



Test Report No.: <i>Prüfbericht-Nr.:</i>	JP261C8T 001	Order No.: <i>Auftrags-Nr.:</i>	150329809	Page 1 of 68 <i>Seite 1 von 68</i>
Client Reference No.: <i>Kunden-Referenz-Nr.:</i>	N/A	Order Date: <i>Auftragsdatum:</i>	2026-05-11	
Client: <i>Auftraggeber:</i>	Nisshinbo Micro Devices Inc. 1-1, Fukuoka 2-Chome Fujimino City Saitama, 356-8510 Japan			
Test Item: <i>Prüfgegenstand:</i>	K-Band Doppler Sensor Module			
Identification / Type No.: <i>Bezeichnung / Typ-Nr.:</i>	NJR4275	Serial No.: <i>Serien-Nr.:</i>	Refer to Section 4.3	
Order Content: <i>Auftrags-Inhalt:</i>	Radio Testing			
Test Specification: <i>Prüfgrundlage:</i>	FCC 47 CFR Part 15, Subpart C, Section 15.249 RSS-210 (Issue 11): 2024			
Date of Sample Receipt: <i>Wareneingangsdatum:</i>	2026-06-22	-/-		
Test Sample No.: <i>Prüfmuster-Nr.:</i>	A004313604			
Testing Period: <i>Prüfzeitraum:</i>	2026-06-30 to 2026-07-31			
Place of Testing: <i>Ort der Prüfung:</i>	Yokohama EMC Laboratory			
Testing Laboratory: <i>Prüflaboratorium:</i>	TÜV Rheinland Japan Ltd.			
Test Result*: <i>Prüfergebnis*:</i>	Pass			
compiled by: <i>zusammengestellt von:</i>	<i>T. Nagata</i>	authorized by: <i>genehmigt von:</i>	<i>Hidetoshi Sasaki</i>	
Date: 2026-09-09 <i>Datum:</i>	Takeshi Nagata	Issue Date: 2026-09-09 <i>Ausstellungsdatum:</i>	Hidetoshi Sasaki	
Position / Stellung:	Test Engineer	Position / Stellung:	Authorizer	
Other / Sonstiges:				
Condition of the test item at delivery: <i>Zustand des Prüfgegenstandes bei Anlieferung:</i>		Test item complete and undamaged <i>Prüfmuster vollständig und unbeschädigt</i>		
* Legend: P(ass) = passed a.m. test specification(s) F(ail) = failed a.m. test specification(s) N/A = not applicable N/T = not tested * Legende: P(ass) = entspricht o.g. Prüfgrundlage(n) F(ail) = entspricht nicht o.g. Prüfgrundlage(n) N/A = nicht anwendbar N/T = nicht getestet				
This test report only relates to the above mentioned test sample. Without permission of the test center this test report is not permitted to be duplicated in extracts. This test report does not entitle to carry any test mark. <i>Dieser Prüfbericht bezieht sich nur auf das o.g. Prüfmuster und darf ohne Genehmigung der Prüfstelle nicht auszugsweise vervielfältigt werden. Dieser Bericht berechtigt nicht zur Verwendung eines Prüfzeichens.</i>				

V05

Test Report No.:
Prüfbericht-Nr.:

JP261C8T 001

Page 2 of 68
Seite 2 von 68

Revisions

Report No.	Issue date	Changes / Remarks
JP261C8T 001	2026-09-09	Original document

Remarks

1	The equipment used during the specified testing period was calibrated according to the test laboratory calibration program. The equipment fulfils the requirements included in the relevant standards. The traceability of the test equipment used is ensured by compliance with the regulations of the laboratory's management system.
2	Unless otherwise specified by the applied standard(s), the decision rule used in this test report for statements of conformity based on numerical measurement results is the "Zero Guard Band"/"Simple Acceptance" rule in accordance with ILAC G8:2019 and IEC Guide 115:2021. When the "Zero Guard Band" rule is applied, measurement uncertainty is not taken in account. For additional information on the risk resulting from the application of the "Zero Guard Band" decision rule, refer to ILAC G8:2019.

Contents

1.	General Remarks	5
1.1	Test Specifications	5
1.2	Test Report Purpose	6
1.3	Complementary Materials.....	6
2.	Test Sites.....	7
2.1	Test Facilities.....	7
2.2	List of Test and Measurement Instruments.....	7
2.3	Measurement Uncertainty	9
3.	General Product Information	10
3.1	Product Function and Intended Use.....	10
3.2	Ratings and System Details	10
3.3	Noise Generating and Noise Suppressing Parts.....	11
3.4	Submitted Documents and Information	12
4.	Test Setup and Operation Modes	13
4.1	Principle of Test Configuration Selection	13
4.2	Operation Modes	13
4.3	Physical Configuration for Testing.....	14
4.4	Test Software	15
4.5	Countermeasures to achieve Compliance	16
5.	Test Results R A D I O	17
5.1	Supply Voltage Requirements	17
5.2	Antenna Requirements.....	17
5.3	Restricted Bands of Operation	18
5.4	Field Strength of Fundamental	19
5.5	20dB Bandwidth	28
5.6	99% Bandwidth.....	33
5.7	Duty Cycle	38
5.8	Radiated Spurious Emissions of Transmitter	45
5.9	AC Power Line Conducted Emission of Transmitter	57
6.	Photographs of the Test Setup.....	59
7.	List of Tables.....	66
8.	List of Figures	67

9. List of Photographs 68

Test Report No.:
Prüfbericht-Nr.:

JP261C8T 001

Page 5 of 68
Seite 5 von 68

1. General Remarks

1.1 Test Specifications

Table 1: Test Summary

Test	Specifications	Result
Radio: FCC 47 CFR Part 15, Subpart C, Section 15.249 ANSI C63.10-2020 RSS-210 (Issue 11): 2024 RSS-Gen (Issue 5): 2018+Amendment 1:2019+Amendment 2:2021 ANSI C63.10-2020+Cor. 1-2023+Amend. 1-2024		
Supply Voltage Requirements FCC §15.31(e)	See section 5.1.	Pass
Antenna Requirements FCC §15.203	See section 5.2.	Pass
Restricted Bands of Operation FCC §15.205 RSS-Gen §8.10 and RSS-210 §7.3	See section 5.3.	Pass
Field Strength of Fundamental FCC §15.249(a)(e) and RSS-210 §Annex B, B.10, Table B2	250mV/m (107.9dBuV/m) at 3m measurement distance	Pass
20dB Bandwidth §15.215(c)	20dB bandwidth shall be contained within the designated frequency band.	Pass
99% Bandwidth RSS-Gen §6.7	-/-	For. Ref.
Duty Cycle FCC §15.35(c) RSS-Gen §8.2	-/-	For. Ref.
Radiated Spurious Emissions of Transmitter FCC §15.209 and §15.249(a)(d)(e) RSS-210 §Annex B, B.10, Table B2 and RSS- Gen §8.9, 8.10	9kHz - 100GHz 2 nd and 3 rd Harmonics: 2.5mV/m (67.9dBuV/m) at 3m distance	Pass
Conducted Emission on AC Power Ports of Transmitter FCC §15.207(a) RSS-Gen §8.8	150kHz - 30MHz	Pass

1.2 Test Report Purpose

The purpose of this test report is to show compliance of the **Equipment Under Test** (hereinafter, **EUT**) with the requirements of the standards listed in section 1.1.

1.3 Complementary Materials

There is no attachment to this test report.

2. Test Sites

2.1 Test Facilities

TÜV Rheinland Japan Ltd. – Global Technology Assessment Center
4-25-2 Kita-Yamata, Tsuzuki-ku, Yokohama 224-0021, Japan

The test facility is accredited by VLAC (member of ILAC) under accreditation number VLAC-017-1 according to ISO/IEC 17025:2017.

The test facility is accredited by A2LA (member of ILAC) under certificate number 5056.02 according to ISO/IEC 17025:2017 for RSS-210, RSS-Gen and ANSI C63.10 standards.

The test facility is recognized by the Federal Communications Commission (FCC) as Accredited Testing Laboratory under designation number JP0017.

The test facility is recognized by Innovation, Science and Economic Development Canada (ISED) as Wireless Device Testing Laboratory under the Wireless Lab Company Number 3466B and CAB Identifier JP0011.

2.2 List of Test and Measurement Instruments

Table 2: List of Test and Measurement Equipment

Kind of Equipment	Manufacturer	Model Name	Serial Number	Equip. ID	Cal. Interval	Cal. Date	Next Cal.
For Radiated Emission (RE)							
Path Loss Correction Factors for RE below 1GHz	-/-	-/-	-/-	RF-0596	1 year	2026-01-29	2027-01-29
Path Loss Correction Factors for RE above 1GHz	-/-	-/-	-/-	RF-0995	1 year	2025-11-06	2026-11-06
RE Meas. Software	Toyo Corporation	ES10/RE-AJ	0600-0179-80	RF-1263	N/A	N/A	N/A
EMI Receiver	Rohde & Schwarz	ESW 44	103396	RF-1250	1 year	2026-05-27	2027-05-27
RF Selector (10m Chamber)	Toyo Corporation	NS4900	0703-182	RF-0029	N/A	N/A	N/A
Loop Antenna with Amplifier, 9kHz-30MHz	Rohde & Schwarz	HFH2-Z2	100139	RF-0048	1 year	2025-07-18	2026-07-18
Trilog Antenna No. 2, 30-1000MHz	Schwarzbeck	VULB 9168	9168-475	RF-0462	1 year	2026-06-01	2027-06-01
5dB Attenuator	Pasternack	PE7047-5	-/-	RF-0731	1 year	2026-06-05	2027-06-05

Test Report No.:
Prüfbericht-Nr.:

JP261C8T 001

Page 8 of 68
Seite 8 von 68

Kind of Equipment	Manufacturer	Model Name	Serial Number	Equip. ID	Cal. Interval	Cal. Date	Next Cal.
Low Noise Preamplifier, 9kHz-1GHz	TSJ	MLA-10K01-B01-35	1370750	RF-0253	1 year	2025-12-25	2026-12-25
Band Pass Filter	Microwave Factory	MBP301	224969	RF-1015	1 year	2026-03-09	2027-03-09
Horn Antenna, 1-8GHz	Schwarzbeck	BBHA9120 D	9120D-2280	RF-0845	1 year	2026-02-27	2027-02-27
MMW PreAmp 0-50GHz	NEXTEM	RFA-1050000-40	RFA-1905-01	RF-1140	1 year	2025-11-06	2026-11-06
Horn Antenna, 1-18GHz	Schwarzbeck	BBHA9120 D	9120D-2280	RF-0845	1 year	2026-02-27	2027-02-27
Horn Antenna, 6-18GHz (RX)	Schwarzbeck Mess-Elektronik	BBHA9120 C	00775	RF-1315	2 years	2025-10-31	2027-10-31
Pre-amplifier for RF-1315 (6-18 GHz)	TOYO Corporation	HAP06-18W	B1510452 210-123	RF-1318	1 year	2025-11-05	2026-11-05
High Pass Filter, 8-18GHz	Micro-Tronics	HPM50107	G089	RF-1095	N/A	N/A	N/A
Horn Antenna, 18-26.5GHz (RX)	MI Technologies	12A-18	2774	RF-1308	1 year	2026-05-08	2027-05-08
Pre-amplifier for RF-1308 (18-26.5 GHz)	TOYO Corporation	HAP18-26N	10	RF-1310	1 year	2026-05-13	2027-05-13
Horn Antenna, 26.5 -40GHz (RX)	AMETEK	ANT-SGH-26.5-40	11894	RF-1317	1 year	2026-02-27	2027-02-27
Pre-amplifier for RF-1317, 26.5-40GHz	TOYO Corporation	HAP26-40W	B3208602 210-126	RF-1320	1 year	2026-03-09	2027-03-09
K type Fixed Attenuator (10dB)	ZTS Technologies Co., Ltd	ZFA2K-40B-10A	#1	RF-1272	1 year	2025-09-22	2026-09-22
K type Fixed Attenuator (10dB)	ZTS Technologies Co., Ltd	ZFA2K-40B-10A	#3	RF-1274	1 year	2025-09-22	2026-09-22
For Transmitter and Receiver Radiated Spurious Emission (above 40GHz)							
Spectrum Analyzer	Rohde & Schwarz	FSW85	101545	RF-1039	1 year	2025-12-10	2026-12-10
Horn Antenna 40-60GHz (RX)	Custom Microwave Inc.	HO19R	-/-	BT-8334	1 year	2026-07-23	2027-07-23
Low Noise Amplifier (40-50GHz)	ERAVANT	SBL-403603308 0-1919-E1	20101-01	RF-1061	1 year	2025-08-12	2026-08-12
Horn Antenna 50-75GHz (RX)	Custom Microwave Inc.	HO15R	-/-	BT-8336	1 year	2026-07-22	2027-07-22
Low Noise Amplifier (50-75GHz)	ERAVANT	SBP-503753302 0-1515-E1	27695-01	RF-1169	1 year	2026-07-22	2027-07-22
Harmonic mixer 75GHz-110GHz	Rohde & Schwarz	FS-Z110	101655	RF-1035	1 year	2025-10-31	2026-10-31
Horn Antenna 75-110GHz (RX)	Custom Microwave Inc.	HO10R	-/-	BT-8338	1 year	2026-07-22	2027-07-22
Low Noise Amplifier (75-110GHz)	SAGE	SBL75311 420401010 E1	13352-01	RF-1337	1 year	2026-07-21	2027-07-21

Test Report No.:
Prüfbericht-Nr.:

JP261C8T 001

Page 9 of 68
Seite 9 von 68

Kind of Equipment	Manufacturer	Model Name	Serial Number	Equip. ID	Cal. Interval	Cal. Date	Next Cal.
WR-10 84GHz Highpass Filter	SAGE	SWF-84380340-10-H1	13421-01	RF-1293	1 year	2026-07-21	2027-07-21
Constant Voltage Constant Frequency Stabilizers and Power Accessories							
CVCF (10m Chamber)	NF Corporation	ES2000U	9067307	RF-0212	1 year	2026-03-06	2027-03-06
CVCF Booster (10m Chamber)	NF Corporation	ES2000B	9074408	RF-0213	1 year	2026-03-06	2027-03-06
CVCF (Shielded Room)	NF Corporation	ES2000S	9075612	RF-0210	1 year	2026-03-06	2027-03-06
CVCF Booster (Shielded Room)	NF Corporation	ES2000B	9074403	RF-0211	1 year	2026-03-06	2027-03-06
DC Power Supply	KEYSIGHT	E36103B	MY58090030	RF-1296	N/A	N/A	N/A
True RMS Multimeter (10m Chamber)	Fluke	87V	97680450	RF-0282	1 year	2026-04-17	2027-04-17
True RMS Multimeter (mm wave)	Fluke	289	18590262	PV2-082	1 year	2025-12-24	2026-12-24

Conformance of the used measurement and test equipment with the requirements of ISO/IEC 17025 has been confirmed before testing.

Note: All test equipment was within its valid calibration period at the time of testing.

2.3 Measurement Uncertainty

Table 3: Measurement Uncertainty

Measurement Type	Frequency Range	Uncertainty (k=2)
Conducted Emission on Power Ports	9 - 150kHz	±3.79dB
	150kHz - 30MHz	±3.31dB
Magnetic Field Strength	9kHz - 30MHz	±4.79dB
Radiated Emission up to 1GHz	30MHz - 1GHz (3m Distance)	±6.05dB (Vertical) ±4.95dB (Horizontal)
	30MHz - 1GHz (10m Distance)	±4.99dB (Vertical) ±4.98dB (Horizontal)
Radiated Emission above 1GHz	1 - 6GHz	±5.17dB
	6 - 18GHz	±4.96dB
	18 - 40GHz	±5.05dB
Radiated Emission above 40GHz	40 - 60GHz	±5.53dB
	60 - 75GHz	±5.68dB
	75 - 110GHz	±5.69dB

3. General Product Information

3.1 Product Function and Intended Use

The EUT is a K-band movement sensor module based on the Doppler effect for human detection. It has 2 types of Normal operation modes and 3 types of Low power consumption modes with multiple duty cycle settings from 9.6% (Maximum) to 0.48% (Minimum) to optimize its power consumption.

3.2 Ratings and System Details

Table 4: Product Ratings and Details

Unit	Manufacturer	Model	Serial Number	Rated Voltage and Frequency	Rated Current or Power	Protect. Class
K-Band Doppler Sensor Module	Nisshinbo Micro Devices Inc.	NJR4275	Refer to Section 4.3	DC 5.0V	50mA	III

Test voltage and frequency: Refer to each test item.

24GHz Field Disturbance Sensor

Fundamental Field Strength: 100.45dBμV/m @3m, Peak
80.46dBμV/m @3m, Average

Antenna gain: +6.5dBi

Antenna type: Patch antenna

Antenna mounting type: PCB pattern

Allocated Frequency range: 24.00 - 24.25GHz

Nominal frequency range: 24.057 – 24.244GHz

Modulation type: No modulation

Signal spreading: -/- (No wireless data transmission capability)

Transmit speed: -/- (No wireless data transmission capability)

Number of channels: 30, see the table on the next page.

