

**AT4 wireless S.A.**

Parque Tecnológico de Andalucía,  
 c/ Severo Ochoa nº 2  
 29590 Campanillas/ Málaga/ España  
 Tel. 952 61 91 00 - Fax 952 61 91 13  
 MÁLAGA, C.I.F. A29 507 456  
 Registro Mercantil Tomo 3693 Libro 2604  
 Folio 174 Hoja MA3729

**TEST REPORT**

**REFERENCE STANDARD: FCC Rules and Regulations 47 CFR Part 15, Subpart B**  
**FCC Rules and Regulations 47 CFR Part 15, Subpart B: Limits and methods of measurements**  
**for radio frequency devices. Unintentional radiators.**

<b>NIE</b> ..... :	29994REM.002
Approved by (name / position & signature) .....	Rafael López EMC Manager
Elaboration date .....	2009-07-08
<b>Identification of item tested</b> .....	GSM/UMTS phone
Trademark .....	No provided data
Model and/or type reference .....	P7000
Serial number .....	IMEI TAC: 01203300 FCC ID: JYCP7000 HW version: 1.0 SW version: 08102009(SV:10)
Description .....	GSM/UMTS phone with Bluetooth and USB connection to PC.
<b>Applicant</b> .....	Pantech Co., Ltd.
Address.....	Pantech Bldg, 1-2, DMC, Sangam-dong, Mapogo. P.C.: 121-792 Seoul. Korea.
CIF/NIF/Passport.....	No provided data
Contact person.....	Mr. B.W. Kim
Telephone / Fax .....	+82-(0)2-2030-1200 / +82-(0)2-2030-2519
e-mail: .....	No provided data

<b>Test samples supplier</b> .....	Pantech Co., Ltd.
Address.....	Pantech Bldg, 1-2, DMC, Sangam-dong, Mapogo. P.C.: 121-792 Seoul. Korea.
CIF/NIF/Passport .....	No provided data
Contact person:.....	Mr. B.W. Kim
Telephone / Fax .....	+82-(0)2-2030-1200 / +82-(0)2-2030-2519
e-mail: .....	No provided data
<b>Manufacturer</b> .....	Pantech Co., Ltd.
Address.....	Pantech Bldg, 1-2, DMC, Sangam-dong, Mapogo. P.C.: 121-792 Seoul. Korea.
CIF/NIF/Passport .....	No provided data
Telephone / Fax .....	+82-(0)2-2030-1200 / +82-(0)2-2030-2519
<b>Test method requested</b> .....	
Standard .....	FCC Rules and Regulations 47 CFR Part 15
Test procedure.....	PEEM003; PEEM004.
Non-standardized test method .....	N/A
<b>Report template No.</b> .....	FDT08_11
IMPORTANT: No parts of this report may be reproduced or quoted out of context, in any form or by any means, except in full, without the previous written permission of AT4 wireless S.A.	

## INDEX

Competences and guarantees .....	4
General conditions .....	4
Uncertainty.....	4
Usage of samples.....	5
Testing period .....	5
Environmental conditions .....	6
Summary .....	7
Remarks and comments .....	7
Testing verdicts .....	7
APPENDIX A: Test result .....	41 Pages
APPENDIX B: Pictures .....	2 Pages

## Competences and guarantees

This certificate of conformity was issued in accordance with the decision N° 3/2000 of the Joint Committee established under the Agreement on Mutual Recognition between the European Community and the United States of America. By this decision, AT4 wireless can act as Conformity Assessment Body (CAB) on Electromagnetic Compatibility. This Certificate applies to the samples listed at technical reports.

This laboratory is designed by the Federal Communications Commission (ES0004)

AT4 wireless is a testing laboratory competent to carry out the tests described in this report.

In order to assure the traceability to other national and international laboratories, AT4 wireless has a calibration and maintenance programme for its measurement equipment.

AT4 wireless guarantees the reliability of the data presented in this report, which is the result of the measurements and the tests performed to the item under test on the date and under the conditions stated on the report and, it is based on the knowledge and technical facilities available at AT4 wireless at the time of performance of the test.

AT4 wireless is liable to the client for the maintenance of the confidentiality of all information related to the item under test and the results of the test.

## General conditions

1. This report is only referred to the item that has undergone the test.
2. This report does not constitute or imply on its own an approval of the product by the Certification Bodies or competent Authorities.
3. This document is only valid if complete; no partial reproduction can be made without previous written permission of AT4 wireless.
4. This test report cannot be used partially or in full for publicity and/or promotional purposes without previous written permission of AT4 wireless and the Accreditation Bodies.

## Uncertainty

Uncertainty (factor  $k=2$ ) was calculated according to the following AT4 wireless's internal documents: PODT000; FEM12; FEM13; FET68.

### Usage of samples

Samples undergoing test have been selected by: Pantech Co., Ltd.

Sample S/01 is composed of the following elements:

<u>Control N°</u>	<u>Description</u>	<u>Manufacturer</u>	<u>Model</u>	<u>Serial N°</u>	<u>Date of reception</u>
29994/31	Mobile phone	Pantech Co., Ltd.	P7000	0910151	2009-06-29
29994/23	Battery	Pantech Co., Ltd.	PBR-55B	DC09052113D8	2009-06-18
29994/32	Phone cover	Pantech Co., Ltd.	---	---	2009-06-29
29994/08	AC/DC Adapter	Pantech Co., Ltd.	PTA-5070C9US	MS0843054589A	2009-06-17

Sample S/02 is composed of the following elements:

<u>Control N°</u>	<u>Description</u>	<u>Manufacturer</u>	<u>Model</u>	<u>Serial N°</u>	<u>Date of reception</u>
29994/31	Mobile phone	Pantech Co., Ltd.	P7000	0910151	2009-06-29
29994/23	Battery	Pantech Co., Ltd.	PBR-55B	DC09052113D8	2009-06-18
29994/32	Phone cover	Pantech Co., Ltd.	---	---	2009-06-29
29994/35	USB Data cable	Pantech Co., Ltd.	PDC-UA16Hs	---	2009-06-29

The sample S/02 is the same than the sample S/01 replacing the AC/DC adapter by an USB cable to provide the power supply input to the mobile phone.

### Testing period

The performed test started on 2009-06-30 and finished on 2009-07-07.

The tests have been performed at AT4 wireless.

## Environmental conditions

In the control chamber, the following limits were not exceeded during the test:

Temperature	Min. = 15 °C Max. = 35 °C
Relative humidity	Min. = 20 % Max. = 80 %
Shielding effectiveness	> 100 dB
Electric insulation	> 10 k $\Omega$
Reference resistance to earth	< 0,5 $\Omega$

In the semianechoic chamber (21 meters x 11 meters x 8 meters), the following limits were not exceeded during the test.

Temperature	Min. = 15 °C Max. = 30 °C
Relative humidity	Min. = 45 % Max. = 60 %
Air pressure	Min. = 860 mbar Max. = 1060 mbar
Shielding effectiveness	> 100 dB
Electric insulation	> 10 k $\Omega$
Reference resistance to earth	< 0,5 $\Omega$
Normal site attenuation (NSA)	< $\pm 4$ dB at 10 m distance between item under test and receiver antenna, (30 MHz to 1000 MHz)
Field homogeneity	More than 75% of illuminated surface is between 0 and 6 dB (26 MHz to 1000 MHz).

In the chamber for conducted measurements, the following limits were not exceeded during the test:

Temperature	Min. = 15 °C Max. = 30 °C
Relative humidity	Min. = 45 % Max. = 60 %
Air pressure	Min. = 860 mbar Max. = 1060 mbar
Shielding effectiveness	> 100 dB
Electric insulation	> 10 k $\Omega$
Reference resistance to earth	< 0,5 $\Omega$

### Summary

Considering the results of the performed test according to standard **FCC Rules and Regulations 47 CFR Part 15, Subpart B** the items under test are **IN COMPLIANCE** with the requested specifications specified in the standard.

NOTE: The results presented in this Test Report apply only to the particular item under test established in page 1 of this document, as presented for test on the date(s) shown in section, "USAGE OF SAMPLES, TESTING PERIOD AND ENVIRONMENTAL CONDITIONS".

### Remarks and comments

The tests have been realized by the technical personnel: José Carlos Luque & Jose Manuel Marquez, Antonio Ruiz & Margarita Haro.

The total uncertainty of the measurement system for the measured radio disturbance characteristics of EUT from 150 kHz to 30 MHz is  $I = \pm 3,60$  dB for quasi-peak measurements,  $I = \pm 3,48$  dB for peak measurements ( $k = 2$ ).

The total uncertainty of the measurement system for the measured radio disturbance characteristics of EUT from 30 MHz to 1 GHz is  $I = \pm 4,57$  dB for quasi-peak measurements,  $I = \pm 3,48$  dB for peak measurements ( $k = 2$ ) and from 1 to 12,75 GHz is  $I = \pm 3,43$  dB for average measurements.

### Testing verdicts

Not applicable .....: NA  
Pass.....: P  
Fail .....: F  
Not measured.....: NM

# APPENDIX A

## Test Result

### APPENDIX A CONTENT:

DESCRIPTION OF THE OPERATION MODES.....	9
RADIATED EMISSION. ELECTROMAGNETIC FIELD MEASURE. ....	10
CONTINUOUS CONDUCTED EMISSION ON POWER LEADS .....	27



## DESCRIPTION OF THE OPERATION MODES

The operation modes described in this paragraph constitute a functionality of the sample under test for himself. Every operation mode takes a failure criteria for the immunity test that they were applying to it and a monitoring to guarantee performance of the same ones.

In the following table appears the operation modes used by the samples tested to that it refers the present test report.

OPERATION MODE	DESCRIPTION
OM#01	EUT ON. IDLE 850 MHz. Charging batteries.
OM#02	EUT ON. TCH 850 MHz. Charging batteries.
OM#03	EUT ON. IDLE 1900 MHz. Charging batteries.
OM#04	EUT ON. TCH 1900 MHz. Charging batteries.
OM#05	EUT ON. Bluetooth activated. Charging batteries.
OM#06	EUT ON. Bluetooth in transmission mode. Charging batteries
OM#07	EUT ON. IDLE 850 MHz. Charging batteries by means of the USB cable.
OM#08	EUT ON. TCH 850 MHz. Charging batteries by means of the USB cable.
OM#09	EUT ON. IDLE 1900 MHz. Charging batteries by means of the USB cable.
OM#10	EUT ON. TCH 1900 MHz. Charging batteries by means of the USB cable.
OM#11	EUT ON. Bluetooth activated. Charging batteries by means of the USB cable.
OM#12	EUT ON. Bluetooth in transmission mode. Charging batteries by means of the USB cable.

**RADIATED EMISSION. ELECTROMAGNETIC FIELD MEASURE.**

<b>LIMITS:</b>	Product standard :	FCC RULES AND REGULATIONS 47 CFR PART 15, SUBPART B.
	Test standard :	Part 15, Subpart B of FCC Rules.

**LIMITS OF INTERFERENCE CLASS B**

The applied limit for radiated emissions, 3 m distance, according with the requirements of FCC Rules and Regulations 47 CFR Part 15, Subpart B in the frequency range 30 MHz to 1 GHz, for Class B equipment, which is a transmitter in a band over 500 MHz, was:

Frequency range (MHz)	Limit for 3 m (µV/m)	Limit for 3 m (dBµV/m)
30 to 88	100	40
88 to 216	150	43,52
216 to 960	200	46,02
Above 960	500	53,98

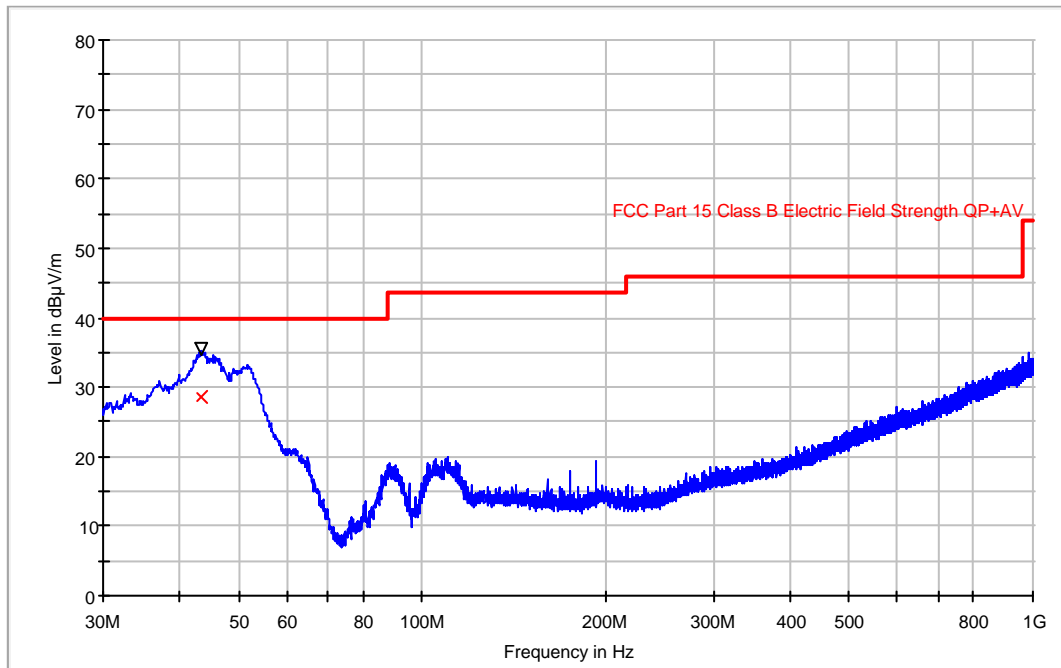
<b>TESTED SAMPLES:</b>	S/01 & S/02
<b>TESTED OPERATION MODES:</b>	OM#01; 02; 03; 07; 09 & 11.
<b>TEST RESULTS :</b>	CRmmnn: CR, Condición de Radiación; mm: Sample number; nn: Operation mode.

CRmmnn	Description	Result
CR0101	30 MHz - 1000 MHz	P
CR0103	30 MHz - 1000 MHz	P
CR0205	30 MHz - 1000 MHz	P
CR0207	30 MHz - 1000 MHz	P
CR0209	30 MHz - 1000 MHz	P
CR0211	30 MHz - 1000 MHz	P
CR0101	1 GHz – 12,5 GHz	P
CR0103	1 GHz – 12,5 GHz	P
CR0207	1 GHz – 12,5 GHz	P
CR0209	1 GHz – 12,5 GHz	P
CR0211	1 GHz – 12,5 GHz	P

**Radiated Emission: CR0101 (30MHz to 1GHz)**

Project: 29994REM.002  
 Company: ETS KOREA  
 Sample: S/01  
 Operation Mode: OM#01  
 Date: 2009-07-02 21:10  
 Setup: EMI radiated  
 Mode: EUT ON. IDLE 850MHz. Charging battery.

