



ETS Dr.GenZ Taiwan PS Co., LTD.

FCC Registration No.: 930600

Industry Canada Reg. No. IC 5679

Accredited Testing Laboratory



A2LA Cert.No.: 2300.01

PTCRB Accredited Type Certification Test House

TEST - REPORT

FCC RULES PART 15 / SUBPART B

FCC ID: P5A-AB0001

Test report no.: W6M20606-7090-P-15B

FCC

ETS DR.GENZ TAIWAN PS CO., LTD
6F, NO. 58, LANE 188, RUEY-KUANG RD., NEIHU, TAIPEI 114, TAIWAN, R.O.C.
PHONE 886-2-66068877 FAX 886-2-66068879

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1 General Information

1.1 Notes

The purpose of conformity testing is to increase the probability of adherence to the essential requirements or conformity specifications, as appropriate.

The tests were carried out and passed in accordance to the standards:

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The complexity of the technical specifications, however, means that full and thorough testing is impractical for both technical and economic reasons.

Furthermore, there is no guarantee that a test sample which has Passed all the relevant tests conforms to a specification (only telecommunication products).

Neither is there any guarantee that such a test sample will interwork with other genuinely open systems. The existence of the tests nevertheless provides the confidence that the test sample possesses the qualities as maintained and that its performance generally conforms to representative cases of communications equipment.

The test results of this test report relate exclusively to the item tested as specified in 1.6.

The test report may only be reproduced or published in full.

Reproduction or publication of extracts from the report requires the prior written approval of the ETS Dr.Geniz Taiwan PS Co., Ltd.

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Important Notes:

Proper labeling is required for each device. Devices shall be labeled in accordance with labeling requirements pursuant to section 15.19 and section 2.1074 of the FCC rules.

Devices subject to a Declaration of Conformity shall be uniquely identified by the responsible party.

This identification shall not be of a format which could be confused with the FCC Identifier required on certified, notified type accepted or type approved equipment.

The responsible party shall maintain adequate identification records to facilitate positive identification for each device.

The user manual or instruction manual shall include also a warning statement that changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Reference Section 15.21

Furthermore an information to the user regarding to the interference potential of the device and about simple measures that can be taken to correct interference is required.

Reference Section 15.105

The responsible party must warrant that each unit of equipment marketed under a Declaration of Conformity is identical to the unit tested and found acceptable with the standards and that the records maintained by the responsible party continue to reflect the equipment being produced under the Declaration of Conformity within the variation that can be expected due to quantity production and testing on a statistical basis.



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1.2 Tester

July 04, 2006

Jay Chaing

Jay Chaing

Date

ETS-Lab.

Test Engineer

Signature

Technical responsibility for area of testing:

July 04, 2006

Steven Chuang

Steven Chuang

Date

ETS

Name

Signature

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1.3 Testing laboratory

1.3.1 Location

OATS

No.5-1, Shuang Sing Village,
LiShuei Rd., Wanli Township,
Taipei County 207, Taiwan (R.O.C.)

Company

ETS Dr.Geniz Taiwan PS Co., Ltd.
6F, NO. 58, LANE 188, RUEY-KUANG RD.
NEIHU, TAIPEI 114, TAIWAN R.O.C.
Tel : 886-2-66068877
Fax : 886-2-66068875

1.3.2 Details of accreditation status

Accredited testing laboratory

A2LA-registration number: 2300.01

FCC filed test laboratory Reg. No. 930600

Industry Canada filed test laboratory Reg. No. IC 5679

PTCRB Accredited Type Certification Test House

1.3.3 Test location, where different from ETS Dr.Geniz Taiwan PS Co., Ltd.

Name:	./.
Street:	./.
Town:	./.
Country:	./.
Telephone:	./.
Fax:	./.
Teletex:	./.

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1.4 Details of applicant

Name	:	ARESON Technology Corp. (Taiwan)
Street	:	12F, No. 111-6, Hsing-De Rd, San Chung,
Town	:	Taipei Hsien
Country	:	Taiwan, R. O. C.
Telephone	:	+886-2-2995-4995
Fax	:	+886-2-2995-4990
Teletex	:	./.

1.5 Application details

Date of receipt of application	:	Jun 26, 2006
Date of receipt of test item	:	Jun 27, 2006
Date of test	:	From Jun 28, 2006 to June 30, 2006

1.6 Test item

1.6.1 Description of test item

Type of product	:	Optical Mouse
Type identification	:	B55 USB, B55 PS/2, B55 USB & PS/2
Serial No.	:	./.
Brand Name	:	./.
Photos	:	Please find in Appendix.

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1.6.2 Manufacturer (if different from applicant in point 1.4)

Name : Dong Guan Hong Sheng Electronic Corp.(China)
Street : Sha-Wu,Tang-Xia,Dong-Guan,
Town : Guan-Dong
Country : China

1.6.3 Frequency behavior

Highest clock Frequency	<200 MHz
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1.7 Test standards

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2 Technical test

2.1 Summary of test results

No deviations from the technical specification(s) were ascertained in the course of the tests performed. ☒

Or

The deviations as specified in 2.4 were ascertained in the course of the tests performed. ☐

2.2 Test environment

Temperature:	18 ... 25 °C
Relative humidity content	20 ... 75 %
Air pressure:	860 ... 1030 hPa
Details of power supply:	120 VAC (power on PC)
Other parameters:	without

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2.3 Test equipment utilized

No.	Test equipment	Type	Serial No.	Manufacturer	Cal. Date	Next Cal. Date
ETSTW-CE 001	EMI TEST RECEIVER	ESHS10	842121/013	R&S	2005/10/27	2006/10/26
ETSTW-CE 002	PREREULATOR MODE DC POWER SUPPLY	None	None	T-POWER	Function Test	
ETSTW-CE 003	AC POWER SOURCE	APS-9102	D161137	GW	Function Test	
ETSTW-CE 004	ZWEILEITER-V-NETZNACHBILDUNG TWO-LINE V-NETWORK	ESH3-Z5	840731/011	R&S	2005/10/25	2006/10/24
ETSTW-CE 005	Line-Impedance Stabilisation Network	NNBM 8126D	137	Schwarzbeck	2005/10/21	2006/10/20
ETSTW-CE 006	IMPULS-BEGRENZER PULSE LIMITER	ESH3-Z2	100226	R&S	2004/11/11	2006/11/10
ETSTW-CE 008	ABSORBING CLAMP	MDS 21	3469	ABSORPTIONS-MESSWANDLER-ZANGE	2005/10/24	2007/10/23
ETSTW-CE 009	TEMP.&HUMIDITY CHAMBER	GTH-225-40-1P-U	MAA0305-009	GIANT FORCE	2005/8/18	2006/8/17
ETSTW-CS 001	SIGNAL GENERATOR	SMX	849254/003	R&S	2005/10/14	2006/10/13
ETSTW-CS 002	COUPLING AND DECOUPLING NETWORK	CDN S751	19263	SCHAFFNER	2005/10/14	2006/10/13
ETSTW-CS 003	COUPLING AND DECOUPLING NETWORK	CDN T400	19820	SCHAFFNER	2005/10/14	2006/10/13
ETSTW-CS 004	COUPLING AND DECOUPLING NETWORK	CDN M016	20053	SCHAFFNER	2005/10/27	2006/10/26
ETSTW-CS 005	RF Power Amplifier	100A250A	306547	AR	2005/10/14	2006/10/13
ETSTW-RE 002	Function Generator	33220A	MY43004982	Agilent	2005/10/14	2007/10/13
ETSTW-RE 003	EMI TEST RECEIVER	ESI 26	831438/001	R&S	2005/10/24	2006/10/23
ETSTW-RE 004	EMI TEST RECEIVER	ESI 40	832427/004	R&S	2005/10/29	2006/10/30
ETSTW-RE 005	EMI TEST RECEIVER	ESVS10	843207/020	R&S	2005/10/16	2006/10/15
ETSTW-RE 017	ANTENNA	HL025	352886/001	R&S	2006/5/4	2008/5/3
ETSTW-RE 018	ANTENNA	AT4560	27212	AR	2004/11/8	2007/11/7
ETSTW-RE 021	SWEEP GENERATOR	SWM05	835130/010	R&S	2005/10/14	2006/10/13
ETSTW-RE 022	AMPLIFIER	8447D	2944A09837	Agilent	2005/10/14	2006/10/13
ETSTW-RE 026	Open Area Test Site	10m	None	ETS	NSA Measurement	
ETSTW-RE 027	Passive Loop Antenna	6512	34563	EMCO	2004/6/30	2007/6/29
ETSTW-RE 028	Log-Periodic DipoleArray Antenna	3148	34429	EMCO	2006/5/26	2008/5/25
ETSTW-RE 029	Biconical Antenna	3109	33524	EMCO	2006/5/26	2008/5/25
ETSTW-RE 030	Double-Ridged Waveguide Horn Antenna	3117	35224	EMCO	2006/5/3	2008/5/2
ETSTW-RE 032	Millivoltmeter	URV 55	849086/013	R&S	2005/10/17	2006/10/16
ETSTW-RE 033	4CH 1GHz 5GS/s DSO	WAVERUNNER 6100A	LCRY0604P14508	LeCory	2005/8/11	2006/8/10
ETSTW-RE 034	Power Sensor	URV5-Z4	839313/006	R&S	2005/10/17	2006/10/16
ETSTW-RE 037	Log-Periodic DipoleArray Antenna	3148	00034546	EMCO	2004/11/18	2006/11/17

