC and 24 V DC supply
    - 1.2.1. Installation conditions, if any : Not applicable
  - 1.3. This ESA can be used only on the following vehicle types : Not applicable
    - 1.3.1. Installation conditions, if any : Not applicable
  - 1.4. The specific test method(s) used and the frequency ranges covered to determine immunity were : 20-400 Mhz : Bulk Current Injection (BCI) Test 60 mA  
400-2000 MHz : Free field method 30 V/m  
  
Modulation :  
AM (amplitude modulation), with 1 kHz modulation and 80 per cent modulation depth in the 20 to 800 MHz frequency range;  
PM (pulse modulation), t on 577 µs, period 4,600 µs in the 800 to 2,000 MHz frequency range.
  - 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  
IFM-Institut für Fahrzeugtechnik und Mobilität  
Schönscheidtstrasse 28, D-45307 Essen
2. Remarks : ---

<sup>(1)</sup> Strike out what does not apply.



**Test Report**  
**No. : TW010-A0-200079**  
**ECE Regulation No.10**



Type : 1001-6200  
Manufacturer :

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## 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-Regulation 10

including all amendments until

Series of Amendments:06

Supplement 01

Date of entry into force : September 25, 2020

Approval status	
ECE	Number of approval
	E4*10R06/01*4544*00



**Test Report**  
**No. : TW010-A0-200079**  
**ECE Regulation No.10**

Type : 1001-6200

Manufacturer :

0. General information

0.1 Trade mark or trade name of manufacturer :



0.2 Type : 1001-6200

0.3 Name and address of manufacturer :

0.4 Name and address of authorized representative, if any : Not applicable

0.5 No. of information document : 1001-6200

Date of issue : March 08, 2021

Date of last amendment : -----

0.6 Remarks: ---

**Test Report**  
**No. : TW010-A0-200079**  
**ECE Regulation No.10**



Type : 1001-6200  
Manufacturer :

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1. Test object(s) and general test information

1.1 Test object(s)

Identification No. : 1001-6200  
Front position lamp / Driving beam

Worst case : Not applicable

Model(s) tested : 1001-6200

Remarks: ---

1.2 General test information

1.2.1 Order issued by  
(if different from manufacturer) : Not applicable

1.2.2 Test object received on : ---

1.2.3 Test date : January 10 ~ 12, 2021

1.2.4 Test site :

1.2.5 Remarks: The test results refer exclusively to the sample(s) mentioned under clause 1.1 of this report.

**Test Report**  
**No. : TW010-A0-200079**  
**ECE Regulation No.10**



Type : 1001-6200  
Manufacturer :

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2. Test protocol

2.1 Test facilities : The measurement equipment used was in compliance with the test requirements.

2.2 Test results (1)-  
The tests in configurations other than REESS charging mode coupled to the power grid. : The tests of radiated broadband / narrowband electromagnetic emission, immunity to and emission of transients, and immunity to electromagnetic radiation have been conducted.

Test results (2)-  
Additional tests in the configuration "REESS charging mode coupled to the power grid". : Not applicable

2.2.1 Markings : The approval mark is marked clearly legible and indelible on the vacuum plating of the lamp. (refer to the drawing)

2.2.2 Test data : See appendix

2.3 Variants and components : Not applicable

3 Remark concerning test object(s)

All versions of the ESA type as stated in the information documents are covered with the tested version(s) and test sample(s) respectively.

**Test Report**  
**No. : TW010-A0-200079**  
**ECE Regulation No.10**

Type : 1001-6200  
Manufacturer :

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4. Appendices 1001-6200
- 4.1 List of modification : --
- 4.2 Test protocol : As attached
- 4.3 Information folder : 1001-6200
5. Statement of conformity

The information folder and the type described there comply with the requirements of ~~directive~~ ECE Regulation No.10.

The samples / test vehicles used were representative in terms of the type to be approved.

The technical report shall not be reproduced except in full without the written approval of the testing laboratory.

Designated Technical Service: RDWT-T04

Taipei, March 08, 2021  
IFM/#



Cronus Huang  
Engineer



**Test Report**  
**No. : TW010-A0-200079**  
**ECE Regulation No.10**



Type : 1001-6200  
Manufacturer :

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A1 List of modifications

Correction of	:	---
Modification of	:	---
Addition of	:	---
Deletion of	:	---

**Test Report**  
**No. : TW010-A0-200079**  
**ECE Regulation No.10**

Type : 1001-6200  
Manufacturer :

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A2 Test protocol

Test object(s) : Front position lamp / Driving beam

Trade name : 

Tested Version : 1001-6200

Technical data of the tested ESA type

Electrical system rated voltage : DC 12 V and DC 24 V, negative ground

This ESA can be used on any vehicle type with the following restrictions : Vehicles with 12 V DC and 24 V DC supply

Installation conditions, if any : Not applicable

**Test Report**  
**No. : TW010-A0-200079**  
**ECE Regulation No.10**



Type : 1001-6200  
 Manufacturer :

**Test results of Emission Test:**

Remarks: The electromagnetic radiation of ESA has been tested under DC 12 V input mode and DC 24 V input mode. Only the worst case results are depicted in the report.

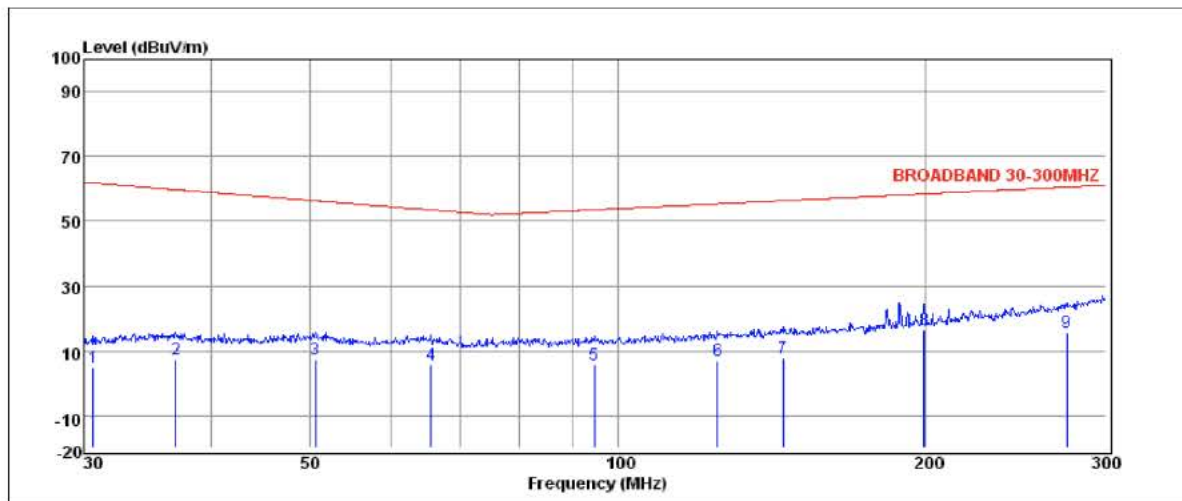
Radiated broadband electromagnetic emissions : Antenna positions - horizontal and vertical.  
 Voltage –DC 12 V and DC 24 V

**Test results of radiated broadband electromagnetic emissions**

Test mode – 1001-6200; DC 12 V direct connected

**DC: 12V Broadband - 30 to 300MHz – Horizontal**

<b>Model No.</b> :	<b>1001-6200</b>	<b>Temp/Humi</b> :	<b>20°C / 39%</b>
<b>Test Mode</b> :	<b>Driving beam+position lamp</b>	<b>Tested by</b> :	<b>Hong Tsai</b>
<b>Test Date</b> :	<b>2021-01-12</b>	<b>Test Voltage</b> :	<b>13.5Vdc</b>



Freq MHz	Reading dBuV	C.F dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Detector
30.63	22.60	-17.80	4.80	61.77	-56.97	QP
36.91	25.30	-17.77	7.53	59.74	-52.21	QP
50.60	25.48	-18.16	7.32	56.30	-48.98	QP
65.48	25.02	-19.21	5.81	53.48	-47.67	QP
94.65	24.43	-18.88	5.55	53.53	-47.98	QP
125.06	24.15	-17.11	7.04	55.36	-48.32	QP
144.92	24.05	-16.24	7.81	56.33	-48.52	QP
199.12	29.81	-13.29	16.52	58.42	-41.90	QP
274.87	23.86	-7.94	15.92	60.53	-44.61	QP

C.F = Antenna factor + Cable loss - Preamp gain

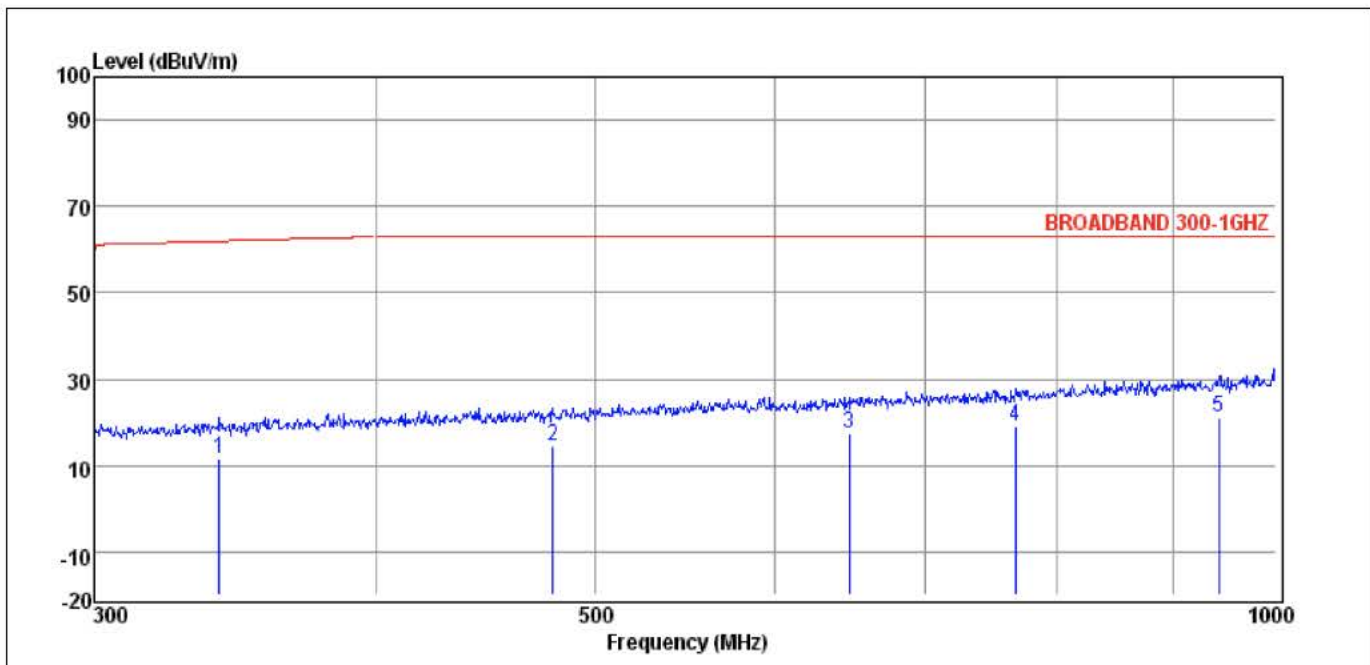
**Test Report**  
**No. : TW010-A0-200079**  
**ECE Regulation No.10**



Type : 1001-6200  
 Manufacturer :

