POCE Technology	
	RF TEST REPORT
She	For <b>For For</b>
	enzhen Zhenpin Technology Co.,Ltd Product Name: Wireless charger
	Model(s).: D1
Report Reference No.	: POCE231212003RF001
FCC ID	: 2BD8P-WC01
Applicant's Name	: Shenzhen Zhenpin Technology Co.,Ltd
Address	South 3F Block 2, Tongfuyu Industrial Park, Zhenmei Community, Xinhu Street, Guanming District, Shenzhen City
Testing Laboratory	: Shenzhen POCE Technology Co., Ltd.
Address	102 Building H1 & 1/F., Building H, Hongfa Science & Technology Park, Tangtou, Shiyan, Bao'an District, Shenzhen, Guangdong, China
Test Specification Standar	rd : FCC CFR Title 47 Part 15 Subpart C
Date of Receipt	: December 12, 2023
Date of Test	December 12, 2023 to December 22, 2023
Data of Issue	: December 22, 2023
Result	: Pass
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# **Revision History Of Report**

Description	REPORT No.	Issue Date
Original	POCE231212003RF001	December 22, 2023
	•	
	6	E
<u> </u>	F	
	Original	Original POCE231212003RF001

#### NOTE1:

The manufacturer should ensure that all products in series production are in conformity with the product sample detailed in this report. If the product in this report is used in any configuration other than that detailed in the report, the manufacturer must ensure the new system complies with all relevant standards.

Compiled by: Ben Tang Ben Tang /Test Engineer

Supervised by: Tomchen Tom Chen / Project Engineer

Approved by: Machael Mrs

Machael Mo / Manager

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#### **TEST SUMMARY** 1

# **1.1 Test Standards**

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The tests were performed according to following standards:

V1.0

47 CFR Part 15.209: Radiated emission limits; general requirements

# 1.2 Summary of Test Result

Item	Method	Requirement	Result
Antenna requirement	1	Part 15.203	Pass
Conducted Emission at AC power line	ANSI C63.10-2013 section 6.2	47 CFR 15.207(a)	Pass
20dB Occupied Bandwidth	ANSI C63.10-2013, section 6.9.2	47 CFR 15.215(c)	Pass
Emissions in frequency bands (below 30MHz)	ANSI C63.10-2013 section 6.6.4	47 CFR 15.209	Pass
Emissions in frequency bands (30MHz - 1GHz)	ANSI C63.10-2013 section 6.6.4	47 CFR 15.209	Pass
OCE	POCE	POC	E

#### **GENERAL INFORMATION** 2

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## 2.1 Client Information

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Client Information	
Applicant's Name	Shenzhen Zhenpin Technology Co.,Ltd
Address	: South 3F Block 2, Tongfuyu Industrial Park, Zhenmei Community, Xinhu Street, Guanming District, Shenzhen City
Manufacturer Address	<ul> <li>Shenzhen Zhenpin Technology Co.,Ltd</li> <li>South 3F Block 2, Tongfuyu Industrial Park, Zhenmei Community, Xinhu Street, Guanming District,Shenzhen City</li> </ul>

# 2.2 Description of Device (EUT)

Deside of Manager	Mealance along
Product Name:	Wireless charger
Model/Type reference:	
Series Model:	D2,D2S,D3,D3S,D5S,D6,D6S,D7,D8,D9,D10,D11,
	D12,D13,D13S,D15,D16,D17,D18,D19,D20
Model Difference:	The product has many models, only the model name is different, and the other
	parts such as the circuit principle, pcb and electrical structure are the same.
Trade Mark:	N/A
Power Supply:	DC 5V/2A from adapter
Operation Frequency:	115KHz~205KHz
Number of Channels:	N/A
Modulation Type:	MSK
Antenna Type:	Inductive loop coil Antenna
Antenna Gain:	0dBi (Max)
Hardware Version:	V1.0
Software Version:	V1.0

# 2.3 Description of Test Modes

No	Title	Description
TM1	Full load test	Keep the EUT in wireless charging mode
TM2	half load test	Keep the EUT in wireless charging mode
TM3	No-load load test	Keep the EUT in wireless charging mode

Test channel	Frequency (KHz)	
Channel 1	130.7	

# 2.4 Description of Support Units

	Title	Manufacturer	Model No.	Serial No.
	AC Adapter	UGREEN	CD112	N/A
W	Vireless Charging Load Module	N/A	N/A	Wireless Intput Power:5W/7.5W/10W//15W

