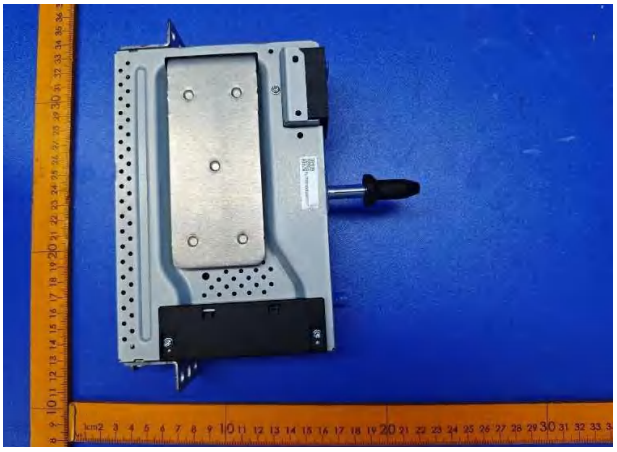
Prüfbericht - Produkte
Test Report - Products

TÜVRheinland®

Prüfbericht-Nr.: *Test report no.*:	**CN25QEKB 001**	**Auftrags-Nr.:** *Order no.*:	168537194	*Seite 1 von 20* *Page 1 of 20*
Kunden-Referenz-Nr.: *Client reference no.*:	N/A	**Auftragsdatum:** *Order date:*	2025-01-08	
Auftraggeber: *Client*:	**SAIC GM WULING AUTOMOBILE CO.,LTD** 18th Hexi Road, Liuzhou City, Guangxi, Zhuang Autonomous Region, China			
Prüfgegenstand: *Test item*:	Non-connected Voice Communication System Assembly			
Bezeichnung / Typ-Nr.: *Identification / Type no.*:	MP-202S-01			
Auftrags-Inhalt: *Order content*:	Test Report			
Prüfgrundlage: *Test specification*:	CFR47 FCC Part 15: Subpart C Section 15.247			

Wareneingangsdatum: *Date of sample receipt*:	2025-01-21
Prüfmuster-Nr.: *Test sample no:*	A003900031-001~012
Prüfzeitraum: *Testing period*:	2025-01-21 - 2025-03-20
Ort der Prüfung: *Place of testing*:	TÜV Rheinland (Shenzhen) Co., Ltd.
Prüflaboratorium: *Testing laboratory:*	TÜV Rheinland (Shenzhen) Co., Ltd.
Prüfergebnis*: *Test result**:	Pass



geprüft von: tested by:	X Jonathan Li Signed by: Jonathan Li	**genehmigt von:** *authorized by*:	X Lin Lin Signed by: Lin Lin
Datum: *Date:* 2025-03-21		**Ausstellungsdatum:** *Issue date:* 2025-03-21	
Stellung / Position:	Sachverständige(r)/Expert	**Stellung** / Position:	Sachverständige(r)/Expert

Sonstiges / *Other*: This report is for BLE operation.

FCC ID: 2AVYX-MP202S01

Zustand des Prüfgegenstandes bei Anlieferung: *Condition of the test item at delivery*: Prüfmuster vollständig und unbeschädigt *Test item complete and undamaged*

* Legende:	P(ass) = entspricht o.g. Prüfgrundlage(n)	F(ail) = entspricht nicht o.g. Prüfgrundlage(n)	N/A = nicht anwendbar	N/T = nicht getestet
* *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*

Prüfbericht-Nr.: CN25QEKB 001
Test report no.:

Anmerkungen
Remarks

1	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. Detaillierte Informationen bezüglich Prüfkonditionen, Prüfequipment und Messunsicherheiten sind im Prüflabor vorhanden und können auf Wunsch bereitgestellt werden. *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.*
2	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. Informationen zur Verifizierung der Authentizität unserer Dokumente erhalten Sie auf folgender Webseite: go.tuv.com/digital-signature *As contractually agreed, this document has been signed digitally only. TUV 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, TUV 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. For information on verifying the authenticity of our documents, please visit the following website: go.tuv.com/digital-signature*
3	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. *Test clauses with remark of * are subcontracted to qualified subcontractors and descripted 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.*
4	Die Entscheidungsregel für Konformitätserklärungen basierend auf numerischen Messergebnisen 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 bezueglich des Risikos durch diese Entscheidungsregel siehe ILAC G8:2019. *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.*

Test Summary

5.1.1 ANTENNA REQUIREMENT
RESULT: Pass

5.1.2 MAXIMUM PEAK CONDUCTED OUTPUT POWER
RESULT: Pass

5.1.3 CONDUCTED POWER SPECTRAL DENSITY
RESULT: Pass

5.1.4 6DB BANDWIDTH
RESULT: Pass

5.1.5 99% BANDWIDTH
RESULT: Pass

5.1.6 CONDUCTED SPURIOUS EMISSIONS MEASURED IN 100 KHZ BANDWIDTH
RESULT: Pass

5.1.7 RADIATED SPURIOUS EMISSION
RESULT: Pass

Contents

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: Test Results of Bluetooth Low Energy

Appendix B: Photographs of the Test Set-up

2 Test Sites

2.1 Test Facilities

TÜV Rheinland (Shenzhen) Co., Ltd.
2-3F, 101 & 102, No.2, Nuclear Power Industrial Park, Fuming Community, Fucheng Street, Longhua District, Shenzhen 518000, People's Republic of China

FCC Accreditation Designation No.: CN1260

2.2 List of Test and Measurement Instruments

Table 1: List of Test and Measurement Equipment

Radio Spectrum Testing (SRD-Tonscend)				
Equipment	**Manufacturer**	**Model**	**Serial No.**	**Cal. until**
EXA Signal Analyzer, Multi-touch	Keysight	N9010B	MY60241175	25.09.2025
MXG X-Series RF Vector Signal Generator	Keysight	N5182B	MY61250137	25.09.2025
EXG X-Series Microwave Analog Signal Generator	Keysight	N5173B	MY61250141	25.09.2025
DC Power Supply	Keysight	E3642A	MY61276100	25.09.2025
Wireless Connectivity Tester	R&S	CMW270	102505	25.09.2025
Power Control Unit	Tonscend	JS0806-4ADC	N/A	25.09.2025
Automation Control Unit	Tonscend	JS0806-2	21C8060396	25.09.2025
Test Software	Tonscend	JS1120-3	N/A	N/A
Control PC	Lenovo	TianYi510S-071MB	YLX23JMF	N/A
Unwanted Emission Testing (TS9975)				
Equipment	**Manufacturer**	**Model**	**Serial No.**	**Cal. until**
EMI Test Receiver	R&S	ESR 7	102021	28.09.2025
Signal Analyzer	R&S	FSV 40	101439	28.09.2025
System Controller Interface	R&S	SCI-100	S10010038	N/A
Filterbank	R&S	Wlan	100759	28.09.2025
OSP	R&S	OSP 120	102040	N/A
Pre-amplifier	R&S	SCU08F1	08320031	28.09.2025
Amplifier	R&S	SCU-18F	180070	28.09.2025
Amplifier	R&S	SCU40A	100475	28.09.2025
Trilog Broadband Antenna (30 MHz - 7 GHz)	Schwarzbeck	VULB 9162	193	27.09.2026
Double-Ridged Antenna (1 -18 GHz)	ETS-LINDGREN	3117	00218717	27.09.2026
Wideband Ridged Horn Antenna (18-40 GHz)	Steatite	QMS-00880	19067	27.09.2026
Active Loop Antenna	Schwarzbeck	FMZB 1513	302	27.09.2026
Test software	R&S	EMC32 (V10.60.10)	N/A	N/A

Control PC	Dell	OptiPlex 7050	36NV9P2	N/A
3m Semi-Anechoic Chamber	Albatross	SAC-3m	APC17151-SAC	13.09.2027

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 basics 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	± 0.99 dB
Occupied Channel Bandwidth	± 2.08 %
RF power density, conducted	± 0.99 dB
Unwanted Emissions, conducted	± 0.89 dB
All emissions, radiated	±4.17 dB
Conducted Emission, (9kHz to 150kHz)/(150kHz to 30MHz)	± 3.70 dB / ± 3.30 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 (Shenzhen) Co., Ltd. file for certification follow-up purposes.

2.7 Status of Facility Used for Testing

The TÜV Rheinland (Shenzhen) Co., Ltd. Test facility located at 2-3F, 101 & 102, No.2, Nuclear Power Industrial Park, Fuming Community, Fucheng Street, Longhua District, Shenzhen 518000, People's Republic of China 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 Non-connected Voice Communication System Assembly intended to be assembled into automotive environment, which supports Bluetooth (dual mode) 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**
Product Name:	Non-connected Voice Communication System Assembly
Model No.:	MP-202S-01
Operating Voltage:	DC 12V
Testing Voltage:	DC 12 V
Operating Temperature Range:	-30 °C ~ 80 °C
Technical Specification of Bluetooth LE	
Operating Frequency:	2402 MHz to 2480 MHz
Type of Modulation:	GFSK
Channel Number:	40 channels
Channel Separation:	2MHz
Data Rate:	1, 2Mbps
Antenna Type:	Integral Antenna
Antenna Gain of Bluetooth:	1 dBi

Table 4: RF Channel and Frequency of Bluetooth LE

RF Channel	Frequency (MHz)	RF Channel	Frequency (MHz)	RF Channel	Frequency (MHz)	RF Channel	Frequency (MHz)
0	**2402**	10	2422	20	2442	30	2462
1	2404	11	2424	21	2444	31	2464
2	2406	12	2426	22	2446	32	2466
3	2408	13	2428	23	2448	33	2468
4	2410	14	2430	24	2450	34	2470
5	2412	15	2432	25	2452	35	2472
6	2414	16	2434	26	2454	36	2474
7	2416	17	2436	27	2456	37	2476
8	2418	18	2438	28	2458	38	2478
9	2420	**19**	**2440**	29	2460	**39**	**2480**

Test frequencies are lowest channel: 2402 MHz, middle channel: 2440 MHz and highest channel: 2480 MHz for Bluetooth LE

3.3 Independent Operation Modes

The basic operation modes are:

A. On, Bluetooth transmitting mode (Bluetooth LE mode)
   1) Low Channel
   2) Middle Channel
   3) High Channel

B. On, Normal operation +Bluetooth

C. Off

3.4 Noise Generating and Noise Suppressing Parts

Refer to Circuit Diagram for further details.

3.5 Submitted Documents

- Application Form
- User Manual
- ID Label and Location Info

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.

According to clause 3.1, all tests were performed on model MP-202S-01 in this report.