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ETSTW-RE 038	Log-Periodic DipoleArray Antenna	3148	00034547	EMCO	2004/11/18	2006/11/17
ETSTW-RE 039	Biconical Antenna	3110B	41760	EMCO	2004/11/18	2006/11/17
ETSTW-RE 040	Biconical Antenna	3110B	41761	EMCO	2004/11/18	2006/11/17
ETSTW-RE 042	ANTENNA	HK116	100172	R&S	2005/1/14	2007/1/13
ETSTW-RE 043	ANTENNA	HL223	100166	R&S	2006/5/8	2008/5/7
ETSTW-RE 044	ANTENNA	HL050	100094	R&S	2006/5/29	2008/5/28
ETSTW-RE 048	Triple Loop Antenna	HXYZ 9170	HXYZ 9170-134	Schwarzbeck	2005/3/22	2008/3/21
ETSTW-RE 049	TRILOG Super Broadband test Antenna	VULB 9160	9160-3185	Schwarzbeck	2005/5/19	2007/5/18
ETSTW-RE 055	SPECTRUM ANALYZER	FSU-26	200074	R&S	2005/9/6	2006/9/5
ETSTW-EMI 001	HARMONICS 1000	HAR1000-1P	93	EMC-PARTNER	2005/9/12	2006/9/11
ETSTW-EMS 001	Clamp BASELSTRASSE 160 CH-4242 LAUFEN	CN-EFT1000	354	EMC-PARTNER	2004/11/2	2006/11/1
ETSTW-EMS 002	Frequency Converter	YF-6020	0308014	T-POWER	Function Test	
ETSTW-EMS 003	EMC Immunity Test System	TRA2000IN6	579	EMC-PARTNER	2005/10/27	2006/10/26
ETSTW-EMS 004	ESD generator minizap	ESD2000	016	EMC-PARTNER	2005/10/27	2006/10/26
ETSTW-EMS 005	Attenautor (50Ω)	VERI50	051	EMC-PARTNER	2004/8/31	2006/8/30
ETSTW-EMS 006	Attenautor (1 KΩ)	VERI1K	019	EMC-PARTNER	2004/10/21	2006/10/20
ETSTW-EMS 008	Safety Test Solutions	ELT-400	E-0039	Narda	2005/5/4	2007/5/3
ETSTW-EMS 009	Magnetic Field Antenna	MF1000-1	104	EMC-PARTNER	2004/12/3	2007/12/2
ETSTW-EMS 010	Coupling De-coupling Network	CDN-UTP8	014	EMC-PARTNER	2005/9/1	2008/8/31
ETSTW-EMS 011	Calibration Fixture	F-2031-CF-23MM	451	FCC	2005/8/11	2007/8/11
ETSTW-EMS 012	EM Injection Clamp	F-2031-23MM	476	FCC	2005/8/11	2007/8/10
ETSTW-RS 003	RF Power Amplifier	30S1G3	306933	AR	Function Test	
ETSTW-RS 004	RF Power Amplifier	150W1000	307009	AR	2005/10/21	2006/10/20
ETSTW-RS 005	Electric Field Probe Type 8.3	EMR-20	BN 2244/20	Narda	2005/9/7	2007/9/6
ETSTW-RS 006	SIGNAL GENERATOR	SML03	101551	R&S	2005/10/21	2006/10/20
ETSTW-GSM 01	SIM Simulator	IT3	B2004-50106	ORGA	2005/9/15	2006/9/14
ETSTW-GSM 02	Universal Radio Communication Tester	CMU 200	103489	R&S	2005/11/15	2006/11/14
ETSTW-GSM 03	Agilent 8960 Test Set 1	E5515C	GB44052675	Agilent	2004/7/14	2006/7/13
ETSTW-GSM 04	Agilent 8960 Test Set 2	E5515C	GB44052665	Agilent	2004/7/14	2006/7/13
ETSTW-GSM 05	Agilent 8960 Test Set 3	E5515C	GB44052652	Agilent	2004/7/17	2006/7/16
ETSTW-GSM 06	Agilent 8960 Test Set 4	E5515C	GB44052684	Agilent	2004/7/16	2006/7/15
ETSTW-GSM 07	Agilent 8960 Test Set 5	E5515C	GB44052658	Agilent	2004/7/14	2006/7/13
ETSTW-GSM 08	Agilent 8960 Test Set 6	E5515C	GB44052666	Agilent	2004/7/16	2006/7/15
ETSTW-GSM 09	Controller PC	Dell GX 270	700F61J	Dell	Function Test	
ETSTW-GSM 10	Combiner Wessex / Anite	B4605/100	053	Wessex / Anite	2004/7/14	2006/7/13

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ETSTW-GSM 11	GSM 850,900,1800,1900 Test system	TS8950G		R&S	2005/11/1	2006/10/31
ETSTW-GSM 12	Acoustical Calibrator	4231	2463874	Brüel&Kjær	2005/10/31	2006/10/30
ETSTW-GSM 13	Conditioning Amplifier	2690--0S2	2437856	Brüel&Kjær		
ETSTW-GSM 14	Telephone Test Head	4602B	2465324	Brüel&Kjær		
ETSTW-GSM 15	Mouth Simulator	4227	2462516	Brüel&Kjær		
ETSTW-GSM 16	TEMP.&HUMIDITY CHAMBER	GTH-120-40-1P-U	MAA0501002	GIANT FORCE	2005/12/29	2006/12/28
ETSTW-GSM 18	AUDIO ANALYZER	UPL16	100173	R&S	2005/10/29	2006/10/28
ETSTW-GSM 24	Vibration Testing System	VS-100V	5494	Vibration	2005/12/20	2006/12/19

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2.4 Test results

☒ 1st test

☐ test after modification

☐ production test

Test Emission / Immunity			Done	Test passed	Test failed
Emission	Radiated Emission	FCC part 15.109	☒	☒	☐
Emission	Conducted Emission	FCC part 15.107	☒	☒	☐

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2.4.1 Radiated Emission

2.4.1.1 Test Equipment

a) Antenna (HK116)

For your reference please find it in our test equipment list at page 9 to 11 as number : ETSTW-RE 015

b) Antenna (HL223)

For your reference please find it in our test equipment list at page 9 to 11 as number : ETSTW-RE 016

c) Antenna (HL025)

For your reference please find it in our test equipment list at page 9 to 11 as number : ETSTW-RE 017

d) Generator SMX (R&S)

For your reference please find it in our test equipment list at page 9 to 11 as number : ETSTW-CS 001

e) Semi Anechoic (OATS 10m)

For your reference please find it in our test equipment list at page 9 to 11 as number : ETSTW-RE 026

f) ESI-26

For your reference please find it in our test equipment list at page 9 to 11 as number : ETSTW-RE 003

g) Anechoic Chamber

For your reference please find it in our test equipment list at page 9 to 11 as number : ETSTW-RE 025

2.4.1.2 Test Procedures

- Test configuration

The test configuration corresponds to the standard CISPR 22. The equipment under test is placed on a non metallic table with 0,8m height. The power supply and the RF connection points are close to the equipment under test at the floor inside a connection box. The cables to this connection box are shielded and below the double floor. The receiving antenna is placed in a height at 1,0 to 4,0m, in a distance of 10m. The measurement receiver are placed in a special room. The observation of the equipment under test is realized by 3 video cameras and by a microphone.

- Test parameters and marginal conditions

The test are carried out with horizontal and vertical polarization of the antenna in a frequency range of 30 MHz to 1000 MHz . Further information please find in the test protocol.

2.4.2 Conducted Emission

2.4.2.1 Test Equipment

a) Artificial mains (ESH3-Z5)

For your reference please find it in our test equipment list at page 9 to 11 as number : ETSTW-CE 004

b) Artificial mains (ESH3-Z2)

For your reference please find it in our test equipment list at page 9 to 11 as number : ETSTW-CE 006

c) Test receiver (ESHS10)

For your reference please find it in our test equipment list at page 9 to 11 as number : ETSTW-CE 001

d) Shielded room

For your reference please find it in our test equipment list at page 9 to 11 as number : ETSTW-RE 023

e) AC Power Source (APS-9102)

For your reference please find it in our test equipment list at page 9 to 11 as number : ETSTW-CE 003

f) Universal Radio Communication Tester (CMU200)

For your reference please find it in our test equipment list at page 9 to 11 as number : ETSTW-GSM 02

- Test configuration

The test configuration is contained inside of a shielded chamber and corresponds to the standard CISPR 22 . The equipment under test is placed in the facility on a wooden table 0.8m high. The equipment under test is connected with the artificial mains network (AMN) in a distance of 0,8m and also 0,8m from other subassembly and metallic area. The measurement receiver are placed in a special room adjacent to the chamber. The observation of the equipment under test is realized by 3 video cameras and by a microphone.

- Test parameters and marginal conditions

The test are carried out with a nominal impedance by $50\Omega / 50\mu\text{H}$ of the AMN in a frequency range 150 kHz to 30 MHz. This measurement was transact first with instrumentation using an average and peak detector and a 10 kHz bandwidth. If the peak detector achieves a calculated level, the measurement is repeated by an instrumentation using a quasi-peak detector,
Further information please find in test report.

