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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

NIE :	33376REM.008	Rafael López Martín 	Firmado digitalmente por Rafael López Martín Fecha: 2011.09.28 16:47:52 +02'00'
Approved by (name / position & signature)	Rafael López EMC Manager		
Elaboration date	2011-08-26		

Identification of item tested	Mobile Broadband Module
Trademark	Ericsson
Model and/or type reference	H5321
Other identification of the product	S/N: C37003BSLA; C37003G8C7; C37003J4QJ Type number: KRD 131 21/1, KRD 131 21/4, KRD 131 21/8 FCC ID: VV7-MBMH5321 IC: 287AG-MBMH5321 IMEI TAC: 35873904; 35874004; 35874104 Final HW Version: R1 Final SW Version: R1A24
Features	QUAD BAND 850/900/1800/1900 GSM/GPRS/EGPRS class 10, WCDMA Bands I/II/V,VI, VIII HSDPA Cat. 14 HSUPA Cat. 6
Description	MiniPCI Half Size mini card.

Applicant	Ericsson AB
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e-mail.....	fredrik.a.claesson@ericsson.com

Test samples supplier	Ericsson AB
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e-mail.....	fredrik.a.claesson@ericsson.com
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CIF/NIF/Passport.....	SE556056625801
Contact person	Fredrik Claesson
Telephone / Fax	Phone: +46 10 7127856 Fax: +46 107126033
e-mail.....	fredrik.a.claesson@ericsson.com
Test method requested	
Standard.....	FCC Rules and Regulations 47 CFR Part 15
Test procedure.....	PEEM103; ANSI C63.4-2009
Report template No.....	FDT08_12
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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:

1. PODT000: Procedure for the measure uncertainty calculation.
2. FRF70: Procedure for the measure uncertainty calculation from 12,75 to 26GHz.

Usage of samples

Samples undergoing test have been selected by: The client.

Sample S/01 is composed of the following elements:

<u>Control N°</u>	<u>Description</u>	<u>Model</u>	<u>Serial N°</u>	<u>Date of reception</u>
33376B/92	Mobile Broadband Module	H5321	S/N: C37003BSLA Type number: KRD 131 21/8 FCC ID: VV7-MBMH5321 IC Type Approval: 287AG-MBMH5321 IMEI TAC: 35874104 Final HW Version: R1 Final SW Version: R1A24	2011/08/09

Sample S/02 is composed of the following elements:

<u>Control N°</u>	<u>Description</u>	<u>Model</u>	<u>Serial N°</u>	<u>Date of reception</u>
33376B/114	Mobile Broadband Module	H5321	S/N: C37003G8C7 Type number: KRD 131 21/4 FCC ID: VV7-MBMH5321 IC Type Approval: 287AG-MBMH5321 IMEI TAC: 35874004 Final HW Version: R1 Final SW Version: R1A24	2011/08/29

Sample S/03 is composed of the following elements:

<u>Control N°</u>	<u>Description</u>	<u>Model</u>	<u>Serial N°</u>	<u>Date of reception</u>
33376B/121	Mobile Broadband Module	H5321	S/N: C37003J4QJ Type number: KRD 131 21/1 FCC ID: VV7-MBMH5321 IC Type Approval: 287AG-MBMH5321 IMEI TAC: 35873904 Final HW Version: R1 Final SW Version: R1A24	2011/09/01

Auxiliary elements used with the samples S/01 to S/03:

<u>Control N°</u>	<u>Description</u>	<u>Model</u>	<u>Serial N°</u>	<u>Date of reception</u>
33376B/50	Cradle	---	---	2011/06/06
33376B/60	Power supply cable	---	---	2011/07/04
33376B/76	Antenna simulator	---	---	2011/07/15

Testing period

The performed test started on 2011-08-16 and finished on the 2011-09-07.

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 kΩ
Reference resistance to earth	< 0,5 Ω

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 kΩ
Reference resistance to earth	< 0,5 Ω
Normal site attenuation (NSA)	< ±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 kΩ
Reference resistance to earth	< 0,5 Ω

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 & José Manuel Marquez.

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, $I = \pm 4,48$ dB for peak measurements ($k = 2$) and from 1 to 12,75 GHz is $I = \pm 3,43$ dB for average and peak measurements.

The total uncertainty of the measurement system for the measured radio disturbance characteristics of EUT from 12,75 GHz to 26 GHz is $I = \pm 4,09$ dB for average and peak measurements.

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 ($k = 2$).

ANSI C63.4-2009 states that the frequency and amplitude of at least six spurious emission signals shall be reported. If there are less than six signals observed withing 20dB of the limit, then: "the noise level of the measuring instrument at representative frequencies shall be reported".

The H5321 Ericsson Mobile Broadband Module (FCC ID: VV7-MBMH5321; IC: 287AG-MBMH5321) comes with three different variants with minor HW changes depending on the support of the following features: GPS and tuneable antennas. A summary of the supported features is included below:

H5321 variants	GPS	Tuneable antennas
Variant 1	Yes	No
Variant 2	No	No
Variant 3	Yes	No

More detailed information about the different variants has been provided in the supporting documentation from the manufacturer.

These minor changes are supposed that will not affect to the performance of the device. A pre-scan on radiated and conducted emissions have been performed on the three different variants, being found that the three variants are electrically equivalent with no relevant changes on the test results. As conclusion, the test results included in this test report and corresponding to the variant 1 mentioned above are considered representative and valid for the three indicated HW variants.

Used Modules:

PTCRB#	Type	Model	Comments
26954	Variant	H5321 gw (KRD 131 21/1)	Half size. GPS. Label H5321 gw
26955	Variant	H5321 w (KRD 131 21/4)	Half size. w/o GPS. Label H5321 w
26956	Variant	H5321 gw (KRD 131 21/8)	Half size. GPS. With Tunable antenna. Label H5321 gw

It was realized a full testing on the sample S/01 and only Radiated Emission Spot-Checking on the samples S/02 & S/03.

Testing verdicts

Not applicable: NA

Pass.....: P

Fail: F

Not measured.....: NM

APPENDIX A

Test Result

APPENDIX A CONTENT:

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DESCRIPTION OF THE OPERATION MODES

The operation modes described in this paragraph constitute a functionality of the sample under test for itself. 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 850MHz. GPS ON. Nominal Power Supply: 3,3Vdc
OM#02	EUT ON. IDLE 1900MHz. GPS ON. Nominal Power Supply: 3,3Vdc
OM#03	EUT ON. IDLE UMTS FDD II. GPS ON. Nominal Power Supply: 3,3Vdc
OM#04	EUT ON. IDLE UMTS FDD V. GPS ON. Nominal Power Supply: 3,3Vdc
OM#05	EUT ON. TCH 850MHz. GPS ON. Nominal Power Supply: 3,3Vdc
OM#06	EUT ON. TCH 1900MHz. GPS ON. Nominal Power Supply: 3,3Vdc
OM#07	EUT ON. TCH UMTS FDD II. GPS ON. Nominal Power Supply: 3,3Vdc
OM#08	EUT ON. TCH UMTS FDD V. GPS ON. Nominal Power Supply: 3,3Vdc

RADIATED EMISSION. ELECTROMAGNETIC FIELD MEASURE.

LIMITS:	Product standard:	FCC RULES AND REGULATIONS 47 CFR PART 15, SUBPART B
	Test standard:	FCC RULES AND REGULATIONS 47 CFR PART 15, SUBPART B

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 25 GHz, for Class B equipment, which is a transmitter in a band over 500 MHz, was:

Frequency range (MHz)	Limit for 3 m ($\mu\text{V/m}$)	Limit for 3 m (dB $\mu\text{V/m}$)
30 to 88	100	40
88 to 216	150	43,52
216 to 960	200	46,02
Above 960	500	53,98

TESTED SAMPLES:	S/01; 02* & 03*
TESTED OPERATION MODES:	OM#01; 02; 03 & 04
TEST RESULTS :	CRmmnn: CR, Radiation Condition; mm: Sample number; nn: Operation mode, xx: Polarisation.

CRmmnn	Description	Result
CR0101	Range 30 - 1000 MHz. EUT ON. IDLE 850MHz. GPS ON. Nominal Power Supply: 3,3Vdc	P
CR0101_PH	Range 1 – 18 GHz. Horizontal polarization. EUT ON. IDLE 850MHz. GPS ON. Nominal Power Supply: 3,3Vdc	P
CR0101_PV	Range 1 – 18 GHz. Vertical polarization. EUT ON. IDLE 850MHz. GPS ON. Nominal Power Supply: 3,3Vdc	P
CR0101_PH	Range 18 – 25 GHz. Horizontal polarization. EUT ON. IDLE 850MHz. GPS ON. Nominal Power Supply: 3,3Vdc	P
CR0101_PV	Range 18 – 25 GHz. Vertical polarization. EUT ON. IDLE 850MHz. GPS ON. Nominal Power Supply: 3,3Vdc	P
CR0102	Range 30 - 1000 MHz. EUT ON. IDLE 1900MHz. GPS ON. Nominal Power Supply: 3,3Vdc	P
CR0102_PH	Range 1 – 18 GHz. Horizontal polarization. EUT ON. IDLE 1900MHz. GPS ON. Nominal Power Supply: 3,3Vdc	P
CR0102_PV	Range 1 – 18 GHz. Vertical polarization. EUT ON. IDLE 1900MHz. GPS ON. Nominal Power Supply: 3,3Vdc	P
CR0102_PH	Range 18 – 25 GHz. Horizontal polarization. EUT ON. IDLE 1900MHz. GPS ON. Nominal Power Supply: 3,3Vdc	P
CR0102_PV	Range 18 – 25 GHz. Vertical polarization. EUT ON. IDLE 1900MHz. GPS ON. Nominal Power Supply: 3,3Vdc	P

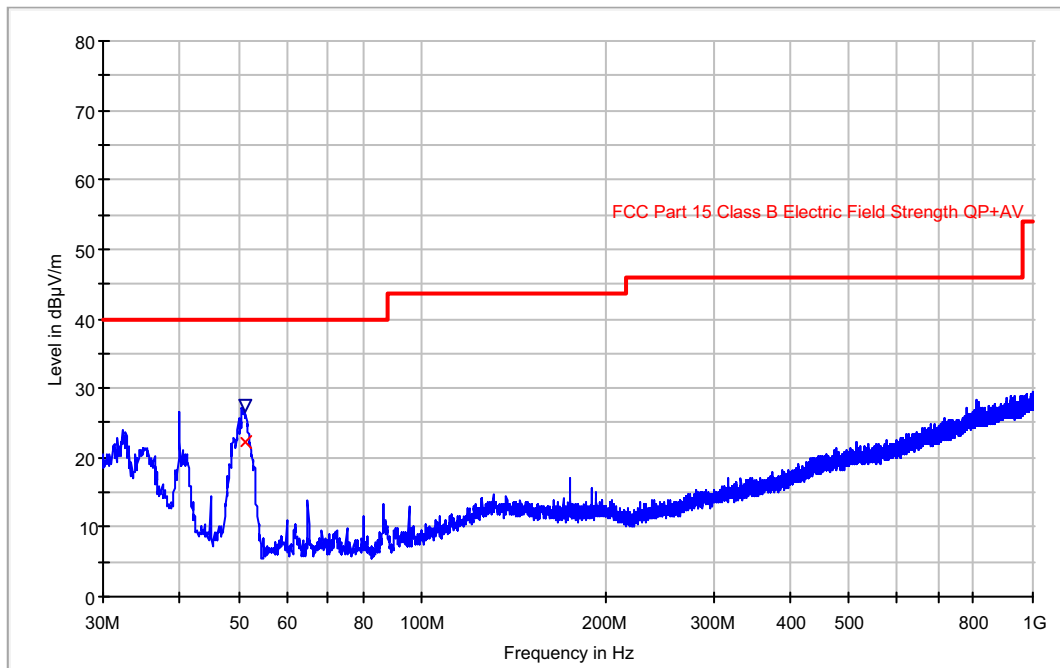
TEST RESULTS:		(Cont.)
CRmmnn	Description	Result
CR0103	Range 30 - 1000 MHz. EUT ON. IDLE UMTS FDD BAND II. GPS ON. Nominal Power Supply: 3,3Vdc	P
CR0103_PH	Range 1 – 18 GHz. Horizontal polarization. EUT ON. IDLE UMTS FDD BAND II. GPS ON. Nominal Power Supply: 3,3Vdc	P
CR0103_PV	Range 1 – 18 GHz. Vertical polarization. EUT ON. IDLE UMTS FDD BAND II. GPS ON. Nominal Power Supply: 3,3Vdc	P
CR0103_PH	Range 18 – 25 GHz. Horizontal polarization. EUT ON. IDLE UMTS FDD BAND II. GPS ON. Nominal Power Supply: 3,3Vdc	P
CR0103_PV	Range 18 – 25 GHz. Vertical polarization. EUT ON. IDLE UMTS FDD BAND II. GPS ON. Nominal Power Supply: 3,3Vdc	P
CR0104	Range 30 - 1000 MHz. EUT ON. IDLE UMTS FDD BAND V. GPS ON. Nominal Power Supply: 3,3Vdc	P
CR0104_PH	Range 1 – 18 GHz. Horizontal polarization. EUT ON. IDLE UMTS FDD BAND V. GPS ON. Nominal Power Supply: 3,3Vdc	P
CR0104_PV	Range 1 – 18 GHz. Vertical polarization. EUT ON. IDLE UMTS FDD BAND V. GPS ON. Nominal Power Supply: 3,3Vdc	P
CR0104_PH	Range 18 – 25 GHz. Horizontal polarization. EUT ON. IDLE UMTS FDD BAND V. GPS ON. Nominal Power Supply: 3,3Vdc	P
CR0104_PV	Range 18 – 25 GHz. Vertical polarization. EUT ON. IDLE UMTS FDD BAND V. GPS ON. Nominal Power Supply: 3,3Vdc	P
CR0201	Range 30 - 1000 MHz. EUT ON. IDLE 850MHz. GPS ON. Nominal Power Supply: 3,3Vdc	p*
CR0202	Range 30 - 1000 MHz. EUT ON. IDLE 1900MHz. GPS ON. Nominal Power Supply: 3,3Vdc	p*
CR0203	Range 30 - 1000 MHz. EUT ON. IDLE UMTS FDD BAND II. GPS ON. Nominal Power Supply: 3,3Vdc	p*
CR0204	Range 30 - 1000 MHz. EUT ON. IDLE UMTS FDD BAND V. GPS ON. Nominal Power Supply: 3,3Vdc	p*
CR0301	Range 30 - 1000 MHz. EUT ON. IDLE 850MHz. GPS ON. Nominal Power Supply: 3,3Vdc	p*
CR0302	Range 30 - 1000 MHz. EUT ON. IDLE 1900MHz. GPS ON. Nominal Power Supply: 3,3Vdc	p*
CR0303	Range 30 - 1000 MHz. EUT ON. IDLE UMTS FDD BAND II. GPS ON. Nominal Power Supply: 3,3Vdc	p*
CR0304	Range 30 - 1000 MHz. EUT ON. IDLE UMTS FDD BAND V. GPS ON. Nominal Power Supply: 3,3Vdc	p*

*On samples S/02 and S/03 it was measured only an radiated emission Spot-Checking.

Radiated Emission: CR0101 (30MHz to 1GHz)

Project: 33376REM.008
 Company: ERICSSON AB
 Sample: S/01
 Operation mode: OM#01
 Setup: EMI radiated
 Mode: EUT ON. Idle 850 MHz. GPS ON. Nominal Power Supply: 3,3Vdc.

