

FCC Test Report

Report No.: AGC03576190601FE01

APPLICATION PURPOSE Original Equipment

Portable Translator PRODUCT DESIGNATION

BRAND NAME World Speak

MODEL NAME HYP10

APPLICNAT King Jim Co., Ltd.

July 22, 2019 **DATE OF ISSUE**

STANDARD(S) FCC Part 15B Rules

REPORT VERSION V1.0

Attestation of Global Compliance (Shenzhen) Co., Ltd

CAUTION:

This report shall not be reproduced except in full without the written permission of the test laboratory and shall not be quoted out of context.

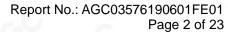




Attestation of Global Compliance(Shenzhen)Co.,Ltd.

Add: 2/F., Building 2, No.1-4, Chaxi Sanwei Technial Industrial Park, Gushu,

Xixiang, Bao'an District, Shenzhen, Guangdong, China Tel: +86-755 2523 4088 E-mail:agc@agc-cert.com





Report Revise Record

Report Version	Revise Time	Issued Date	Valid Version	Notes
V1.0	9/	July 22, 2019	Valid	Initial Release



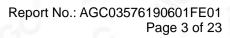
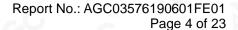




TABLE OF CONTENTS

1. SYSTEM DESCRIPTION	5
2. MEASUREMENT UNCERTAINTY	
3. PRODUCT INFORMATION	
4. SUPPORT EQUIPMENT	8
5. TEST FACILITY	9
6. TEST ITEMS AND THE RESULTS	10
7. FCCLINE CONDUCTED EMISSION TEST	11
7.1. LIMITS OF LINE CONDUCTED EMISSION TEST	11
7.2. BLOCK DIAGRAM OF TEST SETUP	11
7.3. PROCEDURE OF LINE CONDUCTED EMISSION TEST	12
7.4. TEST RESULT OF LINE CONDUCTED EMISSION TEST	13
8. FCC RADIATED EMISSION TEST	15
8.1. EXCEPT FOR CLASS A DIGITAL DEVICES, THE FIELD STRENGTH OF RADIATED EMISSIONS	
FROM UNINTENTIONAL RADIATORS AT A DISTANCE OF 3 METERS SHALL NOT EXCEED THE	
FOLLOWING VALUES:	15
8.2. BLOCK DIAGRAM OF TEST SETUP	16
8.3. PROCEDURE OF RADIATED EMISSION TEST	17
8.4. TEST RESULT OF RADIATED EMISSION TEST	18
APPENDIX A: PHOTOGRAPHS OF TEST SETUP	22







1. VERIFICATION OF CONFORMITY

Applicant	King Jim Co., Ltd.					
Address	10-18,Higashi-kanda 2-chome Chiyoda-ku,Tokyo,Japan					
Manufacturer	Travis GT b.v.					
Address	Stationsplein 45, 3013 AK Rotterdam, The Netherlands, Rotterdam, Netherlands					
Factory	SHENZHEN HUNGPHONE TECHNOLOGY CO., LTD					
Address	3-4, Block B6, XuJingChang Industry Park, Fuyong, Bao'an, Shenzhen,China					
Product Designation	Portable Translator					
Brand Name	World Speak					
Test Model	HYP10					
Date of test	June 18, 2019~July 22, 2019					
Deviation	None					
Condition of Test Sample	Normal					
Report Template AGCRT-US-IT/AC						

The above equipment was tested by Attestation of Global Compliance (Shenzhen) Co., Ltd. for compliance with the requirements set forth in the FCC Rules and Regulations Part 15, the measurement procedure according to ANSI C63.4:2014. This said equipment in the configuration described in this report shows the maximum emission levels emanating from equipment are within the compliance requirements.