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2.5 Test protocols

2.5.1 Radiated Emission

Radio Noise Field Strength

Emission

Standard : FCC part 15B

Reg.-no. : W6M20606-7090-P-15B

Device : B55 USB, B55 PS/2, B55 USB & PS/2

Date : July 04, 2006

Class : B

Temperature : 24.3 °C
Pressure : 939 hPa
Rel. humidity: 49 %

Frequency Range Polarization	Limit $\mu\text{V/m}$	Passed	Failed	Number of rechecks
30 MHz – 88 MHz	100	☒	☐	0
88 MHz – 216 MHz	150	☒	☐	0
216 MHz – 960 MHz	200	☒	☐	0
960 MHz – 1000 MHz	500	☒	☐	0

Comment: See attached diagrams as appendix A

Registration number: W6M20606-7090-P-15B

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Standard : FCC part 15BReg.-no. : W6M20606-7090-P-15BDevice : B55 USB, B55 PS/2, B55 USB & PS/2Date : July 04, 2006Class : B

Temperature : 24.4 °C
 Pressure : 939 hPa
 Rel. humidity: 51 %

**Summary table with radiated data of the test plots
 (PS2 mode)**

Antenna Polarization	Frequency Marker (MHz)	Corrected Reading (dBuv)	Correction Factor (dB)	Detector	Test Result (dBuV/m)	Compliance Limit (dBuV/m)	Margin (dB)	Table Azimuth (degree)	Antenna Height (cm)
H	48.056	19.75	13.68	PK	33.43	40	6.57	218	310
	102.565	26.55	11.49	PK	38.04	46	7.96	310	322
	166.272	22.77	15	PK	37.77	46	8.23	211	340
	238.476	21	13.57	PK	34.57	46	11.43	190	320
	499.799	17.57	19.81	PK	37.38	46	8.62	62	307
	661.723	18.26	22.8	PK	41.06	46	4.94	87	300

Antenna Polarization	Frequency Marker (MHz)	Corrected Reading (dBuv)	Correction Factor (dB)	Detector	Test Result (dBuV/m)	Compliance Limit (dBuV/m)	Margin (dB)	Table Azimuth (degree)	Antenna Height (cm)
V	42.945	24.72	13.58	PK	38.3	40	1.7	172	195
	66.452	15.38	13.41	PK	28.79	40	11.21	200	180
	102.565	30.43	11.49	PK	41.92	43.5	1.58	340	201
	172.064	32.81	14.97	PK	37.78	43.5	5.72	270	211
	196.593	27.57	12.14	PK	39.71	43.5	3.79	95	213
	212.825	19.98	12.68	PK	32.66	43.5	10.84	105	190
	672.945	34.27	22.95	PK	37.22	46	8.78	124	188

(USB mode)

Antenna Polarization	Frequency Marker (MHz)	Corrected Reading (dBuv)	Correction Factor (dB)	Detector	Test Result (dBuV/m)	Compliance Limit (dBuV/m)	Margin (dB)	Table Azimuth (degree)	Antenna Height (cm)
H	233.667	19.77	13.57	PK	33.34	46	12.66	180	305
	499.799	20.23	19.81	PK	40.04	46	5.96	219	310
	600.801	18.01	22.18	PK	40.19	46	5.81	250	307
	653.707	16.98	22.78	PK	39.76	46	6.24	310	331
	47.715	15.02	13.68	PK	28.7	40	11.3	65	320
	81.442	21.62	10	PK	31.62	40	8.38	98	315
	102.565	27.93	11.49	PK	39.42	46	6.58	217	308
	117.895	19.85	12.68	PK	32.53	46	13.47	302	311

Antenna Polarization	Frequency Marker (MHz)	Corrected Reading (dBuv)	Correction Factor (dB)	Detector	Test Result (dBuV/m)	Compliance Limit (dBuV/m)	Margin (dB)	Table Azimuth (degree)	Antenna Height (cm)
V	228.857	19.35	13.1	PK	32.45	46	13.55	240	190
	480.561	17.08	19.59	PK	36.67	46	9.33	200	208
	661.723	13.24	22.8	PK	36.04	46	9.96	186	210
	47.715	21.61	13.68	PK	35.29	40	4.74	320	195
	87.575	26	10	PK	36	40	4	90	182
	113.126	19.86	12.41	PK	32.27	46	7.73	255	200

- Note**
1. Correction Factor = Antenna factor + Cable loss - Preamplifier
 2. The formula of measured value as: Test Result = Corrected Reading + Correction Factor
 3. Detector function in the form : P = Peak, QP = Quasi Peak, AV = Average

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2.5.2 Conducted Emission

Conducted Emission

Emission

Standard : FCC part 15B

Reg.-no. : W6M20606-7090-P-15B

Device : B55 USB, B55 PS/2, B55 USB & PS/2

Date : July 04, 2006

Class : B

Temperature : 24.3 °C
Pressure : 939 hPa
Rel. humidity: 49 %

Frequency Range	Limit DbμV		Passed	Failed	Number of rechecks
	Quasi- peak	Average			
150 kHz – 500 kHz AC	66 to 56*	56 to 46*	☒	☐	0
500 kHz – 5 MHz AC	56	46	☒	☐	0
5 MHz – 30 MHz AC	60	50	☒	☐	0

*Decreases with logarithm of the frequency

Comment: See attached diagrams as appendix B

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Standard : FCC part 15B

Reg.-no. : W6M20606-7090-P-15B

Device : B55 USB, B55 PS/2, B55 USB & PS/2

Date : July 04, 2006

Class : B

Temperature : 24.2 °C
Pressure : 939 hPa
Rel. humidity: 50 %

(PS2 mode)

LISN type	Frequency Marker	Corrected Reading (dBuV)		Correction Factor	Test Result (dBuV)		Compliance Limit (dBuV)		Margin (dB)	
N	MHz	QP	AV	dB	QP	AV	QP	AV	QP	AV
	0.15	32.3	15.7	10.1	42.4	25.8	66	56	23.6	30.2
	0.285	29.3	11.5	10.1	39.4	21.6	60.67	50.67	21.27	29.07
	0.645	23.3	10.6	10.1	33.4	20.7	56	46	22.6	25.3
	25.825	29.8	21.5	10.1	39.9	31.6	60	50	20.1	18.4
	0.575	21.1	10.7	10.1	31.2	20.8	56	46	24.8	25.2

LISN type	Frequency Marker	Corrected Reading (dBuV)		Correction Factor	Test Result (dBuV)		Compliance Limit (dBuV)		Margin (dB)	
L1	MHz	QP	AV	dB	QP	AV	QP	AV	QP	AV
	0.15	32.9	14.3	10.1	43	24.4	66	56	23	31.6
	0.22	24.8	12.7	10.1	34.9	22.8	62.81	52.81	27.91	30.01
	0.51	20.8	11.4	10.1	30.9	21.5	56	46	25.1	24.5
	0.655	22.1	10.5	10.1	32.2	20.6	56	46	23.8	25.4
	23.55	25.1	17.8	10.1	35.2	27.9	60	50	24.8	22.1
	26.16	29.5	22.3	10.1	39.6	32.4	60	50	20.4	17.6
	26.52	29.7	22.1	10.1	39.8	32.2	60	50	20.2	17.8

(USB mode)

LISN type	Frequency Marker	Corrected Reading (dBuV)		Correction Factor	Test Result (dBuV)		Compliance Limit (dBuV)		Margin (dB)	
N	MHz	QP	AV	dB	QP	AV	QP	AV	QP	AV
	0.15	32.2	15.1	10.1	42.3	25.2	66	56	23.7	30.8
	0.285	29.2	11.4	10.1	39.3	21.5	60.67	50.67	21.37	29.17
	0.57	22.2	10.5	10.1	32.3	20.6	56	46	23.7	25.4
	0.64	23.8	11.1	10.1	33.9	21.2	56	46	22.1	24.8
	25.45	29.5	22.2	10.1	39.6	32.3	60	50	20.4	17.7

LISN type	Frequency Marker	Corrected Reading (dBuV)		Correction Factor	Test Result (dBuV)		Compliance Limit (dBuV)		Margin (dB)	
L1	MHz	QP	AV	dB	QP	AV	QP	AV	QP	AV
	0.15	32.5	14.6	10.1	42.6	24.7	66	56	23.4	31.3
	0.215	23.3	13	10.1	33.4	23.1	62.81	52.81	29.41	29.71
	0.575	21.5	10.7	10.1	31.6	20.8	56	46	24.4	25.2
	0.645	22.7	10.1	10.1	32.8	20.2	56	46	23.2	25.8
	26	29.5	22.7	10.1	39.6	32.8	60	50	20.4	17.2

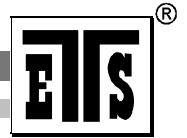
- Note:** 1. The formula of measured value as: Test Result = Corrected Reading + Correction Factor
2. The Correction Factor = Cable Loss + LISN Insertion Loss – Pulse Limit Loss
3. Detector function in the form : P = Peak, QP = Quasi Peak, AV = Average

2.6 Equipment Modification

No modification was made to pass all tests.

3 Normative references

- /1/ FCC part 15
Radio Frequency Devices
- /2/ CISPR 22
Limits and Methods of Measurement of Radio Interference Characteristics of Information
Technology Equipment



