

CETECOM ICT Services GmbH

Radio Satellite Communication

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RSC14

issue test report consist of 126 Pages

Page 1 (126)

Accredited Testing Laboratory

**DAR-Registration number:
TTI-P-G 166/98-10**

**Test report no.: 2-2319-A/00
FCC Part 15.247
Toshiba Notebook
TECRA 8200**

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1 General information

1.1 Notes

The test results of this test report relate exclusively to the test item specified in 1.5. The CETECOM ICT Services GmbH does not assume responsibility for any conclusions and generalisations drawn from the test results with regard to other specimens or samples of the type of the equipment represented by the test item. The test report may only be reproduced or published in full. Reproduction or publication of extracts from the report requires the prior written approval of the CETECOM ICT Services GmbH.

1.2 Testing laboratory

CETECOM ICT Services GmbH

66117 Saarbrücken

Untertürkheimer Straße 6 - 10

Deutschland

Telefone: + 49 681 598 - 9100

Telefax : + 49 681 598 - 9075

E-mail : Harro.Ames@ict.cetecom.de

Internet : www.cetecom.de

Accredited testing laboratory

DAR-registration number : TTI-P-G 166/98-00

1.3 Details of applicant

Name : Toshiba Corp., Digital Media Network Co.
Product Safety Group, Technology and Quality
Management Division
Street : 1-1 Shibaura 1-Chome
City : Minarto-ku, Tokyo 105-8001,
Country : Japan
Telephone : +81 (3) 3457 2565
Telefax : +81 (3) 5444 9404
Contact : Mr. K.Inada
Telephone : +81 (3) 3457 2565

1.4 Application details

Date of receipt of application : 11.11.00
Date of receipt of test item : 11.11.00
Date of test : 13.11.00 – 15.11.00

1.5 Test item

Type of equipment : **Notebook with integrated RLAN**
Type designation : **Toshiba Tecra 8200**
Manufacturer : applicant
Street :
City :
Country :
Serial number :
Additional informations: :
Frequency : 2400 – 2483.5 MHz
Type of modulation : 22M0P7D (DSSS)
Number of channels : 13
Antenna : integral antenna
Power supply : 5V DC powered by PC / Laptop
Output power : max. 20 mW
Type of equipment : Temperature range : -10°C - +55°C

1.6 Test standards: FCC Part 15 §15.247

2 Technical test

2.1 Summary of test results

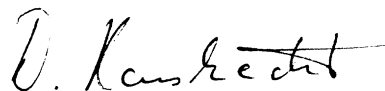
The antenna gain measurement was performed by the difference between conducted and radiated output measurement.

All measurement settings are according to FCC 15.35, 15.209 and the „Guidance on measurement for DSSS systems“.

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

Technical responsibility for area of testing :

17.11.00 RSC 8412 Hausknecht



Date

Section

Name

Signature

Technical responsibility for area of testing :

17.11.00 RSC8414 Ames



Date

Section

Name

Signature

2.2 Testreport

TEST REPORT

Testreport no. : 2-2319-A/00

TEST REPORT REFERENCE

LIST OF MEASUREMENTS

Paragraph	PARAMETER TO BE MEASURED	PAGE
	Transmitter parameters	
§ 15.247 (a)(2)	Spectrum Bandwith of a DSSS System	7
§ 15.247 (b)(1)	Maximum peak output power	11
§ 15.247 (c)(1)	Emission limitations	13
§ 15.247 (d)	Power Spectral Density	47
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Equipment under test : Toshiba Tecra 8200

Ambient temperature : 20 °C

Relative humidity : 51 %

SPECTRUM BANDWIDTH OF DSSS-SYSTEM

SUBCLAUSE § 15.247 (a)(2)

TEST CONDITIONS		6 dB BANDWIDTH (kHz)		
Frequency (MHz)		2412	2442	2472
T _{nom} (20) °C	V _{nom} (5.0)V	8450	9700	9450
Measurement uncertainty		±3dB		

RBW = 100 KHz, Span >> RBW, here 25 MHz

LIMIT

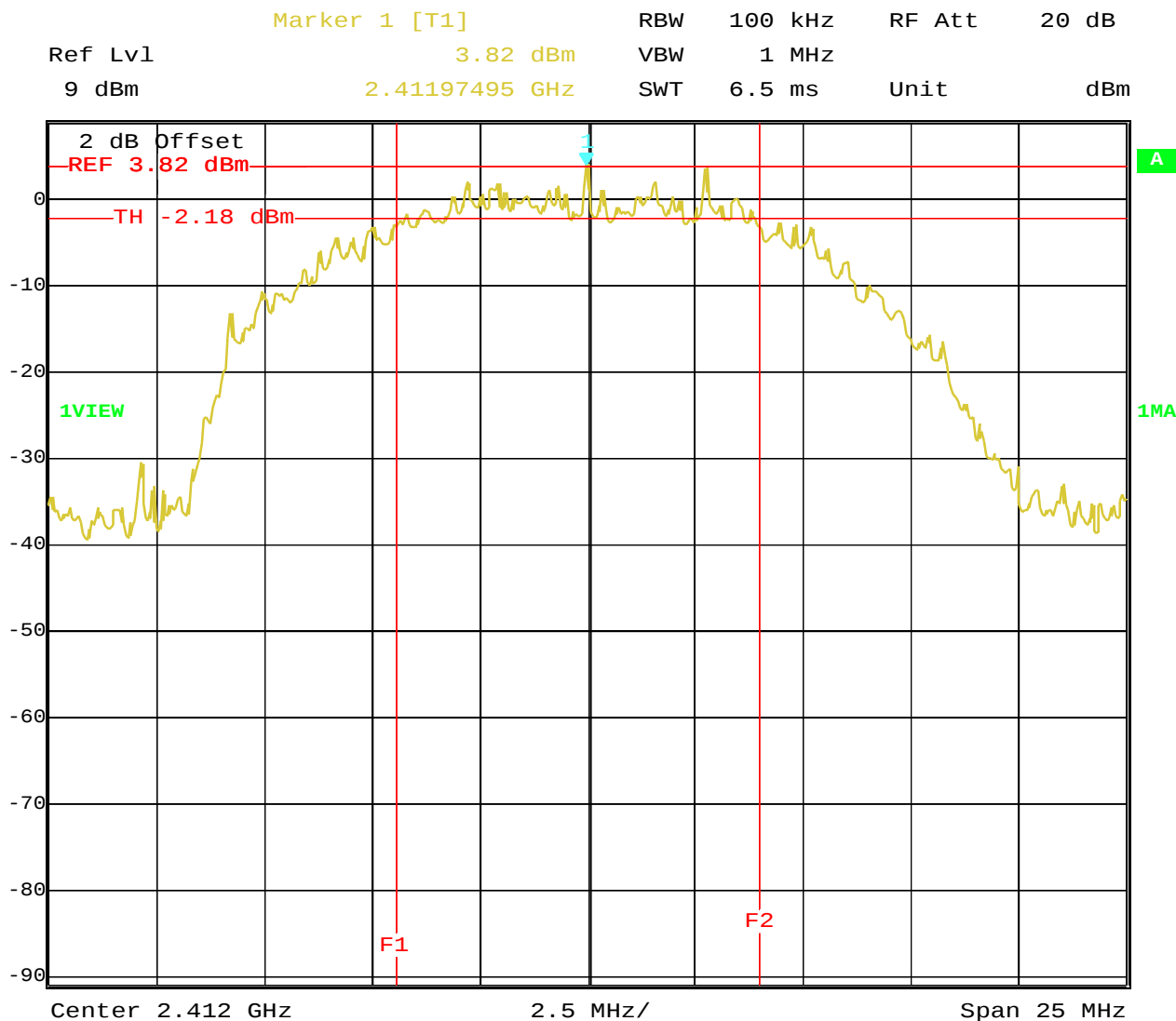
SUBCLAUSE §15.247(a) (2)

The minimum 6dB bandwidth shall be at least 500 KHz

REFERENCE NUMBER(S) OF TEST EQUIPMENT USED
(for reference numbers see test equipment listing)

Equipment under test : Toshiba Tecra 8200
Ambient temperature : 20 °C
Relative humidity : 51%

SPECTRUM BANDWITH OF DSSS-SYSTEM SUBCLAUSE § 15.247 (a)(2)
2412 MHz



Date: 13.NOV.2000 11:06:02
RBW = 100 KHz, Span >> RBW, here 25 MHz

LIMIT SUBCLAUSE §15.247(a) (2)

The minimum 6dB bandwidth shall be at least 500 KHz , here 8.45 MHz

REFERENCE NUMBER(S) OF TEST EQUIPMENT USED
(for reference numbers see test equipment listing)

Equipment under test : Toshiba Tecra 8200

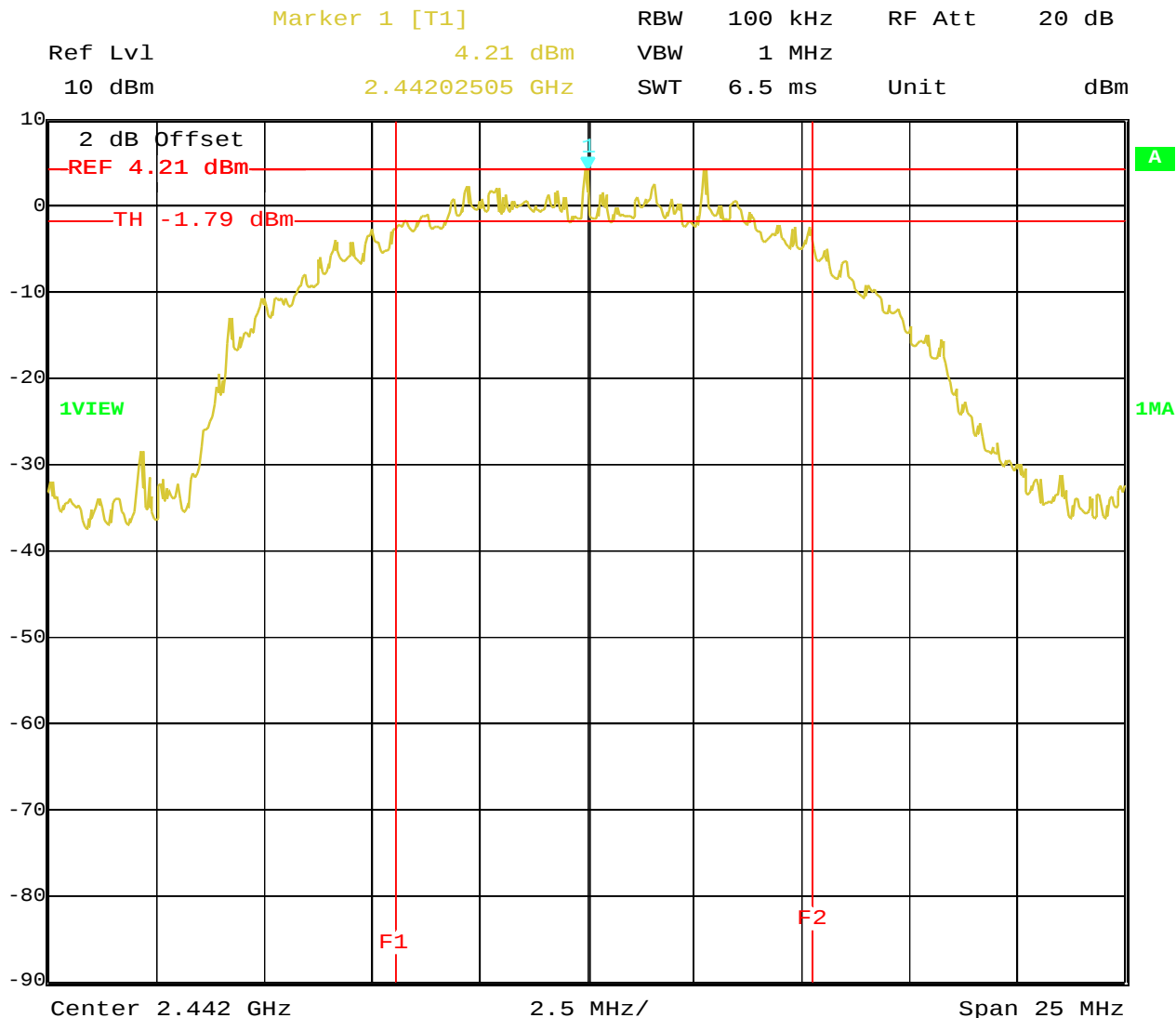
Ambient temperature : 20 °C

Relative humidity : 51%

SPECTRUM BANDWIDTH OF DSSS-SYSTEM

SUBCLAUSE § 15.247 (a)(2)

2442 MHz



Date: 13.NOV.2000 11:15:39

RBW = 100 KHz, Span >> RBW, here 25 MHz

LIMIT

SUBCLAUSE §15.247(a) (2)

The minimum 6dB bandwidth shall be at least 500 KHz , here 9.70 MHz

REFERENCE NUMBER(S) OF TEST EQUIPMENT USED

(for reference numbers see test equipment listing)

Equipment under test : Toshiba Tecra 8200

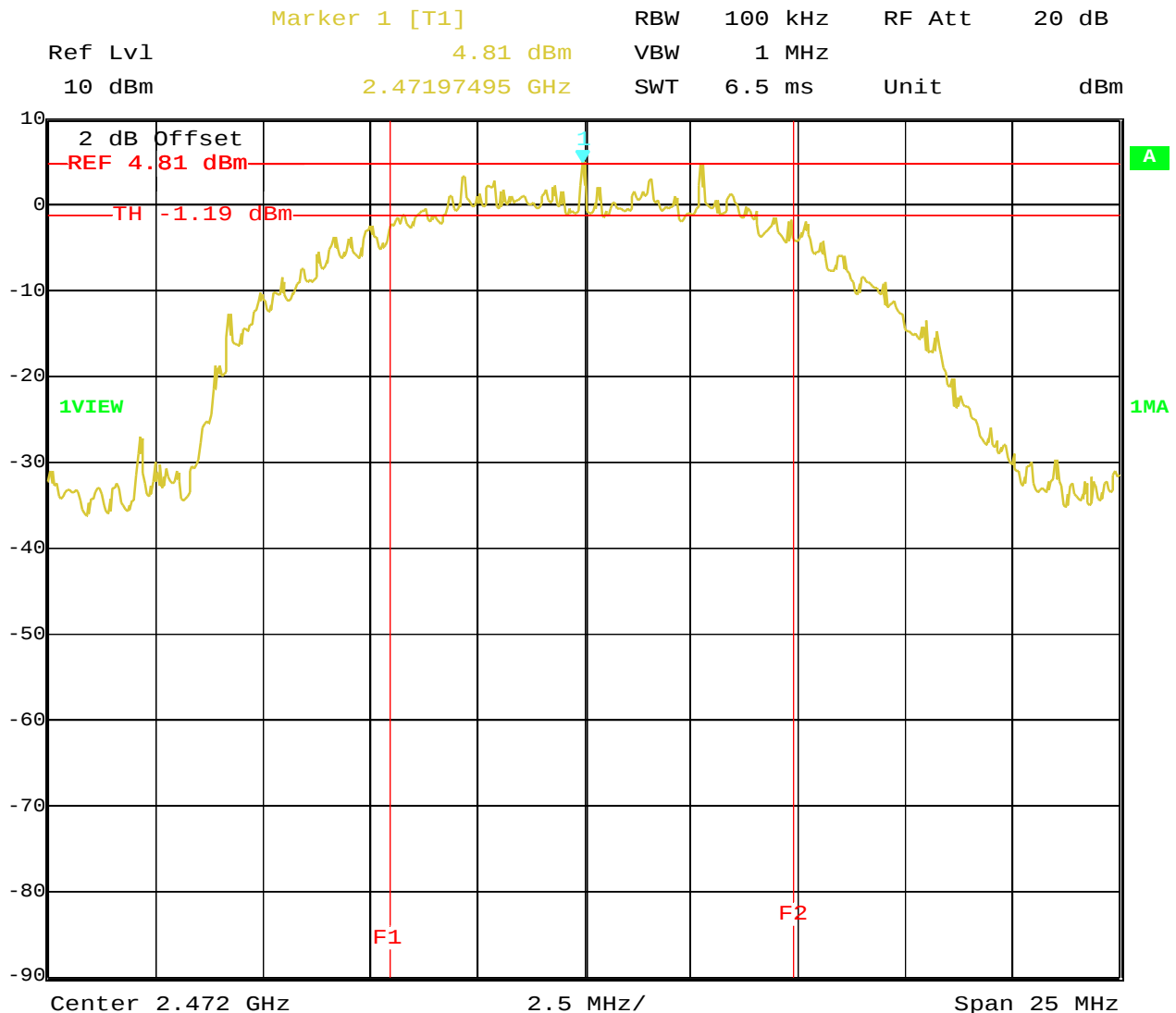
Ambient temperature : 20 °C

Relative humidity : 51%

SPECTRUM BANDWIDTH OF DSSS-SYSTEM

SUBCLAUSE § 15.247 (a)(2)

2472 MHz



Date: 13.NOV.2000 11:12:32

RBW = 100 KHz, Span >> RBW, here 25 MHz

LIMIT

SUBCLAUSE §15.247(a) (2)

The minimum 6dB bandwidth shall be at least 500 KHz , here 9.45 MHz

REFERENCE NUMBER(S) OF TEST EQUIPMENT USED

(for reference numbers see test equipment listing)

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Equipment under test : Toshiba Tecra 8200

Ambient temperature : 20 °C

Relative humidity : 51 %

MAXIMUM PEAK OUTPUT POWER (CONDUCTED)

SUBCLAUSE § 15.247 (b) (1)

TEST CONDITIONS		MAXIMUM PEAK OUTPUT POWER (dBm)		
Frequency (MHz)		2412	2442	2472
T _{nom} (20) °C	V _{nom} (5.0)V	Peak: 11.92 dB AV: 8.72 dBm	Peak 11.98 dBm AV: 9.25 dBm	Peak 12.51 dBm AV: 9.74 dBm
Maximum deviation from output power under extreme test conditions (dBc)		not performed	not performed	not performed
Measurement uncertainty		±3dB		

Settings: RBW/VBW 10 MHz

LIMIT

SUBCLAUSE § 15.247 (b) (1)

Frequency range	RF power output
2400-2483.5 MHz / 5725 – 5850 MHz	30 dBm

REFERENCE NUMBER(S) OF TEST EQUIPMENT USED
(for reference numbers see test equipment listing)
18-31,64

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Equipment under test : Toshiba Tecra 8200

Ambient temperature : 20 °C

Relative humidity : 51 %

MAXIMUM PEAK OUTPUT POWER (RADIATED)

SUBCLAUSE § 15.247 (b) (1)

This test was performed to find the antenna gain of this integrated system.

The maximum output was measured in vertikal polarisation.
Emissions in horizontal polarisation were up to 20 dB lower.

TEST CONDITIONS		MAXIMUM PEAK OUTPUT POWER (W)		
Frequency (MHz)		2412	2442	2472
T _{nom} (20) °C	V _{nom} (5.0) V	Peak 5.1 dBm AV: 1.9 dBm	Peak 5.8 dBm AV: 2.7 dBm	Peak 6.0 dBm AV: 2.8 dBm
Antenna Gain Power cond. – Power rad.		-6.82 dB	-6.18 dB	-6.15 dB
Measurement uncertainty		±3dB		

The antenna gain is negativ because the antennas are build into the housing near metallic parts.

Settings: RBW/VBW 10 MHz

LIMIT

SUBCLAUSE § 15.247 (b) (1)

Frequency range	RF power output
2400-2483.5 MHz / 5725 – 5850 MHz	1.0 Watt

REFERENCE NUMBER(S) OF TEST EQUIPMENT USED
(for reference numbers see test equipment listing)
18-31,64

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Equipment under test : Toshiba Tecra 8200

Ambient temperature : 20 °C

Relative humidity : 51 %

EMISSION LIMITATIONS (Transmitter)

SUBCLAUSE § 15.247 (c) (1)

conducted (radiated emissions in restricted bands see next table)

2412 MHz

SPURIOUS LIMITATIONS					
f (MHz)		amplitude of emission (dBm)	limit max. allowed emmission		results
2412	cond.	0.1	30.0 dBm		Operating frequency
349.8	cond.	QP:-62.8	-20 dBc		complies
601.4	cond.	QP:-56.8	-20 dBc		complies
703.9	cond.	QP:-47.9	-20 dBc		complies
801.7	cond.	QP:-63.5	-20 dBc		complies
1384.8	cond.	Peak:-54.1 AV:-57.4	-20dBc	restr. band	complies
4790.0	cond.	Peak:-60.9 AV:-70.8	-20 dBc	restr. band	complies
7194.8	cond.	Peak:-50.6 AV:-68.8	-20 dBc		complies
Measurement uncertainty		± 3dB			

The output power of the fundamental was measured with 100 kHz RBW for this for this part only.
The conducted output is calculated from a measurement in dBµV by -107 dB.

LIMITS

SUBCLAUSE § 15.247 (c)

In any 100 kHz bandwidth outside the frequency band at least 20dB below the highest level of the desired power. In addition, radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.209(a) (see §15.205(c)).

REFERENCE NUMBER(S) OF TEST EQUIPMENT USED

(for reference numbers see test equipment listing)

18-31,64

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Equipment under test : Toshiba Tecra 8200

Ambient temperature : 20 °C

Relative humidity : 51 %

EMISSION LIMITATIONS (Transmitter)

SUBCLAUSE § 15.247 (c) (2)

radiated (Antenna vertikal polarisation, horiz. emissions were up to 20dB lower)

2412 MHz

SPURIOUS LIMITATIONS					
f (MHz)		amplitude of emission (dBµV/m)	limit max. allowed emmission		results
120.5	rad.	QP:34.8	43.5 dBµV/m	restr. band	complies
129.8	rad.	QP:35.3	43.5 dBµV/m	restr. band	complies
194.9	rad.	QP:32.1	43.5 dBµV/m		complies
259.9	rad.	QP:39.2	46.0 dBµV/m	restr. band	complies
389.9	rad.	QP:38.3	46.0 dBµV/m		complies
496.2	rad.	QP:41.8	46.0 dBµV/m		complies
951.5	rad.	QP:37.3	46.0 dBµV/m		complies
1495.2	rad.	Peak:45.4 AV:36.2	54.0 dBµV/m	restr. band	complies
1544.1	rad.	Peak:43.8 AV:34.6	54.0 dBµV/m	restr. band	complies
no	radiated	spurs	above	2412 MHz	
Measurement uncertainty		± 3dB			

Measurement were performed up to 1 GHz with a CISPR quasi peak adapter and 100/120 kHz BW. Measurements above 1 GHz were performed with RBW/VBW 1 MHz in Peak and Average.

LIMITS

SUBCLAUSE § 15.247 (c)

In any 100 kHz bandwidth outside the frequency band at least 20dB below the highest level of the desired power. In addition, radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.209(a) (see §15.205(c)).

REFERENCE NUMBER(S) OF TEST EQUIPMENT USED

(for reference numbers see test equipment listing)

18-31,64

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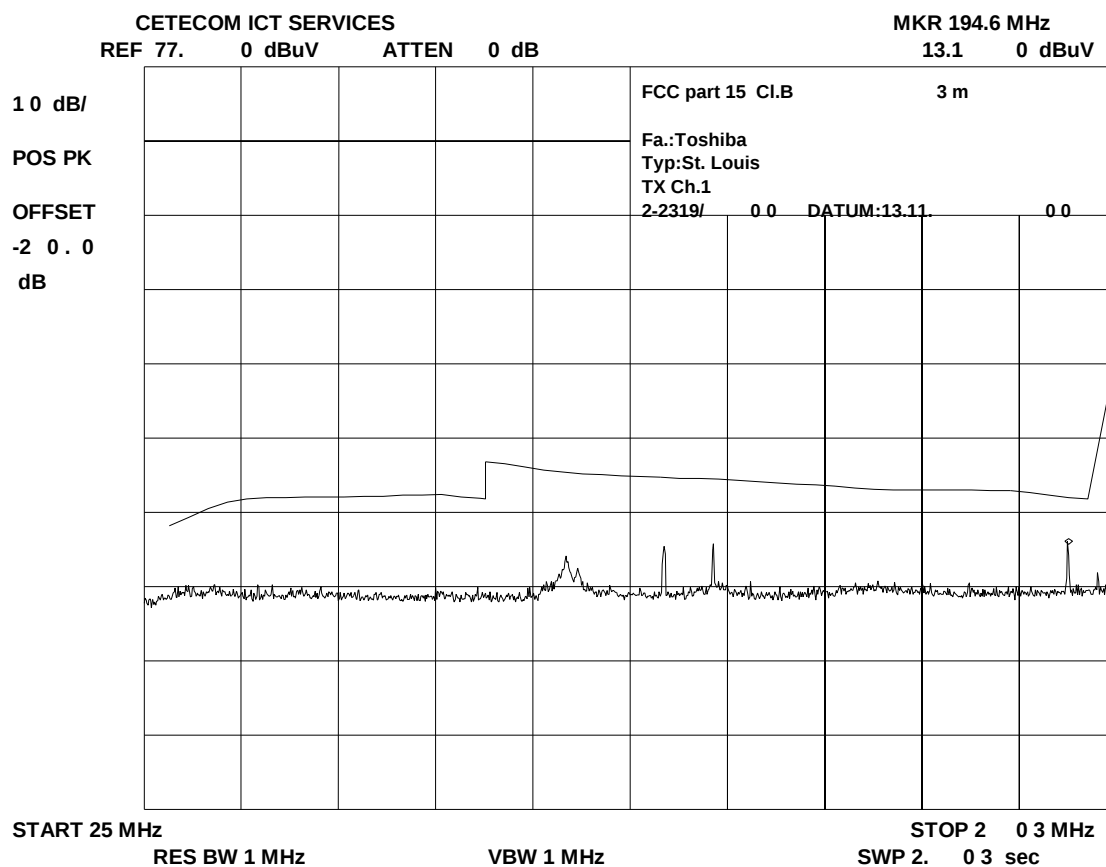
Equipment under test : Toshiba Tecra 8200

Ambient temperature : 20 °C

Relative humidity : 51%

2412 MHz radiated up to 200 MHz

The higher line is the spurious limit FCC 15.209 according to antenna gain and semi-anechoic chamber



This is only a scan:

Measurements were performed with a CISPR quasi peak adapter and 100/120 kHz BW.

REFERENCE NUMBER(S) OF TEST EQUIPMENT USED

(for reference numbers see test equipment listing)

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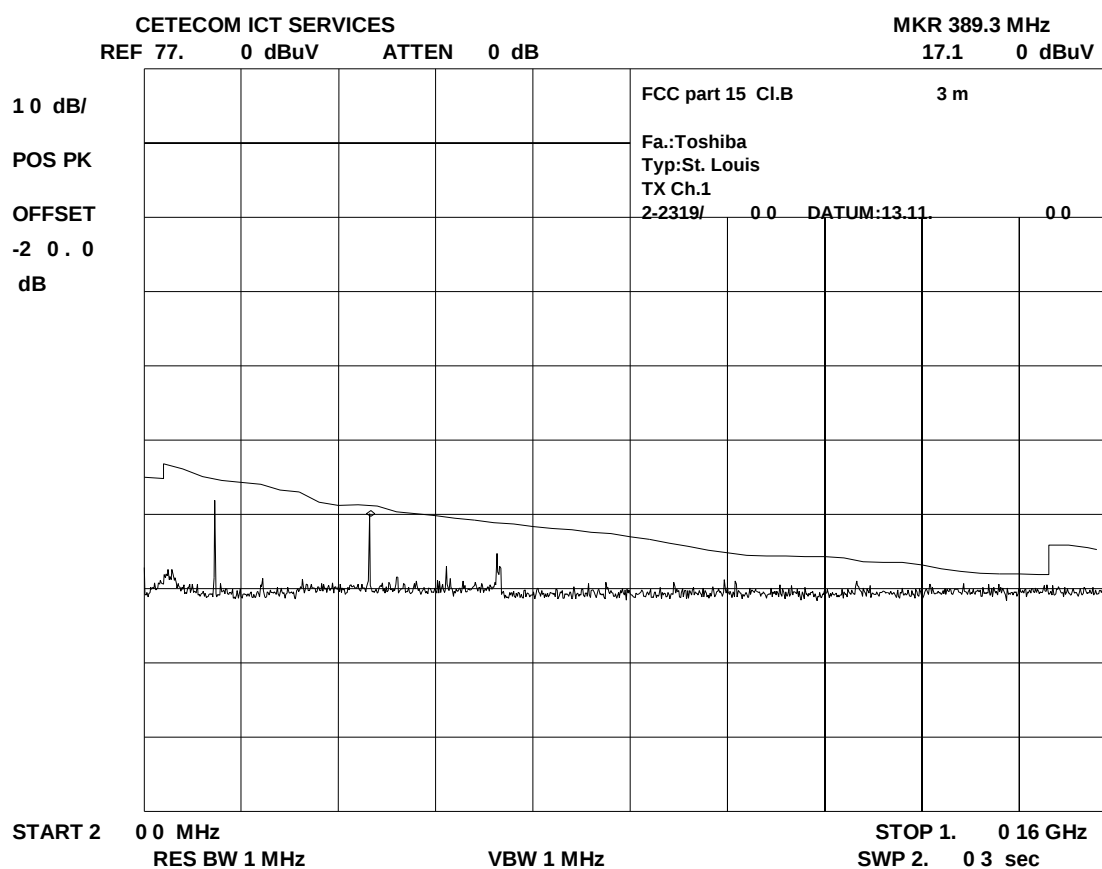
Equipment under test : Toshiba Tecra 8200

Ambient temperature : 20 °C

Relative humidity : 51 %

2412 MHz radiated up to 1000 MHz

The higher line is the spurious limit FCC 15.209 according to antenna gain and semi-anechoic chamber



This is only a scan:

Measurements were performed with a CISPR quasi peak adapter and 100/120 kHz BW.

REFERENCE NUMBER(S) OF TEST EQUIPMENT USED

(for reference numbers see test equipment listing)

18-31,64

CETECOM ICT Services GmbH

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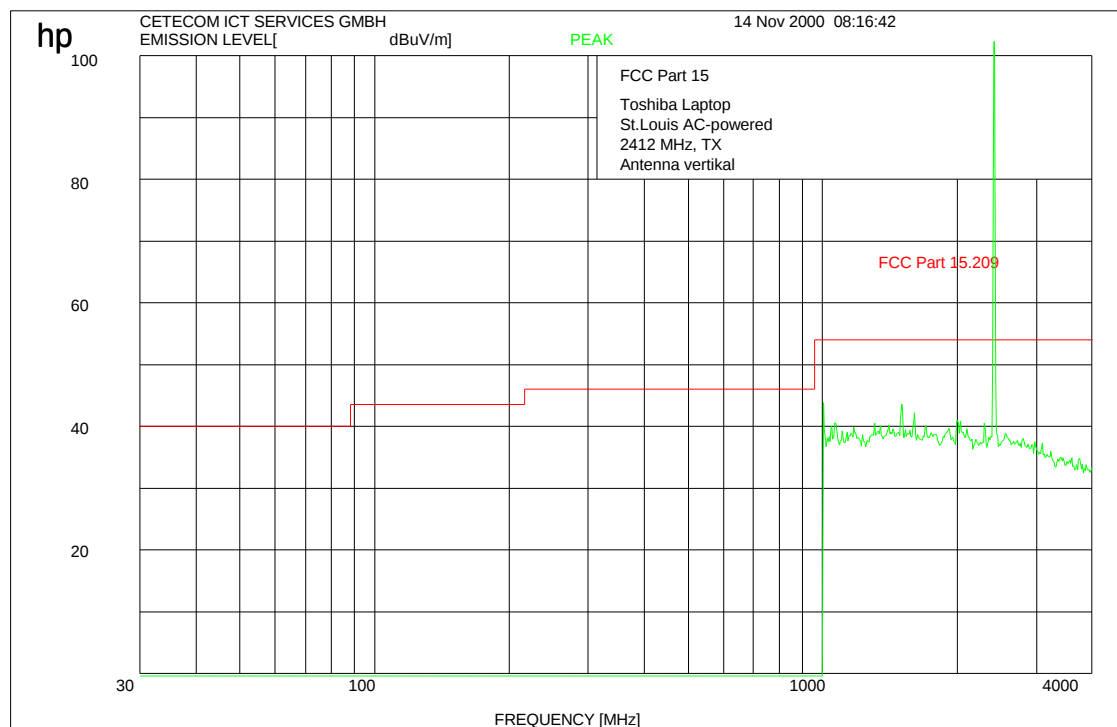
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Equipment under test : Toshiba Tecra 8200

Ambient temperature : 20 °C

Relative humidity : 51 %

2412 MHz up to 4 GHz radiated



This is only a scan.

Measurements were performed with 1MHz RBW/VBW

LIMITS

SUBCLAUSE § 15.247 (c)

In any 100 kHz bandwidth outside the frequency band at least 20dB below the highest level of the desired power. In addition, radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.209(a) (see §15.205(c)).

REFERENCE NUMBER(S) OF TEST EQUIPMENT USED

(for reference numbers see test equipment listing)

18-31,64

CETECOM ICT Services GmbH

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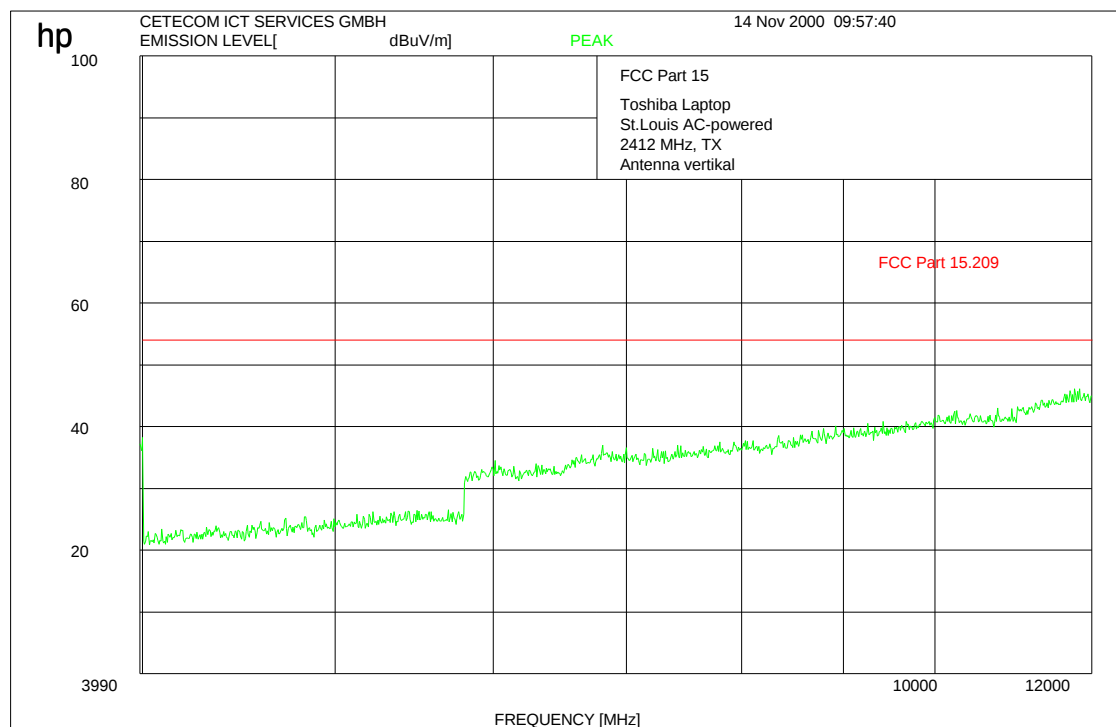
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Equipment under test : Toshiba Tecra 8200

Ambient temperature : 20 °C

Relative humidity : 51 %

2412 MHz up to 12 GHz radiated



This is only a scan.

Measurements were performed with 1MHz RBW/VBW

LIMITS

SUBCLAUSE § 15.247 (c)

In any 100 kHz bandwidth outside the frequency band at least 20dB below the highest level of the desired power. In addition, radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.209(a) (see §15.205(c)).

