CE RADIO TEST REPORT

Equipment	:	**Chromebox OPS**
Brand Name	:	**ViewSonic**
Model Name	:	**VS20584, VPC13-C33-G1, VPC15-C53-G1, VPCXX-CXX-G1(X can be 0 to 9 or A to Z or blank denoting buyer request)**
Applicant	:	**ViewSonic Corporation** **381 Brea Canyon Road, Walnut, CA 91789, USA**
Standard	:	**ETSI EN 300 328 V2.2.2 (2019-07)**

The product was received on Nov. 04, 2024, and testing was performed from Nov. 09, 2024 to Nov. 16, 2024. We, Sporton International Inc. Wensan Laboratory, would like to declare that the tested sample has been evaluated in accordance with the procedures given in ETSI EN 300 328 V2.2.2 (2019-07), and shown compliance with the applicable technical standards.

The test results in this partial report apply exclusively to the tested model / sample. Without written approval from Sporton International Inc. Wensan Laboratory, the test report shall not be reproduced except in full.

Louis Wu

Approved by: Louis Wu

Sporton International Inc. Wensan Laboratory
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History of this test report

Report No.	Version	Description	Issue Date
ER4N0301-02A	01	Initial issue of report	Mar. 24, 2025

Summary of Test Result

Report Clause	Ref Std. Clause	Test Items	Result (PASS/FAIL)	Remark
3.1	4.3.1.2 4.3.2.2	Maximum Transmit Power	PASS	-
-	4.3.2.3	Maximum Equivalent Isotropically Radiated Power (E.I.R.P.) Spectral Density	-	See Note
-	4.3.1.8 4.3.2.7	Occupied Channel Bandwidth	-	See Note
-	4.3.1.4 4.3.1.5	Frequency Hopping Requirements	-	See Note
-	4.3.1.9 4.3.2.8	Transmitter spurious emissions in OOB	-	See Note
3.2	4.3.1.10 4.3.2.9	Transmitter spurious emissions	PASS	-
4.1	4.3.1.11 4.3.2.10	Receiver spurious emissions	PASS	-
-	4.3.1.7 4.3.2.6	Adaptivity	-	See Note
-	4.3.1.12 4.3.2.11	Receiver Blocking	-	See Note
-	4.3.1.3 4.3.2.4	Duty cycle, Tx-Sequence, Tx-gap	Not Required	Only applicable for non-adaptive equipment Output Power >10dBm
-	4.3.1.6 4.3.2.5	Medium Utilisation (MU) factor	Not Required	

Note:

1. Not required means after assessing, test items are not necessary to carry out.
2. For host device, Radiated Spurious Emission is verified and complies with the limit in this test report.
3. For host device, the Conducted Output Power is no difference after compared to module (Model: AX211NGW).
4. This report is by changing equipment name, brand name, model name and applicant information. Since the test result is not affected by the changes, the ER4N0301-02A report reuses test data from the ER4N0301A report.

Conformity Assessment Condition:
1. The test results (PASS/FAIL) with all measurement uncertainty excluded are presented against the regulation limits or in accordance with the requirements stipulated by the applicant/manufacturer who shall bear all the risks of non-compliance that may potentially occur if measurement uncertainty is taken into account.
2. The measurement uncertainty please refer to each test result in the section “Measurement Uncertainty”.
Disclaimer:
1. The product specifications of the EUT presented in the test report that may affect the test assessments are declared by the manufacturer who shall take full responsibility for the authenticity.
2. The purpose of different model name is for marketing segmentation.

Reviewed by: Sheng Kuo

Report Producer: Lucy Wu

1 General Description

1.1 Product Feature of Equipment Under Test

Product Feature	
General Specs Bluetooth, Wi-Fi 2.4GHz 802.11b/g/n/ax, Wi-Fi 5GHz 802.11a/n/ac/ax and Wi-Fi 6GHz 802.11ax. **Antenna Type** WLAN: **<Main>:** Dipole Antenna **<Aux.>:** Dipole Antenna Bluetooth: Dipole Antenna	
Integrated WLAN module	Brand Name: Intel® Wi-Fi 6E AX211 Model Name: AX211NGW

Antenna information		
2400 MHz ~ 2483.5 MHz (Bluetooth)	Peak Gain (dBi)	1.49
2400 MHz ~ 2483.5 MHz (WLAN)	Peak Gain (dBi)	<Main>: 0.59 <Aux.>: 1.49

Remark: The EUT's information above is declared by manufacturer. Please refer to Disclaimer in report summary.

1.2 Modification of EUT

No modifications made to the EUT during the testing.

1.3 Testing Facility

Test Site	Sporton International Inc. Wensan Laboratory	
Test Site Location	No.58, Aly. 75, Ln. 564, Wenhua 3rd, Rd., Guishan Dist., Taoyuan City 333010, Taiwan (R.O.C.) TEL: +886-3-327-0868 FAX: +886-3-327-0855	
Test Site No.	**Sporton Site No.**	
	TH05-HY	05CH07-HY
Test Engineer	Shiming Liu	Cha Wang and WeiChih Chen
Temperature (℃)	24~26	21~26
Relative Humidity (%)	51~55	52~64

1.4 Applied Standards

According to the specifications declared by the manufacturer, the EUT must comply with the requirements of ETSI EN 300 328 V2.2.2 (2019-07).

Note: All test items were verified and recorded according to the standards and without any deviation during the test.

2 Test Configuration of Equipment under Test

2.1 Descriptions of Test Mode

a. During testing, the interface cables and equipment positions were varied according to ETSI EN 300 328 V2.2.2 (2019-07).
b. The complete test system included EUT for RF test.
c. For 802.11n Mode and 802.11ax Mode, the SISO mode conducted power is covered by MIMO mode per chain, so only the MIMO mode is tested.
d. The power for 802.11n mode is smaller than 802.11ax mode, so all other radiated test is covered by 802.11ax mode.

Single Antenna

Modulation	Data Rate
802.11b	1 Mbps
802.11g	6 Mbps

MIMO Antenna

Modulation	Data Rate
802.11n HT20 (Covered by HE20)	MCS0
802.11n HT40 (Covered by HE40)	MCS0
802.11ax HE20	MCS0
802.11ax HE40	MCS0

Remark: The conducted power level of each chain in MIMO mode is equal or higher than SISO mode.

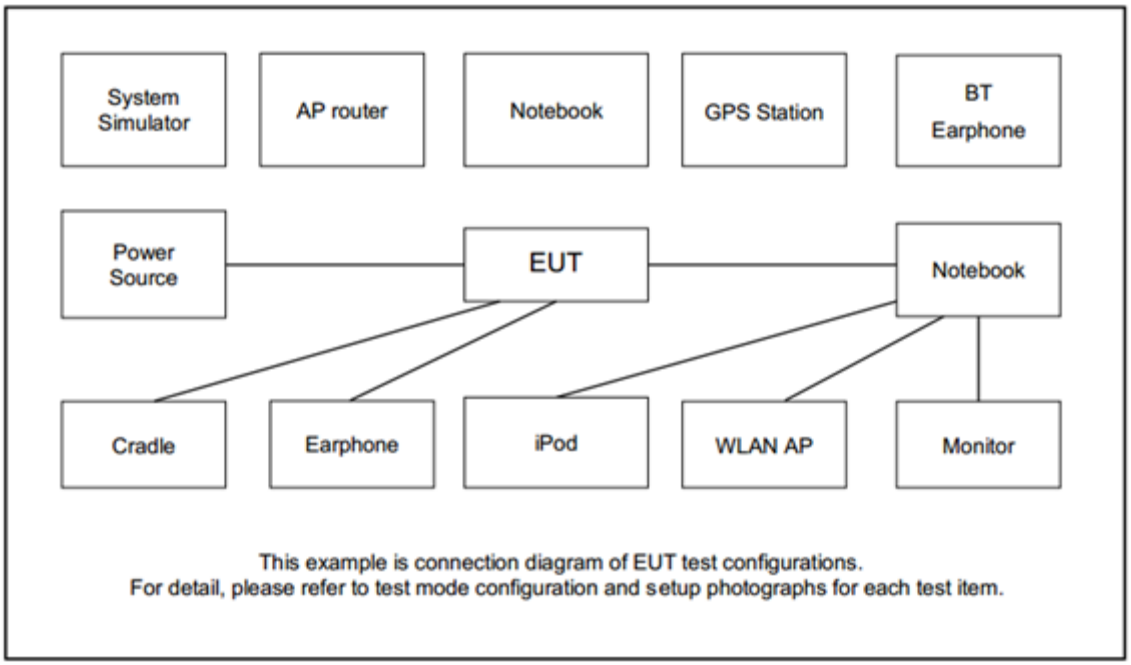
2.2 Test Mode

Frequency range of radiation was investigated from 25 MHz to 12.75 GHz.

For radiated measurement, pre-scanned in two antenna degree (Ant. degree 0 and Ant. Degree 90). The worst cases were recorded in this report.

Remark: The detailed test modes are shown in appendix B.

2.3 Connection Diagram of Test System



2.4 EUT Operation Test Setup

The RF utility, “DRTU” was installed in the EUT in order to make the EUT provide functions like channel selection and power level for continuous transmitting and receiving signals.

3 Transmitter Parameters

3.1 Maximum Transmit Power

3.1.1 Limit of Effective Isotropic Radiated Power

SUBCLAUSE 4.3.1.2.3 and 4.3.2.2.3	
TEST CONDITION	**LIMIT**
Normal and Extreme Temperature Conditions	20dBm (e.i.r.p)

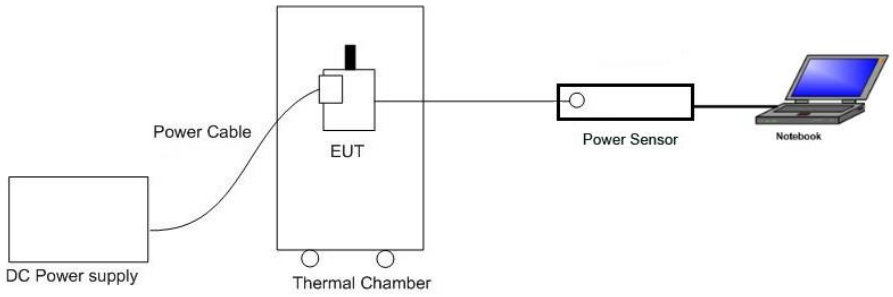
3.1.2 Measuring Instruments

Please refer to the measuring equipment list in the section 5 of this test report.