# 2.5 Equipments Used During The Test

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Conducted Emission at AC power line						
Equipment	Manufacturer	Model No	Inventory No	Cal Date	Cal Due Date	
loop antenna	EVERFINE	LLA-2	80900L-C	2023-02-27	2024-02-26	
Power absorbing clamp	SCHWARZ BECK	MESS- ELEKTRONIK	/	2023-02-28	2024-02-27	
Electric Network	SCHWARZ BECK	CAT5 8158	CAT5 8158#207	/	/	
Cable	SCHWARZ BECK	/	P	2023-12-27	2024-12-27	
Pulse Limiter	SCHWARZ BECK	VTSD 9561-F Pulse limiter 10dB Ateennator	561-G071	2023-02-27	2024-02-26	
50ΩCoaxial Switch	Anritsu	MP59B	M20531		/	
Test Receiver	Rohde & Schwarz	ESPI TEST RECEIVER	ID:1164.6607K 03-102109- MH	2023-06-13	2024-06-12	
L.I.S.N	R&S	ESH3-Z5	831.5518.52	2023-12-29	2024-12-28	
L.I.S.N	R&S	ESH3-Z5		2023-12-29	2024-12	

20dB Occupied Bandwidth					
Equipment	Manufacturer	Model No	Inventory No	Cal Date	Cal Due Date
RF Test Software	TACHOY	RTS-01	V2.0.0.0	/	/
High Pass filter	ZHINAN	OQHPF1-M1.5- 18G-224	6210075	/	1
Power divider	MIDEWEST	PWD-2533	SMA-79	2023-05-11	2026-05-10
DC power	HP	66311B	38444359	/	1
RF Sensor Unit	Tachoy Information Technology(she nzhen) Co.,Ltd.	TR1029-2	000001	1	
Wideband radio communication tester	R&S	CMW500	113410	2023-06-13	2024-06-12
Vector signal generator	Keysight	N5181A	MY48180415	2023-12-29	2024-12-28
Signal generator	Keysight	N5182A	MY50143455	2023-12-29	2024-12-28
Spectrum Analyzer	Keysight	N9020A	MY53420323	2023-12-29	2024-12-28

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Emissions in frequency bands (below 30MHz) Emissions in frequency bands (30MHz - 1GHz)					
Equipment	Manufacturer	Model No	Inventory No	Cal Date	Cal Due Date
EMI Test software	Farad	EZ -EMC	V1.1.42	/	
Positioning Controller	1	MF-7802	1	/	1
High Pass filter	ZHINAN	OQHPF1-M1.5- 18G-224	6210075	/	/
Amplifier(18-40G)	COM-POWER	AH-1840	10100008-1	2022-04-05	2025-04-04
Horn antenna	COM-POWER	AH-1840 (18-40G)	10100008	2023-04-05	2025-04-04
Loop antenna	ZHINAN	ZN30900C	ZN30900C	2021-07-05	2024-07-04
Cable(LF)#2	Schwarzbeck	/	/	2023-02-27	2024-02-26
Cable(LF)#1	Schwarzbeck		/	2023-02-27	2024-02-26
Cable(HF)#2	Schwarzbeck	AK9515E	96250	2023-02-28	2024-02-27
Cable(HF)#1	Schwarzbeck	SYV-50-3-1	/	2023-02-27	2024-02-26
Power amplifier(LF)	Schwarzbeck	BBV9743	9743-151	2023-06-13	2024-06-12
Power amplifier(HF)	Schwarzbeck	BBV9718	9718-282	2023-06-13	2024-06-12
Wideband radio communication tester	R&S	CMW500	113410	2023-06-13	2024-06-12
Spectrum Analyzer	R&S	FSP30	1321.3008K40 -101729-jR	2023-06-14	2024-06-13
Horn Antenna	Sunol Sciences	DRH-118	A091114	2023-05-13	2025-05-12
Broadband Antenna	Sunol Sciences	JB6 Antenna	A090414	2023-05-21	2025-05-20
Test Receiver	R&S	ESCI	102109	2023-06-13	2024-06-12

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## 2.6 Statement Of The Measurement Uncertainty

V1 0

Test Item	Measurement Uncertainty
Conducted Disturbance (0.15~30MHz)	±3.41dB
Occupied Bandwidth	±3.63%
Radiated Emission (Below 1GHz)	±5.79dB
Note: (1) This uncertainty represents an expanded uncertainty confidence level using a coverage factor of k=2.	expressed at approximately the 95%

