

Prüfbericht-Nr.: Test report no.:	CN24LY2D 001	Auftrags-Nr.: Order no.:	170389116	Seite 1 von 18 Page 1 of 18
Kunden-Referenz-Nr.: Client reference no.:	N/A	Auftragsdatum: Order date:	2024-09-20	
Auftraggeber: Client:	ONWARD BRANDS LLC 767 5TH AVE FL 37TH NEW YORK, NY 10153, USA			
Prüfgegenstand: Test item:	Dongle			
Bezeichnung / Typ-Nr.: Identification / Type no.:	OB1461C			
Auftrags-Inhalt: Order content:	Test Report			
Prüfgrundlage: Test specification:	FCC CFR Title 47, Part 15, Subpart C, Section 15.249 RSS-210 Issue 11 June 2024 RSS-Gen Issue 5 March 2019			
Wareneingangsdatum: Date of sample receipt:	2024-11-28	Please refer to Photo Document		
Prüfmuster-Nr.: Test sample no.:	LP24080228C02-S001			
Prüfzeitraum: Testing period:	2024-11-03 - 2024-12-12			
Ort der Prüfung: Place of testing:	Refer to section 2.1			
Prüflaboratorium: Testing laboratory:	TÜV Rheinland (Guangdong) Co., Ltd.			
Prüfergebnis*: Test result*:	Pass			
geprüft von: tested by:			genehmigt von: authorized by:	
Datum: Date:	2025-01-21 Signed by: Amy Wang		Ausstellungsdatum: Issue date:	2025-01-21 Signed by: Storm Shu
Stellung / Position:	Sachverständige(r)/Expert		Stellung / Position:	Sachverständige(r)/Expert
Sonstiges / Other:	FCC ID: 2BCOY-OB1461C IC: 32736-OB1461C HVIN: OB1461C			
Zustand des Prüfgegenstandes bei Anlieferung: Condition of the test item at delivery:	Prüfmuster vollständig und unbeschädigt Test item complete and undamaged			
* Legende:	1 = sehr gut P(ass) = entspricht o.g. Prüfgrundlage(n)	2 = gut F(ail) = entspricht nicht o.g. Prüfgrundlage(n)	3 = befriedigend N/A = nicht anwendbar	4 = ausreichend N/T = nicht getestet
* Legend:	1 = very good P(ass) = passed a.m. test specification(s)	2 = good F(ail) = failed a.m. test specification(s)	3 = satisfactory N/A = not applicable	4 = sufficient N/T = not tested
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>This test report only relates to the a. m. 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>				

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Anmerkungen
Remarks

1	The equipment used during the specified testing period was calibrated according to our 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 our management system. Detailed information regarding test conditions, equipment and measurement uncertainty is available in the test laboratory and could be provided on request. <i>Alle eingesetzten Prüfmittel waren zum angegebenen Prüfzeitraum gemäß eines festgelegten Kalibrierungsprogramms unseres Prüfhauses kalibriert. Sie entsprechen den in den Prüfprogrammen hinterlegten Anforderungen. Die Rückverfolgbarkeit der eingesetzten Prüfmittel ist durch die Einhaltung der Regelungen unseres Managementsystems gegeben.</i> <i>Detaillierte Informationen bezüglich Prüfkonditionen, Prüfequipment und Messunsicherheiten sind im Prüflabor vorhanden und können auf Wunsch bereitgestellt werden.</i>
2	As contractually agreed, this document has been signed digitally only. TÜV Rheinland has not verified and unable to verify which legal or other pertaining requirements are applicable for this document. Such verification is within the responsibility of the user of this document. Upon request by its client, TÜV Rheinland can confirm the validity of the digital signature by a separate document. Such request shall be addressed to our Sales department. An environmental fee for such additional service will be charged. <i>Wie vertraglich vereinbart, wurde dieses Dokument nur digital unterzeichnet. Der TÜV Rheinland hat nicht überprüft, welche rechtlichen oder sonstigen diesbezüglichen Anforderungen für dieses Dokument gelten. Diese Überprüfung liegt in der Verantwortung des Benutzers dieses Dokuments. Auf Verlangen des Kunden kann der TÜV Rheinland die Gültigkeit der digitalen Signatur durch ein gesondertes Dokument bestätigen. Diese Anfrage ist an unseren Vertrieb zu richten. Eine Umweltgebühr für einen solchen zusätzlichen Service wird erhoben.</i>
3	Test clauses with remark of * are subcontracted to qualified subcontractors and described under the respective test clause in the report. Deviations of testing specification(s) or customer requirements are listed in specific test clause in the report. <i>Prüfklausel mit der Note * wurden an qualifizierte Unterauftragnehmer vergeben und sind unter der jeweiligen Prüfklausel des Berichts beschrieben. Abweichungen von Prüfspezifikation(en) oder Kundenanforderungen sind in der jeweiligen Prüfklausel im Bericht aufgeführt.</i>
4	The decision rule for statements of conformity, based on numerical measurement results, in this test report is based on the "Zero Guard Band Rule" and "Simple Acceptance" in accordance with ILAC G8:2019 and IEC Guide 115:2021, unless otherwise specified in the applied standard mentioned on Page 1 of this report or requested by the customer. This means that measurement uncertainty is not taken in account and hence also not declared in the test report. For additional information to the resulting risk based of this decision rule please refer to ILAC G8:2019. <i>Die Entscheidungsregel für Konformitätserklärungen basierend auf numerischen Messergebnissen in diesem Prüfbericht basiert auf der "Null-Grenzwert-Regel" und der "Einfachen Akzeptanz" gemäß ILAC G8:2019 und IEC Guide 115:2021, es sei denn, in der auf Seite 1 dieses Berichts genannten angewandten Norm ist etwas anderes festgelegt oder vom Kunden gewünscht. Dies bedeutet, dass die Messunsicherheit nicht berücksichtigt wird und daher auch nicht im Prüfbericht angegeben wird. Zu weiteren Informationen bezüglich des Risikos durch diese Entscheidungsregel siehe ILAC G8:2019.</i>

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Test Summary

5.1.1 ANTENNA REQUIREMENT

RESULT: Pass

5.1.2 FIELD STRENGTH OF FUNDAMENTAL AND HARMONICS

RESULT: Pass

5.1.3 20dB AND 99% BANDWIDTH

RESULT: Pass

5.1.4 BAND EDGE

RESULT: Pass

5.1.5 CONDUCTED EMISSION ON AC MAINS

RESULT: Pass

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1 General Remarks

1.1 Complementary Materials

All attachments are integral parts of this test report. This applies especially to the following appendix:

Appendix A: Photographs of the Test Set-up

Appendix B: Test Results

2 Test Sites

2.1 Test Facilities

Dongguan Lepont Testing Service Co., Ltd.

Room 102, Building 11, No.7, Houjie Science And Technology Avenue, Houjie, Dongguan, Guangdong, China

FCC Accreditation Designation No.: CN1351

ISED wireless device testing laboratory: 20133

The all tests at this test site have been conducted under the supervision of a TÜV Rheinland engineer.