**DC: 12V Broadband - 300MHz to 1GHz – Horizontal**

<b>Model No.</b> :	1001-6200	<b>Temp/Humi</b> :	20°C / 39%
<b>Test Mode</b> :	Driving beam+position lamp	<b>Tested by</b> :	Hong Tsai
<b>Test Date</b> :	2021-01-12	<b>Test Voltage</b> :	13.5Vdc



Freq MHz	Reading dBuV	C.F dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Detector Peak/QP/AV
340.84	23.16	-11.59	11.57	61.95	-50.38	QP
478.63	23.17	-8.73	14.44	63.00	-48.56	QP
647.50	23.03	-5.52	17.51	63.00	-45.49	QP
767.30	23.06	-4.08	18.98	63.00	-44.02	QP
943.85	22.67	-1.60	21.07	63.00	-41.93	QP

C.F = Antenna factor + Cable loss - Preamp gain



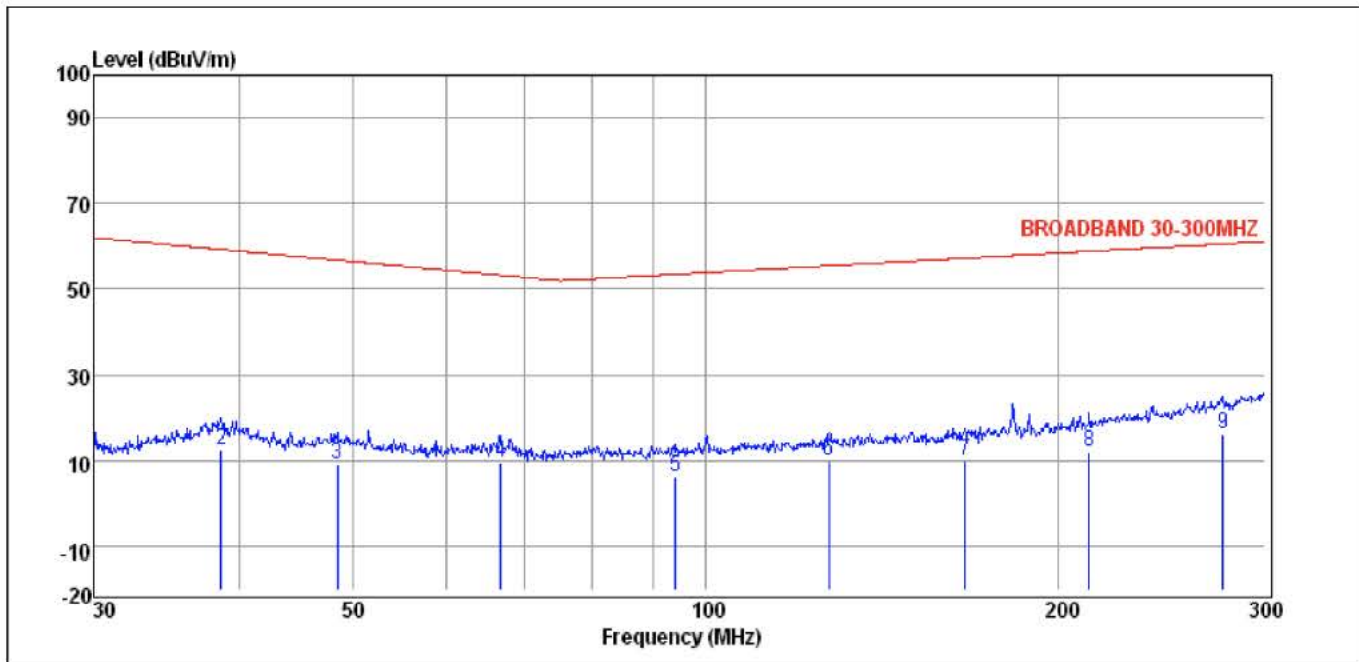
**Test Report**  
**No. : TW010-A0-200079**  
**ECE Regulation No.10**



Type : 1001-6200  
 Manufacturer :

**DC: 12V Broadband - 30 to 300MHz – Vertical**

<b>Model No.</b> :	1001-6200	<b>Temp/Humi</b> :	20°C / 39%
<b>Test Mode</b> :	Driving beam+position lamp	<b>Tested by</b> :	Hong Tsai
<b>Test Date</b> :	2021-01-12	<b>Test Voltage</b> :	13.5Vdc



Freq MHz	Reading dBuV	C.F dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Detector Peak/QP/AV
30.00	28.69	-17.80	10.89	62.00	-51.11	QP
38.56	30.23	-17.77	12.46	59.26	-46.80	QP
48.43	27.23	-18.05	9.18	56.77	-47.59	QP
66.85	28.76	-19.26	9.50	53.25	-43.75	QP
94.22	25.03	-18.89	6.14	53.50	-47.36	QP
127.39	27.02	-16.96	10.06	55.48	-45.42	QP
166.39	24.85	-15.05	9.80	57.24	-47.44	QP
212.38	24.06	-12.28	11.78	58.84	-47.06	QP
276.14	23.84	-7.86	15.98	60.56	-44.58	QP

C.F = Antenna factor + Cable loss - Preamp gain

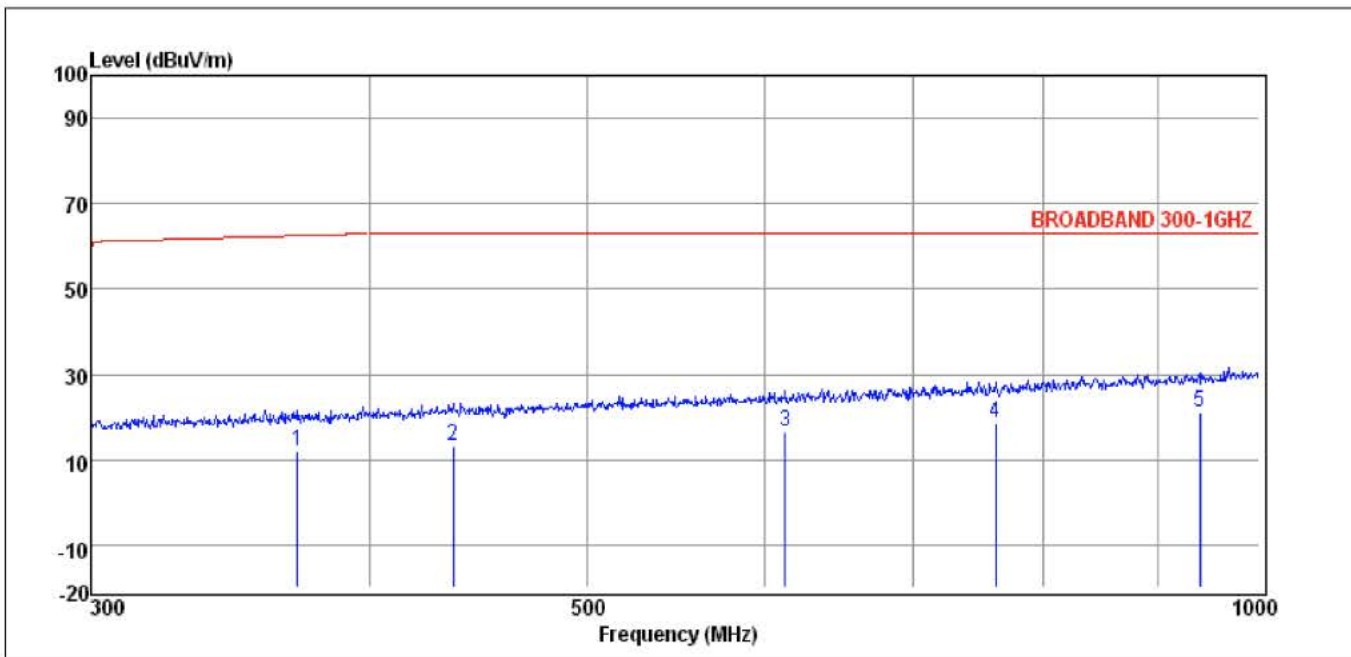
**Test Report**  
**No. : TW010-A0-200079**  
**ECE Regulation No.10**



Type : 1001-6200  
 Manufacturer :

**DC: 12V Broadband - 300MHz to 1GHz – Vertical**

<b>Model No.</b> :	1001-6200	<b>Temp/Humi</b> :	20°C / 39%
<b>Test Mode</b> :	Driving beam+position lamp	<b>Tested by</b> :	Hong Tsai
<b>Test Date</b> :	2021-01-12	<b>Test Voltage</b> :	13.5Vdc



Freq MHz	Reading dBuV	C.F dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Detector Peak/QP/AV
371.25	22.97	-10.79	12.18	62.51	-50.33	QP
435.20	22.76	-9.46	13.30	63.00	-49.70	QP
613.35	22.95	-6.32	16.63	63.00	-46.37	QP
761.78	22.92	-4.17	18.75	63.00	-44.25	QP
940.45	22.75	-1.64	21.11	63.00	-41.89	QP

C.F = Antenna factor + Cable loss - Preamp gain

Decision :  Pass or  Failed

**Test Report**  
**No. : TW010-A0-200079**  
**ECE Regulation No.10**

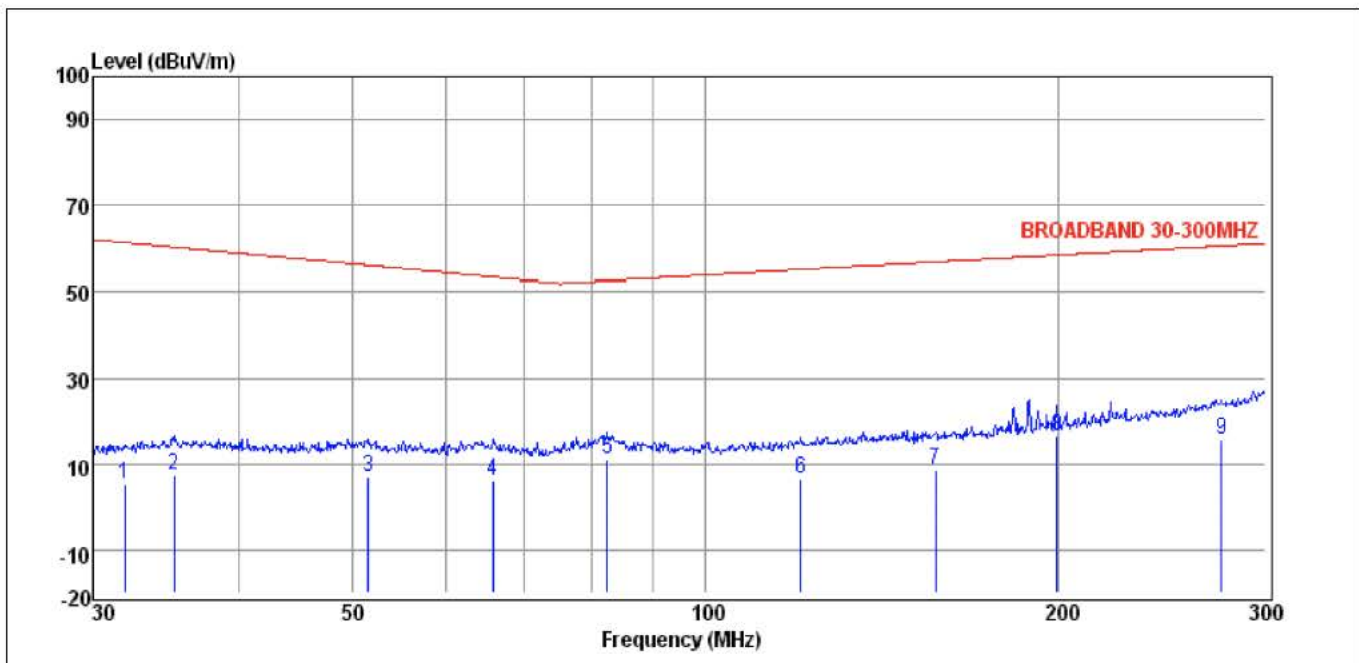


Type : 1001-6200  
 Manufacturer :

