

# **FCC Test Report**

Report No.: AGC01110230744FE03A

**FCC ID** : 2AOKB-A3136

**APPLICATION PURPOSE**: Class II Permissive Change

**PRODUCT DESIGNATION**: soundcore Glow Mini

**BRAND NAME** : soundcore

MODEL NAME : A3136

**APPLICANT**: Anker Innovations Limited

**DATE OF ISSUE** : May 29, 2025

**STANDARD(S)** : FCC Part 15 Subpart C §15.247

**REPORT VERSION**: V1.0

Attestation of Global Compliance (Shenzhen) Co., Ltd



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# **Report Revise Record**

Report Version	Revise Time	Issued Date	Valid Version	Notes
V1.0	/	May 29, 2025	Valid	Initial Release

Note: The original test report AGC01110230744FE03 (dated Jul. 25, 2023 and tested from Jul. 17, 2023 to Jul. 25, 2023) was modified on May 29, 2025, including the following changes and additions:

- Replaced the battery which changed voltage, capacity, model name and manufacturer, see below for details:

Original:

	Model: 984038
Battery Information	Rated Voltage & Cap.: 3.7V 1800mAh
_	Manufacturer Name: ZHUHAI GREAT POWER ENERGY CO., LTD.

Updated:

	Model: 102231/2P
Battery Information	Rated Voltage& Cap: 3.8V 1460mAh
	Manufacturer Name: XINYU GANFENG ELECTRONICS CO., LTD.

- Replaced the Applicant address;
- Replaced the Manufacturer address;
- Changed the hardware version(Its change does not affect the test result);

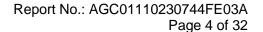
For the above described change(s) the following tests was considered to be necessary:

Clause	Testing
§15.247 (b)(1)	RF Output Power
§15.209	Radiated Spurious Emission



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# 1. General Information

Anker Innovations Limited
Unit 56, 8th Floor, Tower 2, Admiralty Centre, 18 Harcourt Road, Hong Kong
Anker Innovations Limited
Unit 56, 8th Floor, Tower 2, Admiralty Centre, 18 Harcourt Road, Hong Kong
N/A
N/A
soundcore Glow Mini
soundcore
A3136
N/A
N/A
Mar. 31, 2025
Apr. 07, 2025 to May 29, 2025
No any deviation from the test method
Normal
Pass
AGCER-FCC-BR_EDR-V1

Note: The test results of this report relate only to the tested sample identified in this report.

Prepared By	Coli	
	Cici Li (Project Engineer)	May 29, 2025
Reviewed By	Jouk 6 ai	
	Jack Gui (Reviewer)	May 29, 2025
Approved By	Angole Li	
	Angela Li (Authorized Officer)	May 29, 2025



# 2. Product Information

# 2.1 Product Technical Description

Technology Type	Classic Bluetooth
Frequency Band	2400M-2483.5MHz
Operation Frequency Range	2402MHz-2480MHz
Bluetooth Version	V5.3
Modulation Type	BR ⊠GFSK, EDR ⊠π /4-DQPSK, ⊠8DPSK
Number of channels	79 of Channels
Channel Separation	1 MHz
Maximum Transmitter Power	6.576dBm
Hardware Version	V4.0
Software Version	V1.3
Antenna Designation	PCB Antenna
Antenna Gain	0.6dBi
Power Supply	DC 3.8V by battery or 5V by adapter

# 2.2 Test Frequency List

Frequency Band	Channel Number	Test Frequency
	0	2402 MHz
	1	2403 MHz
	:	:
2400~2483.5MHz	39	2441MHz
	:	:
	77	2479 MHz
	78	2480 MHz
Note: f = 2402+1*k MHz, k=0,, 78; "f" is the operating frequency (MHz); "k" is the operating channel.		

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Further enquiry of validity or verification of the test report should be addressed to AGC by agc01@agccert.com.



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## 2.3 Related Submittal(S) / Grant (S)

This submittal(s) (test report) is intended for FCC ID: 2AOKB-A3136, filing to comply with Part 2, Part 15 of the Federal Communication Commission rules.

## 2.4 Test Methodology

The tests were performed according to following standards:

No.	Identity	Document Title	
1	FCC 47 CFR Part 2	Frequency allocations and radio treaty matters; general rules and regulations	
2	FCC 47 CFR Part 15	Radio Frequency Devices	
3	ANSI C63.10-2013	American National Standard for Testing Unlicensed Wireless Devices	
4	KDB 558074 D01 15.247 Meas Guidance v05r02	Guidance for compliance measurements on Digital Transmission Systems, Frequency Hopping Spread Spectrum system, and Hybrid system devices operating under Section 15.247 of the FCC rules	

#### 2.5 Receiver Input Bandwidth

The input bandwidth of the receiver is 1.3MHz, in every connection one Bluetooth device is the master and the other one is slave. The master determines the hopping sequence. The slave follows this sequence. Both devices shift between RX and TX time slot according to the clock of the master. Additionally, the type of connection (e.g. single of multi slot packet) is set up at the beginning of the connection. The master adapts its hopping frequency and its TX/RX timing according to the packet type of the connection. Also, the slave of the connection will use these settings. Repeating of a packet has no influence on the hopping sequence. The hopping sequence generated by the master of the connection will be followed in any case. That means, a repeated packet will not be send on the same frequency, it is send on the next frequency of the hopping sequence.

#### 2.6 Equally Average Use of Frequencies and Behaviour.

The generation of the hopping sequence in connection mode depends essentially on two input values:

- 1. LAP/UAP of the master of the connection.
- 2. Internal master clock.