REFERENCE NUMBER(S) OF TEST EQUIPMENT USED

(for reference numbers see test equipment listing)

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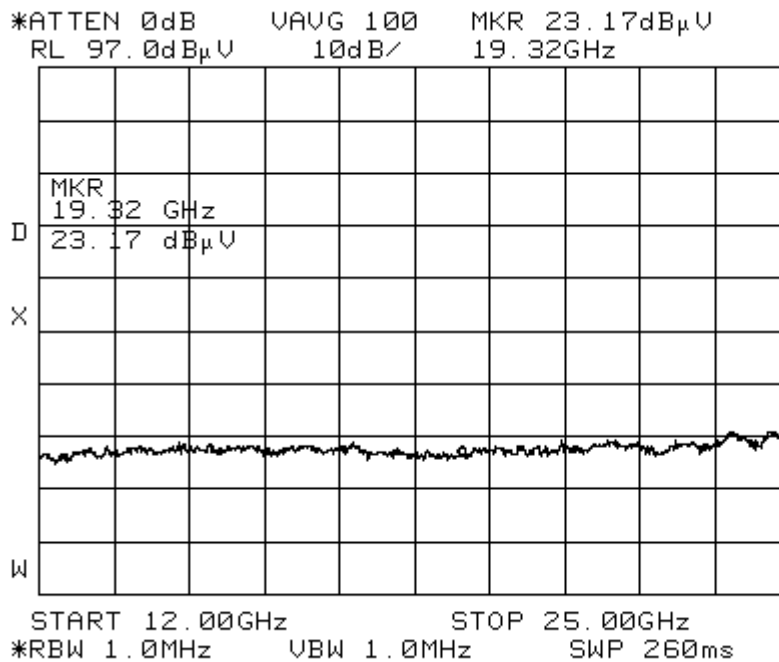
Equipment under test : Toshiba Tecra 8200

Ambient temperature : 20 °C

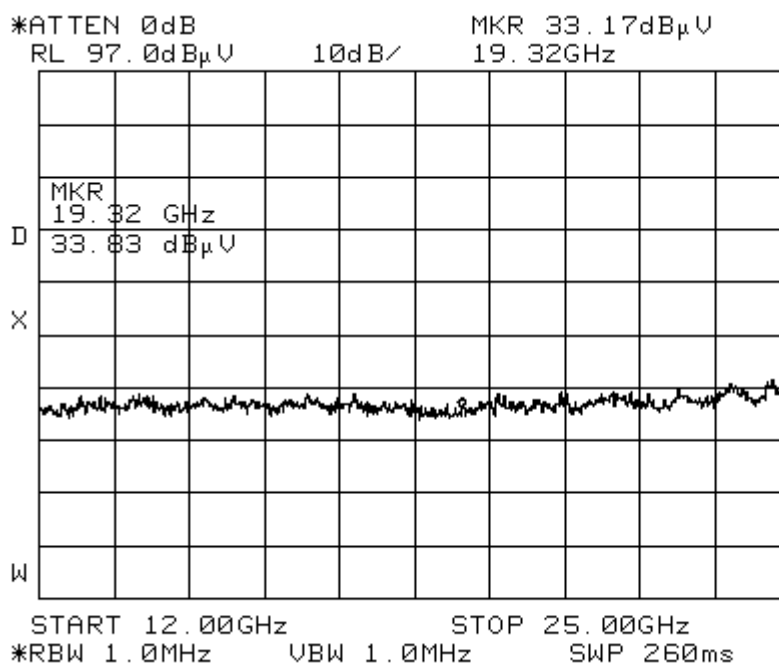
Relative humidity : 51%

2412 MHz up to 25GHz radiated (This plot is valid for all channels, there were no peaks found)

Average



Peak



REFERENCE NUMBER(S) OF TEST EQUIPMENT USED

(for reference numbers see test equipment listing)

18-31,64

CETECOM ICT Services GmbH

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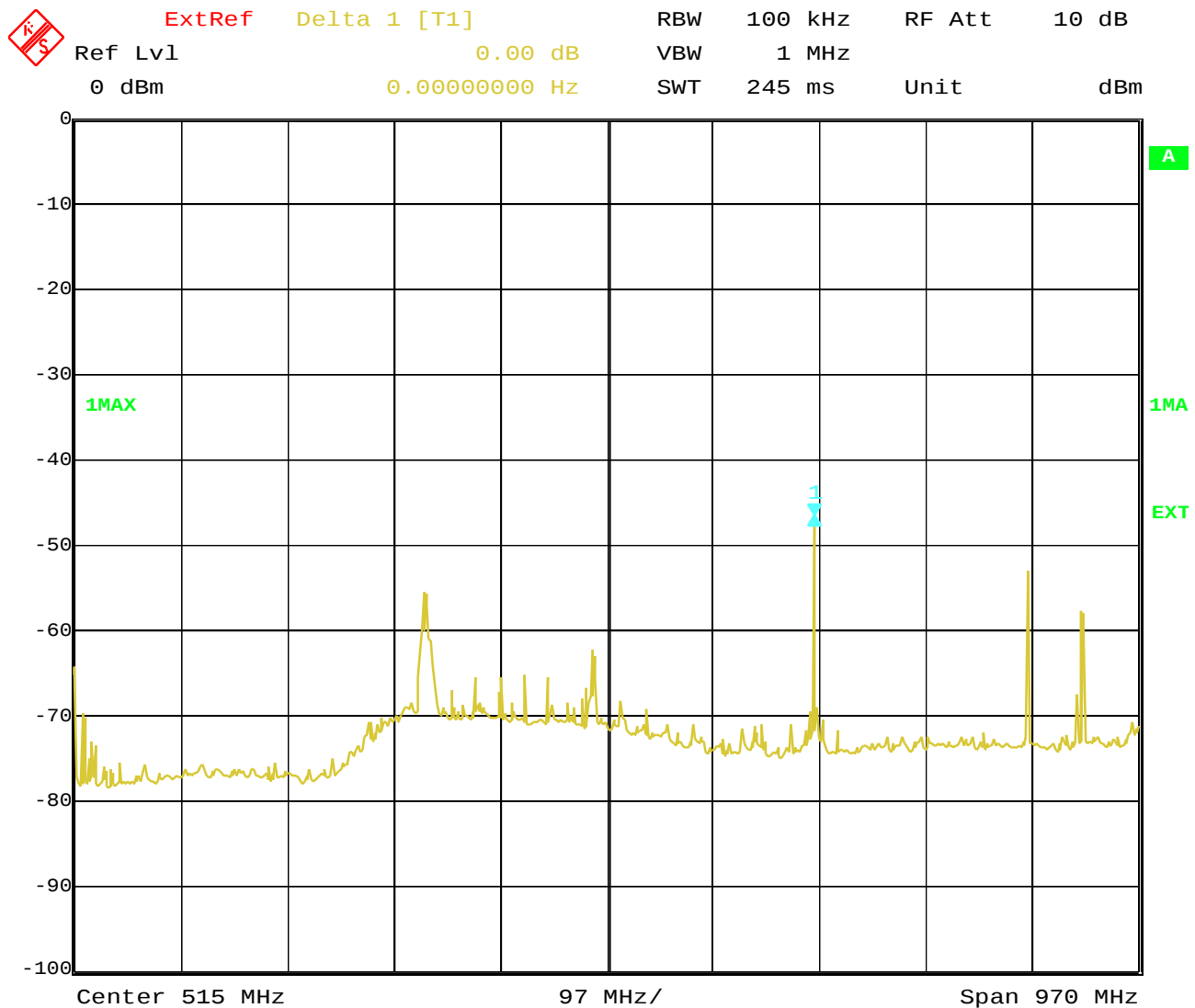
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Equipment under test : Toshiba Tecra 8200

Ambient temperature : 20 °C

Relative humidity : 51%

2412 MHz conducted up to 1 GHz



Date: 15.NOV.2000 10:33:27

This is only a scan.

Measurements were performed with a CISPR quasi peak adapter and 100/120 kHz BW.

LIMITS

SUBCLAUSE § 15.247 (c)

In any 100 kHz bandwidth outside the frequency band at least 20dB below the highest level of the desired power. In addition, radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.209(a) (see §15.205(c)).

REFERENCE NUMBER(S) OF TEST EQUIPMENT USED

(for reference numbers see test equipment listing)

18-31,64

CETECOM ICT Services GmbH

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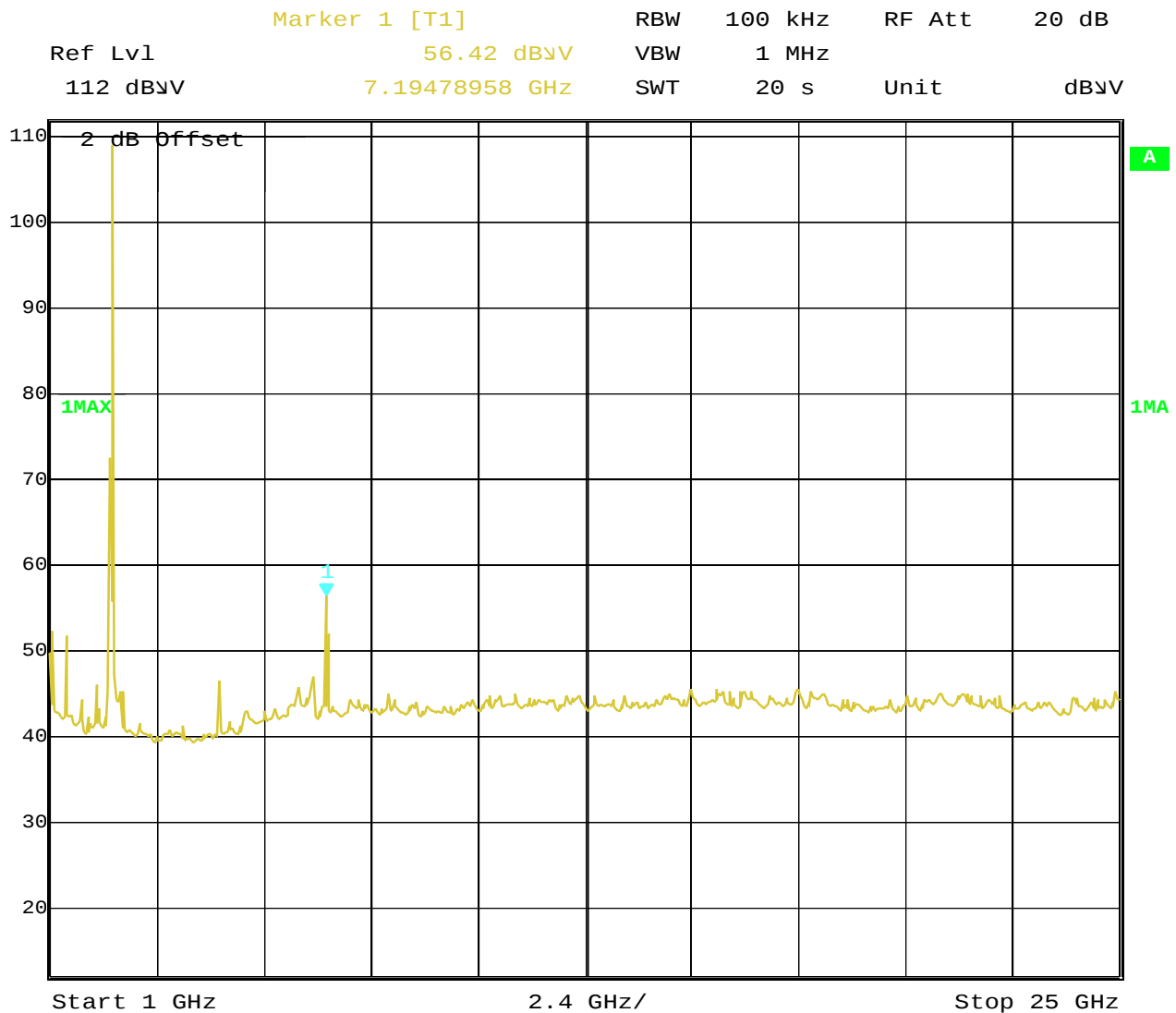
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Equipment under test : Toshiba Tecra 8200

Ambient temperature : 20 °C

Relative humidity : 51%

2412 MHz conducted up to 25 GHz Peak



Date: 13.NOV.2000 13:55:02

This is only a scan.

Measurements were performed with 1MHz RBW/VBW

LIMITS

SUBCLAUSE § 15.247 (c)

In any 100 kHz bandwidth outside the frequency band at least 20dB below the highest level of the desired power. In addition, radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.209(a) (see §15.205(c)).

REFERENCE NUMBER(S) OF TEST EQUIPMENT USED

(for reference numbers see test equipment listing)

18-31,64

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Test report nr.: 2-2319-A/00

Issue Date:14.11.2000

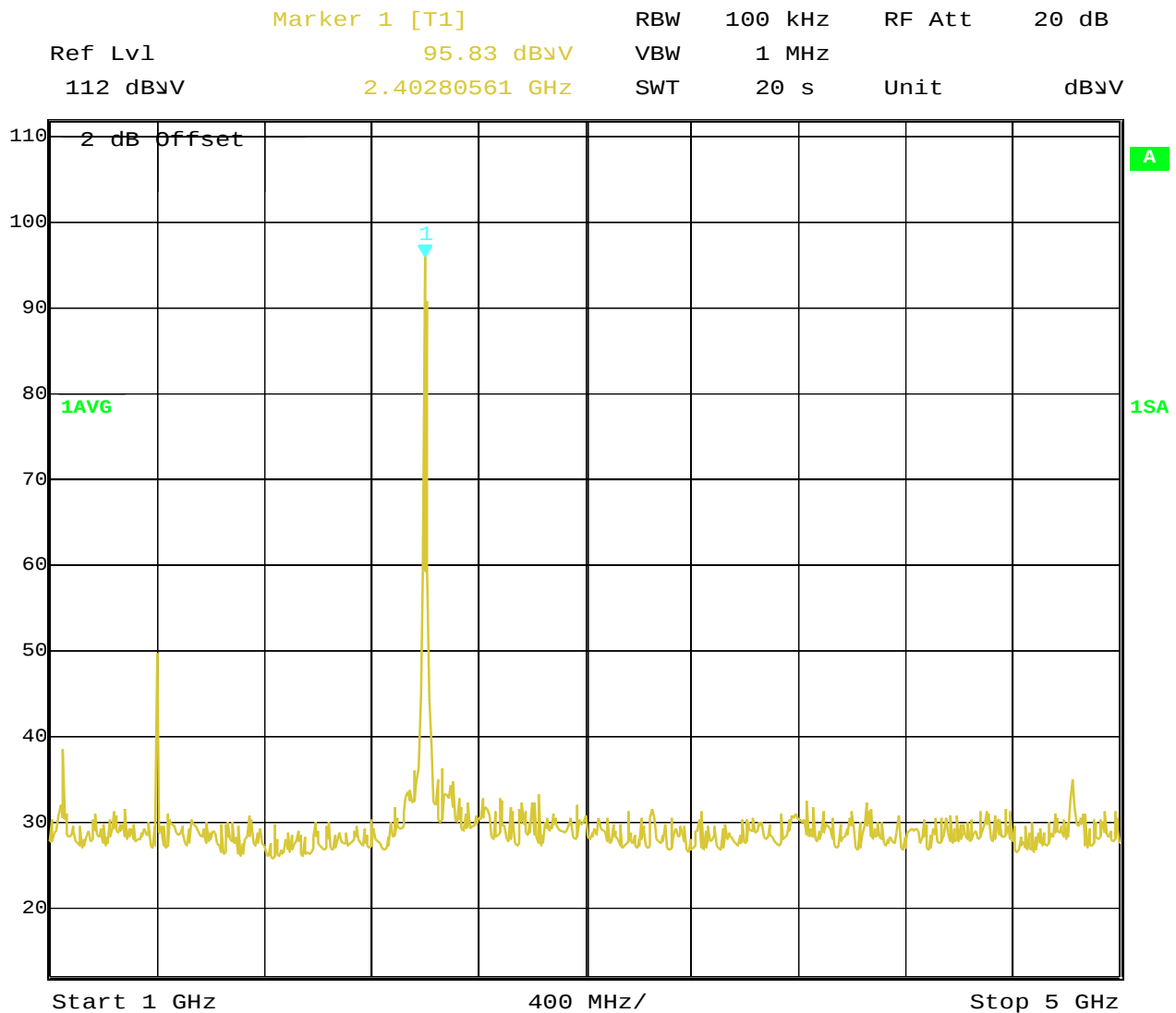
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Equipment under test : Toshiba Tecra 8200

Ambient temperature : 20 °C

Relative humidity : 51%

2412 MHz conducted up to 5 GHz Average



Date: 13.NOV.2000 14:00:45

This is only a scan.

Measurements were performed with 1MHz RBW/VBW

LIMITS

SUBCLAUSE § 15.247 (c)

In any 100 kHz bandwidth outside the frequency band at least 20dB below the highest level of the desired power. In addition, radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.209(a) (see §15.205(c)).

REFERENCE NUMBER(S) OF TEST EQUIPMENT USED

(for reference numbers see test equipment listing)

18-31,64

CETECOM ICT Services GmbH

Test report nr.: 2-2319-A/00

Issue Date:14.11.2000

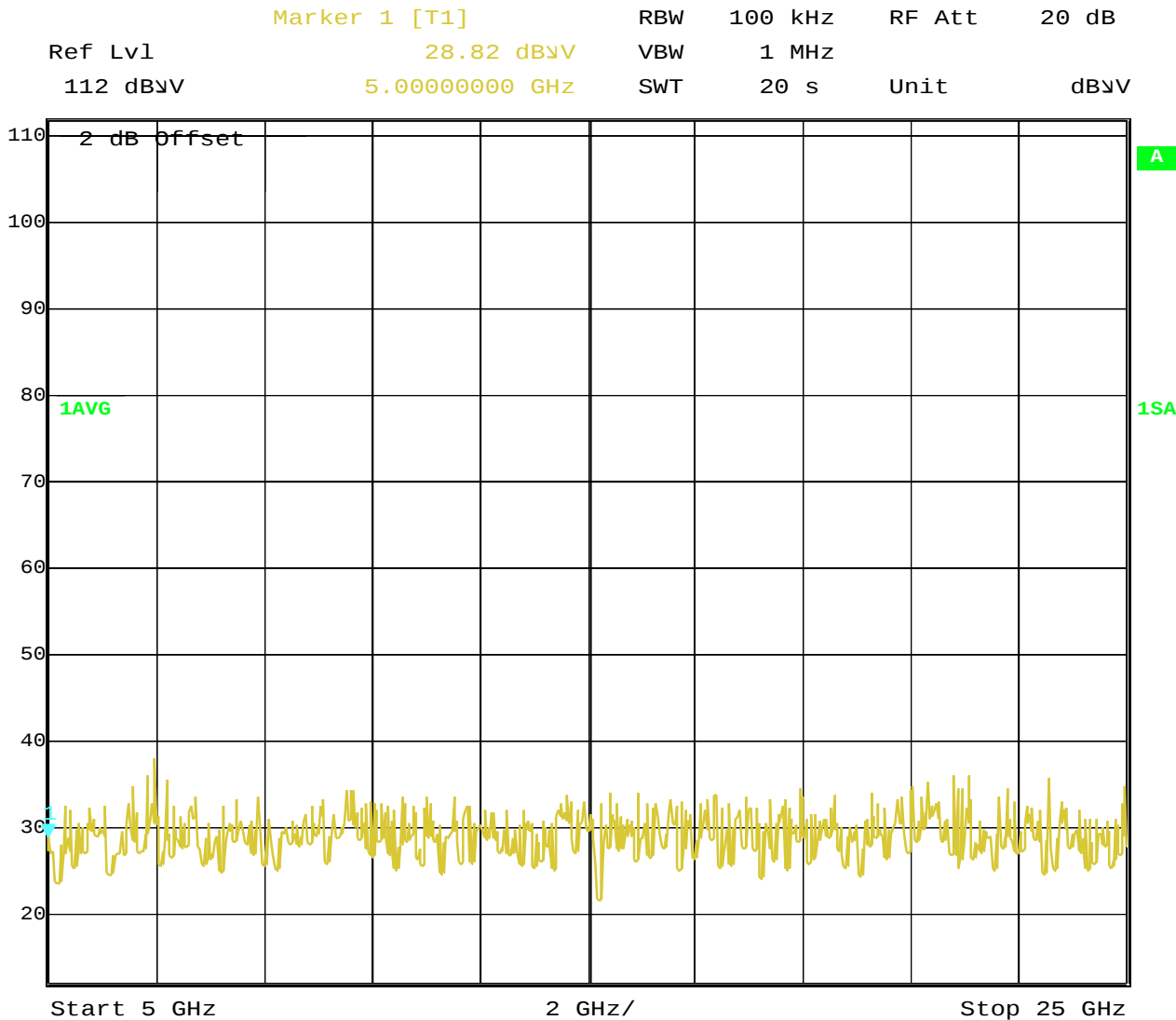
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Equipment under test : Toshiba Tecra 8200

Ambient temperature : 20 °C

Relative humidity : 51%

2412 MHz conducted up to 25 GHz Average



Date: 13.NOV.2000 14:02:25

This is only a scan.

Measurements were performed with 1MHz RBW/VBW

LIMITS

SUBCLAUSE § 15.247 (c)

In any 100 kHz bandwidth outside the frequency band at least 20dB below the highest level of the desired power. In addition, radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.209(a) (see §15.205(c)).

REFERENCE NUMBER(S) OF TEST EQUIPMENT USED

(for reference numbers see test equipment listing)

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Equipment under test : Toshiba Tecra 8200

Ambient temperature : 20 °C

Relative humidity : 51 %

EMISSION LIMITATIONS (Transmitter)

SUBCLAUSE § 15.247 (c) (1)

conducted (radiated emissions in restricted bands see next table)

2442 MHz

SPURIOUS LIMITATIONS					
f (MHz)		amplitude of emission (dBm)	limit max. allowed emmission		results
2412	cond.	0.4	30.0 dBm		Operating frequency
84.2	cond.	QP:-50.0	-20 dBc		complies
349.8	cond.	QP:-63.1	-20 dBc		complies
631.6	cond.	QP:-54.9	-20 dBc		complies
704.0	cond.	QP:-48.6	-20 dBc		complies
842.6	cond.	QP:-72.2	-20dBc		complies
1392.8	cond.	Peak:-60.9 AV:-57.0	-20 dBc	restr. band	complies
7308.6	cond.	Peak:-53.7 AV:-66.3	-20 dBc	restr. band	complies
Measurement uncertainty		± 3dB			

The output power of the fundamental was measured with 100 kHz RBW for this for this part only.
The conducted output is calculated from a measurement in dBµV by -107 dB.

LIMITS

SUBCLAUSE § 15.247 (c)

In any 100 kHz bandwidth outside the frequency band at least 20dB below the highest level of the desired power. In addition, radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.209(a) (see §15.205(c)).

REFERENCE NUMBER(S) OF TEST EQUIPMENT USED

(for reference numbers see test equipment listing)

18-31,64

CETECOM ICT Services GmbH

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Equipment under test : Toshiba Tecra 8200

Ambient temperature : 20 °C

Relative humidity : 51 %

EMISSION LIMITATIONS (Transmitter)

SUBCLAUSE § 15.247 (c) (2)

radiated (Antenna vertikal polarisation, horiz. emissions were up to 20dB lower)

2442 MHz

SPURIOUS LIMITATIONS					
f (MHz)		amplitude of emission (dBµV/m)	limit max. allowed emmission		results
129.8	rad.	QP:34.0	43.5 dBµV/m	restr. band	complies
194.9	rad.	QP:37.3	43.5 dBµV/m		complies
259.9	rad.	QP:38.7	46.0 dBµV/m	restr. band	complies
389.9	rad.	QP:38.2	46.0 dBµV/m		complies
496.2	rad.	QP:41.6	46.0 dBµV/m		complies
1495.2	rad.	Peak:45.4 AV:36.2	54.0 dBµV/m	restr. band	complies
1545.1	rad.	Peak:44.1 AV:34.9	54.0 dBµV/m	restr. band	complies
1993.5	rad.	Peak:46.3 AV:36.9	54.0 dBµV/m		complies
no	radiated	spurs	above	2442 MHz	
Measurement uncertainty		± 3dB			

Measurement were performed up to 1 GHz with a CISPR quasi peak adapter and 100/120 kHz BW. Measurements above 1 GHz were performed with RBW/VBW 1 MHz in Peak and Average.

LIMITS

SUBCLAUSE § 15.247 (c)

In any 100 kHz bandwidth outside the frequency band at least 20dB below the highest level of the desired power. In addition, radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.209(a) (see §15.205(c)).

REFERENCE NUMBER(S) OF TEST EQUIPMENT USED

(for reference numbers see test equipment listing)

18-31,64

CETECOM ICT Services GmbH

Test report nr.: 2-2319-A/00

Issue Date:14.11.2000

Page 26 (126)

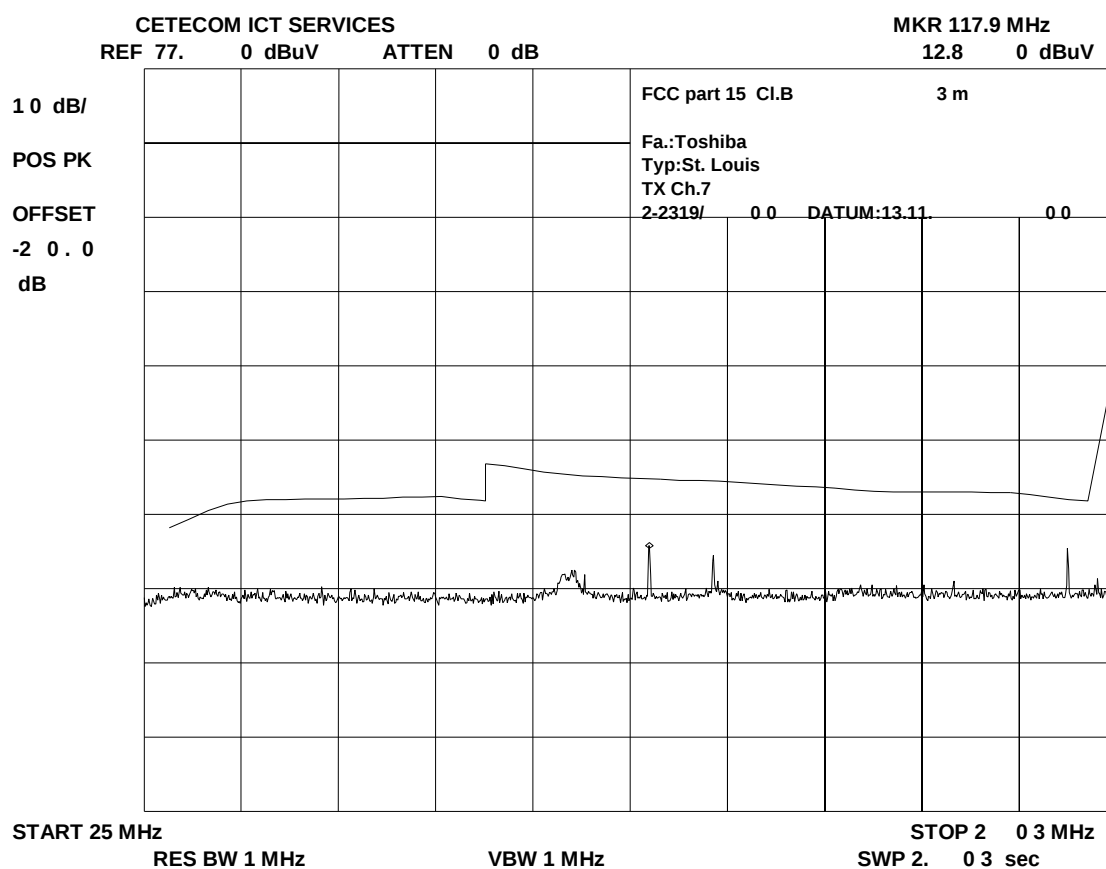
Equipment under test : Toshiba Tecra 8200

Ambient temperature : 20 °C

Relative humidity : 51%

2442 MHz radiated up to 200 MHz

The higher line is the spurious limit FCC 15.209 according to antenna gain and semi-anechoic chamber



This is only a scan:

Measurements were performed with a CISPR quasi peak adapter and 100/120 kHz BW.

REFERENCE NUMBER(S) OF TEST EQUIPMENT USED

(for reference numbers see test equipment listing)

18-31,64

CETECOM ICT Services GmbH

Test report nr.: 2-2319-A/00

Issue Date:14.11.2000

Page 27 (126)

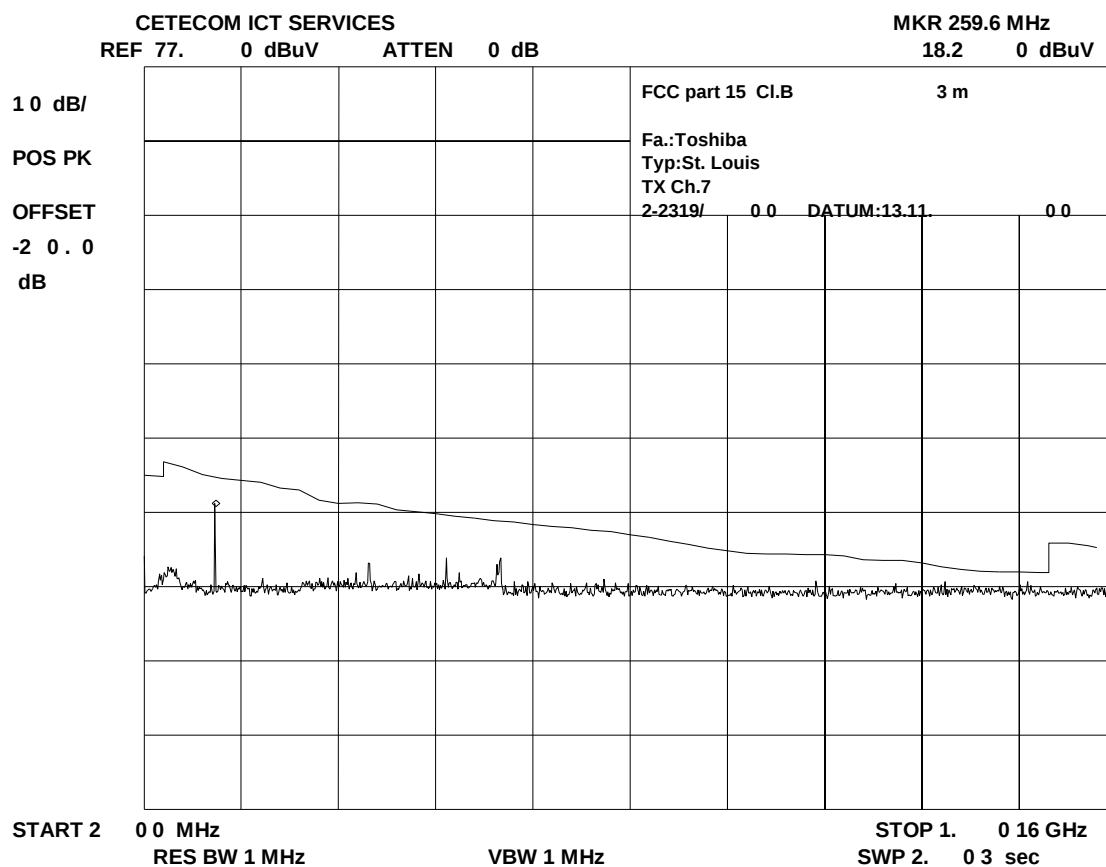
Equipment under test : Toshiba Tecra 8200

Ambient temperature : 20 °C

Relative humidity : 51%

2442 MHz radiated up to 1000 MHz

The higher line is the spurious limit FCC 15.209 according to antenna gain and semi-anechoic chamber



This is only a scan:

Measurements were performed with a CISPR quasi peak adapter and 100/120 kHz BW.

REFERENCE NUMBER(S) OF TEST EQUIPMENT USED

(for reference numbers see test equipment listing)

18-31,64

CETECOM ICT Services GmbH

Test report nr.: 2-2319-A/00

Issue Date:14.11.2000

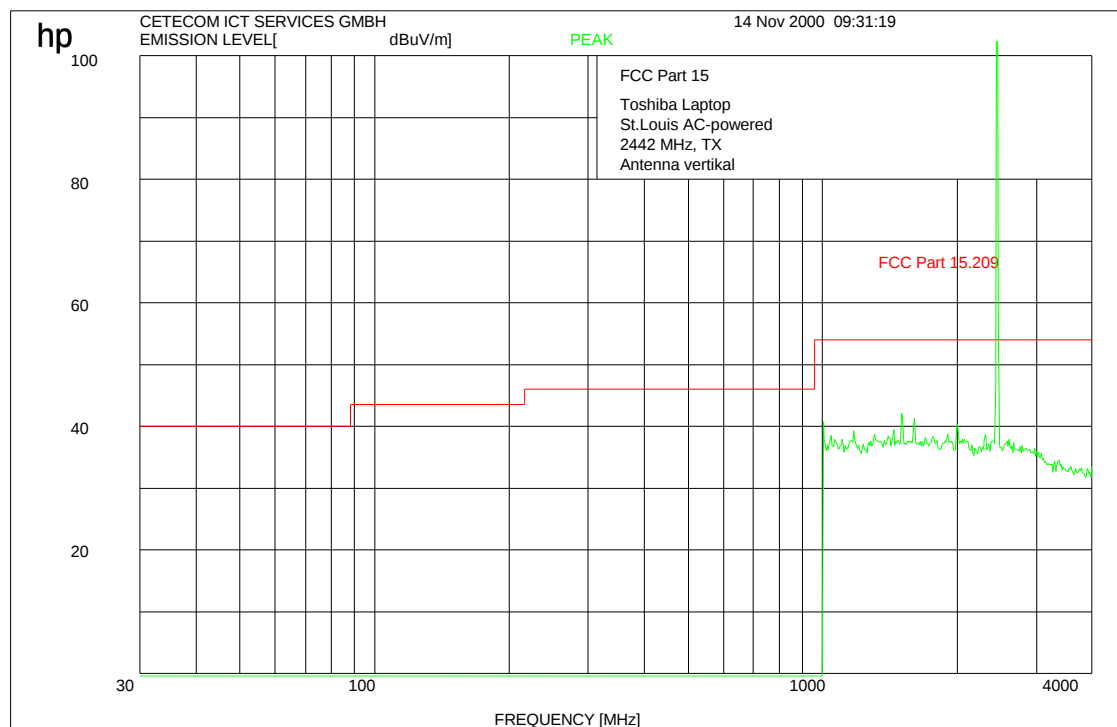
Page 28 (126)

Equipment under test : Toshiba Tecra 8200

Ambient temperature : 20 °C

Relative humidity : 51 %

2442 MHz up to 4 GHz radiated



This is only a scan.

Measurements were performed with 1MHz RBW/VBW

LIMITS

SUBCLAUSE § 15.247 (c)

In any 100 kHz bandwidth outside the frequency band at least 20dB below the highest level of the desired power. In addition, radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.209(a) (see §15.205(c)).

