

# **FCC Test Report**

Report No.: AGC09477241003FR01

FCC ID	:	2AMZY-34030
APPLICATION PURPOSE		Original Equipment
PRODUCT DESIGNATION	:	Magnetic Charger
BRAND NAME	:	HandstandsPromo LLC
MODEL NAME	:	34030, X12
APPLICANT	:	HandstandsPromo LLC
DATE OF ISSUE	:	Nov. 05, 2024
STANDARD(S)	:	FCC Part 15 Subpart C
REPORT VERSION	: Chol	V 1.0 V 1.0
<u>Auestauon or</u>	<u>G10</u>	Daveomphance (Shenzhen) Co., Ltd





# **REPORT REVISE RECORD**

Report Version	Revise Time	Issued Date	Valid Version	Notes
V1.0	/	Nov. 05, 2024	Valid	Initial Release



# **TABLE OF CONTENTS**

1. GENERAL INFORMATION	5
2. PRODUCT INFORMATION	6
2.1 PRODUCT TECHNICAL DESCRIPTION	6
2.2 RELATED SUBMITTAL(S) / GRANT (S)	7
2.3 TEST METHODOLOGY	7
2.4 SPECIAL ACCESSORIES	7
2.5 EQUIPMENT MODIFICATIONS	7
2.6 ANTENNA REQUIREMENT	
3. TEST ENVIRONMENT	8
3.1 ADDRESS OF THE TEST LABORATORY	
3.2 TEST FACILITY	
3.3 ENVIRONMENTAL CONDITIONS	9
3.4 MEASUREMENT UNCERTAINTY	9
3.5 LIST OF EQUIPMENTS USED	
4. SYSTEM TEST CONFIGURATION	11
4.1 EUT CONFIGURATION	
4.2 EUT EXERCISE	11
4.3 CONFIGURATION OF TESTED SYSTEM	11
4.4 EQUIPMENT USED IN TESTED SYSTEM	
4.5 SUMMARY OF TEST RESULTS	
5. DESCRIPTION OF TEST MODES	
6. FIELD STRENGTH OF FUNDAMENTAL	14
6.1 PROVISIONS APPLICABLE	14
6.3 FIELD STRENGTH CALCULATION	
6.4 MEASUREMENT SETUP (BLOCK DIAGRAM OF CONFIGURATION)	
6.5 MEASUREMENT RESULTS:	
7. 20 DB BANDWIDTH	24
7.1 PROVISIONS APPLICABLE	24
7.2 MEASUREMENT PROCEDURE	24
7.3 MEASUREMENT SETUP (BLOCK DIAGRAM OF CONFIGURATION)	24
7.4 MEASUREMENT RESULTS	
8. AC POWER LINE CONDUCTED EMISSION TEST	
8.1 LIMITS OF LINE CONDUCTED EMISSION TEST	
8.2 MEASUREMENT SETUP (BLOCK DIAGRAM OF CONFIGURATION)	
	07



8.4 FINAL PROCEDURE OF LINE CONDUCTED EMISSION TEST	27
8.5 MEASUREMENT RESULTS	28
APPENDIX A: PHOTOGRAPHS OF TEST SETUP	30
APPENDIX B: PHOTOGRAPHS OF TEST EUT	30



# **1. GENERAL INFORMATION**

Applicant	HandstandsPromo LLC		
Address	1770 South 5350 West Suite 100, Salt Lake City, Utah 84104, United States		
Manufacturer	Kingstar Industrial		
Address	Room 210-211,Minle Technology Building, Minle Industrial Park, Meiban Rd, Longhua, Shenzhen, China 518131		
Factory	Kingstar Industrial		
Address	Room 210-211,Minle Technology Building, Minle Industrial Park, Meiban Rd, Longhua, Shenzhen, China 518131		
Product Designation	Magnetic Charger		
Brand Name	HandstandsPromo LLC		
Test Model	34030		
Series Model	X12		
Declaration Difference	All the same except for the model name.		
Date of receipt of test item	Oct. 28, 2024		
Date of Test	Oct. 28, 2024 to Nov. 05, 2024		
Deviation from Standard	No any deviation from the test method		
Condition of Test Sample	Normal		
Test Result	Pass		
Test Report Form No	AGCER -FCC-WPT-V1		

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

Prepared By

Jack Gai

Jack Gui (Project Engineer)

Nov. 05, 2024

**Reviewed By** 

Calvin Liu (Reviewer)

Nov. 05, 2024

Approved By

Zhang

Max Zhang (Authorized Officer)

Nov. 05, 2024



# **2. PRODUCT INFORMATION**

## 2.1 PRODUCT TECHNICAL DESCRIPTION

Hardware Version	V1.0
Software Version	V1.0
Operation Frequency	110.5kHz~205kHz
Modulation Type	FSK
Field Strength of Fundamental	51.83dBuV/m@3m (Max)
Antenna Designation	Coil Antenna
Input Rating	DC 5V/3A; 9V/2A
Wireless Charging Output Power	5W/7.5W/10W/15W Max



# 2.2 RELATED SUBMITTAL(S) / GRANT (S)

This submittal(s) (test report) is intended for **FCC ID: 2AMZY-34030** filing to comply with Part 2, Part 15 of the Federal Communication Commission rules.