The LAP (lower address part) are the 24 LSB's of the 48 BD\_ADDRESS. The BD\_ADDRESS is an unambiguous number of every Bluetooth unit. The UAP (upper address part) are the 24MSB's of the 48BD ADDRESS

The internal clock of a Bluetooth unit is derived from a free running clock which is never adjusted and is never turned off. For behavior action with other units only offset is used. It has no relation to the time of the day. Its resolution is at least half the RX/TX slot length of 312.5us. The clock has a cycle of about one day(23h30).

In most case it is implemented as 28 bits counter. For the deriving of the hopping sequence the entire. LAP (24 bits),4LSB's(4bits) (Input 1) and the 27MSB's of the clock (Input 2) are used. With this input values different mathematical procedures (permutations, additions, XOR-operations) are performed to generate the Sequence. This will be done at the beginning of every new transmission.

Regarding short transmissions the Bluetooth system has the following behavior:

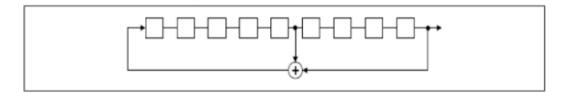
The first connection between the two devices is established, a hopping sequence was generated. For Transmitting the wanted data the complete hopping sequence was not used. The connection ended. The second connection will be established. A new hopping sequence is generated. Due to the fact the Bluetooth clock has a different value, because the period between the two transmission is longer (and it Cannot be shorter) than the minimum resolution of the clock(312.5us). The hopping sequence will always differ from the first one.



## 2.7 Pseudorandom Frequency Hopping Sequence

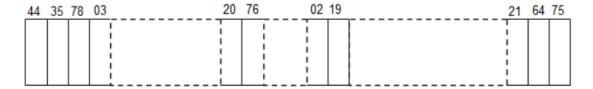
The pseudorandom sequence may be generated in a nine-stage shift register whose 5th and 9th stage outputs are added in a modulo-two addition stage. And the result is fed back to the input of the first stage. The sequence begins with the first ONE of 9 consecutive ONEs; i.e. the shift register is initialized with nine ones.

- Number of shift register stages: 9
- Length of pseudo-random sequence: 29 1 = 511 bits
- Longest sequence of zeros: 8 (non-inverted signal)



Linear Feedback Shift Register for Generation of The PRBS Sequence

An example of Pseudorandom Frequency Hopping Sequence as follow:



Each frequency used equally on the average by each transmitter.

The system receivers have input bandwidths that match the hopping channel bandwidths of their Corresponding transmitters and shift frequencies in synchronization with the transmitted signals.



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## 2.8 Special Accessories

Not available for this EUT intended for grant.

## 2.9 Equipment Modifications

Not available for this EUT intended for grant.

## 2.10 Antenna Requirement

## Standard Requirement

#### 15.203 requirement:

An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator, the manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited.

## 15.247(b) (4) requirement:

The conducted output power limit specified in paragraph (b) of this section is based on the use of antennas with directional gains that do not exceed 6 dBi. Except as shown in paragraph (c) of this section, if transmitting antennas of directional gain greater than 6 dBi are used, the conducted output power from the intentional radiator shall be reduced below the stated values in paragraphs (b)(1), (b)(2), and (b)(3) of this section, as appropriate, by the amount in dB that the directional gain of the antenna exceeds 6 dBi

#### **EUT Antenna**

The non-detachable antenna inside the device cannot be replaced by the user at will. The gain of the antenna is 0.6dBi.



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#### 3. Test Environment

# 3.1 Address of The Test Laboratory

Laboratory: Attestation of Global Compliance (Shenzhen) Co., Ltd.

Address: 1-2/F, Building 19, Junfeng Industrial Park, Chongqing Road, Heping Community, Fuhai Street, Bao'an District, Shenzhen, Guangdong, China

## 3.2 Test Facility

The test facility is recognized, certified, or accredited by the following organizations:

## CNAS-Lab Code: L5488

Attestation of Global Compliance (Shenzhen) Co., Ltd. has been assessed and proved to follow CNAS-CL01 Accreditation Criteria for Testing and Calibration Laboratories (identical to ISO/IEC17025: 2017 General Requirements for the Competence of Testing and Calibration Laboratories.)

## A2LA-Lab Cert. No.: 5054.02

Attestation of Global Compliance (Shenzhen) Co., Ltd. EMC Laboratory has been accredited by A2LA for technical competence in the field of electrical testing, and proved to follow ISO/IEC 17025: 2017 General Requirements for the Competence of Testing and Calibration Laboratories and any additional program requirements in the identified field of testing.

#### FCC-Registration No.: 975832

Attestation of Global Compliance (Shenzhen) Co., Ltd. EMC Laboratory has been registered and fully described in a report filed with the FCC (Federal Communications Commission). The acceptance letter from the FCC is maintained in our files with Registration 975832.

#### IC-Registration No.: 24842(CAB identifier: CN0063)

Attestation of Global Compliance (Shenzhen) Co., Ltd. EMC Laboratory has been registered and fully described in a report filed with the Certification and Engineering Bureau of Industry Canada. The acceptance letter from the IC is maintained in our files with Registration 24842.



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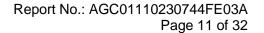
#### 3.3 Environmental Conditions

	Normal Conditions
Temperature range (°C)	15 - 35
Relative humidity range	20 % - 75 %
Pressure range (kPa)	86 - 106
Power supply	DC 3.8V by battery or DC 5V by adapter

# 3.4 Measurement Uncertainty

The reported uncertainty of measurement y ±U, where expended uncertainty U is based on a standard uncertainty multiplied by a coverage factor of k=2, providing a level of confidence of approximately 95%.

