

FCC PART 15 SUBPART B
MEASUREMENT AND TEST REPORT
For
SAPPHIRE TECHNOLOGY LIMITED

Product description: Mini PC
Model No.: EDGE HD4
Supplementary Model: N/A
FCC ID: QPK-EDGEHD4

Prepared for: **SAPPHIRE TECHNOLOGY LIMITED**
Unit 1909 – 1919, 19/F., Tower 2, Grand Central Plaza, 138 Shatin
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1 - GENERAL INFORMATION

1.1 Product Description for Equipment Under Test (EUT)

Client Information

Applicant:	SAPPHIRE TECHNOLOGY LIMITED
Address of applicant:	Unit 1909 – 1919, 19/F., Tower 2, Grand Central Plaza, 138 Shatin Rural Committee Road, Shatin, N.T., Hong Kong
Manufacturer:	SAPPHIRE TECHNOLOGY LIMITED
Address of manufacturer:	Unit 1909 – 1919, 19/F., Tower 2, Grand Central Plaza, 138 Shatin Rural Committee Road, Shatin, N.T., Hong Kong

General Description of E.U.T

EUT Description:	Mini PC
Model No.:	EDGE HD4
Supplementary Model:	N/A
Trade Mark:	N/A
Power Supply:	Input: 19V DC 3.42A
Adapter description:	Model: MN-A065-H190 Input: 100-240V 1.5A max 50/60Hz Output: 19V DC 3.42A

Remark: * The test data gathered are from the production sample provided by the manufacturer.

1.2 Test Standards

The following Declaration of Conformity report of EUT is prepared in accordance with FCC Rules and Regulations Part 15 Subpart B 2011

The objective of the manufacturer is to demonstrate compliance with the described above standards.

1.3 Test Summary

For the EUT described above. The standards used were FCC Part 15 Subpart B for Emissions

Table 1 : Tests Carried Out Under FCC Part 15 Subpart B

Standard	Test Items	Status
FCC Part 15 Subpart B	Conduction Emission, 0.15MHz to 30MHz	√
FCC Part 15 Subpart B	Radiation Emission, 30MHz to 1000MHz	√

- √ Indicates that the test is applicable
× Indicates that the test is not applicable

1.4 Test Methodology

All measurements contained in this report were conducted with ANSI C63.4-2009, 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.

The equipment under test (EUT) was configured to measure its highest possible radiation level. The test modes were adapted accordingly in reference to the Operating Instructions.

The maximum emission levels emanating from the device are compared to the FCC Part 15 Subpart B limits for radiation emissions and the measurement results contained in this test report show that EUT is to be technically compliant with FCC requirements.

All measurement required was performed at Shenzhen Bontek Compliance Testing Laboratory Co., Ltd at 1/F, Block East H-3, OCT Eastern Ind. Zone, Qiaocheng East Road, Nanshan, Shenzhen, China

1.5 Test Facility

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

FCC – Registration No.: 338263

Shenzhen Bontek Compliance Testing Laboratory Co., Ltd., EMC Laboratory has been registered and fully described in a report filed with the (FCC) Federal Communications Commission. The acceptance letter from the FCC is maintained in our files. Registration 338263, March, 2011.

IC Registration No.: 7631A

The 3m alternate test site of Shenzhen Bontek Compliance Testing Laboratory Co., Ltd. EMC Laboratory has been registered by Certification and Engineer Bureau of Industry Canada for the performance of with Registration NO.: 7631A on January 2011.

The facility also complies with the radiated and AC line conducted test site criteria set forth in ANSI C63.4-2003.

CNAS - Registration No.: L3923

Shenzhen Bontek Compliance Testing Laboratory Co., Ltd. to ISO/IEC 17025:25 General Requirements for the Competence of Testing and Calibration Laboratories(CNAS-CL01 Accreditation Criteria for the Competence of Testing and Calibration Laboratories) for the competence in the field of testing.The acceptance letter from the CNAS is maintained in our files: Registration: L3923, March, 2012.

TUV - Registration No.: UA 50242657-0001

Shenzhen Bontek Compliance Testing Laboratory Co.,Ltd. An assessment of the laboratory was conducted according to the"Procedures and Conditions for EMC Test Laboratories"with reference to EN ISO/IEC 17025 by a TUV Rheinland auditor. Audit Report NO.17010783-003

1.6 Test Equipment List and Details

Test equipments list of Shenzhen Bontek Compliance Testing Laboratory Co., Ltd .