#### 2.3 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			

#### 2.4 SPECIAL ACCESSORIES

Not available for this EUT intended for grant.

#### **2.5 EQUIPMENT MODIFICATIONS**

Not available for this EUT intended for grant.

#### 2.6 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 antennathat uses a unique coupling to the intentional radiator, the manufacturer may design the unit so that a brokenantenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited.

#### EUT Antenna:

The non-detachable antenna inside the device cannot be replaced by the user at will.



# **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 be in compliance with 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 be in compliance with 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.



# **3.3 ENVIRONMENTAL CONDITIONS**

	NORMAL CONDITIONS	EXTREME CONDITIONS			
Temperature range (°C)	15 - 35	-20 - 50			
Relative humidty range	20 % - 75 %	20 % - 75 %			
Pressure range (kPa)	86 - 106	86 - 106			
Power supply					
Note: The Extreme Temperature and Extreme Voltages declared by the manufacturer.					

# **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 150kHz	$U_c = \pm 3.9 \text{ dB}$
Uncertainty of Radiated Emission below 30MHz	$U_c = \pm 3.9 \text{ dB}$
Uncertainty of Radiated Emission below 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	$U_c = \pm 2 \%$



# 3.5 LIST OF EQUIPMENTS 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)
$\boxtimes$	AGC-ER-E036	Spectrum Analyzer	Agilent	N9020A	MY49100060	2024-05-24	2025-05-23
	N/A	RF Connection Cable	N/A	2#	N/A	Each time	N/A
• R	adiated Spurio	us 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	2024-02-01	2025-01-31
	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
	AGC-EM-E086	Loop Antenna	ZHINAN	ZN30900C	18051	2024-03-05	2026-03-04
	AGC-EM-E001	Wideband Antenna	SCHWARZBECK	VULB9168	D69250	2023-05-11	2025-05-10
	AGC-EM-E029	Broadband Ridged Horn Antenna	ETS	3117	00034609	2023-03-23	2025-03-22
	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
	AGC-EM-A119	2.4GHz Filter	SongYi	N/A	N/A	2024-05-23	2025-05-22
	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

• A	AC Power Line Conducted Emission							
Used	Equipment No.	Test Equipment	Manufacturer Model No. Serial No. Last Cal. Date (YY-MM-DD)				Next Cal. Date (YY-MM-DD)	
$\boxtimes$	AGC-EM-E045	EMI Test Receiver	R&S	ESPI	101206	2024-05-28	2025-05-27	
$\boxtimes$	AGC-EM-A130	6dB Attenuator	Eeatsheep	LM-XX-6-5W	DC-6GZ	2023-06-09	2025-06-08	
$\boxtimes$	AGC-EM-E023	AMN	R&S	100086	ESH2-Z5	2024-05-28	2025-05-27	

• Tes	Test Software							
Used	Equipment No.	Test Equipment	Manufacturer	Model No.	Version Information			
	AGC-EM-S003	RE Test System	FARA	EZ-EMC	V.RA-03A			
$\square$	AGC-EM-S001	CE Test System	R&S	ES-K1	V1.71			



# **4. SYSTEM TEST CONFIGURATION**

# **4.1 EUT CONFIGURATION**

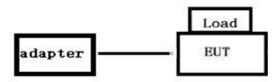
The EUT configuration for testing is installed on RF field strength measurement to meet the Commission's requirement and operating in a manner which intends to maximize its emission characteristics in a continuous normal application.