**FCC class B Bilog Hibrida**



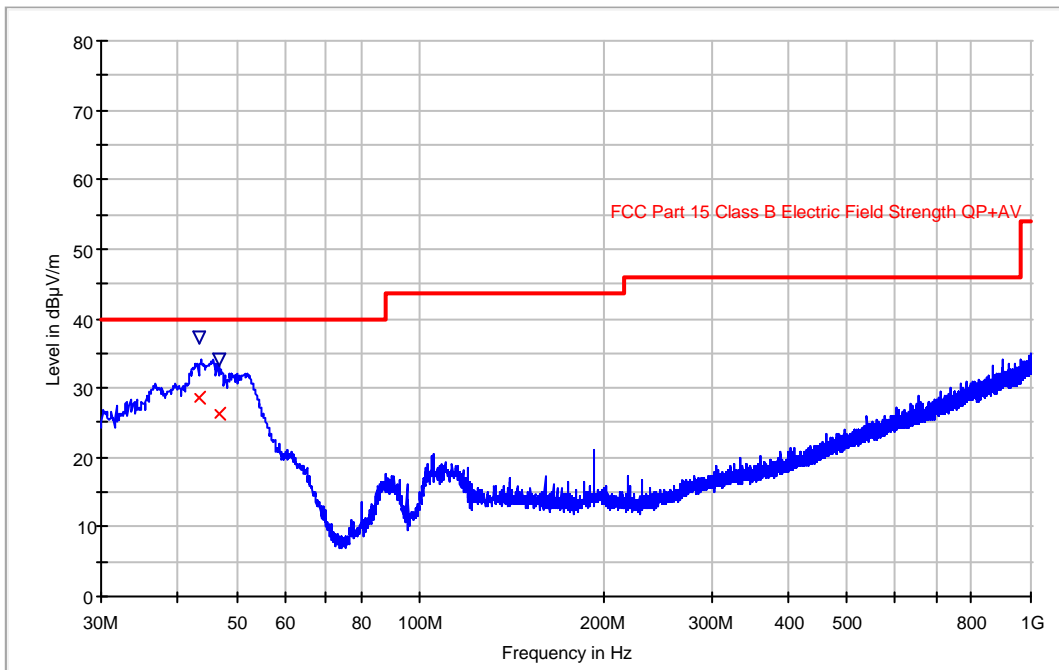
**Maximizadas**

Frequency (MHz)	QuasiPeak (dBµV/m)	MaxPeak (dBµV/m)	Antenna height (cm)	Polarity	Turntable position (deg)
43.332866	28.7	35.4	133.00	V	15.0

**Radiated Emission: CR0103 (30MHz to 1GHz)**

Project: 29994REM.002  
 Company: ETS KOREA  
 Sample: S/01  
 Operation Mode: OM#03  
 Date: 2009-07-03 08:25  
 Setup: EMI radiated  
 Mode: EUT ON. IDLE 1900MHz. Charging battery.

**FCC class B Bilog Hibrida**



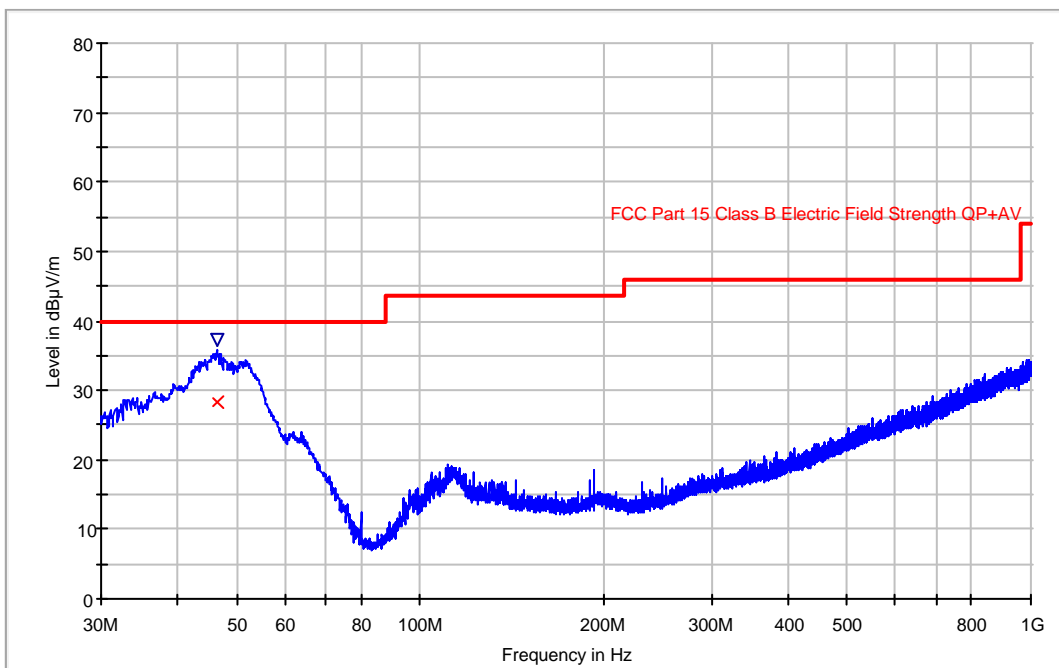
**Maximized**

Frequency (MHz)	QuasiPeak (dBµV/m)	MaxPeak (dBµV/m)	Antenna height (cm)	Polarity	Turntable position (deg)
43.556513	28.5	37.3	100.00	V	230.0
46.853507	26.4	34.1	116.00	V	62.0

**Radiated Emission: CR0205 (30MHz to 1GHz)**

Project: 29994REM.002  
 Company: ETS Korea  
 Sample: S/02  
 Operation Mode: OM#05  
 Date: 2009-07-06 19:30  
 Setup: EMI radiated  
 Mode: EUT ON. Bluetooth mode. Charging battery.

**FCC class B Bilog Hibrida**



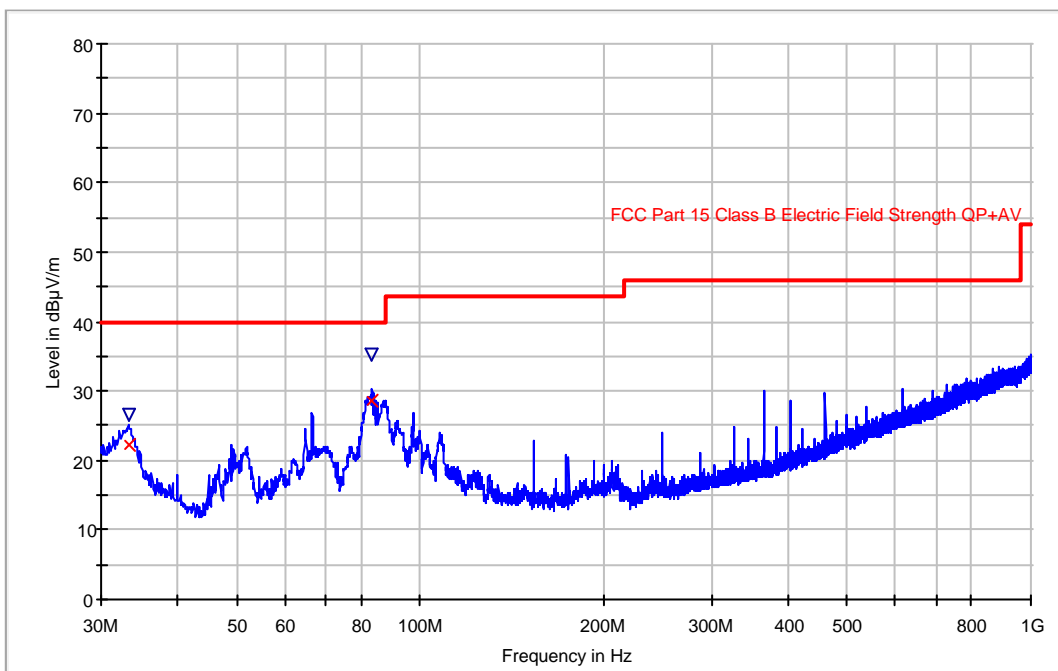
**Maximized**

Frequency (MHz)	QuasiPeak (dBµV/m)	MaxPeak (dBµV/m)	Antenna height (cm)	Polarity	Turntable position (deg)
46.541283	28.2	37.3	113.00	V	325.0

**Radiated Emission: CR0207 (30MHz to 1GHz)**

Project: 29994REM.002  
 Company: ETS Korea  
 Sample: S/02  
 Operation Mode: OM#07  
 Date: 2009-07-06 15:22  
 Setup: EMI radiated  
 Mode: EUT ON. IDLE 850MHz. Charging battery.

**FCC class B Bilog Hibrida**



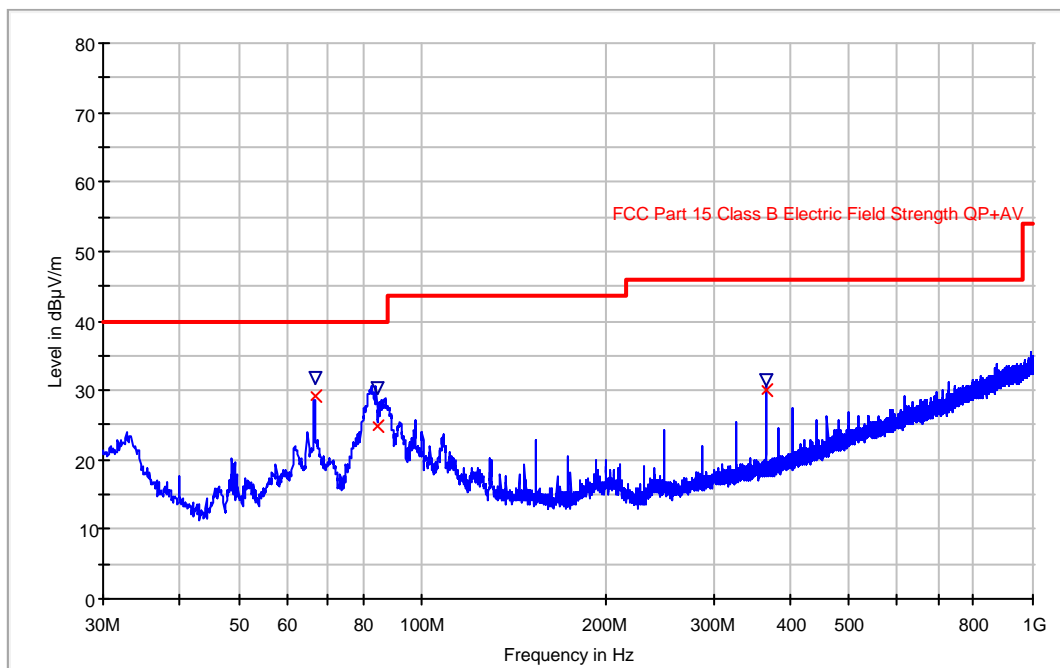
**Maximized**

Frequency (MHz)	QuasiPeak (dBµV/m)	MaxPeak (dBµV/m)	Antenna height (cm)	Polarity	Turntable position (deg)
33.353106	22.1	26.6	110.00	V	5.0
83.472946	28.7	35.2	113.00	V	145.0

**Radiated Emission: CR0209 (30MHz to 1GHz)**

Project: 29994REM.002  
 Company: ETS Korea  
 Sample: S/02  
 Operation Mode: OM#09  
 Date: 2009-07-06 15:56  
 Setup: EMI radiated  
 Mode: EUT ON. IDLE 1900MHz. Charging battery.

**FCC class B Bilog Hibrida**



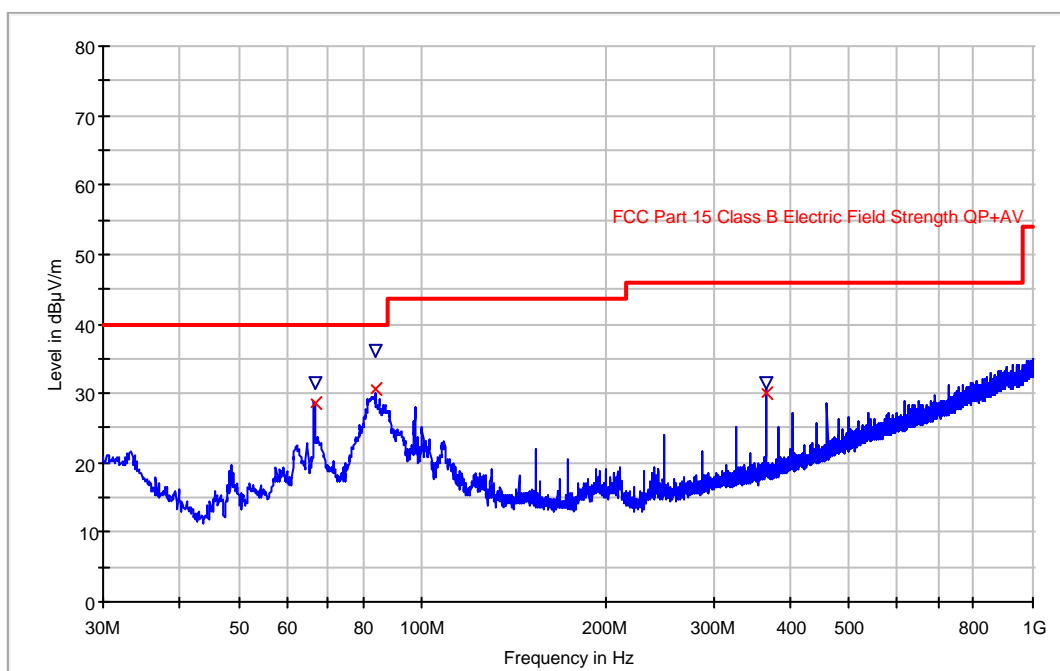
**Maximized**

Frequency (MHz)	QuasiPeak (dBµV/m)	MaxPeak (dBµV/m)	Antenna height (cm)	Polarity	Turntable position (deg)
66.735471	29.1	31.7	98.00	V	141.0
84.355511	24.9	30.3	123.00	V	28.0
364.803006	29.9	31.6	143.00	V	271.0

**Radiated Emission: CR0211 (30MHz to 1GHz)**

Project: 29994REM.002  
 Company: ETS Korea  
 Sample: S/02  
 Operation Mode: OM#11  
 Date: 2009-07-06 16:35  
 Setup: EMI radiated  
 Mode: EUT ON. IDLE Bluetooth. Charging battery.

**FCC class B Bilog Hibrida**



**Maximized**

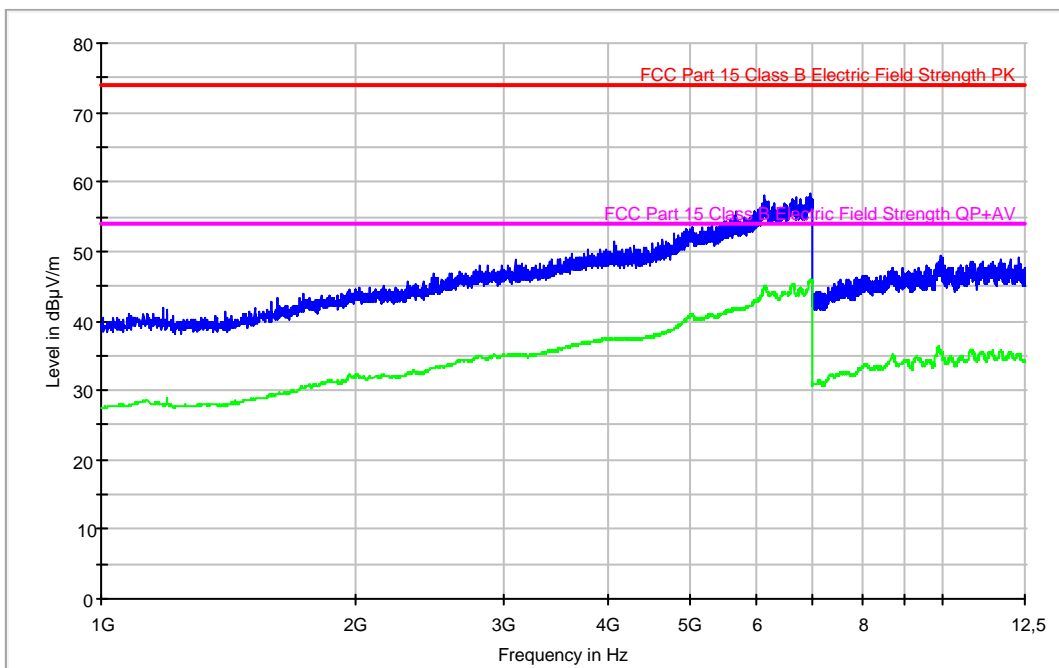
Frequency (MHz)	QuasiPeak (dBµV/m)	MaxPeak (dBµV/m)	Antenna height (cm)	Polarity	Turntable position (deg)
66.597194	28.5	31.6	117.00	V	343.0
84.000000	30.5	36.1	116.00	V	24.0
364.811022	29.9	31.6	146.00	V	281.0



**Radiated Emission: CR0101PH (1GHz to 12,5GHz)**

Project : 29994Biem.002  
 Company : ETS KOREA  
 Sample : S/01  
 Operation Mode: OM#01  
 Date: 2009-07-03 16:16  
 Setup : EMI radiated  
 Mode: EUT ON. IDLE 850MHz. Horizontal polarization.

