



Nemko USA, Inc.
11696 Sorrento Valley Rd., Suite F
San Diego, CA 92121-1024
Phone (858) 755-5525 Fax (858) 452-1810

CERTIFICATION TEST REPORT

Report Number: 2010 10158450 CHARGER FCC

Project Number: 61447-1

Nex Number: 158450

Applicant: DISCUS DENTAL INC.
8550 HIGUERA ST.
Culver City, CA 90232

Equipment Under Test (EUT): BASE CHARGER (CRADLE)


Model: NVC

FCC ID: VIK-OH004

IC: 7260A-OH004

In Accordance With: FCC Part 15 Subpart C, 15.249
IC RSS-210 Issue 8 December 2010
IC RSS-Gen Issue 3 December 2010

Tested By: Nemko USA Inc.
11696 Sorrento Valley Road, Suite F
San Diego, CA 92121

Authorized By: 
Alan Laudani, EMC/RF Test Engineer

Date: November 18, 2010

Total Number of Pages: 33



Section1: Summary of Test Results

General

All measurements are traceable to national standards

These tests were conducted on a sample of the equipment for the purpose of demonstrating compliance with FCC Part 15; Subpart C and IC RSS-210. Radiated tests were conducted in accordance with ANSI C63.4-2003. Radiated emissions are made on an open area test site. A description of the test facility is on file with the FCC and IC.

The assessment summary is as follows:

Apparatus Assessed:	Base Charger (Cradle)
Model:	NVC
Specification:	FCC Part 15 Subpart C, 15.249 IC RSS-210 Issue 8 December 2010
Date Received in Laboratory:	November 9, 2010
Compliance Status:	Complies
Exclusions:	None
Non-compliances:	None

1.1 Report Release History

REVISION	DATE	COMMENTS
-	November 18, 2010	Prepared By: Ferdinand Custodio
-	November 18, 2010	Initial Release: Alan Laudani

Note that the results contained in this report relate only to the items tested and were obtained in the period between the date of initial receipt of samples and the date of issue of the report.

This test report has been completed in accordance with the requirements of ISO/IEC 17025.

Nemko USA Inc. authorizes the applicant to reproduce this report provided it is reproduced in its entirety and for use by the company's employees only.

Any use which a third party makes of this report, or any reliance on or decisions to be made based on it, are the responsibility of such third parties. Nemko USA Inc. accepts no responsibility for damages, if any, suffered by any third party as a result of decisions made or actions based on this report.

TESTED BY:


Ferdinand Custodio, EMC Test Engineer

Date: November 18, 2010

TABLE OF CONTENTS

Section 1: Summary of Test Results	2
1.1 Report Release History	3
Section 2: Equipment Under Test	5
2.1 Product Identification	5
2.2 Samples Submitted for Assessment	5
2.3 Theory of Operation	6
2.4 Technical Specifications of the EUT	6
Section 3: Test Conditions	7
3.1 Specifications	7
3.2 Deviations From Laboratory Test Procedures	7
3.3 Test Environment	7
3.4 Test Equipment	8
Section 4: Observations	9
4.1 Modifications Performed During Assessment	9
4.2 Record Of Technical Judgements	9
4.3 EUT Parameters Affecting Compliance	9
4.4 Test Deleted	9
4.5 Additional Observations	9
Section 5: Results Summary	10
5.1 Test Results	10
Appendix A: Test Results	11
Section 15.207(a) – Power Line Conducted Emissions	11
Section 15.215(c) – Occupied Bandwidth	20
RSS-Gen Section 4.6.1 – Occupied Bandwidth	20
Section 15.249(a) – Field Strength of Emissions	25
RSS-210 A2.9 – Field Strength of Emissions	25
Duty Cycle Correction Factor Calculations	27
Section 15.249 (d) – Spurious Emissions Outside of the band	30
RSS-210 A2.9 – Spurious Emissions Outside of the band	30
7.2.3 (RSS-Gen) – Receiver Spurious Emission Limits	32



Section 2: Equipment Under Test

2.1 Product Identification

The Equipment Under Test was indentified as follows:

Discus Dental Inc. NVC Base Charger (Cradle)



2.2 Samples Submitted for Assessment

The following sample of the apparatus has been submitted for type assessment:

Sample No.	Description	Serial No.
158450-1	NVC BASE CHARGER (CRADLE)	C70735





2.3 Theory of Operation

The NVC Base Charger (Cradle) is part of the NV Microlaser™/NV Ortho™ dental diode laser system used on many different soft tissue procedures. The system is intended to be used for oral soft tissue surgery, including: sulcular debridement of diseased fibrous tissue, i.e., excision and biopsy; gingivectomy; gingivoplasty; lesion (tumor) removal; fibroma removal; tissue retraction (troughing); apththous ulcers; gingival hyperplasia (excision and recontour); crown lengthening; operculectomy; frenectomy; photocoagulation and for periodontal procedures, including: laser soft tissue curettage; laser removal of diseased, infected, inflamed, or necrosed soft tissue within the periodontal pocket; removal of highly inflamed edematous tissue affected by bacteria penetration of the pocket lining; and junctional epithelium.

The EUT is a base-charging unit for the laser hand piece of the system. An additional two charging slots for extra batteries are also provided. A 5VDC external AC adapter powers the EUT. The EUT is constantly listening and synchronizing with the wireless foot pedal and will transmit to the hand piece when remote interlock is activated. The EUT was configured to transmit when the foot pedal is activated during assessment.

2.4 Technical Specifications of the EUT

Manufacturer:	Discus Dental Inc.
Operating Frequency:	2417.0 MHz to 2458.0 MHz in the 2400-2483.5 MHz Band
Number of Operating Frequencies:	15
Rated Power:	66.5dBμV/m @ 3 meters
Modulation:	GFSK
Reference Designator:	766KF1D
Antenna Type:	Trace on PCB, 0dBi gain (typ)
Antenna Connector:	None
Power Source:	5VDC from external AC adapter (CUI Inc. 3A-211DN05 100-240VAC 50-60Hz 0.8A)

Section 3: Test Conditions

3.1 Specifications

The apparatus was assessed against the following specifications:

FCC Part 15 Subpart C, 15.249

Operation within the bands 902-928 MHz, 2400-2483.5 MHz, 5725-5850 MHz and 24.0-24.25 GHz bands.

IC RSS-210 Issue 8 December 2010

Low-power Licence-exempt Radio-communication Devices (All Frequency Bands): Category I Equipment. Annex 8 - Frequency Hopping and Digital Modulation Systems Operating in the Bands 902-928 MHz, 2400-2483.5 MHz, and 5725-5850 MHz

IC RSS-Gen Issue 3 December 2010

General Requirements and Information for the Certification of Radio-communication Equipment

3.2 Deviations From Laboratory Test Procedures

No deviations from Laboratory Test Procedure

3.3 Test Environment

All tests were performed under the following environmental conditions:

Temperature range	17-23 °C
Humidity range	43-63%
Pressure range	102.0 – 102.9 kPa

3.4 Test Equipment

Nemko ID	Device	Manufacturer	Model	Serial Number	Cal Date	Cal Due Date
E1018	9kHz to 7GHz Spectrum Analyzer	Rohde & Schwarz	FSP7	835363/0003	1/22/2010	1/22/2011
E1020	Two Line V-Network	Rohde & Schwarz	ENV216	101044	3/12/2010	3/12/2011
529	Antenna, DRWG	EMCO	3115	2505	10/18/2010	10/18/2012
835	Spectrum Analyzer	Rohde & Schwarz	RHDFSEK	829058/005	7/12/2010	7/12/2011
317	Preamplifier	HP	8449A	2749A00167	5/7/2010	5/7/2011
877	Antenna, DRG Horn, .7-18GHz	AH Systems	SAS-571	688	8/16/2010	8/16/2011
114	Antenna, Bicon	EMCO	3104	2997	3/5/2010	3/5/2012
110	Antenna, LPA	Electrometrics	LPA-25	1217	1/10/2009	2/10/2011
898	EMI Receiver & filter set	HP	8546A	3625A00348	6/22/2010	6/22/2011
899	Filter Section	HP	85460A	3448A00288	6/22/2010	6/22/2011
911	Spectrum Analyzer	Agilent	E4440A	US41421266	26-Oct-10	26-Oct-11

Registration of the OATS are on file with the Federal Communications Commission, under Registration Number 90579, the VCCI under registration number R-3027, and are also registered with Industry Canada under Site Numbers 2040B-1 and 2040B-2.



