

| <b>EMC TEST REPORT</b><br><b>FCC 47 CFR Part 15B, ISED ICES-003 Issue 6</b> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|-----------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Report Reference No</b>                                                  | G0M-1911-8642-EF0115B-V01                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>Testing Laboratory</b>                                                   | Eurofins Product Service GmbH                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>Address</b>                                                              | Storkower Str. 38c<br>15526 Reichenwalde<br>Germany                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>Accreditation</b>                                                        |    <br>DAKKS - Registration number : D-PL-12092-01-03 (ISED)<br>ISED Testing Laboratory site: 3470A-2<br>DAKKS - Registration number : D-PL-12092-01-04 (FCC)<br>FCC Filed Test Laboratory, Reg.-No.: 96970 |
| <b>Applicant</b>                                                            | Hella Aglaia Mobile Vision GmbH                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>Address</b>                                                              | Ullsteinstraße 140<br>12109 Berlin<br>GERMANY                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>Test Specification</b>                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>Standard</b>                                                             | 47 CFR Part 15 Subpart B<br>ISED ICES-003 Issue 6<br>ANSI C63.4:2014                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <b>Non-Standard Test Method</b>                                             | None                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <b>Equipment under Test (EUT):</b>                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>Product Description</b>                                                  | Advanced People Sensor; 180 mm lens distance; without IO connector                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>Model(s)</b>                                                             | APS-180E                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>Additional Model(s)</b>                                                  | None                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <b>Brand Name(s)</b>                                                        | APS-180E                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>Hardware Version(s)</b>                                                  | EH604                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Software Version(s)</b>                                                  | 1.12.0.19                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>FCC-ID</b>                                                               | 2ASWU-PS3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>IC</b>                                                                   | N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>Test Result</b>                                                          | <b>PASSED</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                  |                                                                                       |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|---------------------------------------------------------------------------------------|
| <b>Possible test case verdicts:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                            |                  |                                                                                       |
| required by standard but not tested                                                                                                                                                                                                                                                                                                                                                                                                                                            | N/T              |                                                                                       |
| not required by standard                                                                                                                                                                                                                                                                                                                                                                                                                                                       | N/R              |                                                                                       |
| required by standard but not appl. to test object                                                                                                                                                                                                                                                                                                                                                                                                                              | N/A              |                                                                                       |
| test object does meet the requirement                                                                                                                                                                                                                                                                                                                                                                                                                                          | P(PASS)          |                                                                                       |
| test object does not meet the requirement                                                                                                                                                                                                                                                                                                                                                                                                                                      | F(FAIL)          |                                                                                       |
| <b>Testing:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                  |                                                                                       |
| Date of receipt of test item                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 2019-12-02       |                                                                                       |
| <b>Report:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                  |                                                                                       |
| Compiled by                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Matthias Handrik |                                                                                       |
| Tested by (+ signature)<br>(Responsible for Test)                                                                                                                                                                                                                                                                                                                                                                                                                              | Matthias Handrik |    |
| Approved by (+ signature)<br>(Head of Lab)                                                                                                                                                                                                                                                                                                                                                                                                                                     | Christian Weber  |  |
| Date of Issue                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 2020-01-25       |                                                                                       |
| Total number of pages                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 32               |                                                                                       |
| <b>General Remarks:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                  |                                                                                       |
| <p>The test results presented in this report relate only to the object tested.</p> <p>The results contained in this report reflect the results for this particular model and serial number. It is the responsibility of the manufacturer to ensure that all production models meet the intent of the requirements detailed within this report.</p> <p>This report shall not be reproduced, except in full, without the written approval of the Issuing testing laboratory.</p> |                  |                                                                                       |
| <b>Additional Comments:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                  |                                                                                       |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                  |                                                                                       |

## ABBREVIATIONS AND ACRONYMS

| Acronyms         |                                                     |
|------------------|-----------------------------------------------------|
| Acronym          | Description                                         |
| EUT              | Equipment Under Test                                |
| FCC              | Federal Communications Commission                   |
| ISED             | Innovation, Science and Economic Development Canada |
| T <sub>NOM</sub> | Nominal operating temperature                       |
| V <sub>NOM</sub> | Nominal supply voltage                              |

## VERSION HISTORY

| Version History |            |                 |            |
|-----------------|------------|-----------------|------------|
| Version         | Issue Date | Remarks         | Revised By |
| 01              | 2020-01-25 | Initial Release |            |

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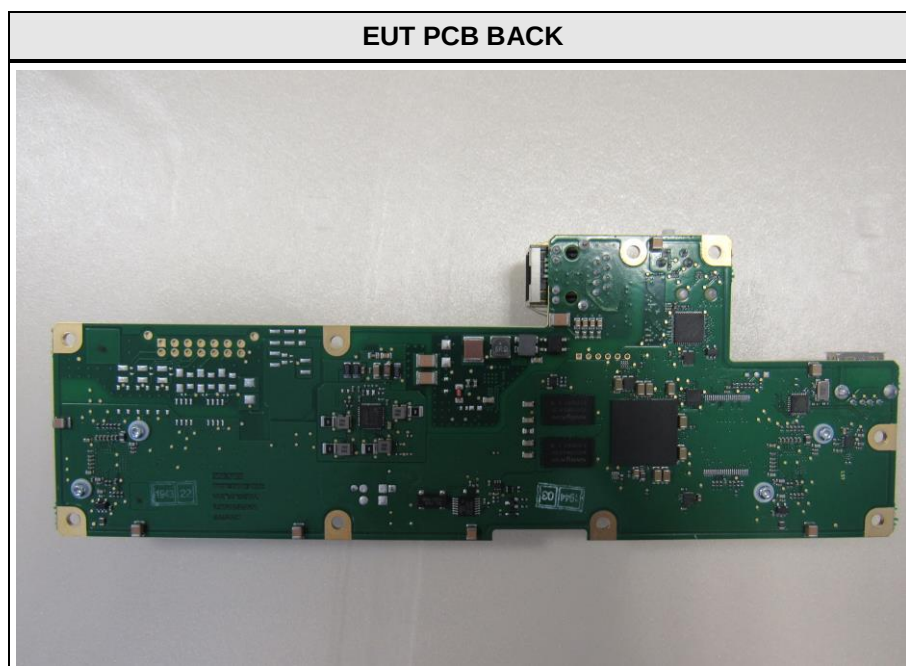
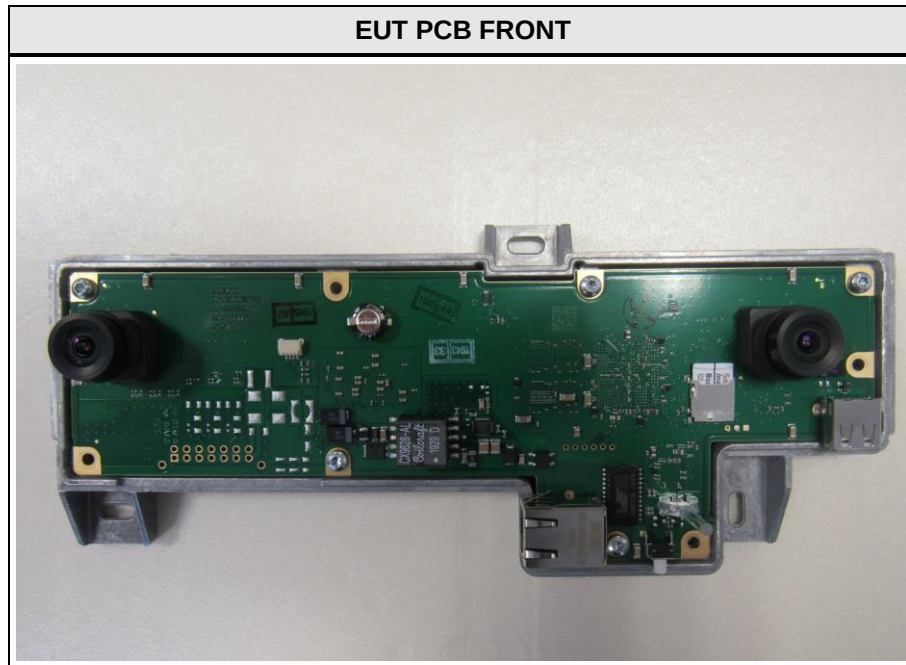
## 1 Equipment (Test Item) Under Test

|                                  |                                                                                  |              |
|----------------------------------|----------------------------------------------------------------------------------|--------------|
| Description                      | Advanced People Sensor; 180 mm lens distance; without IO connector               |              |
| Model                            | APS-180E                                                                         |              |
| Additional Model(s)              | None                                                                             |              |
| Brand Name(s)                    | APS-180E                                                                         |              |
| Serial Number(s)                 | 000B91803569                                                                     |              |
| Hardware Version(s)              | EH604                                                                            |              |
| Software Version(s)              | 1.12.0.19                                                                        |              |
| FCC-ID                           | 2ASWU-PS3                                                                        |              |
| IC                               | N/A                                                                              |              |
| Class                            | Class B                                                                          |              |
| Equipment type                   | Table top                                                                        |              |
| Highest internal frequency [MHz] | 666                                                                              |              |
| Supply Voltage                   | $V_{NOM}$                                                                        | 48 VDC (PoE) |
| AC/DC-Adaptor                    | none                                                                             |              |
| Manufacturer                     | Hella Aglaia Mobile Vision GmbH<br>Ullsteinstraße 140<br>12109 Berlin<br>GERMANY |              |

