



Accredited testing-laboratory

DAR registration number: DAT-P-176/94-D1

**Federal Motor Transport Authority (KBA)
DAR registration number: KBA-P 00070-97**

Recognized by the Federal Communications Commission

Anechoic chamber registration no.: 90462 (FCC)

Anechoic chamber registration no.: 3463A-1 (IC)

Certification ID: DE 0001

Accreditation ID: DE 0002

Accredited Bluetooth® Test Facility (BQTF)

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Annex to Test

report no. : 4-2857-01-05/07
Type identification : N8400GPRS
Applicant : VeriFone Inc.
FCC ID : B32NURIT8400SSQ
IC Certification No : 787C-N8400SSQ
Test standards : 47 CFR Part 15
RSS - 210 Issue 7



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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.

Test laboratory manager:

2007-12-19	Rene Oelmann	
Date	Name	Signature

Technical responsibility for area of testing:

2007-12-19	Michael Berg	
Date	Name	Signature

1.2 Testing laboratory

CETECOM ICT Services GmbH

Untertürkheimer Straße 6 - 10

66117 Saarbrücken

Germany

Phone: + 49 681 5 98 - 0

Fax: + 49 681 5 98 - 9075

e-mail: info@ICT.cetecom.de

Internet: http://www.cetecom-ict.de

State of accreditation: The test laboratory (area of testing) is accredited according to
DIN EN ISO/IEC 17025
DAR registration number: DAT-P-176/94-D1

Accredited by: Federal Motor Transport Authority (KBA)
DAR registration number: KBA-P 00070-97

Testing location, if different from CETECOM ICT Services GmbH:

Name :
Street :
Town :
Country :
Phone :
Fax :

1.3 Details of applicant

Name:	VeriFone Inc.
Street:	11 Ha'amal Street
Town:	48092 Park Afek Rosh Ha'ayin
Country:	Israel
Telephone:	+972 (0) 3 90 29 730 ext. 8268
Fax:	+972 (0) 3 90 29 731
Contact:	Mr. Andrey Glemb
E-mail:	Andrey_Glemb@verifone.com
Telephone:	+972 (0) 3 90 29 730 ext. 8268

1.4 Application details

Date of receipt of order:	2007-11-28
Date of receipt of test item:	2007-11-28
Date of start test:	2007-11-28
Date of end test	2007-12-05
Persons(s) who have been present during the test:	Andrey Glemb

2 Test standard/s:

47 CFR Part 15	2006-08	Title 47 of the Code of Federal Regulations; Chapter 1- Federal Communications Commission Subchapter A – general, Part 15 – Radio frequency devices
RSS – 210 Issue 7	2007-06	Spectrum Management and Telecommunications – Radio Standards Specification Low-power Licence-exempt Radio communication Devices (All Frequency Bands): Category I Equipment

3 Technical tests

3.1 Details of manufacturer

Name:	VeriFone Inc.
Street:	11 Ha'amal Street
Town:	48092 Park Afek Rosh Ha'ayin
Country:	Israel

3.2 Test item(s) and test configuration

No.: 1 VeriFone Switch Power Supply KSAH0900400T1M2 with N8400GPRS

4 Summary of Measurement Results and list of all performed test cases

- No deviations from the technical specifications were ascertained
- There were deviations from the technical specifications ascertained

Section in this Report	Test Name	Verdict
6.1	Conducted limits CFR Part 15.207, 15.107 RSS 210, Issue 7, Section 6.6 , 7.4	Pass
6.2	Receiver spurious emission radiated (Idle mode) CFR Part SUBCLAUSE § 15.109 RSS 210, Issue 7, Section 7.3 Receiver Spurious Emissions (Radiated)	Pass

5 Measurements and results

The radiated measurements are performed in vertical and horizontal plane in the frequency range from 9 kHz to 20 GHz in semi-anechoic chambers. The EUT is positioned on a non-conductive support with a height of 0.80 m above a conductive ground plane that covers the whole chamber.

The receiving antennas are conforming to specifications ANSI C63.2-1996 clause 15 and ANSI C63.4-2003 clause 4.1.5. These antennas can be moved over the height range between 1.0 m and 4.0 m in order to search for maximum field strength emitted from EUT. The measurement distances between EUT and receiving antennas are indicated in the test set-ups for the various frequency ranges. For each measurement, the EUT is rotated in all three axes until the maximum field strength is received.

