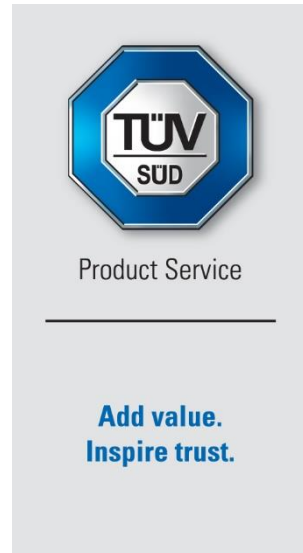


Report on the FCC and IC Testing of the
VAYYAR Imaging
SRD (Short Range Radar) – In Cabin
Monitor (Child presence Detection ECU)
Model: CPD Module
 In accordance with FCC 47 CFR Part 1.1310,
 Part 2.1093 and RSS-102



Prepared for: Vayyar Imaging Ltd.
 Shabazi St 26
 Yehud-Monosson 5623108
 Istral

COMMERCIAL-IN-CONFIDENCE

Date: 2023-07-04
 Document Number: TR-713296561-04 | Revision 0

| RESPONSIBLE FOR | NAME | DATE | SIGNATURE |
|----------------------|----------------|------------|---|
| Project Management | Martin Steindl | 2023-07-04 | <i>Skinell Martin</i> SIGN-ID 807056 |
| Authorised Signatory | Michael Ingerl | 2023-07-04 | <i>M. Ingerl</i> SIGN-ID 807483 |

Signatures in this approval box have checked this document in line with the requirements of TÜV SÜD Product Service document control rules.

Engineering Statement:

This measurement shown in this report were made in accordance with the procedures described on test pages.
 All reported testing was carried out on a sample equipment to demonstrate limited compliance with with FCC 47 CFR Part 15 C and ISED RSS-210 and RSS-GEN.
 The sample tested was found to comply with the requirements defined in the applied rules.

| RESPONSIBLE FOR | NAME | DATE | SIGNATURE |
|-----------------|----------------|------------|---|
| Testing | Martin Steindl | 2023-07-04 | <i>Skinell Martin</i> SIGN-ID 807057 |

Laboratory Accreditation Laboratory recognition Industry Canada test site registration
 DAkkS Reg. No. D-PL-11321-11-02 Registration No. BNetzA-CAB-16/21-15 3050A-2
 DAkkS Reg. No. D-PL-11321-11-03

Executive Statement:

A sample of this product was tested and found to be compliant with FCC 47 CFR Part 15 C:2021 and ISED RSS210:2019 and ISED RSSGen:2019

| |
|--|
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Trade Register Munich
 HRB 85742
 VAT ID No. DE129484267
 Information pursuant to Section 2(1)
 DL-InfoV (Germany) at
 www.tuvsud.com/imprint

Managing Directors:
 Walter Reitmaier (Sprecher / CEO)
 Patrick van Welij

Phone: +49 (0) 9421 56 82-0
 Fax: +49 (0) 9421 56 82-199
 www.tuvsud.com

TÜV SÜD Product Service GmbH
 Äußere Frühlingstraße 45
 94315 Straubing
 Germany



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1 Report Summary

1.1 Modification Report

Alterations and additions of this report will be issued to the holders of each copy in the form of a complete document.

| <i>Issue</i> | <i>Description of changes</i> | <i>Date of Issue</i> |
|--------------|-------------------------------|----------------------|
| 1 | First Issue | 2023-07-04 |

Table 1: Report of Modifications

1.2 Introduction

| | |
|---|---|
| <i>Applicant</i> | VAYYAR Imaging Ltd. Shabazi Street 26 5623108 Yehud Israel |
| <i>Manufacturer</i> | Vayyar Imaging Ltd. , Shabazi 26 Yehud, Israel |
| <i>Model</i> | CPD Module |
| <i>FCC ID</i> | 2AHIS-V60GINCARVG |
| <i>IC:</i> | 21498-V60GINCARVG |
| <i>Model Number(s)</i> | VF6: EEP70034018, VF7: EEP71034014 |
| <i>Serial Number(s)</i> | 45, 44 |
| <i>Version(s)</i> | 01 |
| <i>Software version(s):</i> | MPR 3.2.1 |
| <i>Number of Samples Tested</i> | 1 |
| <i>Test Specification(s) / Issue / Date</i> | FCC 47 CFR Part 1.1310 and Part 2.1093 ISED RSS-102 Issue 5 (March 2015) + Amendment 1 (February 2021) |
| <i>Test Plan/Issue/Date</i> | N/A |
| <i>Order Number</i> | POIL12880 |
| <i>Date</i> | |
| <i>Date of Receipt of EUT</i> | 2023-05-07 |
| <i>Start of Test</i> | 2023-05-08 |
| <i>Finish of Test</i> | 2023-06-06 |
| <i>Name of Engineer(s)</i> | M. Steindl |
| <i>Related Document(s)</i> | KDB 447498 D01 General RF Exposure Guidance v07 ANSI C63.10 (2013) |