3.1.3 Test Procedure

1. The measurement procedure follows the clause 5.4.2.2.1 of the ETSI EN 300 328 V2.2.2 (2019-07).
2. Place the EUT in thermal chamber.
3. The EUT is connected to external power supply.
4. Setting thermal chamber temperature and power supply voltage at suitable values.
5. The EIRP = A+G+Y, where A is the power measured, G is the assembly gain of the individual antenna of the EUT in dBi and Y is the additional beamforming gain of the EUT in dB if applicable, here, Y=0.
6. The measurement duration is at least 1 second to ensure a minimum number of bursts (at least 10) are captured.

3.1.4 Test Setup



3.1.5 Test Results

Please refer to Appendix A.

3.2 Transmitter spurious emissions

3.2.1 Limit of Transmitter spurious emissions

In case of equipment with antenna connectors, these limits apply to emissions at the antenna port (conducted). For emissions radiated by the cabinet or emissions radiated by integral antenna equipment (without antenna connectors), these limits are e.r.p. for emissions up to 1 GHz and as e.i.r.p. for emissions above 1 GHz.

SUBCLAUSE 4.3.1.10.3 and 4.3.2.9.3		
FREQUENCY RANGE	**MAXIMUM POWER**	**BANDWIDTH**
30 MHz to 47 MHz	-36 dBm	100 kHz
47 MHz to 74 MHz	-54 dBm	100 kHz
74 MHz to 87,5 MHz	-36 dBm	100 kHz
87,5 MHz to 118 MHz	-54 dBm	100 kHz
118 MHz to 174 MHz	-36 dBm	100 kHz
174 MHz to 230 MHz	-54 dBm	100 kHz
230 MHz to 470 MHz	-36 dBm	100 kHz
470 MHz to 694 MHz	-54 dBm	100 kHz
694 MHz to 1 GHz	-36 dBm	100 kHz
1 GHz to 12,75 GHz	-30 dBm	1 MHz

3.2.2 Measuring Instruments

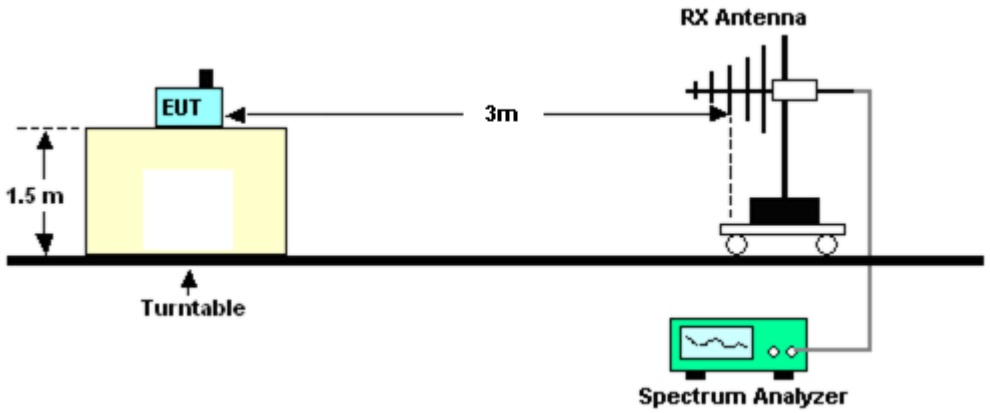
Please refer to the measuring equipment list in the section 5 of this test report.

3.2.3 Test Procedures

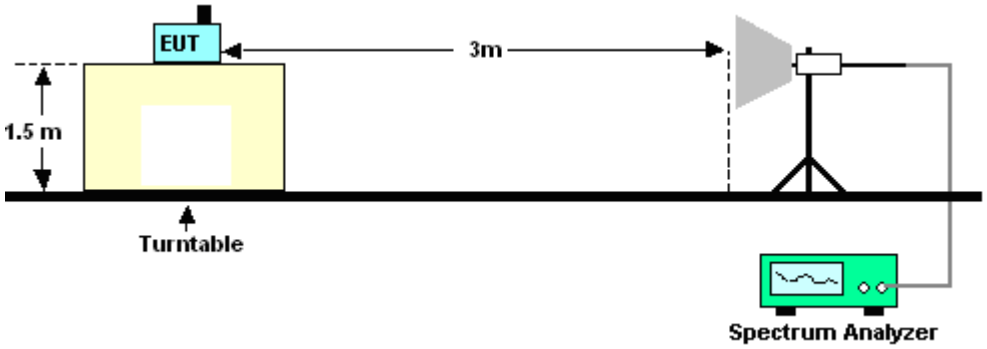
1. The measurement procedure follows the clause 5.4.9.2.2 of the ETSI EN 300 328 V2.2.2 (2019-07).
2. The EUT is placed on a turntable with 1.5m height.
3. The test distance between the receiving antenna and the EUT is 3 meter below 1GHz frequency range, and 3 meter which is in far field test condition for measured frequency above 1GHz, while the receiving (test) antenna is kept at 1.5 meter height.
4. Set EUT in continuous transmitting with maximum output power.
5. The table is rotated from 0 to 360 degree to search the highest radiated emission.
6. Repeating step 3 and 4 for each polarization and channel to find the worst emission level.
7. The results obtained are compared to the limits in order to prove compliance with the requirement.

3.2.4 Test Setup

<Below 1GHz>



<Above 1GHz>



3.2.5 Test Results

Please refer to Appendix B.

4 Receiver Parameters

4.1 Receiver spurious emissions

4.1.1 Limit of Receiver spurious emissions

In case of equipment with antenna connectors, these limits apply to emissions at the antenna port (conducted). For emissions radiated by the cabinet or emissions radiated by integral antenna equipment (without antenna connectors), these limits are e.r.p. for emissions up to 1 GHz and as e.i.r.p. for emissions above 1 GHz.

SUBCLAUSE 4.3.1.11.3 and 4.3.2.10.3		
FREQUENCY RANGE	**MAXIMUM POWER**	**BANDWIDTH**
30 MHz to 1 GHz	-57 dBm	100kHz
1 GHz to 12,75 GHz	-47 dBm	1MHz

4.1.2 Measuring Instruments

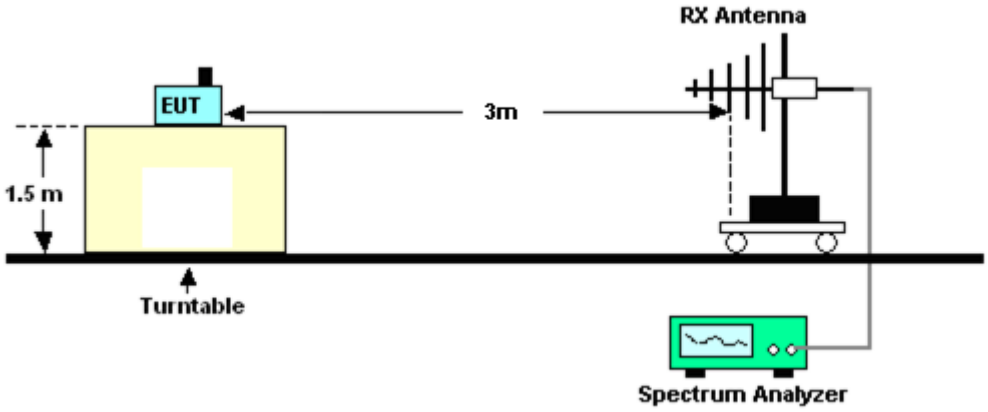
Please refer to the measuring equipment list in the section 5 of this test report.

4.1.3 Test Procedures

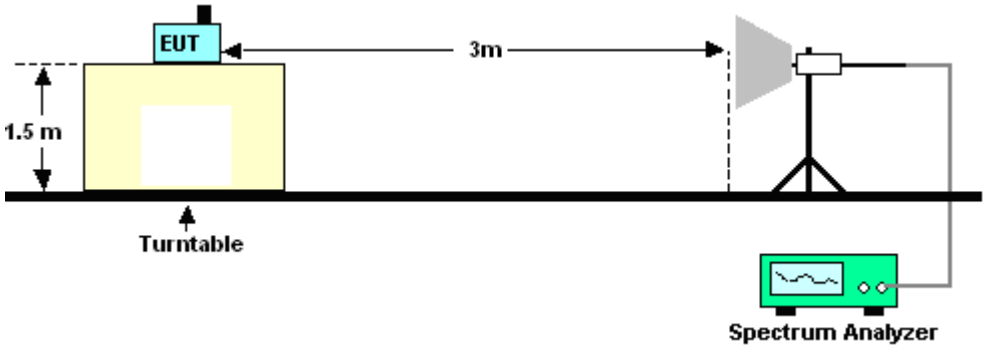
1. The measurement procedure follows the clause 5.4.10.2.2 of the ETSI EN 300 328 V2.2.2 (2019-07).
2. The EUT is placed on a turntable with 1.5m height.
3. The test distance between the receiving antenna and the EUT is 3 meter below 1GHz frequency range, and 3 meter which is in far field test condition for measured frequency above 1GHz, while the receiving (test) antenna is kept at 1.5 meter height.
4. Set EUT in receiving mode.
5. The table is rotated from 0 to 360 degree to search the highest radiated emission.
6. Repeating step 3 and 4 for each polarization and channel to find the worst emission level.
7. The results obtained are compared to the limits in order to prove compliance with the requirement.

4.1.4 Test Setup

<Below 1GHz>



<Above 1GHz>



4.1.5 Test Results

Please refer to Appendix B.