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

Imim Hucong Prepared By **Donjon Huang** July 22, 2019 (Project Engineer) Max Zhang Reviewed By Max Zhang July 22, 2019 (Reviewer) Forrest les Approved By Forrest Lei July 22, 2019 (Authorized Officer)



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

Add: 2/F., Building 2, No.1-4, Chaxi Sanwei Technial Industrial Park, Gushu,

Xixiang, Bao'an District, Shenzhen, Guangdong, China Tel: +86-755 2523 4088 E-mail: agc@agc-cert.com



Page 5 of 23

2. SYSTEM DESCRIPTION

EUT test procedure:

- 1. Connect EUT and peripheral devices (PC) through USB port.
- 2. Power on the EUT, use the software to transfer data between EUT and PC.
- 3. Make sure the EUT operates normally during the test.

Test Mode

NO.	TEST MODE DESCRIPTION	WORST
1	USB (connection for data transferring)	V

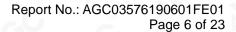
2. USB cable is provided by AGC-Lab.



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

Add: 2/F., Building 2, No.1-4, Chaxi Sanwei Technial Industrial Park, Gushu,

Xixiang, Bao'an District, Shenzhen, Guangdong, China Tel: +86-755 2523 4088 E-mail:agc@agc-cert.com





3. MEASUREMENT UNCERTAINTY

Test	Measurement Uncertainty	Notes
Transmitter power conducted	±0.57 dB	(1)
Transmitter power Radiated	±2.20 dB	(1)
Conducted spurious emission 9KHz-40 GHz	±2.20 dB	(1)
Occupied Bandwidth	±0.01ppm	(1)
Radiated Emission 30~1000MHz	±4.10dB	(1)
Radiated Emission Above 1GHz	±4.32dB	(1)
Conducted Disturbance0.15~30MHz	±3.20dB	(1)

Note: This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.



 $Attestation\ of\ Global\ Compliance (Shenzhen) Co., Ltd.$

Add: 2/F., Building 2, No.1-4, Chaxi Sanwei Technial Industrial Park, Gushu,



Page 7 of 23

4. PRODUCT INFORMATION

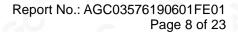
Housing Type	Plastic and metal	C.C	0	<u> </u>	
Hardware Version	F01		100	- c ₂ O	
Software Version	V1.0.0	0			(O)
EUT Input Rating	DC 3.8V by Built-in Li-ion Battery	GO	a.C		

I/O Port Information (⊠Applicable Not Applicable)

I/O Port of EUT						
I/O Port Type		Number	Specific	Tested With		
USB Port		1	0.8 Unshielded	1		



 $Attestation\ of\ Global\ Compliance (Shenzhen) Co., Ltd.$



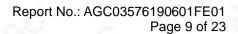


5. SUPPORT EQUIPMENT

Device Type	Manufacturer	Model Name	Serial No.	Data Cable	Power Cable
PC	Xiaomi Inc.			-0	
Adapter	Xiaomi Inc.	- CO	O ,	<u> </u>	1.25m Unshielded

Note: All the above equipment/cables were placed in worse case positions to maximize emission signals during emission test.







6. TEST FACILITY

Test Site	Attestation of Global Compliance (Shenzhen) Co., Ltd				
Location	1-2/F, Building 19, Junfeng Industrial Park, Chongqing Road, Heping Community, Fuhai Street, Bao'an District, Shenzhen, Guangdong, China				
Designation Number	CN1259				
FCC Test Firm Registration Number	975832				
A2LA Cert. No.	5054.02				
Description	Attestation of Global Compliance(Shenzhen) Co., Ltd is accredited by A2LA				

TEST EQUIPMENT OF CONDUCTED EMISSION TEST

Equipment	Manufacturer	Model	S/N	Cal. Date	Cal. Due
TEST RECEIVER	R&S	ESPI	101206	Jun. 12, 2019	Jun. 11, 2020
LISN	R&S	ESH2-Z5	100086	Aug.19, 2018	Aug.18, 2019