Section 4: Observations

4.1 Modifications Performed During Assessment

No modifications were performed during assessment.

4.2 Record Of Technical Judgements

No technical judgements were made during the assessment.

4.3 EUT Parameters Affecting Compliance

The user of the apparatus could not alter parameters that would affect compliance.

4.4 Test Deleted

No Tests were deleted from this assessment.

4.5 Additional Observations

There were no additional observations made during this assessment.



Section 5: Results Summary

This section contains the following:

FCC Part 15 Subpart C: §15.249
IC RSS-210 Issue 8 December 2010 A2.9
IC RSS-Gen Issue 3 December 2010

The column headed "Required" indicates whether the associated clauses were invoked for the apparatus under test. The following abbreviations are used:

N No: not applicable / not relevant

Y Yes: Mandatory i.e. the apparatus shall conform to these tests.

N/T Not Tested, mandatory but not assessed. (See section 4.4 Test deleted)

The results contained in this section are representative of the operation of the apparatus as originally submitted.

5.1 Test Results

Part 15C	Industry Canada	Test Description	Required	Result
15.207 (a)	RSS-Gen 7.2.4	Conducted Emission Limit	Y	Pass
15.215(c)	RSS-Gen 4.6.3	20 dB Bandwidth	Y	Pass
15.249 (a)	RSS-Gen 4.8 & RSS-210 A2.9	Field Strength of Emissions	Y	Pass
15.249 (d) & 15.209 (a)	RSS-Gen 4.9 & RSS-210 A2.9	Spurious Emissions Outside of the band	Y	Pass
15.249 (b)		Fixed Point-to-Point Operation	N	
15.109 (a)	RSS-Gen 4.10 & RSS-Gen 6.1	Receiver Spurious Emissions	Y	Pass

Appendix A: Test Results

Section 15.207(a) – Power Line Conducted Emissions

15.207(a) Except as shown in paragraphs (b) and (c) of this section, for an intentional radiator that is designed to be connected to the public utility (AC) power line, the radio frequency voltage that is conducted back onto the AC power line on any frequency or frequencies, within the band 150 kHz to 30 MHz, shall not exceed the limits in the following table as measured using a 50 μ H/50 ohms line impedance stabilization network (LISN). Compliance with the provisions of this paragraph shall be based on the measurement of the radio frequency voltage between each power line and ground at the power terminal. The lower limit applies at the boundary between the frequency ranges.

Frequency of emission (MHz)	Conducted limit (dB μ V)	
	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.



Test Conditions:

Sample Number:	NVC	Temperature:	23°C
Date:	November 17, 2010	Humidity:	43 %
Modification State:	Hopping	Tester:	FSCustodio
		Laboratory:	Nemko

Test Results:

See attached plots

Additional Observations:

- EUT was configured to charged the hand piece and an extra battery while continuously transmitting (synching with the wireless foot pedal).
- Test parameters are internal to the automated test software used (R&S®ES-SCAN Version 2.4) for conducted emission test.
- Red limit line is Quasi Peak limit while pink limit line is Average limit.
-  represents final quasi peak measurements while  represent final average measurements.
- Six sub ranges were created in order to have at least six measurements in each range.

FCC ID: VIK-OH004
IC: 7260A-OH004

Report Number: 2010 10158450 Charger FCC
Specification: FCC Part 15 Subpart C, 15.249

EMI Measurement Test Report

Device Under Test NV Charger Base (Cradle)
Operator Name FSCustodio
Test Specification FCC Class B Conducted Emissions
Comment Line 1 Transmit/Charging

Sweep Settings (1 Range)

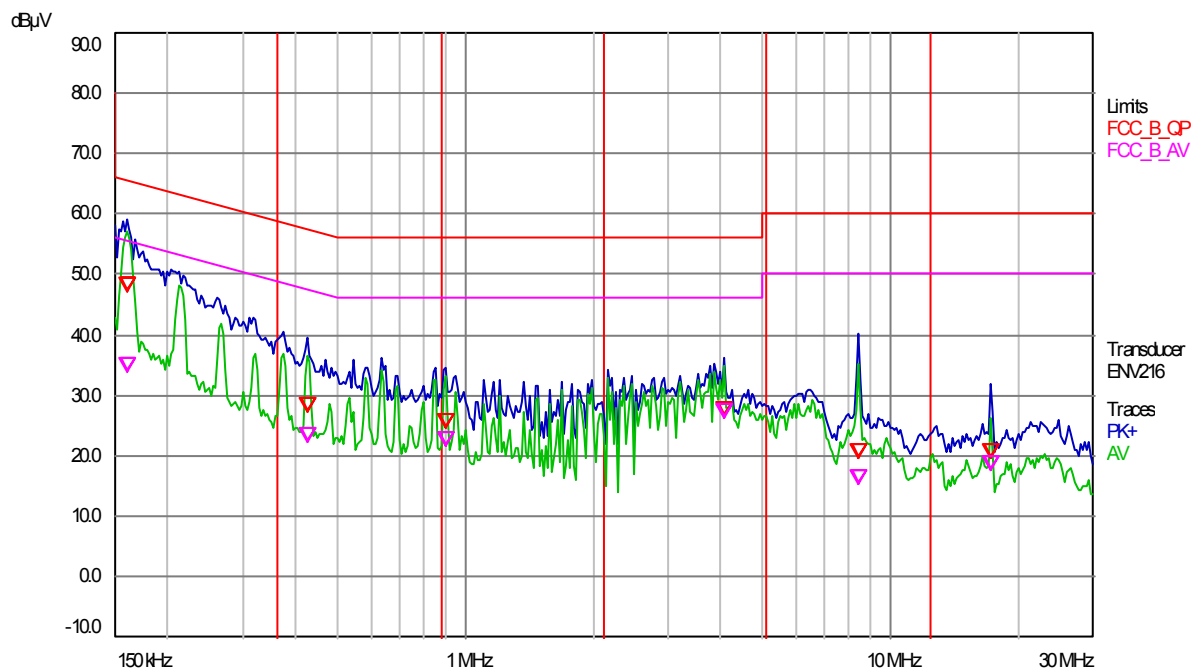
Frequencies			Analyzer Settings					
Start	Stop	Sweep Points	Res BW	Sweep Time	Atten	Preamp	Pre-selector	Ref Level
150 kHz	500 kHz	8001	9 kHz (6dB)	5 s	10 dB	Off	Off	60 dBμV
500 kHz	1 MHz	8001	9 kHz (6dB)	5 s	10 dB	Off	Off	60 dBμV
1 MHz	10 MHz	8001	9 kHz (6dB)	5 s	10 dB	Off	Off	60 dBμV
10 MHz	20 MHz	8001	9 kHz (6dB)	5 s	10 dB	Off	Off	60 dBμV
20 MHz	30 MHz	8001	9 kHz (6dB)	5 s	10 dB	Off	Off	60 dBμV