REFERENCE NUMBER(S) OF TEST EQUIPMENT USED

(for reference numbers see test equipment listing)

18-31,64

CETECOM ICT Services GmbH

Test report nr.: 2-2319-A/00

Issue Date:14.11.2000

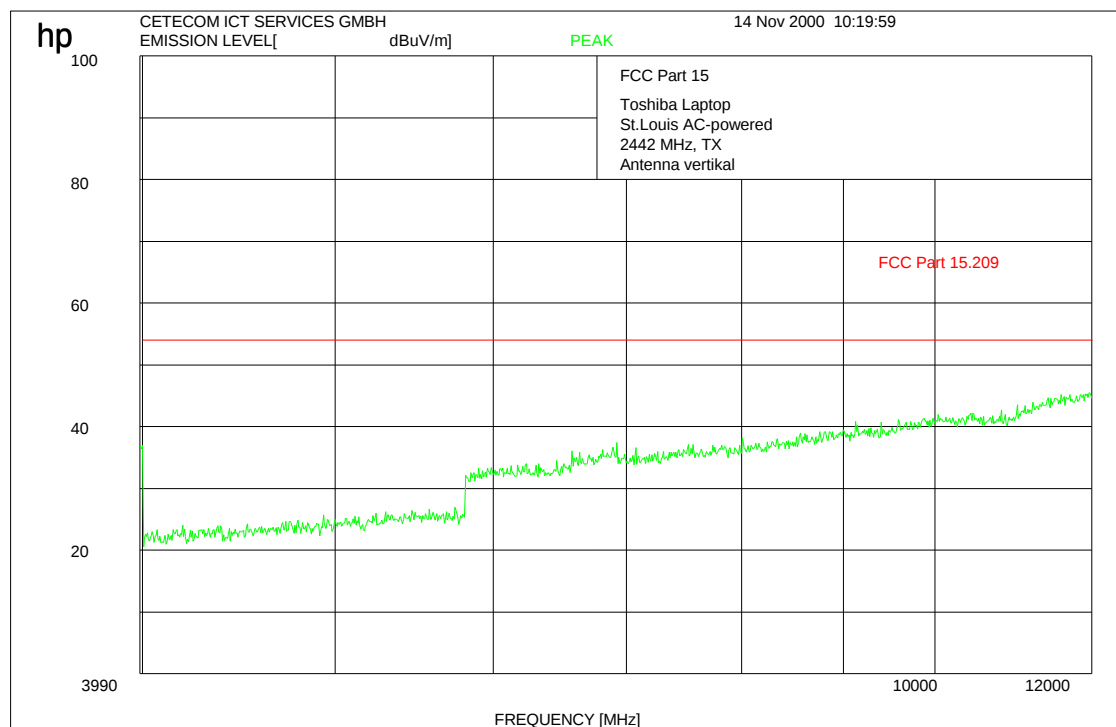
Page 29 (126)

Equipment under test : Toshiba Tecra 8200

Ambient temperature : 20 °C

Relative humidity : 51 %

2442 MHz up to 12 GHz radiated



This is only a scan.

Measurements were performed with 1MHz RBW/VBW

LIMITS

SUBCLAUSE § 15.247 (c)

In any 100 kHz bandwidth outside the frequency band at least 20dB below the highest level of the desired power. In addition, radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.209(a) (see §15.205(c)).

REFERENCE NUMBER(S) OF TEST EQUIPMENT USED

(for reference numbers see test equipment listing)

18-31,64

CETECOM ICT Services GmbH

Test report nr.: 2-2319-A/00

Issue Date:14.11.2000

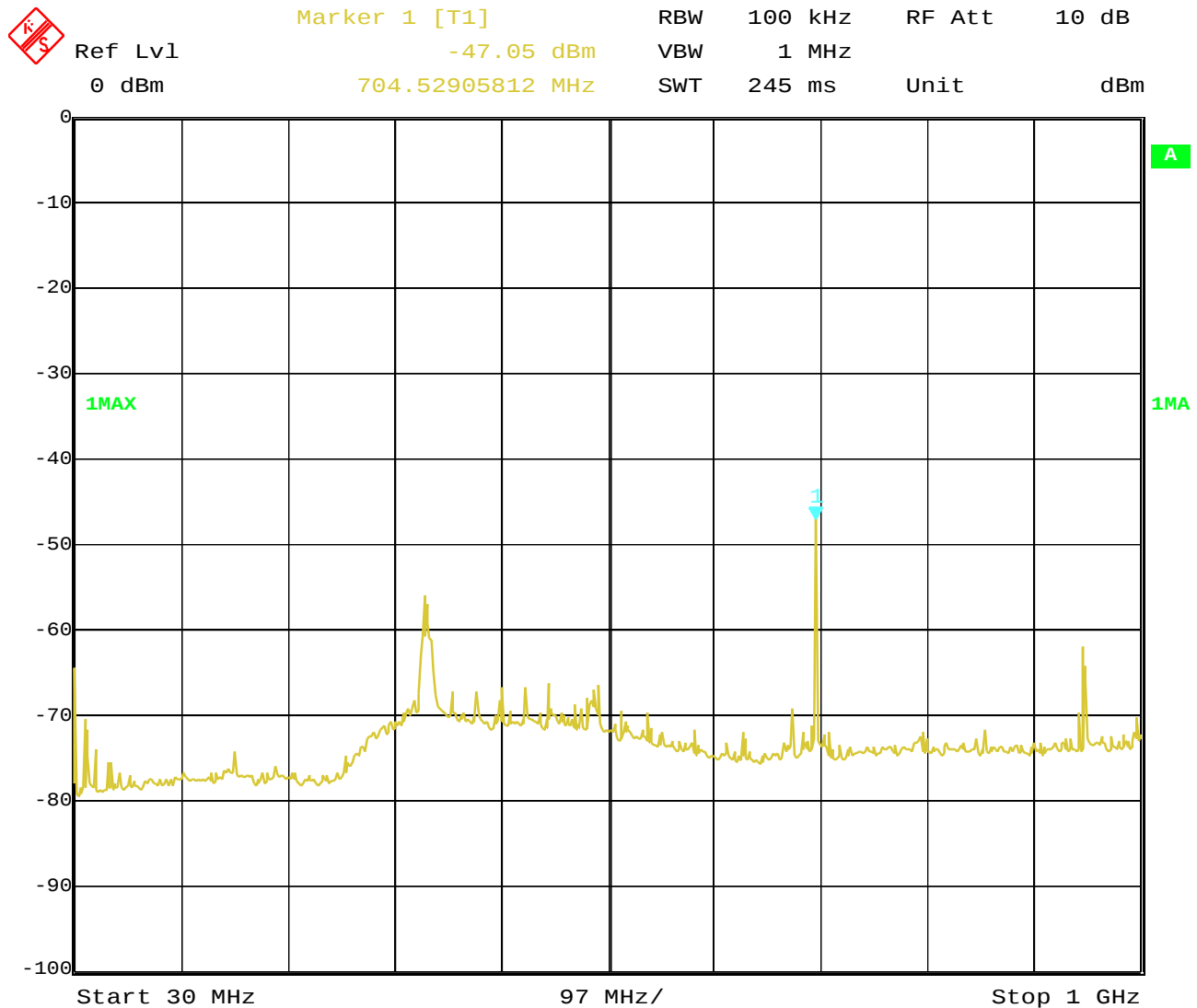
Page 30 (126)

Equipment under test : Toshiba Tecra 8200

Ambient temperature : 20 °C

Relative humidity : 51%

2442 MHz conducted up to 1 GHz



Date: 15.NOV.2000 10:35:43

This is only a scan.

Measurements were performed with an CISPR quasi peak adapter and 100/120 kHz BW.

LIMITS

SUBCLAUSE § 15.247 (c)

In any 100 kHz bandwidth outside the frequency band at least 20dB below the highest level of the desired power. In addition, radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.209(a) (see §15.205(c)).

REFERENCE NUMBER(S) OF TEST EQUIPMENT USED

(for reference numbers see test equipment listing)

18-31,64

CETECOM ICT Services GmbH

Test report nr.: 2-2319-A/00

Issue Date:14.11.2000

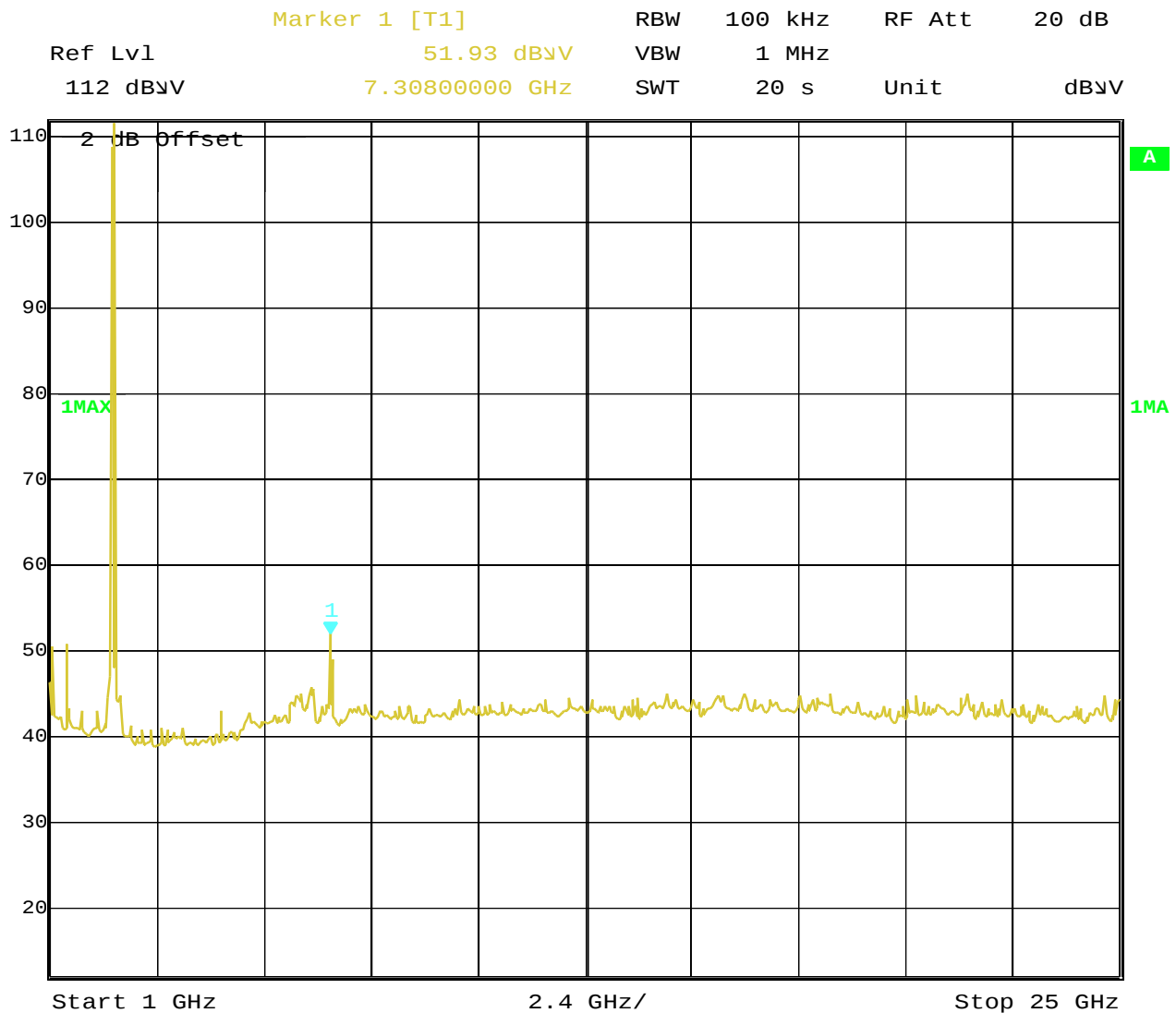
Page 31 (126)

Equipment under test : Toshiba Tecra 8200

Ambient temperature : 20 °C

Relative humidity : 51%

2412 MHz conducted up to 25 GHz Peak



Date: 13.NOV.2000 14:14:13

This is only a scan.

Measurements were performed with 1MHz RBW/VBW

LIMITS

SUBCLAUSE § 15.247 (c)

In any 100 kHz bandwidth outside the frequency band at least 20dB below the highest level of the desired power. In addition, radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.209(a) (see §15.205(c)).

REFERENCE NUMBER(S) OF TEST EQUIPMENT USED

(for reference numbers see test equipment listing)

18-31,64

CETECOM ICT Services GmbH

Test report nr.: 2-2319-A/00

Issue Date:14.11.2000

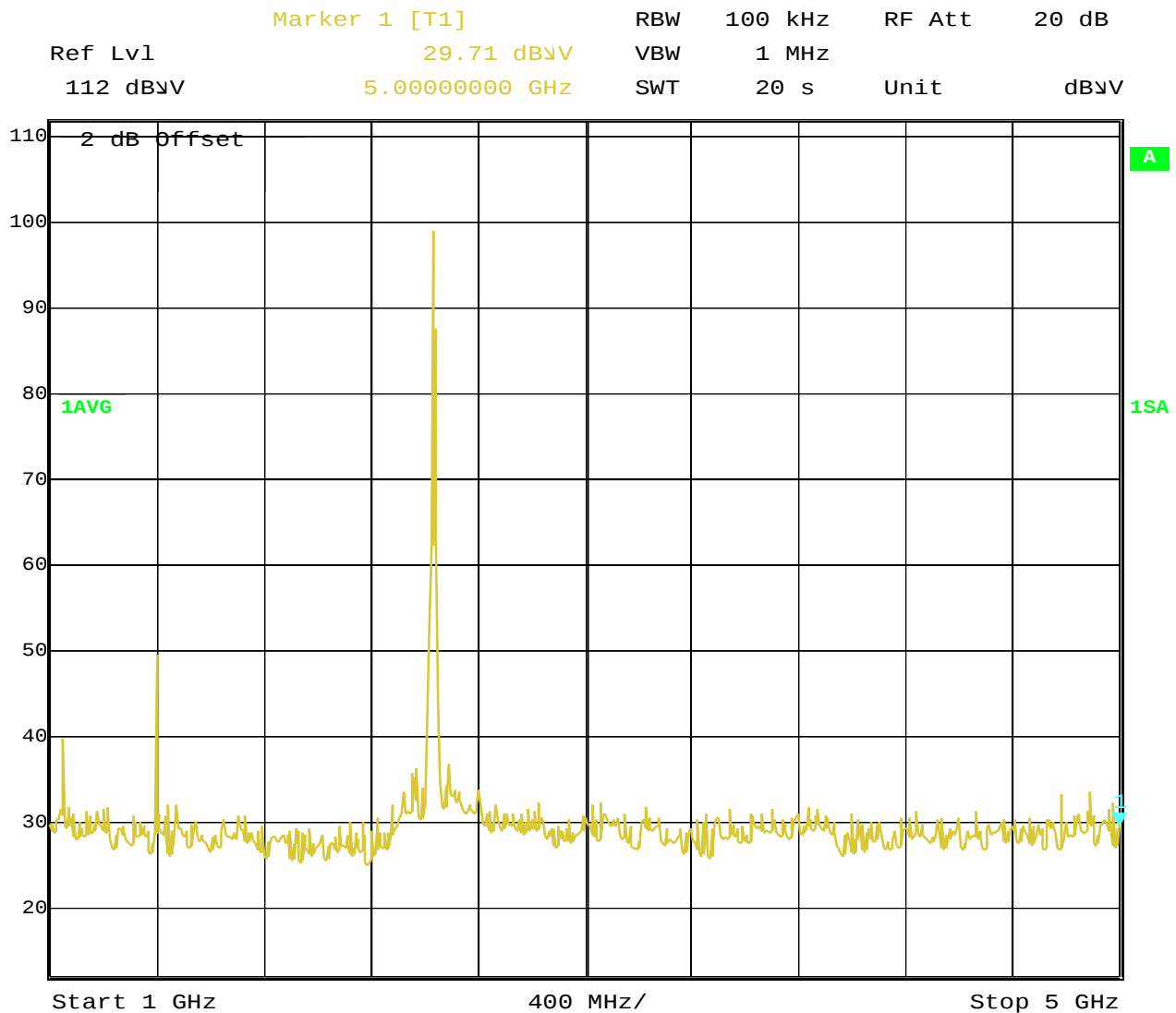
Page 32 (126)

Equipment under test : Toshiba Tecra 8200

Ambient temperature : 20 °C

Relative humidity : 51%

2442 MHz conducted up to 5 GHz Average



Date: 13.NOV.2000 14:11:22

This is only a scan.

Measurements were performed with 1MHz RBW/VBW

LIMITS

SUBCLAUSE § 15.247 (c)

In any 100 kHz bandwidth outside the frequency band at least 20dB below the highest level of the desired power. In addition, radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.209(a) (see §15.205(c)).

REFERENCE NUMBER(S) OF TEST EQUIPMENT USED

(for reference numbers see test equipment listing)

18-31,64

CETECOM ICT Services GmbH

Test report nr.: 2-2319-A/00

Issue Date:14.11.2000

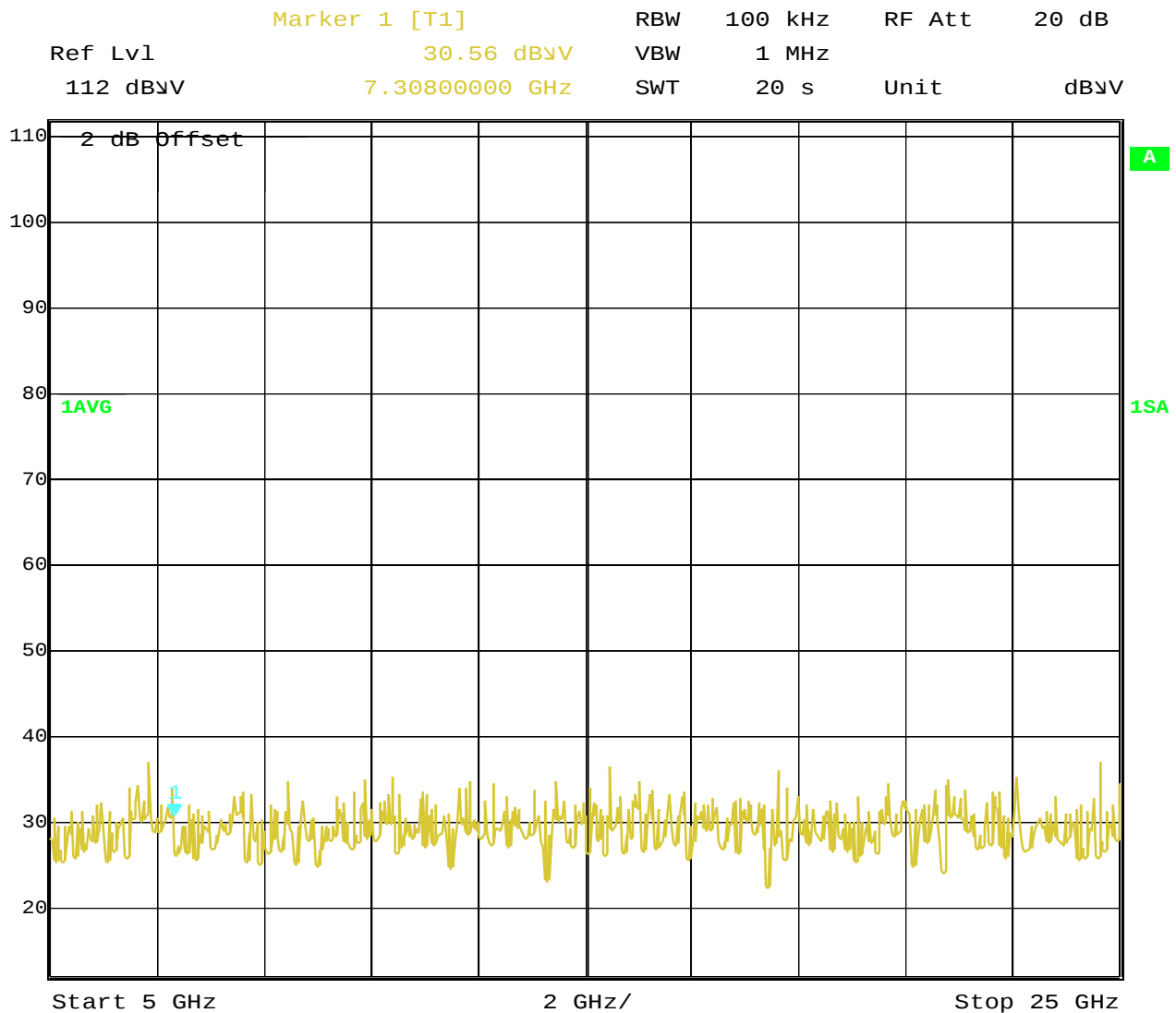
Page 33 (126)

Equipment under test : Toshiba Tecra 8200

Ambient temperature : 20 °C

Relative humidity : 51%

2442 MHz conducted up to 25 GHz Average



Date: 13.NOV.2000 14:13:07

This is only a scan.

Measurements were performed with 1MHz RBW/VBW

LIMITS

SUBCLAUSE § 15.247 (c)

In any 100 kHz bandwidth outside the frequency band at least 20dB below the highest level of the desired power. In addition, radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.209(a) (see §15.205(c)).

REFERENCE NUMBER(S) OF TEST EQUIPMENT USED

(for reference numbers see test equipment listing)

18-31,64

CETECOM ICT Services GmbH

Test report nr.: 2-2319-A/00

Issue Date:14.11.2000

Page 34 (126)

Equipment under test : Toshiba Tecra 8200

Ambient temperature : 20 °C

Relative humidity : 51 %

EMISSION LIMITATIONS (Transmitter)

SUBCLAUSE § 15.247 (c) (1)

conducted (radiated emissions in restricted bands see next table)

2472 MHz

SPURIOUS LIMITATIONS					
f (MHz)		amplitude of emission (dBm)	limit max. allowed emmission		results
2412	cond.	1.2	30.0 dBm		Operating frequency
57.6	cond.	QP:-48.2	-20 dBc		complies
172.4	cond.	QP:-46.8	-20 dBc	restr. band	complies
349.8	cond.	QP:-63.8	-20 dBc		complies
373.4	cond.	QP:-64.1	-20 dBc		complies
661.5	cond.	QP:-53.5	-20 dBc		complies
704.0	cond.	QP:-48.9	-20 dBc		complies
747.1	cond.	QP:-63.0	-20 dBc		complies
881.7	cond.	QP:-55.3	-20 dBc		complies
1392.2	cond.	Peak:-56.0 AV:-57.2	-20 dBc	restr. band	complies
4951.3	cond.	Peak:-57.1 AV:-64.0	-20 dBc	restr. band	complies
7404.2	cond.	Peak:-54.7 AV:-69.4	-20 dBc	restr. band	complies
Measurement uncertainty		± 3dB			

The output power of the fundamental was measured with 100 kHz RBW for this for this part only.
The conducted output is calculated from a measurement in dBµV by -107 dB.

LIMITS

SUBCLAUSE § 15.247 (c)

In any 100 kHz bandwidth outside the frequency band at least 20dB below the highest level of the desired power. In addition, radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.209(a) (see §15.205(c)).

REFERENCE NUMBER(S) OF TEST EQUIPMENT USED

(for reference numbers see test equipment listing)

18-31,64

CETECOM ICT Services GmbH

Test report nr.: 2-2319-A/00

Issue Date:14.11.2000

Page 35 (126)

Equipment under test : Toshiba Tecra 8200

Ambient temperature : 20 °C

Relative humidity : 51%

EMISSION LIMITATIONS (Transmitter)

SUBCLAUSE § 15.247 (c) (2)

radiated (Antenna vertikal polarisation, horiz. emissions were up to 20dB lower)

2472 MHz

SPURIOUS LIMITATIONS					
f (MHz)		amplitude of emission (dBµV/m)	limit max. allowed emmission		results
129.8	rad.	QP:34.8	43.5 dBµV/m	restr. band	complies
194.9	rad.	QP:37.8	43.5 dBµV/m		complies
259.9	rad.	QP:39.1	46.0 dBµV/m	restr. band	complies
389.9	rad.	QP:36.4	46.0 dBµV/m		complies
496.2	rad.	QP:41.9	46.0 dBµV/m		complies
951.5	rad.	QP:37.3	46.0 dBµV/m		complies
1495.2	rad.	Peak:45.5 AV:36.0	54.0 dBµV/m	restr. band	complies
1544.1	rad.	Peak:43.7 AV:34.4	54.0 dBµV/m	restr. band	complies
no	radiated	spurs	above	2472 MHz	
Measurement uncertainty		± 3dB			

Measurement were performed up to 1 GHz with a CISPR quasi peak adapter and 100/120 kHz BW. Measurements above 1 GHz were performed with RBW/VBW 1 MHz in Peak and Average.

LIMITS

SUBCLAUSE § 15.247 (c)

In any 100 kHz bandwidth outside the frequency band at least 20dB below the highest level of the desired power. In addition, radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.209(a) (see §15.205(c)).

REFERENCE NUMBER(S) OF TEST EQUIPMENT USED

(for reference numbers see test equipment listing)

18-31,64

CETECOM ICT Services GmbH

Test report nr.: 2-2319-A/00

Issue Date:14.11.2000

Page 36 (126)

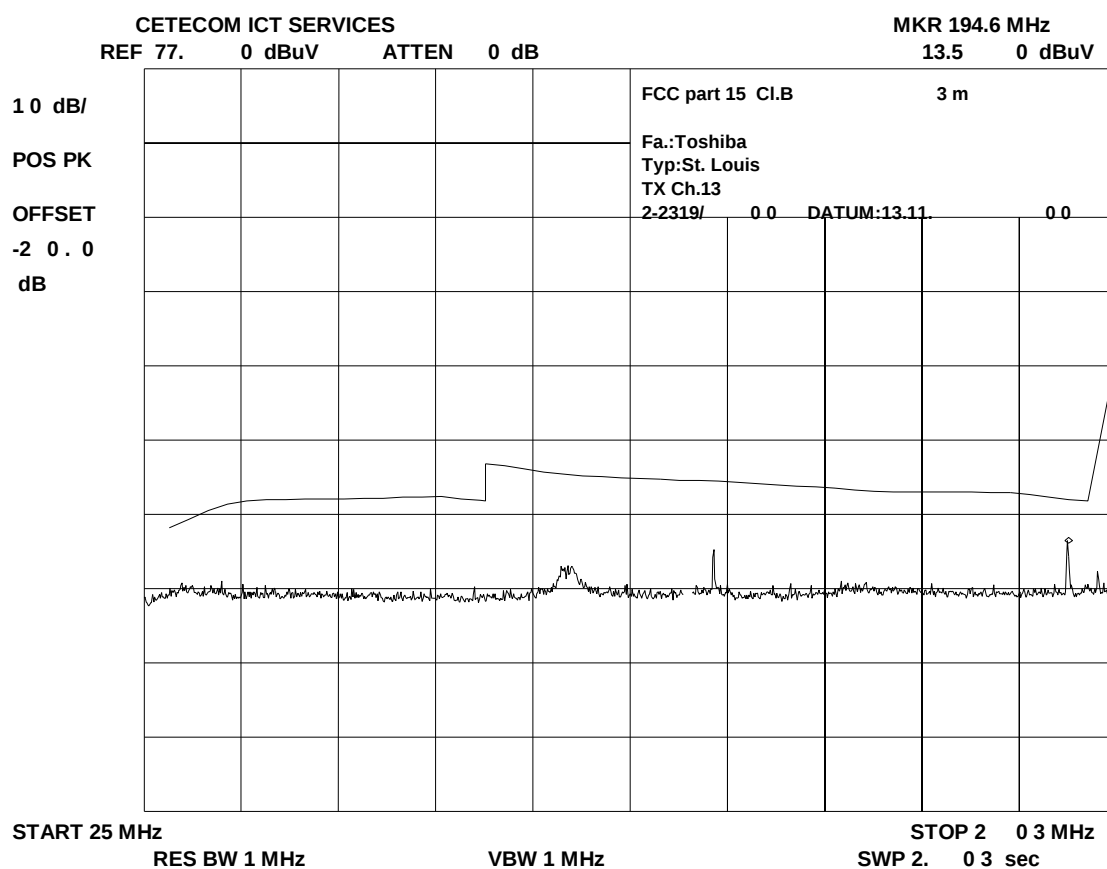
Equipment under test : Toshiba Tecra 8200

Ambient temperature : 20 °C

Relative humidity : 51%

2472 MHz radiated up to 200 MHz

The higher line is the spurious limit FCC 15.209 according to antenna gain and semi-anechoic chamber



This is only a scan:

Measurements were performed with a CISPR quasi peak adapter and 100/120 kHz BW.

REFERENCE NUMBER(S) OF TEST EQUIPMENT USED

(for reference numbers see test equipment listing)

18-31,64

CETECOM ICT Services GmbH

Test report nr.: 2-2319-A/00

Issue Date:14.11.2000

Page 37 (126)

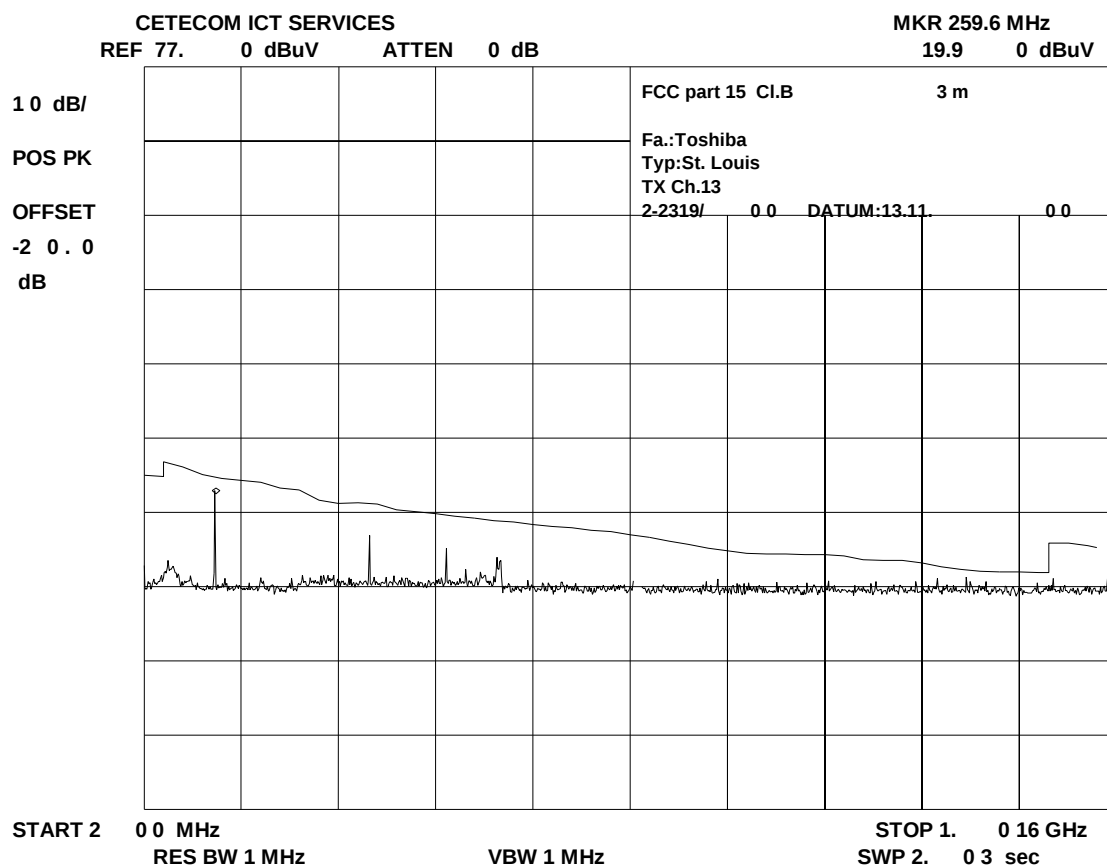
Equipment under test : Toshiba Tecra 8200

Ambient temperature : 20 °C

Relative humidity : 51 %

2472 MHz radiated up to 1000 MHz

The higher line is the spurious limit FCC 15.209 according to antenna gain and semi-anechoic chamber



This is only a scan:

Measurements were performed with a CISPR quasi peak adapter and 100/120 kHz BW.

REFERENCE NUMBER(S) OF TEST EQUIPMENT USED

(for reference numbers see test equipment listing)

18-31,64

CETECOM ICT Services GmbH

Test report nr.: 2-2319-A/00

Issue Date:14.11.2000

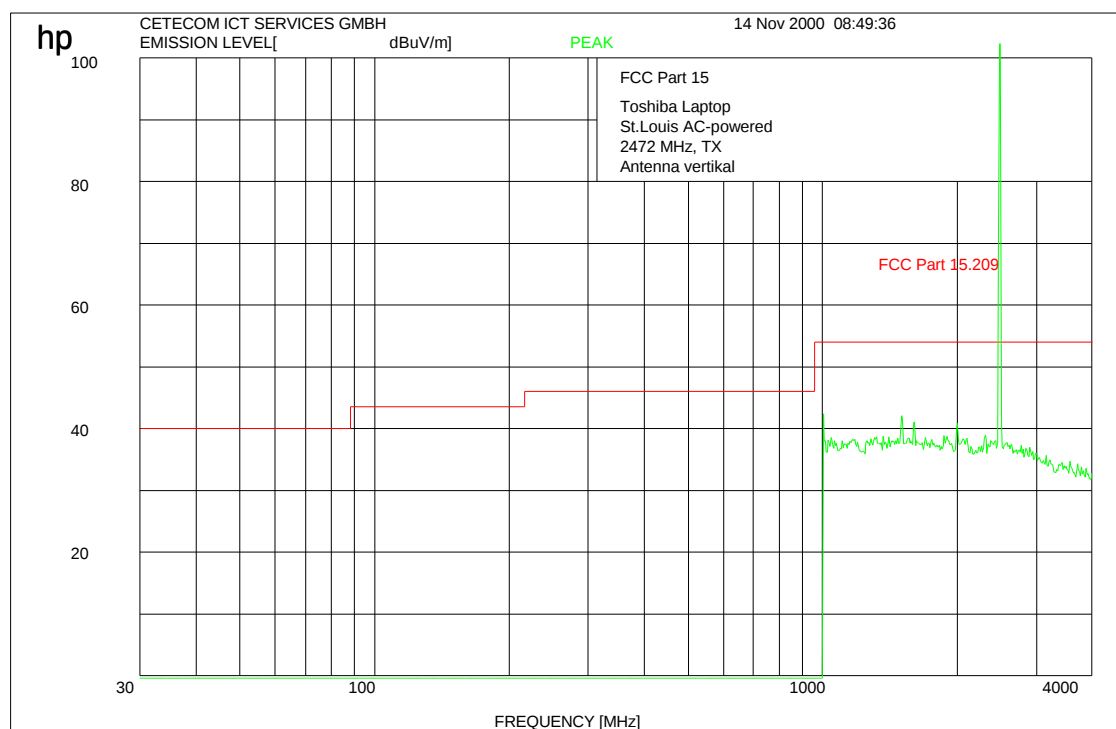
Page 38 (126)

Equipment under test : Toshiba Tecra 8200

Ambient temperature : 20 °C

Relative humidity : 51 %

2472 MHz up to 4 GHz radiated



This is only a scan.

Measurements were performed with 1MHz RBW/VBW

LIMITS

SUBCLAUSE § 15.247 (c)

In any 100 kHz bandwidth outside the frequency band at least 20dB below the highest level of the desired power. In addition, radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.209(a) (see §15.205(c)).

REFERENCE NUMBER(S) OF TEST EQUIPMENT USED

(for reference numbers see test equipment listing)

18-31,64

CETECOM ICT Services GmbH

Test report nr.: 2-2319-A/00

Issue Date:14.11.2000

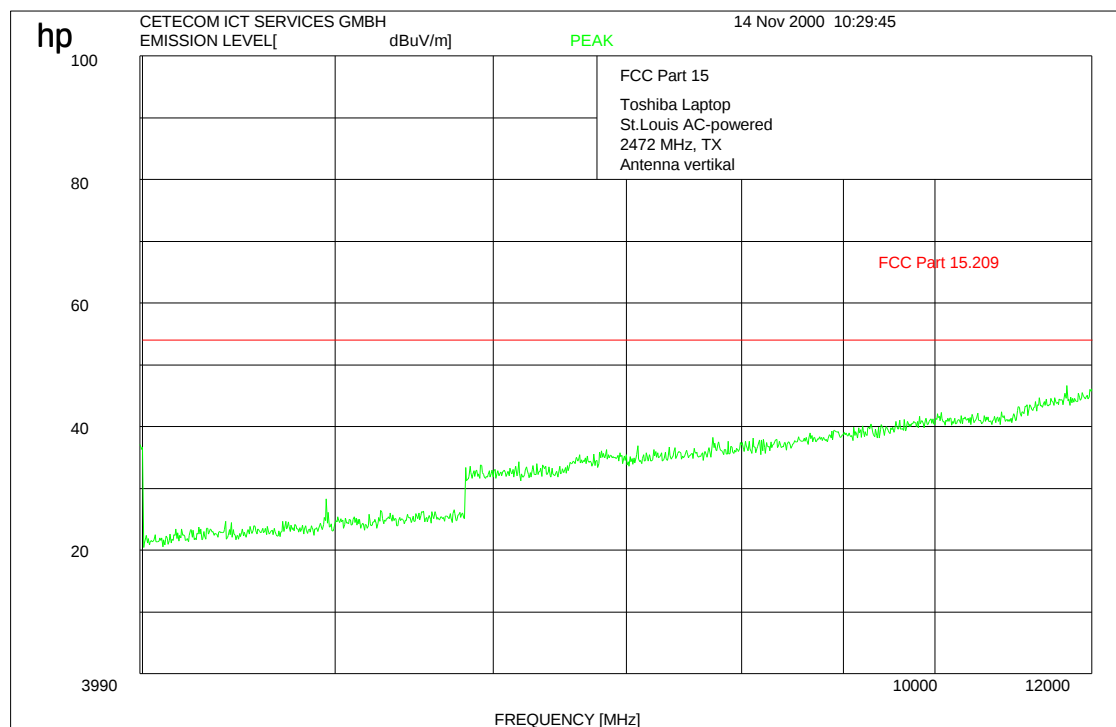
Page 39 (126)

Equipment under test : Toshiba Tecra 8200

Ambient temperature : 20 °C

Relative humidity : 51 %

2472 MHz up to 12 GHz radiated



This is only a scan.