The wanted and unwanted emissions are received by spectrum analysers where the detector modes and resolution bandwidths over various frequency ranges are set according to requirement ANSI C63.4-2003 clause 4.2.

Antennas are conforming to ANSI C63.2-1996 item 15.

9 kHz – 150 kHz ,Quasi Peak measurement, 200 Hz Bandwidth, passive loop antenna.
150 kHz - 30 MHz: Quasi Peak measurement, 9 kHz Bandwidth, passive loop antenna.
30 MHz - 200 MHz: Quasi Peak measurement, 120 KHz Bandwidth, biconical antenna
200MHz - 1GHz: Quasi Peak measurement, 120 KHz Bandwidth, log periodic antenna
>1GHz: Average, RBW 1MHz, VBW 10 Hz, wave guide horn

All measurement settings are according to FCC 15.109 and 15.107

6 Annex A: FCC Part 15 Subpart B

6.1 Conducted Limits

Reference

FCC:	CFR Part 15.207, 15.107
IC:	RSS 210, Issue 7, Section 6.6 , 7.4

Limits: § 15.107 / 15.207

Frequency of Emission (MHz)	Conducted Limit (dBµV)	
	Quasi-peak	Average
0.15 – 0.5	66 to 56 *	56 to 46 *
0.5 – 5	56	46
5 - 30	60	50

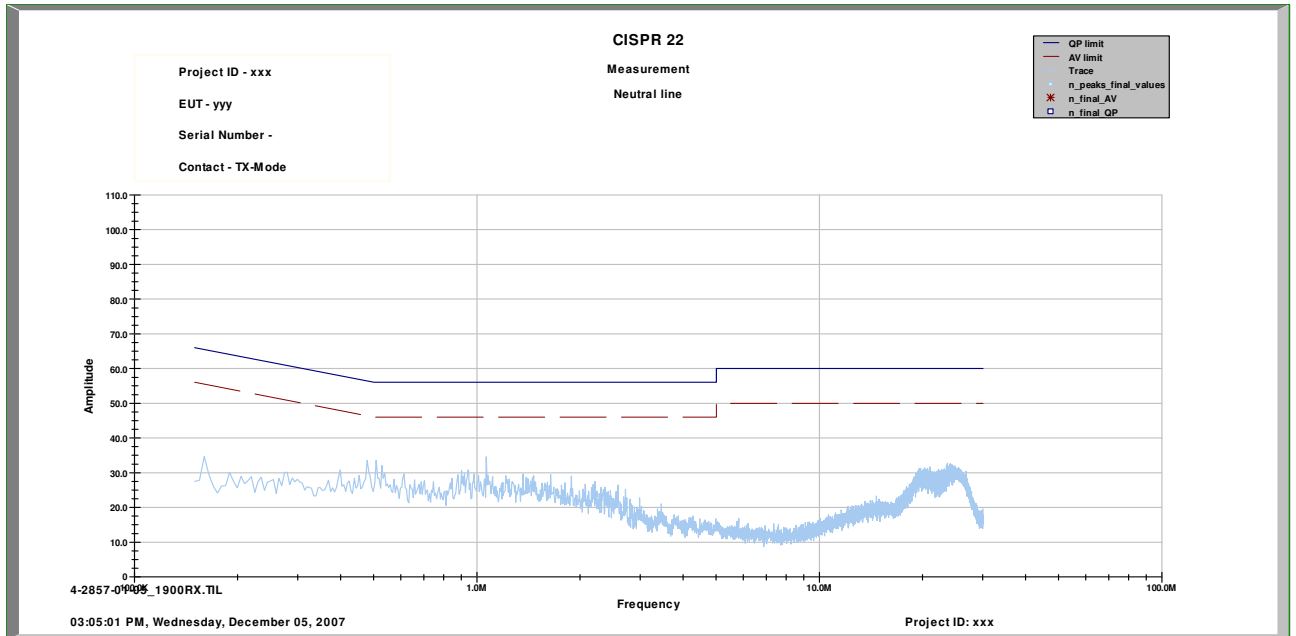
* Decreases with the logarithm of the frequency