Test mode – 1001-6200; DC 24 V direct connected

**DC: 24V Broadband - 30 to 300MHz – Horizontal**

<b>Model No.</b> :	1001-6200	<b>Temp/Humi</b> :	20°C / 39%
<b>Test Mode</b> :	Driving beam+position lamp	<b>Tested by</b> :	Hong Tsai
<b>Test Date</b> :	2021-01-12	<b>Test Voltage</b> :	27Vdc



Freq MHz	Reading dBuV	C.F dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Detector Peak/QP/AV
31.92	23.11	-17.79	5.32	61.32	-56.00	QP
35.17	25.12	-17.77	7.35	60.27	-52.92	QP
51.54	25.34	-18.25	7.09	56.09	-49.00	QP
65.78	25.51	-19.22	6.29	53.43	-47.14	QP
82.44	30.64	-19.44	11.20	52.62	-41.42	QP
120.54	24.02	-17.37	6.65	55.12	-48.47	QP
157.08	24.29	-15.56	8.73	56.86	-48.13	QP
199.12	29.69	-13.29	16.40	58.42	-42.02	QP
275.50	23.74	-7.90	15.84	60.55	-44.71	QP

C.F = Antenna factor + Cable loss - Preamp gain



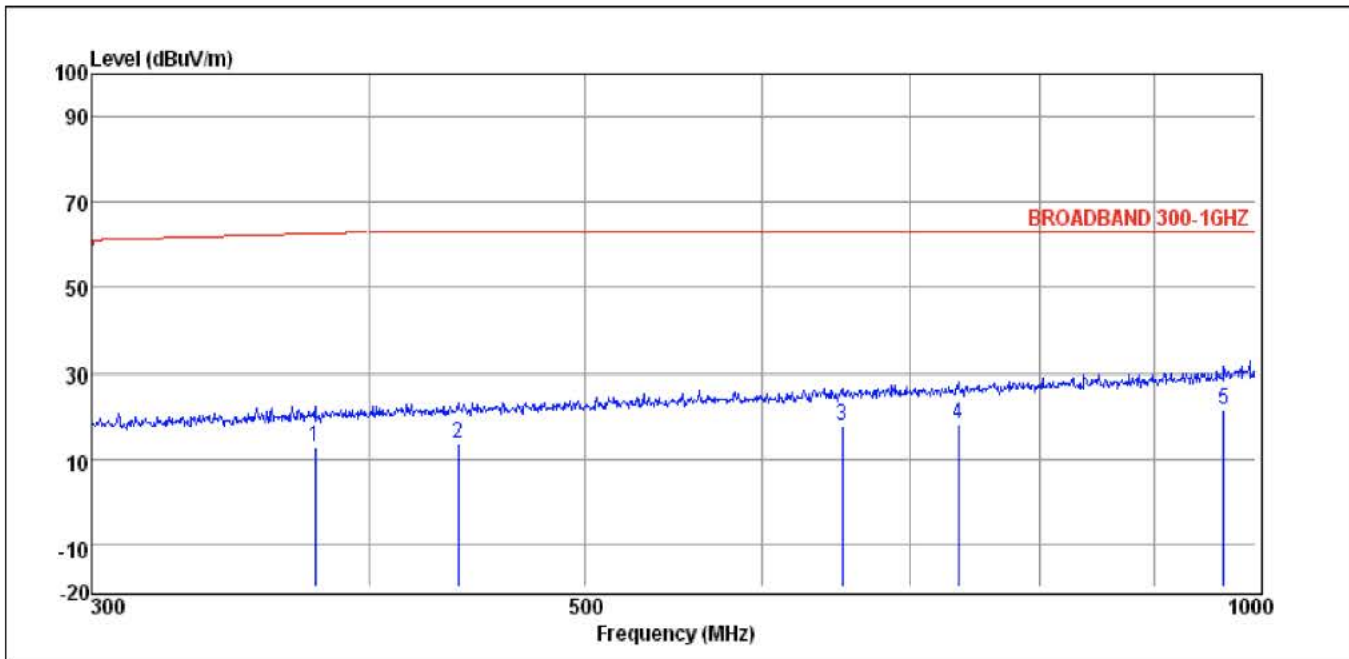
**Test Report**  
**No. : TW010-A0-200079**  
**ECE Regulation No.10**



Type : 1001-6200  
 Manufacturer :

**DC: 24V Broadband - 300MHz to 1GHz – Horizontal**

<b>Model No.</b> :	1001-6200	<b>Temp/Humi</b> :	20°C / 39%
<b>Test Mode</b> :	Driving beam+position lamp	<b>Tested by</b> :	Hong Tsai
<b>Test Date</b> :	2021-01-12	<b>Test Voltage</b> :	27Vdc



Freq MHz	Reading dBuV	C.F dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Detector Peak/QP/AV
378.02	23.34	-10.62	12.72	62.63	-49.91	QP
438.36	23.14	-9.41	13.73	63.00	-49.27	QP
652.20	23.28	-5.42	17.86	63.00	-45.14	QP
735.64	22.91	-4.52	18.39	63.00	-44.61	QP
968.02	22.69	-1.17	21.52	63.00	-41.48	QP

C.F = Antenna factor + Cable loss - Preamp gain



**Test Report**  
**No. : TW010-A0-200079**  
**ECE Regulation No.10**

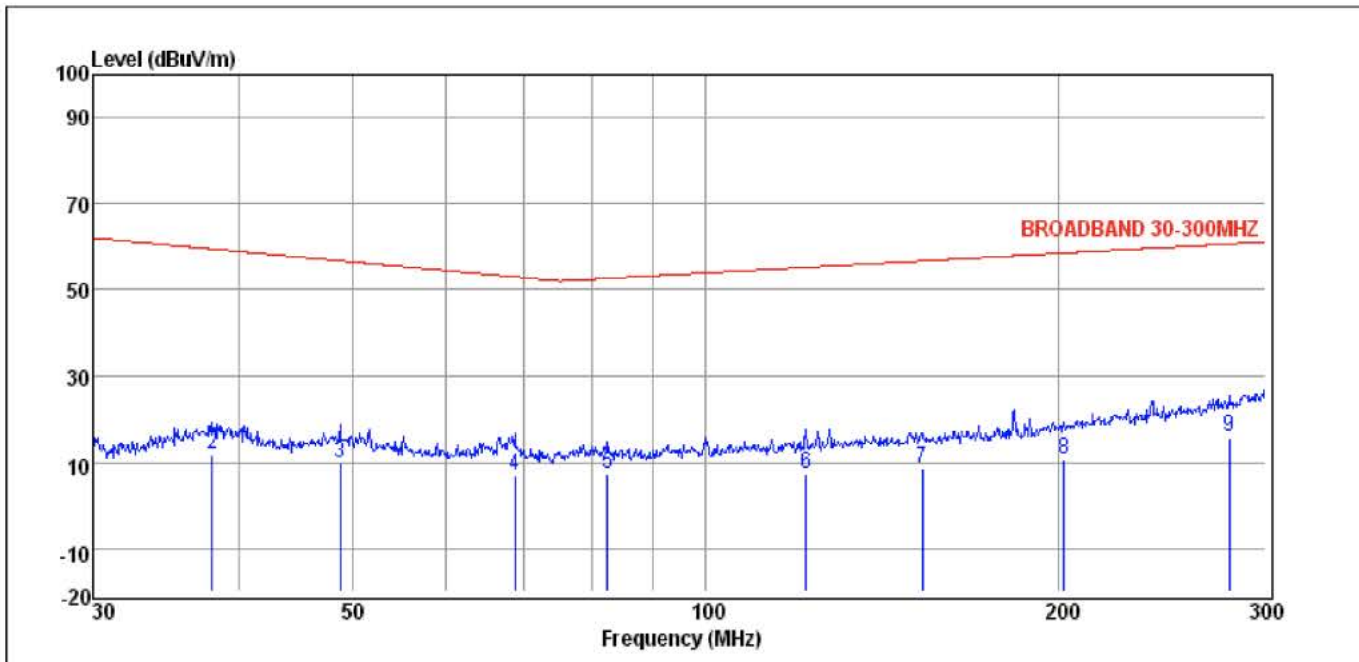


Type : 1001-6200

Manufacturer :

**DC: 24V Broadband - 30 to 300MHz – Vertical**

<b>Model No.</b> :	1001-6200	<b>Temp/Humi</b> :	20°C / 39%
<b>Test Mode</b> :	Driving beam+position lamp	<b>Tested by</b> :	Hong Tsai
<b>Test Date</b> :	2021-01-12	<b>Test Voltage</b> :	27Vdc



Freq MHz	Reading dBuV	C.F dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Detector Peak/QP/AV
30.00	28.56	-17.80	10.76	62.00	-51.24	QP
37.94	29.93	-17.76	12.17	59.44	-47.27	QP
48.77	27.86	-18.06	9.80	56.70	-46.90	QP
68.73	26.48	-19.34	7.14	52.95	-45.81	QP
82.44	26.66	-19.44	7.22	52.62	-45.40	QP
121.65	24.51	-17.31	7.20	55.18	-47.98	QP
152.80	24.39	-15.85	8.54	56.68	-48.14	QP
201.89	23.73	-13.12	10.61	58.51	-47.90	QP
279.33	23.29	-7.67	15.62	60.64	-45.02	QP

C.F = Antenna factor + Cable loss - Preamp gain

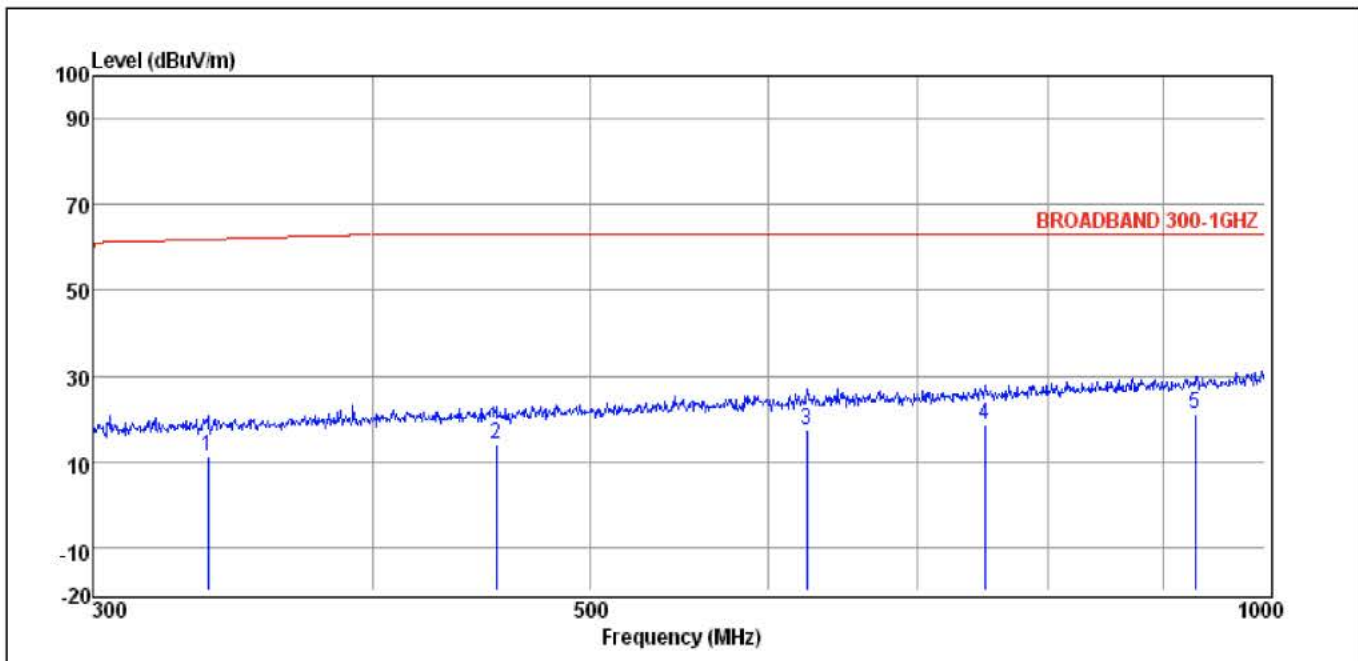
**Test Report**  
**No. : TW010-A0-200079**  
**ECE Regulation No.10**