Item	Measurement Uncertainty
Uncertainty of Conducted Emission for AC Port	$U_c = \pm 2.9 \text{ dB}$
Uncertainty of Radiated Emission below 1GHz	$U_c = \pm 3.9 \text{ dB}$
Uncertainty of Radiated Emission above 1GHz	$U_c = \pm 4.9 \text{ dB}$
Uncertainty of total RF Power, Conducted	$U_c = \pm 0.8 \text{ dB}$
Uncertainty of RF Power Density, Conducted	$U_c = \pm 2.6 \text{ dB}$
Uncertainty of Spurious Emissions, Conducted	$U_c = \pm 2 \%$
Uncertainty of Occupied Channel Bandwidth	U <sub>c</sub> = ±2 %
Uncertainty of Dwell Time	U <sub>c</sub> = ±2 %





# 3.5 List of Equipment Used

• R	RF Conducted Test System						
Used	Equipment No.	Test Equipment	Manufacturer	Model No.	Serial No.	Last Cal. Date (YY-MM-DD)	Next Cal. Date (YY-MM-DD)
	AGC-ER-E036	Spectrum Analyzer	Agilent	N9020A	MY49100060	2024-05-24	2025-05-23
	AGC-ER-E062	Power Sensor	Agilent	U2021XA	MY54110007	2025-01-14	2026-01-13
	AGC-ER-E063	Power Sensor	Agilent	U2021XA	MY54110009	2025-01-14	2026-01-13
	AGC-ER-A001	6dB Attenuator	Eeatsheep	LM-XX-6-5W	N/A	2023-09-21	2025-09-20
	AGC-ER-E083	Signal Generator	Agilent	E4421B	US39340815	2024-05-23	2025-05-22
	N/A	RF Connection Cable	N/A	1#	N/A	Each time	N/A
	N/A	RF Connection Cable	N/A	2#	N/A	Each time	N/A

• F	Radiated Spurious Emission						
Used	Equipment No.	Test Equipment	Manufacturer	Model No.	Serial No.	Last Cal. Date (YY-MM-DD)	Next Cal. Date (YY-MM-DD)
	AGC-EM-E046	EMI Test Receiver	R&S	ESCI	10096	2025-01-14	2026-01-13
$\boxtimes$	AGC-EM-E116	EMI Test Receiver	R&S	ESCI	100034	2024-05-24	2025-05-23
	AGC-EM-E061	Spectrum Analyzer	Agilent	N9010A	MY53470504	2024-05-28	2025-05-27
$\boxtimes$	AGC-EM-E086	Loop Antenna	ZHINAN	ZN30900C	18051	2024-03-05	2026-03-04
$\boxtimes$	AGC-EM-E001	Wideband Antenna	SCHWARZBECK	VULB9168	D69250	2023-05-11	2025-05-10
	AGC-EM-E029	Broadband Ridged Horn Antenna	ETS	3117	00034609	2025-03-27	2026-03-26
$\boxtimes$	AGC-EM-E082	Horn Antenna	SCHWARZBECK	BBHA 9170	#768	2023-09-24	2025-09-23
	AGC-EM-E146	Pre-amplifier	ETS	3117-PA	00246148	2024-07-24	2026-07-23
$\boxtimes$	AGC-EM-A119	2.4G Filter	SongYi	N/A	N/A	2024-05-23	2025-05-22
$\boxtimes$	AGC-EM-A138	6dB Attenuator	Eeatsheep	LM-XX-6-5W	N/A	2023-06-09	2025-06-08
	AGC-EM-A139	6dB Attenuator	Eeatsheep	LM-XX-6-5W	N/A	2023-06-09	2025-06-08

• Tes	Test Software				
Used	Equipment No.	Test Equipment	Manufacturer	Model No.	Version Information
	AGC-EM-S003	RE Test System	FARA	EZ-EMC	VRA-03A
$\boxtimes$	AGC-EM-S011	RSE Test System	Tonscend	TS+-Ver2.1(JS36-RSE)	4.0.0.0



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# 4. System Test Configuration

# 4.1 EUT Configuration

The EUT configuration for testing is installed on RF field strength measurement to meet the Commission's requirement and operating in a manner which intends to maximize its emission characteristics in a continuous normal application.

#### 4.2 EUT Exercise

The Transmitter was operated in the normal operating mode. The TX frequency was fixed which was for the purpose of the measurements.

## 4.3 Configuration of Tested System

Radiated	d Emission Configu	re:
	EUT	

## 4.4 Equipment Used in Tested System

The following peripheral devices and interface cables were connected during the measurement:

☐ Test Accessories Come From The Laboratory

No.	Equipment	Manufacturer	Model No.	Specification Information	Cable
1		1	1	1	

Test Accessories Come From The Manufacturer

No.	Equipment	Manufacturer	Model No.	Specification Information	Cable
1					



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# 4.5 Summary of Test Results

Item	FCC Rules	Description of Test	Result
1	§15.247 (b)(1)	RF Output Power	Pass
2	§15.209	Radiated Spurious Emission	Pass