# 2.7 Identification of Testing Laboratory

Company Name:	Shenzhen POCE Technology Co., Ltd.					
Address:	101-102 Building H5 & 1/F., Building H, Hongfa Science & Technology Park, Tangtou, Shiyan, Bao'an District, Shenzhen, Guangdong, China					
Phone Number:	+86-13267178997					
Fax Number:	86-755-29113252					
Identification of the Respons	ible Testing Location					
Company Name:	Shenzhen POCE Technology Co., Ltd.					
Address:	101-102 Building H5 & 1/F., Building H, Hongfa Science & Technology Park, Tangtou, Shiyan, Bao'an District, Shenzhen, Guangdong, China					
Phone Number:	+86-13267178997					
Fax Number:	86-755-29113252					
FCC Registration Number:	0032847402					
Designation Number:	CN1342					

## 2.8 Announcement

(1) The test report reference to the report template version v0.

(2) The test report is invalid if not marked with the signatures of the persons responsible for preparing, reviewing and approving the test report.

(3) The test report is invalid if there is any evidence and/or falsification.

(4) This document may not be altered or revised in any way unless done so by POCE and all revisions are duly noted in the revisions section.

(5) Content of the test report, in part or in full, cannot be used for publicity and/or promotional purposes without prior written approval from the laboratory.

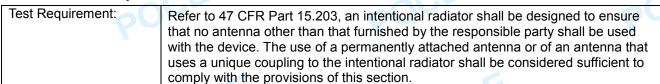
(6) The laboratory is only responsible for the data released by the laboratory, except for the part provided by the applicant.



# 3 Evaluation Results (Evaluation)

V1 0

# 3.1 Antenna requirement



#### 3.1.1 Conclusion:



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# 4 Radio Spectrum Matter Test Results (RF)

# 4.1 Conducted Emission at AC power line

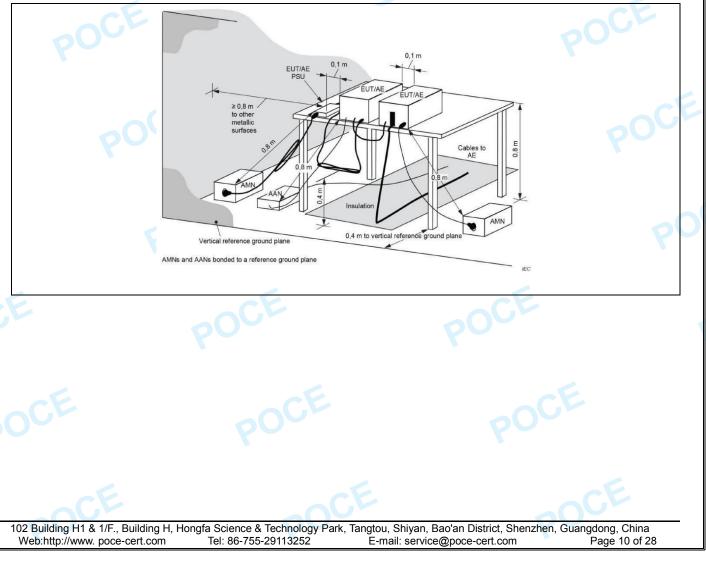
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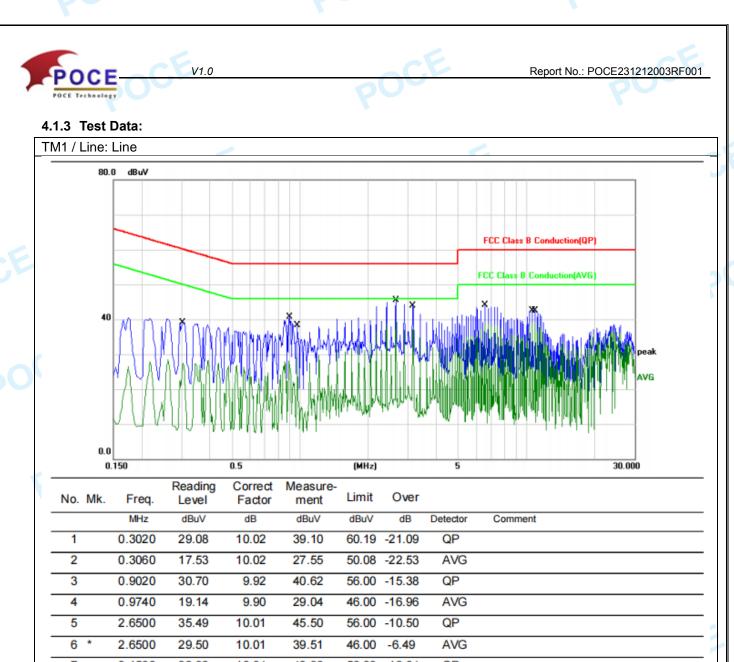
Test Requirement:	Except as shown in paragraphs (b)and (c)of this section, for an intentional radiate that is designed to be connected to the public utility (AC) power line, the radio frequency voltage that is conducted back onto the AC power line on any frequence or frequencies, within the band 150 kHz to 30 MHz, shall not exceed the limits in the following table, as measured using a 50 µH/50 ohms line impedance stabilization network (LISN).							
Test Limit:	Frequency of emission (MHz)	nission (MHz) Conducted limit (dBµV)						
		Quasi-peak	Average					
	0.15-0.5	66 to 56*	56 to 46*					
	0.5-5	56	46					
	5-30	60	50					
CE	*Decreases with the logarithm of the frequency.							
Test Method:	Refer to ANSI C63.10-2013 section 6.2, standard test method for ac power-line conducted emissions from unlicensed wireless devices							