GSM 1900

Idle Mode: 150 kHz – 30 MHz

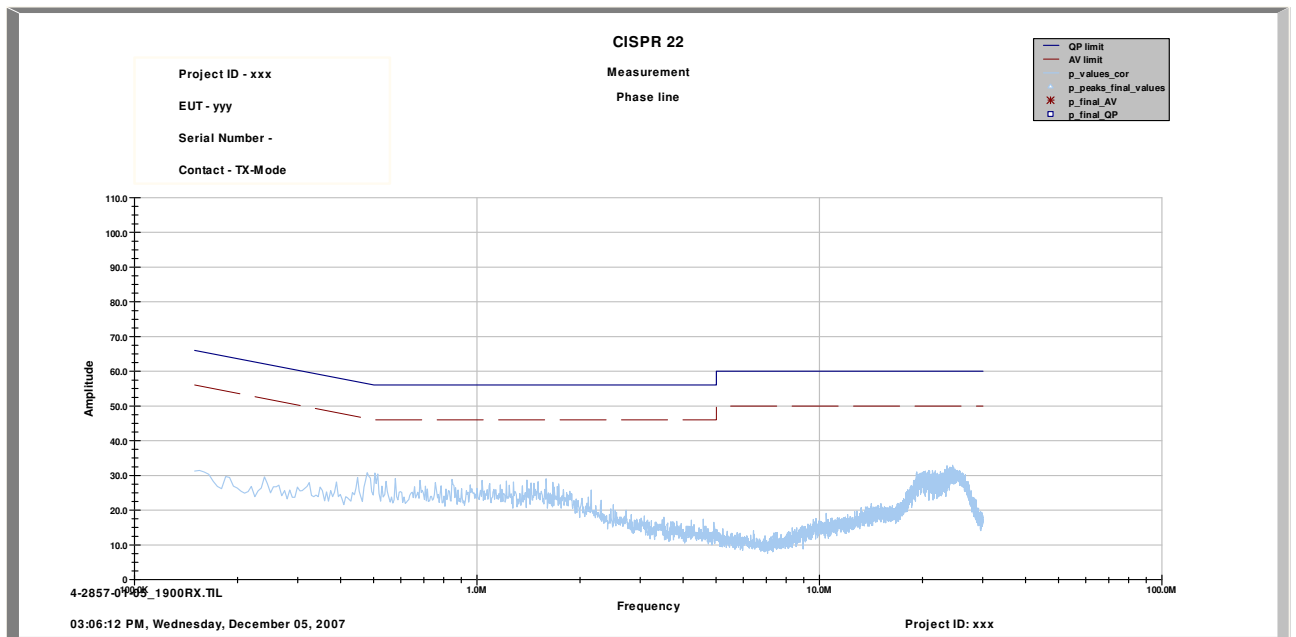
Plot 1:

Neutral line :



Plot 2 :

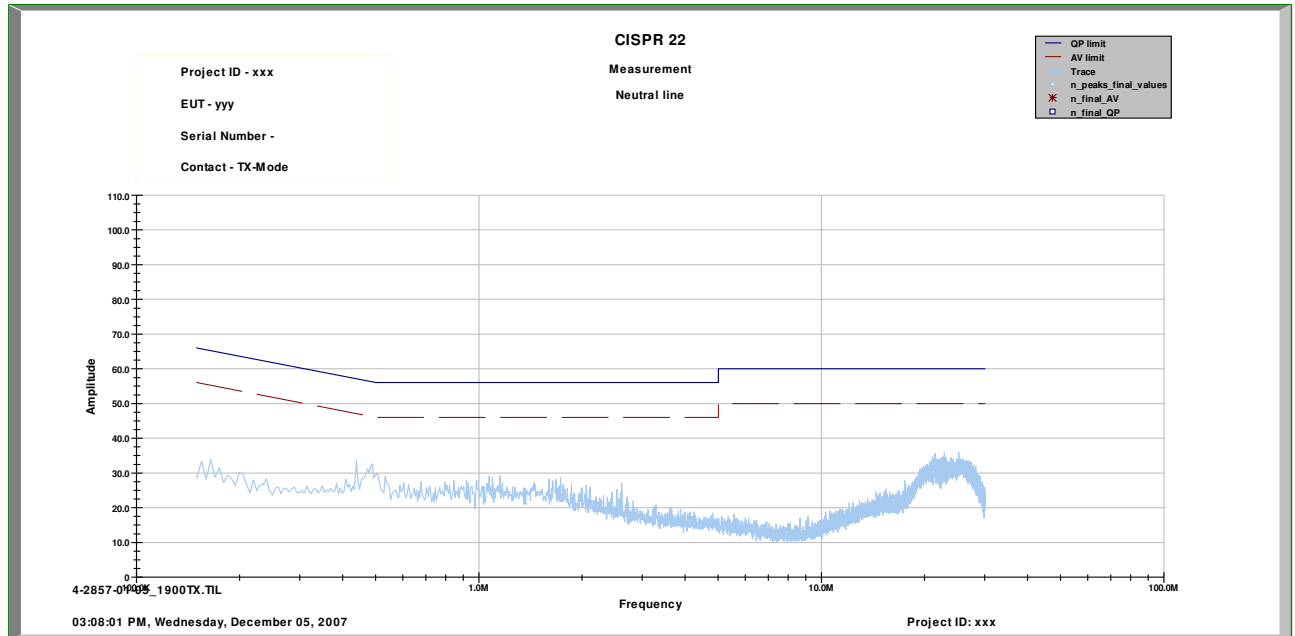
Phase line :