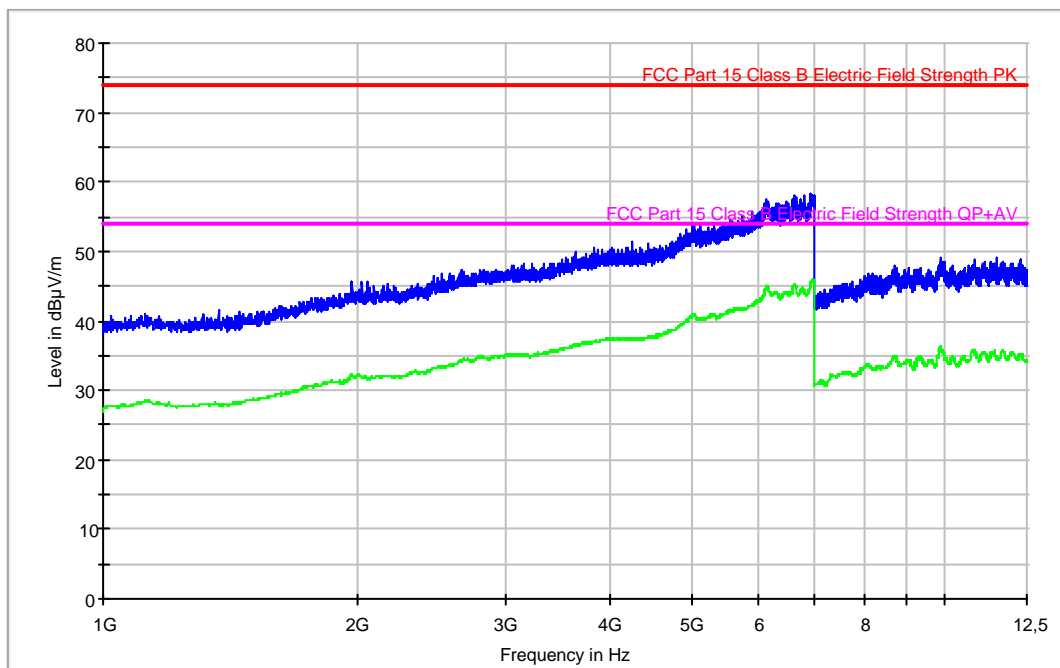
**FCC 1-12.5GHz Class B**



**Radiated Emission: CR0101PV (1GHz to 12,5GHz)**

Project : 29994Biem.002  
 Company : ETS KOREA  
 Sample : S/01  
 Operation Mode: OM#01  
 Date: 2009-07-03 16:12  
 Setup : EMI radiated  
 Mode: EUT ON. IDLE 850MHz. Vertical polarization.

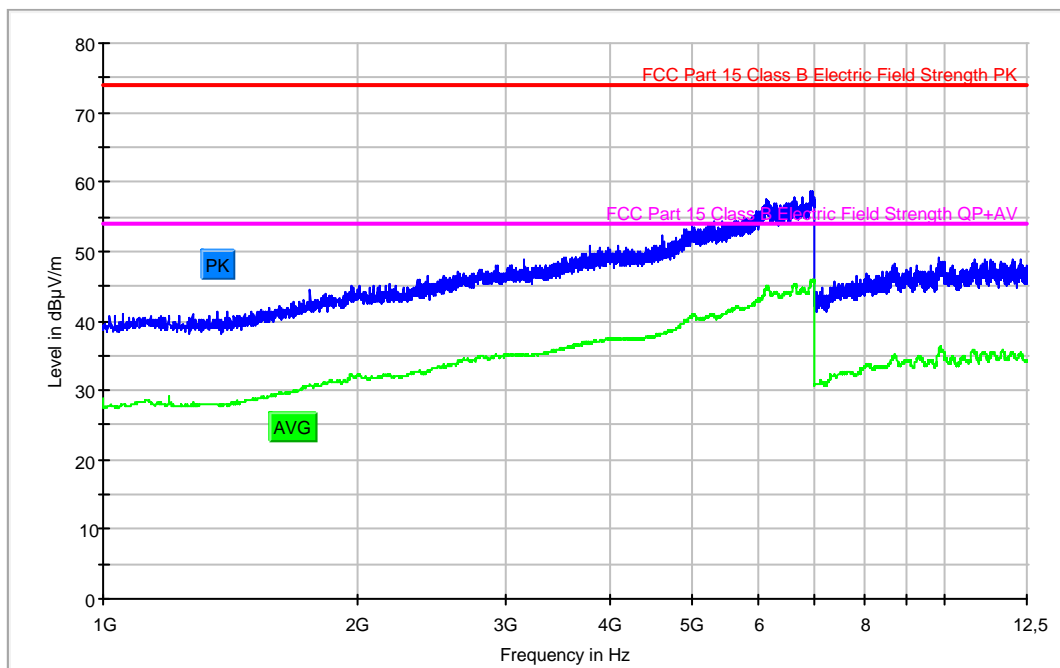
**FCC 1-12.5GHz Class B**



**Radiated Emission: CR0103PH (1GHz to 12,5GHz)**

Project : 29994Biem.002  
 Company : ETS KOREA  
 Sample : S/01  
 Operation Mode: OM#03  
 Date: 2009-07-03 15:57  
 Setup : EMI radiated  
 Mode: EUT ON. IDLE 1900MHz. Horizontal polarization.

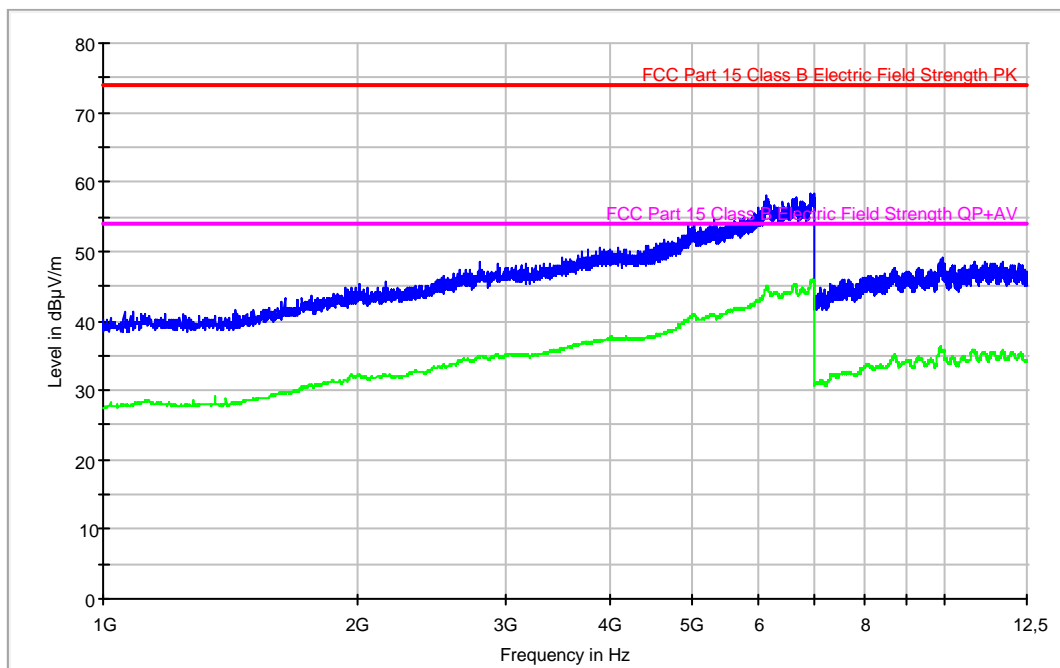
**FCC 1-12.5GHz Class B**



**Radiated Emission: CR0103PV (1GHz to 12,5GHz)**

Project : 29994Biem.002  
 Company : ETS KOREA  
 Sample : S/01  
 Operation Mode: OM#03  
 Date: 2009-07-03 16:05  
 Setup : EMI radiated  
 Mode: EUT ON. IDLE 1900MHz. Vertical polarization.

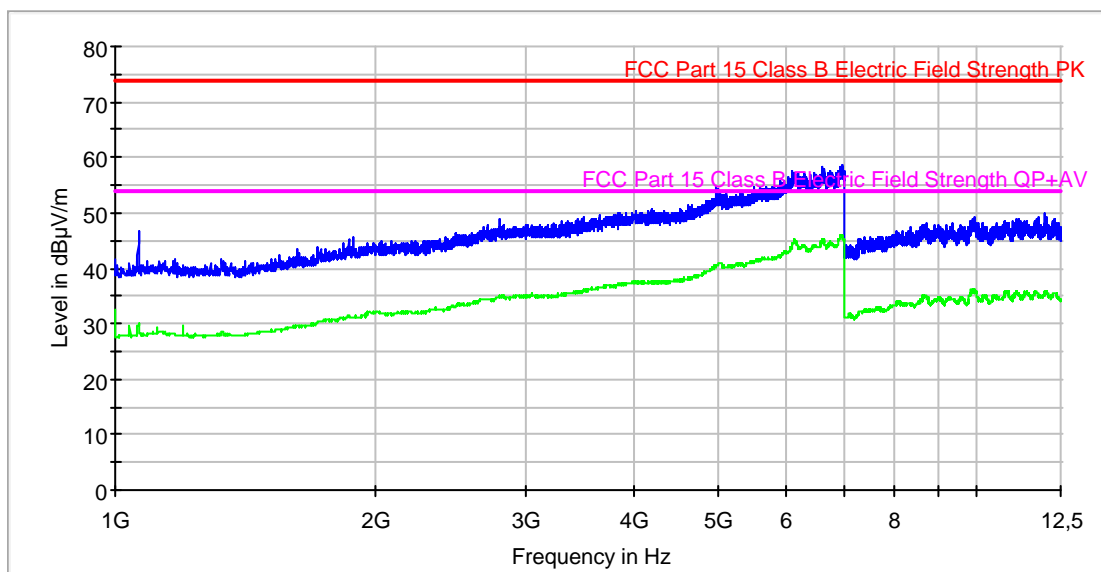
**FCC 1-12.5GHz Class B**



**Radiated Emission: CR0207PH (1GHz to 12,5GHz)**

Project: 29994REM.002  
 Company: ETS Korea  
 Sample: S/02  
 Modeoperation: OM#07  
 Date: 2009-07-06 18:26  
 Setup: EMI radiated  
 Mode: EUT ON.IDLE 850MHz. Horizontal polarization.

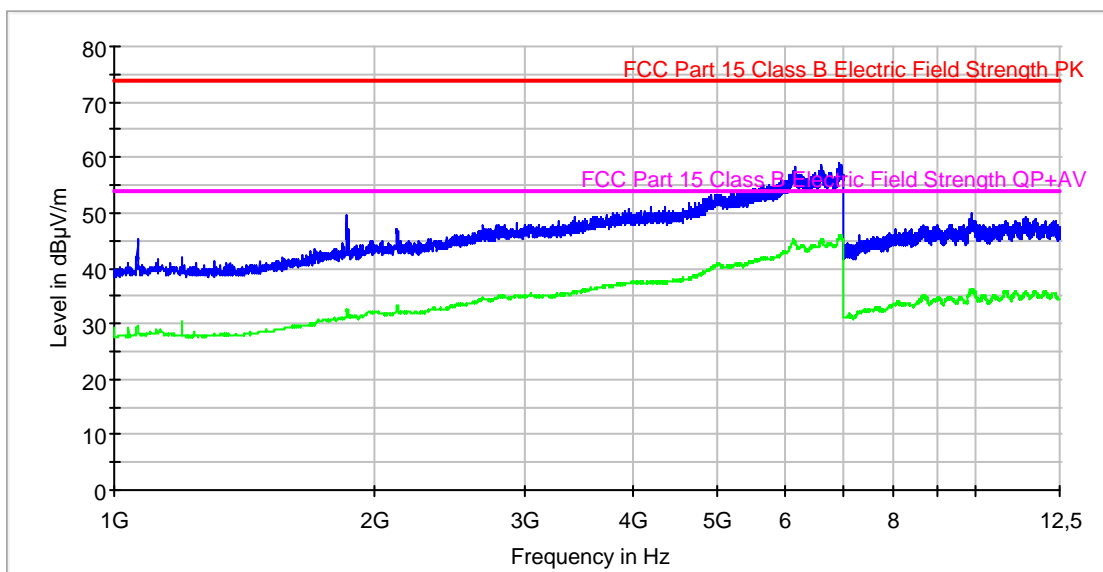
**FCC 1-12.5GHz Class B**



**Radiated Emission: CR0207PV (1GHz to 12,5GHz)**

Project: 29994REM.002  
 Company: ETS Korea  
 Sample: S/02  
 Modeoperation: OM#07  
 Date: 2009-07-06 18:27  
 Setup: EMI radiated  
 Mode: EUT ON.IDLE 850MHz. Vertical polarization.

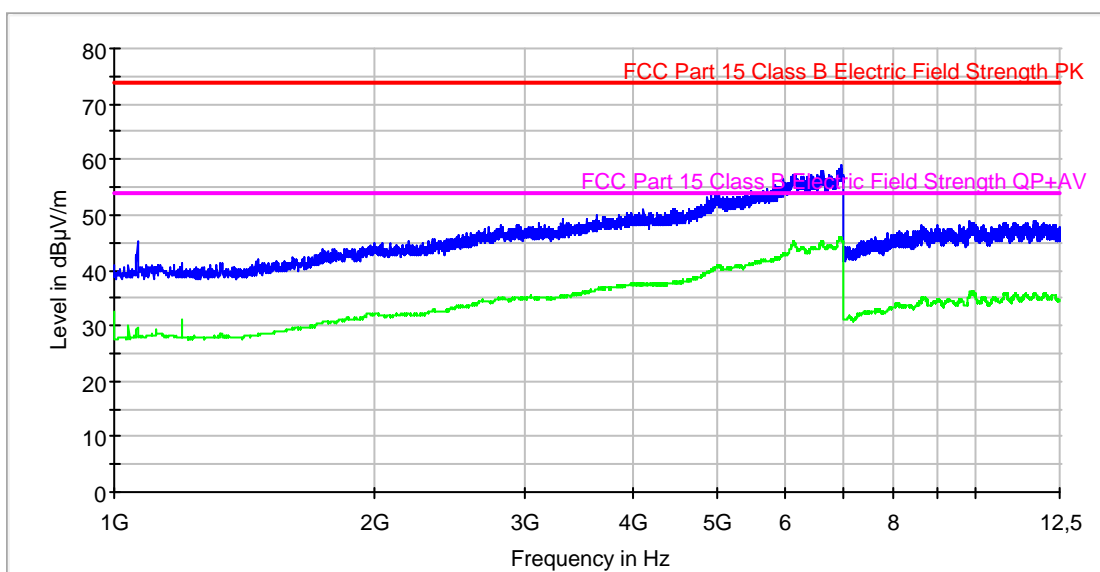
**FCC 1-12.5GHz Class B**



**Radiated Emission: CR0209PH (1GHz to 12,5GHz)**

Project: 29994REM.002  
 Company: ETS Korea  
 Sample: S/02  
 Modeoperation: OM#09  
 Date: 2009-07-06 18:27  
 Setup: EMI radiated  
 Mode: EUT ON.IDLE 1900MHz. Horizontal polarization.