FCC class B Bilog Hybrid



Maximized

Frequency (MHz)	QuasiPeak (dBµV/m)	MaxPeak (dBµV/m)	Antenna height (cm)	Polarity	Turntable position (deg)
51.179960	22.2	27.3	114.00	V	314.0

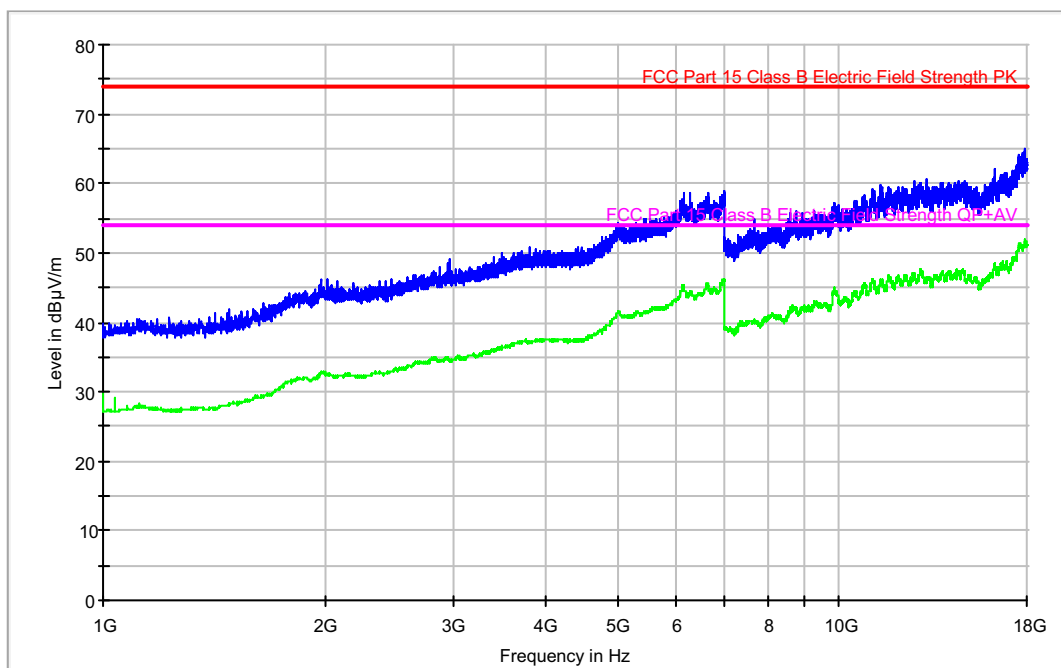
Subrange Maxima

Frequency (MHz)	MaxPeak-ClearWrite (dBµV/m)	Antenna height (cm)	Polarity	Turntable position (deg)
40.000000	26.5	149.00	V	88.0
86.600000	13.2	149.00	V	-2.0
130.500000	14.6	149.00	V	88.0
175.000000	17.1	149.00	H	-2.0
414.400000	19.1	149.00	V	88.0
638.400000	23.5	149.00	V	88.0

Radiated Emission: CR0101_PH (1GHz to 18GHz)

Project: 33376REM.008
 Company: ERICSSON AB
 Sample: S/01
 Operation mode: OM#01
 Setup: EMI radiated
 Mode: EUT ON. Idle 850MHz. GPS ON. Nominal Power Supply: 3,3Vdc. Horizontal polarization.

FCC 1-18GHz class B



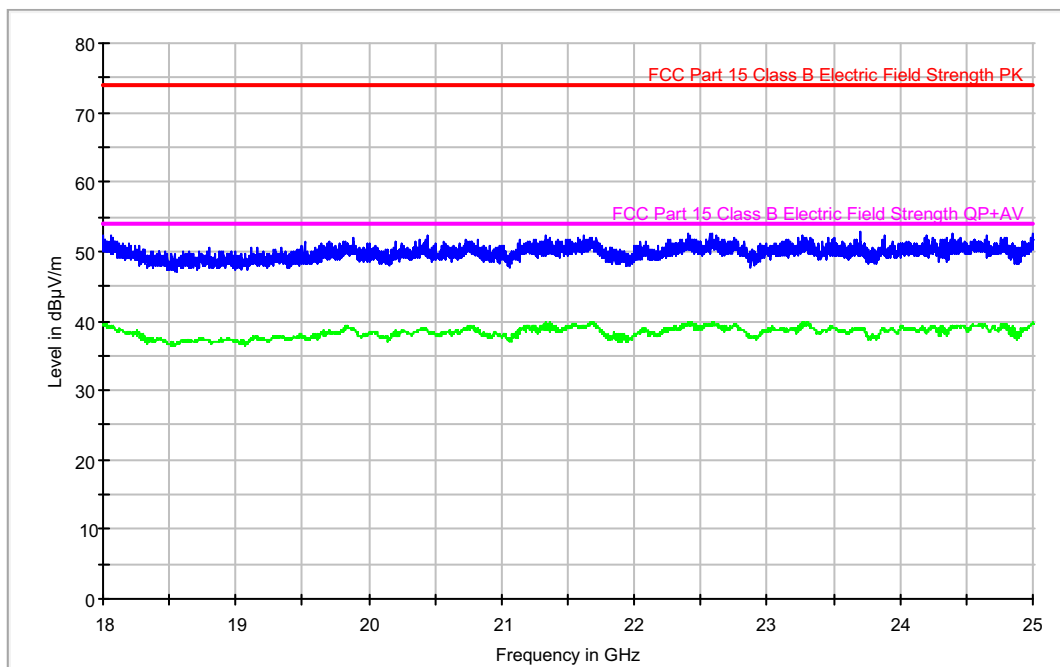
Subrange Maxima

Frequency (GHz)	MaxPeak-ClearWrite (dBµV/m)	Average-ClearWrite (dBµV/m)
2.000000	45.1	32.4
4.000000	50.2	37.6
6.000000	56.2	43.6
8.000000	53.9	41.2
10.000000	57.6	43.2
18.000000	64.3	52.1

Radiated Emission: CR0101_PH (18GHz to 25GHz)

Project: 33376REM.008
 Company: ERICSSON AB
 Sample: S/01
 Operation mode: OM#01
 Setup: EMI radiated
 Mode: EUT ON. Idle 850MHz. GPS ON. Nominal Power Supply: 3,3Vdc. Horizontal polarization.

FCC 18-25GHz class B



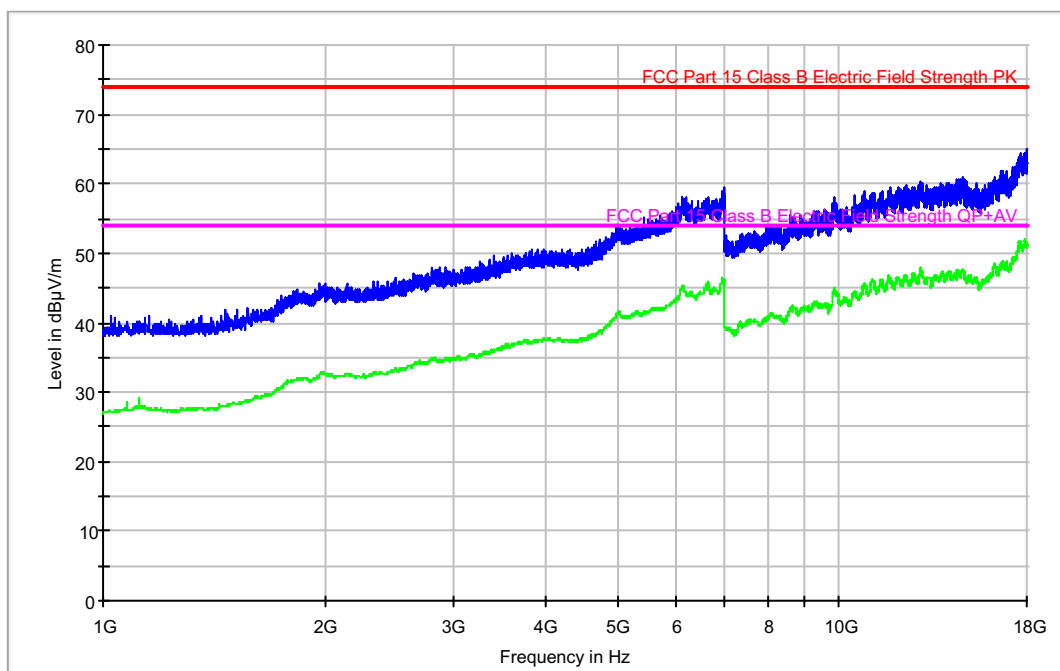
Subrange Maxima

Frequency (GHz)	MaxPeak-ClearWrite (dBµV/m)	Average-ClearWrite (dBµV/m)
19.000000	50.2	37.4
20.000000	51.0	38.2
21.000000	50.7	39.2
22.000000	50.8	38.0
23.000000	50.4	38.2
24.000000	51.4	38.4

Radiated Emission: CR0101_PV (1GHz to 18GHz)

Project: 33376REM.008
 Company: ERICSSON AB
 Sample: S/01
 Operation mode: OM#01
 Setup: EMI radiated
 Mode: EUT ON. Idle 850MHz. GPS ON. Nominal Power Supply: 3,3Vdc.
 Vertical polarization.

FCC 1-18GHz class B



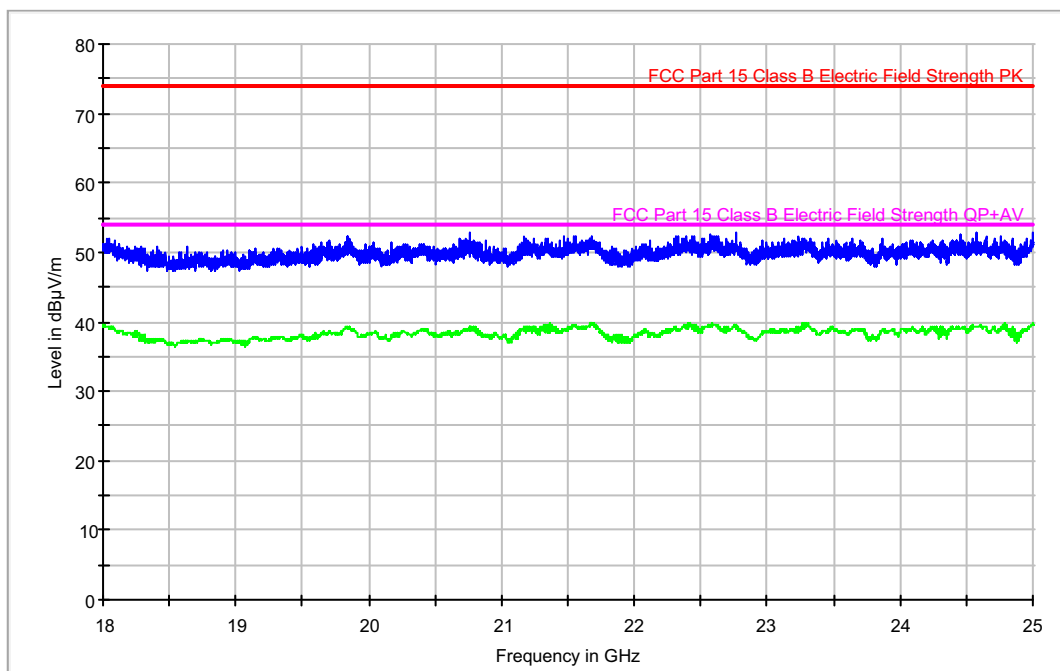
Subrange Maxima

Frequency (GHz)	MaxPeak-ClearWrite (dBµV/m)	Average-ClearWrite (dBµV/m)
2.000000	45.2	32.5
4.000000	50.3	37.7
6.000000	56.1	43.6
8.000000	53.9	41.3
10.000000	57.7	43.2
18.000000	64.4	52.2

Radiated Emission: CR0101_PV (18GHz to 25GHz)

Project: 33376REM.008
 Company: ERICSSON AB
 Sample: S/01
 Operation mode: OM#01
 Setup: EMI radiated
 Mode: EUT ON. Idle 850MHz. GPS ON. Nominal Power Supply: 3,3Vdc. Vertical polarization.

FCC 18-25GHz class B



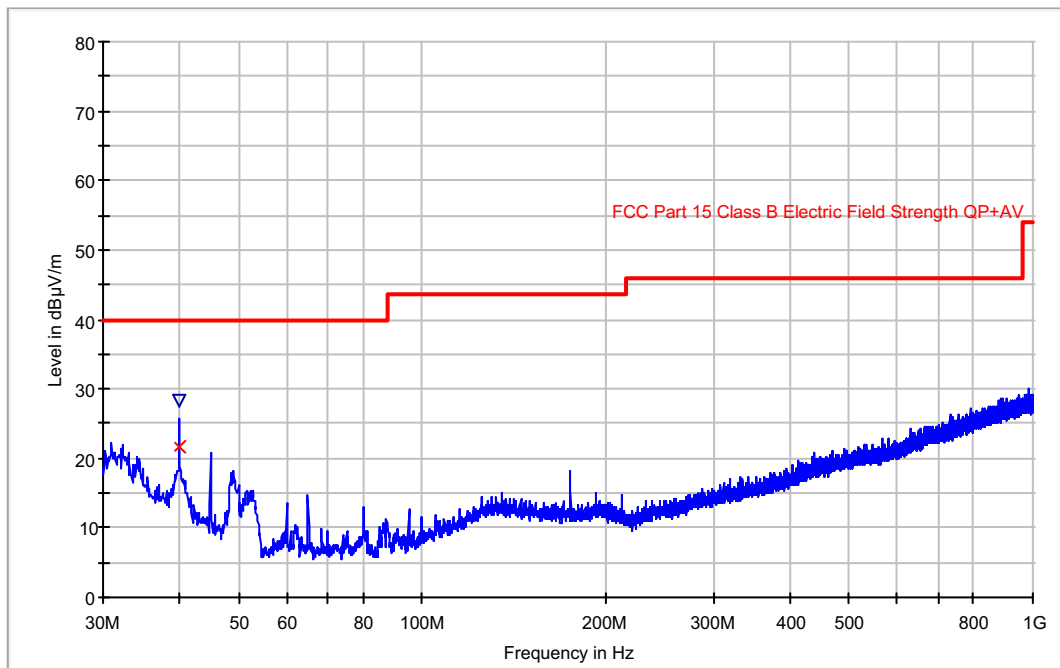
Subrange Maxima

Frequency (GHz)	MaxPeak-ClearWrite (dBµV/m)	Average-ClearWrite (dBµV/m)
19.000000	50.3	37.5
20.000000	51.1	38.1
21.000000	50.6	39.1
22.000000	50.9	38.1
23.000000	50.5	38.3
24.000000	51.3	38.5

Radiated Emission: CR0102 (30MHz to 1GHz)

Project: 33376REM.008
 Company: ERICSSON AB
 Sample: S/01
 Operation mode: OM#02
 Setup: EMI radiated
 Mode: EUT ON. Idle 1900 MHz. GPS ON. Nominal Power Supply: 3,3Vdc.

