

ISED COMPLIANCE REPORT

Applicant. : JENSON ENTERPRISE CO.,LTD
: Old Guanchang Road, Ailingkan Village, Dalingshan Town, DONGGUAN
Guangdong 523000

Manufacturer : Same as the applicant

Equipment Under Test (EUT)

EUT Name : Furniture Power Distribution Unit

Model(s) : JN02-03-22TR; JN02-03-22; JN02-03-32; JN02-03-23; JN02-03-24;
JN02-03-24TR

Issue Date : 2022-08-26

Standards : ICES-003 Issue 7: 2020
ANSI C63.4-2014

Conclusions : PASS

In the configuration tested, the EUT complied with the standards specified above

The EUT technically complies with the ISED ICES-003 requirements

Test/Witness Engineer :

Tom.Tian

Tom Tian

Approved & Authorized :



Hero wu

This report details the results of the testing carried out on one sample. The results contained in this test report do not relate to other samples of the same product. The manufacturer should ensure that all products in series production are in conformity with the product sample detailed in the report.

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1. General Information

1.1 Client Information

Applicant	:	JENSON ENTERPRISE CO.,LTD
Address	:	Old Guanchang Road, Ailingkan Village, Dalingshan Town, DONGGUAN Guangdong 523000
Manufacturer	:	JENSON ENTERPRISE CO.,LTD
Address	:	Old Guanchang Road, Ailingkan Village, Dalingshan Town, DONGGUAN Guangdong 523000
Factory	:	JENSON ENTERPRISE CO.,LTD
Address	:	Old Guanchang Road, Ailingkan Village, Dalingshan Town, DONGGUAN Guangdong 523000

1.2 General Description of EUT (Equipment Under Test)

Product Name : Furniture Power Distribution Unit

Model : JN02-03-22TR; JN02-03-22; JN02-03-32; JN02-03-23; JN02-03-24;
JN02-03-24TR

Ratings : 12A 125Vac 60Hz 1500W

Highest internal frequency : USB Output: 5VDC, 2A Max
: <108MHz

EUT type : ☒ Table top
☐ Floor standing

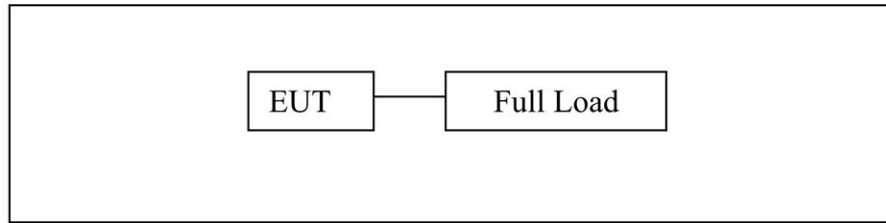
Cable supplied : Unshielded, Detachable.

Test samples : JN02-03-22TR

Test Input : AC 120V/60Hz

Test Output : 5VDC, 2A

1.3 Block Diagram Showing The Configuration of System Tested



(EUT: Furniture Power Distribution Unit)

1.4 Description of Support Units

The EUT has been tested as an independent unit.

1.5 Description of Operating Mode

To investigate the maximum EMI emission characteristics generated from EUT, the test system was pre-scanning tested based on the consideration of following EUT operation mode or test configuration mode which possible have effect on EMI emission level. Each of these EUT operation mode(s) or test configuration mode(s) mentioned above was evaluated respectively.

Pretest Mode	Description
Mode	Full Load

The EUT system operated these modes were found to be the worst case during the pre-scanning test as Following:

For EMI Test	
Final Test Mode	Description
Mode	Full Load

1.6 Test standards

The objective is to determine compliance with ICES-003 Issue 7: 2020

Maintenance of compliance is the responsibility of the manufacturer. Any modification of the product, which result in lowering the emission, should be checked to ensure compliance has been maintained.