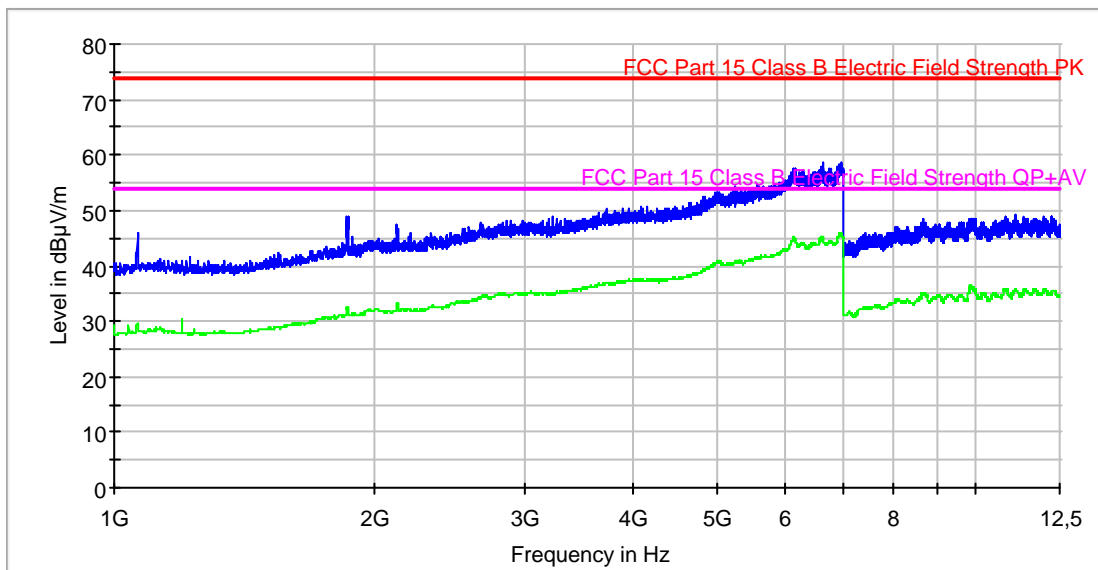
**FCC 1-12.5GHz Class B**



**Radiated Emission: CR0209PV (1GHz to 12,5GHz)**

Project: 29994REM.002  
 Company: ETS Korea  
 Sample: S/02  
 Modeoperation: OM#09  
 Date: 2009-07-06 18:27  
 Setup: EMI radiated  
 Mode: EUT ON.IDLE 1900MHz. Vertical polarization.

**FCC 1-12.5GHz Class B**

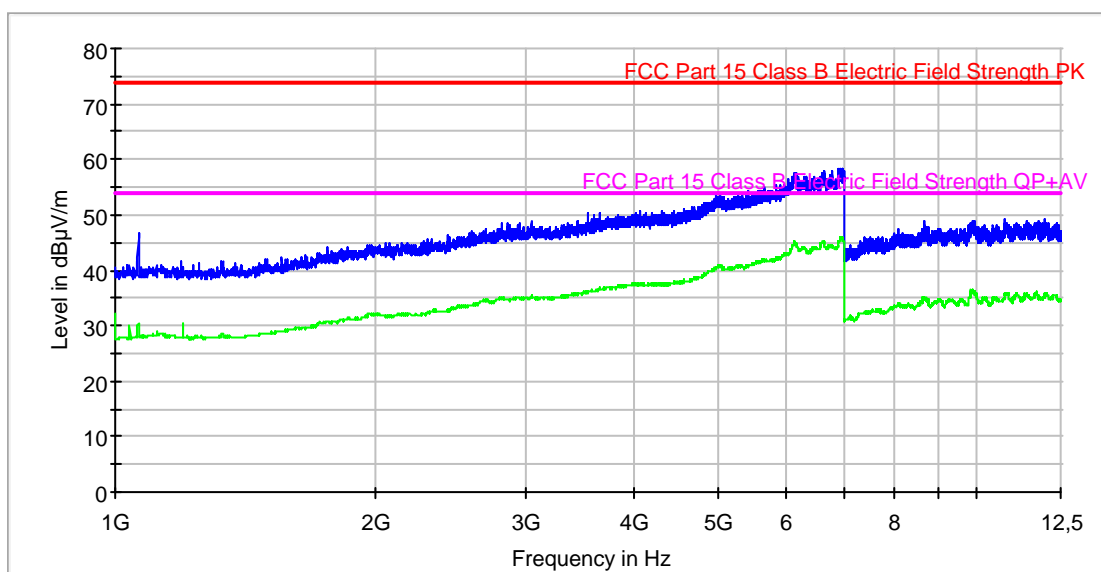




**Radiated Emission: CR0211PH (1GHz to 12,5GHz)**

Project: 29994REM.002  
 Company: ETS Korea  
 Sample: S/02  
 Modeoperation: OM#11  
 Date: 2009-07-06 18:28  
 Setup: EMI radiated  
 Mode: EUT ON. Bluetooth mode. Horizontal polarization.

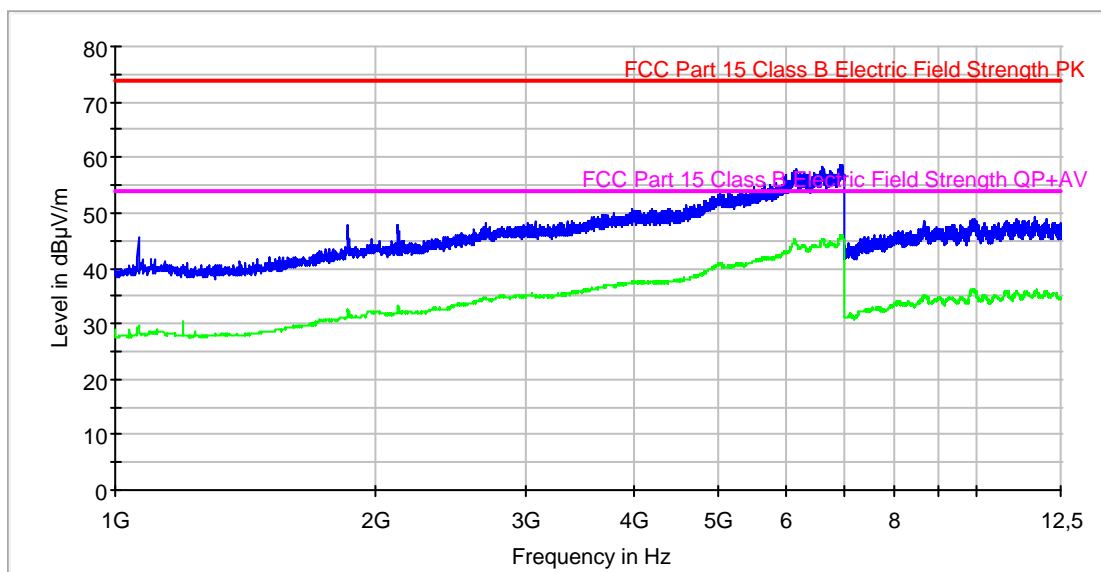
**FCC 1-12.5GHz Class B**



**Radiated Emission: CR0211PV (1GHz to 12,5GHz)**

Project: 29994REM.002  
 Company: ETS Korea  
 Sample: S/02  
 Modeoperation: OM#11  
 Date: 2009-07-06 18:28  
 Setup: EMI radiated  
 Mode: EUT ON. Bluetooth mode. Vertical polarization.

**FCC 1-12.5GHz Class B**



**CONTINUOUS CONDUCTED EMISSION ON POWER LEADS**

<b>LIMITS:</b>	Product standard :	FCC RULES AND REGULATIONS 47 CFR PART 15, SUBPART B.
	Test standard :	Part 15, Subpart B of FCC Rules

**CLASS B**

The applied limit for continuous conducted emissions in power leads, according with the requirements of FCC Rules and Regulations 47 CFR Part 15, Subpart B in the frequency range 0,15 to 30 MHz, for Class B equipment was:

Frequency range (MHz)	Limit (dBµV)	
	Quasi-peak	Average
0,15 to 0,5	66-56	56-46
0,5 to 5	56	46
5 to 30	60	50

\* 13.560 MHz is a frequency designed by UIT for use how fundamental frequency by the ICM equipments, no limits is applied in this frequency.

<b>TESTED SAMPLES:</b>	S/01 & S/02
<b>TESTED OPERATION MODES:</b>	OM#01; 02; 05; 06; 07; 08; 09; 10; 11 & 12.
<b>TEST RESULTS :</b>	CCmmnnhh: CC, Conducted Condition; mm: Sample number; nn: Operation mode; hh: wire  (See results on next page).

<b>TEST RESULTS :</b>		CCmmnnhh: CC, Conducted Condition; mm: Sample number; nn: Operation mode; hh: wire
<b>CCmmnnhh</b>	<b>Description</b>	<b>Result</b>
CC0101L1	Phase wire noise. Range (150 KHz – 30 MHz).	P
CC01010N	Neutral wire noise. Range (150 KHz – 30 MHz).	P
CC0102L1	Phase wire noise. Range (150 KHz – 30 MHz).	P
CC01020N	Neutral wire noise. Range (150 KHz – 30 MHz).	P
CC0105L1	Phase wire noise. Range (150 KHz – 30 MHz).	P
CC01050N	Neutral wire noise. Range (150 KHz – 30 MHz).	P
CC0106L1	Phase wire noise. Range (150 KHz – 30 MHz).	P
CC01060N	Neutral wire noise. Range (150 KHz – 30 MHz).	P
CC0207L1	Phase wire noise. Range (150 KHz – 30 MHz).	P
CC02070N	Neutral wire noise. Range (150 KHz – 30 MHz).	P
CC0208L1	Phase wire noise. Range (150 KHz – 30 MHz).	P
CC02080N	Neutral wire noise. Range (150 KHz – 30 MHz).	P
CC0209L1	Phase wire noise. Range (150 KHz – 30 MHz).	P
CC02090N	Neutral wire noise. Range (150 KHz – 30 MHz).	P
CC0210L1	Phase wire noise. Range (150 KHz – 30 MHz).	P
CC02100N	Neutral wire noise. Range (150 KHz – 30 MHz).	P
CC0211L1	Phase wire noise. Range (150 KHz – 30 MHz).	P
CC02110N	Neutral wire noise. Range (150 KHz – 30 MHz).	P
CC0212L1	Phase wire noise. Range (150 KHz – 30 MHz).	P
CC02120N	Neutral wire noise. Range (150 KHz – 30 MHz).	P

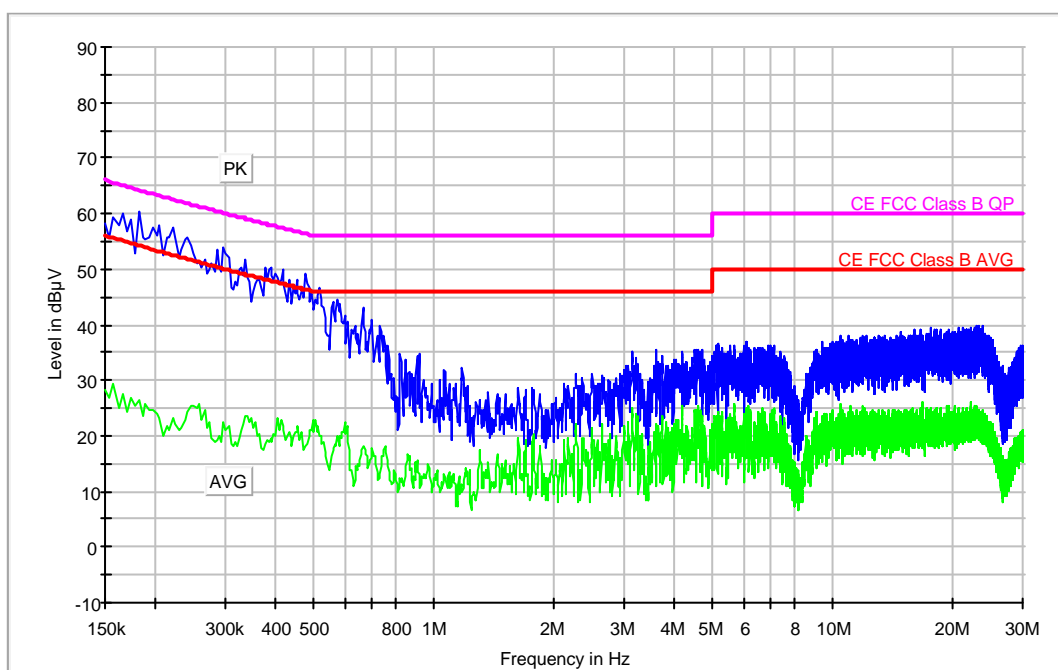
Continuous Conducted emission : CC0101L1

Detector : Peak / Average / Cuasi-peak

RANGE (150 KHZ – 30 MHz).

Project: 29994REM.002  
 Company: ETS KOREA  
 Sample: S/01  
 Operation Mode: OM#01  
 Date: 2009-07-01 09:12  
 Setup: EMI conducted  
 Mode: EUT ON. IDLE 850 MHz. Charging batteries.L1 noise.