Channel spacing: 3MHz

FCC classification: DXX

ISED classification: Other

Emission designator: P0N

Table 5: Channel Lists

Channel	Lower Frequency (F2) [GHz]	Higher Frequency (F1) [GHz]	Gap of F1 and F2 [MHz]	Remarks
Ch1	24.057	24.072	15.0	Lowest Channel
Ch2	24.060	24.075	15.0	
Ch3	24.063	24.078	15.0	
Ch4	24.066	24.081	15.0	
Ch5	24.069	24.084	15.0	
Ch6	24.087	24.102	15.0	
Ch7	24.090	24.105	15.0	
Ch8	24.093	24.108	15.0	
Ch9	24.096	24.111	15.0	
Ch10	24.099	24.114	15.0	
Ch11	24.117	24.132	15.0	
Ch12	24.120	24.135	15.0	
Ch13	24.123	24.138	15.0	
Ch14	24.126	24.141	15.0	
Ch15	24.129	24.144	15.0	
Ch16	24.157	24.172	15.0	Middle Channel
Ch17	24.160	24.175	15.0	
Ch18	24.163	24.178	15.0	
Ch19	24.166	24.181	15.0	
Ch20	24.169	24.184	15.0	
Ch21	24.187	24.202	15.0	
Ch22	24.190	24.205	15.0	
Ch23	24.193	24.208	15.0	
Ch24	24.196	24.211	15.0	
Ch25	24.199	24.214	15.0	
Ch26	24.217	24.232	15.0	
Ch27	24.220	24.235	15.0	
Ch28	24.223	24.238	15.0	
Ch29	24.226	24.241	15.0	
Ch30	24.229	24.244	15.0	Highest Channel

Note: Channel Adjacent channel spacing is 3 MHz. A larger frequency gap exists between Ch10 and Ch11.

3.3 Noise Generating and Noise Suppressing Parts

The highest frequency generated or used by the EUT is 400MHz by MCU for the digital interface, 24.244GHz by transmitter portion, respectively.

3.4 Submitted Documents and Information

Following documents have been submitted by the client:

- Operational instructions for compliance testing

Following information provided in this test report has been submitted by the client, and the laboratory assumes no responsibility for its accuracy:

- client name and address;
- EUT identification, ratings, system details, and description of product function, operation and intended use;
- information related to noise generating and noise suppressing parts (if any).

4. Test Setup and Operation Modes

4.1 Principle of Test Configuration Selection

Radio: The test methodology used is based on the requirements of 47 CFR Part 15, sections 15.31, 15.33, 15.35, 15.205, 15.207, 15.209 and 15.249.

The test methodology used is based on the requirements of RSS-Gen, sections 3.2 and RSS-210.

The test methods, which have been used, are based on ANSI C63.10.

For details, see under each test item.

4.2 Operation Modes

The operation modes used for testing are:

- A. Transmitting at the lowest frequency (24.057/24.072 GHz) with the highest available Duty Cycle.
- B. Transmitting at the middle frequency (24.157/24.172 GHz) with the highest available Duty Cycle.
- C. Transmitting at the highest frequency (24.229/24.244 GHz) with the highest available Duty Cycle.

The following configurations are coupled with the operation modes (*):

- 1. Normal operation mode 1(F2 and F1 pair), Duty cycle 4.8%
- 2. Normal operation mode 2 (F1 only), Duty cycle 9.6% (**)

Note:

(*) The EUT provides five transmitting sequences. Two modes are normal operating modes used during active sensing operation, while the remaining three modes are low-power standby modes intended to reduce power consumption. The normal operating modes represent the worst-case RF transmission conditions and were therefore selected for compliance testing.

(**) This configuration operates with the highest available duty cycle transmission.

Each channel pair consists of F2 and F1 signals, the lower one and the higher one, respectively.

4.3 Physical Configuration for Testing

The EUT was tested on a stand-alone basis and the test system was configured in a typical fashion (as a customer would normally use it).

The justification and manipulation of cables and equipment in order to simulate the worst-case behavior of the test setup has been carried out as prescribed in ANSI C63.10.

Figure 1: Block Diagram for Radiated Emission of Transmitter

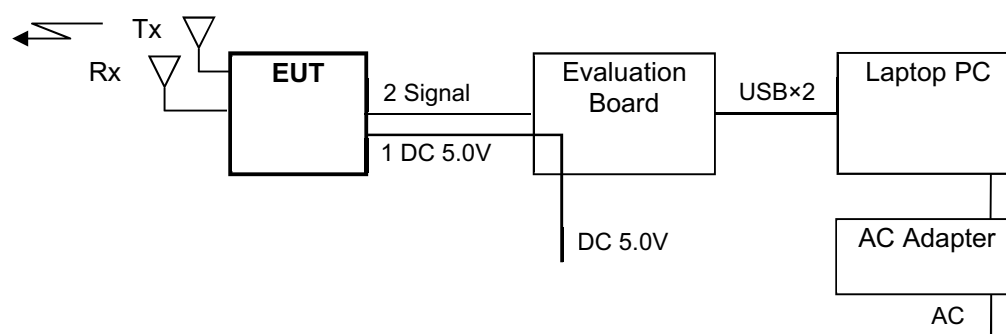
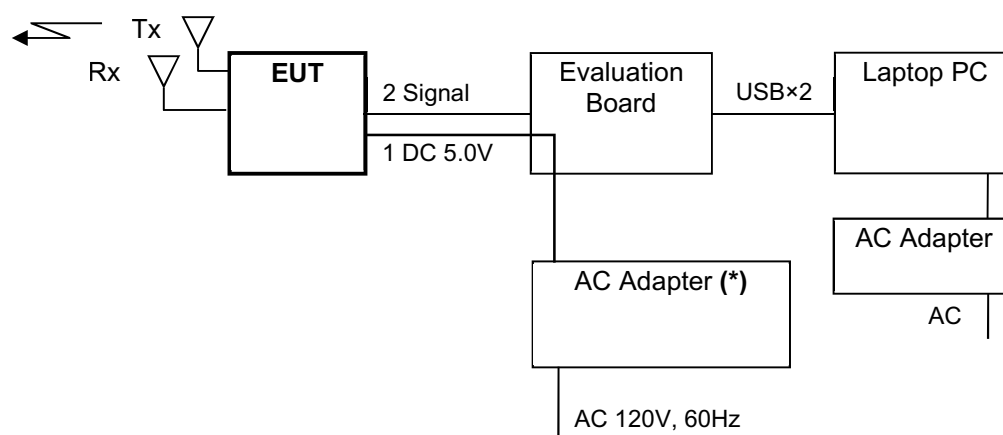


Figure 2: Block Diagram for AC Power Line Conducted Emission of Transmitter



Note: (*) Off-the-shelf AC Adapter was used, see the next page for details.
An extension power cable was used (RF-0608), as the AC adapter is direct plugged in type.

Table 6: Interfaces present on the EUT

No.	Interface	Cable Length for Testing, Shielding	Interface Classification
1.	DC Input	3m, un-shielded	DC input power port
2.	Signal	3m, un-shielded	Signal port

The product has been tested together with the following accessories:

Table 7: Special Accessories and Auxiliary Equipment

No.	Product	Manufacturer	Model	Serial Number	Rated Voltage and Freq.	Rated Current or Power	Protect. Class
A.	AC Adapter	Fujifilm	AC-5VN	9944	AC 100-240V, 50/60Hz	20VA	II
B.	Evaluation Board	Nisshinbo Micro Devices Inc.	NJR4275CK	No.01	DC 5V	Un-specified	III
C.	Laptop PC	Lenovo	21JQ-S3AP00	RF-4T91B7	DC 20V	3.25A	III
D.	AC Adapter	Lenovo	ADLX65YCC 2E	8SGX21J75 552C1TJ39 F0CDR	AC 100-240V, 50/60Hz	1.8A	II

Table 8: Serial Number

Serial Number	LDO	Remarks
Sample 02	LDO1	
Sample 52, 53	LDO2	Alternative addition

Note: LDO is a DC voltage regulator on the modular transmitter. Regarding technical information on these LDO(s), see the submitted exhibits for details.

For more details, refer to section 6 “Photographs of the Test Setup”.

4.4 Test Software

The EUT was provided by the manufacturer with suitable internal software to allow operation in all the required modes.

Software used for testing: NJR4275 Control Tool for Certification version 1.0.0.0 by Nisshinbo Micro Devices Inc.

This software was running on the laptop computer connected to the EUT. It was used to enable the operation modes listed in section 4.2 as appropriate.

4.5 Countermeasures to achieve Compliance

No additional measures were employed to achieve compliance.

5. Test Results RADIO

5.1 Supply Voltage Requirements

RESULT:

Pass

Requirements:

FCC §15.31(e)

For intentional radiators, measurements of the variation of the input power or the radiated signal level of the fundamental frequency component of the emission, as appropriate, shall be performed with the supply voltage varied between 85% and 115% of the nominal rated supply voltage. For battery operated equipment, the equipment tests shall be performed using a new battery.

Verdict:

The EUT has an internal voltage regulator to supply the RF circuit. Hence it complies with the supply voltage requirements.

5.2 Antenna Requirements

RESULT:

Pass

Requirements:

FCC §15.203

An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device.

Verdict:

As per the guidance by the KDB Publication No. 353028 D01, three ways can be used for a Part 15 Intentional radiator. a) Antenna permanently attached is applicable to the EUT.

The EUT has an antenna permanently attached on a printed circuit board that is not user accessible. Hence it complies with the antenna requirements.

5.3 Restricted Bands of Operation

RESULT:

Pass

Requirements:

FCC §15.205 and RSS-Gen §8.10

Only spurious emissions are permitted in any of the restricted frequency bands, unless otherwise specified.

RSS-210 §7.3

Only spurious emissions are permitted in any of the following TV bands of 54-72MHz, 76-88MHz, 174-216MHz, 470-608MHz and 614-806MHz.

Verdict:

The Operation frequency range of the EUT is 24.00 - 24.25GHz as field disturbance sensor, only spurious emissions may be found in the restricted bands below 75GHz. Hence the EUT complies with the restricted frequency band requirement.

5.4 Field Strength of Fundamental

RESULT:

Pass

Date of testing: 2026-07-23

Ambient temperature: 23°C

Relative humidity: 58%

Atmospheric pressure: 1008hPa

Requirements:

Measurement distance: 3m

Kind of test site: Semi Anechoic Chamber

Requirements:

FCC §15.249(a) (c) (e) and RSS-210 Annex B.10

The field strength of fundamental shall not exceed the level specified in 15.249(a) (e).

The field strength of fundamental shall not exceed the level specified in RSS-210 Annex B, B.10, Table B2.

Test procedure:

ANSI C63.10-2020 §6.3 and §6.6

The EUT was placed on a non-conductive table raised 1.5m above the ground plane for the fundamental measurements. Measurements were made at 3m distance. The EUT was rotated 360° and the antenna was raised and lowered from 1 to 4m in order to determine the emission's maximum level.

Measurements were taken using both horizontal and vertical antenna polarizations for the three EUT orientations (X, Y, Z) in order to specify the worst case condition.

Measurements were performed using a spectrum analyzer with a suitable span to encompass the maximum point of the fundamental and using the following settings;

- RBW = 3MHz, VBW = 10MHz, peak detector with Max Hold for Peak;
- RBW = 3MHz, VBW = 10MHz, linear average detector with Max Hold for Average.

The highest emission amplitudes relative to the appropriate limit were measured and recorded in this report.

Duty Cycle Correction Factor (hereinafter, DCCF) was applied. The average E-field strength was found by measuring the peak pulse amplitude and determining the DCCF associated with the pulse signal as shown in Equation (10) in the §7.5 of ANSI C63.10-2020.

In the taken spectra in this section, the blue trace corresponds to the peak measurement. The black trace corresponds to the average measurement.

Table 9: Field Strength of Fundamental, Average Data, Conf. 1, LDO1

Mode	Frequency [MHz]	EUT / Ant. Orient.	Reading Level PK [dBμV]	Factor [dB/m]	DCCF [dB]	Average Level [dBμV/m]	Average Limit [dBμV/m]	Margin [dB]
A/F1	24077	Y/V	105.18	-5.00	-26.65	73.53	107.96	34.43
A/F2	24062	Y/V	105.17	-5.00	-26.68	73.49	107.96	34.47
B/F1	24171	Y/V	105.38	-5.00	-26.64	73.74	107.96	34.22
B/F2	24154	Y/V	105.35	-5.00	-26.54	73.81	107.96	34.15
C/F1	24239	Y/V	105.41	-5.00	-26.42	73.99	107.96	33.97
C/F2	24224	Y/V	105.45	-5.00	-26.79	73.66	107.96	34.30

Note: Average limit in dBμV/m is calculated as follows: Average limit = $20 \times \log_{10} (250000 \mu\text{V/m})$.

Factor (Antenna, pre-Amp. and cables) and DCCF were applied to Reading Level PK in order to determine an average field strength level. See section 5.2.1 of this test report for each observed duty cycle and their DCCF.

Average Level was calculated by the following formula;

- Average Level at 3m = Reading Level PK + Factor + DCCF

Table 10: Field Strength of Fundamental, Peak Data, Conf. 1, LDO1

Mode	Frequency [MHz]	EUT / Ant. Orient.	Reading Level PK [dBμV]	Factor [dB/m]	Peak Level [dBμV/m]	Peak Limit [dBμV/m]	Margin [dB]
A/F1	24077	Y/V	105.18	-5.00	100.18	127.96	27.78
A/F2	24061	Y/V	105.17	-5.00	100.17	127.96	27.79
B/F1	24169	Y/V	105.38	-5.00	100.38	127.96	27.58
B/F2	24155	Y/V	105.35	-5.00	100.35	127.96	27.61
C/F1	24239	Y/V	105.41	-5.00	100.41	127.96	27.55
C/F2	24223	Y/V	105.45	-5.00	100.45 (*)	127.96	27.51

Note: Peak limit in dBμV/m is calculated as follows: Peak limit = Average limit + 20dB.

Peak Level was calculated by the following formula;

- Peak Level at 3m = Reading Level PK + Factor

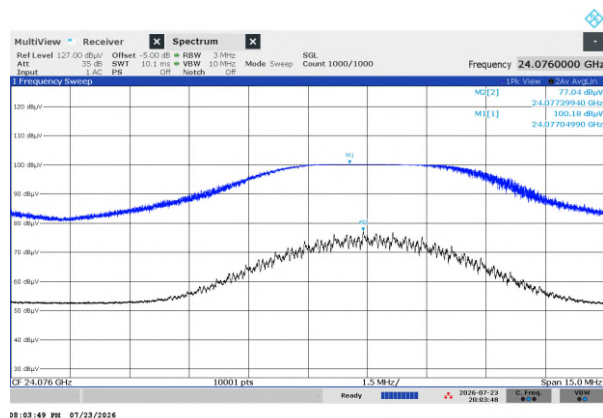
(*) Gray shading data is the highest Peak E-field strength in this test report.

Test Report No.: **JP261C8T 001**
Prüfbericht-Nr.:

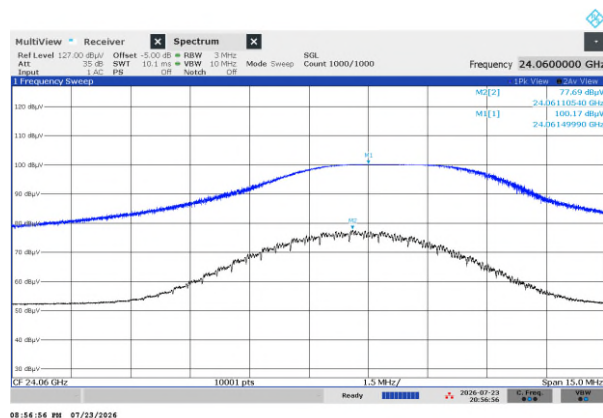
Page 21 of 68
Seite 21 von 68

Figure 3: Field Strength of Fundamental, Conf. 1, LDO1

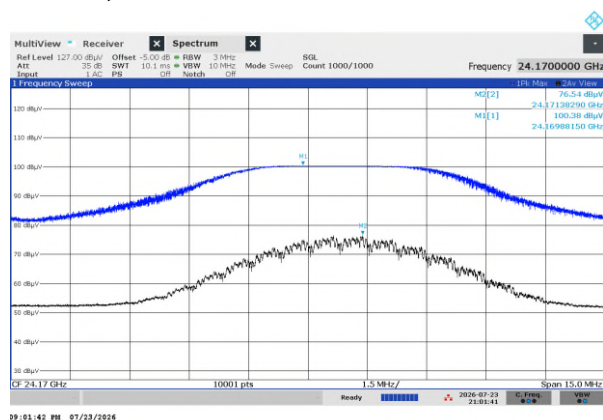
Mode A, F1



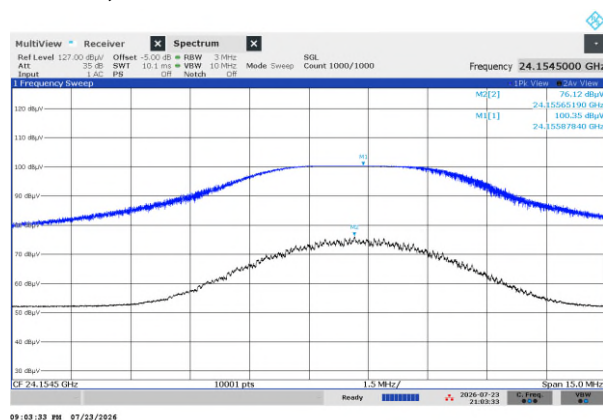
Mode A, F2



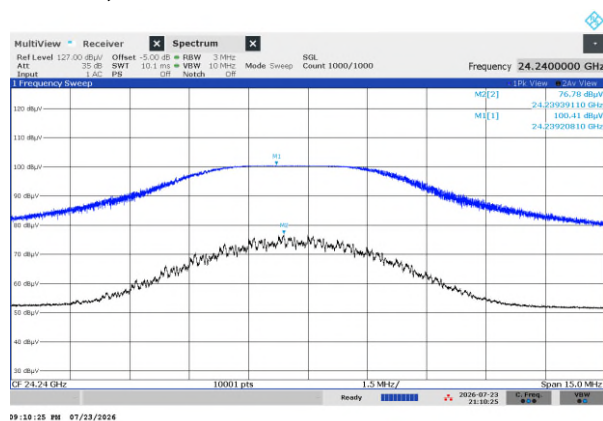
Mode B, F1



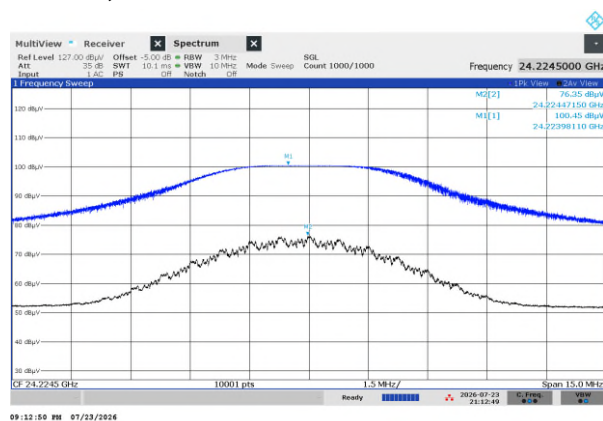
Mode B, F2



Mode C, F1



Mode C, F2



Note: The lower trace (Black) is a reference plot with trace averaging detector.