Registration number: W6M20606-7090-P-15B
FCC ID: P5A-AB0001

Appendix

- A Radiated Emission
- B Conducted Emission
- C Pictures

Appendix A

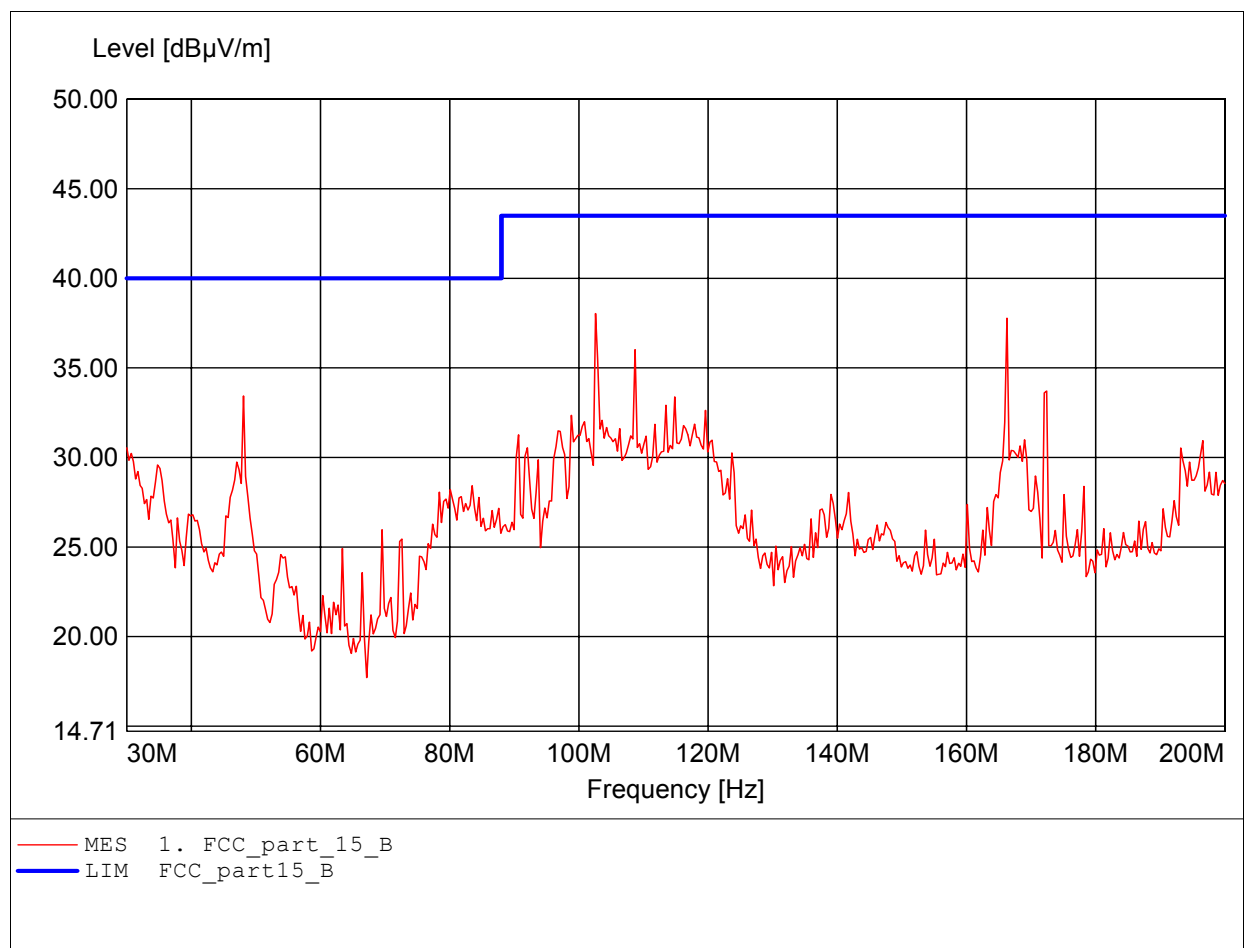
Radiated Emission

The measurement diagrams plots attached below are preliminary wideband scan with a peak detector for reference only. The test results are listed on section 2.5.1.

Field Strength under normal conditions

FCC RULES PART 15, SUBPART B

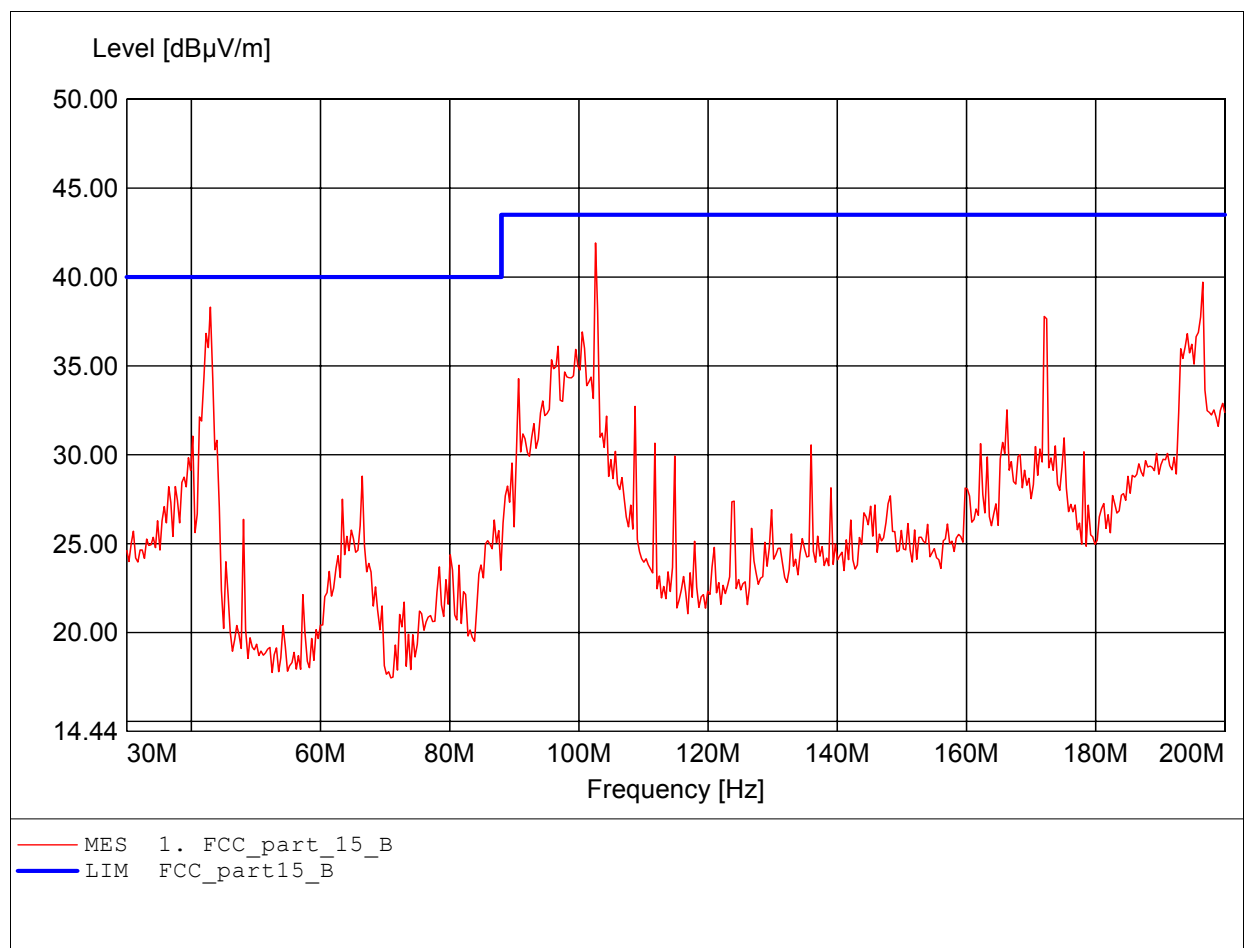
Order Number: W6M20606-7090 PS2 mode
Test Site / Operator: ETS / Catey
Temperature/Voltage: Temp.: 22.4°C/ Unom.: 120 VAC (power on PC)
Test Specification: according to subpart B
Comment 1: Dist.: 3m, Ant.: HK 116
Freq:102.565MHz Emax:38.04dBμV/m RBW: 100 kHz



Field Strength under normal conditions

FCC RULES PART 15, SUBPART B

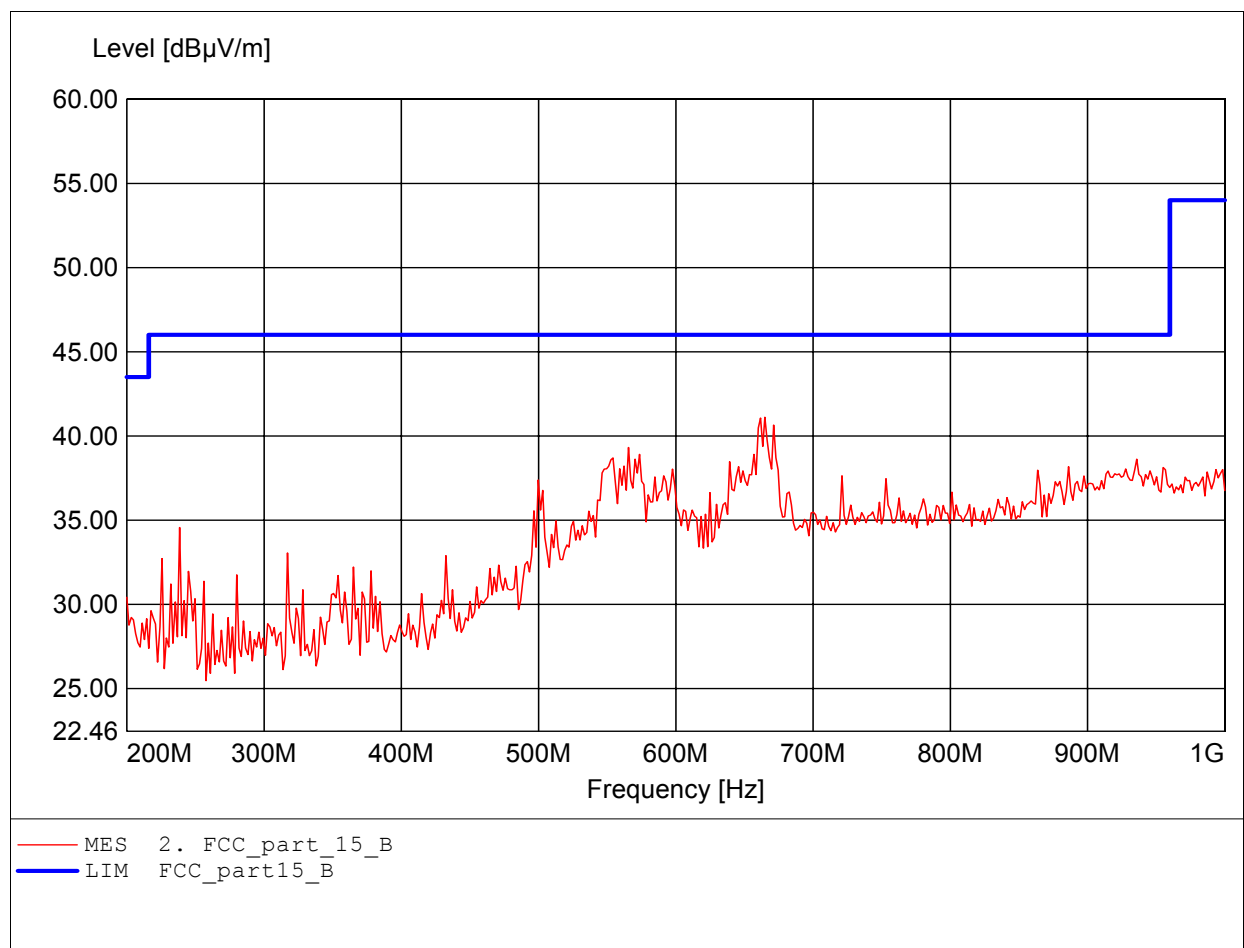
Order Number: W6M20606-7090 PS2 mode
Test Site / Operator: ETS / Catey
Temperature/Voltage: Temp.: 22.4°C/ Unom.: 120 VAC (power on PC)
Test Specification: according to subpart B
Comment 1: Dist.: 3m, Ant.: HK 116
Freq:102.565MHz Emax:41.92dBμV/m RBW: 100 kHz



