

FCC and ISED Test Report

Apple Inc
Model: A3593



In accordance with FCC 47 CFR Part 15C and ISED RSS-247 and ISSED RSS-GEN

Prepared for: Apple Inc
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COMMERCIAL-IN-CONFIDENCE



Document 75967129-12 Issue 01

SIGNATURE

NAME	JOB TITLE	RESPONSIBLE FOR	ISSUE DATE
Andrew Lawson	Chief Engineer, EMC	Authorised Signatory	21 September 2026

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

ENGINEERING STATEMENT

The measurements shown in this report were made in accordance with the procedures described on test pages. All reported testing was carried out on a sample equipment to demonstrate limited compliance with FCC 47 CFR Part 15C and ISSED RSS-247 and ISSED RSS-GEN. The sample tested was found to comply with the requirements defined in the applied rules.

RESPONSIBLE FOR	NAME	DATE	SIGNATURE
Testing	Nathan Harrison	21 September 2026	
	Matthew Dawkins	21 September 2026	

FCC Accreditation

492497/UK2010 Octagon House, Fareham Test Laboratory

ISED Accreditation

12669A/UK0003 Octagon House, Fareham Test Laboratory

EXECUTIVE SUMMARY

A sample of this product was tested and found to be compliant with FCC 47 CFR Part 15C, ISSED RSS-247 and ISSED RSS-GEN: 2025, Issue 4 (2025-07) and Issue 5 (2018-04) + A2 (2021-02) for the tests detailed in section 1.3.



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ACCREDITATION

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Contents

1 Report Summary2

1.1 Report Modification Record.....2

1.2 Introduction.....2

1.3 Brief Summary of Results3

1.4 Product Information5

1.5 Deviations from the Standard.....5

1.6 Identification of the EUT6

1.7 EUT Modification Record6

1.8 Test Location.....6

2 Test Details8

2.1 AC Power Line Conducted Emissions8

3 Test Equipment Information22

3.1 General Test Equipment Used22

4 Measurement Uncertainty23



1 Report Summary

1.1 Report Modification Record

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

Issue	Description of Change	Date of Issue
1	First Issue	21 September 2026

Table 1

1.2 Introduction

Applicant	Apple Inc
Manufacturer	Apple Inc
EUT/Sample Identification	Refer to section 1.6
Test Specification/Issue/Date	FCC 47 CFR Part 15C, ISED RSS-247 and ISED RSS-GEN: 2025, Issue 4 (2025-07) and Issue 5 (2018-04) + A2 (2021-02)
Start of Test	06-September-2026
Finish of Test	15-September-2026
Name of Engineer(s)	Nathan Harrison and Matthew Dawkins
Related Document(s)	ANSI C63.10 (2020)



1.3 Brief Summary of Results

A brief summary of the tests carried out in accordance with FCC 47 CFR Part 15C and ISED RSS-247 and ISED RSS-GEN is shown below.

Section	Specification Clause	Test Description	Result	Comments/Base Standard
Configuration and Mode: AC Powered - 2.4 GHz Bluetooth				
2.1	15.207, 2.4 and 8.8	AC Power Line Conducted Emissions	Pass	ANSI C63.10 (2020)

Table 2

Section	Specification Clause	Test Description	Result	Comments/Base Standard
Configuration and Mode: AC Powered - 2.4 GHz WLAN				
2.1	15.207, 2.4 and 8.8	AC Power Line Conducted Emissions	Pass	ANSI C63.10 (2020)

Table 3

Section	Specification Clause	Test Description	Result	Comments/Base Standard
Configuration and Mode: AC Powered - 5 GHz WLAN				
2.1	15.207, 2.4 and 8.8	AC Power Line Conducted Emissions	Pass	ANSI C63.10 (2020)

Table 4

Section	Specification Clause	Test Description	Result	Comments/Base Standard
Configuration and Mode: AC Powered - 6 GHz WLAN				
2.1	15.207, 2.4 and 8.8	AC Power Line Conducted Emissions	Pass	ANSI C63.10 (2020)

Table 5



Section	Specification Clause	Test Description	Result	Comments/Base Standard
Configuration and Mode: AC Powered - Thread				
2.1	15.207, 2.4 and 8.8	AC Power Line Conducted Emissions	Pass	ANSI C63.10 (2020)

Table 6

Section	Specification Clause	Test Description	Result	Comments/Base Standard
Configuration and Mode: AC Powered - Narrowband				
2.1	15.207, 2.4 and 8.8	AC Power Line Conducted Emissions	Pass	ANSI C63.10 (2020)

Table 7

1.4 Product Information

1.4.1 Technical Description

The equipment under test (EUT) was a TV Set Top Box.

1.4.2 EUT Port/Cable Identification

Port	Max Cable Length specified	Usage	Type	Screened
Configuration and Mode: AC Powered – All Modes				
AC Power Port	2 m	Main Power	IEC Mains Cable 2-Core	No
Ethernet	2 m	Data	RJ45	No
HDMI Port	1.5 m	Video Output	HDMI	Yes

Table 8

1.4.3 Test Configuration

Configuration	Description
AC Powered	The EUT was powered from a 115 V 60 Hz AC Mains supply. The EUT had the following connections made: • An Ethernet switch was used to terminate the Ethernet port. • A monitor was used to terminate the HDMI port.

Table 9

1.4.4 Modes of Operation

Mode	Description
2.4 GHz Bluetooth	The EUT was powered with a connection established with a support speaker.
2.4 GHz WLAN	The EUT was powered with a network link established with an access point.
5 GHz WLAN	The EUT was powered with a network link established with an access point.
6 GHz WLAN	The EUT was powered with a network link established with an access point.
Thread	The EUT was powered and placed in a link with another customer provided slave device.
Narrowband	The EUT was powered and placed in a link with another customer provided slave device.

Table 10

1.5 Deviations from the Standard

No deviations from the applicable test standard were made during testing.



1.6 Identification of the EUT

The table below details identification of the EUT(s) that have been used to carry out the testing within this report.