4.3 Special Accessories and Auxiliary Equipment

Table 5: Auxiliary Equipment Used during Test

Description	Manufacturer	Model	S/N
Laptop	Lenovo	T480	PF-16A6N8
DC power Supply	Topward	3303D	809332

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)

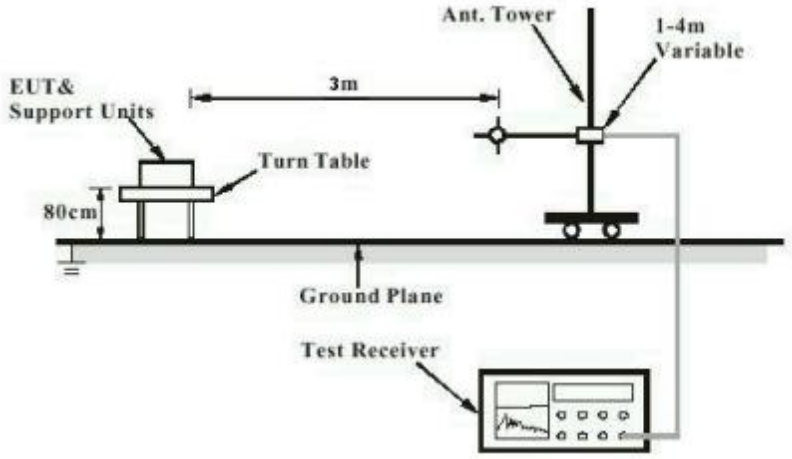


Diagram of Measurement Configuration for Radiation Test (Above 1GHz)

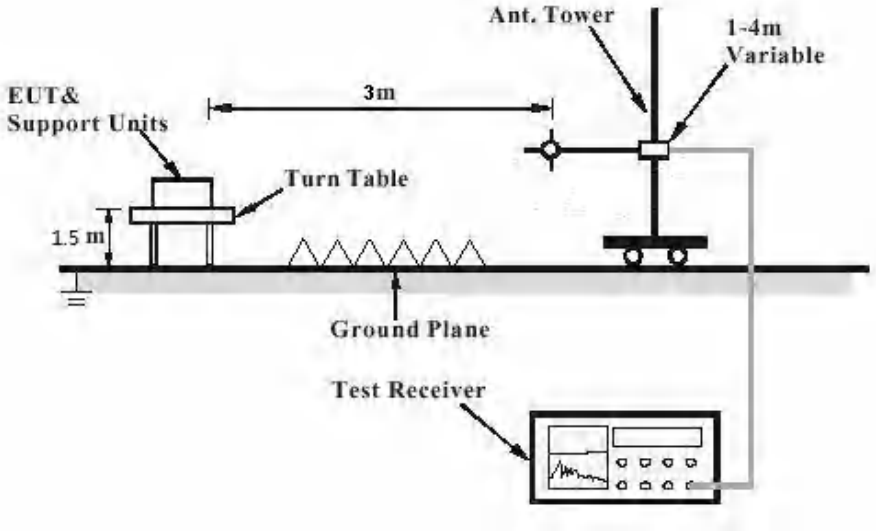
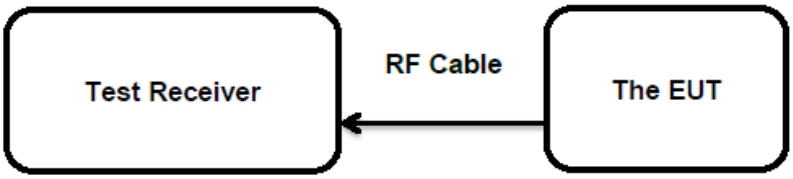


Diagram of Measurement Configuration for Conducted Transmitter Measurement



5 Test Results

5.1 Transmitter Requirement & Test Suites

5.1.1 Antenna Requirement

RESULT: **Pass**

Test Specification

Test standard : FCC Part 15.247(b)(4) and Part 15.203

According to the manufacturer declared, the EUT has an Integral antenna, the directional gain of antenna is 1dBi, and the antenna connector is designed with 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.

5.1.2 Maximum Peak Conducted Output Power

RESULT: **Pass**

Test Specification

Test standard	:	FCC Part 15.247(b)(1)&(3)
Basic standard	:	ANSI C63.10: 2013
Limits	:	FHSS < 0.125 Watts, DSSS < 1.0 Watts
Kind of test site	:	Shielded Room

Test Setup

Date of testing	:	2025-01-21 - 2025-03-20
Input voltage	:	DC 12V
Operation mode	:	A
Test channel	:	Low / Middle / High
Ambient temperature	:	25.4 ℃
Relative humidity	:	54 %
Atmospheric pressure	:	101 kPa

For details refer to following test result.

Table 6: Test Result of Maximum Peak Conducted Output Power, Bluetooth LE

Test Mode	Test Channel (MHz)	Measured Peak Power		Limit (W)
		(dBm)	(W)	
BLE (1 Mbps)	2402	1.05	0.0013	< 1.0
	2440	1.33	0.0014	
	2480	1.18	0.0013	
BLE (2 Mbps)	2402	1.02	0.0013	
	2440	1.29	0.0013	
	2480	1.16	0.0013	
Max. Measured Value				

Note:
1) The cable loss is taken into account in results.
2) Antenna gain(G): 1 dBi

5.1.3 Conducted Power Spectral Density

RESULT: **Pass**

Test Specification

Test standard	:	FCC Part 15.247(e)
Basic standard	:	ANSI C63.10: 2013
Limits	:	< 8 dBm / 3kHz
Kind of test site	:	Shielded Room

Test Setup

Date of testing	:	2025-01-21 - 2025-03-20
Input voltage	:	DC 12V
Operation mode	:	A
Test channel	:	Low / Middle / High
Ambient temperature	:	25.4 ℃
Relative humidity	:	54 %
Atmospheric pressure	:	101 kPa

For the measurement records, refer to the appendix A.

5.1.4 6dB Bandwidth

RESULT: **Pass**

Test Specification

Test standard	:	FCC Part 15.247(a)(2)
Basic standard	:	ANSI C63.10: 2013
Limits	:	> 500 kHz
Kind of test site	:	Shielded Room

Test Setup

Date of testing	:	2025-01-21 - 2025-03-20
Input voltage	:	DC 12V
Operation mode	:	A
Test channel	:	Low / Middle / High
Ambient temperature	:	25.4 ℃
Relative humidity	:	54 %
Atmospheric pressure	:	101 kPa

For the measurement records, refer to the appendix A.

5.1.5 99% Bandwidth

RESULT: **Pass**

Test Specification

Test standard	:	FCC Part 15.247(a)
Basic standard	:	ANSI C63.10: 2013
Kind of test site	:	Shielded Room

Test Setup

Date of testing	:	2025-01-21 - 2025-03-20
Input voltage	:	DC 12V
Operation mode	:	A
Test channel	:	Low / Middle / High
Ambient temperature	:	25.4 ℃
Relative humidity	:	54 %
Atmospheric pressure	:	101 kPa

For the measurement records, refer to the appendix A.

5.1.6 Conducted Spurious Emissions Measured in 100 kHz Bandwidth

RESULT: **Pass**

Test Specification

Test standard	:	FCC Part 15.247(d)
Basic standard	:	ANSI C63.10: 2013
Limits	:	20dB (below that in the 100kHz bandwidth within the band that contains the highest level of the desired power); In addition, radiated emissions which fall in the restricted bands, must also comply with the radiated emission limits specified in 15.209(a)
Kind of test site	:	Shielded Room

Test Setup

Date of testing	:	2025-01-21 - 2025-03-20
Input voltage	:	DC 12V
Operation mode	:	A
Test channel	:	Low / Middle / High
Ambient temperature	:	25.4 ℃
Relative humidity	:	54 %
Atmospheric pressure	:	101 kPa

Test results of 100kHz Bandwidth of Frequency Band Edge by Conducted method refer to test plots, and compliance is achieved as well.

For the measurement records, refer to the appendix A.

5.1.7 Radiated Spurious Emission

RESULT: **Pass**

Test Specification

Test standard	:	FCC Part 15.247(d) & FCC Part 15.205
Basic standard	:	ANSI C63.10: 2013
Limits	:	Refer to 15.209(a) of FCC part 15.247(d)
Kind of test site	:	3m Semi-anechoic Chamber

Test Setup

Date of testing	:	2025-01-21 - 2025-03-20
Input voltage	:	DC 12V
Operation mode	:	A
Test channel	:	Low / Middle / High
Ambient temperature	:	Refer to test result
Relative humidity	:	Refer to test result
Atmospheric pressure	:	101 kPa

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

For the measurement records, refer to the appendix A.

6 Photographs of the Test Set-Up

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

7 List of Tables

Appendix A: Test Results of Bluetooth LE

1.1 Appendix 1: DTS Bandwidth

1.1.1 Test Result

TestMode	Antenna	Channel	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	0.672	2401.676	2402.348	0.5	PASS
		2440	0.644	2439.684	2440.328	0.5	PASS
		2480	0.644	2479.680	2480.324	0.5	PASS
BLE_2M	Ant1	2402	1.136	2401.440	2402.576	0.5	PASS
		2440	1.064	2439.472	2440.536	0.5	PASS
		2480	1.140	2479.452	2480.592	0.5	PASS

1.1.2 Test Graphs

BLE_1M_Ant1_2402

BLE_1M_Ant1_2440

BLE_1M_Ant1_2480

BLE_2M_Ant1_2402

BLE_2M_Ant1_2440

BLE_2M_Ant1_2480


Spectrum Analyzer 1
Swept SA
KEYSIGHT
Input: RF
Align: Auto
Input Z: 50 Ω
Corr CCorr
Freq Ref: Int (S)
#Atten: 40 dB
PNO: Best Wide
Gate: Off
IF Gain: Low
Sig Track: Off
#Avg Type: Power (RMS)
Avg|Hold: 100/100
Trig: Free Run
1 Spectrum
Scale/Div 10 dB
Ref Lvl Offset 18.11 dB
Ref Level 30.00 dBm
ΔMkr3 1.140 MHz
0.12 dB
Center 2.480000 GHz
#Res BW 100 kHz
#Video BW 300 kHz
Span 4.000 MHz
Sweep 1.00 ms (1001 pts)
5 Marker Table
Mode Trace Scale X Y Function Function Width Function Value
1 N 1 f 2.479 452 GHz -4.847 dBm
2 N 1 f 2.480 024 GHz 1.097 dBm
3 Δ1 1 f (Δ) 1.140 MHz (Δ) 0.1185 dB
Mar 05, 2025
3:59:14 PM
Frequency
Center Frequency
2.480000000 GHz
Settings
Span
4.00000000 MHz
Swept Span
Zero Span
Full Span
Start Freq
2.478000000 GHz
Stop Freq
2.482000000 GHz
AUTO TUNE
CF Step
400.000 kHz
Auto
Man
Freq Offset
0 Hz
X Axis Scale
Log
Lin
Signal Track
(Span Zoom)
Local

1.2 Appendix 2: Occupied Channel Bandwidth

1.2.1 Test Result

TestMode	Antenna	Channel	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	1.0578	2401.4819	2402.5397	---	---
		2440	1.0482	2439.4893	2440.5375	---	---
		2480	1.0357	2479.4917	2480.5274	---	---
BLE_2M	Ant1	2402	2.0831	2400.9917	2403.0748	---	---
		2440	2.0625	2439.0061	2441.0686	---	---
		2480	2.0630	2479.0068	2481.0698	---	---

