

TEST REPORT

REPORT NUMBER: B19W50651-EMC-REV2.0

ON

Type of Equipment: Tracker

Type of Designation: PT200LSV

Manufacturer: Micron Electronics LLC.

ACCORDING TO

Subpart B, PART 15, RADIO FREQUENCY DEVICES , January 8, 2020

Chongqing Academy of Information and Communications

Month date, year

Jan, 10, 2020

Signature



Zhang Yan

Director

Note:

The test results in this test report relate only to the devices specified in this report. This report shall not be reproduced except in full without the written approval of China Telecommunication Technology Labs.



FCC ID: ZKQ-PT200LSV

Report Date: 2020-1-10

Test Firm Name: Chongqing Academy of Information and Communications

FCC Registration Number: CN1239

Statement

The measurements shown in this report were made in accordance with the procedures described on test pages. All reported tests were carried out on a sample equipment to demonstrate limited compliance with FCC CFR 47 Part 15 and ICE-003 Issue 5. The sample tested was found to comply with the requirements defined in the applied rules.

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1 General Information

1.1 Notes

All reported tests were carried out on a sample equipment to demonstrate limited compliance with FCC CFR 47 Part15 and ICE-003 Issue 5.

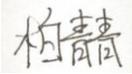
The test results of this test report relate exclusively to the item(s) tested as specified in section 2.

The following deviation from, additions to, or exclusions from the test specifications have been made. See Annex C.

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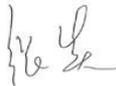
1.2 Testers

Name: Bai Qingqing
Position: Engineer
Department: Department of EMC test
Date: 2020-1-10
Signature: 

Editor of this test report:

Name: Xiao Yu
Position: Engineer
Department: Department of EMC test
Date: 2020-1-10
Signature: 

Technical responsibility for area of testing:

Name: Zhang Yan
Position: Manager
Department: Department of EMC test
Date: 2020-1-10
Signature: 

1.3 Testing Laboratory information

1.3.1 Location

Name: Chongqing Academy of Information and Communications

Address: Building B, Technology Innovation Centre, No.8, Yuma Road, Chayuan New Area, Nan'an District, Chongqing, People's Republic of China, 401336

Tel: +86 23 88069965

Fax: +86 23 88608777

Email: liqiao@caict.ac.cn

1.3.2 Details of accreditation status

Accredited by: --

Registration number: --

Standard: --

1.3.3 Test location, where different from section 1.3.1

Name: -----

Address: -----

1.4 Details of applicant or manufacturer

1.4.1 Applicant

Name: Micron Electronics LLC.
Address: 1001 Yamato Road, Suite 400, Boca Raton, FL 33431,
USA
Country: USA
Telephone: +1 888 538 3489
Fax: +1 888 550 1805
Contact: Ping Cheng
Email: pcheng@micron-electronics.com

1.4.2 Manufacturer (if different from applicant in section 1.4.1)

Name: --
Address: --
Country: --

2 Test Item

2.1 General Information

Manufacturer: Micron Electronics LLC.
Name: Tracker
Model Number: PT200LSV
IMEI: 358152100088993
Production Status: Product
Receipt date of test item: 2019-12-10

2.2 Outline of EUT

The EUT, PT200LSV is a Product supporting LTE Band 4, Band 13

2.3 Modifications Incorporated in EUT

The EUT has not been modified from what is described by the brand name and unique type identification stated above.

2.4 Equipment Configuration

Equipment configuration list:

Item	Generic Description	Manufacturer	Type	Serial No.	Remarks
A	Product	Micron Electronics LLC.	PT200LSV	358152100 088993	None

2.5 Other Information

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3 Summary of Test Results

A brief summary of the tests carried out is shown as following.