### EC FCC Class B ESIB26 CC



### Max PK-AVG

Frequency (MHz)	MaxPeak-ClearWrite (dBµV)	Average-ClearWrite (dBµV)	Comment
0.166000	60.1	27.5	
0.182000	60.4	26.6	
0.222000	57.5	23.3	
0.298000	54.0	22.5	
0.338000	51.7	23.4	
0.390000	50.3	19.7	
0.434000	48.3	20.7	
0.478000	49.4	18.0	
0.574000	44.7	19.8	
0.666000	42.9	18.2	
0.702000	41.1	17.9	
23.782000	39.9	24.3	

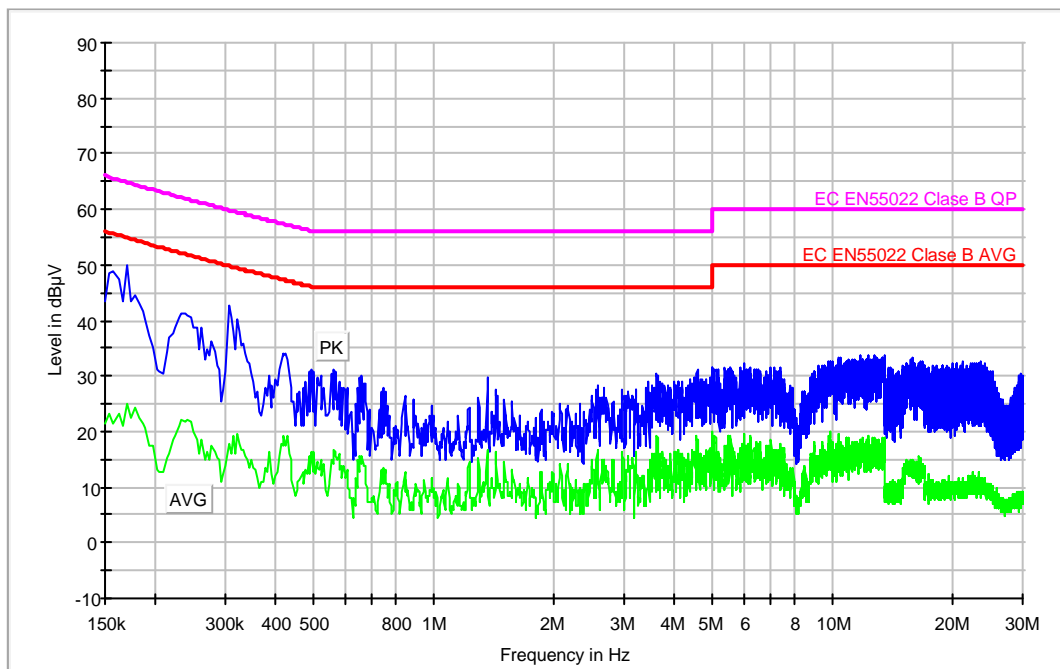
Continuous Conducted emission : CC01010N

Detector : Peak / Average / Cuasi-peak

RANGE (150 KHZ – 30 MHz).

Project: 29994REM.002  
 Company: ETS KOREA  
 Sample: S/01  
 Operation Mode: OM#01  
 Date: 2009-06-30 20:32  
 Setup: EMI conducted  
 Mode: EUT ON. IDLE 850 MHz. Charging batteries. Neutral noise.

### EC EMI 55022 Class B ESIB26 CC



### Max PK-AVG

Frequency (MHz)	MaxPeak-MaxHold (dBµV)	Average-MaxHold (dBµV)
0.150000	43.3	21.3
0.154000	48.4	23.1
0.158000	48.7	21.4
0.162000	47.5	23.1
0.166000	43.3	21.2
0.170000	49.8	25.2
0.174000	43.3	22.4
0.178000	44.4	24.2
0.182000	43.2	22.5
0.186000	41.6	21.3
0.234000	41.3	22.1
0.306000	42.6	17.9

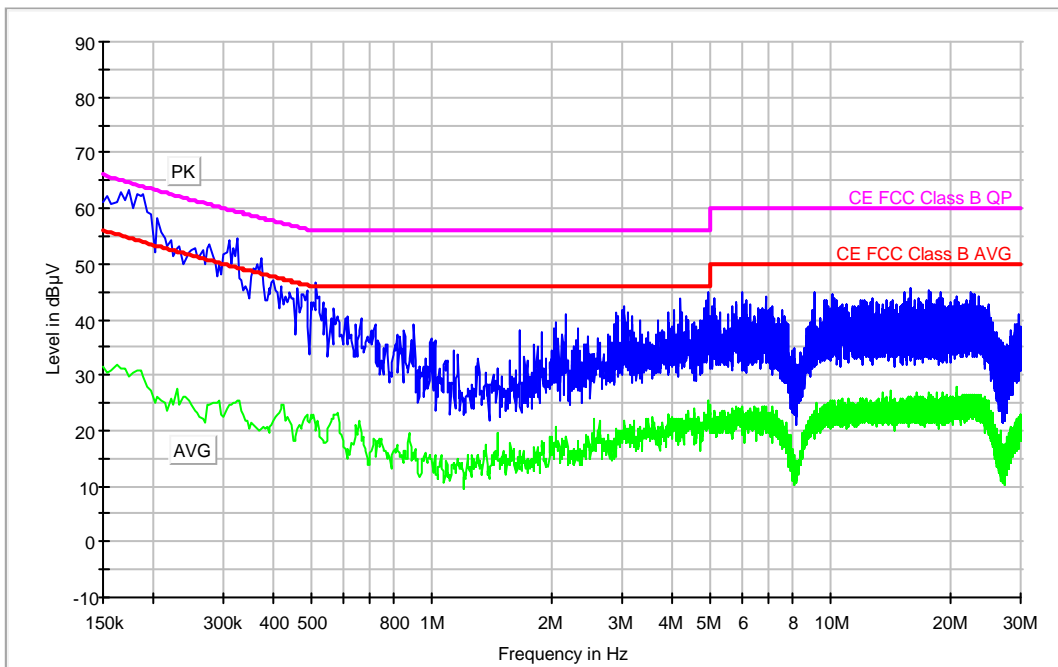
Continuous Conducted emission : CC0102L1

Detector : Peak / Average / Cuasi-peak

RANGE (150 KHZ – 30 MHZ).

Project: 29994REM.002  
 Company: ETS KOREA  
 Sample: S/01  
 Operation Mode: OM#02  
 Date: 2009-07-01 08:58  
 Setup: EMI conducted  
 Mode: EUT ON. TCH 850 MHz. Charging batteries. L1 noise.

### EC FCC Class B ESIB26 CC



### Max PK-AVG

Frequency (MHz)	MaxPeak-ClearWrite (dBµV)	Average-ClearWrite (dBµV)	Comment
0.174000	63.2	29.7	
0.206000	58.2	26.0	
0.310000	54.3	24.5	
0.326000	54.6	25.6	
0.374000	50.9	20.3	
0.418000	45.8	23.8	
0.462000	45.5	20.4	
0.514000	46.8	19.8	
15.822000	45.6	26.2	
17.694000	45.4	25.1	
17.742000	45.0	26.1	
22.470000	45.0	25.7	

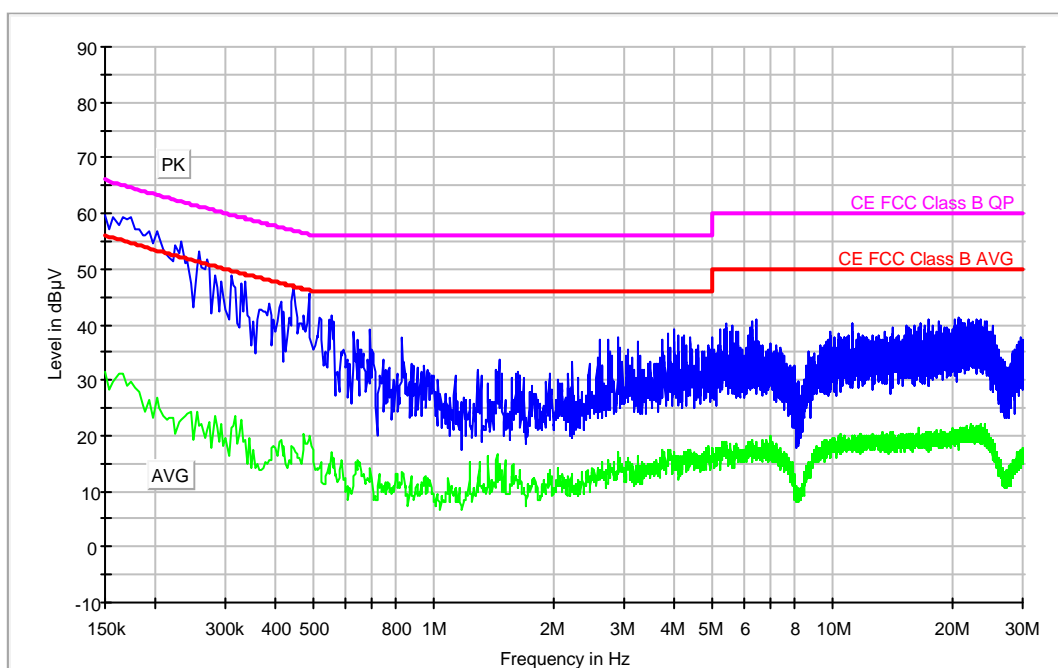
Continuous Conducted emission : CC01020N

Detector : Peak / Average / Cuasi-peak

RANGE (150 KHZ – 30 MHz).

Project: 29994REM.002  
 Company: ETS KOREA  
 Sample: S/01  
 Operation Mode: OM#02  
 Date: 2009-07-01 08:58  
 Setup: EMI conducted  
 Mode: EUT ON. TCH 850 MHz. Charging batteries. N noise.

### EC FCC Class B ESIB26 CC



### Max PK-AVG

Frequency (MHz)	MaxPeak-ClearWrite (dBµV)	Average-ClearWrite (dBµV)	Comment
0.150000	59.5	31.6	
0.154000	57.2	28.4	
0.158000	59.4	29.8	
0.162000	57.8	31.2	
0.166000	59.2	31.2	
0.170000	59.0	28.9	
0.174000	59.2	29.8	
0.178000	57.2	28.7	
0.182000	57.0	28.0	
0.190000	56.2	24.2	
0.194000	56.9	26.5	
0.202000	56.6	26.7	



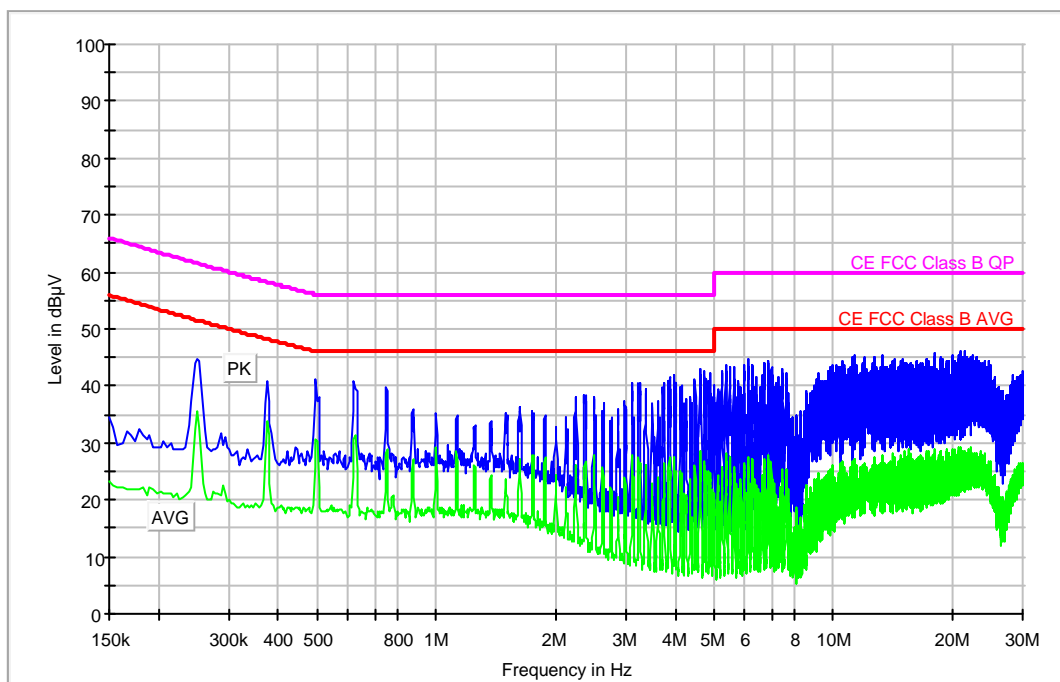
Continuous Conducted emission : CC0105L1

Detector : Peak / Average / Cuasi-peak

RANGE (150 KHZ – 30 MHz).

Project: 29994REM.002  
 Company: ETS KOREA  
 Sample: S/01  
 Operation Mode: OM#05  
 Date: 2009-07-03 20:12  
 Setup: EMI conducted  
 Mode: EUT ON. BT activated. Charging batteries. Phase noise.

### EC FCC Class B ESPI CC



### Max PK-AVG

Frequency (MHz)	MaxPeak-ClearWrite (dBµV)	Average-ClearWrite (dBµV)
11.334000	45.4	27.2
13.322000	45.5	27.9
17.966000	45.2	24.7
18.070000	45.6	28.1
20.066000	45.2	28.9
20.074000	45.3	28.2
20.686000	45.4	28.7
20.810000	46.0	29.1
20.950000	45.8	27.8
21.526000	46.0	27.0
22.410000	45.4	27.1
22.902000	45.2	28.0

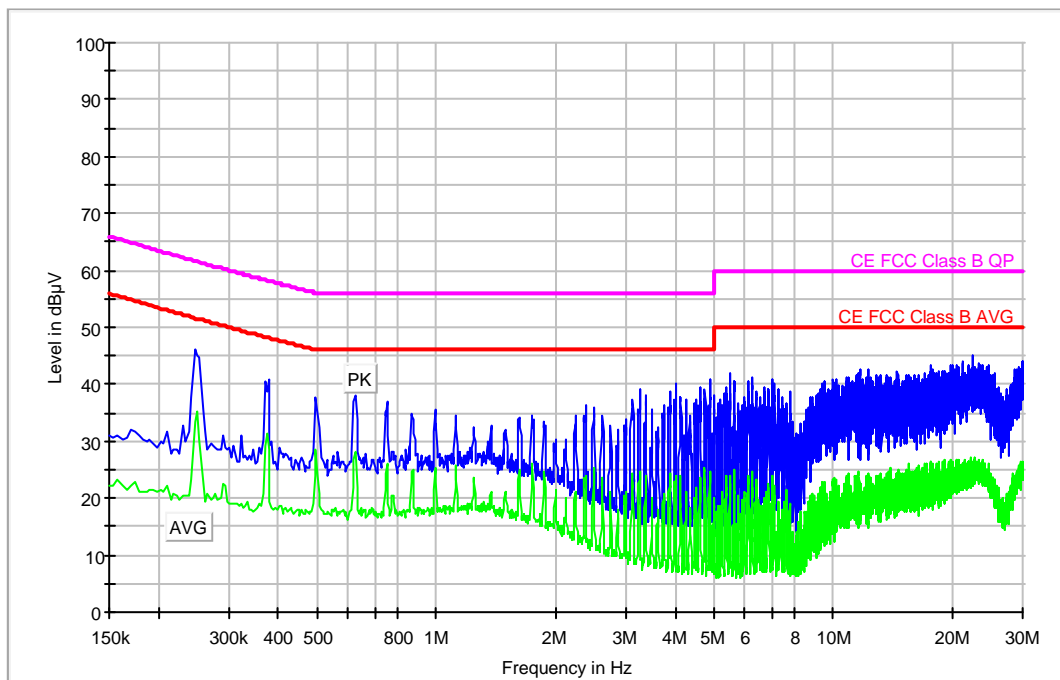
Continuous Conducted emission : CC01050N

Detector : Peak / Average / Cuasi-peak

RANGE (150 KHZ – 30 MHz).

Project: 29994REM.002  
 Company: ETS KOREA  
 Sample: S/01  
 Operation Mode: OM#05  
 Date: 2009-07-03 20:02  
 Setup: EMI conducted  
 Mode: EUT ON. BT activated. Charging batteries. Neutral noise.