5 List of Measuring Equipment

Instrument	Brand Name	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
Hygrometer	TECPEL	DTM-303A	TP201996	N/A	Nov. 01, 2024	Nov. 09, 2024	Oct. 30, 2025	Conducted (TH05-HY)
Power Sensor	DARE	RPR3006W	13I00030SNO 31 (NO:182)	10MHz~6GHz	Dec. 29, 2023	Nov. 09, 2024	Dec. 28, 2024	Conducted (TH05-HY)
Power Sensor	DARE	RPR3006W	15I00041SNO 10 (NO:248)	10MHz~6GHz	Jan. 10, 2024	Nov. 09, 2024	Jan. 09, 2025	Conducted (TH05-HY)
Signal Analyzer	Rohde & Schwarz	FSV3044	101466	10HZ~44GHZ	Aug. 14, 2024	Nov. 09, 2024	Aug. 13, 2025	Conducted (TH05-HY)
Switch Control Mainframe	Burgeon	ETF-058	EC1300484 (BOX3)	N/A	May 20, 2024	Nov. 09, 2024	May 19, 2025	Conducted (TH05-HY)
Software	Sporton	BTWIFI_Final_version_240513	N/A	Conducted Other Test Item	N/A	Nov. 09, 2024	N/A	Conducted (TH05-HY)
Bilog Antenna	TESEQ	CBL 6111D	62223	30MHz~1GHz	Oct. 05, 2024	Nov. 15, 2024~ Nov. 16, 2024	Oct. 04, 2025	Radiation (05CH07-HY)
Horn Antenna	ESCO	3117	00243524	1GHz~18GHz	Apr. 25, 2024	Nov. 15, 2024~ Nov. 16, 2024	Apr. 24, 2025	Radiation (05CH07-HY)
Signal Analyzer	Rohde & Schwarz	FSV3044	101322	10Hz~44GHz	Jul. 01, 2024	Nov. 15, 2024~ Nov. 16, 2024	Jun. 30, 2025	Radiation (05CH07-HY)
Amplifier	EMEC	EM01G18GA	060880	1GHz~18GHz	Sep. 27, 2024	Nov. 15, 2024~ Nov. 16, 2024	Sep. 26, 2025	Radiation (05CH07-HY)
Amplifier	SONOMA	310N	421583	9kHz~1GHz	Jul. 10, 2024	Nov. 15, 2024~ Nov. 16, 2024	Jul. 09, 2025	Radiation (05CH07-HY)
Amplifier	EMEC	EM1G18G	060838	1GHz-18GHz	Mar. 29, 2024	Nov. 15, 2024~ Nov. 16, 2024	Mar. 28, 2025	Radiation (05CH07-HY)
Hygrometer	TECPEL	DTM-303A	TP211388	N/A	Oct. 21, 2024	Nov. 15, 2024~ Nov. 16, 2024	Oct. 20, 2025	Radiation (05CH07-HY)
Controller	EMEC	EM1000	N/A	Control Turn table & Ant Mas	N/A	Nov. 15, 2024~ Nov. 16, 2024	N/A	Radiation (05CH07-HY)
Antenna Mast	ChainTek	MD-200	1308055	1m~4m	N/A	Nov. 15, 2024~ Nov. 16, 2024	N/A	Radiation (05CH07-HY)
Turn Table	EMEC	TT 2000	N/A	0-360 degree	N/A	Nov. 15, 2024~ Nov. 16, 2024	N/A	Radiation (05CH07-HY)
Test Software	Audix E3	210616	RK-002350	N/A	N/A	Nov. 15, 2024~ Nov. 16, 2024	N/A	Radiation (05CH07-HY)

Note: Test equipment calibration is traceable to the procedure of ISO17025.

6 Measurement Uncertainty

Test Item		Uncertainty
RF output power, conducted		±0.84 dB
Radiated emissions	25MHz ~ 1GHz	±3.10 dB
	1GHz ~ 18GHz	±3.72 dB
Temperature		±0.58 °C
Humidity		±3.46 %

Appendix A. Test Result of Conducted Test Items

Test Engineer	Shiming Liu	Temperature	24-26	°C
Test Date	2024/11/9	Relative Humidity	51-55	%

Remark: For Conducted Test Items, Ant. 1 means Chain A (Aux.) and Ant. 2 means Chain B (Main).

TEST RESULTS DATA
EIRP Power

Conducted Power (dBm)												
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Temperature Normal		Extreme Temperature Low		Extreme Temperature High		Gain (dBi)	
					25 °C		-		-			
					Ant 1	Ant 2	Ant 1	Ant 2	Ant 1	Ant 2	Ant 1	Ant 2
BTNom	1Mbps	1	hopping		8.40	-	-	-	-	-	1.49	-
BTNom	2Mbps	1	hopping		6.90	-	-	-	-	-	1.49	-
BTNom	3Mbps	1	hopping		6.90	-	-	-	-	-	1.49	-
BLE	1Mbps	1	0	2402	5.90	-	-	-	-	-	1.49	-
BLE	1Mbps	1	19	2440	5.80	-	-	-	-	-	1.49	-
BLE	1Mbps	1	39	2480	5.50	-	-	-	-	-	1.49	-
BLE	2Mbps	1	0	2402	5.80	-	-	-	-	-	1.49	-
BLE	2Mbps	1	19	2440	5.80	-	-	-	-	-	1.49	-
BLE	2Mbps	1	39	2480	5.50	-	-	-	-	-	1.49	-
11b	1Mbps	1	1	2412	15.90	15.90	-	-	-	-	1.49	0.59
11b	1Mbps	1	7	2442	15.90	15.80	-	-	-	-	1.49	0.59
11b	1Mbps	1	13	2472	15.90	15.90	-	-	-	-	1.49	0.59
11g	6Mbps	1	1	2412	16.30	16.20	-	-	-	-	1.49	0.59
11g	6Mbps	1	7	2442	16.10	16.10	-	-	-	-	1.49	0.59
11g	6Mbps	1	13	2472	16.40	16.30	-	-	-	-	1.49	0.59
HT20	MCS0	2	1	2412	16.30		-		-		1.49	
HT20	MCS0	2	7	2442	16.30		-		-		1.49	
HT20	MCS0	2	13	2472	16.10		-		-		1.49	
HT40	MCS0	2	3	2422	16.30		-		-		1.49	
HT40	MCS0	2	7	2442	16.10		-		-		1.49	
HT40	MCS0	2	11	2462	16.20		-		-		1.49	

EIRP Power (dBm)													
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Temperature Normal		Extreme Temperature Low		Extreme Temperature High		Limit (dBm)	Pass/Fail
					25 °C		-		-			
					Ant 1	Ant 2	Ant 1	Ant 2	Ant 1	Ant 2		
BTNom	1Mbps	1	hopping		9.89	-	-	-	-	-	20	Pass
BTNom	2Mbps	1	hopping		8.39	-	-	-	-	-	20	Pass
BTNom	3Mbps	1	hopping		8.39	-	-	-	-	-	20	Pass
BLE	1Mbps	1	0	2402	7.39	-	-	-	-	-	20	Pass
BLE	1Mbps	1	19	2440	7.29	-	-	-	-	-	20	Pass
BLE	1Mbps	1	39	2480	6.99	-	-	-	-	-	20	Pass
BLE	2Mbps	1	0	2402	7.29	-	-	-	-	-	20	Pass
BLE	2Mbps	1	19	2440	7.29	-	-	-	-	-	20	Pass
BLE	2Mbps	1	39	2480	6.99	-	-	-	-	-	20	Pass
11b	1Mbps	1	1	2412	17.39	16.49	-	-	-	-	20	Pass
11b	1Mbps	1	7	2442	17.39	16.39	-	-	-	-	20	Pass
11b	1Mbps	1	13	2472	17.39	16.49	-	-	-	-	20	Pass
11g	6Mbps	1	1	2412	17.79	16.79	-	-	-	-	20	Pass
11g	6Mbps	1	7	2442	17.59	16.69	-	-	-	-	20	Pass
11g	6Mbps	1	13	2472	17.89	16.89	-	-	-	-	20	Pass
HT20	MCS0	2	1	2412	17.79		-		-		20	Pass
HT20	MCS0	2	7	2442	17.79		-		-		20	Pass
HT20	MCS0	2	13	2472	17.59		-		-		20	Pass
HT40	MCS0	2	3	2422	17.79		-		-		20	Pass
HT40	MCS0	2	7	2442	17.59		-		-		20	Pass
HT40	MCS0	2	11	2462	17.69		-		-		20	Pass

TEST RESULTS DATA
EIRP Power

Conducted Power (dBm)													
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	RU Config.	Temperature Normal		Extreme Temperature Low		Extreme Temperature High		Gain (dBi)	
						25 °C		-		-			
						Ant 1	Ant 2	Ant 1	Ant 2	Ant 1	Ant 2	Ant 1	Ant 2
HE20	MCS0	2	1	2412	Full	16.40		-		-		1.49	
HE20	MCS0	2	7	2442	Full	16.40		-		-		1.49	
HE20	MCS0	2	13	2472	Full	16.20		-		-		1.49	
HE40	MCS0	2	3	2422	Full	16.40		-		-		1.49	
HE40	MCS0	2	7	2442	Full	16.20		-		-		1.49	
HE40	MCS0	2	11	2462	Full	16.30		-		-		1.49	

EIRP Power (dBm)													
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	RU Config.	Temperature Normal		Extreme Temperature Low		Extreme Temperature High		Limit (dBm)	Pass/Fail
						25 °C		-		-			
						Ant 1	Ant 2	Ant 1	Ant 2	Ant 1	Ant 2		
HE20	MCS0	2	1	2412	Full	17.89		-		-		20	Pass
HE20	MCS0	2	7	2442	Full	17.89		-		-		20	Pass
HE20	MCS0	2	13	2472	Full	17.69		-		-		20	Pass
HE40	MCS0	2	3	2422	Full	17.89		-		-		20	Pass
HE40	MCS0	2	7	2442	Full	17.69		-		-		20	Pass
HE40	MCS0	2	11	2462	Full	17.79		-		-		20	Pass

Appendix B. Radiated Spurious Emission Test Data

Remark: For Radiated Spurious Emission Test Data, Ant. 1 means Chain A (Aux.) and Ant. 2 means Chain B (Main).

