

EMC Test Report

Report No.: JYTSZ-R01-2600042

Applicant: 8devices

Address of Applicant: Antakalnio g. 17, LT-10312 Vilnius

Equipment Under Test (EUT)

Product Name: Pineapple 2

Model No.: Pineapple 2, Pineapple-2-MPCIE, Pineapple-2-M2AE-5V, Pineapple 2-I, Pineapple-2-MPCIE-I, Pineapple-2-M2AE-5V-I

Trade Mark: N/A

FCC ID: Z9W-PIN2

Applicable Standards: FCC CFR Title 47 Part 15B

Date of Sample Receipt: 04 Mar., 2026

Date of Test: 05 Mar., to 27 Mar., 2026

Date of report Issued: 31 Mar., 2026

Test Result: PASS

Project by: Vieta Zhang

Date: 31 Mar., 2026

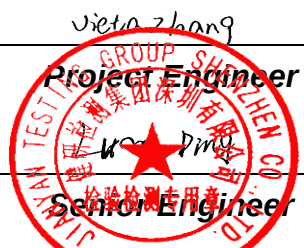
Reviewed by: Wang Ding

Date: 31 Mar., 2026

Approved by: James Wei

Date: 31 Mar., 2026

Manager



This equipment has been shown to be capable of compliance with the applicable technical standards as indicated in the measurement report and was tested in accordance with the measurement procedures specified in above the application standard version. Test results reported herein relate only to the item(s) tested.

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1 Version

Version No.	Date	Description
00	31 Mar., 2026	Original

2 Contents

	Page
Cover Page	1
1 Version	2
2 Contents.....	3
3 General Information.....	4
3.1 Client Information	4
3.2 General Description of E.U.T.	4
3.3 Disclaimer.....	4
3.4 Test Mode	5
3.5 Description of Test Auxiliary Equipment	5
3.6 Description of Cable Used.....	5
3.7 Measurement Uncertainty	5
3.8 Additions to, Deviations, or Exclusions from the Method	5
3.9 Laboratory Facility	6
3.10 Laboratory Location.....	6
3.11 Test Instruments List.....	6
4 Measurement Setup and Procedure	7
4.1 Test Setup	7
4.2 Test Procedure	8
5 Test Results.....	9
5.1 Summary	9
5.1.1 Clause and data summary	9
5.1.2 Test Limit.....	9
5.2 Radiated Emission	10

3 General Information

3.1 Client Information

Applicant:	8devices
Address:	Antakalnio g. 17, LT-10312 Vilnius
Manufacturer/Factory:	8devices
Address:	Žirnių g. 26D, LT-02119 Vilnius

3.2 General Description of E.U.T.

Product Name:	Pineapple 2
Model No.:	Pineapple 2, Pineapple-2-MPCIE, Pineapple-2-M2AE-5V, Pineapple 2-I, Pineapple-2-MPCIE-I, Pineapple-2-M2AE-5V-I
Remark:	The only difference between Pineapple 2 and Pineapple 2-I is that Pineapple 2 use QCN-9074-0 while Pineapple 2-I use QCN-9074-1. Same identical chipset, different temperature working range, -0 means it works from 0°C to 65°C, -1 means it works from -45°C to 85°C. Also, we, 8devices, hereby included two more devices and declare that both of the uses original Pineapple 2 and Pineapple 2-I modules on it, which are not modified or anyhow changed and are complete originals. Both devices are adapter carrier boards to make Pineapple 2 and Pineapple 2-I easy to operate. Adapters Model Numbers are: Pineapple-2-MPCIE; Pineapple-2-M2AE-5V. These two Model Numbers can be interchanged with Pineapple 2 or Pineapple 2-I and the Model Numbers changes accordingly to: Pineapple-2-MPCIE-I; Pineapple-2-M2AE-5V-I.
Test Sample Condition:	The test samples were provided in good working order with no visible defects.

3.3 Disclaimer

Disclaimer:
For the information or data provided by the client in this report, the relevant results or conclusions of this report are only made for these data or information. The testing laboratory is not responsible for the authenticity and accuracy of these data or information.

3.4 Test Mode

Operating Mode	Detail Description
Working mode	Keep the EUT in Working mode(Worst case)
1. The sample was placed 0.8m above the ground plane of 3m chamber. Measurements in both horizontal and vertical polarities were performed. During the test, each emission was maximized by: having the EUT continuously working, investigated all operating modes, rotated about all 3 axis (X, Y & Z) and considered typical configuration to obtain worst position, manipulating interconnecting cables, rotating the turntable, varying antenna height from 1m to 4m in both horizontal and vertical polarizations. The emissions worst-case are shown in Test Results of the following pages. 2. For model to test: Pineapple 2 and Pineapple 2-I are single module, Pineapple 2 is included by Pineapple-2-MPCIE and Pineapple-2-M2AE-5V, and Pineapple 2-I is included by Pineapple-2-MPCIE-I and Pineapple-2-M2AE-5V-I. So: EUT 1: For Pineapple-2-MPCIE and Pineapple-2-M2AE-5V, select Pineapple-2-MPCIE to test. EUT 2: For Pineapple-2-MPCIE-I and Pineapple-2-M2AE-5V-I, select Pineapple-2-MPCIE-I card to test. The report only reflects the test data of worst mode.	