1.2.2 Test Graphs

BLE_1M_Ant1_2402

BLE_1M_Ant1_2440

BLE_1M_Ant1_2480

BLE_2M_Ant1_2402

BLE_2M_Ant1_2440

BLE_2M_Ant1_2480


Spectrum Analyzer 1
Occupied BW
KEYSIGHT
Input: RF
Input Z: 50 Ω
Atten: 40 dB
Trig: Free Run
Center Freq: 2.480000000 GHz
Corr CCorr
Gate: Off
Avg|Hold: 100/100
Freq Ref: Int (S)
#IF Gain: Low
Radio Std: None
Align: Auto
1 Graph
Ref Lvl Offset 18.11 dB
Ref Value 30.00 dBm
Mkr1 2.479976000 GHz
-1.15 dBm
Scale/Div 10.0 dB
Log
Center 2.480000 GHz
#Res BW 43.000 kHz
#Video BW 130.00 kHz
Span 4 MHz
Sweep 2.07 ms (1001 pts)
2 Metrics
Occupied Bandwidth
2.0630 MHz
Total Power
7.47 dBm
Transmit Freq Error
38.326 kHz
% of OBW Power
99.00 %
x dB Bandwidth
2.456 MHz
x dB
-26.00 dB
Mar 05, 2025
3:59:20 PM
Frequency
Center Frequency
2.480000000 GHz
Settings
Span
4.0000 MHz
CF Step
400.000 kHz
Auto
Man
Freq Offset
0 Hz
Local

1.3 Appendix 3: Maximum conducted output power

1.3.1 Test Result PK

TestMode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	1.05	≤30	PASS
		2440	1.33	≤30	PASS
		2480	1.18	≤30	PASS
BLE_2M	Ant1	2402	1.02	≤30	PASS
		2440	1.29	≤30	PASS
		2480	1.16	≤30	PASS

1.3.2 Test Result AV

TestMode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	0.76	≤30	PASS
		2440	1.04	≤30	PASS
		2480	0.95	≤30	PASS
BLE_2M	Ant1	2402	0.73	≤30	PASS
		2440	1.02	≤30	PASS
		2480	0.93	≤30	PASS

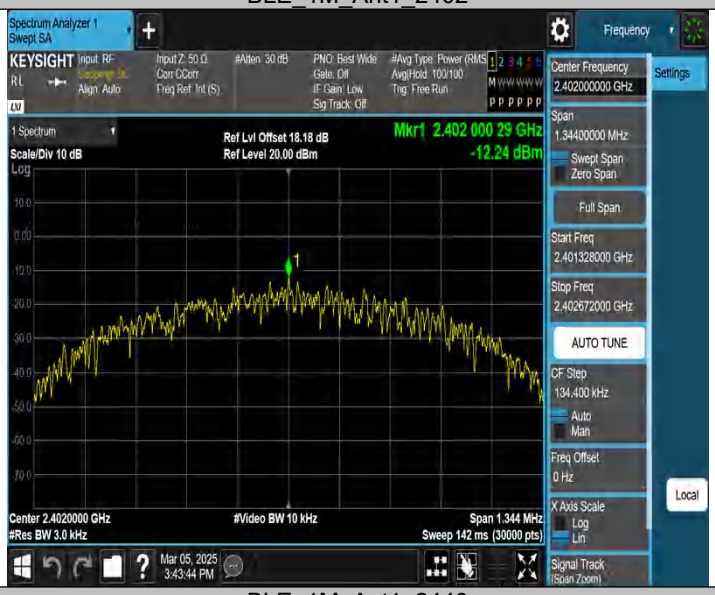
1.4 Appendix 4: Maximum power spectral density

1.4.1 Test Result

TestMode	Antenna	Channel	Result[dBm/3-100kHz]	Limit[dBm/3kHz]	Verdict
BLE_1M	Ant1	2402	-12.24	≤8.00	PASS
		2440	-12.28	≤8.00	PASS
		2480	-14.05	≤8.00	PASS
BLE_2M	Ant1	2402	-15.20	≤8.00	PASS
		2440	-14.38	≤8.00	PASS
		2480	-15.80	≤8.00	PASS

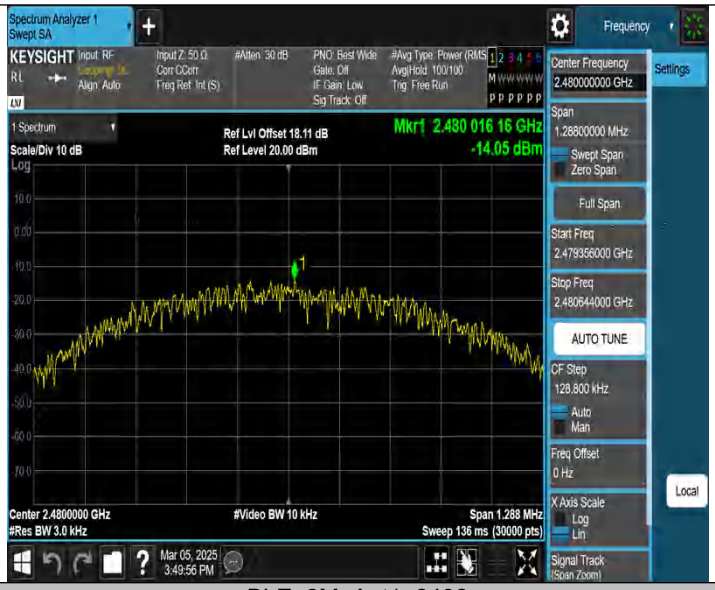
1.4.2 Test Graphs

BLE_1M_Ant1_2402

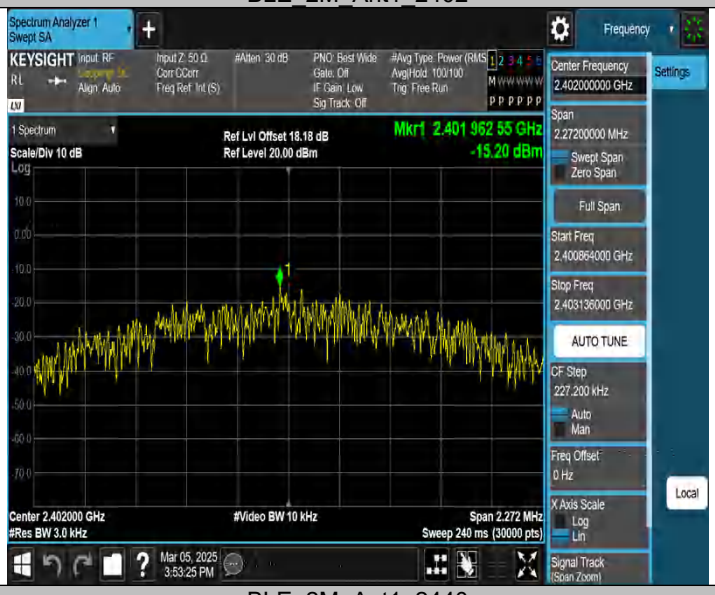


BLE_1M_Ant1_2440

BLE_1M_Ant1_2480



BLE_2M_Ant1_2402



BLE_2M_Ant1_2440

BLE_2M_Ant1_2480


Spectrum Analyzer 1
Swept SA
KEYSIGHT
Frequency
Center Frequency
2.480000000 GHz
Settings
Span
2.28000000 MHz
Swept Span
Zero Span
Full Span
Start Freq
2.478860000 GHz
Stop Freq
2.481140000 GHz
AUTO TUNE
CF Step
228.000 kHz
Auto
Man
Freq Offset
0 Hz
X Axis Scale
Log
Lin
Signal Track
(Span Zoom)
Local
1 Spectrum
Scale/Div 10 dB
Log
Ref Lvl Offset 18.11 dB
Ref Level 20.00 dBm
Mkr1 2.479 987 35 GHz
-15.80 dBm
Center 2.480000 GHz
#Res BW 3.0 kHz
#Video BW 10 kHz
Span 2.280 MHz
Sweep 242 ms (30000 pts)
Mar 05, 2025
4:00:26 PM

1.5 Appendix 5: Band edge measurements

1.5.1 Test Result

TestMode	Antenna	ChName	Channel	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	Low	2402	0.36	-44.39	≤-19.64	PASS
		High	2480	1.44	-45.17	≤-18.56	PASS
BLE_2M	Ant1	Low	2402	1.20	-34.76	≤-18.80	PASS
		High	2480	1.34	-46.27	≤-18.66	PASS

1.5.2 Test Graphs

BLE_1M_Ant1_Low_2402

BLE_1M_Ant1_High_2480

BLE_2M_Ant1_Low_2402

BLE_2M_Ant1_High_2480


Spectrum Analyzer 1
Swept SA
KEYSIGHT
Frequency
Center Frequency
2.481500000 GHz
Settings
Span
5.00000000 MHz
Swept Span
Zero Span
Full Span
Start Freq
2.479000000 GHz
Stop Freq
2.484000000 GHz
AUTO TUNE
CF Step
500.000 kHz
Auto
Man
Freq Offset
0 Hz
X Axis Scale
Log
Lin
Signal Track
(Span Zoom)
Local
1 Spectrum
Scale/Div 10 dB
Ref Lvl Offset 18.11 dB
Ref Level 20.00 dBm
Mkr2 2.483 500 GHz
-46.27 dBm
Start 2.479000 GHz
#Res BW 100 kHz
#Video BW 300 kHz
Stop 2.484000 GHz
Sweep 1.00 ms (1001 pts)
5 Marker Table
Mode Trace Scale X Y Function Function Width Function Value
1 N 1 f 2.480 020 GHz 1.342 dBm
2 N 1 f 2.483 500 GHz -46.27 dBm
Mar 05, 2025
4:02:31 PM

1.6 Appendix 6: Conducted Spurious Emission

1.6.1 Test Result

TestMode	Antenna	Channel	FreqRange [MHz]	RefLevel [dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	Reference	1.37	1.37	---	PASS
			30~1000	1.37	-41.37	≤-18.63	PASS
			1000~26500	1.37	-32.55	≤-18.63	PASS
		2440	Reference	1.80	1.80	---	PASS
			30~1000	1.80	-41.33	≤-18.2	PASS
			1000~26500	1.80	-32.8	≤-18.2	PASS
		2480	Reference	1.50	1.50	---	PASS
			30~1000	1.50	-41.84	≤-18.5	PASS
			1000~26500	1.50	-32.69	≤-18.5	PASS
BLE_2M	Ant1	2402	Reference	0.93	0.93	---	PASS
			30~1000	0.93	-41.22	≤-19.07	PASS
			1000~26500	0.93	-32.84	≤-19.07	PASS
		2440	Reference	0.88	0.88	---	PASS
			30~1000	0.88	-41.38	≤-19.12	PASS
			1000~26500	0.88	-32.16	≤-19.12	PASS
		2480	Reference	1.35	1.35	---	PASS
			30~1000	1.35	-42.01	≤-18.65	PASS
			1000~26500	1.35	-32.18	≤-18.65	PASS