# **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 Emission Configure:





## 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.	Equipmer	nt	Model	No.	Manufacturer	Specification Information	Cable		
1	Wireless cha	rging	J Support 5W,7.5W,10W,7		Support 5W,7.5W,10W,15W				
2	Adapter	,	Huaw	ei	HW-200440C00	Input(AC):100V-240V 50/60Hz 2.4A Output(DC):USB-C(5V/3A;9V/3A;10V A;11V/6A;12V/3A;15V/3A;20V4.4A) USB-A(5V/2A;10V/4A;11V/6A;20V/4.4			
Test Accessories Come From The Manufacturer									
No	Equipment	Manuf	acturer		Model No	Specification Information	Cable		

No.	Equipment	Manufacturer	Model No.	Specification Information	Cable
1	USB Cable				1m unshielded

## **4.5 SUMMARY OF TEST RESULTS**

Item	FCC Rules	Result	
1	§15.203 Antenna Equipment		Pass
2	§15.209(a)(f)	Radiated Spurious Emission	Pass
3	§15.215(c)	20dB Bandwidth	Pass
4	§15.205(a)	Restricted Bands of Operation	Pass
5	§15.207	AC Power Line Conducted Emission	Pass



# 5. DESCRIPTION OF TEST MODES

Test Item       Equipment type / Modulation         WPT_(TX:129.6kHz)/ FSK         Mode 1: AC/DC Adapter +DUT+ Wireless Load (Full Load)         Mode 2: AC/DC Adapter +DUT+ Wireless Load (Half Load)         Mode 3: AC/DC Adapter +DUT+ Wireless Load (Null Load)	Summary table of Test Cases							
WPT_(TX:129.6kHz)/ FSK       Mode 1: AC/DC Adapter +DUT+ Wireless Load (Full Load)       Radiated & Conducted Test Cases     Mode 2: AC/DC Adapter +DUT+ Wireless Load (Half Load)	Toot Itom	Equipment type / Modulation						
Radiated & Conducted       Mode 2: AC/DC Adapter +DUT+ Wireless Load (Half Load)         Test Cases       Mode 2: AC/DC Adapter +DUT+ Wireless Load (Half Load)	iest item	WPT_(TX:129.6kHz)/ FSK						
Test Cases Mode 2: AC/DC Adapter +DUT+ Wireless Load (Half Load)		Mode 1: AC/DC Adapter +DUT+ Wireless Load (Full Load)						
Mode 3: AC/DC Adapter +DUT+ Wireless Load (Null Load)		Mode 2: AC/DC Adapter +DUT+ Wireless Load (Half Load)						
		Mode 3: AC/DC Adapter +DUT+ Wireless Load (Null Load)						
Mode 1: AC/DC Adapter +DUT+ Wireless Load (Full Load)		Mode 1: AC/DC Adapter +DUT+ Wireless Load (Full Load)						
AC Conducted Emission Mode 2: AC/DC Adapter +DUT+ Wireless Load (Half Load)	AC Conducted Emission	Mode 2: AC/DC Adapter +DUT+ Wireless Load (Half Load)						
Mode 3: AC/DC Adapter +DUT+ Wireless Load (Null Load)		Mode 3: AC/DC Adapter +DUT+ Wireless Load (Null Load)						

Note:

 The EUT supports 15W, 10W, 7.5W, 5W "wireless output, and all modes have been tested at full load, half load and null load, only the worst mode is reflected in the report.

2. For Radiated Emission, 3axis were chosen for testing for each applicable mode.

3. Only the result of the worst case (Mode 1- full load-15W) was recorded in the report, if no other cases.



# 6. FIELD STRENGTH OF FUNDAMENTAL

# 6.1 PROVISIONS APPLICABLE

ANGL C62 10:2012		FCC Part15 C Section 15.209							
ANSI C63.10:2013									
9KHz to 1GHz									
Measurement Distance: 3m									
Frequency	Detector	RBW	VBW	Value					
9KHz-150KHz	Quasi-peak	200Hz	600Hz	Quasi-peak					
150KHz-30MHz	Quasi-peak	9KHz	30KHz	Quasi-peak					
30MHz-1GHz	Quasi-peak	100KHz	300KHz	Quasi-peak					
	Peak	1MHz	3MHz	Peak					
Above TGHZ	Peak	1MHz	10Hz	Average					
	Measurement Distar Frequency 9KHz-150KHz 150KHz-30MHz	Measurement Distance: 3mFrequencyDetector9KHz-150KHzQuasi-peak150KHz-30MHzQuasi-peak30MHz-1GHzQuasi-peakAbove 1GHzPeak	Measurement Distance: 3mFrequencyDetectorRBW9KHz-150KHzQuasi-peak200Hz150KHz-30MHzQuasi-peak9KHz30MHz-1GHzQuasi-peak100KHzAbove 1GHzPeak1MHz	Measurement Distance: 3mFrequencyDetectorRBWVBW9KHz-150KHzQuasi-peak200Hz600Hz150KHz-30MHzQuasi-peak9KHz30KHz30MHz-1GHzQuasi-peak100KHz300KHzAbove 1GHzPeak1MHz3MHz					

#### Limits for frequency below 30MHz

Frequency	Limit (uV/m)	Measurement Distance(m)	Remark
0.009-0.490	2400/F(kHz)	300	Quasi-peak Value
0.490-1.705	24000/F(kHz)	30	Quasi-peak Value
1.705-30	30	30	Quasi-peak Value