Table 11: Field Strength of Fundamental, Average Data, Conf. 2, LDO1

Mode	Frequency [MHz]	EUT / Ant. Orient.	Reading Level PK [dBμV]	Factor [dB/m]	DCCF [dB]	Average Level [dBμV/m]	Average Limit [dBμV/m]	Margin [dB]
A/F1	24077	Y/V	105.27	-5.00	-20.73	79.54	107.96	28.42
B/F1	24170	Y/V	105.33	-5.00	-20.82	79.51	107.96	28.45
C/F1	24239	Y/V	105.39	-5.00	-20.41	79.98	107.96	27.98

Note: Average limit in dBμV/m is calculated as follows: Average limit = $20 \times \log_{10}(250000 \mu\text{V/m})$.

Factor (Antenna, pre-Amp. and cables) and DCCF were applied to Reading Level PK in order to determine an average field strength level. See section 5.2.1 of this test report for each observed duty cycle and their DCCF.

Average Level was calculated by the following formula;

- Average Level at 3m = Reading Level PK + Factor + DCCF

Gray shading data is the highest E-field strength in this table.

Table 12: Field Strength of Fundamental, Peak Data, Conf. 2, LDO1

Mode	Frequency [MHz]	EUT / Ant. Orient.	Reading Level PK [dBμV]	Factor [dB/m]	Peak Level [dBμV/m]	Peak Limit [dBμV/m]	Margin [dB]
A/F1	24076	Y/V	105.27	-5.00	100.27	127.96	27.69
B/F1	24170	Y/V	105.33	-5.00	100.33	127.96	27.63
C/F1	24239	Y/V	105.39	-5.00	100.39	127.96	27.57

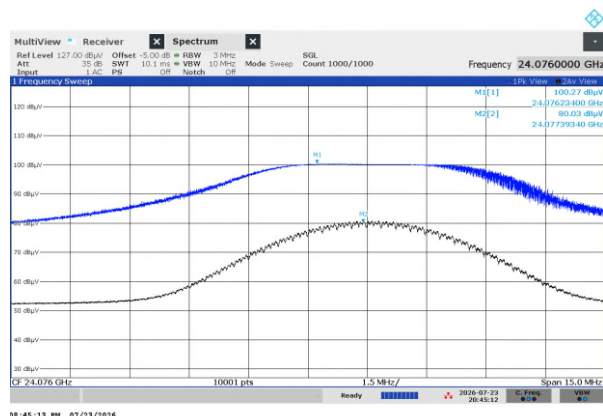
Note: Peak limit in dBμV/m is calculated as follows: Peak limit = Average limit + 20dB.

Peak Level was calculated by the following formula;

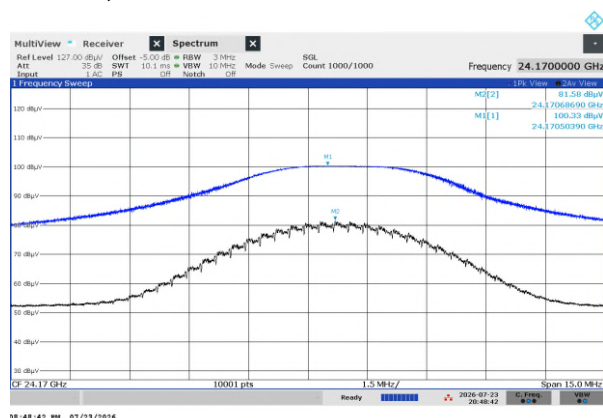
- Peak Level at 3m = Reading Level PK + Factor

Figure 4: Field Strength of Fundamental, Conf. 2, LDO1

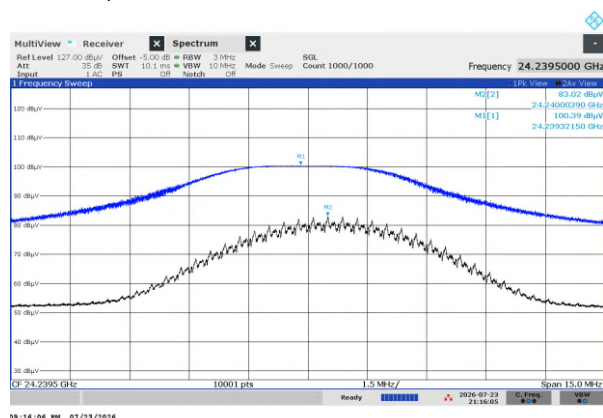
Mode A, F1



Mode B, F1



Mode C, F1



Note: The lower trace (Black) is a reference plot with trace averaging detector.

Table 13: Field Strength of Fundamental, Average Data, Conf. 1, LDO2

Mode	Frequency [MHz]	EUT / Ant. Orient.	Reading Level PK [dBμV]	Factor [dB/m]	DCCF [dB]	Average Level [dBμV/m]	Average Limit [dBμV/m]	Margin [dB]
A/F1	24083	Y/V	105.27	-5.00	-26.38	73.89	107.96	34.07
A/F2	24068	Y/V	105.24	-5.00	-26.21	74.03	107.96	33.93
B/F1	24176	Y/V	105.34	-5.00	-26.20	74.14	107.96	33.82
B/F2	24161	Y/V	105.34	-5.00	-26.24	74.10	107.96	33.86
C/F1	24246	Y/V	105.35	-5.00	-26.06	74.29	107.96	33.67
C/F2	24230	Y/V	105.42	-5.00	-26.09	74.33	107.96	33.63

Note: Average limit in dBμV/m is calculated as follows: Average limit = $20 \times \log_{10} (250000 \mu\text{V/m})$.

Factor (Antenna, pre-Amp. and cables) and DCCF were applied to Reading Level PK in order to determine an average field strength level. See section 5.2.1 of this test report for each observed duty cycle and their DCCF.

Average Level was calculated by the following formula;

- Average Level at 3m = Reading Level PK + Factor + DCCF

Gray shading data is the highest E-field strength in this table

Table 14: Field Strength of Fundamental, Peak Data, Conf. 1, LDO2

Mode	Frequency [MHz]	EUT / Ant. Orient.	Reading Level PK [dBμV]	Factor [dB/m]	Peak Level [dBμV/m]	Peak Limit [dBμV/m]	Margin [dB]
A/F1	24084	Y/V	105.27	-5.00	100.27	127.96	27.69
A/F2	24067	Y/V	105.24	-5.00	100.24	127.96	27.72
B/F1	24176	Y/V	105.34	-5.00	100.34	127.96	27.62
B/F2	24161	Y/V	105.34	-5.00	100.34	127.96	27.62
C/F1	24245	Y/V	105.35	-5.00	100.35	127.96	27.61
C/F2	24230	Y/V	105.42	-5.00	100.42	127.96	27.54

Note: Peak limit in dBμV/m is calculated as follows: Peak limit = Average limit + 20dB.

Peak Level was calculated by the following formula;

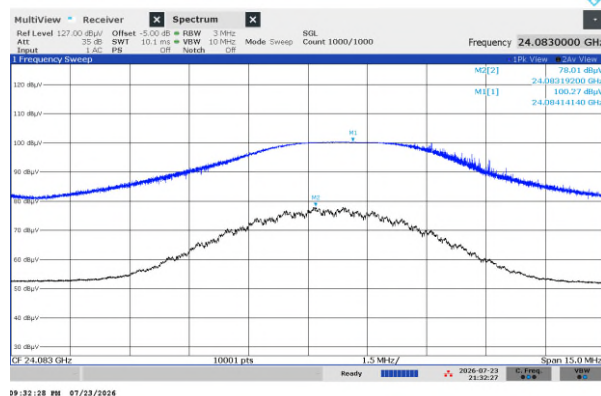
- Peak Level at 3m = Reading Level PK + Factor

Test Report No.: **JP261C8T 001**
Prüfbericht-Nr.:

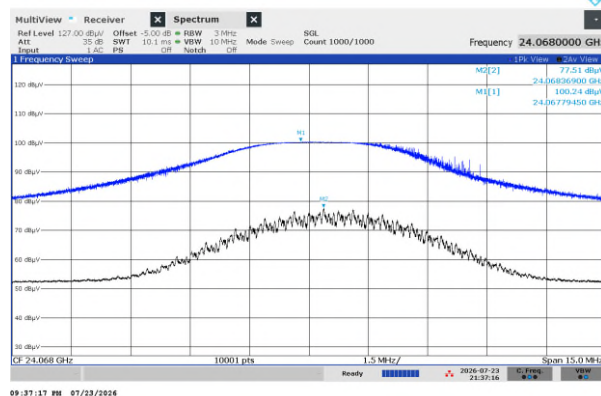
Page 25 of 68
Seite 25 von 68

Figure 5: Field Strength of Fundamental, Conf. 1, LDO2

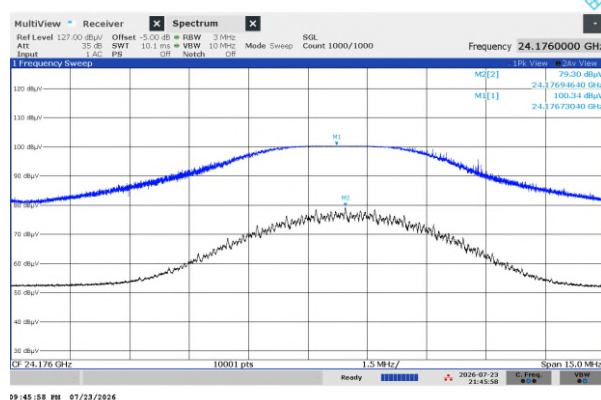
Mode A, F1



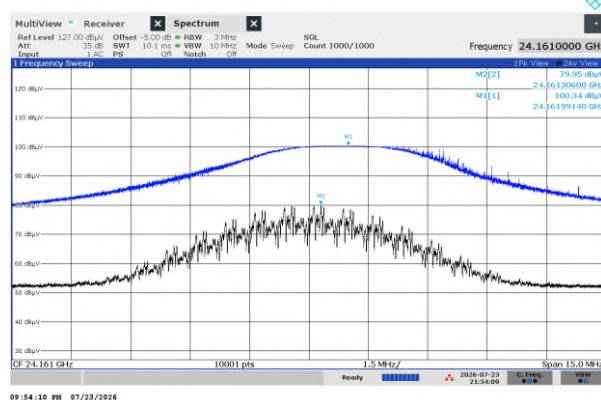
Mode A, F2



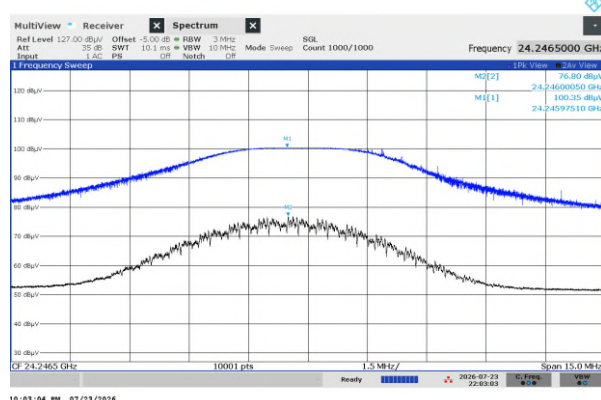
Mode B, F1



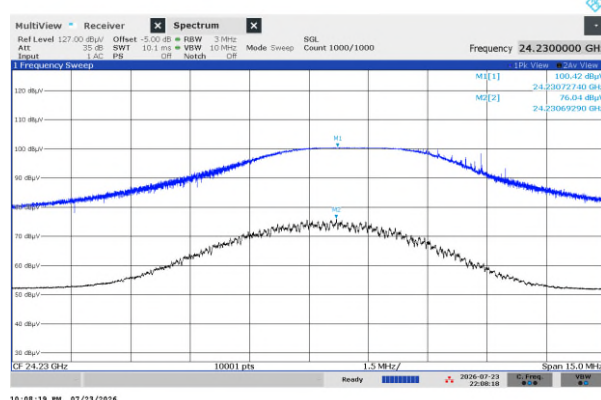
Mode B, F2



Mode C, F1



Mode C, F2



Note: The lower trace (Black) is a reference plot with trace averaging detector.

Table 15: Field Strength of Fundamental, Average Data, Conf. 2, LDO2

Mode	Frequency [MHz]	EUT / Ant. Orient.	Reading Level PK [dBμV]	Factor [dB/m]	DCCF [dB]	Average Level [dBμV/m]	Average Limit [dBμV/m]	Margin [dB]
A/F1	24083	Y/V	105.27	-5.00	-20.73	79.54	107.96	28.42
B/F1	24176	Y/V	105.32	-5.00	-20.11	80.21	107.96	27.75
C/F1	24245	Y/V	105.36	-5.00	-19.90	80.46	107.96	27.50

Note: Average limit in dBμV/m is calculated as follows: Average limit = $20 \times \log_{10}(250000 \mu\text{V/m})$.

Factor (Antenna, pre-Amp. and cables) and DCCF were applied to Reading Level PK in order to determine an average field strength level. See section 5.2.1 of this test report for each observed duty cycle and their DCCF.

Average Level was calculated by the following formula;

- Average Level at 3m = Reading Level PK + Factor + DCCF

Gray shading data is the highest Average E-field strength in this table.

Table 16: Field Strength of Fundamental, Peak Data, Conf. 2, LDO2

Mode	Frequency [MHz]	EUT / Ant. Orient.	Reading Level PK [dBμV]	Factor [dB/m]	Peak Level [dBμV/m]	Peak Limit [dBμV/m]	Margin [dB]
A/F1	24083	Y/V	105.27	-5.00	100.27	127.96	27.69
B/F1	24176	Y/V	105.32	-5.00	100.32	127.96	27.64
C/F1	24246	Y/V	105.36	-5.00	100.36	127.96	27.60

Note: Peak limit in dBμV/m is calculated as follows: Peak limit = Average limit + 20dB.

Peak Level was calculated by the following formula;

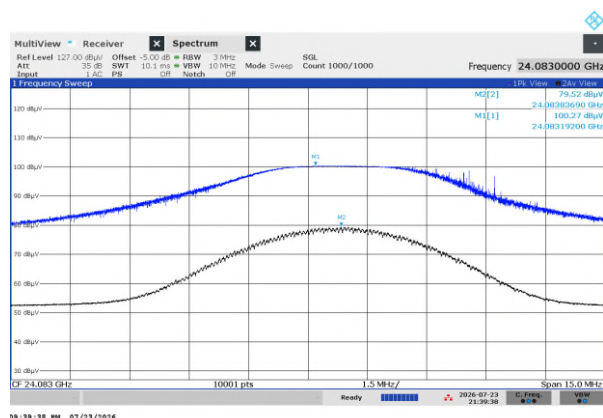
- Peak Level at 3m = Reading Level PK + Factor

Test Report No.: **JP261C8T 001**
Prüfbericht-Nr.:

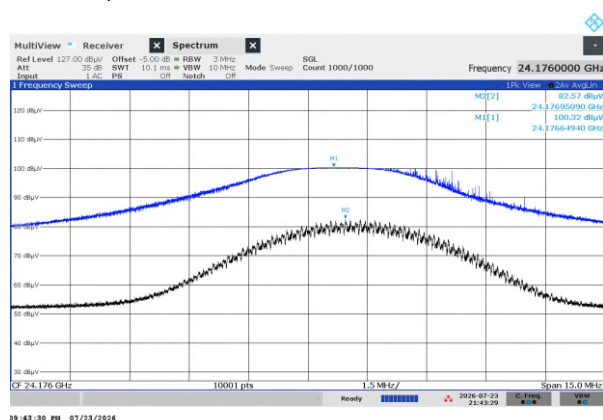
Page 27 of 68
Seite 27 von 68

Figure 6: Field Strength of Fundamental, Conf. 2, LDO2

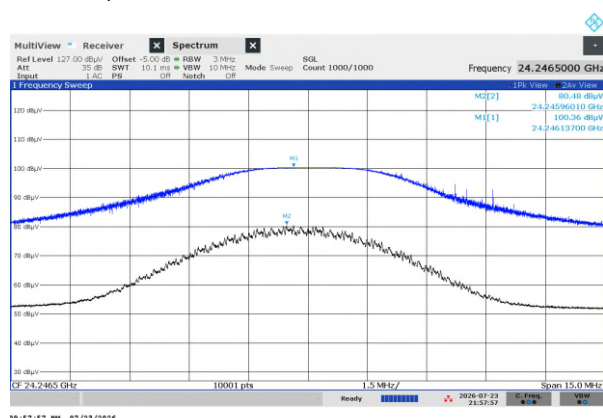
Mode A, F1



Mode B, F1



Mode C, F1



Note: The lower trace (Black) is a reference plot with trace averaging detector.