1.6.2 Test Graphs

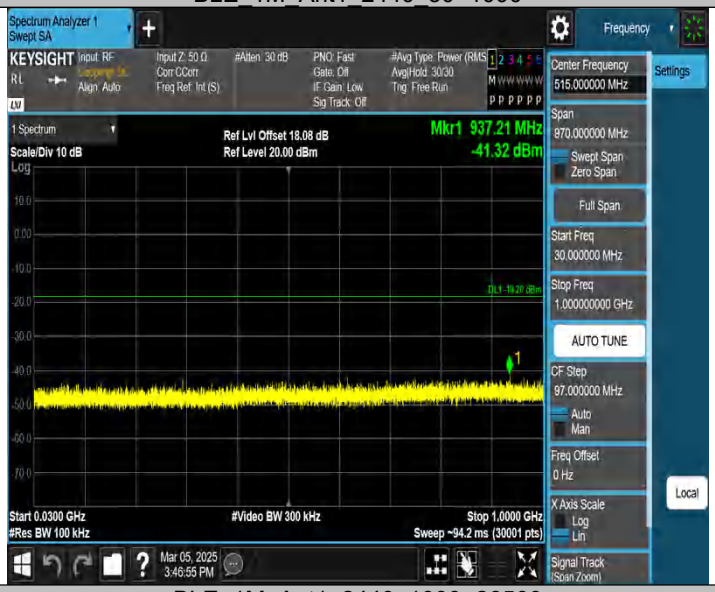
BLE_1M_Ant1_2402_0~Reference

BLE_1M_Ant1_2402_30~1000

BLE_1M_Ant1_2402_1000~26500

BLE_1M_Ant1_2440_0~Reference

BLE_1M_Ant1_2440_30~1000



BLE_1M_Ant1_2440_1000~26500

BLE_1M_Ant1_2480_0~Reference

BLE_1M_Ant1_2480_30~1000

BLE_1M_Ant1_2480_1000~26500

BLE_2M_Ant1_2402_0~Reference

BLE_2M_Ant1_2402_30~1000

BLE_2M_Ant1_2402_1000~26500

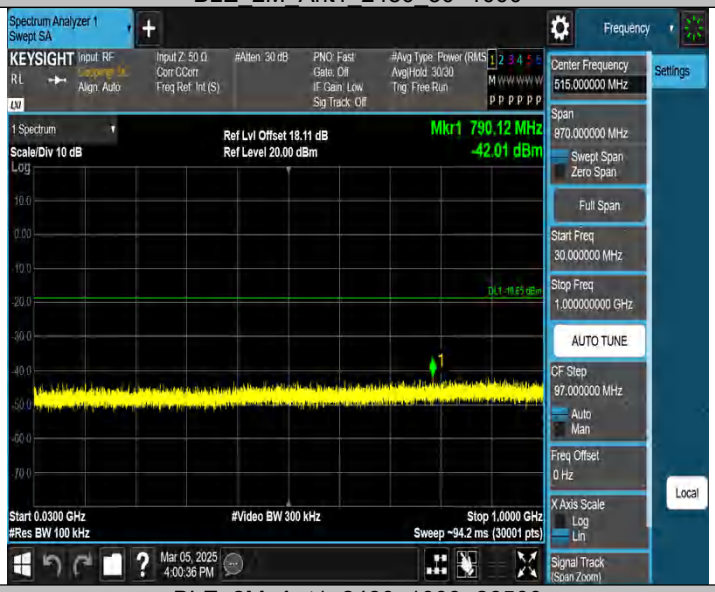
BLE_2M_Ant1_2440_0~Reference

BLE_2M_Ant1_2440_30~1000

BLE_2M_Ant1_2440_1000~26500

BLE_2M_Ant1_2480_0~Reference

BLE_2M_Ant1_2480_30~1000



BLE_2M_Ant1_2480_1000~26500


Spectrum Analyzer 1
Swept SA
KEYSIGHT
Input: RF
Align: Auto
Input Z: 50 Ω
Corr CCorr
Freq Ref: Int (S)
#Atten: 30 dB
PNO: Fast
Gate: Off
IF Gain: Low
Sig Track: Off
#Avg Type: Power (RMS)
Avg|Hold: 30/30
Trig: Free Run
1 Spectrum
Scale/Div 10 dB
Log
Ref Lvl Offset 18.11 dB
Ref Level 20.00 dBm
Mkr2 25.842 10 GHz
-32.18 dBm
Start 1.00 GHz
#Res BW 100 kHz
#Video BW 300 kHz
Stop 26.50 GHz
Sweep ~2.44 s (30001 pts)
5 Marker Table
Mode Trace Scale X Y Function Function Width Function Value
1 N 1 f 2.479 85 GHz 0.9397 dBm
2 N 1 f 25.842 10 GHz -32.18 dBm
Mar 05, 2025
4:02:10 PM
Frequency
Center Frequency
13.750000000 GHz
Span
25.5000000 GHz
Swept Span
Zero Span
Full Span
Start Freq
1.000000000 GHz
Stop Freq
26.500000000 GHz
AUTO TUNE
CF Step
2.550000000 GHz
Auto
Man
Freq Offset
0 Hz
X Axis Scale
Log
Lin
Signal Track
(Span Zoom)
Settings
Local

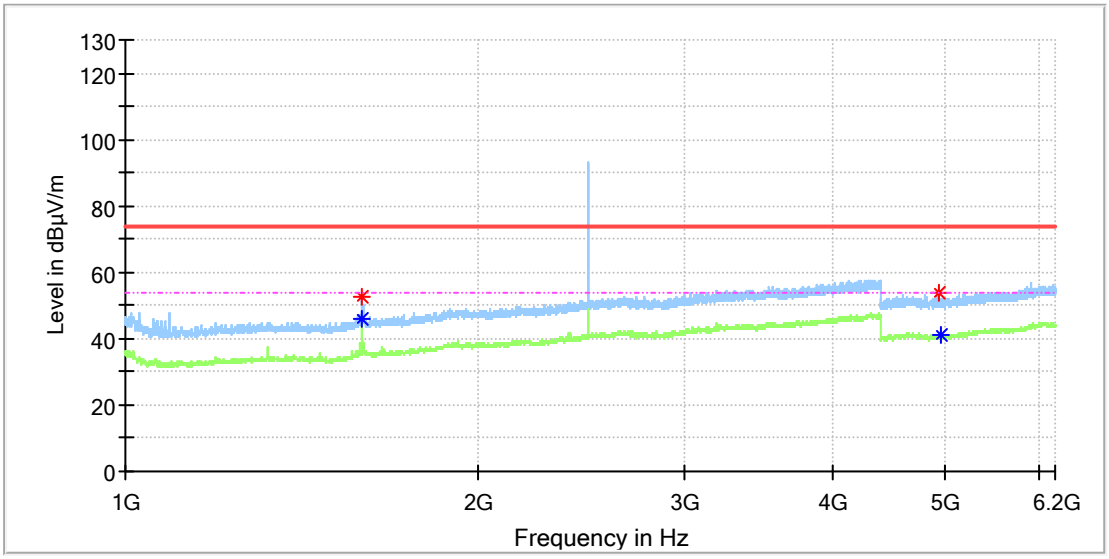
1.7 Appendix 7 Test Results of Radiated Spurious Emissions

Note:
1) Testing was carried out within frequency range 9kHz to the tenth harmonics. The measurement results below 30MHz and 18GHz - 26.5GHz were greater than 20dB below the limit, so only the radiated spurious emissions from 30MHz to 18GHz were reported.

Test Report

EUT Information

EUT Name:	Non-connected Voice Communication System Assembly
Model:	MP-202S-01
Test Mode:	BLE 1M_High channel
Order No/Sample No:	168537194/A003900031-007
Test Voltage::	DC 12V From DC Source
Remark:	Temp 22 Humi:52%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin



Critical_Freqs

Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
1592.500000	---	45.80	54.00	8.20	150.0	H	71.0	3.8
1593.000000	52.87	---	74.00	21.13	150.0	H	56.0	3.8
4931.000000	53.58	---	74.00	20.42	150.0	H	262.0	13.3
4955.000000	---	41.03	54.00	12.97	150.0	H	256.0	13.3

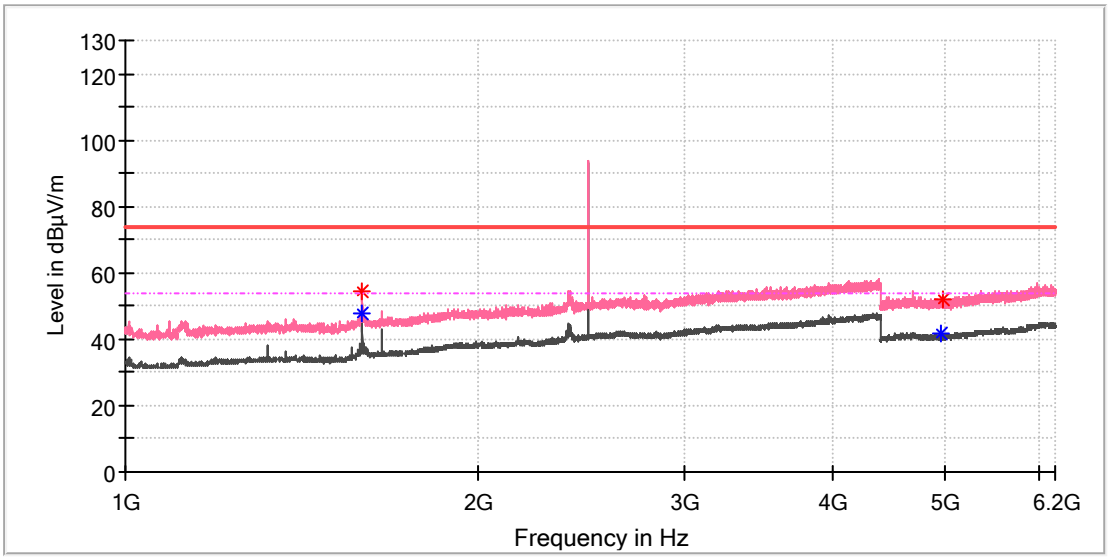
Final_Result

Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
---	---	---	---	---		---	---

Test Report

EUT Information

EUT Name:	Non-connected Voice Communication System Assembly
Model:	MP-202S-01
Test Mode:	BLE 1M_High channel
Order No/Sample No:	168537194/A003900031-007
Test Voltage::	DC 12V From DC Source
Remark:	Temp 22 Humi:52%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin



Critical_Freqs

Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
1592.500000	54.57	---	74.00	19.43	150.0	V	188.0	3.8
1592.500000	---	47.82	54.00	6.18	150.0	V	188.0	3.8
4957.500000	---	41.46	54.00	12.54	150.0	V	88.0	13.3
4970.500000	51.95	---	74.00	22.05	150.0	V	237.0	13.3

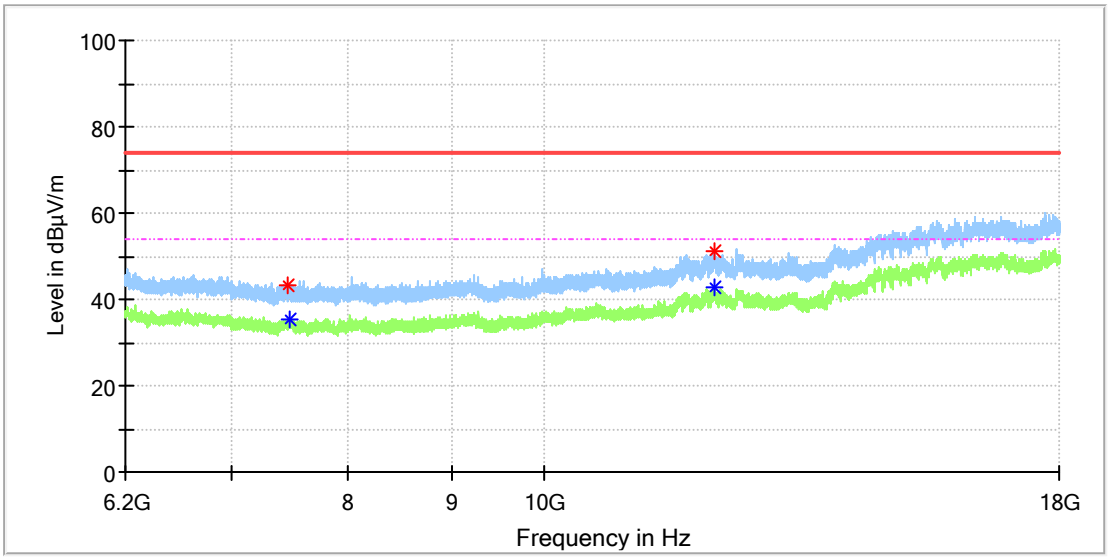
Final_Result

Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
---	---	---	---	---		---	---

Test Report

EUT Information

EUT Name:	Non-connected Voice Communication System Assembly
Model:	MP-202S-01
Test Mode:	BLE 1M_High channel
Order No/Sample No:	168537194/A003900031-007
Test Voltage::	DC 12V From DC Source
Remark:	Temp 22 Humi:52%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin



Critical_Freqs

Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
7468.008333	43.39	---	74.00	30.61	150.0	H	176.0	8.6
7476.858333	---	35.52	54.00	18.48	150.0	H	122.0	8.6
12133.433333	---	42.87	54.00	11.13	150.0	H	236.0	16.3
12139.825000	51.01	---	74.00	22.99	150.0	H	77.0	16.5

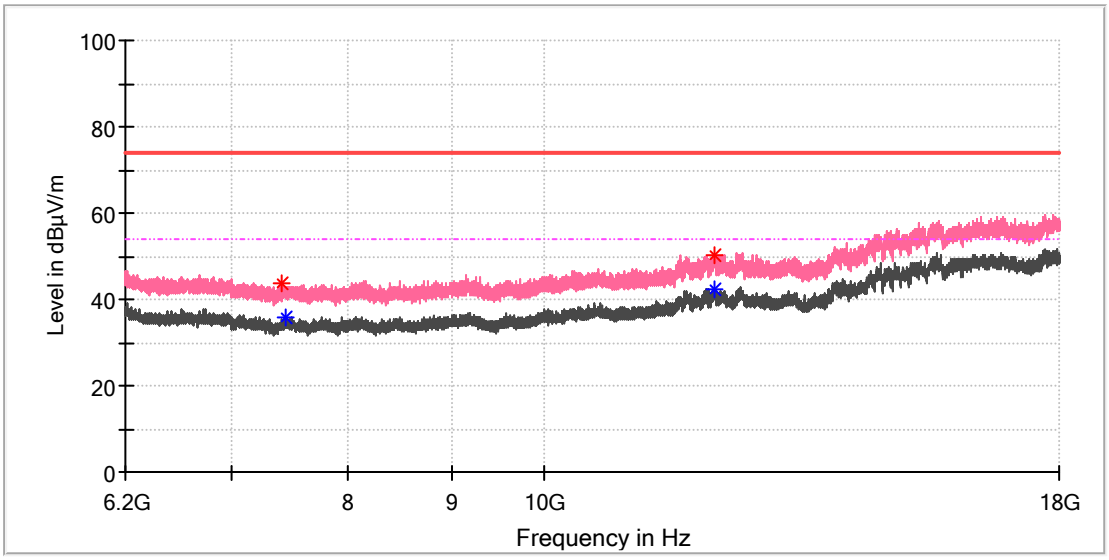
Final_Result

Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
---	---	---	---	---		---	---

Test Report

EUT Information

EUT Name:	Non-connected Voice Communication System Assembly
Model:	MP-202S-01
Test Mode:	BLE 1M_High channel
Order No/Sample No:	168537194/A003900031-007
Test Voltage::	DC 12V From DC Source
Remark:	Temp 22 Humi:52%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin



Critical_Freqs

Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
7410.975000	43.62	---	74.00	30.38	150.0	V	236.0	8.3
7452.275000	---	35.69	54.00	18.31	150.0	V	281.0	8.5
12136.875000	50.33	---	74.00	23.67	150.0	V	16.0	16.4
12140.808333	---	42.43	54.00	11.57	150.0	V	59.0	16.5

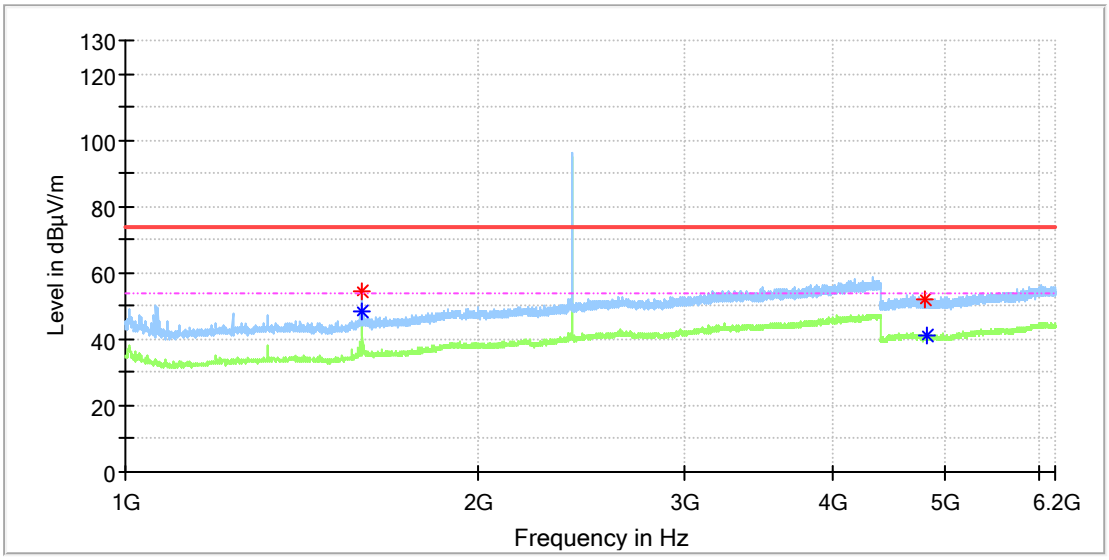
Final_Result

Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
---	---	---	---	---		---	---

Test Report

EUT Information

EUT Name:	Non-connected Voice Communication System Assembly
Model:	MP-202S-01
Test Mode:	BLE 1M_Low channel
Order No/Sample No:	168537194/A003900031-007
Test Voltage::	DC 12V From DC Source
Remark:	Temp 22 Humi:52%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin



Critical_Freqs

Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
1592.500000	54.16	---	74.00	19.84	150.0	H	60.0	3.8
1592.500000	---	48.15	54.00	5.85	150.0	H	60.0	3.8
4806.000000	51.83	---	74.00	22.17	150.0	H	359.0	13.3
4817.500000	---	41.33	54.00	12.67	150.0	H	107.0	13.3

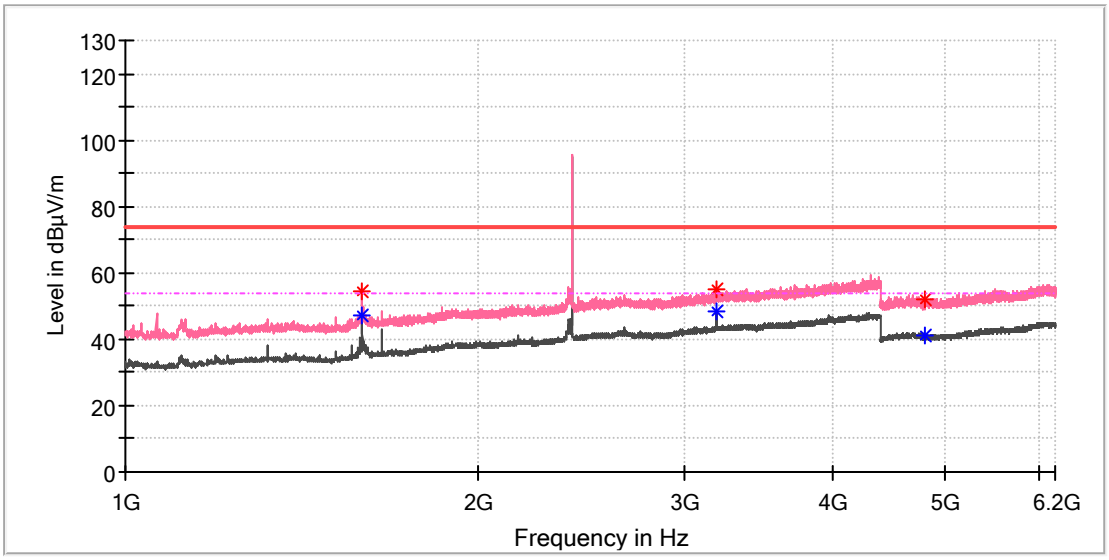
Final_Result

Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
---	---	---	---	---		---	---

Test Report

EUT Information

EUT Name:	Non-connected Voice Communication System Assembly
Model:	MP-202S-01
Test Mode:	BLE 1M_Low channel
Order No/Sample No:	168537194/A003900031-007
Test Voltage::	DC 12V From DC Source
Remark:	Temp 22 Humi:52%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin



Critical_Freqs

Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
1592.500000	54.29	---	74.00	19.71	150.0	V	183.0	3.8
1592.500000	---	47.09	54.00	6.91	150.0	V	183.0	3.8
3186.000000	54.82	---	74.00	19.18	150.0	V	300.0	10.7
3186.000000	---	48.39	54.00	5.61	150.0	V	300.0	10.7
4801.500000	51.87	---	74.00	22.13	150.0	V	79.0	13.3
4808.000000	---	41.35	54.00	12.65	150.0	V	294.0	13.3

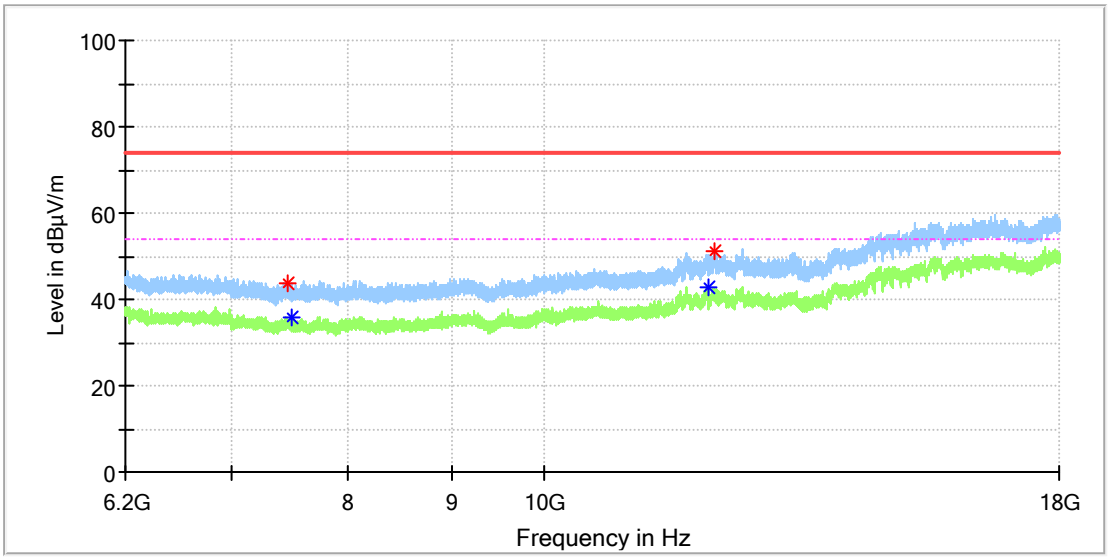
Final_Result

Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
---	---	---	---	---		---	---

Test Report

EUT Information

EUT Name:	Non-connected Voice Communication System Assembly
Model:	MP-202S-01
Test Mode:	BLE 1M_Low channel
Order No/Sample No:	168537194/A003900031-007
Test Voltage::	DC 12V From DC Source
Remark:	Temp 22 Humi:52%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin



Critical_Freqs

Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
7460.633333	43.62	---	74.00	30.38	150.0	H	32.0	8.5
7499.966667	---	35.67	54.00	18.33	150.0	H	126.0	8.7
12050.833333	---	42.79	54.00	11.21	150.0	H	223.0	16.3
12135.400000	51.06	---	74.00	22.94	150.0	H	323.0	16.3

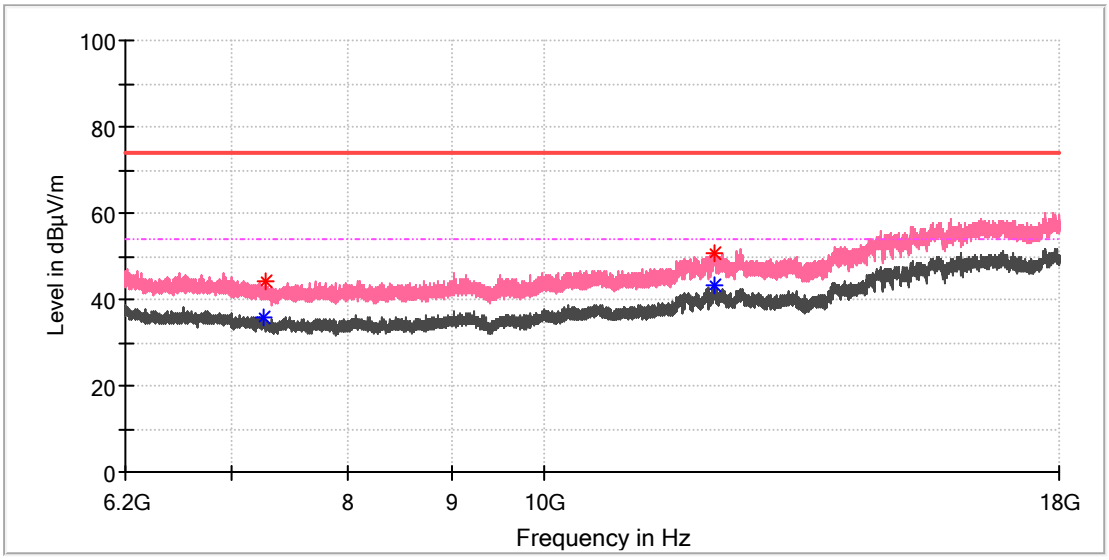
Final_Result

Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
---	---	---	---	---		---	---

Test Report

EUT Information

EUT Name:	Non-connected Voice Communication System Assembly
Model:	MP-202S-01
Test Mode:	BLE 1M_Low channel
Order No/Sample No:	168537194/A003900031-007
Test Voltage::	DC 12V From DC Source
Remark:	Temp 22 Humi:52%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin



Critical_Freqs

Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
7258.066667	---	35.74	54.00	18.26	150.0	V	277.0	8.5
7276.258333	44.28	---	74.00	29.72	150.0	V	18.0	8.4
12153.100000	---	43.26	54.00	10.74	150.0	V	242.0	16.6
12158.016667	50.70	---	74.00	23.30	150.0	V	73.0	16.3

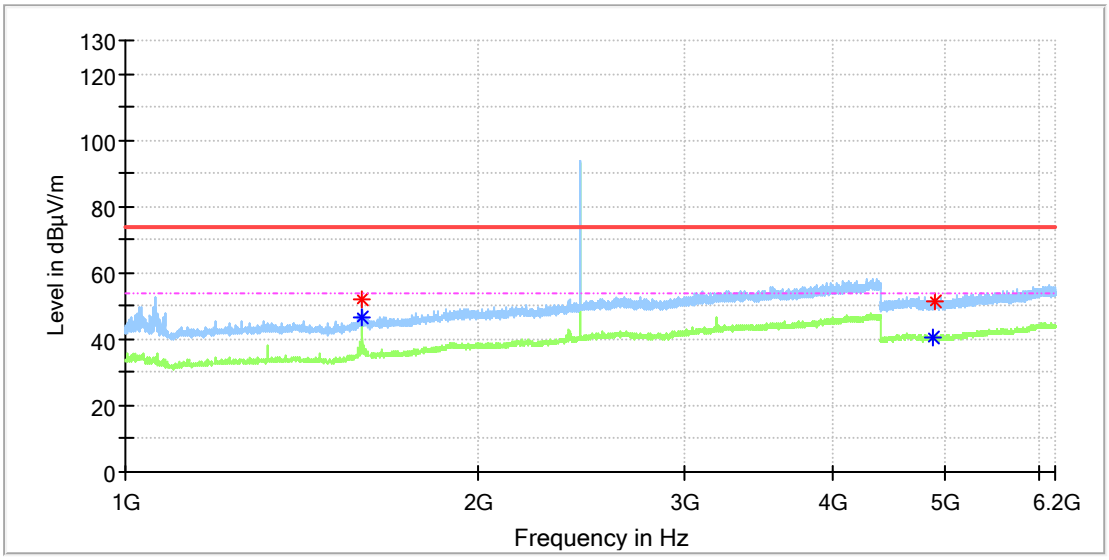
Final_Result

Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
---	---	---	---	---		---	---

Test Report

EUT Information

EUT Name:	Non-connected Voice Communication System Assembly
Model:	MP-202S-01
Test Mode:	BLE 1M_Mid channel
Order No/Sample No:	168537194/A003900031-007
Test Voltage::	DC 12V From DC Source
Remark:	Temp 22 Humi:52%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin



Critical_Freqs

Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
1592.500000	52.25	---	74.00	21.75	150.0	H	54.0	3.8
1592.500000	---	46.71	54.00	7.29	150.0	H	54.0	3.8
4868.500000	---	40.57	54.00	13.43	150.0	H	14.0	13.3
4894.500000	51.53	---	74.00	22.47	150.0	H	132.0	13.3

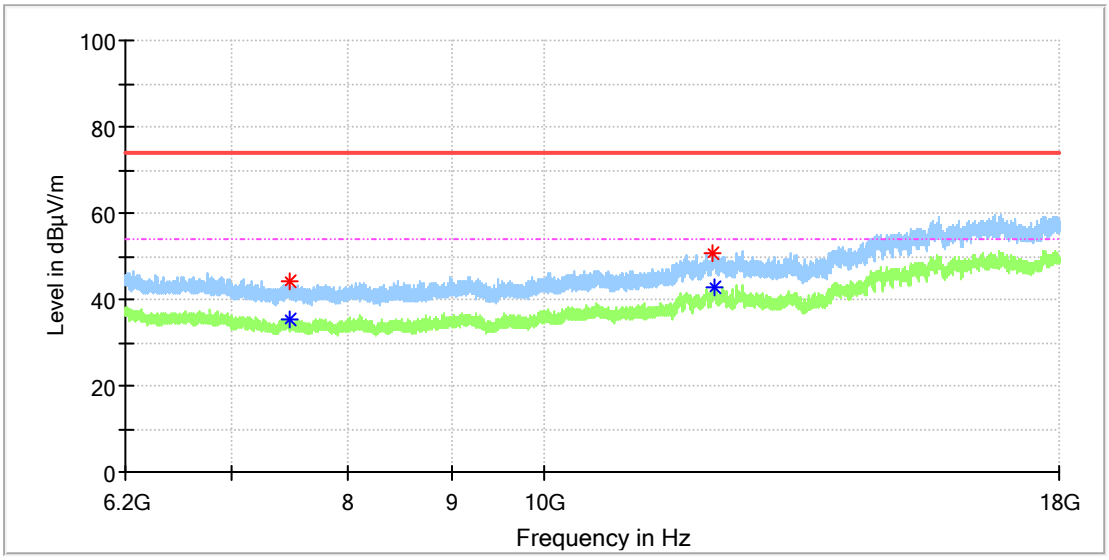
Final_Result

Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
---	---	---	---	---		---	---

Test Report

EUT Information

EUT Name:	Non-connected Voice Communication System Assembly
Model:	MP-202S-01
Test Mode:	BLE 1M_Mid channel
Order No/Sample No:	168537194/A003900031-007
Test Voltage::	DC 12V From DC Source
Remark:	Temp 22 Humi:52%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin



Critical_Freqs

Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
7477.841667	44.20	---	74.00	29.80	150.0	H	81.0	8.6
7482.266667	---	35.28	54.00	18.72	150.0	H	324.0	8.7
12124.583333	50.88	---	74.00	23.12	150.0	H	314.0	16.1
12134.908333	---	42.68	54.00	11.32	150.0	H	324.0	16.3

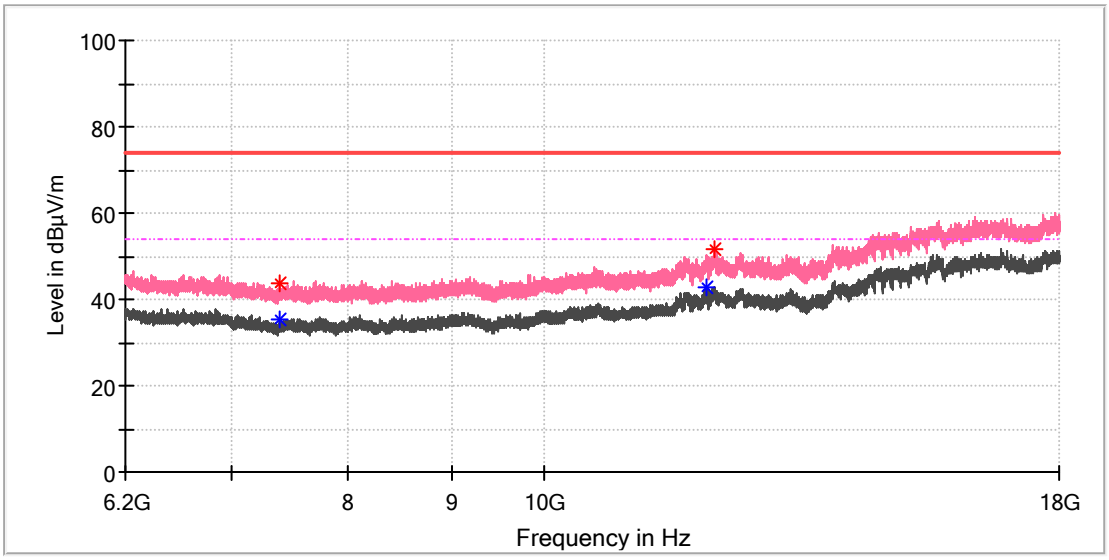
Final_Result

Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
---	---	---	---	---		---	---

Test Report

EUT Information

EUT Name:	Non-connected Voice Communication System Assembly
Model:	MP-202S-01
Test Mode:	BLE 1M_Mid channel
Order No/Sample No:	168537194/A003900031-007
Test Voltage::	DC 12V From DC Source
Remark:	Temp 22 Humi:52%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin



Critical_Freqs

Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
7397.208333	43.69	---	74.00	30.31	150.0	V	113.0	8.3
7399.666667	---	35.32	54.00	18.68	150.0	V	294.0	8.3
12046.900000	---	42.80	54.00	11.20	150.0	V	282.0	16.3
12140.808333	51.70	---	74.00	22.30	150.0	V	294.0	16.5

Final_Result

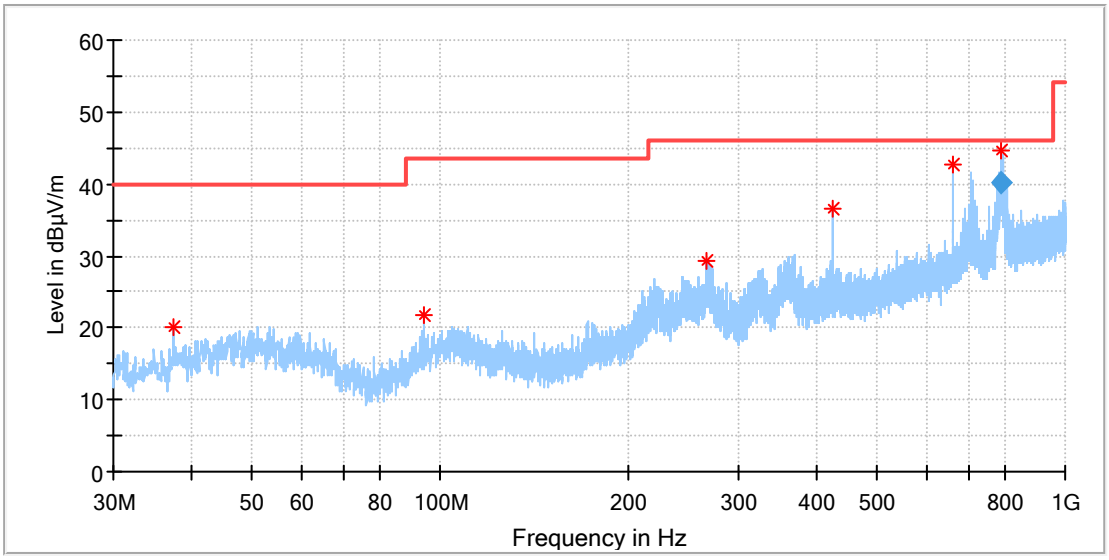
Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
---	---	---	---	---		---	---

30 MHz - 1GHz(Worst case)

Test Report

EUT Information

EUT Name:	Non-connected Voice Communication System Assembly
Model:	MP-202S-01
Test Mode:	BLE 1M_Mid channel
Order No/Sample No:	168537194/A003900031-007
Test Voltage::	DC 12V From DC Source
Remark:	Temp 22 Humi:52%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin



Critical_Freqs

Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
37.424231	20.06	40.00	19.94	100.0	H	204.0	-21.0
94.467692	21.78	43.50	21.72	100.0	H	316.0	-20.0
266.754615	29.36	46.00	16.64	100.0	H	115.0	-17.0
425.237692	36.50	46.00	9.50	100.0	H	98.0	-13.2
661.544615	42.72	46.00	3.28	100.0	H	50.0	-8.7
791.412692	44.56	46.00	1.44	100.0	H	82.0	-6.3

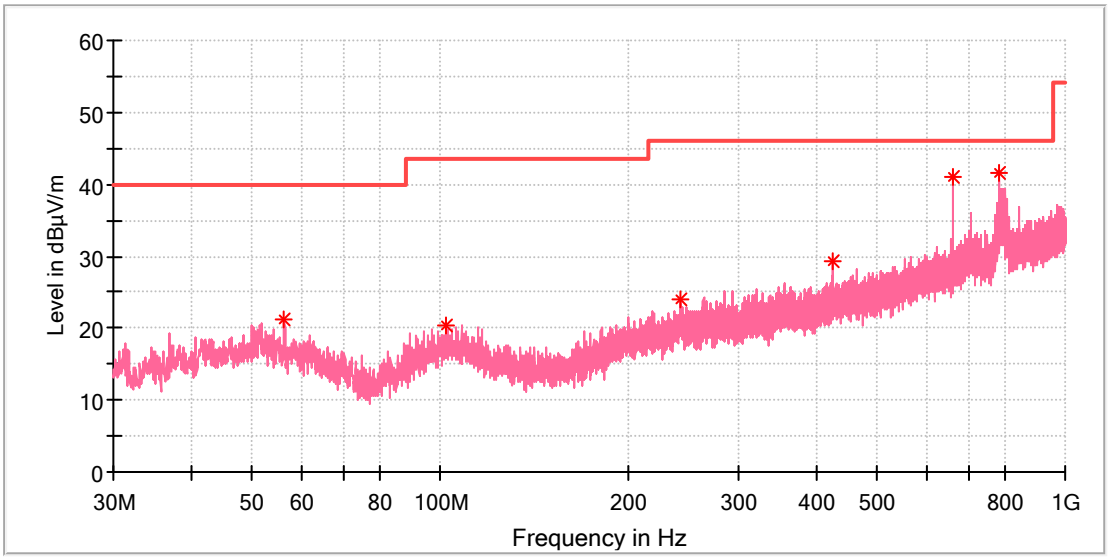
Final_Result

Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
791.703077	40.18	46.00	5.82	105.0	H	77.0	-6.3

Test Report

EUT Information

EUT Name:	Non-connected Voice Communication System Assembly
Model:	MP-202S-01
Test Mode:	BLE 1M_Mid channel
Order No/Sample No:	168537194/A003900031-007
Test Voltage::	DC 12V From DC Source
Remark:	Temp 22 Humi:52%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin



Critical_Freqs

Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
56.339231	21.16	40.00	18.84	100.0	V	299.0	-18.7
102.115769	20.42	43.50	23.08	100.0	V	64.0	-19.0
241.721154	24.11	46.00	21.89	100.0	V	73.0	-17.7
425.200385	29.31	46.00	16.69	100.0	V	245.0	-13.2
661.470000	41.07	46.00	4.93	100.0	V	283.0	-8.7
786.376154	41.45	46.00	4.55	100.0	V	165.0	-6.4

Final_Result

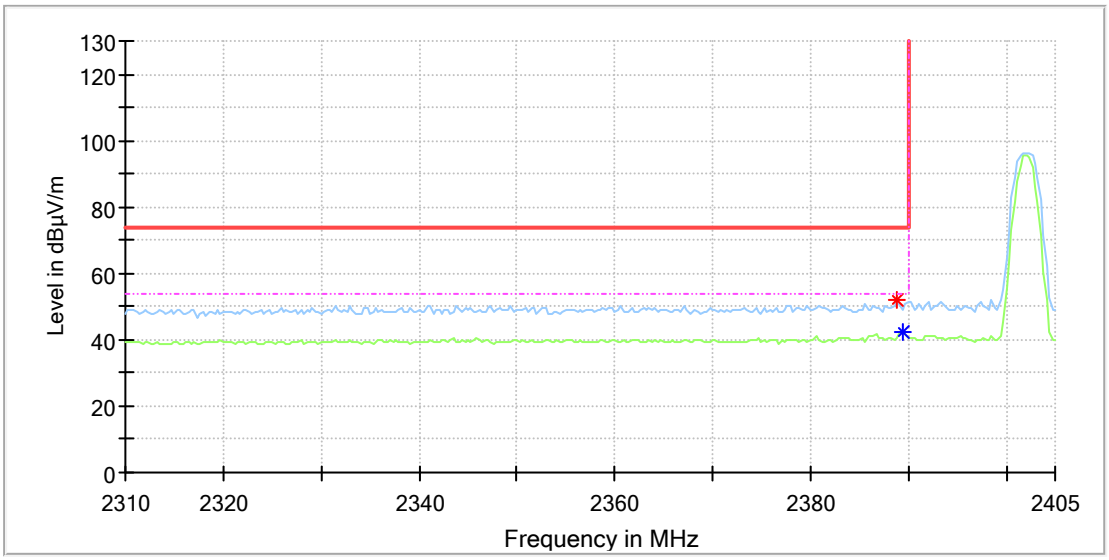
Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
---	---	---	---	---		---	---

Bandedge:

Test Report

EUT Information

EUT Name:	Non-connected Voice Communication System Assembly
Model:	MP-202S-01
Test Mode:	BLE 1M_Low channel
Order No/Sample No:	168537194/A003900031-007
Test Voltage::	DC 12V From DC Source
Remark:	Temp 22 Humi:52%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin



Critical_Freqs

Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
2388.823529	51.81	---	74.00	22.19	150.0	H	112.0	8.5
2389.411765	---	42.33	54.00	11.67	150.0	H	77.0	8.5

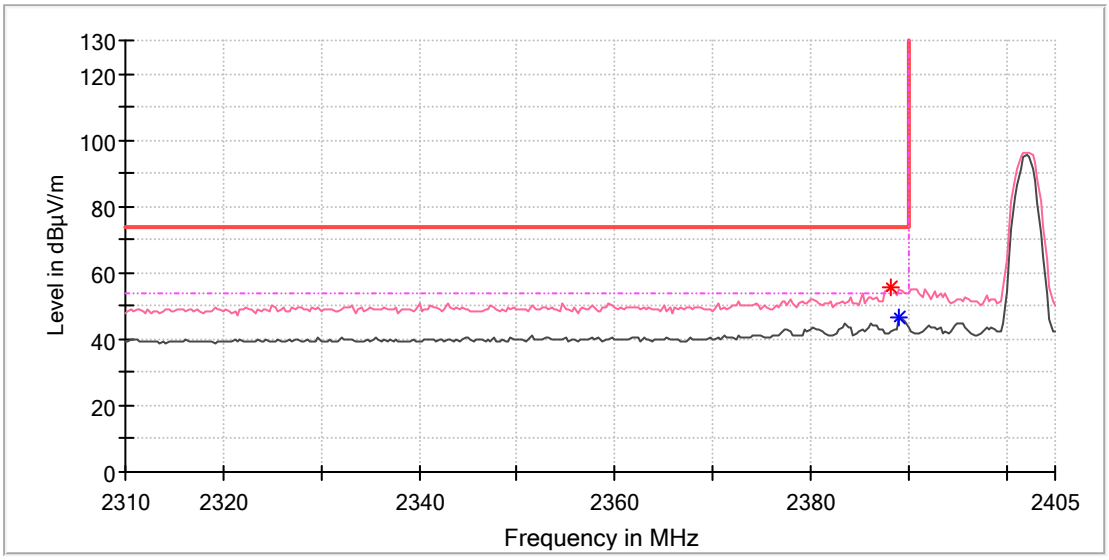
Final_Result

Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
---	---	---	---	---		---	---

Test Report

EUT Information

EUT Name:	Non-connected Voice Communication System Assembly
Model:	MP-202S-01
Test Mode:	BLE 1M_Low channel
Order No/Sample No:	168537194/A003900031-007
Test Voltage::	DC 12V From DC Source
Remark:	Temp 22 Humi:52%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin



Critical_Freqs

Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
2388.235294	55.91	---	74.00	18.09	150.0	V	35.0	8.5
2389.117647	---	46.66	54.00	7.34	150.0	V	0.0	8.5

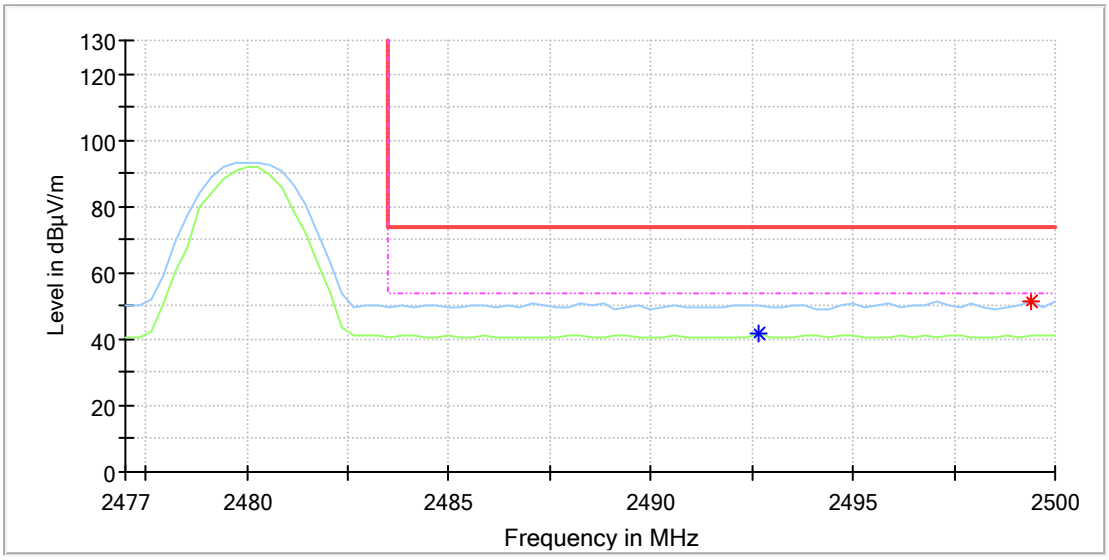
Final_Result

Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
---	---	---	---	---		---	---

Test Report

EUT Information

EUT Name:	Non-connected Voice Communication System Assembly
Model:	MP-202S-01
Test Mode:	BLE 1M_High channel
Order No/Sample No:	168537194/A003900031-007
Test Voltage::	DC 12V From DC Source
Remark:	Temp 22 Humi:52%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin



Critical_Freqs

Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
2492.647059	---	41.57	54.00	12.43	150.0	H	225.0	9.0
2499.411765	51.48	---	74.00	22.52	150.0	H	353.0	9.0

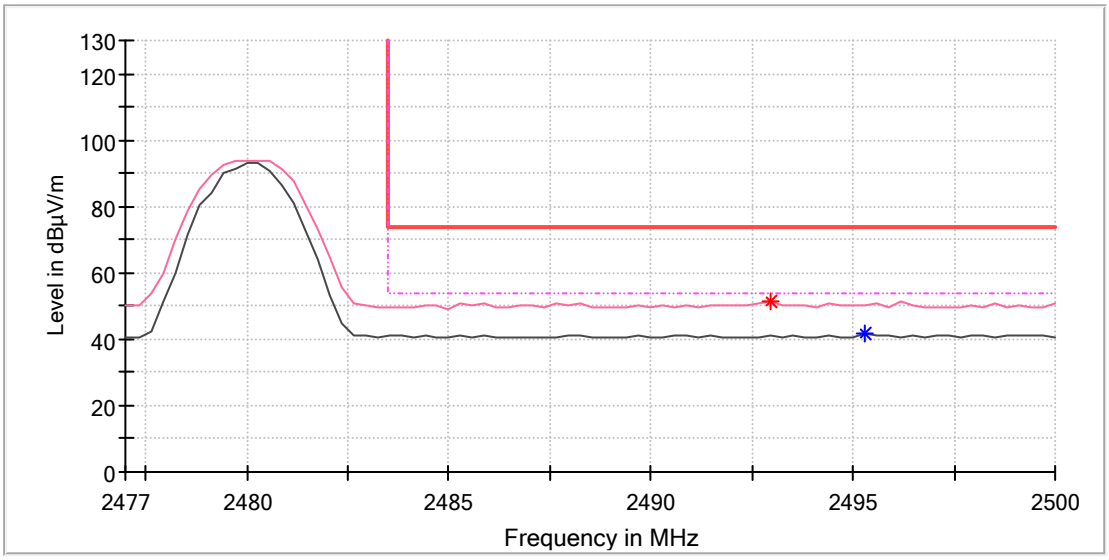
Final_Result

Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
---	---	---	---	---		---	---

Test Report

EUT Information

EUT Name:	Non-connected Voice Communication System Assembly
Model:	MP-202S-01
Test Mode:	BLE 1M_High channel
Order No/Sample No:	168537194/A003900031-007
Test Voltage::	DC 12V From DC Source
Remark:	Temp 22 Humi:52%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin



Critical_Freqs

Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
2492.941177	51.31	---	74.00	22.69	150.0	V	65.0	9.0
2495.294118	---	42.00	54.00	12.00	150.0	V	122.0	9.0

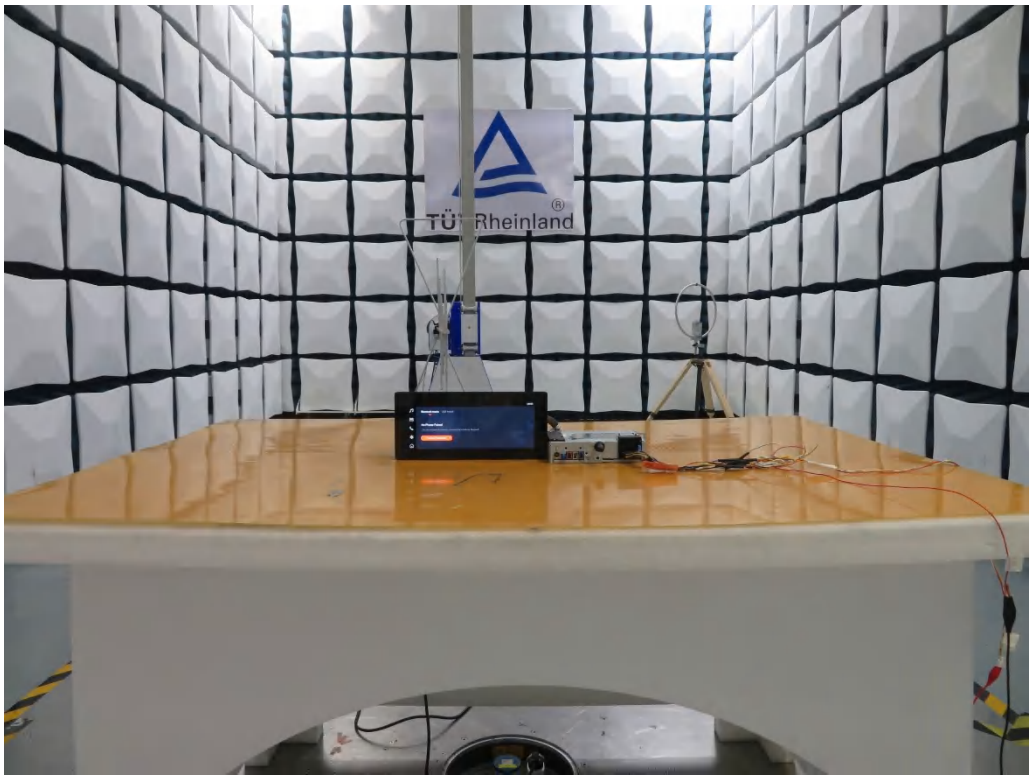
Final_Result

Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
---	---	---	---	---		---	---

---End of appendix---

Appendix B: Photographs of the Test Set-Up

Photograph 1: Set-up photo for Radiated Spurious Emission, below 1GHz



Photograph 2: Set-up photo for Radiated Spurious Emission, above 1GHz