

# EMC TEST REPORT

**FCC ID: 2BPI9-CX8129B**

**Report No.** : SSP25040176-1E

**Applicant** : Dongguan Chenxin Electronic Technology Co., Ltd.

**Product Name** : Marine instruments

**Model Name** : CX8129B

**Test Standard** : FCC Part 15 Subpart B

**Date of Issue** : 2025-06-05



**Shenzhen CCUT Quality Technology Co., Ltd.**

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This test report is limited to the above client company and the product model only. It may not be duplicated without prior permitted by Shenzhen CCUT Quality Technology Co., Ltd.

**Test Report Basic Information**

**Applicant**.....: Dongguan Chenxin Electronic Technology Co., Ltd.  
Dongguan City, Houjie Town, Tongzheng Smart Park, Building B, 6th Floor,  
Address of Applicant.....: China

**Manufacturer**.....: Dongguan Chenxin Electronic Technology Co., Ltd.  
Dongguan City, Houjie Town, Tongzheng Smart Park, Building B, 6th Floor,  
Address of Manufacturer.....: China

**Product Name**.....: Marine instruments

**Brand Name**.....: CX

**Main Model**.....: CX8129B  
CX8049, CXA049, CXA029, CX8156, CX8221, CX8191, CX8307B, CX6183B,

**Series Models**.....: CX6255B

FCC Part 15 Subpart B

**Test Standard**.....: ANSI C63.4-2014

**Date of Test** .....: 2025-05-10 to 2025-05-12

**Test Result**.....: PASS

**Tested By** .....: Tate Chen (Tate Chen)

**Reviewed By**.....: Lorrix Luo (Lorrix Luo)

**Authorized Signatory**.....: Lahm Peng (Lahm Peng)



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## CONTENTS

<b>1. General Information.....</b>	<b>5</b>
1.1 Product Information .....	5
1.2 Test Setup Information.....	5
1.3 Compliance Standards.....	6
1.4 Test Facilities.....	6
1.5 Measurement Uncertainty .....	6
1.6 List of Test and Measurement Instruments .....	7
<b>2. Summary of Test Results.....</b>	<b>8</b>
<b>3. Radiated Disturbance.....</b>	<b>9</b>
3.1 Standard and Limit.....	9
3.2 Test Procedure.....	9
3.3 Test Data and Results .....	9

### Revision History

Revision	Issue Date	Description	Revised By
V1.0	2025-06-05	Initial Release	Lahm Peng

## 1. General Information

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### 1.1 Product Information

Product Name:	Marine instruments			
Trade Name:	CX			
Main Model:	CX8129B			
Series Models:	CX8049, CXA049, CXA029, CX8156, CX8221, CX8191, CX8307B, CX6183B, CX6255B			
Class of Equipment:	<input type="checkbox"/> Class A	<input checked="" type="checkbox"/> Class B		
Highest Internal Frequency:	<108MHz			
Rated Voltage:	DC 9~32V			
Note 1: The test data is gathered from a production sample, provided by the manufacturer.				
Note 2: The color of appearance and model name of series models listed are different from the main model, but the circuit and the electronic construction are the same, declared by the manufacturer.				

### 1.2 Test Setup Information

List of Test Modes			
Test Mode	Description	Remark	
TM1	Working	DC 12V	
List and Details of Auxiliary Cable			
Description	Length (cm)	Shielded/Unshielded	With/Without Ferrite
-	-	-	-
-	-	-	-
List and Details of Auxiliary Equipment			
Description	Manufacturer	Model	Serial Number
-	-	-	-
-	-	-	-
The equipment under test (EUT) was configured to measure its highest possible emission and immunity level. The test modes were adapted according to the operation manual for use.			

### 1.3 Compliance Standards

Compliance Standards	
FCC Part 15 Subpart B	FEDERAL COMMUNICATIONS COMMISSION, RADIO FREQUENCY DEVICES, Unintentional Radiators
All measurements contained in this report were conducted with all above standards	
According to standards for test methodology	
FCC Part 15 Subpart B	FEDERAL COMMUNICATIONS COMMISSION, RADIO FREQUENCY DEVICES, Unintentional Radiators
ANSI C63.4-2014	American National Standard for Methods of Measurement of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the range of 9 kHz to 40 GHz.
Maintenance of compliance is the responsibility of the manufacturer or applicant. Any modification of the product, which result is lowering the emission, should be checked to ensure compliance has been maintained.	