Configuration1		
Specification Clause	Name of Test	Result
15.109(a)/ ICE-003 Issue 5 §6	Radiated Emission	Pass
15.107(a) / ICE-003 Issue 5 §6	Conducted Emission	Pass

Test equipment Used:						
Number	Description	Manufacturer	Model Number	Serial Number	Cal Due	State
1	EMI Test Receiver	R/S	ESU	100367	2020-03-01	Normal
2	Ultra Broadband Antenna	R/S	VULB 9163	vulb9163-544	2020-11-24	Normal
3	Double-Ridged Horn Antenna	R/S	HF907	100357	2021-06-22	Normal
4	Fully-Anechoic Chamber	ETS	11.8m×6.5m×6.3m	--	2020-08-20	Normal
5	AMN	R/S	ENV216	101128	2020-03-02	Normal
6	EMI Test Receiver	R/S	ESCI 9KHz-3GHZ	101214	2020-03-02	Normal

4 Test Results

4.1 Radiated Emission

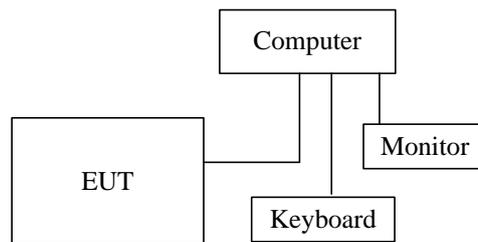
Specifications:	15.109(a)/ ICE-003 Issue 5 §6
Date of Tests	2019-12-10-2019-12-28
Test conditions:	Ambient Temperature: 15°C-35°C Relative Humidity: 30%-60% Air pressure: 86-106kPa
Operation Mode	Normal
Test Results:	Pass

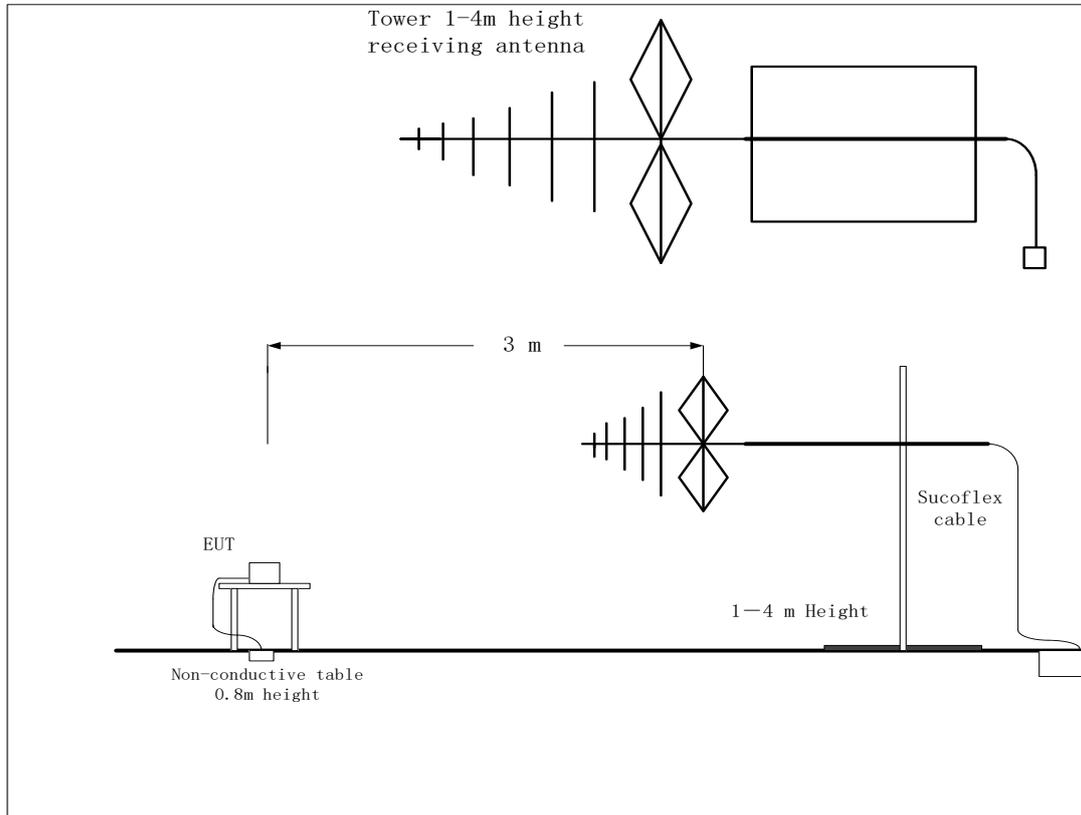
Limit Level Construction:

Frequency Range (MHz)	Quasi-Peak (dBuV/m)
30-88	40
88-216	43.5
216-960	46
Above 960	54

Frequency Range (MHz)	Peak (dBuV/m)	Average (dBuV/m)
Above 1000	74	54

EUT Setup:



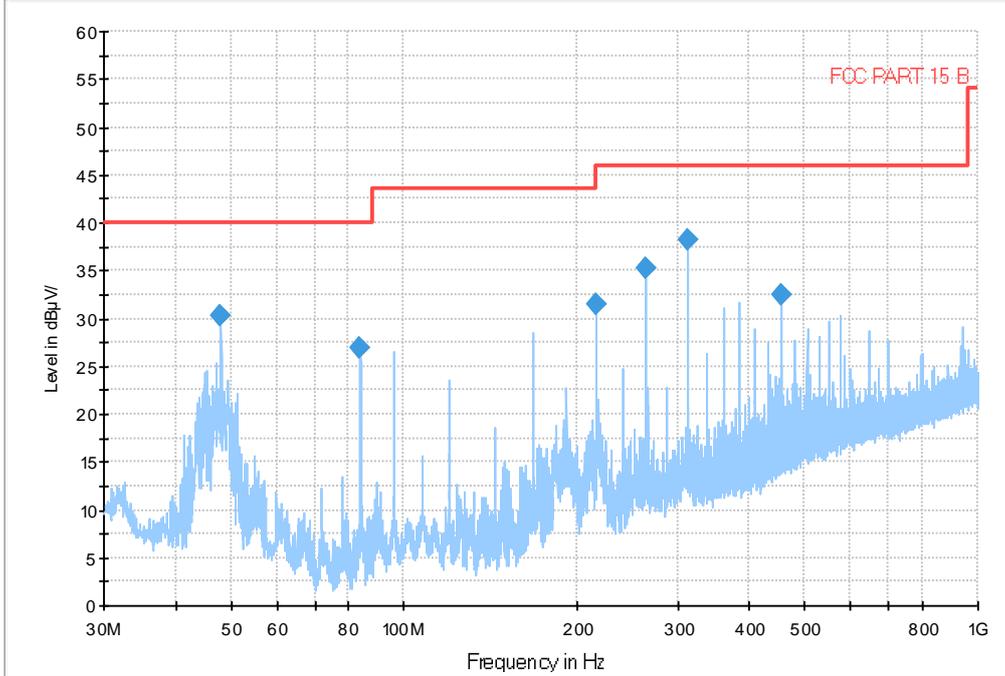
Test Setup:**Test Method:**

For 30-1000MHz, the EUT was placed on the top of a rotating 0.8-m table above the ground at a semi-anechoic chamber. The distance between the EUT and the received antenna was 3 meters. The table was rotated 360 degree and the received antenna mounted on a variable-height antenna tower was varied from 1m to 4m to find the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna were set during the measurement. Tested in accordance with the procedures of ANSI C63.4-2014, section 8.3.

For 1000-18000MHz, the maximal emission value was acquired by adjusting the antenna height, and the table was rotated 360 degree to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna were set during the measurement.