Type : 1001-6200  
 Manufacturer :

**DC: 24V Broadband - 300MHz to 1GHz – Vertical**

<b>Model No.</b> :	1001-6200	<b>Temp/Humi</b> :	20°C / 39%
<b>Test Mode</b> :	Driving beam+position lamp	<b>Tested by</b> :	Hong Tsai
<b>Test Date</b> :	2021-01-12	<b>Test Voltage</b> :	27Vdc



Freq MHz	Reading dBuV	C.F dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Detector Peak/QP/AV
337.57	22.97	-11.67	11.30	61.88	-50.58	QP
453.93	23.27	-9.15	14.12	63.00	-48.88	QP
624.53	23.26	-6.06	17.20	63.00	-45.80	QP
749.95	22.96	-4.36	18.60	63.00	-44.40	QP
930.31	22.81	-1.78	21.03	63.00	-41.97	QP

C.F = Antenna factor + Cable loss - Preamp gain

Decision :  Pass or  Failed

**Test Report**  
**No. : TW010-A0-200079**  
**ECE Regulation No.10**



Type : 1001-6200  
 Manufacturer :

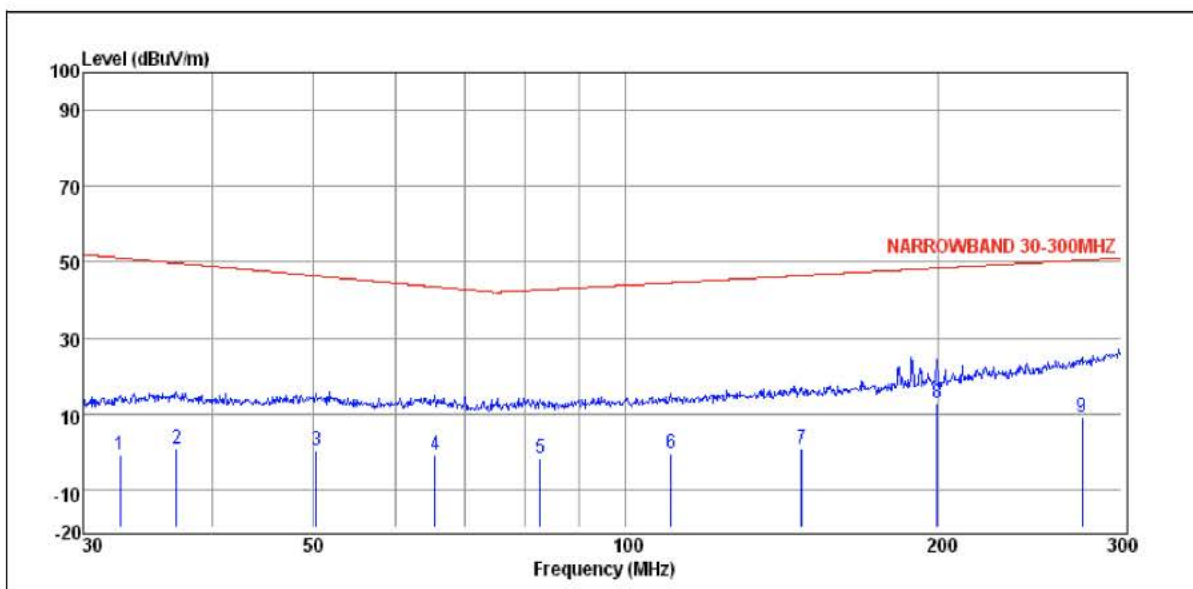
Radiated narrowband electromagnetic emissions : Antenna positions - horizontal and vertical.  
 Voltage –DC 12 V and DC 24 V

**Test results of radiated narrowband electromagnetic emissions**

Test mode – 1001-6200; DC 12 V direct connected

**DC: 12V Narrowband - 30 to 300MHz – Horizontal**

<b>Model No.</b> :	1001-6200	<b>Temp/Humi</b> :	20°C / 39%
<b>Test Mode</b> :	Driving beam+position lamp	<b>Tested by</b> :	Hong Tsai
<b>Test Date</b> :	2021-01-12	<b>Test Voltage</b> :	13.5Vdc



Freq MHz	Reading dBuV	C.F dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Detector
32.59	16.83	-17.79	-0.96	51.10	-52.06	Average
36.91	18.66	-17.77	0.89	49.74	-48.85	Average
50.36	18.67	-18.15	0.52	46.35	-45.83	Average
65.48	18.26	-19.21	-0.95	43.48	-44.43	Average
82.63	17.50	-19.43	-1.93	42.64	-44.57	Average
110.44	17.51	-18.07	-0.56	44.54	-45.10	Average
147.61	17.04	-16.13	0.91	46.45	-45.54	Average
199.12	26.10	-13.29	12.81	48.42	-35.61	Average
274.87	17.14	-7.94	9.20	50.53	-41.33	Average

C.F = Antenna factor + Cable loss - Preamp gain



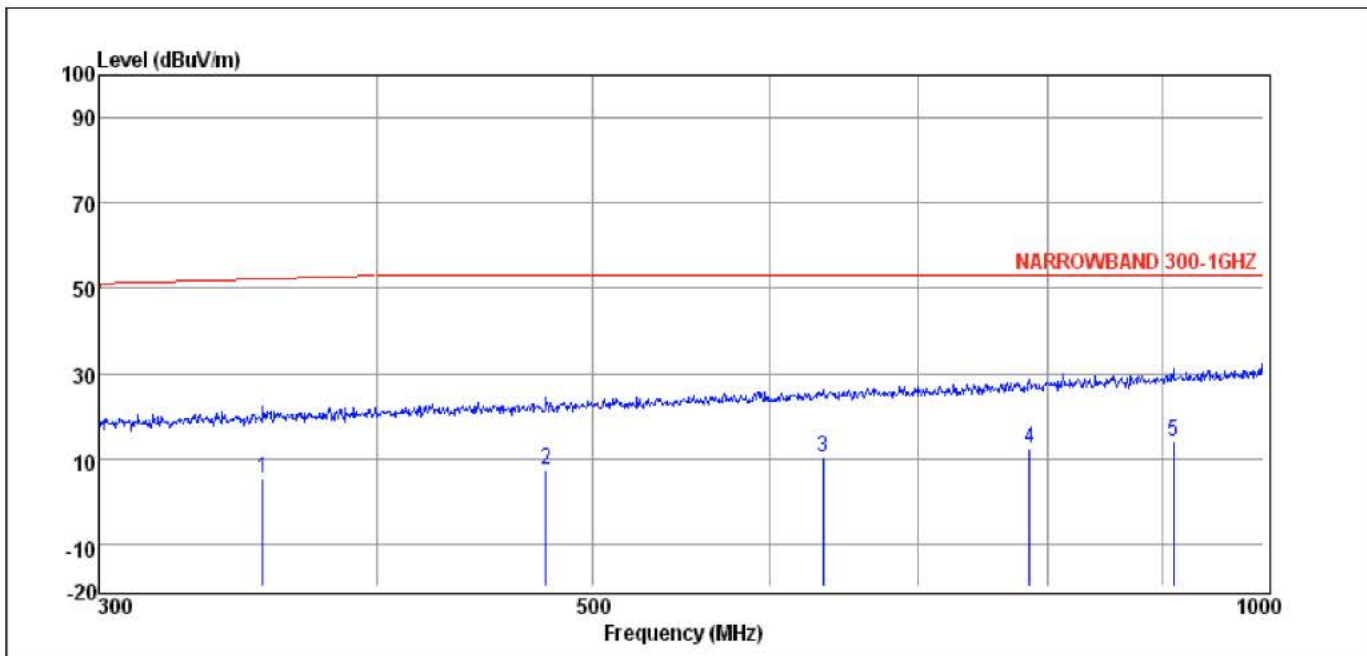
**Test Report**  
**No. : TW010-A0-200079**  
**ECE Regulation No.10**



Type : 1001-6200  
 Manufacturer :

**DC: 12V Narrowband - 300MHz to 1GHz – Horizontal**

<b>Model No.</b> :	1001-6200	<b>Temp/Humi</b> :	20°C / 39%
<b>Test Mode</b> :	Driving beam+position lamp	<b>Tested by</b> :	Hong Tsai
<b>Test Date</b> :	2021-01-12	<b>Test Voltage</b> :	13.5Vdc



Freq MHz	Reading dBuV	C.F dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Detector
355.51	16.47	-11.22	5.25	52.22	-46.97	Average
476.33	16.24	-8.77	7.47	53.00	-45.53	Average
634.38	16.34	-5.82	10.52	53.00	-42.48	Average
785.06	16.37	-3.80	12.57	53.00	-40.43	Average
911.46	16.19	-2.03	14.16	53.00	-38.84	Average

C.F = Antenna factor + Cable loss - Preamp gain



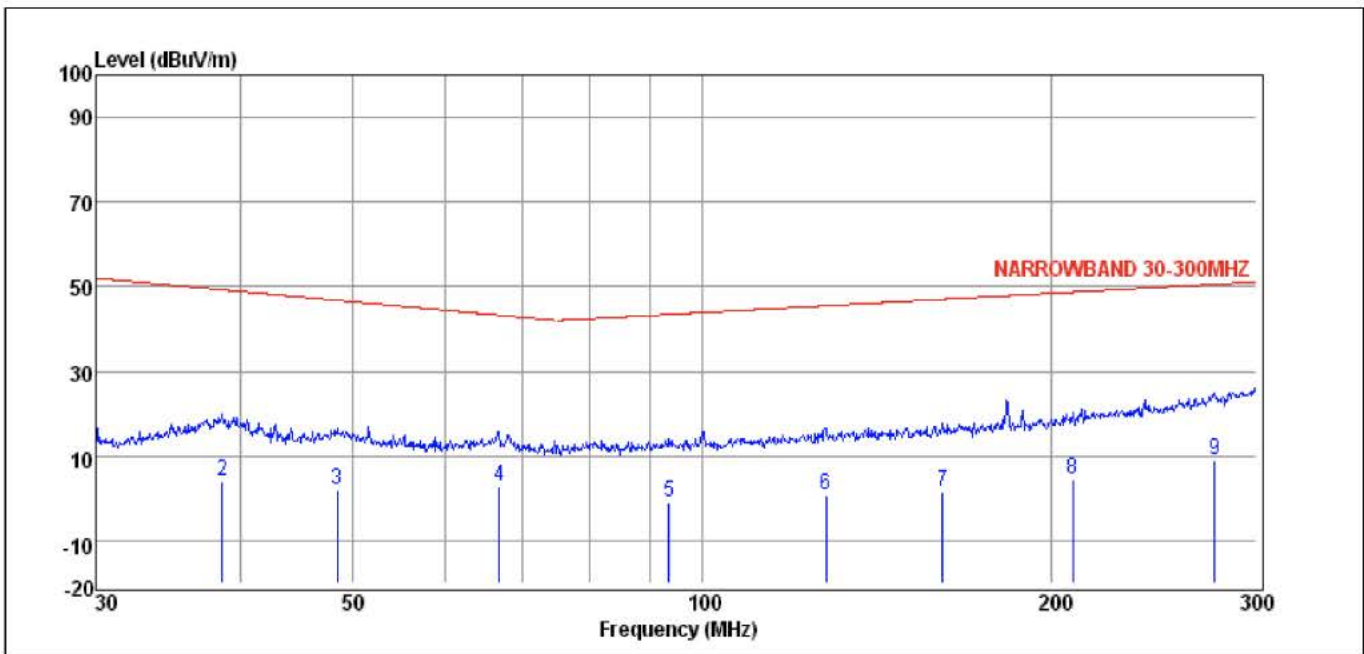
**Test Report**  
**No. : TW010-A0-200079**  
**ECE Regulation No.10**