Model: A3593		
Serial Number	Hardware Version	Software Version
C3WJYTP2HD	REV1.0	24J281a
GDC97L2RWY	REV1.0	24J232

Table 11

1.7 EUT Modification Record

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

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

Modification State	Description of Modification still fitted to EUT	Modification Fitted By	Date Modification Fitted
Model: A3593, Serial Number: C3WJYTP2HD			
0	As supplied by the customer	Not Applicable	Not Applicable
Model: A3593, Serial Number: GDC97L2RWY			
0	As supplied by the customer	Not Applicable	Not Applicable

Table 12

1.8 Test Location

TÜV SÜD conducted the following tests at our Octagon House Test Laboratory.

Test Name	Name of Engineer(s)	Accreditation
Configuration and Mode: AC Powered - 2.4 GHz Bluetooth		
AC Power Line Conducted Emissions	Nathan Harrison	UKAS

Table 13

Test Name	Name of Engineer(s)	Accreditation
Configuration and Mode: AC Powered - 2.4 GHz WLAN		
AC Power Line Conducted Emissions	Matthew Dawkins	UKAS

Table 14

Test Name	Name of Engineer(s)	Accreditation
Configuration and Mode: AC Powered - 5 GHz WLAN		
AC Power Line Conducted Emissions	Matthew Dawkins	UKAS

Table 15



Test Name	Name of Engineer(s)	Accreditation
Configuration and Mode: AC Powered - 6 GHz WLAN		
AC Power Line Conducted Emissions	Matthew Dawkins	UKAS

Table 16

Test Name	Name of Engineer(s)	Accreditation
Configuration and Mode: AC Powered - Thread		
AC Power Line Conducted Emissions	Nathan Harrison and Matthew Dawkins	UKAS

Table 17

Test Name	Name of Engineer(s)	Accreditation
Configuration and Mode: AC Powered - Narrowband		
AC Power Line Conducted Emissions	Nathan Harrison	UKAS

Table 18

Office Address:

TÜV SÜD
Octagon House
Concorde Way
Fareham
Hampshire
PO15 5RL
United Kingdom



2 Test Details

2.1 AC Power Line Conducted Emissions

2.1.1 Specification Reference

FCC 47 CFR Part 15C, ISED RSS-247 and ISED RSS-GEN, Clause 15.207, 2.4 and 8.8

2.1.2 Equipment Under Test and Modification State

A3593, S/N: C3WJYTP2HD - Modification State 0
A3593, S/N: GDC97L2RWY - Modification State 0

2.1.3 Date of Test

06-September-2026 to 15-September-2026

2.1.4 Test Method

The test was performed in accordance with ANSI C63.10, clause 6.2.

The EUT was placed on a non-conductive table 0.8m above a reference ground plane and 0.4m away from a vertical coupling plane

All power was connected to the EUT through an Artificial Mains Network (AMN).

Conducted disturbance voltage measurements on mains lines were made at the output of the AMN.

2.1.5 Environmental Conditions

Ambient Temperature 19.0 - 24.0 °C
Relative Humidity 56.6 - 66.5 %

2.1.6 Specification Limits

Frequency of Emission (MHz)	Conducted Limit (dBμV)	
	Quasi-Peak	Average
0.15 to 0.5	66 to 56*	56 to 46*
0.5 to 5	56	46
5 to 30	60	50

Table 19

*Decreases with the logarithm of the frequency.

2.1.7 Test Results

AC Powered - 2.4 GHz Bluetooth

Applied supply Voltage: 115 V
Applied supply frequency: 60 Hz

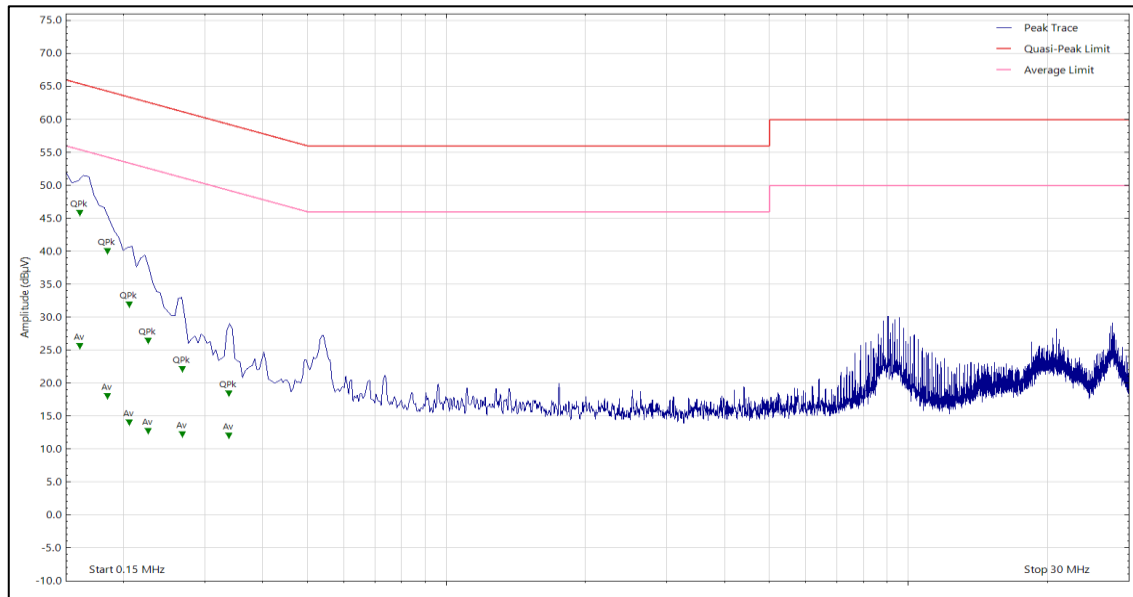


Figure 1 - Live Line - 150 kHz to 30 MHz

Frequency (MHz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector
0.161	45.05	65.40	-20.35	Q-Peak
0.161	24.86	55.40	-30.54	CISPR Avg
0.185	39.28	64.30	-25.02	Q-Peak
0.185	17.30	54.30	-37.00	CISPR Avg
0.206	31.22	63.40	-32.18	Q-Peak
0.206	13.37	53.40	-40.03	CISPR Avg
0.226	25.72	62.60	-36.88	Q-Peak
0.226	12.04	52.60	-40.56	CISPR Avg
0.268	21.37	61.20	-39.83	Q-Peak
0.268	11.52	51.20	-39.68	CISPR Avg
0.339	17.71	59.20	-41.49	Q-Peak
0.339	11.31	49.20	-37.89	CISPR Avg