TEST EQUIPMENT OF RADIATED EMISSION TEST

Equipment	Manufacturer	Model	S/N	Cal. Date	Cal. Due
TEST RECEIVER	R&S	ESCI	10096	Jun. 12, 2019	Jun. 11, 2020
EXA Signal Analyzer	Aglient	N9010A	MY53470504	Dec.06, 2018	Dec.05, 2019
Horn antenna	SCHWARZBECK	BBHA 9170	#768	Sep.20, 2018	Sep.19, 2020
preamplifier	ChengYi	EMC184045SE	980508	Sep.20, 2018	Sep.19, 2020
Double-Ridged Waveguide Horn	ETS LINDGREN	3117	00034609	May.18, 2017	May.17, 2019
Broadband Preamplifier	SCHWARZBECK	BBV 9718	9718-205	Jun. 12, 2019	Jun. 11, 2020
ANTENNA	SCHWARZBECK	VULB9168	D69250	Sep.20, 2018	Sep.19, 2020



 $Attestation\ of\ Global\ Compliance (Shenzhen) Co., Ltd.$



Page 10 of 23

6. TEST ITEMS AND THE RESULTS

Test item	Test Requirement	Test Method	Class/Severity	Result
CONDUCTED EMISSION	FCC Part 15.107 Rules	ANSI C63.4:2014	Class B	Pass
RADIATED EMISSION	FCC Part 15.109 Rules	ANSI C63.4:2014	Class B	Pass



 $Attestation\ of\ Global\ Compliance (Shenzhen) Co., Ltd.$



7. FCCLINE CONDUCTED EMISSION TEST

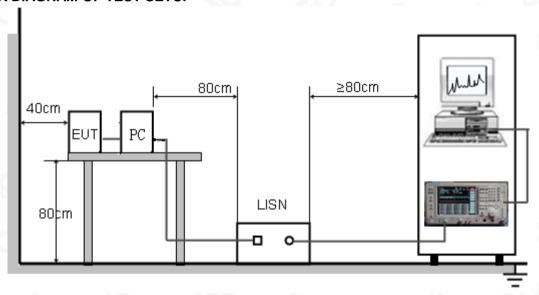
7.1. LIMITS OF LINE CONDUCTED EMISSION TEST

F	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 0.50MHz.

7.2. BLOCK DIAGRAM OF TEST SETUP







Page 12 of 23

7.3. PROCEDURE OF LINE CONDUCTED EMISSION TEST

- (1) 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 C63.4 (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 C63.4.
- (3) All I/O cables were positioned to simulate typical actual usage as per ANSI C63.4.
- (4) The EUT received DC 5V power from PC with receive AC120V/60Hz power from a LISN.
- (5) 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.
- (6) Analyzer / Receiver scanned from 150 kHz to 30MHz for emissions in each of the test modes.
- (7) During the above scans, the emissions were maximized by cable manipulation.
- (8) A scan was taken on both power lines, Line 1 and Line 2, recording at least the six highest emissions.
- (9) 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.

The test data of the worst case condition (mode 1) was reported on the Summary Data page.

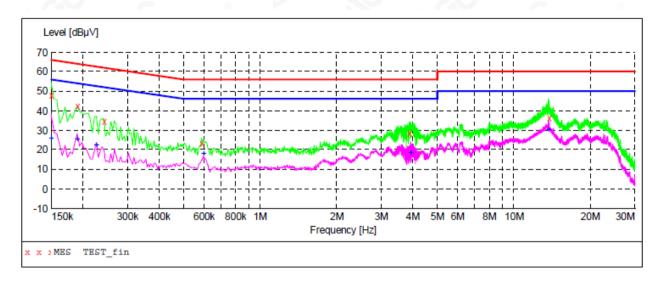


Xixiang, Bao'an District, Shenzhen, Guangdong, China



7.4. TEST RESULT OF LINE CONDUCTED EMISSION TEST

LINE CONDUCTED EMISSION TEST-L



MEASUREMENT RESULT: "TEST fin"

	7/1/2019 11:3	36PM						
Frequency MHz		Level dBµV	Transd dB	Limit dBµV	Margin dB	Detector	Line	PE
	0.150000	48.20	10.8	66	17.8	QP	L1	FLO
	0.190000	42.40	10.9	64	21.6	QP	L1	FLO
	0.242000	34.60	10.9	62	27.4	QP	L1	FLO
	0.586000	23.40	10.8	56	32.6	QP	L1	FLO
	3.866000	28.40	11.6	56	27.6	QP	L1	FLO
	13.718000	36.40	12.1	60	23.6	QP	L1	FLO