#### 4.1.1 E.U.T. Operation:

Operating Environment:										
Temperature:	erature: 23.2 °C		Humidity:	51.9 %	Atmospheric Pressure:	102 kPa				
Pre test mode:		TM1	P		K K					
Final test mode:	TM1									

#### 4.1.2 Test Setup Diagram:

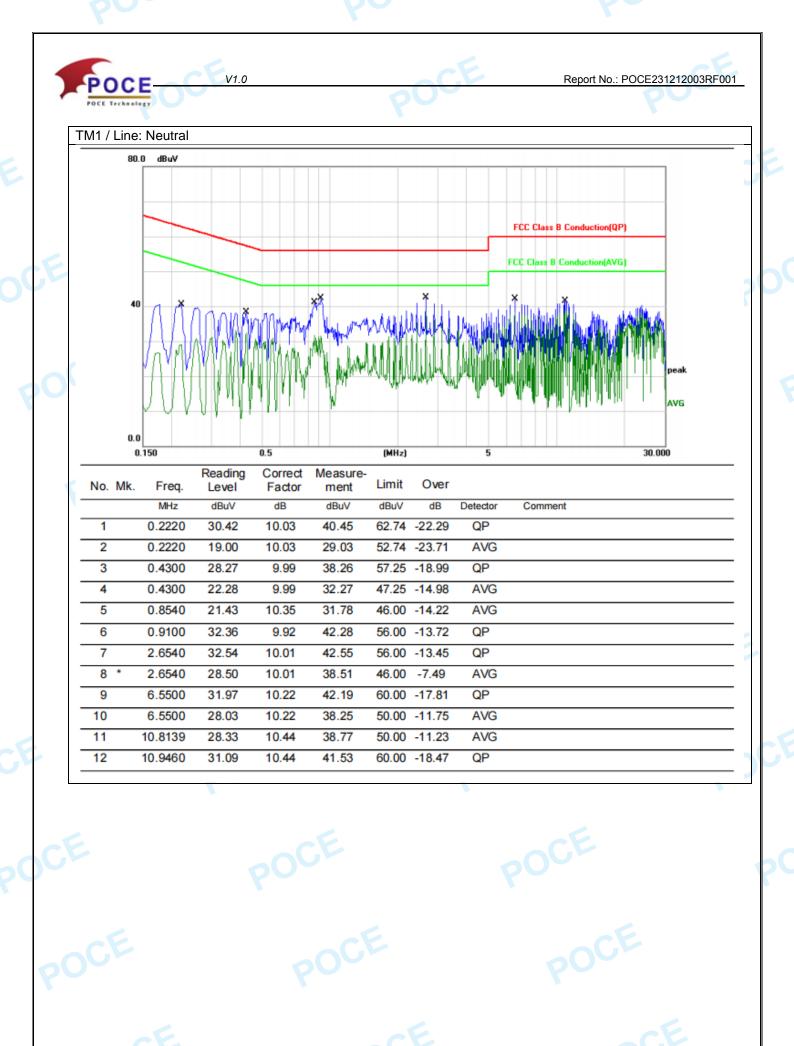




	7	3.1500	33.92	10.04	43.96	56.00 -12.04	QP
_	8	3.1580	27.22	10.04	37.26	46.00 -8.74	AVG
_	9	6.5379	33.81	10.22	44.03	60.00 -15.97	QP
_	10	6.5379	28.87	10.22	39.09	50.00 -10.91	AVG
_	11	10.5739	32.01	10.43	42.44	60.00 -17.56	QP
_	12	10.9539	28.97	10.43	39.40	50.00 -10.60	AVG