1.7 Test Facility

The testing report were performed by the Shenzhen Watt Power Testing Institute Co., Ltd , Area A, Floor 1, Building C, Guosheng Industrial Park, No. 101 Junxin Road, Shimajing community , Guanlan Street, Longhua New District, Shenzhen, China. At the time of testing, the following bodies accredited the Laboratory:

CNAS (L10506)

The Laboratory has been accredited by CNAS to ISO/IEC 17025: 2005 General Requirements for the Competence of Testing and Calibration Laboratories for the competence in the field of testing. And the Registration No.: CNAS L10506.

1.8 Equipment Used Test

Equipment for conduction emission

Equipment	Due Date	Type	Equipment No.	Manufacturer
EMI test receiver	2022-09-05	ESPI	1164.6407.03	R&S
LISN	2022-09-05	E216	E165040106	CYBERTEK

The measurement uncertainty describes the overall uncertainty of the given measured value during the operation of the EUT.

Measurement uncertainty at mains terminal: $\pm 2.74\text{dB}$

The measurement uncertainty is given with a confidence of 95%, $k=2$.

Equipment for Radiation emission

Equipment	Due Date	Type	Equipment No.	Manufacturer
EMI test receiver	2022-09-05	ESPI	1164.6407.03	R&S
Bilog Antenna	2022-10-01	VULB 9168	9168-0957	SCHWARZBECK

The measurement uncertainty describes the overall uncertainty of the given measured value during the operation of the EUT.

Measurement uncertainty at telecom terminal: $\pm 4.32\text{dB}$

The measurement uncertainty is given with a confidence of 95%, $k=2$

2. Test Summary

Test Items	Test Requirement	Limits	Result
Conducted Emission	ICES-003 Issue 7: 2020 ANSI C63.4-2014	Class B	Pass
Radiated Emission	ICES-003 Issue 7: 2020 ANSI C63.4-2014	Class B	Pass
Note: N/A is an abbreviation for Not Applicable.			

3. Conducted Emission Test

3.1 Test Standard and Limit

3.1.1 Test Standard

ICES-003 Issue 7: 2020
ANSI C63.4-2014

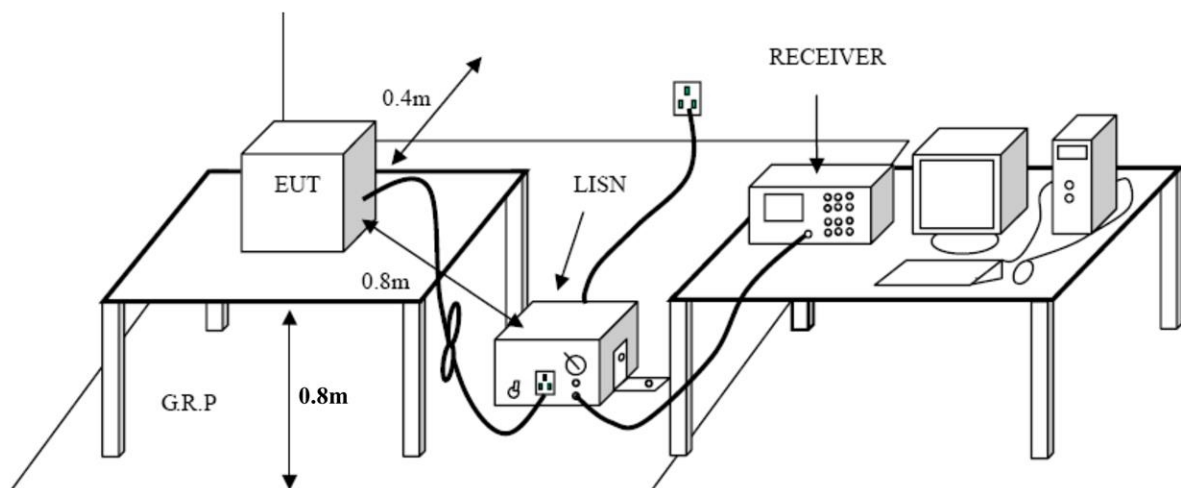
3.1.2 Test Limit

Conducted Emission Test Limit (Class B)