Final Measurement

Detectors: QP , AV
Peaks: 6

Meas Time: 1 s
Acc. Margin: 40 dB

Pre-measurement Graph



Final Measurement Results

Trace	Frequency (MHz)	Level (dBμV)	Limit (dBμV)	Delta Limit (dB)
1 QP	0.15945	47.15	65.49	-18.34
2 AV	0.160588	34.00	55.43	-21.43
1 QP	0.423438	27.26	57.38	-30.12
2 AV	0.427113	22.37	47.31	-24.94
1 QP	0.89825	24.55	56.00	-31.45
2 AV	0.901688	21.50	46.00	-24.50
1 QP	4.047625	26.49	56.00	-29.51
2 AV	4.04875	26.26	46.00	-19.74
2 AV	8.44075	15.17	50.00	-34.83
1 QP	8.44525	19.63	60.00	-40.37
2 AV	17.21375	17.74	50.00	-32.26
1 QP	17.24125	19.72	60.00	-40.28

* = limit exceeded

FCC ID: VIK-OH004
IC: 7260A-OH004

Report Number: 2010 10158450 Charger FCC
Specification: FCC Part 15 Subpart C, 15.249

EMI Measurement Test Report

Device Under Test NV Charger Base (Cradle)
Operator Name FSCustodio
Test Specification FCC Class B Conducted Emissions
Comment Line 2 Transmit/Charging

Sweep Settings (1 Range)

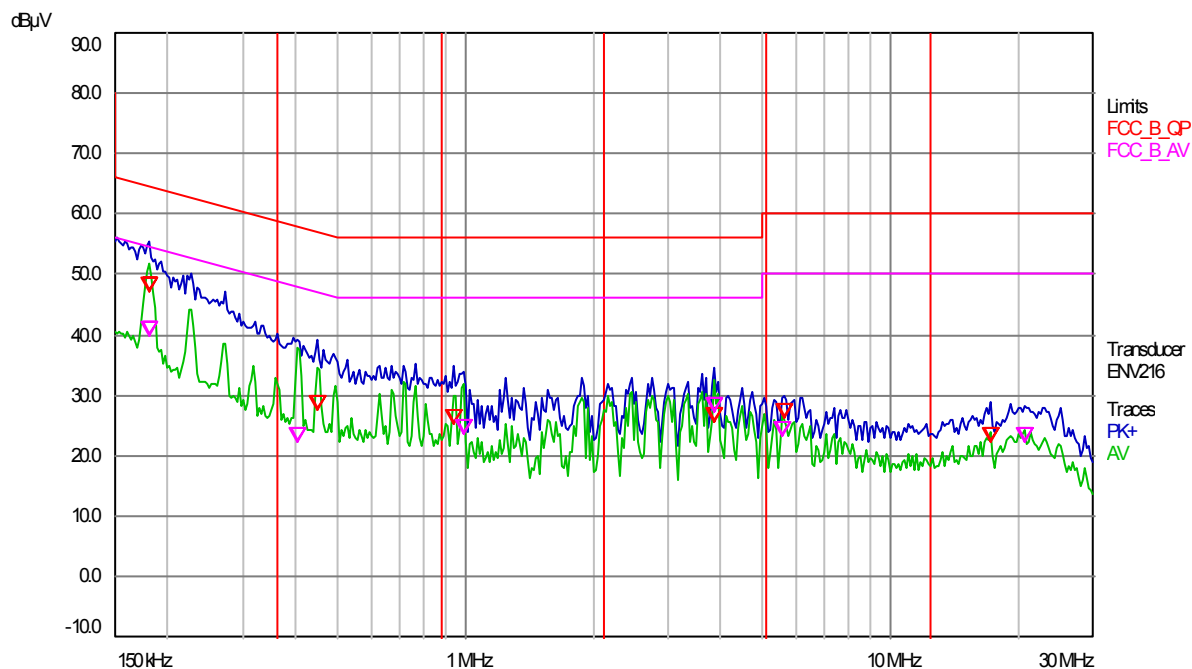
Frequencies			Analyzer Settings					
Start	Stop	Sweep Points	Res BW	Sweep Time	Atten	Preamp	Pre-selector	Ref Level
150 kHz	500 kHz	8001	9 kHz (6dB)	5 s	10 dB	Off	Off	60 dBμV
500 kHz	1 MHz	8001	9 kHz (6dB)	5 s	10 dB	Off	Off	60 dBμV
1 MHz	10 MHz	8001	9 kHz (6dB)	5 s	10 dB	Off	Off	60 dBμV
10 MHz	20 MHz	8001	9 kHz (6dB)	5 s	10 dB	Off	Off	60 dBμV
20 MHz	30 MHz	8001	9 kHz (6dB)	5 s	10 dB	Off	Off	60 dBμV

Final Measurement

Detectors: QP , AV
Peaks: 6

Meas Time: 1 s
Acc. Margin: 40 dB

Pre-measurement Graph



Final Measurement Results

Trace	Frequency (MHz)	Level (dBμV)	Limit (dBμV)	Delta Limit (dB)
1 QP	0.1808	47.13	64.45	-17.32
2 AV	0.1808	39.94	54.45	-14.51
2 AV	0.404931	22.14	47.75	-25.61
1 QP	0.448594	27.51	56.90	-29.39
1 QP	0.939375	25.19	56.00	-30.81
2 AV	0.987188	23.44	46.00	-22.56
1 QP	3.853	25.54	56.00	-30.46
2 AV	3.853	27.10	46.00	-18.90
2 AV	5.573125	23.09	50.00	-26.91
1 QP	5.627125	26.18	60.00	-33.82
1 QP	17.23125	22.37	60.00	-37.63
2 AV	20.83625	22.26	50.00	-27.74

* = limit exceeded

EMI Measurement Test Report

Device Under Test NV Charger Base (Cradle)
Operator Name FSCustodio
Test Specification FCC Class B Conducted Emissions
Comment Line 1 Receive/Charging

Sweep Settings (1 Range)

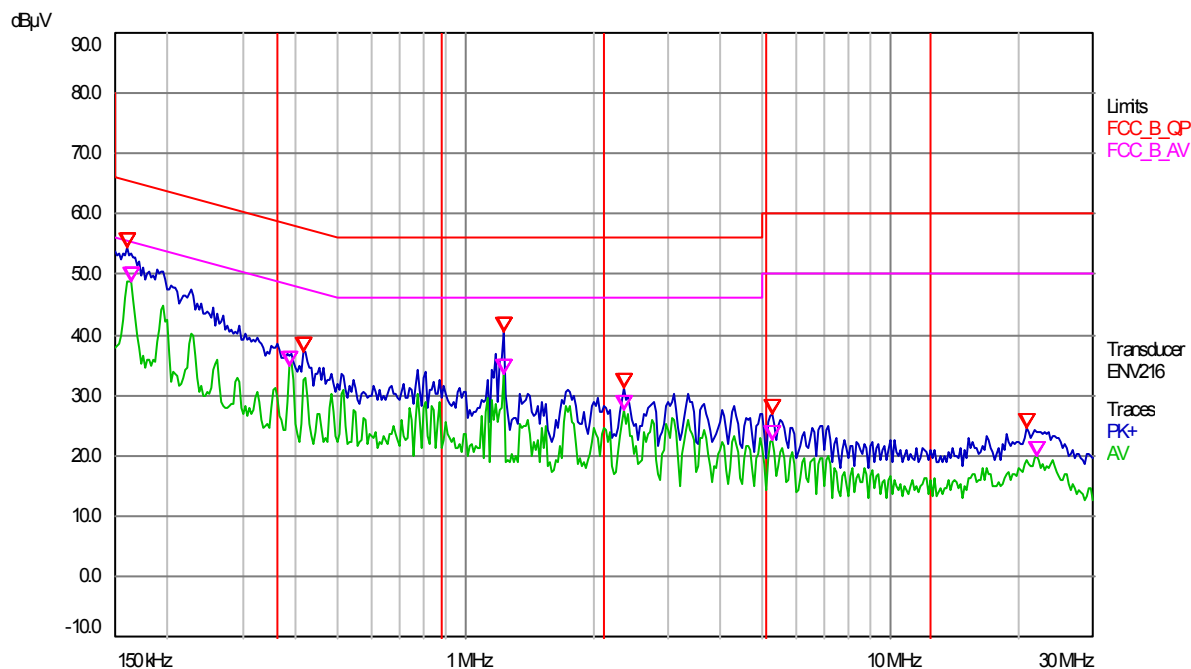
Frequencies			Analyzer Settings					
Start	Stop	Sweep Points	Res BW	Sweep Time	Atten	Preamp	Pre-selector	Ref Level
150 kHz	500 kHz	8001	9 kHz (6dB)	5 s	10 dB	Off	Off	60 dBμV
500 kHz	1 MHz	8001	9 kHz (6dB)	5 s	10 dB	Off	Off	60 dBμV
1 MHz	10 MHz	8001	9 kHz (6dB)	5 s	10 dB	Off	Off	60 dBμV
10 MHz	20 MHz	8001	9 kHz (6dB)	5 s	10 dB	Off	Off	60 dBμV
20 MHz	30 MHz	8001	9 kHz (6dB)	5 s	10 dB	Off	Off	60 dBμV

