

Test Report

Report No.: MTi241111016-05E3

Date of issue: 2024-12-30

Applicant: Lear Corporation Holding Spain SLU

Product name: Integration Platform Basis

Model(s): IPB-01

FCC ID: 2BNFAIPB-01

Shenzhen Microtest Co., Ltd.
<http://www.mtitest.com>



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2. The test results in this test report are only responsible for the samples submitted
3. This test report is invalid without the seal and signature of the laboratory.
4. This test report is invalid if transferred, altered, or tampered with in any form without authorization.
5. Any objection to this test report shall be submitted to the laboratory within 15 days from the date of receipt of the report.

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| Test Result Certification | |
|----------------------------|--|
| Applicant: | Lear Corporation Holding Spain SLU |
| Address: | Carrer Fusters, 54 - 43800 Valls (Spain) |
| Manufacturer: | Lear Corporation Holding Spain SLU |
| Address: | Carrer Fusters, 54 - 43800 Valls (Spain) |
| Product description | |
| Product name: | Integration Platform Basis |
| Trade mark: | Lear |
| Model name: | IPB-01 |
| Series Model: | N/A |
| Standards: | 47 CFR Part 15, Subpart B |
| Date of Test | |
| Date of test: | 2024-12-13 to 2024-12-18 |
| Test result: | Pass |

| | | |
|----------------------|---|--------------------|
| Test Engineer | : | <i>Letter Lan.</i> |
| | | (Letter Lan) |
| Reviewed By | : | <i>Leon Chen</i> |
| | | (Leon Chen) |
| Approved By | : | <i>Tom Xue</i> |
| | | (Tom Xue) |

1 General Description

1.1 Description of the EUT

| | |
|----------------------------|------------------------------|
| Product name: | Integration Platform Basis |
| Model name: | IPB-01 |
| Series Model(s): | N/A |
| Model difference: | N/A |
| Electrical rating: | DC 13.5V \Rightarrow 800mA |
| Accessories: | N/A |
| Hardware version: | 013.000.00X |
| Software version: | 020.016.184 |
| Test sample(s) number: | MTi241111016-01S1001 |
| RF specification | |
| Operating frequency range: | 125kHz |
| Modulation type: | ASK |
| Antenna(s) type: | LC (for CA/CG-Antenna) |
| Antenna(s) gain: | -25.9dBi |

1.2 Description of test modes

All the test modes were carried out with the EUT in normal operation, the final test mode of the EUT was the worst test mode for emission test, which was shown in this report and defined as:

| No. | Emission test modes |
|-------|---------------------|
| Mode1 | normal working |

1.3 Environmental Conditions

During the measurement the environmental conditions were within the listed ranges:

| | |
|-----------------------|------------------|
| Temperature: | 15°C ~ 35°C |
| Humidity: | 20% RH ~ 75% RH |
| Atmospheric pressure: | 98 kPa ~ 101 kPa |

1.4 Description of support units

| Support equipment list | | | |
|------------------------|------------|-------------|--------------|
| Description | Model | Serial No. | Manufacturer |
| Laptop | e485 | DB12345678 | Lenovo |
| Accumulator | 55D23LX | 0R29GP5611B | CAMEL |
| Support cable list | | | |
| Description | Length (m) | From | To |
| / | / | / | / |

1.5 Measurement uncertainty

| Measurement | Uncertainty |
|---------------------------------|-------------|
| Radiated emissions (30MHz~1GHz) | 4.7dB |
| Radiated emissions (above 1GHz) | 5.1dB |
| Temperature | ±1 °C |
| Humidity | ± 5 % |

This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.

2 Summary of Test Result

| No. | Item | Standard | Requirement | Result |
|-----|---------------------------------|---------------------------|-----------------|--------|
| 1 | Radiated emissions (Below 1GHz) | 47 CFR Part 15, Subpart B | 15.109, Class B | Pass |

Note: The device is a DC power supply and does not apply to conducted emissions.