FCC class B Bilog Hybrid



Maximized

Frequency (MHz)	QuasiPeak (dBµV/m)	MaxPeak (dBµV/m)	Antenna height (cm)	Polarity	Turntable position (deg)
40.045090	21.7	28.2	98.00	V	225.0

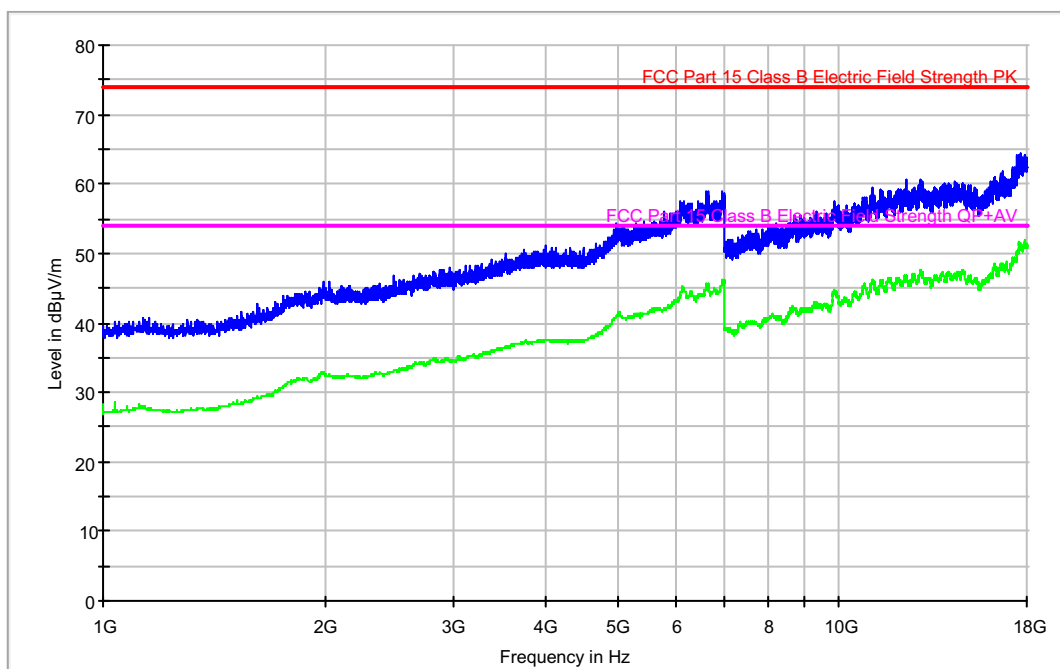
Subrange Maxima

Frequency (MHz)	MaxPeak-ClearWrite (dBµV/m)	Antenna height (cm)	Polarity	Turntable position (deg)
49.000000	18.1	148.00	V	88.0
80.000000	13.1	148.00	V	-2.0
135.000000	14.9	148.00	V	-2.0
175.000000	18.1	148.00	V	-2.0
411.900000	19.7	148.00	V	-2.0
630.000000	24.3	148.00	V	88.0

Radiated Emission: CR0102_PH (1GHz to 18GHz)

Project: 33376REM.008
 Company: ERICSSON AB
 Sample: S/01
 Operation mode: OM#02
 Setup: EMI radiated
 Mode: EUT ON. Idle 1900MHz. GPS ON. Nominal Power Supply: 3,3Vdc.
 Horizontal polarization.

FCC 1-18GHz class B



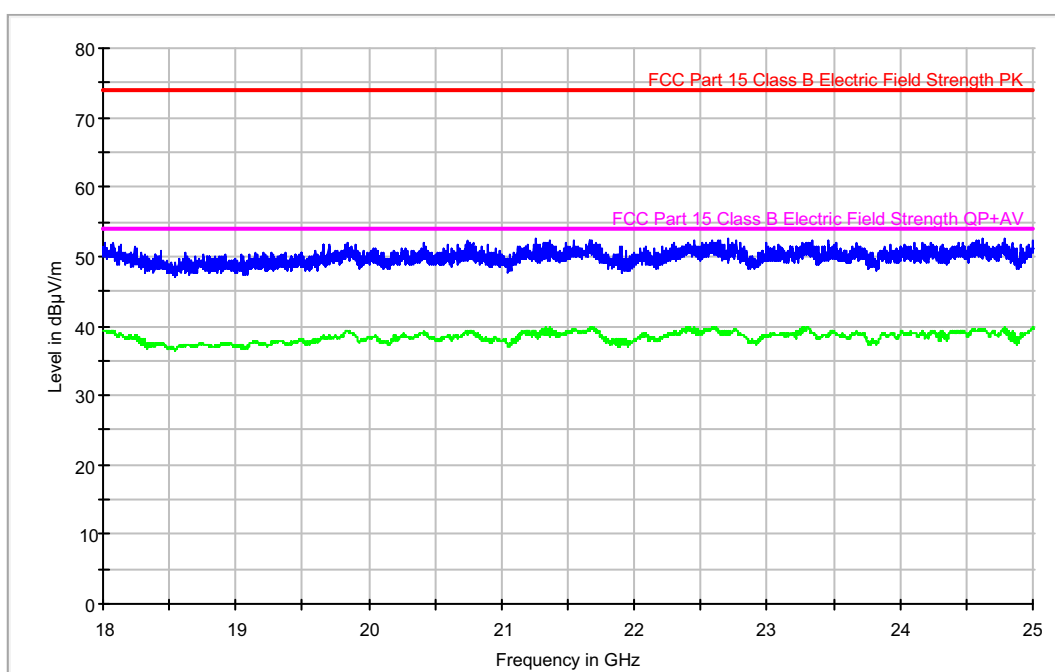
Subrange Maxima

Frequency (GHz)	MaxPeak-ClearWrite (dBµV/m)	Average-ClearWrite (dBµV/m)
2.000000	45.0	32.4
4.000000	50.2	37.6
6.000000	56.3	43.7
8.000000	53.8	41.3
10.000000	57.5	43.3
18.000000	64.2	52.0

Radiated Emission: CR0102_PH (18GHz to 25GHz)

Project: 33376REM.008
 Company: ERICSSON AB
 Sample: S/01
 Operation mode: OM#02
 Setup: EMI radiated
 Mode: EUT ON. Idle 1900MHz. GPS ON. Nominal Power Supply: 3,3Vdc. Horizontal polarization.

FCC 18-25GHz class B



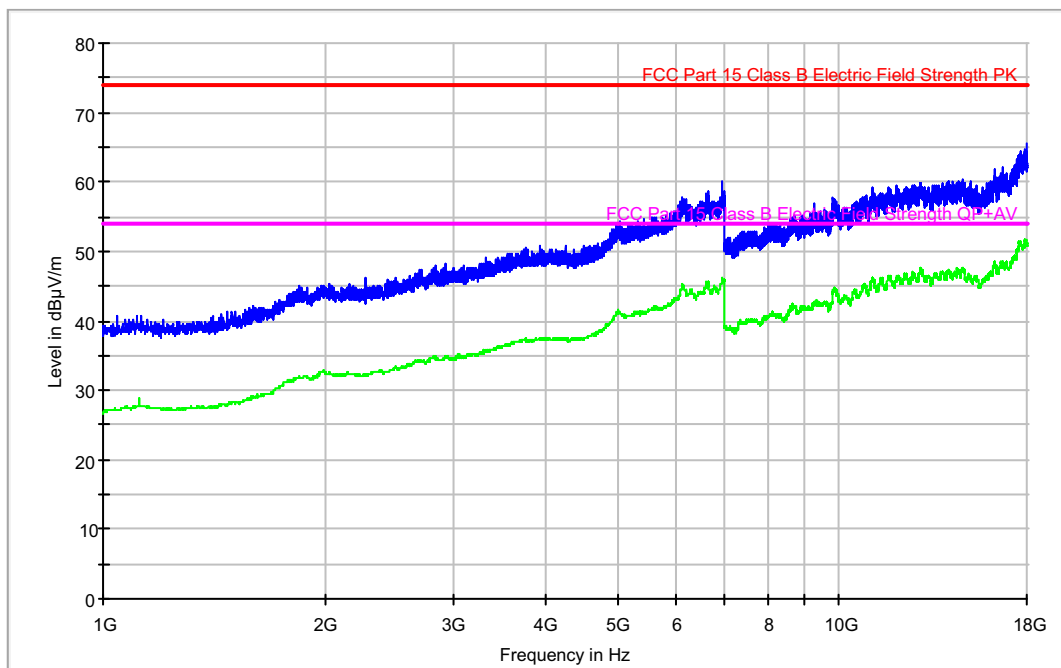
Subrange Maxima

Frequency (GHz)	MaxPeak-ClearWrite (dBµV/m)	Average-ClearWrite (dBµV/m)
19.000000	50.2	37.4
20.000000	50.9	38.1
21.000000	50.7	39.2
22.000000	50.8	38.0
23.000000	50.6	38.3
24.000000	51.5	38.5

Radiated Emission: CR0102_PV (1GHz to 18GHz)

Project: 33376REM.008
 Company: ERICSSON AB
 Sample: S/01
 Operation mode: OM#02
 Setup: EMI radiated
 Mode: EUT ON. Idle 1900MHz. GPS ON. Nominal Power Supply: 3,3Vdc.
 Vertical polarization.

FCC 1-18GHz class B



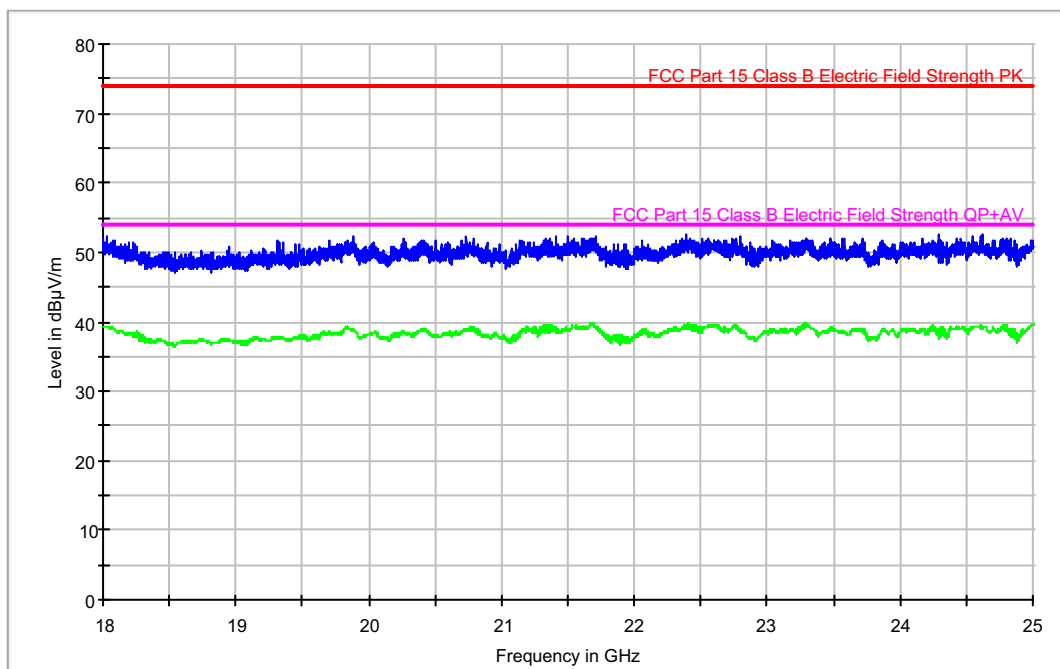
Subrange Maxima

Frequency (GHz)	MaxPeak-ClearWrite (dBµV/m)	Average-ClearWrite (dBµV/m)
2.000000	45.0	32.3
4.000000	50.2	37.7
6.000000	56.3	43.6
8.000000	53.9	41.2
10.000000	57.7	43.4
18.000000	64.3	52.2

Radiated Emission: CR0102_PV (18GHz to 25GHz)

Project: 33376REM.008
 Company: ERICSSON AB
 Sample: S/01
 Operation mode: OM#02
 Setup: EMI radiated
 Mode: EUT ON. Idle 1900MHz. GPS ON. Nominal Power Supply: 3,3Vdc. Vertical polarization.

FCC 18-25GHz class B



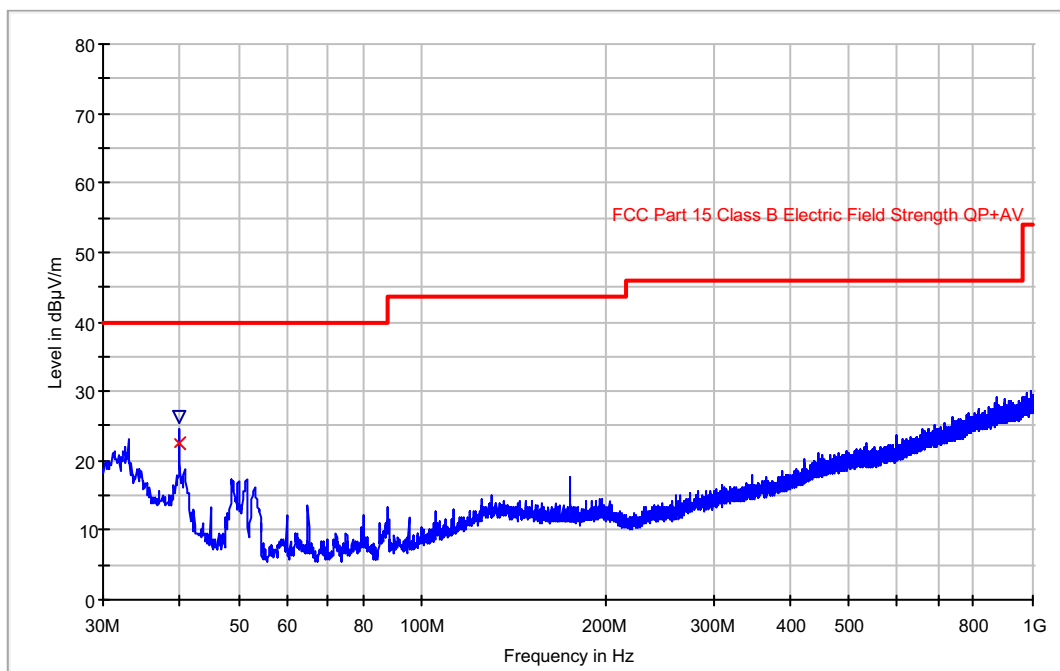
Subrange Maxima

Frequency (GHz)	MaxPeak-ClearWrite (dBµV/m)	Average-ClearWrite (dBµV/m)
19.000000	50.3	37.3
20.000000	51.1	38.1
21.000000	50.7	39.2
22.000000	50.9	38.2
23.000000	50.3	38.1
24.000000	51.4	38.3

Radiated Emission: CR0103 (30MHz to 1GHz)

Project: 33376REM.008
 Company: ERICSSON AB
 Sample: S/01
 Operation mode: OM#03
 Setup: EMI radiated
 Mode: EUT ON. Idle UMTS FDD Band II. GPS ON. Nominal Power Supply: 3,3Vdc.

