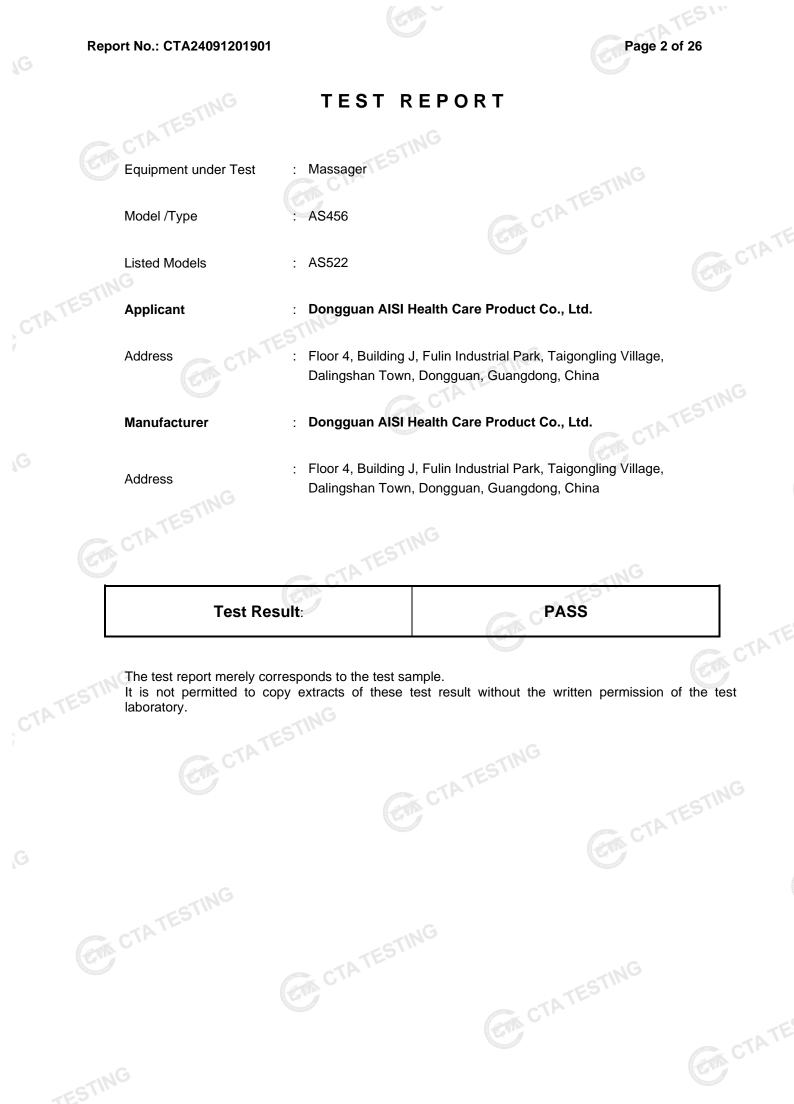
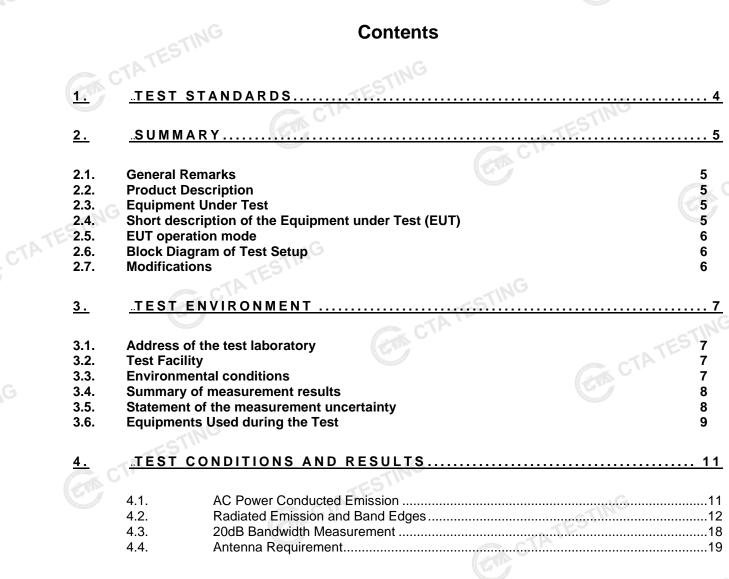
#### Shenzhen CTA Testing Technology Co., Ltd.