No.	Instrument no.	Equipment	Manufacturer	Model No.	S/N	Last Calculator	Due Calculator
1	BCT-EMC001	EMI Test Receiver	R&S	ESCI	100687	2012-4-17	2013-4-16
2	BCT-EMC002	EMI Test Receiver	R&S	ESPI	100097	2012-11-1	2013-10-31
3	BCT-EMC003	Amplifier	HP	8447D	1937A02492	2012-4-20	2013-4-19
4	BCT-EMC004	Single Power Conductor Module	R&S	NNBM 8124	242	2012-4-20	2013-4-19
5	BCT-EMC005	Single Power Conductor Module	R&S	NNBM 8124	243	2012-4-20	2013-4-19
6	BCT-EMC006	Power Clamp	SCHWARZBECK	MDS-21	3812	2012-11-5	2013-11-4
7	BCT-EMC007	Positioning Controller	C&C	CC-C-1F	MF7802113	N/A	N/A
8	BCT-EMC008	Electrostatic Discharge Simulator	TESEQ	NSG437	125	2012-11-2	2013-11-1
9	BCT-EMC009	Fast Transient Burst Generator	SCHAFFNER	MODULA6150	34572	2012-4-17	2013-4-16
10	BCT-EMC010	Fast Transient Noise Simulator	Noiseken	FNS-105AX	10501	2012-6-26	2013-6-25
11	BCT-EMC011	Color TV Pattern Generator	PHILIPS	PM5418	TM209947	N/A	N/A
12	BCT-EMC012	Power Frequency Magnetic Field Generator	EVERFINE	EMS61000-8K	608002	2012-4-17	2013-4-16
14	BCT-EMC014	Capacitive Coupling Clamp	TESEQ	CDN8014	25096	2012-4-17	2013-4-16
15	BCT-EMC015	High Field Biconical Antenna	ELECTRO-METRICS	EM-6913	166	2011-11-28	2013-11-27
16	BCT-EMC016	Log Periodic Antenna	ELECTRO-METRICS	EM-6950	811	2011-11-28	2013-11-27
17	BCT-EMC017	Remote Active Vertical Antenna	ELECTRO-METRICS	EM-6892	304	2011-11-28	2013-11-27
18	BCT-EMC018	TRILOG Broadband Test-Antenna	SCHWARZBECK	VULB9163	9163-324	2012-5-19	2014-5-18
19	BCT-EMC019	Horn Antenna	SCHWARZBECK	BBHA9120A	0499	2011-11-28	2013-11-27
20	BCT-EMC020	Teo Line Single Phase Module	SCHWARZBECK	NSLK8128	8128247	2012-11-1	2013-10-31
21	BCT-EMC021	Triple-Loop Antenna	EVERFINE	LLA-2	711002	2012-11-15	2013-11-14
22	BCT-EMC022	Electric bridge	Jhai	JK2812C	803024	N/A	N/A
23	BCT-EMC026	RF POWER AMPLIFIER	FRANKONIA	FLL-75	1020A1109	2012-4-17	2013-4-16
24	BCT-EMC027	CDN	FRANKONIA	CDN M2+M3	A3027019	2012-4-17	2013-4-16

25	BCT-EMC029	6DB Attenuator	FRANKONIA	N/A	1001698	2012-4-17	2013-4-16
26	BCT-EMC030	EM Injection clamp	FCC	F-203I-23mm	091536	2012-4-17	2013-4-16
27	BCT-EMC031	9kHz-2.4GHz signal generator 2024	MARCONI	10S/6625-99-457-8730	112260/042	2012-4-17	2013-4-16
28	BCT-EMC032	10dB attenuator	ELECTRO-METRICS	EM-7600	836	2012-4-17	2013-4-16
29	BCT-EMC033	ISN	TESEQ	ISN-T800	30301	2012-11-15	2013-11-14
30	BCT-EMC034	10KV surge generator	SANKI	SKS-0510M	048110003E321	2012-11-01	2013-10-31
31	BCT-EMC035	HRMONICS&FLICKRE ANALYSER	VOLTECH	PM6000	200006700433	2012-11-20	2013-11-19
32	BCT-EMC036	Spectrum Analyzer	R&S	FSP	100397	2012-11-1	2013-10-31
33	BCT-EMC037	Broadband preamplifier	SCHWARZBECK	BBV9718	9718-182	2012-4-20	2013-4-19

2 - SYSTEM TEST CONFIGURATION

2.1 Justification

The system was configured for testing in a typical fashion (as only used by a typical user).

2.2 EUT Exercise Software

The EUT exercising program used during radiated and conducted testing was designed to exercise the various system components in a manner similar to a typical use. The software offered by manufacture, can let the EUT being ON operation.

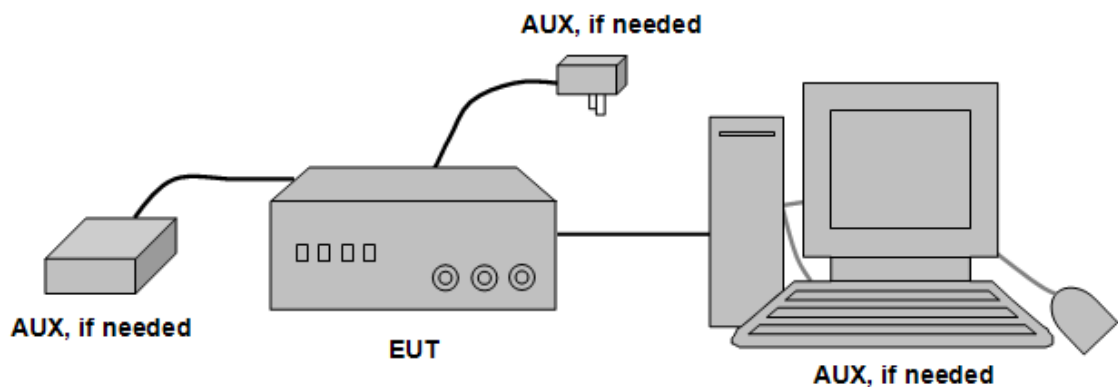
2.3 Special Accessories

As shown in section 2.5, interface cable used for compliance testing is shielded as normally supplied by **SAPPHIRE TECHNOLOGY LIMITED** and its respective support equipment manufacturers.

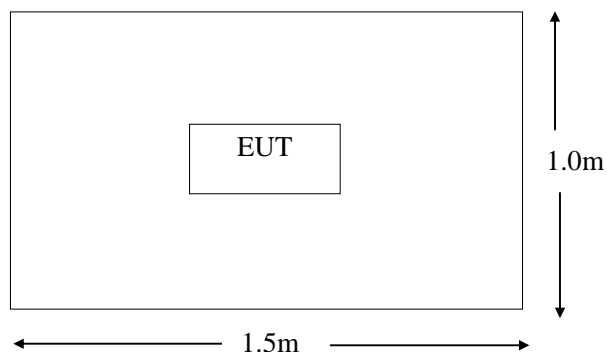
2.4 Equipment Modifications

The EUT tested was not modified by BCT.

2.5 Configuration of Test System



2.6 Test Setup Diagram



3 - DISTURBANCE VOLTAGE AT THE MAINS TERMINALS

3.1 Measurement Uncertainty

All measurements involve certain levels of uncertainties, especially in field of EMC. The factors contributing to uncertainties are spectrum analyzer, cable loss, and LISN.

The Treatment of Uncertainty in EMC Measurements, the best estimate of the uncertainty of any conducted emissions measurement is 3.4 dB.