Field Strength under normal conditions

FCC RULES PART 15, SUBPART B

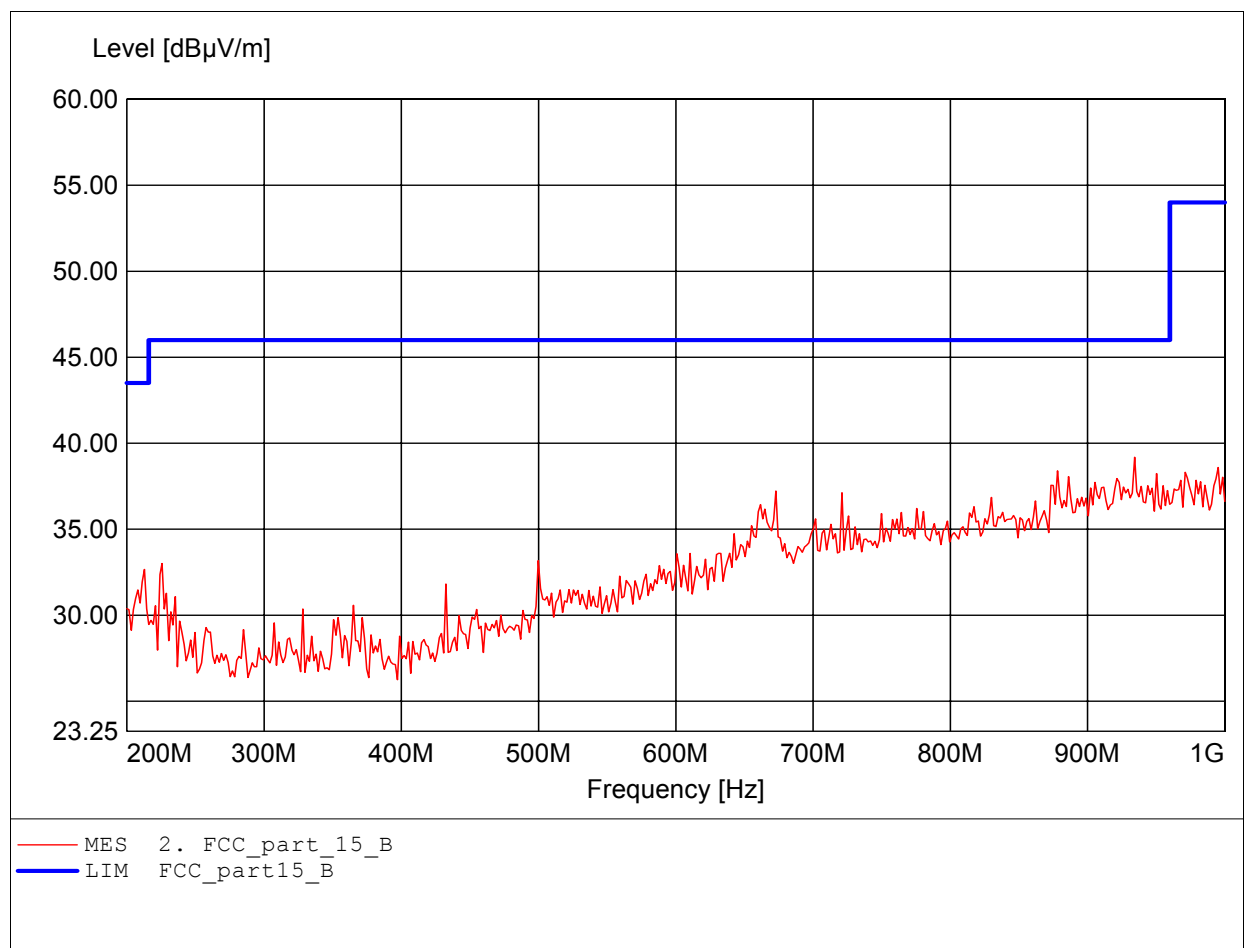
Order Number: W6M20606-7090 PS2 mode
Test Site / Operator: ETS / Catey
Temperature/Voltage: Temp.: 22.4°C/ Unom.: 120 VAC (power on PC)
Test Specification: according to subpart B
Comment 1: Dist.: 3m, Ant.: HL 223, ampl.
Freq:664.930MHz Emax:41.11dBμV/m RBW: 100 kHz



Field Strength under normal conditions

FCC RULES PART 15, SUBPART B

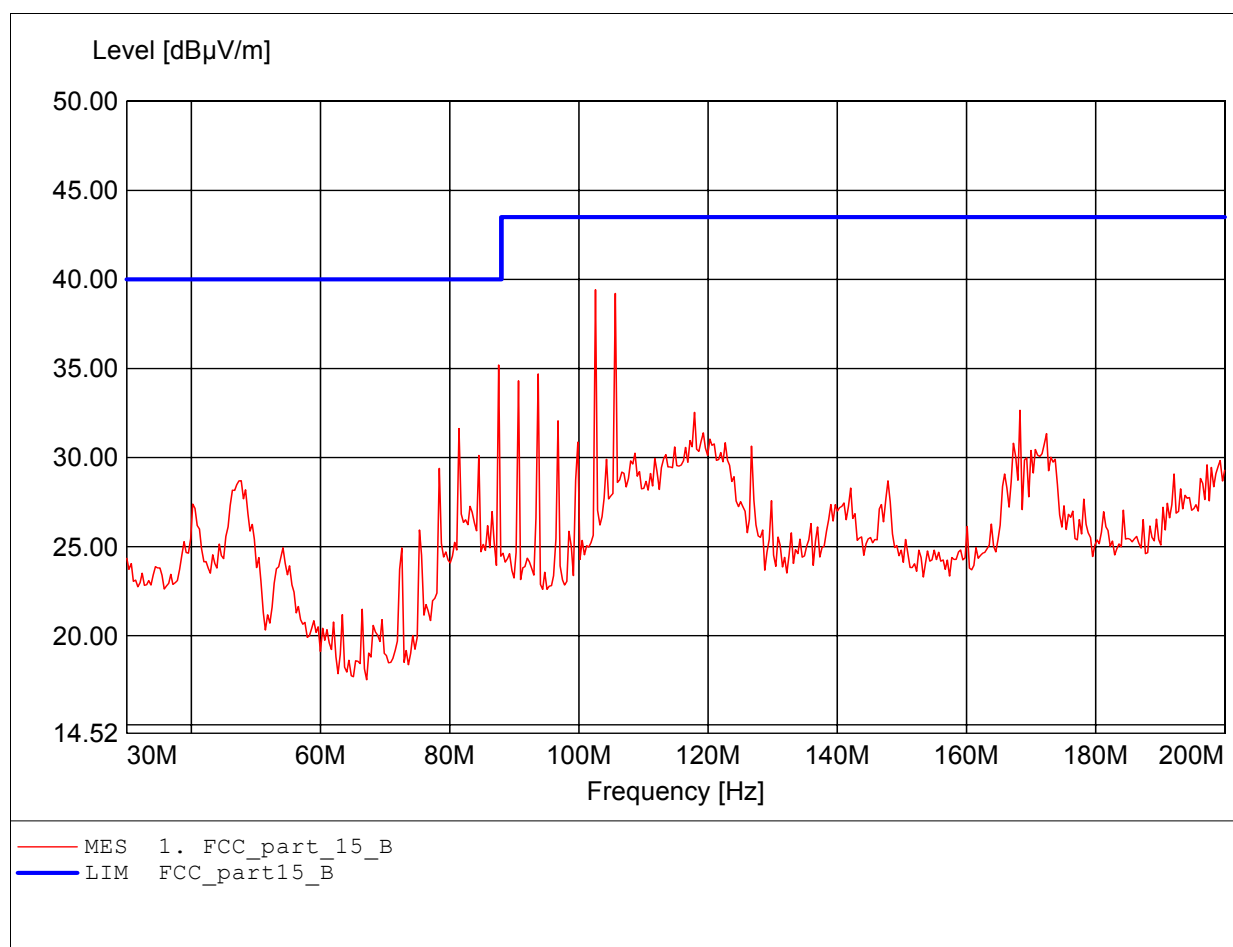
Order Number: W6M20606-7090 PS2 mode
Test Site / Operator: ETS / Catey
Temperature/Voltage: Temp.: 22.4°C/ Unom.: 120 VAC (power on PC)
Test Specification: according to subpart B
Comment 1: Dist.: 3m, Ant.: HL 223, ampl.
Freq:934.269MHz Emax:39.18dBμV/m RBW: 100 kHz