Final Measurement

Detectors: QP , AV
Peaks: 6

Meas Time: 1 s
Acc. Margin: 40 dB

Pre-measurement Graph



Final Measurement Results

Trace	Frequency (MHz)	Level (dBμV)	Limit (dBμV)	Delta Limit (dB)
1 PK+	0.160544	54.51	65.44	-10.93
2 AV	0.164	48.79	55.26	-6.47
2 AV	0.387344	35.00	48.12	-13.12
1 PK+	0.417006	37.28	57.51	-20.23
1 PK+	1.228375	40.59	56.00	-15.41
2 AV	1.228375	33.46	46.00	-12.54
1 PK+	2.37475	31.10	56.00	-24.90
2 AV	2.37475	27.61	46.00	-18.39
2 AV	5.26825	22.68	50.00	-27.32
1 PK+	5.271625	27.01	60.00	-32.99
1 PK+	20.865	24.39	60.00	-35.61
2 AV	22.145	19.89	50.00	-30.11

* = limit exceeded

FCC ID: VIK-OH004
IC: 7260A-OH004

Report Number: 2010 10158450 Charger FCC
Specification: FCC Part 15 Subpart C, 15.249

EMI Measurement Test Report

Device Under Test NV Charger Base (Cradle)
Operator Name FSCustodio
Test Specification FCC Class B Conducted Emissions
Comment Line 2 Receive/Charging

Sweep Settings (1 Range)

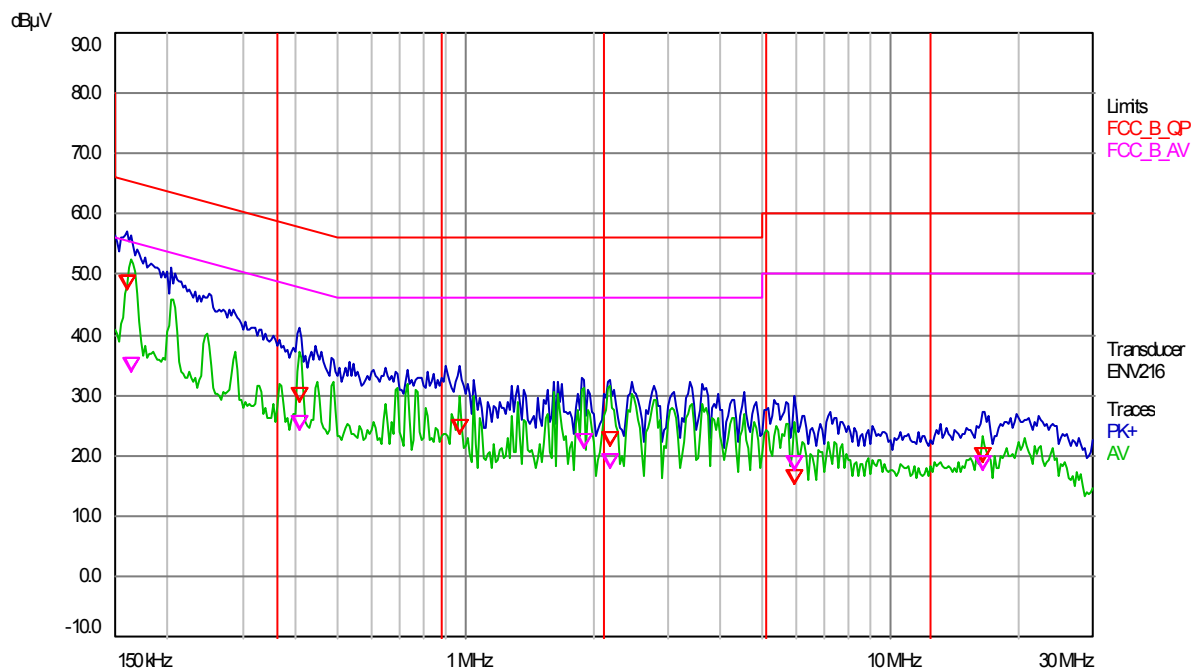
Frequencies			Analyzer Settings					
Start	Stop	Sweep Points	Res BW	Sweep Time	Atten	Preamp	Pre-selector	Ref Level
150 kHz	500 kHz	8001	9 kHz (6dB)	5 s	10 dB	Off	Off	60 dBμV
500 kHz	1 MHz	8001	9 kHz (6dB)	5 s	10 dB	Off	Off	60 dBμV
1 MHz	10 MHz	8001	9 kHz (6dB)	5 s	10 dB	Off	Off	60 dBμV
10 MHz	20 MHz	8001	9 kHz (6dB)	5 s	10 dB	Off	Off	60 dBμV
20 MHz	30 MHz	8001	9 kHz (6dB)	5 s	10 dB	Off	Off	60 dBμV

Final Measurement

Detectors: QP , AV
Peaks: 6

Meas Time: 1 s
Acc. Margin: 40 dB

Pre-measurement Graph



Final Measurement Results

Trace	Frequency (MHz)	Level (dBμV)	Limit (dBμV)	Delta Limit (dB)
1 QP	0.159581	47.47	65.49	-18.02
2 AV	0.163081	33.75	55.31	-21.56
2 AV	0.408038	24.13	47.69	-23.56
1 QP	0.408519	28.91	57.68	-28.77
1 QP	0.968125	23.56	56.00	-32.44
2 AV	1.894375	21.33	46.00	-24.67
1 QP	2.180125	21.70	56.00	-34.30
2 AV	2.180125	17.87	46.00	-28.13
1 QP	5.96125	15.34	60.00	-44.66
2 AV	5.96125	17.54	50.00	-32.46
1 QP	16.5825	18.83	60.00	-41.17
2 AV	16.5825	17.51	50.00	-32.49

* = limit exceeded

Section 15.215(c) – Occupied Bandwidth

(c) Intentional radiators operating under the alternative provisions to the general emission limits, as contained in §§15.217 through 15.257 and in Subpart E of this part, must be designed to ensure that the 20 dB bandwidth of the emission, or whatever bandwidth may otherwise be specified in the specific rule section under which the equipment operates, is contained within the frequency band designated in the rule section under which the equipment is operated. The requirement to contain the designated bandwidth of the emission within the specified frequency band includes the effects from frequency sweeping, frequency hopping and other modulation techniques that may be employed as well as the frequency stability of the transmitter over expected variations in temperature and supply voltage. If a frequency stability is not specified in the regulations, it is recommended that the fundamental emission be kept within at least the central 80% of the permitted band in order to minimize the possibility of out-of-band operation.