3.5 Description of Test Auxiliary Equipment

Manufacturer	Description	Model	S/N	FCC ID/DoC
Lenovo	Laptop	ThinkPad T14 Gen 1	SL10Z47277	DoC
MEAN WELL	AC/DC ADAPTER	GST25A24	/	DoC
8devices	Mango DVK	Mango	/	Z9WMAN

3.6 Description of Cable Used

Cable Type	Description	Length	From	To
N/A	N/A	N/A	N/A	N/A

3.7 Measurement Uncertainty

Parameter	Expanded Uncertainty (Confidence of 95%(U = 2Uc(y)))
Radiated Emission (30MHz ~ 200MHz) (3m SAC)	4.7 dB
Radiated Emission (200MHz ~ 1000MHz) (3m SAC)	5.8 dB
Radiated Emission (1GHz ~ 6GHz) (3m SAC)	4.5 dB
Radiated Emission (6GHz ~ 18GHz) (3m SAC)	4.5 dB
Note: All the measurement uncertainty value were shown with a coverage k=2 to indicate 95% level of confidence. The measurement data show herein meets or exceeds the CISPR measurement uncertainty values specified in CISPR 16-4-2 and can be compared directly to specified limit to determine compliance.	

3.8 Additions to, Deviations, or Exclusions from the Method

No

3.9 Laboratory Facility

The test facility is recognized, certified, or accredited by the following organizations:

● **FCC - Designation No.: CN1211**

JianYan Testing Group Shenzhen Co., Ltd. has been accredited as a testing laboratory by FCC(Federal Communications Commission). The test firm Registration No. is 727551.

● **ISED – CAB identifier.: CN0021**

The 3m Semi-anechoic chamber and 10m Semi-anechoic chamber of JianYan Testing Group Shenzhen Co., Ltd. has been Registered by Certification and Engineering Bureau of Industry Canada for radio equipment testing with Registration No.: 10106A-1.

● **CNAS - Registration No.: CNAS L15527**

JianYan Testing Group Shenzhen Co., Ltd. is accredited to ISO/IEC 17025:2017 General Requirements for the Competence of Testing and Calibration laboratories for the competence of testing. The Registration No. is CNAS L15527.

● **A2LA - Registration No.: 4346.01**

This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2017 General requirements for the competence of testing and calibration laboratories. The test scope can be found as below link: <https://portal.a2la.org/scopepdf/4346-01.pdf>

3.10 Laboratory Location

JianYan Testing Group Shenzhen Co., Ltd.

Address: No.101, Building 8, Innovation Wisdom Port, No.155 Hongtian Road, Huangpu Community, Xinqiao Street, Bao'an District, Shenzhen, Guangdong, People's Republic of China.

Tel: +86-755-23118282, Fax: +86-755-23116366

Email: info-JYTee@lets.com, Website: <http://jyt.lets.com>

3.11 Test Instruments List

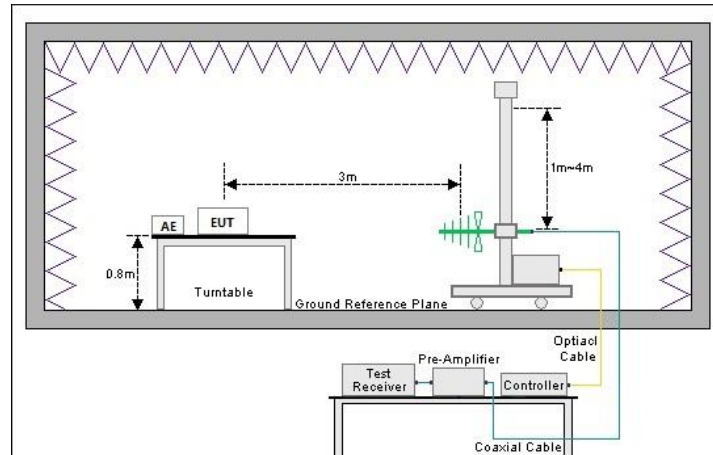
Radiated Emission(3m SAC):					
Test Equipment	Manufacturer	Model No.	Manage No.	Cal. Date (mm-dd-yy)	Cal. Due date (mm-dd-yy)
3m SAC	ETS	9m*6m*6m	WXJ001-1	04-14-2021	04-13-2026
BiConiLog Antenna	Schwarzbeck	VULB9163	WXJ002	08-07-2026	08-08-2026
Horn Antenna	Schwarzbeck	BBHA9120D	WXJ002-2	12-05-2025	12-06-2026
Pre-amplifier (30MHz ~ 1GHz)	Schwarzbeck	BBV9743B	WXJ001-2	12-04-2025	12-03-2026
Pre-amplifier (1GHz ~ 18GHz)	SKET	LNPA_0118G-50	WXJ001-3	12-04-2025	12-03-2026
EMI Test Receiver	Rohde & Schwarz	ESRP7	WXJ003-1	12-04-2025	12-03-2026
Spectrum Analyzer	Rohde & Schwarz	FSP 30	WXJ004	12-04-2025	12-03-2026
Coaxial Cable (30MHz ~ 1GHz)	JYTSZ	JYT3M-1G-NN-8M	WXG001-4	01-12-2026	01-13-2027
Coaxial Cable (1GHz ~ 18GHz)	JYTSZ	JYT3M-18G-NN-8M	WXG001-5	01-12-2026	01-13-2027
Band Rejct Filter Group	Tonscend	JS0806-F	WXJ089	N/A	
Test Software	Tonscend	TS+	Version: 3.0.0.1		