3.2 Limit of Disturbance Voltage at The Mains Terminals

Frequency Range (MHz)	Limits (dBuV)	
	Quasi-Peak	Average
0.150~0.500	66~56	56~46
0.500~5.000	56	46
5.000~30.00	60	50

Note: (1)The tighter limit shall apply at the edge between two frequency bands.

3.3 EUT Setup

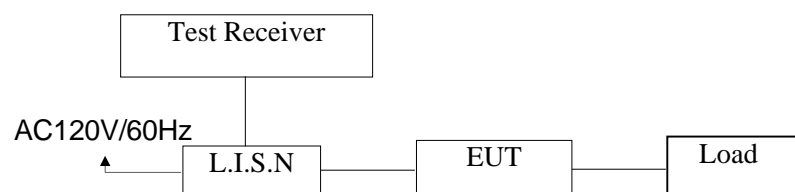
The setup of EUT is according with ANSI C63.4-2009 measurement procedure. The specification used was the FCC Rules and Regulations Part 15 Subpart B limits.

The EUT was placed center and the back edge of the test table.

The AV cables were draped along the test table and bundled to 30-40cm in the middle.

The spacing between the peripherals was 10 cm.

Maximum emission emitted from EUT was determined by manipulating the EUT, support equipment, interconnecting cables and varying the mode of operation and the levels in the final result of the test were recorded with the EUT running in the operating mode that maximum emission was emitted.



3.4 Instrument Setup

The test receiver was set with the following configurations:

Test Receiver Setting:

Frequency Range.....150 KHz to 30 MHz
Detector.....Peak & Quasi-Peak & Average
Sweep Speed.....Auto
IF Band Width.....9 KHz

3.5 Test Procedure

During the conducted emission test, the EUT power cord was connected to the auxiliary outlet of the first Artificial Mains.

Maximizing procedure was performed on the six (6) highest emissions to ensure EUT compliance using all installation combination.

All data was recorded in the peak detection mode. Quasi-peak and Average readings were only performed when an emission was found to be marginal (within -10 dB μ V of specification limits). Quasi-peak readings are distinguished with a "**QP**". Average readings are distinguished with a "**AV**".

3.6 Summary of Test Results

According to the data in section 3.6, the EUT complied with the FCC Part 15 B Conducted margin, with the *worst* margin reading of:

3.7 Disturbance Voltage Test Data

Temperature (°C)	22~25
Humidity (%RH)	50~55
Barometric Pressure (mbar)	950~1000
EUT	Mini PC
M/N	EDGE HD4
Operating Mode	HDMI/VGA

Test data see following pages

Remark: (1) When PK reading is less than relevant limit 20dB, the QP reading and AV reading will not be recorded.
(2) Where QP reading is less than relevant AV limit, the AV reading will not be measured

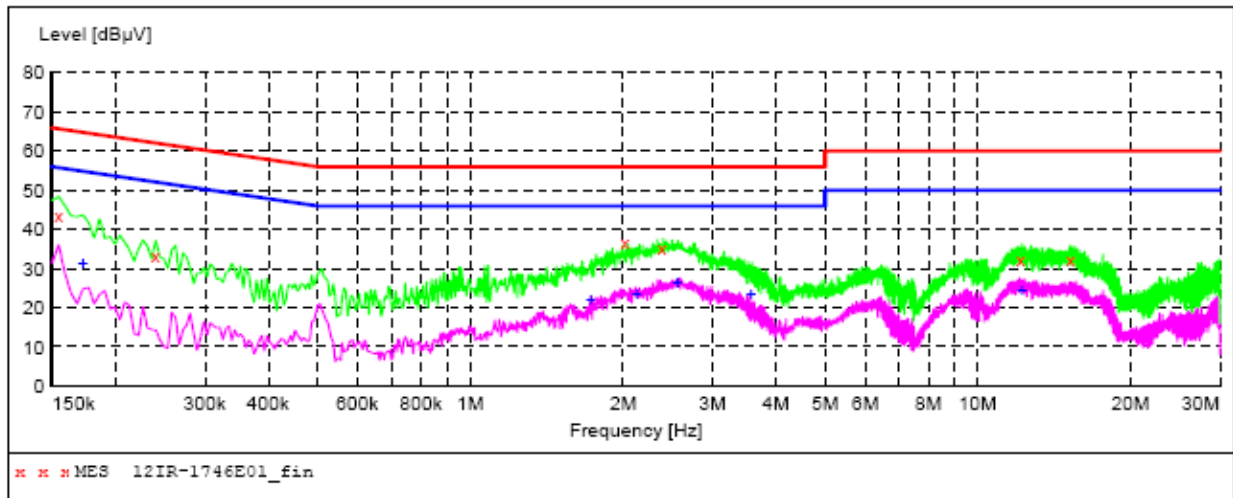
3.8 Test Result

PASS

Conducted Emission:

EUT: Mini PC
M/N: EDGE HD4
Operating Condition: HDMI
Test Site: Shielded Room
Operator: Yang
Test Specification: AC 120V/60Hz for adapter
Comment: L Line

SCAN TABLE: "Voltage (9K-30M)"
Short Description: 150K-30M Voltage



MEASUREMENT RESULT: "12IR-1746E01_fin"

1/10/2013

Frequency MHz	Level dBuV	Transd dB	Limit dBuV	Margin dB	Detector	Line	PE
0.154500	43.40	9.9	66	22.4	QP	L1	GND
0.240000	33.50	10.0	62	28.6	QP	L1	GND
2.017500	36.70	10.5	56	19.3	QP	L1	GND
2.386500	35.10	10.5	56	20.9	QP	L1	GND
12.147000	32.30	10.7	60	27.7	QP	L1	GND
15.238500	32.50	10.8	60	27.5	QP	L1	GND

MEASUREMENT RESULT: "12IR-1746E01_fin2"

