

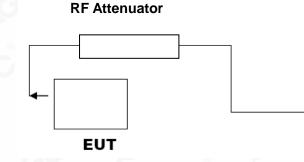
8. 20DB BANDWIDTH

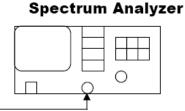
8.1. MEASUREMENT PROCEDURE

- 1. Set the EUT Work on the top, the middle and the bottom operation frequency individually.
- 2. Set SPA Centre Frequency = Operation Frequency, RBW= 30 KHz, VBW≥3×RBW.
- 3. Set SPA Trace 1 Max hold, then View.

8.2. TEST SET-UP (BLOCK DIAGRAM OF CONFIGURATION)

PEAK POWER TEST SETUP





RF Cable

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8.3. MEASUREMENT RESULTS

TEST ITEM	20DB BANDWIDTH	0	6	
TEST MODULATION	FSK		200	c.C

ANTENNA 1

Test Channel (MHz)	20DB BANDWIDTH (MHz)	Criteria
2402.21	2.313	PASS
2440.21	2.349	PASS
2478.21	2.351	PASS

10:29:29 AM Apr 16, 2021 Radio Std: None Center Freq: 2.402210000 GHz Trig: Free Run AvalHo ALIGN AUTO Frequency Avg|Hold: 100/100 #Atten: 30 dB Radio Device: BTS Ref 20.00 dBm **Center Freq** 2.402210000 GHz Center 2.402 GHz #Res BW 30 kHz Span 5 MHz Sweep 5.333 ms CF Step 500.000 kHz #VBW 100 kHz Mar <u>Auto</u> **Occupied Bandwidth Total Power** 11.9 dBm 2.0571 MHz Freq Offset 0 Hz 99.00 % 31.935 kHz % of OBW Power Transmit Freq Error x dB Bandwidth 2.313 MHz x dB -20.00 dB STATUS

TEST PLOT OF BANDWIDTH FOR LOW CHANNEL

Compliance Dedicated Fes Any report having not been signed by authorized approver, or having been altered without authorization, or having not been stamped by the Bedicated Pesh Stamp" is deemed to be invalid. Copying or excerpting portion of, or altering the content of the report is not permitted without the written authorization of AGE presented in the report apply only to the tested sample. Any objections to report issued by AGC should be submitted to AGC within 15day after the issuerce a/Inspection he test results Bf the test report. Further enquiry of validity or verification of the test report should be addressed to AGC by agc@agc-cert.com.





TEST PLOT OF BANDWIDTH FOR MIDDLE CHANNEL

TEST PLOT OF BANDWIDTH FOR HIGH CHANNEL

STATUS



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ANTENNA 2

Test Channel (MHz)	20DB BANDWIDTH (MHz)	Criteria
2402.21	2.316	PASS
2440.21	2.310	PASS
2478.21	2.357	PASS

TEST PLOT OF BANDWIDTH FOR LOW CHANNEL

10:45:06 AM Apr 16, 2021 Radio Std: None Center Freq: 2.402210000 GHz Trig: Free Run Avg|Hold #Atten: 30 dB ALIGN AUTO Frequency Center Freq 2.402210000 GHz Avg|Hold:>100/100 #IFGain:Low Radio Device: BTS Ref 20.00 dBm 0 dB/di **Center Freq** 2.402210000 GHz Center 2.402 GHz #Res BW 30 kHz Span 5 MHz Sweep 5.333 ms CF Step 500.000 kHz #VBW 100 kHz <u>Auto</u> Ма **Total Power** 11.7 dBm **Occupied Bandwidth** 2.0584 MHz **Freq Offset** 0 Hz 24.883 kHz Transmit Freq Error % of OBW Power 99.00 % 2.316 MHz x dB -20.00 dB x dB Bandwidth

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TEST PLOT OF BANDWIDTH FOR MIDDLE CHANNEL

TEST PLOT OF BANDWIDTH FOR HIGH CHANNEL

STATUS



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9. FCC LINE CONDUCTED EMISSION TEST 9.1. LIMITS OF LINE CONDUCTED EMISSION TEST