RSS-Gen Section 4.6.1 – Occupied Bandwidth

When an occupied bandwidth value is not specified in the applicable RSS, the transmitted signal bandwidth to be reported is to be its 99% emission bandwidth, as calculated or measured.

The transmitter shall be operated at its maximum carrier power measured under normal test conditions.

The span of the analyzer shall be set to capture all products of the modulation process, including the emission skirts. The resolution bandwidth shall be set to as close to 1% of the selected span as is possible without being below 1%. The video bandwidth shall be set to 3 times the resolution bandwidth. Video averaging is not permitted. Where practical, a sampling detector shall be used since a peak or, peak hold, may produce a wider bandwidth than actual.

The trace data points are recovered and are directly summed in linear terms. The recovered amplitude data points, beginning at the lowest frequency, are placed in a running sum until 0.5% of the total is reached and that frequency recorded. The process is repeated for the highest frequency data points. This frequency is recorded.

The span between the two recorded frequencies is the occupied bandwidth.

Test Conditions:

Sample Number:	NVC	Temperature:	23°C
Date:	November 16, 2010	Humidity:	43 %
Modification State:	Low ,Mid and High Channel	Tester:	FSCustodio
		Laboratory:	Nemko

Test Results:

See attached plots

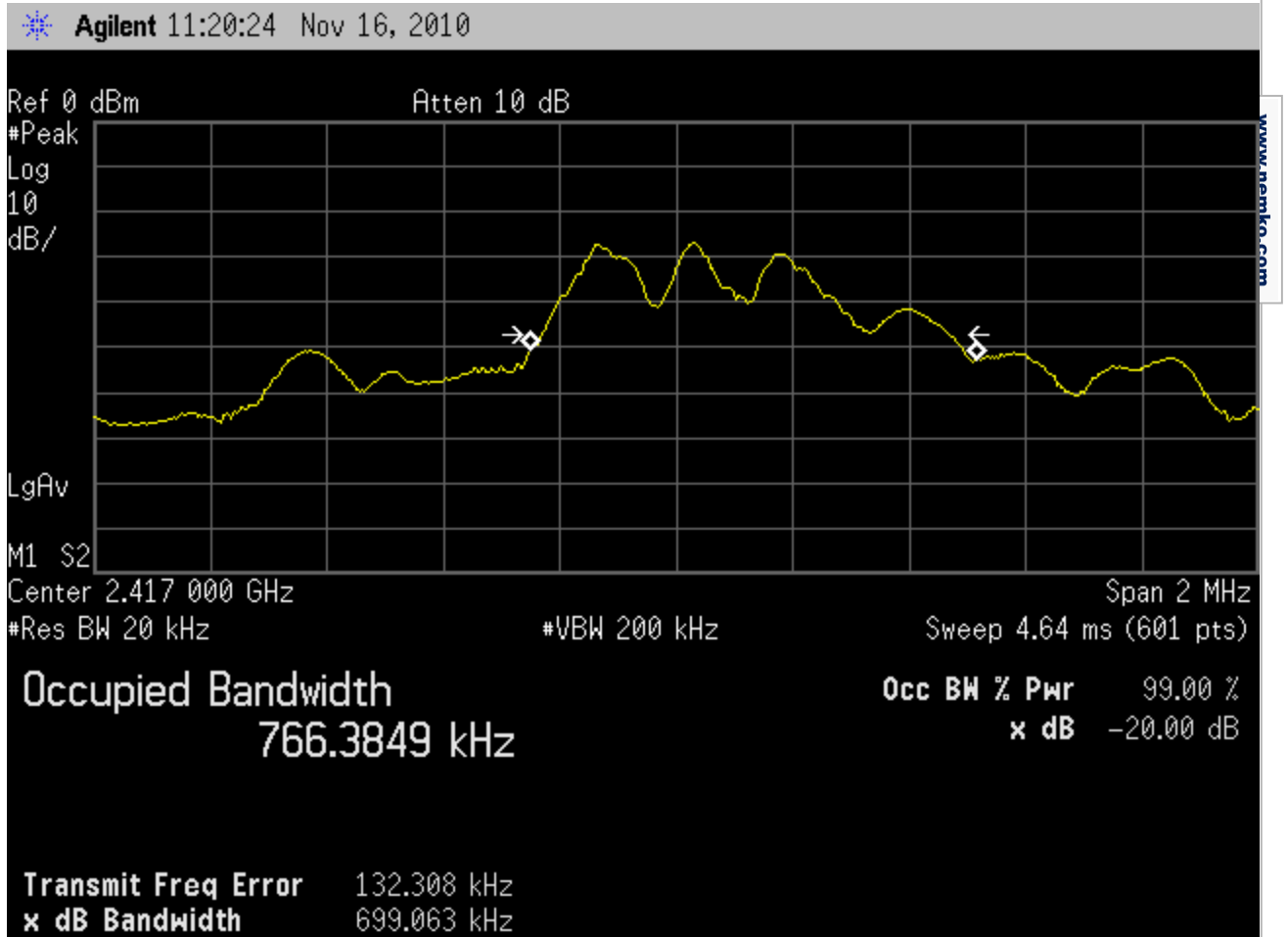
Additional Observations:

- Span is wide enough to capture the channel transmission
- The spectrum analyzer built-in OBW measurement feature was used for this assessment.
- RBW is 1% of the span (Spectrum Analyzer controlled)

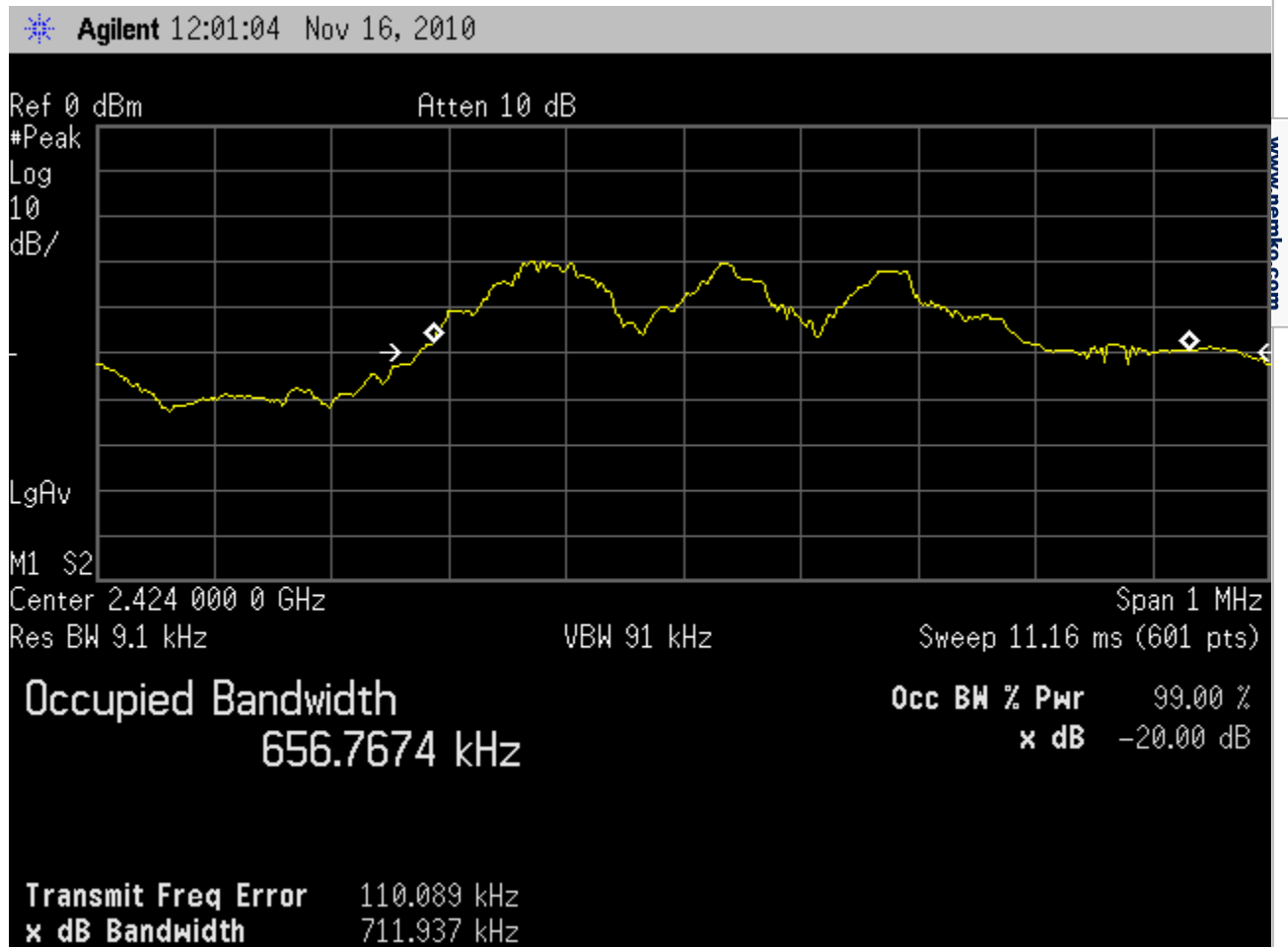
- VBW is 3X RBW or greater (Spectrum Analyzer controlled)
- OBW % power is 99%
- dB multiplier is 20.
- Sweep is auto
- Detector is Peak
- Trace is Max Hold
- Observed maximum occupied BW is 766.38 KHz (Low Channel).
- With assigned channel frequency of 2417.0 MHz to 2458.0 MHz and measured occupied BW, the EUT transmits well within the assigned frequency band (2.4GHZ to 2.4835GHz).