### EC FCC Class B ESPI CC



### Max PK-AVG

Frequency (MHz)	MaxPeak-ClearWrite (dBµV)	Average-ClearWrite (dBµV)
0.246000	46.2	33.6
0.250000	45.0	35.1
0.254000	44.7	30.4
20.506000	43.4	26.8
21.098000	43.9	25.1
21.258000	43.5	25.4
22.490000	45.0	25.6
23.146000	43.7	26.3
29.858000	43.7	25.8
29.886000	44.1	25.8
29.914000	44.0	25.2
29.982000	43.9	24.8

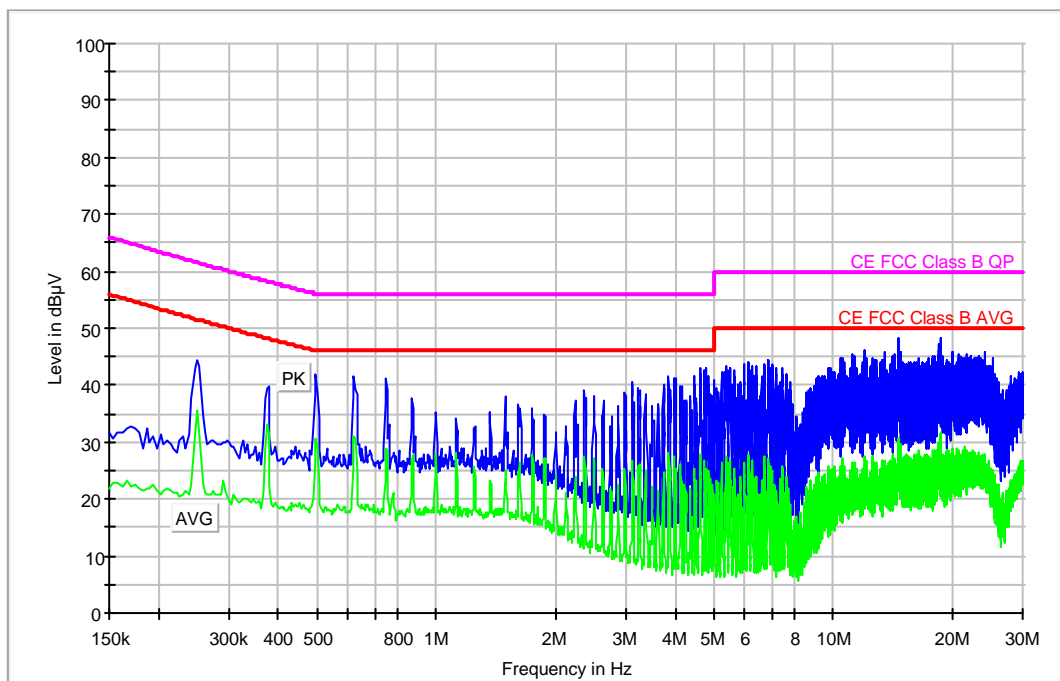
Continuous Conducted emission : CC0106L1

Detector : Peak / Average / Cuasi-peak

RANGE (150 KHZ – 30 MHz).

Project: 29994REM.002  
 Company: ETS KOREA  
 Sample: S/01  
 Operation Mode: OM#06  
 Date: 2009-07-03 20:17  
 Setup: EMI conducted  
 Mode: EUT ON. BT transmission mode. Charging batteries. Phase noise.

### EC FCC Class B ESPI CC



### Max PK-AVG

Frequency (MHz)	MaxPeak-ClearWrite (dBµV)	Average-ClearWrite (dBµV)
11.946000	46.2	27.4
14.674000	48.3	30.7
14.686000	45.9	29.5
18.410000	46.2	29.7
18.418000	47.1	29.9
18.530000	48.3	30.3
18.538000	46.6	31.7
18.542000	46.4	31.8
18.558000	45.9	31.4
18.566000	46.4	29.7
19.894000	45.9	29.0
20.034000	45.8	28.6

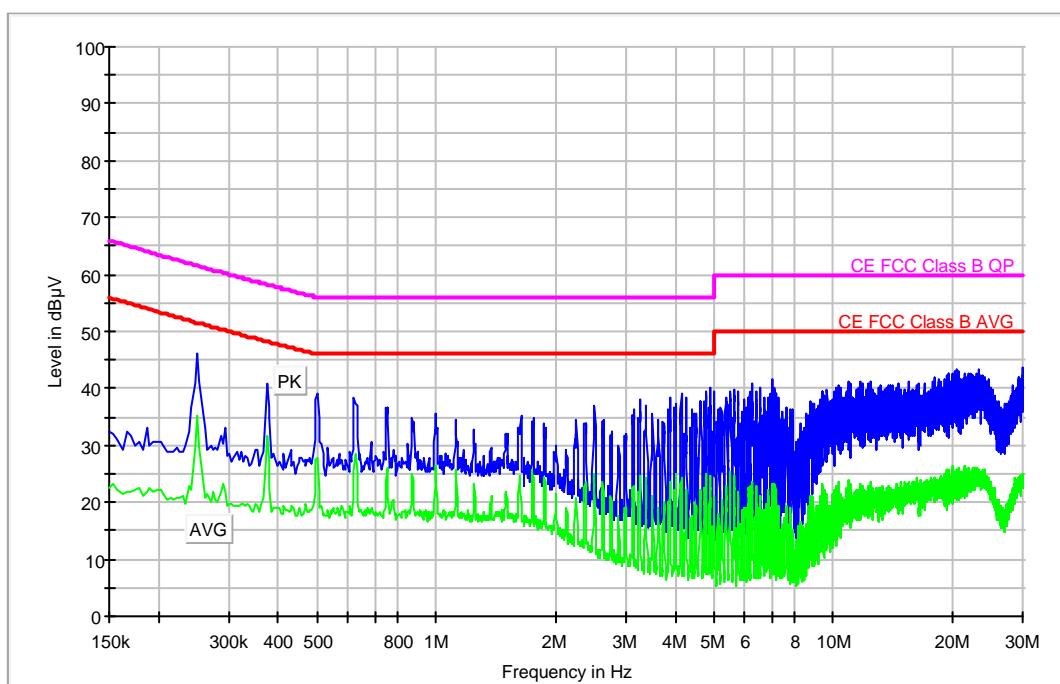
Continuous Conducted emission : CC01060N

Detector : Peak / Average / Cuasi-peak

RANGE (150 KHZ – 30 MHz).

Project: 29994REM.002  
 Company: ETS KOREA  
 Sample: S/01  
 Operation Mode: OM#06  
 Date: 2009-07-03 20:21  
 Setup: EMI conducted  
 Mode: EUT ON. BT transmission mode. Charging batteries. Neutral noise.

### EC FCC Class B ESPI CC



### Max PK-AVG

Frequency (MHz)	MaxPeak-ClearWrite (dBµV)	Average-ClearWrite (dBµV)
0.250000	46.0	35.2
19.446000	42.6	24.1
19.930000	42.6	25.7
20.194000	43.1	24.2
20.558000	43.1	25.7
20.662000	42.8	25.2
21.430000	42.6	26.5
21.966000	42.5	24.1
23.022000	42.7	24.9
23.182000	43.5	24.6
29.942000	42.6	23.3
29.946000	43.7	24.7

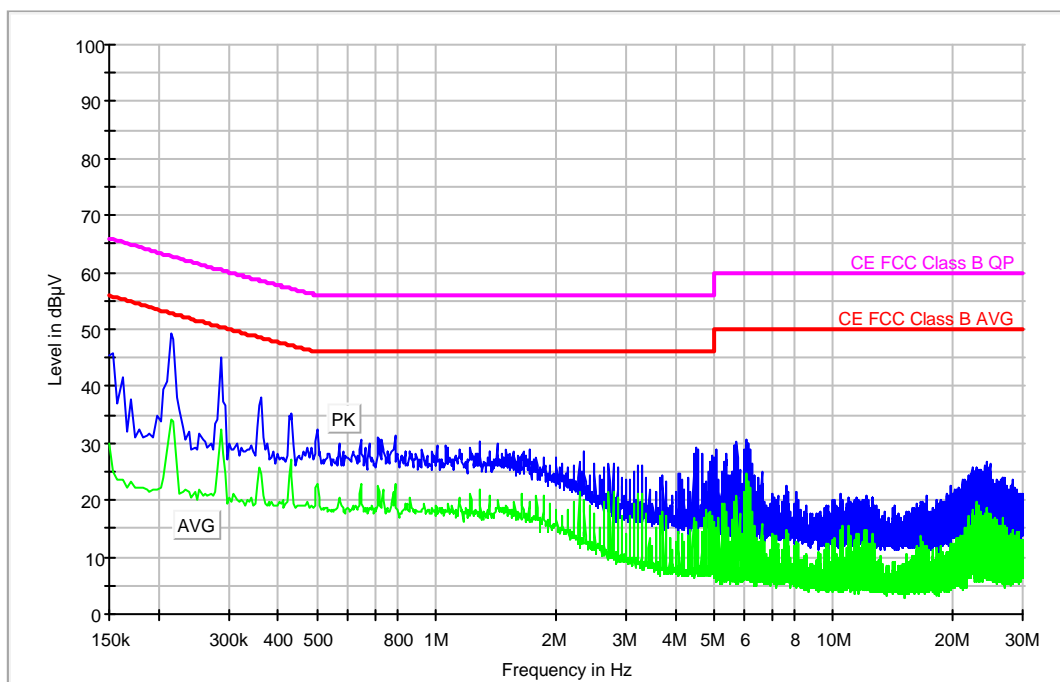
Continuous Conducted emission : CC0207L1

Detector : Peak / Average / Cuasi-peak

RANGE (150 KHZ – 30 MHz).

Project: 29994REM.002  
 Company: ETS KOREA  
 Sample: S/02  
 Operation Mode: OM#07  
 Date: 2009-07-07 10:23  
 Setup: EMI conducted  
 Mode: EUT ON. IDLE 850 MHz. Charging batteries from USB cable. Phase noise.

### EC FCC Class B ESPI CC



### Subrange Maxima

Frequency (MHz)	MaxPeak-ClearWrite (dBµV)	Average-ClearWrite (dBµV)
0.214000	49.3	34.0
0.286000	44.9	32.4
0.434000	35.2	24.3
0.786000	31.4	22.9
1.290000	30.3	21.7
1.422000	29.9	18.7
2.362000	28.5	20.2
4.514000	29.2	15.6
6.014000	30.6	24.5
8.090000	21.6	12.8
19.186000	21.2	10.9
24.414000	26.6	18.8

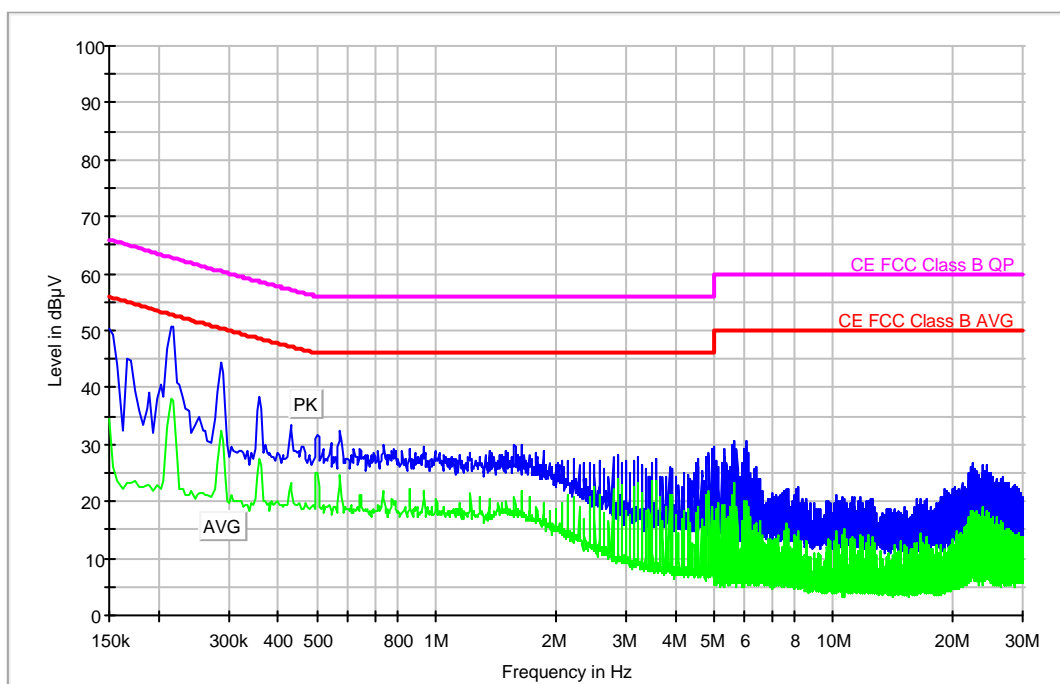
Continuous Conducted emission : CC02070N

Detector : Peak / Average / Cuasi-peak

RANGE (150 KHZ – 30 MHz).

Project: 29994REM.002  
 Company: ETS KOREA  
 Sample: S/02  
 Operation Mode: OM#07  
 Date: 2009-07-07 10:19  
 Setup: EMI conducted  
 Mode: EUT ON. IDLE 850 MHz. Charging batteries from USB cable.  
 Neutral noise.

### EC FCC Class B ESPI CC



### Subrange Maxima

Frequency (MHz)	MaxPeak-ClearWrite (dBµV)	Average-ClearWrite (dBµV)
0.218000	50.8	37.8
0.286000	44.4	32.5
0.430000	33.6	23.4
0.574000	32.4	24.6
0.930000	29.6	22.0
1.574000	30.1	20.7
2.862000	28.1	23.9
5.014000	29.5	16.2
5.654000	30.7	23.4
8.162000	22.5	14.9
18.974000	22.1	11.3
22.410000	26.7	18.3

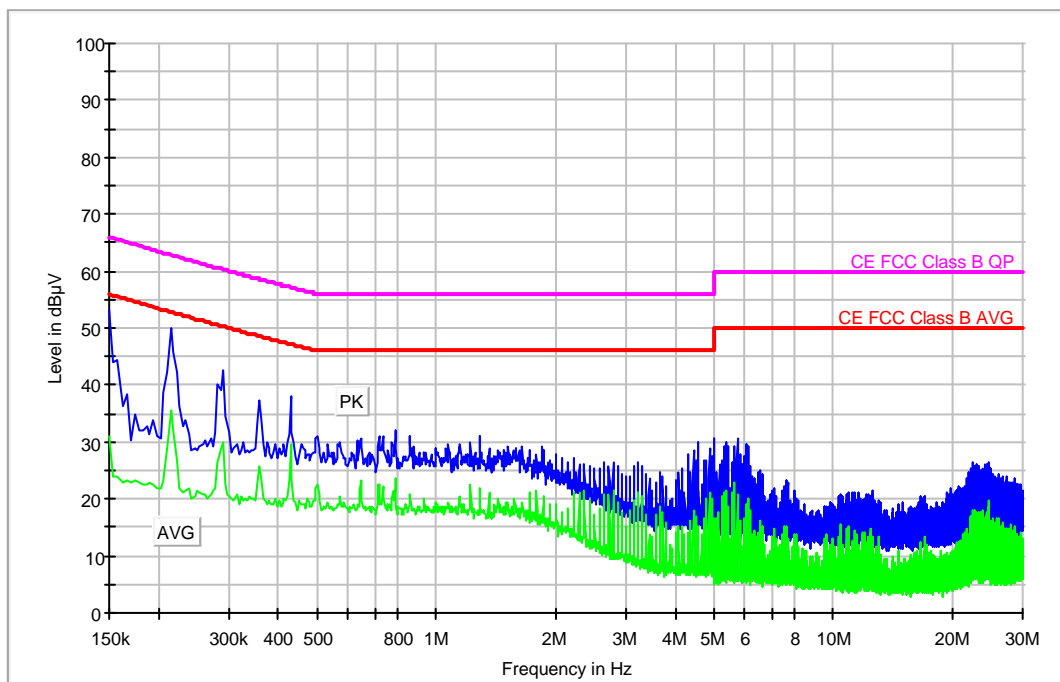
Continuous Conducted emission : CC0208L1

Detector : Peak / Average / Cuasi-peak

RANGE (150 KHZ – 30 MHz).