FCC class B Bilog Hybrid



Maximized

Frequency (MHz)	QuasiPeak (dBµV/m)	MaxPeak (dBµV/m)	Antenna height (cm)	Polarity	Turntable position (deg)
39.992986	22.6	26.4	98.00	V	59.0

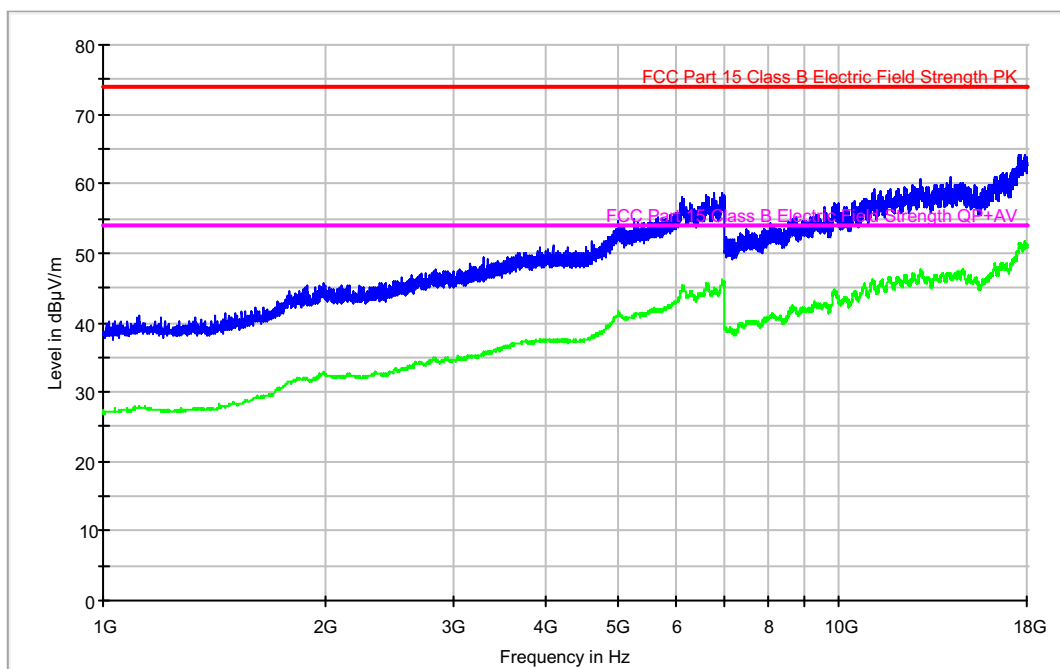
Subrange Maxima

Frequency (MHz)	MaxPeak-ClearWrite (dBµV/m)	Antenna height (cm)	Polarity	Turntable position (deg)
48.700000	17.4	151.00	V	88.0
87.600000	13.4	151.00	V	88.0
130.000000	14.9	151.00	V	-2.0
175.000000	17.7	151.00	V	-2.0
411.000000	18.9	151.00	V	-2.0
597.700000	23.7	151.00	V	88.0
995.200000	30.0	151.00	H	88.0

Radiated Emission: CR0103_PH (1GHz to 18GHz)

Project: 33376REM.008
 Company: ERICSSON AB
 Sample: S/01
 Operation mode: OM#03
 Setup: EMI radiated
 Mode: EUT ON. IDLE UMTS FDD Band II. GPS ON. Nominal Power Supply: 3,3Vdc.
 Horizontal polarization.

FCC 1-18GHz class B



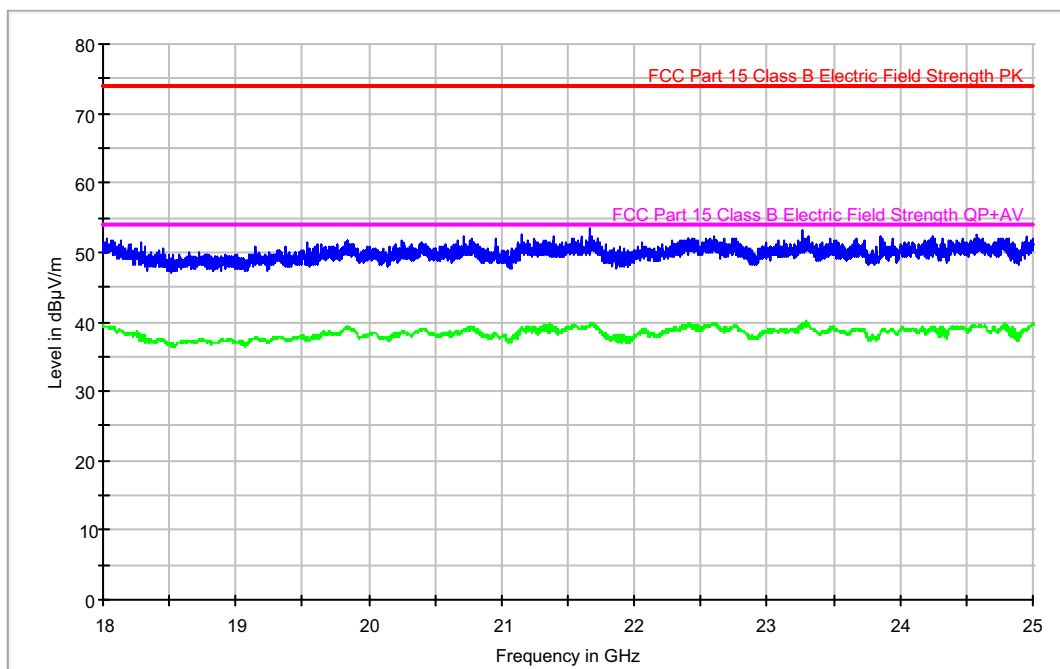
Subrange Maxima

Frequency (GHz)	MaxPeak-ClearWrite (dBµV/m)	Average-ClearWrite (dBµV/m)
2.000000	45.1	32.5
4.000000	50.3	37.7
6.000000	56.2	43.6
8.000000	53.9	41.2
10.000000	57.7	43.2
18.000000	64.3	52.3

Radiated Emission: CR0103_PH (18GHz to 25GHz)

Project: 33376REM.008
 Company: ERICSSON AB
 Sample: S/01
 Operation mode: OM#03
 Setup: EMI radiated
 Mode: EUT ON. Idle UMTS FDD Band II. GPS ON. Nominal Power Supply: 3,3Vdc.
 Horizontal polarization.

FCC 18-25GHz class B



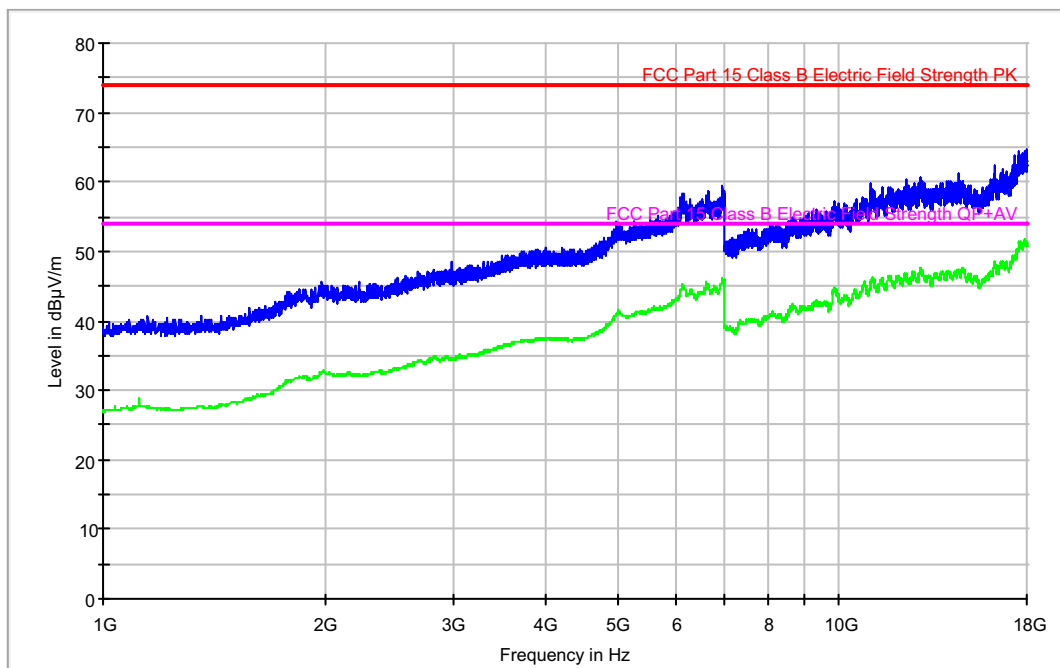
Subrange Maxima

Frequency (GHz)	MaxPeak-ClearWrite (dBµV/m)	Average-ClearWrite (dBµV/m)
19.000000	50.3	37.3
20.000000	51.1	38.3
21.000000	50.6	39.0
22.000000	50.6	38.2
23.000000	50.5	38.1
24.000000	51.4	38.5

Radiated Emission: CR0103_PV (1GHz to 18GHz)

Project: 33376REM.008
 Company: ERICSSON AB
 Sample: S/01
 Operation mode: OM#03
 Setup: EMI radiated
 Mode: EUT ON. Idle UMTS FDD Band II. GPS ON. Nominal Power Supply: 3,3Vdc. Vertical polarization.

FCC 1-18GHz class B



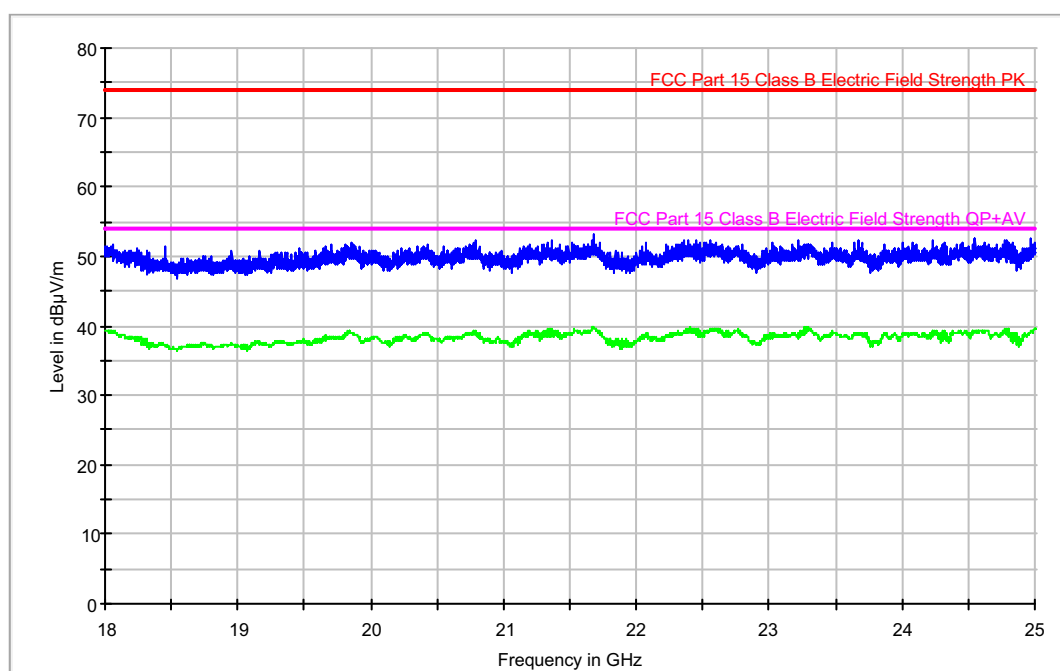
Subrange Maxima

Frequency (GHz)	MaxPeak-ClearWrite (dBµV/m)	Average-ClearWrite (dBµV/m)
2.000000	45.1	32.3
4.000000	50.2	37.6
6.000000	56.2	43.7
8.000000	54.0	41.2
10.000000	57.6	43.3
18.000000	64.4	52.1

Radiated Emission: CR0103_PV (18GHz to 25GHz)

Project: 33376REM.008
 Company: ERICSSON AB
 Sample: S/01
 Operation mode: OM#03
 Setup: EMI radiated
 Mode: EUT ON. Idle UMTS FDD Band II. GPS ON. Nominal Power Supply: 3,3Vdc. Vertical polarization.

FCC 18-25GHz class B



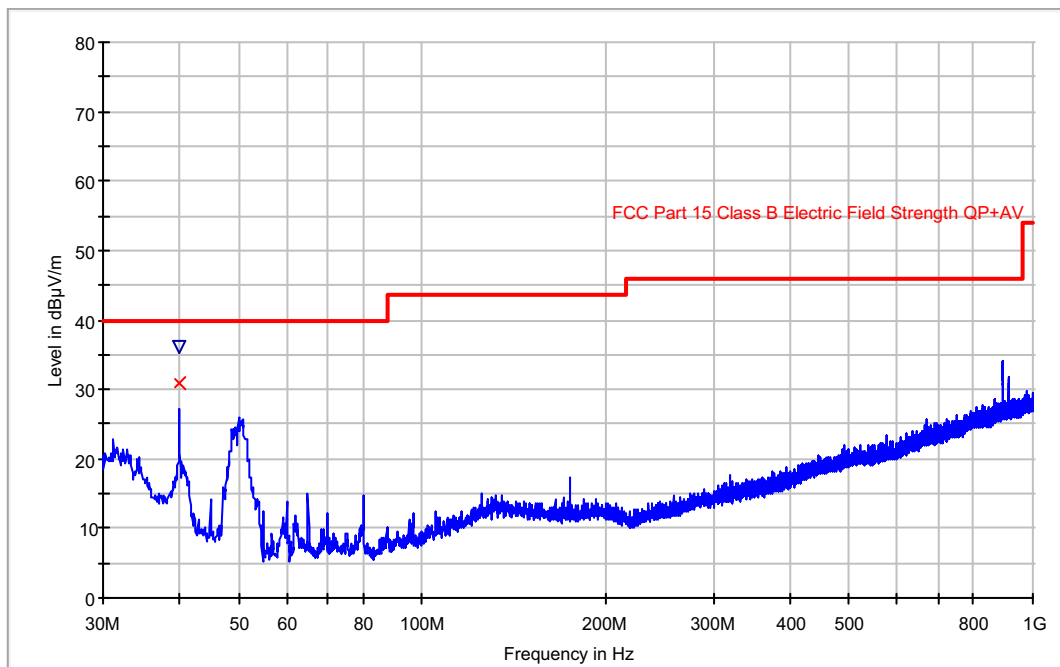
Subrange Maxima

Frequency (GHz)	MaxPeak-ClearWrite (dBµV/m)	Average-ClearWrite (dBµV/m)
19.000000	50.3	37.3
20.000000	51.1	38.3
21.000000	50.8	39.2
22.000000	50.8	38.1
23.000000	50.3	38.2
24.000000	51.4	38.5

Radiated Emission: CR0104 (30MHz to 1GHz)

Project: 33376REM.008
 Company: ERICSSON AB
 Sample: S/01
 Operation mode: OM#04
 Setup: EMI radiated
 Mode: EUT ON. Idle UMTS FDD Band V. GPS ON. Nominal Power Supply: 3,3Vdc.