Room 106, Building 1, Yibaolai Industrial Park, Qiaotou Community, Fuhai Street, Bao'an District, Shenzhen, China

CTATESTINC FCC	TEST REPORT Rules and Regulations Part PART 15.249	
Report Reference No	: CTA24091201901	NG
FCC ID	: CTA24091201901 : 2AZIJ-AS456	10
Compiled by ( position+printed name+signa		ing Technology
Supervised by ( position+printed name+signa	ture Project Engineer Xudong Zhang	CTArang =
Approved by ( position+printed name+signa	-SIN	Wang
Date of issue		
Testing Laboratory Name	Shenzhen CTA Testing Technology Co., Ltd.	STIN
Address	Room 106, Building 1, Yibaolai Industrial Park, Qiaot Fuhai Street, Bao'an District, Shenzhen, China	ou Community,
Applicant's name	Dongguan AISI Health Care Product Co., Ltd.	Ţ
A 11	Floor 4, Building J, Fulin Industrial Park, Taigongling	Village.
Address	Dalingshan Town, Dongguan, Guangdong, China	
TESIN		
Standard Shenzhen CTA Testing Tech	Dalingshan Town, Dongguan, Guangdong, China 	
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Standard Shenzhen CTA Testing Tech This publication may be reproc Shenzhen CTA Testing Techn material. Shenzhen CTA Testi liability for damages resulting f placement and context. Test item description	Dalingshan Town, Dongguan, Guangdong, China FCC Rules and Regulations PART 15.249 nology Co., Ltd. All rights reserved. Auced in whole or in part for non-commercial purposes as loo ology Co., Ltd. is acknowledged as copyright owner and so ing Technology Co., Ltd. takes no responsibility for and will rom the reader's interpretation of the reproduced material of Massager N/A W/A	ong as the ource of the not assume
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Standard Shenzhen CTA Testing Tech This publication may be reprod Shenzhen CTA Testing Techn material. Shenzhen CTA Testi liability for damages resulting f placement and context. Test item description Trade Mark Manufacturer Model/Type reference Listed Models	Dalingshan Town, Dongguan, Guangdong, China FCC Rules and Regulations PART 15.249 nology Co., Ltd. All rights reserved. Auced in whole or in part for non-commercial purposes as loo ology Co., Ltd. is acknowledged as copyright owner and so ing Technology Co., Ltd. takes no responsibility for and will rom the reader's interpretation of the reproduced material of 	ong as the burce of the not assume due to its
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Page 3 of 26

TEST SETUP PHOTOS OF THE EUT ...... 20 <u>5.</u> CTATES 61 NG

<u>- ri</u>

#### 1. <u>TEST STANDARDS</u>

The tests were performed according to following standards:

FCC Rules Part 15.249: Operation within the bands 902 - 928 MHz, 2400 - 2483.5 MHz, 5725 -5875 MHz, and 24.0 - 24.25 GHz.

ANSI C63.10:2013 : American National Standard for Testing Unlicensed Wireless Devices

Emissions from Low-Voltage Electrical and Electronic Equipment in the Range of 9 kHz to 40GHz Range of 9 kHz to 40GHz Americ Americ Range of 9 kHz to 40GHz CTA TESTING

#### 2. SUMMARY

#### 2.1. General Remarks

Date of receipt of test sample	:	Sep. 12, 2024		
	and a	GV		
Testing commenced on		Sep. 12, 2024		
	WALKS ST.		(O-18d	CTP'
Testing concluded on	:	Sep. 21, 2024		

Testing concluded on .	Sep. 21, 2024	
2.2. Product Description		
Name of EUT	Massager	
Model Number	AS456	
Power Rating	DC 3V From battery	
Sample ID:	CTA240912019-1# (Engineer sample) CTA240912019-2# (Normal sample)	-sT
Hardware version:	V1.0	TATES
Software version:	V1.0	G
Operation frequency	2420MHz	C.
Modulation	GFSK	
Antenna Type	PCB antenna	
Antenna Gain	0.85 dBi	

2.3. Equipment Under Test	20 -	ATE			
Power supply system utilised	d				
Power supply voltage	: 0	230V / 50 Hz	0	120V / 60Hz	
	0	12 V DC	0	24 V DC	
		Other (specified in I	blank below	)	
TING		DC 3V From batter	Y		

# 2.4. Short description of the Equipment under Test (EUT) CTATESTING

This is a Massager.

For more details, refer to the user's manual of the EUT.

#### 2.5. EUT operation mode

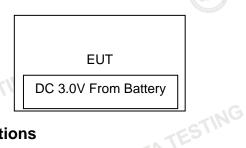
The Applicant use Key to control the EUT for staying in continuous transmitting and receiving mode for testing .There is 1 channels provided to the EUT.

<b>Operation Frequency:</b>	C.T.A.
Channel	Frequency (MHz)
1	2420

#### Test frequency:

Channel	Frequency (MHz)	
1	2420	
2.6. Block Diagram	of Test Setup	CTATESTING
	1	(MHz)

#### 2.6. Block Diagram of Test Setup



#### 2.7. Modifications

No modifications were implemented to meet testing criteria.