5.5 20dB Bandwidth

RESULT:

Pass

Date of testing: 2026-07-06

Ambient temperature: 24°C

Relative humidity: 51%

Atmospheric pressure: 1009hPa

Requirements:

FCC §15.215(c)

The 20dB bandwidth of the emission shall be contained within the frequency band (24.00 - 24.25GHz) designated in the rule section under which the equipment is operated.

Test procedure:

ANSI C63.10-2020 §6.9.2

The EUT was placed on non-conductive table raised 1.5m above the ground plane in a semi-anechoic chamber.

The 20dB bandwidth was measured with a horn antenna connected to a spectrum analyzer with the following settings:

- RBW = 50kHz, VBW = 200kHz, peak detector with max-hold function

Markers were placed at the lowest and highest intersections of the trace with a 20dB_C line to obtain the value of the emission bandwidth.

Test Report No.:
Prüfbericht-Nr.:

JP261C8T 001

Page 29 of 68
Seite 29 von 68

Table 17: 20dB Bandwidth Edge Frequencies

Mode		20dB Bandwidth Edge Side	Edge Frequency [GHz]	Limit [GHz]	Margin [MHz]
A	F2	Lower side	24.06005094	24.000	60.05094
		Higher side	24.06191400	-/-	-/-
C	F1	Lower side	24.23818108	-/-	-/-
		Higher side	24.24015438	24.250	9.845620

Note: Lower side of the Lowest Ch and Higher side of the Highest Ch were measured.

Table 18: 20dB Bandwidth

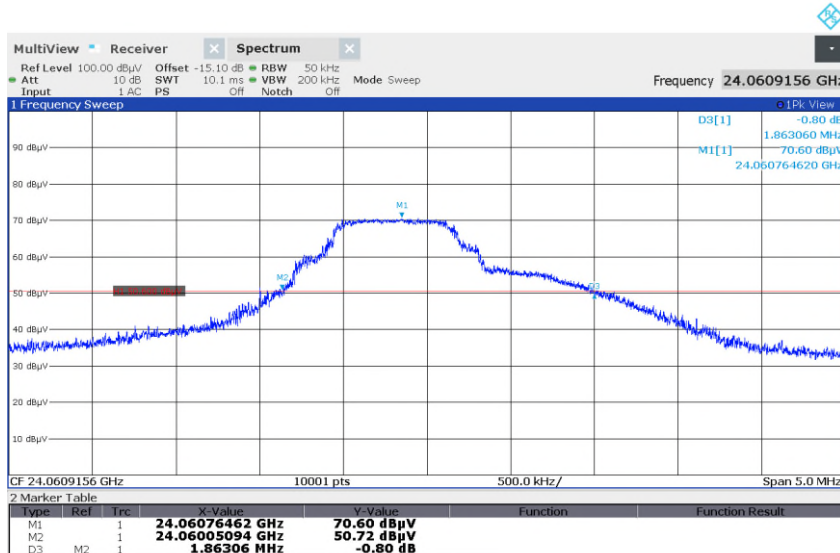
Mode		20dB Bandwidth [MHz]	RBW [kHz]	Ratio [-/-]	Remark
A	F2	1.86306	50	2.68	
	F1	1.94955	50	2.56	
B	F2	1.88531	50	2.65	
	F1	2.00280	50	2.50	Highest 20dB BW
C	F2	1.89447	50	2.64	
	F1	1.97330	50	2.53	

Note: Ratio was calculated in order to confirm its RBW setting at each measurement (i.e. 1% to 5%).
Gray shading data is the widest 20dB EBW in this test report.

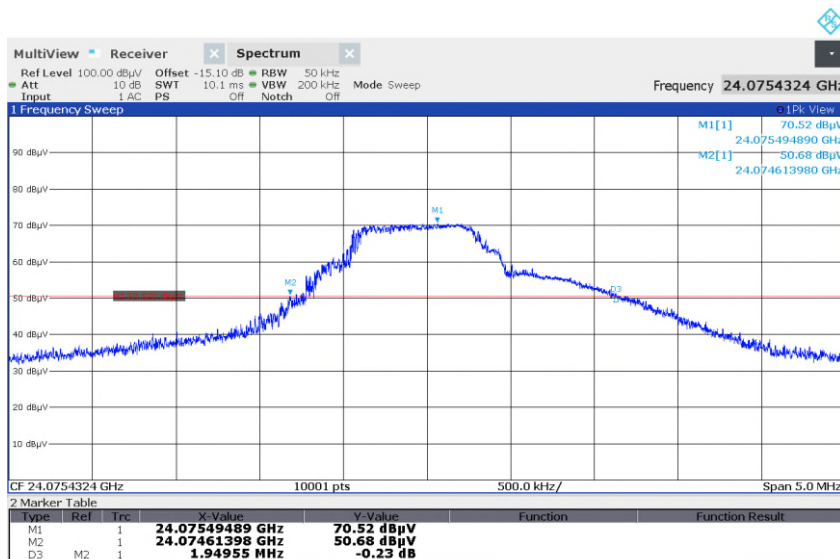
Test Report No.: **JP261C8T 001**
Prüfbericht-Nr.:

Page 30 of 68
Seite 30 von 68

Figure 7: 20dB Bandwidth, Mode A (F2/F1)



06:52:18 PM 07/06/2026

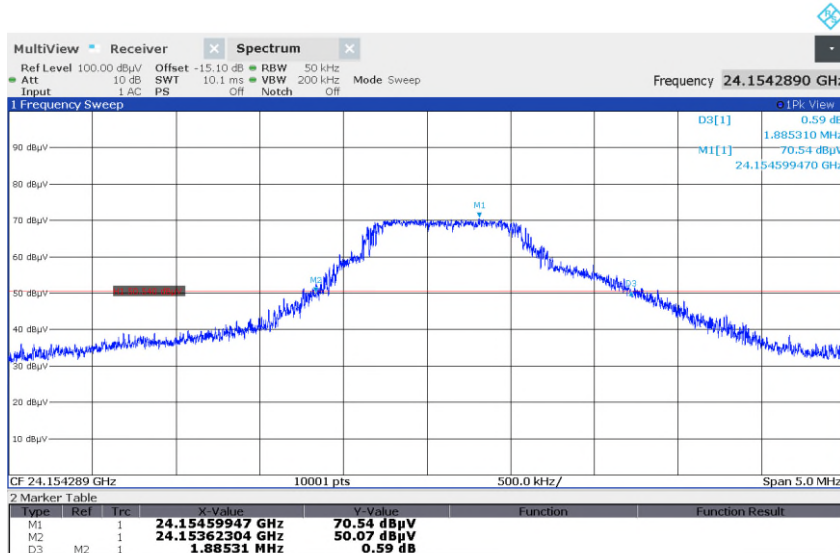


06:57:48 PM 07/06/2026

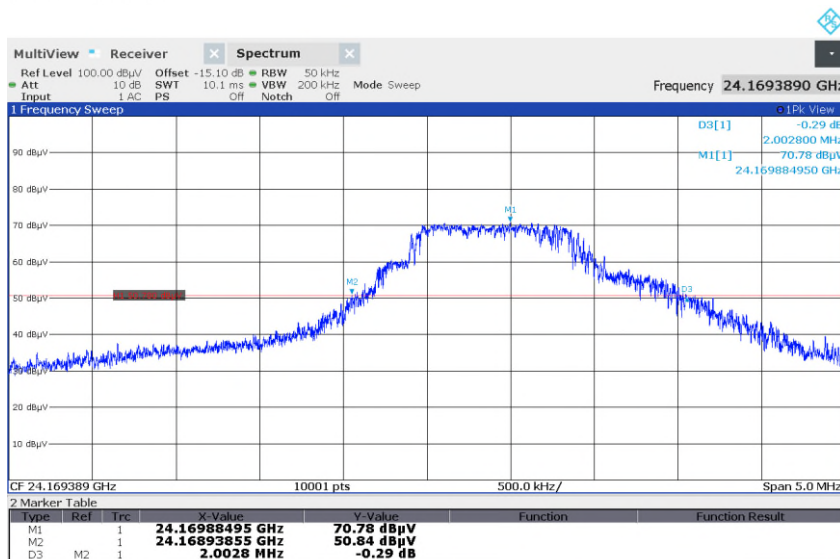
Test Report No.: **JP261C8T 001**
Prüfbericht-Nr.:

Page 31 of 68
Seite 31 von 68

Figure 8: 20dB Bandwidth, Mode B (F2/F1)



07:23:57 PM 07/06/2026

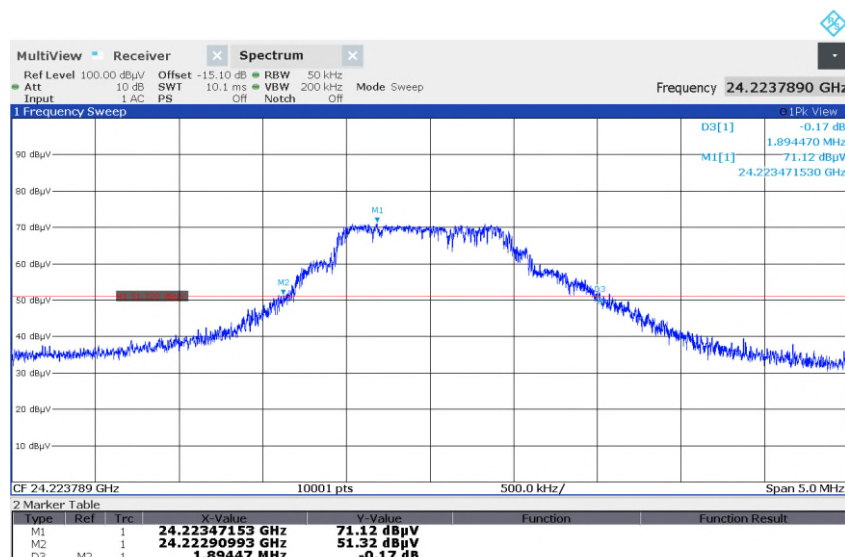


07:28:55 PM 07/06/2026

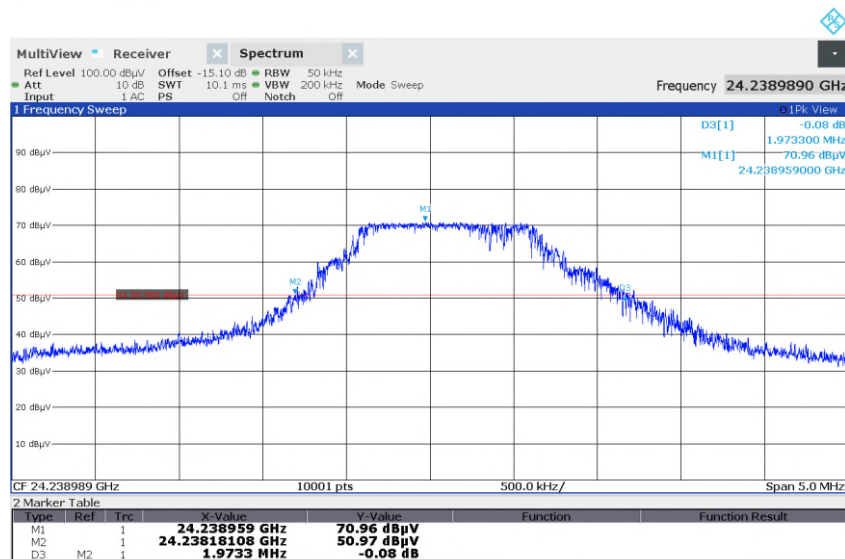
Test Report No.: **JP261C8T 001**
Prüfbericht-Nr.:

Page 32 of 68
Seite 32 von 68

Figure 9: 20dB Bandwidth, Mode C (F2/F1)



07:46:37 PM 07/06/2026



07:48:45 PM 07/06/2026

5.6 99% Bandwidth

RESULT:

For. Ref.

Date of testing: 2026-07-06

Ambient temperature: 24°C

Relative humidity: 51%

Atmospheric pressure: 1009hPa

Requirements:

RSS-Gen §6.7

Test procedure:

ANSI C63.10-2020 §6.9.3

The EUT was placed on non-conductive table raised 1.5m above the ground plane in a semi-anechoic chamber.

The 99% bandwidth was measured with a horn antenna connected to a spectrum analyzer with the following settings:

- RBW = 50kHz, VBW = 200kHz, sample detector with max-hold function
-

Markers were placed at the lowest and highest intersections of the trace by 99% OBW function to obtain the value of the emission bandwidth.

Test Report No.:
Prüfbericht-Nr.:

JP261C8T 001

Page 34 of 68
Seite 34 von 68

Table 19: 99% Bandwidth Edge Frequencies

Mode		99% Bandwidth Edge Side	Edge Frequency [GHz]	Limit [GHz]	Margin [MHz]
A	F2	Lower side	24.06091855	24.00	60.91855
		Higher side	24.06269967	-/-	-/-
C	F1	Lower side	24.23832579	-/-	-/-
		Higher side	24.23990643	24.25	10.09357

Note: Lower side of the Lowest Ch and Higher side of the Highest Ch were measured.

Table 20: 99% Bandwidth

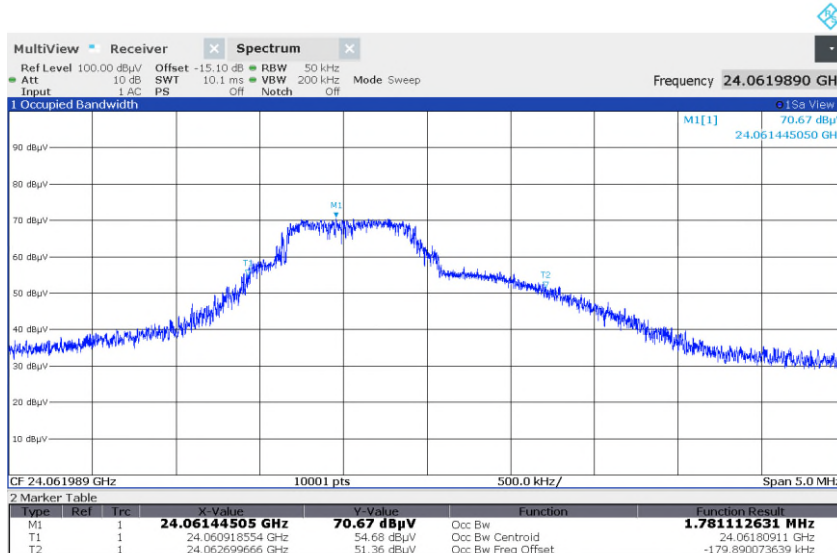
Mode		99% Bandwidth [MHz]	RBW [kHz]	Ratio [-/-]	Remark
A	F2	1.781112631	50	2.81	Highest 99% OBW
	F1	1.673074370	50	2.99	
B	F2	1.611399234	50	3.10	
	F1	1.517737290	50	3.29	
C	F2	1.555115651	50	3.22	
	F1	1.580642200	50	3.16	

Note: Ratio was calculated in order to confirm its RBW setting at each measurement (i.e. 1% to 5%).
Gray shading data is the widest 99% OBW in this test report.