FCC class B Bilog Hybrid



Maximized

Frequency (MHz)	QuasiPeak (dBµV/m)	MaxPeak (dBµV/m)	Antenna height (cm)	Polarity	Turntable position (deg)
40.023046	31.0	36.0	98.00	V	222.0

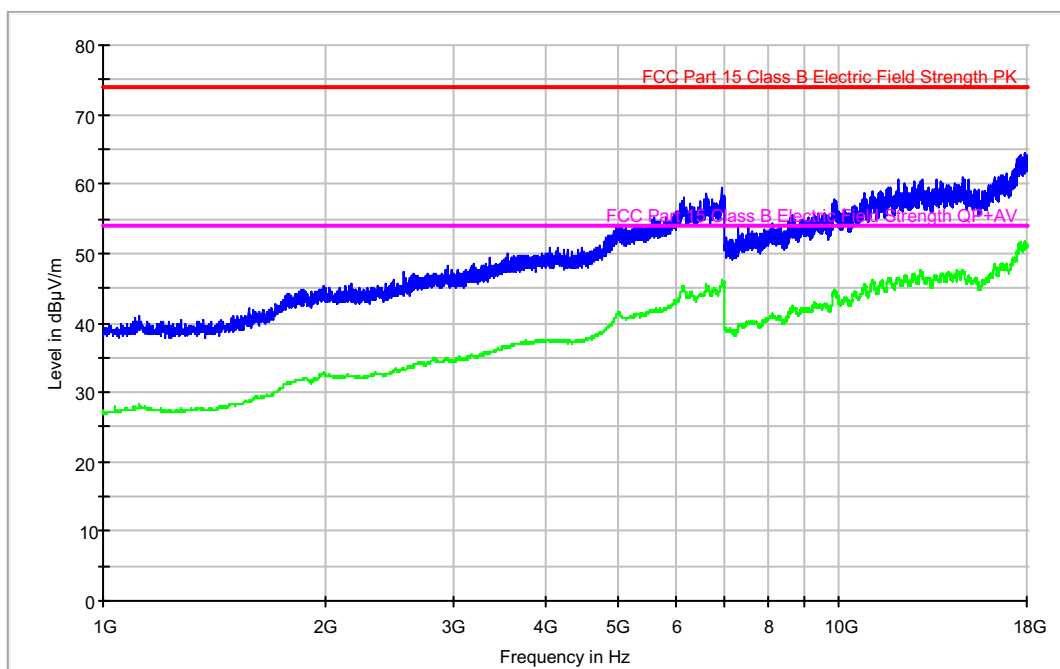
Subrange Maxima

Frequency (MHz)	MaxPeak-ClearWrite (dBµV/m)	Antenna height (cm)	Polarity	Turntable position (deg)
50.000000	26.0	147.00	V	88.0
80.000000	14.9	147.00	V	-2.0
125.000000	15.1	147.00	V	-2.0
175.000000	17.4	147.00	V	-2.0
412.600000	19.0	147.00	V	-2.0
891.600000	34.0	147.00	V	-2.0

Radiated Emission: CR0104_PH (1GHz to 18GHz)

Project: 33376REM.008
 Company: ERICSSON AB
 Sample: S/01
 Operation mode: OM#04
 Setup: EMI radiated
 Mode: EUT ON. Idle UMTS FDD Band V. GPS ON. Nominal Power Supply: 3,3Vdc. Horizontal polarization.

FCC 1-18GHz class B



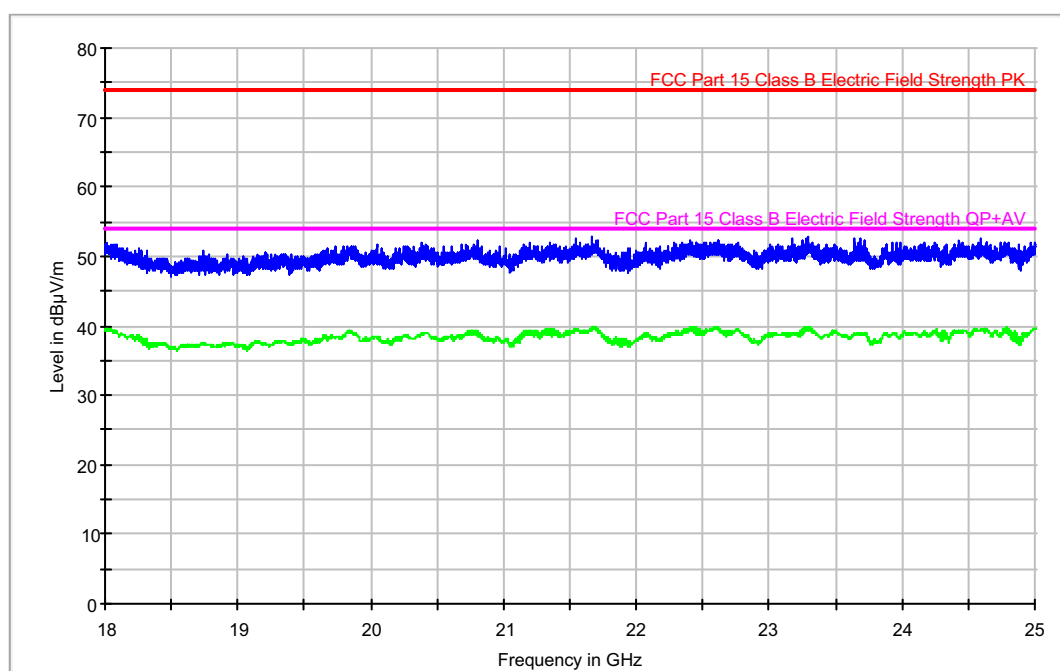
Subrange Maxima

Frequency (GHz)	MaxPeak-ClearWrite (dBµV/m)	Average-ClearWrite (dBµV/m)
2.000000	45.1	32.4
4.000000	50.3	37.5
6.000000	56.2	43.6
8.000000	53.8	41.3
10.000000	57.6	43.2
18.000000	64.4	52.2

Radiated Emission: CR0104_PH (18GHz to 25GHz)

Project: 33376REM.008
 Company: ERICSSON AB
 Sample: S/01
 Operation mode: OM#04
 Setup: EMI radiated
 Mode: EUT ON. Idle UMTS FDD Band V. GPS ON. Nominal Power Supply: 3,3Vdc. Horizontal polarization.

FCC 18-25GHz class B



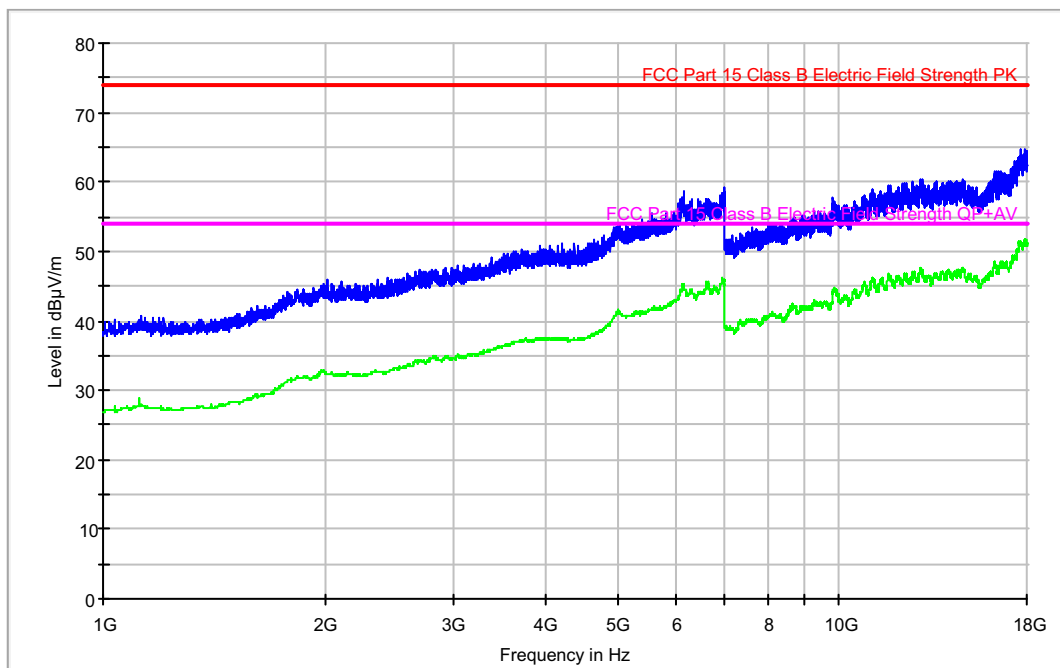
Subrange Maxima

Frequency (GHz)	MaxPeak-ClearWrite (dBµV/m)	Average-ClearWrite (dBµV/m)
19.000000	50.3	37.5
20.000000	51.2	38.2
21.000000	50.8	39.3
22.000000	50.7	38.1
23.000000	50.3	38.3
24.000000	51.3	38.5

Radiated Emission: CR0104_PV (1GHz to 18GHz)

Project: 33376REM.008
 Company: ERICSSON AB
 Sample: S/01
 Operation mode: OM#04
 Setup: EMI radiated
 Mode: EUT ON. Idle UMTS FDD Band V. GPS ON. Nominal Power Supply: 3,3Vdc. Vertical polarization.

FCC 1-18GHz class B



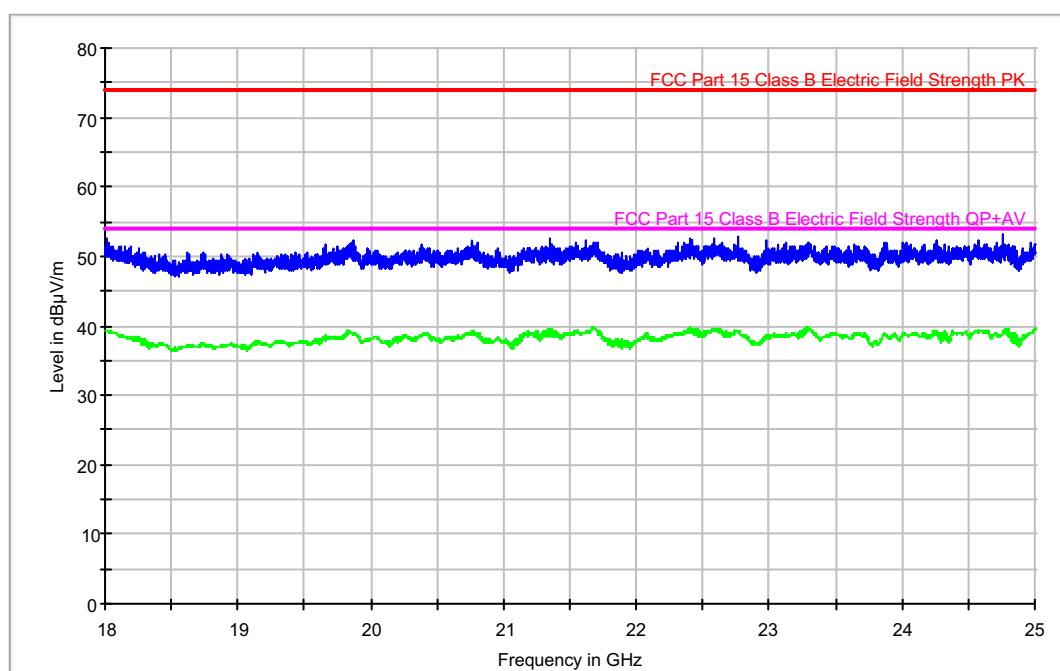
Subrange Maxima

Frequency (GHz)	MaxPeak-ClearWrite (dBµV/m)	Average-ClearWrite (dBµV/m)
2.000000	45.2	32.3
4.000000	50.1	37.7
6.000000	56.3	43.6
8.000000	53.9	41.4
10.000000	57.5	43.2
18.000000	64.4	52.1

Radiated Emission: CR0104_PV (18GHz to 25GHz)

Project: 33376REM.008
 Company: ERICSSON AB
 Sample: S/01
 Operation mode: OM#04
 Setup: EMI radiated
 Mode: EUT ON. Idle UMTS FDD Band V. GPS ON. Nominal Power Supply: 3,3Vdc. Vertical polarization.

FCC 18-25GHz class B



Subrange Maxima

Frequency (GHz)	MaxPeak-ClearWrite (dBµV/m)	Average-ClearWrite (dBµV/m)
19.000000	50.2	37.3
20.000000	50.9	38.3
21.000000	50.6	39.0
22.000000	50.8	38.2
23.000000	50.2	38.3
24.000000	51.5	38.4

CONTINUOUS CONDUCTED EMISSION ON POWER LEADS

LIMITS:	Product standard :	FCC RULES AND REGULATIONS 47 CFR PART 15, SUBPART B
	Test standard :	FCC RULES AND REGULATIONS 47 CFR PART 15, SUBPART B

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

TESTED SAMPLES:	S/01
TESTED OPERATION MODES:	OM#01 to 08
TEST RESULTS :	CCmmnnhh: CC, Conducted Condition; mm: Sample number; nn: Operation mode; hh: wire

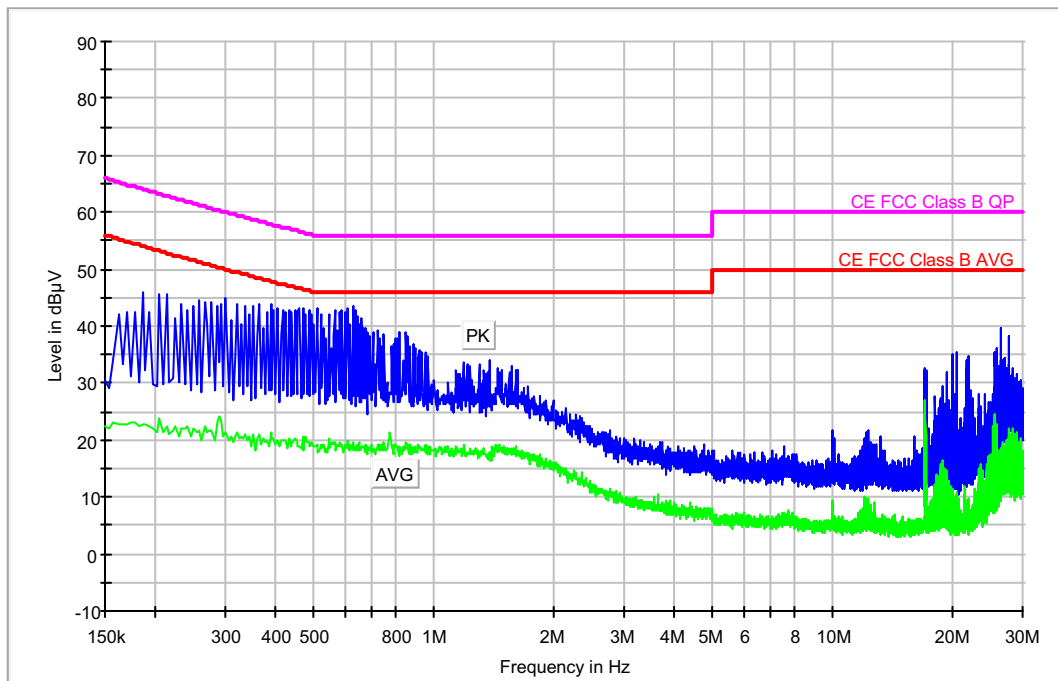
CCmmnnhh	Description	Result
CC0101NE	Negative wire noise	P
CC0101PO	Positive wire noise	P
CC0102 NE	Negative wire noise	P
CC0102 PO	Positive wire noise	P
CC0103 NE	Negative wire noise	P
CC0103 PO	Positive wire noise	P
CC0104 NE	Negative wire noise	P
CC0104 PO	Positive wire noise	P
CC0105 NE	Negative wire noise	P
CC0105 PO	Positive wire noise	P
CC0106 NE	Negative wire noise	P
CC0106 PO	Positive wire noise	P
CC0107 NE	Negative wire noise	P
CC0107 PO	Positive wire noise	P
CC0108 NE	Negative wire noise	P
CC0108 PO	Positive wire noise	P

Continuous Conducted emission : CC0101NE

Detector : Peak / Average / Cuasi-peak

Project: 33376REM.008
 Company: Ericsson AB
 Sample: S/01
 Operation mode: OM#01
 Setup: EMI conducted
 Mode: EUT ON. IDLE 850MHz. GPS ON. Nominal Power Supply: 3,3Vdc.
 Negative noise.