### 1.4 Test Facilities

Laboratory Name:	<b>Shenzhen CCUT Quality Technology Co., Ltd.</b> 1F, Building 35, Changxing Technology Industrial Park, Yutang Street, Guangming District, Shenzhen, Guangdong, China
CNAS Laboratory No.:	L18863
A2LA Certificate No.:	6893.01
FCC Registration No.:	583813
ISED Registration No.:	CN0164
All measurement facilities used to collect the measurement data are located at 1F, Building 35, Changxing Technology Industrial Park, Yutang Street, Guangming District, Shenzhen, Guangdong, China.	

### 1.5 Measurement Uncertainty

Test Item	Conditions	Uncertainty
Conducted Disturbance	9kHz ~30MHz	±1.64 dB
Radiated Disturbance	30MHz ~ 1GHz	±3.32 dB
Radiated Disturbance	1GHz ~ 18GHz	±3.50 dB

## 1.6 List of Test and Measurement Instruments

Description	Manufacturer	Model	Serial Number	Cal. Date	Due. Date
<b>Conducted Emissions</b>					
AMN	ROHDE&SCHWARZ	ENV216	101097	2024-08-07	2025-08-06
EMI Test Receiver	ROHDE&SCHWARZ	ESPI	100242	2024-08-07	2025-08-06
EMI Test Software	FARA	EZ-EMC	EMEC-3A1+	N/A	N/A
<b>Radiated Emissions</b>					
EMI Test Receiver	ROHDE&SCHWARZ	ESPI	100154	2024-08-07	2025-08-06
Spectrum Analyzer	KEYSIGHT	N9020A	MY48030972	2024-08-07	2025-08-06
Amplifier	SCHWARZBECK	BBV 9743B	00251	2024-08-07	2025-08-06
Amplifier	HUABO	YXL0518-2.5-45	--	2024-08-07	2025-08-06
Loop Antenna	DAZE	ZN30900C	21104	2024-08-03	2025-08-02
Broadband Antenna	SCHWARZBECK	VULB 9168	01320	2024-08-03	2025-08-02
Horn Antenna	SCHWARZBECK	BBHA 9120D	02553	2024-08-03	2025-08-02
EMI Test Software	FARA	EZ-EMC	FA-03A2 RE+	N/A	N/A

## 2. Summary of Test Results

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FCC Rule	Description of Test Item	Result
FCC Part 15.107	Conducted Emissions	N/A
FCC Part 15.109	Radiated Emissions	Passed

Passed: The EUT complies with the essential requirements in the standard  
Failed: The EUT does not comply with the essential requirements in the standard  
N/A: Not applicable

### 3. Radiated Disturbance

#### 3.1 Standard and Limit

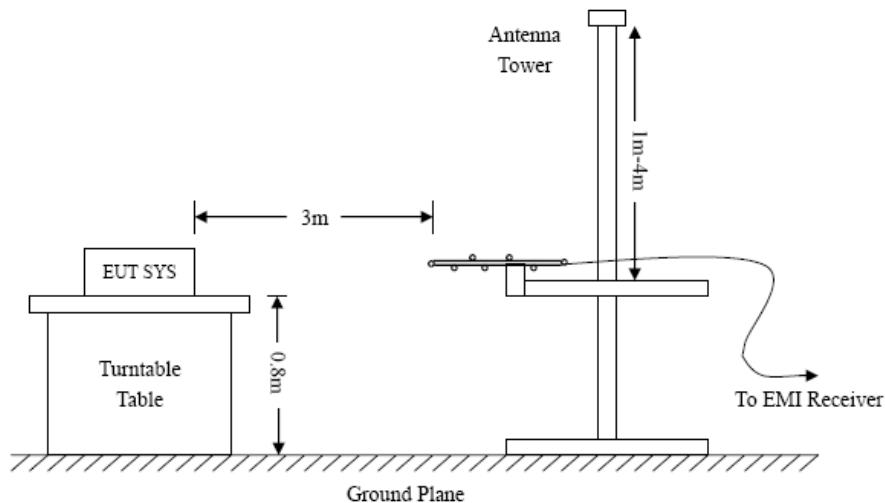
According to the rule FCC Part 15.109, Radiated emission limit for a class A and class B device as below:

Frequency of Emission (MHz)	Class A (3m)	Class B (3m)
	Quasi-peak (dBuV/m)	Quasi-peak (dBuV/m)
30-88	50	40
88-216	54.0	43.5
216-960	57.0	46
Above 960	60	54

Note: The more stringent limit applies at transition frequencies.