4 Measurement Setup and Procedure

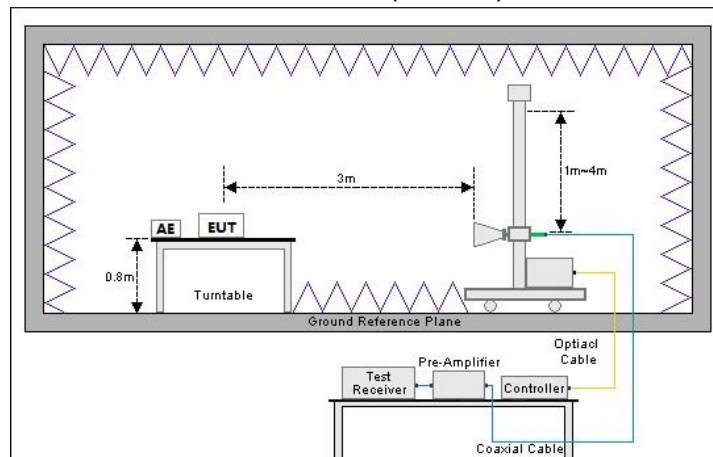
4.1 Test Setup

1) Radiated emission measurement:

Below 1GHz (3m SAC)



Above 1GHz (3m SAC)



4.2 Test Procedure

Test method	Test step
Radiated emission	For below 1GHz: 1. The EUT was placed on the tabletop of a rotating table 0.8 m the ground at a 3 m semi anechoic chamber. The measurement distance from the EUT to the receiving antenna is 3 m. 2. EUT works in each mode of operation that needs to be tested, and having the EUT continuously working, respectively on 3 axis (X, Y & Z) and considered typical configuration to obtain worst position. The highest signal levels relative to the limit shall be determined by rotating the EUT from 0° to 360° and with varying the measurement antenna height between 1 m and 4 m in vertical and horizontal polarizations. 3. Open the test software to control the test antenna and test turntable. Perform the test, save the test results, and export the test data. For above 1GHz: 1. The EUT was placed on the tabletop of a rotating table 0.8 m the ground at a 3 m fully anechoic room. The measurement distance from the EUT to the receiving antenna is 3 m. 2. EUT works in each mode of operation that needs to be tested, and having the EUT continuously working, respectively on 3 axis (X, Y & Z) and considered typical configuration to obtain worst position. The highest signal levels relative to the limit shall be determined by rotating the EUT from 0° to 360° and with varying the measurement antenna height between 1 m and 4 m in vertical and horizontal polarizations. 3. Open the test software to control the test antenna and test turntable. Perform the test, save the test results, and export the test data.

5 Test Results

5.1 Summary

5.1.1 Clause and data summary

Test items	Standard clause	Test data	Result
Conducted Emission	Part 15.107	N/A	N/A
Radiated Emission	Part 15.109	See Section 5.2	Pass
Remark: 1. The EUT is a Class B digital device. 2. Pass: The EUT complies with the essential requirements in the standard. 3. N/A: Not Applicable.			
Test Method:	ANSI C63.4:2014		

5.1.2 Test Limit

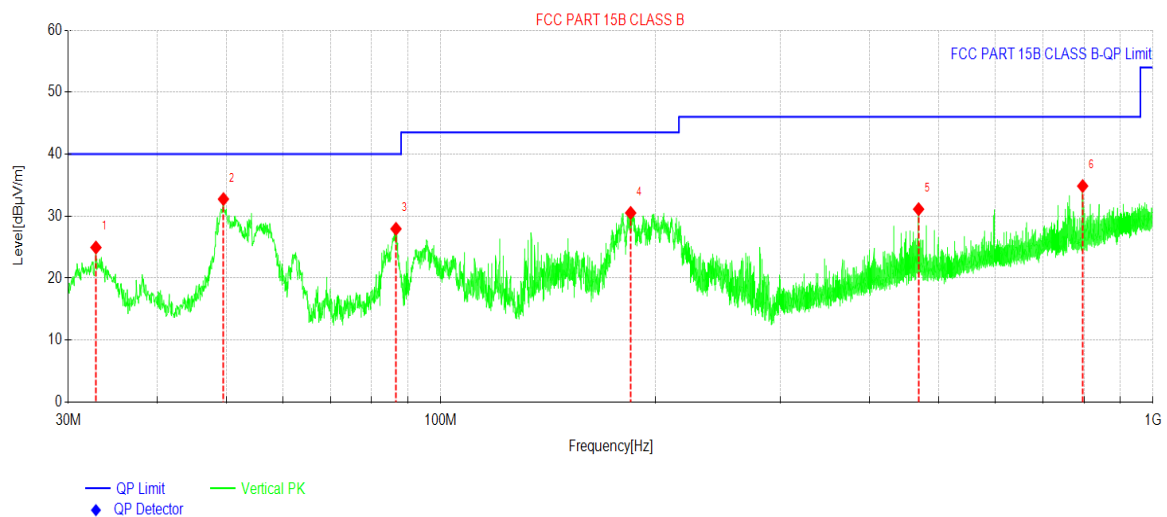
Test items	Limit				
Radiated Emission	Frequency (MHz)	Class A Limit (dBµV/m)		Class B Limit (dBµV/m)	
		Quasi-Peak @ 3m	Quasi-Peak @ 10m	Quasi-Peak @ 3m	Quasi-Peak @ 10m
	30 – 88	49.0	39.0	40.0	30.0
	88 – 216	53.5	43.5	43.5	33.5
	216 – 960	56.0	46.0	46.0	36.0
	960 – 1000	60.0	50.0	54.0	44.0
	Note: The more stringent limit applies at transition frequencies.				
	Frequency	Class A Limit (dBµV/m) @ 3m		Class B Limit (dBµV/m) @ 3m	
		Average	Peake	Average	Peake
	Above 1 GHz	60.0	80.0	54.0	74.0
	Note: The measurement bandwidth shall be 1 MHz or greater.				