EC FCC Class B ESPI CC5



Max PK-AVG

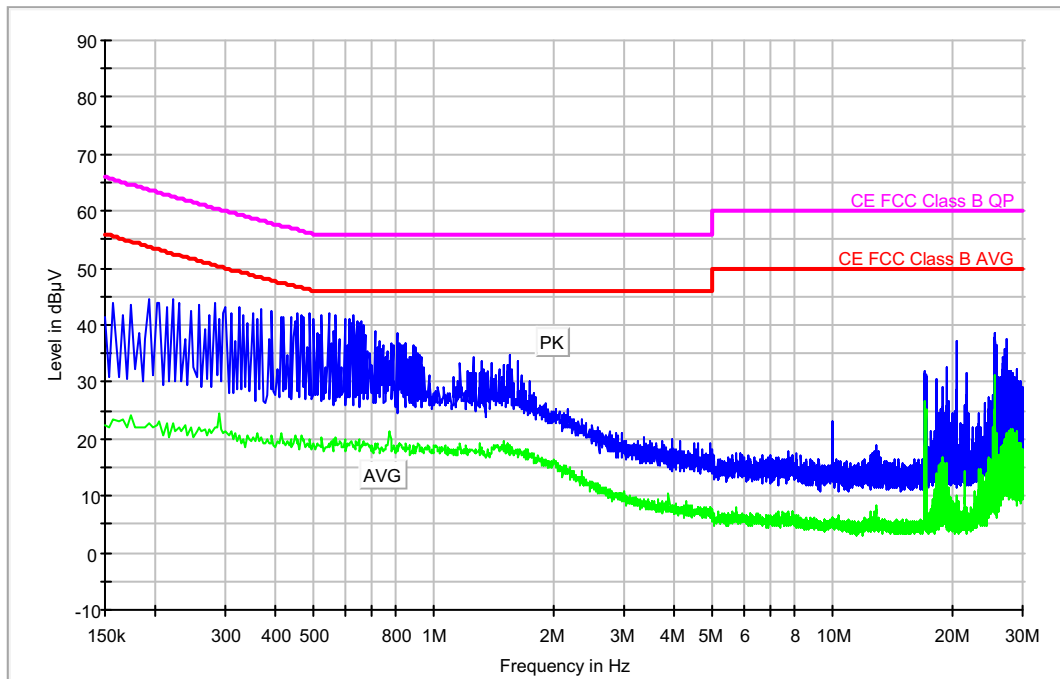
Frequency (MHz)	MaxPeak-ClearWrite (dBµV)	Average-ClearWrite (dBµV)
0.186000	45.9	22.6
0.214000	45.6	22.4
0.206000	45.6	24.0
0.302000	45.0	21.2
0.258000	44.6	21.7
0.278000	44.3	21.8
0.266000	44.2	22.3
0.322000	43.9	21.3

Continuous Conducted emission : CC0101PO

Detector : Peak / Average / Cuasi-peak

Project: 33376REM.008
 Company: Ericsson AB
 Sample: S/01
 Operation mode: OM#01
 Setup: EMI conducted
 Mode: EUT ON. IDLE 850MHz. GPS ON. Nominal Power Supply: 3,3Vdc.
 Positive noise.

EC FCC Class B ESPI CC5



Max PK-AVG

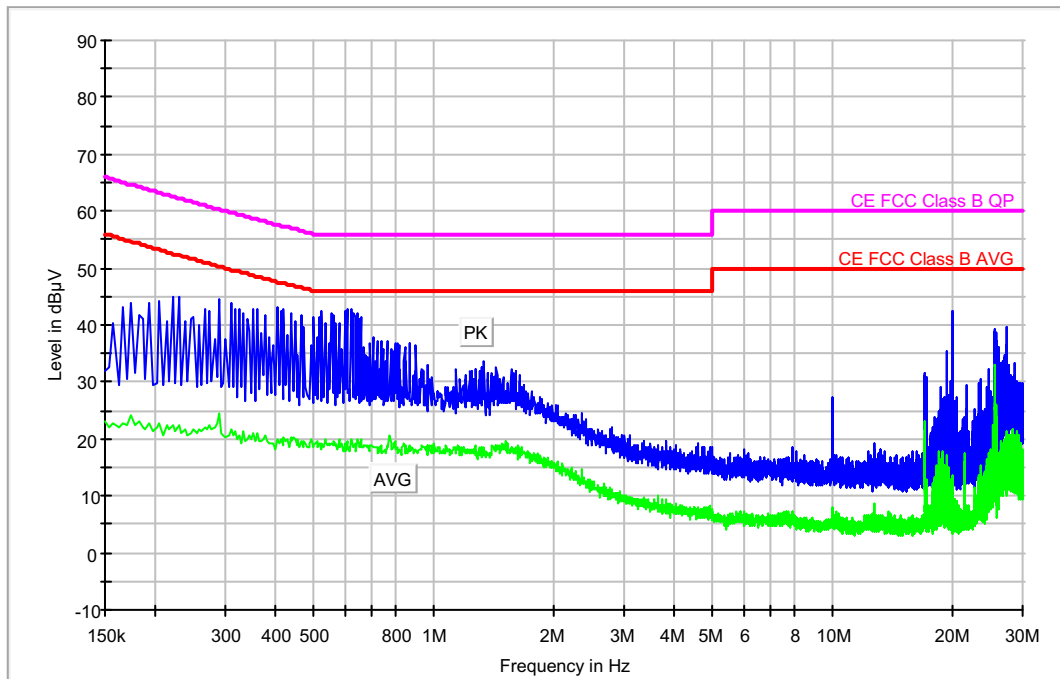
Frequency (MHz)	MaxPeak-ClearWrite (dBµV)	Average-ClearWrite (dBµV)
0.194000	44.7	22.9
0.370000	42.7	20.3
0.886000	36.3	18.9
2.174000	25.4	14.7
10.038000	23.0	6.3
25.606000	38.7	25.3

Continuous Conducted emission : CC0102NE

Detector : Peak / Average / Cuasi-peak

Project: 33376REM.008
 Company: Ericsson AB
 Sample: S/01
 Operation mode: OM#02
 Setup: EMI conducted
 Mode: EUT ON. IDLE 1900MHz. GPS ON. Nominal Power Supply: 3,3Vdc.
 Negative noise.

EC FCC Class B ESPI CC5



Max PK-AVG

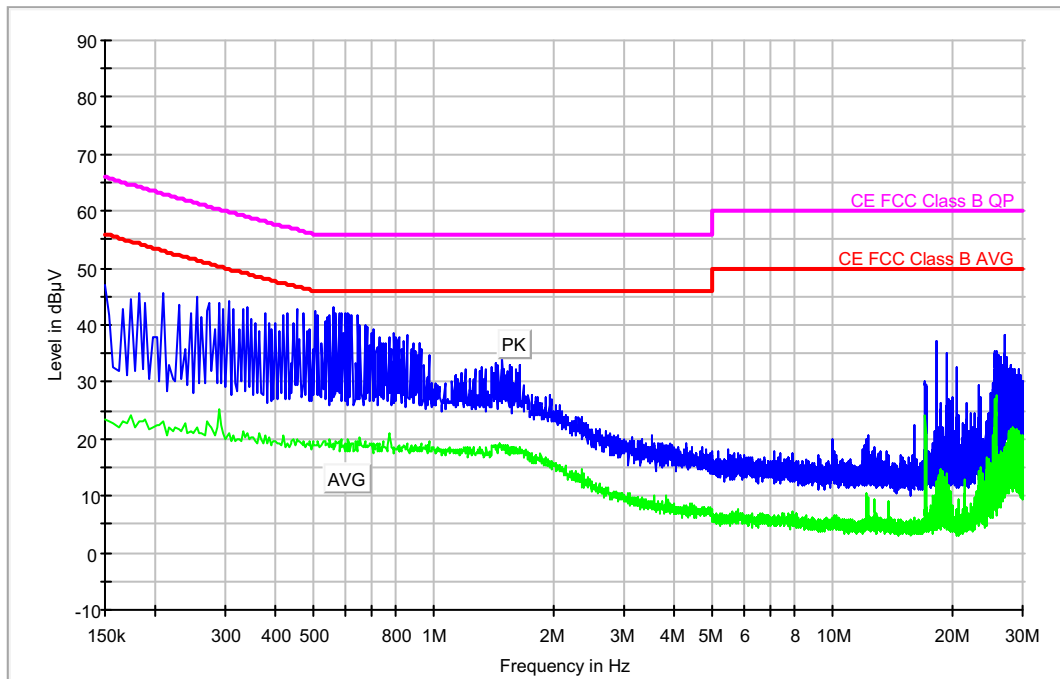
Frequency (MHz)	MaxPeak-ClearWrite (dBµV)	Average-ClearWrite (dBµV)
0.222000	45.0	22.3
0.230000	44.8	22.2
0.290000	44.8	24.7
0.206000	44.3	22.6
0.174000	43.9	24.1
0.194000	43.9	22.6
0.310000	43.8	21.6
0.166000	43.2	22.9

Continuous Conducted emission : CC0102PO

Detector : Peak / Average / Cuasi-peak

Project: 33376REM.008
 Company: Ericsson AB
 Sample: S/01
 Operation mode: OM#02
 Setup: EMI conducted
 Mode: EUT ON. IDLE 1900MHz. GPS ON. Nominal Power Supply: 3,3Vdc.
 Positive noise wired.

EC FCC Class B ESPI CC5



Max PK-AVG

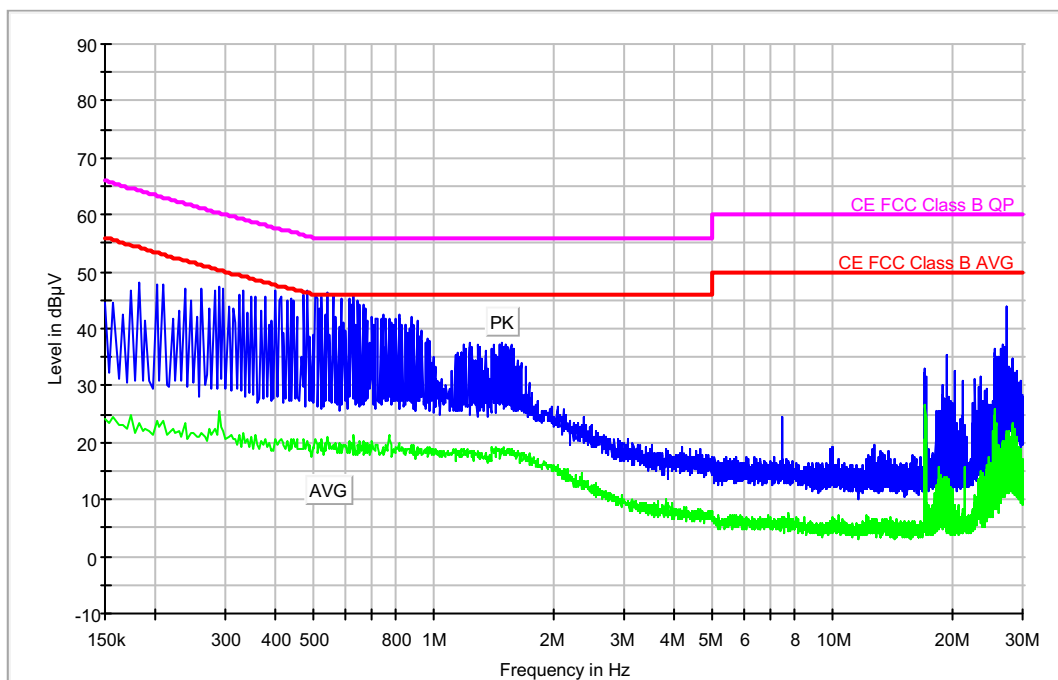
Frequency (MHz)	MaxPeak-ClearWrite (dBµV)	Average-ClearWrite (dBµV)
0.290000	43.8	25.2
0.174000	44.6	24.1
0.190000	43.9	23.5
0.150000	46.9	23.3
0.182000	45.5	23.0
0.166000	42.8	23.0
0.210000	45.5	22.9
0.274000	44.0	22.3

Continuous Conducted emission : CC0103NE

Detector : Peak / Average / Cuasi-peak

Project: 33376REM.008
 Company: Ericsson AB
 Sample: S/01
 Operation mode: OM#03
 Setup: EMI conducted
 Mode: EUT ON. IDLE UMTS FDD Band II. GPS ON. Nominal Power
 Supply: 3,3Vdc. Negative noise wired.

EC FCC Class B ESPI CC5



Max PK-AVG

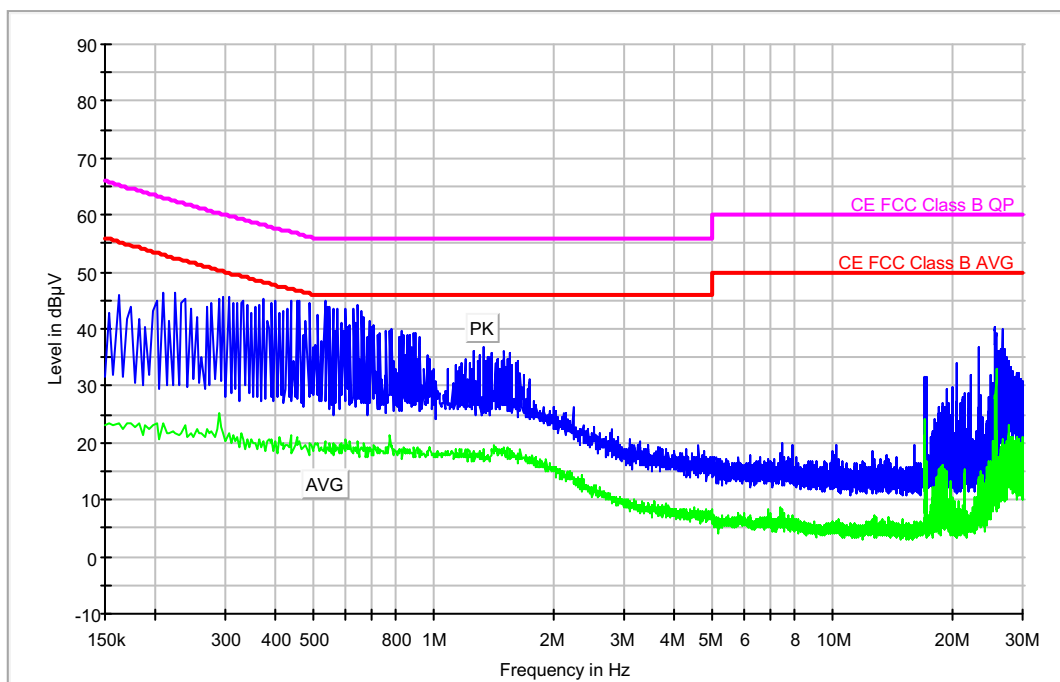
Frequency (MHz)	MaxPeak-ClearWrite (dBµV)	Average-ClearWrite (dBµV)
0.182000	48.1	23.6
0.210000	47.8	23.7
0.202000	47.8	23.9
0.290000	47.4	25.5
0.298000	47.2	22.1
0.262000	47.1	21.9
0.238000	47.0	23.3
0.402000	46.9	20.8

Continuous Conducted emission : CC0103PO

Detector : Peak / Average / Cuasi-peak

Project: 33376REM.008
 Company: Ericsson AB
 Sample: S/01
 Operation mode: OM#03
 Setup: EMI conducted
 Mode: EUT ON. IDLE UMTS FDD Band II. GPS ON. Nominal Power
 Supply: 3,3Vdc. Positive noise wired.