Field Strength under normal conditions

FCC RULES PART 15, SUBPART B

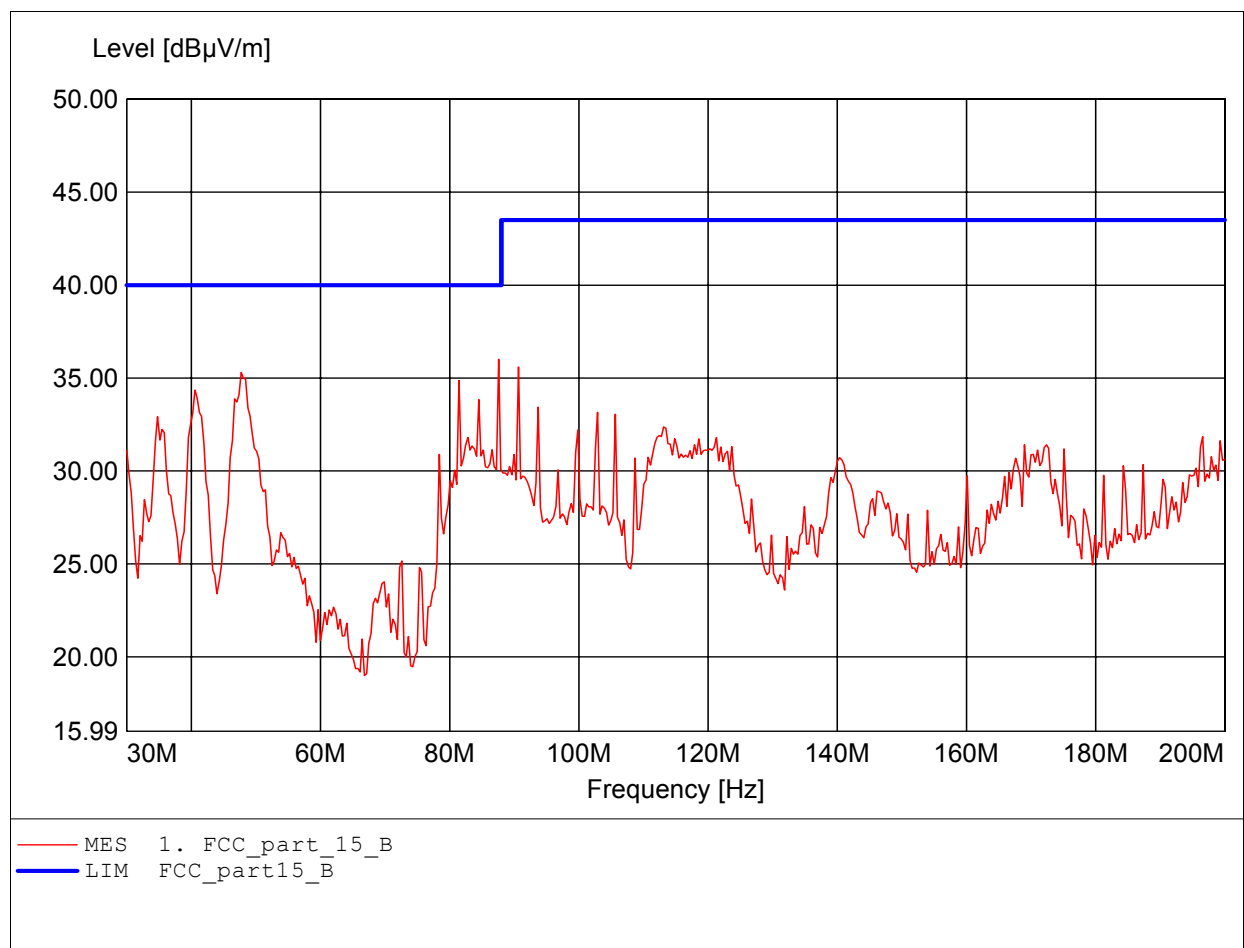
Order Number: W6M20606-7090 USB mode
Test Site / Operator: ETS / Catey
Temperature/Voltage: Temp.: 22.4°C/ Unom.: 120 VAC (power on PC)
Test Specification: according to subpart B
Comment 1: Dist.: 3m, Ant.: HK 116
Freq:102.565MHz Emax:39.42dBμV/m RBW: 100 kHz



Field Strength under normal conditions

FCC RULES PART 15, SUBPART B

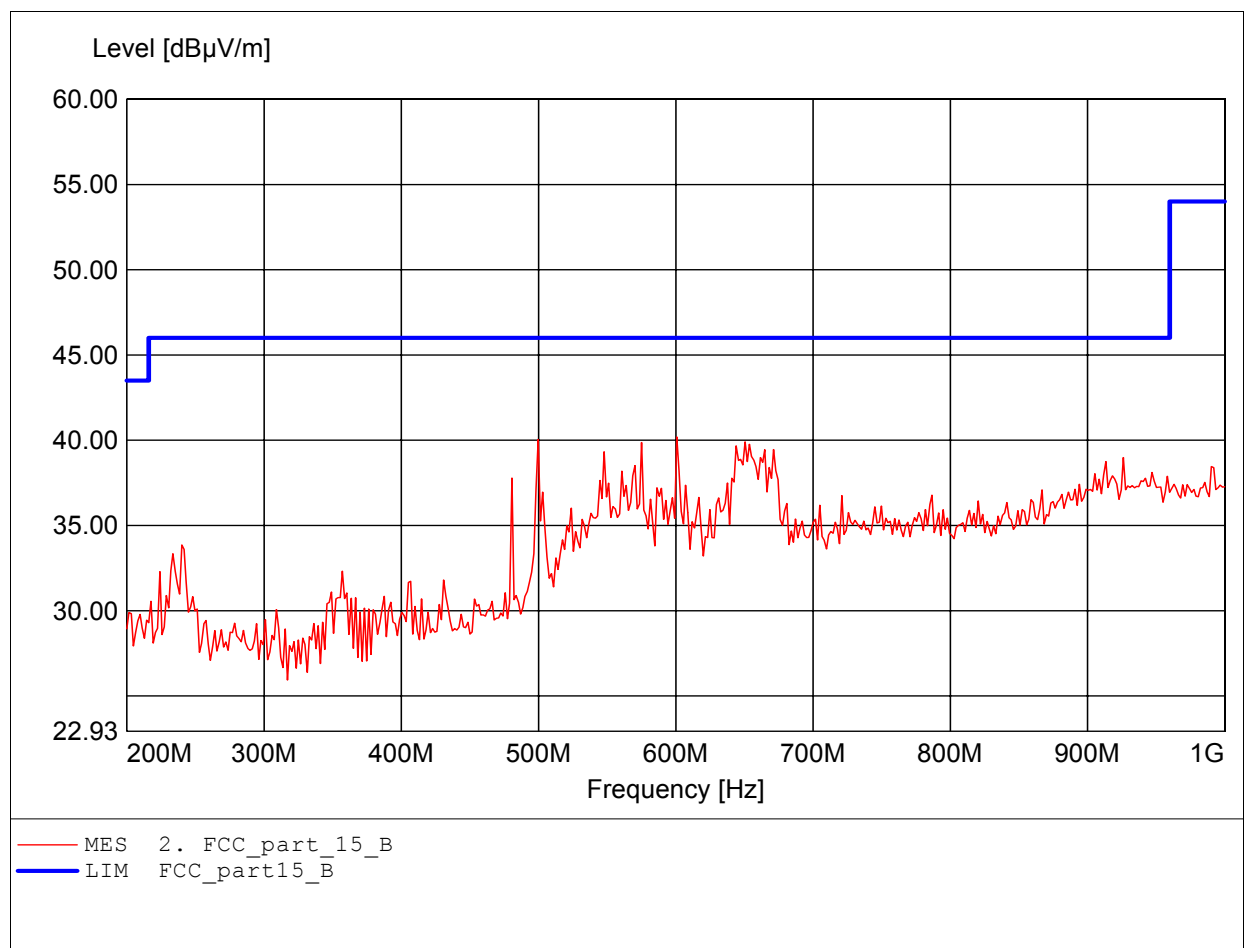
Order Number: W6M20606-7090 USB mode
Test Site / Operator: ETS / Catey
Temperature/Voltage: Temp.: 22.4°C/ Unom.: 120 VAC (power on PC)
Test Specification: according to subpart B
Comment 1: Dist.: 3m, Ant.: HK 116
Freq:87.575MHz Emax:36.00dBμV/m RBW: 100 kHz