2.2 List of Test and Measurement Instruments

Table 1: List of Test and Measurement Equipment

Radio Spectrum Testing				
Equipment	Manufacturer	Model	Serial No.	Cal. until
Spectrum analyzer	Agilent	N9020A	MY49100060	Jan. 25, 2025
Vector source	Agilent	N5182A	MY47420382	Jan. 25, 2025
Analog signal source	Agilent	N5171B	MY51350292	Jan. 25, 2025
All instrument	Rohde & Schwarz	CMW 500	1201.002K50	Jan. 25, 2025
High and low temperature chamber	Math-mart	MT-1202-40	LEP-E041	Jan. 25, 2025
control unit	Tonscend	JS0806-2	10165	Jan. 25, 2025
Testing software	Tonscend	JSTS1120-3	Ver 2.6.77.0518	Jan. 25, 2025
Unwanted Emission Testing				
Equipment	Manufacturer	Model	Serial No.	Cal. until
EMI Test Receiver	Rohde & Schwarz	ESR 3	101849	Jan. 30, 2025
TRILOG Broadband Antenna	Schwarzbeck	VULB 9163	743	Nov. 19, 2025
Spectrum analyzer	Agilent	N9020A	MY49100060	Nov. 19, 2025
Horn antenna	Schwarzbeck	BBHA 9120D	01875	Jan. 23, 2025
Preamplifier	Schwarzbeck	BBN 9718B	00010	Nov. 16, 2025
Signal Amplifier	HP	8447D	1726A01222	Jan. 23, 2025
6dB Attenuator	RswTech	5W 6dB	LEP-E084	Jan. 23, 2025
966 Chamber 1	MR	MR-L02	LEP-E051	Nov. 16, 2025
Test software	EZ-EMC	Fala	EMEC-3A1	N/A
Conducted Emission				
Equipment	Manufacturer	Model No.	Serial No.	Cal. Until
EMI Test Receiver	Rohde & Schwarz	ESHS30	8290501003	Jan. 30, 2025
Artificial Mains Network	Baluelec	LSN016	BL041122050121	Jan. 23, 2025
Shielded Room 1	MR	MR-L05	LEP-E053	Nov. 16, 2025
Test software	EZ-EMC	Fala	LEPONT-03A2	N/A

2.3 Traceability

All measurement equipment calibrations are traceable to NIM (National Institute of Metrology) or where calibration is performed in other countries, to equivalent nationally recognized standards organizations.

2.4 Calibration

Equipment requiring calibration is calibrated periodically by the manufacturer or according to manufacturer's specifications. Additionally, all equipment is verified for proper performance on a regular basis using in house standards or comparisons.

2.5 Measurement Uncertainty

The estimated combined standard uncertainty for radiated emissions and conducted emissions measurements as below table.

Table 2: Measurement Uncertainty

Parameter	Uncertainty (k=2)
RF output power, conducted	$\pm 1.06\text{dB}$
Occupied Channel Bandwidth	± 1.42
RF power density, conducted	$\pm 1.06\text{dB}$
Unwanted Emissions, conducted	$\pm 2.51\text{dB}$
All emissions, radiated	$\pm 3.70\text{dB}$
Conducted Emission 150kHz to 30MHz	$\pm 2.44\text{dB}$

2.6 Location of Original Data

The original copies of all test data taken during actual testing were attached at Appendix A & B of this report and delivered to the applicant. A copy has been retained in the TÜV Rheinland (Guangdong) Co., Ltd. file for certification follow-up purposes.

2.7 Status of Facility Used for Testing

Dongguan Lepont Testing Service Co., Ltd. Test facility located at Room 102, Building 11, No.7, Houjie Science And Technology Avenue, Houjie, Dongguan, Guangdong, China is listed on the US Federal Communications Commission list of facilities approved to perform measurements.

3 General Product Information

3.1 Product Function and Intended Use

The EUT is a USB dongle, which supports 2.4GHz wireless technologies.

For details refer to the User Manual, Technical Description and Circuit Diagram.

3.2 Ratings and System Details

Table 3: Technical Specification of EUT

General Information of EUT	Value
Kind of Equipment:	Dongle
Type Designation:	OB1461C
Trademark:	N/A
FCC ID:	2BCOY-OB1461C
IC:	32736-OB1461C
HVIN:	OB1461C
Operating Voltage:	Supplied by PC USB Port (PC input voltage 120Vac, 60Hz)
Test Voltage:	DC 5V, supplied by PC USB Port
Operating Temperature Range:	-20 °C ~ +40 °C
Technical Specification of 2.4GHz	
Frequency Range:	2403 MHz to 2480 MHz
Type of Modulation:	GFSK
Channel Number:	24 channels
Channel Separation:	See table 4
Antenna Type:	PCB Layout Antenna
Antenna Gain:	3.01dBi

Table 4: RF Channel and Frequency of General 2.4GHz Wireless

CHANNEL	FREQ (MHZ)	CHANNEL	FREQ (MHZ)	CHANNEL	FREQ (MHZ)	CHANNEL	FREQ. (MHZ)
1	2403	2	2405	3	2417	4	2419
5	2421	6	2423	7	2425	8	2427
9	2429	10	2431	11	2444	12	2446
13	2448	14	2450	15	2452	16	2454
17	2456	18	2468	19	2470	20	2472
21	2474	22	2476	23	2478	24	2480

3.3 Independent Operation Modes

The basic operation modes are:

- A. 2.4GHz transmitting mode
 - 1. Low channel
 - 2. Middle channel
 - 3. High channel
- B. On, normal operation
- C. Off

3.4 Noise Generating and Noise Suppressing Parts

Refer to Circuit Diagram for further details.

3.5 Submitted Documents

- Application Form
- FCC/IC Label and Location Info
- User Manual

4 Test Set-up and Operation Modes

4.1 Principle of Configuration Selection

Radio Spectrum: The equipment under test (EUT) was configured at its highest power output in order to measure its highest possible radiation and conducted level. The test modes were adapted accordingly in reference to the instructions for use.

Emission: The equipment under test (EUT) was configured to measure its highest possible radiation level. The test modes were adapted accordingly in reference to the instructions for use.

4.2 Test Operation and Test Software

Test operation refers to test setup in chapter 5. All tests were performed according to the procedures in ANSI C63.10: 2013.

Table 5: Test environments

Environment Parameter	Values During Tests		
	Temperature	Voltage	Relative Humidity
NTNV	25°C±2°C	5.0Vdc	Ambient

Table 6: Test channel and frequency of 2.4GHz

Mode	Test Channels (MHz)	Remark
Transmitting	L/M/H: 2403MHz, 2444MHz, 2480MHz	--

4.3 Special Accessories and Auxiliary Equipment

Table 7: Auxiliary Equipment Used during Test

Description	Manufacturer	Model	S/N	Rating
Laptop	Lenovo	Xiaoxin Pro IA5HR	PF490VB0	N/A

4.4 Countermeasures to Achieve EMC Compliance

The test sample which has been tested contained the noise suppression parts as described in the Technical Construction File (TCF).

No additional measures were employed to achieve compliance.