EC FCC Class B ESPI CC5



Max PK-AVG

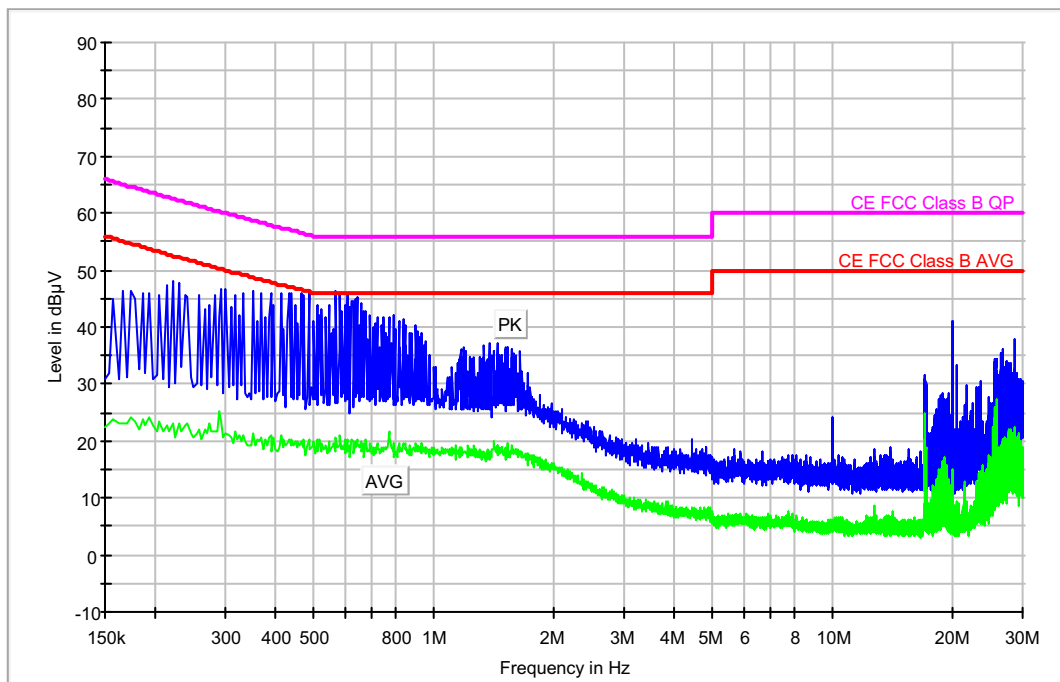
Frequency (MHz)	MaxPeak-ClearWrite (dBµV)	Average-ClearWrite (dBµV)
0.226000	46.4	21.7
0.210000	46.4	23.4
0.162000	46.0	23.4
0.306000	45.8	21.8
0.298000	45.6	21.7
0.238000	45.4	23.0
0.290000	45.4	25.3
0.374000	45.2	20.4

Continuous Conducted emission : CC0104NE

Detector : Peak / Average / Cuasi-peak

Project: 33376REM.008
 Company: Ericsson AB
 Sample: S/01
 Operation mode: OM#04
 Setup: EMI conducted
 Mode: EUT ON. UMTS FDD Band V. GPS ON. Nominal Power Supply: 3,3Vdc. Negative noise wired.

EC FCC Class B ESPI CC5



Max PK-AVG

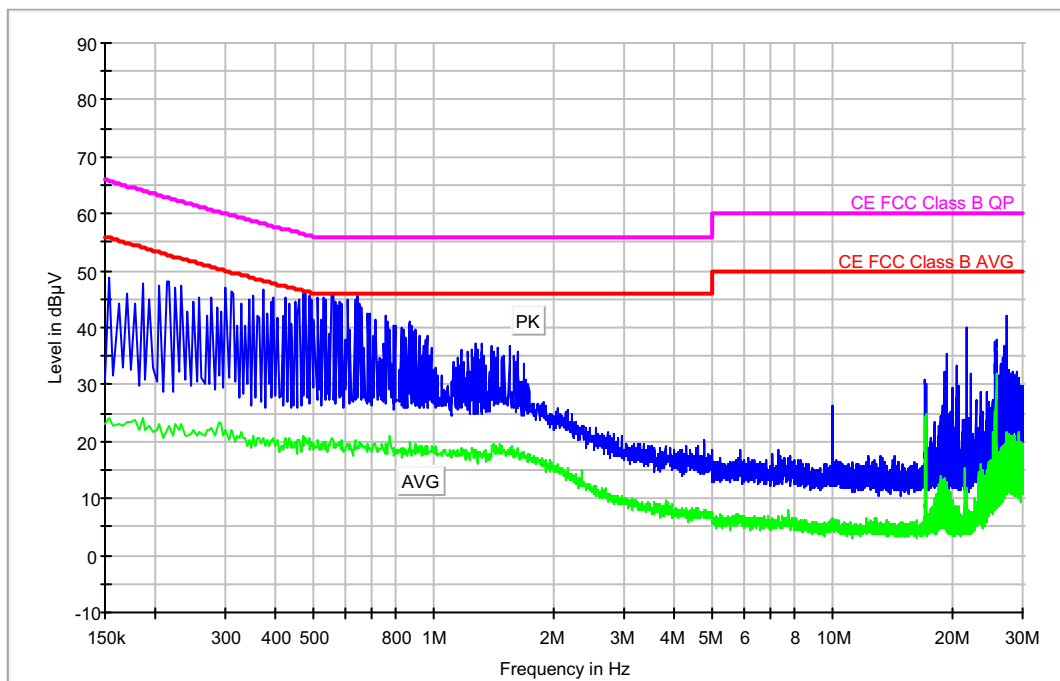
Frequency (MHz)	MaxPeak-ClearWrite (dBµV)	Average-ClearWrite (dBµV)
0.222000	48.1	23.2
0.230000	47.7	22.9
0.214000	47.3	22.8
0.302000	46.9	21.2
0.294000	46.8	23.3
0.166000	46.5	23.1
0.570000	46.4	20.8
0.354000	46.3	21.3

Continuous Conducted emission : CC0104PO

Detector : Peak / Average / Cuasi-peak

Project: 33376REM.008
 Company: Ericsson AB
 Sample: S/01
 Operation mode: OM#04
 Setup: EMI conducted
 Mode: EUT ON. IDLE UMTS FDD Band V. GPS ON. Nominal Power
 Supply: 3,3Vdc. Positive noise wired.

EC FCC Class B ESPI CC5



Max PK-AVG

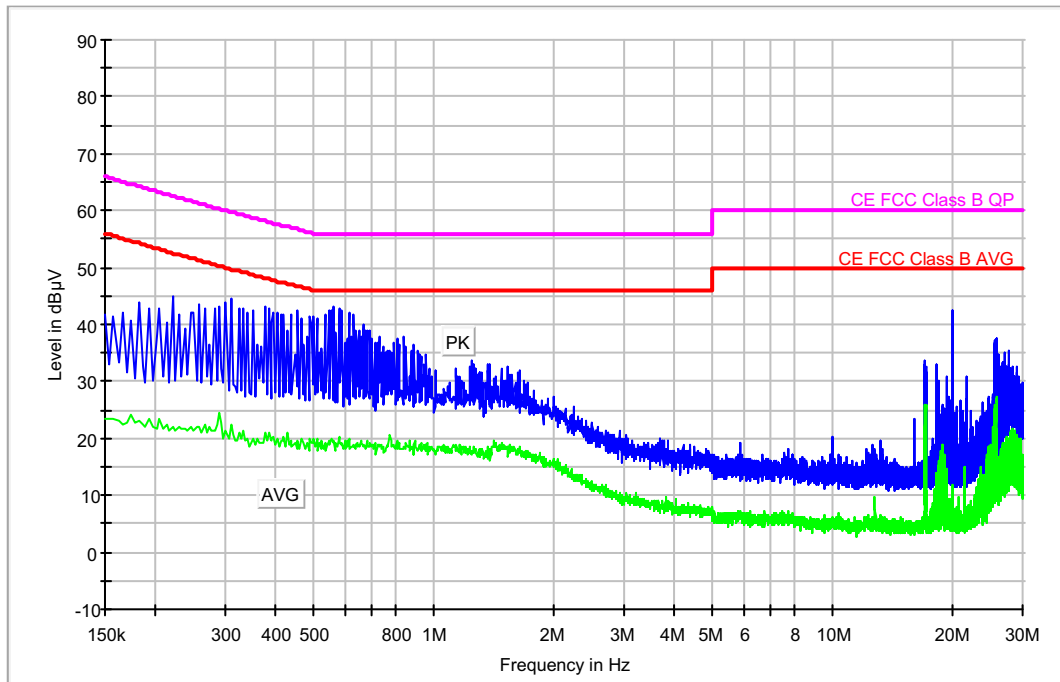
Frequency (MHz)	MaxPeak-ClearWrite (dBµV)	Average-ClearWrite (dBµV)
0.154000	48.8	24.2
0.218000	48.0	22.9
0.186000	47.8	24.1
0.206000	47.6	23.3
0.234000	47.5	23.0
0.302000	47.0	21.9
0.226000	47.0	23.0
0.374000	46.7	20.5

Continuous Conducted emission : CC0105NE

Detector : Peak / Average / Cuasi-peak

Project: 33376REM.008
 Company: Ericsson AB
 Sample: S/01
 Operation mode: OM#05
 Setup: EMI conducted
 Mode: EUT ON. TCH 850MHz. GPS ON. Nominal Power Supply: 3,3Vdc.
 Negative noise wired.

EC FCC Class B ESPI CC5



Max PK-AVG

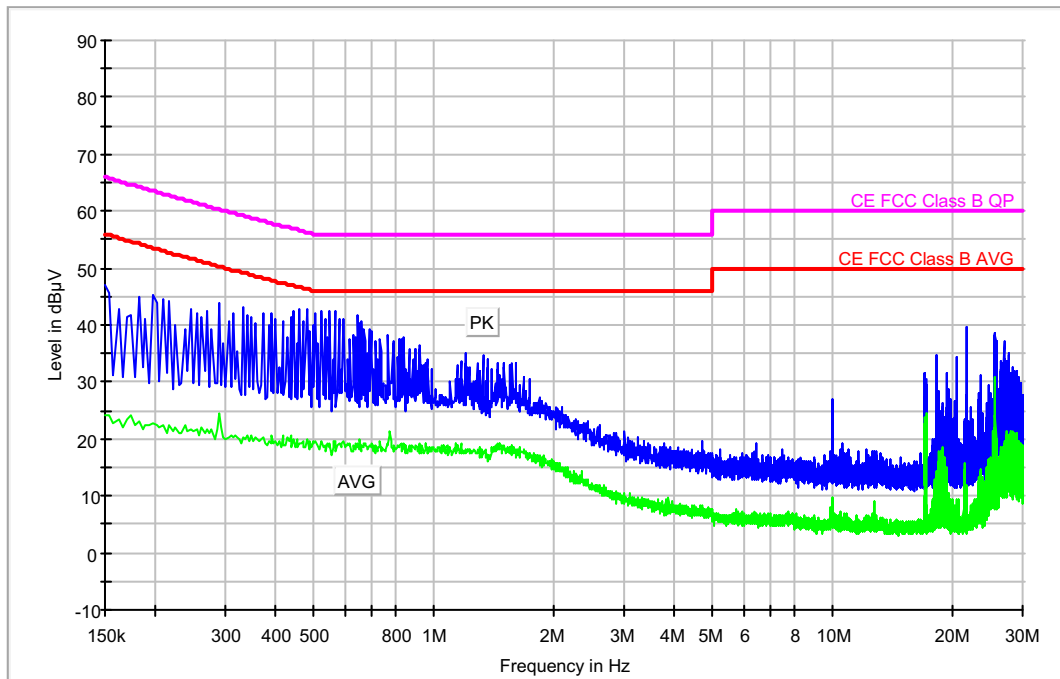
Frequency (MHz)	MaxPeak-ClearWrite (dBµV)	Average-ClearWrite (dBµV)
0.222000	44.9	22.2
0.562000	43.2	19.7
0.894000	36.5	18.7
2.246000	25.6	13.7
10.026000	20.3	5.8
19.998000	42.6	11.7

Continuous Conducted emission : CC0105PO

Detector : Peak / Average / Cuasi-peak

Project: 33376REM.008
 Company: Ericsson AB
 Sample: S/01
 Operation mode: OM#05
 Setup: EMI conducted
 Mode: EUT ON. TCH 850MHz. GPS ON. Nominal Power Supply: 3,3Vdc.
 Positive noise wired.

EC FCC Class B ESPI CC5



Max PK-AVG

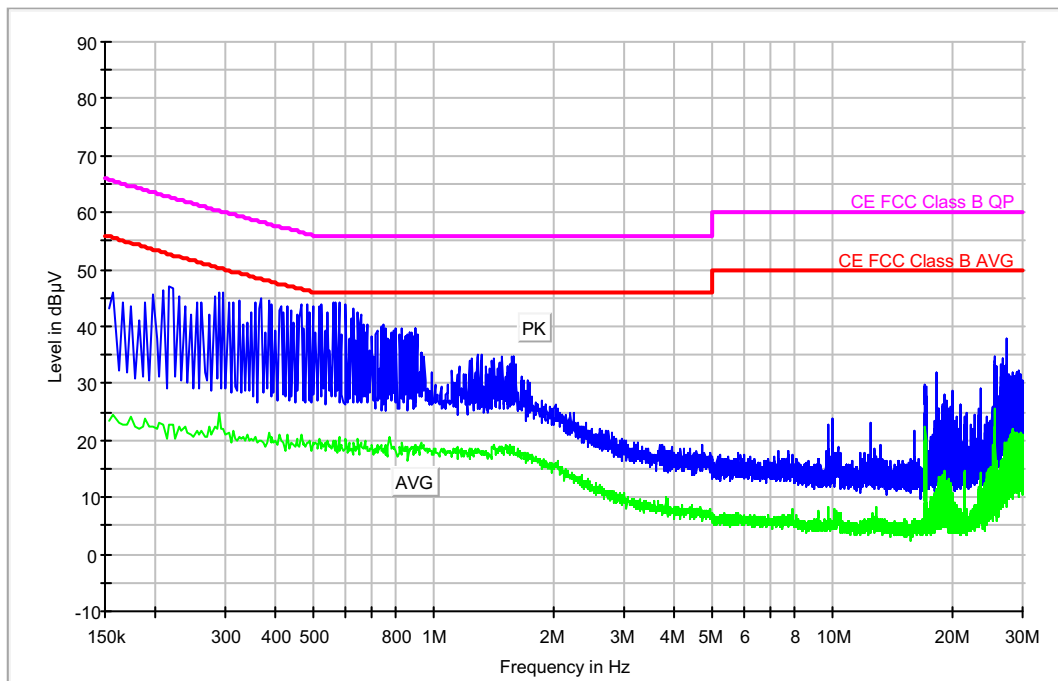
Frequency (MHz)	MaxPeak-ClearWrite (dBµV)	Average-ClearWrite (dBµV)
0.150000	47.1	24.2
0.462000	42.8	19.4
0.926000	36.6	18.6
2.146000	24.2	14.5
9.998000	27.0	9.6
21.718000	39.5	11.8

Continuous Conducted emission : CC0106NE

Detector : Peak / Average / Cuasi-peak

Project: 33376REM.008
 Company: Ericsson AB
 Sample: S/01
 Operation mode: OM#06
 Setup: EMI conducted
 Mode: EUT ON. TCH 1900MHz. GPS ON. Nominal Power Supply: 3,3Vdc.
 Negative noise wired.