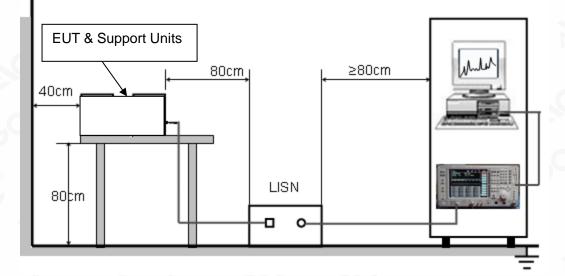
-	Maximum RF Line Voltage				
Frequency	Q.P.(dBuV)	Average(dBuV)			
150kHz~500kHz	66-56	56-46			
500kHz~5MHz	56	46			
5MHz~30MHz	60	50			

Note:

1. The lower limit shall apply at the transition frequency.

2. The limit decreases linearly with the logarithm of the frequency in the range 0.15 MHz to 0.50 MHz.

9.2. BLOCK DIAGRAM OF LINE CONDUCTED EMISSION TEST



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9.3. PRELIMINARY PROCEDURE OF LINE CONDUCTED EMISSION TEST

- The equipment was set up as per the test configuration to simulate typical actual usage per the user's manual. When the EUT is a tabletop system, a wooden table with a height of 0.8 meters is used and is placed on the ground plane as per ANSI C63.10 (see Test Facility for the dimensions of the ground plane used). When the EUT is a floor-standing equipment, it is placed on the ground plane which has a 3-12 mm non-conductive covering to insulate the EUT from the ground plane.
- 2. Support equipment, if needed, was placed as per ANSI C63.10.
- 3. All I/O cables were positioned to simulate typical actual usage as per ANSI C63.10.
- 4. All support equipments received AC 120V/60Hz power from a LISN, if any.
- 5. The EUT received DC charging voltage by adapter which received AC 120V/60Hz power by a LISN.
- 6. The test program was started. Emissions were measured on each current carrying line of the EUT using a spectrum Analyzer / Receiver connected to the LISN powering the EUT. The LISN has two monitoring points: Line 1 (Hot Side) and Line 2 (Neutral Side). Two scans were taken: one with Line 1 connected to Analyzer / Receiver and Line 2 connected to a 50 ohm load; the second scan had Line 1 connected to a 50 ohm load and Line 2 connected to the Analyzer / Receiver.
- 7. Analyzer / Receiver scanned from 150 kHz to 30MHz for emissions in each of the test modes.
- 8. During the above scans, the emissions were maximized by cable manipulation.
- 9. The test mode(s) were scanned during the preliminary test.

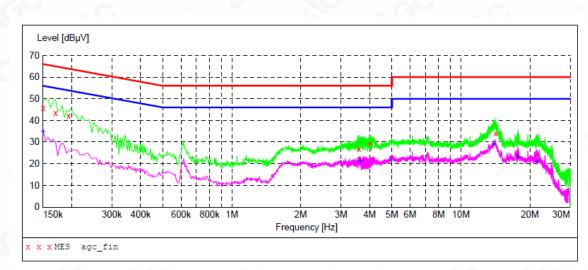
Then, the EUT configuration and cable configuration of the above highest emission level were recorded for reference of final testing.

9.4. FINAL PROCEDURE OF LINE CONDUCTED EMISSION TEST

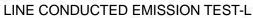
- 1. EUT and support equipment was set up on the test bench as per step 2 of the preliminary test.
- A scan was taken on both power lines, Line 1 and Line 2, recording at least the six highest emissions. Emission frequency and amplitude were recorded into a computer in which correction factors were used to calculate the emission level and compare reading to the applicable limit. If EUT emission level was less – 2dB to the A.V. limit in Peak mode, then the emission signal was re-checked using Q.P and Average detector.
- 3. The test data of the worst case condition(s) was reported on the Summary Data page.