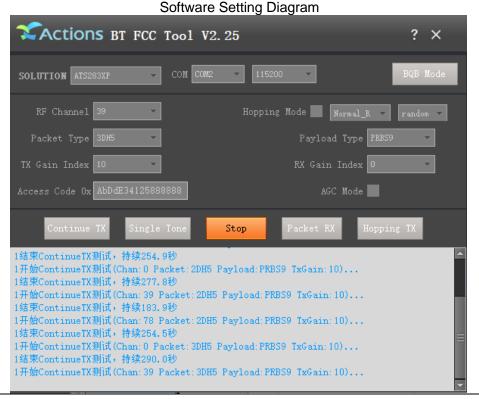


# 5. Description of Test Modes

	Summary table of Test Cases
Test Item	Data Rate / Modulation
rest item	Bluetooth – BR_EDR (GFSK/π /4-DQPSK/8DPSK)
Radiated & Conducted Test Cases	Mode 1: Bluetooth Tx CH00_2402 MHz_1Mbps (Battery powered or AC/DC adapter) Mode 2: Bluetooth Tx CH39_2441 MHz_1Mbps (Battery powered or AC/DC adapter) Mode 3: Bluetooth Tx CH78_2480 MHz_1Mbps (Battery powered or AC/DC adapter) Mode 4: Bluetooth Tx CH00_2402 MHz_2Mbps (Battery powered or AC/DC adapter) Mode 5: Bluetooth Tx CH39_2441 MHz_2Mbps (Battery powered or AC/DC adapter) Mode 6: Bluetooth Tx CH78_2480 MHz_2Mbps (Battery powered or AC/DC adapter) Mode 7: Bluetooth Tx CH00_2402 MHz_3Mbps (Battery powered or AC/DC adapter) Mode 8: Bluetooth Tx CH39_2441 MHz_3Mbps (Battery powered or AC/DC adapter) Mode 9: Bluetooth Tx CH78_2480 MHz_3Mbps (Battery powered or AC/DC adapter) Mode10: Bluetooth Tx Hopping-1Mbps (Battery powered or AC/DC adapter) Mode11: Bluetooth Tx Hopping-2Mbps (Battery powered or AC/DC adapter) Mode12: Bluetooth Tx Hopping-3Mbps (Battery powered or AC/DC adapter)
AC Conducted Emission	N/A

#### Note:

- 1. Only the result of the worst case was recorded in the report, if no other cases.
- 2. The battery is full-charged during the test.
- 3. For Radiated Emission, 3axis were chosen for testing for each applicable mode.
- 4. For Conducted Test method, a temporary antenna connector is provided by the manufacture.





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# 6. RF Output Power Measurement

## 6.1 Provisions Applicable

The maximum out power permissible output power is 1 Watt for all frequency hopping systems operating in the 2400-2483.5 MHz band employing at least 75 non-overlapping hopping channels.

The maximum out power permissible output power is 0.125 watts for all other frequency hopping systems in the 2400-2483.5 MHz band.

#### **6.2 Measurement Procedure**

# ⊠For Peak power test:

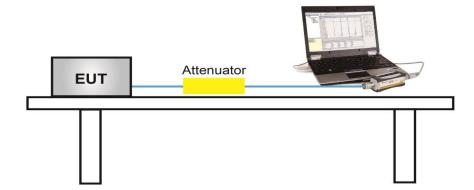
- 1. Connect EUT RF output port to the Spectrum Analyzer through an RF attenuator
- 2. Span: Approximately five times the 20 dB bandwidth, centered on a hopping channel.
- 3. RBW > 20 dB bandwidth of the emission being measured.
- 4. VBW ≥RBW.
- 5. Sweep: Auto.
- 6. Detector function: Peak.
- 7. Trace: Max hold.
- 8. Allow trace to stabilize. Use the marker-to-peak function to set the marker to the peak of the emission. The indicated level is the peak output power, after any corrections for external attenuators and cables.

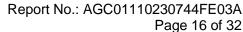
Г	For	Average	e power	test:
---	-----	---------	---------	-------

Measurements may be performed using a wideband gated RF power meter provided that the gate parameters are adjusted such that the power is measured only when the EUT is transmitting at its maximum power control level. Since this measurement is made only during the ON time of the transmitter, no duty cycle correction is required

## 6.3 Measurement Setup (Block Diagram of Configuration)

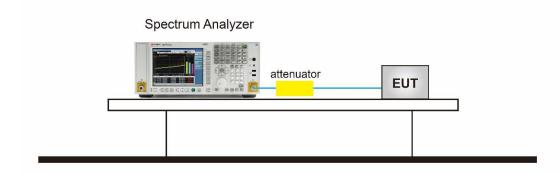
For Average power test setup





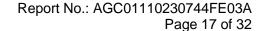


⊠For peak power test setup



#### 6.4 Measurement Result

	Test Data of Conducted Output Power				
Test Mode	Test Frequency (MHz)	Peak Power (dBm)	Limits (dBm)	Pass or Fail	
	2402	6.554	≤21	Pass	
GFSK	2441	6.561	≤21	Pass	
	2480	6.419	≤21	Pass	
	2402	6.563	≤21	Pass	
π /4-DQPSK	2441	6.567	≤21	Pass	
	2480	6.422	≤21	Pass	
	2402	6.559	≤21	Pass	
8DPSK	2441	6.576	≤21	Pass	
	2480	6.433	≤21	Pass	