#### Limits for frequency Above 30MHz

Frequency	Limit (dBuV/m @3m)	Remark
30MHz-88MHz	40.00	Quasi-peak Value
88MHz-216MHz	43.50	Quasi-peak Value
216MHz-960MHz	46.00	Quasi-peak Value
960MHz-1GHz	54.00	Quasi-peak Value
Above 1011z	54.00	Average Value
Above 1GHz	74.00	Peak Value

Remark: (1) Emission level dB  $\mu$  V = 20 log Emission level  $\mu$  V/m

(2) The smaller limit shall apply at the cross point between two frequency bands.

(3) Distance is the distance in meters between the measuring instrument, antenna and the closest point of any part of the device or system.



# **6.2 MEASUREMENT PROCEDURE**

- 1. 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.
- 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.



#### 6.3 FIELD STRENGTH CALCULATION

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

FS = RA + AF + CF - AG - AV

where FS = Field Strength in  $dB\mu V/m$ 

RA = Receiver Amplitude (including preamplifier) in dBµV

CF = Cable Attenuation Factor in dB

AF = Antenna Factor in dB/m

AG = Amplifier Gain in dB

AV = Average Factor in dB

In the following table(s), the reading shown on the data table reflects the preamplifier gain. An example for the calculations in the following table is as follows:

FS = RR + LF

where  $FS = Field Strength in dB\mu V/m$ RR = RA - AG - AV in dB $\mu$ V LF = CF + AF in dB

Assume a receiver reading of 52.0 dB $\mu$ V is obtained. The antenna factor of 7.4 dB/m and cable factor of 1.6 dB are added. The amplifier gain of 29 dB and average factor of 5 dB are subtracted, giving a field strength of 27 dB $\mu$ V/m.

This value in dB $\mu$ V/m was converted to its corresponding level in  $\mu$ V/m.

 $\begin{array}{ll} {\sf RA} = 52.0 \ d{\sf B}\mu{\sf V}/{\sf m} & \\ {\sf AF} = 7.4 \ d{\sf B}/{\sf m} & {\sf RR} = 18.0 \ d{\sf B}\mu{\sf V} \\ {\sf CF} = 1.6 \ d{\sf B} & {\sf LF} = 9.0 \ d{\sf B} \\ {\sf AG} = 29.0 \ d{\sf B} & \\ {\sf AV} = 5.0 \ d{\sf B} & \\ {\sf FS} = {\sf RR} + {\sf LF} \\ {\sf FS} = 18 + 9 = 27 \ d{\sf B}\mu{\sf V}/{\sf m} & \\ \end{array}$ 

Level in  $\mu$ V/m = Common Antilogarithm [(27 dB $\mu$ V/m)/20] = 22.4  $\mu$ V/m

Magnetic field strength calculation (9 kHz – 30 MHz)

When the limit is in terms of magnetic field, the following equation applies: U(dP(x)/m) = V(dP(x)/n) + C(dP) = CPA(dP) + AFU(dP(x/m))

```
H[dB(\mu A/m)] = V[dB(\mu V)] + LC [dB] - GPA [dB] + AFH [dB(S/m)]
```

Where,

H is the magnetic field strength (to be compared with the limit), V is the voltage level measured by the receiver or spectrum analyzer, LC is the cable loss, GPA is the gain of the preamplifier (if used), and AFH is the magnetic antenna factor.

If the "electrical" antenna factor is used instead, the above equation becomes:

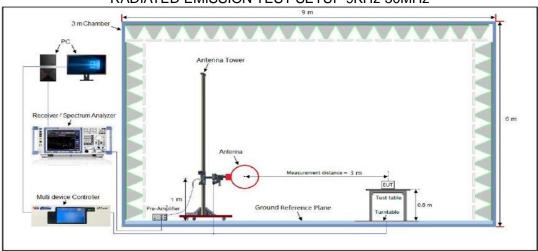
 $H[dB(\mu A/m)] = V[dB(\mu V)] + LC [dB] - GPA [dB] + AFE [dB(m-1)] - 51.5 [dB\Omega]$ 

where AFE is the "electric" antenna factor, as provided by the antenna calibration laboratory.

Any report having not been signed by authorized approver, or having been altered without authorization, or having not been stamped by the "Dedicated Testing/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 AGC. 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 15days after the issuance of the test report. Further enquiry of validity or verification of the test report should be addressed to AGC by agc01@agccert.com.