4.5 Test Setup Diagram

Diagram of Measurement Configuration for Radiation Test (Below 1GHz)

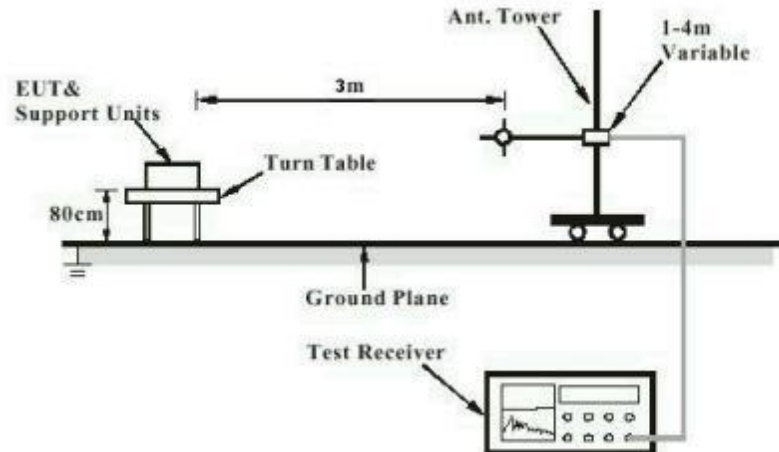


Diagram of Measurement Configuration for Radiation Test (Above 1GHz)



Diagram of Measurement Configuration for Mains Conduction Measurement

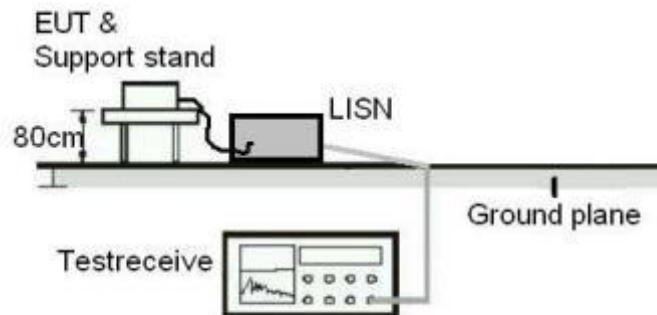
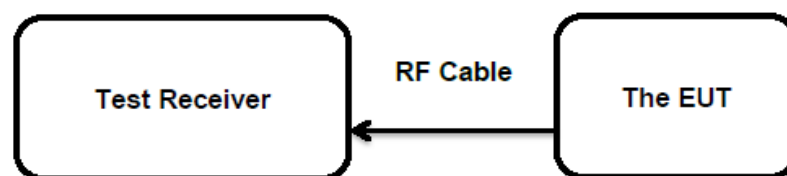


Diagram of Measurement Configuration for Conducted Transmitter Measurement



5 Test Results

5.1 Transmitter Requirement & Test Suites

5.1.1 Antenna Requirement

RESULT:

Pass

Test Specification

Test standard : FCC Part 15.203
RSS-Gen Section 6.8

According to the manufacturer declared, the EUT has a PCB antenna, the gain of antenna is 3.01 dBi, which that permanent attachment and no consideration of replacement.

Therefore, the EUT is considered sufficient to comply with the provision.

Refer to EUT Photo for further details.

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5.1.2 Field strength of fundamental and harmonics

RESULT:**Pass****Test Specification**

Test standard	: FCC Part 15.249(a) (d) (e) RSS-210 Section B.10
Basic standard	: ANSI C63.10: 2013
Limits	: FCC Part 15.249(a) (d) (e) & 15.209(a) RSS-210 Section B.10 (a) & (b) RSS-Gen Section 8.9
Kind of test site	: 3m Semi-anechoic Chamber

Test Setup

Date of testing	: 2024-12-11
Input voltage	: Supplied by PC USB Port (PC input voltage 120Vac, 60Hz)
Operation mode	: A
Test channel	: Low / Middle / High
Ambient temperature	: Refer to test result
Relative humidity	: Refer to test result
Atmospheric pressure	: 101 kPa

Note: Testing was carried out within frequency range 9kHz to the tenth harmonics. Only the worst-case spurious emissions configuration of each mode was reported.

For the measurement records, refer to the appendix B.

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5.1.3 20dB and 99% Bandwidth

RESULT:

Pass

Test Specification

Test standard	: RSS-Gen Section 6.7
Basic standard	: ANSI C63.10: 2013
Limits	: Within assigned band
Kind of test site	: Shielded Room

Test Setup

Date of testing	: 2024-12-04
Input voltage	: Supplied by PC USB Port (PC input voltage 120Vac, 60Hz)
Operation mode	: A
Test channel	: Low / Middle / High
Ambient temperature	: 24.2 °C
Relative humidity	: 53 %
Atmospheric pressure	: 101 kPa

For the measurement records, refer to the appendix B.

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5.1.4 Band Edge

RESULT:**Pass****Test Specification**

Test standard : FCC Part 15.249(a) (d) (e) & 15.209 & 15.205
RSS-210 Section B.10 (a) & (b)
RSS-Gen Section 8.9 & 8.10

Basic standard : ANSI C63.10: 2013

Limits : FCC Part 15.249(a) (d) (e) & 15.209 & 15.205
RSS-Gen Table 5 & 7

Kind of test site : 3m Semi-anechoic Chamber

Test Setup

Date of testing : 2024-12-11

Input voltage : Supplied by PC USB Port (PC input voltage 120Vac, 60Hz)

Operation mode : A

Test channel : Low / Middle / High

Ambient temperature : Refer to test result

Relative humidity : Refer to test result

Atmospheric pressure : 101 kPa

For the measurement records, refer to the appendix B.

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5.1.5 Conducted Emission on AC Mains

RESULT:

Pass

Test Specification

Test standard	: FCC Part 15.207(a) RSS-Gen Section 8.8
Basic standard	: ANSI C63.10: 2013
Frequency range	: 0.15 – 30MHz
Limits	: FCC Part 15.207(a) RSS-Gen Table 4
Kind of test site	: Shielded Room

Test Setup

Date of testing	: 2024-12-03
Input voltage	: Supplied by PC USB Port (PC input voltage 120Vac, 60Hz)
Operation mode	: B
Earthing	: Not connected
Ambient temperature	: 23.8 °C
Relative humidity	: 55 %
Atmospheric pressure	: 101 kPa

For the measurement records, refer to the appendix B.

6 Photographs of the Test Set-Up

For photographs of the test set-up, refer to the appendix A.

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Appendix B: Test Results of General 2.4GHz

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Appendix B.1: Fundamental



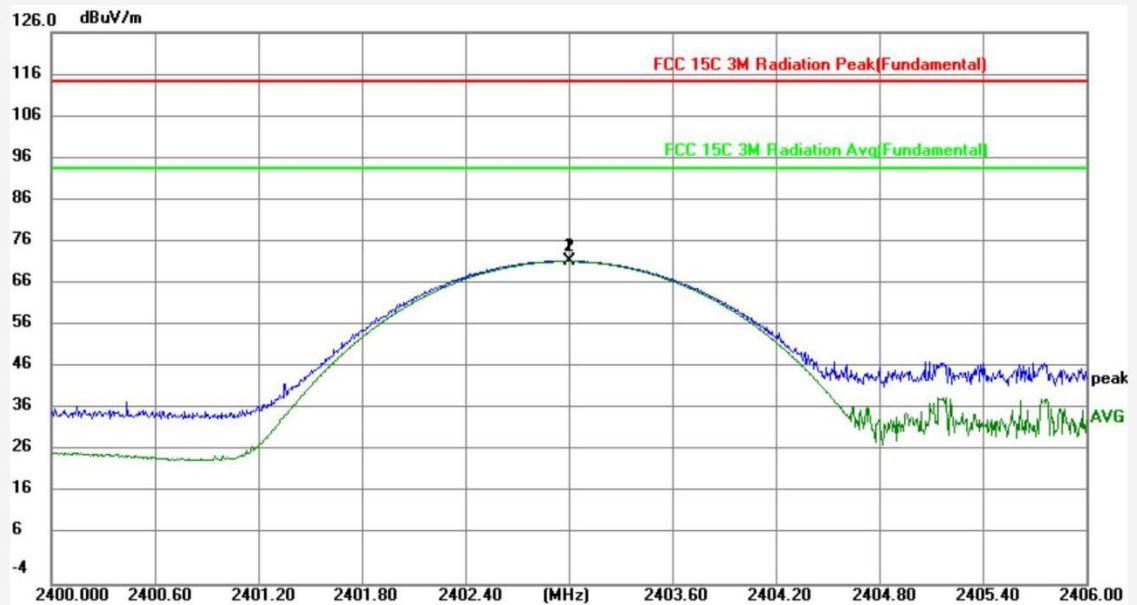
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Avenue, Houjie, Dongguan, Guangdong, China
Tel.: +86 769 8308 6888 Http://www.lepont.com.cn