MEASUREMENT RESULT: "TEST fin2"

7/	1/2019 11:3 Frequency MHz	6PM Level dBμV	Transd dB	Limit dBµV	Margin dB	Detector	Line	PE
	0 150000	25 00	10.0		20.1	7.17	T 1	ET O
	0.150000	25.90	10.8	56	30.1	AV	L1	FLO
	0.190000	25.40	10.9	54	28.6	AV	L1	FLO
	0.226000	22.20	10.9	53	30.4	AV	L1	FLO
	0.598000	17.70	10.7	46	28.3	AV	L1	FLO
	3.910000	18.50	11.6	46	27.5	AV	L1	FLO
	13.718000	30.40	12.1	50	19.6	AV	L1	FLO



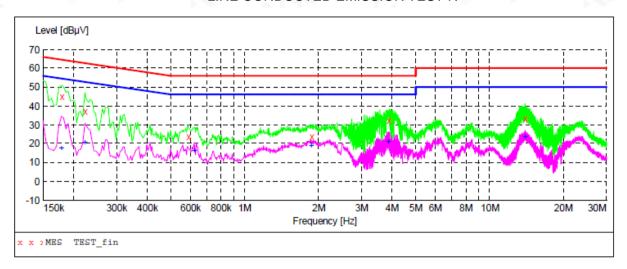
Attestation of Global Compliance(Shenzhen)Co.,Ltd.

Add: 2/F., Building 2, No.1-4, Chaxi Sanwei Technial Industrial Park, Gushu,

Xixiang, Bao'an District, Shenzhen, Guangdong, China Tel: +86-755 2523 4088 E-mail:agc@agc-cert.com



LINE CONDUCTED EMISSION TEST-N



MEASUREMENT RESULT: "TEST fin"

. , . ,	:29PM						
Frequency MHz	Level dBuV	Transd dB	Limit dBuV	Margin dB	Detector	Line	PE
MINZ	αвμν	αь	ασμν	uв			
0.178000	44.90	10.9	65	19.7	QP	N	FLO
0.222000	37.20	10.9	63	25.5	QP	N	FLO
0.586000	23.90	10.8	56	32.1	QP	N	FLO
1.874000	23.60	11.5	56	32.4	QP	N	FLO
3.862000	32.20	11.6	56	23.8	QP	N	FLO
13.930000	33.40	12.1	60	26.6	QP	N	FLO

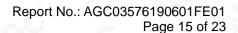
MEASUREMENT RESULT: "TEST fin2"

7/1/2019 11: Frequency MHz	29PM Level dBµV	Transd dB	Limit dBµV	Margin dB	Detector	Line	PE
0.178000	17.60	10.9	55	37.0	AV	N	FLO
0.222000	20.90	10.9	53	31.8	AV	N	FLO
0.622000	16.20	10.6	46	29.8	AV	N	FLO
1.862000	18.80	11.5	46	27.2	AV	N	FLO
3.850000	21.20	11.6	46	24.8	AV	N	FLO
13.930000	23.60	12.1	50	26.4	AV	N	FLO

RESULT: PASS



 $Attestation\ of\ Global\ Compliance (Shenzhen) Co., Ltd.$





8. FCC RADIATED EMISSION TEST

8.1. EXCEPT FOR CLASS A DIGITAL DEVICES, THE FIELD STRENGTH OF RADIATED EMISSIONS FROM UNINTENTIONAL RADIATORS AT A DISTANCE OF 3 METERS SHALL NOT EXCEED THE **FOLLOWING VALUES:**

Frequency (MHz)	Distance (m)	Maximum Field Strength Limit (dBuV/m/ Q.P.)		
30~88	3	40.0		
88~216	3	43.5		
216~960	3	46.0		
Above 960	3	54.0		

Note: The lower limit shall apply at the transition frequency.