5.2 Radiated Emission

EUT 1:

Below 1GHz:

Product Name:	Pineapple 2	Product Model:	Pineapple-2-MPCIE
Test By:	Kiran Zeng	Test mode:	Working mode
Test Frequency:	30 MHz ~ 1 GHz	Polarization:	Vertical
Test Voltage:	AC 120V/60Hz		



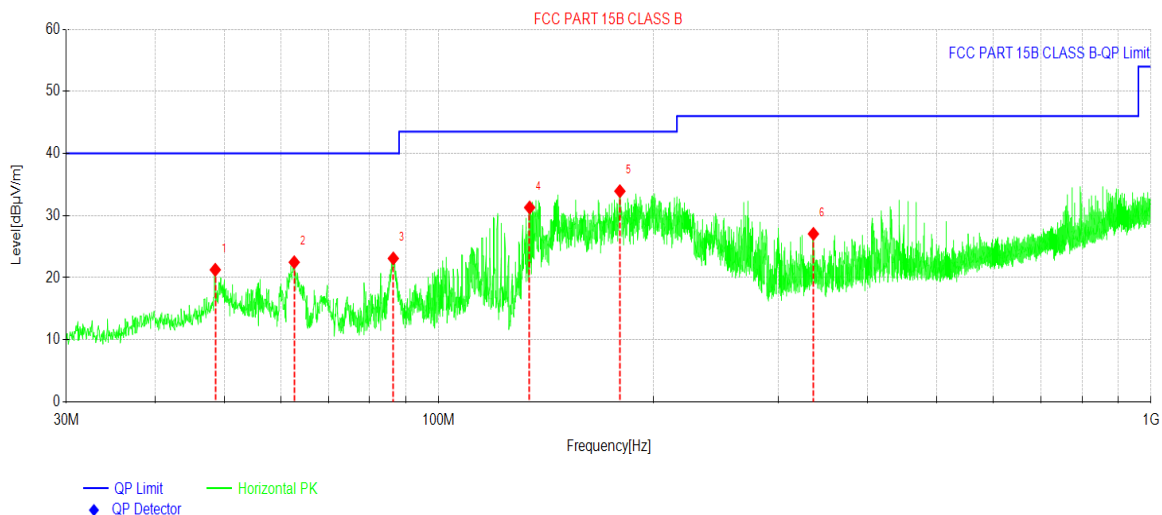
Suspected Data List

NO.	Freq. [MHz]	Reading [dBμV/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Trace	Polarity
1	32.8131	41.24	-16.30	24.94	40.00	15.06	PK	Vertical
2	49.5465	45.42	-12.67	32.75	40.00	7.25	PK	Vertical
3	86.5538	45.21	-17.26	27.95	40.00	12.05	PK	Vertical
4	184.8197	47.17	-16.65	30.52	43.50	12.98	PK	Vertical
5	468.7529	39.59	-8.46	31.13	46.00	14.87	PK	Vertical
6	796.6778	36.47	-1.61	34.86	46.00	11.14	PK	Vertical

Remark:

1. Level = Reading + Factor(Antenna Factor + Cable Loss – Pre-amplifier Factor).

Product Name:	Pineapple 2	Product Model:	Pineapple-2-MPCIE
Test By:	Kiran Zeng	Test mode:	Working mode
Test Frequency:	30 MHz ~ 1 GHz	Polarization:	Horizontal
Test Voltage:	AC 120V/60Hz		