Radiation Emission

Site: 966 Chamber 1

2024/12/11

Job No.:	LP24070228C02-03	Temp:	21.1 (C) / 49 %RH/ 1014
Test Standard:	FCC 15C 3M Radiation Peak(Fundamental)	Test Engineer:	Kervin
EUT:	Dongle	Power Rating:	DC 5V
Model No.:	OB1461C	Ant. Polarization:	Horizontal
Test Mode:	TX		
Remark 1:	2403MHz		



No.	Frequency (MHz)	Factor (dBuV/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	MK.	Remark
1	2403.000	-4.78	76.99	72.21	114.00	-41.79	peak		
2	2403.000	-4.78	76.89	72.11	94.00	-21.89	AVG	*	

Note: Level=Reading+Factor,Over=Level-Limit.
MK.:*:Maximum data x:Over limit !:Over margin

File: OB146C-Fundamental\Data :#2





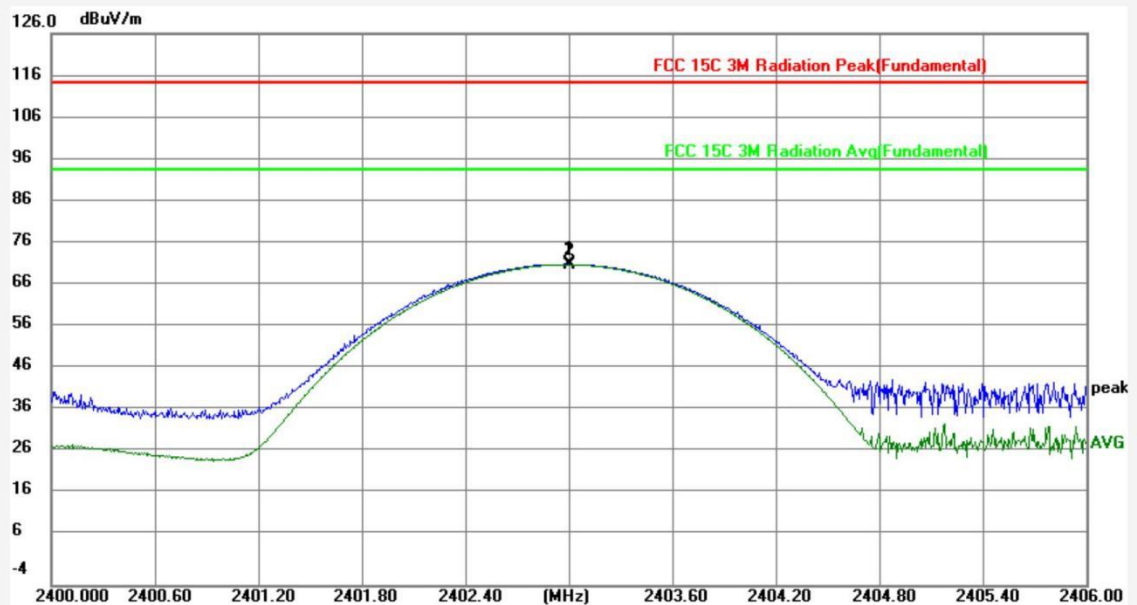
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Avenue, Houjie, Dongguan, Guangdong, China
Tel.: +86 769 8308 6888 Http://www.lepont.com.cn

Radiation Emission

Site: 966 Chamber 1

2024/12/11

Job No.:	LP24070228C02-03	Temp:	21.1 (C) / 49 %RH/ 1014
Test Standard:	FCC 15C 3M Radiation Peak(Fundamental)	Test Engineer:	Kervin
EUT:	Dongle	Power Rating:	DC 5V
Model No.:	OB1461C	Ant. Polarization:	Vertical
Test Mode:	TX		
Remark 1:	2403MHz		



No.	Frequency (MHz)	Factor (dBuV/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	MK.	Remark
1	2403.000	-4.78	76.51	71.73	114.00	-42.27	peak		
2	2403.000	-4.78	76.43	71.65	94.00	-22.35	AVG	*	

Note: Level=Reading+Factor,Over=Level-Limit.
MK.:*:Maximum data x:Over limit !:Over margin

File: OB146C-Fundamental\Data :#1





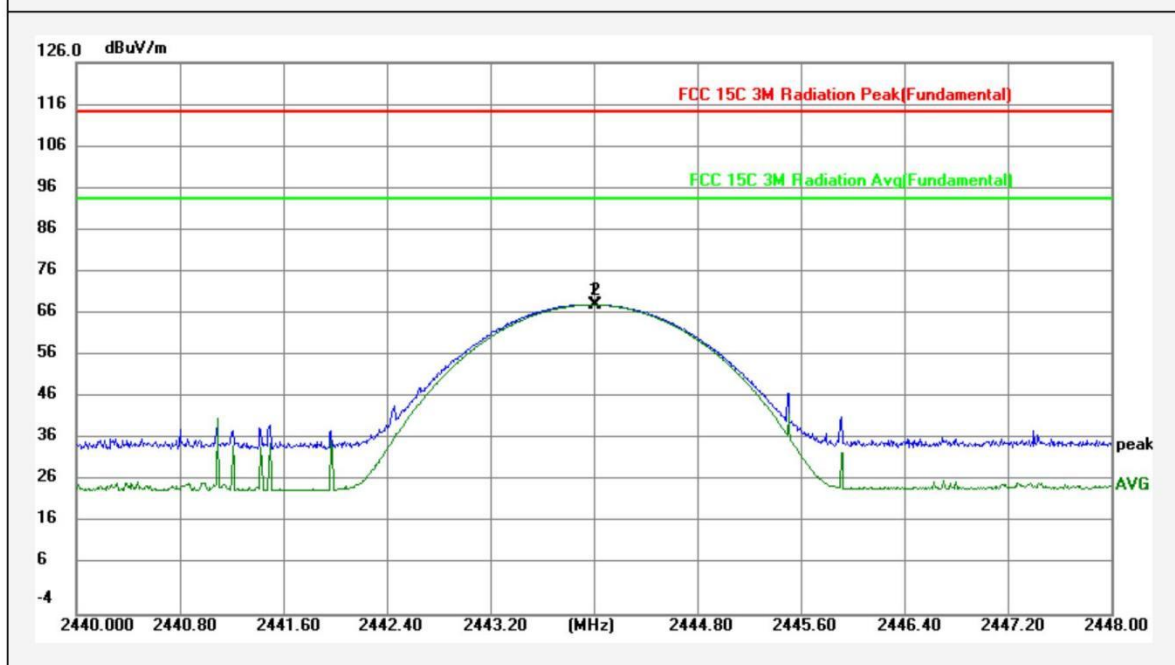
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Radiation Emission

Site: 966 Chamber 1

2024/12/11

Job No.:	LP24070228C02-03	Temp:	21.1 (C) / 49 %RH/ 1014
Test Standard:	FCC 15C 3M Radiation Peak(Fundamental)	Test Engineer:	Kervin
EUT:	Dongle	Power Rating:	DC 5V
Model No.:	OB1461C	Ant. Polarization:	Vertical
Test Mode:	TX		
Remark 1:	2444MHz		



No.	Frequency (MHz)	Factor (dBuV/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	MK.	Remark
1	2444.000	-4.62	73.73	69.11	114.00	-44.89	peak		
2	2444.016	-4.62	73.63	69.01	94.00	-24.99	AVG	*	