Measurements were performed with 1MHz RBW/VBW

LIMITS

SUBCLAUSE § 15.247 (c)

In any 100 kHz bandwidth outside the frequency band at least 20dB below the highest level of the desired power. In addition, radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.209(a) (see §15.205(c)).

REFERENCE NUMBER(S) OF TEST EQUIPMENT USED

(for reference numbers see test equipment listing)

18-31,64

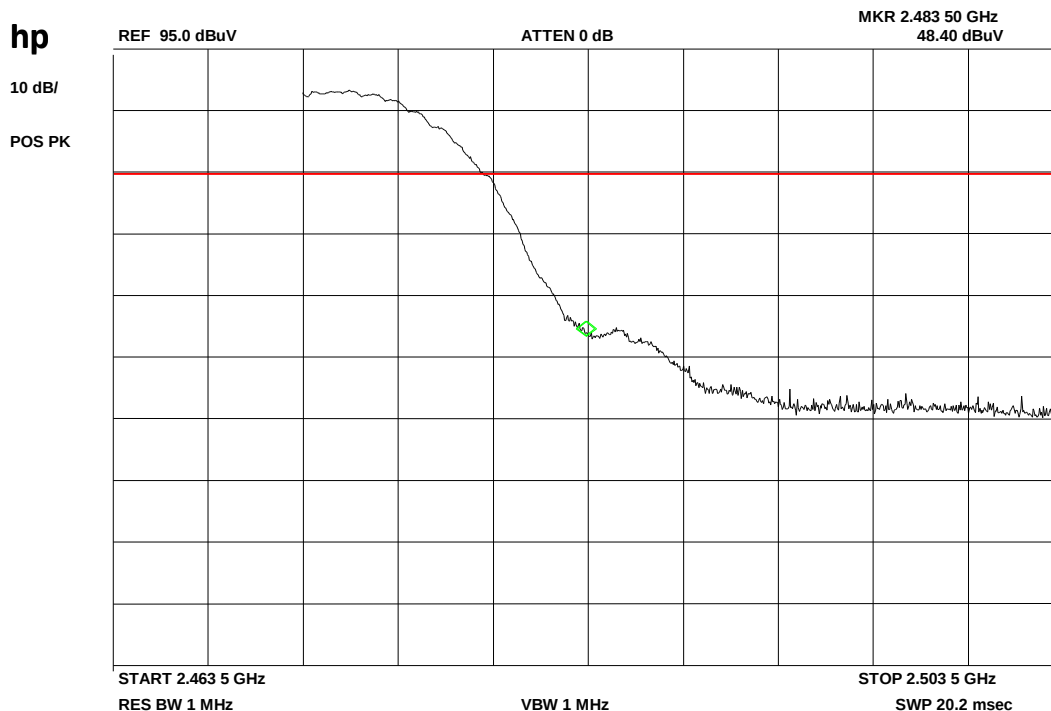
Equipment under test : Toshiba Tecra 8200

Ambient temperature : 20 °C

Relative humidity : 51 %

Spurious radiations in the restricted band 2483.5 to 2500 MHz

Peak



LIMITS

SUBCLAUSE § 15.247 (c)

In any 100 kHz bandwidth outside the frequency band at least 20dB below the highest level of the desired power. In addition, radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.209(a) (see §15.205(c)).

REFERENCE NUMBER(S) OF TEST EQUIPMENT USED

(for reference numbers see test equipment listing)

18-31,64

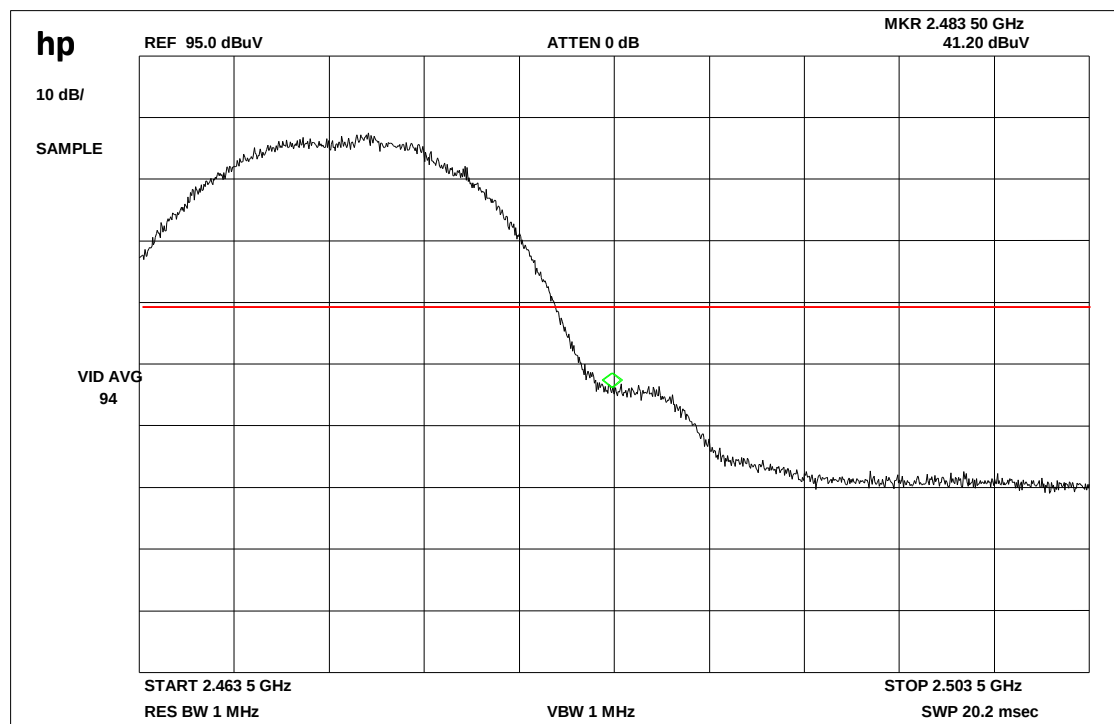
Equipment under test : Toshiba Tecra 8200

Ambient temperature : 20 °C

Relative humidity : 51 %

Spurious radiations in the restricted band 2483.5 to 2500 MHz

Average



LIMITS

SUBCLAUSE § 15.247 (c)

In any 100 kHz bandwidth outside the frequency band at least 20dB below the highest level of the desired power. In addition, radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.209(a) (see §15.205(c)).

REFERENCE NUMBER(S) OF TEST EQUIPMENT USED

(for reference numbers see test equipment listing)

18-31,64

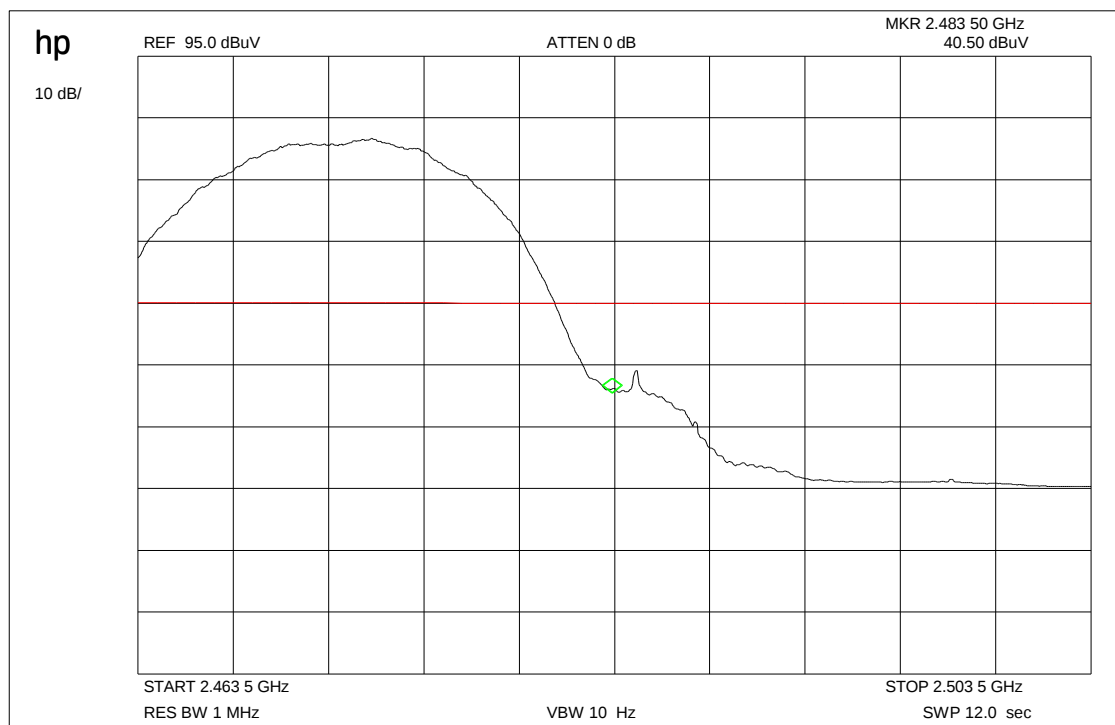
Equipment under test : Toshiba Tecra 8200

Ambient temperature : 20 °C

Relative humidity : 51 %

Spurious radiations in the restricted band 2483.5 to 2500 MHz

RBW 1MHz, VBW 10 Hz



LIMITS

SUBCLAUSE § 15.247 (c)

In any 100 kHz bandwidth outside the frequency band at least 20dB below the highest level of the desired power. In addition, radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.209(a) (see §15.205(c)).

REFERENCE NUMBER(S) OF TEST EQUIPMENT USED

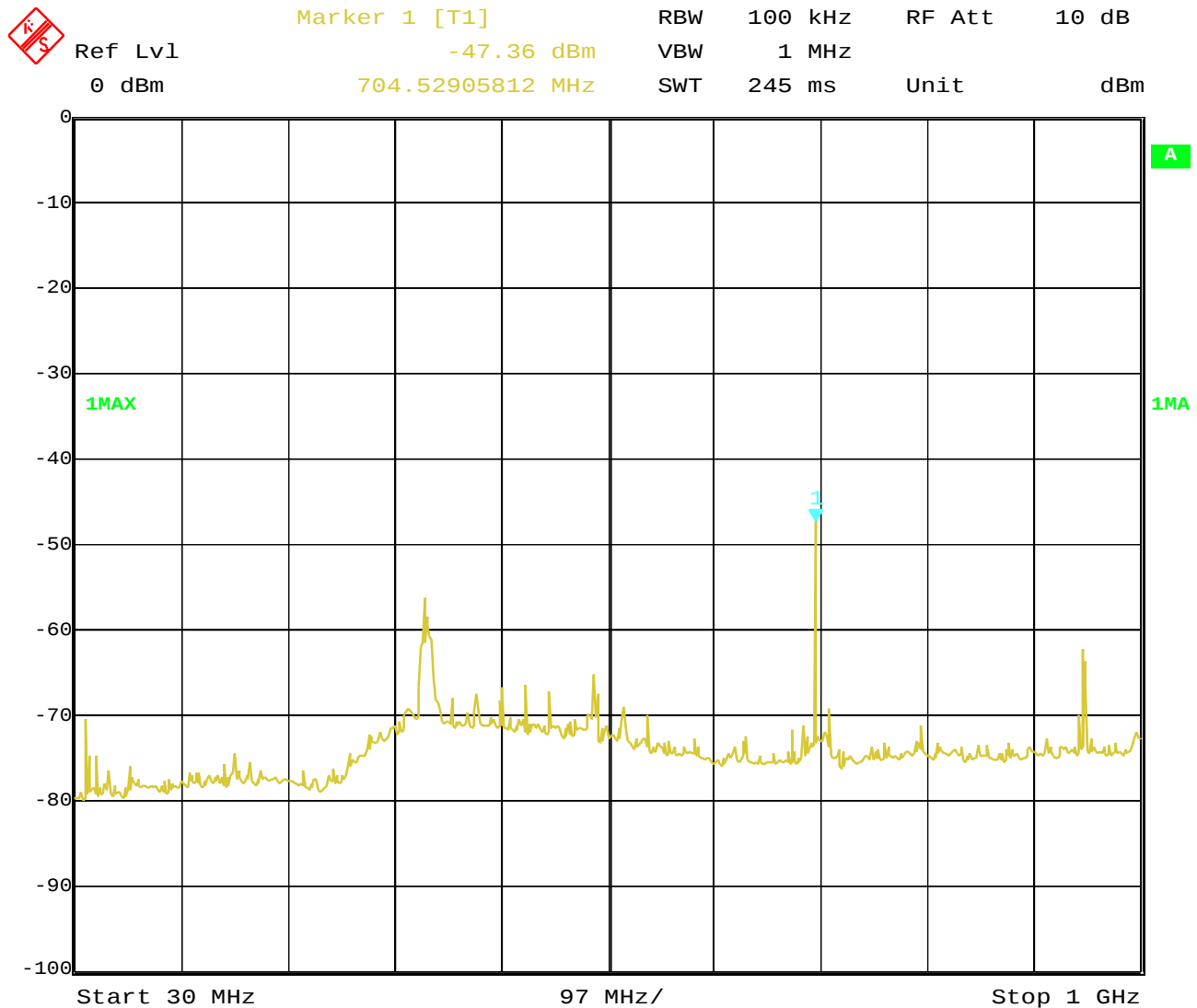
(for reference numbers see test equipment listing)

18-31,64

Equipment under test : Toshiba Tecra 8200

Ambient temperature : 20 °C

Relative humidity : 51%

2472 MHz conducted up to 1 GHz

Date: 15.NOV.2000 10:36:18

This is only a scan.

Measurements were performed with a CISPR quasi peak adapter and 100/120 kHz BW.

LIMITS**SUBCLAUSE § 15.247 (c)**

In any 100 kHz bandwidth outside the frequency band at least 20dB below the highest level of the desired power. In addition, radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.209(a) (see §15.205(c)).

REFERENCE NUMBER(S) OF TEST EQUIPMENT USED

(for reference numbers see test equipment listing)

18-31,64

CETECOM ICT Services GmbH

Test report nr.: 2-2319-A/00

Issue Date:14.11.2000

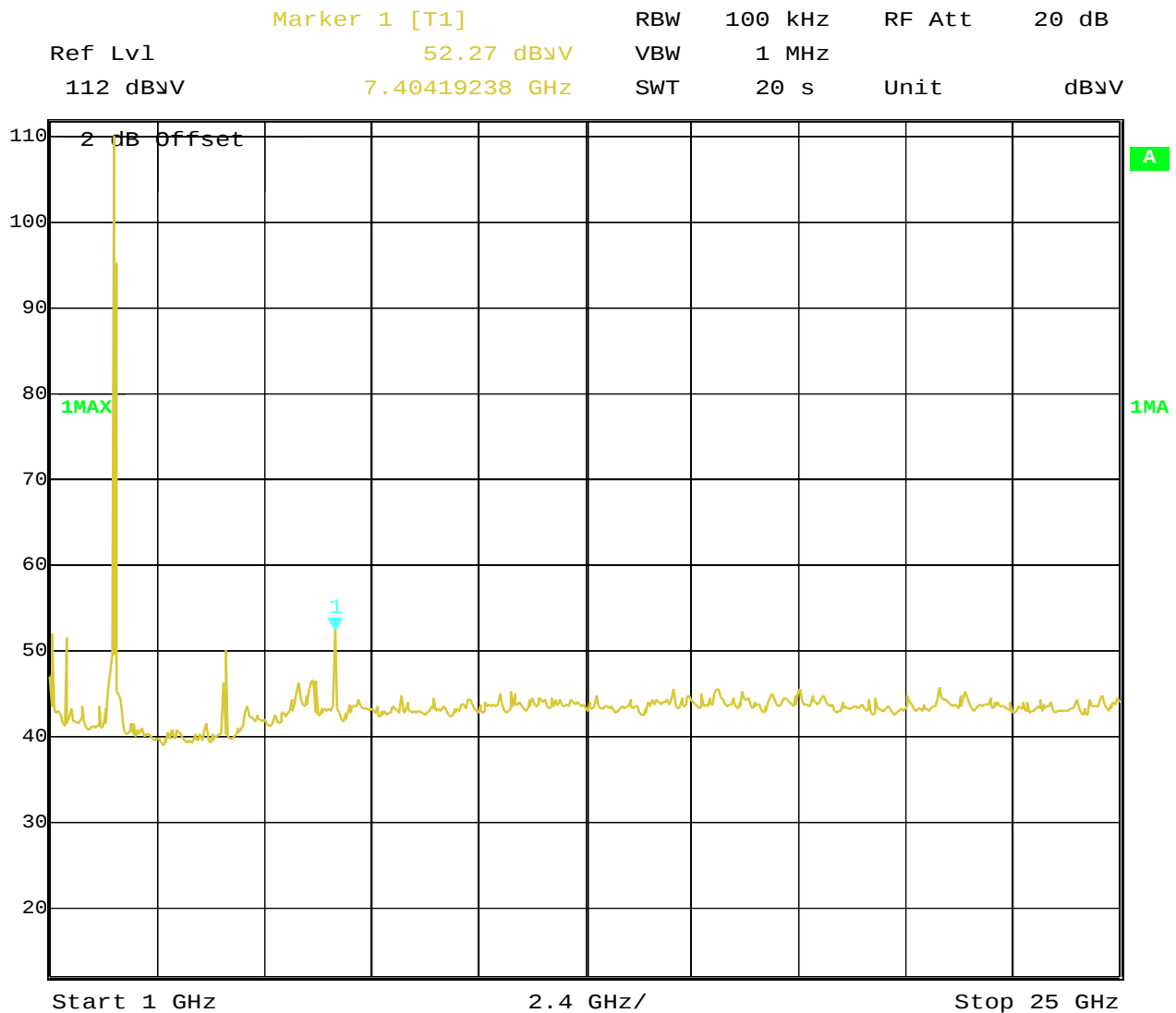
Page 44 (126)

Equipment under test : Toshiba Tecra 8200

Ambient temperature : 20 °C

Relative humidity : 51%

2472 MHz conducted up to 25 GHz Peak



Date: 13.NOV.2000 14:17:10

This is only a scan.

Measurements were performed with 1MHz RBW/VBW

LIMITS

SUBCLAUSE § 15.247 (c)

In any 100 kHz bandwidth outside the frequency band at least 20dB below the highest level of the desired power. In addition, radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.209(a) (see §15.205(c)).

REFERENCE NUMBER(S) OF TEST EQUIPMENT USED

(for reference numbers see test equipment listing)

18-31,64

CETECOM ICT Services GmbH

Test report nr.: 2-2319-A/00

Issue Date:14.11.2000

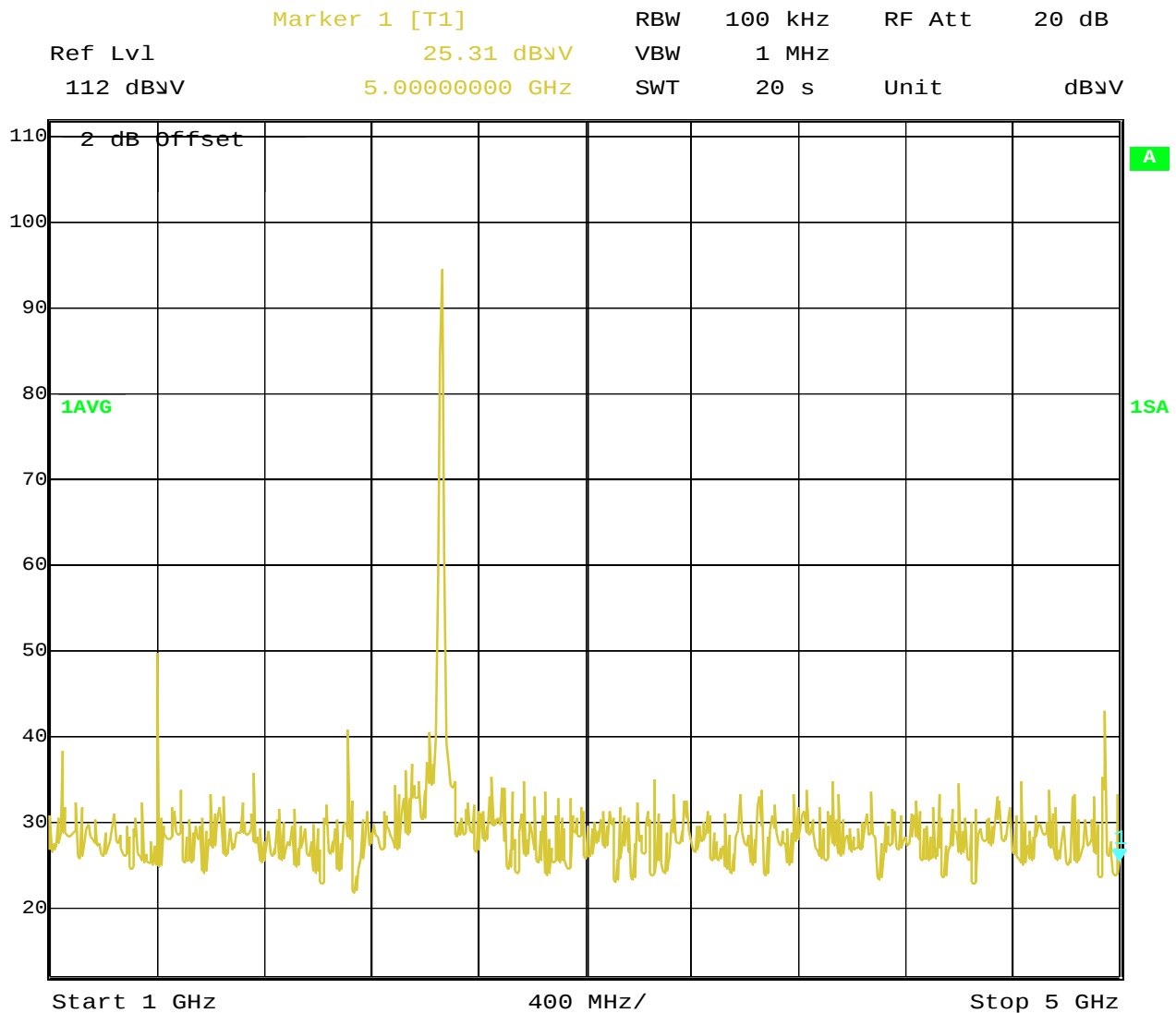
Page 45 (126)

Equipment under test : Toshiba Tecra 8200

Ambient temperature : 20 °C

Relative humidity : 51%

2472 MHz conducted up to 5 GHz Average



Date: 13.NOV.2000 14:18:47

This is only a scan.

Measurements were performed with 1MHz RBW/VBW

LIMITS

SUBCLAUSE § 15.247 (c)

In any 100 kHz bandwidth outside the frequency band at least 20dB below the highest level of the desired power. In addition, radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.209(a) (see §15.205(c)).

REFERENCE NUMBER(S) OF TEST EQUIPMENT USED

(for reference numbers see test equipment listing)

18-31,64

CETECOM ICT Services GmbH

Test report nr.: 2-2319-A/00

Issue Date:14.11.2000

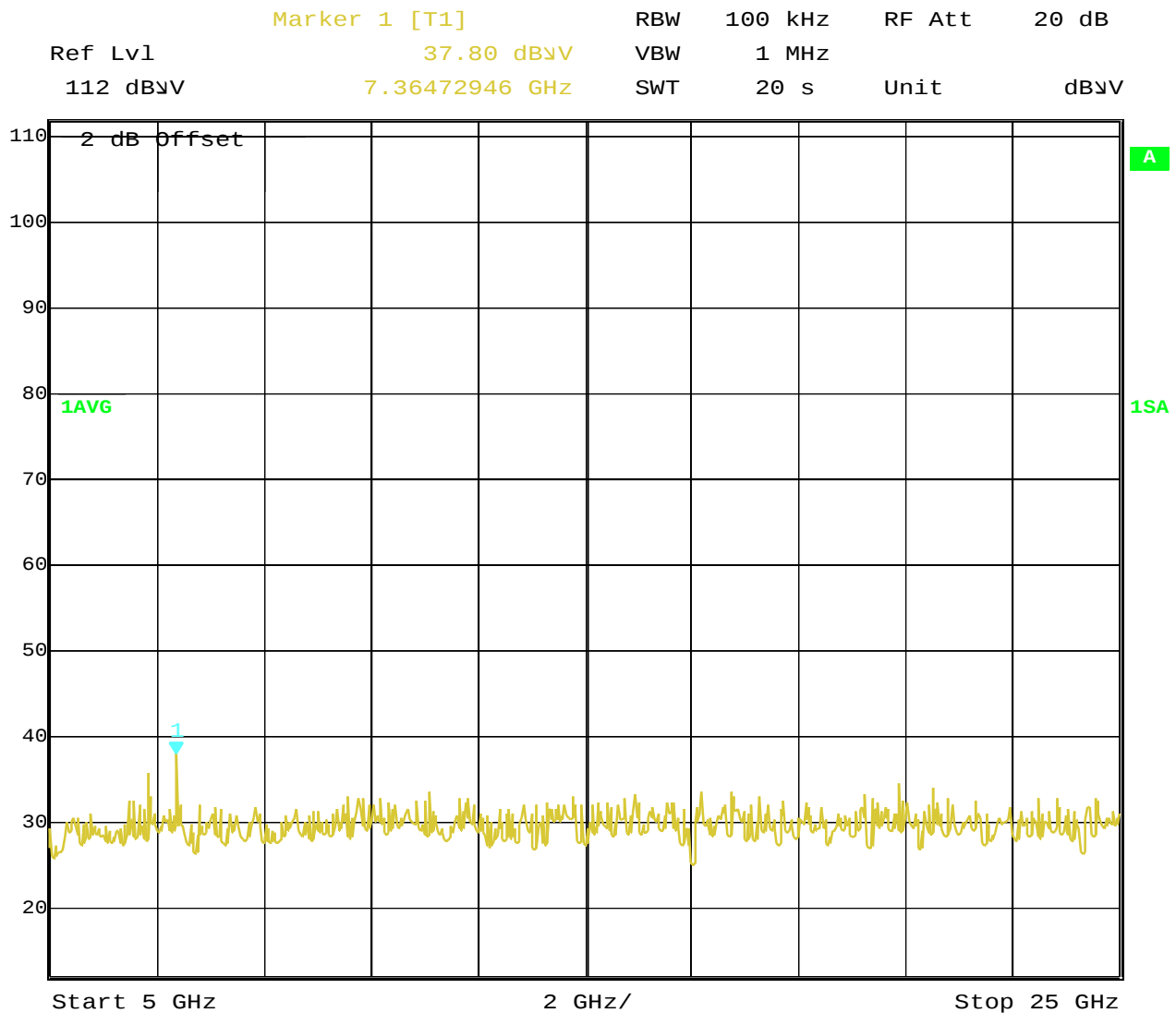
Page 46 (126)

Equipment under test : Toshiba Tecra 8200

Ambient temperature : 20 °C

Relative humidity : 51%

2472 MHz conducted up to 25 GHz Average



Date: 13.NOV.2000 14:24:52

This is only a scan.

Measurements were performed with 1MHz RBW/VBW

LIMITS

SUBCLAUSE § 15.247 (c)

In any 100 kHz bandwidth outside the frequency band at least 20dB below the highest level of the desired power. In addition, radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.209(a) (see §15.205(c)).

REFERENCE NUMBER(S) OF TEST EQUIPMENT USED

(for reference numbers see test equipment listing)

18-31,64

CETECOM ICT Services GmbH

Test report nr.: 2-2319-A/00

Issue Date:14.11.2000

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Equipment under test : Toshiba Tecra 8200

Ambient temperature : 20 °C

Relative humidity : 51 %

POWER SPECTRAL DENSITY

SUBCLAUSE § 15.247 (d)

TEST CONDITIONS		RF POWER LEVEL IN 3 kHz BW		
Frequency (MHz)		2412	2442	2472
T _{nom} (23) °C	V _{nom} (5.0)V	-12.22dBm	-10.94 dBm	-11.63 dBm
Maximum deviation from output power under extreme test conditions (dBc)				
Measurement uncertainty		±3dB		

The measurement was performed with RBW 3 kHz, VBW 10 kHz, Span 1.5 MHz, Sweep 500 sec.

LIMIT

SUBCLAUSE §15.247(d)

The peak power spectral density shall not be greater than 8 dBm in any 3 kHz band

REFERENCE NUMBER(S) OF TEST EQUIPMENT USED

(for reference numbers see test equipment listing)

18-31,64

CETECOM ICT Services GmbH

Test report nr.: 2-2319-A/00

Issue Date:14.11.2000

Page 48 (126)

Equipment under test : Toshiba Tecra 8200

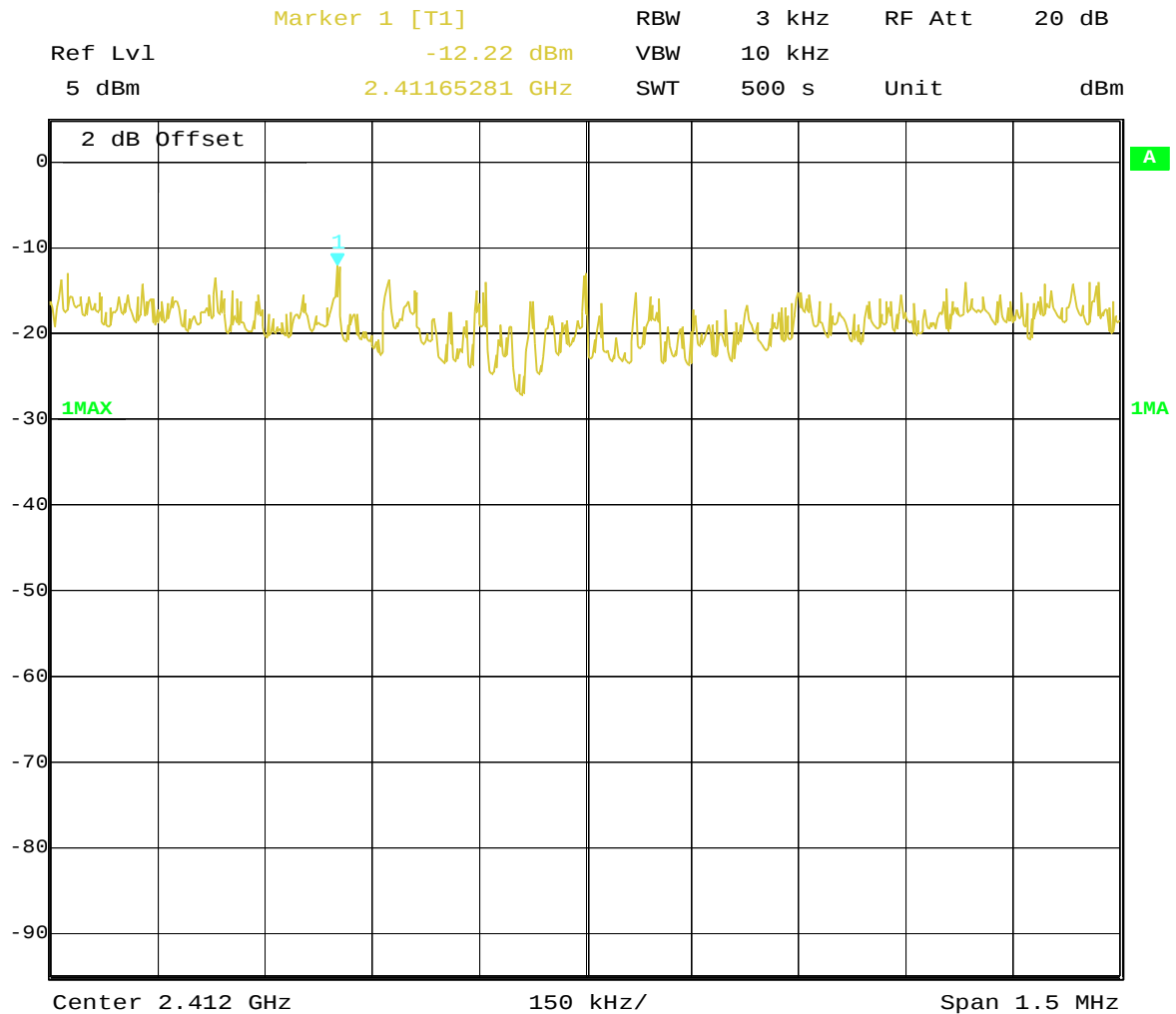
Ambient temperature : 20 °C

Relative humidity : 51%

POWER SPECTRAL DENSITY

SUBCLAUSE § 15.247 (d)

2412 MHz



Date: 13.NOV.2000 14:39:36

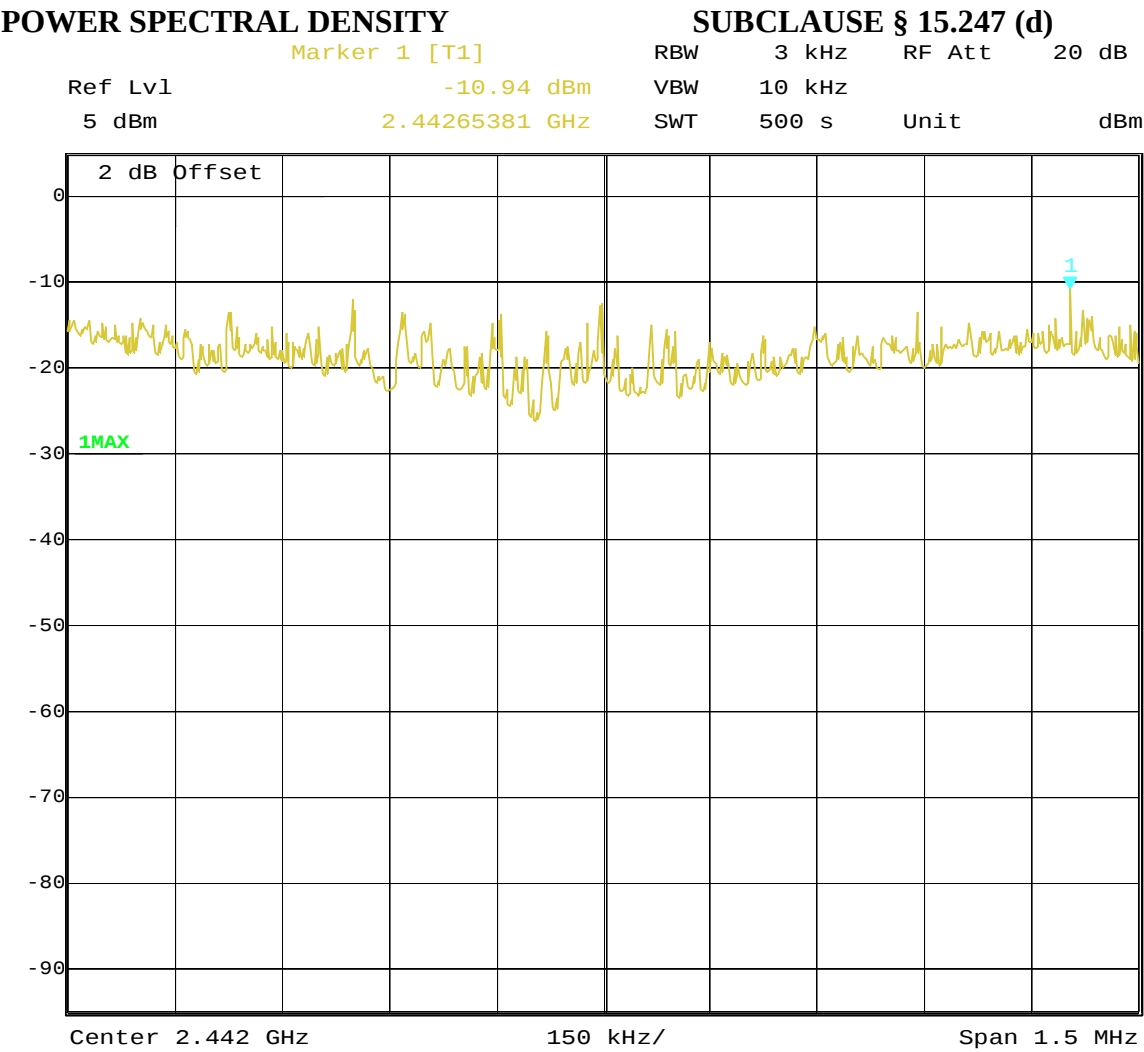
LIMIT

SUBCLAUSE §15.247(d)