FCC ID: VIK-OH004
IC: 7260A-OH004

Report Number: 2010 10158450 Charger FCC
Specification: FCC Part 15 Subpart C, 15.249



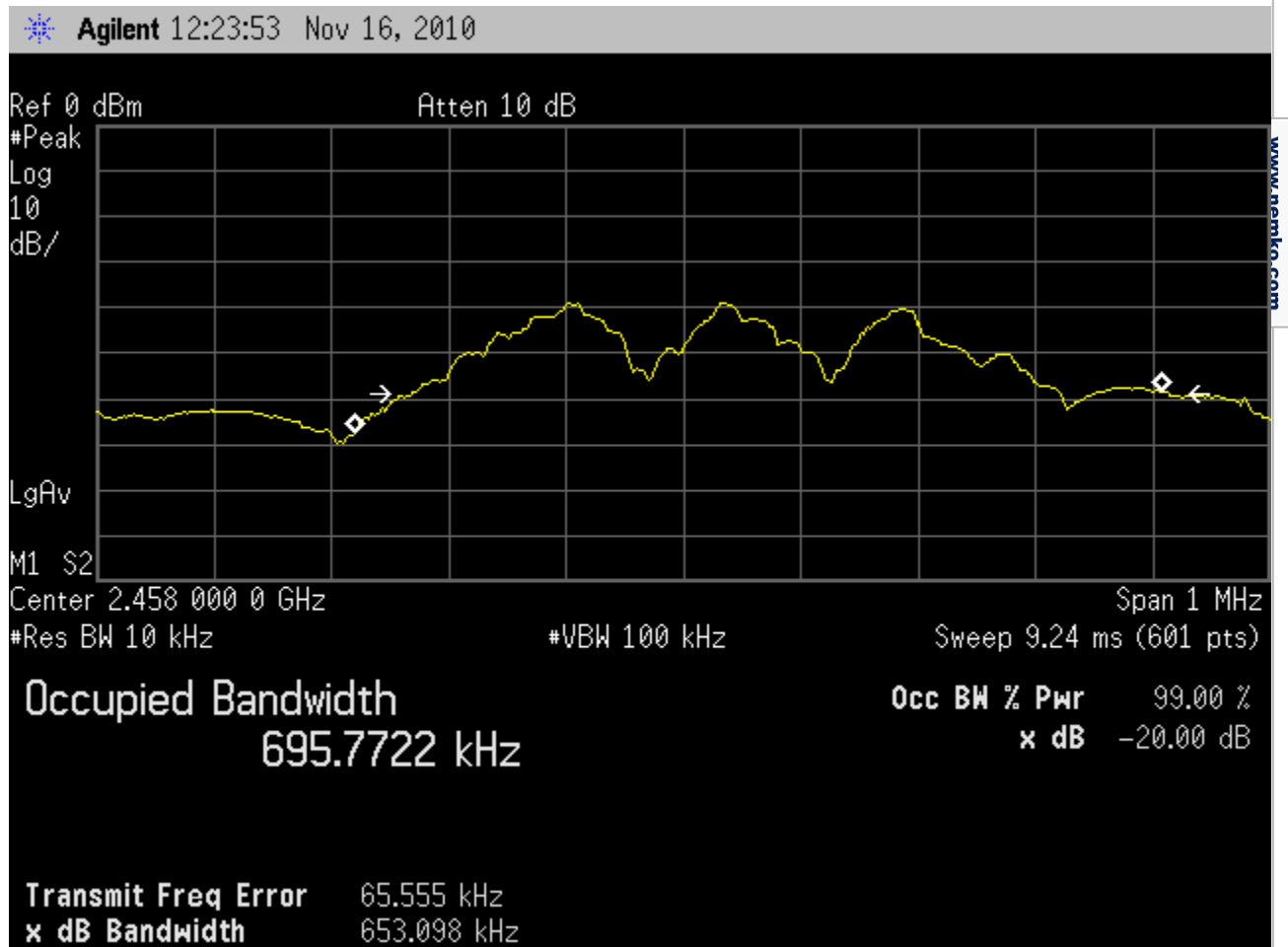
Low Channel (2417MHz) Occupied Bandwidth is 766.38KHz



Mid Channel (2424MHz) Occupied Bandwidth is 656.77KHz

FCC ID: VIK-OH004
IC: 7260A-OH004

Report Number: 2010 10158450 Charger FCC
Specification: FCC Part 15 Subpart C, 15.249



High Channel (2458MHz) Occupied Bandwidth is 695.77KHz

Section 15.249(a) – Field Strength of Emissions

(a) Except as provided in paragraph (b) of this section, the field strength of emissions from intentional radiators operated within these frequency bands shall comply with the following:

Fundamental frequency	Field strength of fundamental (millivolts/meter)	Field strength of harmonics (microvolts/meter)
902–928 MHz	50	500
2400–2483.5 MHz	50	500
5725–5875 MHz	50	500
24.0–24.25 GHz	250	2500

RSS-210 A2.9 – Field Strength of Emissions

This section provides standards for low-power devices that can be used for any application provided the following conditions are met:

(a) The field strengths measured at 3 metres shall not exceed the following:

Fundamental frequency	Field strength of fundamental (millivolts/meter)	Field strength of harmonics (millivolts/meter)
902–928 MHz	50 ^(Note 1)	0.5
2400–2483.5 MHz	50 ^(Note 1)	0.5
5725–5875 MHz	50 ^(Note 1)	0.5

Note 1: Equivalent to 0.75 mW e.i.r.p.

(b) Emissions radiated outside of the specified frequency bands, except for harmonics, shall be attenuated by at least 50 dB below the level of the fundamental or to Table 2 limits, whichever is the less stringent.