Table 20

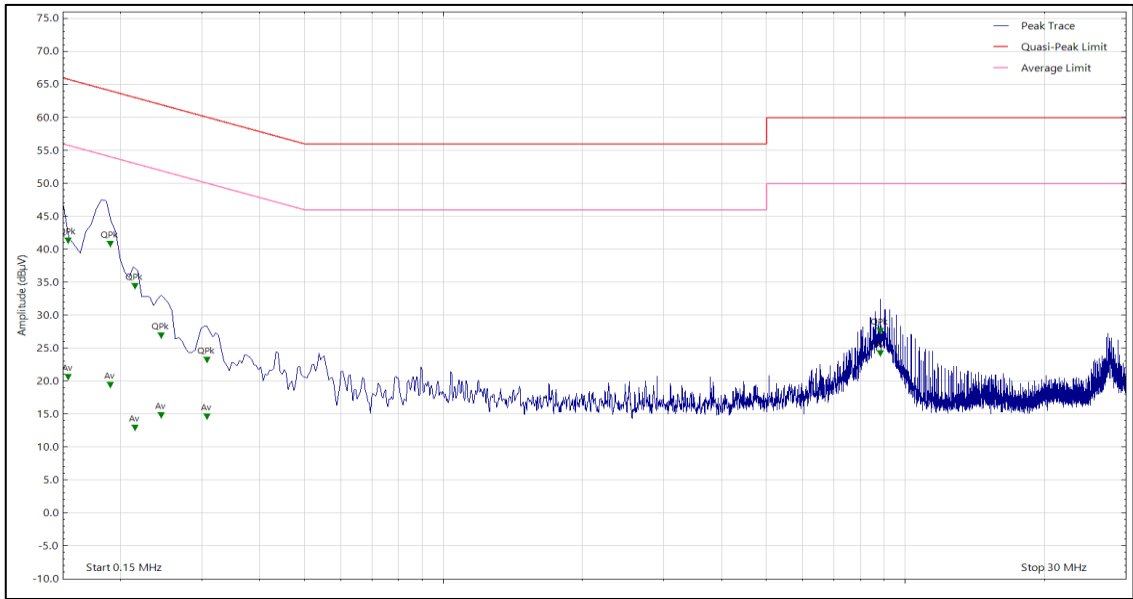


Figure 2 - Neutral Line - 150 kHz to 30 MHz

Frequency (MHz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector
0.154	40.56	65.80	-25.24	Q-Peak
0.154	19.96	55.80	-35.84	CISPR Avg
0.190	40.14	64.00	-23.86	Q-Peak
0.190	18.69	54.00	-35.31	CISPR Avg
0.215	33.69	63.00	-29.31	Q-Peak
0.215	12.20	53.00	-40.80	CISPR Avg
0.245	26.17	61.90	-35.73	Q-Peak
0.245	14.17	51.90	-37.73	CISPR Avg
0.308	22.54	60.00	-37.46	Q-Peak
0.308	13.90	50.00	-36.10	CISPR Avg
8.817	26.89	60.00	-33.11	Q-Peak
8.817	23.54	50.00	-26.46	CISPR Avg

Table 21

AC Powered - 2.4 GHz WLAN

Applied supply Voltage: 115 V
Applied supply frequency: 60 Hz

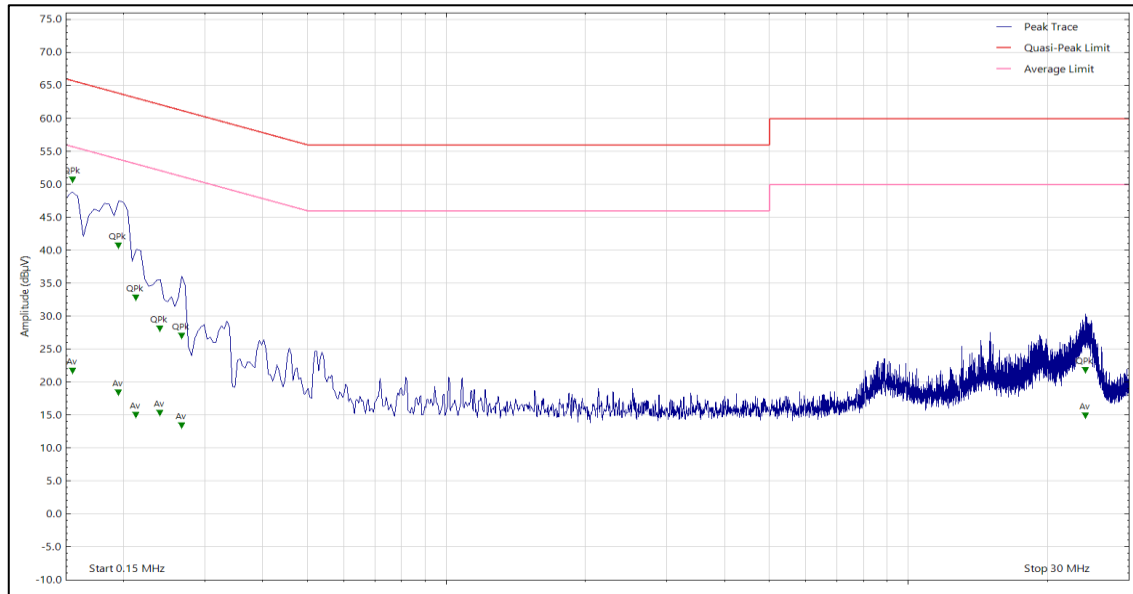


Figure 3 - Live Line - 150 kHz to 30 MHz

Frequency (MHz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector
0.155	49.94	65.70	-15.76	Q-Peak
0.155	20.97	55.70	-34.73	CISPR Avg
0.195	39.97	63.80	-23.83	Q-Peak
0.195	17.71	53.80	-36.09	CISPR Avg
0.213	32.09	63.10	-31.01	Q-Peak
0.213	14.37	53.10	-38.73	CISPR Avg
0.240	27.39	62.10	-34.71	Q-Peak
0.240	14.59	52.10	-37.51	CISPR Avg
0.267	26.32	61.20	-34.88	Q-Peak
0.267	12.72	51.20	-38.48	CISPR Avg
24.186	21.10	60.00	-38.90	Q-Peak
24.186	14.23	50.00	-35.77	CISPR Avg