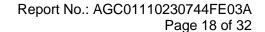




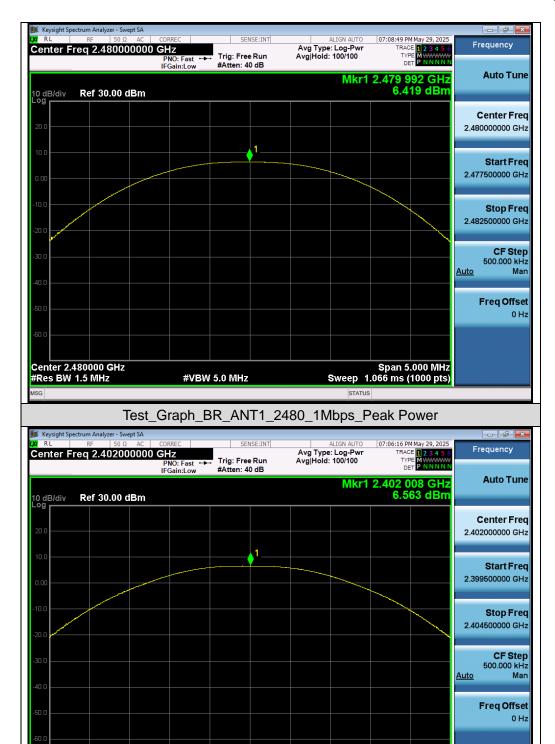
**Test Graphs of Conducted Output Power** Avg Type: Log-Pwr Avg|Hold: 100/100 Frequency Center Freq 2.402000000 GHz Trig: Free Run #Atten: 40 dB PNO: Fast → IFGain:Low **Auto Tune** Mkr1 2.401 952 GHz 6.554 dBm 10 dB/div Ref 30.00 dBm Center Freq 2.402000000 GHz Start Freq 2.399500000 GHz Stop Freq 2.404500000 GHz **CF Step** 500,000 kHz <u>Auto</u> Freq Offset 0 Hz Center 2.402000 GHz #Res BW 1.5 MHz Span 5.000 MHz Sweep 1.066 ms (1000 pts) **#VBW 5.0 MHz** Test\_Graph\_BR\_ANT1\_2402\_1Mbps\_Peak Power Avg Type: Log-Pwr Avg|Hold: 100/100 Frequency Center Freq 2.441000000 GHz Trig: Free Run #Atten: 40 dB PNO: Fast → IFGain:Low **Auto Tune** Mkr1 2.440 937 GHz 6.561 dBm Ref 30.00 dBm 10 dB/div Center Freq 2.441000000 GHz Start Freq 2.438500000 GHz Stop Frea 2.443500000 GHz **CF Step** 500,000 kHz <u>Auto</u> Freq Offset 0 Hz Center 2.441000 GHz #Res BW 1.5 MHz Span 5.000 MHz Sweep 1.066 ms (1000 pts) **#VBW 5.0 MHz** 

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Test\_Graph\_BR\_ANT1\_2441\_1Mbps\_Peak Power







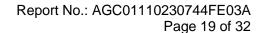
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Test\_Graph\_EDR\_ANT1\_2402\_2Mbps\_Peak Power

**#VBW 5.0 MHz** 

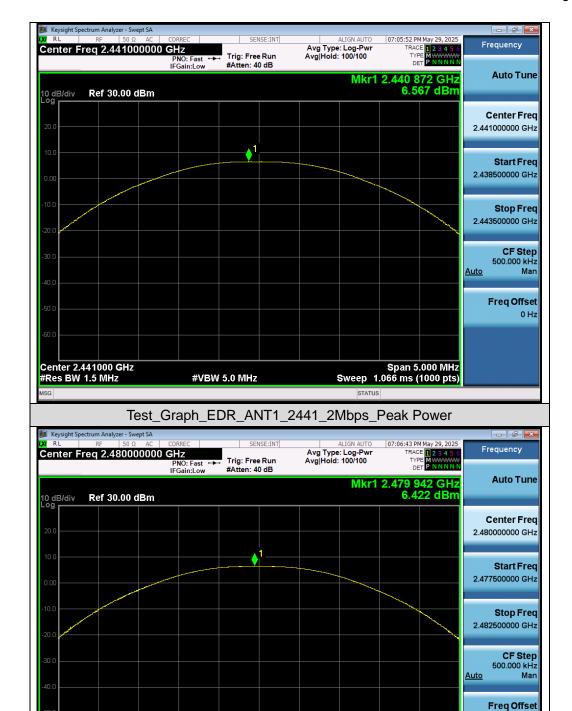
Span 5.000 MHz Sweep 1.066 ms (1000 pts)

Center 2.402000 GHz #Res BW 1.5 MHz



0 Hz





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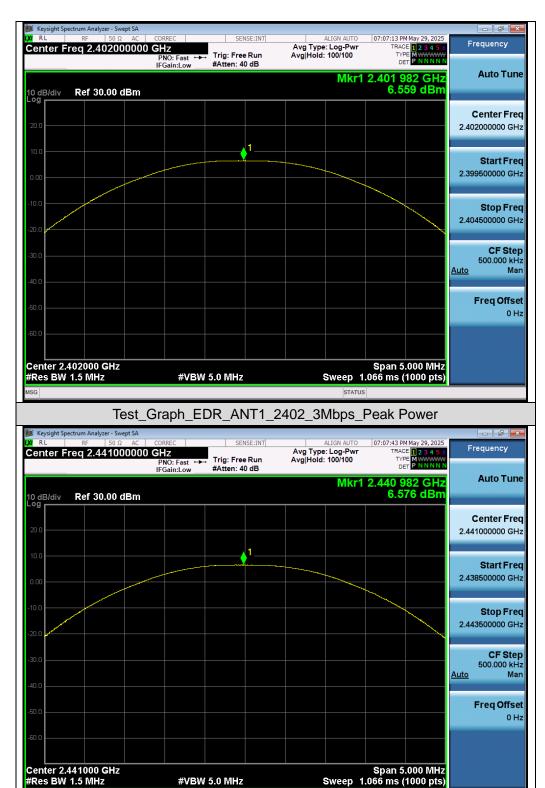
Test\_Graph\_EDR\_ANT1\_2480\_2Mbps\_Peak Power

**#VBW 5.0 MHz** 

Span 5.000 MHz Sweep 1.066 ms (1000 pts)

Center 2.480000 GHz #Res BW 1.5 MHz

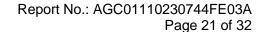




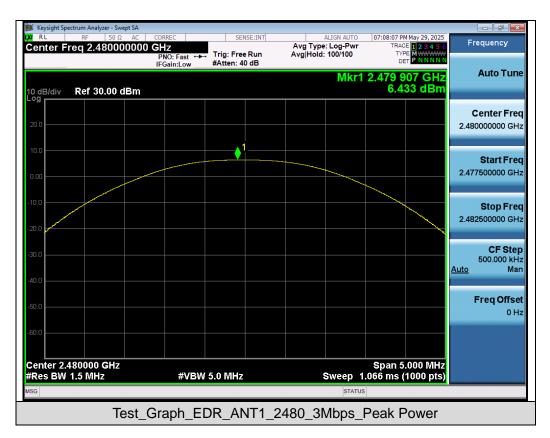
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Test\_Graph\_EDR\_ANT1\_2441\_3Mbps\_Peak Power