B1. Radiated Spurious Emission Test Modes

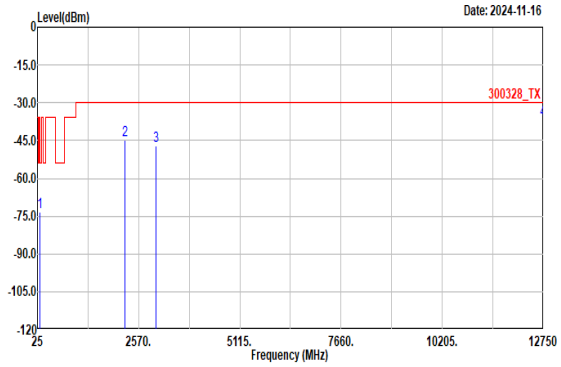
Antenna	Mode	TX/RX	Test Function	Condition	Modulation	Channel	Frequency	Axis
1	Mode 1	Tx	Bluetooth LE	1MHz	GFSK	0	2402	Ant 0°
1	Mode 2	Tx	Bluetooth LE	1MHz	GFSK	39	2480	Ant 0°
1	Mode 3	Rx	Bluetooth LE	1MHz	GFSK	0	2402	Ant 0°
1	Mode 4	Tx	Bluetooth	DH5	GFSK	0	2402	Ant 0°
1	Mode 5	Tx	Bluetooth	DH5	GFSK	78	2480	Ant 0°
1	Mode 6	Rx	Bluetooth	DH5	GFSK	78	2480	Ant 0°
1	Mode 7	Tx	802.11b	1Mbps	DSSS	1	2412	Ant 90°
1	Mode 8	Tx	802.11b	1Mbps	DSSS	13	2472	Ant 90°
1	Mode 9	Tx	802.11g	6Mbps	DSSS	1	2412	Ant 90°
1	Mode 10	Tx	802.11g	6Mbps	DSSS	13	2472	Ant 90°
1+2	Mode 11	Tx	802.11ax HE20	MCS0	OFDMA	1	2412	Ant 90°
1+2	Mode 12	Tx	802.11ax HE20	MCS0	OFDMA	13	2472	Ant 90°
1+2	Mode 13	Tx	802.11ax HE40	MCS0	OFDMA	3	2422	Ant 90°
1+2	Mode 14	Tx	802.11ax HE40	MCS0	OFDMA	11	2462	Ant 90°
1+2	Mode 15	Rx	802.11ax HE20	MCS0	OFDMA	1	2412	Ant 90°
1+2	Mode 16	Rx	802.11ax HE40	MCS0	OFDMA	3	2422	Ant 90°

B2. Summary of each worse mode

Mode	Freq. (MHz)	Level (dBm)	Limit (dBm)	Margin (dB)	Polarization	Result
1	12740.00	-36.88	-30.00	-6.88	H	Pass
2	12060.00	-38.08	-30.00	-8.08	H	Pass
3	2257.25	-55.65	-47.00	-8.65	V	Pass
4	12720.00	-37.83	-30.00	-7.83	H	Pass
5	12700.00	-37.36	-30.00	-7.36	H	Pass
6	12750.00	-56.80	-47.00	-9.80	H	Pass
7	12370.00	-38.18	-30.00	-8.18	V	Pass
8	12230.00	-38.68	-30.00	-8.68	V	Pass
9	12430.00	-38.68	-30.00	-8.68	V	Pass
10	12690.00	-38.14	-30.00	-8.14	V	Pass
11	12300.00	-37.80	-30.00	-7.80	V	Pass
12	12450.00	-38.25	-30.00	-8.25	H	Pass
13	12680.00	-38.18	-30.00	-8.18	V	Pass
14	12700.00	-39.18	-30.00	-9.18	V	Pass
15	12303.50	-56.84	-47.00	-9.84	H	Pass
16	2222.00	-55.98	-47.00	-8.98	V	Pass

Mode	1	
	Bluetooth LE GFSK_CH0	
Ant	1	
Pol.	Horizontal	Vertical

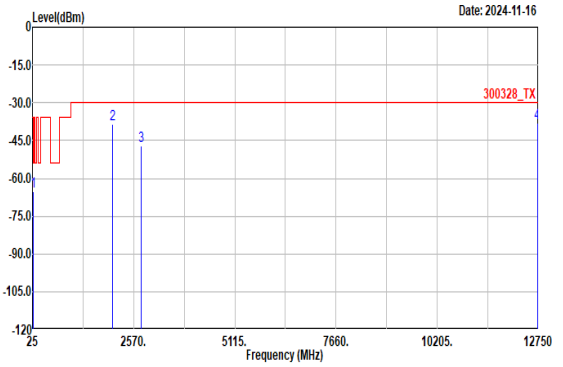
Tx



Site : 05CH07-HY
Condition: 300328_TX HORIZONTAL

Mode : 1
Plane : Ant 0

	Result	Freq	Level	Margin	Limit Line	Read Level	Factor	Pol/Phase
		MHz	dBm	dB	dBm	dBm	dB	
1		89.35	-73.36	-19.36	-54.00	-61.52	-11.84	HORIZONTAL
2		2220.00	-44.90	-14.90	-30.00	-61.16	16.26	HORIZONTAL
3		2998.00	-46.94	-16.94	-30.00	-65.18	18.24	HORIZONTAL
4	@	12740.00	-36.88	-6.88	-30.00	-60.07	23.19	HORIZONTAL



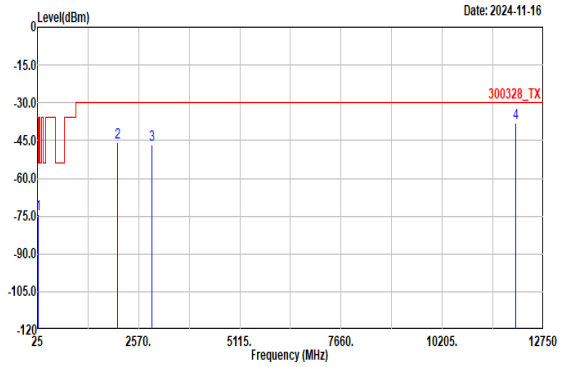
Site : 05CH07-HY
Condition: 300328_TX VERTICAL

Mode : 1
Plane : Ant 0

	Result	Freq	Level	Margin	Limit Line	Read Level	Factor	Pol/Phase
		MHz	dBm	dB	dBm	dBm	dB	
1		55.23	-65.01	-11.01	-54.00	-50.28	-14.73	VERTICAL
2		2042.00	-38.70	-8.70	-30.00	-54.83	16.13	VERTICAL
3		2752.00	-47.30	-17.30	-30.00	-64.52	17.22	VERTICAL
4	@	12720.00	-38.23	-8.23	-30.00	-61.38	23.15	VERTICAL

Mode	2	
	Bluetooth LE GFSK_CH39	
Ant	1	
Pol.	Horizontal	Vertical

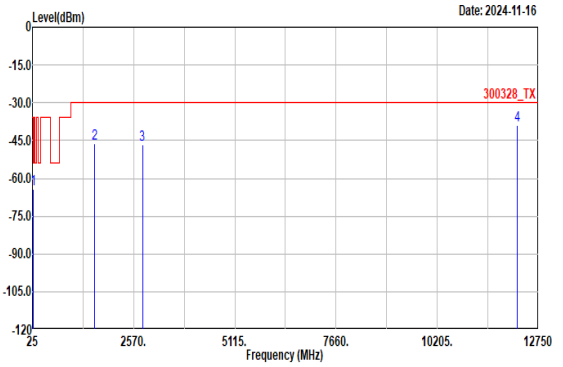
Tx



Site : 05CH07-HY
Condition: 300328_TX HORIZONTAL

Mode : 2
Plane : Ant 0

	Result	Freq	Level	Margin	Limit Line	Read Level	Factor	Pol/Phase
		MHz	dBm	dB	dBm	dBm	dB	
1		54.25	-74.27	-20.27	-54.00	-60.03	-14.24	HORIZONTAL
2		2040.00	-45.73	-15.73	-30.00	-61.45	15.72	HORIZONTAL
3		2894.00	-46.74	-16.74	-30.00	-64.38	17.64	HORIZONTAL
4	@	12060.00	-38.08	-8.08	-30.00	-60.60	22.52	HORIZONTAL



Site : 05CH07-HY
Condition: 300328_TX VERTICAL

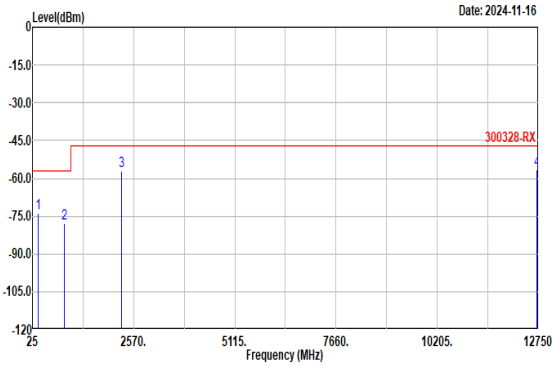
Mode : 2
Plane : Ant 0

	Result	Freq	Level	Margin	Limit Line	Read Level	Factor	Pol/Phase
		MHz	dBm	dB	dBm	dBm	dB	
1		55.23	-64.45	-10.45	-54.00	-49.72	-14.73	VERTICAL
2		1596.00	-46.23	-16.23	-30.00	-58.33	12.10	VERTICAL
3		2790.00	-46.87	-16.87	-30.00	-64.07	17.20	VERTICAL
4	@	12210.00	-38.84	-8.84	-30.00	-61.84	23.00	VERTICAL

Mode	3
	Bluetooth LE GFSK_CH0
Ant	1

Pol.	Horizontal	Vertical

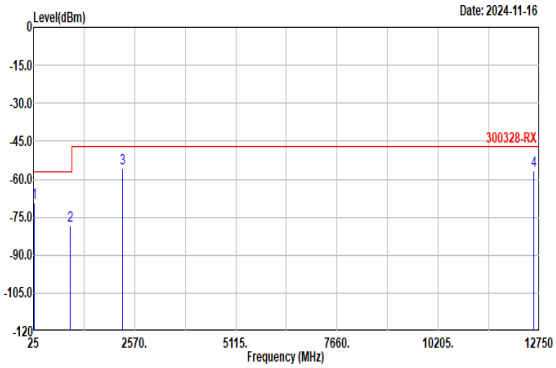
Rx



Site : 05CH07-HY
Condition: 300328-RX HORIZONTAL

Mode : 3
Plane : Ant 0

	Result	Freq	Level	Limit Margin	Limit Line	Read Level	Factor	Pol/Phase
		MHz	dBm	dB	dBm	dBm	dB	
1		166.38	-73.79	-16.79	-57.00	-63.47	-10.32	HORIZONTAL
2		824.50	-78.05	-21.05	-57.00	-79.05	1.00	HORIZONTAL
3		2269.00	-57.23	-10.23	-47.00	-52.38	-4.85	HORIZONTAL
4	@	12703.00	-56.47	-9.47	-47.00	-67.64	11.17	HORIZONTAL



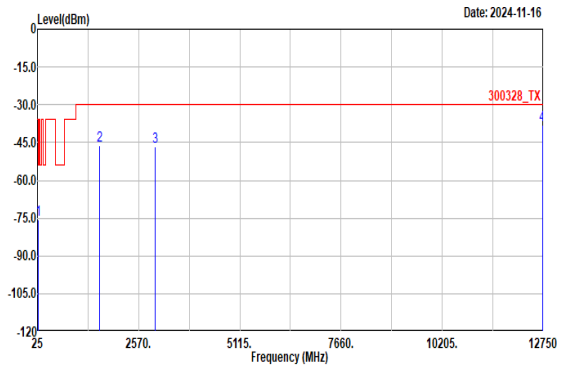
Site : 05CH07-HY
Condition: 300328-RX VERTICAL