Suspected Data List

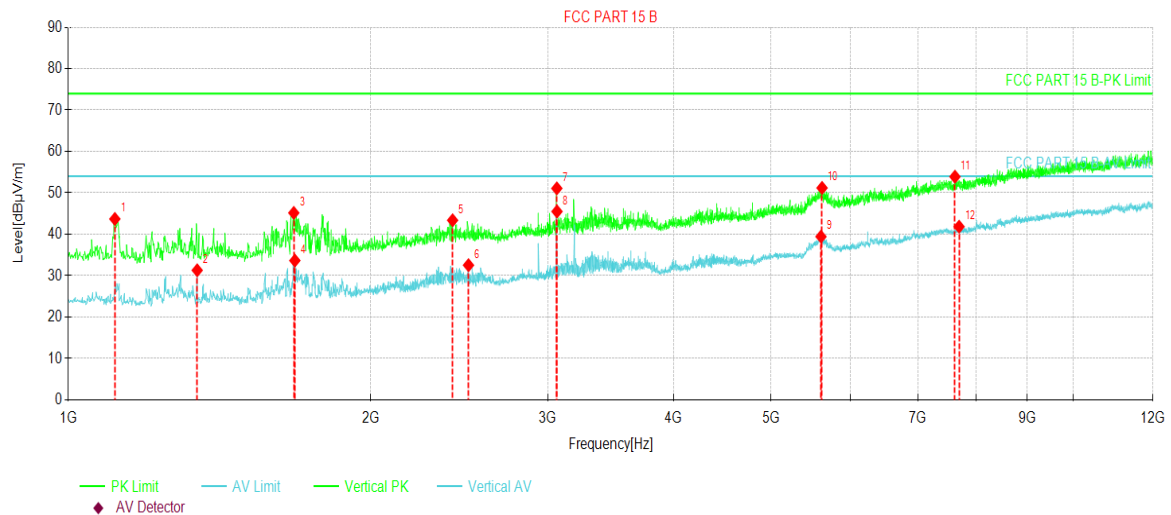
NO.	Freq. [MHz]	Reading [dBμV/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Trace	Polarity
1	48.5764	34.00	-12.73	21.27	40.00	18.73	PK	Horizontal
2	62.6906	37.19	-14.70	22.49	40.00	17.51	PK	Horizontal
3	86.3598	40.44	-17.35	23.09	40.00	16.91	PK	Horizontal
4	134.1832	49.17	-17.88	31.29	43.50	12.21	PK	Horizontal
5	179.6300	50.62	-16.69	33.93	43.50	9.57	PK	Horizontal
6	335.8078	39.05	-12.00	27.05	46.00	18.95	PK	Horizontal

Remark:

1. Level = Reading + Factor(Antenna Factor + Cable Loss – Preamplifier Factor).

Above 1GHz:

Product Name:	Pineapple 2	Product Model:	Pineapple-2-MPCIE
Test By:	Kiran Zeng	Test mode:	Working mode
Test Frequency:	1000 MHz ~ 12000 MHz	Polarization:	Vertical
Test Voltage:	AC 120V/60Hz		



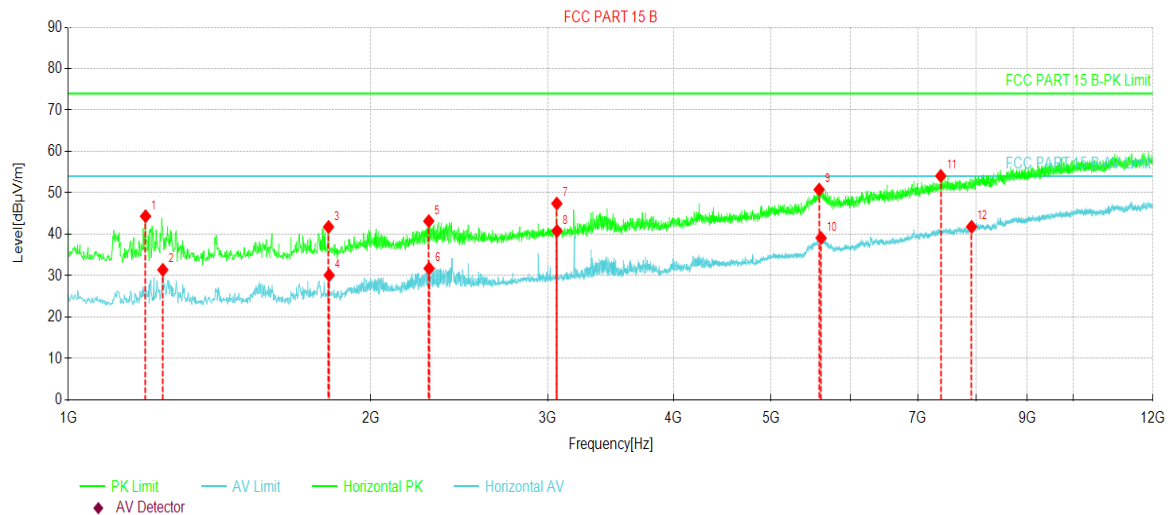
Suspected Data List

NO.	Freq. [MHz]	Reading [dBμV/m]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Trace	Polarity
1	1112.7500	66.94	43.70	-23.24	74.00	30.30	PK	Vertical
2	1343.7500	54.56	31.30	-23.26	54.00	22.70	AV	Vertical
3	1676.5000	68.13	45.16	-22.97	74.00	28.84	PK	Vertical
4	1680.6250	56.61	33.65	-22.96	54.00	20.35	AV	Vertical
5	2412.1250	62.93	43.38	-19.55	74.00	30.62	PK	Vertical
6	2501.5000	51.70	32.53	-19.17	54.00	21.47	AV	Vertical
7	3062.5000	68.44	51.08	-17.36	74.00	22.92	PK	Vertical
8	3063.8750	62.85	45.50	-17.35	54.00	8.50	AV	Vertical
9	5609.0000	44.52	39.43	-5.09	54.00	14.57	AV	Vertical
10	5622.7500	56.40	51.19	-5.21	74.00	22.81	PK	Vertical
11	7623.3750	55.81	53.90	-1.91	74.00	20.10	PK	Vertical
12	7696.2500	43.58	41.83	-1.75	54.00	12.17	AV	Vertical

Remark:

1. Level = Reading + Factor(Antenna Factor + Cable Loss – Preamplifier Factor).
2. Test Frequency up to 18GHz, and the emission levels of other frequencies are lower than the limit 20dB, not show in test report.