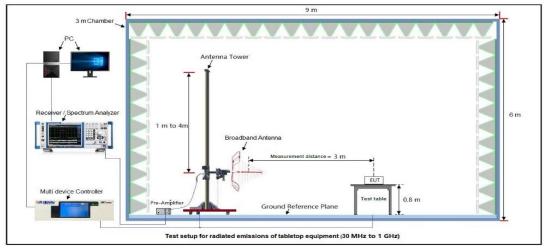


## 6.4 MEASUREMENT SETUP (BLOCK DIAGRAM OF CONFIGURATION)



# RADIATED EMISSION TEST SETUP 9KHz-30MHz

# RADIATED EMISSION TEST SETUP 30MHz-1000MHz



The radiated emission tests were performed in the 3 meters chamber test site, using the setup accordance with the ANSI C63.10-2013. The specification used was the FCC 15.209 and FCC 15.205 limits.



## **6.5 MEASUREMENT RESULTS:**

#### ELECTRIC FIELD TEST IN THE FREQUENCY RANGE 9kHz-150kHz

EUT		Magnatia Cha					3403	
-		Magnetic Cha	arger					
Temperature	e	23.1°C			Relative H	lumidity	56.29	%
Pressure		960hPa			Test Volta	ge	DC 9	V 2A
Worst Mode 1					Antenna		Face	
132.0 Г	dBuV/π	1						Limit: —
								Margin:
72								
	1 K					5		6 1
-	mm	America and a second	<u>∧,</u> <u>≩,</u>	4				
		· ~~~~	Mannathan	monthe	Jan Marian Marian	MM Munim	*****	min M WANT
						• • •		www.war
12.0 0.0	)09			(MHz)				0.150
_			Reading	Correct	Measure			
1	No. M	k. Freq.	Level	Factor	ment	Limit	Over	
_		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector
_	1	0.0092	5.45	44.11	49.56	128.21 -	78.65	peak
_	2	0.0128	-0.91	42.07	41.16	125.35 -	84.19	peak
_	3	0.0236	-0.95	37.14	36.19	120.06 -	83.87	peak
_	4	0.0355	0.01	34.95	34.96	116.52 -	81.56	peak
_	5	0.0652	13.79	32.87	46.66	111.26 -	64.60	peak
_	6 *	0.1296	19.17	32.29	51.46	105.31 -	53.85	peak

#### **RESULT: PASS**



EUT		Magnetic Cha	rger	Model Name 3			34030	
Temperature		23.1°C		Relative Humidity 56.			6	
Pressure	!	960hPa			Test Volta	ige	DC 9	V 2A
Worst Mode	t Mode 1			Antenna		Side		
132.0 d	lBuV/m							
								Limit: — Margin: —
							-+-+	
72								
								<u>6</u>
	uno ha ha ma	mundler and	3			5		
		- The second sec	and a strand make	www.www.	more and and the second			
12.0						manut wangana	the warden w The second	mmmorp When
0.009				(MHz)				0.150
No	. Mk	. Freq.	Reading Level	Correct Factor	Measure ment	Limit	Over	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector
1		0.0096	1.46	43.83	45.29	127.75	82.46	peak
2	2	0.0152	0.67	40.68	41.35	123.78 -	82.43	peak
3	3	0.0212	-2.50	37.70	35.20	120.91	85.71	peak
4	ł	0.0355	-0.17	34.95	34.78	116.46	81.68	peak
5	5	0.0649	7.36	32.88	40.24	111.25 -	71.01	peak
6	) *	0.1296	19.54	32.29	51.83	105.28	-53.45	peak

# ELECTRIC FIELD TEST IN THE FREQUENCY RANGE 9kHz-150kHz

## **RESULT: PASS**



EUT	Magnetic Cha	arger		Model Nam	е	34030	)
Temperature	23.1° C			Relative Hu	midity	56.2%	/ 0
Pressure	960hPa Test Voltage DC 9V 2A				V 2A		
Worst Mode 1				Antenna		Face	
112.0 dBuV/r	n 						imit: —
52 1 1//////////////////////////////////	-				still rendered by		Aargin:
-8							
-0 0.150	0.5		(MHz)				30.000
		Reading	(MHz) Correct Factor	Measure- ment	Limit	Over	30.000
0.150		Reading	Correct	Measure-		Over	30.000 Detector
0.150	/lk. Freq.	Reading Level	Correct Factor	Measure- ment	Limit		
0.150 No. N	/lk. Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	dB	Detector
0.150 No. M	Mk. Freq. MHz 0.1539 0.2630	Reading Level dBuV 7.95	Correct Factor dB 32.42	Measure- ment dBuV/m 40.37	Limit dBuV/m 103.82	dB -63.45	Detector peak
0.150 No. M 1 2	Mk. Freq. MHz 0.1539 0.2630	Reading Level dBuV 7.95 5.92	Correct Factor dB 32.42 32.50	Measure- ment dBuV/m 40.37 38.42	Limit dBuV/m 103.82 99.19	dB -63.45 -60.77	Detector peak peak
0.150 No. M 1 2 3 *	Mk. Freq. MHz 0.1539 0.2630 1.1534	Reading Level dBuV 7.95 5.92 8.07	Correct Factor dB 32.42 32.50 31.93	Measure- ment dBuV/m 40.37 38.42 40.00	Limit dBuV/m 103.82 99.19 66.36	dB -63.45 -60.77 -26.36	Detector peak peak peak