## 1.1 Equipment Ports

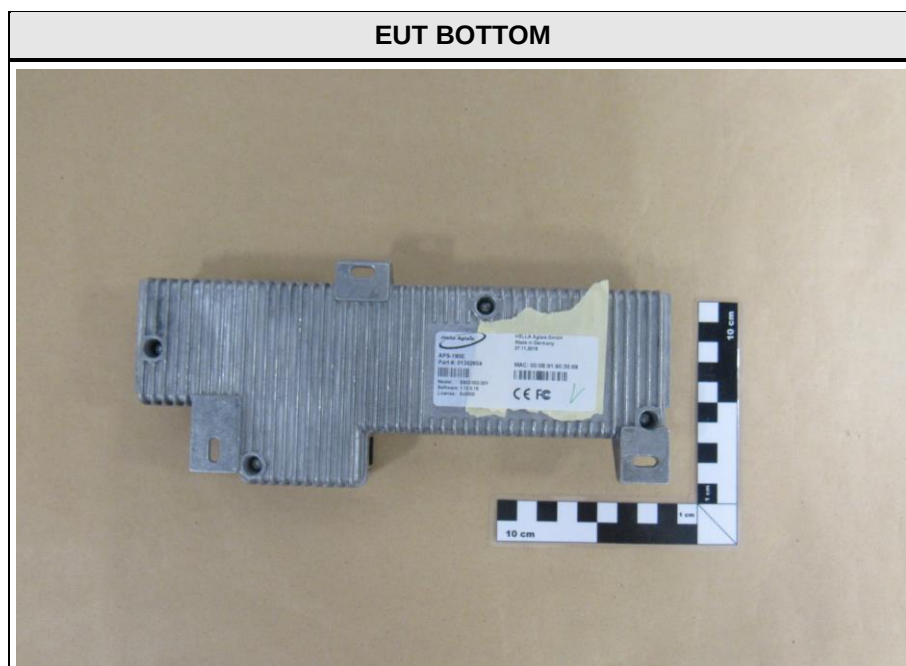
| Name         | Type                             | Attributes                                     | Comment                                       |
|--------------|----------------------------------|------------------------------------------------|-----------------------------------------------|
| Ethernet     | DC; TP                           | Count: 1<br>Direction: IO<br>Service only: No  | DC was powered via PoE injector (120VAC/60Hz) |
| USB          | IO                               | Count: 1<br>Direction: IO<br>Service only: Yes | -                                             |
| Description: |                                  |                                                |                                               |
| AC           | AC mains power input/output port |                                                |                                               |
| DC           | DC power input/output port       |                                                |                                               |
| IO           | Input/Output port                |                                                |                                               |
| TP           | Telecommunication port           |                                                |                                               |
| NE           | Non-electrical port              |                                                |                                               |

## 1.2 Equipment Photos - Internal





### 1.3 Equipment Photos - External



**EUT BACK**



**EUT FRONT**



AE PoE Injector + AC/DC adaptor



#### 1.4 Support Equipment

| Product Type | Device               | Manufacturer | Model           | Comment |
|--------------|----------------------|--------------|-----------------|---------|
| AE           | PoE Injector         | TP Link      | TL-POE150S      |         |
| AE           | USB Stick            | -            | -               | -       |
| AE           | Laptop               | HP           | Elitebook 8470p |         |
| Description: |                      |              |                 |         |
| AE           | Auxiliary Equipment  |              |                 |         |
| SIM          | Simulator            |              |                 |         |
| MON          | Monitoring Equipment |              |                 |         |
| CBL          | Connecting Cable     |              |                 |         |
| Comment:     |                      |              |                 |         |

## 1.5 Operational Modes

| Mode #   | Description                                                         |
|----------|---------------------------------------------------------------------|
| 1        | Counting mode, power via PoE (counts people coming in or going out) |
| Comment: |                                                                     |

## 1.6 EUT Configuration

| Configuration # | Description                                                                                                                                                                                                                                                                         |
|-----------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1               | EUT is connected to PoE-Injector via Ethernet-cable. Injector is providing power for EUT. Laptop is connected to PoE-Injector via Ethernet-cable.<br>With the help of a browser and the EUT's webinface the video signal can be monitored.<br>USB-Stick is connected into USB-port. |
| Comment:        |                                                                                                                                                                                                                                                                                     |

## 1.7 Sample emission level calculation

The following is a description of terms and a sample calculation, as appears in the radiated emissions data table. The numbers used in the calculation are for example only. There is no direct correlation to the specific data taken for the product described in this document:

Reading:

This is the reading obtained on the spectrum analyser in dBµV. Any external preamplifiers used are taken into account through internal analyser settings.

A.F.:

This is the antenna factor for the receiving antenna. It is a conversion factor, which converts electric fields strengths to voltages, which can be measured directly on the spectrum analyser. It is treated as a loss in dB. Cable losses have been included with the A.F. to simplify the calculations. The antenna factor is used in calculations as follows:

$$\text{Reading on Analyser (dB}\mu\text{V)} + \text{A.F. (dB/m)} = \text{Net field strength (dB}\mu\text{V/m)}$$

Net:

This is the net field strength measurement (as shown above).

Limit:

This is the FCC Class B radiated emission limit (in units of dBµV/m). The FCC limits are given in units of µV/m. The following formula is used to convert the units of µV/m to dBµV/m:

$$\text{Limit (dB}\mu\text{V/m)} = 20 \cdot \log(\mu\text{V/m})$$

Margin:

This is the margin of compliance below the FCC limit. The units are given in dB. A negative margin indicates the emission was below the limit. A positive margin indicates that the emission exceeds the limit.

Example only:

|                      |               |   |                           |           |
|----------------------|---------------|---|---------------------------|-----------|
| Reading + AF         | = Net Reading | : | Net reading - FCC limit   | = Margin  |
| +21.5 dBµV + 26 dB/m | = 47.5 dBµV/m | : | 47.5 dBµV/m - 57.0 dBµV/m | = -9.5 dB |

## 2 Result Summary

| FCC 47 CFR Part 15B, ISED ICES-003 Issue 6 |                                   |                  |        |         |
|--------------------------------------------|-----------------------------------|------------------|--------|---------|
| Reference                                  | Requirement                       | Reference Method | Result | Remarks |
| Emission                                   |                                   |                  |        |         |
| FCC 15.109<br>ICES-003, 8, 6.1             | Radiated emissions                | ANSI C63.4:2014  | PASS   | -       |
| FCC 15.107<br>ICES-003, 8, 6.2             | AC power line conducted emissions | ANSI C63.4:2014  | PASS   | -       |
| Comment:                                   |                                   |                  |        |         |

| Possible Test Case Verdicts |                                              |
|-----------------------------|----------------------------------------------|
| PASS                        | Test object does meet the requirements       |
| FAIL                        | Test object does not meet the requirements   |
| N/T                         | Required by standard but not tested          |
| N/R                         | Not required by standard for the test object |

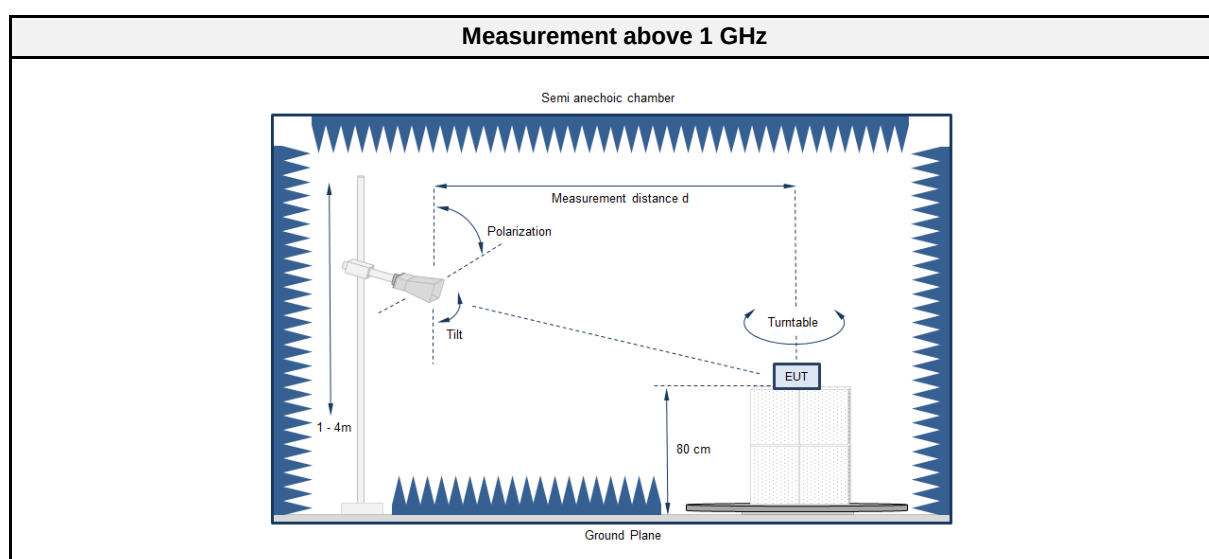
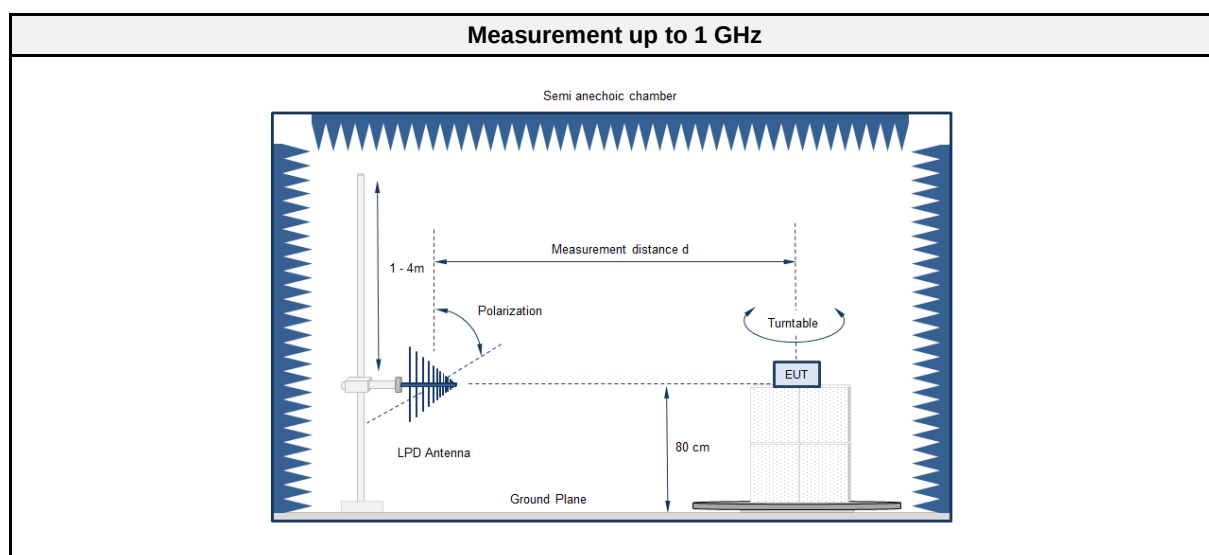