8.1.1 The following table is the setting of spectrum analyzer and receiver:

	Spectrum Parameter	Setting					
. 60	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					
0	Start ~Stop Frequency	1GHz~26.5GHz 1MHz/1MHz for Peak, 1MHz/10Hz for Average					

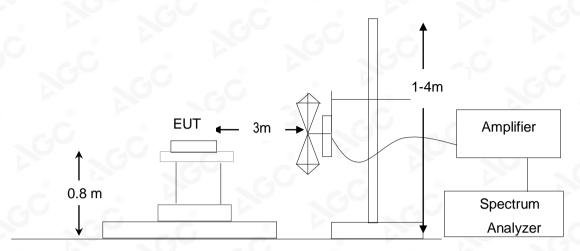
Receiver Parameter	Setting
Start ~Stop Frequency	9KHz~150KHz/RB 200Hz for QP
Start ~Stop Frequency	150KHz~30MHz/RB 9KHz for QP
Start ~Stop Frequency	30MHz~1000MHz/RB 120KHz for QP



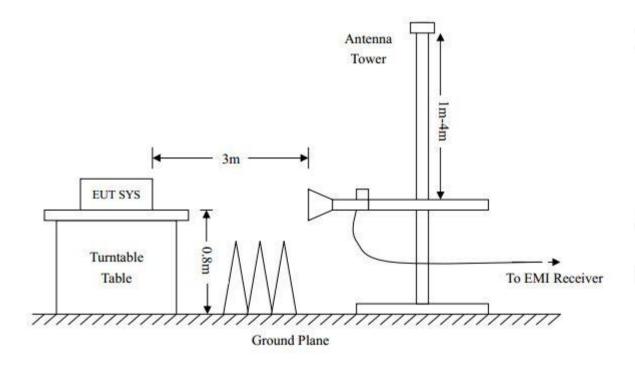


8.2. BLOCK DIAGRAM OF TEST SETUP

System Diagram of Connections between EUT and Simulators



RADIATED EMISSION TEST SETUP ABOVE 1000MHz





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

Add: 2/F., Building 2, No.1-4, Chaxi Sanwei Technial Industrial Park, Gushu,

Xixiang, Bao'an District, Shenzhen, Guangdong, China Tel: +86-755 2523 4088 E-mail:agc@agc-cert.com



Page 17 of 23

8.3. PROCEDURE OF RADIATED EMISSION TEST

- Configure the EUT according to ANSI C63.4. The EUT was placed on the top of the turntable 0.8 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 emissions, 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. Then 1MHz RBW and 3MHz VBW for average reading in spectrum analyzer. The EUT was placed on the top of the turntable 0.8 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.
- 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.
- 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. If the emission level of the EUT in peak mode was 10 dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10 dB margin would be re-tested one by one using peak, quasi-peak or average method as specified and then reported in a data sheet.
- 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.
- 11. The test data of the worst case condition (mode 1) was reported on the Summary Data page.



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

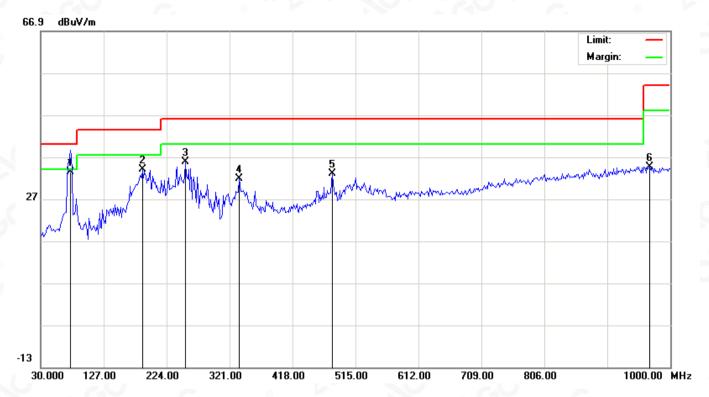
Add: 2/F., Building 2, No.1-4, Chaxi Sanwei Technial Industrial Park, Gushu,