Mode : 3
Plane : Ant 0

	Result	Freq	Level	Limit Margin	Limit Line	Read Level	Factor	Pol/Phase
		MHz	dBm	dB	dBm	dBm	dB	
1		48.40	-69.14	-12.14	-57.00	-58.83	-10.31	VERTICAL
2		955.15	-78.35	-21.35	-57.00	-82.97	4.62	VERTICAL
3	@	2257.25	-55.65	-8.65	-47.00	-50.75	-4.90	VERTICAL
4		12609.00	-56.45	-9.45	-47.00	-67.46	11.01	VERTICAL

Mode	4	
	Bluetooth GFSK_CH0	
Ant	1	
Pol.	Horizontal	Vertical

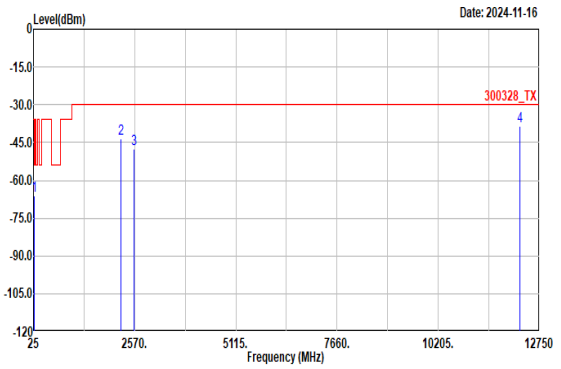
Tx



Site : 05CH07-HY
Condition: 300328_TX HORIZONTAL

Mode : 4
Plane : Ant 0

	Result	Freq	Level	Margin	Limit Line	Read Level	Factor	Pol/Phase
		MHz	dBm	dB	dBm	dBm	dB	
1		54.25	-75.42	-21.42	-54.00	-61.18	-14.24	HORIZONTAL
2		1594.00	-45.99	-15.99	-30.00	-57.96	11.97	HORIZONTAL
3		2982.00	-46.69	-16.69	-30.00	-64.84	18.15	HORIZONTAL
4	@	12720.00	-37.83	-7.83	-30.00	-61.01	23.18	HORIZONTAL



Site : 05CH07-HY
Condition: 300328_TX VERTICAL

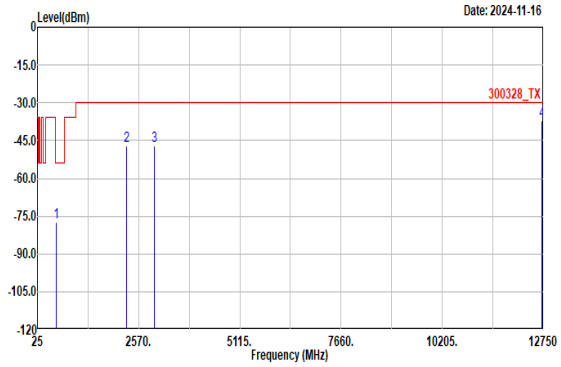
Mode : 4
Plane : Ant 0

	Result	Freq	Level	Margin	Limit Line	Read Level	Factor	Pol/Phase
		MHz	dBm	dB	dBm	dBm	dB	
1		55.23	-66.16	-12.16	-54.00	-51.43	-14.73	VERTICAL
2		2222.00	-43.55	-13.55	-30.00	-59.74	16.19	VERTICAL
3		2558.00	-47.69	-17.69	-30.00	-64.82	17.13	VERTICAL
4	@	12260.00	-38.38	-8.38	-30.00	-61.45	23.07	VERTICAL

Mode	5
	Bluetooth GFSK_CH78
Ant	1

Pol.	Horizontal	Vertical

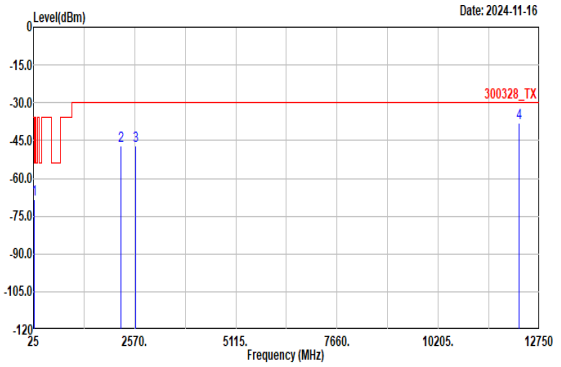
Tx



Site : 05CH07-HY
Condition: 300328_TX HORIZONTAL

Mode : 5
Plane : Ant 0

	Result	Freq	Level	Margin	Limit Line	Read Level	Factor	Pol/Phase
		MHz	dBm	dB	dBm	dBm	dB	
1		503.73	-77.56	-23.56	-54.00	-73.44	-4.12	HORIZONTAL
2		2260.00	-47.14	-17.14	-30.00	-63.49	16.35	HORIZONTAL
3		2974.00	-47.08	-17.08	-30.00	-65.19	18.11	HORIZONTAL
4	@	12700.00	-37.36	-7.36	-30.00	-60.55	23.19	HORIZONTAL



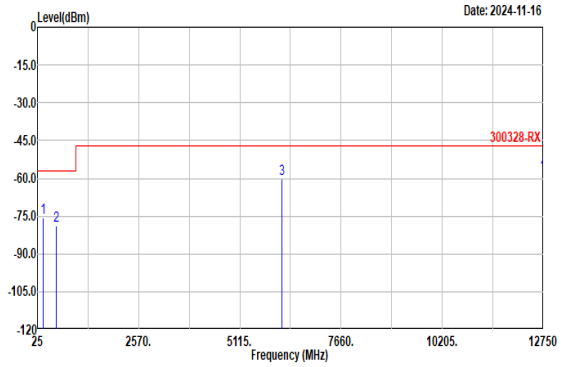
Site : 05CH07-HY
Condition: 300328_TX VERTICAL

Mode : 5
Plane : Ant 0

	Result	Freq	Level	Margin	Limit Line	Read Level	Factor	Pol/Phase
		MHz	dBm	dB	dBm	dBm	dB	
1		55.23	-68.58	-14.58	-54.00	-53.85	-14.73	VERTICAL
2		2218.00	-47.24	-17.24	-30.00	-63.41	16.17	VERTICAL
3		2604.00	-47.04	-17.04	-30.00	-64.17	17.13	VERTICAL
4	@	12230.00	-37.99	-7.99	-30.00	-61.02	23.03	VERTICAL

Mode	6	
	Bluetooth GFSK_CH78	
Ant	1	
Pol.	Horizontal	Vertical

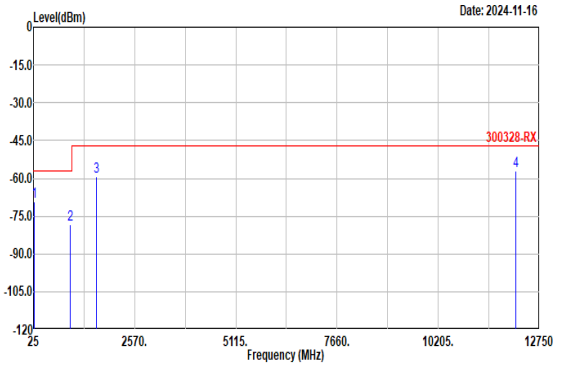
Rx



Site : 05CH07-HY
Condition: 300328-RX HORIZONTAL

Mode : 6
Plane : Ant 0

Result	Freq	Level	Margin	Limit Line	Read Level	Factor	Pol/Phase
	MHz	dBm	dB	dBm	dBm	dB	
1	164.43	-75.66	-18.66	-57.00	-65.61	-10.05	HORIZONTAL
2	503.73	-78.65	-21.65	-57.00	-74.53	-4.12	HORIZONTAL
3	6170.00	-60.23	-13.23	-47.00	-63.69	3.46	HORIZONTAL
4 @	12750.00	-56.80	-9.80	-47.00	-68.04	11.24	HORIZONTAL



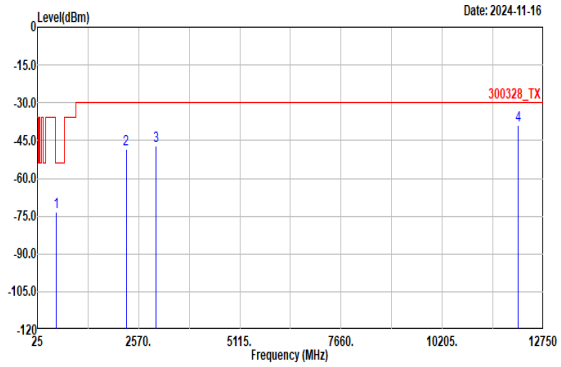
Site : 05CH07-HY
Condition: 300328-RX VERTICAL

Mode : 6
Plane : Ant 0

Result	Freq	Level	Margin	Limit Line	Read Level	Factor	Pol/Phase
	MHz	dBm	dB	dBm	dBm	dB	
1	49.38	-69.32	-12.32	-57.00	-58.78	-10.54	VERTICAL
2	949.30	-78.29	-21.29	-57.00	-82.87	4.58	VERTICAL
3	1611.00	-59.49	-12.49	-47.00	-49.81	-9.68	VERTICAL
4 @	12162.50	-56.92	-9.92	-47.00	-67.61	10.69	VERTICAL

Mode	7	
	802.11b DSSS_CH1	
Ant	1	
Pol.	Horizontal	Vertical

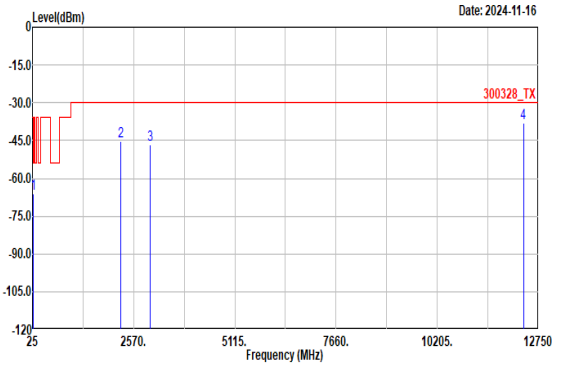
Tx



Site : 05CH07-HY
Condition: 300328_TX HORIZONTAL

Mode : 7
Plane : Ant 90

	Result	Freq	Level	Margin	Limit Line	Read Level	Factor	Pol/Phase
		MHz	dBm	dB	dBm	dBm	dB	
1		499.83	-73.38	-19.38	-54.00	-69.09	-4.29	HORIZONTAL
2		2256.00	-48.32	-18.32	-30.00	-64.66	16.34	HORIZONTAL
3		2998.00	-47.17	-17.17	-30.00	-65.41	18.24	HORIZONTAL
4	@	12120.00	-38.92	-8.92	-30.00	-61.80	22.88	HORIZONTAL