#### 3. TEST ENVIRONMENT

#### 3.1. Address of the test laboratory

#### Shenzhen CTA Testing Technology Co., Ltd.

Room 106, Building 1, Yibaolai Industrial Park, Qiaotou Community, Fuhai Street, Bao'an District, Shenzhen, China

#### 3.2. Test Facility

The test facility is recognized, certified, or accredited by the following organizations: FCC-Registration No.: 517856 Designation Number: CN1318

Shenzhen CTA Testing Technology Co., Ltd. has been listed on the US Federal Communications Commission list of test facilities recognized to perform electromagnetic emissions measurements.

Industry Canada Registration Number. Is: 27890 CAB identifier: CN0127 The Laboratory has been registered by Certification and Engineering Bureau of Industry Canada for radio TATEST equipment testing.

#### A2LA-Lab Cert. No.: 6534.01

Shenzhen CTA Testing Technology Co., Ltd. has been listed by American Association for Laboratory Accreditation to perform electromagnetic emission measurement.

The 3m-Semi anechoic test site fulfils CISPR 16-1-4 according to ANSI C63.10 and CISPR 16-1-4:2010.

#### 3.3. Environmental conditions

During the measurement the environmental conditions were within the listed ranges: GTA CTATE

Radiated Emission:

Temperature:	23 ° C
Humidity:	48 %
NG	
Atmospheric pressure:	950-1050mbar

## CTATES AC Main Conducted testing:

C Main Conducted testing:	
Temperature:	24 ° C
G	
Humidity:	45 %
Strengt-	Ci
Atmospheric pressure:	950-1050mbar

Conducted testina:

bolladotoa tootiligi	
Temperature:	24 ° C
Humidity:	45 %
ESTI-	
Atmospheric pressure:	950-1050mbar 💦
	GA CTATESTING

#### 3.4. Summary of measurement results

FCC Part 15.249(a)	Field Strength of Fundamental	PASS
FCC Part 15.209	Spurious Emission	PASS
FCC Part 15.209	Band edge	PASS
FCC Part 15.215(c)	20dB bandwidth	PASS
FCC Part 15.207	Conducted Emission	N/A
FCC Part 15.203	Antenna Requirement	PASS

#### 3.5. Statement of the measurement uncertainty

The data and results referenced in this document are true and accurate. The reader is cautioned that there may be errors within the calibration limits of the equipment and facilities. The measurement uncertainty was calculated for all measurements listed in this test report acc. to TR-100028-01" Electromagnetic compatibility and Radio spectrum Matters (ERM); Uncertainties in the measurement of mobile radio equipment characteristics; Part 1" and TR-100028-02 "Electromagnetic compatibility and Radio spectrum Matters (ERM);Uncertainties in the measurement of mobile radio equipment characteristics; Part 2 " and is documented in the Shenzhen CTA Testing Technology Co., Ltd. quality system acc. to DIN EN ISO/IEC 17025. Furthermore, component and process variability of devices similar to that tested may result in additional deviation. The manufacturer has the sole responsibility of continued compliance of the device. Hereafter the best measurement capability for Shenzhen CTA Testing Technology Co., Ltd. :

Test	Range	Measurement Uncertainty	Notes
Radiated Emission	9KHz~30MHz	3.02 dB	(1)
Radiated Emission	30~1000MHz	4.06 dB	(1)
Radiated Emission	1~18GHz	5.14 dB	(1)
Radiated Emission	18-40GHz	5.38 dB	(1)
Conducted Disturbance	0.15~30MHz	2.14 dB	(1)
Output Peak power	30MHz~18GHz	0.55 dB	(1)
Power spectral density	/	0.57 dB	(1)
Spectrum bandwidth	/	1.1%	(1)
Radiated spurious emission (30MHz-1GHz)	30~1000MHz	4.10 dB	(1)
Radiated spurious emission (1GHz-18GHz)	1~18GHz	4.32 dB	(1)
Radiated spurious emission (18GHz-40GHz)	18-40GHz	65.54 dB	(1)

CTATESTIN (1)This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.