EC FCC Class B ESPI CC5



Max PK-AVG

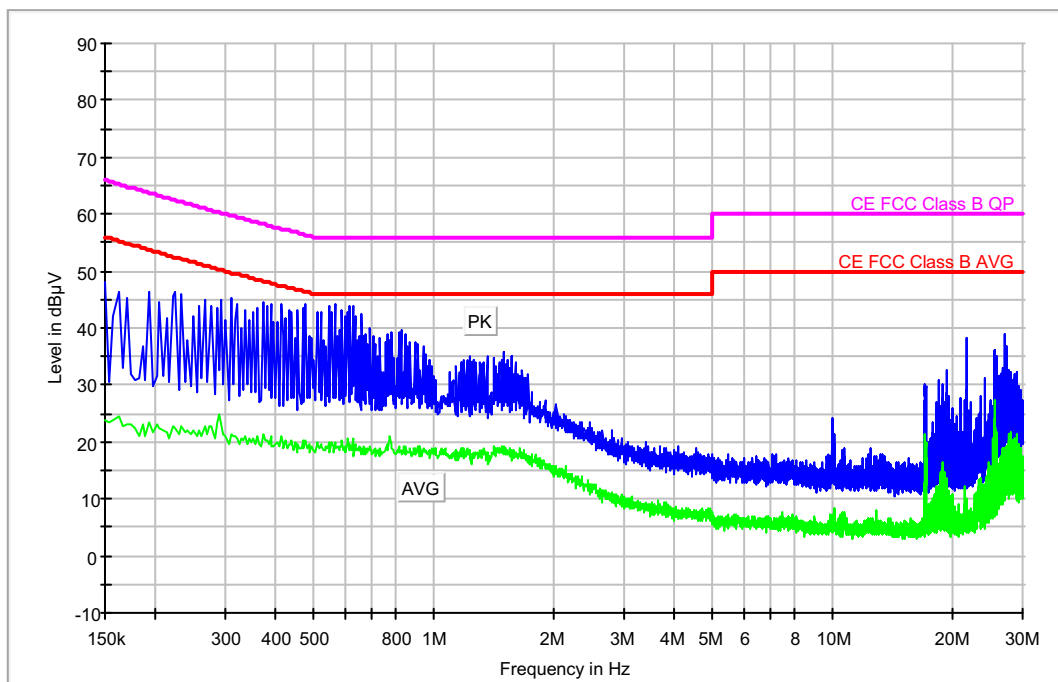
Frequency (MHz)	MaxPeak-ClearWrite (dBµV)	Average-ClearWrite (dBµV)
0.218000	46.9	22.8
0.210000	46.3	22.9
0.158000	46.0	24.5
0.298000	46.0	21.9
0.290000	45.9	24.8
0.198000	45.6	22.5
0.230000	45.3	22.3
0.282000	45.3	22.4

Continuous Conducted emission : CC0106PO

Detector : Peak / Average / Cuasi-peak

Project: 33376REM.008
 Company: Ericsson AB
 Sample: S/01
 Operation mode: OM#06
 Setup: EMI conducted
 Mode: EUT ON. TCH 1900MHz. GPS ON. Nominal Power Supply: 3,3Vdc.
 Positive noise wired.

EC FCC Class B ESPI CC5



Max PK-AVG

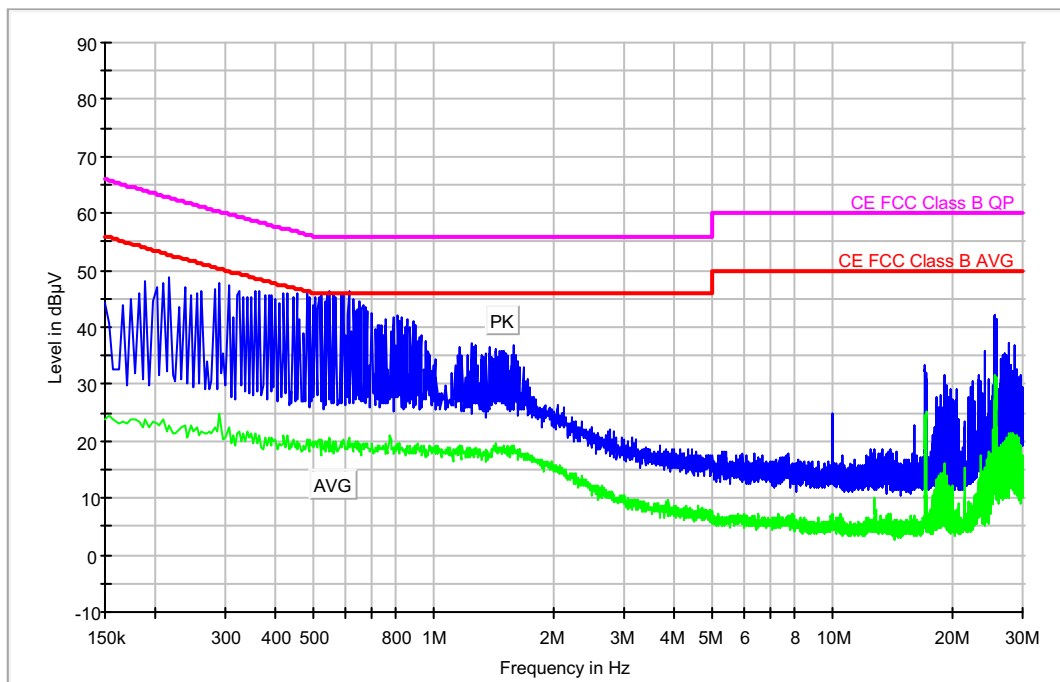
Frequency (MHz)	MaxPeak-ClearWrite (dBµV)	Average-ClearWrite (dBµV)
0.150000	48.2	23.9
0.226000	46.5	22.3
0.194000	46.4	23.5
0.162000	46.2	24.6
0.234000	45.9	22.8
0.310000	45.4	21.2
0.170000	45.4	23.0
0.266000	45.0	22.8

Continuous Conducted emission : CC0107NE

Detector : Peak / Average / Cuasi-peak

Project: 33376REM.008
 Company: Ericsson AB
 Sample: S/01
 Operation mode: OM#07
 Setup: EMI conducted
 Mode: EUT ON. TCH UMTS FDD Band II. GPS ON. Nominal Power
 Supply: 3,3Vdc. Negative noise wired.

EC FCC Class B ESPI CC5



Max PK-AVG

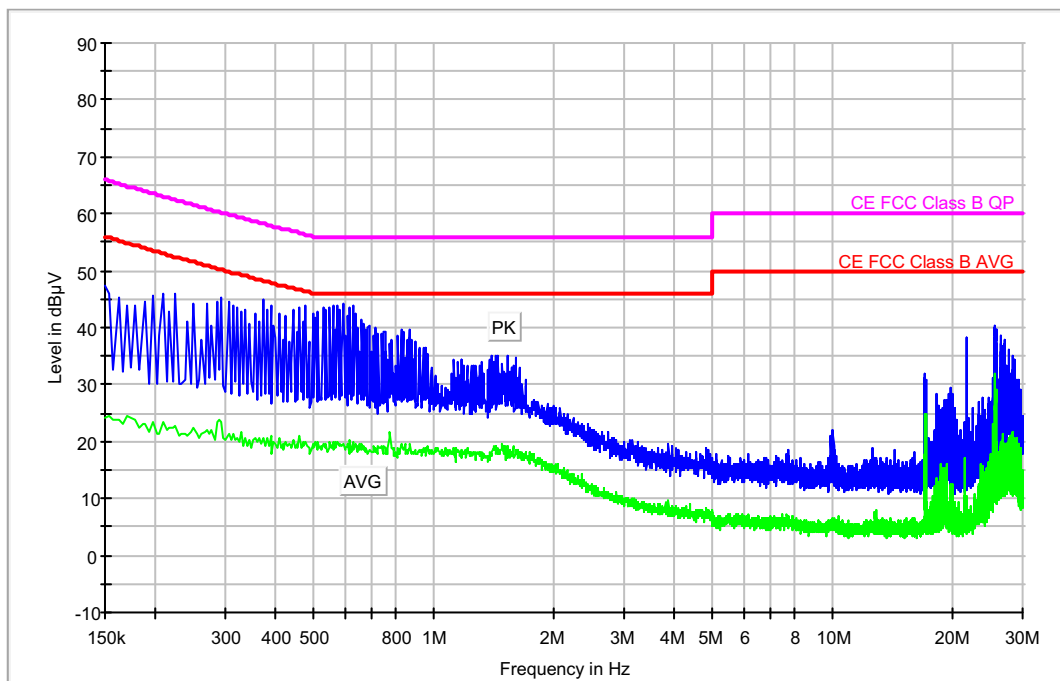
Frequency (MHz)	MaxPeak-ClearWrite (dBµV)	Average-ClearWrite (dBµV)
0.218000	48.8	22.9
0.190000	48.2	23.8
0.210000	47.9	23.7
0.290000	47.6	24.7
0.306000	47.2	22.5
0.238000	47.2	22.9
0.202000	46.9	23.0
0.282000	46.8	22.2

Continuous Conducted emission : CC0107PO

Detector : Peak / Average / Cuasi-peak

Project: 33376REM.008
 Company: Ericsson AB
 Sample: S/01
 Operation mode: OM#07
 Setup: EMI conducted
 Mode: EUT ON. TCH UMTS FDD Band II. GPS ON. Nominal Power
 Supply: 3,3Vdc. Positive noise wired.

EC FCC Class B ESPI CC5



Max PK-AVG

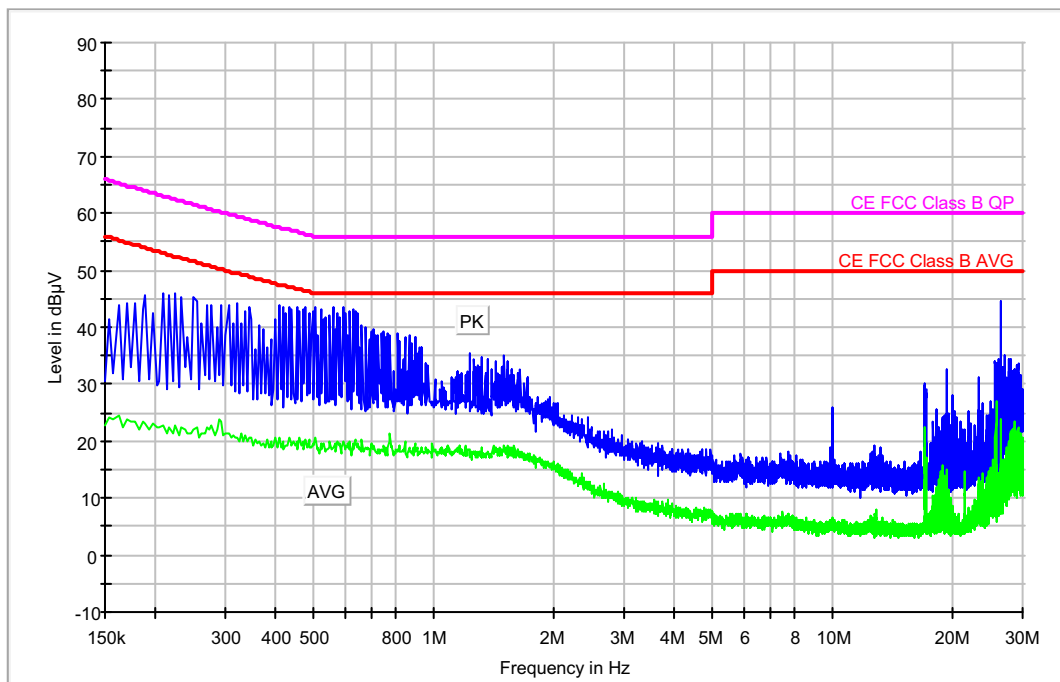
Frequency (MHz)	MaxPeak-ClearWrite (dBµV)	Average-ClearWrite (dBµV)
0.150000	47.2	24.2
0.226000	46.1	22.6
0.210000	46.0	23.3
0.198000	45.7	23.5
0.294000	45.4	23.5
0.162000	45.1	23.8
0.374000	44.9	20.8
0.286000	44.7	23.3

Continuous Conducted emission : CC0108NE

Detector : Peak / Average / Cuasi-peak

Project: 33376REM.008
 Company: Ericsson AB
 Sample: S/01
 Operation mode: OM#08
 Setup: EMI conducted
 Mode: EUT ON. TCH UMTS FDD Band V. GPS ON. Nominal Power
 Supply: 3,3Vdc. Negative noise wired.

EC FCC Class B ESPI CC5



Max PK-AVG

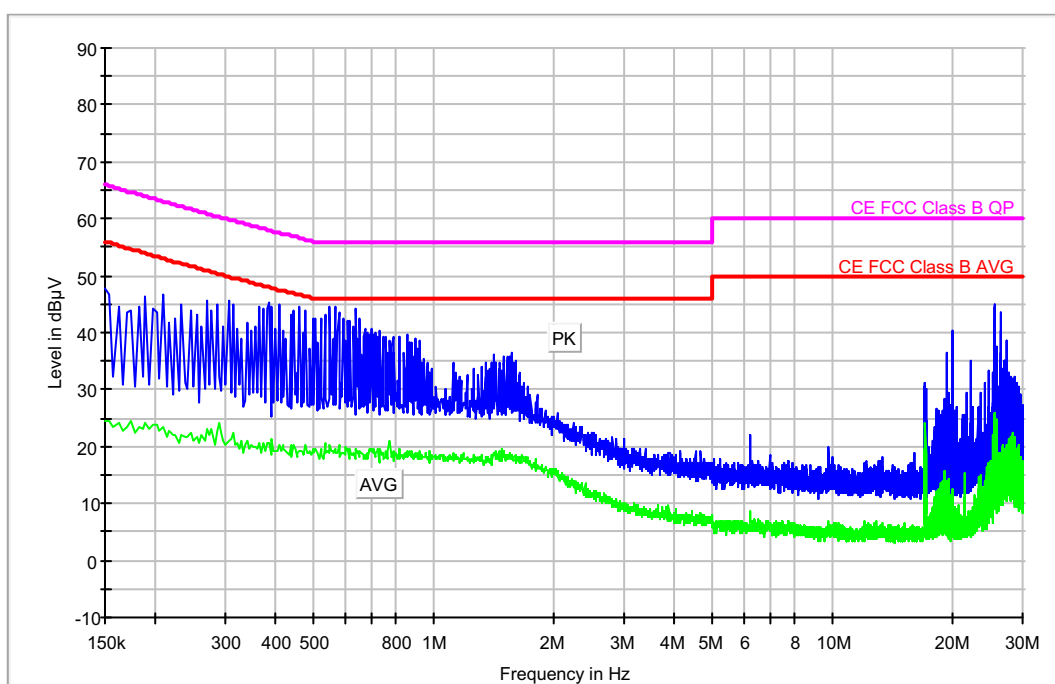
Frequency (MHz)	MaxPeak-ClearWrite (dBµV)	Average-ClearWrite (dBµV)
0.226000	46.0	22.6
0.210000	45.8	22.8
0.190000	45.7	23.1
0.218000	45.6	22.3
0.234000	45.3	22.3
0.250000	45.1	22.1
26.286000	44.5	23.7
0.170000	44.4	23.8

Continuous Conducted emission : CC0108PO

Detector : Peak / Average / Cuasi-peak

Project: 33376REM.008
 Company: Ericsson AB
 Sample: S/01
 Operation mode: OM#08
 Setup: EMI conducted
 Mode: EUT ON. TCH UMTS FDD Band V. GPS ON. Nominal Power
 Supply: 3,3Vdc. Positive noise wired.

EC FCC Class B ESPI CC5



Max PK-AVG

Frequency (MHz)	MaxPeak-ClearWrite (dBµV)	Average-ClearWrite (dBµV)
0.150000	47.9	24.5
0.210000	46.7	23.4
0.190000	46.4	24.0
0.306000	45.6	20.9
0.270000	45.5	23.1
0.386000	45.2	20.6
0.314000	45.1	22.2
0.410000	44.9	20.4