Frequency	Maximum RF Line Voltage (dBμV)	
	Quasi-peak Level	Average Level
150kHz~500kHz	66 ~ 56 *	56 ~ 46 *
500kHz~5MHz	56	46
5MHz~30MHz	60	50

*decreasing linearly with logarithm of the frequency

3.2 Test Setup



3.3 Test Procedure

The EUT was placed 0.8 meters from the horizontal ground plane with EUT being connected to the power mains through a line impedance stabilization network (LISN). All other support equipments powered from additional LISN(s). The LISN provide 50 Ohm/ 50uH of coupling impedance for the measuring instrument.

The cables shall be insulated (by up to 15 cm) from the horizontal ground reference plane, and shall be folded back and forth in the center forming a bundle 30 to 40 cm long.

I/O cables that are not connected to a peripheral shall be bundled in the center. The end of the cable may be terminated, if required, using the correct terminating impedance. The overall length shall not exceed 1 m.

LISN at least 80 cm from nearest part of EUT chassis.

The bandwidth of EMI test receiver is set at 9kHz, and the test frequency band is from 0.15MHz to 30MHz.

3.4 Test Condition

Temperature	:	23.1 °C
Relative Humidity	:	54%
Pressure	:	101.5 kPa

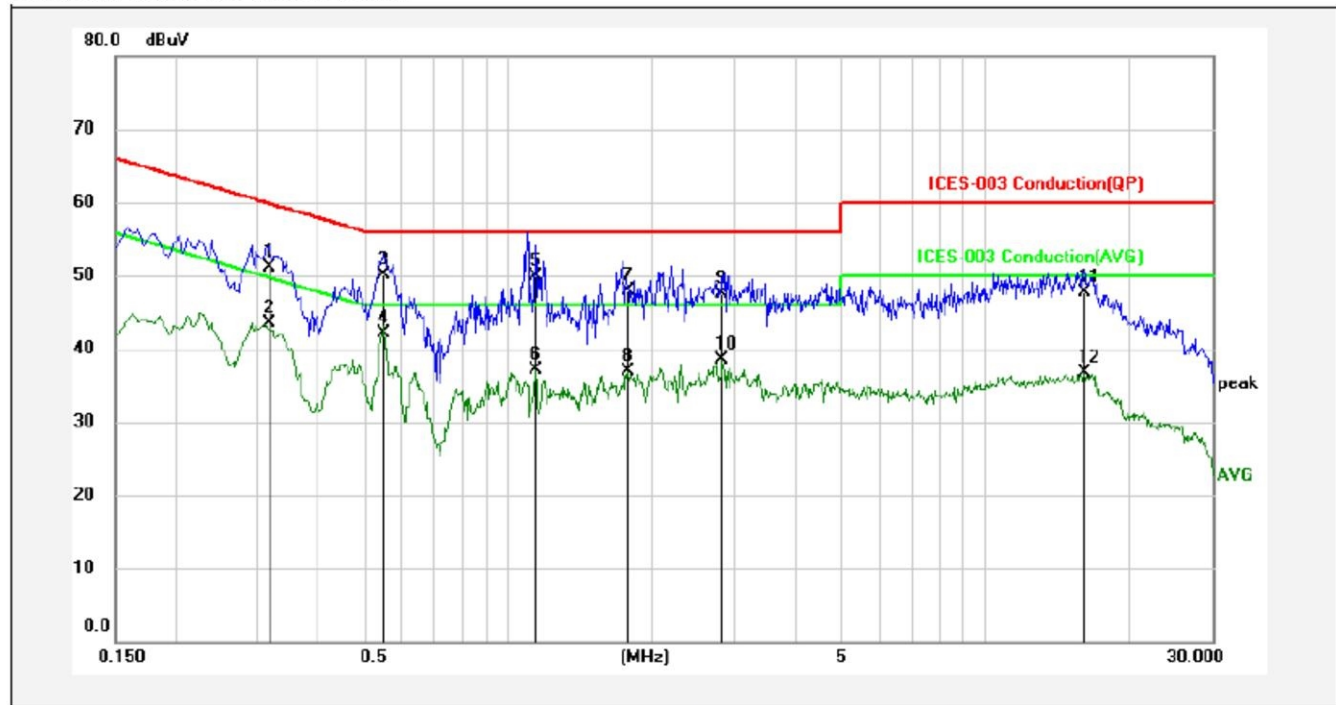
3.5 Test Data

Please refer to the following pages.

Test Data:

EUT: Furniture Power Distribution Unit
M/N: JN02-03-22TR
Test Voltage: 120VAC/ 60Hz
Phase: Live
Test Mode: Full Load(Output: 5Vdc, 2A)

Detailed results are shown below



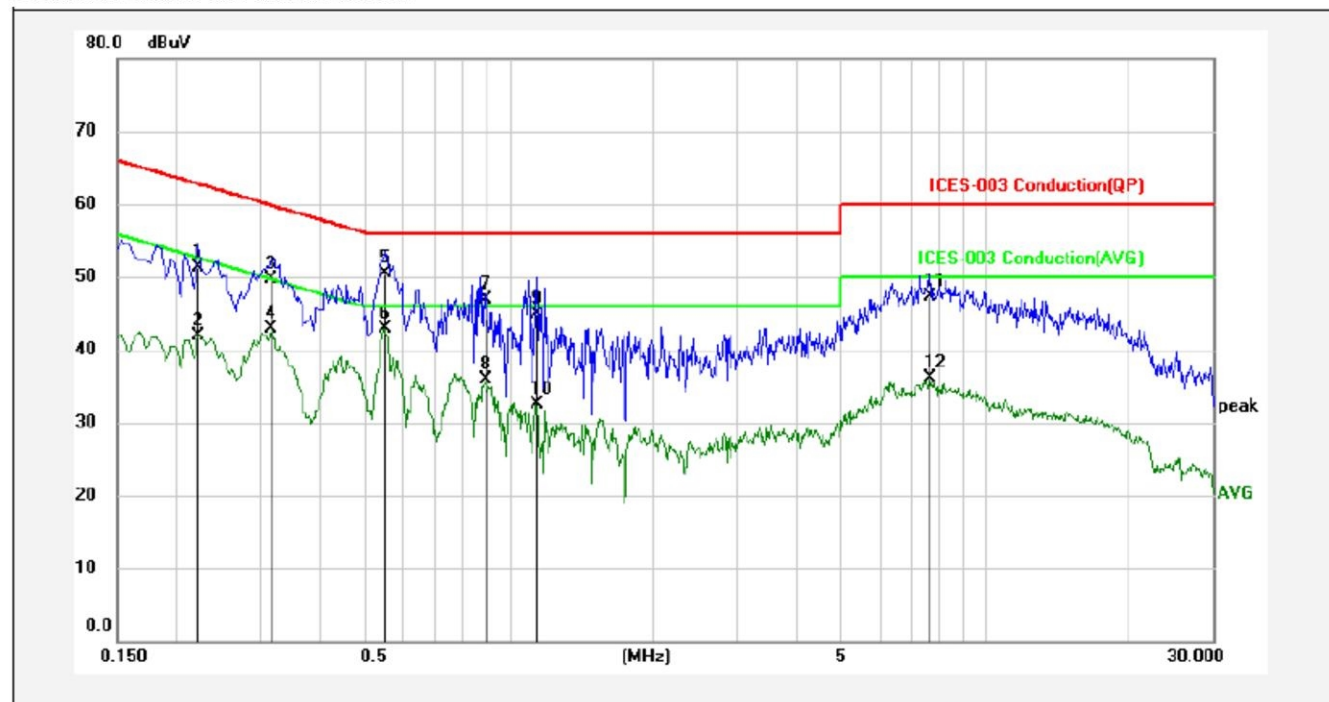
No.	Frequency (MHz)	Reading (dBuV)	Lisn/Isn (dB)	Cab_L (dB)	Result (dBuV)	Limit dBuV	Margin (dB)	Detector	Remark
1	0.3165	40.44	10.48	0.24	51.16	59.80	-8.64	QP	
2	0.3165	32.70	10.48	0.24	43.42	49.80	-6.38	AVG	
3	0.5503	39.29	10.49	0.24	50.02	56.00	-5.98	QP	
4	0.5503	31.37	10.49	0.24	42.10	46.00	-3.90	AVG	
5	1.1444	39.20	10.5	0.23	49.93	56.00	-6.07	QP	
6	1.1444	26.42	10.5	0.23	37.15	46.00	-8.85	AVG	
7	1.7834	37.13	10.51	0.21	47.85	56.00	-8.15	QP	
8	1.7834	26.24	10.51	0.21	36.96	46.00	-9.04	AVG	
9	2.8229	36.79	10.52	0.2	47.51	56.00	-8.49	QP	
10	2.8229	27.80	10.52	0.2	38.52	46.00	-7.48	AVG	
11	16.2013	37.00	10.52	0.21	47.73	60.00	-12.27	QP	
12	16.2013	25.90	10.52	0.21	36.63	50.00	-13.37	AVG	