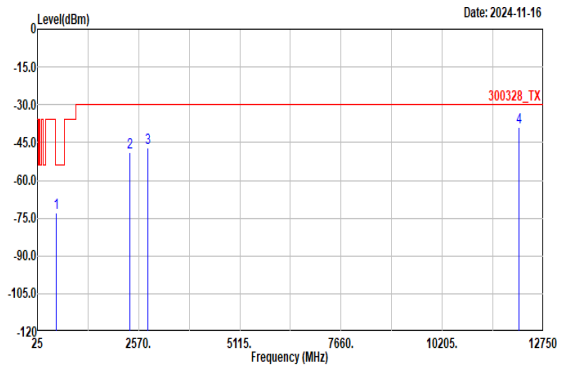
Site : 05CH07-HY
Condition: 300328_TX VERTICAL

Mode : 7
Plane : Ant 90

	Result	Freq	Level	Margin	Limit Line	Read Level	Factor	Pol/Phase
		MHz	dBm	dB	dBm	dBm	dB	
1		55.23	-66.07	-12.07	-54.00	-51.34	-14.73	VERTICAL
2		2250.00	-45.28	-15.28	-30.00	-61.59	16.31	VERTICAL
3		2984.00	-46.83	-16.83	-30.00	-64.64	17.81	VERTICAL
4	@	12370.00	-38.18	-8.18	-30.00	-61.39	23.21	VERTICAL

Mode	8	
	802.11b DSSS_CH13	
Ant	1	
Pol.	Horizontal	Vertical

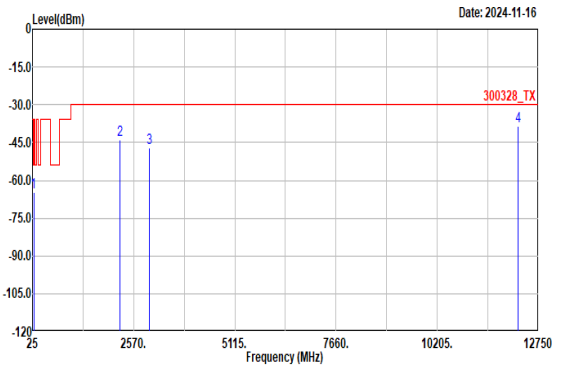
Tx



Site : 05CH07-HY
Condition: 300328_TX HORIZONTAL

Mode : 8
Plane : Ant 90

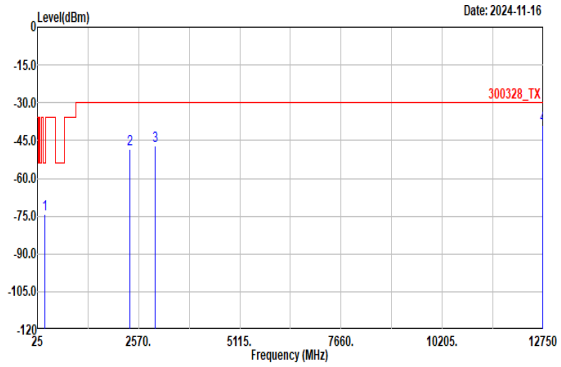
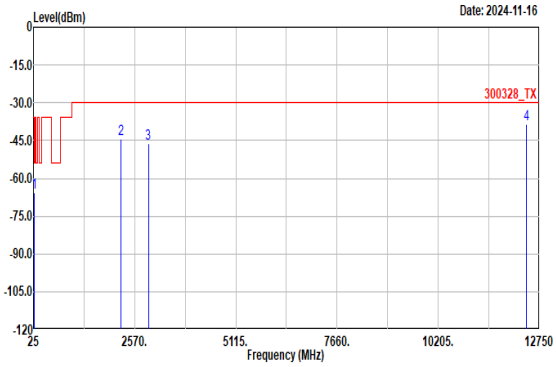
	Result	Freq	Level	Margin	Limit Line	Read Level	Factor	Pol/Phase
		MHz	dBm	dB	dBm	dBm	dB	
1		499.83	-72.70	-18.70	-54.00	-68.41	-4.29	HORIZONTAL
2		2340.00	-49.09	-19.09	-30.00	-65.64	16.55	HORIZONTAL
3		2802.00	-47.01	-17.01	-30.00	-64.13	17.12	HORIZONTAL
4	@	12140.00	-38.83	-8.83	-30.00	-61.72	22.89	HORIZONTAL



Site : 05CH07-HY
Condition: 300328_TX VERTICAL

Mode : 8
Plane : Ant 90

	Result	Freq	Level	Margin	Limit Line	Read Level	Factor	Pol/Phase
		MHz	dBm	dB	dBm	dBm	dB	
1		56.20	-64.69	-10.69	-54.00	-49.41	-15.28	VERTICAL
2		2222.00	-43.99	-13.99	-30.00	-60.18	16.19	VERTICAL
3		2974.00	-47.06	-17.06	-30.00	-64.84	17.78	VERTICAL
4	@	12230.00	-38.68	-8.68	-30.00	-61.71	23.03	VERTICAL

Mode	9	
	802.11g DSSS_CH1	
Ant	1	
Pol.	Horizontal	Vertical
Tx		

Site : 05CH07-HY
Condition: 300328_TX HORIZONTAL

Mode : 9
Plane : Ant 90

	Result	Freq	Level	Margin	Limit Line	Read Level	Factor	Pol/Phase
		MHz	dBm	dB	dBm	dBm	dB	
1		213.18	-74.45	-20.45	-54.00	-62.46	-11.99	HORIZONTAL
2		2354.00	-48.60	-18.60	-30.00	-65.17	16.57	HORIZONTAL
3		2994.00	-47.29	-17.29	-30.00	-65.50	18.21	HORIZONTAL
4	@	12730.00	-38.75	-8.75	-30.00	-61.94	23.19	HORIZONTAL

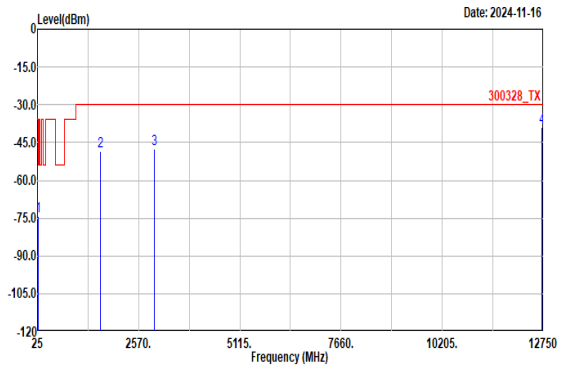
Site : 05CH07-HY
Condition: 300328_TX VERTICAL

Mode : 9
Plane : Ant 90

	Result	Freq	Level	Margin	Limit Line	Read Level	Factor	Pol/Phase
		MHz	dBm	dB	dBm	dBm	dB	
1		55.23	-65.70	-11.70	-54.00	-50.97	-14.73	VERTICAL
2		2218.00	-44.35	-14.35	-30.00	-60.52	16.17	VERTICAL
3		2914.00	-46.38	-16.38	-30.00	-63.95	17.57	VERTICAL
4	@	12430.00	-38.68	-8.68	-30.00	-61.92	23.24	VERTICAL

Mode	10	
	802.11g DSSS_CH13	
Ant	1	
Pol.	Horizontal	Vertical

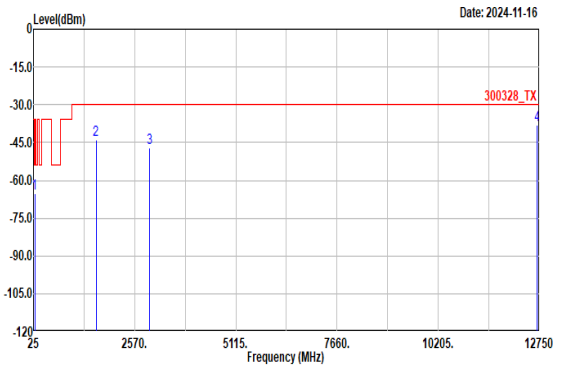
Tx



Site : 05CH07-HY
Condition: 300328_TX HORIZONTAL

Mode : 10
Plane : Ant 90

	Result	Freq	Level	Margin	Limit Line	Read Level	Factor	Pol/Phase
		MHz	dBm	dB	dBm	dBm	dB	
1		54.25	-74.09	-20.09	-54.00	-59.85	-14.24	HORIZONTAL
2		1600.00	-48.36	-18.36	-30.00	-60.31	11.95	HORIZONTAL
3		2970.00	-47.49	-17.49	-30.00	-65.57	18.08	HORIZONTAL
4	@	12700.00	-38.95	-8.95	-30.00	-62.14	23.19	HORIZONTAL



Site : 05CH07-HY
Condition: 300328_TX VERTICAL

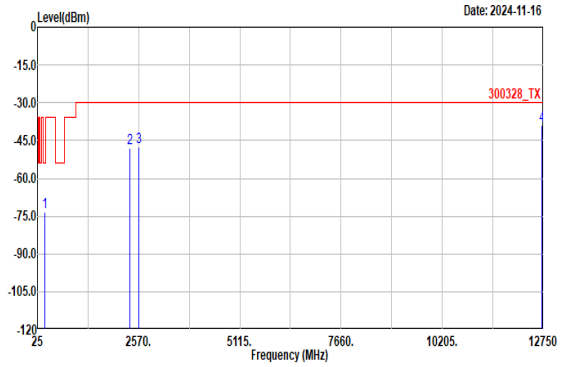
Mode : 10
Plane : Ant 90

	Result	Freq	Level	Margin	Limit Line	Read Level	Factor	Pol/Phase
		MHz	dBm	dB	dBm	dBm	dB	
1		56.20	-65.26	-11.26	-54.00	-49.98	-15.28	VERTICAL
2		1598.00	-44.14	-14.14	-30.00	-56.23	12.09	VERTICAL
3		2942.00	-47.27	-17.27	-30.00	-64.93	17.66	VERTICAL
4	@	12690.00	-38.14	-8.14	-30.00	-61.29	23.15	VERTICAL