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9.5. TEST RESULT OF LINE CONDUCTED EMISSION TEST



MEASUREMENT RESULT: "agc_fin"

2021/4/21 14:	51					
Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Detector	Line
0.150000 0.170000 0.194000 3.594000 4.022000 14.202000	45.80 43.60 42.30 26.70 29.60 34.10	12.4 12.4 12.5 12.5 14.1	66 65 64 56 56 60	20.2 21.4 21.6 29.3 26.4 25.9	QP QP	L1 L1 L1 L1 L1 L1

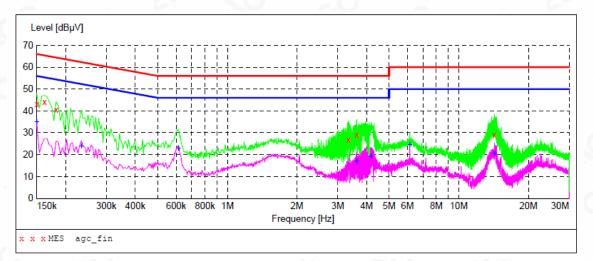
MEASUREMENT RESULT: "agc fin2"

2021/4/21 14:	51					
Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Detector	Line
0.150000	35.00	12.4	56	21.0	AV	L1
3.634000	21.40	12.5	46	24.6	AV	ь1
4.962000	21.60	12.6	46	24.4	AV	ь1
13.910000	29.00	14.1	50	21.0	AV	ь1
17.734000	23.30	14.6	50	26.7	AV	ь1
21.450000	20.90	14.9	50	29.1	AV	L1

RESULT: PASS

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LINE CONDUCTED EMISSION TEST-N

MEASUREMENT RESULT: "agc_fin"

2021/4/21 15:06 Frequency Limit Margin Line Level Transd Detector MHz dBµV dB dBµV dB 0.150000 43.30 12.4 66 22.7 QP Ν 0.162000 44.30 12.4 65 21.1 QP Ν 23.8 0.182000 40.60 12.4 64 QP Ν 26.90 12.5 56 29.1 3.334000 QP Ν 3.622000 29.10 12.5 56 26.9 QP Ν 14.246000 29.10 14.1 60 30.9 OP Ν

MEASUREMENT RESULT: "agc fin2"

2021/4/21	15:06					
Frequen M	cy Level Hz dBµV		Limit dBµV	Margin dB	Detector	Line
0.1500	00 34.90	12.4	56	21.1	AV	N
0.2340	00 23.90	12.4	52	28.4	AV	N
0.6140	00 22.90	12.4	46	23.1	AV	N
3.6140	00 17.00	12.5	46	29.0	AV	N
4.1740	00 19.30	12.5	46	26.7	AV	N
6.1460	00 24.50	12.7	50	25.5	AV	N
14.2460	00 20.60) 14.1	50	29.4	AV	N

RESULT: PASS

Note: All the test modes had been tested, the mode 1 was the worst case. Only the data of the worst case would be record in this test report.

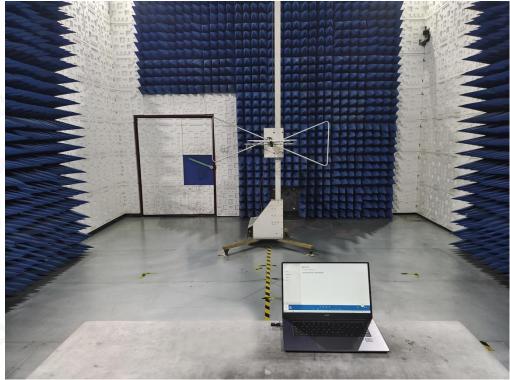
Any report having not been signed by authorized approver, or having been altered without authorization, or having not been stamped by the bedicated restro/Inspection Stamp" is deemed to be invalid. Copying or excerpting portion of, or altering the content of the report is not permitted without the written authorization of AGE. The test results presented in the report apply only to the tested sample. Any objections to report issued by AGC should be submitted to AGC within 15day after the issuer of the test report. Further enquiry of validity or verification of the test report should be addressed to AGC by agc@agc-cert.com.