**#VBW 5.0 MHz** 









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# 7. Radiated Spurious Emission

#### 7.1 Measurement Limit

15.209 Limit in the below table has to be followed

Frequencies (MHz)	Field Strength (microvolts/meter)	Measurement Distance (meters)
0.009~0.490	2400/F(kHz)	300
0.490~1.705	24000/F(kHz)	30
1.705~30.0	30	30
30~88	100	3
88~216	150	3
216~960	200	3
Above 960	500	3

Note: All modes were tested for restricted band radiated emission, the test records reported below are the worst result compared to other modes.

#### 7.2 Measurement Procedure

- The EUT was placed on the top of the turntable 0.8 or 1.5 meter above ground. The phase center of the receiving antenna mounted on the top of a height-variable antenna tower was placed 3 meters far away from the turntable.
- 2. Power on the EUT and all the supporting units. The turntable was rotated by 360 degrees to determine the position of the highest radiation.
- 3. The height of the broadband receiving antenna was varied between one meter and four meters above ground to find the maximum emissions field strength of both horizontal and vertical polarization.
- 4. For each suspected emission, the antenna tower was scan (from 1 M to 4 M) and then the turntable was rotated (from 0 degree to 360 degrees) to find the maximum reading.
- 5. Set the test-receiver system to Peak or CISPR quasi-peak Detect Function with specified bandwidth under Maximum Hold Mode.
- 6. For emissions above 1GHz, use 1MHz RBW and 3MHz VBW for peak reading. Place the measurement antenna away from each area of the EUT determined to be a source of emissions at the specified measurement distance, while keeping the measurement antenna aimed at the source of emissions at each frequency of significant emissions, with polarization oriented for maximum response. The measurement antenna may have to be higher or lower than the EUT, depending on the radiation pattern of the emission and staying aimed at the emission source for receiving the maximum signal. The final measurement antenna elevation shall be that which maximizes the emissions. The measurement antenna elevation for maximum emissions shall be restricted to a range of heights of from 1 m to 4 m above the ground or reference ground plane.
- 7. When the radiated emissions limits are expressed in terms of the average value of the emissions, and pulsed operation is employed, the measurement field strength shall be determined by averaging over one complete pulse train, including blanking intervals, as long as the pulse train does not exceed 0.1 seconds. As an alternative (provided the transmitter operates for longer than 0.1 seconds) or in cases where the pulse train exceeds 0.1 seconds, the measured field strength shall be determined from the average absolute voltage during a 0.1 second interval during which the field strength is at its maximum values.



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8. If the emissions level of the EUT in peak mode was 3 dB lower than the average limit specified, then testing will be stopped and peak values of EUT will be reported, otherwise, the emissions which do not have 3 dB margin will be repeated one by one using the quasi-peak method for below 1GHz.

- 9. For testing above 1GHz, the emissions level of the EUT in peak mode was lower than average limit (that means the emissions level in peak mode also complies with the limit in average mode), then testing will be stopped and peak values of EUT will be reported, otherwise, the emissions will be measured in average mode again and reported.
- 10. In case the emission is lower than 30MHz, loop antenna has to be used for measurement and the recorded data should be QP measured by receiver. High Low scan is not required in this case.

The following table is the setting of spectrum analyzer and receiver.

Spectrum Parameter	Setting	
Start ~Stop Frequency	9KHz~150KHz/RB 200Hz for QP	
Start ~Stop Frequency	150KHz~30MHz/RB 9KHz for QP	
Start ~Stop Frequency	30MHz~1000MHz/RB 120KHz for QP	
Start ~Stop Frequency	1GHz~26.5GHz	
Clart - Clop i requerity	1MHz/3MHz for Peak, 1MHz/3MHz for Average	

Receiver Parameter	Setting
Start ~Stop Frequency	9KHz~150KHz/RB 200Hz for QP
Start ~Stop Frequency	150KHz~30MHz/RB 9KHz for QP
Start ~Stop Frequency	30MHz~1000MHz/RB 120KHz for QP



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## Quasi-Peak Measurements below 1GHz

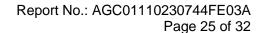
- 1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
- 2. Span was set greater than 1MHz
- 3. RBW = as shown in the table above
- 4. Detector = CISPR quasi-peak
- 5. Sweep time = auto couple
- 6. Trace was allowed to stabilize

## • Peak Measurements above 1GHz

- 1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
- 2. RBW = 1MHz
- 3. VBW = 3MHz
- 4. Detector = peak
- 5. Sweep time = auto couple
- 6. Trace mode = max hold
- 7. Trace was allowed to stabilize

## Average Measurements above 1GHz

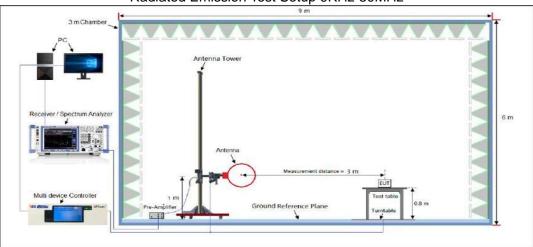
- 1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
- 2. RBW = 1MHz
- 3. VBW ≥ [3 × RBW]
- 4. Detector = Power averaging (rms)
- 5. Averaging type = power (i.e., rms)
- 6. Sweep time = auto
- 7. Perform a trace average of at least 100 traces.
- 8. The applicable correction factor is [10\*log (1 / D)], where D is the duty cycle. The factor had been edited in the "Input Correction" of the Spectrum Analyzer.