Note: Level=Reading+Factor,Over=Level-Limit.
MK.:*:Maximum data x:Over limit !:Over margin
File: OB146C-Fundamental\Data :#4





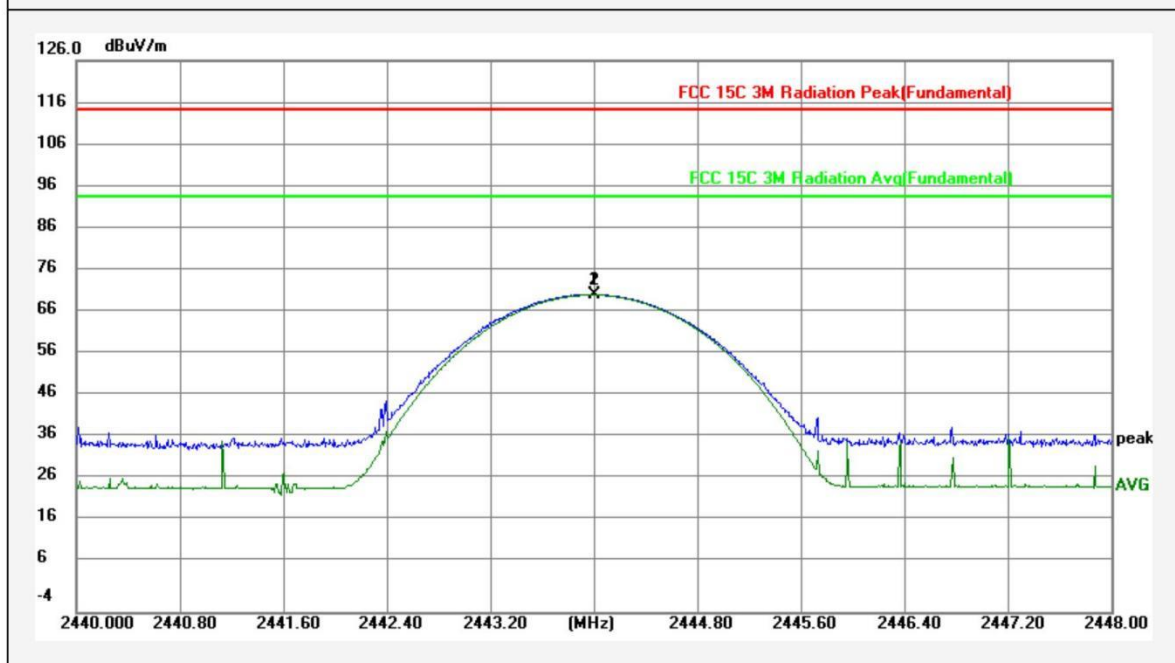
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Tel.: +86 769 8308 6888 Http://www.lepont.com.cn

Radiation Emission

Site: 966 Chamber 1

2024/12/11

Job No.:	LP24070228C02-03	Temp:	21.1 (C) / 49 %RH/ 1014
Test Standard:	FCC 15C 3M Radiation Peak(Fundamental)	Test Engineer:	Kervin
EUT:	Dongle	Power Rating:	DC 5V
Model No.:	OB1461C	Ant. Polarization:	Horizontal
Test Mode:	TX		
Remark 1:	2444MHz		



No.	Frequency (MHz)	Factor (dBuV/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	MK.	Remark
1	2444.000	-4.62	75.58	70.96	114.00	-43.04	peak		
2	2444.000	-4.62	75.48	70.86	94.00	-23.14	AVG	*	

Note: Level=Reading+Factor,Over=Level-Limit.
MK.:*:Maximum data x:Over limit !:Over margin
File: OB146C-Fundamental\Data :#3





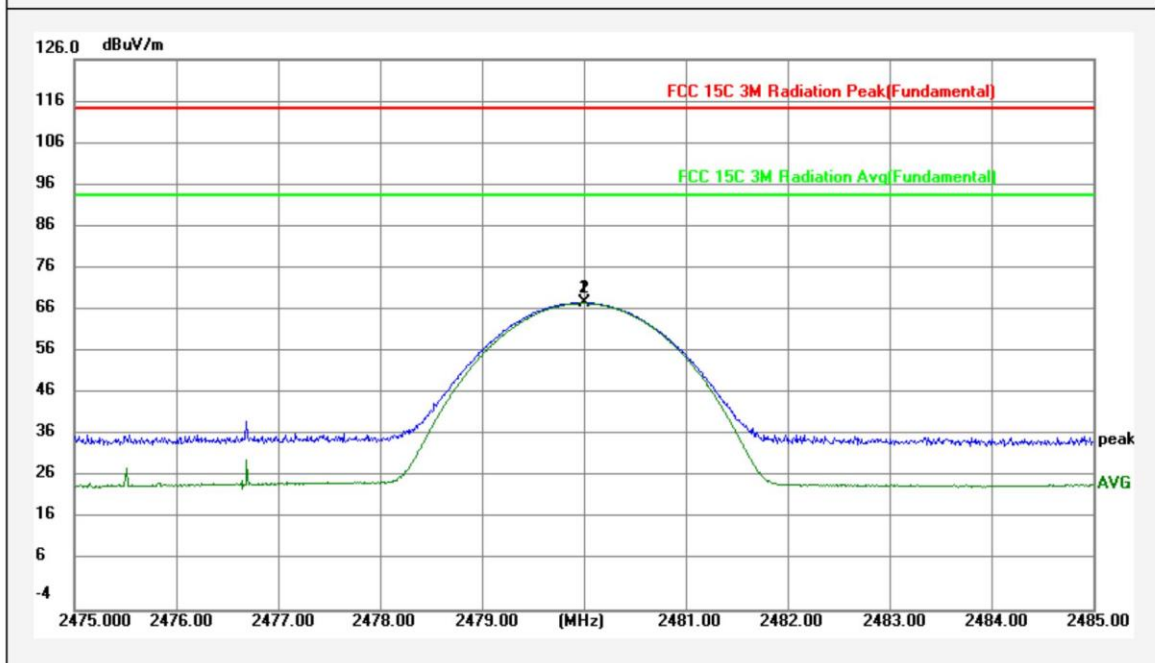
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Room 102, Building 11, No.7 Houjie Science And Technology
Avenue, Houjie, Dongguan, Guangdong, China
Tel.: +86 769 8308 6888 Http://www.lepont.com.cn

Radiation Emission

Site: 966 Chamber 1

2024/12/11

Job No.:	LP24070228C02-03	Temp:	21.1 (C) / 49 %RH/ 1014
Test Standard:	FCC 15C 3M Radiation Peak(Fundamental)	Test Engineer:	Kervin
EUT:	Dongle	Power Rating:	DC 5V
Model No.:	OB1461C	Ant. Polarization:	Horizontal
Test Mode:	TX		
Remark 1:	2480MHz		



No.	Frequency (MHz)	Factor (dBuV/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	MK.	Remark
1	2480.000	-4.48	73.11	68.63	114.00	-45.37	peak		
2	2480.000	-4.48	72.98	68.50	94.00	-25.50	AVG	*	

Note: Level=Reading+Factor,Over=Level-Limit.
MK.:*:Maximum data x:Over limit !:Over margin