Product Name:	Pineapple 2	Product Model:	Pineapple-2-MPCIE
Test By:	Kiran Zeng	Test mode:	Working mode
Test Frequency:	1000 MHz ~ 12000 MHz	Polarization:	Horizontal
Test Voltage:	AC 120V/60Hz		



Suspected Data List

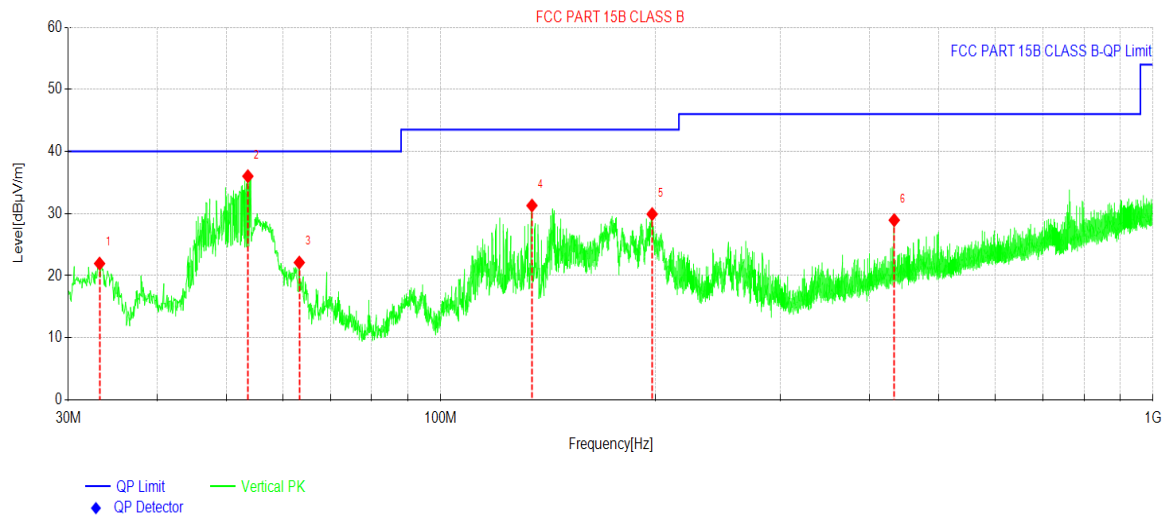
NO.	Freq. [MHz]	Reading [dBμV/m]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Trace	Polarity
1	1193.8750	67.91	44.35	-23.56	74.00	29.65	PK	Horizontal
2	1242.0000	54.90	31.41	-23.49	54.00	22.59	AV	Horizontal
3	1815.3750	64.26	41.75	-22.51	74.00	32.25	PK	Horizontal
4	1818.1250	52.58	30.10	-22.48	54.00	23.90	AV	Horizontal
5	2284.2500	63.37	43.17	-20.20	74.00	30.83	PK	Horizontal
6	2285.6250	51.93	31.74	-20.19	54.00	22.26	AV	Horizontal
7	3062.5000	64.78	47.42	-17.36	74.00	26.58	PK	Horizontal
8	3063.8750	58.16	40.81	-17.35	54.00	13.19	AV	Horizontal
9	5585.6250	56.06	50.79	-5.27	74.00	23.21	PK	Horizontal
10	5610.3750	44.21	39.11	-5.10	54.00	14.89	AV	Horizontal
11	7380.0000	56.07	54.09	-1.98	74.00	19.91	PK	Horizontal
12	7919.0000	43.15	41.80	-1.35	54.00	12.20	AV	Horizontal

Remark:

1. Level = Reading + Factor(Antenna Factor + Cable Loss – Preamplifier Factor).
2. Test Frequency up to 18GHz, and the emission levels of other frequencies are lower than the limit 20dB, not show in test report.

EUT 2:

Product Name:	Pineapple 2	Product model:	Pineapple-2-MPCI-E-I
Test By:	Kiran Zeng	Test mode:	Working mode
Test Frequency:	30 MHz ~ 1 GHz	Polarization:	Vertical
Test Voltage:	AC 120V/60Hz		