## ELECTRIC FIELD TEST IN THE FREQUENCY RANGE 150kHz-30MHz

# RESULT: PASS



EUT		Magnetic Cha	arger		Model Nan	ne	34030	)
Temperatu	re	23.1°C			<b>Relative Humidity</b> 5			, D
Pressure		960hPa			Test Voltage DC 9V 2A			
Worst Mod	е	Mode 1			Antenna		Side	
-8 0.	0 dBuV/r			(MHz)		5		imit:
-			Reading	Correct	Measure-			
_	No. N		Level	Factor	ment	Limit	Over	
-		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector
_	1	0.2017	8.49	32.66	41.15	101.46	-60.31	peak
-	2	0.3852	8.23	32.32	40.55	95.88	-55.33	peak
-	3 *	0.8393	7.01	32.12	39.13	69.12	-29.99	peak
-	4	2.7068	7.57	31.31	38.88	69.54	-30.66	peak
-	5	6.6272	9.19	28.34	37.53	69.54	-32.01	peak
		16.3118	7.85	29.97	37.82	69.54	-31.72	peak

# ELECTRIC FIELD TEST IN THE FREQUENCY RANGE 150kHz-30MHz

#### RESULT: PASS NOTES:

- 1. Quasi-Peak detector is used for frequency below 30MHz.
- 2. Negative value in the margin column shows emission below limit.
- 3. All measurements were made with 0.6m loop antenna at 3m distance. All emissions are below the QP limit.
- 4. Corr. Factor= Antenna Factor (dB/m) + Cable Loss (dB)
- 5. Loop antenna is used for the emission under 30MHz.



RADIATED EMISSION BELOW 1GHz					
EUT	Magnetic Charg	er	Model Name	34030	
Temperature	23.1°C		Relative Humidity	56.2%	
Pressure	960hPa		Test Voltage	DC 9V 2A	
Worst Mode	Mode 1		Antenna	Horizontal	
72.0 dBuV/m				Limit: —	
				Margin:	
				F	
				6	
32				5	
		2	, Ť~	5 minute water and the start	
1		X 3 Whet Marshalan X 1	wanner want and a second		
Aprilia UNANT - marches	box serves and when the server the server	3 Martinestanting	h & & Window h & W.		
-8					
30.000 40	50 60 70 80	(MHz)	300 400 5	500 600 700 1000.000	
	Readir	ng Correct M	leasure-		
No. Mk.	Freq. Level		ment Limit	Over	
	MHz dBuV	dB (	dBuV/m dBuV/m	dB Detector	
1	39.4371 6.02	2 13.66	19.68 40.00	-20.32 peak	
2 1	11.7380 7.63	3 16.32	23.95 43.50	-19.55 peak	
3 1	97.8928 6.29	) 14.26	20.55 43.50	-22.95 peak	
4 4	38.6554 4.95	5 24.81	29.76 46.00	-16.24 peak	
5 5	20.8882 5.88	3 25.14	31.02 46.00	-14.98 peak	
6 * 9	00.1474 4.66	31.78	36.44 46.00	-9.56 peak	

# **RADIATED EMISSION BELOW 1GHz**

# RESULT: PASS



	RADIATE	ED EMISSION E	SELOW IGHZ			
EUT	Magnetic Charger		Model Name	)	34030	
Temperature	23.1°C		Relative Humidity Test Voltage		56.2% DC 9V 2A	
Pressure	960hPa					
Worst Mode	Mode 1		Antenna		Vertical	
72.0 dBuV/m				i i	Limit: —	
					Margin: —	
					<b>_</b>	
	2				5 6	
32					m man man and the	
mundal and the second and	and head of the work of the	Hoperman har her which	mappelanorthe	dar and a second		
When whether the second second		Arter and a second	mappharm			
-8 30.000 40 50	0 60 70 90	(MHz)	300	400 500	600 700 1000.0	100
	Reading		leasure-			
No. Mk.	Freq. Level	Factor	ment Lir	nit Ov	er	
	MHz dBuV	dB	dBuV/m dBu	ıV/m di	B Detector	
1 43	3.6584 8.27	16.94	25.21 40.	00 -14	.79 peak	
2 * 86	6.2001 18.38	16.06	34.44 40.	00 -5.	56 peak	
3 155	5.3644 8.09	18.20	26.29 43.	50 -17	.21 peak	
4 443	3.2943 5.86	25.95	31.81 46.	00 -14	.19 peak	
5 709	9.1823 5.29	28.42	33.71 46.	00 -12	.29 peak	
6 952	2.0937 5.22	30.52	35.74 46.	00 -10	.26 peak	