File: OB146C-FundamentalData :#6





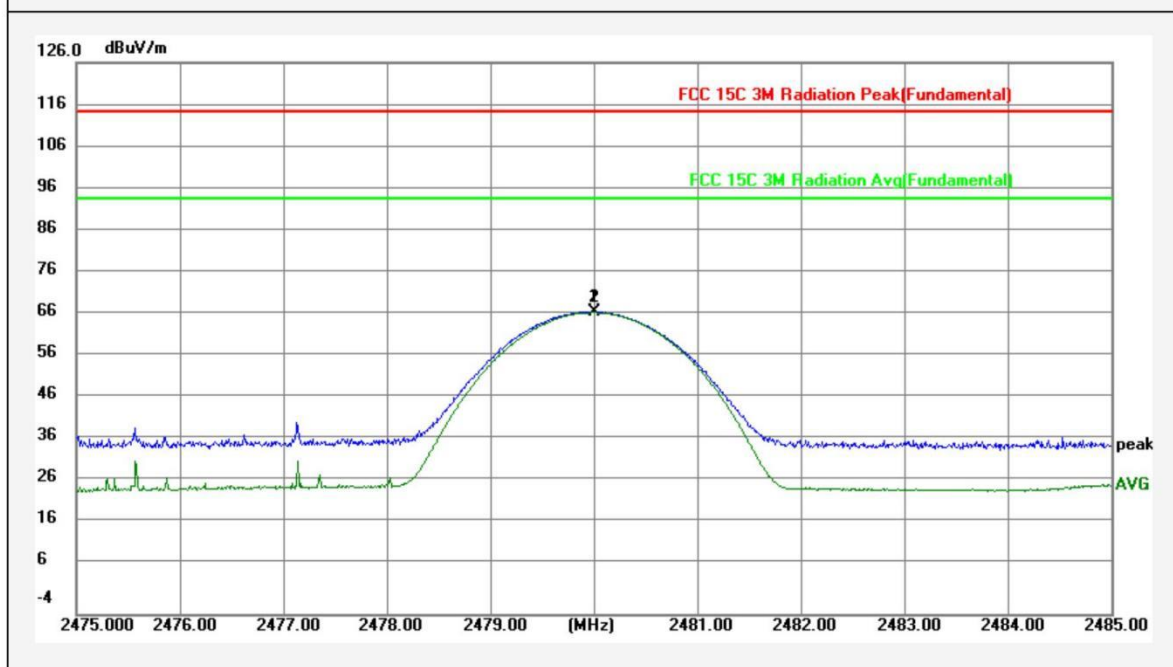
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Radiation Emission

Site: 966 Chamber 1

2024/12/11

Job No.:	LP24070228C02-03	Temp:	21.1 (C) / 49 %RH/ 1014
Test Standard:	FCC 15C 3M Radiation Peak(Fundamental)	Test Engineer:	Kervin
EUT:	Dongle	Power Rating:	DC 5V
Model No.:	OB1461C	Ant. Polarization:	Vertical
Test Mode:	TX		
Remark 1:	2480MHz		



No.	Frequency (MHz)	Factor (dBuV/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	MK.	Remark
1	2480.000	-4.48	71.82	67.34	114.00	-46.66	peak		
2	2480.000	-4.48	71.67	67.19	94.00	-26.81	AVG	*	

Note: Level=Reading+Factor,Over=Level-Limit.
MK.:*:Maximum data x:Over limit !:Over margin
File: OB146C-Fundamental\Data :#5



Appendix B.2: 20dB and 99% Bandwidth

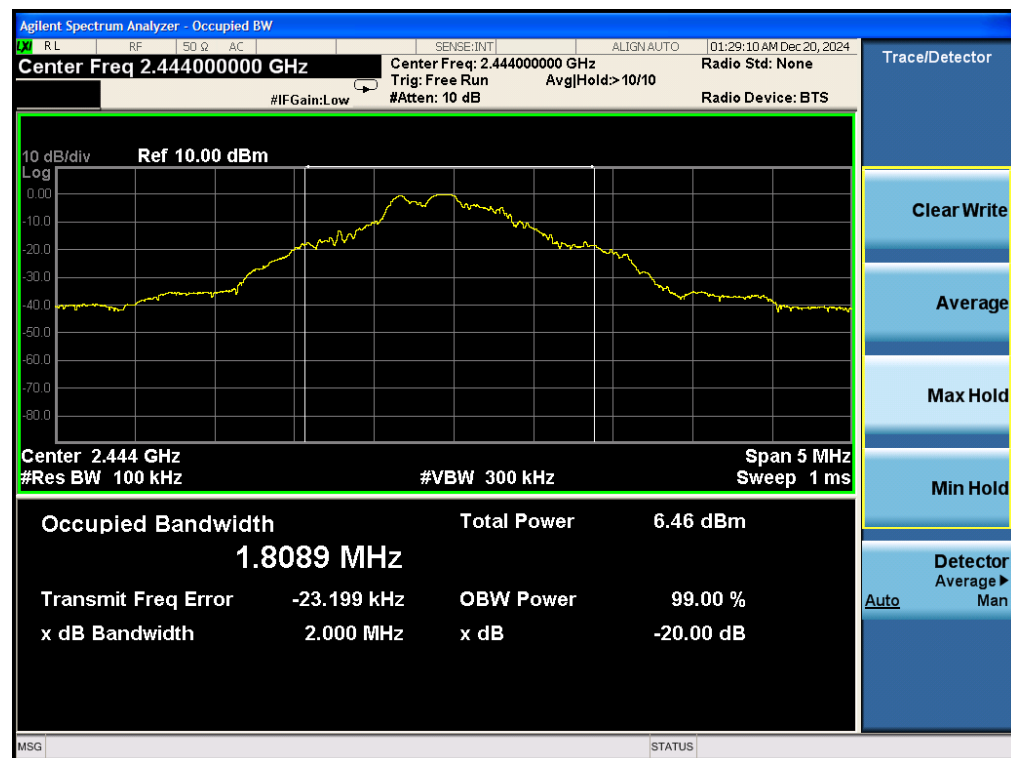
Channel	Test Mode Test Channel (MHz)	20dB Bandwidth (kHz)	99% Bandwidth (kHz)	Limit (MHz)
Low Channel	2403	2031	1786.5	Within the assigned frequency band 2400~2483.5MHz
Middle Channel	2444	2000	1809.8	
High Channel	2480	1932	1796.9	
Maximum Measured Value	Maximum Measured Value	2031	1809.8	