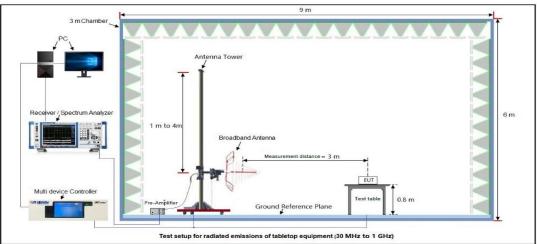


# 7.3 Measurement Setup (Block Diagram of Configuration)

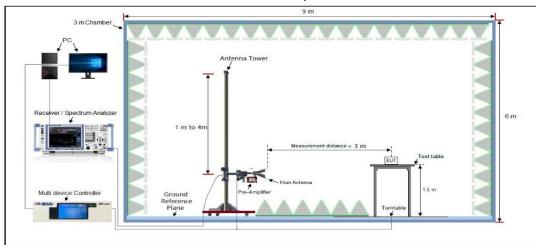
Radiated Emission Test Setup 9KHz-30MHz



# Radiated Emission Test Setup 30MHz-1000MHz



# Radiated Emission Test Setup Above 1000MHz



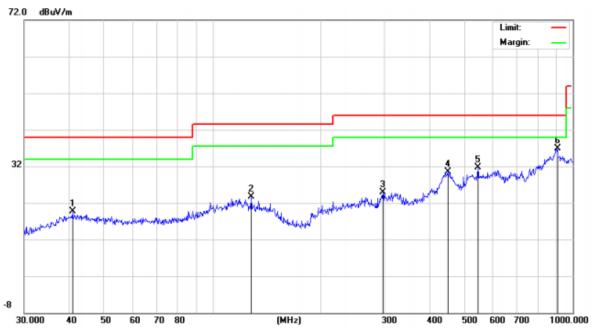


#### 7.4 Measurement Result

#### **Radiated Emission Below 30MHz**

The amplitude of spurious emissions from 9kHz to 30MHz which are attenuated more than 20 dB below the permissible value need not be reported.

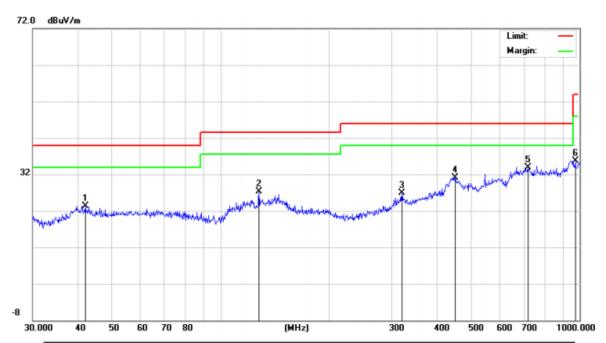
Radiated Emission Test Results at 30MHz-1GHz					
EUT Name	soundcore Glow Mini	Model Name	A3136		
Temperature	20.3℃	Relative Humidity	50.8%		
Pressure	960hPa	Test Voltage	Normal Voltage		
Test Mode	Mode 8	Antenna Polarity	Horizontal		



Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over	
	MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector
4	0.8446	5.84	13.84	19.68	40.00	-20.32	peak
12	8.1130	7.84	15.91	23.75	43.50	-19.75	peak
29	7.2241	8.72	16.28	25.00	46.00	-21.00	peak
44	9.5558	5.77	24.77	30.54	46.00	-15.46	peak
54	5.1826	7.78	23.98	31.76	46.00	-14.24	peak
* 90	6.4824	5.92	30.89	36.81	46.00	-9.19	peak
	12 29 44 54	MHz 40.8446 128.1130 297.2241 449.5558 545.1826	Mk. Freq. Level  MHz dBuV  40.8446 5.84  128.1130 7.84  297.2241 8.72  449.5558 5.77  545.1826 7.78	Mk. Freq. Level Factor  MHz dBuV dB  40.8446 5.84 13.84  128.1130 7.84 15.91  297.2241 8.72 16.28  449.5558 5.77 24.77  545.1826 7.78 23.98	Mk. Freq. Level Factor ment  MHz dBuV dB dBuV/m  40.8446 5.84 13.84 19.68  128.1130 7.84 15.91 23.75  297.2241 8.72 16.28 25.00  449.5558 5.77 24.77 30.54  545.1826 7.78 23.98 31.76	Mk.         Freq.         Level         Factor         ment         Limit           MHz         dBuV         dB         dBuV/m         dBuV/m           40.8446         5.84         13.84         19.68         40.00           128.1130         7.84         15.91         23.75         43.50           297.2241         8.72         16.28         25.00         46.00           449.5558         5.77         24.77         30.54         46.00           545.1826         7.78         23.98         31.76         46.00	Mk.         Freq.         Level         Factor         ment         Limit         Over           MHz         dBuV         dB         dBuV/m         dBuV/m         dB         dBuV/m         dB           40.8446         5.84         13.84         19.68         40.00         -20.32           128.1130         7.84         15.91         23.75         43.50         -19.75           297.2241         8.72         16.28         25.00         46.00         -21.00           449.5558         5.77         24.77         30.54         46.00         -15.46           545.1826         7.78         23.98         31.76         46.00         -14.24



Radiated Emission Test Results at 30MHz-1GHz					
EUT Name	soundcore Glow Mini	Model Name	A3136		
Temperature	20.3℃	Relative Humidity	50.8%		
Pressure	960hPa	Test Voltage	Normal Voltage		
Test Mode	Mode 8	Antenna Polarity	Vertical		



No.	Mk	. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector
1		42.0066	6.44	16.92	23.36	40.00	-16.64	peak
2		128.1130	9.41	17.90	27.31	43.50	-16.19	peak
3		319.9370	6.56	20.30	26.86	46.00	-19.14	peak
4		451.1350	5.51	25.60	31.11	46.00	-14.89	peak
5	*	719.1995	5.11	28.77	33.88	46.00	-12.12	peak
6		972.3374	6.08	29.64	35.72	54.00	-18.28	peak

## **RESULT: Pass**

## Note:

- 1. Factor=Antenna Factor + Cable loss, Over=Measurement-Limit.
- 2. All test modes had been pre-tested. The mode 8 is the worst case and recorded in the report.