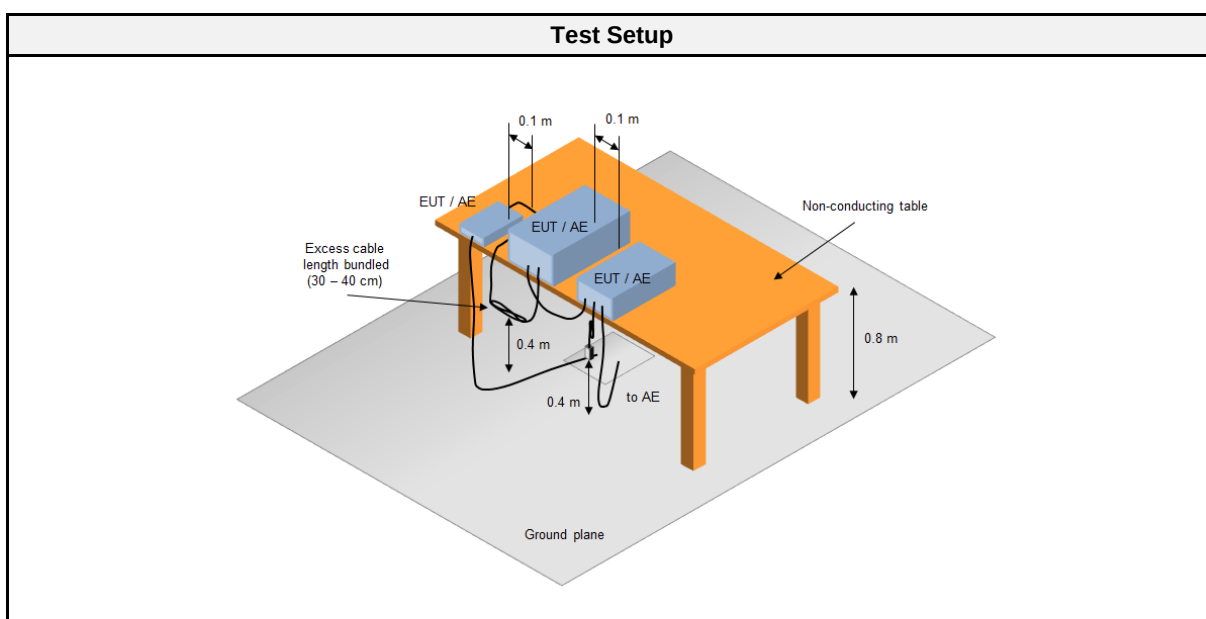
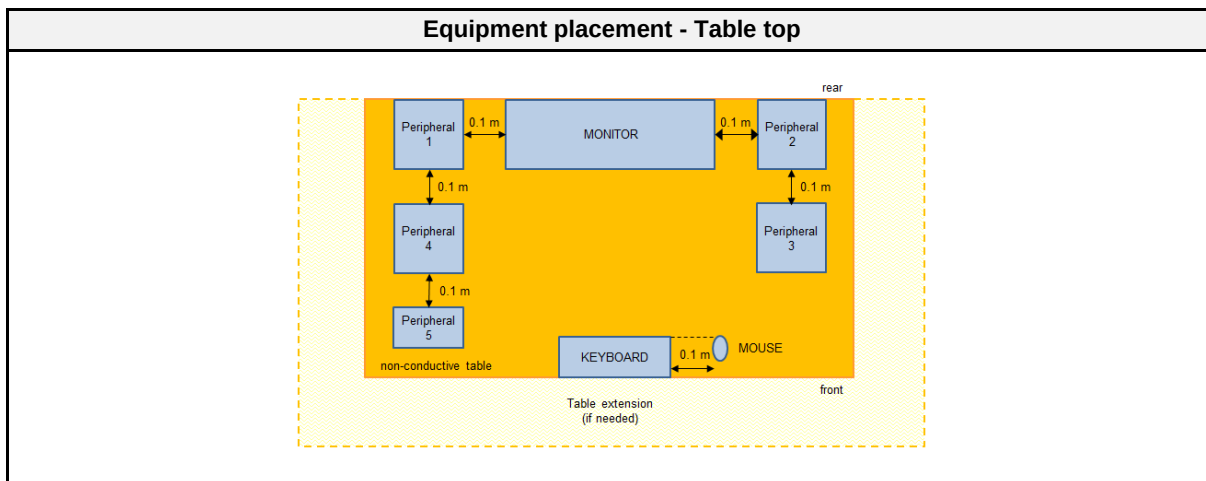
## 2.1 Test Conditions and Results - Radiated emissions acc. to ANSI C63.4

### 2.1.1 Information

| Test Information                 |                              |
|----------------------------------|------------------------------|
| Reference                        | FCC 15.109, ICES-003, 8, 6.1 |
| Reference method                 | ANSI C63.4:2014 Section 8    |
| Equipment class                  | Class B                      |
| Equipment type                   | Table top                    |
| Highest internal frequency [MHz] | 666                          |
| Measurement range                | 30 MHz to 5 GHz              |
| Temperature [°C]                 | 21                           |
| Humidity [%]                     | 32                           |
| Operator                         | Matthias Handrik             |
| Date                             | 2019-12-02                   |

### 2.1.2 Setup





### 2.1.3 Equipment

| Test Software |                  |            |           |
|---------------|------------------|------------|-----------|
| Description   | Manufacturer     | Name       | Version   |
| EMC Software  | DARE Instruments | Radimation | 2016.1.10 |

| Test Equipment    |              |                      |            |           |          |
|-------------------|--------------|----------------------|------------|-----------|----------|
| Description       | Manufacturer | Model                | Identifier | Cal. Date | Cal. Due |
| Anechoic chamber  | Frankonia    | AC1                  | EF00062    | 2018-07   | 2021-07  |
| EMI Test Receiver | Keysight     | N9038A-526/WXP       | EF01070    | 2019-09   | 2020-09  |
| Biconical Antenna | R&S          | HK 116               | EF00030    | 2019-04   | 2022-04  |
| LPD Antenna       | R&S          | HL 223               | EF00187    | 2019-05   | 2022-05  |
| Horn antenna      | Schwarzbeck  | BBHA 9120D (1-18GHz) | EF00018    | 2019-09   | 2022-09  |

#### 2.1.4 Procedure

| Exploratory measurement |                                                                                                                                                                                |
|-------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1.                      | The EUT was placed on a non-conductive table at a height of 0.8m.                                                                                                              |
| 2.                      | The EUT and support equipment, if needed, were set up to simulate typical usage.                                                                                               |
| 3.                      | Cables, of type and length specified by the manufacturer, were connected to at least one port of each type and were terminated by a device or simulating load of actual usage. |
| 4.                      | The antenna was placed at a distance of 3 or 10 m.                                                                                                                             |
| 5.                      | The received signal was monitored at the measurement receiver.                                                                                                                 |
| 6.                      | This procedure has to be performed in both antenna polarizations, horizontal and vertical.                                                                                     |
| 7.                      | The arrangement of the equipment with the maximum emission level is shown on the setup picture at item 1.3                                                                     |

| Final measurement |                                                                                                                                                                                                                                                                                         |
|-------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1.                | The EUT was placed on a 0.8 m non-conductive table at a 3 m distance from the receive antenna. The antenna output was connected to the measurement receiver.                                                                                                                            |
| 2.                | A biconical antenna was used for the frequency range 30 – 200 MHz, a logarithmic periodical antenna was used for the frequency range from 200 – 1000 MHz. Above one 1 GHz a Double Ridged Broadband Horn antenna was used. The antenna was placed on an adjustable height antenna mast. |
| 3.                | The EUT and cable arrangement were based on the exploratory measurement results.                                                                                                                                                                                                        |
| 4.                | Emissions were maximized at each frequency by rotating the EUT and adjusting the receive antenna height and polarization. The maximum values were recorded.                                                                                                                             |
| 5.                | The test data of the worst-case conditions were recorded and shown on the next pages.                                                                                                                                                                                                   |