Traffic Mode : 150 kHz – 30 MHz

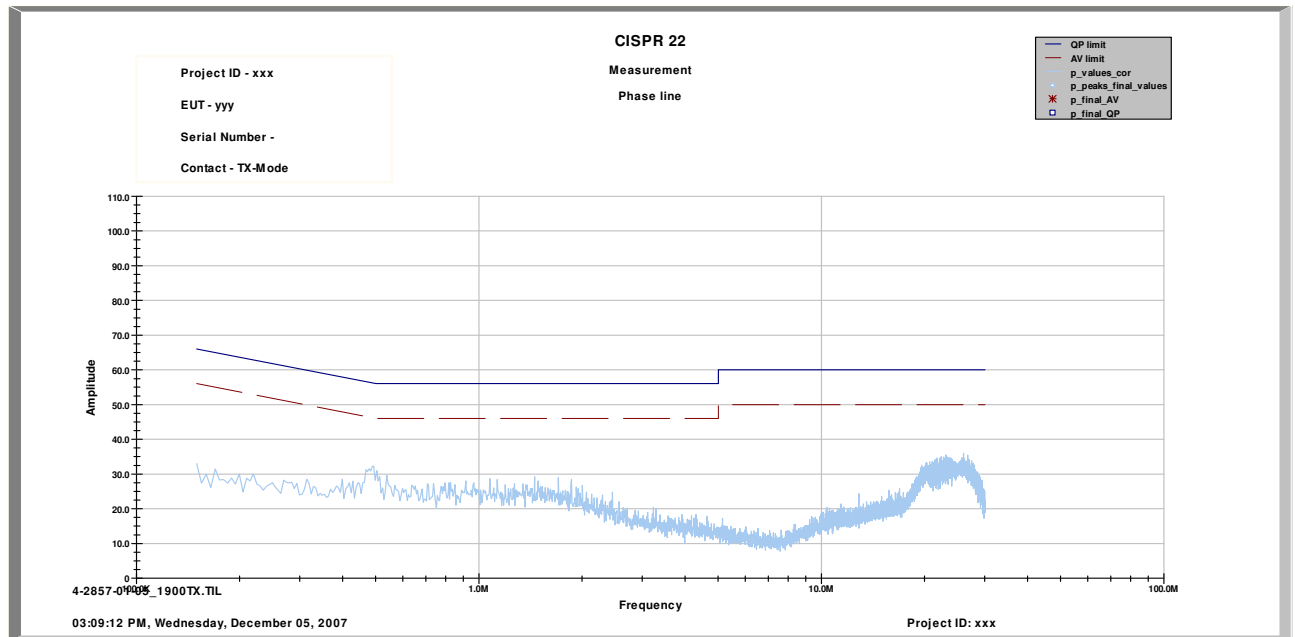
Plot 3 :

Neutral line :



Plot 4 :

Phase line :