Xixiang, Bao'an District, Shenzhen, Guangdong, China



8.4. TEST RESULT OF RADIATED EMISSION TEST

RADIATED EMISSION TEST AT 3M DISTANCE-HORIZONTAL



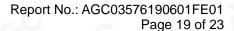
No.	Mk	Freq.	Reading	Factor	Measurement	Limit	Over	Detector	Antenna Height	Table Degree	Comment
	•	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		cm	degree	
1	*	76.4666	17.79	15.71	33.50	40.00	-6.50	QP			
2		186.8167	17.30	16.77	34.07	43.50	-9.43	peak			
3		253.1000	17.33	18.43	35.76	46.00	-10.24	peak			
4		335.5500	11.02	20.72	31.74	46.00	-14.26	peak			
5		479.4333	8.41	24.58	32.99	46.00	-13.01	peak			
6		967.6667	2.37	32.28	34.65	54.00	-19.35	peak			

RESULT: PASS



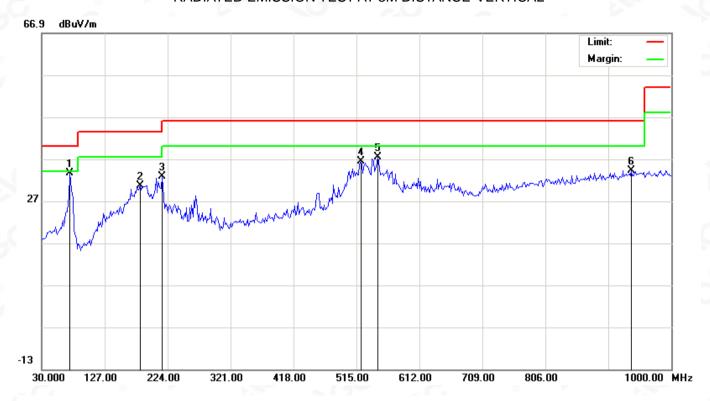
Attestation of Global Compliance(Shenzhen)Co.,Ltd.

Add: 2/F., Building 2, No.1-4, Chaxi Sanwei Technial Industrial Park, Gushu,





RADIATED EMISSION TEST AT 3M DISTANCE-VERTICAL



No.	Mk Freq. Reading Factor Measurement		Limit	Over Detector		Antenna Height		Comment			
	-	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		cm	degree	
1	*	73.6500	17.20	16.32	33.52	40.00	-6.48	peak			
2		181.9667	13.65	17.02	30.67	43.50	-12.83	peak			
3		215.9167	15.81	17.00	32.81	43.50	-10.69	peak			
4		521.4667	11.04	25.41	36.45	46.00	-9.55	peak			
5		547.3333	11.48	25.92	37.40	46.00	-8.60	peak			
6		938.5667	2.27	32.03	34.30	46.00	-11.70	peak			

RESULT: PASS

Note: 1.Measurement = Reading + Factor, Over = Measurement - Limit.

2. The "Factor" value can be calculated automatically by software of measurement system.

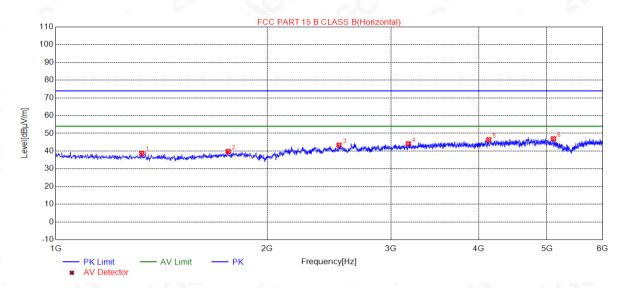


Attestation of Global Compliance(Shenzhen)Co.,Ltd.