TATE

TATE

## 3.6. Equipments Used during the Test

	Test Equipment	Manufacturer	Model No.	Equipment No.	Calibration Date	Calibration Due Date
		R&S	ENV216	CTA-308	2024/08/03	2025/08/02
	LISN	R&S	ENV216	CTA-314	2024/08/03	2025/08/02
Ī	EMI Test Receiver	R&S	ESPI	CTA-307	2024/08/03	2025/08/02
-	EMI Test Receiver	R&S	ESCI	CTA-306	2024/08/03	2025/08/02
E	Spectrum Analyzer	Agilent	N9020A	CTA-301	2024/08/03	2025/08/02
E	Spectrum Analyzer	R&S	FSU	CTA-337	2024/08/03	2025/08/02
-	Vector Signal generator	Agilent	N5182A	CTA-305	2024/08/03	2025/08/02
Ī	Analog Signal Generator	R&S	SML03	CTA-304	2024/08/03	2025/08/02
	WIDEBAND RADIO COMMUNICATION TESTER	CMW500	R&S	CTA-302	2024/08/03	2025/08/02
	Temperature and humidity meter	G Chigo	ZG-7020	CTA-326	2024/08/03	2025/08/02
	Ultra-Broadband Antenna	Schwarzbeck	VULB9163	CTA-310	2023/10/17	2024/10/16
1	Horn Antenna	Schwarzbeck	BBHA 9120D	CTA-309	2023/10/13	2024/10/12
	Loop Antenna	Zhinan	ZN30900C	CTA-311	2023/10/17	2024/10/16
Ī	Horn Antenna	Beijing Hangwei Dayang	OBH100400	CTA-336	2023/10/17	2024/10/16
	Amplifier	Schwarzbeck	BBV 9745	CTA-312	2024/08/03	2025/08/02
	Amplifier	Taiwan chengyi	EMC051845B	CTA-313	2024/08/03	2025/08/02
E	Directional coupler	NARDA	4226-10	CTA-303	2024/08/03	2025/08/02
	High-Pass Filter	XingBo	XBLBQ-GTA18	CTA-402	2024/08/03	2025/08/02
	High-Pass Filter	XingBo	XBLBQ-GTA27	CTA-403	2024/08/03	2025/08/02
	Automated filter bank	Tonscend	JS0806-F	CTA-404	2024/08/03	2025/08/02
	Power Sensor	Agilent	U2021XA	CTA-405	2024/08/03	2025/08/02
Ē	Amplifier	Schwarzbeck	BBV9719	CTA-406	2024/08/03	2025/08/02

# (CTA)

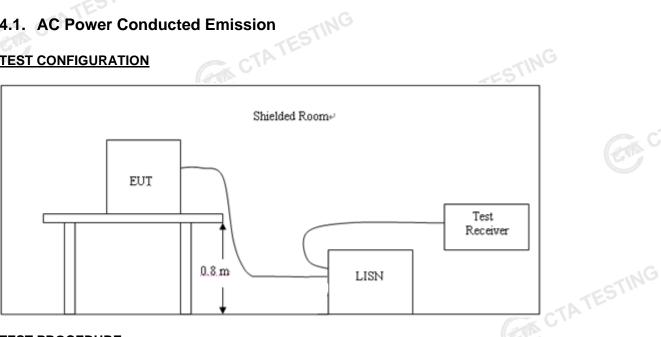
# Page 10 of 26

Test Equipment	G Manufacturer	Model No.	Version number	Calibration Date	Calibration Due Date	
EMI Test Software	Tonscend	TS®JS32-RE	5.0.0.2	N/A	N/A	
EMI Test Software	Tonscend	TS®JS32-CE	5.0.0.1	N/A	N/A	
RF Test Software	Tonscend	TS®JS1120-3	3.1.65	N/A	N/A	
RF Test Software	Tonscend	TS®JS1120	3.1.46	N/A	N/A	
TING					CTA C	571
STING	CTATESTING					
	CTATES					

### 4. TEST CONDITIONS AND RESULTS

#### 4.1. AC Power Conducted Emission

#### **TEST CONFIGURATION**



#### **TEST PROCEDURE**

- 1, The equipment was set up as per the test configuration to simulate typical actual usage per the user's manual. 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.
- 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. If a EUT received DC power from the USB Port of Notebook PC, the PC's adapter received power through a Line Impedance Stabilization Network (LISN) which supplied power source and was grounded to the ground plane.
- 5, All support equipments received AC power from a second LISN, if any.
- 6, The EUT 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.

#### AC Power Conducted Emission Limit

For intentional device, according to § 15.207(a) AC Power Conducted Emission Limits is as following :

	Limit (d	dBuV)
Frequency range (MHz)	Quasi-peak	Average
0.15-0.5	66 to 56*	56 to 46*
0.5-5	56	46
5-30	60	50
* Decreases with the legarithm of the freque		Country of the second

Decreases with the logarithm of the frequency.

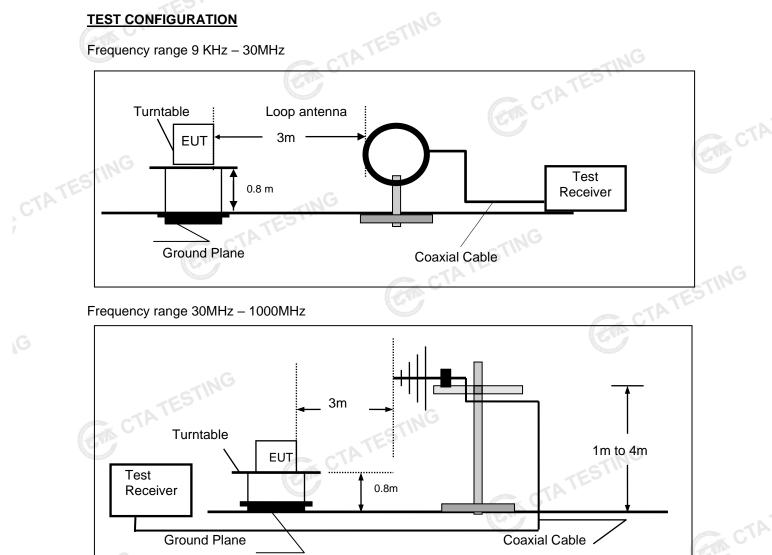
#### TEST RESULTS

The EUT is powered by Battery, So this test item is not applicable for the EUT. GIA CTATESTING