# **RADIATED EMISSION BELOW 1GHz**

# **RESULT: PASS**

**Note:** 1. Factor=Antenna Factor + Cable loss, Over=Measurement-Limit.

2. All test modes had been pre-tested. The mode 1 is the worst case and recorded in the report.

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



# 7. 20 dB BANDWIDTH

# 7.1 PROVISIONS APPLICABLE

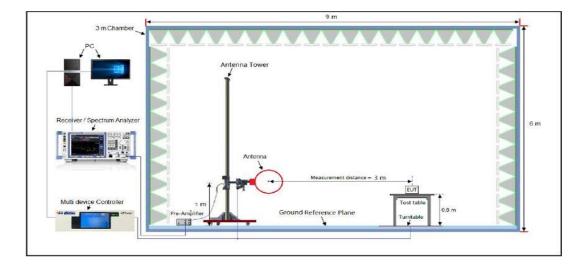
N/A

# 7.2 MEASUREMENT PROCEDURE

Set the parameters of SPA as below:

- 1. The spectrum analyzer connected via a receive antenna placed near the EUT in peak Max hold mode.
- 2. Centre frequency = Operation Frequency
- 3. The resolution bandwidth of 300Hz and the video bandwidth of 1kHz were used.
- 4. Span: 3kHz, Sweep time: Auto
- 5. Set the EUT to continue transmitting mode. Allow the trace to stabilize. Use the "N dB down" function of SPA to define the bandwidth.
- 6. Measured the spectrum width with power higher than 20dB below carrier.
- 7. Measured the 99% OBW.
- 8. Record the plots and Reported.

# 7.3 MEASUREMENT SETUP (BLOCK DIAGRAM OF CONFIGURATION)





# 7.4 MEASUREMENT RESULTS

	Tes	t Data of Occupied Bandwi	dth and -20dB Bandwic	lth	
Test Mode	Test Channel (kHz)	99% Occupied Bandwidth (kHz)	-20dB Bandwidth (kHz)	Limits (kHz)	Pass or Fail
FSK	129.6	0.767	0.888	N/A	Pass

# Test Graphs of Occupied Bandwidth&-20dB Bandwidth

Keysight Spectrum Analyzer - Occupied BW R T RF 50 Ω AC	CORREC	SENSE:INT	ALIGN AUTO	01:49:34 PM Nov 04, 2024	
Center Freq 129.600 kHz	Center	r Freq: 122.500 kHz		Radio Std: None	Frequency
		Free Run Avg H n:10 dB	old:>10/10	Radio Device: BTS	
O dB/div Ref 0.00 dBm					
-og 10.0					
20.0					Center Fre 129.600 kH
30.0					129.000 KH
40.0					
50.0					
70.0					
30.0					
30.0					
Center 129.6 kHz Res BW 300 Hz	#	VBW 1 kHz		Span 3 kHz Sweep 40.87 ms	CF Ste
ICO BIT GOVIE	"			•	300 H Auto Ma
Occupied Bandwidth		Total Power	-20.1	dBm	
	767 Hz				Freq Offse
Transmit Freg Error	33 Hz	OBW Power	99	00.9/	0 H
x dB Bandwidth	888 Hz	x dB	-20.	00 dB	
			07.77		
SG			STATUS		
Test Gran	h ESK Co	1 ANT 129	6kHz -	20dB Bandwic	lth



# 8. AC POWER LINE CONDUCTED EMISSION TEST

# 8.1 LIMITS OF LINE CONDUCTED EMISSION TEST

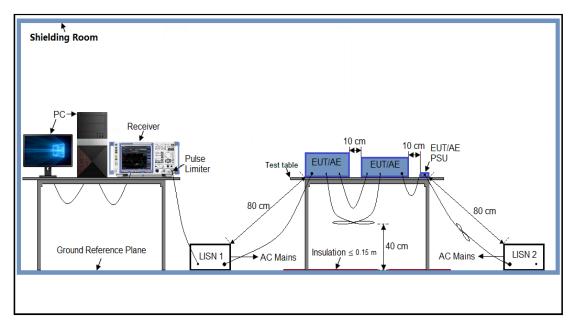
<b>F</b> errarian	Maximum RF Line Voltage			
Frequency	Q.P. (dBµV)	Average (dBµV)		
150kHz~500kHz	66-56	56-46		
500kHz~5MHz	56	46		
5MHz~30MHz	60	50		

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.