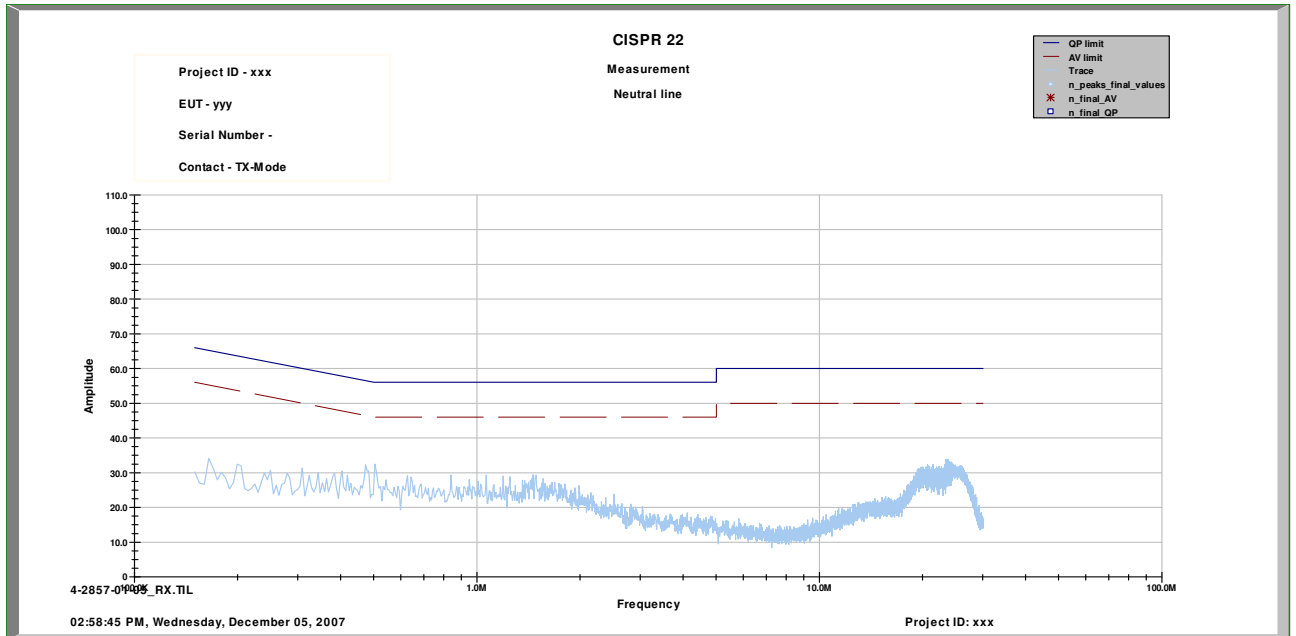


GSM 850

Idle Mode: 150 kHz – 30 MHz

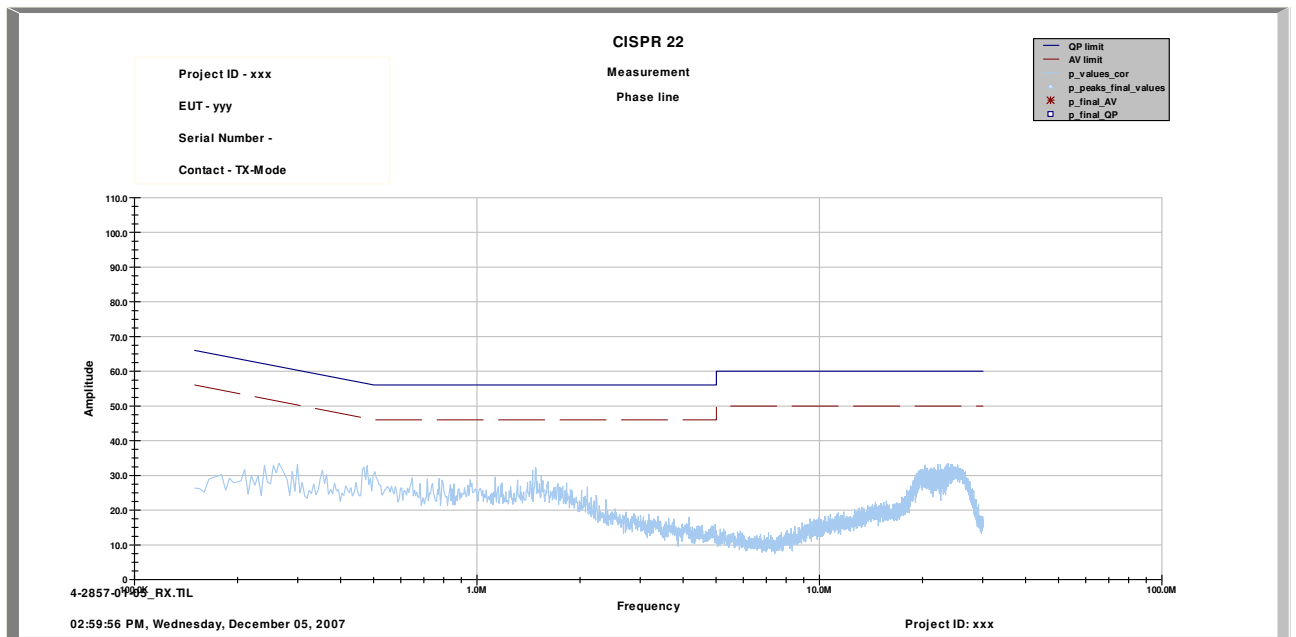
Plot 1:

Neutral line :



Plot 2 :

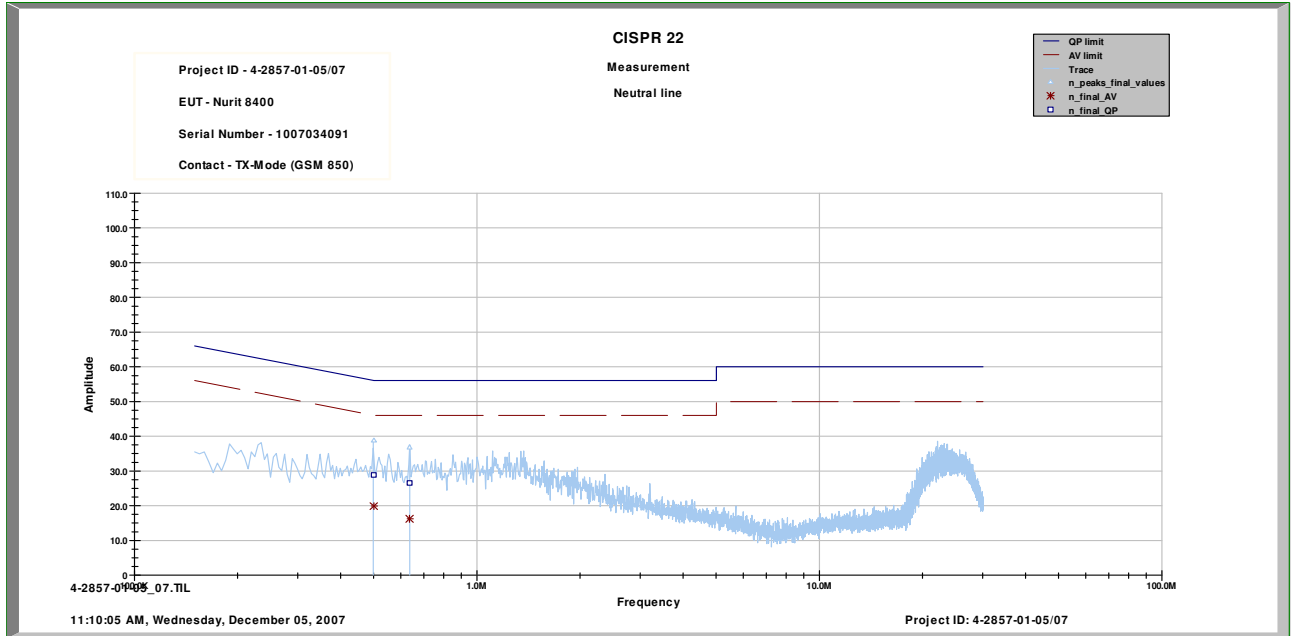
Phase line :