#### 2.1.5 Limits

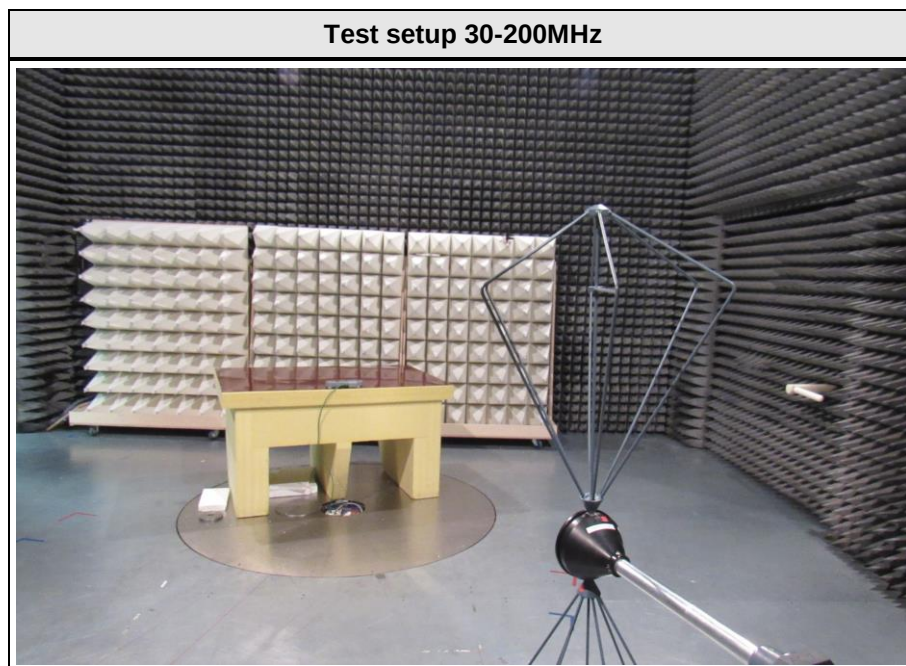
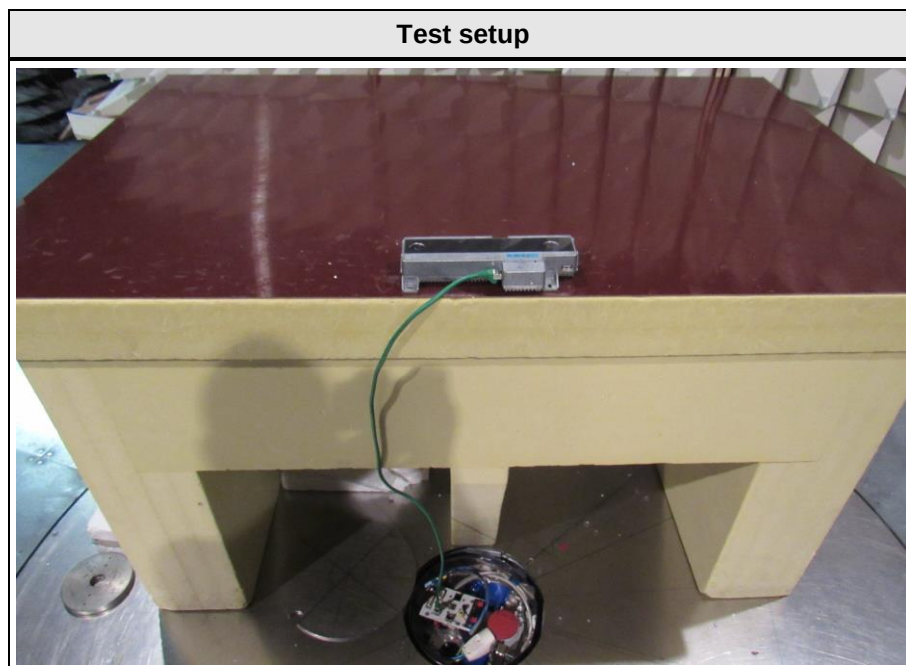
| Class B @ 3 m   |            |                      |
|-----------------|------------|----------------------|
| Frequency [MHz] | Detector   | Limit [dB $\mu$ V/m] |
| 30 - 88         | Quasi-peak | 40                   |
| 88 - 216        | Quasi-peak | 43.5                 |
| 216 - 960       | Quasi-peak | 46                   |
| 960 - 1000      | Quasi-peak | 54                   |
| > 1000          | Peak       | 74                   |
|                 | Average    | 54                   |

| Class A @ 10 m  |            |                      |
|-----------------|------------|----------------------|
| Frequency [MHz] | Detector   | Limit [dB $\mu$ V/m] |
| 30 - 88         | Quasi-peak | 39                   |
| 88 - 216        | Quasi-peak | 43.5                 |
| 216 - 960       | Quasi-peak | 46.5                 |
| 960 - 1000      | Quasi-peak | 49.5                 |
| > 1000          | Peak       | 69.5                 |
|                 | Average    | 49.5                 |

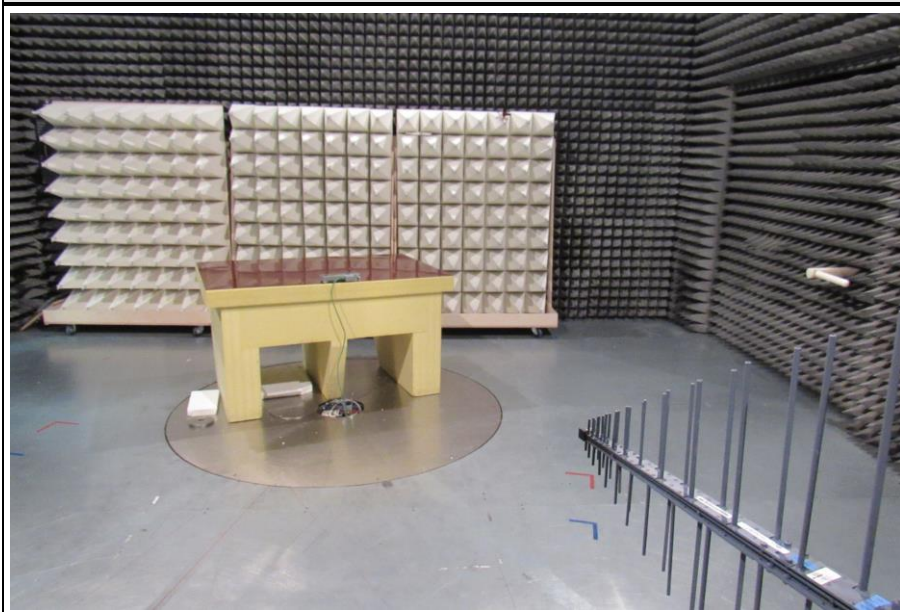
#### 2.1.6 Results

| Test Results     |                   |         |        |
|------------------|-------------------|---------|--------|
| Operational mode | EUT Configuration | Verdict | Remark |
| 1                | 1                 | PASS    | -      |