Add: 2/F., Building 2, No.1-4, Chaxi Sanwei Technial Industrial Park, Gushu,



RADIATED EMISSION ABOVE 1GHZ TEST AT 3M DISTANCE -HORIZONTAL



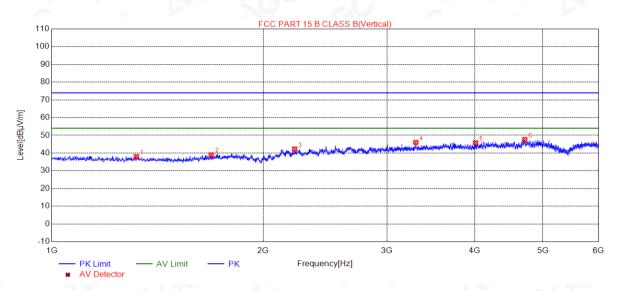
2	NO.	Freq. [MHz]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
	1	1326.0652	38.75	-16.96	74.00	35.25	100	10	Horizontal
Ī	2	1760.1520	39.78	-14.37	74.00	34.22	150	140	Horizontal
	3	2531.3063	43.34	-9.70	74.00	30.66	200	160	Horizontal
	4	3177.4355	44.13	-8.72	74.00	29.87	200	70	Horizontal
ø	5	4132.6265	46.38	-6.16	74.00	27.62	100	110	Horizontal
	6	5109.8220	46.95	-4.85	74.00	27.05	100	250	Horizontal



 $Attestation\ of\ Global\ Compliance (Shenzhen) Co., Ltd.$



RADIATED EMISSION ABOVE 1GHZ TEST AT 3M DISTANCE -VERTICAL

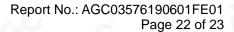


NO.	Freq. [MHz]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	1320.0640	37.98	-16.95	74.00	36.02	200	50	Vertical
2	1687.1374	39.03	-15.14	74.00	34.97	200	10	Vertical
3	2217.2434	42.26	-10.91	74.00	31.74	100	240	Vertical
4	3297.4595	45.99	-8.30	74.00	28.01	150	110	Vertical
5	4011.6023	45.82	-6.47	74.00	28.18	100	330	Vertical
6	4712.7425	47.65	-5.00	74.00	26.35	100	330	Vertical

Note: 1. Emissions range from 6GHz to 12.5GHz have 20dB margin. No recording in the test report.

- 2. Factor=Antenna Factor + Cable loss Amplifier gain, Margin=Measurement-Limit.
- 3. The "Factor" value can be calculated automatically by software of measurement system.





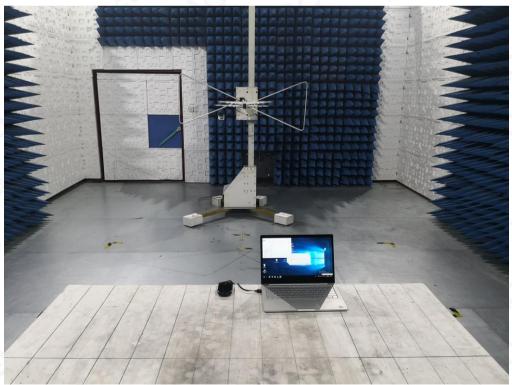


APPENDIX A: PHOTOGRAPHS OF TEST SETUP

FCC LINE CONDUCTED EMISSION TEST SETUP



FCC RADIATED EMISSION TEST SETUP



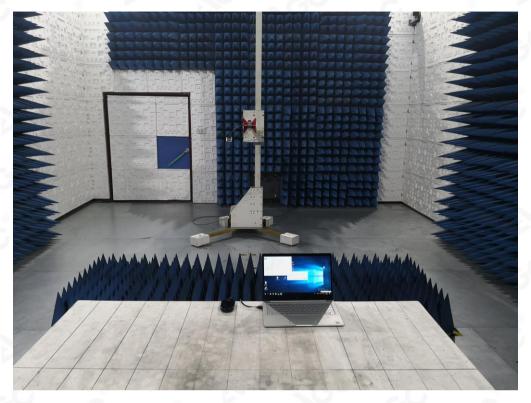


 $Attestation\ of\ Global\ Compliance (Shenzhen) Co., Ltd.$

Add: 2/F., Building 2, No.1-4, Chaxi Sanwei Technial Industrial Park, Gushu,



FCC RADIATED EMISSION TEST SETUP



-END OF REPORT----



 $Attestation\ of\ Global\ Compliance (Shenzhen) Co., Ltd.$