Type : 1001-6200  
 Manufacturer :

**DC: 12V Narrowband - 30 to 300MHz – Vertical**

<b>Model No.</b> :	1001-6200	<b>Temp/Humi</b> :	20°C / 39%
<b>Test Mode</b> :	Driving beam+position lamp	<b>Tested by</b> :	Hong Tsai
<b>Test Date</b> :	2021-01-12	<b>Test Voltage</b> :	13.5Vdc



Freq MHz	Reading dBuV	C.F dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Detector Peak/QP/AV
30.00	19.16	-17.80	1.36	52.00	-50.64	Average
38.56	21.74	-17.77	3.97	49.26	-45.29	Average
48.43	20.10	-18.05	2.05	46.77	-44.72	Average
66.85	22.03	-19.26	2.77	43.25	-40.48	Average
93.57	18.20	-18.91	-0.71	43.45	-44.16	Average
127.68	17.76	-16.95	0.81	45.50	-44.69	Average
161.11	17.05	-15.31	1.74	47.02	-45.28	Average
208.51	17.01	-12.67	4.34	48.72	-44.38	Average
276.14	17.01	-7.86	9.15	50.56	-41.41	Average

C.F = Antenna factor + Cable loss - Preamp gain

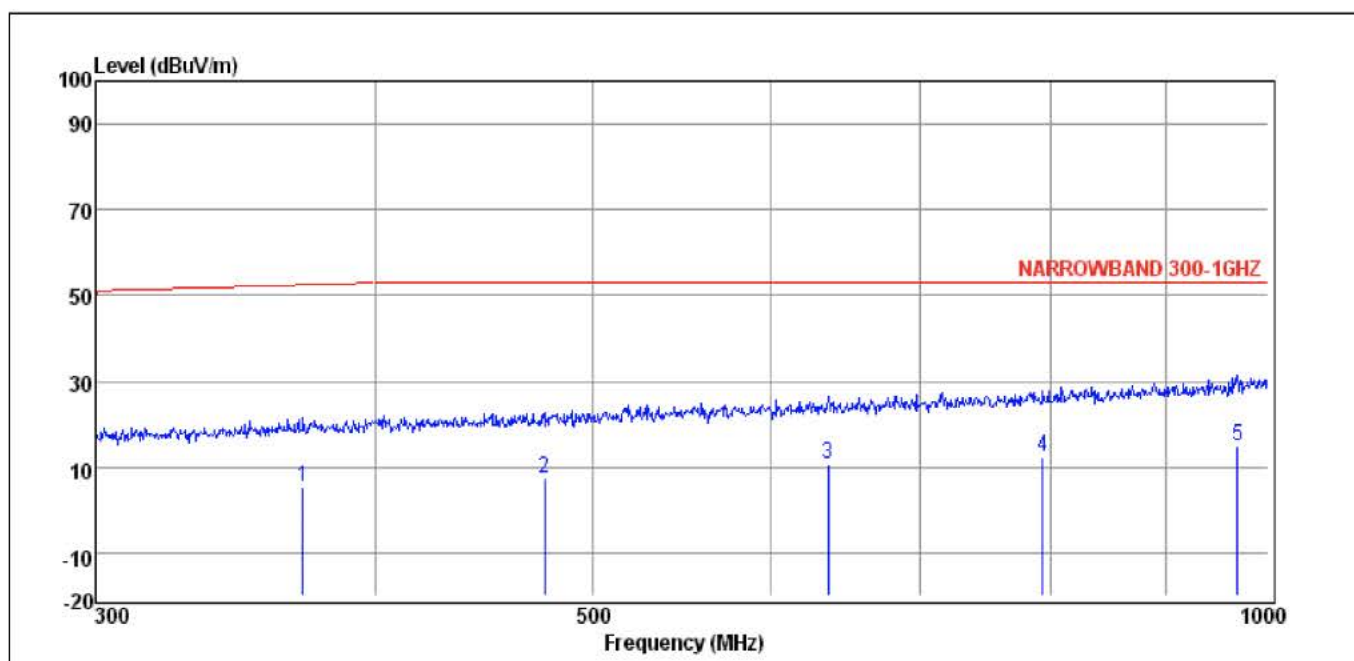
**Test Report**  
**No. : TW010-A0-200079**  
**ECE Regulation No.10**



Type : 1001-6200  
 Manufacturer :

**DC: 12V Narrowband - 300MHz to 1GHz – Vertical**

<b>Model No.</b> :	1001-6200	<b>Temp/Humi</b> :	20°C / 39%
<b>Test Mode</b> :	Driving beam+position lamp	<b>Tested by</b> :	Hong Tsai
<b>Test Date</b> :	2021-01-12	<b>Test Voltage</b> :	13.5Vdc



Freq MHz	Reading dBuV	C.F dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Detector Peak/QP/AV
371.25	16.30	-10.79	5.51	52.51	-47.00	Average
475.76	16.19	-8.78	7.41	53.00	-45.59	Average
636.68	16.53	-5.78	10.75	53.00	-42.25	Average
793.61	16.10	-3.66	12.44	53.00	-40.56	Average
969.18	16.05	-1.14	14.91	53.00	-38.09	Average

C.F = Antenna factor + Cable loss - Preamp gain

Decision :  Pass or  Failed

**Test Report**  
**No. : TW010-A0-200079**  
**ECE Regulation No.10**

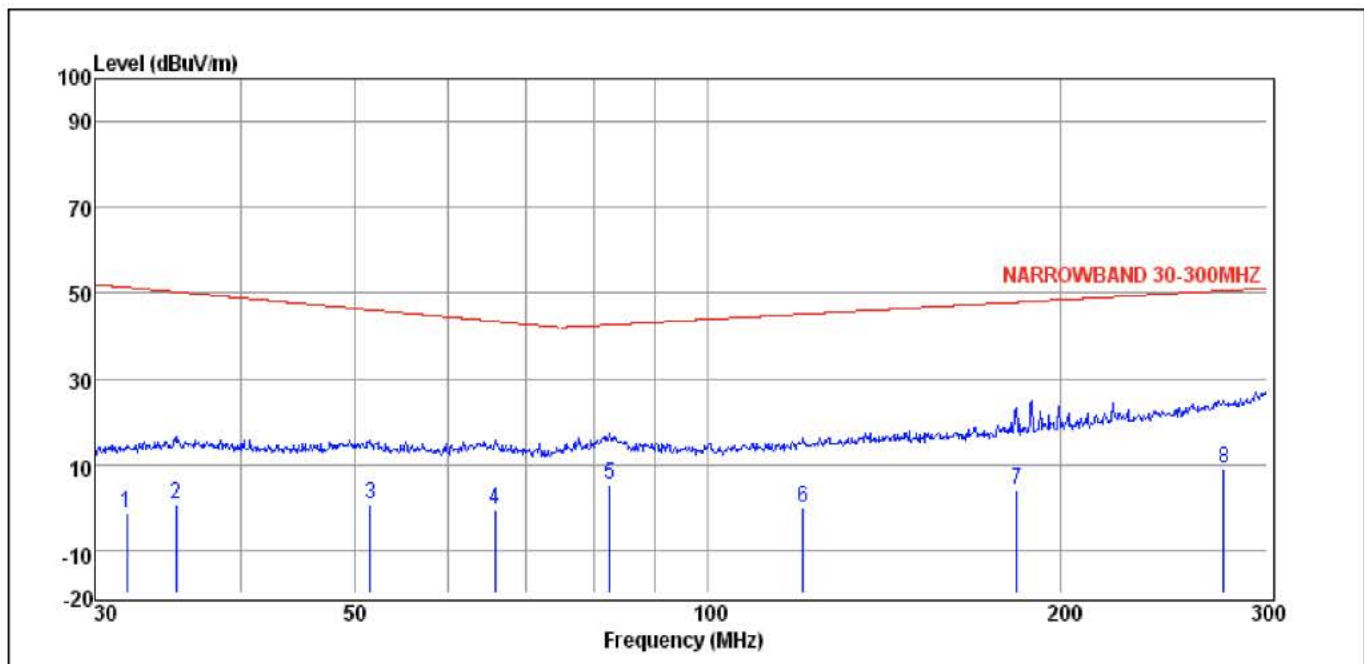


Type : 1001-6200  
 Manufacturer :

Test mode –1001-6200; DC 24 V direct connected

**DC: 24V Narrowband - 30 to 300MHz – Horizontal**

<b>Model No.</b> :	1001-6200	<b>Temp/Humi</b> :	20°C / 39%
<b>Test Mode</b> :	Driving beam+position lamp	<b>Tested by</b> :	Hong Tsai
<b>Test Date</b> :	2021-01-12	<b>Test Voltage</b> :	27Vdc



Freq MHz	Reading dBuV	C.F dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Detector Peak/QP/AV
31.92	16.40	-17.79	-1.39	51.32	-52.71	Average
35.17	18.49	-17.77	0.72	50.27	-49.55	Average
51.54	18.83	-18.25	0.58	46.09	-45.51	Average
65.78	18.77	-19.22	-0.45	43.43	-43.88	Average
82.44	24.81	-19.44	5.37	42.62	-37.25	Average
120.54	17.24	-17.37	-0.13	45.12	-45.25	Average
183.28	18.34	-14.21	4.13	47.87	-43.74	Average
275.50	17.02	-7.90	9.12	50.55	-41.43	Average

