

Test Report

Report No.: MTi24111016-05E3

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



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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--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)

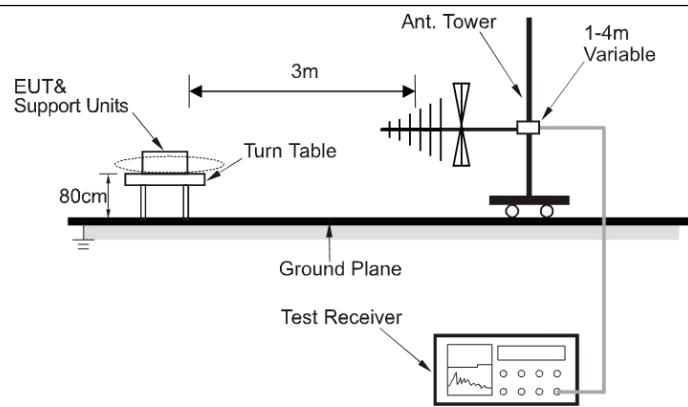
5.1 Radiated emissions (Below 1GHz)

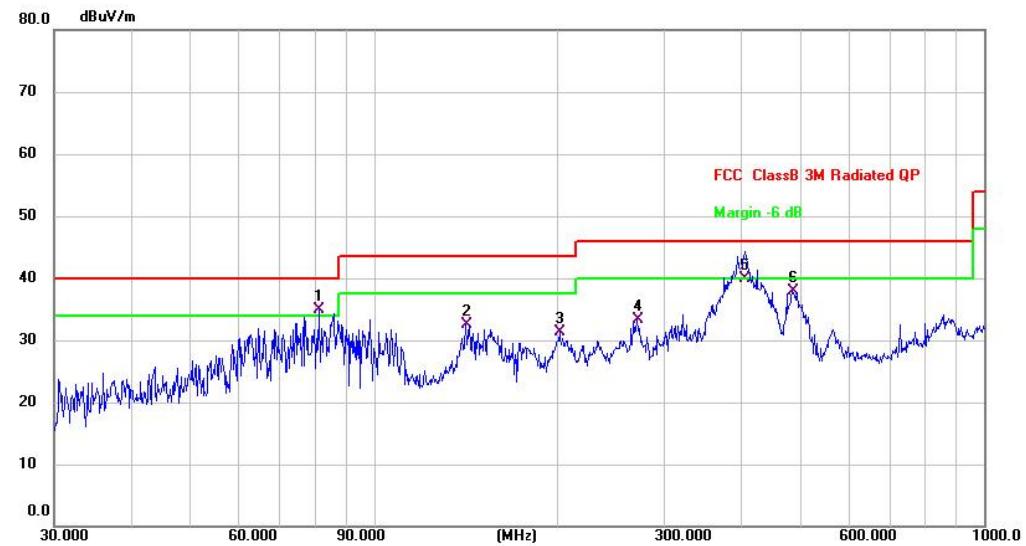
Test Requirement:	15.109, Class B			
Test Limit:	The field strength of radiated emissions from a Class B digital device, as determined at a distance of 10 meters, shall not exceed the following:			
Frequency (MHz)	Detector type / bandwidth	Class A limit (3m) (dB μ V/m)	Class B limit (3m) (dB μ V/m)	
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:
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.	Reading	Correct	Measure-	Limit	Over	Detector	Comment
			Level	Factor	ment				
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB		
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 dB	Over 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----