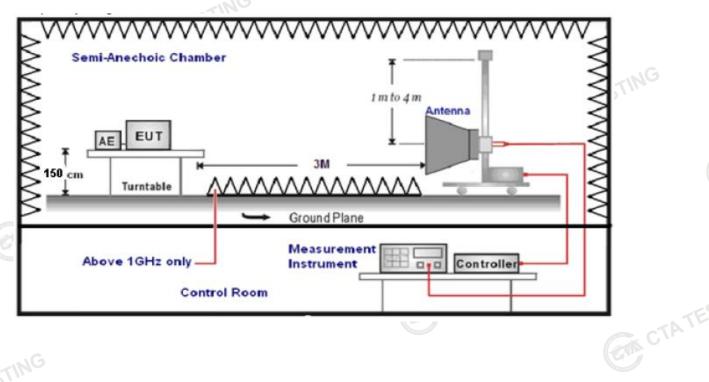
#### 4.2. Radiated Emission and Band Edges

#### **TEST CONFIGURATION**

Frequency range 9 KHz – 30MHz



Frequency range above 1GHz-25GHz



#### **TEST PROCEDURE**

1. The EUT was placed on a turn table which is 0.8m above ground plane when testing frequency range 9 KHz -25GHz.

Page 13 of 26

- 2. Maximum procedure was performed by raising the receiving antenna from 1m to 4m and rotating the turn table from 0°C to 360°C to acquire the highest emissions from EUT.
- 3. And also, each emission was to be maximized by changing the polarization of receiving antenna both horizontal and vertical.
- Repeat above procedures until all frequency measurements have been completed. 4
- The EUT minimum operation frequency was 26MHz and maximum operation frequency 5. was 1910MHz.so radiated emission test frequency band from 9KHz to 25GHz. The distance between test antenna and ELIT as following table states: 6.

۰.	The distance between test antenna and EOT as following table states.							
	Test Frequency range	Test Antenna Type	Test Distance					
	9KHz-30MHz	Active Loop Antenna	3					
	30MHz-1GHz	Ultra-Broadband Antenna	3					
	1GHz-18GHz	Double Ridged Horn Antenna	3					
	18GHz-25GHz	Horn Anternna	1					

Setting test receiver/spectrum as following table states: 7.

Test Frequency	/ range	Test Receiver/Spectrum Setting	Detector
9KHz-150K	Ήz	RBW=200Hz/VBW=3KHz,Sweep time=Auto	QP
150KHz-30N	MHz	RBW=9KHz/VBW=100KHz,Sweep time=Auto	QP
30MHz-1G	Hz	RBW=120KHz/VBW=1000KHz,Sweep time=Auto	QP
1GHz-40G	Hz	Peak Value: RBW=1MHz/VBW=3MHz, Sweep time=Auto Average Value: RBW=1MHz/VBW=10Hz, Sweep time=Auto	Peak

#### Field Strength Calculation

The field strength is calculated by adding the Antenna Factor and Cable Factor and subtracting the Amplifier Gain and Duty Cycle Correction Factor(if any) from the measured reading. The basic equation with a sample calculation is as follows:

#### FS = RA + AF + CL - AG

Where	FS = Field Strength	CL = Cable Attenuation Factor (Cable Loss)
R	A = Reading Amplitude	AG = Amplifier Gain
A	F = Antenna Factor	

Transd=AF +CL-AG

#### **RADIATION LIMIT**

According 15.249, the field strength of emissions from intentional radiators operated within 2400MHz-2483.5 MHz shall not exceed 94dBµV/m (50mV/m):

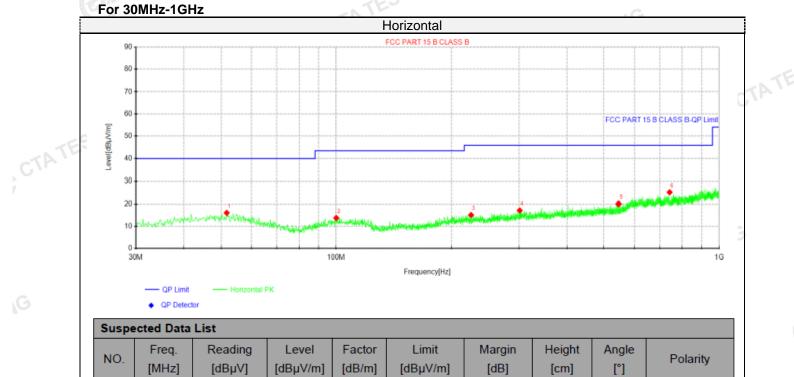
FCC PART 15.249(d) Emissions radiated outside of the specified frequency bands, except for harmonics, shall be attenuated by at least 50 dB below the level of the fundamental or to the general radiated emission limits in §15.209, whichever is the lesser attenuation.