C.F = Antenna factor + Cable loss - Preamp gain



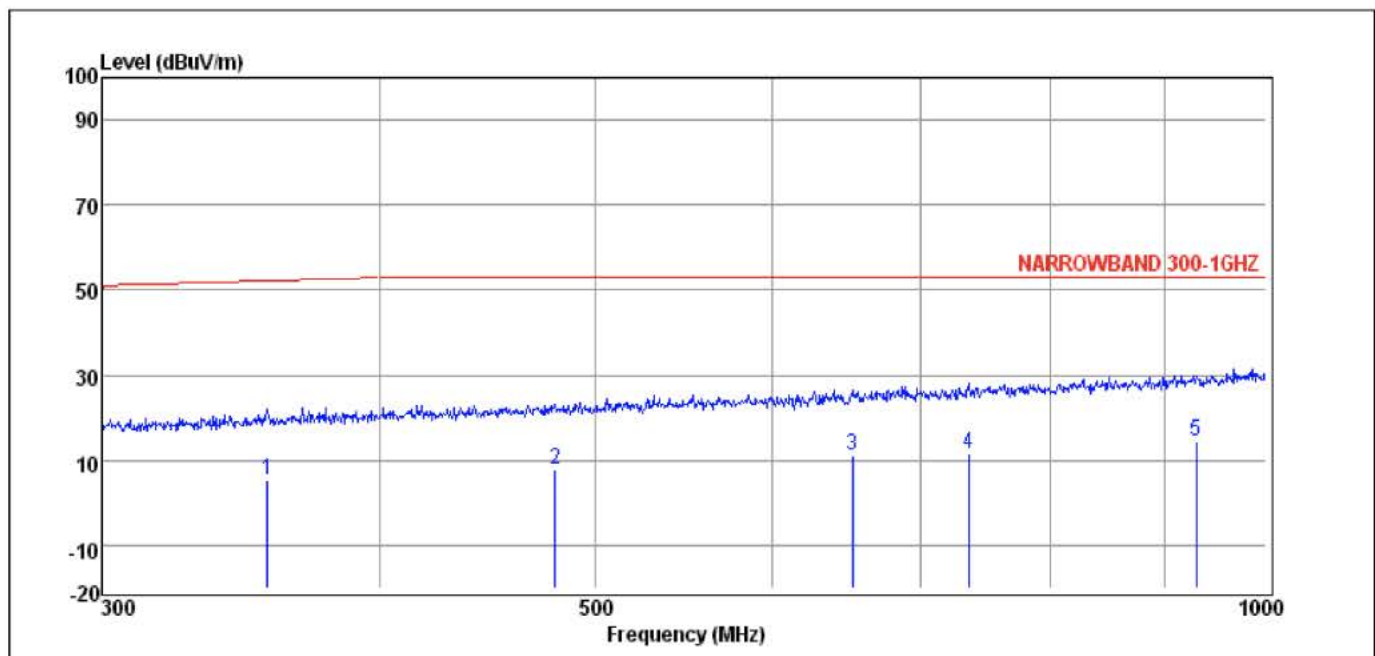
**Test Report**  
**No. : TW010-A0-200079**  
**ECE Regulation No.10**



Type : 1001-6200  
 Manufacturer :

**DC: 24V Narrowband - 300MHz to 1GHz – Horizontal**

<b>Model No.</b> :	1001-6200	<b>Temp/Humi</b> :	20°C / 39%
<b>Test Mode</b> :	Driving beam+position lamp	<b>Tested by</b> :	Hong Tsai
<b>Test Date</b> :	2021-01-12	<b>Test Voltage</b> :	27Vdc



Freq MHz	Reading dBuV	C.F dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Detector Peak/QP/AV
355.93	16.56	-11.21	5.35	52.23	-46.88	Average
479.78	16.48	-8.71	7.77	53.00	-45.23	Average
652.20	16.51	-5.42	11.09	53.00	-41.91	Average
735.64	16.27	-4.52	11.75	53.00	-41.25	Average
930.31	16.12	-1.78	14.34	53.00	-38.66	Average

C.F = Antenna factor + Cable loss - Preamp gain



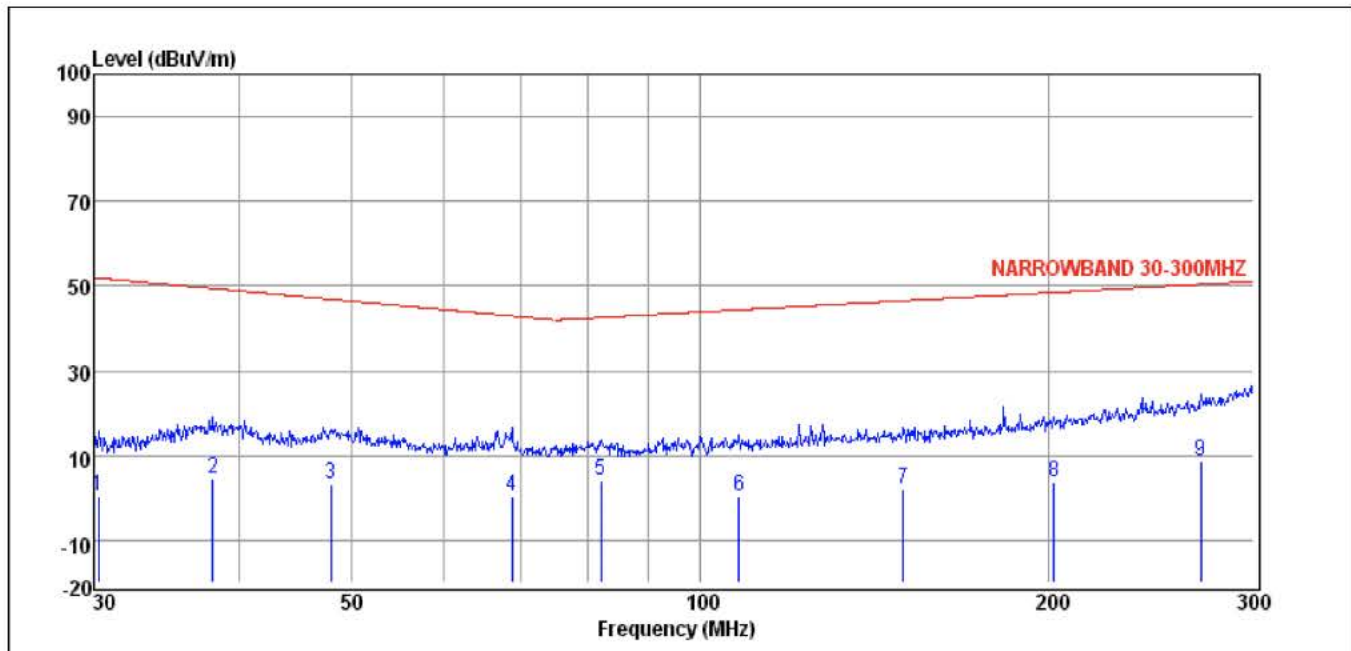
**Test Report**  
**No. : TW010-A0-200079**  
**ECE Regulation No.10**



Type : 1001-6200  
 Manufacturer :

**DC: 24V Narrowband - 30 to 300MHz – Vertical**

<b>Model No.</b> :	1001-6200	<b>Temp/Humi</b> :	20°C / 39%
<b>Test Mode</b> :	Driving beam+position lamp	<b>Tested by</b> :	Hong Tsai
<b>Test Date</b> :	2021-01-12	<b>Test Voltage</b> :	27Vdc



Freq MHz	Reading dBuV	C.F dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Detector Peak/QP/AV
30.28	18.13	-17.80	0.33	51.90	-51.57	Average
37.94	22.14	-17.76	4.38	49.44	-45.06	Average
47.99	21.25	-18.03	3.22	46.87	-43.65	Average
68.73	19.73	-19.34	0.39	42.95	-42.56	Average
82.06	23.56	-19.45	4.11	42.59	-38.48	Average
107.93	18.46	-18.23	0.23	44.39	-44.16	Average
149.67	18.01	-16.05	1.96	46.54	-44.58	Average
201.89	16.93	-13.12	3.81	48.51	-44.70	Average
270.47	16.77	-8.21	8.56	50.43	-41.87	Average

C.F = Antenna factor + Cable loss - Preamp gain

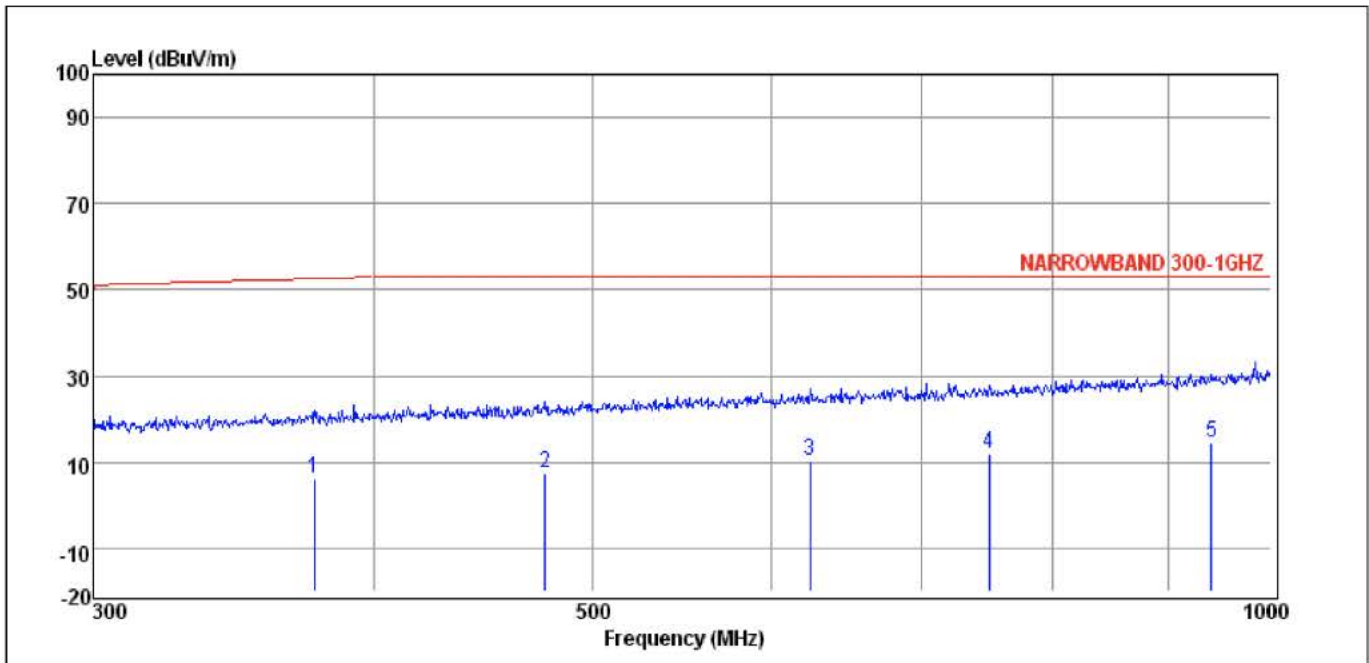
**Test Report**  
**No. : TW010-A0-200079**  
**ECE Regulation No.10**



Type : 1001-6200  
 Manufacturer :

**DC: 24V Narrowband - 300MHz to 1GHz – Vertical**

<b>Model No.</b> :	1001-6200	<b>Temp/Humi</b> :	20°C / 39%
<b>Test Mode</b> :	Driving beam+position lamp	<b>Tested by</b> :	Hong Tsai
<b>Test Date</b> :	2021-01-12	<b>Test Voltage</b> :	27Vdc



Freq MHz	Reading dBuV	C.F dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Detector Peak/QP/AV
376.20	16.65	-10.67	5.98	52.60	-46.62	Average
476.33	16.32	-8.77	7.55	53.00	-45.45	Average
624.53	16.52	-6.06	10.46	53.00	-42.54	Average
749.95	16.25	-4.36	11.89	53.00	-41.11	Average
941.58	16.02	-1.63	14.39	53.00	-38.61	Average

C.F = Antenna factor + Cable loss - Preamp gain

Decision :  Pass or  Failed

**Test Report**  
**No. : TW010-A0-200079**  
**ECE Regulation No.10**



Type : 1001-6200  
Manufacturer :

---

**Test results of Immunity Test:**

Remarks: The subject ESA was concerned to provide with "immunity-related functions".  
(Annex 9)

EUT : 1001-6200  
Operation modes : Front position lamp / Driving beam mode ;  
DC 12 V and DC 24 V  
Test method (1) : Bulk Current Injection (BCI) Test  
Specified frequency range (1) : 20 – 400 MHz  
Tested frequency points (1) : ~~27/45/65/90/120/150/190/230/280/380/450/600/750/~~  
~~900/1300/1800~~ MHz  
Field strength (1) : 60 mA

EUT : 1001-6200  
Operation modes : Front position lamp / Driving beam mode ;  
DC 12 V and DC 24 V  
Test method (2) : Absorber-Lined Shielded Enclosure Test  
Specified frequency range (2) : 400 – 2000 MHz  
Tested frequency points (2) : ~~27/45/65/90/120/150/190/230/280/380/450/600/750/~~  
~~900/1300/1800~~ MHz  
Field strength (2) : 30 V/m

Remarks: At the above mentioned frequency points the ESA did not exhibit any malfunction which would cause any degradation of performance which could cause confusion to other road users or any degradation in the driver's direct control of a vehicle fitted with the system which could be observed by the driver or other road user.