Table 22

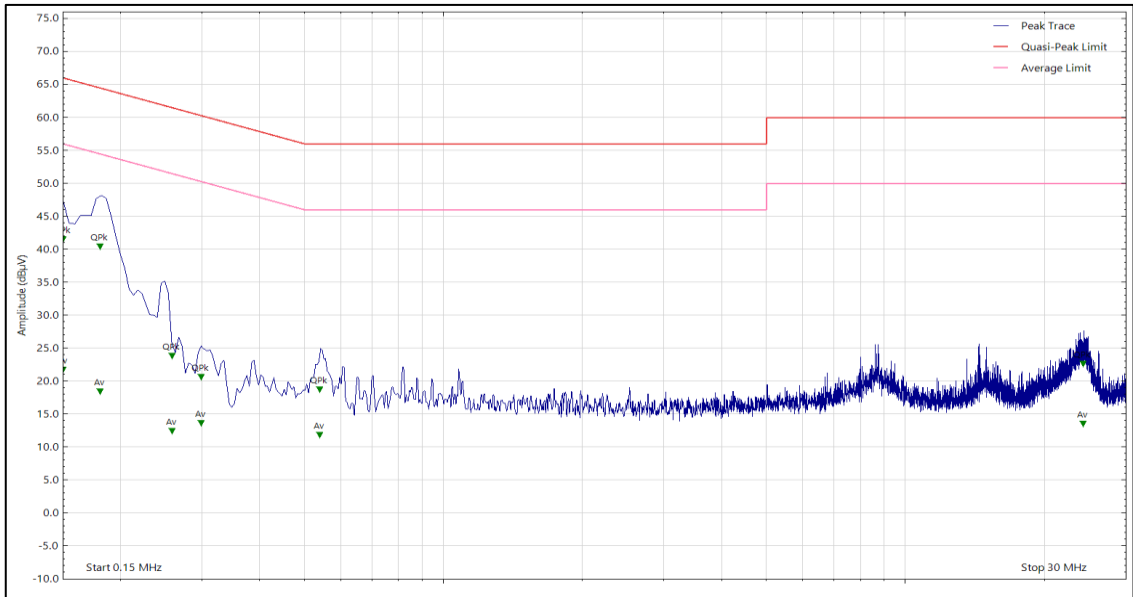


Figure 4 - Neutral Line - 150 kHz to 30 MHz

Frequency (MHz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector
0.150	40.83	66.00	-25.17	Q-Peak
0.150	21.06	56.00	-34.94	CISPR Avg
0.181	39.74	64.40	-24.66	Q-Peak
0.181	17.67	54.40	-36.73	CISPR Avg
0.259	23.12	61.50	-38.38	Q-Peak
0.259	11.73	51.50	-39.77	CISPR Avg
0.299	19.91	60.30	-40.39	Q-Peak
0.299	12.96	50.30	-37.34	CISPR Avg
0.541	17.99	56.00	-38.01	Q-Peak
0.541	11.15	46.00	-34.85	CISPR Avg
24.298	21.88	60.00	-38.12	Q-Peak
24.298	12.87	50.00	-37.13	CISPR Avg

Table 23



AC Powered - 5 GHz WLAN

Applied supply Voltage: 115 V
Applied supply frequency: 60 Hz

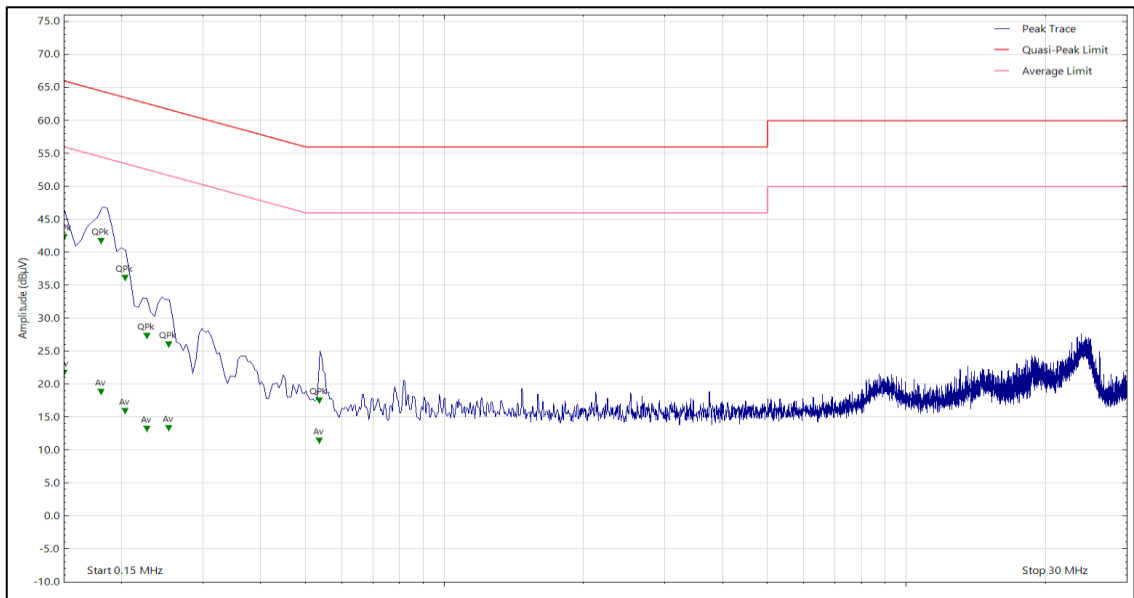


Figure 5 - Live Line - 150 kHz to 30 MHz

Frequency (MHz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector
0.150	41.57	66.00	-24.43	Q-Peak
0.150	20.98	56.00	-35.02	CISPR Avg
0.181	41.03	64.40	-23.37	Q-Peak
0.181	18.11	54.40	-36.29	CISPR Avg
0.204	35.42	63.50	-28.08	Q-Peak
0.204	15.18	53.50	-38.32	CISPR Avg
0.227	26.65	62.60	-35.95	Q-Peak
0.227	12.53	52.60	-40.07	CISPR Avg
0.253	25.33	61.70	-36.37	Q-Peak
0.253	12.58	51.70	-39.12	CISPR Avg
0.537	16.81	56.00	-39.19	Q-Peak
0.537	10.76	46.00	-35.24	CISPR Avg