In addition, radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.209(a)

	Rac	diated emission limits	K U I
Frequency (MHz)	Distance (Meters)	Radiated (dBµV/m)	Radiated (µV/m)
0.009-0.49	3	20log(2400/F(KHz))+40log(300/3)	2400/F(KHz)
0.49-1.705	3	20log(24000/F(KHz))+ 40log(30/3)	24000/F(KHz)
1.705-30	3	20log(30)+ 40log(30/3)	30
30-88	3	40.0	100
88-216	3 614	43.5	NG 150
216-960	3	46.0	200
Above 960	3	54.0	500
TEST RESULTS Remark:			CA CTA

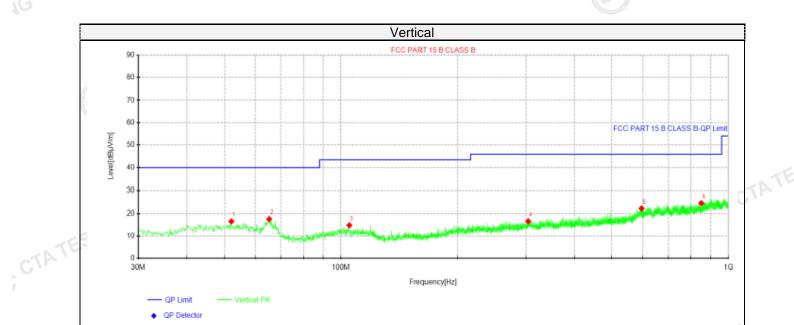
Remark: CTA TESTING

- 1. This test was performed with EUT in X, Y, Z position and the worse case was found when EUT in X position.
- 2. Both modes of GFSK were tested at Low, Middle, and High channel and recorded worst mode at GFSK
- 3. Radiated emission test from 9 KHz to 10th harmonic of fundamental was verified, and no emission found except system noise floor in 9 KHz to 30MHz and not recorded in this report.



	NO.	[MHz]	[dBµV]	[dBµV/m]	[dB/m]	[dBµV/m]	[dB]	[cm]	[°]	Polarity	
	1	51.7038	27.36	16.08	-11.28	40.00	23.92	100	197	Horizontal	
1	2	100.082	26.70	13.76	-12.94	43.50	29.74	100	279	Horizontal	
	3	225.091	27.55	15.09	-12.46	46.00	30.91	100	69	Horizontal	
	4	301.357	28.03	17.15	-10.88	46.00	28.85	100	314	Horizontal	
	5	545.918	28.93	20.06	-8.87	46.00	25.94	100	57	Horizontal	
	6	742.586	30.15	25.18	-4.97	46.00	20.82	100	22	Horizontal	TE
2	Note:1).Level (dBµV/m)= Reading (dBµV)+ Factor (dB/m) 2). Factor(dB/m)=Antenna Factor (dB/m) + Cable loss (dB) - Pre Amplifier gain (dB) 3). Margin(dB) = Limit (dBµV/m) - Level (dBµV/m)									CTAV	

Note:1).Level (dBµV/m)= Reading (dBµV)+ Factor (dB/m) 2). Factor(dB/m)=Antenna Factor (dB/m) + Cable loss (dB) - Pre Amplifier gain (dB) 3). Margin(dB) = Limit (dBµV/m) - Level (dBµV/m)