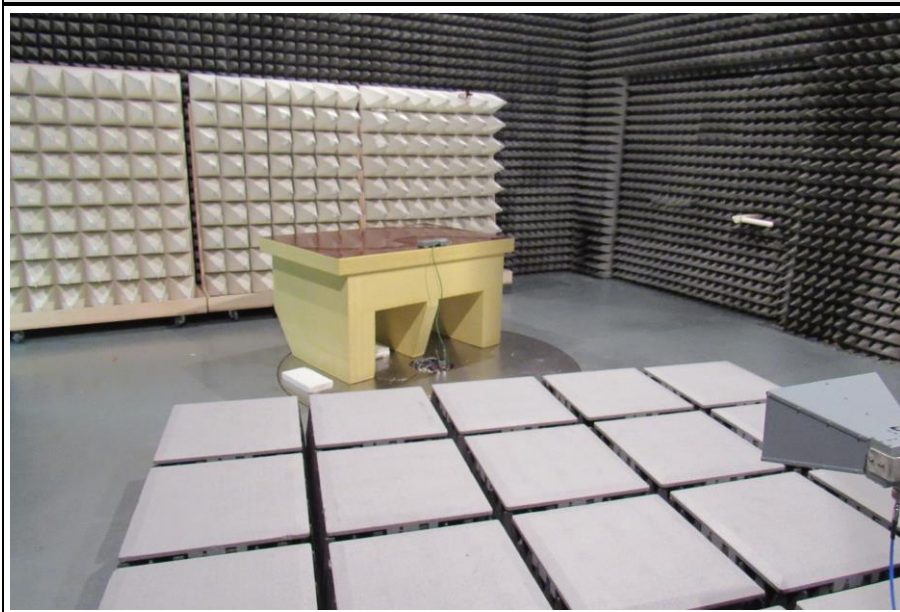
### 2.1.7 Setup Photos



**Test setup 200-1000MHz**



**Test setup 1-5GHz**





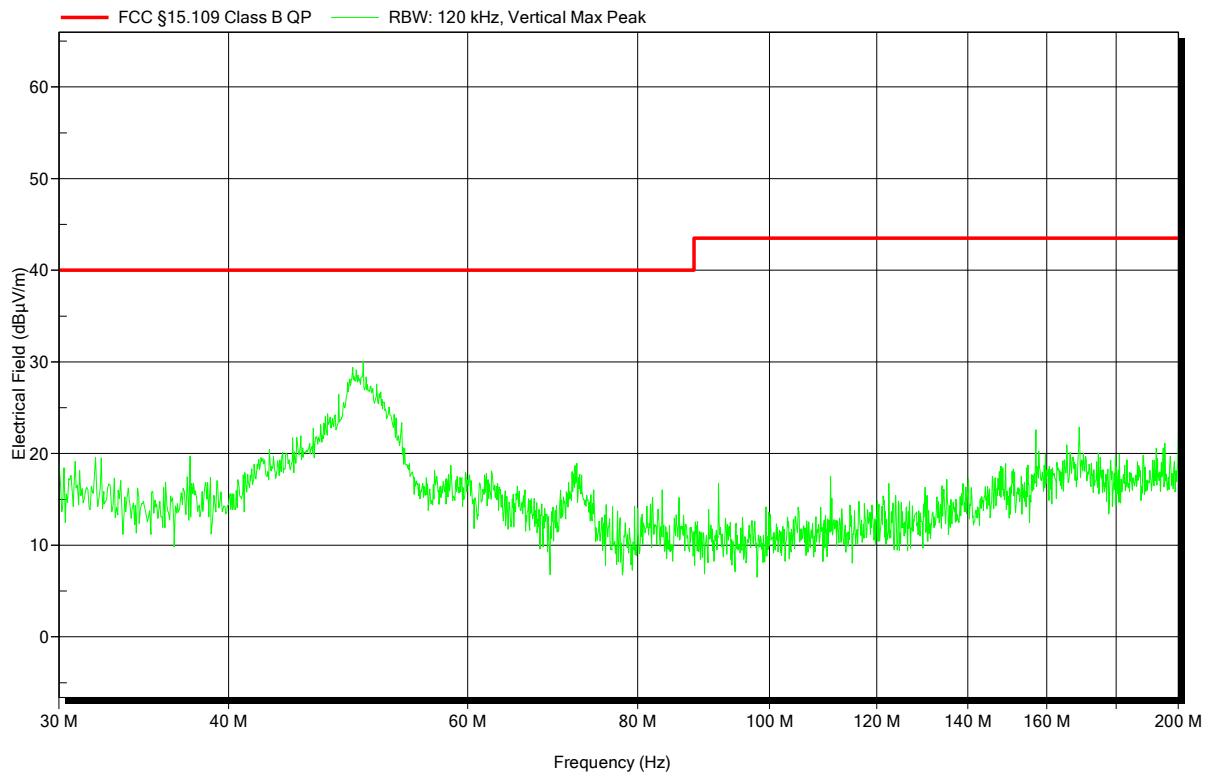
## 2.1.8 Records

**Radiated emissions according to FCC part 15B**

Project number: G0M-1911-8642

|                       |                                                                   |
|-----------------------|-------------------------------------------------------------------|
| Applicant:            | Hella Aglaia Mobile Vision GmbH                                   |
| EUT Name:             | Advanced People Sensor; 180mm lens distance; without IO connector |
| Model:                | APS-180E                                                          |
| Test Site:            | Eurofins Product Service GmbH                                     |
| Operator:             | Mr. Handrik                                                       |
| Test Conditions:      | Tnom: 21°C, Unom: 48V DC (PoE)                                    |
| Antenna:              | Rohde & Schwarz HK 116, Vertical                                  |
| Measurement distance: | 3m                                                                |
| Mode:                 | mode# 1                                                           |
| Test Date:            | 2019-12-02                                                        |
| Note:                 |                                                                   |

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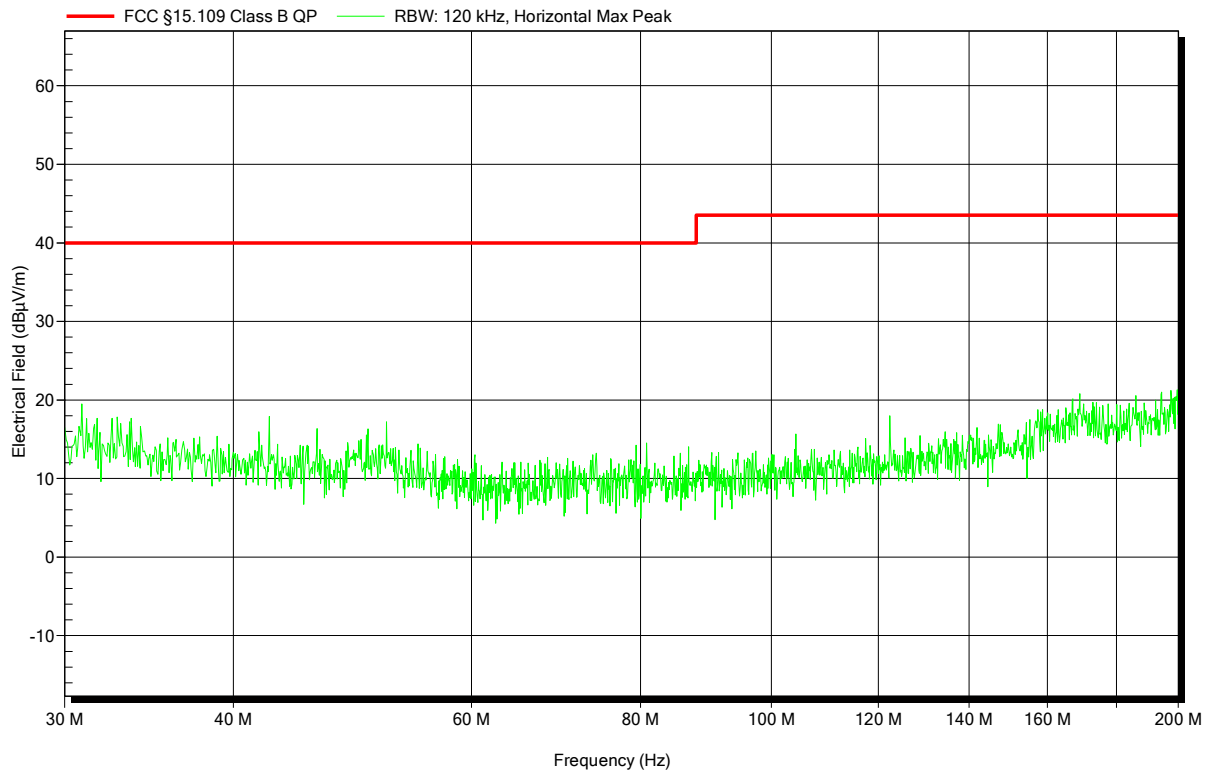


## Radiated emissions according to FCC part 15B

Project number: G0M-1911-8642

|                       |                                                                   |
|-----------------------|-------------------------------------------------------------------|
| Applicant:            | Hella Aglaia Mobile Vision GmbH                                   |
| EUT Name:             | Advanced People Sensor; 180mm lens distance; without IO connector |
| Model:                | APS-180E                                                          |
| Test Site:            | Eurofins Product Service GmbH                                     |
| Operator:             | Mr. Handrik                                                       |
| Test Conditions:      | Tnom: 21°C, Unom: 48V DC (PoE)                                    |
| Antenna:              | Rohde & Schwarz HK 116, Horizontal                                |
| Measurement distance: | 3m                                                                |
| Mode:                 | mode# 1                                                           |
| Test Date:            | 2019-12-02                                                        |
| Note:                 |                                                                   |

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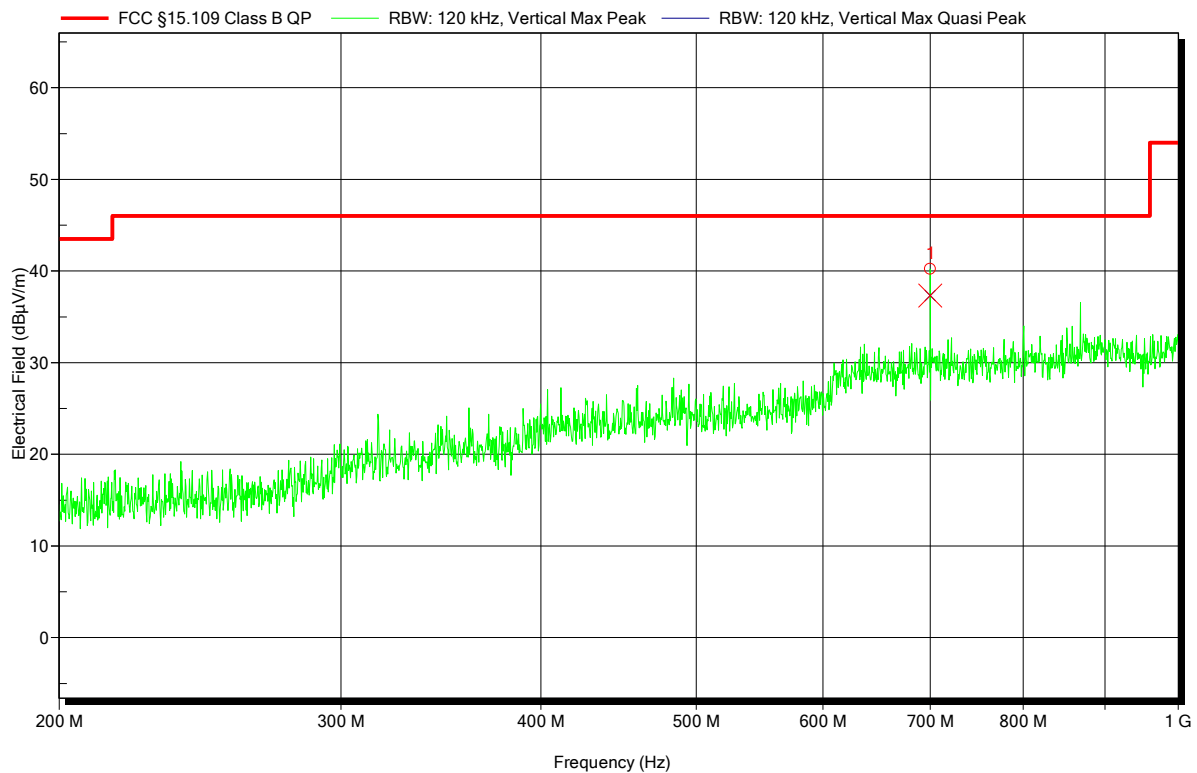