Section 4.4 of RSS-Gen (Pulsed Operation) does not apply to CISPR measurement for the band 902-928 MHz.

Test Conditions:

Sample Number:	NVC	Temperature:	17°C
Date:	November 19, 2010	Humidity:	63 %
Modification State:	Hopping	Tester:	FSCustodio
		Laboratory:	SOATS

Test Results:

See attached plots.

Additional Observations:

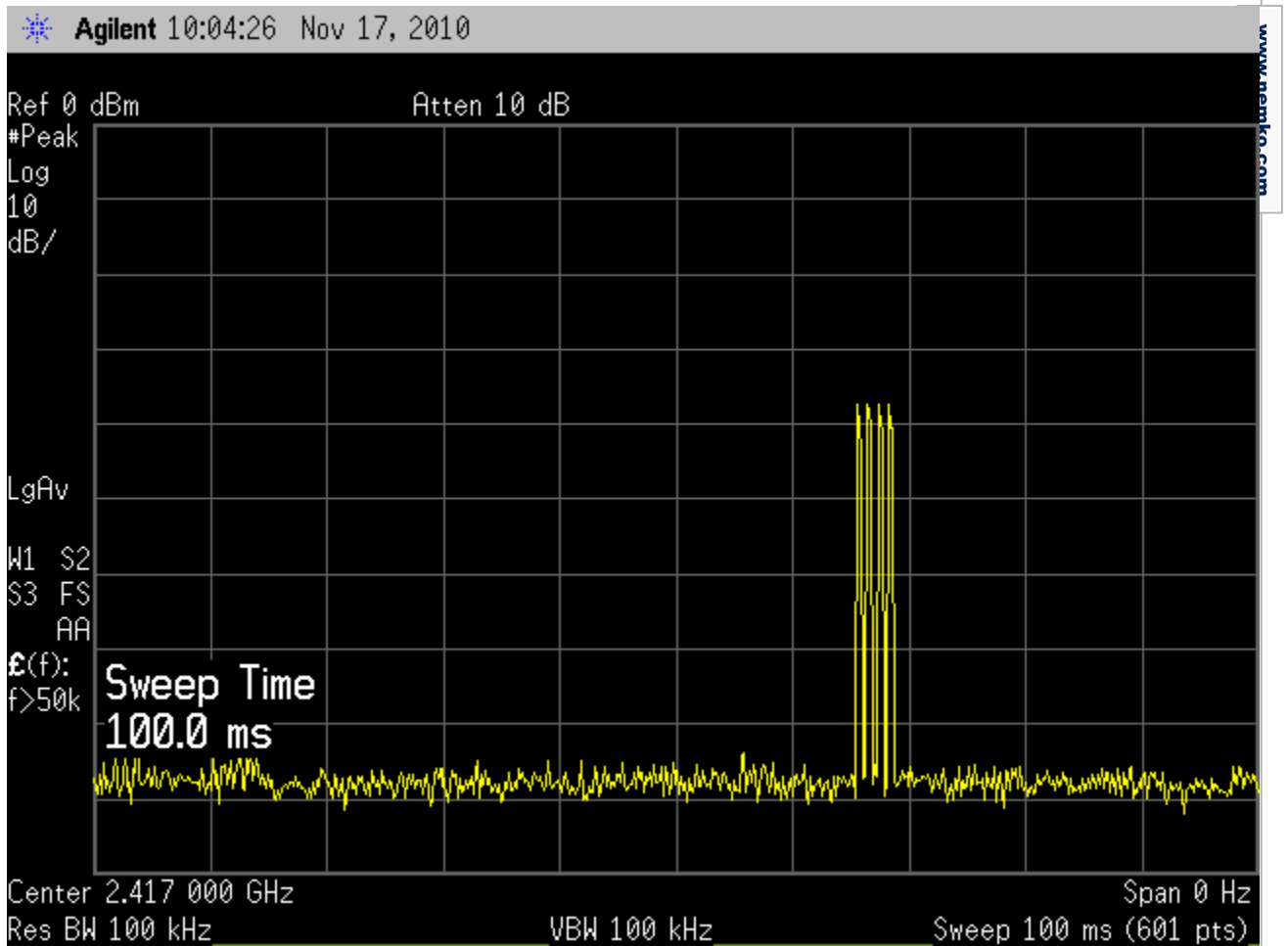
- Fresh batteries were used during assessment.

- All measurements were performed using a peak detector.
- RBW is 1MHz while VBW is 3MHz.
- Spectrum was investigated up to 24.70GHz
- There were no emissions found other than the fundamental.
- Average data are calculated from Peak measurements plus Duty Cycle Correction Factor (DCCF).

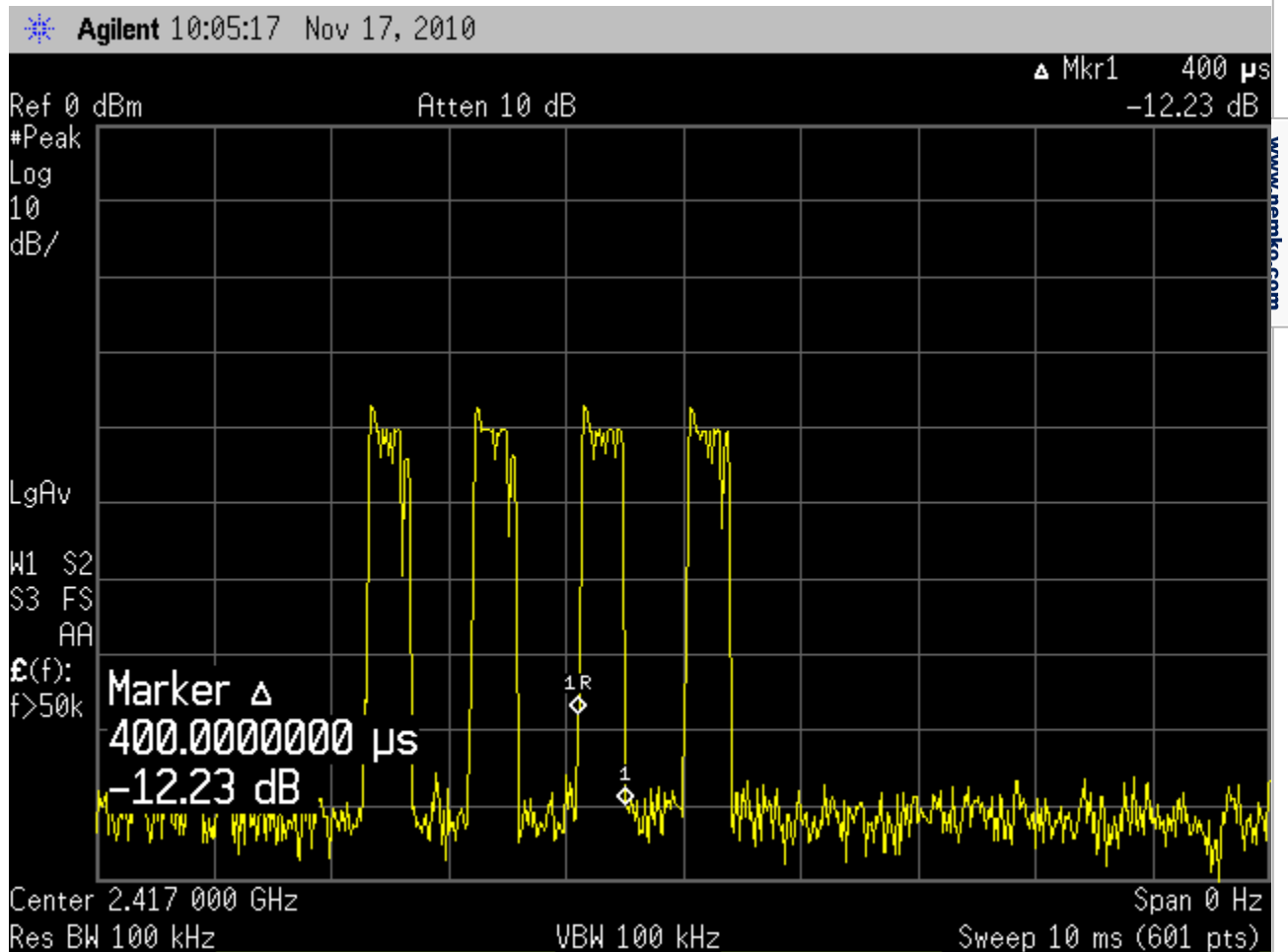
Sample Computation (Radiated Emissions Data Sheet):