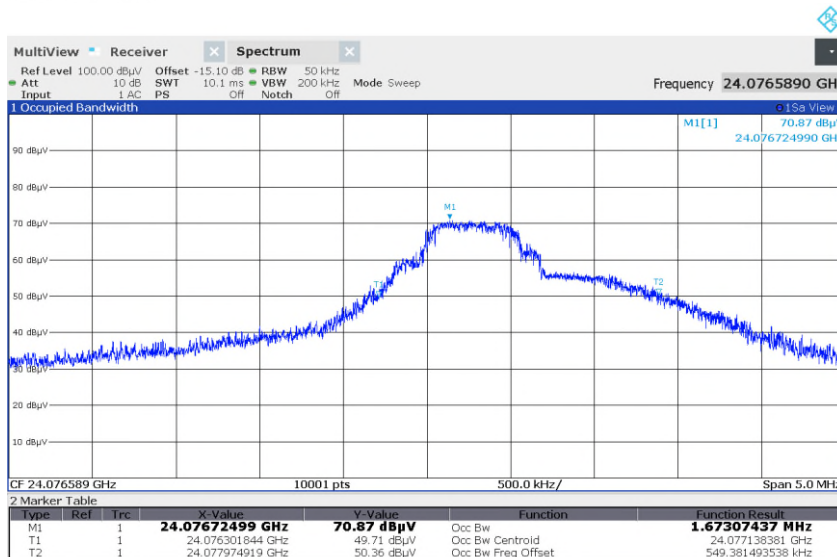
Test Report No.: **JP261C8T 001**
Prüfbericht-Nr.:

Page 35 of 68
Seite 35 von 68

Figure 10: 99% Bandwidth, Mode A (F2/F1)



08:33:22 PM 07/06/2026

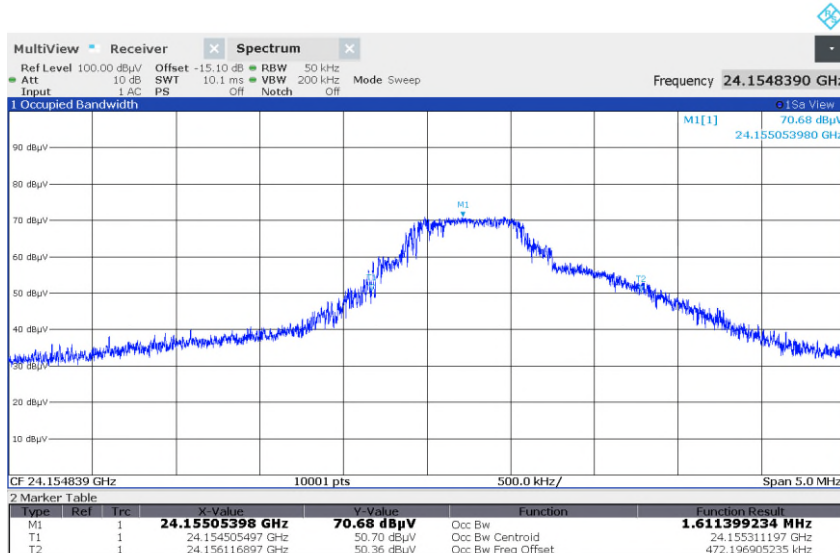


08:27:44 PM 07/06/2026

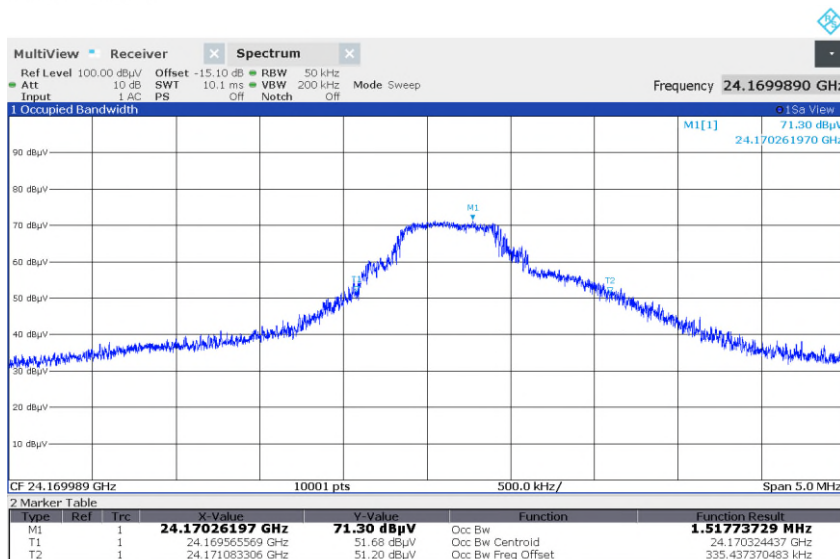
Test Report No.: **JP261C8T 001**
Prüfbericht-Nr.:

Page 36 of 68
Seite 36 von 68

Figure 11: 99% Bandwidth, Mode B (F2/F1)



08:20:39 PM 07/06/2026

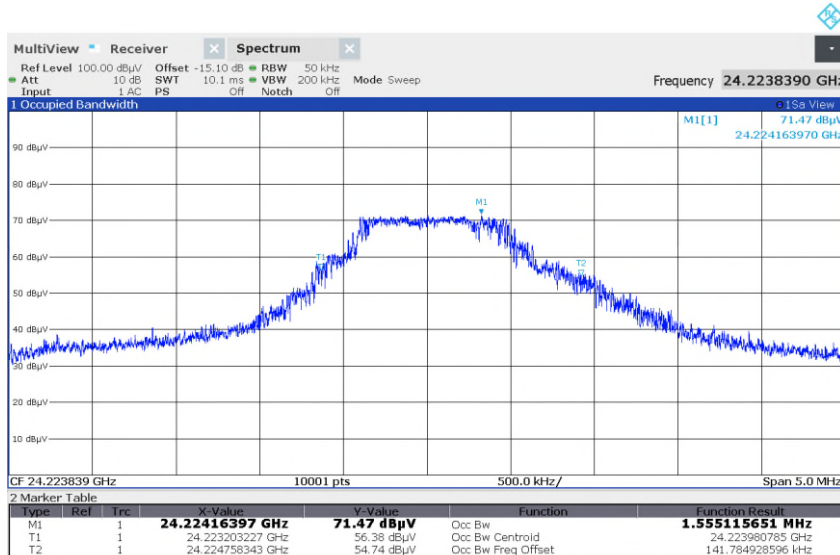


08:16:50 PM 07/06/2026

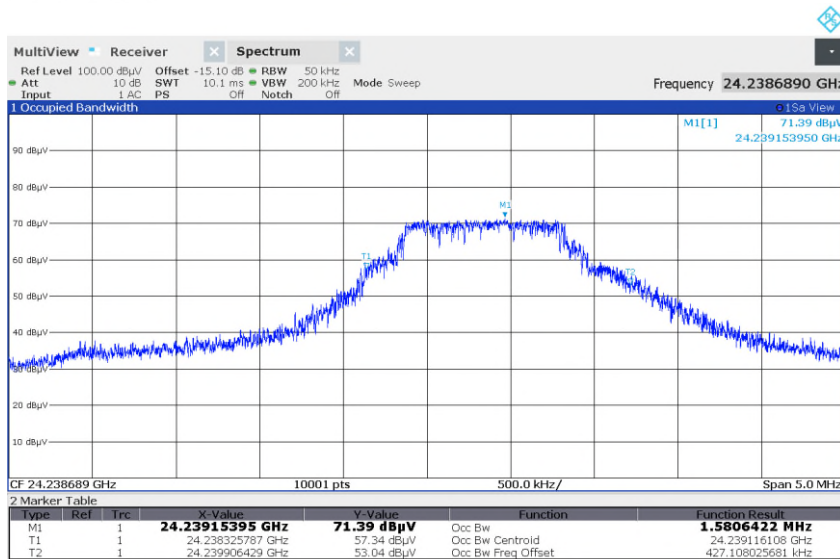
Test Report No.: **JP261C8T 001**
Prüfbericht-Nr.:

Page 37 of 68
Seite 37 von 68

Figure 12: 99% Bandwidth, Mode C (F2/F1)



08:11:32 PM 07/06/2026



08:07:50 PM 07/06/2026

5.7 Duty Cycle

RESULT:

For. Ref.

Date of testing: 2026-07-06

Ambient temperature: 24°C

Relative humidity: 51%

Atmospheric pressure: 1009hPa

Requirements:

N/A, this test item was performed as reference.

Test procedure:

ANSI C63.10-2020 §7.5 as reference

The EUT was placed on non-conductive table raised 1.5m above the ground plane in a semi-anechoic chamber.

Duty cycle was measured by a radiated manner using with a horn antenna connected to a spectrum analyzer with the following settings:

- RBW = 1MHz, VBW = 3MHz, peak detector with max-hold function at zero span mode

RBW was greater than the emission bandwidth of the fundamental.

Sweep time was adjusted to obtain the one period of a pulse train, including blanking intervals as per the §15.35(c).

Note:

The EUT operated at the highest available duty cycle setting at each configuration at mode A, B and C.

Table 21: Duty Cycle at the highest duty cycle, Conf. 1, LDO1

Mode		Duty Cycle Setting [%]	On-Time [ms]	Period [ms]	Duty Cycle [%]	DCCF [dB]
A	F1	4.8	23.3	500.8	4.65	-26.65
	F2	4.8	23.2	500.6	4.63	-26.68
B	F1	4.8	23.3	500.3	4.66	-26.64
	F2	4.8	23.6	500.9	4.71	-26.54
C	F1	4.8	23.9	500.4	4.78	-26.42
	F2	4.8	22.9	500.2	4.58	-26.79

Note: Duty Cycle Correction Factor (hereinafter, DCCF) is calculated by the following formula;

$$\text{DCCF} = 20 \times \log_{10} (\text{Duty Cycle}), \text{ where Duty Cycle is dimensionless.}$$

Table 22: Duty Cycle at the highest duty cycle, Conf. 2, LDO1

Mode		Duty Cycle Setting [%]	On-Time [ms]	Period [ms]	Duty Cycle [%]	DCCF [dB]
A	F1	9.6	23.0	250.1	9.20	-20.73
B	F1	9.6	22.8	250.5	9.10	-20.82
C	F1	9.6	23.9	250.5	9.54	-20.41

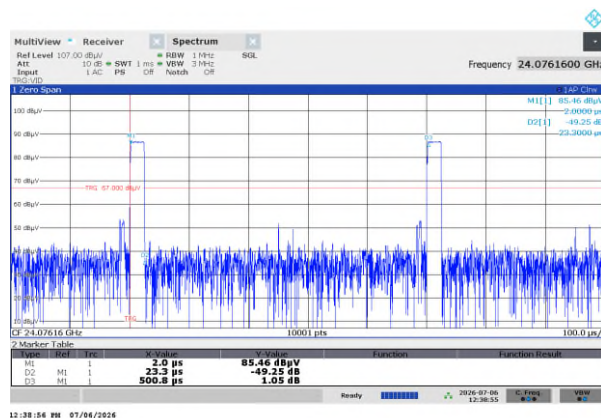
Note: $\text{DCCF} = 20 \times \log_{10} (\text{Duty Cycle}), \text{ where Duty Cycle is dimensionless.}$

Test Report No.: **JP261C8T 001**
Prüfbericht-Nr.:

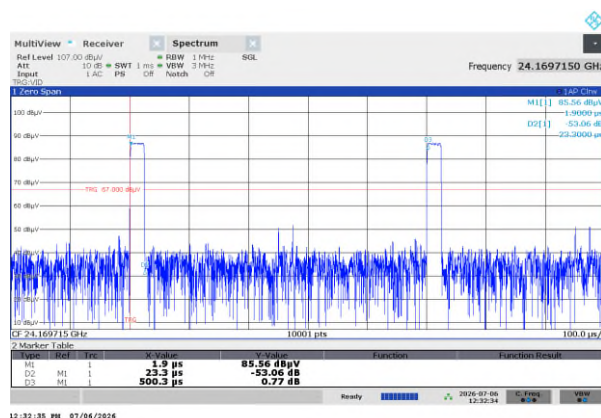
Page 40 of 68
Seite 40 von 68

Figure 13: Duty Cycle, Conf. 1, LDO1

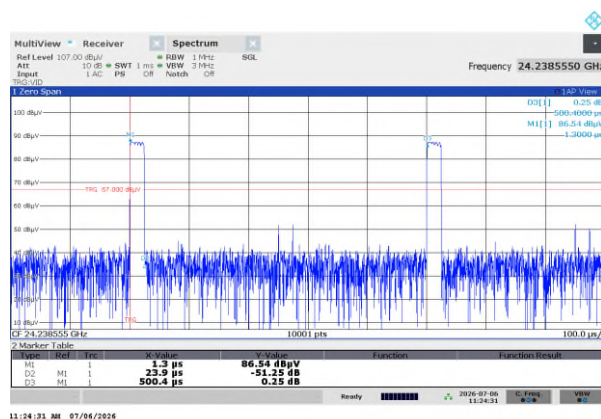
Mode A, F1



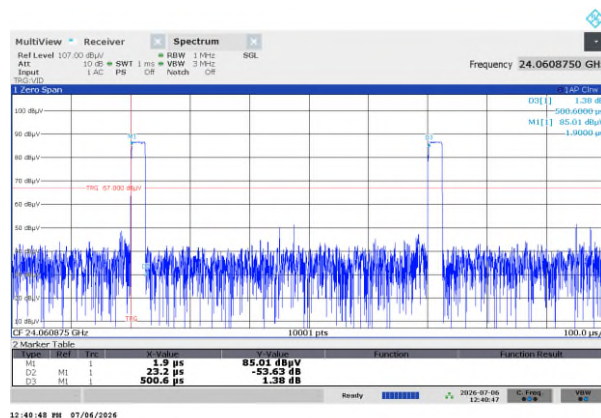
Mode B, F1



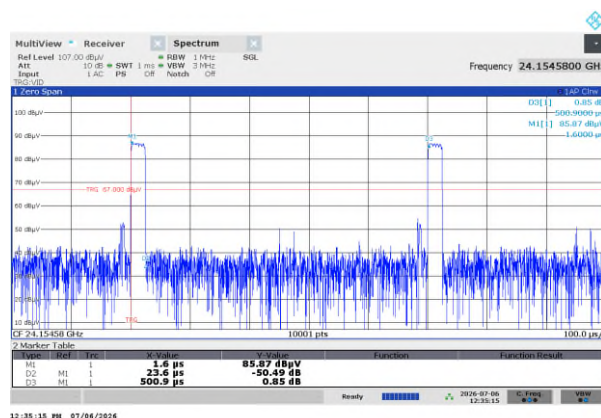
Mode C, F1



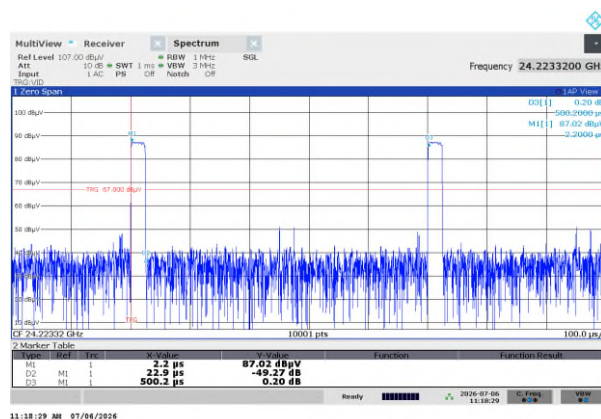
Mode A, F2



Mode B, F2



Mode C, F2

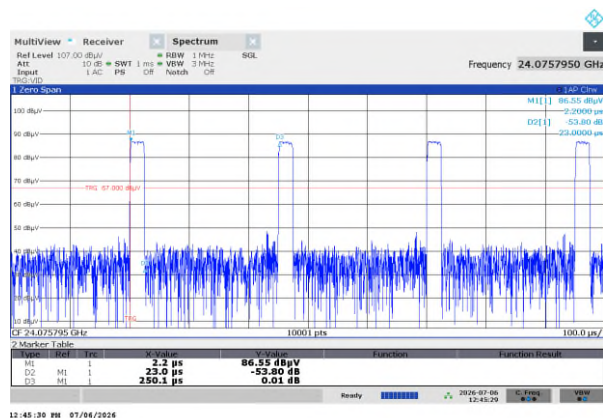


Test Report No.: **JP261C8T 001**
Prüfbericht-Nr.:

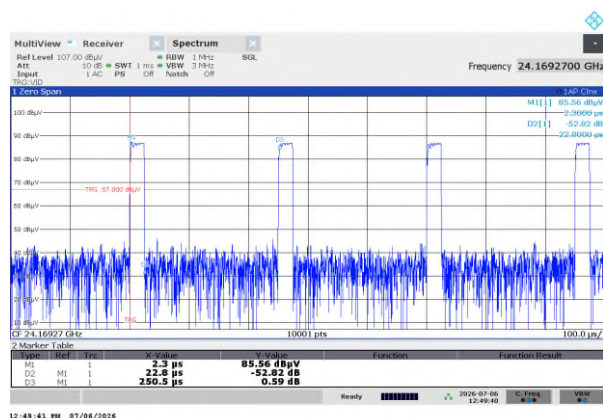
Page 41 of 68
Seite 41 von 68

Figure 14: Duty Cycle, Conf. 2, LDO1

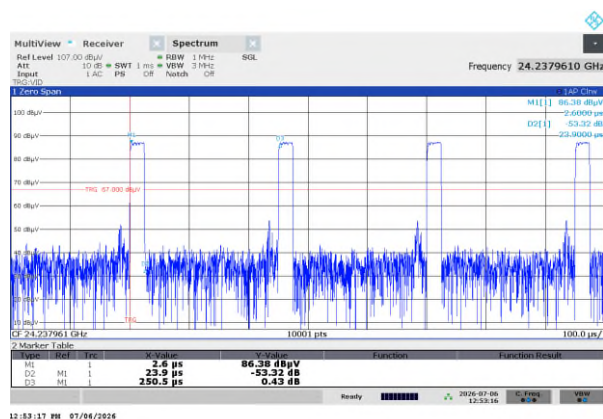
Mode A, F1



Mode B, F1



Mode C, F1



Test Report No.:
Prüfbericht-Nr.:

JP261C8T 001

Page 42 of 68
Seite 42 von 68

Table 23: Duty Cycle at the highest duty cycle, Conf. 1, LDO2

Mode		Duty Cycle Setting [%]	On-Time [ms]	Period [ms]	Duty Cycle [%]	DCCF [dB]
A	F1	4.8	24.0	500.5	4.80	-26.38
	F2	4.8	24.5	500.7	4.89	-26.21
B	F1	4.8	24.5	500.3	4.90	-26.20
	F2	4.8	24.4	500.3	4.88	-26.24
C	F1	4.8	24.9	500.3	4.98	-26.06
	F2	4.8	24.8	500.1	4.96	-26.09

Note: $DCCF = 20 \times \log_{10}(\text{Duty Cycle})$, where Duty Cycle is dimensionless.

Table 24: Duty Cycle at the highest duty cycle, Conf. 2, LDO2

Mode		Duty Cycle Setting [%]	On-Time [ms]	Period [ms]	Duty Cycle [%]	DCCF [dB]
A	F1	9.6	23.0	250.3	9.19	-20.73
B	F1	9.6	24.7	250.2	9.87	-20.11
C	F1	9.6	25.3	250.2	10.11	-19.90

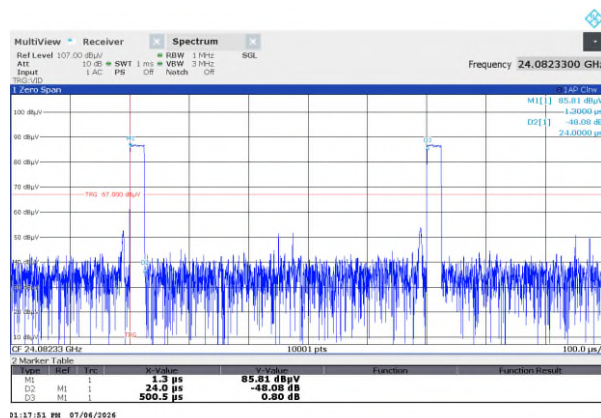
Note: $DCCF = 20 \times \log_{10}(\text{Duty Cycle})$, where Duty Cycle is dimensionless.