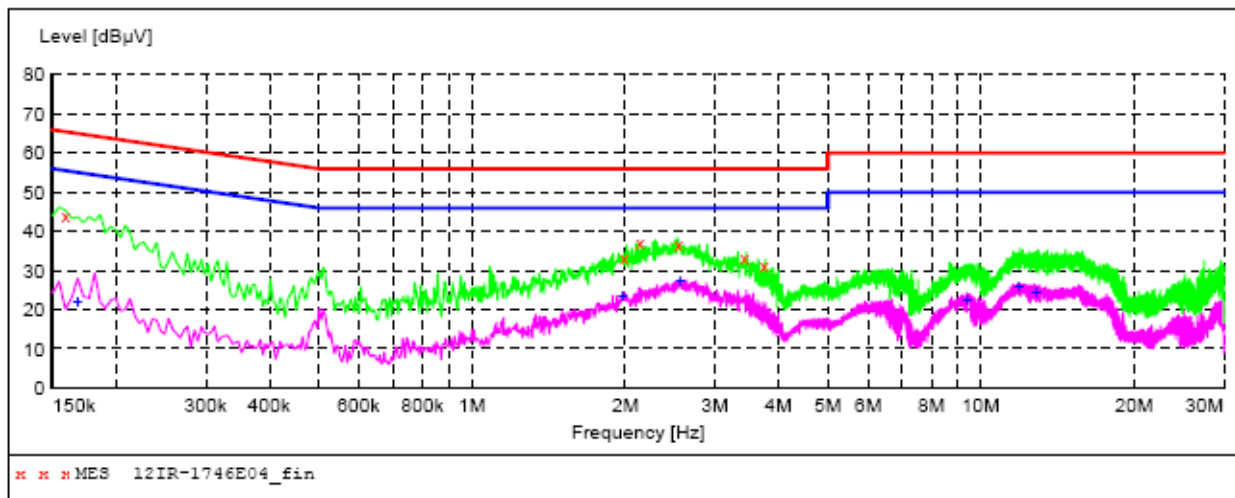
1/10/2013

Frequency MHz	Level dBuV	Transd dB	Limit dBuV	Margin dB	Detector	Line	PE
0.172500	31.60	9.9	55	23.2	AV	L1	GND
1.729500	22.10	10.5	46	23.9	AV	L1	GND
2.130000	23.40	10.5	46	22.6	AV	L1	GND
2.562000	26.50	10.5	46	19.5	AV	L1	GND
3.579000	23.70	10.5	46	22.3	AV	L1	GND
12.219000	24.30	10.7	50	25.7	AV	L1	GND

Conducted Emission:

EUT: Mini PC
M/N: EDGE HD4
Operating Condition: HDMI
Test Site: Shielded Room
Operator: Yang
Test Specification: AC 120V/60Hz for adapter
Comment: N Line

SCAN TABLE: "Voltage (9K-30M)"
Short Description: 150K-30M Voltage



MEASUREMENT RESULT: "12IR-1746E04_fin"

1/10/2013

Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Detector	Line	PE
0.159000	44.00	9.9	66	21.5	QP	N	GND
1.990500	33.40	10.5	56	22.6	QP	N	GND
2.139000	37.30	10.5	56	18.7	QP	N	GND
2.548500	36.70	10.5	56	19.3	QP	N	GND
3.435000	33.50	10.5	56	22.5	QP	N	GND
3.759000	31.20	10.5	56	24.8	QP	N	GND

MEASUREMENT RESULT: "12IR-1746E04_fin2"

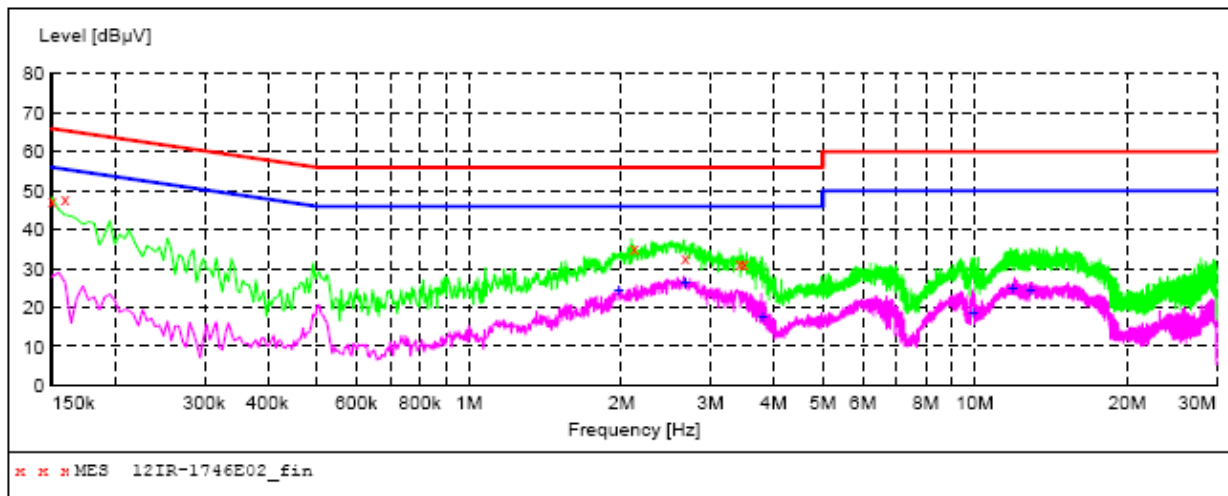
1/10/2013

Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Detector	Line	PE
0.168000	22.30	9.9	55	32.8	AV	N	GND
1.977000	23.40	10.5	46	22.6	AV	N	GND
2.566500	27.30	10.5	46	18.7	AV	N	GND
9.388500	22.70	10.7	50	27.3	AV	N	GND
11.890500	25.90	10.7	50	24.1	AV	N	GND
12.853500	24.70	10.7	50	25.3	AV	N	GND

Conducted Emission:

EUT: Mini PC
M/N: EDGE HD4
Operating Condition: VGA
Test Site: Shielded Room
Operator: Yang
Test Specification: AC 120V/60Hz for adapter
Comment: L Line

SCAN TABLE: "Voltage (9K-30M)"
Short Description: 150K-30M Voltage



MEASUREMENT RESULT: "12IR-1746E02_fin"

1/10/2013

Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Detector	Line	PE
0.150000	47.50	9.9	66	18.5	QP	L1	GND
0.159000	47.90	9.9	66	17.6	QP	L1	GND
2.121000	35.20	10.5	56	20.8	QP	L1	GND
2.679000	32.80	10.5	56	23.2	QP	L1	GND
3.439500	31.30	10.5	56	24.7	QP	L1	GND
3.498000	31.60	10.5	56	24.4	QP	L1	GND

MEASUREMENT RESULT: "12IR-1746E02_fin2"

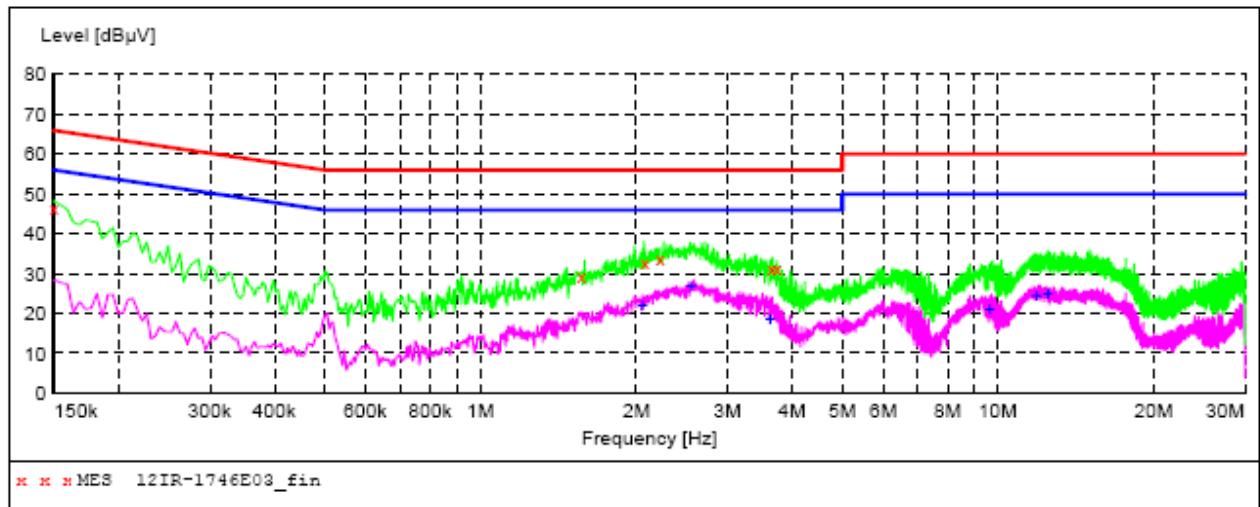
1/10/2013

Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Detector	Line	PE
1.977000	24.40	10.5	46	21.6	AV	L1	GND
2.679000	26.50	10.5	46	19.5	AV	L1	GND
3.808500	17.50	10.5	46	28.5	AV	L1	GND
9.910500	18.50	10.7	50	31.5	AV	L1	GND
11.886000	24.80	10.7	50	25.2	AV	L1	GND
12.871500	24.60	10.7	50	25.4	AV	L1	GND

Conducted Emission:

EUT: Mini PC
M/N: EDGE HD4
Operating Condition: VGA
Test Site: Shielded Room
Operator: Yang
Test Specification: AC 120V/60Hz for adapter
Comment: N Line

SCAN TABLE: "Voltage (9K-30M)"
Short Description: 150K-30M Voltage



MEASUREMENT RESULT: "12IR-1746E03_fin"

1/10/2013

Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Detector	Line	PE
0.150000	46.40	9.9	66	19.6	QP	N	GND
1.567500	29.50	10.5	56	26.5	QP	N	GND
2.080500	32.60	10.5	56	23.4	QP	N	GND
2.224500	33.90	10.5	56	22.1	QP	N	GND
3.651000	31.30	10.5	56	24.7	QP	N	GND
3.741000	31.50	10.5	56	24.5	QP	N	GND

MEASUREMENT RESULT: "12IR-1746E03_fin2"

1/10/2013

Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Detector	Line	PE
2.058000	22.10	10.5	46	23.9	AV	N	GND
2.557500	26.70	10.5	46	19.3	AV	N	GND
3.624000	18.80	10.5	46	27.2	AV	N	GND
9.649500	21.00	10.7	50	29.0	AV	N	GND
11.886000	24.30	10.7	50	25.7	AV	N	GND
12.502500	24.80	10.7	50	25.2	AV	N	GND

4 - RADIATED DISTURBANCES

4.1 Measurement Uncertainty

All measurements involve certain levels of uncertainties, especially in field of EMC. The factors contributing to uncertainties are spectrum analyzer, cable loss, antenna factor calibration, antenna directivity, antenna factor variation with height, antenna phase center variation, antenna factor frequency interpolation, measurement distance variation, site imperfections, mismatch (average), and system repeatability.

The Treatment of Uncertainty in EMC Measurements, the best estimate of the uncertainty of a radiation emissions measurement is 4.0 dB.

4.2 Limit of Radiated Disturbances

Frequency (MHz)	Distance (Meters)	Field Strengths Limits (dB μ V/m)
30 ~ 88	3	40
88~216	3	43.5
216 ~ 960	3	46
960 ~ 1000	3	54

Note: (1) The tighter limit shall apply at the edge between two frequency bands.

(2) Distance refers to the distance in meters between the test instrument antenna and the closest point of any part of the E.U.T.