Field Strength under normal conditions

FCC RULES PART 15, SUBPART B

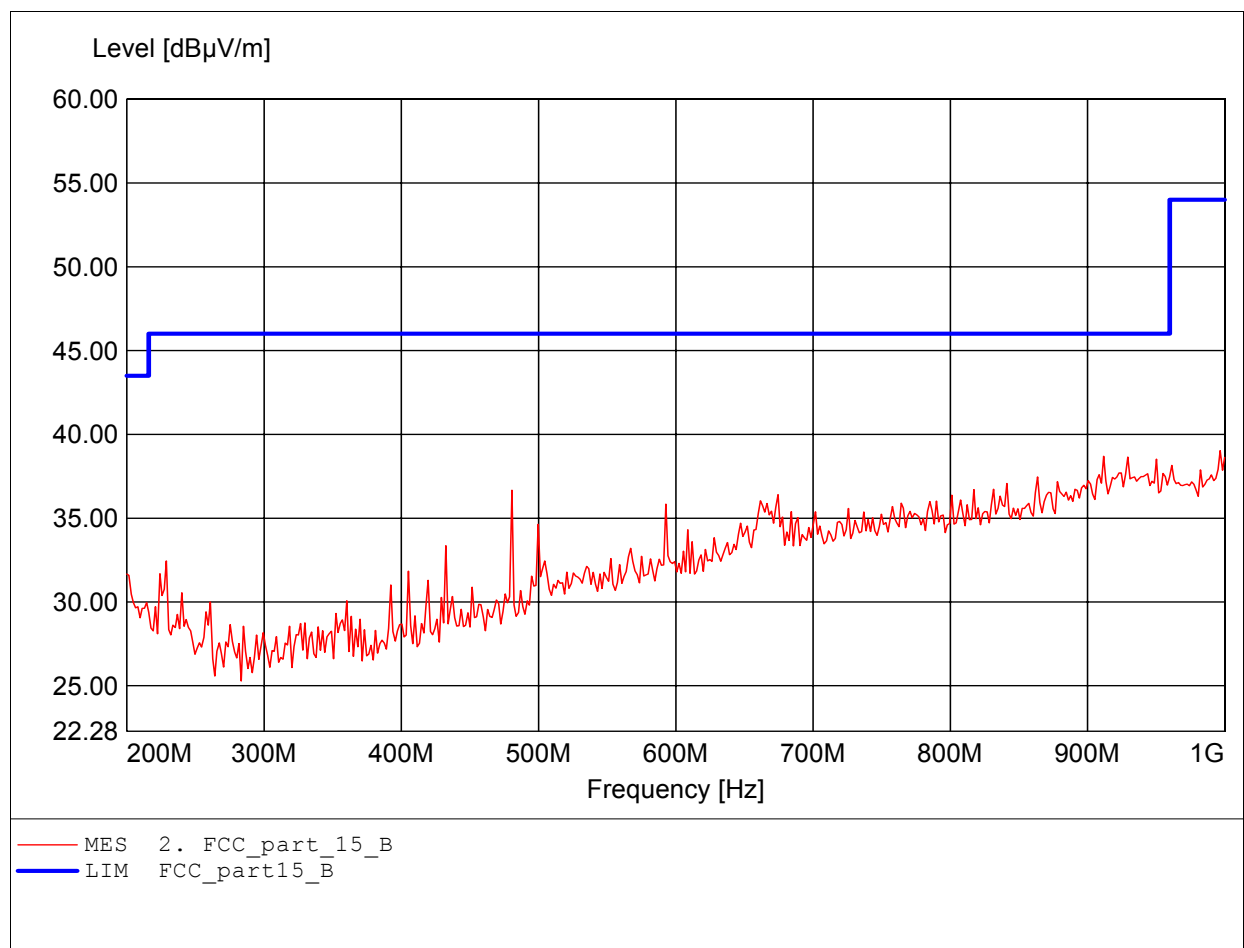
Order Number: W6M20606-7090 USB mode
Test Site / Operator: ETS / Catey
Temperature/Voltage: Temp.: 22.4°C/ Unom.: 120 VAC (power on PC)
Test Specification: according to subpart B
Comment 1: Dist.: 3m, Ant.: HL 223, ampl.
Freq:600.802MHz Emax:40.19dBμV/m RBW: 100 kHz



Field Strength under normal conditions

FCC RULES PART 15, SUBPART B

Order Number: W6M20606-7090 USB mode
Test Site / Operator: ETS / Catey
Temperature/Voltage: Temp.: 22.4°C/ Unom.: 120 VAC (power on PC)
Test Specification: according to subpart B
Comment 1: Dist.: 3m, Ant.: HL 223, ampl.
Freq:996.794MHz Emax:39.02dBμV/m RBW: 100 kHz



Appendix B

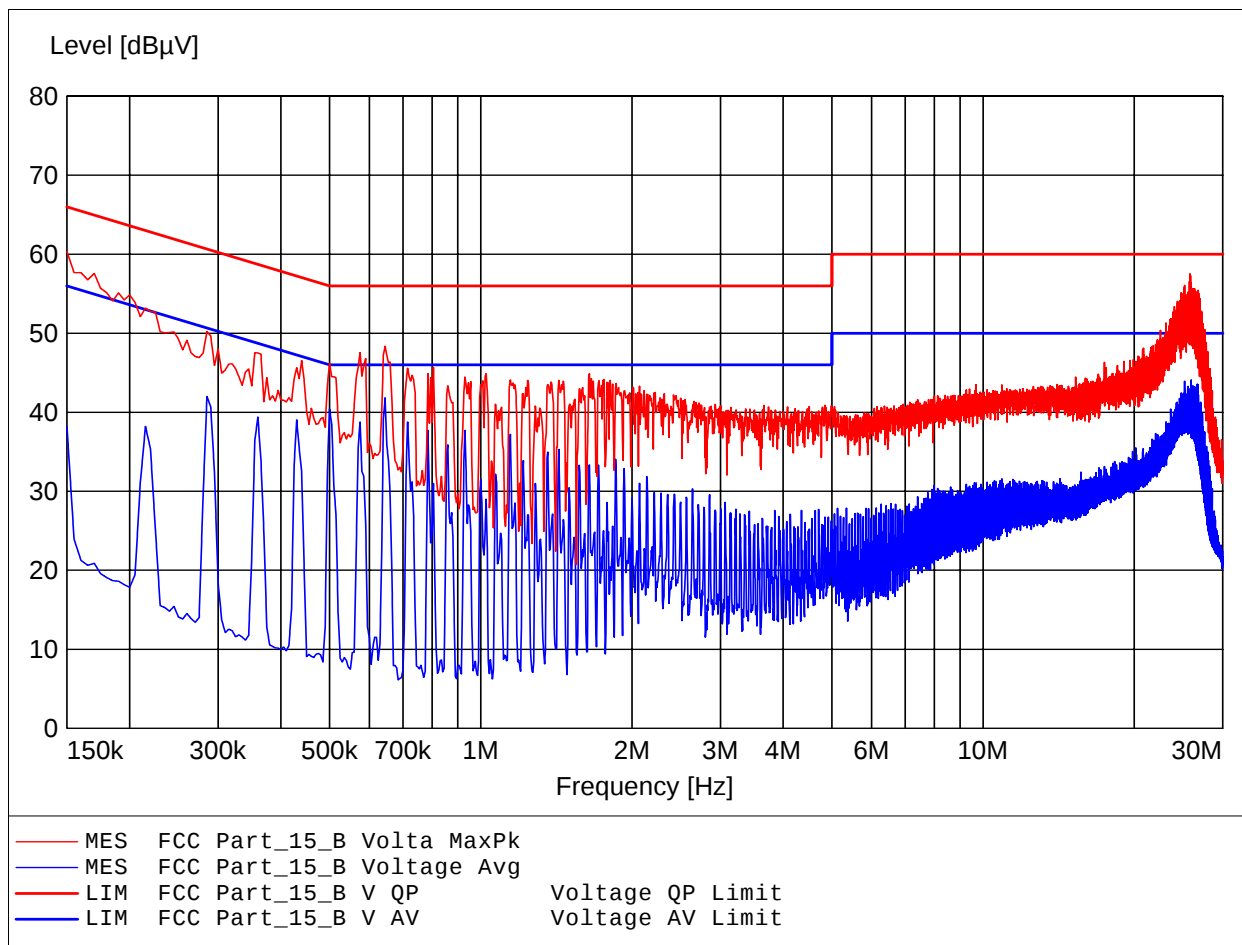
Conducted Emission

The measurement diagrams plots attached below are preliminary wideband scan with a peak and average detector for reference only. The test results are listed on section 2.5.2.

EMI voltage test in the ac-mains according to FCC Part 15

Class B

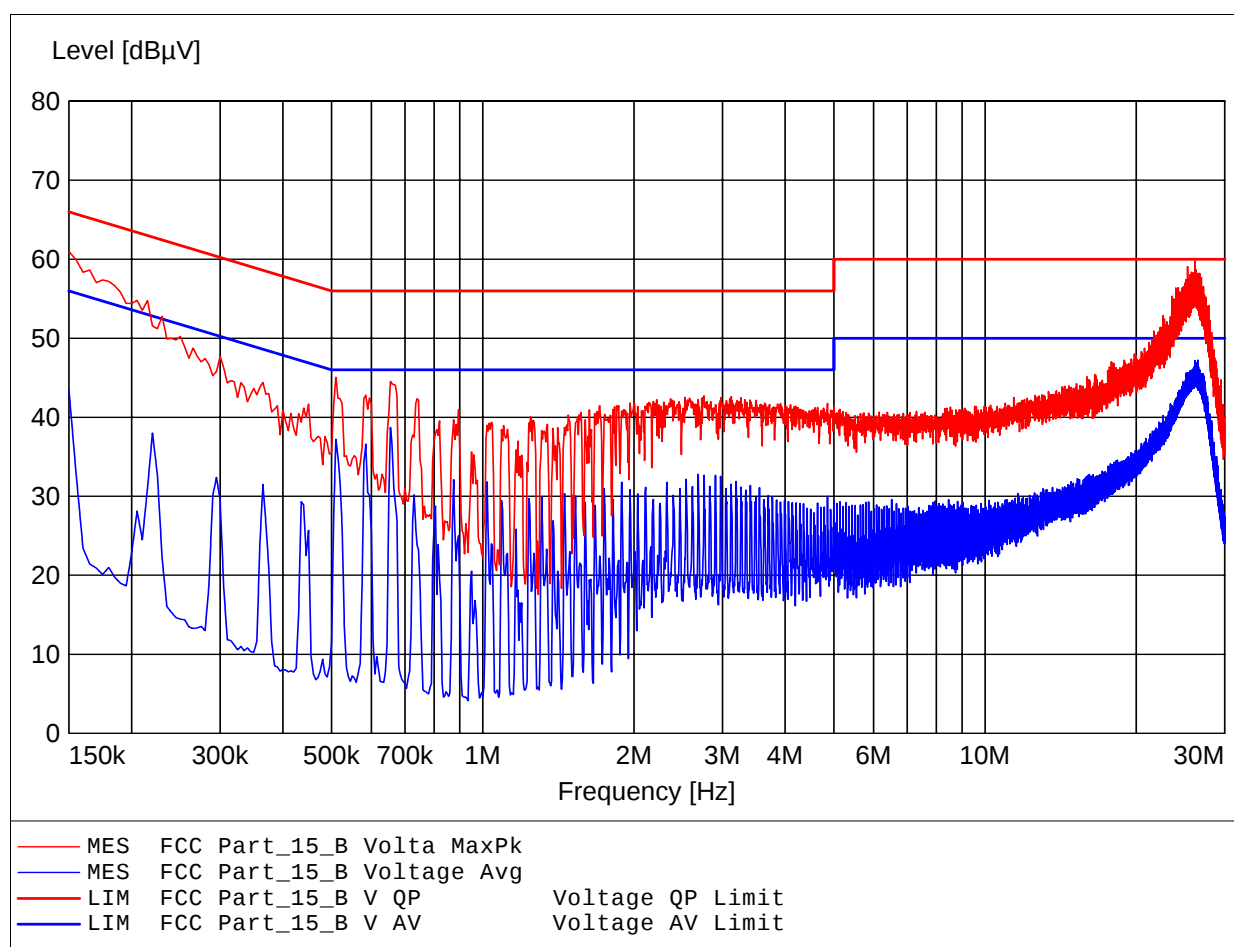
EUT: Optical Mouse PS2 mode
Approval Holder: ARESON Technology Corp. (Taiwan)
Operating Condition: Unom : 120 VAC (power or pc) Tnom : 24.2°C
Test Site: ETS
Operator: Eric
Test Specification: V-network: ESH3-Z5 N
Comment: model: B55 USB, B55 PS/2, B55 USB & PS/2 mode: active