Decision :  Pass or  Failed



**Test Report**  
**No. : TW010-A0-200079**  
**ECE Regulation No.10**



Type : 1001-6200  
 Manufacturer :

**Test results of Immunity against disturbance conducted along supply line Test:**

The tests were conducted by the method according to ISO 7637-2:2004 as described in Annex 10, and the functional status of the ESA after the tests complied with the levels shown in Table 2.

Remarks: The electromagnetic radiation of ESA has been tested under DC 12 V and DC 24 V input mode.

Test mode –1001-6200; DC 12 V direct connected

Test pulse number	Immunity test level	Functional status for systems		
		Related to immunity-related functions	Not related to immunity-related functions	Test results
1	III	C	D	<b>C</b>
2a	III	B	D	<b>A</b>
2b	III	C	D	<b>C</b>
3a	III	A	D	<b>A</b>
3b	III	A	D	<b>A</b>
4	III	B (for ESA which must be operational during engine start phases) C (for other ESA)	D	<b>B</b>

Decision : ■ Pass or □ Failed



**Test Report**  
**No. : TW010-A0-200079**  
**ECE Regulation No.10**



Type : 1001-6200

Manufacturer :

Test mode – 1001-6200; DC 24 V direct connected

Test pulse number	Immunity test level	Functional status for systems		
		Related to immunity-related functions	Not related to immunity-related functions	Test results
1	III	C	D	<b>C</b>
2a	III	B	D	<b>A</b>
2b	III	C	D	<b>C</b>
3a	III	A	D	<b>A</b>
3b	III	A	D	<b>A</b>
4	III	B (for ESA which must be operational during engine start phases) C (for other ESA)	D	<b>B</b>

Decision :  Pass or  Failed

**Test Report**  
**No. : TW010-A0-200079**  
**ECE Regulation No.10**



Type : 1001-6200  
 Manufacturer :

**Test results of Emission of conducted disturbance along supply line Test:**

The tests were conducted by the method according to ISO 7637-2:2004 as described in Annex 10, and the pulse amplitudes were within the limits specified in Table 1

Remarks: The electromagnetic radiation of ESA has been tested under under DC 12 V and DC 24 V input mode.

Test mode – 1001-6200; DC 12 V direct connected

Polarity of pulse amplitude		Maximum allowed pulse amplitude for vehicles with 12 V systems (V)	Test results	
			Slow pulse (V)	Fast pulse (V)
SW On-Off and SW Off-On	Positive	+ 75	3.0625	3.3125
	Negative	- 100	-14.125	-14.125


Decision :  Pass or  Failed

Test mode – 1001-6200; DC 24 V direct connected

Polarity of pulse amplitude		Maximum allowed pulse amplitude for vehicles with 24 V systems (V)	Test results	
			Slow pulse (V)	Fast pulse (V)
SW On-Off and SW Off-On	Positive	+ 150	9.75	9.125
	Negative	- 450	-27.875	-28

Decision :  Pass or  Failed

### A3 Information folder

- 1 Make (Trade name of the manufacturer) : 
- 2 Type and general commercial description(s) : 1001-6200
- commercial description : Front position lamp / Driving beam
- Version : Not applicable
- 3 Means of identification of the type if marked on the component ~~separate~~ **technical unit** : 1001-6200
- 3.1 Location of that marking : on the vacuum plating of the lamp (refer to the drawing)
- 4 Name and address of the manufacturer :
- Name and address of the Manufacturer's 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 : Carve characters on the vacuum plating of the lamp (refer to the drawing)
- 6 Address(es) of the assembly plant(s) :
- 7 This ESA shall be approved as component/~~STU~~
- 8 Any restrictions of use and conditions for fitting : Not applicable



- 9 Electrical system rated voltage : DC 12 V / 24 V, negative ground
- 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.) : Not applicable
- Appendix 2-  
Relevant test report(s) supplied by the manufacturer from a test laboratory accredited to ISO 17025 and recognized by the type approval authority for the purpose of drawing up the type approval certificate. : Reference to:  
Test report No.: T210105N01-EM  
Test site:
- Only applicable for charging systems : Not applicable
- 10 Charger : ~~on board/external~~  
Not applicable
- 11 Charging current : ~~direct current/alternating current (number of phases/frequency)~~  
Not applicable
- 12 Maximal nominal current (in each mode if necessary) : Not applicable
- 13 Nominal charging voltage : Not applicable
- 14 Basic ESA interface functions:  
ex. L1/L2/L3/N/PE/control pilot : Not applicable
- 15 Minimum Rsce value (see paragraph 7.11. of this Regulation) : Not applicable

## 1. Additional information

- 1.2 This ESA can be used on any vehicle type with the following restrictions : Vehicles with 12 V DC and 24 V DC supply
- 1.2.1 Installation conditions, if any : Not applicable
- 1.3 This ESA can be used only on the following vehicle types : Not applicable
- 1.3.1 Installation conditions, if any : Not applicable
- 1.4 The specific test method(s) used and the frequency ranges covered to determine immunity were (please specify precise method used from Annex 9) : 20-400 Mhz : Bulk Current Injection (BCI) Test  
60 mA  
400-2000 MHz : Free field method 30 V/m
- Modulation :  
AM (amplitude modulation), with 1 kHz modulation and 80 per cent modulation depth in the 20 to 800 MHz frequency range;  
PM (pulse modulation), t on 577  $\mu$ s, period 4,600  $\mu$ s in the 800 to 2,000 MHz frequency range.
- 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  
IFM-Institut für Fahrzeugtechnik und Mobilität  
Schönscheidtstrasse 28, D-45307 Essen

## 2. Remarks:

### List of Annexes

<b>Annex</b>	<b>Page</b>
A Drawings and photos of the ESA	A1 – A4
B Specifications	B1
C PCB layout, Circuit diagrams, BOM	C1 – C4