4.3 EUT Setup

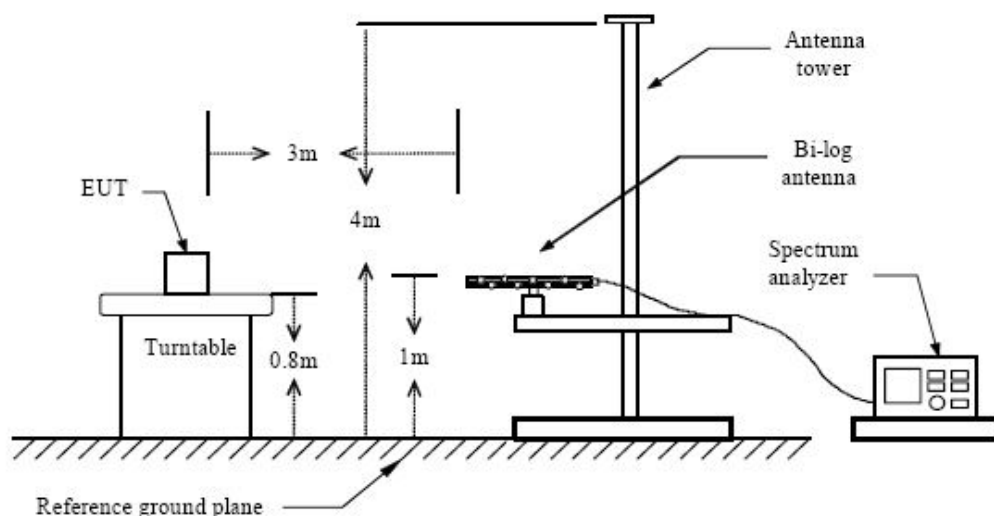
The radiated emission tests were performed in the in the 3-meter anechoic chamber, using the setup accordance with the ANSI C63.4-2009. The specification used was the FCC Part 15 Subpart B limits.

The EUT was placed on the center of the test table.

Maximum emission emitted from EUT was determined by manipulating the EUT, support equipment, interconnecting cables and varying the mode of operation and the levels in the final result of the test were recorded with the EUT running in the operating mode that maximum emission was emitted.

Block diagram of test setup (In chamber)

Below 1 GHz



4.4 Test Receiver Setup

According to FCC Part 15 rule, the frequency was investigated from 30 to 1000 MHz. During the radiated emission test, the test receiver was set with the following configurations:

Test Receiver Setting:

Detector.....Peak & Quasi-Peak
IF Band Width.....120KHz
Frequency Range.....30MHz to 1000MHz
Turntable Rotated.....0 to 360 degrees

Antenna Position:

Height.....1m to 4m
Polarity.....Horizontal and Vertical

4.5 Test Procedure

Maximizing procedure was performed on the highest emissions to ensure that the EUT complied with all installation combinations.

All data was recorded in the peak detection mode. Quasi-peak readings performed only when an emission was found to be marginal (within -10 dB μ V of specification limits), and are distinguished with a "QP" in the data table.

4.6 Corrected Amplitude & Margin Calculation

The Corrected Amplitude is calculated by adding the Antenna Factor and Cable Factor, and subtracting the Amplifier Gain from the Amplitude reading. The basic equation is as follows:

$$\text{Corr. Ampl.} = \text{Indicated Reading} + \text{Antenna Factor} + \text{Cable Factor} - \text{Amplifier Gain}$$

The "**Margin**" column of the following data tables indicates the degree of compliance with the applicable limit. For example, a margin of -7dB μ V means the emission is 7dB μ V below the maximum limit for Subpart B. The equation for margin calculation is as follows:

$$\text{Margin} = \text{Limit} - \text{Corr. Ampl.}$$

4.7 Radiated Emissions Test Result

Temperature (°C)	22~25
Humidity (%RH)	50~54
Barometric Pressure (mbar)	950~1000
EUT	Mini PC
M/N	EDGE HD4
Operating Mode	HDMI/VGA

Test data see following pages

Remark: (1) When PK reading is less than relevant limit 20dB, the QP reading and AV reading will not be recorded.
(2) Where QP reading is less than relevant AV limit, the AV reading will not be measured

4.8 Test Result

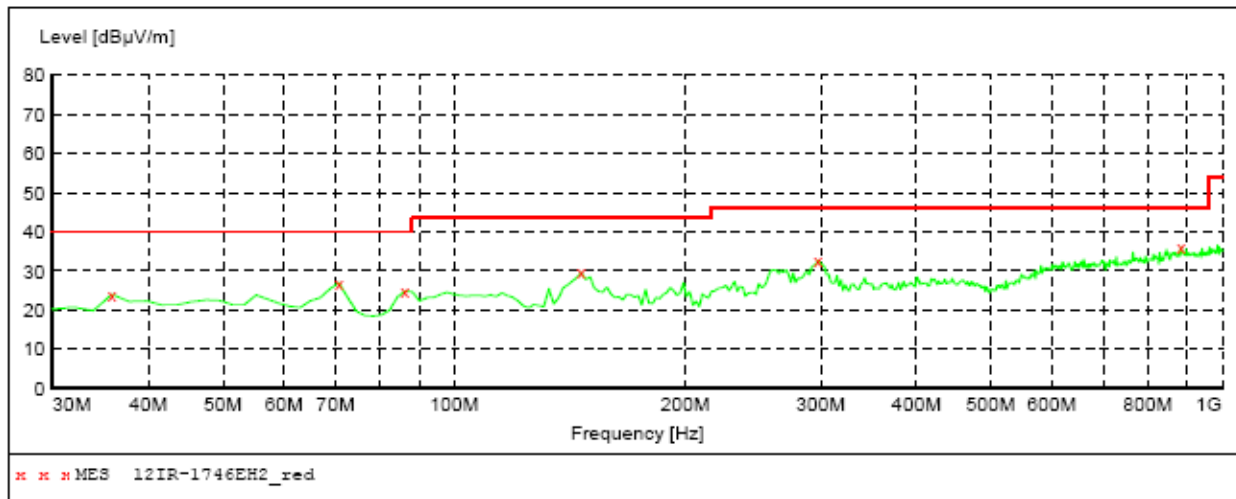
PASS

Radiated Emission Test Data:

EUT: Mini PC
M/N: EDGE HD4
Operating Condition: HDMI
Test Site: 3m CHAMBER
Operator: Chen
Test Specification: AC 120V/60Hz for adapter
Comment: Polarization: Horizontal

SWEEP TABLE: "test (30M-1G)"

Start	Stop	Detector	Meas.	IF	Transducer
Frequency	Frequency		Time	Bandw.	
30.0 MHz	1.0 GHz	MaxPeak	Coupled	100 kHz	VULB9163 NEW T



MEASUREMENT RESULT: "12IR-1746EH2_red"

1/11/2013

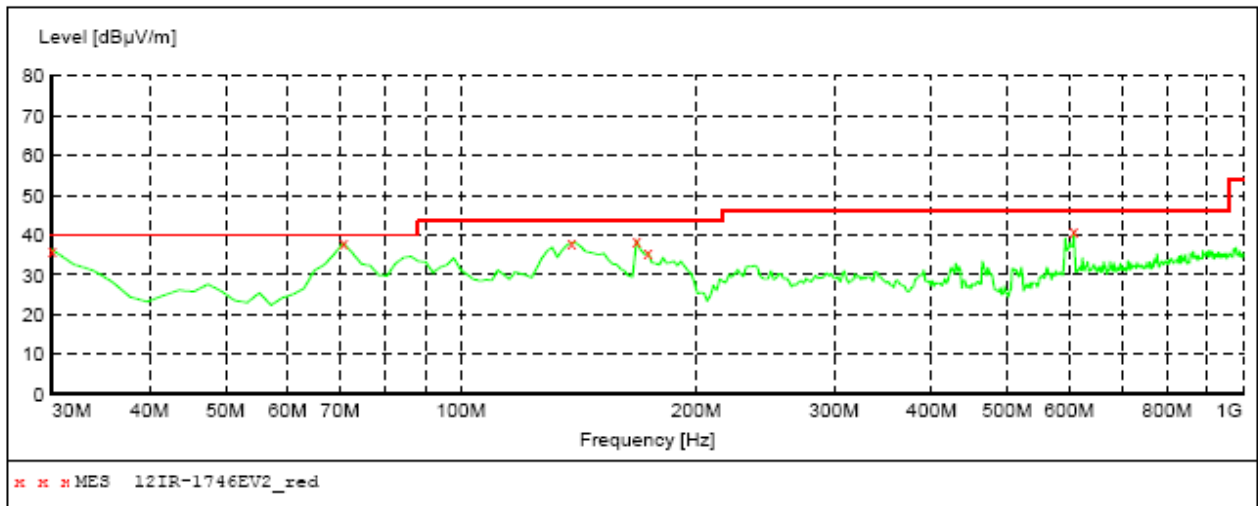
Frequency MHz	Level dBuV/m	Transd dB	Limit dBuV/m	Margin dB	Det.	Height cm	Azimuth deg	Polarization
35.820000	24.00	14.7	40.0	16.0	QP	100.0	0.00	HORIZONTAL
70.740000	27.00	12.4	40.0	13.0	QP	100.0	0.00	HORIZONTAL
86.260000	24.90	14.8	40.0	15.1	QP	100.0	0.00	HORIZONTAL
146.400000	29.60	12.3	43.5	13.9	QP	100.0	0.00	HORIZONTAL
297.720000	32.80	18.7	46.0	13.2	QP	100.0	0.00	HORIZONTAL
883.600000	36.10	29.0	46.0	9.9	QP	100.0	0.00	HORIZONTAL

Radiated Emission Test Data:

EUT: Mini PC
M/N: EDGE HD4
Operating Condition: HDMI
Test Site: 3m CHAMBER
Operator: Chen
Test Specification: AC 120V/60Hz for adapter
Comment: Polarization: Vertical

SWEEP TABLE: "test (30M-1G)"

Short Description:		Field Strength			
Start	Stop	Detector	Meas. Time	IF Bandw.	Transducer
Frequency	Frequency				
30.0 MHz	1.0 GHz	MaxPeak	Coupled	100 kHz	VULB9163 NEW T



MEASUREMENT RESULT: "12IR-1746EV2_red"

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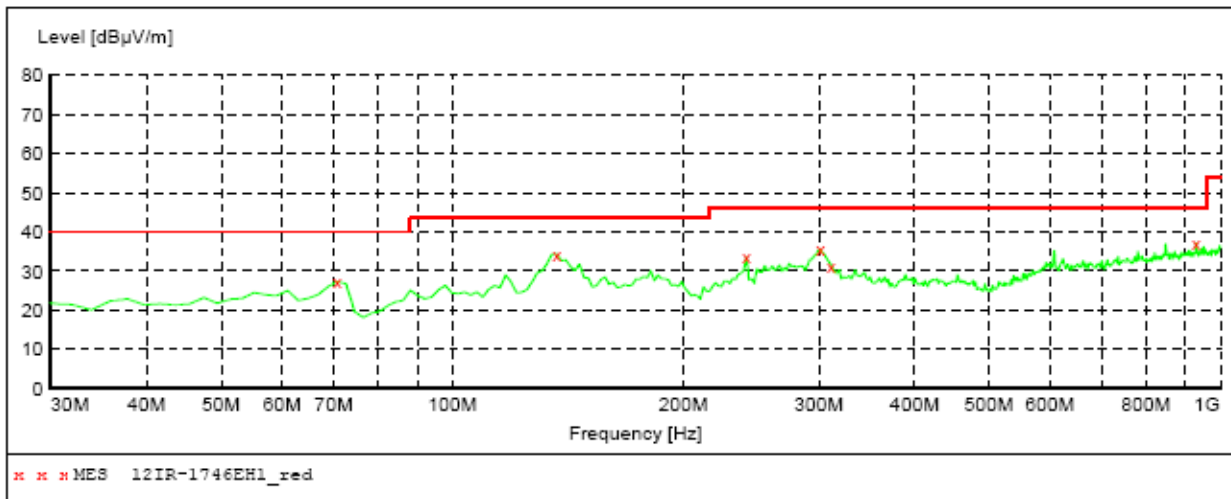
Frequency MHz	Level dBμV/m	Transd dB	Limit dBμV/m	Margin dB	Det.	Height cm	Azimuth deg	Polarization
30.000000	36.30	14.3	40.0	3.7	QP	100.0	0.00	VERTICAL
70.740000	37.00	12.4	40.0	3.0	QP	100.0	0.00	VERTICAL
138.640000	38.10	12.4	43.5	5.4	QP	100.0	0.00	VERTICAL
167.740000	38.70	13.0	43.5	4.8	QP	100.0	0.00	VERTICAL
173.560000	35.60	13.4	43.5	7.9	QP	100.0	0.00	VERTICAL
608.120000	40.80	26.0	46.0	5.2	QP	100.0	0.00	VERTICAL