The peak power spectral density shall not be greater than 8 dBm in any 3 kHz band

Equipment under test : Toshiba Tecra 8200
Ambient temperature : 20 °C
Relative humidity : 51%

2442 MHz



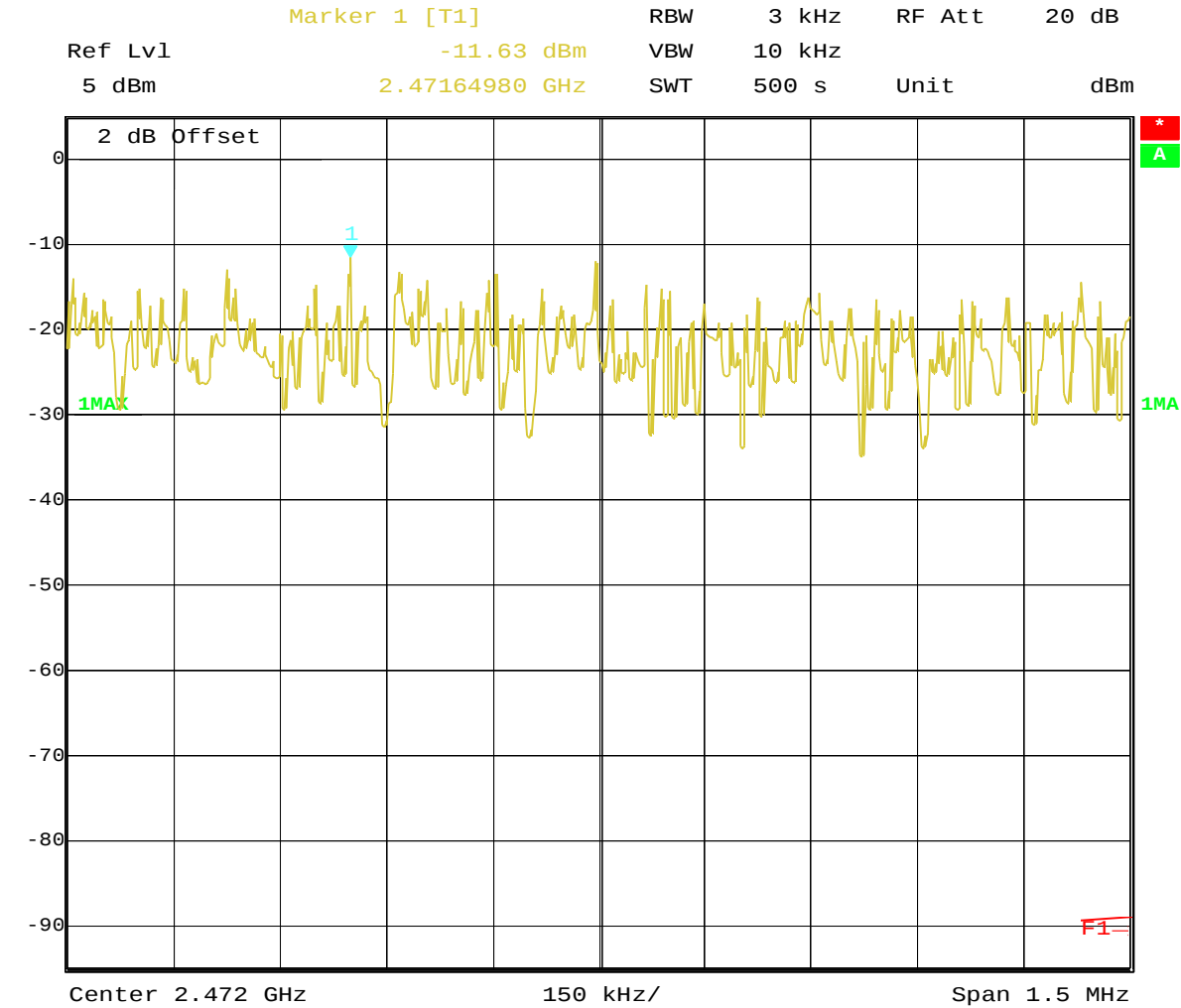
Date: 13.NOV.2000 15:25:18

LIMIT SUBCLAUSE §15.247(d)

The peak power spectral density shall not be greater than 8 dBm in any 3 kHz band

Equipment under test : Toshiba Tecra 8200
Ambient temperature : 20 °C
Relative humidity : 51%

POWER SPECTRAL DENSITY SUBCLAUSE § 15.247 (d)
2472 MHz



Date: 13.NOV.2000 15:46:11

LIMIT SUBCLAUSE §15.247(d)

The peak power spectral density shall not be greater than 8 dBm in any 3 kHz band

Equipment under test : Toshiba Tecra 8200

Ambient temperature : 20 °C

Relative humidity : 51 %

PROCESSING GAIN OF DSSS SYSTEMS

SUBCLAUSE §15.247 (e)

The processing gain of this product was measured by Lucent.

This laptop uses the same chip as Toshiba Satellite Pro 4600

It is in all cases over 10 dB. (see following pages)

Test results see annex 1-4

REFERENCE NUMBER(S) OF TEST EQUIPMENT USED

(for reference numbers see test equipment listing)

52-63

Equipment under test : Toshiba Tecra 8200

Ambient temperature : 20 °C

Relative humidity : 51 %

1 . Summary:

This document describes the Receiver Processing Gain verification measurements performed at the Lucent Technologies ORiNOCO IEEE802.11b products according to Ref.[2] and Ref.[5].

Conclusion:

The Lucent Technologies ORiNOCO Mini PCI product conforms to the minimum required 10 dB processing gain, as set forth by the FCC for operation in the 2.4 GHz ISM band.

References:

- 1- Document FCC 97-114, Appendix C, Guidance on Measurements for Direct Sequence Spread Spectrum Systems.
- 2- Hardware Functional Specification for WaveLAN-II Embedded, High Speed, Doc. No. 011735, Rev. A,
Source Organization Lucent Technologies WCND Utrecht.
- 3- Viterbi, A. J., Principles of Coherent Communications,
New York, McGraw-Hill 1966.
- 4- Proakis, J.G., Digital Communications, New York,
McGraw-Hill 1989, page 270.
- 5- Hardware Functional Specification for the Lucent Technologies ORiNOCO Mini PCI, Doc. No. 015143,
Source Organization Lucent Technologies WCND Utrecht.

Measurement description:

- Test introduction - FCC requirements:

Part of FCC certification for Lucent Technologies ORiNOCO IEEE802.11b High Speed compliant Network Interface Cards (NIC) is a processing gain test. This test proves that the receiver of the tested product employs a true spread spectrum device receiver structure, taking full advantage of the direct sequence spread spectrum modulation technique.

This test verifies the receiver processing gain to be 10 dB or more for a data rate of 1, 2, 5.5 and 11 Mbit/s, by monitoring the Bit Error Rate (BER) of the product under test for each data rate, while operating under strict defined received signal conditions.

REFERENCE NUMBER(S) OF TEST EQUIPMENT USED
(for reference numbers see test equipment listing)

52-63

Equipment under test : Toshiba Tecra 8200

Ambient temperature : 20 °C

Relative humidity : 51 %

Several methods of showing compliance to the rules are possible, from a stepped CW jammer to a continuous sweeping CW interferer. For this test the discrete stepped CW jammer method was chosen.

Therefore a receiver input signal is applied to the product under test, in the presence of a Continuous Wave (CW) interference source, also referred to as CW jammer.

The test takes place at the product Functional Specification specified conditions for BER rate measurements, specifying a BER equal or better than 10^{-8} at a receiver input level of -55 dBm. For practical reasons these test are performed at -55 dBm or -53 dBm. This small deviation from the Functional Specification should not cause any deviation from the specified Bit Error Rate, since the received levels are well above the thermal noise.

The test criteria for meeting the minimal processing gain is such that it takes the theoretical calculated SNR for the applied modulation technique and specified BER as a reference. From this given SNR the processing gain is subtracted, yielding the CW Jammer to Signal ratio J/S. From Ref. [4], likewise as Ref.[3] consulted in Ref. [1], it is determined that for a BER of 10^{-8} the SNR (S/N) equals:

13 dB @ 1 Mbit/s,
15 dB @ 2 Mbit/s,
15 dB @ 5.5 Mbit/s,
18 dB @ 11 Mbit/s.

Thus the J/S ratio for a processing gain of 10 dB that must be met is calculated as:

$-13 + 10 = -3 \text{ dB @ 1 Mbit/s (DBPSK),}$

$-15 + 10 = -5 \text{ dB @ 2 Mbit/s (DQPSK),}$

$-15 + 10 = -5 \text{ dB @ 5.5 Mbit/s (CCK),}$

$-18 + 10 = -8 \text{ dB @ 11 Mbit/s (CCK).}$

Two types of measurement corrections are allowed for as described in Ref.[1]. The first taking into account 2 dB implementation losses, thus increasing the absolute J/S ratio by 2 dB.

REFERENCE NUMBER(S) OF TEST EQUIPMENT USED
(for reference numbers see test equipment listing)

52-63

Equipment under test : Toshiba Tecra 8200

Ambient temperature : 20 °C

Relative humidity : 51 %

The second correction allows for deleting the 20% worst-case frequencies in the processing gain test that causes the test at that CW interference to fail. This implies that for the considered 14 MHz wide measurement interval the worst case 57 CW jammer frequencies can be ignored, being those that result in received data errors/missing frames ($20\% \text{ of } 14 \text{ MHz} \cdot (1 \text{ MHz}/50 \text{ KHz}) + 1 = (20\% \cdot 281) + 1 = 57$).

- Test sequence:

The measurements are performed at a 50 KHz CW jammer raster. For each CW jammer frequency 10^8 bits are transmitted by the reference transmitter, and received by the product under test. For practical reasons 50.000 messages are transmitted. After blanking out frame overhead 1927 bits per frame are monitored. This results in $50.000 \cdot 1927 = 9650000$ transmitted bits for a BER test, which is a mere 1.4% less than the targeted 10^8 bits. Though it would be more elegant to show BER compliance for at least say ten times 10^8 transmitted/received bits, the time involved with this grows significantly. Since the CW interferer is stepped in a 50 KHz raster, covering the receiver bandwidth of 14 MHz, it is considered that the BER requirement is sufficiently met since such a multitude of measurements are taken.

The total measurement is being performed under computer control, hereafter referred to as controller. It involves the control over the reference transmitter, CW-interference generator, receiver under test and received data error-checker/frame counter. The controller is programmed by a configuration file, that lists the CW jammer frequencies and CW jammer signal levels. The controller program flow chart is given in Annex A, WaveLAN-II FCC Processing Gain Measurements, Controller Flow Chart.

The transmitted data pattern is fixed, and known at the receiver. Therefore the error checker compares the known transmitted data sequence with received data sequence. Received data errors and missing received frames information is retrieved by the controller.

In the receiver at the inter-connection between the received data demodulator output at the DSP and the digital interface the demodulated received RF signal is made available to an error checker. This error checker is a dedicated piece of hardware that monitors real-time the received data, gating-out any other non-relevant information that is present in the received data (message header, message length field, CRC field, diagnostic information field etc.). For a chosen Tx message length of 230 bytes this yields 1927 useable bits.

REFERENCE NUMBER(S) OF TEST EQUIPMENT USED

(for reference numbers see test equipment listing)

Equipment under test : Toshiba Tecra 8200

Ambient temperature : 20 °C

Relative humidity : 51 %

The test sequence is as follows: the controller issues a request to the transmitter for 1000 frames to be transmitted. Once this number of frames has been transmitted the transmitter signals to the controller the completion of this. The controller reads the number of received frames and number of erroneous received frames. If there are no missing frames or received data errors detected, the controller increases the CW interference level by 1 dB. Consequently it re-issues a 1000 frames transmit request, and the test is re-started. This sequence is repeated until received data errors or missing frames are detected.

Now instead of a quick error scan using 1000 frames, 50000 frames (equals 10^8 bits) are transmitted to verify the BER. For this test the CW jammer level is lowered 1 dB, compared to the CW jammer level at which the first receive data errors and/or missing frames were detected. All the measurement results are recorded for later use.

After completion of the 50000 frames BER test, the spreading gain verification test continues by raising the CW jammer frequency by 50 KHz and re-setting the CW jammer level to the start value, taken from the controller configuration file. For this new CW frequency the measurements are repeated as described above (see Annex A).

All CW frequencies and power levels are listed in a command-file that is read by the controller at start up.

Before measurements are started, the receiver input level and CW jammer level need to be calibrated. See figure 1 for the test set-up.

The test takes place at an arbitrarily chosen channel, being channel two (2417 MHz).

- Receiver level calibration:

The receiver input level is calibrated using the RF power meter. For this purpose, the reference transmitter output attenuator is set to 0 dB. The CW jammer is disabled during the calibration. Using the RF power meter at the receiver input of the device under test, the received level at the receiver input is measured for a continuous active reference transmitter. The attenuator value is calculated to achieve a received level of -55 dBm. Finally the attenuator is adjusted to this value.

REFERENCE NUMBER(S) OF TEST EQUIPMENT USED

(for reference numbers see test equipment listing)

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Equipment under test : Toshiba Tecra 8200

Ambient temperature : 20 °C

Relative humidity : 51 %

- CW level calibration:

The reference transmitter is disabled during this calibration. The CW jammer generator output level is set to 0 dBm, and the RF power meter value is read. The difference in CW output level setting and RF power meter measured at receiver input of the device under test is the attenuation of the test set-up. This is the correction factor that needs to be applied for analysis of the measurements results.

Equipment used:

# Item needed	Description
1	Portable PC with WaveLAN-II NIC, Zenith Z-lite, SN-3GSAZW000061, for receiver.
1	Portable PC with WaveLAN-II NIC, NCR 3150, SN 17-26106224, for transmitter.
1	Software 'Testware, V5.09', Rev. 0, <TW.EXE>, 141456 bytes, 12-13-1998. Used for the transmitter and receiver.
2	WaveLAN Turbo NIC IEEE802.11b ORiNOCO Mini PCI card IEEE802.11b
1	PC + IEEE interface card, NCR PC6, SN 17-17039925 and CEC PC<>488 interface card.
1	Received error checker, wire-wrap prototype, Lucent WCND designed and built.
1	Power supply, Delta D030-1, for error checker.
1	Spectrum Analyzer, HP 9592B SN 3009U00102.
1	Power Meter, Rohde & Schwarz, Millivolt meter URV5, SN 893430/070.
1	Power Sensor, Rhode & Schwarz, type NRV-Z2 828218.02, SN 860925/005.
1	CW jammer generator, Gigatronics 7200, SN 746604.
1	Variable attenuator, 0-70 dB, Midwest Microwave, Model 1044.
2	Fixed attenuator, 10 dB, Inmet Corp., model 18AH-10.
1	RF power splitter, ARRA 3-9200-2, SN 2001.
1	Misc. IEEE cabling.
1	Misc. SMA cabling.
1	RF shielded cage.

REFERENCE NUMBER(S) OF TEST EQUIPMENT USED
(for reference numbers see test equipment listing)

52-63

Equipment under test : Toshiba Tecra 8200

Ambient temperature : 20 °C

Relative humidity : 51%

Measurement set up:

The test setup is given below in Figure 1, measurement test set-up. To avoid interference that can disrupt the measurement, the whole test is performed within a RF shielded cage.

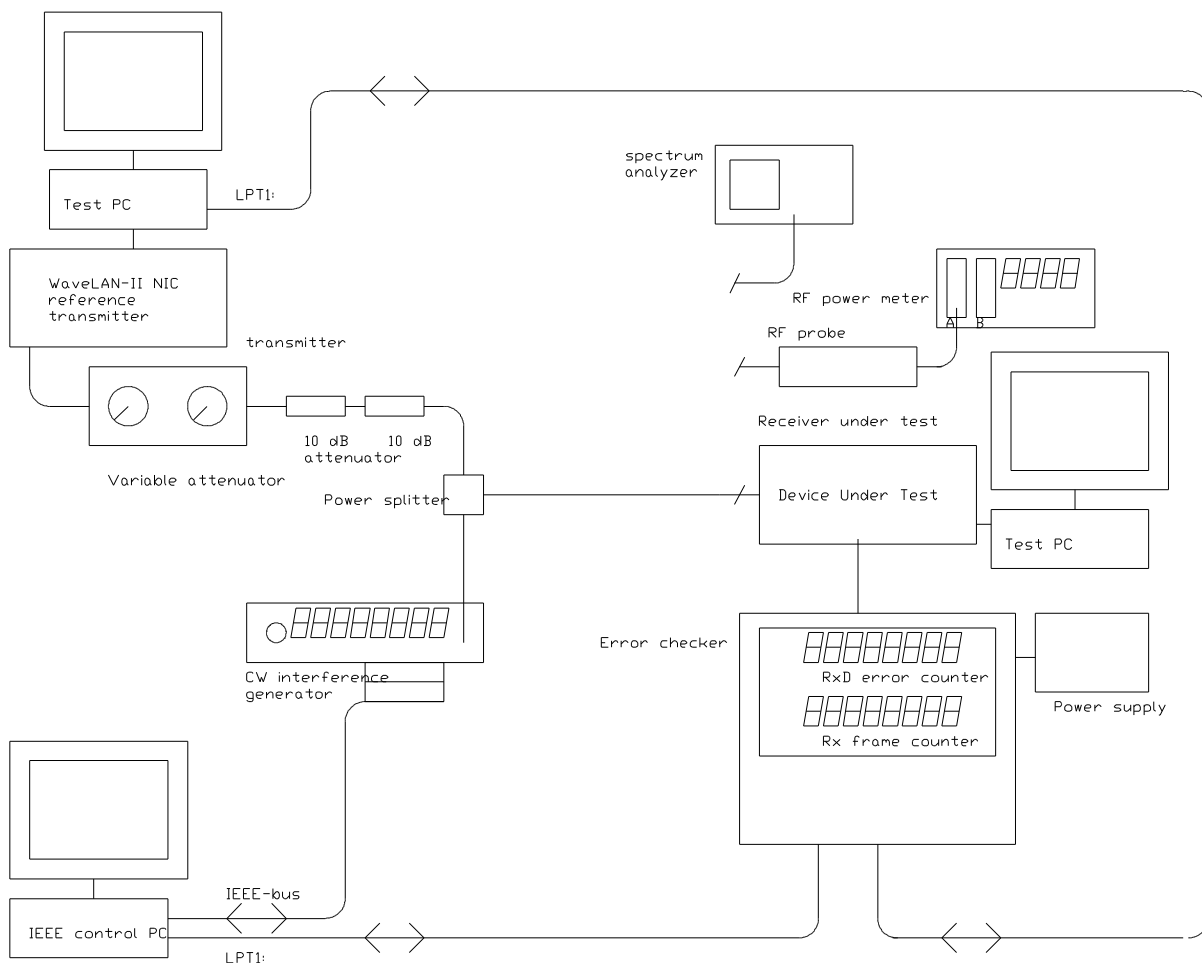


Figure 1, measurement test set-up.

REFERENCE NUMBER(S) OF TEST EQUIPMENT USED

(for reference numbers see test equipment listing)

52-63

Equipment under test : Toshiba Tecra 8200

Ambient temperature : 20 °C

Relative humidity : 51 %

Measurement results:

- Calibrations:

Receiver calibration 1, 2, 5.5 and 11 Mbit/s: For 0 dB total attenuator setting the received level at the receiver input equals +10 dBm.

Test setting: the fixed attenuator is chosen to be 20 dB, the variable attenuator is set to 45, respectively 43 dB attenuation.

CW jammer generator calibration: For a 0 dBm output level at the generator the received level at the receiver input is -6 dBm.

- Processing Gain Measurement Results:

For each CW jammer frequency between $F_c \pm 7$ MHz, being the receiver bandwidth, a BER measurement is taken.

For each CW measurement frequency the jammer level is varied from -66 dBm to -58 dBm at the receiver input, yielding a J/S ratio of -11 to -3 dB, respectively -13 to -5 dB.

For some CW frequencies received data errors/missing frames are detected while performing the BER test.

Applying the allowed margin of 2 dB implementation losses for 1 Mbit/s, a 1 dB implementation loss for 5.5 and 11 Mbit/s, and no implementation loss for 2 Mbit/s, together with the rule of discarding the 20% worst-case jamming/signal points (Ref.[1]), results in meeting the specified BER for which less than 20% of the measured CW interference frequencies were found to cause received data errors and/or missing frames.

These percentage numbers are respectively 16% @ 1 Mbit/s, 3% @ 2 Mbit/s, 17% @ 5.5 Mbit/s and 18% @ 11 Mbit/s.

Therefore, a J/S ratio better or equal to -5 dB @ 1 Mbit/s, -5 dB @ 2 Mbit/s, -7 dB @ 5.5 Mbit/s and -9 dB @ 11 Mbit/s is measured.

- Measurement Conclusion:

The tested product complies to the required Processing Gain of 10 dB for a data rate of 1, 2, 5.5 and 11 Mbit/s.

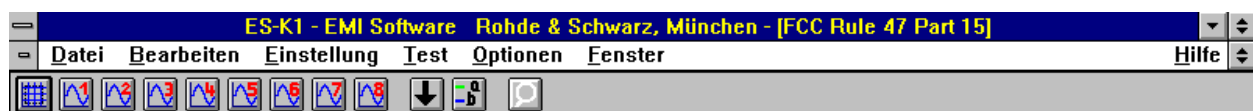
Equipment under test : Toshiba Tecra 8200

Ambient temperature : 20 °C

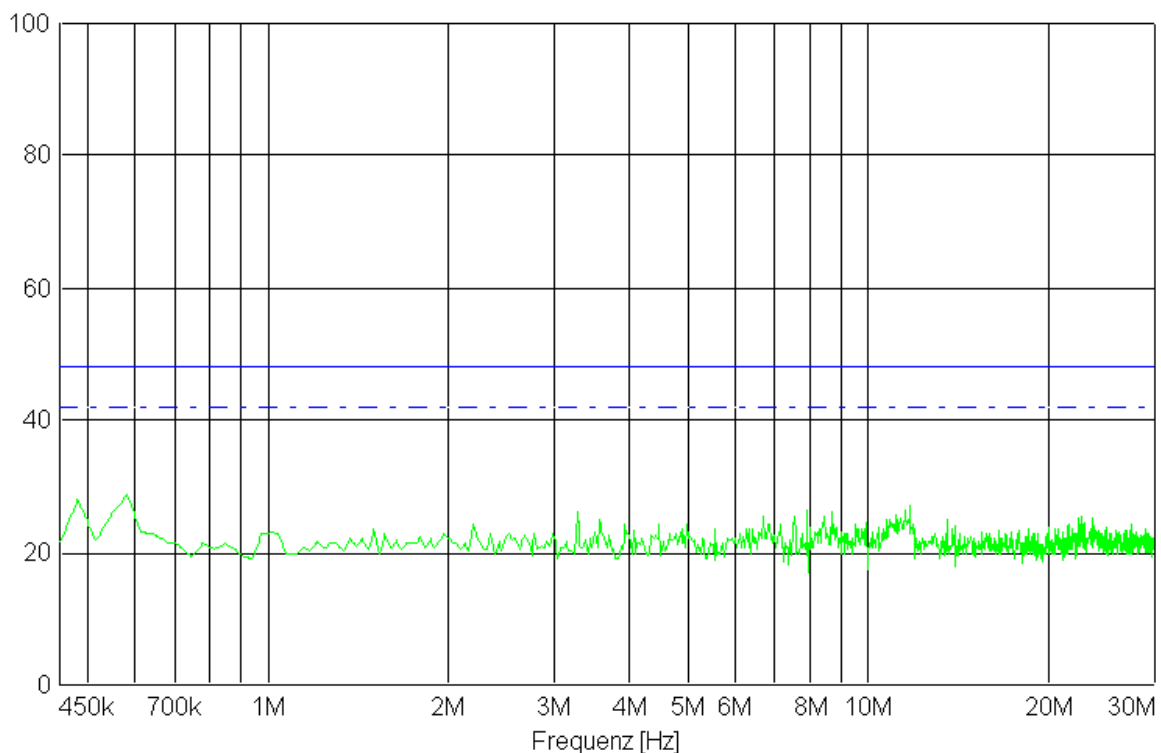
Relative humidity : 51%

CONDUCTED EMISSIONS

FCC Rule 47 Part 15



Pegel [dB μ V]



The test was performed with a CISPR quasi peak adapter.
All spurious were <<below limit.

Technical specification : 15.207 (Revised as of October 1, 1991)

Limit

0.45 to 30 MHz	250 μ V / 47.96 dB μ V
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REFERENCE NUMBER(S) OF TEST EQUIPMENT USED

(for reference numbers see test equipment listing)

52-63

Equipment under test : Toshiba Tecra 8200

Ambient temperature : 20 °C

Relative humidity : 51 %

RECEIVER SPURIOUS RADIATION

§ 15.209

Radiated

SPURIOUS EMISSIONS LEVEL (dBµV/m)								
2412 MHz			2442 MHz			2472 MHz		
f (MHz)	Detector	Level dBµV/m	f (MHz)	Detector	Level (µV/m)	f (MHz)	Detector	Level (µV/m)
194.6	QP	38.7	194.6	QP	38.7	194.6	QP	38.7
259.6	QP	40.9	259.6	QP	40.9	259.6	QP	40.9
389.3	QP	40.6	389.3	QP	40.6	389.3	QP	40.6
1495.2	Peak AV	45.4 36.2	1495.2	Peak AV	45.4 36.2	1495.2	Peak AV	45.4 36.2
1544.1	Peak AV	43.8 34.6	1544.1	Peak AV	43.8 34.6	1544.1	Peak AV	43.8 34.6
Measurement uncertainty			±3 dB					

All spurious including such in restricted bands are below the limits.

Measurement distance see table

Limits

SUBCLAUSE § 15.209

Frequency (MHz)	Field strength (dBµV/m)	Measurement distance (m)
30 - 88	40	3
88 - 216	43.5	3
216 - 960	46	3
above 960	54	3

REFERENCE NUMBER(S) OF TEST EQUIPMENT USED

(for reference numbers see test equipment listing)

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Equipment under test : Toshiba Tecra 8200

Ambient temperature : 20 °C

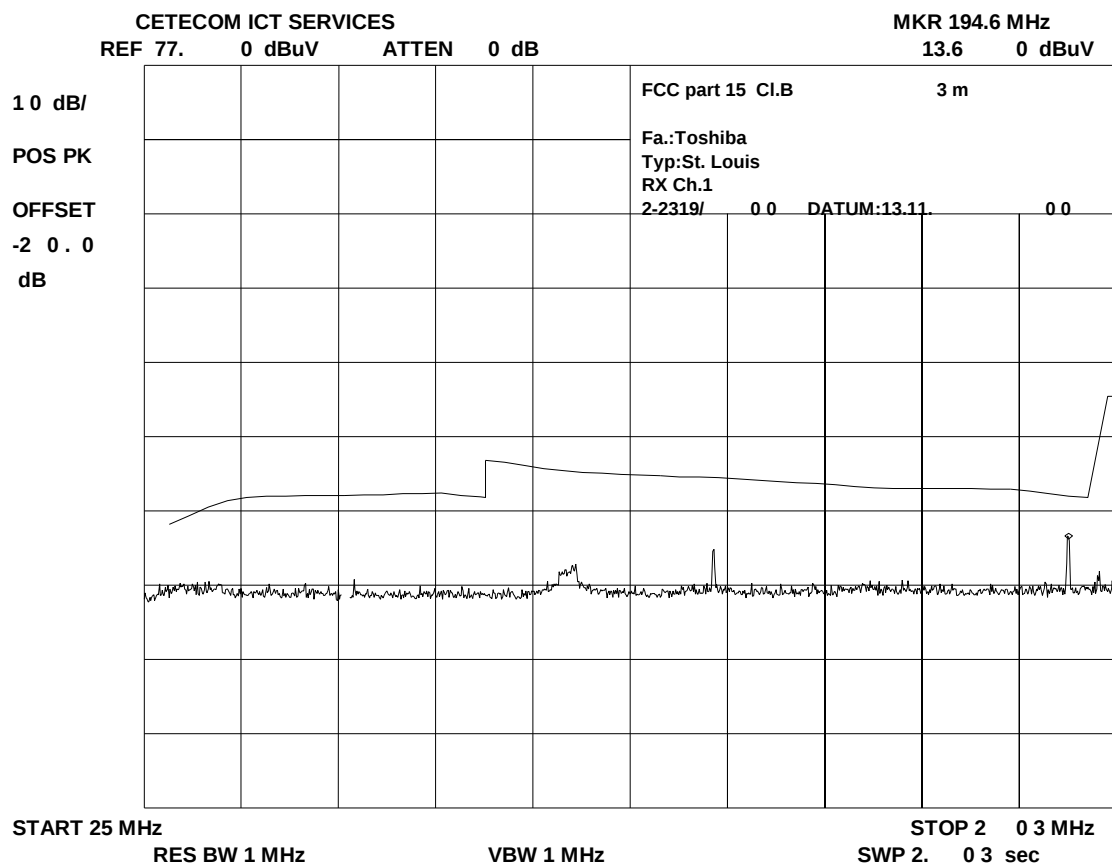
Relative humidity : 51 %

RECEIVER SPURIOUS RADIATION

§ 15.209

2412 MHz up to 200 MHz

The higher line is the spurious limit FCC 15.209 according to antenna gain and semi-anechoic chamber



This is only a scan:

Measurements were performed with a CISPR quasi peak adapter and 100/120 kHz BW.

REFERENCE NUMBER(S) OF TEST EQUIPMENT USED

(for reference numbers see test equipment listing)

17 - 24

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Equipment under test : Toshiba Tecra 8200

Ambient temperature : 20 °C

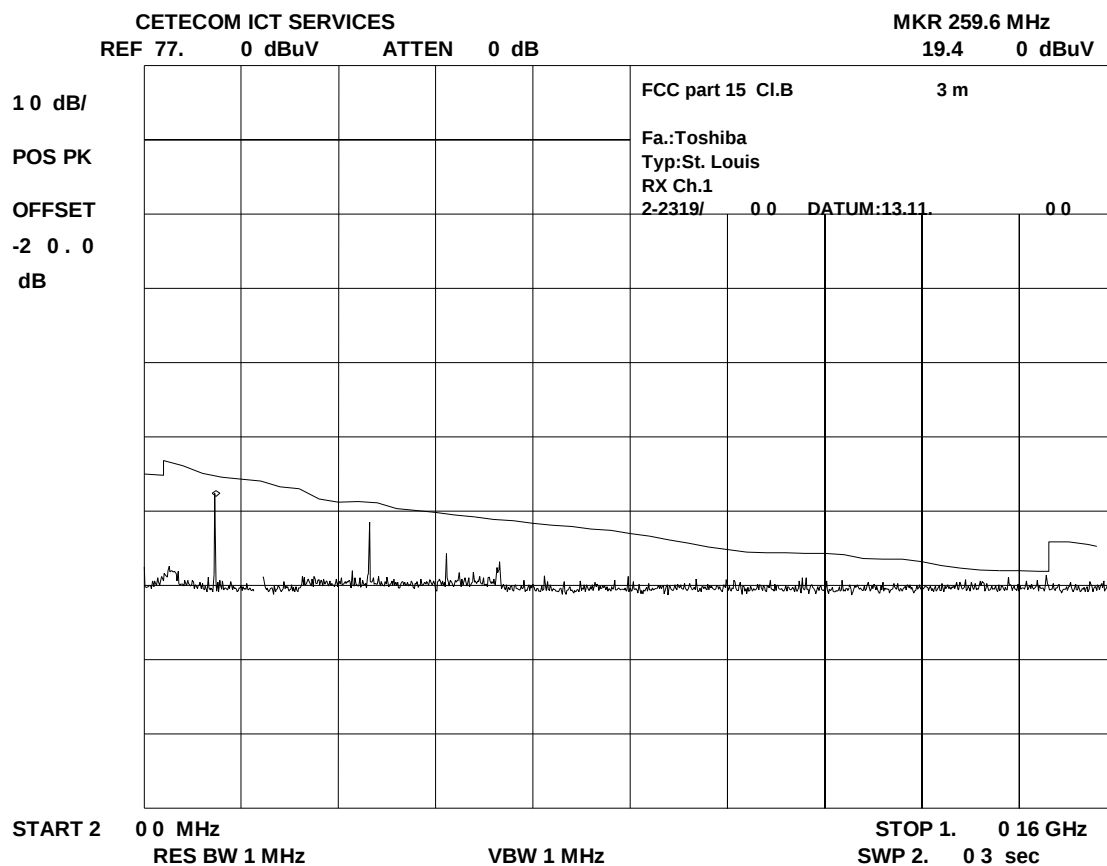
Relative humidity : 51%

RECEIVER SPURIOUS RADIATION

§ 15.209

2412 MHz up to 1000 MHz

The higher line is the spurious limit FCC 15.209 according to antenna gain and semi-anechoic chamber



This is only a scan:

Measurements were performed with a CISPR quasi peak adapter and 100/120 kHz BW.