Table 24

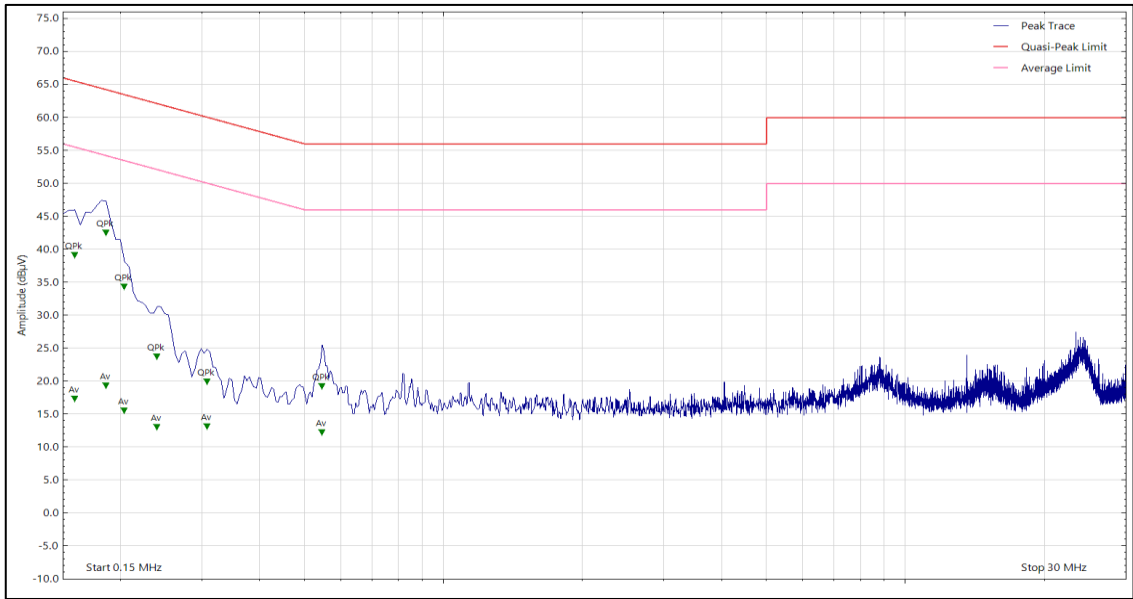


Figure 6 - Neutral Line - 150 kHz to 30 MHz

Frequency (MHz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector
0.159	38.35	65.50	-27.15	Q-Peak
0.159	16.59	55.50	-38.91	CISPR Avg
0.186	41.79	64.20	-22.41	Q-Peak
0.186	18.62	54.20	-35.58	CISPR Avg
0.204	33.55	63.50	-29.95	Q-Peak
0.204	14.85	53.50	-38.65	CISPR Avg
0.240	23.02	62.10	-39.08	Q-Peak
0.240	12.32	52.10	-39.78	CISPR Avg
0.308	19.24	60.00	-40.76	Q-Peak
0.308	12.42	50.00	-37.58	CISPR Avg
0.546	18.55	56.00	-37.45	Q-Peak
0.546	11.49	46.00	-34.51	CISPR Avg

Table 25

AC Powered - 6 GHz WLAN

Applied supply Voltage: 115 V
Applied supply frequency: 60 Hz

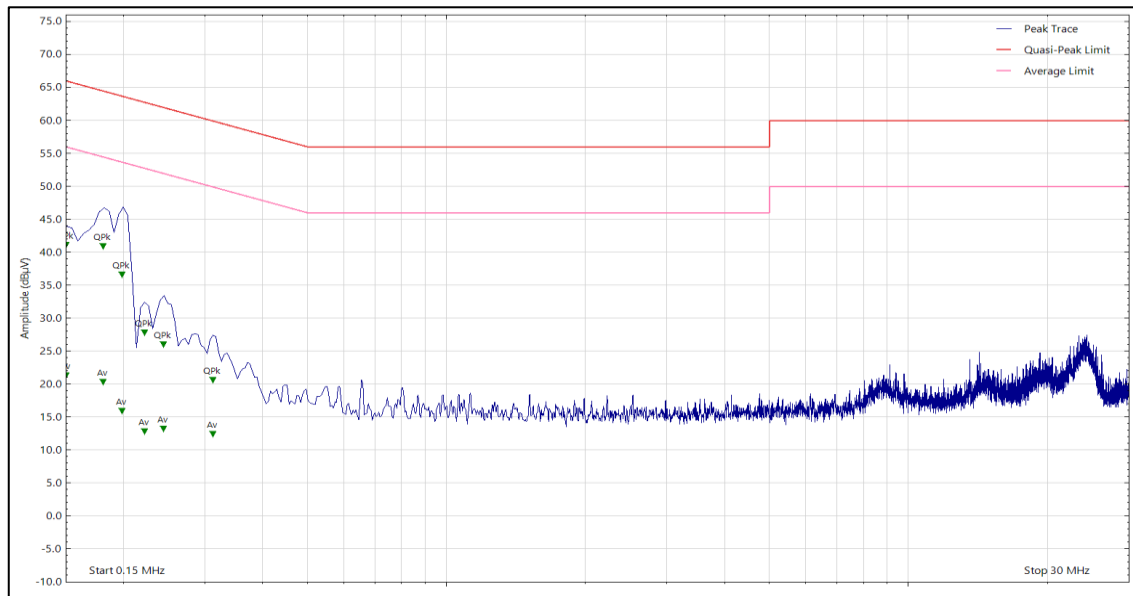


Figure 7 - Live Line - 150 kHz to 30 MHz

Frequency (MHz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector
0.150	40.37	66.00	-25.63	Q-Peak
0.150	20.60	56.00	-35.40	CISPR Avg
0.181	40.15	64.40	-24.25	Q-Peak
0.181	19.60	54.40	-34.80	CISPR Avg
0.199	35.94	63.60	-27.66	Q-Peak
0.199	15.25	53.60	-38.35	CISPR Avg
0.222	27.08	62.70	-35.62	Q-Peak
0.222	12.09	52.70	-40.61	CISPR Avg
0.244	25.27	62.00	-36.73	Q-Peak
0.244	12.57	52.00	-39.43	CISPR Avg
0.312	19.88	59.90	-40.02	Q-Peak
0.312	11.71	49.90	-38.19	CISPR Avg