Test Data

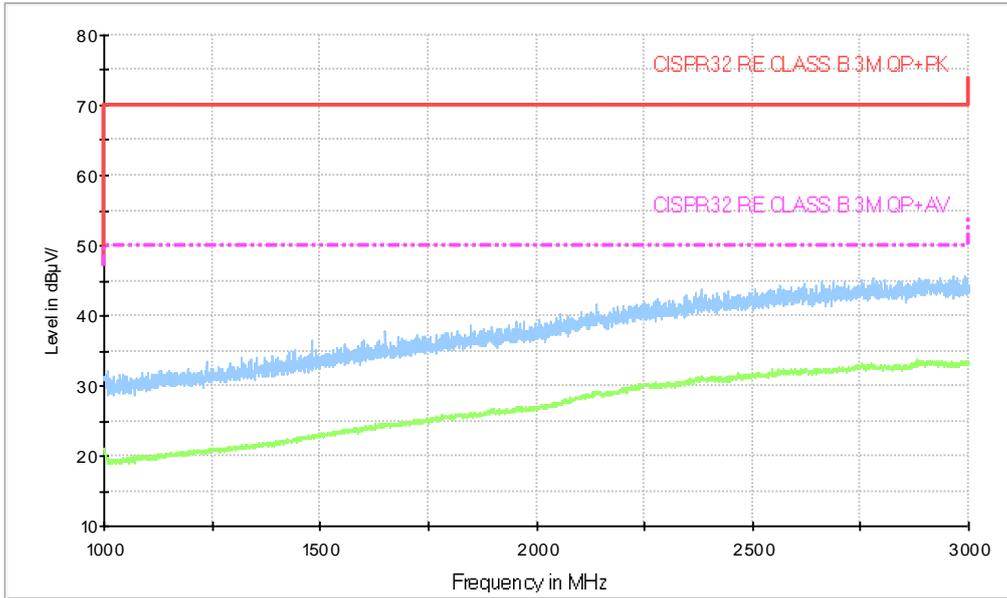
RE 30MHz-1GHz



RE_30M-1GHz_ horizontal and vertical

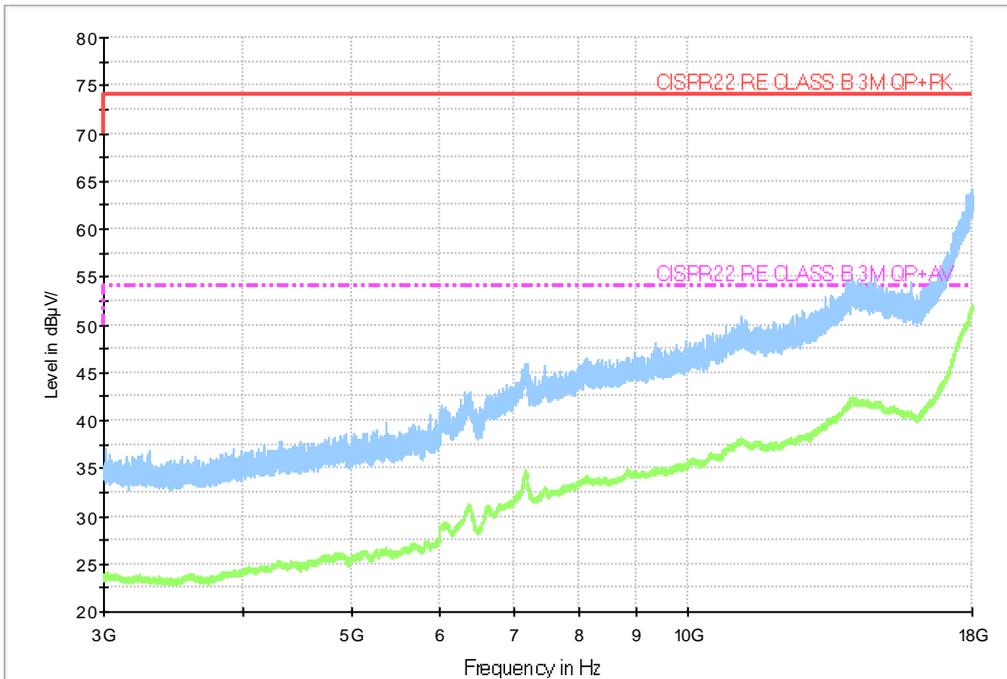
Frequency MHz	QP dBuV/m	Mea.Time ms	RBW KHz	Height cm	Polarity	Azimuth deg	Margin dB	Limit dBuV/m
47.993500	30.3	5000.0	120.000	200.0	V	0.0	9.7	40.0
83.980500	26.9	5000.0	120.000	200.0	H	180.0	13.1	40.0
215.997500	31.5	5000.0	120.000	100.0	H	0.0	12.0	43.5
264.012500	35.3	5000.0	120.000	100.0	H	0.0	10.7	46.0
312.027500	38.1	5000.0	120.000	100.0	H	0.0	7.9	46.0
456.024000	32.5	5000.0	120.000	100.0	V	270.0	13.5	46.0