REFERENCE NUMBER(S) OF TEST EQUIPMENT USED

(for reference numbers see test equipment listing)

17 - 24

Equipment under test : Toshiba Tecra 8200

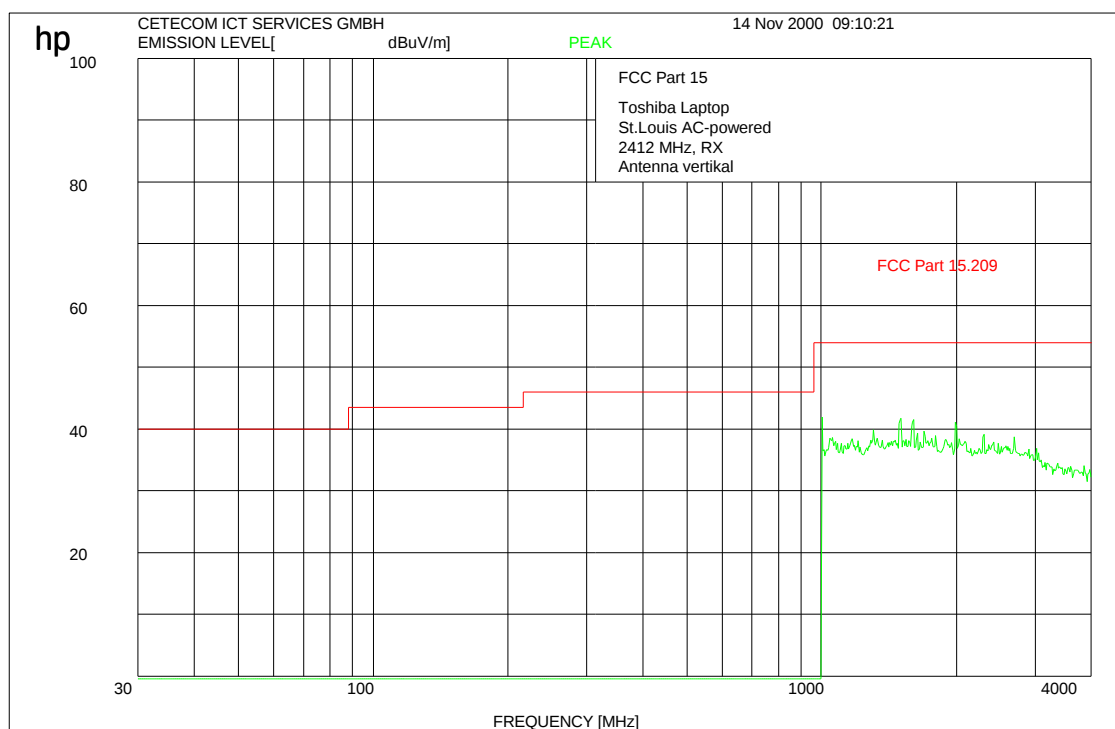
Ambient temperature : 20 °C

Relative humidity : 51 %

RECEIVER SPURIOUS RADIATION

§ 15.209

2412 MHz up to 4 GHz



Measurements were performed with RBW/VBW 1 MHz.

Limits

SUBCLAUSE § 15.209

Frequency (MHz)	Field strength (µV/m)	Measurement distance (m)
30 - 88	100	3
88 - 216	150	3
216 - 960	200	3
above 960	500	3

REFERENCE NUMBER(S) OF TEST EQUIPMENT USED

(for reference numbers see test equipment listing)

Equipment under test : Toshiba Tecra 8200

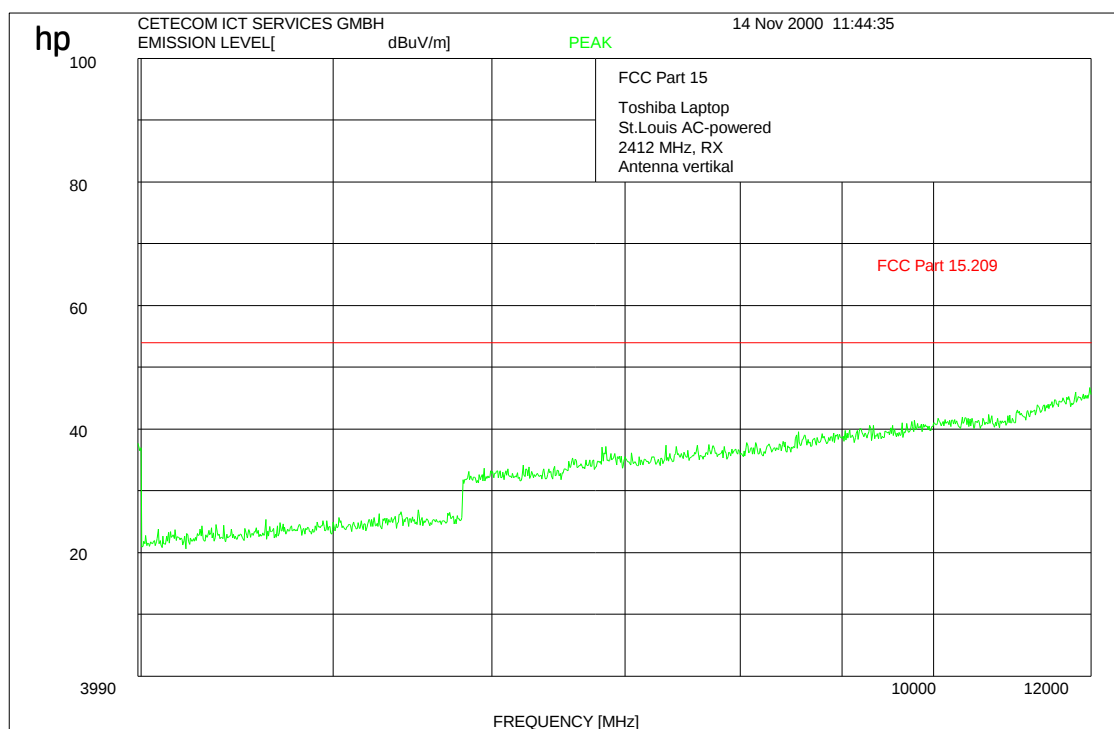
Ambient temperature : 20 °C

Relative humidity : 51 %

RECEIVER SPURIOUS RADIATION

§ 15.209

2412 MHz up to 12 GHz



The measurements were performed up to 25 GHz. There were no peaks found.

Measurements were performed with RBW/VBW 1 MHz.

Limits

SUBCLAUSE § 15.209

Frequency (MHz)	Field strength (µV/m)	Measurement distance (m)
30 - 88	100	3
88 - 216	150	3
216 - 960	200	3
above 960	500	3

REFERENCE NUMBER(S) OF TEST EQUIPMENT USED

(for reference numbers see test equipment listing)

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Equipment under test : Toshiba Tecra 8200

Ambient temperature : 20 °C

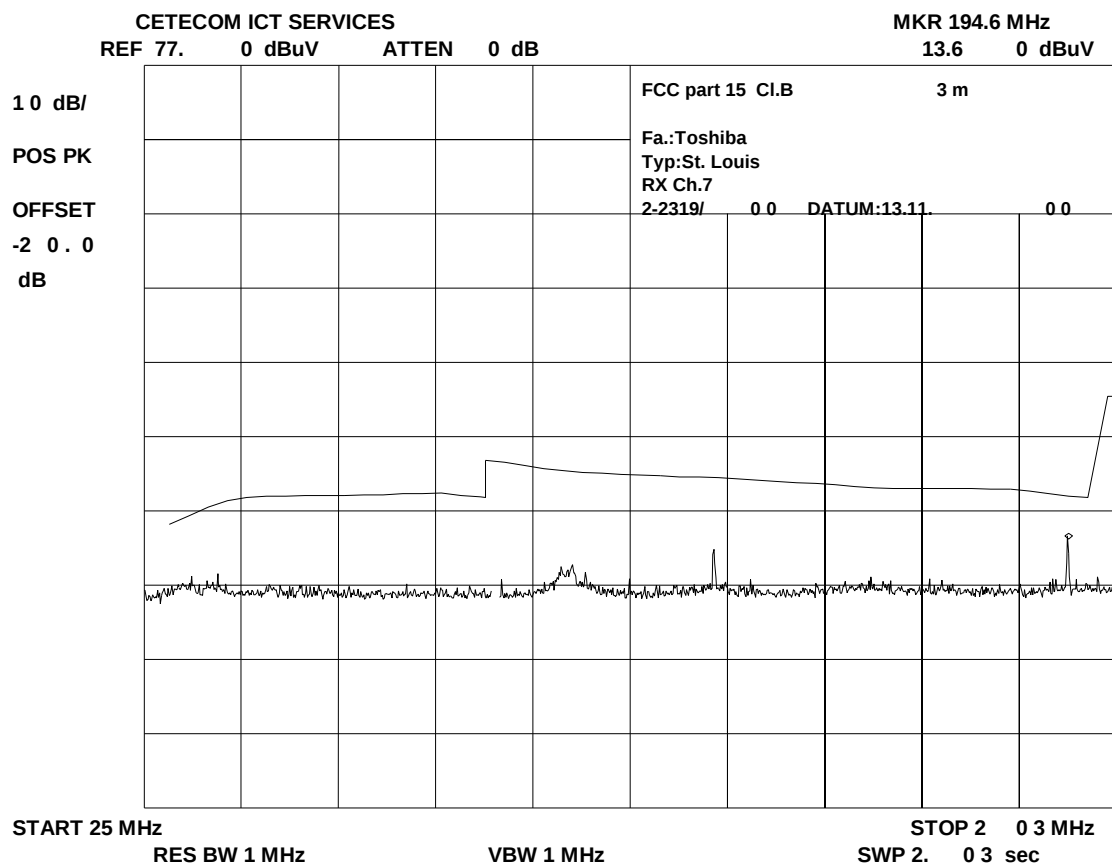
Relative humidity : 51%

RECEIVER SPURIOUS RADIATION

§ 15.209

2442 MHz up to 200 MHz

The higher line is the spurious limit FCC 15.209 according to antenna gain and semi-anechoic chamber



This is only a scan:

Measurements were performed with a CISPR quasi peak adapter and 100/120 kHz BW.

REFERENCE NUMBER(S) OF TEST EQUIPMENT USED

(for reference numbers see test equipment listing)

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Equipment under test : Toshiba Tecra 8200

Ambient temperature : 20 °C

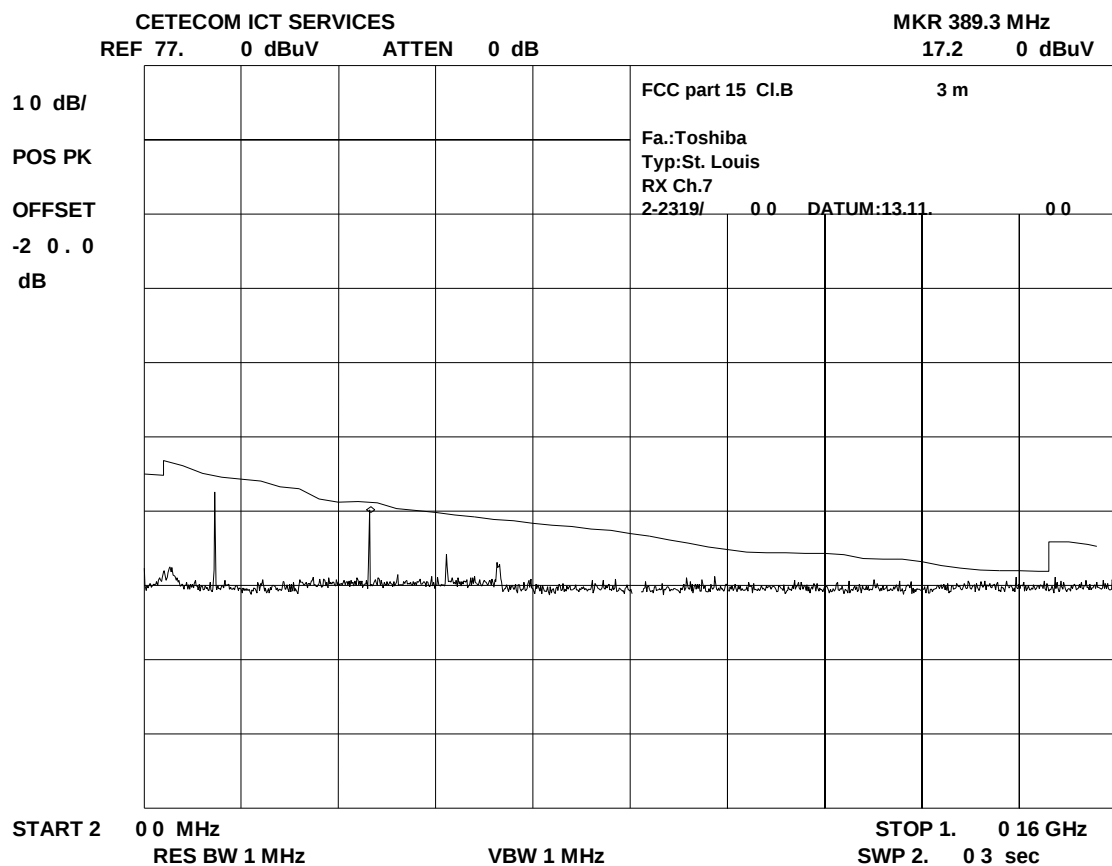
Relative humidity : 51%

RECEIVER SPURIOUS RADIATION

§ 15.209

2442 MHz up to 1000 MHz

The higher line is the spurious limit FCC 15.209 according to antenna gain and semi-anechoic chamber



This is only a scan:

Measurements were performed with a CISPR quasi peak adapter and 100/120 kHz BW.

REFERENCE NUMBER(S) OF TEST EQUIPMENT USED

(for reference numbers see test equipment listing)

17 - 24

Equipment under test : Toshiba Tecra 8200

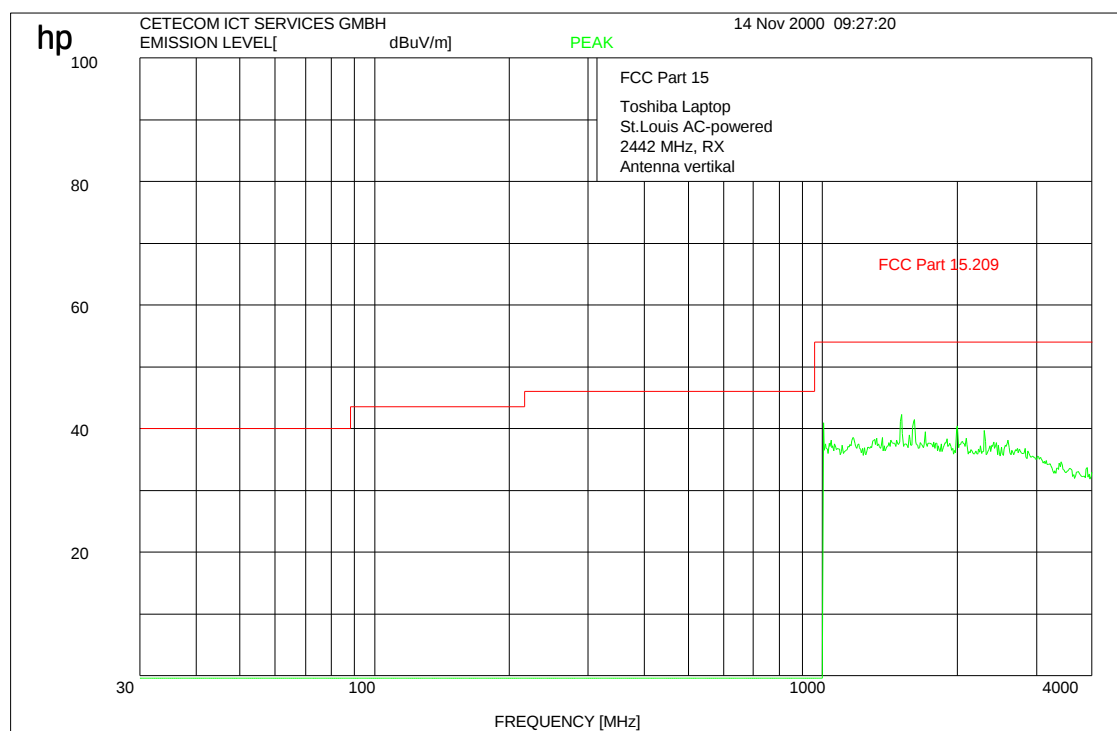
Ambient temperature : 20 °C

Relative humidity : 51 %

RECEIVER SPURIOUS RADIATION

§ 15.209

2442 MHz up to 4 GHz



Measurements were performed with RBW/VBW 1 MHz

Limits

SUBCLAUSE § 15.209

Frequency (MHz)	Field strength (µV/m)	Measurement distance (m)
30 - 88	100	3
88 - 216	150	3
216 - 960	200	3
above 960	500	3

REFERENCE NUMBER(S) OF TEST EQUIPMENT USED

(for reference numbers see test equipment listing)

Equipment under test : Toshiba Tecra 8200

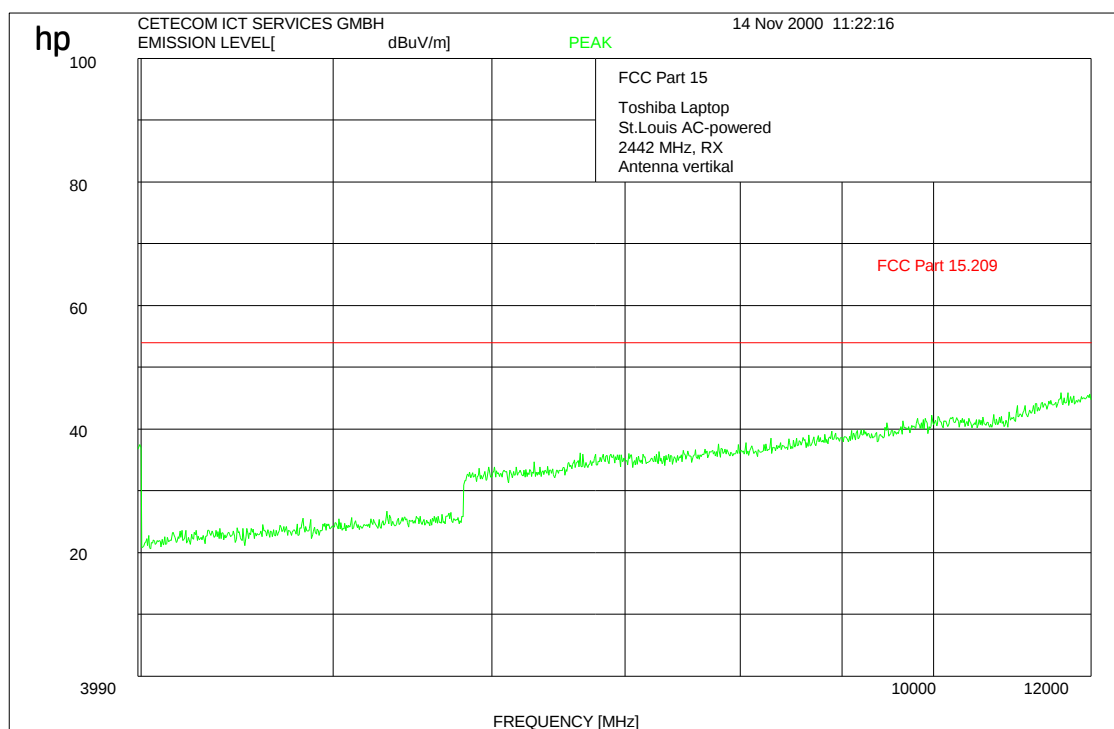
Ambient temperature : 20 °C

Relative humidity : 51 %

RECEIVER SPURIOUS RADIATION

§ 15.209

2442 MHz up to 12 GHz



The measurements were performed up to 25 GHz. There were no peaks found.

Measurements were performed with RBW/VBW 1 MHz

Limits

SUBCLAUSE § 15.209

Frequency (MHz)	Field strength (µV/m)	Measurement distance (m)
30 - 88	100	3
88 - 216	150	3
216 - 960	200	3
above 960	500	3

REFERENCE NUMBER(S) OF TEST EQUIPMENT USED

(for reference numbers see test equipment listing)

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Equipment under test : Toshiba Tecra 8200

Ambient temperature : 20 °C

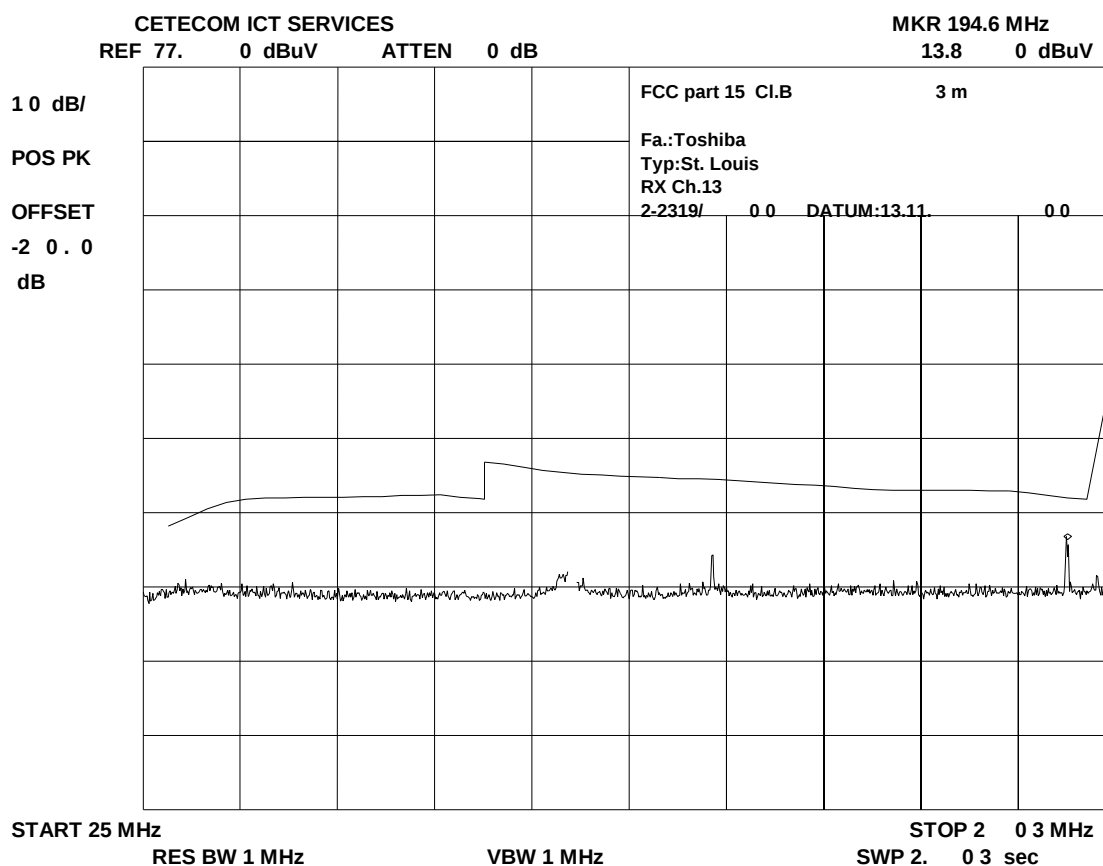
Relative humidity : 51%

RECEIVER SPURIOUS RADIATION

§ 15.209

2472 MHz up to 200 MHz

The higher line is the spurious limit FCC 15.209 according to antenna gain and semi-anechoic chamber



This is only a scan:

Measurements were performed with a CISPR quasi peak adapter and 100/120 kHz BW.

REFERENCE NUMBER(S) OF TEST EQUIPMENT USED

(for reference numbers see test equipment listing)

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Equipment under test : Toshiba Tecra 8200

Ambient temperature : 20 °C

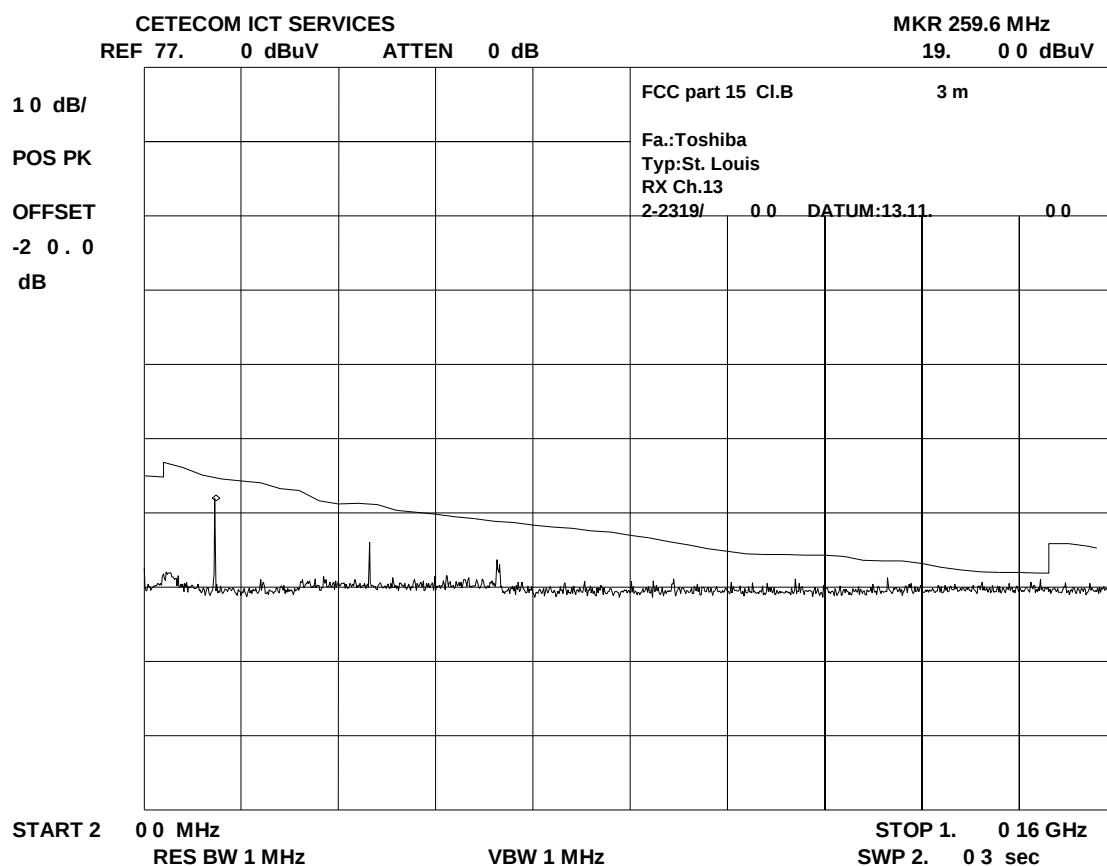
Relative humidity : 51%

RECEIVER SPURIOUS RADIATION

§ 15.209

2472 MHz up to 1000 MHz

The higher line is the spurious limit FCC 15.209 according to antenna gain and semi-anechoic chamber



This is only a scan:

Measurements were performed with a CISPR quasi peak adapter and 100/120 kHz BW.

REFERENCE NUMBER(S) OF TEST EQUIPMENT USED

(for reference numbers see test equipment listing)

Equipment under test : Toshiba Tecra 8200

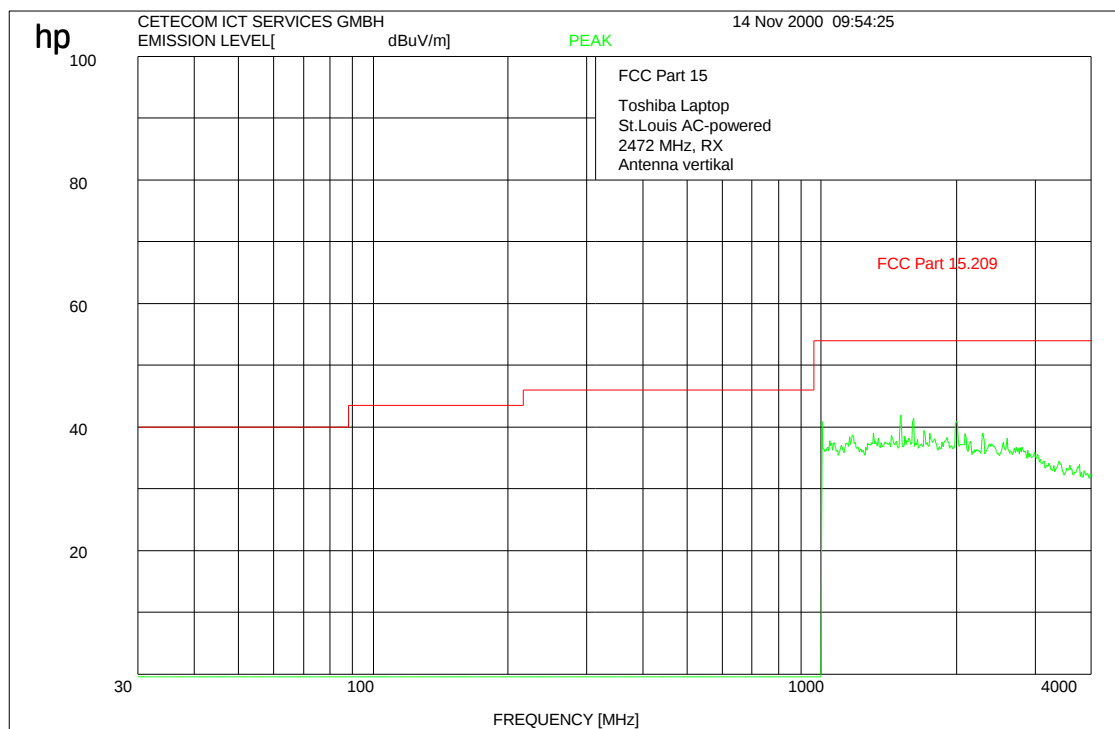
Ambient temperature : 20 °C

Relative humidity : 51 %

RECEIVER SPURIOUS RADIATION

§ 15.209

2472 MHz up to 4 GHz



Measurements were performed with RBW/VBW 1 MHz

Limits

SUBCLAUSE § 15.209

Frequency (MHz)	Field strength (µV/m)	Measurement distance (m)
30 - 88	100	3
88 - 216	150	3
216 - 960	200	3
above 960	500	3

REFERENCE NUMBER(S) OF TEST EQUIPMENT USED

(for reference numbers see test equipment listing)

Equipment under test : Toshiba Tecra 8200

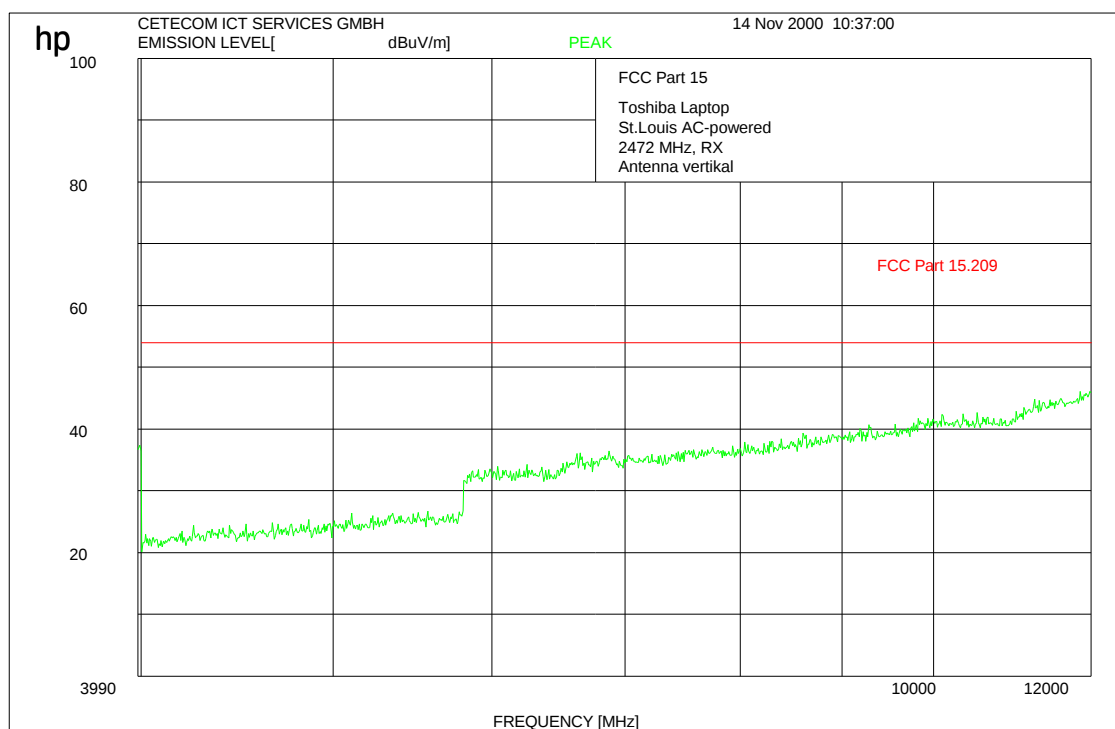
Ambient temperature : 20 °C

Relative humidity : 51 %

RECEIVER SPURIOUS RADIATION

§ 15.209

2472 MHz up to 12 GHz



The measurements were performed up to 25 GHz. There were no peaks found.

Measurements were performed with RBW/VBW 1 MHz

Limits

SUBCLAUSE § 15.209

Frequency (MHz)	Field strength (µV/m)	Measurement distance (m)
30 - 88	100	3
88 - 216	150	3
216 - 960	200	3
above 960	500	3

REFERENCE NUMBER(S) OF TEST EQUIPMENT USED

(for reference numbers see test equipment listing)

TEST EQUIPMENT AND ANCILLARIES USED FOR TESTS

To simplify the identification on each page of the test equipment used, on each page of the test report, each item of test equipment and ancillaries such as cables are identified (numbered) by the Test Laboratory, below.

No	Instrument/Ancillary	Type	Manufacturer	Serial No.
01	Spectrum Analyzer	8566 A	Hewlett-Packard	1925A00257
02	Analyzer Display	8566 A	Hewlett-Packard	1925A00860
03	Oscilloscope	7633	Tektronix	230054
04	Radio Analyzer	CMTA 54	Rohde & Schwarz	894 043/010
05	System Power Supply	6038 A	Hewlett-Packard	2848A07027
06	Signal Generator	8111 A	Hewlett-Packard	2215G00867
07	Signal Generator	8662 A	Hewlett-Packard	2224A01012
08	Funktionsgenerator	AFGU	Rohde & Schwarz	862 480/032
09	Regeltrenntrafo	MPL	Erfi	91350
10	Netznachbildung	NNLA 8120	Schwarzbeck	8120331
11	Relais-Matrix	PSU	Rohde & Schwarz	893 285/020
12	Power-Meter	436 A	Hewlett-Packard	2101A12378
13	Power-Sensor	8484 A	Hewlett-Packard	2237A10156
14	Power-Sensor	8482 A	Hewlett-Packard	2237A00616
15	Modulationsmeter	9008	Racal-Dana	2647
16	Frequenzzähler	5340 A	Hewlett-Packard	1532A03899
17	Absorber Schirmkabine	---	MWB	87400/002
18	Spectrum Analyzer	85660 B	Hewlett-Packard	2747A05306
19	Analyzer Display	85662 A	Hewlett-Packard	2816A16541
20	Quasi Peak Adapter	85650 A	Hewlett-Packard	2811A01131
21	RF-Preselector	85685 A	Hewlett-Packard	2833A00768
22	Biconical Antenne	3104	Emco	3758
23	Log. Per. Antenne	3146	Emco	2130
24	Double Ridge Horn	3115	Emco	3088
25	EMI-Testreceiver	ESAI	Rohde & Schwarz	863 180/013
26	EMI-Analyzer-Display	ESAI-D	Rohde & Schwarz	862 771/008
27	Biconical Antenne	HK 116	Rohde & Schwarz	888 945/013
28	Log. Per. Antenne	HL 223	Rohde & Schwarz	825 584/002
29	Relais-Switch-Unit	RSU	Rohde & Schwarz	375 339/002
30	Highpass	HM985955	FSY Microwave	001
31	Amplifier	P42-GA29	Tron-Tech	B 23602
32	Absorber Schirmkabine		Frankonia	
33	Steuerrechner	PSM 7	Rohde & Schwarz	834 621/004
34	EMI Test Receiver	ESMI	Rohde & Schwarz	827 063/010
35	EMI Test Receiver	Display	Rohde & Schwarz	829 808/010

TEST EQUIPMENT AND ANCILLARIES USED FOR TESTS

To simplify the identification on each page of the test equipment used, on each page of the test report, each item of test equipment and ancillaries such as cables are identified (numbered) by the Test Laboratory, below.