Remark: The test Result=Reading+ Lisn+ Cab L.

If the average limit is met when using a quasi-peak detector, the EUT shall be deemed to meet both limits and measurement with average detector is unnecessary.

EUT: Furniture Power Distribution Unit
M/N: JN02-03-22TR
Test Voltage: 120VAC/ 60Hz
Phase: Neutral
Test Mode: Full Load(Output: 5Vdc, 2A)

Detailed results are shown below



No.	Frequency (MHz)	Reading (dBuV)	Lisn/lisn (dB)	Cab_L (dB)	Result (dBuV)	Limit dBuV	Margin (dB)	Detector	Remark
1	0.2220	40.69	10.46	0.23	51.38	62.74	-11.36	QP	
2	0.2220	31.22	10.46	0.23	41.91	52.74	-10.83	AVG	
3	0.3165	38.91	10.48	0.24	49.63	59.80	-10.17	QP	
4	0.3165	32.22	10.48	0.24	42.94	49.80	-6.86	AVG	
5	0.5459	39.72	10.49	0.24	50.45	56.00	-5.55	QP	
6	0.5459	32.16	10.49	0.24	42.89	46.00	-3.11	AVG	
7	0.8922	36.10	10.5	0.23	46.83	56.00	-9.17	QP	
8	0.8922	25.19	10.5	0.23	35.92	46.00	-10.08	AVG	
9	1.1400	34.18	10.5	0.23	44.91	56.00	-11.09	QP	
10	1.1400	21.74	10.5	0.23	32.47	46.00	-13.53	AVG	
11	7.6604	36.64	10.51	0.22	47.37	60.00	-12.63	QP	
12	7.6604	25.45	10.51	0.22	36.18	50.00	-13.82	AVG	

Remark: The test Result=Reading+ Lisn+ Cab L.

If the average limit is met when using a quasi-peak detector, the EUT shall be deemed to meet both limits and measurement with average detector is unnecessary.