Test Plot of 20dB Bandwidth

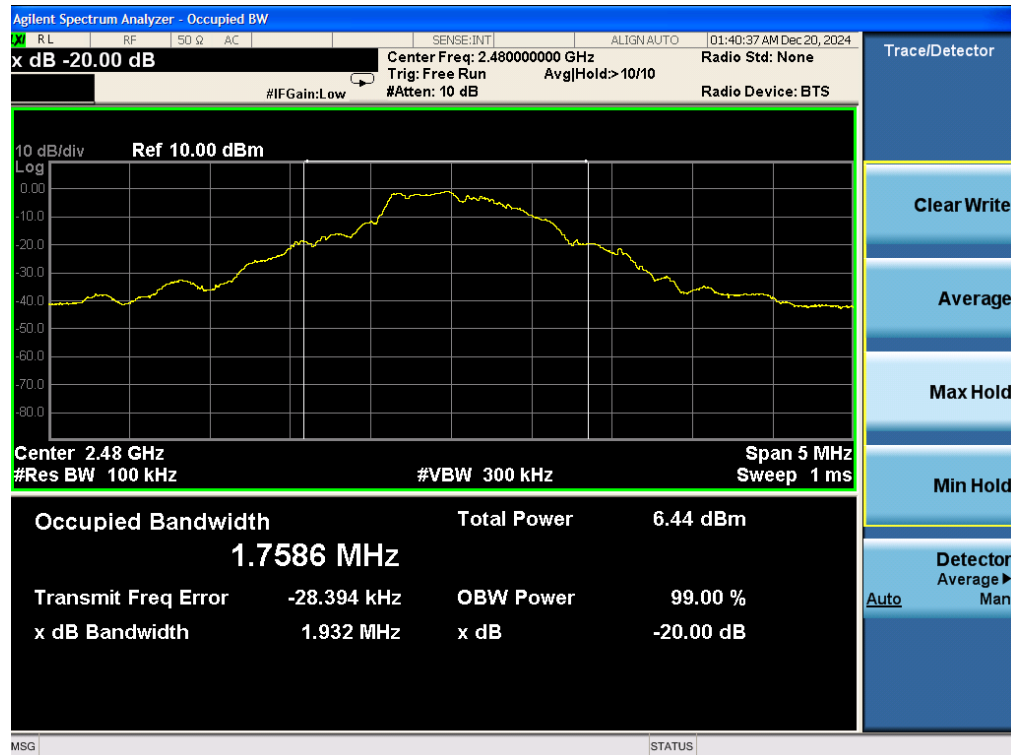
Low CH



Middle CH

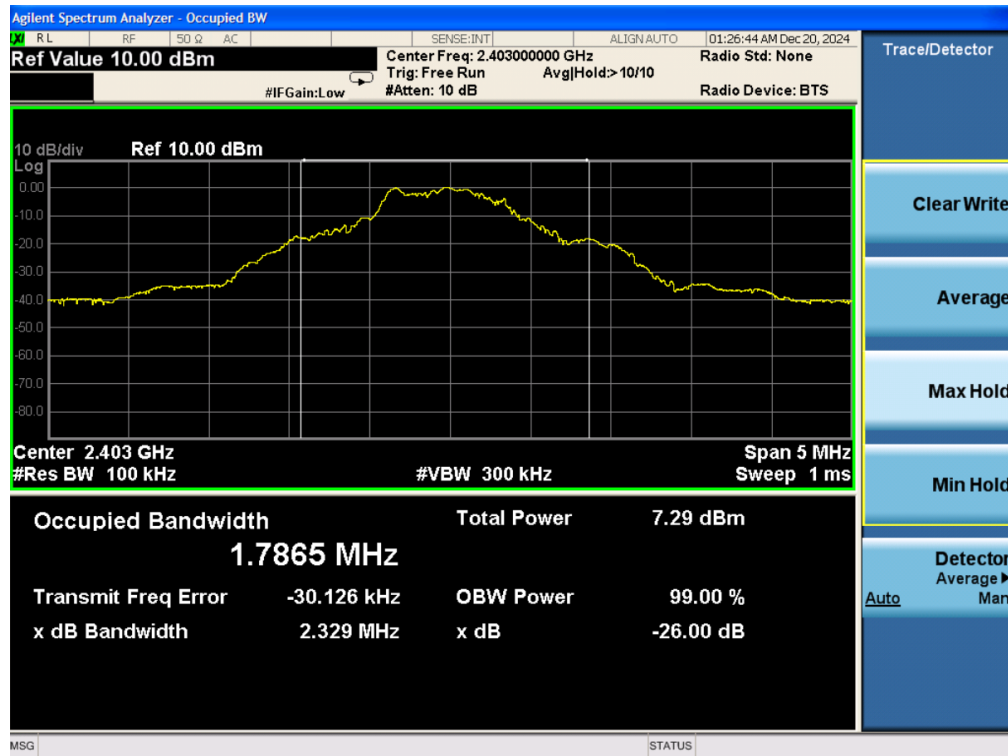


High CH



Test Plot of 99% Bandwidth

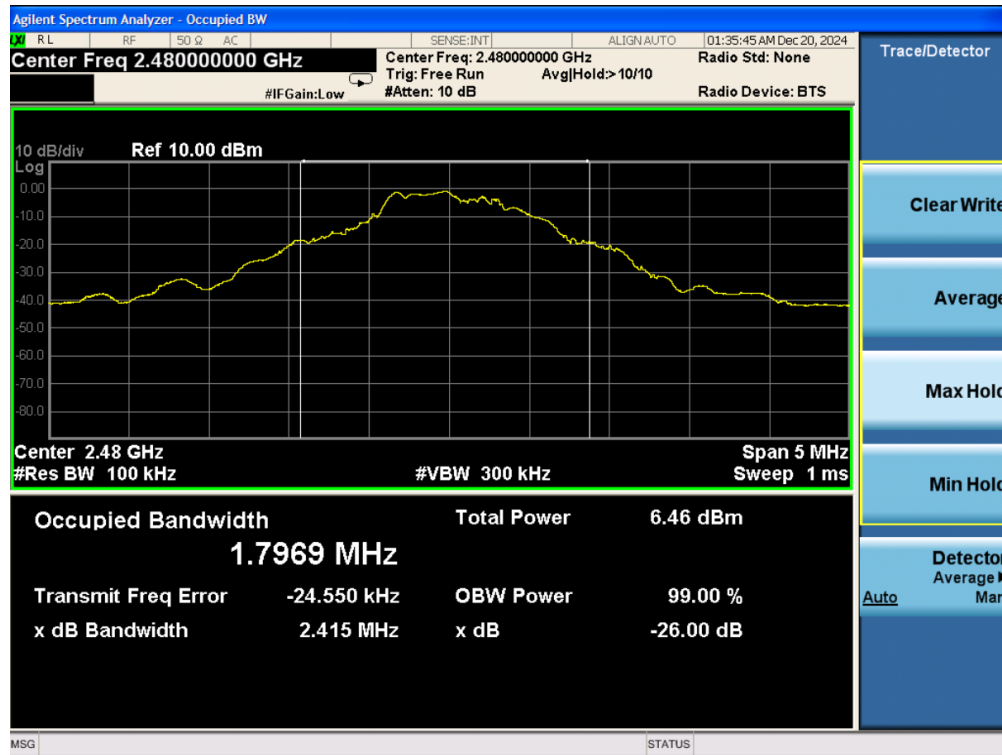
Low CH



Middle CH



High CH



Appendix B.3: Harmonics Radiated Emission

30MHz - 1GHz



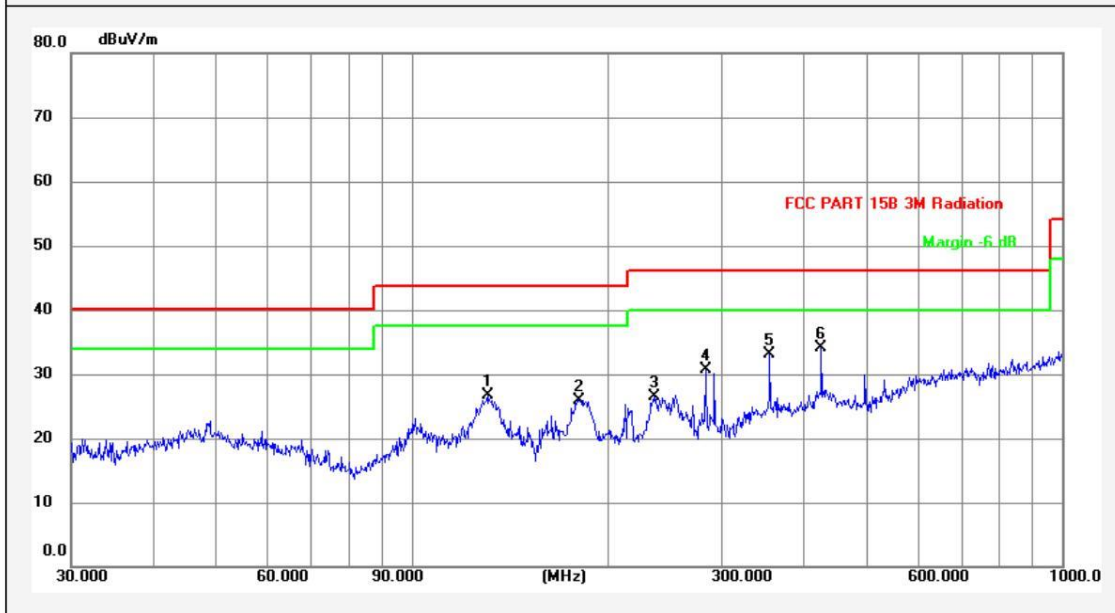
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Radiation Emission