90<sup>C1</sup>

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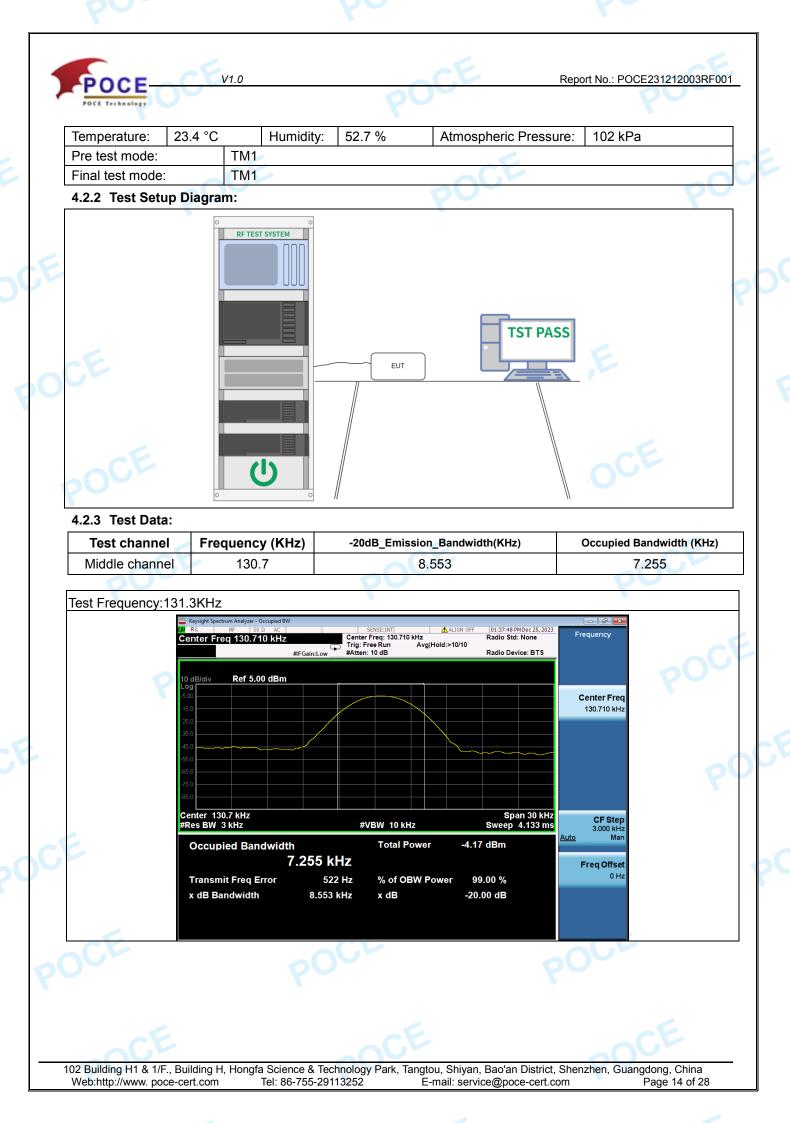
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# 4.2 20dB Occupied Bandwidth