Project: 29994REM.002  
 Company: ETS KOREA  
 Sample: S/02  
 Operation Mode: OM#08  
 Date: 2009-07-07 10:37  
 Setup: EMI conducted  
 Mode: EUT ON. TCH 850 MHz. Charging batteries from USB cable. Phase noise.

### EC FCC Class B ESPI CC



### Subrange Maxima

Frequency (MHz)	MaxPeak-ClearWrite (dBµV)	Average-ClearWrite (dBµV)
0.150000	53.2	31.1
0.290000	42.5	30.1
0.430000	38.0	29.4
0.790000	32.0	23.7
1.290000	30.8	21.7
1.650000	29.4	19.3
2.218000	27.2	21.0
5.010000	30.7	16.4
5.730000	30.7	20.8
10.882000	21.2	15.2
12.526000	21.4	13.0
22.338000	26.5	15.7

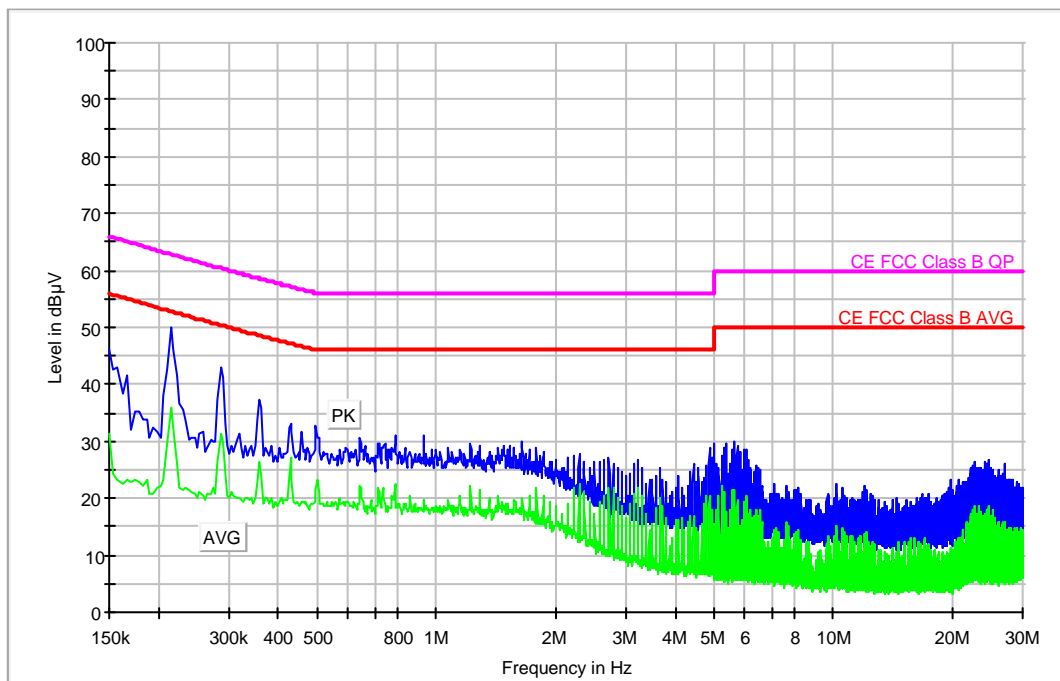
Continuous Conducted emission : CC02080N

Detector : Peak / Average / Cuasi-peak

RANGE (150 KHZ – 30 MHz).

Project: 29994REM.002  
 Company: ETS KOREA  
 Sample: S/02  
 Operation Mode: OM#08  
 Date: 2009-07-07 10:41  
 Setup: EMI conducted  
 Mode: EUT ON. TCH 850 MHz. Charging batteries from USB cable.  
 Neutral noise.

### EC FCC Class B ESPI CC



### Subrange Maxima

Frequency (MHz)	MaxPeak-ClearWrite (dBµV)	Average-ClearWrite (dBµV)
0.214000	49.9	36.0
0.286000	42.9	31.2
0.430000	33.2	27.3
0.790000	30.9	22.5
0.930000	31.0	19.6
1.646000	30.0	19.6
2.290000	27.8	22.4
5.014000	29.6	15.3
5.658000	30.1	21.5
10.166000	22.6	15.0
19.266000	21.0	8.5
24.698000	26.7	18.6



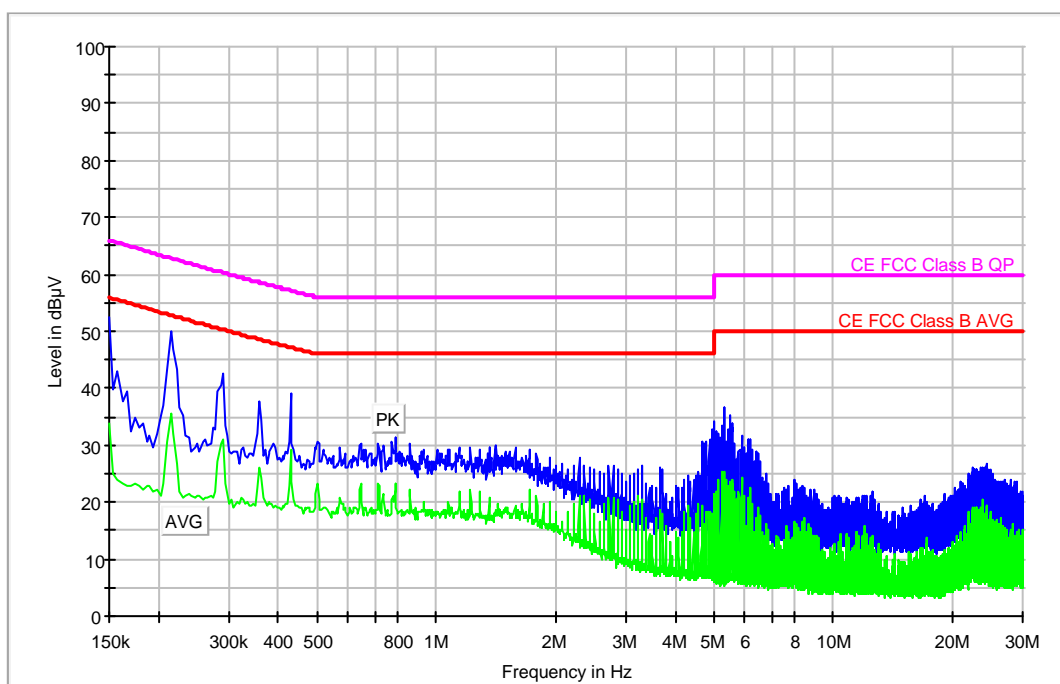
Continuous Conducted emission : CC0209L1

Detector : Peak / Average / Cuasi-peak

RANGE (150 KHZ – 30 MHz).

Project: 29994REM.002  
 Company: ETS KOREA  
 Sample: S/02  
 Operation Mode: OM#09  
 Date: 2009-07-07 10:08  
 Setup: EMI conducted  
 Mode: EUT ON. IDLE 1800 MHz. Charging batteries from USB cable.  
 Phase noise.

### EC FCC Class B ESPI CC



### Subrange Maxima

Frequency (MHz)	MaxPeak-ClearWrite (dBµV)	Average-ClearWrite (dBµV)
0.150000	52.6	33.8
0.290000	42.7	30.9
0.430000	39.0	29.4
0.790000	31.3	23.3
1.146000	29.7	21.7
1.406000	29.9	18.1
2.290000	27.8	21.2
5.010000	34.2	21.5
5.298000	36.7	25.3
8.086000	23.1	16.1
12.526000	21.9	14.2
24.342000	26.9	19.3

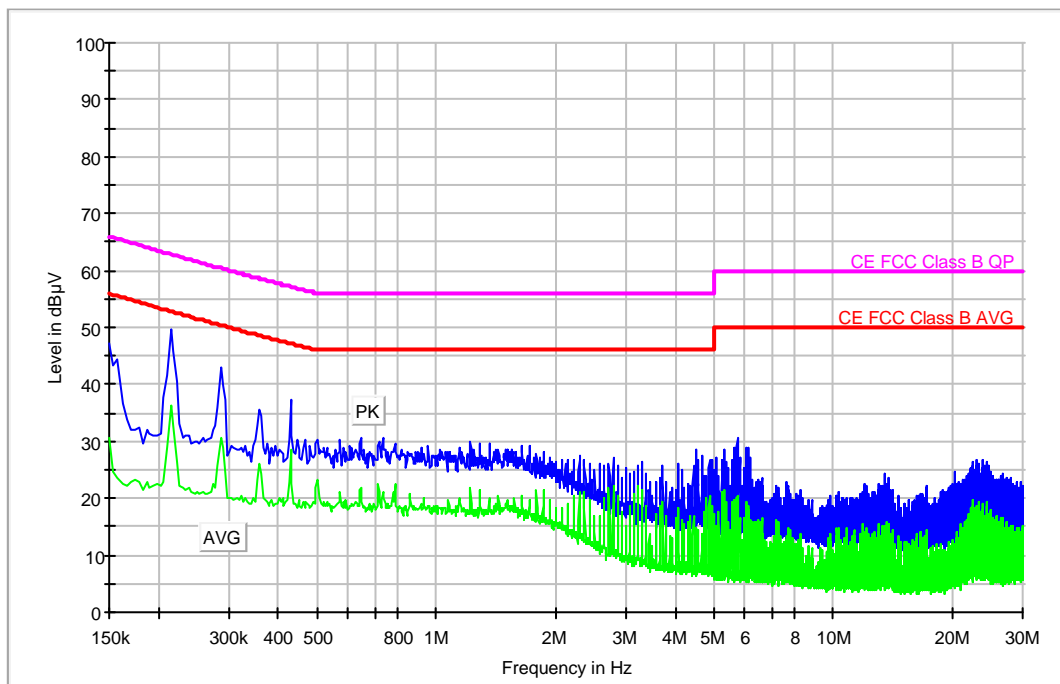
Continuous Conducted emission : CC02090N

Detector : Peak / Average / Cuasi-peak

RANGE (150 KHZ – 30 MHz).

Project: 29994REM.002  
 Company: ETS KOREA  
 Sample: S/02  
 Operation Mode: OM#09  
 Date: 2009-07-07 10:14  
 Setup: EMI conducted  
 Mode: EUT ON. IDLE 1900 MHz. Charging batteries from USB cable.  
 Neutral noise.

### EC FCC Class B ESPI CC



### Subrange Maxima

Frequency (MHz)	MaxPeak-ClearWrite (dBµV)	Average-ClearWrite (dBµV)
0.214000	49.5	36.4
0.286000	42.9	30.6
0.430000	37.4	28.6
0.734000	30.7	21.3
1.218000	30.0	22.0
1.646000	29.3	20.4
2.294000	27.5	20.3
4.514000	28.6	14.7
5.730000	30.5	20.3
11.946000	22.4	12.2
13.454000	24.3	15.3
23.910000	26.9	19.0

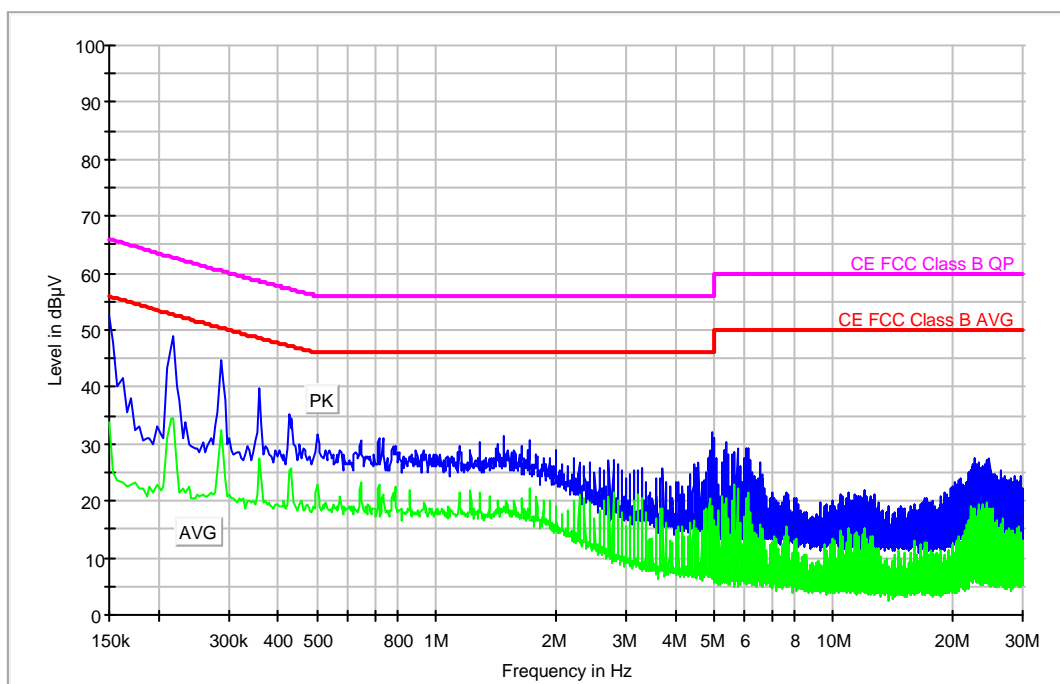
Continuous Conducted emission : CC0210L1

Detector : Peak / Average / Cuasi-peak

RANGE (150 KHZ – 30 MHz).

Project: 29994REM.002  
 Company: ETS KOREA  
 Sample: S/02  
 Operation Mode: OM#10  
 Date: 2009-07-07 10:05  
 Setup: EMI conducted  
 Mode: EUT ON. TCH 1800 MHz. Charging batteries from USB cable.  
 Phase noise.

### EC FCC Class B ESPI CC



### Subrange Maxima

Frequency (MHz)	MaxPeak-ClearWrite (dBµV)	Average-ClearWrite (dBµV)
0.150000	52.4	33.9
0.286000	44.7	32.3
0.426000	35.1	25.5
0.718000	31.0	22.9
1.286000	30.2	20.5
1.482000	31.3	18.5
2.222000	27.6	19.7
4.942000	32.2	19.0
5.370000	30.5	20.4
11.954000	21.7	15.3
19.050000	21.5	9.3
22.690000	27.5	18.5

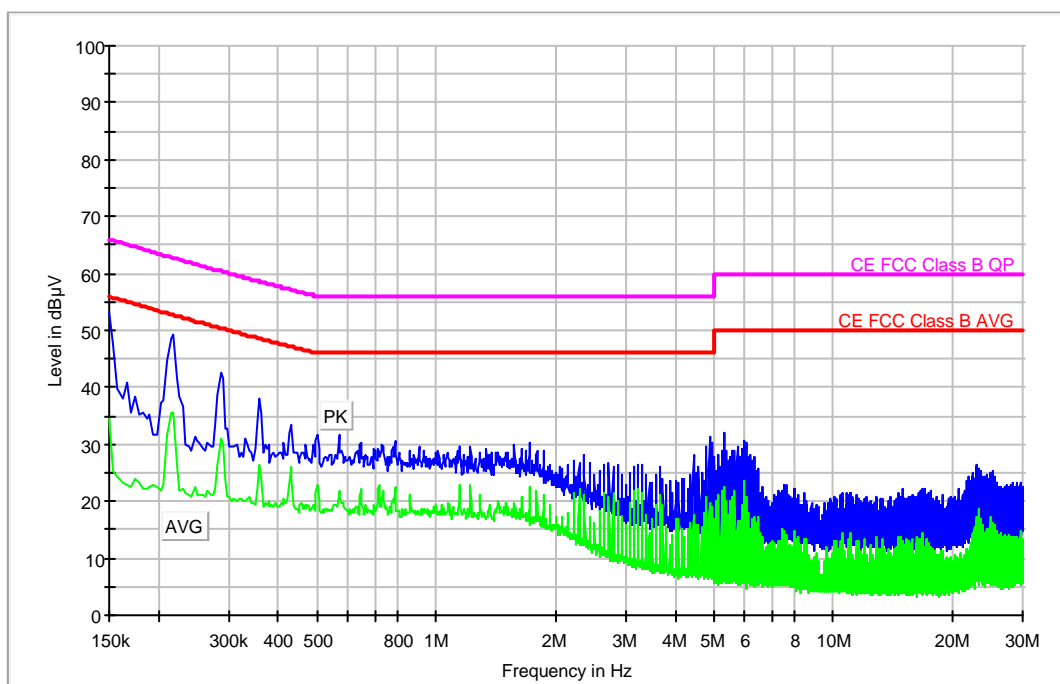
Continuous Conducted emission : CC02100N

Detector : Peak / Average / Cuasi-peak

RANGE (150 KHZ – 30 MHz).