RE 1GHz-3GHz



- CISPR32 RE CLASS B 3M QP+PK.LimitLine
- - - CISPR32 RE CLASS B 3M QP+AV.LimitLine
- * Preview Result 1-PK+
- * Preview Result 2-AVG
- * Data Reduction Result 1 [2]-PK+
- * Data Reduction Result 2 [2]-AVG

RE 3GHz-18GHz



Test photo

See the Pic1~2 in document“ PT200LSV _EMC Test Setup Photos”.

4.2 Conducted Emission

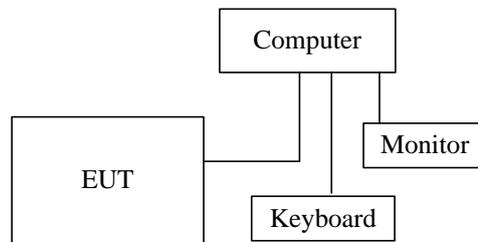
Specifications:	15.107(a)
Date of Tests	2019-12-10-2019-12-28
Test conditions:	Ambient Temperature:15°C-35°C Relative Humidity:30%-60% Air pressure: 86-106kPa
Operation Mode	Normal
Test Results:	Pass

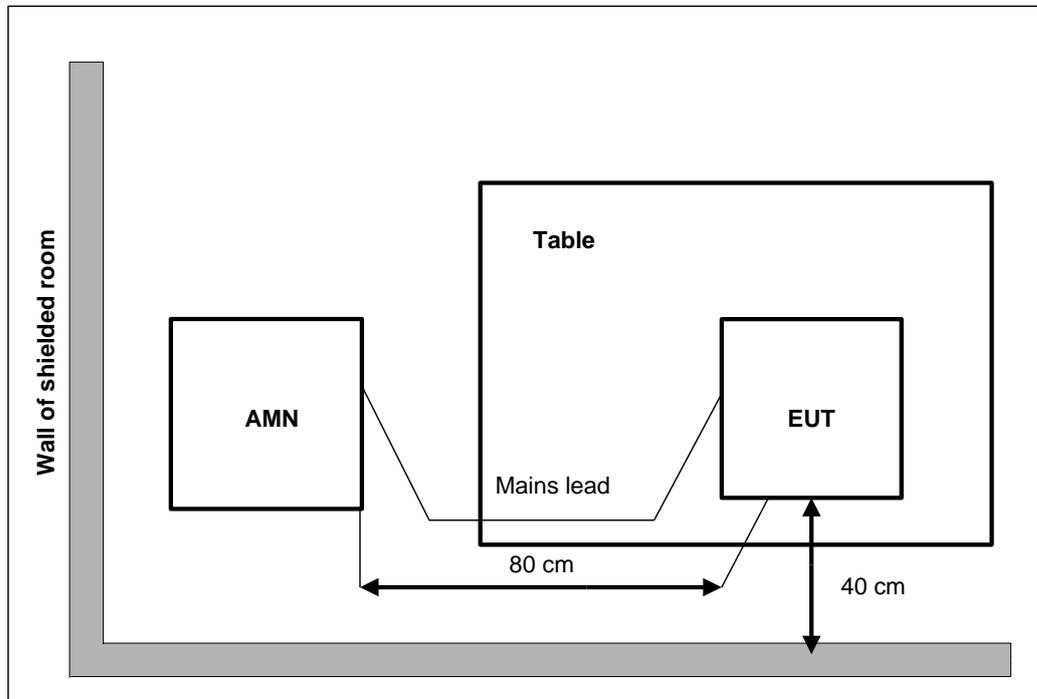
Limit Level Construction:

Frequency Range (MHz)	Conducted Limit (dBuV)	
	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 logarithm of the frequency

EUT Setup:

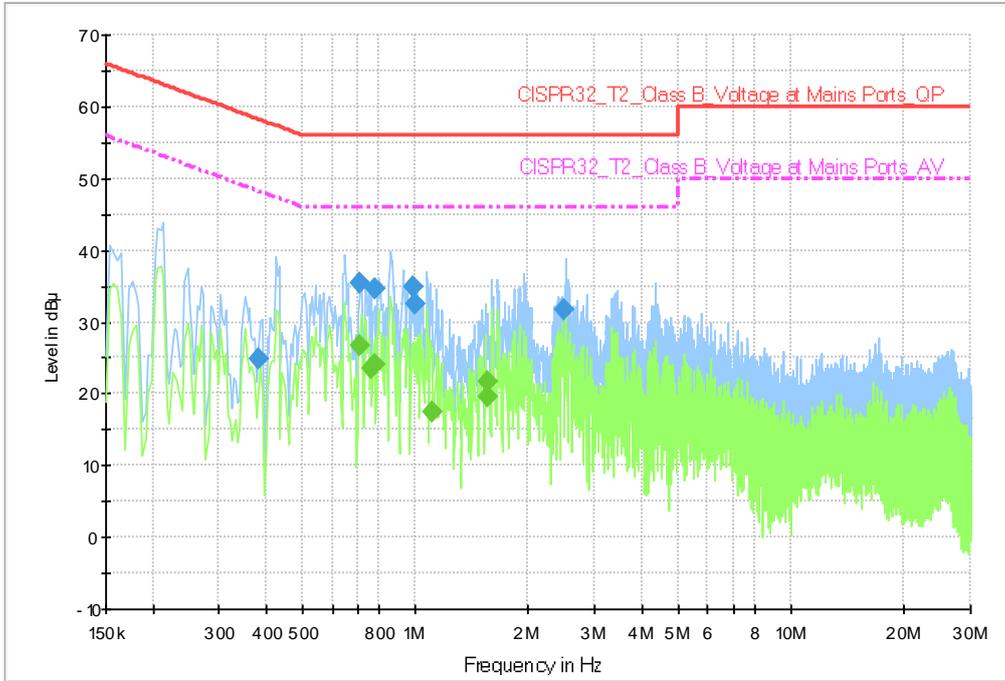


Test Setup:**Test Method:**

For equipment 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 frequency or frequencies with the band 150 kHz to 30MHz shall not exceed the limits. Both lines of the power mains connected to the EUT were checked for maximum conducted interference. Tested in accordance with the procedures of ANSI C63.4-2014, section 7.3

Test Data

CISPR N&L1 Voltage 150k to 30MHz-Class B



Line L&N

Test Result:

Frequency (MHz)	QuasiPeak (dBμV)	Meas. Time	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBμV)
0.384112	24.8	1000.0	9.000	On	N	9.7	33.4	58.2
0.711988	35.3	1000.0	9.000	On	L1	9.7	20.7	56.0
0.780938	34.6	1000.0	9.000	On	L1	9.7	21.4	56.0
0.981619	35.0	1000.0	9.000	On	L1	9.7	21.0	56.0
0.996100	32.4	1000.0	9.000	On	L1	9.7	23.6	56.0
2.481881	31.6	1000.0	9.000	On	L1	9.7	24.4	56.0

Frequency (MHz)	CAverage (dBμV)	Meas. Time	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBμV)
0.708256	26.6	1000.0	9.000	On	L1	9.7	19.4	46.0
0.765238	23.6	1000.0	9.000	On	L1	9.7	22.4	46.0
0.780938	24.1	1000.0	9.000	On	L1	9.7	21.9	46.0
1.109619	17.4	1000.0	9.000	On	N	9.7	28.6	46.0
1.555994	19.6	1000.0	9.000	On	L1	9.7	26.4	46.0
1.563694	21.6	1000.0	9.000	On	L1	9.7	24.4	46.0

Test photo

See the Pic3 in document" PT200LSV _EMC Test Setup Photos".

Annex A External Photos

See the document" PT200LSV -External Photos".

Annex B Internal Photos

See the document" PT200LSV -Internal Photos".

ANNEX C Deviations from Prescribed Test Methods

No deviation from Prescribed Test Methods.

————— **The End of this Report** —————