Page 15 of 26

#### Suspected Data List

Freq.	Reading	Level	Factor	Limit	Margin	Height	Angle	Polarity	
[MHz]	[dBµV]	[dBµV/m]	[dB/m]	[dBµV/m]	[dB]	[cm]	[°]	Folanty	
52.0675	27.84	16.53	-11.31	40.00	23.47	100	107	Vertical	
65.2838	31.55	17.54	-14.01	40.00	22.46	100	131	Vertical	
105.175	27.84	14.79	-13.05	43.50	28.71	100	2	Vertical	
304.146	27.46	16.58	-10.88	46.00	29.42	100	358	Vertical	
596.116	28.22	22.14	-6.08	46.00	23.86	100	142	Vertical	
849.892	28.21	24.50	-3.71	46.00	21.50	100	305	Vertical	
	[MHz] 52.0675 65.2838 105.175 304.146 596.116	[MHz] [dBµV]   52.0675 27.84   65.2838 31.55   105.175 27.84   304.146 27.46   596.116 28.22	[MHz] [dBμV] [dBμV/m]   52.0675 27.84 16.53   65.2838 31.55 17.54   105.175 27.84 14.79   304.146 27.46 16.58   596.116 28.22 22.14	[MHz] [dBμV] [dBμV/m] [dB/m]   52.0675 27.84 16.53 -11.31   65.2838 31.55 17.54 -14.01   105.175 27.84 14.79 -13.05   304.146 27.46 16.58 -10.88   596.116 28.22 22.14 -6.08	[MHz] [dBμV] [dBμV/m] [dBμV] [dBμV/m]   52.0675 27.84 16.53 -11.31 40.00   65.2838 31.55 17.54 -14.01 40.00   105.175 27.84 14.79 -13.05 43.50   304.146 27.46 16.58 -10.88 46.00   596.116 28.22 22.14 -6.08 46.00	[MHz] [dBμV] [dBμV/m] [dB/m] [dBμV/m] [dB]   52.0675 27.84 16.53 -11.31 40.00 23.47   65.2838 31.55 17.54 -14.01 40.00 22.46   105.175 27.84 14.79 -13.05 43.50 28.71   304.146 27.46 16.58 -10.88 46.00 29.42   596.116 28.22 22.14 -6.08 46.00 23.86	[MHz] [dBμV] [dBμV/m] [dB/m] [dBμV/m] [dBμV/m] [dBμV/m]   52.0675 27.84 16.53 -11.31 40.00 23.47 100   65.2838 31.55 17.54 -14.01 40.00 22.46 100   105.175 27.84 14.79 -13.05 43.50 28.71 100   304.146 27.46 16.58 -10.88 46.00 29.42 100   596.116 28.22 22.14 -6.08 46.00 23.86 100	[MHz] [dBμV] [dBμV/m] [dBμ] [dBμV/m] [dμμV/m] [dμμV/m] [d	

CTA CTA

Note:1).Level (dBµV/m)= Reading (dBµV)+ Factor (dB/m)

STING 2). Factor(dB/m)=Antenna Factor (dB/m) + Cable loss (dB) - Pre Amplifier gain (dB)

3). Margin(dB) = Limit (dB $\mu$ V/m) - Level (dB $\mu$ V/m)



#### Page 16 of 26

#### For 1GHz to 25GHz

GFSK (above 1GHz)										
Freque	ncy(MHz)	:	24	20	Pola	arity:	н	ORIZONTA	4L	
Frequency (MHz)	Emis Lev (dBu)	vel	Limit (dBuV/m)	Margin (dB)	Raw Value (dBuV)	Antenna Factor (dB/m)	Cable Factor (dB)	Pre- amplifier (dB)	Correction Factor (dB/m)	
2420.00	92.77	PK	114.00	21.23	104.05	27.47	3.43	42.18	-11.28	
2420.00	80.21	AV	94.00	13.79	91.49	27.47	3.43	42.18	-11.28	
4840.00	49.71	PK	74.00	24.29	53.96	32.35	5.12	41.72	-4.25	
4840.00	40.88	AV	54.00	13.12	45.13	32.35	5.12	41.72	-4.25	
7260.00	50.51	PK	74.00	23.49	51.03	36.59	6.5	43.61	-0.52	
7260.00	36.50	AV	54.00	17.50	37.02	36.59	6.5	43.61	-0.52	
. C.										

Frequency(MHz):			24	20	Pola	arity:		VERTICAL	
Frequency (MHz)	-	sion vel V/m)	Limit (dBuV/m)	Margin (dB)	Raw Value (dBuV)	Antenna Factor (dB/m)	Cable Factor (dB)	Pre- amplifier (dB)	Correction Factor (dB/m)
2420.00	91.14	PK	114.00	22.86	102.42	27.47	3.43	42.18	-11.28
2420.00	78.25	AV	94.00	15.75	89.53	27.47	3.43	42.18	-11.28
4840.00	46.39	PK	74.00	27.61	50.64	32.35	5.12	41.72	-4.25
4840.00	37.49	AV	54.00	16.51	41.74	32.35	5.12	41.72	-4.25
7260.00	46.91	PK	74.00	27.09	47.43	36.59	6.5	43.61	-0.52
7260.00	34.55	AV	54.00	19.45	35.07	36.59	6.5	43.61	-0.52

#### REMARKS:

1. Emission level (dBuV/m) =Raw Value (dBuV)+Correction Factor (dB/m)

Correction Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)- Pre-amplifier 2.

3. Margin value = Limit value- Emission level.

-- Mean the PK detector measured value is below average limit. 4.

The other emission levels were very low against the limit. 5.