4. Radiated Emission Test

4.1 Test Standard and Limit

4.1.1 Test Standard

ICES-003 Issue 7: 2020

ANSI C63.4-2014

4.1.2 Test Limit

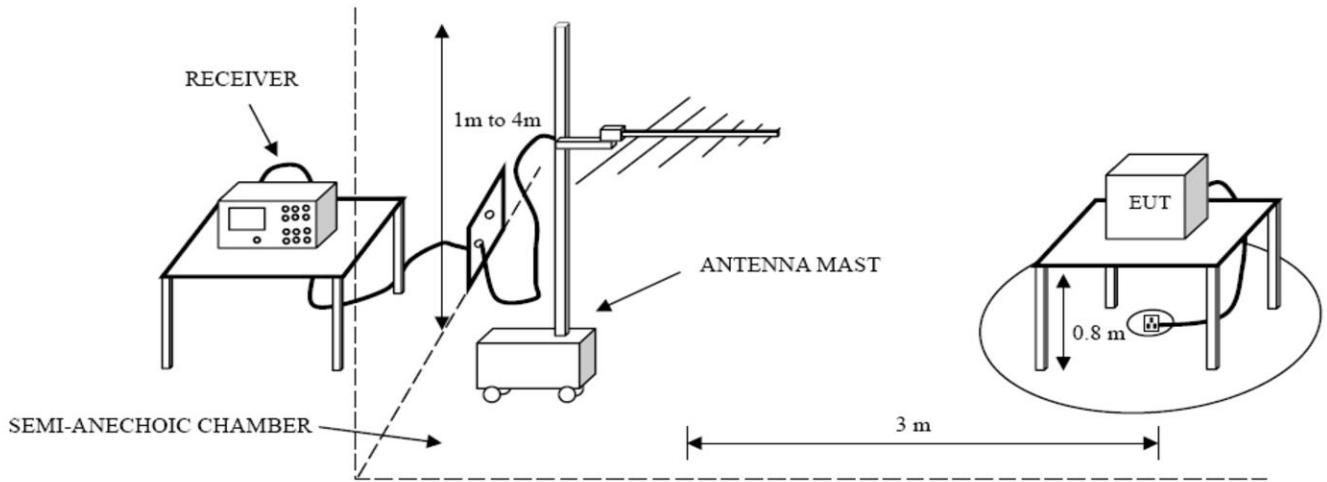
Radiated Emission Test Limit (Class B)

Frequency MHz	Field Strengths Limits dB(μ V/m)
30 ~ 88	40.0
88 ~ 216	43.5
216 ~ 230	46.0
230 ~ 960	47.0
960 ~ 1000	54.0

* The lower limit shall apply at the transition frequency.

* The test distance is 3m.

4.2 Test Setup



4.3 Test Procedure

The EUT was placed on the top of a rotating table which is 0.8 meters above the ground. EUT is set 3.0 meters away from the receiving antenna that mounted on a antenna tower. The table was rotated 360 degrees to determine the position of the highest radiation, the antenna can be moved up and down between 1.0 meter and 4 meters to find out the maximum emission level. Both horizontal and vertical polarizations of the antenna are set to make the measurement.

Measurements shall be made with a quasi-peak measuring receiver in the frequency range 30MHz to 1000MHz. If the Peak Mode measured value compliance with and lower than quasi-peak mode Limit, the EUT shall be deemed to meet QP Limits and then no additional QP Mode measurement performed.