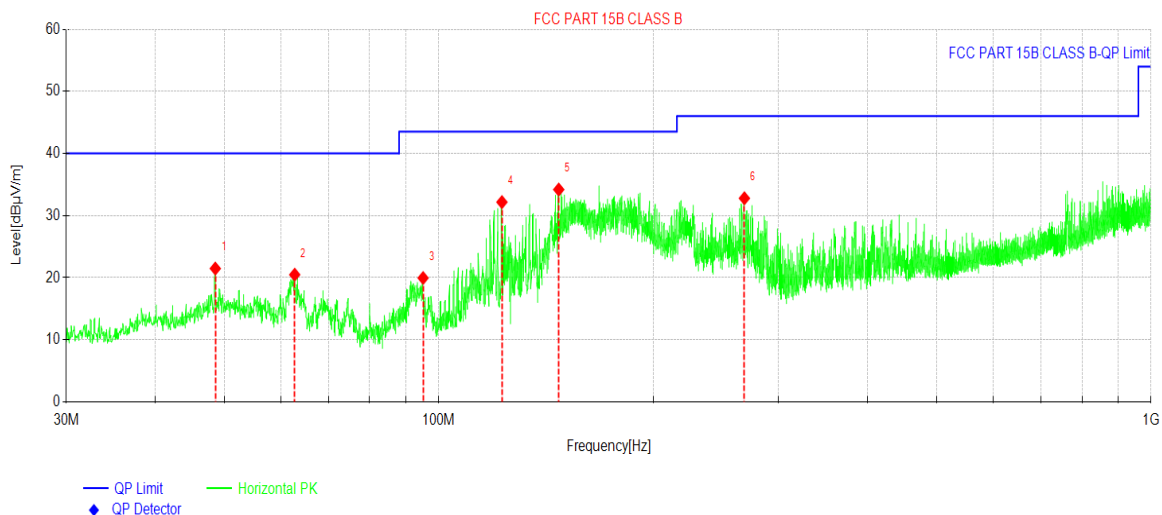
Suspected Data List

NO.	Freq. [MHz]	Reading [dBμV/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Trace	Polarity
1	33.2010	38.27	-16.32	21.95	40.00	18.05	PK	Vertical
2	53.6195	49.55	-13.54	36.01	40.00	3.99	PK	Vertical
3	63.3195	36.82	-14.71	22.11	40.00	17.89	PK	Vertical
4	134.3235	49.18	-17.89	31.29	43.50	12.21	PK	Vertical
5	198.1010	44.81	-14.90	29.91	43.50	13.59	PK	Vertical
6	433.2775	38.16	-9.22	28.94	46.00	17.06	PK	Vertical

Remark:

1. Level = Reading + Factor(Antenna Factor + Cable Loss – Preamplifier Factor).

Product Name:	Pineapple 2	Product model:	Pineapple-2-MPCIE-I
Test By:	Kiran Zeng	Test mode:	Working mode
Test Frequency:	30 MHz ~ 1 GHz	Polarization:	Horizontal
Test Voltage:	AC 120V/60Hz		



Suspected Data List

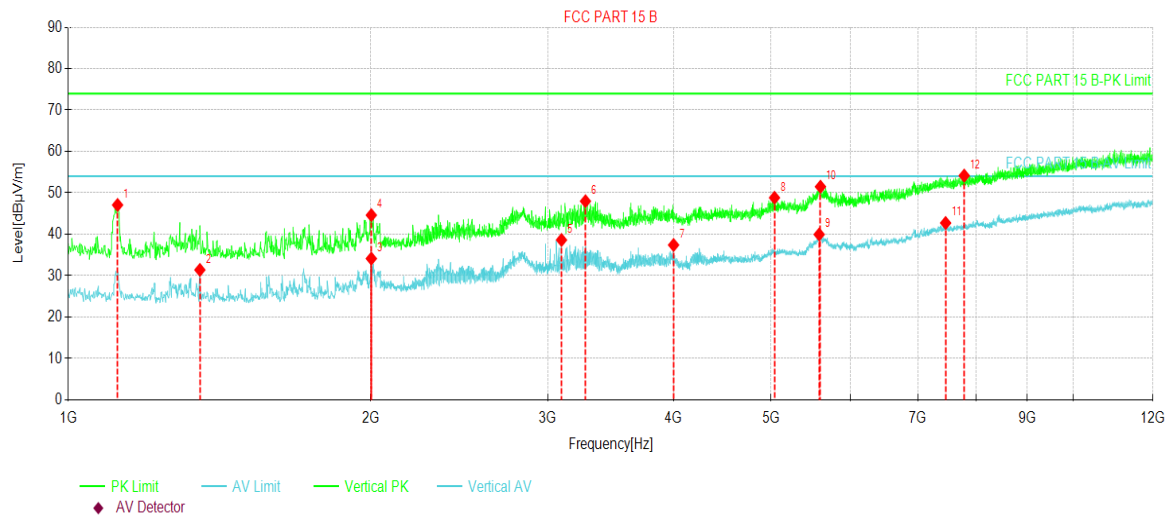
NO.	Freq. [MHz]	Reading [dBμV/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Trace	Polarity
1	48.5755	34.20	-12.73	21.47	40.00	18.53	PK	Horizontal
2	62.7860	35.16	-14.68	20.48	40.00	19.52	PK	Horizontal
3	95.0870	35.90	-15.95	19.95	43.50	23.55	PK	Horizontal
4	122.6835	48.84	-16.67	32.17	43.50	11.33	PK	Horizontal
5	147.4185	52.34	-18.15	34.19	43.50	9.31	PK	Horizontal
6	268.6685	45.89	-13.11	32.78	46.00	13.22	PK	Horizontal

Remark:

1. Level = Reading + Factor(Antenna Factor + Cable Loss – Preamplifier Factor).

Above 1GHz:

Product Name:	Pineapple 2	Product model:	Pineapple-2-MPCIE-I
Test By:	Kiran Zeng	Test mode:	Working mode
Test Frequency:	1000 MHz ~ 12000 MHz	Polarization:	Vertical
Test Voltage:	AC 120V/60Hz		