#### Results of Band Edges Test (Radiated)

					- GTIN					
Freque	ency(MHz)	:	24	02	Pola	arity:	HORIZONTAL			
Frequency (MHz)	Emis Lev (dBu)	vel	Limit (dBuV/m)	Margin (dB)	Raw Value (dBuV)	Antenna Factor (dB/m)	Cable Factor (dB)	Pre- amplifier (dB)	Correction Factor (dB/m)	
2390.00	61.82	PK	74	12.18	72.24	27.42	4.31	42.15	-10.42	
2390.00	43.29	AV	54	10.71	53.71	27.42	4.31	42.15	-10.42	
Freque	ency(MHz)	:	24	02	Pola	arity:		VERTICAL		
Frequency (MHz)	Emis Lev (dBu)	vel	Limit (dBuV/m)	Margin (dB)	Raw Value (dBuV)	Antenna Factor (dB/m)	Cable Factor (dB)	Pre- amplifier (dB)	Correction Factor (dB/m)	
2390.00	59.78	PK	74	14.22	70.20	27.42	4.31	42.15	-10.42	
2390.00	41.70	AV	54	12.30	52.12	27.42	4.31	42.15	-10.42	
Freque	Frequency(MHz):		24	80	Pola	arity:	Н	ORIZONTA	L	
Frequency (MHz)	Emis Lev (dBu)	vel	Limit (dBuV/m)	Margin (dB)	Raw Value (dBuV)	Antenna Factor (dB/m)	Cable Factor (dB)	Pre- amplifier (dB)	Correction Factor (dB/m)	
2483.50	61.23	PK	74	12.77	71.34	27.7	4.47	42.28	-10.11	
<b>E</b> 100100		AV	54	11.49	52.62	27.7	4.47	42.28	-10.11	
2483.50	42.51						VERTICAL			
2483.50	42.51 ency(MHz)		24	80	Pola	arity:		VERTICAL		
2483.50		: ssion vel	24 Limit (dBuV/m)	80 Margin (dB)	Pola Raw Value (dBuV)	arity: Antenna Factor (dB/m)	Cable Factor (dB)	VERTICAL Pre- amplifier (dB)	Correction Factor (dB/m)	
2483.50 Freque	ency(MHz) Emis Lev	: ssion vel	Limit	Margin	C Raw Value	Antenna Factor	Cable Factor	Pre- amplifier	Correction Factor	

#### Note:

Margin value = Limits-Emission level. OTATESTING 2)

- 3) -- Mean the PK detector measured value is below average limit.
- 4) The other emission levels were very low against the limit.
- 5) RBW1MHz VBW3MHz Peak detector is for PK value; RBW 1MHz VBW10Hz Peak detector is for AV value.

#### 4.3. 20dB Bandwidth Measurement



#### **TEST PROCEDURE**

The transmitter output was connected to the spectrum analyzer through an attenuator. The bandwidth of the fundamental frequency was measured by spectrum analyzer with 30KHz RBW and 300KHz VBW.

The 20dB bandwidth is defined as the total spectrum the power of which is higher than peak power minus CTATESTING 20dB.

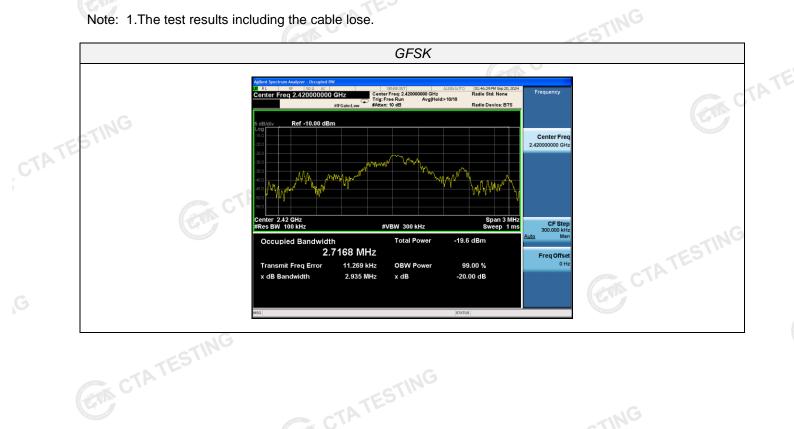
#### LIMIT

N/A

#### **TEST RESULTS**

Modulation	Channel	20dB bandwidth (MHz)	Result
GFSK	2420	2.935	PASS
CT.		TED	

Note: 1.The test results including the cable lose.



#### 4.4. Antenna Requirement

#### Standard Applicable

For intentional device, according to FCC 47 CFR Section 15.203, 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.

And according to FCC 47 CFR Section 15.247 (c), if transmitting antennas of directional gain greater than CTATE 6dBi are used, the power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6dBi.

The maximum gain of antenna was 0.85 dBi. Remark: The ant-Remark: The antenna gain is provided by the customer, if the data provided by the customer is not accurate, Shenzhen CTA Testing Technology Co., Ltd. does not assume any responsibility. CTATES

#### 5. Test Setup Photos of the EUT



GM CTATESTIN

CTA TESTING

# 6. <u>Test Photos of the EUT</u>