4.4 Test Condition

Temperature	:	23.5℃
Relative Humidity	:	58%
Pressure	:	101.51 kPa

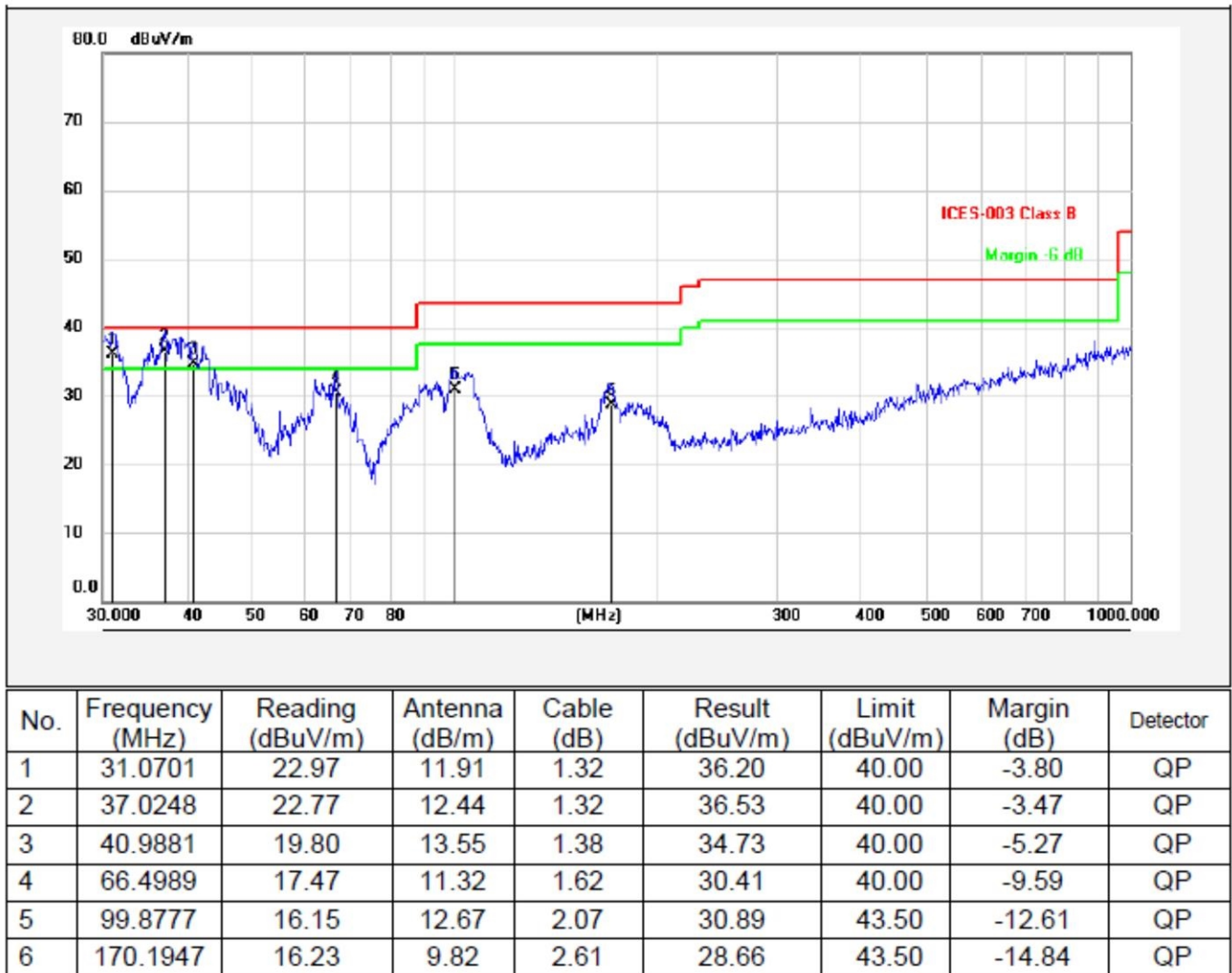
4.5 Test Data

Please refer to the following pages.

Test Data:

EUT: Furniture Power Distribution Unit
M/N: JN02-03-22TR
Test Voltage: 120VAC/ 60Hz
Ant. Pol.: Vertical
Test Mode: Full Load(Output: 5Vdc, 2A)