Radiated Emission Test Data:

EUT: Mini PC
M/N: EDGE HD4
Operating Condition: VGA
Test Site: 3m CHAMBER
Operator: Chen
Test Specification: AC 120V/60Hz for adapter
Comment: Polarization: Horizontal

SWEEP TABLE: "test (30M-1G)"

Short Description:		Field Strength			
Start	Stop	Detector	Meas.	IF	Transducer
Frequency	Frequency		Time	Bandw.	
30.0 MHz	1.0 GHz	MaxPeak	Coupled	100 kHz	VULB9163 NEW T



MEASUREMENT RESULT: "12IR-1746EH1_red"

1/11/2013

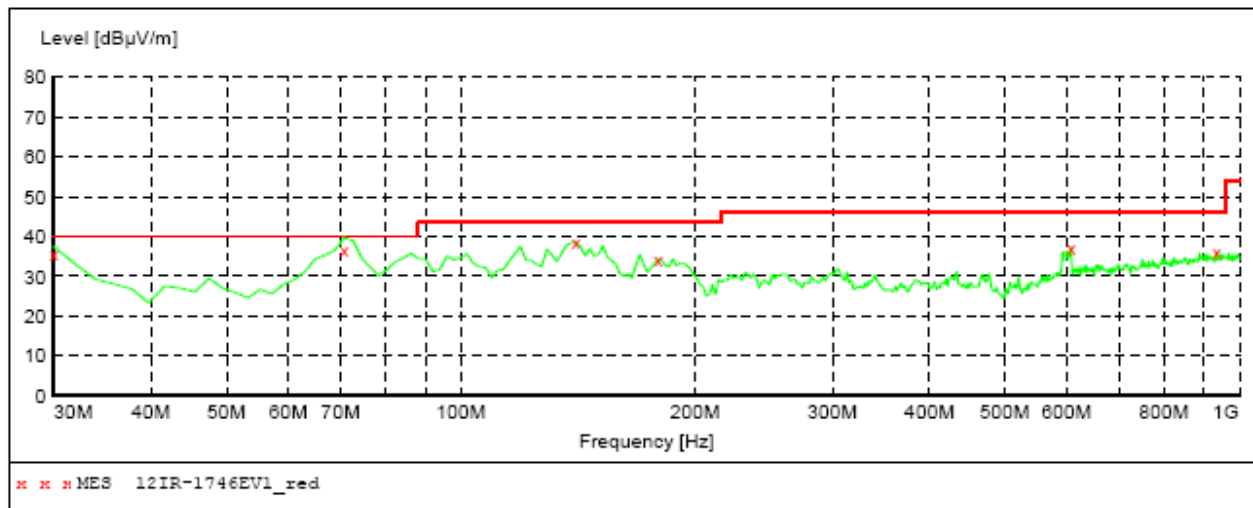
Frequency MHz	Level dBuV/m	Transd dB	Limit dBuV/m	Margin dB	Det.	Height cm	Azimuth deg	Polarization
70.740000	27.40	12.4	40.0	12.6	QP	100.0	0.00	HORIZONTAL
136.700000	34.30	12.5	43.5	9.2	QP	100.0	0.00	HORIZONTAL
241.460000	33.60	17.0	46.0	12.4	QP	100.0	0.00	HORIZONTAL
301.600000	35.50	18.8	46.0	10.5	QP	100.0	0.00	HORIZONTAL
311.300000	31.40	19.0	46.0	14.6	QP	100.0	0.00	HORIZONTAL
930.160000	37.20	29.4	46.0	8.8	QP	100.0	0.00	HORIZONTAL

Radiated Emission Test Data:

EUT: Mini PC
M/N: EDGE HD4
Operating Condition: VGA
Test Site: 3m CHAMBER
Operator: Chen
Test Specification: AC 120V/60Hz for adapter
Comment: Polarization: Vertical

SWEEP TABLE: "test (30M-1G)"

Short Description:		Field Strength			
Start	Stop	Detector	Meas. Time	IF Bandw.	Transducer
Frequency	Frequency				
30.0 MHz	1.0 GHz	MaxPeak	Coupled	100 kHz	VULB9163 NEW T



MEASUREMENT RESULT: "12IR-1746EV1_red"

1/11/2013

Frequency MHz	Level dBµV/m	Transd dB	Limit dBµV/m	Margin dB	Det.	Height cm	Azimuth deg	Polarization
30.000000	35.40	14.3	40.0	4.6	QP	100.0	0.00	VERTICAL
70.740000	36.60	12.4	40.0	3.4	QP	100.0	0.00	VERTICAL
140.580000	38.70	12.3	43.5	4.8	QP	100.0	0.00	VERTICAL
179.380000	34.40	13.8	43.5	9.1	QP	100.0	0.00	VERTICAL
608.120000	37.30	26.0	46.0	8.7	QP	100.0	0.00	VERTICAL
935.980000	36.20	29.5	46.0	9.8	QP	100.0	0.00	VERTICAL