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#### **Radiated Emissions Test Results Above 1GHz**

EUT Name	soundcore Glow Mini	Model Name	A3136
Temperature	20.3℃	Relative Humidity	50.8%
Pressure	960hPa	Test Voltage	Normal Voltage
Test Mode	Mode 7	Antenna Polarity	Horizontal

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Value Type
(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	Value Type
4804.000	47.24	0.08	47.32	74.00	-26.68	peak
4804.000	38.43	0.08	38.51	54.00	-15.49	AVG
7206.000	42.02	2.21	44.23	74.00	-29.77	peak
7206.000	36.87	2.21	39.08	54.00	-14.92	AVG

# Remark:

Factor = Antenna Factor + Cable Loss - Pre-amplifier.

EUT Name	soundcore Glow Mini	Model Name	A3136
Temperature	20.3℃	Relative Humidity	50.8%
Pressure	960hPa	Test Voltage	Normal Voltage
Test Mode	Mode 7	Antenna Polarity	Vertical

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Value Time
(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	Value Type
4804.000	49.03	0.08	49.11	74.00	-24.89	peak
4804.000	36.78	0.08	36.86	54.00	-17.14	AVG
7206.000	45.14	2.21	47.35	74.00	-26.65	peak
7206.000	34.56	2.21	36.77	54.00	-17.23	AVG

## Remark:

Factor = Antenna Factor + Cable Loss - Pre-amplifier.

# **RESULT: PASS**



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## **Radiated Emissions Test Results for Above 1GHz**

EUT Name	soundcore Glow Mini	Model Name	A3136
Temperature	20.3℃	Relative Humidity	50.8%
Pressure	960hPa	Test Voltage	Normal Voltage
Test Mode	Mode 8	Antenna Polarity	Horizontal

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Value Type
(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	Value Type
4882.000	46.17	0.14	46.31	74.00	-27.69	peak
4882.000	34.47	0.14	34.61	74.00	-39.39	AVG
7323.000	43.11	0.14	43.25	74.00	-30.75	peak
7323.000	36.14	0.14	36.28	74.00	-37.72	AVG

Remark:

Factor = Antenna Factor + Cable Loss - Pre-amplifier.

EUT Name	soundcore Glow Mini	Model Name	A3136
Temperature	20.3℃	Relative Humidity	50.8%
Pressure	960hPa	Test Voltage	Normal Voltage
Test Mode	Mode 8	Antenna Polarity	Vertical

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Value Type
(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	
4882.000	47.99	0.14	48.13	74.00	-25.87	peak
4882.000	38.12	0.14	38.26	54.00	-15.74	AVG
7323.000	44.61	2.36	46.97	74.00	-27.03	peak
7323.000	35.76	2.36	38.12	54.00	-15.88	AVG

Remark:

Factor = Antenna Factor + Cable Loss - Pre-amplifier.

# **RESULT: PASS**



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## **Radiated Emissions Test Results for Above 1GHz**

EUT Name	soundcore Glow Mini	Model Name	A3136
Temperature	20.3℃	Relative Humidity	50.8%
Pressure	960hPa	Test Voltage	Normal Voltage
Test Mode	Mode 9	Antenna Polarity	Horizontal

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Value Type	
(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)		
4960.000	46.93	0.22	47.15	74.00	-26.85	peak	
4960.000	38.11	0.22	38.33	54.00	-15.67	AVG	
7440.000	43.15	2.64	45.79	74.00	-28.21	peak	
7440.000	37.99	2.64	40.63	54.00	-13.37	AVG	

Remark:

Factor = Antenna Factor + Cable Loss - Pre-amplifier.

EUT Name	soundcore Glow Mini	Model Name	A3136
Temperature	20.3℃	Relative Humidity	50.8%
Pressure	960hPa	Test Voltage	Normal Voltage
Test Mode	Mode 9	Antenna Polarity	Vertical

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Value Time	
(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	Value Type	
4960.000	47.42	0.22	47.64	74.00	-26.36	peak	
4960.000	36.20	0.22	36.42	54.00	-17.58	AVG	
7440.000	43.95	2.64	46.59	74.00	-27.41	peak	
7440.000	34.54	2.64	37.18	54.00	-16.82	AVG	

Remark:

Factor = Antenna Factor + Cable Loss - Pre-amplifier.

#### **RESULT: PASS**

#### Note:

- 1. The amplitude of other spurious emissions from 1G to 25 GHz which are attenuated more than 20 dB below the permissible value need not be reported.
- 2. Factor = Antenna Factor + Cable loss Pre-amplifier gain, Margin = Emission Level-Limit.
- 3. The "Factor" value can be calculated automatically by software of measurement system.
- 4. All test modes had been pre-tested. The mode 8DPSK is the worst case and recorded in the report.



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# Appendix I: Photographs of Test Setup

Refer to the Report No.: AGC01110230744AP02A

**Appendix II: Photographs of Test EUT** 

Refer to the Report No.: AGC01110230744AP03A



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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").

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- 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. 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.
- 5. 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.
- 6. 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. 7. 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.
- 8. 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.
- 9. 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.

----End of Report----