Traffic Mode : 150 kHz – 30 MHz

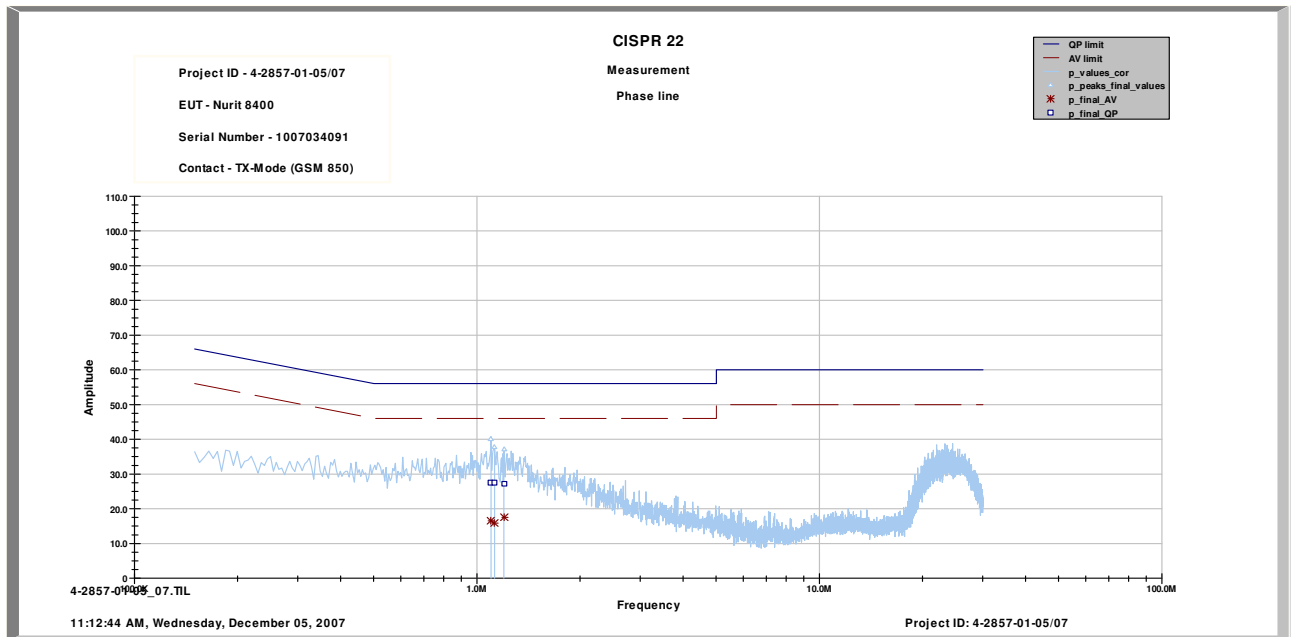
Plot 3 :

Neutral line :



Plot 4 :

Phase line :



6.2 Receiver spurious emission radiated (Idle mode)

Reference

FCC:	CFR Part SUBCLAUSE § 15.109
IC:	RSS 210, Issue 7, Section 7.3 Receiver Spurious Emissions (Radiated)

SPURIOUS EMISSIONS LEVEL ($\mu\text{V/m}$)								
MHz			MHz			MHz		
F [MHz]	Detector	Level [$\mu\text{V/m}$]	F [MHz]	Detector	Level [$\mu\text{V/m}$]	F [MHz]	Detector	Level [$\mu\text{V/m}$]
No critical peaks detected								
Measurement uncertainty			± 3 dB					

$f < 1$ GHz : RBW/VBW: 100 kHz

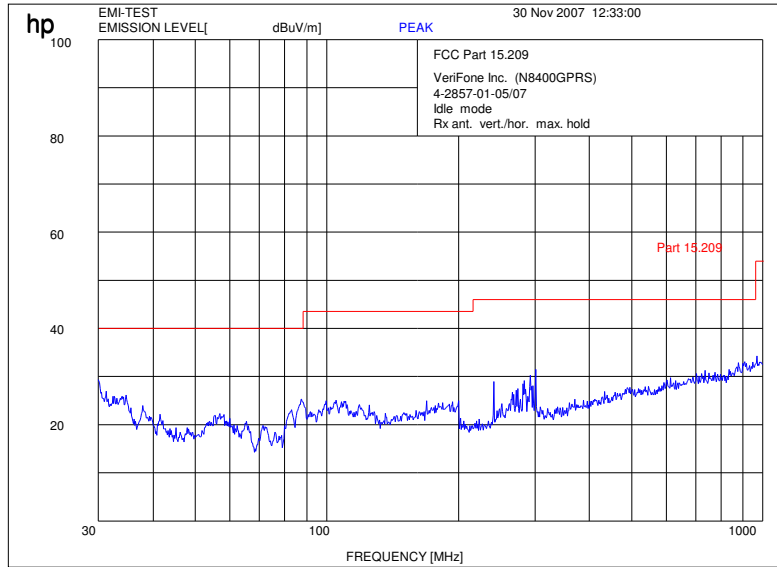
$f \geq 1$ GHz : RBW/VBW: 1 MHz

Limits

SUBCLAUSE § 15.109

Frequency (MHz)	Field strength ($\mu\text{V/m}$)	Measurement distance (m)
30 - 88	100	3
88 - 216	150	3
216 - 960	200	3
above 960	500	3