3 Test Facilities and accreditations

3.1 Test laboratory

| | |
|------------------------|--|
| Test laboratory: | Shenzhen Microtest Co., Ltd. |
| Test site location: | 101, No.7, Zone 2, Xinxing Industrial Park, Fuhai Avenue, Xinhe Community, Fuhai Street, Bao'an District, Shenzhen, Guangdong, China |
| Telephone: | (86-755)88850135 |
| Fax: | (86-755)88850136 |
| CNAS Registration No.: | CNAS L5868 |
| FCC Registration No.: | 448573 |
| IC Registration No.: | 21760 |
| CABID: | CN0093 |

4 List of test equipment

| No. | Equipment | Manufacturer | Model | Serial No. | Cal. date | Cal. Due |
|---|--------------------------|-----------------|-------------|------------|------------|------------|
| Emissions in frequency bands (30MHz - 1GHz) | | | | | | |
| 1 | EMI Test Receiver | Rohde&schwarz | ESCI7 | 101166 | 2024-03-20 | 2025-03-19 |
| 2 | TRILOG Broadband Antenna | schwarabeck | VULB 9163 | 9163-1338 | 2023-06-11 | 2025-06-10 |
| 3 | Active Loop Antenna | Schwarzbeck | FMZB 1519 B | 00066 | 2024-03-23 | 2025-03-22 |
| 4 | Amplifier | Hewlett-Packard | 8447F | 3113A06184 | 2024-03-20 | 2025-03-19 |

5 Emission Test Results (EMI)

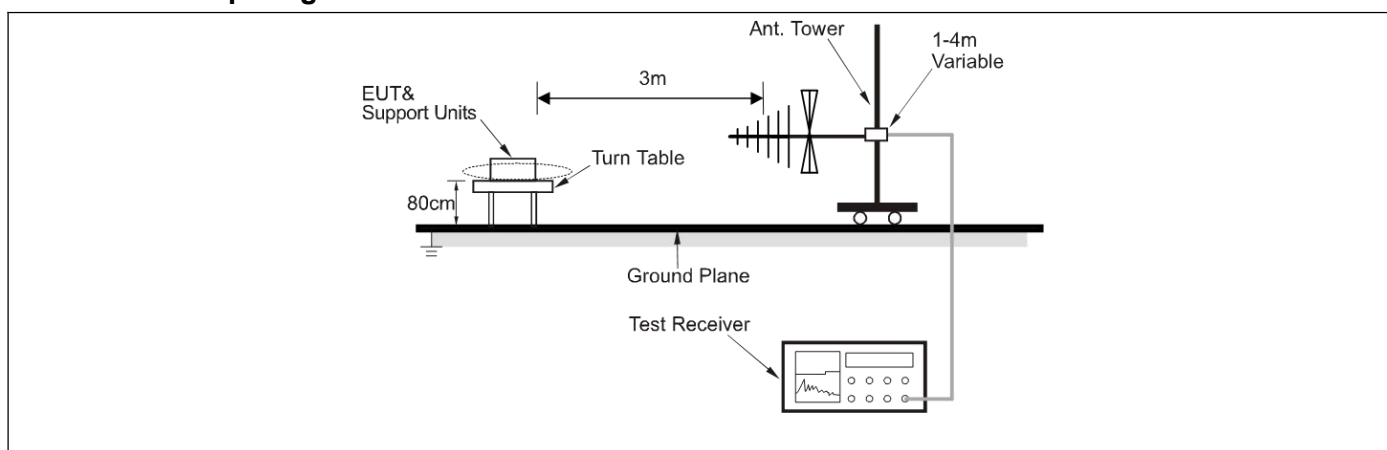
5.1 Radiated emissions (Below 1GHz)