## Radiated emissions according to FCC part 15B

Project number: G0M-1911-8642

Applicant: Hella Aglaia Mobile Vision GmbH  
 EUT Name: Advanced People Sensor; 180mm lens distance; without IO connector  
 Model: APS-180E  
 Test Site: Eurofins Product Service GmbH  
 Operator: Mr. Handrik  
 Test Conditions: Tnom: 21°C, Unom: 48V DC (PoE)  
 Antenna: Rohde & Schwarz HL 223, Vertical  
 Measurement distance: 3m  
 Mode: mode# 1  
 Test Date: 2019-12-02  
 Note:

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| Peak Number | Frequency   | Quasi-Peak   | Quasi-Peak Limit | Quasi-Peak Difference | Quasi-Peak Status | Angle    | Height |
|-------------|-------------|--------------|------------------|-----------------------|-------------------|----------|--------|
| 1           | 699.994 MHz | 37.32 dBµV/m | 46.02 dBµV/m     | -8.71 dB              | Pass              | 0 Degree | 1 m    |

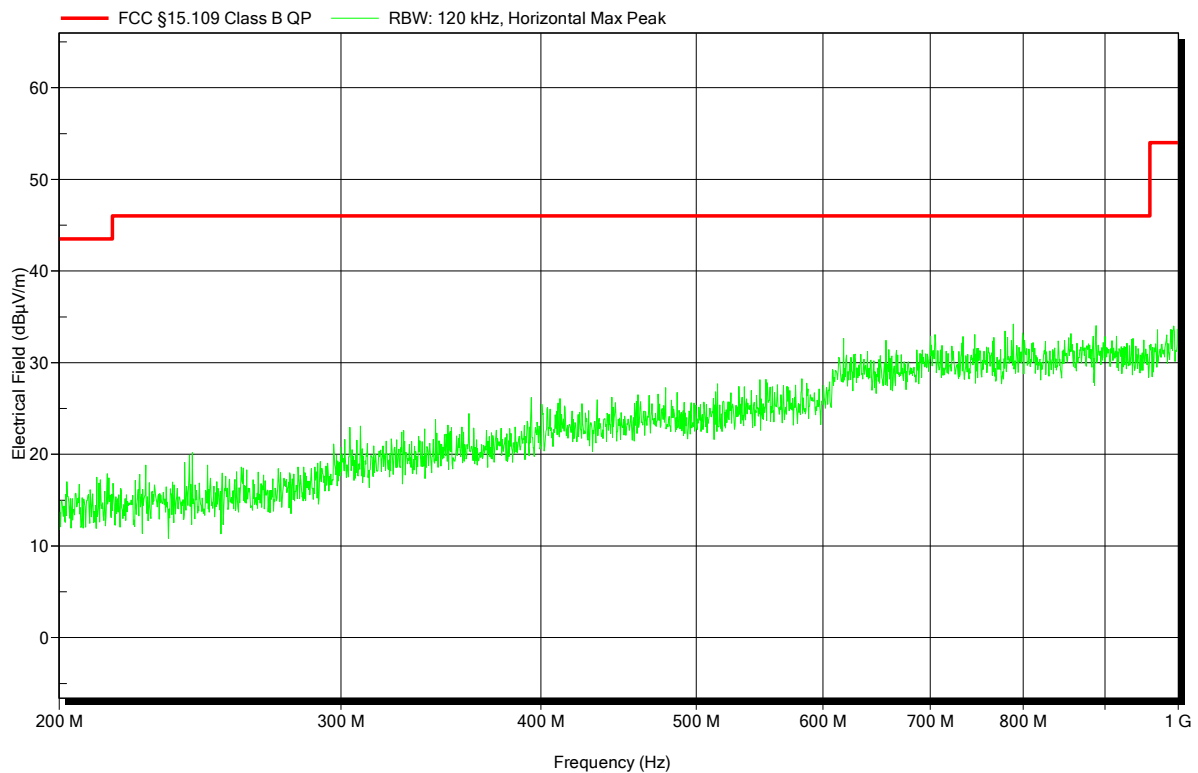


## Radiated emissions according to FCC part 15B

Project number: G0M-1911-8642

Applicant: Hella Aglaia Mobile Vision GmbH  
 EUT Name: Advanced People Sensor; 180mm lens distance; without IO connector  
 Model: APS-180E  
 Test Site: Eurofins Product Service GmbH  
 Operator: Mr. Handrik  
 Test Conditions: Tnom: 21°C, Unom: 48V DC (PoE)  
 Antenna: Rohde & Schwarz HL 223, Horizontal  
 Measurement distance: 3m  
 Mode: mode# 1  
 Test Date: 2019-12-02  
 Note:

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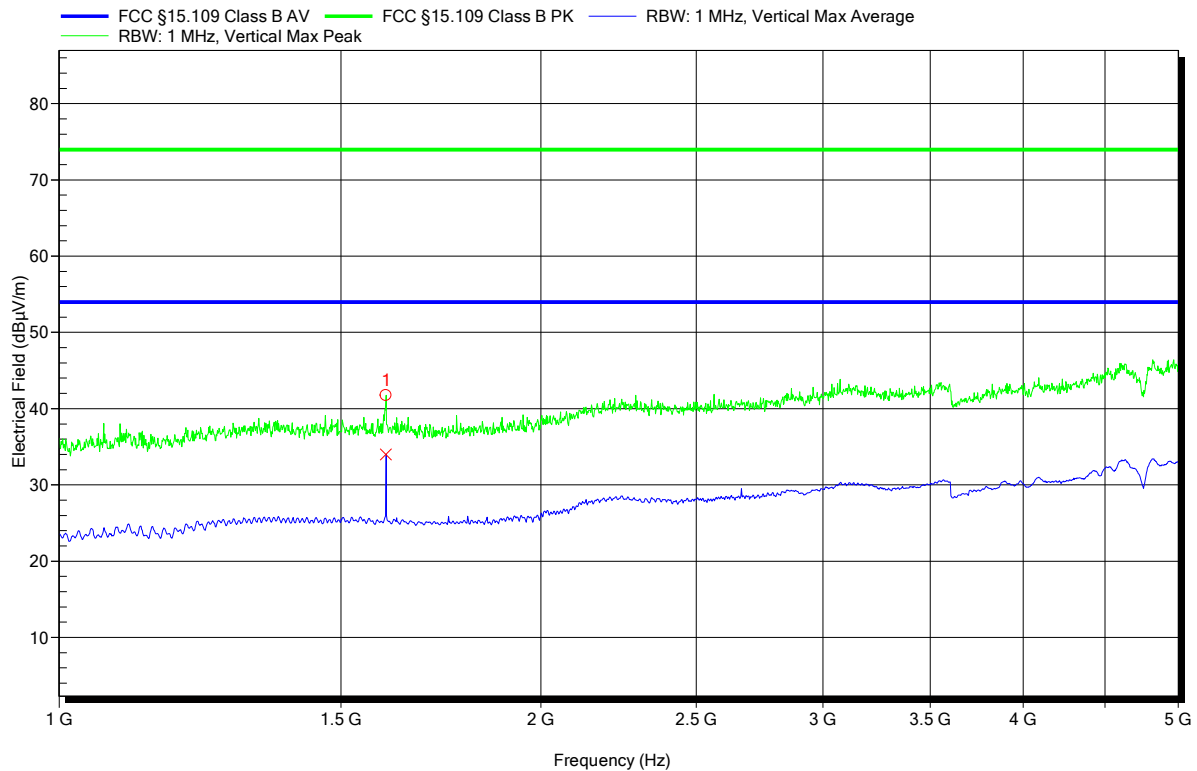


## Radiated emissions according to FCC part 15B

Project number: G0M-1911-8642

Applicant: Hella Aglaia Mobile Vision GmbH  
EUT Name: Advanced People Sensor; 180mm lens distance; without IO connector  
Model: APS-180E  
Test Site: Eurofins Product Service GmbH  
Operator: Mr. Handrik  
Test Conditions: Tnom: 21°C, Unom: 48V DC (PoE)  
Antenna: Schwarzbeck BBHA 9120D, Vertical  
Measurement distance: 3m  
Mode: mode# 1  
Test Date: 2019-12-02  
Note: -77°; 1m