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APPENDIX A: PHOTOGRAPHS OF TEST SETUP

RADIATED EMISSION TEST SETUP BELOW 1GHZ



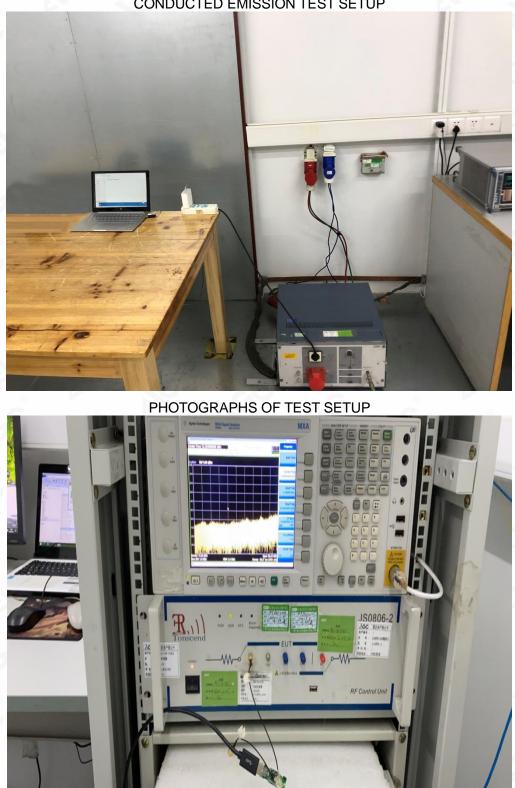
RADIATED EMISSION TEST SETUP ABOVE 1GHZ



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CONDUCTED EMISSION TEST SETUP

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APPENDIX B: PHOTOGRAPHS OF EUT ALL VIEW OF EUT



TOP VIEW OF EUT



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BOTTOM VIEW OF EUT



FRONT VIEW OF EUT

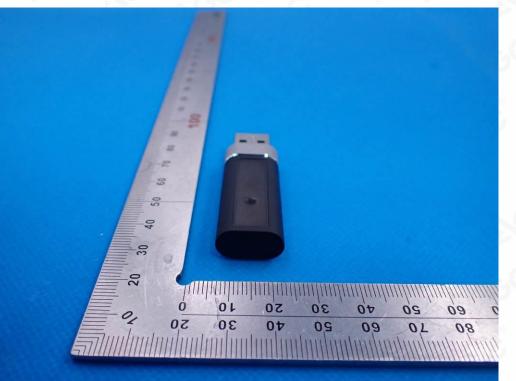


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BACK VIEW OF EUT



LEFT VIEW OF EUT



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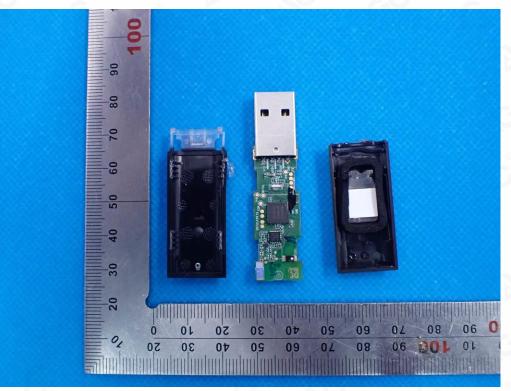
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RIGHT VIEW OF EUT

AGC



OPEN VIEW OF EUT

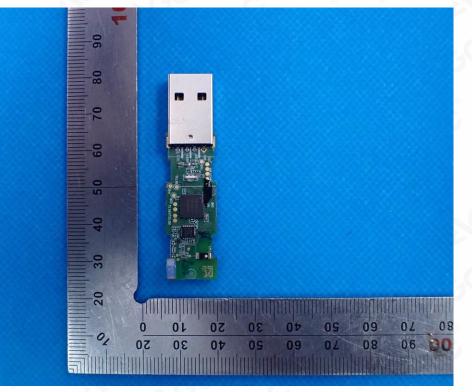


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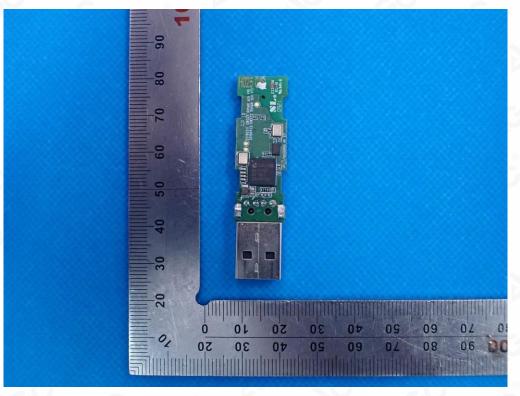