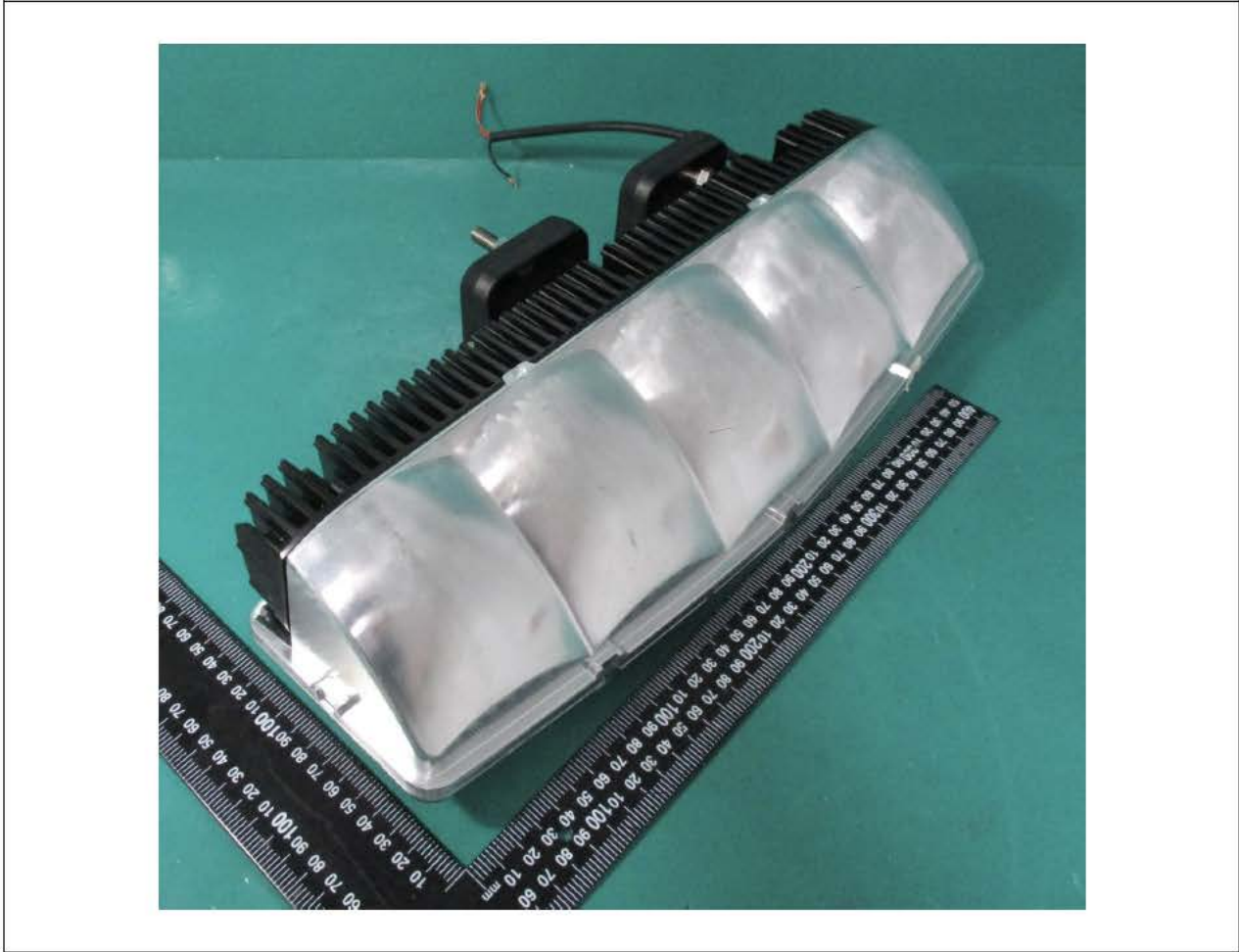
Photos



Front View of EUT



Side View of EUT



Top View of EUT

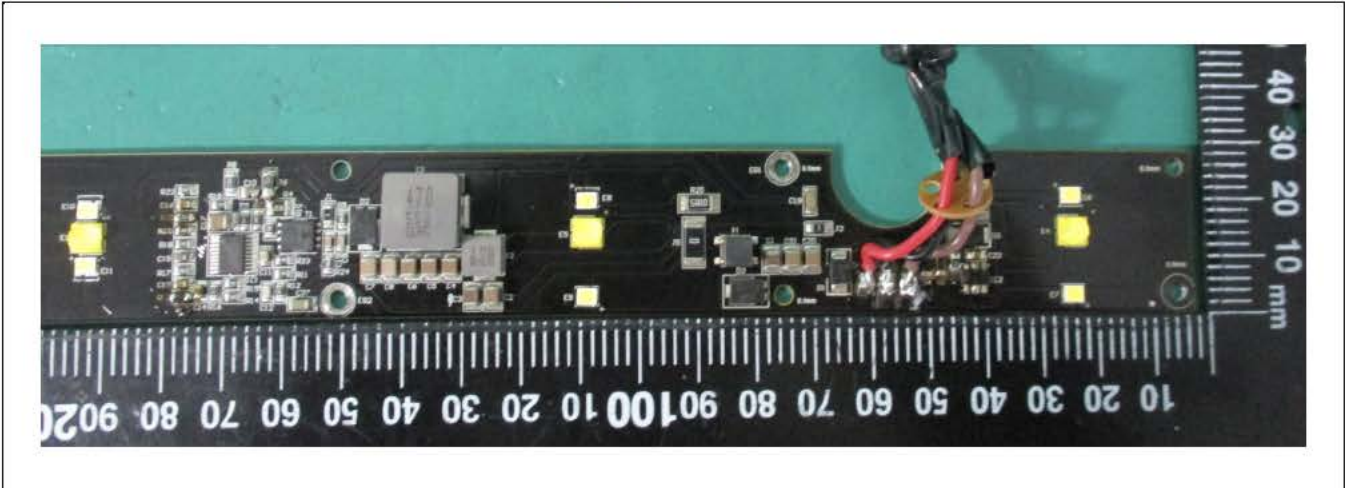


Component View

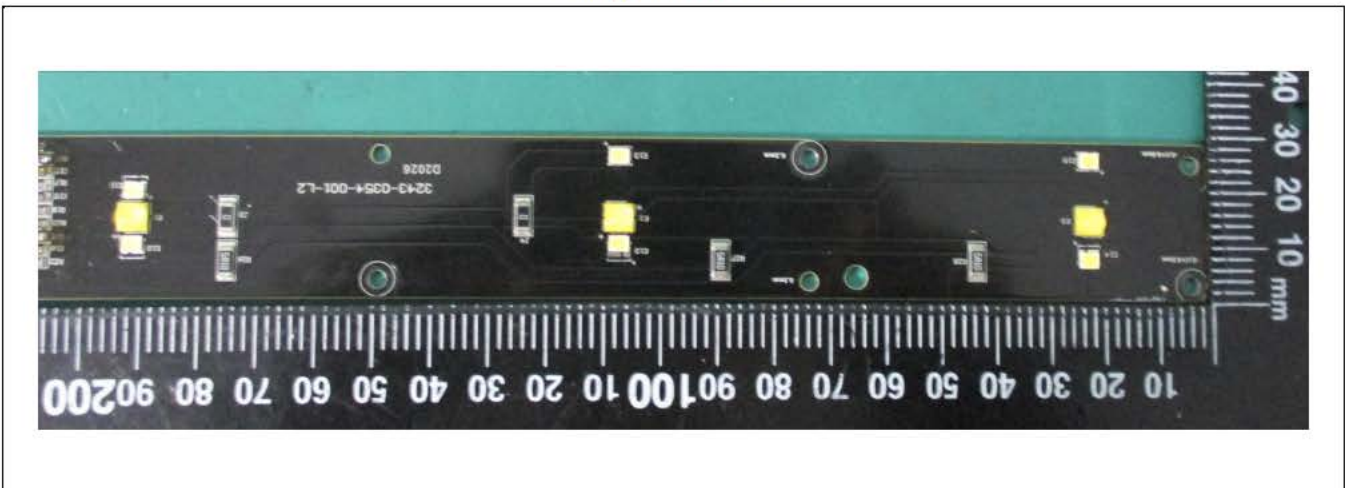




Component View



Component View



Component View



Drawing and Location of the marking

MODEL INFORMATION DOCUMENT NO. 1001-6200

REF	REV	DESCRIPTION	AUTH	DATE
1		New release	Dennis	2020/01/05

**LED MODULE**

**Back view**

**Front view**

**Bottom view**

**Section A-A**

**Section B-B**

Function: driving beam / Position lamp

102.2

142.7

432.2

275.0

10R-06 4544  
E4  
12V 61W / 0.6W  
24V 67W / 1.2W

HR PL E4 S0 28101  
03 02

NOTES:  
Lens glued to the vacuum plating

This drawing shall be applied for left and right hand.  
a-Longitudinal plane of Vehicle.  
b-Horizontal plane of Vehicle.  
c-Center of reference.  
d-Axis of reference.


9	VENT COVER
8	CONNECTOR
7	BRACKET
6	LED for position lamp
5	LED for driving beam
4	MPCB
3	HEATSINK
2	VACUUM PLATING
1	OUTER LENS

DWG	Dennis	TOL. UNLESS SPECIED X=±0.5 Y,Z=±0.2 XXX=±0.1
DR		SCALE 1:2
APPR	DWG NO	UNIT,MM

## Specification

### 1. Specification Data

December 31, 2020

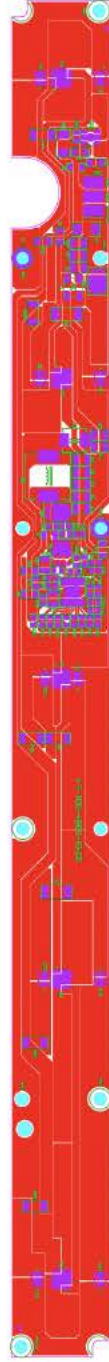
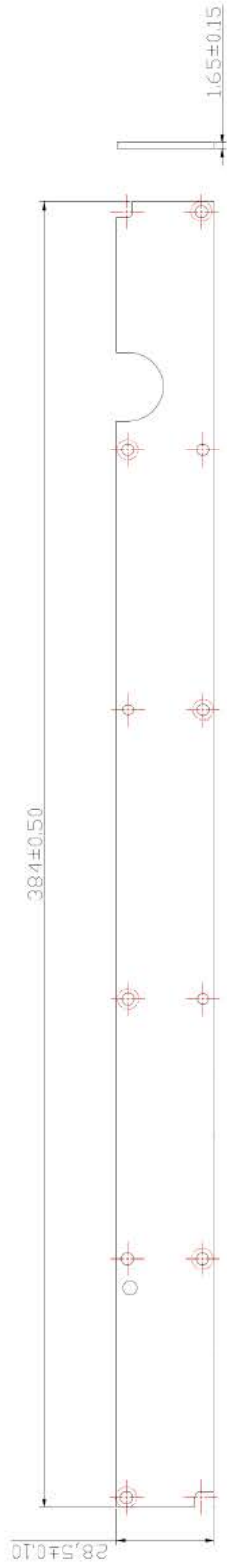
Type		1001-6200	
Function		Front position lamp	Driving beam
Light Color		White	White
Rated	Voltage	12 V / 24 V	12 V / 24 V
	Wattage	0.6 W / 1.2 W	81 W / 67 W
Application Regulation (ECE)		R7.03	R112.02
Category of light source		LED x 10	LED x 5
Position of marking	Trade mark		
		On the vacuum plating (refer to the drawing)	
	Approval mark	On the vacuum plating (refer to the drawing)	

### 2. Construction and Material :

Construction	Material	Remarks
Lens	PC (GE LS2-111) UV HC-3000 Coating	Clear
Reflector	PC	Vacuum Plating
Heat sink	ADC12	--

# PCB Layout

PART NO:

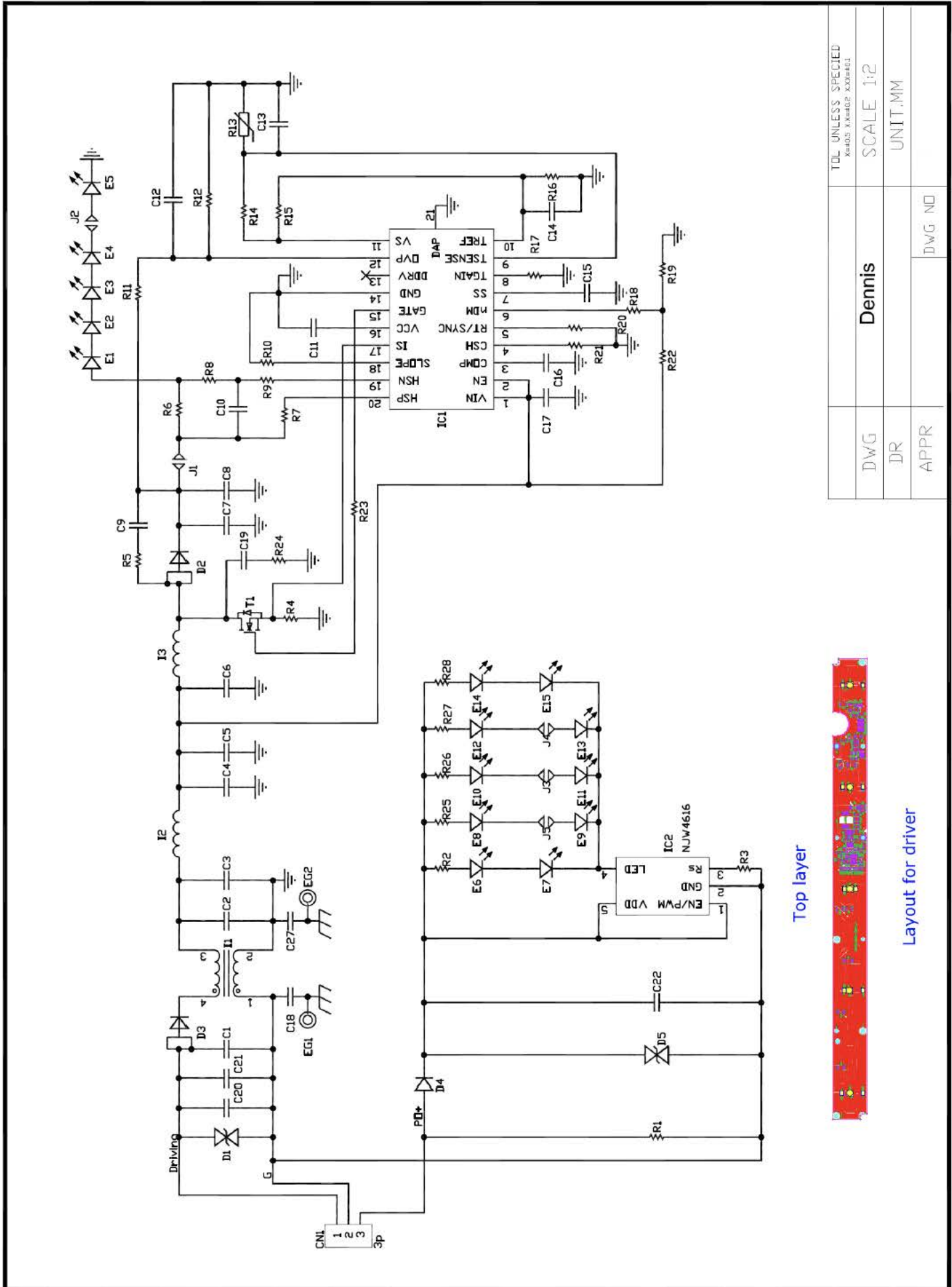


(A4)	NAME	DATE	MATERIAL	UNIT	m/m	SCALE	1:1	
DRN BY	Doris	2021/01/05		SHEET	1	OF	1	
CHK BY	Rainey	2021/01/05	FINISH	Black				
APPD BY	Shine	2021/01/05	DRAW NO. 3243-0354-001					REV
TITLE: PCB Layout								L4



Circuit diagrams

MODEL INFORMATION DOCUMENT NO. 1001-6200



DWG	Dennis	TOL UNLESS SPECIED XEROX XEROX XEROX
DR		SCALE 1:2
APPR		UNIT:MM
		DWG NO



Top layer

Layout for driver