Mode	11
	802.11ax HE20 OFDMA_CH1
Ant	1+2

Pol. — Horizontal

Tx

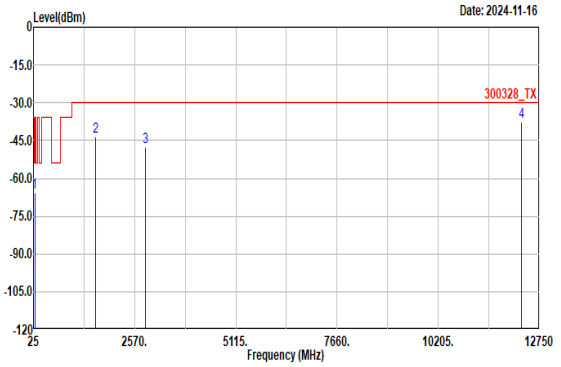


Site : 05CH07-HY
Condition: 300328_TX HORIZONTAL

Mode : 11
Plane : Ant 90

	Result	Freq	Level	Limit Margin	Limit Line	Read Level	Factor	Pol/Phase
		MHz	dBm	dB	dBm	dBm	dB	
1		211.23	-73.46	-19.46	-54.00	-61.40	-12.06	HORIZONTAL
2		2358.00	-48.11	-18.11	-30.00	-64.69	16.58	HORIZONTAL
3		2566.00	-47.44	-17.44	-30.00	-64.81	17.37	HORIZONTAL
4	@	12700.00	-38.93	-8.93	-30.00	-62.12	23.19	HORIZONTAL

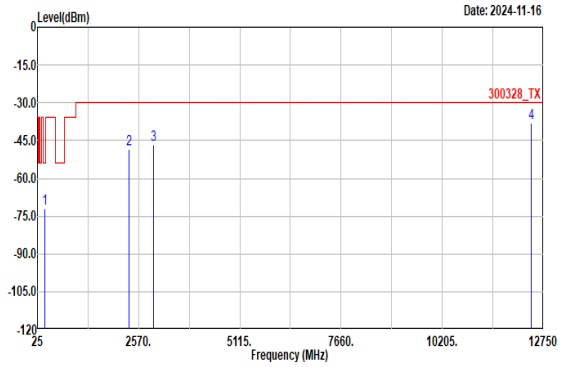
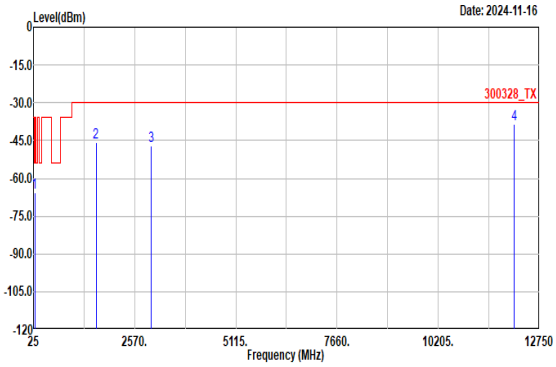
Pol. — Vertical



Site : 05CH07-HY
Condition: 300328_TX VERTICAL

Mode : 11
Plane : Ant 90

	Result	Freq	Level	Limit Margin	Limit Line	Read Level	Factor	Pol/Phase
		MHz	dBm	dB	dBm	dBm	dB	
1		56.20	-65.71	-11.71	-54.00	-50.43	-15.28	VERTICAL
2		1594.00	-43.34	-13.34	-30.00	-55.45	12.11	VERTICAL
3		2850.00	-47.48	-17.48	-30.00	-64.84	17.36	VERTICAL
4	@	12300.00	-37.80	-7.80	-30.00	-60.92	23.12	VERTICAL

Mode	12	
	802.11ax HE20 OFDMA_CH13	
Ant	1+2	
Pol.	Horizontal	Vertical
Tx		

Site : 05CH07-HY
Condition: 300328_TX HORIZONTAL

Mode : 12
Plane : Ant 90

	Result	Freq	Level	Margin	Limit Line	Read Level	Factor	Pol/Phase
		MHz	dBm	dB	dBm	dBm	dB	
1		209.28	-72.15	-18.15	-54.00	-60.02	-12.13	HORIZONTAL
2		2326.00	-48.42	-18.42	-30.00	-64.94	16.52	HORIZONTAL
3		2936.00	-46.77	-16.77	-30.00	-64.66	17.89	HORIZONTAL
4	@	12450.00	-38.25	-8.25	-30.00	-61.48	23.23	HORIZONTAL

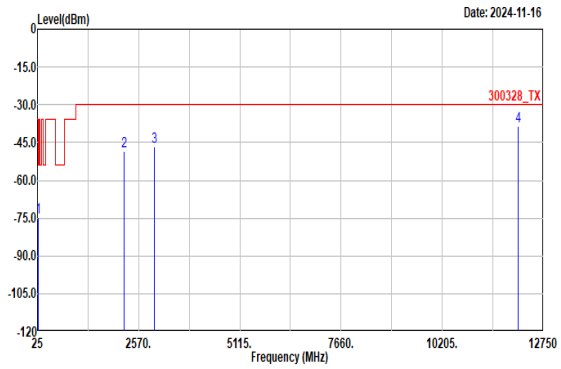
Site : 05CH07-HY
Condition: 300328_TX VERTICAL

Mode : 12
Plane : Ant 90

	Result	Freq	Level	Margin	Limit Line	Read Level	Factor	Pol/Phase
		MHz	dBm	dB	dBm	dBm	dB	
1		56.20	-65.64	-11.64	-54.00	-50.36	-15.28	VERTICAL
2		1598.00	-45.84	-15.84	-30.00	-57.93	12.09	VERTICAL
3		2986.00	-46.95	-16.95	-30.00	-64.76	17.81	VERTICAL
4	@	12120.00	-38.71	-8.71	-30.00	-61.61	22.90	VERTICAL

Mode	13	
	802.11ax HE40 OFDMA_CH3	
Ant	1+2	
Pol.	Horizontal	Vertical

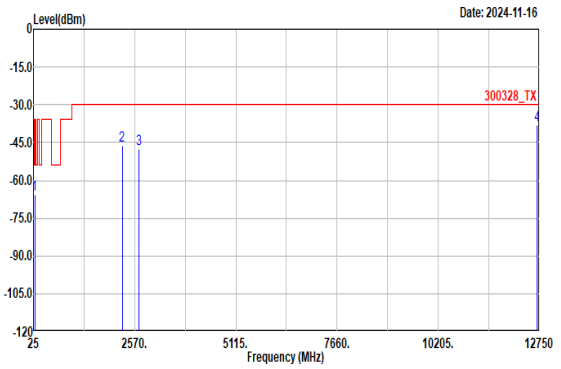
Tx



Site : 05CH07-HY
Condition: 300328_TX HORIZONTAL

Mode : 13
Plane : Ant 90

	Result	Freq	Level	Margin	Limit Line	Read Level	Factor	Pol/Phase
		MHz	dBm	dB	dBm	dBm	dB	
1		54.25	-74.79	-20.79	-54.00	-60.55	-14.24	HORIZONTAL
2		2200.00	-48.34	-18.34	-30.00	-64.56	16.22	HORIZONTAL
3		2962.00	-46.54	-16.54	-30.00	-64.57	18.03	HORIZONTAL
4	@	12110.00	-38.59	-8.59	-30.00	-61.47	22.88	HORIZONTAL



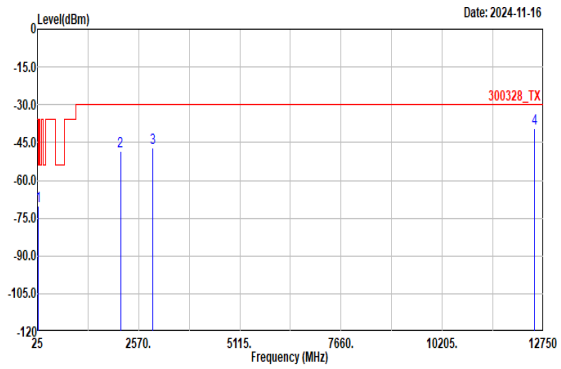
Site : 05CH07-HY
Condition: 300328_TX VERTICAL

Mode : 13
Plane : Ant 90

	Result	Freq	Level	Margin	Limit Line	Read Level	Factor	Pol/Phase
		MHz	dBm	dB	dBm	dBm	dB	
1		56.20	-65.72	-11.72	-54.00	-50.44	-15.28	VERTICAL
2		2256.00	-46.23	-16.23	-30.00	-62.55	16.32	VERTICAL
3		2676.00	-47.33	-17.33	-30.00	-64.54	17.21	VERTICAL
4	@	12680.00	-38.18	-8.18	-30.00	-61.33	23.15	VERTICAL

Mode	14	
	802.11ax HE40 OFDMA_CH11	
Ant	1+2	
Pol.	Horizontal	Vertical

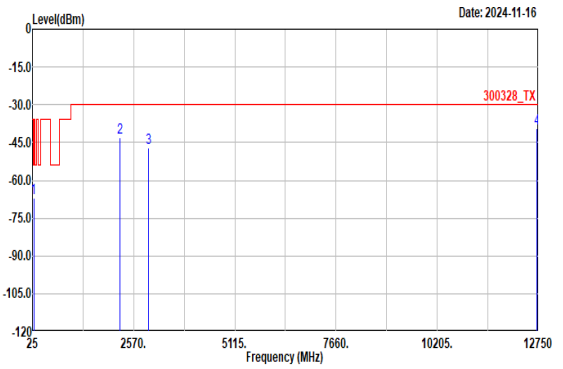
Tx



Site : 05CH07-HY
Condition: 300328_TX HORIZONTAL

Mode : 14
Plane : Ant 90

	Result	Freq	Level	Limit Margin	Limit Line	Read Level	Factor	Pol/Phase
		MHz	dBm	dB	dBm	dBm	dB	
1		55.23	-70.03	-16.03	-54.00	-55.32	-14.71	HORIZONTAL
2		2112.00	-48.59	-18.59	-30.00	-64.53	15.94	HORIZONTAL
3		2924.00	-47.17	-17.17	-30.00	-64.99	17.82	HORIZONTAL
4	@	12530.00	-39.40	-9.40	-30.00	-62.58	23.18	HORIZONTAL