Test Report No.: **JP261C8T 001**
Prüfbericht-Nr.:

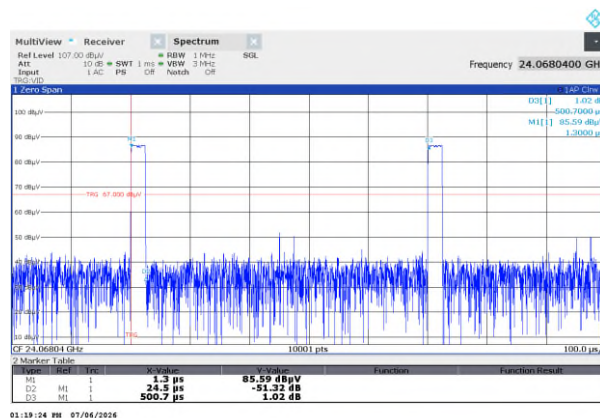
Page 43 of 68
Seite 43 von 68

Figure 15: Duty Cycle, Conf. 1, LDO2

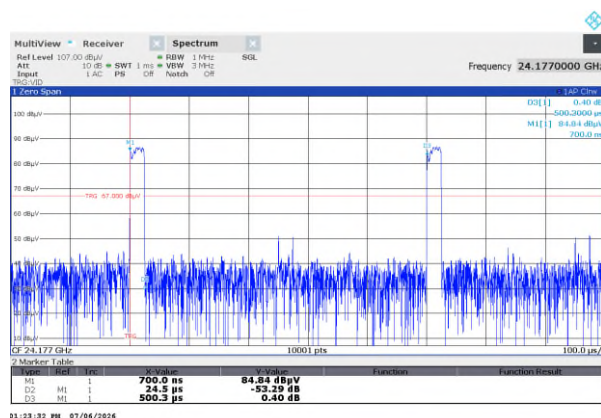
Mode A, F1



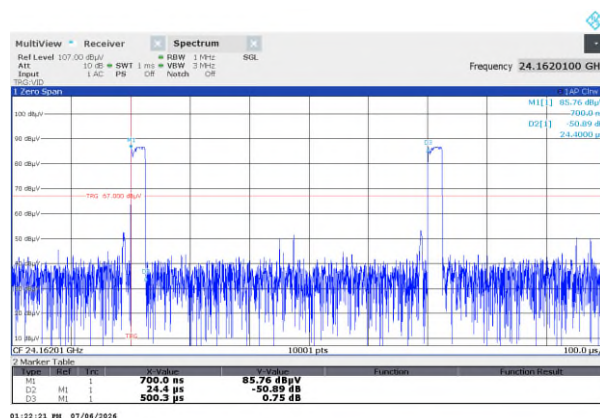
Mode A, F2



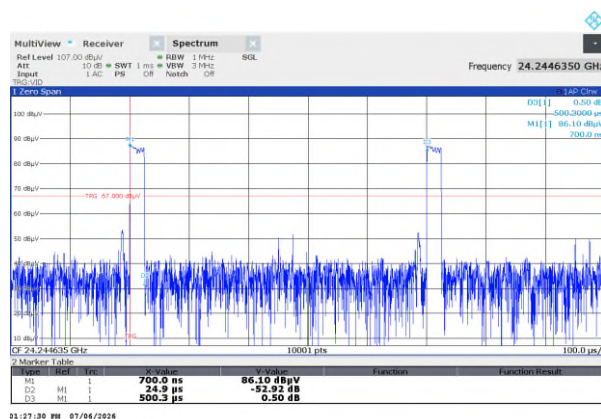
Mode B, F1



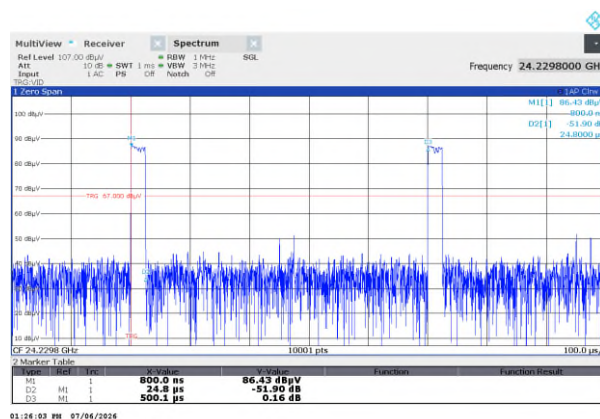
Mode B, F2



Mode C, F1



Mode C, F2

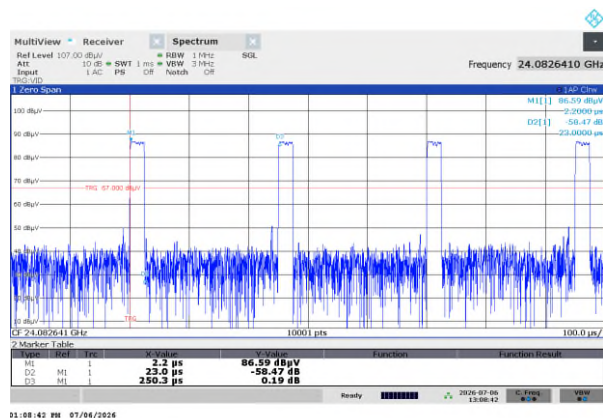


Test Report No.: JP261C8T 001
Prüfbericht-Nr.:

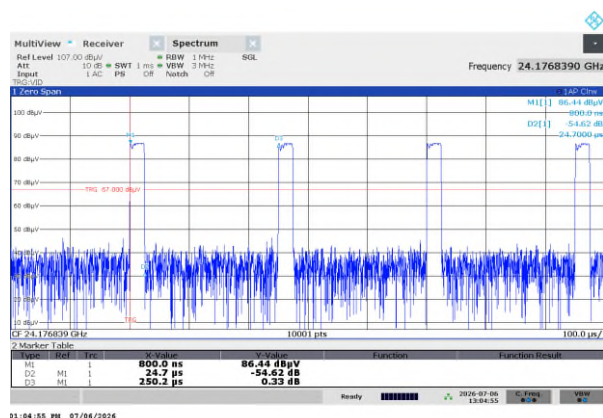
Page 44 of 68
Seite 44 von 68

Figure 16: Duty Cycle, Conf. 2, LDO2

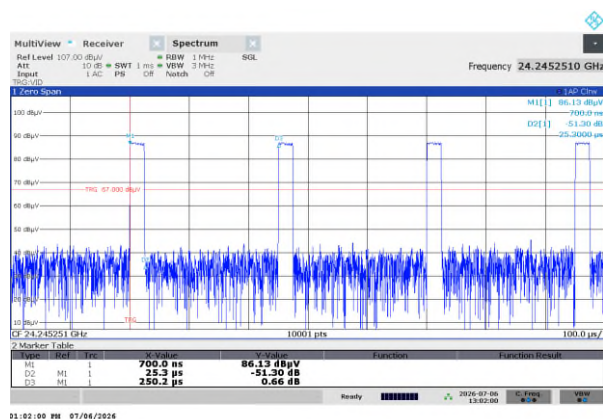
Mode A, F1



Mode B, F1



Mode C, F1



5.8 Radiated Spurious Emissions of Transmitter

RESULT:

Pass

Date of testing: 2026-07-06, 2026-07-07, 2026-07-08
2026-07-09, 2026-07-31

Ambient temperature: 24, 22, 24, 25, 23°C
Relative humidity: 51, 55, 54, 50, 55%
Atmospheric pressure: 1009, 1009, 1009, 1010, 1006hPa

Frequency range: 9kHz - 100GHz
Measurement distance: 3m below 30MHz, 30MHz - 1GHz and
1GHz - 40GHz
1.5m 40GHz – 50GHz
0.3m (*) 50GHz - 100GHz

Kind of test site: Semi Anechoic Chamber below 40GHz
mmW Chamber above 40GHz

Requirements:

FCC §15.205, §15.209, §15.249(a)(d)(e), RSS-Gen §8.9 and §8.10 and RSS-210 Annex B.10

Radiated emissions which fall in the restricted bands, as defined in FCC §15.205(a) and RSS-Gen §8.10 (table 7), must comply with the radiated emission limits specified in FCC 15.209(a) and RSS-Gen §8.9 (tables 5 and 6).

Radiated emissions which is outside of the authorized band, shall be attenuated by at least 50dBc or to the general emission, whichever is the lesser attenuation.

Test procedure:

ANSI C63.10-2020 §6.3, 6.4, 6.5, 6.6, 6.10 and RSS-Gen §6.13 and 8.1 for below 40GHz

ANSI C63.10-2020 § 9.12 for above 40GHz

The EUT was placed on a non-conductive table. The table height was 0.8m for measurements below 1GHz and 1.5m for measurements above 1GHz. Before final measurements of radiated emissions were performed, the EUT was scanned to determine its emission spectrum profile. The physical arrangement of the test system, the associated cabling and the EUT orientation (X, Y, Z) were varied in order to ensure that maximum emission amplitudes were attained. The worst orientation was orientation Y. The spectrum was examined from 9kHz to 100GHz.

Final measurements were made at the above-listed distance for each range.

At each frequency selected for final measurement, the EUT was rotated 360° and the antenna was raised and lowered from 1 to 4m in order to determine the emission's

maximum level. Measurements were taken using both horizontal and vertical antenna polarizations.

For emissions between 30MHz and 1GHz, measurements were performed with a receiver operating in the CISPR quasi-peak detection mode. The receiver's 6dB bandwidth was set to 120kHz.

For emissions above 1GHz, measurements were performed with a spectrum analyzer using the following settings: for peak field strength: RBW = 1MHz & VBW = 3MHz; for average field strength: RBW = 1MHz & VBW = 10Hz. Positive peak detector was applied.

Absorbers have been placed on the floor between the EUT and the measuring antenna for testing from 1GHz to 40GHz.

Absorbers have been placed on the floor and walls between the EUT and the measuring antenna for testing from 40GHz to 100GHz in order to minimize contribution from reflections.

The highest emission amplitudes relative to the appropriate limit were recorded in this report. Emissions other than those mentioned are small or not detectable.

No significant spurious emission was found in the range from 9kHz to 30MHz at 3m measurement distance, loop antenna was oriented at vertical, horizontal and ground parallel.

(*) No significant spurious emissions were found in the frequency range from 40GHz to 100GHz other than the second harmonic of the fundamental. Therefore, an additional investigation was performed at a shorter measurement distance to confirm that no other spurious emissions were present.

Test Report No.:
Prüfbericht-Nr.:

JP261C8T 001

Page 47 of 68
Seite 47 von 68

Table 25: Radiated Emission, Quasi Peak Data, 30MHz - 1GHz, Horizontal and Vertical Antenna Orientations, Mode A, Conf. 1, LDO1

Freq. [MHz]	EUT / Ant. Orient.	Reading QP [dBμV]	Factor [dB(1/m)]	Level QP [dBμV/m]	Limit [dBμV/m]	Margin QP [dB]	Height [cm]	Angle [°]
33.009	Y/V	45.7	-21.9	23.8	40.0	16.2	103	194
48.001	Y/V	52.5	-21.0	31.5	40.0	8.5	100	273
119.999	Y/H	51.6	-22.6	29.0	43.5	14.5	161	93
120.002	Y/V	54.0	-22.6	31.4	43.5	12.1	100	183
240.003	Y/H	53.1	-21.3	31.8	46.0	14.2	132	85
240.006	Y/V	50.5	-21.3	29.2	46.0	16.8	100	265
360.005	Y/H	48.2	-17.1	31.1	46.0	14.9	100	289

Note: Level QP = Reading QP + Factor, dB(uV/m) = 20 × Log₁₀(uV/m)

Table 26: Radiated Emission, Average Data, 1GHz - 40GHz, Horizontal and Vertical Antenna Orientations, Mode A, Conf. 1, LDO1

Freq. [MHz]	EUT / Ant. Orient.	Reading AV [dBμV]	Factor [dB(1/m)]	Level AV [dBμV/m]	Limit [dBμV/m]	Margin AV [dB]	Height [cm]	Angle [°]
7835.340	Y/V	50.1	-2.6	47.5	54.0	6.5	400	359
7888.543	Y/H	50.3	-2.5	47.8	54.0	6.2	247	1
12307.510	Y/H	42.1	-0.2	41.9	54.0	12.1	205	153
12327.360	Y/V	42.3	-0.3	42.0	54.0	12.0	101	359
24346.480	Y/H	43.6	4.6	48.2	54.0	5.8	400	1
25242.595	Y/V	43.7	4.0	47.7	54.0	6.3	100	359
34162.040	Y/H	82.3	-42.2	40.1	54.0	13.9	137	1
36990.750	Y/V	84.2	-42.1	42.1	54.0	11.9	100	355

Note: Level AV = Reading AV + Factor, dB(uV/m) = 20 × Log₁₀(uV/m)

Table 27: Radiated Emission, Peak Data, 1GHz - 40GHz, Horizontal and Vertical Antenna Orientations, Mode A, Conf. 1, LDO1

Freq. [MHz]	EUT / Ant. Orient.	Reading PK [dBμV]	Factor [dB(1/m)]	Level PK [dBμV/m]	Limit [dBμV/m]	Margin PK [dB]	Height [cm]	Angle [°]
7835.340	Y/V	53.1	-2.6	50.5	74.0	23.5	400	359
7888.543	Y/H	53.5	-2.5	51.0	74.0	23.0	247	1
12307.510	Y/H	46.4	-0.2	46.2	74.0	27.8	205	153
12327.360	Y/V	46.5	-0.3	46.2	74.0	27.8	101	359
24346.480	Y/H	46.4	4.6	51.0	74.0	23.0	400	1
25242.595	Y/V	47.4	4.0	51.4	74.0	22.6	100	359
34162.040	Y/H	86.8	-42.2	44.6	74.0	29.4	137	1
36990.750	Y/V	87.5	-42.1	45.4	74.0	28.6	100	355

Note: Level PK = Reading PK + Factor, dB(uV/m) = 20 × Log₁₀(uV/m)

Test Report No.:
Prüfbericht-Nr.:

JP261C8T 001

Page 48 of 68
Seite 48 von 68

Table 28: Radiated Emission, Average Data, 40GHz - 100GHz, Horizontal and Vertical Antenna Orientations, Mode A, Conf. 1, LDO1

Freq. [MHz]	EUT / Ant. Orient.	Reading AV [dBµV]	D [m]	DCF [dB]	Level AV [dBµV/m]	Limit [dBµV/m]	Margin AV [dB]
48123.31	Y/V	47.72	1.5	-6.02	41.70	67.9	26.20
48153.71	Y/V	48.00	1.5	-6.02	41.98	67.9	25.92
48123.70	Y/H	48.04	1.5	-6.02	42.02	67.9	25.88
48152.71	Y/H	48.11	1.5	-6.02	42.09	67.9	25.81

Note: Distance Conversion Factor (DCF) was applied for each measurement point.

$$DCF = 20 \times \log_{10} (D/3.0) \text{ [dB]}$$

$$\text{Level AV} = \text{Reading AV} + DCF, \text{ dB}(\mu\text{V/m}) = 20 \times \log_{10}(\mu\text{V/m})$$

Reading AV includes relevant factor.

Table 29: Radiated Emission, Peak Data, 40GHz - 100GHz, Horizontal and Vertical Antenna Orientations, Mode A, Conf. 1, LDO1

Freq. [MHz]	EUT / Ant. Orient.	Reading PK [dBµV]	D [m]	DCF [dB]	Level PK [dBµV/m]	Limit [dBµV/m]	Margin PK [dB]
48122.84	Y/V	67.47	1.5	-6.02	61.45	87.9	26.45
48154.34	Y/V	66.82	1.5	-6.02	60.80	87.9	27.10
48122.84	Y/H	65.74	1.5	-6.02	59.72	87.9	28.18
48152.34	Y/H	66.24	1.5	-6.02	60.22	87.9	27.68

Note: Distance Conversion Factor (DCF) was applied for each measurement point.

$$DCF = 20 \times \log_{10} (D/3.0) \text{ [dB]}$$

$$\text{Level PK} = \text{Reading PK} + DCF, \text{ dB}(\mu\text{V/m}) = 20 \times \log_{10}(\mu\text{V/m})$$

Reading PK includes relevant factor.

Test Report No.:
Prüfbericht-Nr.:

JP261C8T 001

Page 49 of 68
Seite 49 von 68

Table 30: Radiated Emission, Quasi Peak Data, 30MHz - 1GHz, Horizontal and Vertical Antenna Orientations, Mode B, Conf. 1, LDO1

Freq. [MHz]	EUT / Ant. Orient.	Reading QP [dBμV]	Factor [dB(1/m)]	Level QP [dBμV/m]	Limit [dBμV/m]	Margin QP [dB]	Height [cm]	Angle [°]
47.999	Y/V	56.0	-21.0	35.0	40.0	5.0 (*)	100	316
60.002	Y/V	56.1	-21.7	34.4	40.0	5.6 (*)	100	170
120.003	Y/H	48.7	-22.6	26.1	43.5	17.4	319	81
190.334	Y/V	49.2	-22.1	27.1	43.5	16.4	100	76
191.577	Y/H	45.4	-22.2	23.2	43.5	20.3	144	96
360.004	Y/V	51.2	-17.1	34.1	46.0	11.9	111	234
421.432	Y/H	32.8	-15.2	17.6	46.0	28.4	101	313

Note: Level QP = Reading QP + Factor, dB(uV/m) = 20 × Log₁₀(uV/m)

(*) The measured result is below the specification limit by a margin less than the measurement uncertainty; it is therefore not possible to determine compliance at a level of confidence of 95%. However, the measured result indicates a high probability that the tested product complies with the specification limit.