Product Service

1.3 Brief Summary of Results

A brief summary of the tests carried out in accordance with FCC 47 CFR Parts 1 and 2, and ISED RSS-102 is shown below.

| <i>Section</i> | <i>Specification Clause</i> | <i>Test Description</i> | <i>Result</i> |
|----------------|-----------------------------|-------------------------|---------------|
| 2.1 | 1.1307(b)(3)(i)(A) | SAR Calculation | Pass |

Table 2: Results according to FCC 47 CFR Part 15 C

| <i>Section</i> | <i>Specification Clause</i> | <i>Test Description</i> | <i>Result</i> |
|----------------|-----------------------------|-------------------------|---------------|
| 2.1 | 4, table 4 | SAR Calculation | Pass |

Table 3: Results according to ISED RSS-102



1.4 Product Information

1.4.1 Technical Description

Frequency Band: 57 – 64 GHz
Frequency Range 61 – 64 GHz

Supply Voltage: 12 V
Supply Frequency: DC (0 Hz)

Highest clock frequency (non-radio part): 560 MHz



Draft of Marking Plate

1.4.2 EUT Ports / Cables identification

| Description | Classification | Screened | Length (used) |
|--------------|-----------------------|----------|---------------|
| DC supply | DC Power | No | 3 m |
| CAN Interfac | Signal / Control port | No | 3 m |

Table 4

1.5 Test Configuration

The EUT was configured as stand alone device, controlled over CAN interface.

1.6 Modes of Operation

The EUT was operated to transmit continuously FMCW modulation.

1.7 EUT Modifications Record

The table below details modifications made to the EUT during the test programme.



The modifications incorporated during each test are recorded on the appropriate test pages.

| Modification State | Description of Modification still fitted to EUT | Modification Fitted By | Date Modification Fitted |
|--------------------|---|------------------------|--------------------------|
| 0 | As supplied by the customer | Not Applicable | Not Applicable |

Table 5

1.8 Test Location

TÜV SÜD Product Service conducted the following tests at our Straubing test laboratory:

| Test Name | Name of Engineer(s) |
|-----------------|---------------------|
| SAR calculation | M. Steindl |

Office Address:

Äußere Frühlingstraße 45
94315 Straubing
Germany



2 Test Details

2.1 SAR Calculation

2.1.1 Specification Reference

FCC 47 CFR Part 1.1310
ISED RSS-102

2.1.2 Equipment under Test and Modification State

CPD Module; S/N 45; Modification State 0

2.1.3 Date of Test

2023-05-12

2.1.4 Environmental Conditions

Ambient Temperature 24 °C
Relative Humidity 42 %

2.1.5 Test Method

The test was performed in accordance with KDB 447498 D01 V07
See test report TR-713296561-04 for details on test method for radiated power.
Evaluation distance of 1.3 cm was defined by applicant.

2.1.6 Limit

2.1.6.1 Limit acc. to 47 CFR Part 1, § 1.1307(b)(3)(i)(A)

The available maximum time-averaged power is no more than 1 mW, regardless of separation distance. This exemption may not be used in conjunction with other exemption criteria other than those in paragraph (b)(3)(ii)(A) of this section.

2.1.6.2 Limit acc. to ISED RSS-102, section 4, Table 4

| Frequency Range (MHz) | Electric Field (V/m rms) | Magnetic field (A/m rms) | Power Density (W/m ²) | Reference Period (min) |
|-----------------------|--------------------------|-------------------------------|-----------------------------------|------------------------|
| 150000 – 300000 | $0.158 f^{0.5}$ | $4.21 \times 10^{-4} f^{0.5}$ | $6.67 \times 10^{-5} f$ | $616000 f^{1.2}$ |



2.1.7 Test Results

Maximum EIRP (worst case): Average: -14.21 dBm = 37.93 μ W

Frequency: 75 – 77 GHz (> 5800 MHz)
Minimum separation distance r: 1.3 cm (declared by applicant)
Power density $S = EIRP / (4 \pi r^2)$: Average: 0.002 mW/cm²

FCC limit: 1.0 mW
ISED Limit: 5 W/m² = 50 mW/cm²

2.1.8 Test Location and Test Equipment

The test was carried out in fully anechoic room, Cabin No. 2

| <i>Instrument</i> | <i>Manufacturer</i> | <i>Type No</i> | <i>TE No</i> | <i>Calibration Period (months)</i> | <i>Calibration Due</i> |
|------------------------------|---------------------|----------------|--------------|------------------------------------|------------------------|
| Signal and Spectrum Analyser | Rohde & Schwarz | FSW43 | 53496 | 12 | 2024-04-30 |
| Waveguide Mixer | Rohde & Schwarz | FS-Z75 | 51464 | 36 | 2026-05-31 |
| Horn Antenna | Flann | 25240-25 | 20040 | * | |
| Fully anechoic room | Albatross Projects | Cabin No. 2 | 19312 | | |