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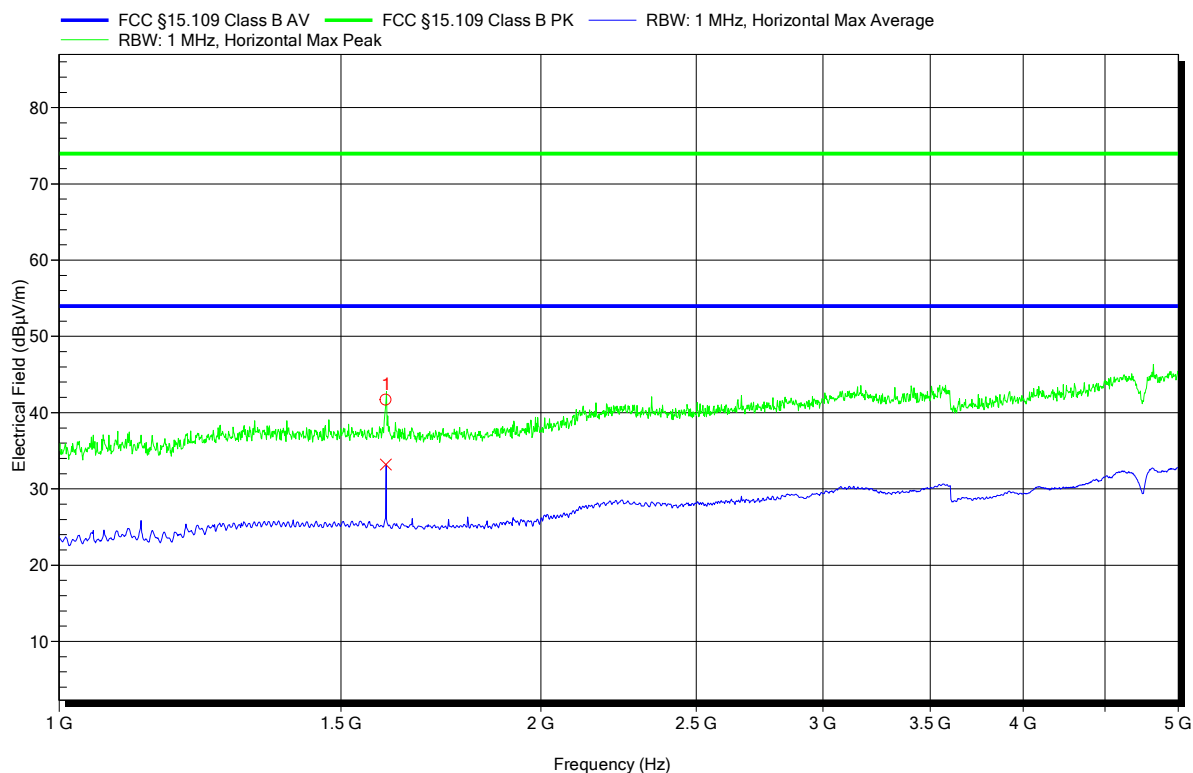
| Peak Number | Frequency | Peak         | Peak Limit    | Peak Differences   | Peak Status    | Angle      | Height |
|-------------|-----------|--------------|---------------|--------------------|----------------|------------|--------|
| 1           | 1.6 GHz   | 41.77 dBµV/m | 74 dBµV/m     | -32.23             | Pass           | -77 Degree | 1 m    |
| Peak Number | Frequency | Average      | Average Limit | Average Difference | Average Status | Angle      | Height |
| 1           | 1.6 GHz   | 33.99 dBµV/m | 53.98 dBµV/m  | -19.99 dB          | Pass           | -77 Degree | 1 m    |

## Radiated emissions according to FCC part 15B

Project number: G0M-1911-8642

Applicant: Hella Aglaia Mobile Vision GmbH  
 EUT Name: Advanced People Sensor; 180mm lens distance; without IO connector  
 Model: APS-180E  
 Test Site:  
 Operator: Mr. Handrik  
 Test Conditions: Tnom: 21°C, Unom: 48V DC (PoE)  
 Antenna: Schwarzbeck BBHA 9120D, Horizontal  
 Measurement distance: 3m  
 Mode: mode# 1  
 Test Date: 2019-12-02  
 Note: -90°; 1.90m

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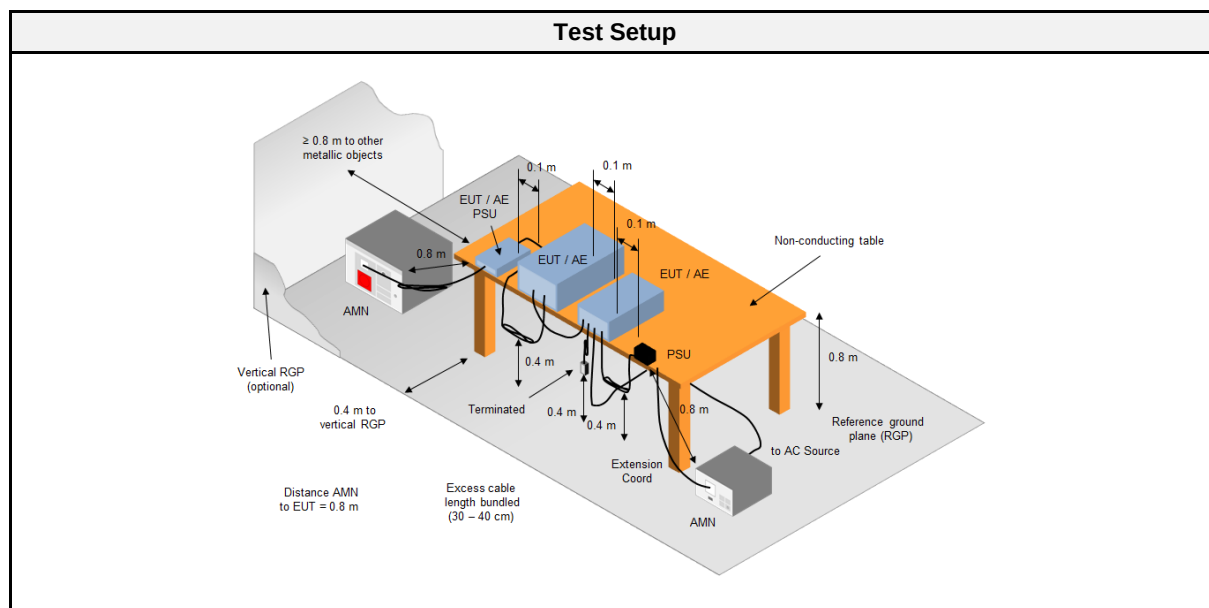
| Peak Number | Frequency | Peak         | Peak Limit | Peak Differences | Peak Status | Angle      | Height |
|-------------|-----------|--------------|------------|------------------|-------------|------------|--------|
| 1           | 1.6 GHz   | 41.67 dBµV/m | 74 dBµV/m  | -32.33           | Pass        | -90 Degree | 1.90 m |

| Peak Number | Frequency | Average      | Average Limit | Average Difference | Average Status | Angle      | Height |
|-------------|-----------|--------------|---------------|--------------------|----------------|------------|--------|
| 1           | 1.6 GHz   | 33.19 dBµV/m | 53.98 dBµV/m  | -20.79 dB          | Pass           | -90 Degree | 1.90 m |

### 2.2.1 Information

### 2.2.2 Setup



### 2.2.3 Equipment

| Test Software |                  |            |           |
|---------------|------------------|------------|-----------|
| Description   | Manufacturer     | Name       | Version   |
| EMC Software  | DARE Instruments | Radimation | 2016.1.10 |

| Test Equipment    |              |         |            |           |          |
|-------------------|--------------|---------|------------|-----------|----------|
| Description       | Manufacturer | Model   | Identifier | Cal. Date | Cal. Due |
| AMN               | R&S          | ESH3-Z5 | EF00036    | 2019-07   | 2021-07  |
| Pulse Limiter     | R&S          | ESH3-Z2 | EF01063    | 2019-07   | 2020-07  |
| EMI Test Receiver | R&S          | ESR 7   | EF00943    | 2019-10   | 2020-10  |

### 2.2.4 Procedure

| Exploratory measurement |                                                                                                                                                                                     |
|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1.                      | The EUT was placed on a non conductive table 0.8 m above the reference ground plane and 0.4 m away from the vertical conducting plane (ANSI C63.4: 2014 item 7.3.1)                 |
| 2.                      | The power cord that is normally supplied or recommended by the manufacturer was connected to the LISN.                                                                              |
| 3.                      | The distance between the outer edge of the EUT and the LISN shall be set to 0.8 m. A longer power cord shall be bundled to this length (bundling shall not exceed 40 cm in length). |
| 4.                      | The LISN measurement port was connected to a measurement receiver                                                                                                                   |
| 5.                      | I/O cables were bundled not longer than 0.4 m                                                                                                                                       |
| 6.                      | Measurement was performed in the frequency range 0.15 – 30MHz on each current-carrying conductor                                                                                    |
| 7.                      | To maximize the emissions the cable positions were manipulated                                                                                                                      |
| 8.                      | The worst configuration of EUT and cables is shown on a test setup picture at item 1.3                                                                                              |

| Final measurement |                                                                                                                                                                                     |
|-------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1.                | The EUT was placed on a non-conductive table 0.8 m above the reference ground plane and 0.4 m away from the vertical conducting plane (ANSI C63.4: 2014 item 7.3.1)                 |
| 2.                | The power cord that is normally supplied or recommended by the manufacturer was connected to the LISN.                                                                              |
| 3.                | The distance between the outer edge of the EUT and the LISN shall be set to 0.8 m. A longer power cord shall be bundled to this length (bundling shall not exceed 40 cm in length). |
| 4.                | The LISN measurement port was connected to a measurement receiver                                                                                                                   |
| 5.                | The EUT and cable arrangement were based on the exploratory measurement results                                                                                                     |
| 6.                | The test data of the worst-case conditions were recorded and shown on the next pages                                                                                                |