EMI voltage test in the ac-mains according to FCC Part 15

Class B

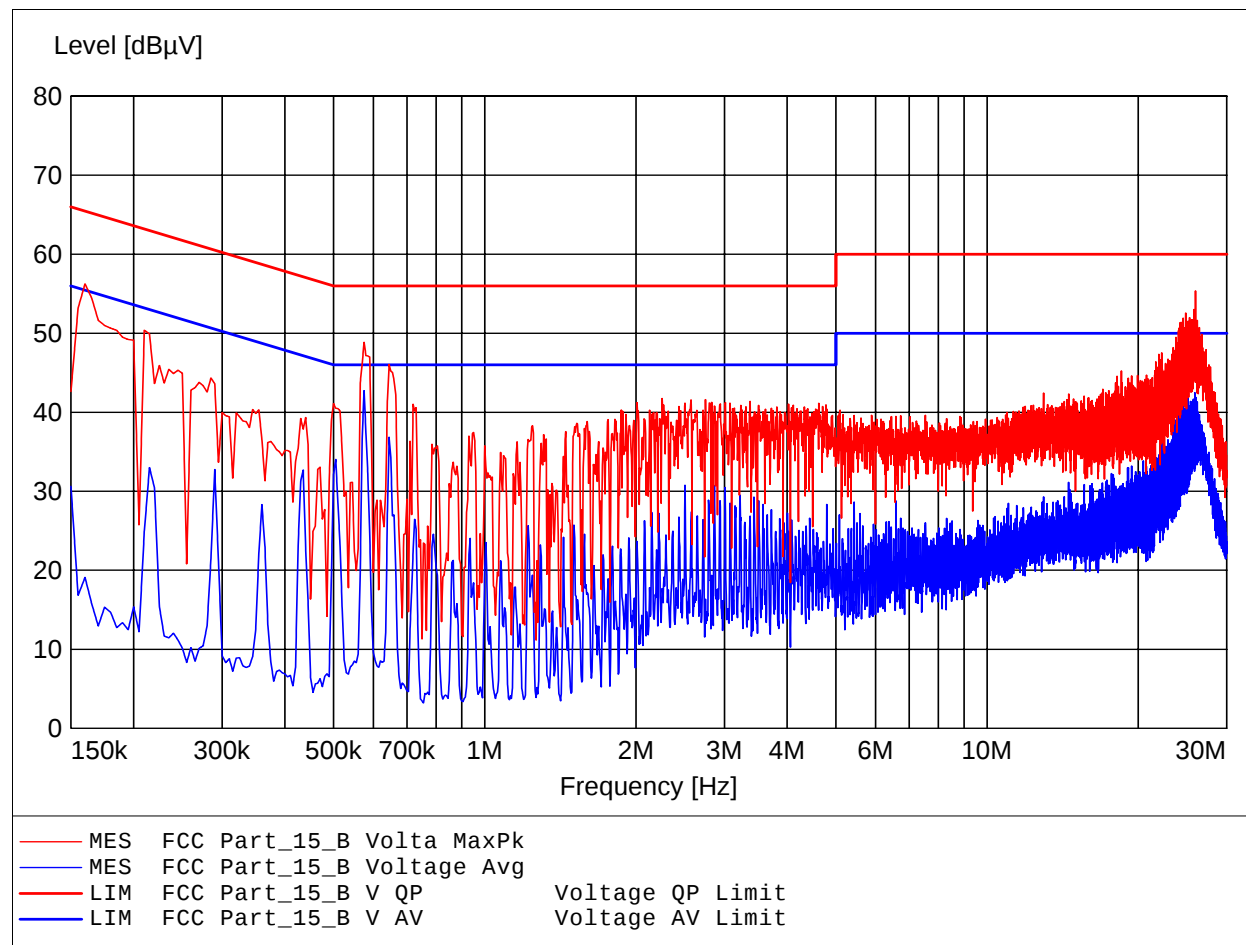
EUT: Optical Mouse PS2 mode
Approval Holder: ARESON Technology Corp. (Taiwan)
Operating Condition: Unom : 120 VAC (power or pc) Tnom : 24.2°C
Test Site: ETS
Operator: Eric
Test Specification: V-network: ESH3-Z5 L1
Comment: model: B55 USB, B55 PS/2, B55 USB & PS/2 mode: active



EMI voltage test in the ac-mains according to FCC Part 15

Class B

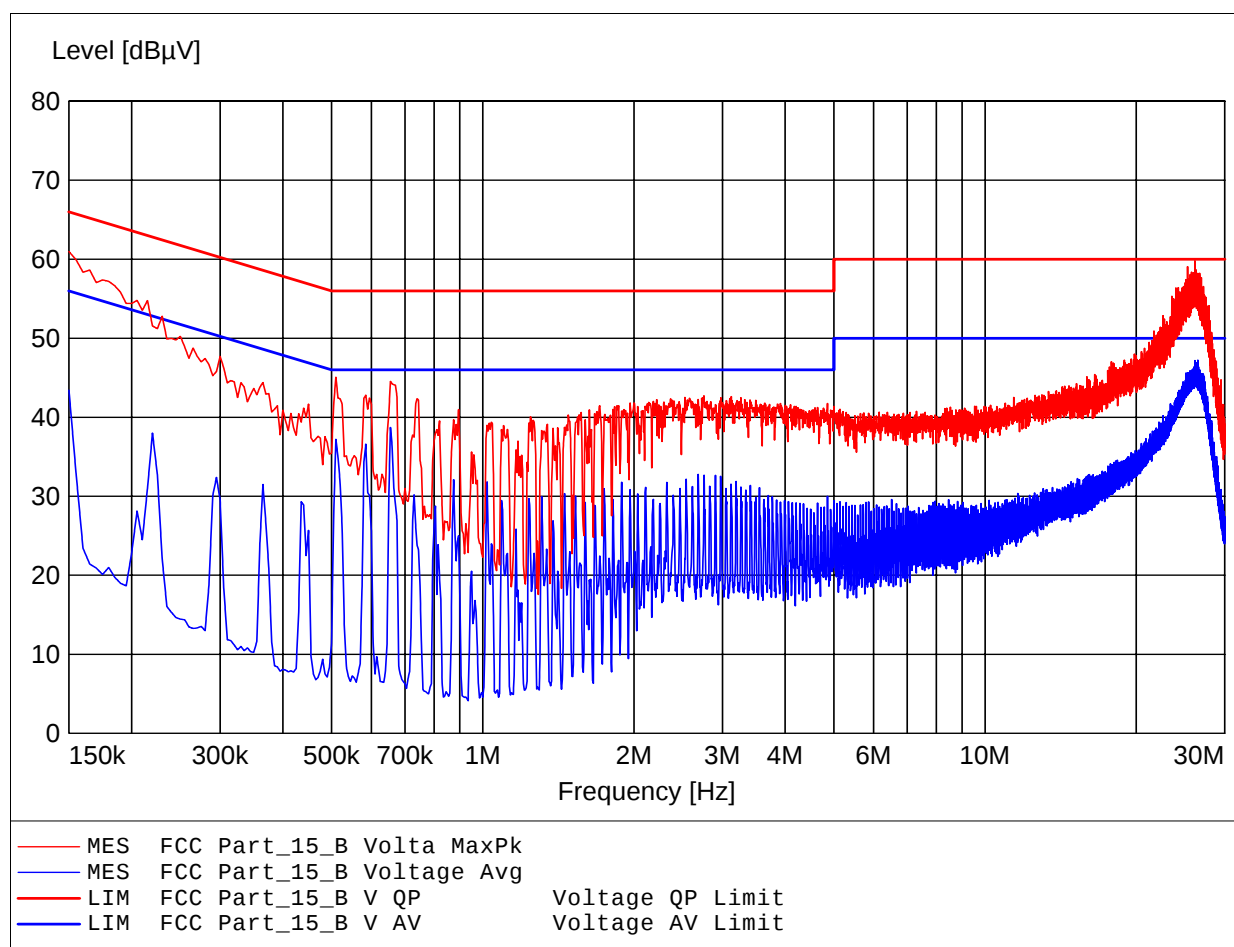
EUT: Optical Mouse USB mode
Approval Holder: ARESON Technology Corp. (Taiwan)
Operating Condition: Unom : 120 VAC (power or pc) Tnom : 24.2°C
Test Site: ETS
Operator: Eric
Test Specification: V-network: ESH3-Z5 N
Comment: model: B55 USB, B55 PS/2, B55 USB & PS/2 mode: active



EMI voltage test in the ac-mains according to FCC Part 15

Class B

EUT: Optical Mouse USB mode
Approval Holder: ARESON Technology Corp. (Taiwan)
Operating Condition: Unom : 120 VAC (power or pc) Tnom : 24.2°C
Test Site: ETS
Operator: Eric
Test Specification: V-network: ESH3-Z5 L1
Comment: model: B55 USB, B55 PS/2, B55 USB & PS/2 mode: active





Appendix C

Pictures