Site : 05CH07-HY
Condition: 300328_TX VERTICAL

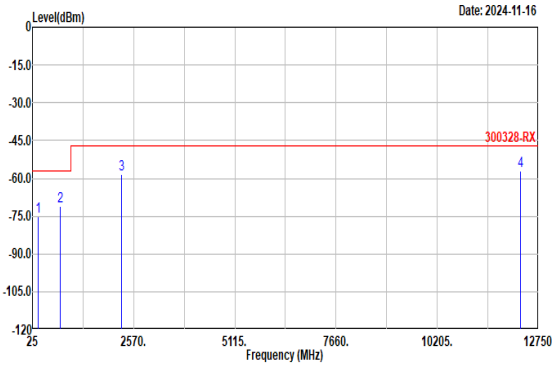
Mode : 14
Plane : Ant 90

	Result	Freq	Level	Limit Margin	Limit Line	Read Level	Factor	Pol/Phase
		MHz	dBm	dB	dBm	dBm	dB	
1		56.20	-66.80	-12.80	-54.00	-51.52	-15.28	VERTICAL
2		2216.00	-42.80	-12.80	-30.00	-58.96	16.16	VERTICAL
3		2946.00	-46.93	-16.93	-30.00	-64.61	17.68	VERTICAL
4	@	12700.00	-39.18	-9.18	-30.00	-62.33	23.15	VERTICAL

Mode	15
	802.11ax HE20 OFDMA_CH1
Ant	1+2

Pol.	Horizontal	Vertical

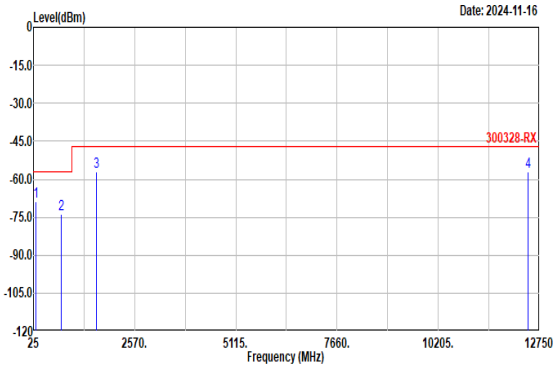
Rx



Site : 05CH07-HY
Condition: 300328-RX HORIZONTAL

Mode : 15
Plane : Ant 90

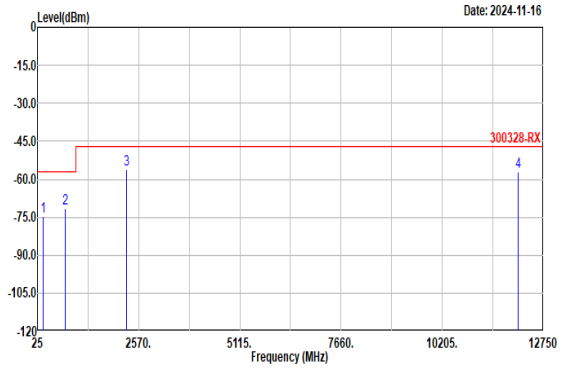
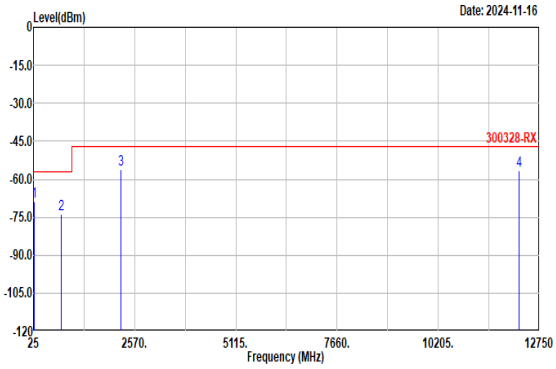
	Result	Freq	Level	Margin	Limit Line	Read Level	Factor	Pol/Phase
		MHz	dBm	dB	dBm	dBm	dB	
1		167.35	-75.37	-18.37	-57.00	-64.91	-10.46	HORIZONTAL
2		715.30	-71.08	-14.08	-57.00	-70.62	-0.46	HORIZONTAL
3		2257.25	-58.21	-11.21	-47.00	-53.34	-4.87	HORIZONTAL
4	@	12303.50	-56.84	-9.84	-47.00	-67.50	10.66	HORIZONTAL



Site : 05CH07-HY
Condition: 300328-RX VERTICAL

Mode : 15
Plane : Ant 90

	Result	Freq	Level	Margin	Limit Line	Read Level	Factor	Pol/Phase
		MHz	dBm	dB	dBm	dBm	dB	
1		85.45	-68.88	-11.88	-57.00	-58.24	-10.64	VERTICAL
2		718.23	-73.88	-16.88	-57.00	-73.60	-0.28	VERTICAL
3	@	1599.25	-56.93	-9.93	-47.00	-47.08	-9.85	VERTICAL
4		12456.25	-56.97	-9.97	-47.00	-67.87	10.90	VERTICAL

Mode	16	
	802.11ax HE40 OFDMA_CH3	
Ant	1+2	
Pol.	Horizontal	Vertical
Rx		

Site : 05CH07-HY
Condition: 300328-RX HORIZONTAL

Mode : 16
Plane : Ant 90

Result	Freq	Level	Margin	Limit Line	Read Level	Factor	Pol/Phase
	MHz	dBm	dB	dBm	dBm	dB	
1	162.48	-74.78	-17.78	-57.00	-65.02	-9.76	HORIZONTAL
2	717.25	-71.43	-14.43	-57.00	-71.03	-0.40	HORIZONTAL
3 @	2269.00	-56.33	-9.33	-47.00	-51.48	-4.85	HORIZONTAL
4	12115.50	-56.96	-9.96	-47.00	-67.58	10.62	HORIZONTAL

Site : 05CH07-HY
Condition: 300328-RX VERTICAL

Mode : 16
Plane : Ant 90

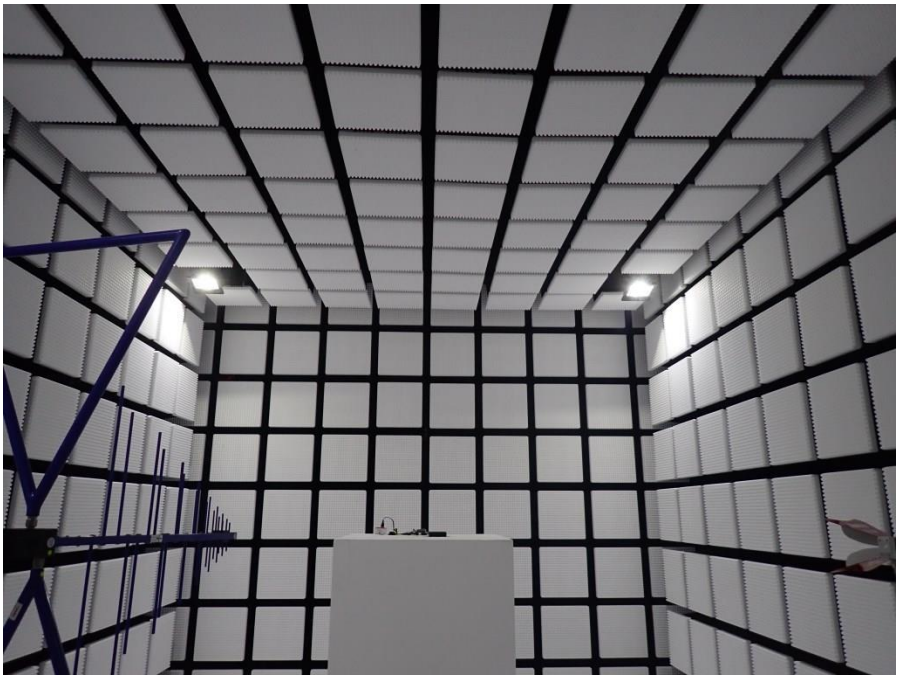
Result	Freq	Level	Margin	Limit Line	Read Level	Factor	Pol/Phase
	MHz	dBm	dB	dBm	dBm	dB	
1	48.40	-68.75	-11.75	-57.00	-58.44	-10.31	VERTICAL
2	718.23	-73.70	-16.70	-57.00	-73.42	-0.28	VERTICAL
3 @	2222.00	-55.98	-8.98	-47.00	-50.94	-5.04	VERTICAL
4	12244.75	-56.66	-9.66	-47.00	-67.43	10.77	VERTICAL

Appendix C. Photographs of Test Configuration

<Radiated Emission>

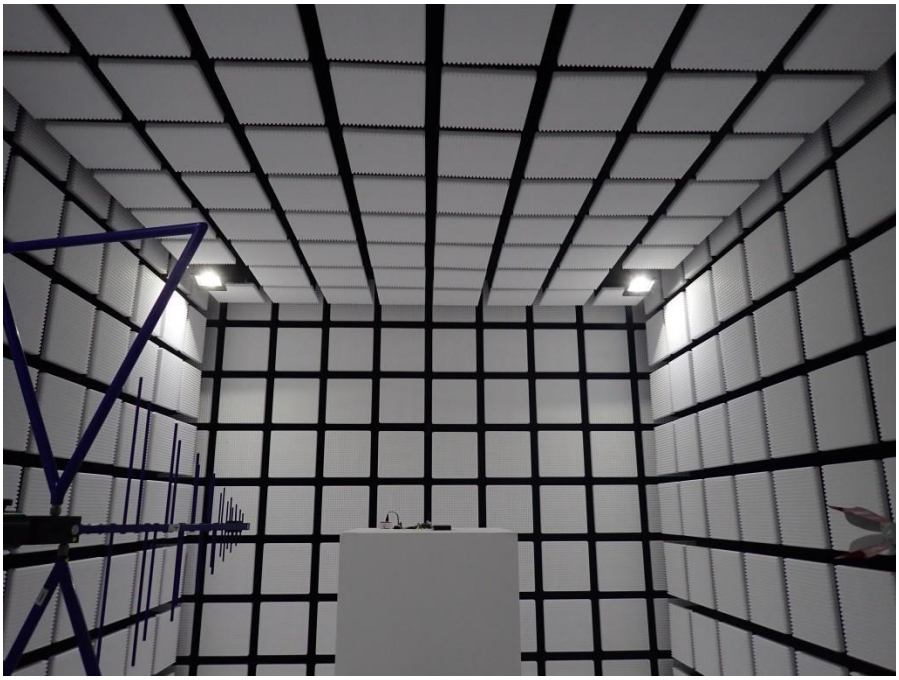
Bluetooth / Bluetooth - LE Tx/Rx Mode

Degree 0



WLAN Tx/Rx Mode

Degree 90



———THE END———