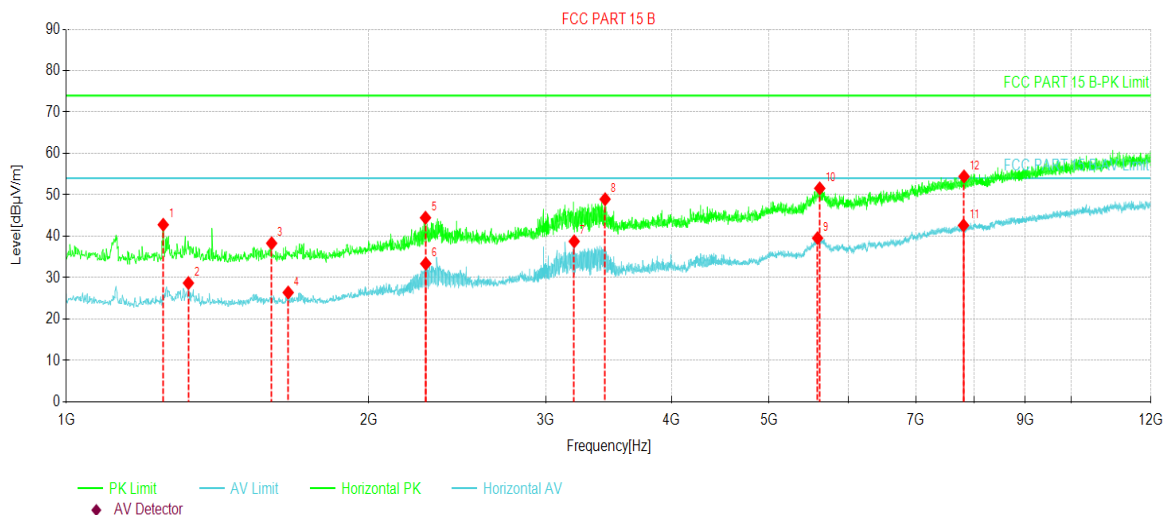
Suspected Data List

NO.	Freq. [MHz]	Reading [dBμV/m]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Trace	Polarity
1	1119.6250	70.33	47.07	-23.26	74.00	26.93	PK	Vertical
2	1352.0000	54.64	31.39	-23.25	54.00	22.61	AV	Vertical
3	2002.3750	55.25	34.13	-21.12	54.00	19.87	AV	Vertical
4	2002.3750	65.74	44.62	-21.12	74.00	29.38	PK	Vertical
5	3095.5000	55.89	38.62	-17.27	54.00	15.38	AV	Vertical
6	3270.1250	64.80	47.98	-16.82	74.00	26.02	PK	Vertical
7	4001.6250	51.35	37.41	-13.94	54.00	16.59	AV	Vertical
8	5042.5000	58.34	48.82	-9.52	74.00	25.18	PK	Vertical
9	5585.6250	45.22	39.95	-5.27	54.00	14.05	AV	Vertical
10	5602.1250	56.52	51.49	-5.03	74.00	22.51	PK	Vertical
11	7462.5000	44.66	42.73	-1.93	54.00	11.27	AV	Vertical
12	7787.0000	55.72	54.17	-1.55	74.00	19.83	PK	Vertical

Remark:

1. Level = Reading + Factor(Antenna Factor + Cable Loss – Preamplifier Factor).
2. Test Frequency up to 18GHz, and the emission levels of other frequencies are lower than the limit 20dB, not show in test report.

Product Name:	Pineapple 2	Product model:	Pineapple-2-MPCIE-I
Test By:	Kiran Zeng	Test mode:	Working mode
Test Frequency:	1000 MHz ~ 12000 MHz	Polarization:	Horizontal
Test Voltage:	AC 120V/60Hz		



Suspected Data List

NO.	Freq. [MHz]	Reading [dBμV/m]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Trace	Polarity
1	1248.8750	66.25	42.78	-23.47	74.00	31.22	PK	Horizontal
2	1323.1250	52.01	28.70	-23.31	54.00	25.30	AV	Horizontal
3	1600.8750	61.49	38.30	-23.19	74.00	35.70	PK	Horizontal
4	1662.7500	49.42	26.41	-23.01	54.00	27.59	AV	Horizontal
5	2277.3750	64.71	44.47	-20.24	74.00	29.53	PK	Horizontal
6	2278.7500	53.60	33.37	-20.23	54.00	20.63	AV	Horizontal
7	3201.3750	55.76	38.76	-17.00	54.00	15.24	AV	Horizontal
8	3436.5000	65.29	48.95	-16.34	74.00	25.05	PK	Horizontal
9	5591.1250	44.72	39.55	-5.17	54.00	14.45	AV	Horizontal
10	5618.6250	56.75	51.57	-5.18	74.00	22.43	PK	Horizontal
11	7810.3750	44.13	42.63	-1.50	54.00	11.37	AV	Horizontal
12	7820.0000	55.93	54.44	-1.49	74.00	19.56	PK	Horizontal

Remark:

- Level = Reading + Factor(Antenna Factor + Cable Loss – Preamplifier Factor).
- Test Frequency up to 18GHz, and the emission levels of other frequencies are lower than the limit 20dB, not show in test report.

-----End of report-----