Table 31: Radiated Emission, Average Data, 1GHz - 40GHz, Horizontal and Vertical Antenna Orientations, Mode B, Conf. 1, LDO1

Freq. [MHz]	EUT / Ant. Orient.	Reading AV [dBμV]	Factor [dB(1/m)]	Level AV [dBμV/m]	Limit [dBμV/m]	Margin AV [dB]	Height [cm]	Angle [°]
7391.277	Y/V	49.3	-3.2	46.1	54.0	7.9	100	291
7795.773	Y/H	48.7	-2.7	46.0	54.0	8.0	371	1
11866.290	Y/V	42.9	0.0	42.9	54.0	11.1	199	359
12269.660	Y/H	43.8	-0.2	43.6	54.0	10.4	199	1
23427.000	Y/H	43.0	5.4	48.4	54.0	5.6	374	1
24536.380	Y/V	43.8	4.4	48.2	54.0	5.8	100	359
36208.680	Y/V	83.4	-41.5	41.9	54.0	12.1	163	291
39301.840	Y/H	84.5	-42.9	41.6	54.0	12.4	119	2

Note: Level AV = Reading AV + Factor, dB(uV/m) = 20 × Log₁₀(uV/m)

Table 32: Radiated Emission, Peak Data, 1GHz - 40GHz, Horizontal and Vertical Antenna Orientations, Mode B, Conf. 1, LDO1

Freq. [MHz]	EUT / Ant. Orient.	Reading PK [dBμV]	Factor [dB(1/m)]	Level PK [dBμV/m]	Limit [dBμV/m]	Margin PK [dB]	Height [cm]	Angle [°]
7391.277	Y/V	53.5	-3.2	50.3	74.0	23.7	100	291
7795.773	Y/H	52.7	-2.7	50.0	74.0	24.0	371	1
11866.290	Y/V	46.6	0.0	46.6	74.0	27.4	199	359
12269.660	Y/H	46.2	-0.2	46.0	74.0	28.0	199	1
23427.000	Y/H	46.6	5.4	52.0	74.0	22.0	374	1
24536.380	Y/V	46.9	4.4	51.3	74.0	22.7	100	359
36208.680	Y/V	85.9	-41.5	44.4	74.0	29.6	163	291
39301.840	Y/H	88.7	-42.9	45.8	74.0	28.2	119	2

Note: Level PK = Reading PK + Factor, dB(uV/m) = 20 × Log₁₀(uV/m)

Test Report No.:
Prüfbericht-Nr.:

JP261C8T 001

Page 50 of 68
Seite 50 von 68

Table 33: Radiated Emission, Average Data, 40GHz - 100GHz, Horizontal and Vertical Antenna Orientations, Mode B, Conf. 1, LDO1

Freq. [MHz]	EUT / Ant. Orient.	Reading AV [dBµV]	D [m]	DCF [dB]	Level AV [dBµV/m]	Limit [dBµV/m]	Margin AV [dB]
48308.14	Y/V	47.56	1.5	-6.02	41.54	67.9	26.36
48338.40	Y/V	47.46	1.5	-6.02	41.44	67.9	26.46
48308.89	Y/H	47.79	1.5	-6.02	41.77	67.9	26.13
48339.40	Y/H	47.89	1.5	-6.02	41.87	67.9	26.03

Note: Distance Conversion Factor (DCF) was applied for each measurement point.

$$DCF = 20 \times \log_{10} (D/3.0) \text{ [dB]}$$

$$\text{Level AV} = \text{Reading AV} + DCF, \text{ dB}(\mu\text{V/m}) = 20 \times \log_{10}(\mu\text{V/m})$$

Reading AV includes relevant factors.

Table 34: Radiated Emission, Peak Data, 40GHz - 100GHz, Horizontal and Vertical Antenna Orientations, Mode B, Conf. 1, LDO1

Freq. [MHz]	EUT / Ant. Orient.	Reading PK [dBµV]	D [m]	DCF [dB]	Level PK [dBµV/m]	Limit [dBµV/m]	Margin PK [dB]
48308.14	Y/V	65.92	1.5	-6.02	59.90	87.9	28.00
48338.40	Y/V	65.60	1.5	-6.02	59.58	87.9	28.32
48308.89	Y/H	66.19	1.5	-6.02	60.17	87.9	27.73
48339.40	Y/H	66.27	1.5	-6.02	60.25	87.9	27.65

Note: Distance Conversion Factor (DCF) was applied for each measurement point.

$$DCF = 20 \times \log_{10} (D/3.0) \text{ [dB]}$$

$$\text{Level PK} = \text{Reading PK} + DCF, \text{ dB}(\mu\text{V/m}) = 20 \times \log_{10}(\mu\text{V/m})$$

Reading PK includes relevant factors.

Test Report No.:
Prüfbericht-Nr.:

JP261C8T 001

Page 51 of 68
Seite 51 von 68

Table 35: Radiated Emission, Quasi Peak Data, 30MHz - 1GHz, Horizontal and Vertical Antenna Orientations, Mode C, Conf. 1, LDO1

Freq. [MHz]	EUT / Ant. Orient.	Reading QP [dBμV]	Factor [dB(1/m)]	Level QP [dBμV/m]	Limit [dBμV/m]	Margin QP [dB]	Height [cm]	Angle [°]
48.002	Y/V	55.6	-21.0	34.6	40.0	5.4 (*)	100	359
60.001	Y/V	53.3	-21.7	31.6	40.0	8.4	100	171
72.001	Y/V	55.7	-23.5	32.2	40.0	7.8	100	168
119.999	Y/V	53.1	-22.6	30.5	43.5	13.0	107	190
180.001	Y/H	50.8	-21.3	29.5	43.5	14.0	169	93
240.004	Y/H	51.4	-21.3	30.1	46.0	15.9	111	92
360.005	Y/H	45.6	-17.1	28.5	46.0	17.5	100	296

Note: Level QP = Reading QP + Factor, dB(uV/m) = 20 × Log₁₀(uV/m)

(*) The measured result is below the specification limit by a margin less than the measurement uncertainty; it is therefore not possible to determine compliance at a level of confidence of 95%. However, the measured result indicates a high probability that the tested product complies with the specification limit.

Table 36: Radiated Emission, Average Data, 1GHz - 40GHz, Horizontal and Vertical Antenna Orientations, Mode C, Conf. 1, LDO1

Freq. [MHz]	EUT / Ant. Orient.	Reading AV [dBμV]	Factor [dB(1/m)]	Level AV [dBμV/m]	Limit [dBμV/m]	Margin AV [dB]	Height [cm]	Angle [°]
7389.383	Y/H	49.3	-3.2	46.1	54.0	7.9	400	74
7703.990	Y/V	49.1	-3.0	46.1	54.0	7.9	100	359
12042.840	Y/V	43.4	0.2	43.6	54.0	10.4	199	288
12363.210	Y/H	43.7	-0.4	43.3	54.0	10.7	200	1
25202.910	Y/H	44.5	4.0	48.5	54.0	5.5	100	1
25280.500	Y/V	44.8	4.1	48.9	54.0	5.1 (*)	400	359
37033.900	Y/H	83.0	-42.1	40.9	54.0	13.1	166	261
39959.430	Y/V	84.3	-43.2	41.1	54.0	12.9	176	12

Note: Level AV = Reading AV + Factor, dB(uV/m) = 20 × Log₁₀(uV/m)

(*) The measured result is below the specification limit by a margin less than the measurement uncertainty; it is therefore not possible to determine compliance at a level of confidence of 95%. However, the measured result indicates a high probability that the tested product complies with the specification limit.

Test Report No.:
Prüfbericht-Nr.:

JP261C8T 001

Page 52 of 68
Seite 52 von 68

Table 37: Radiated Emission, Peak Data, 1GHz - 40GHz, Horizontal and Vertical Antenna Orientations, Mode C, Conf. 1, LDO1

Freq. [MHz]	EUT / Ant. Orient.	Reading PK [dBμV]	Factor [dB(1/m)]	Level PK [dBμV/m]	Limit [dBμV/m]	Margin PK [dB]	Height [cm]	Angle [°]
7389.383	Y/H	53.3	-3.2	50.1	74.0	23.9	400	74
7703.990	Y/V	52.8	-3.0	49.8	74.0	24.2	100	359
12042.840	Y/V	45.2	0.2	45.4	74.0	28.6	199	288
12363.210	Y/H	46.2	-0.4	45.8	74.0	28.2	200	1
25202.910	Y/H	46.9	4.0	50.9	74.0	23.1	100	1
25280.500	Y/V	47.4	4.1	51.5	74.0	22.5	400	359
37033.900	Y/H	87.1	-42.1	45.0	74.0	29.0	166	261
39959.430	Y/V	87.8	-43.2	44.6	74.0	29.4	176	12

Note: Level PK = Reading PK + Factor, dB(uV/m) = 20 × Log₁₀(uV/m)

Table 38: Radiated Emission, Average Data, 40GHz - 100GHz, Horizontal and Vertical Antenna Orientations, Mode C, Conf. 1, LDO1

Freq. [MHz]	EUT / Ant. Orient.	Reading AV [dBμV]	D [m]	DCF [dB]	Level AV [dBμV/m]	Limit [dBμV/m]	Margin AV [dB]
48446.94	Y/V	47.27	1.5	-6.02	41.25	67.9	26.65
48477.33	Y/V	47.11	1.5	-6.02	41.09	67.9	26.81
48446.81	Y/H	47.35	1.5	-6.02	41.33	67.9	26.57
48477.83	Y/H	48.15	1.5	-6.02	42.13	67.9	25.77

Note: Distance Conversion Factor (DCF) was applied for each measurement point.

DCF = 20 × Log₁₀ (D/3.0) [dB]

Level AV = Reading AV + DCF, dB(uV/m) = 20 × Log₁₀(uV/m)

Reading AV includes relevant factors.

Table 39: Radiated Emission, Peak Data, 40GHz - 100GHz, Horizontal and Vertical Antenna Orientations, Mode C, Conf. 1, LDO1

Freq. [MHz]	EUT / Ant. Orient.	Reading PK [dBμV]	D [m]	DCF [dB]	Level PK [dBμV/m]	Limit [dBμV/m]	Margin PK [dB]
48477.33	Y/V	64.84	1.5	-6.02	58.82	87.9	29.08
43494.08	Y/V	64.48	1.5	-6.02	58.46	87.9	29.44
48477.83	Y/H	65.78	1.5	-6.02	59.76	87.9	28.14
74122.27	Y/H	65.55	1.5	-6.02	59.53	87.9	28.37

Note: Distance Conversion Factor (DCF) was applied for each measurement point.

DCF = 20 × Log₁₀ (D/3.0) [dB]

Level PK = Reading PK + DCF, dB(uV/m) = 20 × Log₁₀(uV/m)

Reading PK includes relevant factors.

Test Report No.:
Prüfbericht-Nr.:

JP261C8T 001

Page 53 of 68
Seite 53 von 68

Table 40: Radiated Emissions at Band Edge, Average Data, Conf. 1, LDO1

Mode	Frequency [GHz]	EUT / Antenna Orientation	Level PK [dBμV/m]	DCCF [dB]	Level AV [dBμV/m]	Limit AV [dBμV/m]	Margin AV [dB]
A/F2	24.00	V/Y	57.56	-26.68	30.88	54	23.12
C/F1	24.25	V/Y	70.11	-26.42	43.69	54	10.31

Note: The worst case was observed at vertical orientation and then was reported.

Average Level was calculated by the following formula;

- Average Level at 3m = Level PK + DCCF

Table 41: Radiated Emissions at Band Edge, Peak Data, Conf. 1, LDO1

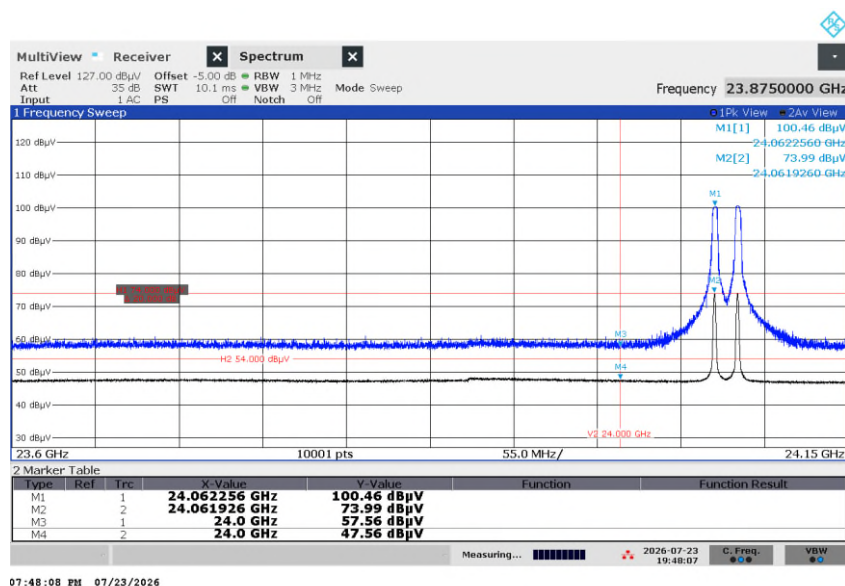
Mode	Frequency [GHz]	EUT / Antenna Orientation	Level PK [dBμV/m]	Limit PK [dBμV/m]	Margin PK [dB]	Remark
A/F2	24.00	V/Y	57.56	74	16.44	Plot M3, Figure17
C/F1	24.25	V/Y	70.11	74	3.89 (*)	Plot M3, Figure 18

Note: The worst case was observed at vertical orientation and then was reported.

Gray shading data is the highest radiated spurious emission observed in this test report.

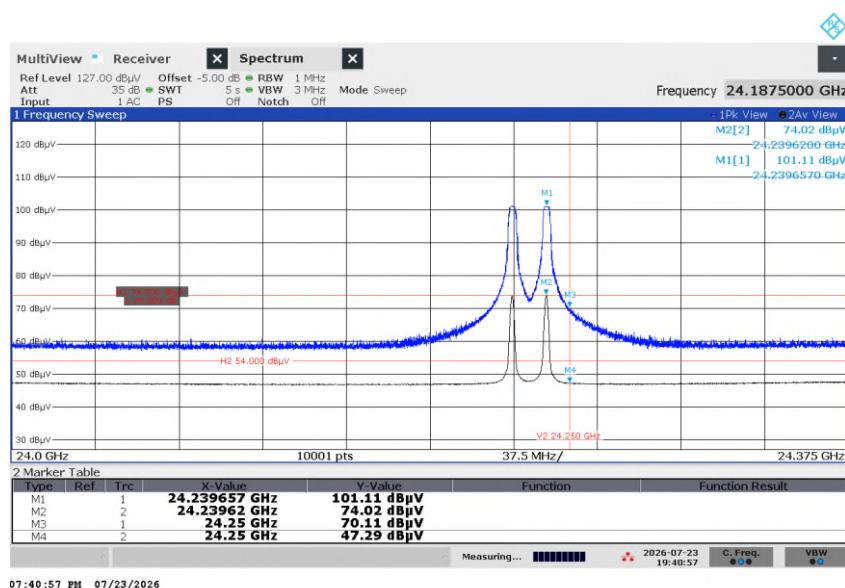
(*) The measured result is below the specification limit by a margin less than the measurement uncertainty; it is therefore not possible to determine compliance at a level of confidence of 95%. However, the measured result indicates a high probability that the tested product complies with the specification limit.

Figure 17: Radiated Emissions at Band Edge, Spectral Diagram, Mode A, Conf. 1, LDO1



Note: The upper trace (Blue) shows the peak value and the lower trace (Black) is a reference plot by averaging detector.
Radiated emissions which is outside of the authorized band were attenuated below the general emission limits.

Figure 18: Radiated Emissions at Band Edge, Spectral Diagram, Mode C, Conf. 1, LDO1



Note: The upper trace (Blue) shows the peak value and the lower trace (Black) is a reference plot by averaging detector.
Radiated emissions which is outside of the authorized band were attenuated below the general emission limits.

Test Report No.:
Prüfbericht-Nr.:

JP261C8T 001

Page 55 of 68
Seite 55 von 68

Table 42: Radiated Emissions at Band Edge, Average Data, Conf. 1, LDO2

Mode	Frequency [GHz]	EUT / Antenna Orientation	Level PK [dBμV/m]	DCCF [dB]	Level AV [dBμV/m]	Limit AV [dBμV/m]	Margin AV [dB]
A/F2	24.00	V/Y	59.40	-26.21	33.19	54	20.81
C/F1	24.25	V/Y	67.38	-26.06	41.32	54	12.68

Note: The worst case was observed at vertical orientation and then was reported.