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	4.2 20dB Occupied I	Bandwidth
	Test Requirement:	Intentional radiators operating under the alternative provisions to the general emission limits, as contained in §§ 15.217 through 15.257 and in subpart E of this part, must be designed to ensure that the 20 dB bandwidth of the emission, or whatever bandwidth may otherwise be specified in the specific rule section under which the equipment operates, is contained within the frequency band designated in the rule section under which the equipment is operated.
	Test Limit:	Intentional radiators operating under the alternative provisions to the general emission limits, as contained in §§ 15.217 through 15.257 and in subpart E of this part, must be designed to ensure that the 20 dB bandwidth of the emission, or whatever bandwidth may otherwise be specified in the specific rule section under which the equipment operates, is contained within the frequency band designated in the rule section under which the equipment is operated.
	Test Method:	Occupied bandwidth—relative measurement procedure
	Procedure:	<ul> <li>a) The spectrum analyzer center frequency is set to the nominal EUT channel center frequency. The span range for the EMI receiver or spectrum analyzer shall be between two times and five times the OBW.</li> <li>b) The nominal IF filter bandwidth (3 dB RBW) shall be in the range of 1% to 5% of the OBW and video bandwidth (VBW) shall be approximately three times RBW, unless otherwise specified by the applicable requirement.</li> <li>c) Set the reference level of the instrument as required, keeping the signal from exceeding the maximum input mixer level for linear operation. In general, the peak of the spectral envelope shall be more than [10 log (OBW/RBW)] below the reference level. Specific guidance is given in 4.1.5.2.</li> <li>d) Steps a) through c) might require iteration to adjust within the specified tolerances.</li> <li>e) The dynamic range of the instrument at the selected RBW shall be more than 10 dB below the target "-xx dB down" requirement; that is, if the requirement calls for measuring the -20 dB OBW, the instrument noise floor at the selected RBW shall be at least 30 dB below the reference value.</li> <li>f) Set detection mode to peak and trace mode to max hold.</li> <li>g) Determine the reference value: Set the EUT to transmit an unmodulated carrier or modulated signal, as applicable. Allow the trace to stabilize. Set the spectrum analyzer marker to the highest level of the displayed trace (this is the reference value).</li> <li>h) Determine the "-xx dB down amplitude" using [(reference value) - xx]. Alternatively, this calculation may be made by using the marker-delta function of the instrument.</li> <li>i) If the reference value is determined by an unmodulated carrier, then turn the EUT modulation ON, and either clear the existing trace or start a new trace on the spectrum analyzer and allow the new trace to stabilize. Otherwise, the trace from step g) shall be used for step j).</li> <li>j) Place two markers, one at the lowest frequency and the other at the highest frequency of the enve</li></ul>
	004	at this point is the specified emission bandwidth. k) The occupied bandwidth shall be reported by providing plot(s) of the measuring instrument display; the plot axes and the scale units per division shall be clearly labeled. Tabular data may be reported in addition to the plot(s).
1	4.2.1 E.U.T. Operation:	
	Operating Environment:	OCE OCE

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## 4.3 Emissions in frequency bands (below 30MHz)