Project: 29994REM.002  
 Company: ETS KOREA  
 Sample: S/02  
 Operation Mode: OM#10  
 Date: 2009-07-07 10:02  
 Setup: EMI conducted  
 Mode: EUT ON. TCH 1900 MHz. Charging batteries from USB cable.  
 Neutral noise.

### EC FCC Class B ESPI CC



### Subrange Maxima

Frequency (MHz)	MaxPeak-ClearWrite (dBµV)	Average-ClearWrite (dBµV)
0.150000	53.3	34.6
0.286000	42.6	31.0
0.430000	33.6	26.0
0.570000	31.5	21.7
1.146000	29.7	22.9
1.718000	30.2	22.6
2.362000	28.0	21.1
4.870000	31.5	19.7
5.298000	32.0	22.6
8.018000	22.1	14.9
14.886000	22.3	13.0
22.974000	26.6	17.2

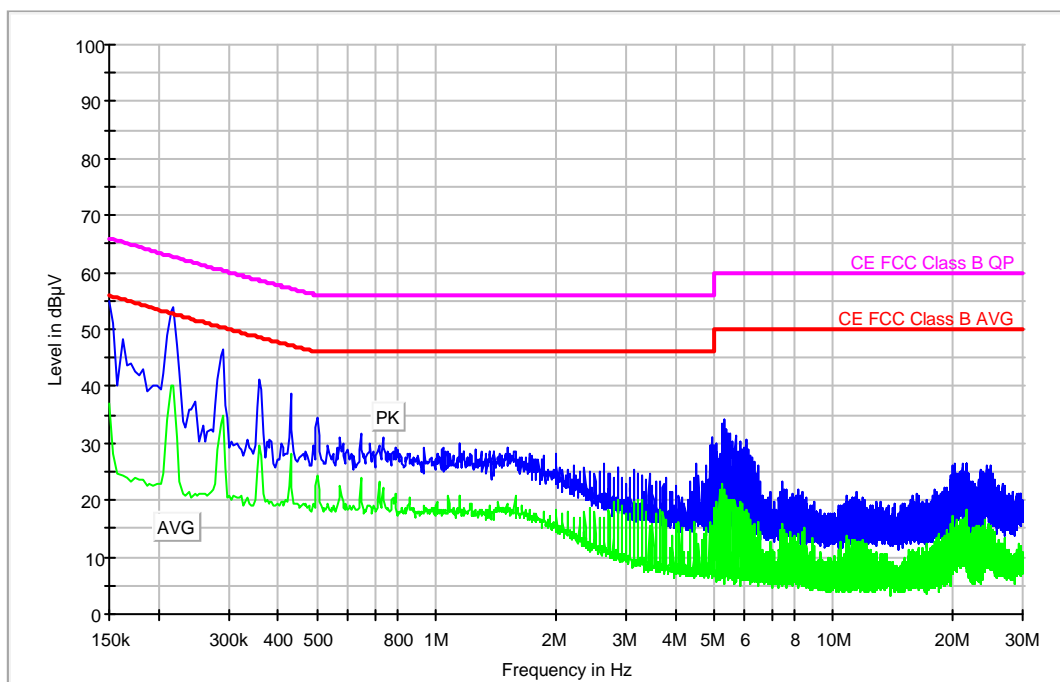
Continuous Conducted emission : CC0211L1

Detector : Peak / Average / Cuasi-peak

RANGE (150 KHZ – 30 MHz).

Project: 29994REM.002  
 Company: ETS KOREA  
 Sample: S/02  
 Operation Mode: OM#11  
 Date: 2009-07-07 09:07  
 Setup: EMI conducted  
 Mode: EUT ON. BT activated. Charging batteries from USB cable. Phase noise.

### EC FCC Class B ESPI CC



### Subrange Maxima

Frequency (MHz)	MaxPeak-ClearWrite (dBµV)	Average-ClearWrite (dBµV)
0.150000	54.8	36.8
0.290000	46.6	34.8
0.430000	38.9	28.2
0.646000	31.6	23.8
1.146000	30.0	20.7
1.514000	29.2	18.4
2.650000	26.4	16.9
4.950000	31.0	15.3
5.306000	34.2	22.0
8.170000	21.7	14.2
19.206000	22.3	14.8
21.274000	26.5	16.5

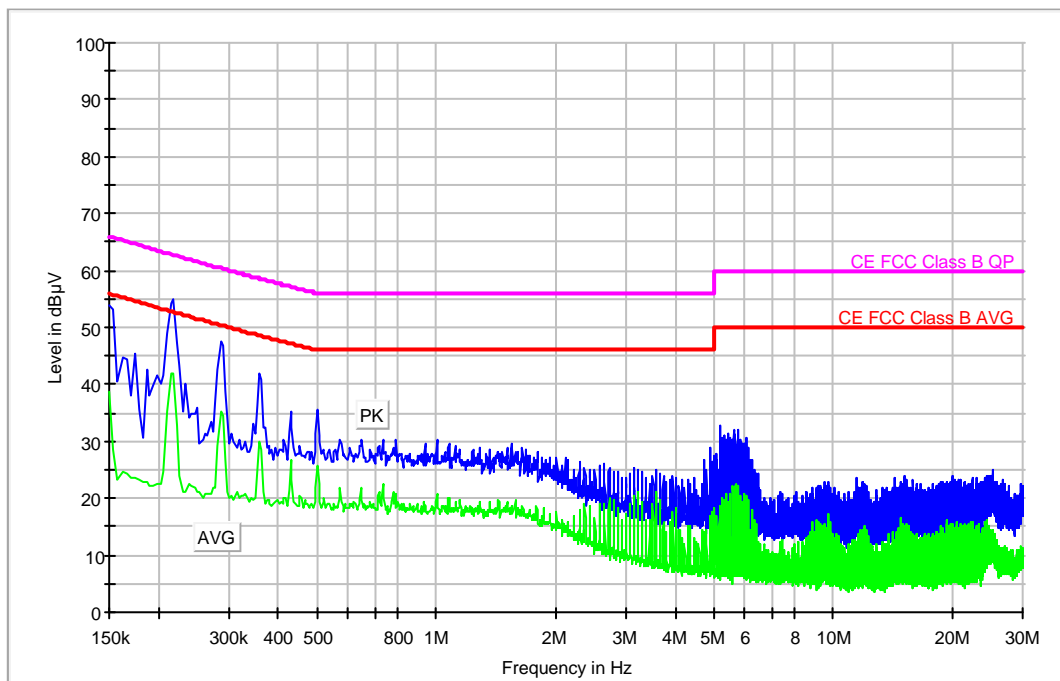
Continuous Conducted emission : CC02110N

Detector : Peak / Average / Cuasi-peak

RANGE (150 KHZ – 30 MHz).

Project: 29994REM.002  
 Company: ETS KOREA  
 Sample: S/02  
 Operation Mode: OM#11  
 Date: 2009-07-07 09:03  
 Setup: EMI conducted  
 Mode: EUT ON. BT activated. Charging batteries from USB cable. Neutral noise.

### EC FCC Class B ESPI CC



### Subrange Maxima

Frequency (MHz)	MaxPeak-ClearWrite (dBµV)	Average-ClearWrite (dBµV)
0.218000	54.9	42.1
0.286000	47.4	35.1
0.502000	35.7	25.8
0.650000	30.4	19.9
1.006000	30.3	20.8
1.542000	29.7	17.9
2.154000	26.6	15.7
4.882000	28.7	11.8
5.166000	32.7	18.5
11.470000	23.5	10.5
15.046000	23.8	15.1
25.170000	25.0	13.4

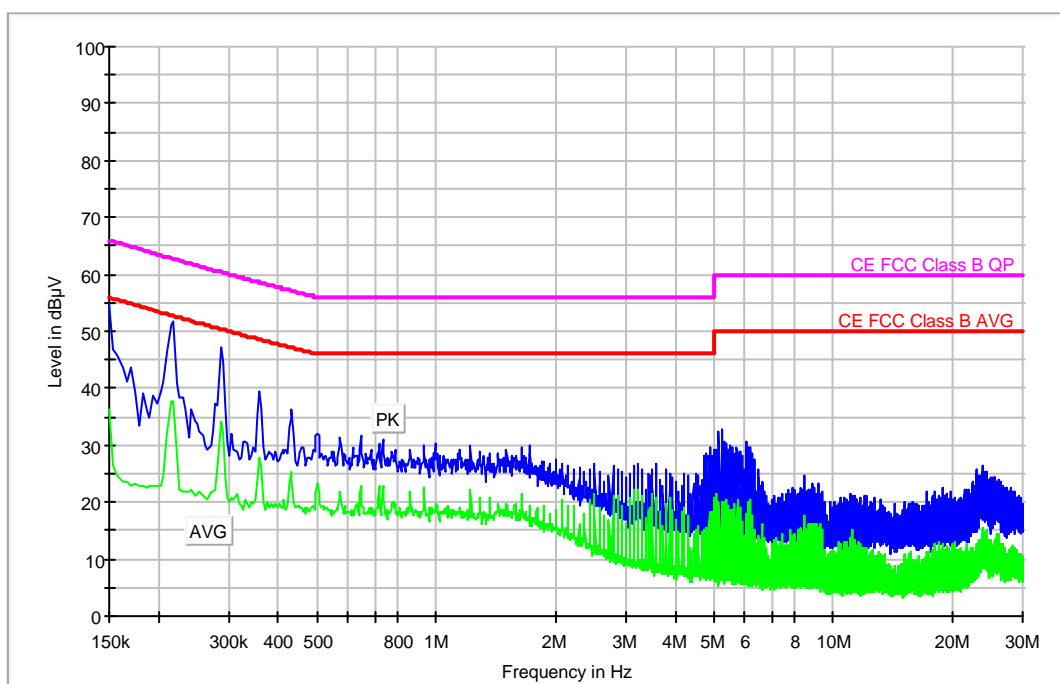
Continuous Conducted emission : CC0212L1

Detector : Peak / Average / Cuasi-peak

RANGE (150 KHZ – 30 MHz).

Project: 29994REM.002  
 Company: ETS KOREA  
 Sample: S/02  
 Operation Mode: OM#12  
 Date: 2009-07-07 09:18  
 Setup: EMI conducted  
 Mode: EUT ON. BT transmission. mode. Charging batteries from USB cable. Phase noise.

### EC FCC Class B ESPI CC



### Subrange Maxima

Frequency (MHz)	MaxPeak-ClearWrite (dBµV)	Average-ClearWrite (dBµV)
0.150000	54.4	36.3
0.286000	47.1	34.0
0.434000	36.1	23.9
0.646000	31.6	23.1
0.998000	30.1	19.5
1.722000	29.9	19.1
2.506000	26.8	21.6
4.874000	29.6	15.1
5.230000	32.9	20.0
8.446000	24.7	17.5
18.762000	22.6	12.6
23.910000	26.3	13.1

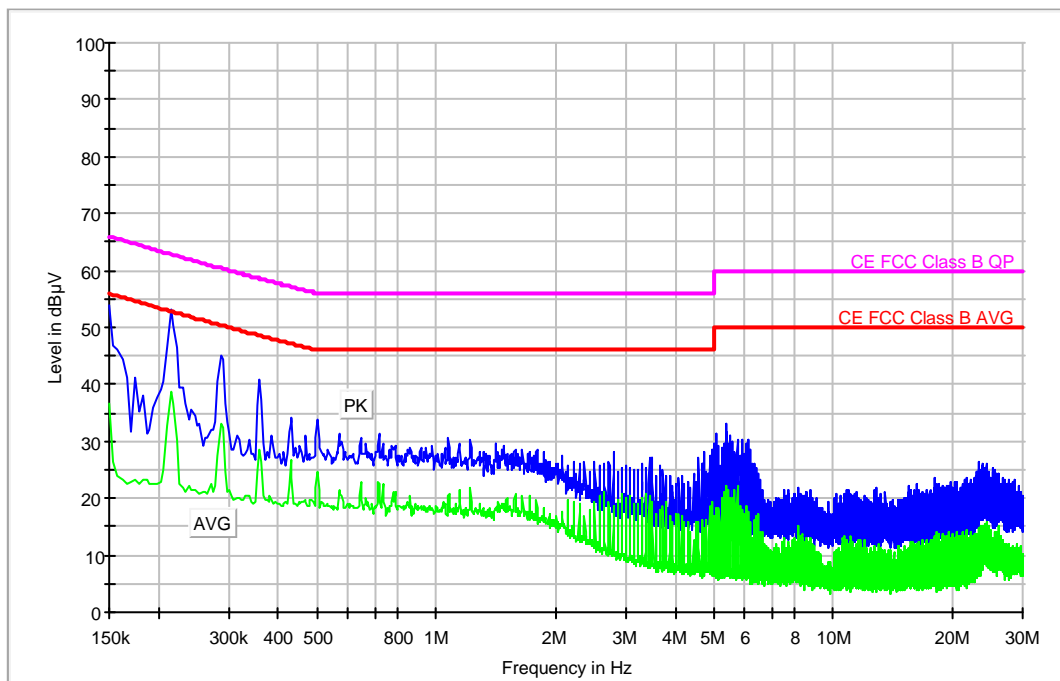
Continuous Conducted emission : CC02120N

Detector : Peak / Average / Cuasi-peak

RANGE (150 KHZ – 30 MHz).

Project: 29994REM.002  
 Company: ETS KOREA  
 Sample: S/02  
 Operation Mode: OM#12  
 Date: 2009-07-07 09:14  
 Setup: EMI conducted  
 Mode: EUT ON. BT transmission mode. Charging batteries from USB cable. Neutral noise.

### EC FCC Class B ESPI CC



### Subrange Maxima

Frequency (MHz)	MaxPeak-ClearWrite (dBµV)	Average-ClearWrite (dBµV)
0.150000	53.8	36.7
0.286000	45.1	33.1
0.434000	34.2	23.7
0.570000	31.4	21.4
1.074000	30.5	20.4
1.414000	29.7	18.0
2.794000	28.3	18.8
5.090000	31.2	14.4
5.370000	33.2	22.1
8.170000	21.9	13.5
17.906000	23.6	11.9
23.218000	26.4	14.8