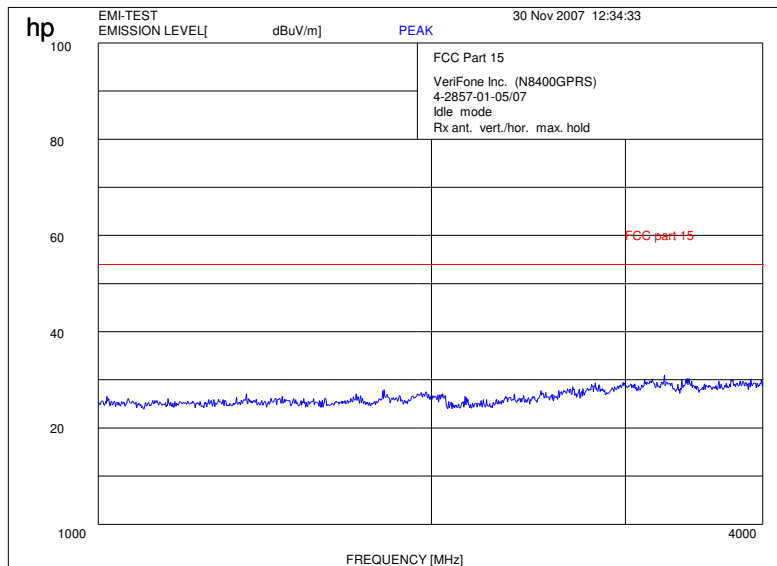
Idle Mode (30 MHz - 1 GHz)



$f < 1 \text{ GHz} : \text{RBW/VBW: } 100 \text{ kHz}$

$f \geq 1 \text{ GHz} : \text{RBW / VBW } 1 \text{ MHz}$

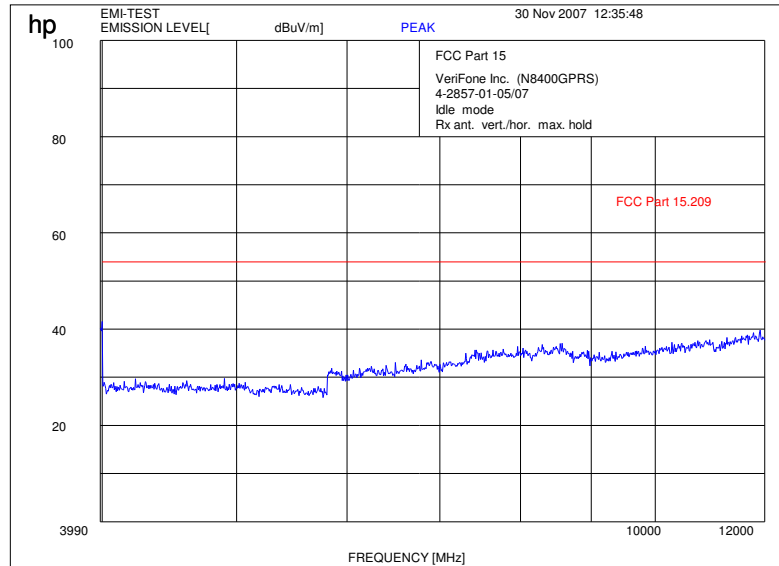
Idle Mode (1 MHz - 4 GHz)



$f < 1 \text{ GHz} : \text{RBW/VBW: } 100 \text{ kHz}$

$f \geq 1 \text{ GHz} : \text{RBW / VBW } 1 \text{ MHz}$

Idle Mode (4 GHz – 12.0 GHz)



f < 1 GHz : RBW/VBW: 100 kHz

f ≥ 1GHz : RBW / VBW 1 MHz

Idle Mode (12 GHz - 25 GHz)