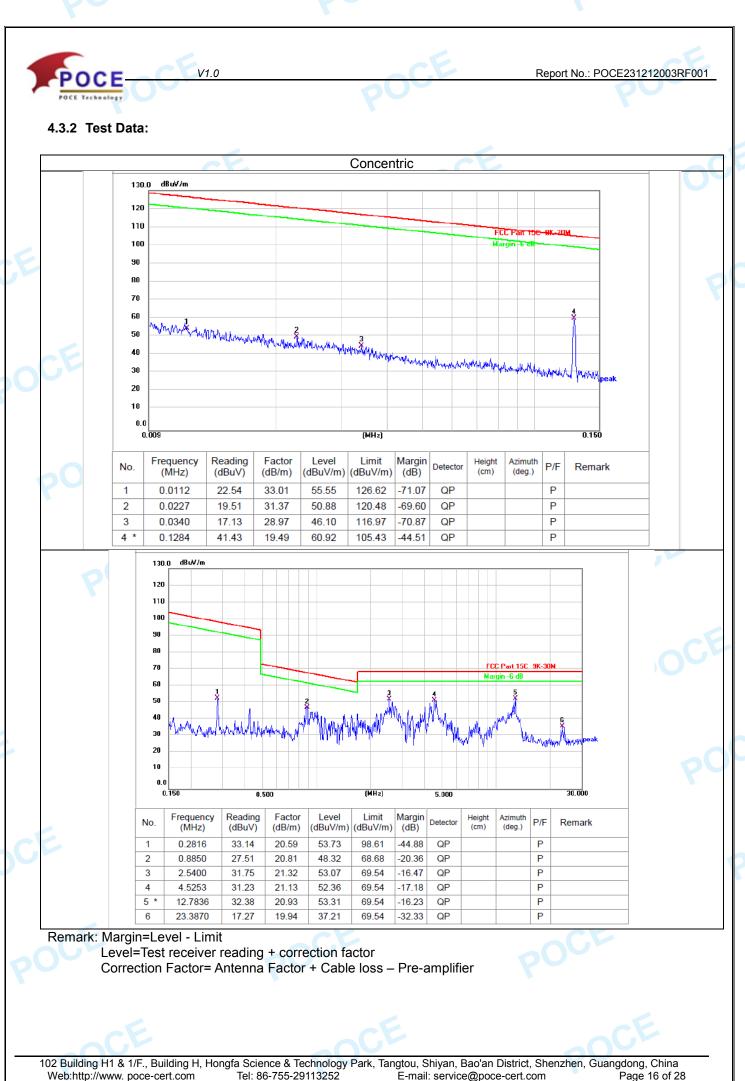
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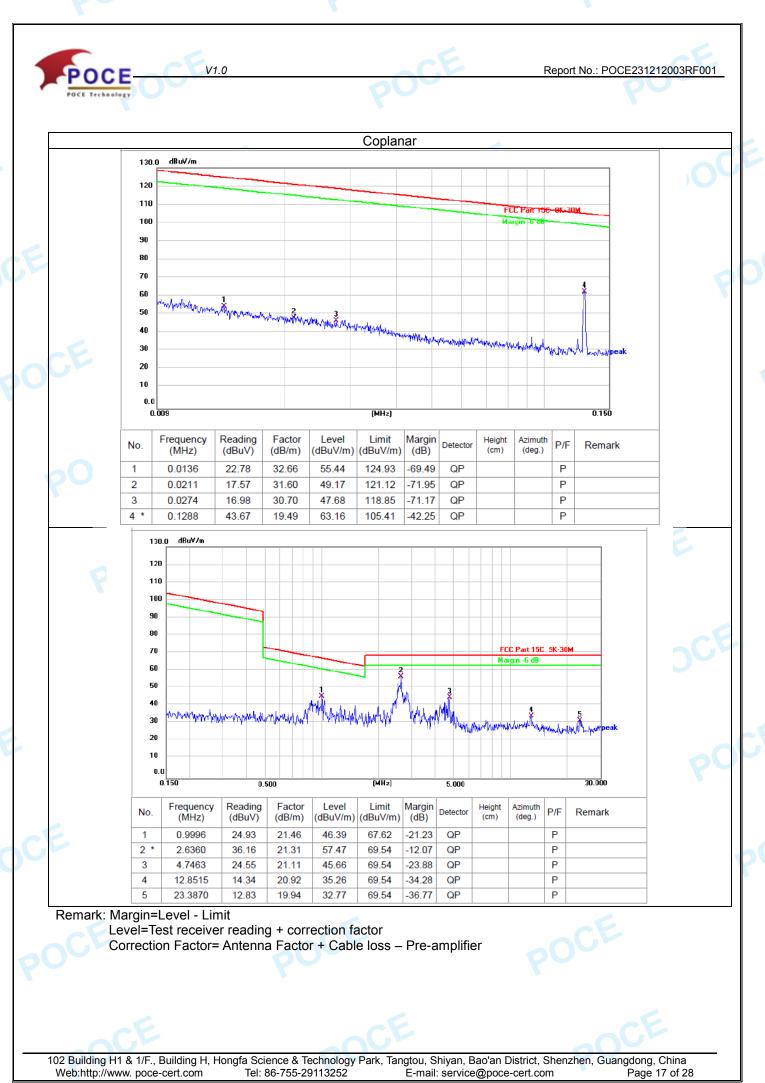
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CE

Deguinensent		5.209					
Requirement:							
Test Limit:		<b>F</b>	Field Stree	ngth	Field Strength Limit a	t 3m Measurement Dist	
		Frequency (MHz)	uV/m	Distance (m)	uV/m	dBuV/m	
		$0.009 \sim 0.490$	2400/F(kHz)	300	10000 * 2400/F(kHz)	$20\log^{(2400/F(kHz))} + 80$	
		$0.490 \sim 1.705$	24000/F(kHz)	30	100 * 24000/F(kHz)	20log <sup>(24000/F(kHz))</sup> + 40	
		$1.705 \sim 30$	30	30	100 * 30	$20\log^{(30)} + 40$	
		$30 \sim 88$	100	3	100	20log <sup>(100)</sup>	
		88~216	150	3	150	20log <sup>(150)</sup>	
		$216 \sim 960$	200	3	200	20log <sup>(200)</sup>	
		Above 960	500	3	500	20log <sup>(500)</sup>	
POCE	MHz, 174- permitted u §§ 15.231 As shown paragraphs strength of above by r under para	216 MHz or under other s and 15.241. in § 15.35(b) s (a)and (b)o f any emission nore than 20 agraph (b)of	470-806 MH sections of th ), for frequen of this sectior on shall not e ) dB under an	z. Howe his part, cies abo n are bas exceed the ny condi the peal	ever, operation with e.g., ove 1000 MHz, the sed on average lim ne maximum perm tion of modulation. < field strength sha	field strength limits hits. However, the point For point-to-point of litnot exceed 2500	bands is in eak field specified
Test Method:		emissions tes				-0	6
Procedure:	ANSI C63.	10-2013 sec	ction 6.6.4			P	