# 8.2 MEASUREMENT SETUP (BLOCK DIAGRAM OF CONFIGURATION)





## 8.3 PRELIMINARY 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 C63.10 (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 equipment received AC120V/60Hz power from a LISN, if any.
- 5. The EUT received DC 5V power from adapter which received AC120V/60Hz power from 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 50ohm 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.

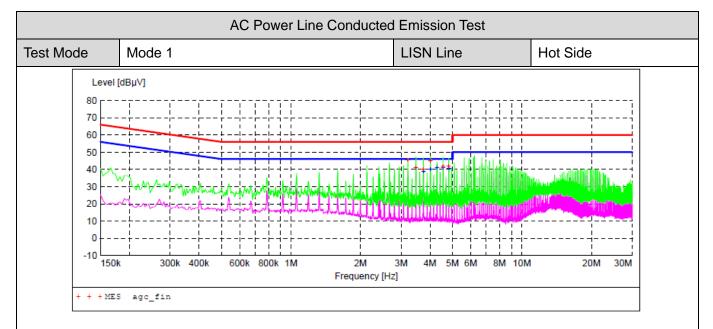
Then, the EUT configuration and cable configuration of the above highest emission level were recorded for reference of final testing.

#### 8.4 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.



#### **8.5 MEASUREMENT RESULTS**



# MEASUREMENT RESULT: "agc fin"

2024/10/30 9:36

Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Detector	Line
3.206000 3.474000	45.30 40.80 40.00	6.3 6.3	56 56	10.7 15.2	QP	L1 L1
3.742000 4.014000 4.550000	40.00 44.80 41.60	6.3 6.3 6.3	56 56 56	16.0 11.2 14.4	QP	L1 L1 L1
4.818000	42.00	6.3	56	18.0	QP	L1

## MEASUREMENT RESULT: "agc fin2"

Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Detector	Line
3.474000	41.00	6.3	46		AV	L1
3.746000	38.50	6.3	46	7.5	AV	ь1
4.014000	40.00	6.3	46	6.0	AV	L1
4.282000	41.00	6.3	46	5.0	AV	L1
4.550000	40.70	6.3	46	5.3	AV	L1
4.818000	40.50	6.3	46	5.5	AV	L1

#### **RESULT: Pass**

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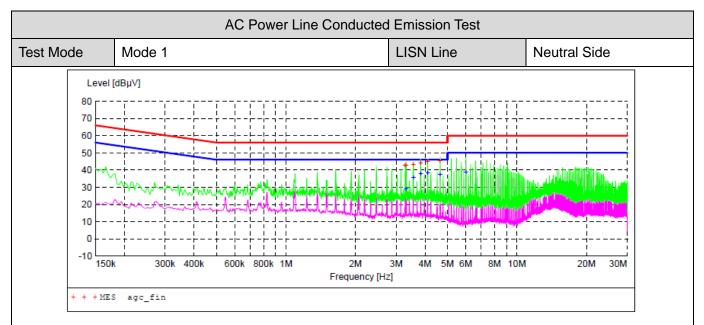
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 Attestation of Global Compliance(Shenzhen)Std & Tech Co., Ltd

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 E-mail: agc@agccert.com

 Web: http://www.agccert.com/





## MEASUREMENT RESULT: "agc fin"

2024/10/30 9:38

Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Detector	Line
3.282000	42.80	6.3	56	13.2	QP	N
3.310000	42.60	6.3	56	13.4	QP	N
3.558000	43.00	6.3	56	13.0	QP	Ν
3.830000	44.20	6.3	56	11.8	QP	N
4.102000	44.90	6.3	56	11.1	QP	N
4.650000	45.20	6.3	56	10.8	QP	N

# MEASUREMENT RESULT: "agc fin2"

Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Detector	Line
3.310000	29.00	6.3	46	17.0	AV	N
3.558000	35.80	6.3	46	10.2	AV	N
3.830000	38.00	6.3	46	8.0	AV	N
4.102000	38.10	6.3	46	7.9	AV	N
4.650000	37.60	6.3	46	8.4	AV	N
6.018000	38.90	6.4	50	11.1	AV	N

# **RESULT: Pass**

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# APPENDIX A: PHOTOGRAPHS OF TEST SETUP

Refer to the Report No.: AGC09477241003AP01

# APPENDIX B: PHOTOGRAPHS OF TEST EUT

Refer to the Report No.: AGC09477241003AP02

-----END OF REPORT-----



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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.

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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.