Site: 966 Chamber 1

2024/12/12

Job No.:	LP24070228C02-03	Temp:	22.5 (C) / 51 %RH/ 1014
Test Standard:	FCC PART 15B 3M Radiation	Test Engineer:	Kervin
EUT:	Dongle	Power Rating:	DC 5V
Model No.:	OB1461C	Ant. Polarization:	Horizontal
Test Mode:	TX		
Remark 1:	2480MHz		



No.	Frequency (MHz)	Factor (dBuV/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	MK.	Remark
1	130.8369	7.52	19.09	26.61	43.50	-16.89	QP		
2	180.6487	9.01	16.93	25.94	43.50	-17.56	QP		
3	236.6447	11.01	15.44	26.45	46.00	-19.55	QP		
4	282.9849	11.95	18.72	30.67	46.00	-15.33	QP		
5	355.4272	14.56	18.49	33.05	46.00	-12.95	QP		
6	426.5210	15.21	18.83	34.04	46.00	-11.96	QP	*	

Note: Level=Reading+Factor, Over=Level-Limit.
MK.: *Maximum data x: Over limit !: Over margin

File: OB146C -30-1000 RSE\Data :#6





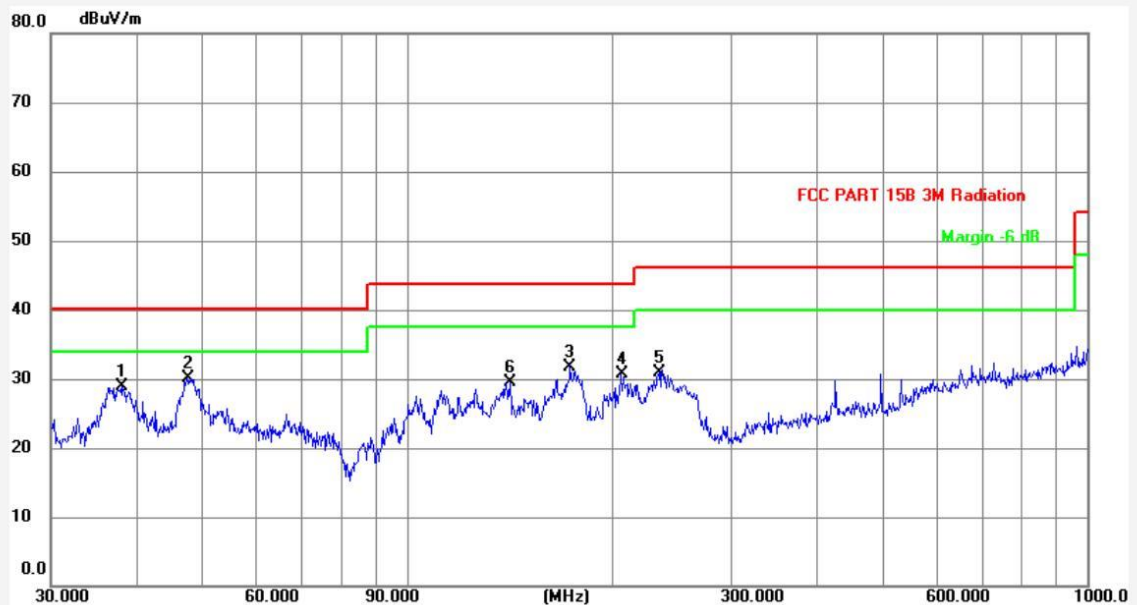
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Radiation Emission

Site: 966 Chamber 1

2024/12/12

Job No.:	LP24070228C02-03	Temp:	22.5 (C) / 51 %RH/ 1014
Test Standard:	FCC PART 15B 3M Radiation	Test Engineer:	Kervin
EUT:	Dongle	Power Rating:	DC 5V
Model No.:	OB1461C	Ant. Polarization:	Vertical
Test Mode:	TX		
Remark 1:	2480MHz		



No.	Frequency (MHz)	Factor (dBuV/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	MK.	Remark
1	38.2120	10.87	17.98	28.85	40.00	-11.15	QP		
2	47.4918	12.59	17.52	30.11	40.00	-9.89	QP	*	
3	173.8135	8.75	23.05	31.80	43.50	-11.70	QP		
4	206.3976	10.85	19.93	30.78	43.50	-12.72	QP		
5	234.9909	11.09	19.88	30.97	46.00	-15.03	QP		
6	141.8262	6.81	22.61	29.42	43.50	-14.08	QP		

Note: Level=Reading+Factor,Over=Level-Limit.
MK.:*Maximum data x:Over limit !:Over margin

File: OB146C -30-1000 RSE\Data :#5





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Radiation Emission

Site: 966 Chamber 1

2024/12/12

Job No.:	LP24070228C02-03	Temp:	22.5 (C) / 51 %RH/ 1014
Test Standard:	FCC PART 15B 3M Radiation	Test Engineer:	Kervin
EUT:	Dongle	Power Rating:	DC 5V
Model No.:	OB1461C	Ant. Polarization:	Vertical
Test Mode:	TX		
Remark 1:	2444MHz		



No.	Frequency (MHz)	Factor (dBuV/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	MK.	Remark
1	30.0000	10.10	18.85	28.95	40.00	-11.05	QP		
2	38.7516	11.04	19.18	30.22	40.00	-9.78	QP	*	
3	70.8315	8.73	17.63	26.36	40.00	-13.64	QP		
4	141.8262	6.81	22.71	29.52	43.50	-13.98	QP		
5	226.0994	11.02	20.87	31.89	46.00	-14.11	QP		
6	245.0900	11.18	19.14	30.32	46.00	-15.68	QP		

Note: Level=Reading+Factor,Over=Level-Limit.
MK.:*Maximum data x:Over limit !:Over margin

File: OB146C -30-1000 RSE\Data :#4





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Radiation Emission

Site: 966 Chamber 1

2024/12/12

Job No.:	LP24070228C02-03	Temp:	22.5 (C) / 51 %RH/ 1014
Test Standard:	FCC PART 15B 3M Radiation	Test Engineer:	Kervin
EUT:	Dongle	Power Rating:	DC 5V
Model No.:	OB1461C	Ant. Polarization:	Horizontal
Test Mode:	TX		
Remark 1:	2444MHz		



No.	Frequency (MHz)	Factor (dBuV/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	MK.	Remark
1	133.1510	7.32	19.52	26.84	43.50	-16.66	QP		
2	169.0053	8.54	21.38	29.92	43.50	-13.58	QP		
3	189.0743	9.18	21.36	30.54	43.50	-12.96	QP		
4	199.2855	10.69	20.89	31.58	43.50	-11.92	QP	*	
5	220.6171	10.97	21.31	32.28	46.00	-13.72	QP		
6	244.2321	11.01	20.34	31.35	46.00	-14.65	QP		

Note: Level=Reading+Factor,Over=Level-Limit.
MK.:*Maximum data x:Over limit !:Over margin

File: OB146C -30-1000 RSE\Data :#3