Table 26

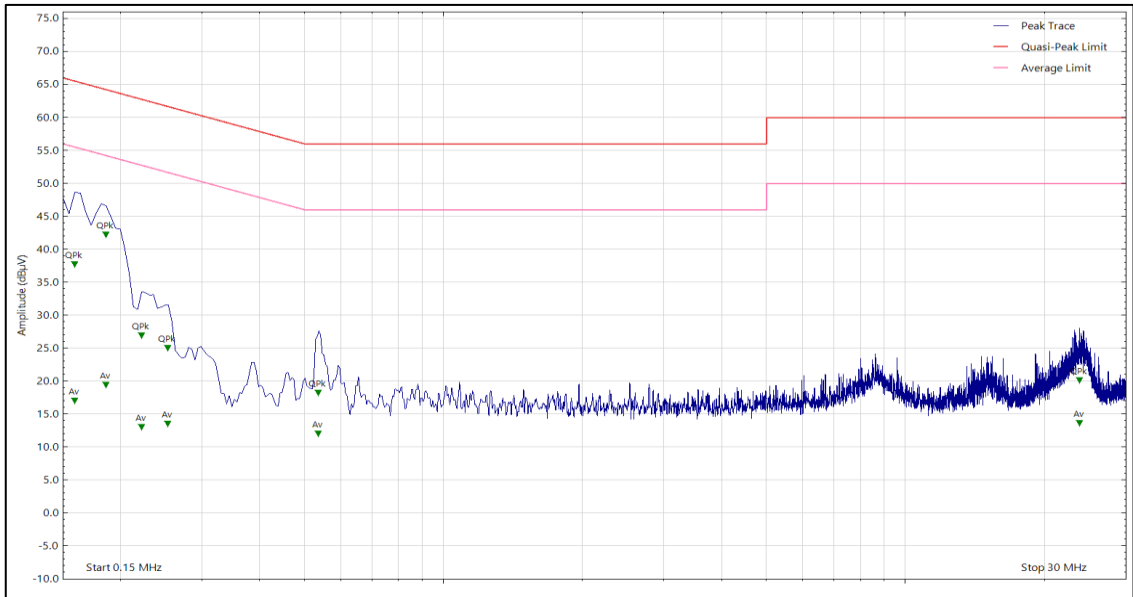


Figure 8 - Neutral Line - 150 kHz to 30 MHz

Frequency (MHz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector
0.159	37.03	65.50	-28.47	Q-Peak
0.159	16.34	55.50	-39.16	CISPR Avg
0.186	41.46	64.20	-22.74	Q-Peak
0.186	18.73	54.20	-35.47	CISPR Avg
0.222	26.17	62.70	-36.53	Q-Peak
0.222	12.29	52.70	-40.41	CISPR Avg
0.253	24.27	61.70	-37.43	Q-Peak
0.253	12.87	51.70	-38.83	CISPR Avg
0.537	17.51	56.00	-38.49	Q-Peak
0.537	11.37	46.00	-34.63	CISPR Avg
23.822	19.40	60.00	-40.60	Q-Peak
23.822	12.88	50.00	-37.12	CISPR Avg