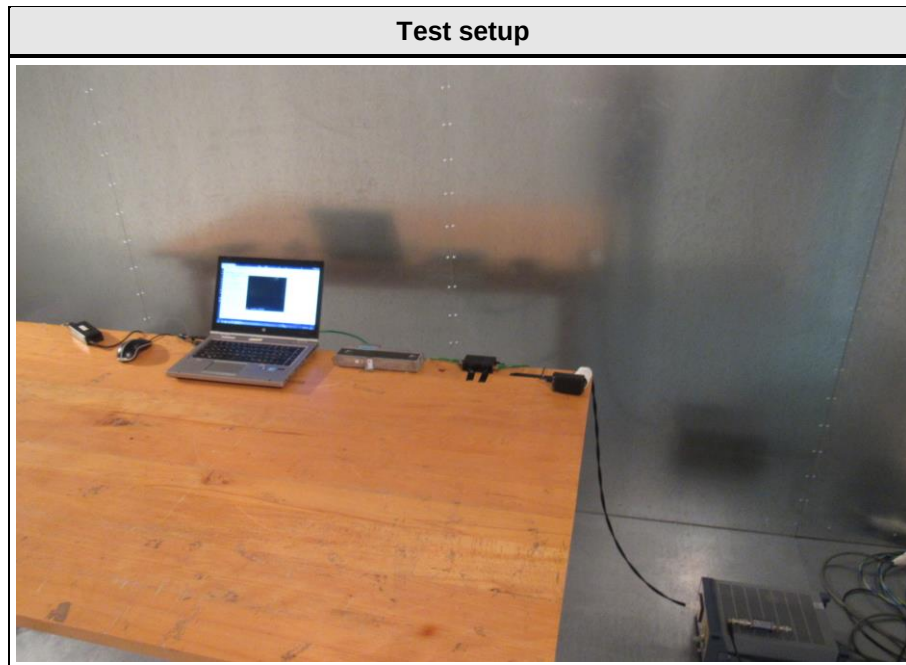
### 2.2.5 Limits

| Class B                                         |                         |                      |
|-------------------------------------------------|-------------------------|----------------------|
| Frequency [MHz]                                 | Quasi-peak Limit [dBμV] | Average Limit [dBμV] |
| 0.15 - 0.5                                      | 66 - 56 *               | 56 - 46 *            |
| 0.5 - 5                                         | 56                      | 46                   |
| 5 - 30                                          | 60                      | 50                   |
| * Decreases with the logarithm of the frequency |                         |                      |

## 2.2.6 Results

| AC power line conducted emissions |          |                  |                   |         |                                 |
|-----------------------------------|----------|------------------|-------------------|---------|---------------------------------|
| Port                              | Coupling | Operational mode | EUT Configuration | Verdict | Remark                          |
| Power                             | AMN      | 1                | 1                 | PASS    | AC/DC adaptor from PoE Injector |

### 2.2.7 Setup Photos



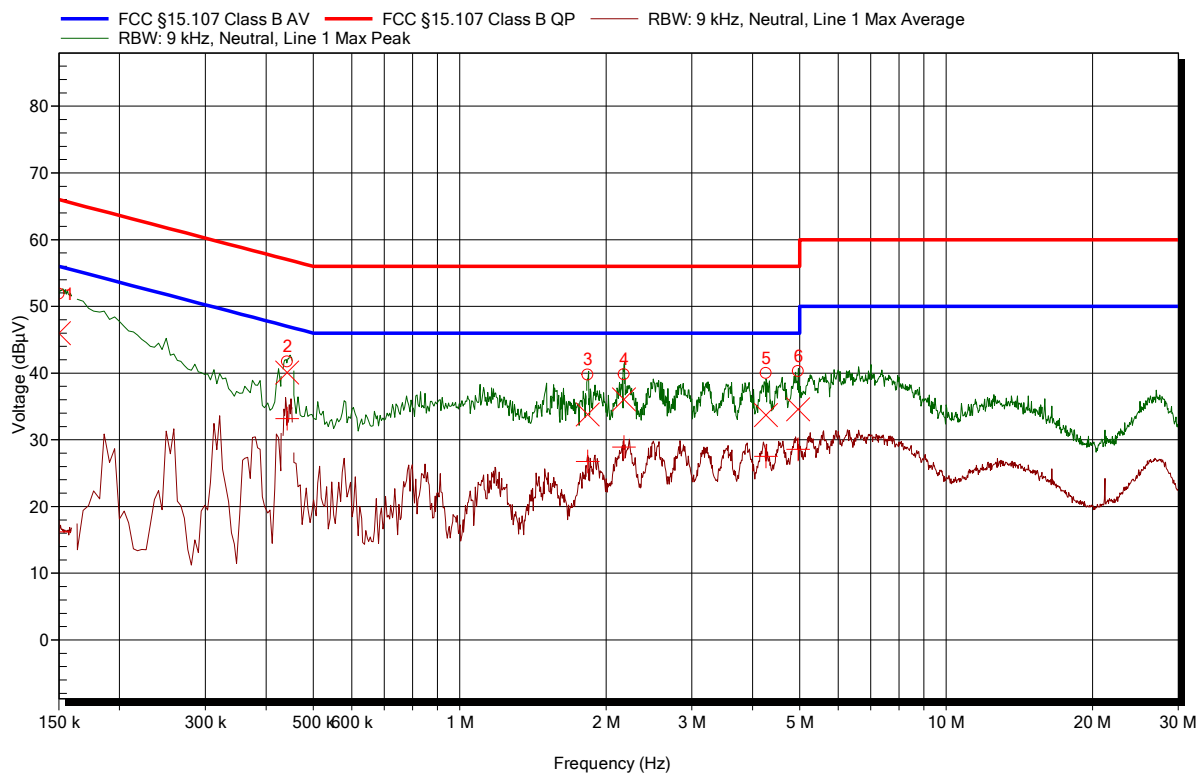
## 2.2.8 Records

### EMI voltage test in the ac-mains according to FCC part 15B

Project number: G0M-1911-8642

Applicant: Hella Aglaia Mobile Vision GmbH  
 EUT Name: Advanced People Sensor; 180mm lens distance; without IO connector  
 Model: APS-180E  
 Test Site: Eurofins Product Service GmbH  
 Operator: Mr. Handrik  
 Test Conditions: Tnom: 22°C, Unom: 120V AC (AC/DC adaptor)  
 LISN: Rohde & Schwarz ESH3-Z5  
 Mode: mode# 1  
 Test Date: 2019-12-02  
 Note:

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| Peak Number | Frequency  | Quasi-Peak | Quasi-Peak Limit | Quasi-Peak Difference | Quasi-Peak Status |
|-------------|------------|------------|------------------|-----------------------|-------------------|
| 1           | 150 kHz    | 45.99 dBμV | 66 dBμV          | -20.01 dB             | Pass              |
| 2           | 442.05 kHz | 40.1 dBμV  | 57.02 dBμV       | -16.92 dB             | Pass              |
| 3           | 1.833 MHz  | 33.79 dBμV | 56 dBμV          | -22.21 dB             | Pass              |
| 4           | 2.175 MHz  | 36.05 dBμV | 56 dBμV          | -19.95 dB             | Pass              |
| 5           | 4.263 MHz  | 33.69 dBμV | 56 dBμV          | -22.31 dB             | Pass              |
| 6           | 4.961 MHz  | 34.58 dBμV | 56 dBμV          | -21.42 dB             | Pass              |

| Peak Number | Frequency  | Average    | Average Limit | Average Difference | Average Status |
|-------------|------------|------------|---------------|--------------------|----------------|
| 1           | 150 kHz    | 16.21 dBμV | 56 dBμV       | -39.79 dB          | Pass           |
| 2           | 442.05 kHz | 33.18 dBμV | 47.02 dBμV    | -13.84 dB          | Pass           |
| 3           | 1.833 MHz  | 26.76 dBμV | 46 dBμV       | -19.24 dB          | Pass           |
| 4           | 2.175 MHz  | 28.89 dBμV | 46 dBμV       | -17.11 dB          | Pass           |
| 5           | 4.263 MHz  | 27.5 dBμV  | 46 dBμV       | -18.5 dB           | Pass           |
| 6           | 4.961 MHz  | 28.59 dBμV | 46 dBμV       | -17.41 dB          | Pass           |

Test Report No.: G0M-1911-8642-EF0115B-V01

Eurofins Product Service GmbH  
 Storkower Str. 38c, D-15526 Reichenwalde, Germany