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INTERNAL VIEW OF EUT-1



INTERNAL VIEW OF EUT-2



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INTERNAL VIEW OF EUT-3



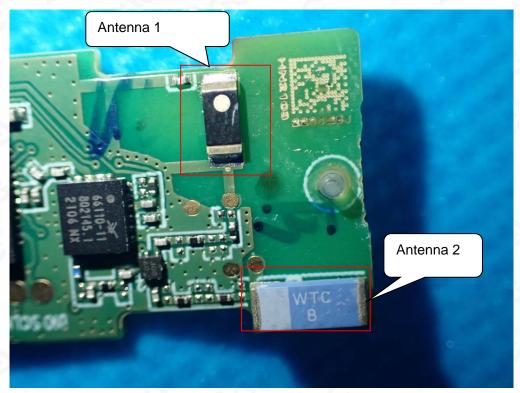
INTERNAL VIEW OF EUT-4



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INTERNAL VIEW OF EUT-5

---END OF REPORT----

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Conditions of Issuance of Test Reports

1. All samples and goods are accepted by the Attestation of Global Compliance (Shenzhen) Co., Ltd (the "Company") solely for testing and reporting in accordance with the following terms and conditions. The company provides its services on the basis that such terms and conditions constitute express agreement between the company and any person, firm or company requesting its services (the "Clients").

2. Any report issued by Company as a result of this application for testing services (the "Report") shall be issued in confidence to the Clients and the Report will be strictly treated as such by the Company. It may not be reproduced either in its entirety or in part and it may not be used for advertising or other unauthorized purposes without the written consent of the Company. The Clients to whom the Report is issued may, however, show or send it, or a certified copy thereof prepared by the Company to its customer, supplier or other persons directly concerned. The Company will not, without the consent of the Clients, enter into any discussion or correspondence with any third party concerning the contents of the Report, unless required by the relevant governmental authorities, laws or court orders.

3. The Company shall not be called or be liable to be called to give evidence or testimony on the Report in a court of law without its prior written consent, unless required by the relevant governmental authorities, laws or court orders.

4. The non-CMA report issued by AGC is only permitted to be used by the client as internal reference use and shall not be used for public demonstration purpose.

5. In the event of the improper use of the report as determined by the Company, the Company reserves the right to withdraw it, and to adopt any other additional remedies which may be appropriate.

6. Samples submitted for testing are accepted on the understanding that the Report issued cannot form the basis of, or be the instrument for, any legal action against the Company.

7. The Company will not be liable for or accept responsibility for any loss or damage however arising from the use of information contained in any of its Reports or in any communication whatsoever about its said tests or investigations.

8. Clients wishing to use the Report in court proceedings or arbitration shall inform the Company to that effect prior to submitting the sample for testing.

9. The Company is not responsible for recalling the electronic version of the original report when any revision is made to them. The Client assumes the responsibility to providing the revised version to any interested party who uses them.

10. Subject to the variable length of retention time for test data and report stored hereinto as otherwise specifically required by individual accreditation authorities, the Company will only keep the supporting test data and information of the test report for a period of six years. The data and information will be disposed of after the aforementioned retention period has elapsed. Under no circumstances shall we provide any data and information which has been disposed of after retention period. Under no circumstances shall we be liable for damage of any kind, including (but not limited to) compensatory damages, lost profits, lost data, or any form of special, incidental, indirect, consequential or punitive damages of any kind, whether based on breach of contract of warranty, tort (including negligence), product liability or otherwise, even if we are informed in advance of the possibility of such damages.

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