Table 27

AC Powered - Thread

Applied supply Voltage: 115 V
Applied supply frequency: 60 Hz

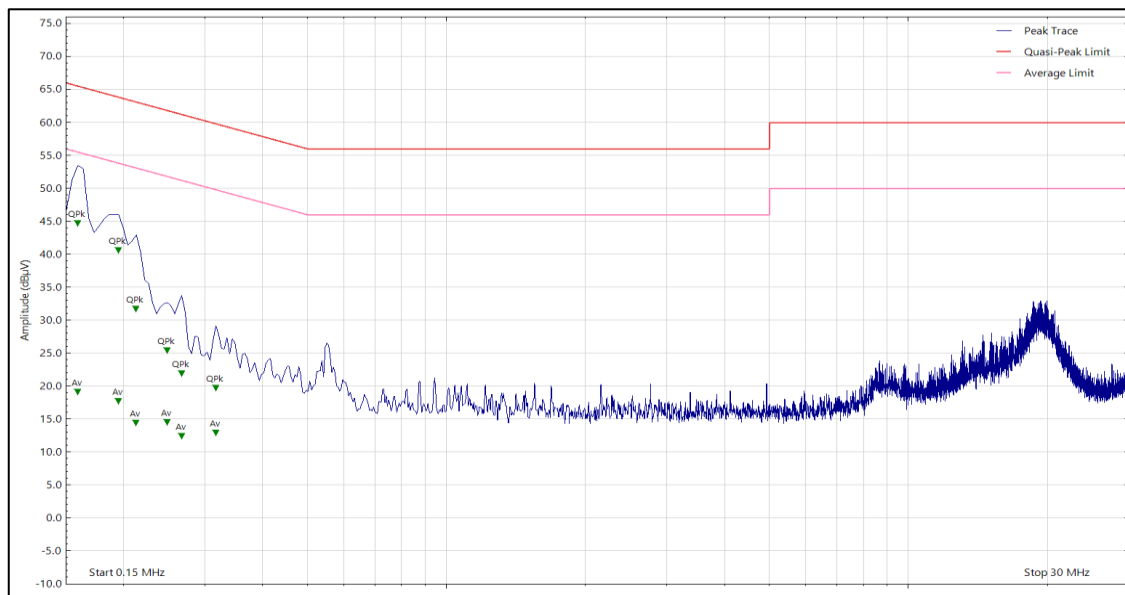


Figure 9 - Live Line - 150 kHz to 30 MHz

Frequency (MHz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector
0.159	43.96	65.50	-21.54	Q-Peak
0.159	18.45	55.50	-37.05	CISPR Avg
0.195	39.93	63.80	-23.87	Q-Peak
0.195	17.03	53.80	-36.77	CISPR Avg
0.213	30.96	63.10	-32.14	Q-Peak
0.213	13.69	53.10	-39.41	CISPR Avg
0.249	24.74	61.80	-37.06	Q-Peak
0.249	13.78	51.80	-38.02	CISPR Avg
0.267	21.24	61.20	-39.96	Q-Peak
0.267	11.72	51.20	-39.48	CISPR Avg
0.317	19.01	59.80	-40.79	Q-Peak
0.317	12.26	49.80	-37.54	CISPR Avg

Table 28

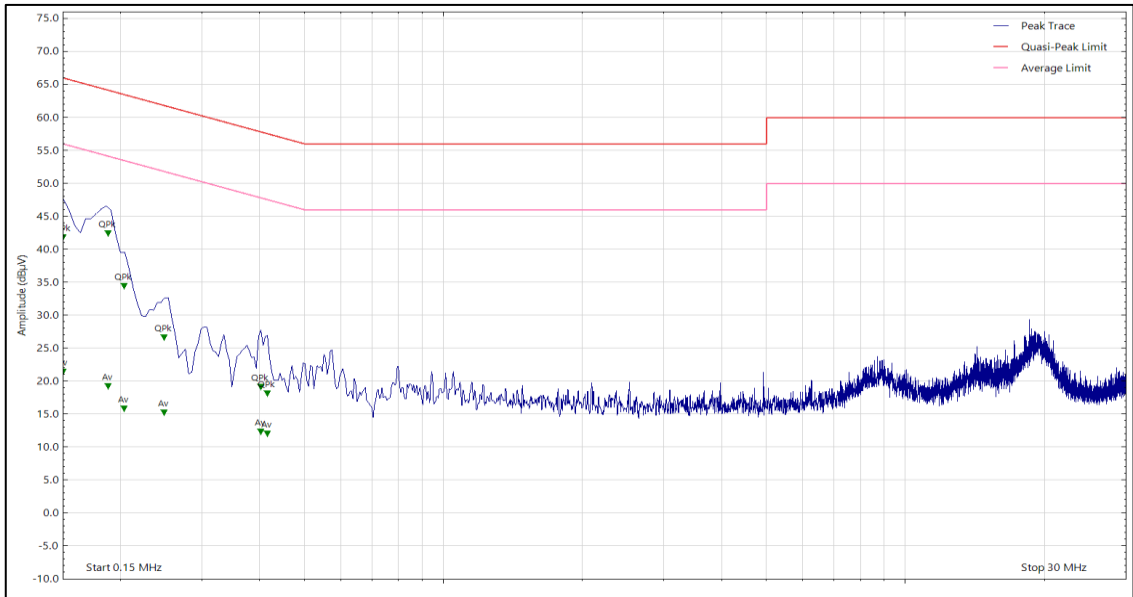


Figure 10 - Neutral Line - 150 kHz to 30 MHz

Frequency (MHz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector
0.150	41.10	66.00	-24.90	Q-Peak
0.150	20.67	56.00	-35.33	CISPR Avg
0.188	41.64	64.10	-22.46	Q-Peak
0.188	18.53	54.10	-35.57	CISPR Avg
0.204	33.73	63.40	-29.67	Q-Peak
0.204	15.14	53.40	-38.26	CISPR Avg
0.249	25.91	61.80	-35.89	Q-Peak
0.249	14.55	51.80	-37.25	CISPR Avg
0.402	18.45	57.80	-39.35	Q-Peak
0.402	11.63	47.80	-36.17	CISPR Avg
0.416	17.45	57.50	-40.05	Q-Peak
0.416	11.31	47.50	-36.19	CISPR Avg