*: Checked before usage

Table 6



3 Measurement Uncertainty

For a 95% confidence level, the measurement uncertainties for defined systems are:

| <i>Radio Interference Emission Testing</i> | | |
|--|-----------|-----------------------------|
| <i>Test Name</i> | <i>kp</i> | <i>Expanded Uncertainty</i> |
| Conducted Voltage Emission | | |
| 9 kHz to 150 kHz (50Ω/50μH AMN) | 2 | ± 3.8 dB |
| 150 kHz to 30 MHz (50Ω/50μH AMN) | 2 | ± 3.4 dB |
| 100 kHz to 200 MHz (50Ω/5μH AMN) | 2 | ± 3.6 dB |
| Discontinuous Conducted Emission | | |
| 9 kHz to 150 kHz (50Ω/50μH AMN) | 2 | ± 3.8 dB |
| 150 kHz to 30 MHz (50Ω/50μH AMN) | 2 | ± 3.4 dB |
| Conducted Current Emission | | |
| 9 kHz to 200 MHz | 2 | ± 3.5 dB |
| Magnetic Fieldstrength | | |
| 9 kHz to 30 MHz (with loop antenna) | 2 | ± 3.9 dB |
| 9 kHz to 30 MHz (large-loop antenna 2 m) | 2 | ± 3.5 dB |
| Radiated Emission | | |
| 30 MHz to 300 MHz | 2 | ± 4.9 dB |
| 300 MHz to 1 GHz | 2 | ± 5.0 dB |
| 1 GHz to 6 GHz | 2 | ± 4.6 dB |
| Test distance 10 m | | |
| 30 MHz to 300 MHz | 2 | ± 4.9 dB |
| 300 MHz to 1 GHz | 2 | ± 4.9 dB |
| The expanded uncertainty reported according to CISPR16-4-2: 2011 + A1 + A2 + Cor1 is based on a standard uncertainty multiplied by a coverage factor of $k_p = 2$, providing a level of confidence of $p = 95.45\%$ | | |

Table 7 Measurement uncertainty based on CISPR 16-4-2



| <i>Radio Interference Emission Testing</i> | | |
|--|-----------|-----------------------------|
| <i>Test Name</i> | <i>kp</i> | <i>Expanded Uncertainty</i> |
| Occupied Bandwidth | 2 | ± 5 % |
| Conducted Power | | |
| 9 kHz ≤ f < 30 MHz | 2 | ± 1.0 dB |
| 30 MHz ≤ f < 1 GHz | 2 | ± 1.5 dB |
| 1 GHz ≤ f ≤ 40 GHz | 2 | ± 2.5 dB |
| 1 MS/s power sensor (TS8997) | 2 | ± 1.5 dB |
| Occupied Bandwidth | 2 | ± 5 % |
| Power Spectral Density | 2 | ± 3.0 dB |
| Radiated Power | | |
| 25 MHz – 6 GHz | 1.96 | ±4.4 dB |
| 1 GHz – 18 GHz | 1.96 | ±4.7 dB |
| 18 GHz – 40 GHz | 1.96 | ±4.9 dB |
| 40 GHz – 325 GHz | 1.96 | ±6.1 dB |
| Conducted Spurious Emissions | 2 | ± 3.0 dB |
| Radiated Spurious Emissions | 2 | ± 6.0 dB |
| Voltage | | |
| DC | 2 | ± 1.0 % |
| AC | 2 | ± 2.0 % |
| Time (automatic) | 2 | ± 5 % |
| Frequency | 2 | ± 10 ⁻⁷ |
| The expanded uncertainty reported according to ETSI TR 100 028:2001 is based on a standard uncertainty multiplied by a coverage factor of $k_p = 2$, providing a level of confidence of $p = 95.45\%$ | | |

Table 8 Measurement uncertainty based on ETSI TR 100 028

The measurement uncertainty in the laboratory is less than or equal to the maximum measurement uncertainty according to CISPR16-4-2: 2011 + A1 + A2 + Cor1 (U_{CISPR}) and as specified in the test report below. This normative regulation means that the measured value is also the value to be assessed in relation to the limit value.



| <i>Test Name</i> | <i>Expanded Uncertainty</i> |
|--|-----------------------------|
| Occupied Bandwidth | ±5 % |
| Conducted Power | |
| 9 kHz ≤ f < 30 MHz | ±1.0 dB |
| 30 MHz ≤ f < 1 GHz | ±1.5 dB |
| 1 GHz ≤ f ≤ 40 GHz | ±2.5 dB |
| 1 MS/s power sensor (2.4 / 5 GHz band) | ±1.5 dB |
| Power Spectral Density | ±3.0 dB |
| Radiated Power | |
| 25 MHz – 26.5 GHz | ±6.0 dB |
| 26.5 GHz – 66 GHz | ±8.0 dB |
| 40 GHz – 325 GHz | ±10.0 dB |
| Conducted Spurious Emissions | ±3.0 dB |
| Radiated Field Strength 9 kHz – 40 GHz | ±6.0 dB |
| Voltage | |
| DC | ± 1.0 % |
| AC | ± 2.0 % |
| Time (automatic) | ± 5 % |
| Frequency | ± 10 ⁻⁷ |

Table 9 Decision Rule: Maximum allowed measurement uncertainty