Detailed results are shown below

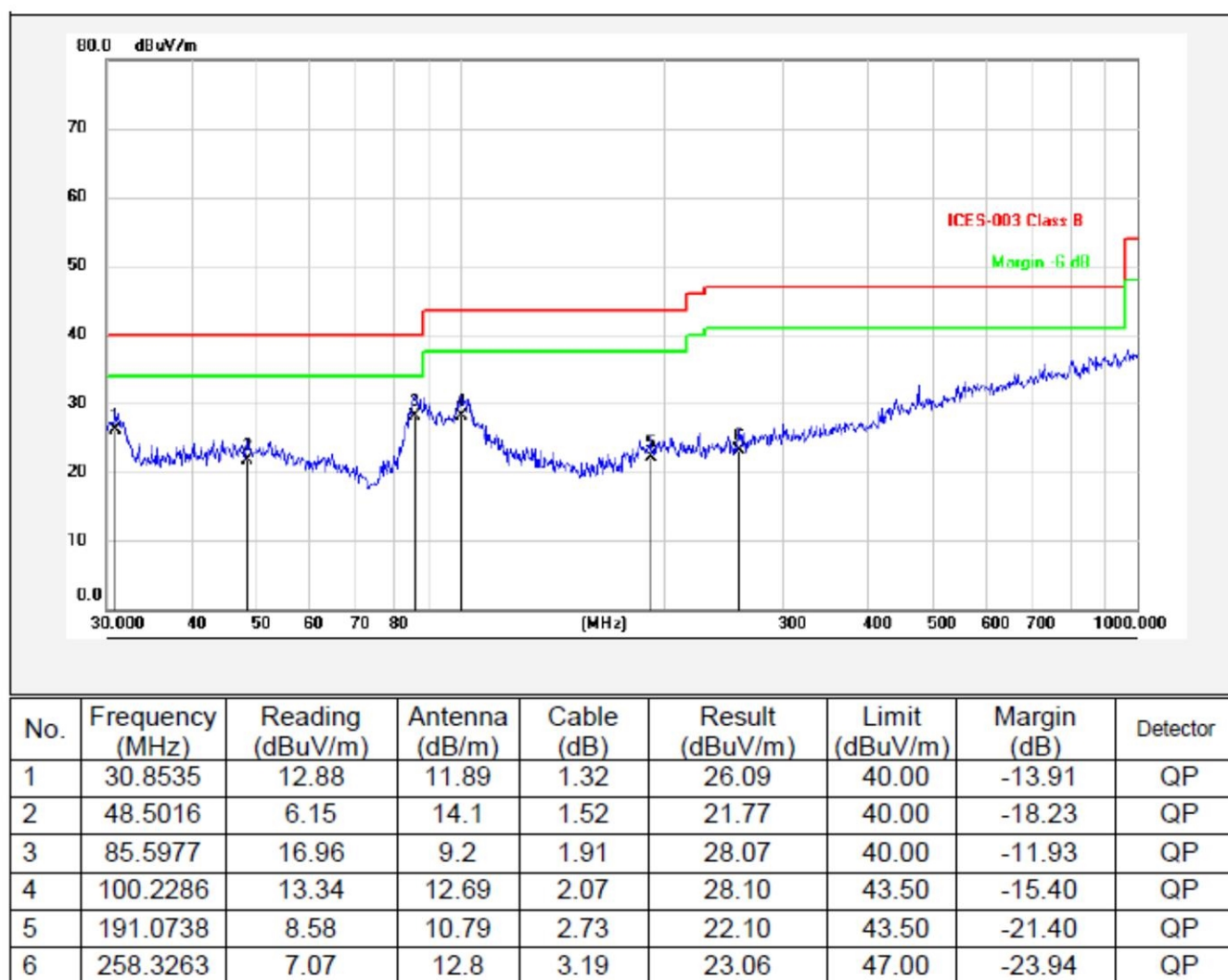


Remarks: 1. Result=Reading+ Antenna+ Cable

2. If Peak Result complies with QP Limit, QP Result is deemed to comply with QP Limit.

EUT: Furniture Power Distribution Unit
M/N: JN02-03-22TR
Test Voltage: 120VAC/ 60Hz
Ant. Pol.: Horizontal
Test Mode: Full Load(Output: 5Vdc, 2A)

Detailed results are shown below



Remarks: 1. Result=Reading+ Antenna+ Cable

2. If Peak Result complies with QP Limit, QP Result is deemed to comply with QP Limit.