Table 29

AC Powered - Narrowband

Applied supply Voltage: 115 V
Applied supply frequency: 60 Hz

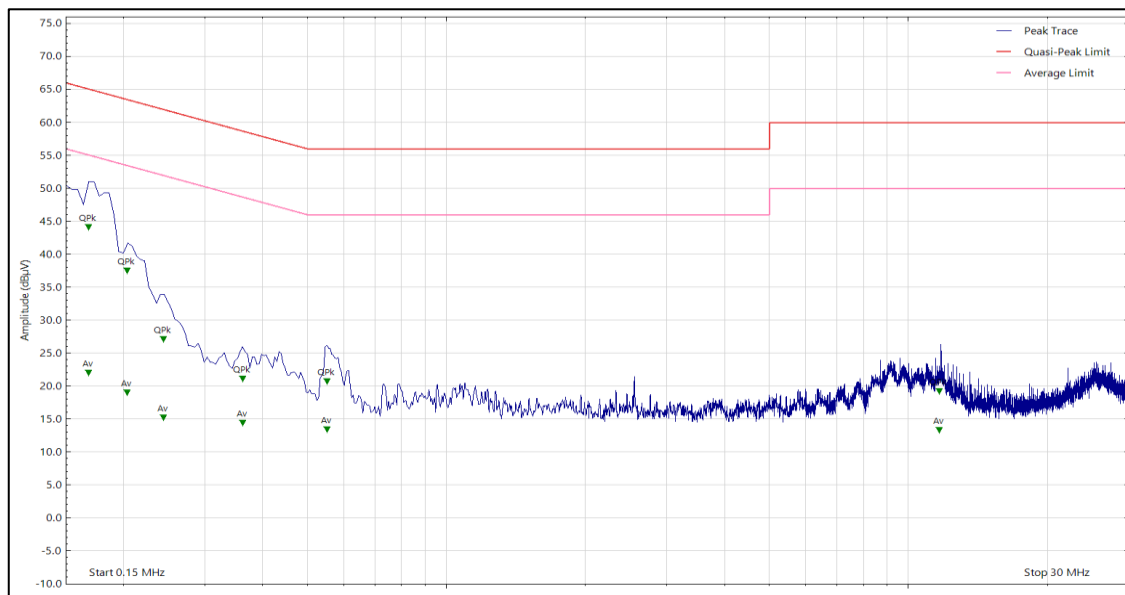


Figure 11 - Live Line - 150 kHz to 30 MHz

Frequency (MHz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector
0.168	43.43	65.10	-21.67	Q-Peak
0.168	21.36	55.10	-33.74	CISPR Avg
0.204	36.83	63.50	-26.67	Q-Peak
0.204	18.32	53.50	-35.18	CISPR Avg
0.244	26.43	62.00	-35.57	Q-Peak
0.244	14.48	52.00	-37.52	CISPR Avg
0.362	20.39	58.70	-38.31	Q-Peak
0.362	13.76	48.70	-34.94	CISPR Avg
0.551	19.97	56.00	-36.03	Q-Peak
0.551	12.71	46.00	-33.29	CISPR Avg
11.652	18.50	60.00	-41.50	Q-Peak
11.652	12.59	50.00	-37.41	CISPR Avg

Table 30

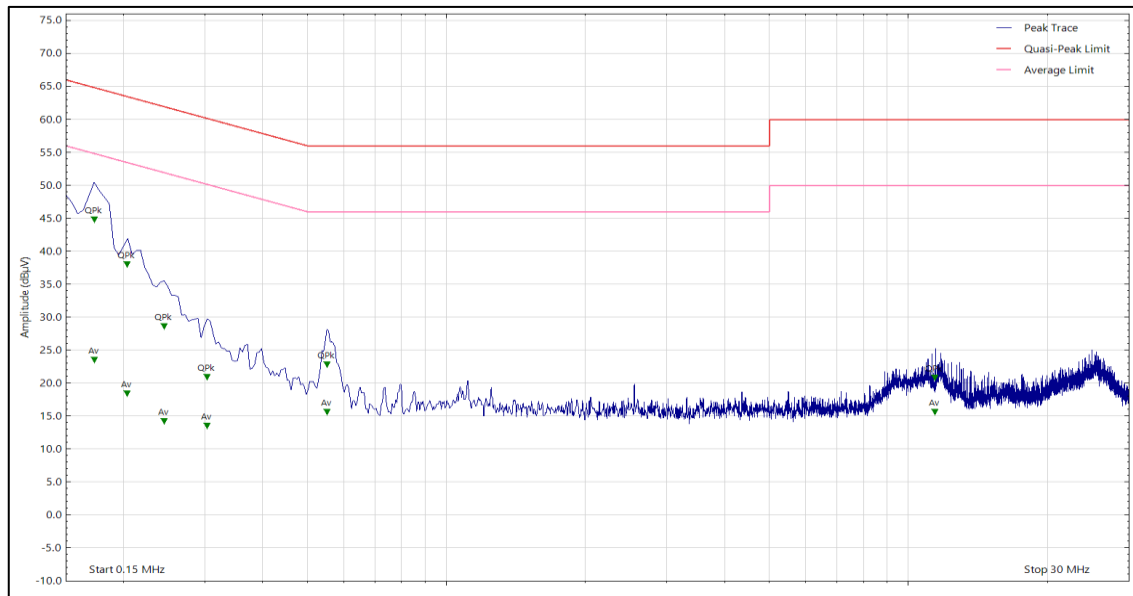


Figure 12 - Neutral Line - 150 kHz to 30 MHz

Frequency (MHz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector
0.173	44.10	64.80	-20.70	Q-Peak
0.173	22.79	54.80	-32.01	CISPR Avg
0.204	37.32	63.50	-26.18	Q-Peak
0.204	17.70	53.50	-35.80	CISPR Avg
0.245	27.87	61.90	-34.03	Q-Peak
0.245	13.55	51.90	-38.35	CISPR Avg
0.303	20.22	60.20	-39.98	Q-Peak
0.303	12.82	50.20	-37.38	CISPR Avg
0.551	22.14	56.00	-33.86	Q-Peak
0.551	14.93	46.00	-31.07	CISPR Avg
11.437	20.09	60.00	-39.91	Q-Peak
11.437	14.90	50.00	-35.10	CISPR Avg

Table 31



2.1.8 Test Location and Test Equipment Used

This test was carried out in EMC Chamber 12.

Instrument	Manufacturer	Type No	TE No	Calibration Period (months)	Calibration Expires
Emissions Software	TUV SUD	EmX V3.6.3	5125	-	Software
Test Receiver	Rohde & Schwarz	ESW44	5802	12	05-Nov-2026
Transient Limiter	Hewlett Packard	11947A	2378	12	28-Oct-2026
Cable Assembly - 18GHz 2m	Junkosha	MWX221-02000AMSAMS/B	5730	6	08-Nov-2026
Cable (N-Type to N-Type, 8 m)	Junkosha	MWX221-08000NMSNMS/B	7054	12	08-Jul-2027
LISN (CISPR 16, Single Phase)	Rohde & Schwarz	ESH3-Z5	1390	12	05-Feb-2027
Thermo Hygro Barometer	R.S Components	1160	7243	12	13-Mar-2027

Table 32



3 Test Equipment Information

3.1 General Test Equipment Used

Instrument	Manufacturer	Type No	TE No	Calibration Period (months)	Calibration Expires
Milliohm Meter	VICI	VC480C+	7012	12	27-May-2027

Table 33



4 Measurement Uncertainty

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

Test Name	Measurement Uncertainty
AC Power Line Conducted Emissions	150 kHz to 30 MHz, LISN ± 3.3 dB

Table 34

Measurement Uncertainty Decision Rule – Accuracy Method

Determination of conformity with the specification limits is based on the decision rule according to IEC Guide 115:2021, Clause 4.4.3 (Procedure 2). The measurement results are directly compared with the test limit to determine conformance with the requirements of the standard.

Risk: The uncertainty of measurement about the measured result is negligible with regard to the final pass/fail decision. The measurement result can be directly compared with the test limit to determine conformance with the requirement (compare IEC Guide 115). The level of risk to falsely accept and falsely reject items is further described in ILAC-G8.