No	Instrument/Ancillary	Type	Manufacturer	Serial No.
36	Controler	HD 100	Deisel	100/322/93
37	Relais Matrix	PSN	Rohde & Schwarz	829 065/003
38	Control Unit	GB 016 A2	Rohde & Schwarz	344 122/008
39	Relais Switch Unit	RSU	Rohde & Schwarz	316 790/001
40	Power Supply	6032A	Hewlett Packard	2846A04063
41	Spektrum Monitor	EZM	Rohde & Schwarz	883 720/006
42	Meßempfänger	ESH 3	Rohde & Schwarz	890 174/002
43	Meßempfänger	ESVP	Rohde & Schwarz	891 752/005
44	Biconi Ant. 20-300MHz	HK 116	Rohde & Schwarz	833 162/011
45	Logper Ant. 0.3-1 GHz	HL 223	Rohde & Schwarz	832 914/010
46	Amplifier 0.1-4 GHz	AFS4	Miteq Inc.	206461
47	Logper Ant. 1-18 GHz	HL 024 A2	Rohde & Schwarz	342 662/002
48	Polarisationsnetzwerk	HL 024 Z1	Rohde & Schwarz	341 570/002
49	Double Ridge G Horn Antenne 1-26.5 GHz	3115	EMCO	9107-3696
50	Microw. Sys. Amplifier 0.5- 26.5 GHz	8317A	Hewlett Packard	3123A00105
51	Audio Analyzer	UPD	Rohde & Schwarz	1030.7500.04
52	Steuerrechner	PSM 7	Rohde & Schwarz	883 086/026
53	DC V-Netzwerk	ESH3-Z6	Rohde & Schwarz	861 406/005
54	DC V-Netzwerk	ESH3-Z6	Rohde & Schwarz	893 689/012
55	AC 2 Phasen V-Netzwerk	ESH3-Z5	Rohde & Schwarz	861 189/014
56	AC 2 Phasen V-Netzwerk	ESH3-Z5	Rohde & Schwarz	894 981/019
57	AC-3 Phasen V-Netzwerk	ESH2-Z5	Rohde & Schwarz	882 394/007
58	Stromversorgung	6032A	Rohde & Schwarz	2933A05441
59	HF-Test Empfänger	ESVP.52	Rohde & Schwarz	881 487/021
60	Spectrum Monitor	EZM	Rohde & Schwarz	883 086/026
61	HF-Test Empfänger	ESH3	Rohde & Schwarz	881 515/002
62	Relais Matrix	PSU	Rohde & Schwarz	882 943/029
63	Relais Matrix	PSU	Rohde & Schwarz	828 628/007
64	Spectrum Analyzer	FSIQ 26	Rohde & Schwarz	119.6001.27
67				

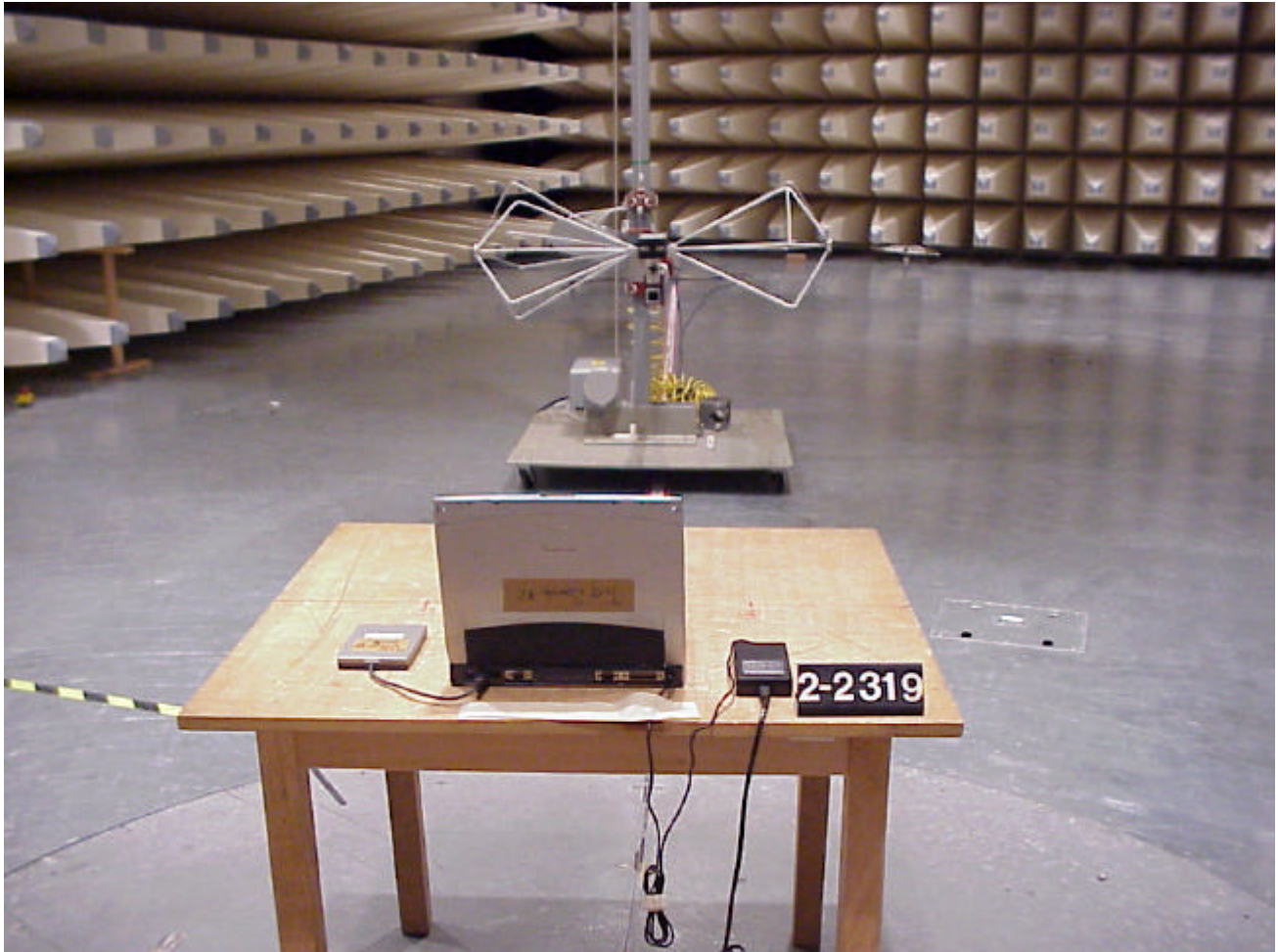
Test site
RADIATED EMISSIONS

Picture 1:



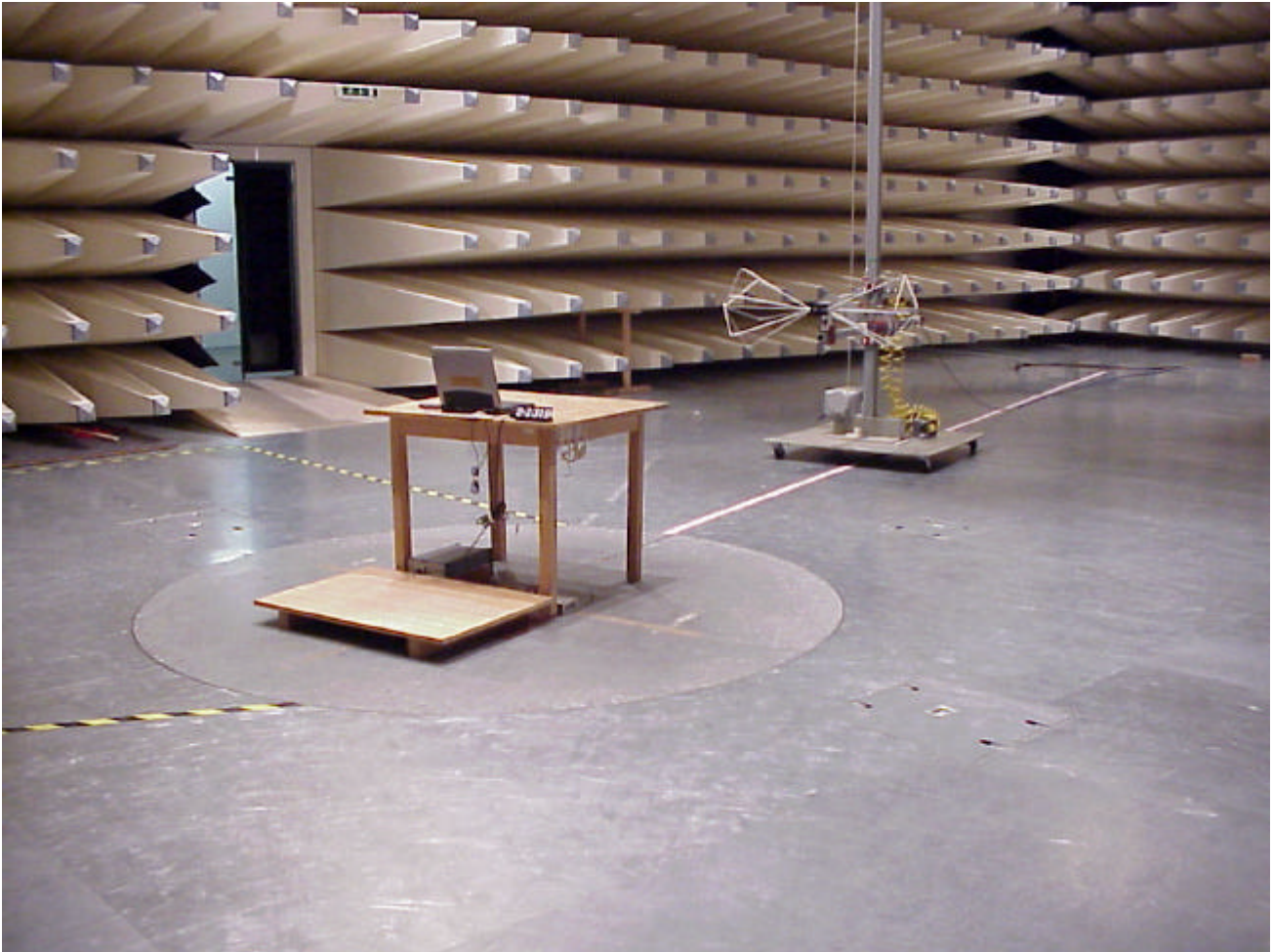
Test site
RADIATED EMISSIONS

Picture 2:



Test site
RADIATED EMISSIONS

Picture 3:



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Number of received data errors as a function of frequency and interference level																				
Not measured combinations listed as "-1"						H	I	J	K	L	M	N	O	P	Q	R	S			
	Uncorrected Interference level dialed at CW generator																		RxD Errors detected	PDA missing
	True CW interference level at receiver input (dBm)																			
J/S ratio (dB)	-11	#PDA	-10	#PDA	-9	#PDA	-8	#PDA	-7	#PDA	-6	#PDA	-5	#PDA	-4	#PDA	-3	#PDA	full test range	full test range
Frequency (Hz)																				
2409000000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	50000	OK, 0 RxD errors	OK, No PDA errors
2409050000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	50000	OK, 0 RxD errors	OK, No PDA errors
2409100000	8	49999	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	RxD errors	PDA errors
2409150000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	1	50000	RxD errors	OK, No PDA errors
2409200000	5	50000	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	RxD errors	PDA errors
2409250000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	2	50000	RxD errors	OK, No PDA errors
2409300000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	50000	OK, 0 RxD errors	OK, No PDA errors
2409350000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	50000	OK, 0 RxD errors	OK, No PDA errors
2409400000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	50000	OK, 0 RxD errors	OK, No PDA errors
2409450000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	1	50000	RxD errors	OK, No PDA errors
2409500000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	3	50000	RxD errors	OK, No PDA errors
2409550000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	2	50000	RxD errors	OK, No PDA errors

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2409600000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	1	50000	RxD errors	OK, No PDA errors	
2409650000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	50000	OK, 0 RxD errors	OK, No PDA errors	
2409700000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	2	49999	RxD errors	PDA errors	
2409750000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	50000	OK, 0 RxD errors	OK, No PDA errors	
2409800000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	50000	OK, 0 RxD errors	OK, No PDA errors	
2409850000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	50000	OK, 0 RxD errors	OK, No PDA errors	
2409900000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	50000	OK, 0 RxD errors	OK, No PDA errors	
2409950000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	50000	OK, 0 RxD errors	OK, No PDA errors	
2410000000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	1	50000	RxD errors	OK, No PDA errors	
2410050000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	50000	OK, 0 RxD errors	OK, No PDA errors	
2410100000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	50000	OK, 0 RxD errors	OK, No PDA errors	
2410150000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	1	50000	RxD errors	OK, No PDA errors	
2410200000	0	1000	6	50000	1	50000	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	RxD errors	PDA errors		
2410250000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	50000	OK, 0 RxD errors	OK, No PDA errors	
2410300000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	1	50000	RxD errors	OK, No PDA errors	
2410350000	3	50000	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	RxD errors	PDA errors		
2410400000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	50000	OK, 0 RxD errors	OK, No PDA errors	
2410450000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	50000	OK, 0 RxD errors	OK, No PDA errors	
2410500000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	50000	OK, 0 RxD errors	OK, No PDA errors	
2410550000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	50000	OK, 0 RxD errors	OK, No PDA errors	
2410600000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	50000	OK, 0 RxD errors	OK, No PDA errors	
2410650000	4	50000	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	RxD errors	PDA errors		
2410700000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	50000	OK, 0 RxD errors	OK, No PDA errors	
2410750000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	50000	OK, 0 RxD errors	OK, No PDA errors	
2410800000	0	1000	0	1000	1	50000	3	50000	-1	-1	-1	-1	-1	-1	-1	-1	-1	RxD errors	PDA errors		
2410850000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	50000	OK, 0 RxD errors	OK, No PDA errors	
2410900000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	50000	OK, 0 RxD errors	OK, No PDA errors	
2410950000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	50000	OK, 0 RxD errors	OK, No PDA errors	
2411000000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	50000	OK, 0 RxD errors	OK, No PDA errors	
2411050000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	50000	OK, 0 RxD errors	OK, No PDA errors	

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2415300000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	50000	OK, 0 RxD errors	OK, No PDA errors
2415350000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	50000	OK, 0 RxD errors	OK, No PDA errors
2415400000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	50000	OK, 0 RxD errors	OK, No PDA errors
2415450000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	50000	OK, 0 RxD errors	OK, No PDA errors
2415500000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	50000	OK, 0 RxD errors	OK, No PDA errors
2415550000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	50000	OK, 0 RxD errors	OK, No PDA errors
2415600000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	50000	OK, 0 RxD errors	OK, No PDA errors
2415650000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	50000	OK, 0 RxD errors	OK, No PDA errors
2415700000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	50000	OK, 0 RxD errors	OK, No PDA errors
2415750000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	50000	OK, 0 RxD errors	OK, No PDA errors
2415800000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	50000	OK, 0 RxD errors	OK, No PDA errors
2415850000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	50000	OK, 0 RxD errors	OK, No PDA errors
2415900000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	50000	OK, 0 RxD errors	OK, No PDA errors
2415950000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	50000	OK, 0 RxD errors	OK, No PDA errors
2416000000	0	39805	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	RxD errors	PDA errors	
2416050000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	50000	OK, 0 RxD errors	OK, No PDA errors
2416100000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	50000	OK, 0 RxD errors	OK, No PDA errors
2416150000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	50000	OK, 0 RxD errors	OK, No PDA errors
2416200000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	50000	OK, 0 RxD errors	OK, No PDA errors
2416250000	0	44130	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	RxD errors	PDA errors	
2416300000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	50000	OK, 0 RxD errors	OK, No PDA errors
2416350000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	50000	OK, 0 RxD errors	OK, No PDA errors
2416400000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	1	50000	RxD errors	OK, No PDA errors
2416450000	0	1000	3	50000	8	50000	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	RxD errors	PDA errors	
2416500000	2	39968	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	RxD errors	PDA errors	
2416550000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	7	50000	RxD errors	OK, No PDA errors
2416600000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	1	50000	2	1000	RxD errors	PDA errors
2416650000	0	1000	0	1000	0	1000	10	49999	7	50000	-1	-1	-1	-1	-1	-1	-1	RxD errors	PDA errors	
2416700000	23	50000	29	49999	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	RxD errors	PDA errors	
2416750000	34	49900	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	RxD errors	PDA errors	
2416800000	66	49998	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	RxD errors	PDA errors	
2416850000	0	1000	0	1000	0	1000	0	1000	22	49999	10	49999	-1	-1	-1	-1	-1	-1	RxD errors	PDA errors

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2416900000	75	49996	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	RxD errors	PDA errors	
2416950000	38	49996	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	RxD errors	PDA errors	
2417000000	4	49242	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	RxD errors	PDA errors	
2417050000	38	49998	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	RxD errors	PDA errors	
2417100000	70	49996	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	RxD errors	PDA errors	
2417150000	81	49998	104	49994	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	RxD errors	PDA errors	
2417200000	63	49996	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	RxD errors	PDA errors	
2417250000	45	49165	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	RxD errors	PDA errors	
2417300000	0	1000	70	49996	61	49999	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	RxD errors	PDA errors	
2417350000	29	49999	53	49997	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	RxD errors	PDA errors	
2417400000	0	1000	0	1000	36	49997	29	49999	-1	-1	-1	-1	-1	-1	-1	-1	-1	RxD errors	PDA errors	
2417450000	0	1000	0	1000	0	1000	18	49999	9	50000	-1	-1	-1	-1	-1	-1	-1	RxD errors	PDA errors	
2417500000	2	39023	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	RxD errors	PDA errors	
2417550000	1	50000	12	49999	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	RxD errors	PDA errors	
2417600000	2	50000	8	50000	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	RxD errors	PDA errors	
2417650000	0	1000	4	50000	1	50000	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	RxD errors	PDA errors	
2417700000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	1	50000	RxD errors	OK, No PDA errors
2417750000	0	43160	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	RxD errors	PDA errors	
2417800000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	2	50000	RxD errors	OK, No PDA errors
2417850000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	50000	OK, 0 RxD errors	OK, No PDA errors
2417900000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	1	50000	RxD errors	OK, No PDA errors
2417950000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	50000	OK, 0 RxD errors	OK, No PDA errors
2418000000	2	41519	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	RxD errors	PDA errors	
2418050000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	50000	OK, 0 RxD errors	OK, No PDA errors
2418100000	1	50000	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	RxD errors	PDA errors	
2418150000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	50000	OK, 0 RxD errors	OK, No PDA errors
2418200000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	50000	OK, 0 RxD errors	OK, No PDA errors
2418250000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	50000	OK, 0 RxD errors	OK, No PDA errors
2418300000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	50000	OK, 0 RxD errors	OK, No PDA errors
2418350000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	1	50000	RxD errors	OK, No PDA errors
2418400000	3	50000	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	RxD errors	PDA errors	
2418450000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	50000	OK, 0 RxD errors	OK, No PDA errors
2418500000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	1	50000	RxD errors	OK, No PDA errors
2418550000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	1	50000	RxD errors	OK, No PDA errors
2418600000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	50000	OK, 0 RxD errors	OK, No PDA errors
2418650000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	50000	OK, 0 RxD errors	OK, No PDA errors

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2424600000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	1	50000	RxD errors	OK, No PDA errors
2424650000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	50000	OK, 0 RxD errors	OK, No PDA errors
2424700000	3	49999	0	49999	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	RxD errors	PDA errors
2424750000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	2	50000	RxD errors	OK, No PDA errors
2424800000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	50000	OK, 0 RxD errors	OK, No PDA errors
2424850000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	50000	OK, 0 RxD errors	OK, No PDA errors
2424900000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	50000	OK, 0 RxD errors	OK, No PDA errors
2424950000	0	1000	0	1000	0	1000	4	50000	2	50000	-1	-1	-1	-1	-1	-1	-1	-1	RxD errors	PDA errors
2425000000	4	50000	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	RxD errors	PDA errors

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Annex 2 : Processing gain 2 Mbit

Measurement file output name is: 2mbit.cnd

Input command file name is: INPUT.C

Input CW correction level: MD

Lowcount is: 6 mess ages

Highcount is: 1000 mess ages

Rx level DUT is: -55 dBm

Note: 2 Mbit, 5 dB SIR tested for (15 dB SNR - 10.4 - 0 impl. losses).
Takes not into account allowed useage of 2 dB SIR implementation losses margin.
Attention: Input the red cells for correct spreadsheet calculations!

Number of received data errors as a function of frequency and interference level																		
Not measured combinations listed as "-1"																		
H I J K L M N O P Q R S																		
Uncorrected Interference level dialed at CW generator																		
-60 -59 -58 -57 -56 -55 -54 -53 -52																		
True CW interference level at receiver input (dBm)																		
-66 -65 -64 -63 -62 -61 -60 -59 -58																		
J/S ratio (dB)	-11	#PDA	-10	#PDA	-9	#PDA	-8	#PDA	-7	#PDA	-6	#PDA	-5	#PDA	-4	#PDA	-3	#PDA
Frequency (Hz)																		
2409000000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	50000
2409050000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	50000
2409100000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	50000
2409150000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	50000
2409200000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	50000
2409250000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	50000
2409300000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	50000
2409350000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	50000
2409400000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	50000
2409450000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	50000
2409500000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	50000
2409550000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	50000
2409600000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	50000
																	RxD Errors detected	PDA missing
																	full test range	full test range

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2416700000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	50000	OK, 0 RxD errors	OK, No PDA errors
2416750000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	50000	OK, 0 RxD errors	OK, No PDA errors
2416800000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	50000	OK, 0 RxD errors	OK, No PDA errors
2416850000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	50000	OK, 0 RxD errors	OK, No PDA errors
2416900000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	50000	OK, 0 RxD errors	OK, No PDA errors
2416950000	0	1000	0	1000	0	1000	0	1000	0	49999	0	49989	-1	-1	-1	-1	-1	-1	RxD errors	PDA errors
2417000000	3	49760	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	RxD errors	PDA errors
2417050000	0	1000	0	1000	0	1000	0	49975	0	49979	-1	-1	-1	-1	-1	-1	-1	-1	RxD errors	PDA errors
2417100000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	50000	OK, 0 RxD errors	OK, No PDA errors
2417150000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	50000	OK, 0 RxD errors	OK, No PDA errors
2417200000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	50000	OK, 0 RxD errors	OK, No PDA errors
2417250000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	50000	OK, 0 RxD errors	OK, No PDA errors
2417300000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	50000	OK, 0 RxD errors	OK, No PDA errors
2417350000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	50000	OK, 0 RxD errors	OK, No PDA errors
2417400000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	50000	OK, 0 RxD errors	OK, No PDA errors
2417450000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	50000	OK, 0 RxD errors	OK, No PDA errors
2417500000	0	46220	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	RxD errors	PDA errors
2417550000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	50000	OK, 0 RxD errors	OK, No PDA errors
2417600000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	50000	OK, 0 RxD errors	OK, No PDA errors
2417650000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	50000	OK, 0 RxD errors	OK, No PDA errors
2417700000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	50000	OK, 0 RxD errors	OK, No PDA errors
2417750000	0	45231	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	RxD errors	PDA errors
2417800000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	50000	OK, 0 RxD errors	OK, No PDA errors
2417850000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	50000	OK, 0 RxD errors	OK, No PDA errors
2417900000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	50000	OK, 0 RxD errors	OK, No PDA errors
2417950000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	50000	OK, 0 RxD errors	OK, No PDA errors
2418000000	0	47058	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	RxD errors	PDA errors
2418050000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	50000	OK, 0 RxD errors	OK, No PDA errors
2418100000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	50000	OK, 0 RxD errors	OK, No PDA errors
2418150000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	50000	OK, 0 RxD errors	OK, No PDA errors

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Annex 1 : Processing gain 5.5 Mbit

Measurement file output name is:
Input command file name is:
Input CW correction level:
Lowcount is:
Highcount is:

5mbit.cnd
INPUT.CMD
6 dB
1000 messa ges
50000 messa ges

Note: 5.5 Mbit, 6 dB SIR tested for (15 dB SNR - 10.4 + 1 impl. losses).
Takes into account 1 dB of implementation loss (allowed 2 dB).
Only RxD errors are taken into account since these need better SIR then preamble at 1 MBit
Attention: Input the red cells for correct spreadsheet calculations!

Rx level DUT is: -53 dBm

Number of received data errors as a function of frequency and interference level																			H	I	J	K	L	M	N	O	P	Q	R	S
Not measured combinations listed as "-1"																														
	Uncorrected Interference level dialed at CW generator																						RxD Errors detected full test range							
	-60		-59		-58		-57		-56		-55		-54		-53		-52													
	True CW interference level at receiver input (dBm)		-66		-65		-64		-63		-62		-61		-60		-59		-58											
J/S ratio (dB)	-13	#PDA	-12	#PDA	-11	#PDA	-10	#PDA	-9	#PDA	-8	#PDA	-7	#PDA	-6	#PDA	-5	#PDA												
Frequency (Hz)																														
2409000000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	50000	OK, 0 RxD errors											
2409050000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	50000	OK, 0 RxD errors											
2409100000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	50000	OK, 0 RxD errors											
2409150000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	50000	OK, 0 RxD errors											
2409200000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	50000	OK, 0 RxD errors											
2409250000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	50000	OK, 0 RxD errors											
2409300000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	50000	OK, 0 RxD errors											
2409350000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	50000	OK, 0 RxD errors											
2409400000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	50000	OK, 0 RxD errors											
2409450000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	50000	OK, 0 RxD errors											
2409500000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	50000	OK, 0 RxD errors											
2409550000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	50000	OK, 0 RxD errors											
2409600000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	50000	OK, 0 RxD errors											

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2413850000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	2	50000	RxD errors	Oi
2413900000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	11	50000	RxD errors	Oi
2413950000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	10	50000	RxD errors	Oi
2414000000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	2	50000	1	1000	RxD errors	Oi
2414050000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	37	50000	RxD errors	Oi
2414100000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	5	50000	6	1000	RxD errors	Oi
2414150000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	1	50000	1	1000	RxD errors	Oi
2414200000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	50000	1	1000	RxD errors	Oi
2414250000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	21	50000	RxD errors	Oi
2414300000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	27	50000	RxD errors	Oi
2414350000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	50000	1	1000	RxD errors	Oi
2414400000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	5	50000	RxD errors	Oi
2414450000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	11	50000	RxD errors	Oi
2414500000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	900001	50000	RxD errors	Oi
2414550000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	35	50000	RxD errors	Oi
2414600000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	7	50000	RxD errors	Oi
2414650000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	50000	2	1000	RxD errors	Oi
2414700000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	1	50000	RxD errors	Oi
2414750000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	2	50000	RxD errors	Oi
2414800000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	26	50000	RxD errors	Oi
2414850000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	50000	OK, 0 RxD errors	Oi
2414900000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	50000	OK, 0 RxD errors	Oi
2414950000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	7	50000	RxD errors	Oi
2415000000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	50000	OK, 0 RxD errors	Oi
2415050000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	50000	OK, 0 RxD errors	Oi
2415100000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	50000	OK, 0 RxD errors	Oi
2415150000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	50000	OK, 0 RxD errors	Oi
2415200000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	7	50000	RxD errors	Oi

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2415250000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	50000	1	1000	RxD errors	Ol er
2415300000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	7	50000	RxD errors	Ol er
2415350000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	1	50000	RxD errors	Ol er
2415400000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	50000	1	1000	RxD errors	Ol er
2415450000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	1	50000	1	1000	RxD errors	Ol er
2415500000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	17	50000	RxD errors	Ol er
2415550000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	13	50000	RxD errors	Ol er
2415600000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	4	50000	RxD errors	Ol er
2415650000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	14	50000	RxD errors	Ol er
2415700000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	19	50000	RxD errors	Ol er
2415750000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	17	50000	RxD errors	Ol er
2415800000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	31	50000	RxD errors	Ol er
2415850000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	11	50000	RxD errors	Ol er
2415900000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	5	50000	RxD errors	Ol er
2415950000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	15	50000	RxD errors	Ol er
2416000000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	16	50000	RxD errors	Ol er
2416050000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	10	50000	RxD errors	Ol er
2416100000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	50000	3	1000	RxD errors	Ol er
2416150000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	5	50000	5	1000	RxD errors	Ol er
2416200000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	10	50000	3	1000	RxD errors	Ol er
2416250000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	18	50000	20	1000	RxD errors	Ol er
2416300000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	24	50000	17	1000	RxD errors	Ol er
2416350000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	15	50000	13	1000	RxD errors	Ol er
2416400000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	50000	40	50000	-1	-1	RxD errors	Pl
2416450000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	40	50000	17	1000	RxD errors	Ol er
2416500000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	47	50000	25	1000	RxD errors	Ol er
2416550000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	50000	44	50000	-1	-1	RxD errors	Pl
2416600000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	11	50000	16	1000	RxD errors	Ol er
2416650000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	80000 1	50000	5	1000	RxD errors	Ol er

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2416700000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	80000	50000	6	1000	RxD errors	Oi
2416750000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	1	50000	3	1000	RxD errors	er
2416800000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	2	1000	18	50000	RxD errors	er
2416850000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	4	50000	RxD errors	er
2416900000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	50000	OK, 0 RxD errors	er
2416950000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	50000	OK, 0 RxD errors	er
2417000000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	49998	OK, 0 RxD errors	PI
2417050000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	1	49992	RxD errors	PI
2417100000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	50000	OK, 0 RxD errors	Oi
2417150000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	2	50000	RxD errors	er
2417200000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	1	50000	1	1000	RxD errors	er
2417250000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	2	50000	2	1000	RxD errors	er
2417300000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	12	50000	8	1000	RxD errors	er
2417350000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	17	50000	13	1000	RxD errors	er
2417400000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	33	50000	27	1000	RxD errors	er
2417450000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	1	50000	76	50000	-1	-1	RxD errors	PI
2417500000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	1	49998	89	50000	-1	-1	RxD errors	PI
2417550000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	2	50000	286	50000	-1	-1	RxD errors	PI
2417600000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	3	50000	149	50000	-1	-1	RxD errors	PI
2417650000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	4	50000	166	50000	-1	-1	RxD errors	PI
2417700000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	50000	158	50000	-1	-1	RxD errors	PI
2417750000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	78	50000	29	1000	RxD errors	Oi
2417800000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	41	50000	11	1000	RxD errors	er
2417850000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	14	50000	7	1000	RxD errors	er
2417900000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	4	50000	1	1000	RxD errors	er
2417950000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	49	50000	RxD errors	Oi
2418000000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	27	50000	RxD errors	er
2418050000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	3	50000	RxD errors	Oi
2418100000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	50000	OK, 0 RxD errors	er
2418150000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	3	50000	RxD errors	Oi
2418200000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	17	50000	RxD errors	er

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2418250000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	13	50000	RxD errors	Oi er
2418300000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	19	50000	RxD errors	Oi er
2418350000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	50000	1	1000	RxD errors	Oi er
2418400000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	41	50000	RxD errors	Oi er
2418450000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	50000	1	1000	RxD errors	Oi er
2418500000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	6	50000	RxD errors	Oi er
2418550000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	3	50000	RxD errors	Oi er
2418600000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	50000	2	1000	RxD errors	Oi er
2418650000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	50000	OK, 0 RxD errors	Oi er
2418700000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	50000	OK, 0 RxD errors	Oi er
2418750000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	25	50000	RxD errors	Oi er
2418800000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	50000	OK, 0 RxD errors	Oi er
2418850000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	50000	OK, 0 RxD errors	Oi er
2418900000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	50000	OK, 0 RxD errors	Oi er
2418950000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	50000	OK, 0 RxD errors	Oi er
2419000000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	50000	OK, 0 RxD errors	Oi er
2419050000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	50000	OK, 0 RxD errors	Oi er
2419100000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	50000	OK, 0 RxD errors	Oi er
2419150000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	3	50000	RxD errors	Oi er
2419200000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	50000	OK, 0 RxD errors	Oi er
2419250000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	36	50000	RxD errors	Oi er
2419300000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	4	50000	RxD errors	Oi er
2419350000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	1	50000	RxD errors	Oi er
2419400000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	6	50000	RxD errors	Oi er
2419450000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	17	50000	RxD errors	Oi er
2419500000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	5	50000	RxD errors	Oi er
2419550000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	1	50000	2	1000	RxD errors	Oi er
2419600000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	24	50000	RxD errors	Oi er

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2419650000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	1	50000	1	1000	RxD errors	O er
2419700000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	50000	1	1000	RxD errors	O er
2419750000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	13	50000	RxD errors	O er
2419800000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	2	50000	RxD errors	O er
2419850000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	5	50000	RxD errors	O er
2419900000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	11	50000	RxD errors	O er
2419950000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	11	50000	RxD errors	O er
2420000000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	11	50000	RxD errors	O er
2420050000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	4	50000	RxD errors	O er
2420100000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	1	50000	RxD errors	O er
2420150000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	2	50000	RxD errors	O er
2420200000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	2	50000	RxD errors	O er
2420250000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	50000	OK, 0 RxD errors	O er
2420300000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	50000	OK, 0 RxD errors	O er
2420350000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	50000	OK, 0 RxD errors	O er
2420400000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	50000	OK, 0 RxD errors	O er
2420450000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	50000	OK, 0 RxD errors	O er
2420500000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	50000	OK, 0 RxD errors	O er
2420550000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	50000	OK, 0 RxD errors	O er
2420600000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	50000	OK, 0 RxD errors	O er
2420650000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	50000	OK, 0 RxD errors	O er
2420700000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	50000	OK, 0 RxD errors	O er
2420750000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	50000	OK, 0 RxD errors	O er
2420800000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	50000	OK, 0 RxD errors	O er
2420850000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	50000	OK, 0 RxD errors	O er
2420900000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	50000	OK, 0 RxD errors	O er
2420950000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	50000	OK, 0 RxD errors	O er
2421000000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	1	50000	RxD errors	O er

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2421050000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	50000	OK, 0 RxD errors	Oi er
2421100000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	12	31522	RxD errors	Pt
2421150000	0	50000	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	RxD errors	Pt
2421200000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	50000	OK, 0 RxD errors	Oi er
2421250000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	50000	OK, 0 RxD errors	Oi er
2421300000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	50000	OK, 0 RxD errors	Oi er
2421350000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	50000	OK, 0 RxD errors	Oi er
2421400000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	50000	OK, 0 RxD errors	Oi er
2421450000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	50000	OK, 0 RxD errors	Oi er
2421500000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	50000	OK, 0 RxD errors	Oi er
2421550000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	50000	OK, 0 RxD errors	Oi er
2421600000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	50000	OK, 0 RxD errors	Oi er
2421650000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	22096	OK, 0 RxD errors	Pt
2421700000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	50000	OK, 0 RxD errors	Oi er
2421750000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	50000	OK, 0 RxD errors	Oi er
2421800000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	50000	OK, 0 RxD errors	Oi er
2421850000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	50000	OK, 0 RxD errors	Oi er
2421900000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	50000	OK, 0 RxD errors	Oi er
2421950000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	50000	OK, 0 RxD errors	Oi er
2422000000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	50000	OK, 0 RxD errors	Oi er
2422050000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	50000	OK, 0 RxD errors	Oi er
2422100000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	50000	OK, 0 RxD errors	Oi er
2422150000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	50000	OK, 0 RxD errors	Oi er
2422200000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	50000	OK, 0 RxD errors	Oi er
2422250000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	50000	OK, 0 RxD errors	Oi er
2422300000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	50000	OK, 0 RxD errors	Oi er
2422350000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	50000	OK, 0 RxD errors	Oi er
2422400000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	50000	OK, 0 RxD errors	Oi er
2422450000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	50000	OK, 0 RxD errors	Oi er

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[illegible]

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2423900000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	50000	OK, 0 RxD errors	Oi er
2423950000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	50000	OK, 0 RxD errors	Oi er
2424000000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	50000	OK, 0 RxD errors	Oi er
2424050000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	50000	OK, 0 RxD errors	Oi er
2424100000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	50000	OK, 0 RxD errors	Oi er
2424150000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	50000	OK, 0 RxD errors	Oi er
2424200000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	50000	OK, 0 RxD errors	Oi er
2424250000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	50000	OK, 0 RxD errors	Oi er
2424300000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	50000	OK, 0 RxD errors	Oi er
2424350000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	50000	OK, 0 RxD errors	Oi er
2424400000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	50000	OK, 0 RxD errors	Oi er
2424450000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	50000	OK, 0 RxD errors	Oi er
2424500000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	50000	OK, 0 RxD errors	Oi er
2424550000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	50000	OK, 0 RxD errors	Oi er
2424600000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	50000	OK, 0 RxD errors	Oi er
2424650000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	50000	OK, 0 RxD errors	Oi er
2424700000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	50000	OK, 0 RxD errors	Oi er
2424750000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	50000	OK, 0 RxD errors	Oi er
2424800000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	50000	OK, 0 RxD errors	Oi er
2424850000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	50000	OK, 0 RxD errors	Oi er
2424900000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	50000	OK, 0 RxD errors	Oi er
2424950000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	50000	OK, 0 RxD errors	Oi er
2425000000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	50000	OK, 0 RxD errors	Oi er

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Annex 4 : Processing gain 11 Mbit

Measurement file output name is: 11mbit.cnd
Input command file name is: INPUT.C
Input CW correction level: MD
Lowcount is: 6 dB
Highcount is: 1000 mess ages
Rx level DUT is: 50000 mess ages

Note: 11 Mbit, 9 dB SIR tested for (18 dB SNR - 10.4 + 1 impl. losses).
Takes into account 1 dB of implementation loss (allowed 2 dB).
Only RxD errors are taken into account since these need better SIR then preamble at 1 MBit
Attention: Input the red cells for correct spreadsheet calculations!