| | | | | |
|-------------------|--|---------------------------|-----------------------------|-----------------------------|
| Test Requirement: | 15.109, Class B | | | |
| Test Limit: | The field strength of radiated emissions from a Class B digital device, as determined at a distance of 10 meters, shall not exceed the following: | | | |
| | Frequency (MHz) | Detector type / bandwidth | Class A limit (3m) (dBµV/m) | Class B limit (3m) (dBµV/m) |
| | 30-88 | Quasi Peak / 120 kHz | 49 | 40 |
| | 88-216 | | 53.5 | 43.5 |
| | 216-960 | | 56.4 | 46 |
| | 960-1000 | | 59.5 | 54 |
| | Note: the tighter limit applies at the band edges | | | |
| Test Method: | ANSI C63.4-2014 ANSI C63.4a-2017 | | | |
| Procedure: | An initial pre-scan was performed in the chamber using the spectrum analyser in peak detection mode. Quasi-peak measurements were conducted based on the peak sweep graph. The EUT was measured by BiConiLog antenna with 2 orthogonal polarities. Remark: Level= Read Level+ Cable Loss+ Antenna Factor- Preamp Factor | | | |

5.1.1 E.U.T. Operation:

| | | | | | |
|------------------------|--|-----------|------|-----------------------|---------|
| Operating Environment: | | | | | |
| Temperature: | 23.5 °C | Humidity: | 65 % | Atmospheric Pressure: | 101 kPa |
| Pre test mode: | Mode1, Mode2, Mode3, Mode4, Mode5, Mode6 | | | | |
| Final test mode: | All of the listed pre-test mode were tested, only the data of the worst mode (Mode2) is recorded in the report | | | | |

5.1.2 Test Setup Diagram:



5.1.3 Test Data:

Mode1 / Polarization: Horizontal



| No. | Mk. | Freq. MHz | Reading Level dBuV | Correct Factor dB | Measure- ment dBuV/m | Limit dBuV/m | Over dB | Detector | Comment |
|-----|-----|--------------|--------------------------|-------------------------|----------------------------|-----------------|------------|----------|---------|
| 1 | * | 81.2117 | 46.49 | -11.68 | 34.81 | 40.00 | -5.19 | QP | |
| 2 | | 141.3298 | 41.29 | -8.78 | 32.51 | 43.50 | -10.99 | QP | |
| 3 | | 202.1005 | 38.07 | -6.67 | 31.40 | 43.50 | -12.10 | QP | |
| 4 | | 270.3748 | 38.76 | -5.54 | 33.22 | 46.00 | -12.78 | QP | |
| 5 | | 406.0880 | 43.75 | -3.85 | 39.90 | 46.00 | -6.10 | QP | |
| 6 | | 485.6093 | 40.04 | -2.08 | 37.96 | 46.00 | -8.04 | QP | |

Mode1 / Polarization: Vertical



| No. | Mk. | Freq. MHz | Reading Level dBuV | Correct Factor dB | Measure- ment dBuV/m | Limit dBuV/m | Over dB | Detector | Comment |
|-----|-----|--------------|--------------------------|-------------------------|----------------------------|-----------------|------------|----------|---------|
| 1 | * | 62.2128 | 39.92 | -8.78 | 31.14 | 40.00 | -8.86 | QP | |
| 2 | | 160.3456 | 37.33 | -9.86 | 27.47 | 43.50 | -16.03 | QP | |
| 3 | | 207.8501 | 38.97 | -7.28 | 31.69 | 43.50 | -11.81 | QP | |
| 4 | | 292.0583 | 34.82 | -5.09 | 29.73 | 46.00 | -16.27 | QP | |
| 5 | | 401.8385 | 40.73 | -3.87 | 36.86 | 46.00 | -9.14 | QP | |
| 6 | | 562.6624 | 34.50 | -0.34 | 34.16 | 46.00 | -11.84 | QP | |

Photographs of the test setup

Refer to Appendix - Test Setup Photos

Photographs of the EUT

Refer to Appendix - EUT Photos

----End of Report----