Operating Environment:										
Temperature:	23.4 °C	1	Humidity:	52.7 %	Atmospheric Pressure:	102 kPa				
Pre test mode:		TM1		X			00			
Final test mode:		TM1								





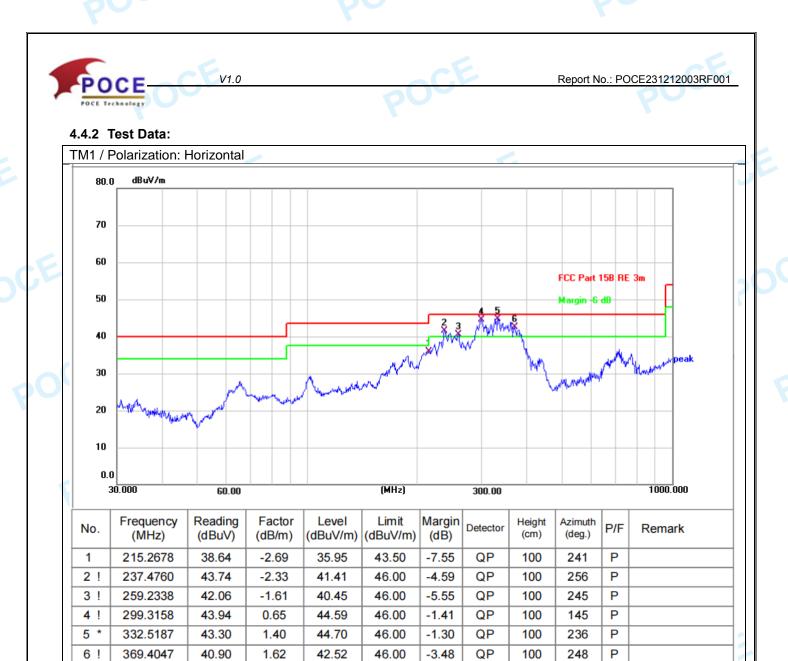


## 4.4 Emissions in frequency bands (30MHz - 1GHz)

Test Requirement:	47 CFR 15.209	E						
Test Limit:	Frequency (MHz)	Field strength	Measurement					
		(microvolts/meter)	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					
POCE	<ul> <li>** Except as provided in paragraph (g), fundamental emissions from intentional radiators operating under this section shall not be located in the frequency bas 54-72 MHz, 76-88 MHz, 174-216 MHz or 470-806 MHz. However, operation we these frequency bands is permitted under other sections of this part, e.g., §§ 15.231 and 15.241.</li> <li>As shown in § 15.35(b), for frequencies above 1000 MHz, the field strength lir paragraphs (a)and (b)of this section are based on average limits. However, the peak field strength of any emission shall not exceed the maximum permitted average limits specified above by more than 20 dB under any condition of modulation. For point-to-point operation under paragraph (b)of this section, the peak field strength shall not exceed 2500 millivolts/meter at 3 meters along the section.</li> </ul>							
Test Method:	Radiated emissions tests	-E	a F					
Procedure:	ANSI C63.10-2013 section 6	5.6.4	2004					

#### 4.4.1 E.U.T. Operation:

Operating Environment:									
Temperature:	23.4 °C		Humidity:	52.7 %	Atmospheric Pressure:	102 kPa			
Pre test mode:		TM1			CE				
Final test mode:	TM1		0	00.		000			



Remark: Margin=Level - Limit

Level=Test receiver reading + correction factor Correction Factor= Antenna Factor + Cable loss – Pre-amplifier



1	No.	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	Detector	(cm)	(deg.)	P/F	Remark
	1 *	63.5356	46.63	-8.87	37.76	40.00	-2.24	QP	100	47	Ρ	
	2	75.7114	41.11	-8.08	33.03	40.00	-6.97	QP	100	358	Р	
	3	213.0151	37.83	-2.73	35.10	43.50	-8.40	QP	100	254	Р	
	4!	292.0583	41.82	-0.43	41.39	46.00	-4.61	QP	100	147	Р	
	5	302.4812	39.01	-0.07	38.94	46.00	-7.06	QP	100	54	Р	
	6	333.6867	37.81	0.48	38.29	46.00	-7.71	QP	100	145	Ρ	

Remark: Margin=Level - Limit

Level=Test receiver reading + correction factor Correction Factor= Antenna Factor + Cable loss – Pre-amplifier

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