Number of received data errors as a function of frequency and interference level																		
Not measured combinations listed as "-1"																		
H I J K L M N O P Q R S																		
Uncorrected Interference level dialed at CW generator																		
-60 -59 -58 -57 -56 -55 -54 -53 -52																		
True CW interference level at receiver input (dBm)																		
-66 -65 -64 -63 -62 -61 -60 -59 -58																		
J/S ratio (dB)	-13	#PDA	-12	#PDA	-11	#PDA	-10	#PDA	-9	#PDA	-8	#PDA	-7	#PDA	-6	#PDA	-5	#PDA
Frequency (Hz)																		
2409000000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	49987
2409050000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	49993
2409100000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	49984
2409150000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	999	0	1000	0	49989
2409200000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	49988
2409250000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	999	0	1000	0	49990
2409300000	0	1000	0	1000	0	1000	0	1000	0	999	0	1000	0	999	0	1000	0	49991
2409350000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	999	0	49983
2409400000	0	1000	0	1000	0	1000	0	1000	0	1000	0	999	0	1000	0	1000	0	49985
2409450000	0	1000	0	1000	0	1000	0	1000	0	999	0	1000	0	999	0	1000	0	49987
2409500000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	49996
2409550000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	49989
2409600000	0	1000	0	1000	0	1000	0	1000	0	999	0	1000	0	1000	0	1000	0	49988
2409650000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	999	0	49991

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2409700000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	999	0	49993	OK, 0 RxD errors	OK, No PDA errors
2409750000	0	1000	0	1000	0	1000	0	1000	0	999	0	1000	0	999	0	1000	0	49986	OK, 0 RxD errors	OK, No PDA errors
2409800000	0	1000	0	1000	0	1000	0	1000	0	999	0	1000	0	1000	0	1000	0	49981	OK, 0 RxD errors	OK, No PDA errors
2409850000	0	1000	0	1000	0	1000	0	1000	0	998	0	1000	0	1000	0	1000	0	49984	OK, 0 RxD errors	OK, No PDA errors
2409900000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	49989	OK, 0 RxD errors	OK, No PDA errors
2409950000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	49990	OK, 0 RxD errors	OK, No PDA errors
2410000000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	49983	OK, 0 RxD errors	OK, No PDA errors
2410050000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	999	0	49984	OK, 0 RxD errors	OK, No PDA errors
2410100000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	999	0	49989	OK, 0 RxD errors	OK, No PDA errors
2410150000	0	1000	0	1000	0	1000	0	1000	0	999	0	1000	0	1000	0	1000	0	49992	OK, 0 RxD errors	OK, No PDA errors
2410200000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	49984	OK, 0 RxD errors	OK, No PDA errors
2410250000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	49989	OK, 0 RxD errors	OK, No PDA errors
2410300000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	999	0	1000	0	49990	OK, 0 RxD errors	OK, No PDA errors
2410350000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	49992	OK, 0 RxD errors	OK, No PDA errors
2410400000	0	1000	0	1000	0	1000	0	1000	0	1000	0	999	0	1000	0	1000	0	49986	OK, 0 RxD errors	OK, No PDA errors
2410450000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	49989	OK, 0 RxD errors	OK, No PDA errors
2410500000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	49992	OK, 0 RxD errors	OK, No PDA errors
2410550000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	49990	OK, 0 RxD errors	OK, No PDA errors
2410600000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	999	0	1000	0	49985	OK, 0 RxD errors	OK, No PDA errors
2410650000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	49987	OK, 0 RxD errors	OK, No PDA errors
2410700000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	49984	OK, 0 RxD errors	OK, No PDA errors
2410750000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	49992	OK, 0 RxD errors	OK, No PDA errors
2410800000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	49990	OK, 0 RxD errors	OK, No PDA errors
2410850000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	999	0	49985	OK, 0 RxD errors	OK, No PDA errors
2410900000	0	1000	0	1000	0	1000	0	1000	0	1000	0	998	0	1000	0	1000	0	49990	OK, 0 RxD errors	OK, No PDA errors
2410950000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	998	0	1000	0	49989	OK, 0 RxD errors	OK, No PDA errors
2411000000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	49992	OK, 0 RxD errors	OK, No PDA errors
2411050000	0	1000	0	1000	0	1000	0	1000	0	998	0	1000	0	1000	0	1000	0	49990	OK, 0 RxD errors	OK, No PDA errors

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2411100000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	49988	OK, 0 RxD errors	OK, No PDA errors
2411150000	0	1000	0	1000	0	1000	0	1000	0	999	0	1000	0	999	0	1000	0	49987	OK, 0 RxD errors	OK, No PDA errors
2411200000	0	1000	0	1000	0	1000	0	1000	0	999	0	999	0	1000	0	999	0	49989	OK, 0 RxD errors	OK, No PDA errors
2411250000	0	1000	0	1000	0	1000	0	1000	0	999	0	1000	0	1000	0	1000	0	49985	OK, 0 RxD errors	OK, No PDA errors
2411300000	0	1000	0	1000	0	1000	0	1000	0	998	0	1000	0	1000	0	1000	0	49991	OK, 0 RxD errors	OK, No PDA errors
2411350000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	49989	OK, 0 RxD errors	OK, No PDA errors
2411400000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	20603	OK, 0 RxD errors	OK, No PDA errors
2411450000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	49994	OK, 0 RxD errors	OK, No PDA errors
2411500000	0	1000	0	1000	0	1000	0	1000	0	1000	0	999	0	1000	0	1000	0	49984	OK, 0 RxD errors	OK, No PDA errors
2411550000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	49985	OK, 0 RxD errors	OK, No PDA errors
2411600000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	999	0	999	0	49987	OK, 0 RxD errors	OK, No PDA errors
2411650000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	999	0	49988	OK, 0 RxD errors	OK, No PDA errors
2411700000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	49988	OK, 0 RxD errors	OK, No PDA errors
2411750000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	49993	OK, 0 RxD errors	OK, No PDA errors
2411800000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	999	0	1000	0	49986	OK, 0 RxD errors	OK, No PDA errors
2411850000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	49990	OK, 0 RxD errors	OK, No PDA errors
2411900000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	49993	OK, 0 RxD errors	OK, No PDA errors
2411950000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	49987	OK, 0 RxD errors	OK, No PDA errors
2412000000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	49990	OK, 0 RxD errors	OK, No PDA errors
2412050000	0	1000	0	1000	0	1000	0	1000	0	1000	0	999	0	1000	0	999	0	49992	OK, 0 RxD errors	OK, No PDA errors
2412100000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	49992	OK, 0 RxD errors	OK, No PDA errors
2412150000	0	1000	0	1000	0	1000	0	1000	0	999	0	1000	0	999	0	1000	0	49992	OK, 0 RxD errors	OK, No PDA errors
2412200000	0	1000	0	1000	0	1000	0	1000	0	999	0	999	0	1000	0	1000	0	49992	OK, 0 RxD errors	OK, No PDA errors
2412250000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	49991	OK, 0 RxD errors	OK, No PDA errors
2412300000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	999	0	1000	0	49989	OK, 0 RxD errors	OK, No PDA errors
2412350000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	999	0	1000	0	49985	OK, 0 RxD errors	OK, No PDA errors
2412400000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	49991	OK, 0 RxD errors	OK, No PDA errors
2412450000	0	1000	0	1000	0	1000	0	1000	0	1000	0	999	0	999	0	1000	0	49985	OK, 0 RxD errors	OK, No PDA errors

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2412500000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	49987	OK, 0 RxD errors	OK, No PDA errors
2412550000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	49992	OK, 0 RxD errors	OK, No PDA errors
2412600000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	999	0	1000	0	49987	OK, 0 RxD errors	OK, No PDA errors
2412650000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	999	0	1000	0	49988	OK, 0 RxD errors	OK, No PDA errors
2412700000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	49992	OK, 0 RxD errors	OK, No PDA errors
2412750000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	49991	OK, 0 RxD errors	OK, No PDA errors
2412800000	0	1000	0	1000	0	1000	0	1000	0	1000	0	999	0	1000	0	1000	0	49991	OK, 0 RxD errors	OK, No PDA errors
2412850000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	998	0	49981	OK, 0 RxD errors	OK, No PDA errors
2412900000	0	1000	0	1000	0	1000	0	1000	0	1000	0	999	0	1000	0	1000	0	49995	OK, 0 RxD errors	OK, No PDA errors
2412950000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	49987	OK, 0 RxD errors	OK, No PDA errors
2413000000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	49995	OK, 0 RxD errors	OK, No PDA errors
2413050000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	49991	OK, 0 RxD errors	OK, No PDA errors
2413100000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	999	0	998	0	49984	OK, 0 RxD errors	OK, No PDA errors
2413150000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	999	0	1000	0	49990	OK, 0 RxD errors	OK, No PDA errors
2413200000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	999	0	1000	0	49995	OK, 0 RxD errors	OK, No PDA errors
2413250000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	49990	OK, 0 RxD errors	OK, No PDA errors
2413300000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	49991	OK, 0 RxD errors	OK, No PDA errors
2413350000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	49991	OK, 0 RxD errors	OK, No PDA errors
2413400000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	49988	OK, 0 RxD errors	OK, No PDA errors
2413450000	0	1000	0	1000	0	1000	0	1000	0	1000	0	999	0	1000	0	1000	0	49984	OK, 0 RxD errors	OK, No PDA errors
2413500000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	49991	OK, 0 RxD errors	OK, No PDA errors
2413550000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	999	0	1000	0	49994	OK, 0 RxD errors	OK, No PDA errors
2413600000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	49989	OK, 0 RxD errors	OK, No PDA errors
2413650000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	998	0	49992	OK, 0 RxD errors	OK, No PDA errors
2413700000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	49986	OK, 0 RxD errors	OK, No PDA errors
2413750000	0	1000	0	1000	0	1000	0	1000	0	1000	0	999	0	1000	0	1000	0	49990	OK, 0 RxD errors	OK, No PDA errors
2413800000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	49991	OK, 0 RxD errors	OK, No PDA errors
2413850000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	999	0	1000	0	49991	OK, 0 RxD errors	OK, No PDA errors

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2413900000	0	1000	0	1000	0	1000	0	1000	0	1000	0	999	0	1000	0	1000	0	49988	OK, 0 RxD errors	OK, No PDA errors
2413950000	0	1000	0	1000	0	1000	0	1000	0	1000	0	999	0	999	0	1000	0	49990	OK, 0 RxD errors	OK, No PDA errors
2414000000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	49989	OK, 0 RxD errors	OK, No PDA errors
2414050000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	999	0	1000	0	49987	OK, 0 RxD errors	OK, No PDA errors
2414100000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	49990	OK, 0 RxD errors	OK, No PDA errors
2414150000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	999	0	1000	0	49992	OK, 0 RxD errors	OK, No PDA errors
2414200000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	999	0	1000	0	49988	OK, 0 RxD errors	OK, No PDA errors
2414250000	0	1000	0	1000	0	1000	0	1000	0	1000	0	999	0	1000	0	1000	0	49988	OK, 0 RxD errors	OK, No PDA errors
2414300000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	49994	OK, 0 RxD errors	OK, No PDA errors
2414350000	0	1000	0	1000	0	1000	0	1000	0	999	0	1000	0	1000	0	1000	0	49989	OK, 0 RxD errors	OK, No PDA errors
2414400000	0	1000	0	1000	0	1000	0	1000	0	999	0	1000	0	1000	0	1000	0	49987	OK, 0 RxD errors	OK, No PDA errors
2414450000	0	1000	0	1000	0	1000	0	1000	0	1000	0	999	0	1000	0	1000	0	49990	OK, 0 RxD errors	OK, No PDA errors
2414500000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	49990	OK, 0 RxD errors	OK, No PDA errors
2414550000	0	1000	0	1000	0	1000	0	1000	0	999	0	1000	0	1000	0	1000	0	49992	OK, 0 RxD errors	OK, No PDA errors
2414600000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	999	0	998	0	49994	OK, 0 RxD errors	OK, No PDA errors
2414650000	0	1000	0	1000	0	1000	0	1000	0	999	0	999	0	998	0	1000	0	49986	OK, 0 RxD errors	OK, No PDA errors
2414700000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	49987	OK, 0 RxD errors	OK, No PDA errors
2414750000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	49990	OK, 0 RxD errors	OK, No PDA errors
2414800000	0	1000	0	1000	0	1000	0	1000	0	999	0	1000	0	1000	0	1000	0	49990	OK, 0 RxD errors	OK, No PDA errors
2414850000	0	1000	0	1000	0	1000	0	1000	0	999	0	1000	0	1000	0	1000	0	49989	OK, 0 RxD errors	OK, No PDA errors
2414900000	0	1000	0	1000	0	1000	0	1000	0	999	0	1000	0	1000	0	1000	0	49982	OK, 0 RxD errors	OK, No PDA errors
2414950000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	49992	OK, 0 RxD errors	OK, No PDA errors
2415000000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	49993	OK, 0 RxD errors	OK, No PDA errors
2415050000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	49991	OK, 0 RxD errors	OK, No PDA errors
2415100000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	49987	OK, 0 RxD errors	OK, No PDA errors
2415150000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	999	0	1000	0	49984	OK, 0 RxD errors	OK, No PDA errors
2415200000	0	1000	0	1000	0	1000	0	1000	0	1000	0	999	0	1000	0	999	0	49992	OK, 0 RxD errors	OK, No PDA errors
2415250000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	49986	OK, 0 RxD errors	OK, No PDA errors

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2415300000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	49988	OK, 0 RxD errors	OK, No PDA errors
2415350000	0	1000	0	1000	0	1000	0	1000	0	1000	0	999	0	1000	0	1000	0	49989	OK, 0 RxD errors	OK, No PDA errors
2415400000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	999	0	49988	OK, 0 RxD errors	OK, No PDA errors
2415450000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	49989	OK, 0 RxD errors	OK, No PDA errors
2415500000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	49987	OK, 0 RxD errors	OK, No PDA errors
2415550000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	49987	OK, 0 RxD errors	OK, No PDA errors
2415600000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	999	0	1000	0	49994	OK, 0 RxD errors	OK, No PDA errors
2415650000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	999	0	999	0	28297	OK, 0 RxD errors	OK, No PDA errors
2415700000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	49994	OK, 0 RxD errors	OK, No PDA errors
2415750000	0	1000	0	1000	0	1000	0	1000	0	999	0	1000	0	1000	0	1000	0	49986	OK, 0 RxD errors	OK, No PDA errors
2415800000	0	1000	0	1000	0	1000	0	1000	0	997	0	1000	0	1000	0	1000	0	49987	OK, 0 RxD errors	OK, No PDA errors
2415850000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	49986	OK, 0 RxD errors	OK, No PDA errors
2415900000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	999	0	49987	OK, 0 RxD errors	OK, No PDA errors
2415950000	0	1000	0	1000	0	1000	0	1000	0	999	0	1000	0	1000	0	1000	0	49992	OK, 0 RxD errors	OK, No PDA errors
2416000000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	49988	OK, 0 RxD errors	OK, No PDA errors
2416050000	0	1000	0	1000	0	1000	0	1000	0	999	0	1000	0	999	0	1000	0	49989	OK, 0 RxD errors	OK, No PDA errors
2416100000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	49989	OK, 0 RxD errors	OK, No PDA errors
2416150000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	49990	OK, 0 RxD errors	OK, No PDA errors
2416200000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	999	0	49993	OK, 0 RxD errors	OK, No PDA errors
2416250000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	49929	OK, 0 RxD errors	OK, No PDA errors
2416300000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	999	0	49984	OK, 0 RxD errors	OK, No PDA errors
2416350000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	49993	OK, 0 RxD errors	OK, No PDA errors
2416400000	0	1000	0	1000	0	1000	0	1000	0	1000	0	999	0	1000	0	1000	0	49988	OK, 0 RxD errors	OK, No PDA errors
2416450000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	49990	OK, 0 RxD errors	OK, No PDA errors
2416500000	0	1000	0	1000	0	1000	0	1000	0	999	0	1000	0	999	0	999	0	49992	OK, 0 RxD errors	OK, No PDA errors
2416550000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	49989	OK, 0 RxD errors	OK, No PDA errors
2416600000	0	1000	0	1000	0	1000	0	1000	0	1000	0	999	0	1000	0	1000	0	49993	OK, 0 RxD errors	OK, No PDA errors
2416650000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	49989	OK, 0 RxD errors	OK, No PDA errors

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2416700000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	49991	OK, 0 RxD errors	OK, No PDA errors
2416750000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	49990	OK, 0 RxD errors	OK, No PDA errors
2416800000	0	1000	0	1000	0	1000	0	1000	0	999	0	1000	0	1000	0	1000	0	49992	OK, 0 RxD errors	OK, No PDA errors
2416850000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	49996	OK, 0 RxD errors	OK, No PDA errors
2416900000	0	1000	0	1000	0	1000	0	1000	0	999	0	1000	0	1000	0	1000	0	49991	OK, 0 RxD errors	OK, No PDA errors
2416950000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	49928	OK, 0 RxD errors	OK, No PDA errors
2417000000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	49954	OK, 0 RxD errors	OK, No PDA errors
2417050000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	996	0	49917	OK, 0 RxD errors	OK, No PDA errors
2417100000	0	1000	0	1000	0	1000	0	1000	0	999	0	1000	0	1000	0	1000	0	49989	OK, 0 RxD errors	OK, No PDA errors
2417150000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	999	0	1000	0	49991	OK, 0 RxD errors	OK, No PDA errors
2417200000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	49988	OK, 0 RxD errors	OK, No PDA errors
2417250000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	49985	OK, 0 RxD errors	OK, No PDA errors
2417300000	0	1000	0	1000	0	1000	0	1000	0	999	0	999	0	999	0	1000	0	49988	OK, 0 RxD errors	OK, No PDA errors
2417350000	0	1000	0	1000	0	1000	0	1000	0	999	0	1000	0	999	0	1000	0	49988	OK, 0 RxD errors	OK, No PDA errors
2417400000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	49994	OK, 0 RxD errors	OK, No PDA errors
2417450000	0	1000	0	1000	0	1000	0	1000	0	999	0	1000	0	1000	0	1000	0	49988	OK, 0 RxD errors	OK, No PDA errors
2417500000	0	1000	0	1000	0	1000	0	1000	0	999	0	999	0	1000	0	999	0	49984	OK, 0 RxD errors	OK, No PDA errors
2417550000	0	1000	0	1000	0	1000	0	1000	0	1000	0	999	0	1000	0	1000	0	49989	OK, 0 RxD errors	OK, No PDA errors
2417600000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	49992	OK, 0 RxD errors	OK, No PDA errors
2417650000	0	1000	0	1000	0	1000	0	1000	0	999	0	1000	0	1000	0	1000	0	49991	OK, 0 RxD errors	OK, No PDA errors
2417700000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	49989	OK, 0 RxD errors	OK, No PDA errors
2417750000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	999	0	1000	0	49992	OK, 0 RxD errors	OK, No PDA errors
2417800000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	49988	OK, 0 RxD errors	OK, No PDA errors
2417850000	0	1000	0	1000	0	1000	0	1000	0	1000	0	999	0	1000	0	1000	0	49990	OK, 0 RxD errors	OK, No PDA errors
2417900000	0	1000	0	1000	0	1000	0	1000	0	999	0	1000	0	1000	0	1000	0	49988	OK, 0 RxD errors	OK, No PDA errors
2417950000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	49990	OK, 0 RxD errors	OK, No PDA errors
2418000000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	49988	OK, 0 RxD errors	OK, No PDA errors
2418050000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	49992	OK, 0 RxD errors	OK, No PDA errors

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2418100000	0	1000	0	1000	0	1000	0	1000	0	999	0	1000	0	1000	0	999	0	49988	OK, 0 RxD errors	OK, No PDA errors
2418150000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	49987	OK, 0 RxD errors	OK, No PDA errors
2418200000	0	1000	0	1000	0	1000	0	1000	0	999	0	1000	0	1000	0	1000	0	49997	OK, 0 RxD errors	OK, No PDA errors
2418250000	0	1000	0	1000	0	1000	0	1000	0	1000	0	999	0	1000	0	1000	0	49989	OK, 0 RxD errors	OK, No PDA errors
2418300000	0	1000	0	1000	0	1000	0	1000	0	1000	0	999	0	1000	0	1000	0	49991	OK, 0 RxD errors	OK, No PDA errors
2418350000	0	1000	0	1000	0	1000	0	1000	0	1000	0	999	0	1000	0	999	0	49992	OK, 0 RxD errors	OK, No PDA errors
2418400000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	49995	OK, 0 RxD errors	OK, No PDA errors
2418450000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	999	0	1000	0	49985	OK, 0 RxD errors	OK, No PDA errors
2418500000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	49983	OK, 0 RxD errors	OK, No PDA errors
2418550000	0	1000	0	1000	0	1000	0	1000	0	999	0	1000	0	1000	0	1000	0	39682	OK, 0 RxD errors	OK, No PDA errors
2418600000	0	1000	0	1000	0	1000	0	1000	0	1000	0	999	0	999	0	1000	0	49990	OK, 0 RxD errors	OK, No PDA errors
2418650000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	49988	OK, 0 RxD errors	OK, No PDA errors
2418700000	0	1000	0	1000	0	1000	0	1000	0	1000	0	999	0	1000	0	1000	0	49992	OK, 0 RxD errors	OK, No PDA errors
2418750000	0	1000	0	1000	0	1000	0	1000	0	1000	0	999	0	1000	0	999	0	49995	OK, 0 RxD errors	OK, No PDA errors
2418800000	0	1000	0	1000	0	1000	0	1000	0	1000	0	998	0	1000	0	1000	0	49994	OK, 0 RxD errors	OK, No PDA errors
2418850000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	49991	OK, 0 RxD errors	OK, No PDA errors
2418900000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	49987	OK, 0 RxD errors	OK, No PDA errors
2418950000	0	1000	0	1000	0	1000	0	1000	0	999	0	1000	0	1000	0	1000	0	49993	OK, 0 RxD errors	OK, No PDA errors
2419000000	0	1000	0	1000	0	1000	0	1000	0	999	0	1000	0	999	0	999	0	49986	OK, 0 RxD errors	OK, No PDA errors
2419050000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	49991	OK, 0 RxD errors	OK, No PDA errors
2419100000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	999	0	1000	0	49991	OK, 0 RxD errors	OK, No PDA errors
2419150000	0	1000	0	1000	0	1000	0	1000	0	999	0	1000	0	1000	0	1000	0	49997	OK, 0 RxD errors	OK, No PDA errors
2419200000	0	1000	0	1000	0	1000	0	1000	0	999	0	999	0	1000	0	999	0	49993	OK, 0 RxD errors	OK, No PDA errors
2419250000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	49985	OK, 0 RxD errors	OK, No PDA errors
2419300000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	49990	OK, 0 RxD errors	OK, No PDA errors
2419350000	0	1000	0	1000	0	1000	0	1000	0	999	0	1000	0	999	0	999	0	49994	OK, 0 RxD errors	OK, No PDA errors
2419400000	0	1000	0	1000	0	1000	0	1000	0	999	0	999	0	999	0	999	0	49994	OK, 0 RxD errors	OK, No PDA errors
2419450000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	999	0	1000	0	49989	OK, 0 RxD errors	OK, No PDA errors

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2419500000	0	1000	0	1000	0	1000	0	1000	0	1000	0	999	0	1000	0	1000	0	49989	OK, 0 RxD errors	OK, No PDA errors
2419550000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	999	0	49992	OK, 0 RxD errors	OK, No PDA errors
2419600000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	999	0	1000	0	49988	OK, 0 RxD errors	OK, No PDA errors
2419650000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	49993	OK, 0 RxD errors	OK, No PDA errors
2419700000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	49992	OK, 0 RxD errors	OK, No PDA errors
2419750000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	49989	OK, 0 RxD errors	OK, No PDA errors
2419800000	0	1000	0	1000	0	1000	0	1000	0	1000	0	998	0	1000	0	1000	0	49991	OK, 0 RxD errors	OK, No PDA errors
2419850000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	49992	OK, 0 RxD errors	OK, No PDA errors
2419900000	0	1000	0	1000	0	1000	0	1000	0	1000	0	999	0	999	0	1000	0	49985	OK, 0 RxD errors	OK, No PDA errors
2419950000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	27739	OK, 0 RxD errors	OK, No PDA errors
2420000000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	999	0	49993	OK, 0 RxD errors	OK, No PDA errors
2420050000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	999	0	1000	0	49989	OK, 0 RxD errors	OK, No PDA errors
2420100000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	49992	OK, 0 RxD errors	OK, No PDA errors
2420150000	0	1000	0	1000	0	1000	0	1000	0	999	0	1000	0	1000	0	1000	0	49994	OK, 0 RxD errors	OK, No PDA errors
2420200000	0	1000	0	1000	0	1000	0	1000	0	1000	0	999	0	1000	0	1000	0	49989	OK, 0 RxD errors	OK, No PDA errors
2420250000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	49988	OK, 0 RxD errors	OK, No PDA errors
2420300000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	999	0	49988	OK, 0 RxD errors	OK, No PDA errors
2420350000	0	1000	0	1000	0	1000	0	1000	0	999	0	999	0	1000	0	1000	0	49992	OK, 0 RxD errors	OK, No PDA errors
2420400000	0	1000	0	1000	0	1000	0	1000	0	999	0	999	0	1000	0	1000	0	49990	OK, 0 RxD errors	OK, No PDA errors
2420450000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	49987	OK, 0 RxD errors	OK, No PDA errors
2420500000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	49992	OK, 0 RxD errors	OK, No PDA errors
2420550000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	49992	OK, 0 RxD errors	OK, No PDA errors
2420600000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	49993	OK, 0 RxD errors	OK, No PDA errors
2420650000	0	1000	0	1000	0	1000	0	1000	0	1000	0	999	0	1000	0	999	0	49990	OK, 0 RxD errors	OK, No PDA errors
2420700000	0	1000	0	1000	0	1000	0	1000	0	1000	0	999	0	1000	0	1000	0	49991	OK, 0 RxD errors	OK, No PDA errors
2420750000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	49988	OK, 0 RxD errors	OK, No PDA errors
2420800000	0	1000	0	1000	0	1000	0	1000	0	1000	0	999	0	1000	0	997	0	49991	OK, 0 RxD errors	OK, No PDA errors
2420850000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	49990	OK, 0 RxD errors	OK, No PDA errors

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2420900000	0	1000	0	1000	0	1000	0	1000	0	1000	0	999	0	1000	0	1000	0	49988	OK, 0 RxD errors	OK, No PDA errors
2420950000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	49985	OK, 0 RxD errors	OK, No PDA errors
2421000000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	49988	OK, 0 RxD errors	OK, No PDA errors
2421050000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	49987	OK, 0 RxD errors	OK, No PDA errors
2421100000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	49994	OK, 0 RxD errors	OK, No PDA errors
2421150000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	999	0	49987	OK, 0 RxD errors	OK, No PDA errors
2421200000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	999	0	1000	0	49981	OK, 0 RxD errors	OK, No PDA errors
2421250000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	49992	OK, 0 RxD errors	OK, No PDA errors
2421300000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	49988	OK, 0 RxD errors	OK, No PDA errors
2421350000	0	1000	0	1000	0	1000	0	1000	0	1000	0	999	0	1000	0	1000	0	49994	OK, 0 RxD errors	OK, No PDA errors
2421400000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	999	0	49995	OK, 0 RxD errors	OK, No PDA errors
2421450000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	49989	OK, 0 RxD errors	OK, No PDA errors
2421500000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	49985	OK, 0 RxD errors	OK, No PDA errors
2421550000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	49987	OK, 0 RxD errors	OK, No PDA errors
2421600000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	999	0	999	0	49992	OK, 0 RxD errors	OK, No PDA errors
2421650000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	49992	OK, 0 RxD errors	OK, No PDA errors
2421700000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	49984	OK, 0 RxD errors	OK, No PDA errors
2421750000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	49996	OK, 0 RxD errors	OK, No PDA errors
2421800000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	49990	OK, 0 RxD errors	OK, No PDA errors
2421850000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	31143	OK, 0 RxD errors	OK, No PDA errors
2421900000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	49989	OK, 0 RxD errors	OK, No PDA errors
2421950000	0	1000	0	1000	0	1000	0	1000	0	999	0	1000	0	999	0	1000	0	49991	OK, 0 RxD errors	OK, No PDA errors
2422000000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	999	0	1000	0	49987	OK, 0 RxD errors	OK, No PDA errors
2422050000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	49996	OK, 0 RxD errors	OK, No PDA errors
2422100000	0	1000	0	1000	0	1000	0	1000	0	999	0	1000	0	999	0	1000	0	49992	OK, 0 RxD errors	OK, No PDA errors
2422150000	0	1000	0	1000	0	1000	0	1000	0	999	0	1000	0	1000	0	1000	0	49993	OK, 0 RxD errors	OK, No PDA errors
2422200000	0	1000	0	1000	0	1000	0	1000	0	998	0	1000	0	1000	0	1000	0	49984	OK, 0 RxD errors	OK, No PDA errors
2422250000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	49985	OK, 0 RxD errors	OK, No PDA errors

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2422300000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	49991	OK, 0 RxD errors	OK, No PDA errors
2422350000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	999	0	1000	0	49991	OK, 0 RxD errors	OK, No PDA errors
2422400000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	49995	OK, 0 RxD errors	OK, No PDA errors
2422450000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	999	0	1000	0	49987	OK, 0 RxD errors	OK, No PDA errors
2422500000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	49993	OK, 0 RxD errors	OK, No PDA errors
2422550000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	49988	OK, 0 RxD errors	OK, No PDA errors
2422600000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	49989	OK, 0 RxD errors	OK, No PDA errors
2422650000	0	1000	0	1000	0	1000	0	1000	0	999	0	1000	0	1000	0	998	0	49993	OK, 0 RxD errors	OK, No PDA errors
2422700000	0	1000	0	1000	0	1000	0	1000	0	999	0	1000	0	1000	0	1000	0	49992	OK, 0 RxD errors	OK, No PDA errors
2422750000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	999	0	49989	OK, 0 RxD errors	OK, No PDA errors
2422800000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	999	0	1000	0	49990	OK, 0 RxD errors	OK, No PDA errors
2422850000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	49992	OK, 0 RxD errors	OK, No PDA errors
2422900000	0	1000	0	1000	0	1000	0	1000	0	1000	0	999	0	1000	0	1000	0	49993	OK, 0 RxD errors	OK, No PDA errors
2422950000	0	1000	0	1000	0	1000	0	1000	0	1000	0	999	0	999	0	1000	0	49987	OK, 0 RxD errors	OK, No PDA errors
2423000000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	49991	OK, 0 RxD errors	OK, No PDA errors
2423050000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	49991	OK, 0 RxD errors	OK, No PDA errors
2423100000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	49987	OK, 0 RxD errors	OK, No PDA errors
2423150000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	49990	OK, 0 RxD errors	OK, No PDA errors
2423200000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	49990	OK, 0 RxD errors	OK, No PDA errors
2423250000	0	1000	0	1000	0	1000	0	1000	0	999	0	1000	0	1000	0	1000	0	49986	OK, 0 RxD errors	OK, No PDA errors
2423300000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	49991	OK, 0 RxD errors	OK, No PDA errors
2423350000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	999	0	1000	0	49986	OK, 0 RxD errors	OK, No PDA errors
2423400000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	49988	OK, 0 RxD errors	OK, No PDA errors
2423450000	0	1000	0	1000	0	1000	0	1000	0	999	0	1000	0	999	0	999	0	49987	OK, 0 RxD errors	OK, No PDA errors
2423500000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	49987	OK, 0 RxD errors	OK, No PDA errors
2423550000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	999	0	49992	OK, 0 RxD errors	OK, No PDA errors
2423600000	0	1000	0	1000	0	1000	0	1000	0	1000	0	999	0	1000	0	1000	0	49993	OK, 0 RxD errors	OK, No PDA errors
2423650000	0	1000	0	1000	0	1000	0	1000	0	999	0	1000	0	1000	0	999	0	49988	OK, 0 RxD errors	OK, No PDA errors

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2423700000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	999	0	1000	0	49993	OK, 0 RxD errors	OK, No PDA errors
2423750000	0	1000	0	1000	0	1000	0	1000	0	1000	0	999	0	1000	0	1000	0	49995	OK, 0 RxD errors	OK, No PDA errors
2423800000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	999	0	1000	0	49990	OK, 0 RxD errors	OK, No PDA errors
2423850000	0	1000	0	1000	0	1000	0	1000	0	999	0	1000	0	1000	0	1000	0	49984	OK, 0 RxD errors	OK, No PDA errors
2423900000	0	1000	0	1000	0	1000	0	1000	0	1000	0	999	0	1000	0	1000	0	49994	OK, 0 RxD errors	OK, No PDA errors
2423950000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	999	0	49992	OK, 0 RxD errors	OK, No PDA errors
2424000000	0	1000	0	1000	0	1000	0	1000	0	999	0	1000	0	1000	0	1000	0	49987	OK, 0 RxD errors	OK, No PDA errors
2424050000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	999	0	49989	OK, 0 RxD errors	OK, No PDA errors
2424100000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	999	0	49993	OK, 0 RxD errors	OK, No PDA errors
2424150000	0	1000	0	1000	0	1000	0	1000	0	999	0	999	0	1000	0	1000	0	49986	OK, 0 RxD errors	OK, No PDA errors
2424200000	0	1000	0	1000	0	1000	0	1000	0	999	0	1000	0	1000	0	1000	0	49988	OK, 0 RxD errors	OK, No PDA errors
2424250000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	49993	OK, 0 RxD errors	OK, No PDA errors
2424300000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	49994	OK, 0 RxD errors	OK, No PDA errors
2424350000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	999	0	999	0	49990	OK, 0 RxD errors	OK, No PDA errors
2424400000	0	1000	0	1000	0	1000	0	1000	0	1000	0	999	0	1000	0	1000	0	49989	OK, 0 RxD errors	OK, No PDA errors
2424450000	0	1000	0	1000	0	1000	0	1000	0	1000	0	999	0	1000	0	1000	0	49991	OK, 0 RxD errors	OK, No PDA errors
2424500000	0	1000	0	1000	0	1000	0	1000	0	998	0	1000	0	1000	0	1000	0	49985	OK, 0 RxD errors	OK, No PDA errors
2424550000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	999	0	999	0	49991	OK, 0 RxD errors	OK, No PDA errors
2424600000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	999	0	1000	0	49991	OK, 0 RxD errors	OK, No PDA errors
2424650000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	49989	OK, 0 RxD errors	OK, No PDA errors
2424700000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	49990	OK, 0 RxD errors	OK, No PDA errors
2424750000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	999	0	49994	OK, 0 RxD errors	OK, No PDA errors
2424800000	0	1000	0	1000	0	1000	0	1000	0	999	0	1000	0	1000	0	999	0	49985	OK, 0 RxD errors	OK, No PDA errors
2424850000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	999	0	49990	OK, 0 RxD errors	OK, No PDA errors
2424900000	0	1000	0	1000	0	1000	0	1000	0	999	0	998	0	1000	0	1000	0	49993	OK, 0 RxD errors	OK, No PDA errors

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2424950000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	49990	OK, 0 RxD errors	OK, No PDA errors
2425000000	0	1000	0	998	0	1000	0	1000	0	1000	0	1000	0	1000	0	997	0	49994	OK, 0 RxD errors	OK, No PDA errors

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