Average Level was calculated by the following formula;

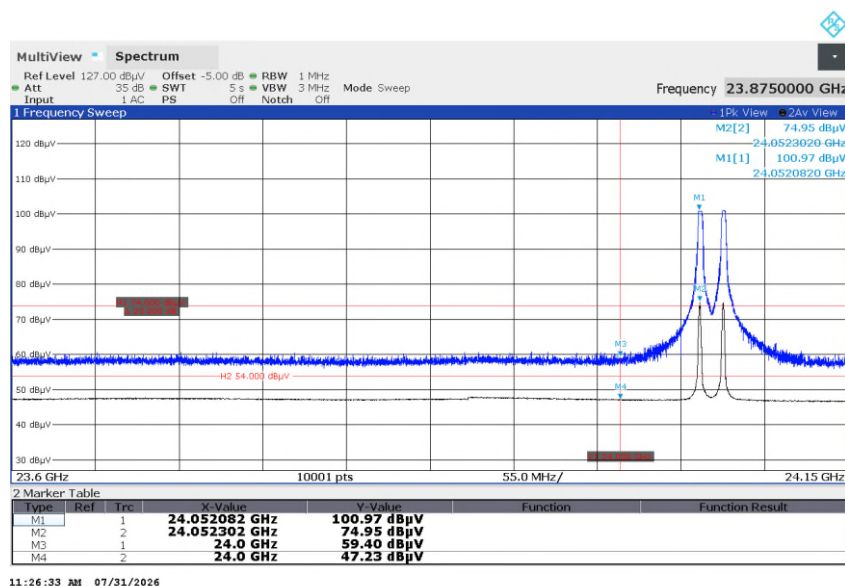
- Average Level at 3m = Level PK + DCCF

Table 43: Radiated Emissions at Band Edge, Peak Data, Conf. 1, LDO2

Mode	Frequency [GHz]	EUT / Antenna Orientation	Level PK [dBμV/m]	Limit PK [dBμV/m]	Margin PK [dB]	Remark
A/F2	24.00	V/Y	59.40	74	14.60	Plot M3, Figure19
C/F1	24.25	V/Y	67.38	74	6.62	Plot M3, Figure 20

Note: The worst case was observed at vertical orientation and then was reported.

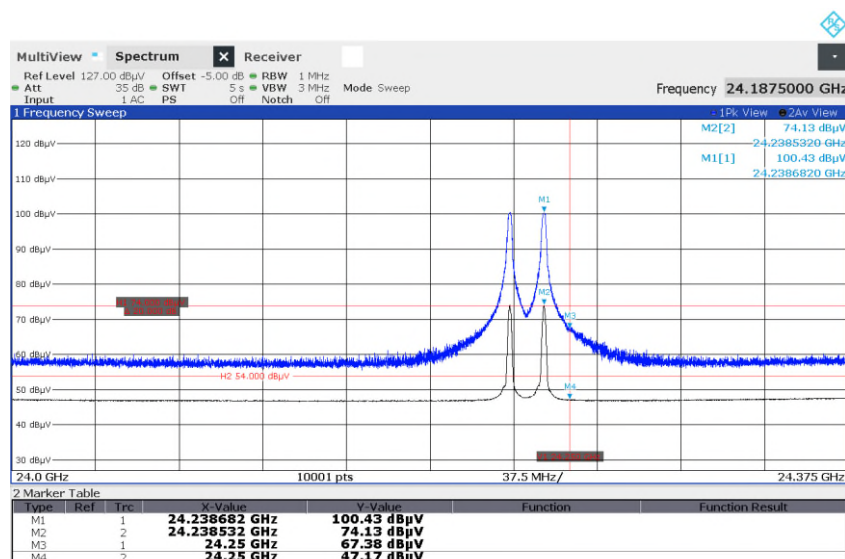
Figure 19: Radiated Emissions at Band Edge, Spectral Diagram, Mode A, Conf. 1, LDO2



11:26:33 AM 07/31/2026

Note: The upper trace (Blue) shows the peak value and the lower trace (Black) is a reference plot by averaging detector.
Radiated emissions which is outside of the authorized band were attenuated below the general emission limits.

Figure 20: Radiated Emissions at Band Edge, Spectral Diagram, Mode C, Conf. 1, LDO2



03:06:26 PM 07/31/2026

Note: The upper trace (Blue) shows the peak value and the lower trace (Black) is a reference plot by averaging detector.
Radiated emissions which is outside of the authorized band were attenuated below the general emission limits.

5.9 AC Power Line Conducted Emission of Transmitter

RESULT:

Pass

Date of testing: 2026-07-23

Ambient temperature: 24°C

Relative humidity: 67%

Atmospheric pressure: 1005hPa

Frequency range: 0.15 - 30MHz

Kind of test site: Shielded Room

Requirements:

FCC §15.207 and RSS-Gen §8.8

The AC power line conducted emission on any frequency within the band 150kHz to 30MHz shall not exceed the limits specified in FCC §15.207(a) and RSS-Gen §8.8 (table 4).

Test procedure:

ANSI C63.10-2020 §6.2 and RSS-Gen §8.1

The EUT was placed on an wooden table raised 80cm above the reference ground plane. A vertical conducting plane of the screened room was located 40cm to the rear of the EUT. The AC input port of the EUT was connected to a Line Impedance Stabilization Network (LISN).

The physical arrangement of the test system and associated cabling was varied to determine the effect on the EUT's emissions in amplitude and frequency in order to ensure that maximum emission amplitudes were attained.

The measurements were performed with a measurement receiver operating in the CISPR quasi-peak and average detection modes. The receiver's 6dB bandwidth was set to 9kHz.

Final measurements were performed at the all operation modes A, B and C.

The highest emission amplitudes relative to the appropriate limit were recorded in this report. Emissions other than those mentioned were small or not detectable.

Test Report No.:
Prüfbericht-Nr.:

JP261C8T 001

Page 58 of 68
Seite 58 von 68

Table 44: AC Power Line Conducted Emission, 0.15 - 30MHz, Quasi Peak and Average Data, Phase N (N) and L1 (L), Mode A, Conf. 1

Freq. [MHz]	Phase	Reading QP [dBµV]	Reading AV [dBµV]	Factor [dB]	Level QP [dBµV]	Level AV [dBµV]	Limit QP [dBµV]	Limit AV [dBµV]	Margin QP [dB]	Margin AV [dB]
0.1613	N	29.6	19.2	10.0	39.6	29.2	65.4	55.4	25.8	26.2
0.2265	N	24.2	5.3	10.1	34.3	15.4	62.6	52.6	28.3	37.2
0.6653	N	24.4	6.0	10.2	34.6	16.2	56.0	46.0	21.4	29.8
10.9860	N	8.3	-0.5	10.2	18.5	9.7	60.0	50.0	41.5	40.3
24.0000	N	10.6	4.7	10.4	21.0	15.1	60.0	50.0	39.0	34.9
0.1613	L1	29.6	20.1	10.0	39.6	30.1	65.4	55.4	25.8	25.3
0.2243	L1	23.5	2.5	10.1	33.6	12.6	62.7	52.7	29.1	40.1
0.6653	L1	25.8	2.0	10.2	36.0	12.2	56.0	46.0	20.0	33.8
4.1100	L1	8.4	-2.1	10.0	18.4	7.9	56.0	46.0	37.6	38.1
24.0000	L1	9.7	3.2	10.4	20.1	13.6	60.0	50.0	39.9	36.4

Note: Level QP = Reading QP + Factor, Level AV = Reading AV + Factor

Table 45: AC Power Line Conducted Emission, 0.15 - 30MHz, Quasi Peak and Average Data, Phase N (N) and L1 (L), Mode B, Conf. 1

Freq. [MHz]	Phase	Reading QP [dBµV]	Reading AV [dBµV]	Factor [dB]	Level QP [dBµV]	Level AV [dBµV]	Limit QP [dBµV]	Limit AV [dBµV]	Margin QP [dB]	Margin AV [dB]
0.1613	N	29.6	19.2	10.0	39.6	29.2	65.4	55.4	25.8	26.2
0.2445	N	24.5	7.2	10.0	34.5	17.2	61.9	51.9	27.4	34.7
0.6653	N	24.8	6.0	10.2	35.0	16.2	56.0	46.0	21.0	29.8
11.0490	N	8.4	-1.0	10.2	18.6	9.2	60.0	50.0	41.4	40.8
24.0000	N	10.9	4.9	10.4	21.3	15.3	60.0	50.0	38.7	34.7
0.1613	L1	29.6	20.1	10.0	39.6	30.1	65.4	55.4	25.8	25.3
0.2243	L1	24.3	2.7	10.1	34.4	12.8	62.7	52.7	28.3	39.9
0.6653	L1	26.2	2.1	10.2	36.4	12.3	56.0	46.0	19.6	33.7
4.3575	L1	8.4	-2.0	10.0	18.4	8.0	56.0	46.0	37.6	38.0
24.0000	L1	9.8	3.2	10.4	20.2	13.6	60.0	50.0	39.8	36.4

Note: Level QP = Reading QP + Factor, Level AV = Reading AV + Factor

Table 46: AC Power Line Conducted Emission, 0.15 - 30MHz, Quasi Peak and Average Data, Phase N (N) and L1 (L), Mode C, Conf. 1

Freq. [MHz]	Phase	Reading QP [dBµV]	Reading AV [dBµV]	Factor [dB]	Level QP [dBµV]	Level AV [dBµV]	Limit QP [dBµV]	Limit AV [dBµV]	Margin QP [dB]	Margin AV [dB]
0.1613	N	29.5	19.3	10.0	39.5	29.3	65.4	55.4	25.9	26.1
0.2243	N	24.9	5.4	10.1	35.0	15.5	62.7	52.7	27.7	37.2
0.6653	N	25.1	6.1	10.2	35.3	16.3	56.0	46.0	20.7	29.7
11.1300	N	8.7	0.0	10.2	18.9	10.2	60.0	50.0	41.1	39.8
24.0000	N	10.9	4.9	10.4	21.3	15.3	60.0	50.0	38.7	34.7
0.1613	L1	29.5	20.1	10.0	39.5	30.1	65.4	55.4	25.9	25.3
0.2243	L1	24.7	2.8	10.1	34.8	12.9	62.7	52.7	27.9	39.8
0.6653	L1	26.4	2.2	10.2	36.6	12.4	56.0	46.0	19.4	33.6
4.1348	L1	8.7	-2.2	10.0	18.7	7.8	56.0	46.0	37.3	38.2
24.0000	L1	10.0	3.1	10.4	20.4	13.5	60.0	50.0	39.6	36.5

Note: Level QP = Reading QP + Factor, Level AV = Reading AV + Factor

7. List of Tables

Table 1: Test Summary	5
Table 2: List of Test and Measurement Equipment	7
Table 3: Measurement Uncertainty	9
Table 4: Product Ratings and Details	10
Table 5: Channel Lists	11
Table 6: Interfaces present on the EUT	15
Table 7: Special Accessories and Auxiliary Equipment	15
Table 8: Serial Number	15
Table 9: Field Strength of Fundamental, Average Data, Conf. 1, LDO1	20
Table 10: Field Strength of Fundamental, Peak Data, Conf. 1, LDO1	20
Table 11: Field Strength of Fundamental, Average Data, Conf. 2, LDO1	22
Table 12: Field Strength of Fundamental, Peak Data, Conf. 2, LDO1	22
Table 13: Field Strength of Fundamental, Average Data, Conf. 1, LDO2	24
Table 14: Field Strength of Fundamental, Peak Data, Conf. 1, LDO2	24
Table 15: Field Strength of Fundamental, Average Data, Conf. 2, LDO2	26
Table 16: Field Strength of Fundamental, Peak Data, Conf. 2, LDO2	26
Table 17: 20dB Bandwidth Edge Frequencies	29
Table 18: 20dB Bandwidth	29
Table 19: 99% Bandwidth Edge Frequencies	34
Table 20: 99% Bandwidth	34
Table 21: Duty Cycle at the highest duty cycle, Conf. 1, LDO1	39
Table 22: Duty Cycle at the highest duty cycle, Conf. 2, LDO1	39
Table 23: Duty Cycle at the highest duty cycle, Conf. 1, LDO2	42
Table 24: Duty Cycle at the highest duty cycle, Conf. 2, LDO2	42
Table 25: Radiated Emission, Quasi Peak Data, 30MHz - 1GHz, Horizontal and Vertical Antenna Orientations, Mode A, Conf. 1, LDO1	47
Table 26: Radiated Emission, Average Data, 1GHz - 40GHz, Horizontal and Vertical Antenna Orientations, Mode A, Conf. 1, LDO1	47
Table 27: Radiated Emission, Peak Data, 1GHz - 40GHz, Horizontal and Vertical Antenna Orientations, Mode A, Conf. 1, LDO1	47
Table 28: Radiated Emission, Average Data, 40GHz - 100GHz, Horizontal and Vertical Antenna Orientations, Mode A, Conf. 1, LDO1	48
Table 29: Radiated Emission, Peak Data, 40GHz - 100GHz, Horizontal and Vertical Antenna Orientations, Mode A, Conf. 1, LDO1	48
Table 30: Radiated Emission, Quasi Peak Data, 30MHz - 1GHz, Horizontal and Vertical Antenna Orientations, Mode B, Conf. 1, LDO1	49
Table 31: Radiated Emission, Average Data, 1GHz - 40GHz, Horizontal and Vertical Antenna Orientations, Mode B, Conf. 1, LDO1	49
Table 32: Radiated Emission, Peak Data, 1GHz - 40GHz, Horizontal and Vertical Antenna Orientations, Mode B, Conf. 1, LDO1	49
Table 33: Radiated Emission, Average Data, 40GHz - 100GHz, Horizontal and Vertical Antenna Orientations, Mode B, Conf. 1, LDO1	50
Table 34: Radiated Emission, Peak Data, 40GHz - 100GHz, Horizontal and Vertical Antenna Orientations, Mode B, Conf. 1, LDO1	50
Table 35: Radiated Emission, Quasi Peak Data, 30MHz - 1GHz, Horizontal and Vertical Antenna Orientations, Mode C, Conf. 1, LDO1	51
Table 36: Radiated Emission, Average Data, 1GHz - 40GHz, Horizontal and Vertical Antenna Orientations, Mode C, Conf. 1, LDO1	51
Table 37: Radiated Emission, Peak Data, 1GHz - 40GHz, Horizontal and Vertical Antenna Orientations, Mode C, Conf. 1, LDO1	52
Table 38: Radiated Emission, Average Data, 40GHz - 100GHz, Horizontal and Vertical Antenna Orientations, Mode C, Conf. 1, LDO1	52
Table 39: Radiated Emission, Peak Data, 40GHz - 100GHz, Horizontal and Vertical Antenna Orientations, Mode C, Conf. 1, LDO1	52

Table 40: Radiated Emissions at Band Edge, Average Data, Conf. 1, LDO1	53
Table 41: Radiated Emissions at Band Edge, Peak Data, Conf. 1, LDO1	53
Table 42: Radiated Emissions at Band Edge, Average Data, Conf. 1, LDO2	55
Table 43: Radiated Emissions at Band Edge, Peak Data, Conf. 1, LDO2	55
Table 44: AC Power Line Conducted Emission, 0.15 - 30MHz, Quasi Peak and Average Data, Phase N (N) and L1 (L), Mode A, Conf. 1	58
Table 45: AC Power Line Conducted Emission, 0.15 - 30MHz, Quasi Peak and Average Data, Phase N (N) and L1 (L), Mode B, Conf. 1	58
Table 46: AC Power Line Conducted Emission, 0.15 - 30MHz, Quasi Peak and Average Data, Phase N (N) and L1 (L), Mode C, Conf. 1	58

8. List of Figures

Figure 1: Block Diagram for Radiated Emission of Transmitter	14
Figure 2: Block Diagram for AC Power Line Conducted Emission of Transmitter	14
Figure 3: Field Strength of Fundamental, Conf. 1, LDO1	21
Figure 4: Field Strength of Fundamental, Conf. 2, LDO1	23
Figure 5: Field Strength of Fundamental, Conf. 1, LDO2	25
Figure 6: Field Strength of Fundamental, Conf. 2, LDO2	27
Figure 7: 20dB Bandwidth, Mode A (F2/F1)	30
Figure 8: 20dB Bandwidth, Mode B (F2/F1)	31
Figure 9: 20dB Bandwidth, Mode C (F2/F1)	32
Figure 10: 99% Bandwidth, Mode A (F2/F1)	35
Figure 11: 99% Bandwidth, Mode B (F2/F1)	36
Figure 12: 99% Bandwidth, Mode C (F2/F1)	37
Figure 13: Duty Cycle, Conf. 1, LDO1	40
Figure 14: Duty Cycle, Conf. 2, LDO1	41
Figure 15: Duty Cycle, Conf. 1, LDO2	43
Figure 16: Duty Cycle, Conf. 2, LDO2	44
Figure 17: Radiated Emissions at Band Edge, Spectral Diagram, Mode A, Conf. 1, LDO1	54
Figure 18: Radiated Emissions at Band Edge, Spectral Diagram, Mode C, Conf. 1, LDO1	54
Figure 19: Radiated Emissions at Band Edge, Spectral Diagram, Mode A, Conf. 1, LDO2	56
Figure 20: Radiated Emissions at Band Edge, Spectral Diagram, Mode C, Conf. 1, LDO2	56

9. List of Photographs

Photograph 1: Set-up for Radiated Spurious Emission below 1GHz, Front View.....	59
Photograph 2: Set-up for Radiated Spurious Emission below 1GHz, Rear View	59
Photograph 3: Set-up for Radiated Spurious Emission above 1GHz, Front View	60
Photograph 4: Set-up for Radiated Spurious Emission above 1GHz, Rear View.....	60
Photograph 5: Set-up for Radiated Spurious Emission above 40GHz, Front View	61
Photograph 6: Set-up for Radiated Spurious Emission above 40GHz, Rear View	61
Photograph 7: Set-up for Radiated Spurious Emission below 30MHz, Front View	62
Photograph 8: Set-up for Radiated Spurious Emission below 30MHz, Rear View	62
Photograph 9: Set-up for AC Power Line Conducted Emission, Front View	63
Photograph 10: Set-up for AC Power Line Conducted Emission, Rear View	63
Photograph 11: Set-up for X-Axis of the EUT	64
Photograph 12: Set-up for Y-Axis of the EUT	64
Photograph 13: Set-up for Z-Axis of the EUT.....	64
Photograph 14: EUT	65

– End of test report –