#### 3.2 Test Procedure

Test is conducting under the description of ANSI C63.4-2014 American National Standard for Methods of Measurement of Radio Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the Range of 9 kHz to 40 GHz.



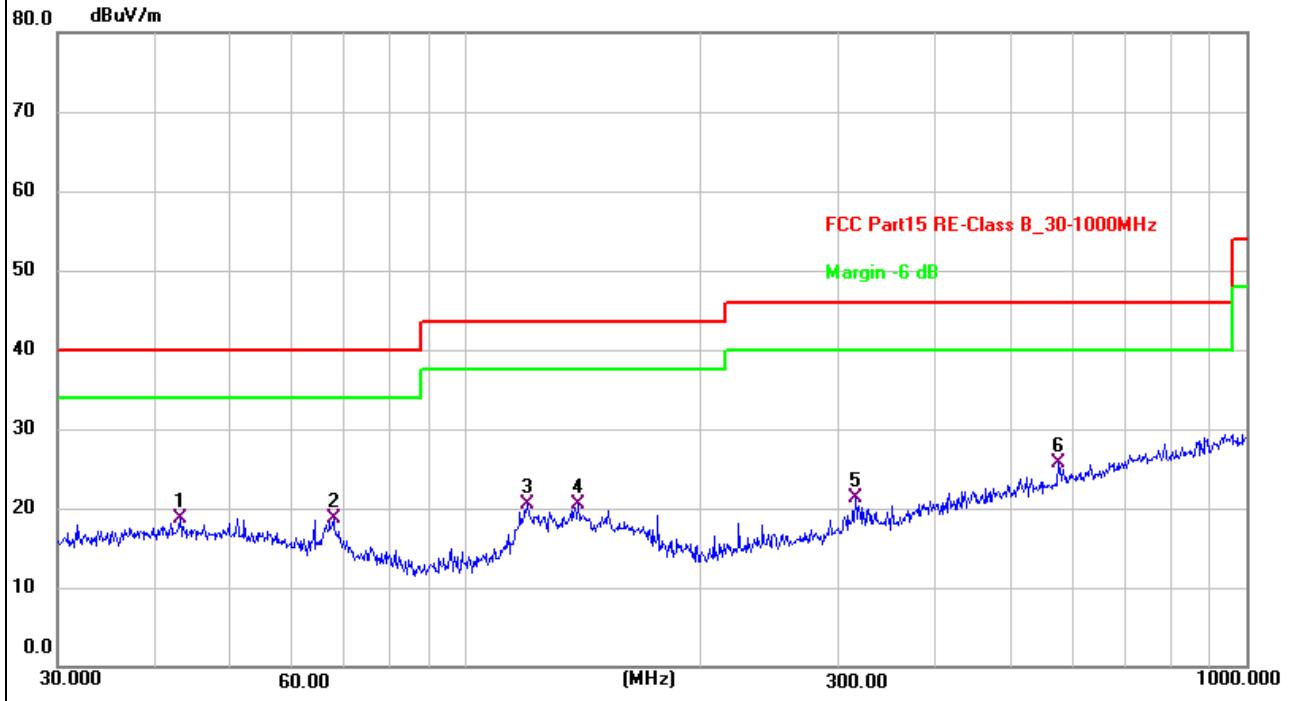
Test Setup Block Diagram

#### 3.3 Test Data and Results

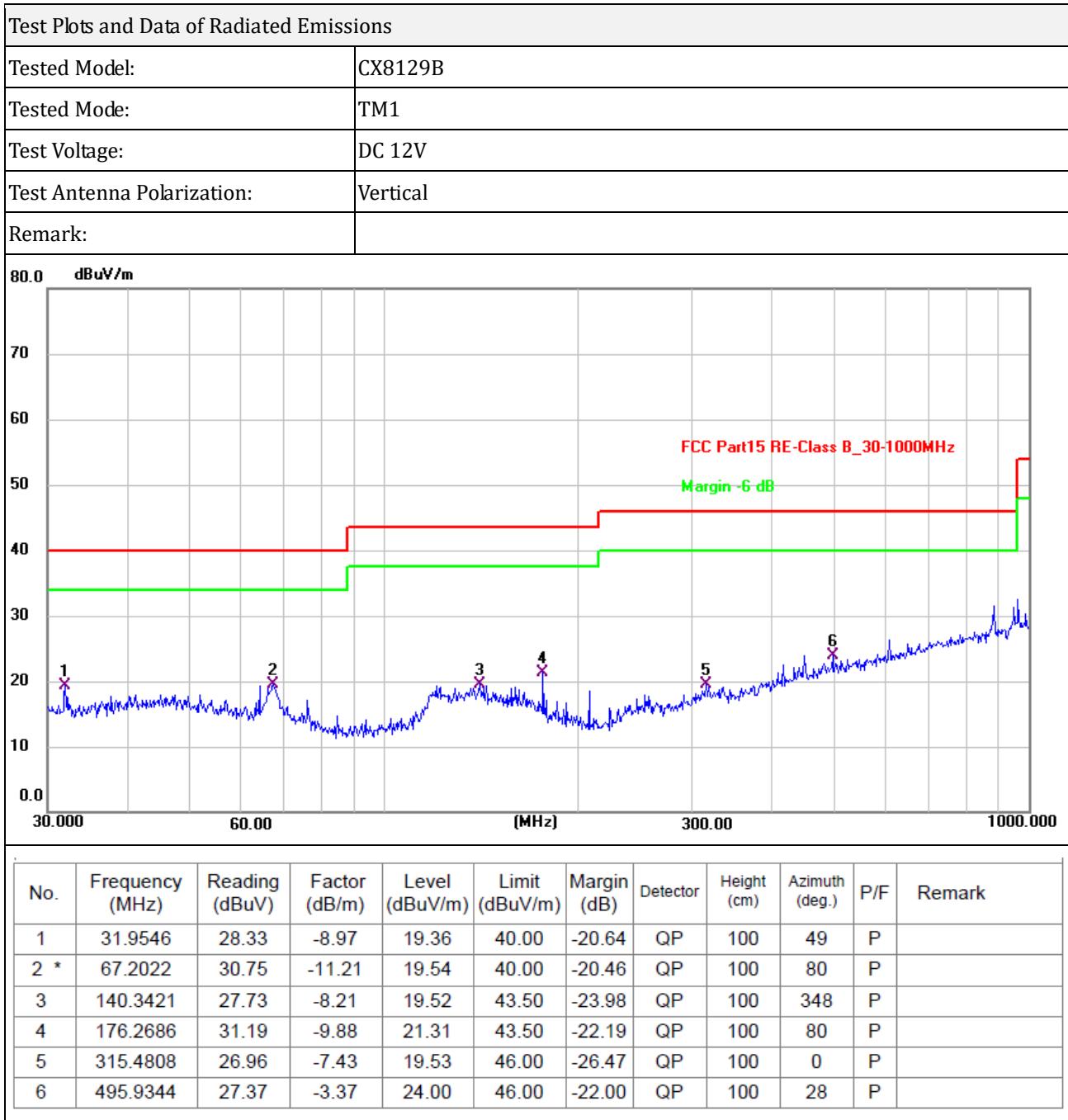
Based on all tested data, the EUT complied with the FCC Part 15.109 standard limit for a Class B device, and with the worst case as below:

Remark: Level = Reading + Factor, Margin = Level - Limit

Test Plots and Data of Radiated Emissions	
Tested Model:	CX8129B
Tested Mode:	TM1
Test Voltage:	DC 12V
Test Antenna Polarization:	Horizontal
Remark:	



No.	Frequency (MHz)	Reading (dB <sub>uV</sub> )	Factor (dB/m)	Level (dB <sub>uV/m</sub> )	Limit (dB <sub>uV/m</sub> )	Margin (dB)	Detector	Height (cm)	Azimuth (deg.)	P/F	Remark
1	43.0505	26.94	-8.28	18.66	40.00	-21.34	QP	200	17	P	
2	67.6751	29.94	-11.30	18.64	40.00	-21.36	QP	200	347	P	
3	119.8556	30.23	-9.76	20.47	43.50	-23.03	QP	200	27	P	
4	139.3613	28.81	-8.26	20.55	43.50	-22.95	QP	200	235	P	
5	315.4808	28.81	-7.43	21.38	46.00	-24.62	QP	200	347	P	
6 *	574.6258	27.83	-2.19	25.64	46.00	-20.36	QP	200	89	P	



Other emissions are attenuated 20dB below the limits from 9kHz to 30MHz, so it does not recorded in report.

\*\*\*\*\* END OF REPORT \*\*\*\*\*