$$\begin{aligned}\text{Correction factor @ 2417MHz} &= 3.05 \\ &= \text{Antenna factor} + \text{Cable loss} - \text{Preamp gain} \\ &= 28.546 + 7.7 - 33.2 \\ \text{Corrected reading} &= \text{Max. reading} + \text{Correction factor} \\ &= 83.5 + 3.05 \\ &= 86.5 \text{ dB}\mu\text{V/m} \\ \text{Average} &= \text{Peak} + \text{DCCF} \\ 86.5 \text{ dB}\mu\text{V/m} - 20\text{dB} &= 66.5 \text{ dB}\mu\text{V/m}\end{aligned}$$

Duty Cycle Correction Factor Calculations



One set of data packets in 100ms sweep



Four (4) transmissions of 400μs in one data packet

Duty Cycle = 0.4 ms x 4
= 1.6 ms/100 ms
= 0.016

DCCF = 20 log (0.016)
= -35.92; limited to -20

FCC ID: VIK-OH004
IC: 7260A-OH004

Report Number: 2010 10158450 Charger FCC
Specification: FCC Part 15 Subpart C, 15.249

NV model number is now updated to NVC



NEMKO USA, Inc.

San Diego Headquarters:

11696 Sorrento Valley Rd.
San Diego, CA 92121
Tel: (858) 755-5525
Fax: (858) 452-1810

Radiated Emissions Data

Job #: 61447-1 Date: 11/19/2010
NEX#: 158450 Time: 12:30PM
Staff: FSC

Page 1 of 1

Client Name: Discus Dental Inc.
EUT Name: Base Charger (Cradle)
EUT Model #: NV
EUT Serial #: C70735
EUT Config.: Continuous transmit

EUT Voltage: 120VAC
EUT Frequency: 60Hz
Phase: 1
NOATS
SOATS X
Distance < 1000 MHz: 3 m
Distance > 1000 MHz: 3 m

Specification: CFR47 Part 15, Subpart B, Class B
Loop Ant. #: NA
Bicon Ant. #: NA Temp. (°C): 17
Log Ant. #: NA Humidity (%): 63
DRG Ant. #: 529 Spec Analyzer #: 835
Cable LF#: NA Analyzer Display #:
Cable HF#: 40ft_blue Quasi-Peak Detector #: 835
Preamp LF#: NA Preselector #: NA
Preamp HF#: 317 DCCF: 20

Quasi-Peak	RBW: 120 kHz
	Video Bandwidth: 300 kHz
Peak	RBW: 1 MHz
	Video Bandwidth: 3 MHz
Average	= Peak - DCCF

Meas. Freq. (MHz)	Meter Reading Vertical	Meter Reading Horizontal	Det.	EUT Side F/L/R/B	Ant. Height m	Max. Reading (dBμV)	Corrected Reading (dBμV/m)	Spec. limit (dBμV/m)	CR/SL Diff. (dB)	Pass Fail	Comment
2417.0	83.5	80.9	P	BR	1.0	83.5	86.5	114.0	-27.5	Pass	
2417.0	63.5	60.9	A	BR	1.0	63.5	66.5	94.0	-27.5	Pass	
2424.0	82.1	79.4	P	BR	1.0	82.1	85.1	114.0	-28.9	Pass	
2424.0	62.1	59.4	A	BR	1.0	62.1	65.1	94.0	-28.9	Pass	
2458.0	83.1	80.3	P	L	1.0	83.1	86.1	114.0	-27.9	Pass	
2458.0	63.1	60.3	A	L	1.0	63.1	66.1	94.0	-27.9	Pass	
2400.0	48.2	49.3	P	BR	1.0	49.3	52.3	74.0	-21.7	Pass	
2400.0	28.2	29.3	A	BR	1.0	29.3	32.3	54.0	-21.7	Pass	
2483.5	56.1	50.0	P	BR	1.0	56.1	59.1	74.0	-14.8	Pass	
2483.5	36.1	30.0	A	BR	1.0	36.1	39.1	54.0	-14.8	Pass	
4834.0	47.6	47.5	P	BR	1.0	47.6	59.4	74.0	-14.6	Pass	Noise floor
7251.0	43.5	43.4	P	BR	1.0	43.5	62.3	74.0	-11.7	Pass	Noise floor
4848.0	45.0	45.5	P	BR	1.0	45.5	57.3	74.0	-16.7	Pass	Noise floor
7272.0	43.1	42.9	P	BR	1.0	43.1	61.9	74.0	-12.1	Pass	Noise floor
4916.0	44.5	45.8	P	BR	1.0	45.8	57.6	74.0	-16.3	Pass	Noise floor
7374.0	42.5	44.1	P	BR	1.0	44.1	63.5	74.0	-10.5	Pass	Noise floor

Section 15.249 (d) – Spurious Emissions Outside of the band

(d) Emissions radiated outside of the specified frequency bands, except for harmonics, shall be attenuated by at least 50 dB below the level of the fundamental or to the general radiated emission limits in §15.209, whichever is the lesser attenuation.

RSS-210 A2.9 – Spurious Emissions Outside of the band

(b) Emissions radiated outside of the specified frequency bands, except for harmonics, shall be attenuated by at least 50 dB below the level of the fundamental or to Table 2 limits, whichever is the less stringent.

Section 4.4 of RSS-Gen (Pulsed Operation) does not apply to CISPR measurement for the band 902-928 MHz.

Test Conditions:

Sample Number:	NVC	Temperature:	17°C
Date:	November 19, 2010	Humidity:	63 %
Modification State:	Hopping	Tester:	FSCustodio
		Laboratory:	SOATS

Test Results:

See attached plot.

Additional Observations:

- Fresh batteries were used during assessment.
- All measurements below 1 GHz were performed at 3m employing a CISPR quasi-peak detector.
- Peak measurements above 1 GHz utilize a RBW of 1 MHz and a VBW of 3 MHz
- The Spectrum was searched from 30MHz to 24.7 GHz.
- There were no emissions found other than the fundamental (Section 15.249(a)) above 1GHz.

FCC ID: VIK-OH004
IC: 7260A-OH004

Report Number: 2010 10158450 Charger FCC
Specification: FCC Part 15 Subpart C, 15.249

NV model number is now updated to NVC



NEMKO USA, Inc.

San Diego Headquarters:

11696 Sorrento Valley Rd.
San Diego, CA 92121
Tel: (858) 755-5525
Fax: (858) 452-1810

www.nemko.com

Radiated Emissions Data

Job # : 61447-1 Date : 11/19/2010
NEX#: 158450 Time : 12:30PM
Staff : FSC

Page 1 of 1

Client Name : Discus Dental Inc.
EUT Name : Base Charger (Cradle)
EUT Model # : NV
EUT Serial # : C70735
EUT Config : Continuous transmit

EUT Voltage : 120VAC
EUT Frequency : 60Hz
Phase: 1
NOATS
SOATS X
Distance < 1000 MHz: 3 m
Distance > 1000 MHz: 3 m

Specification : CFR47 Part 15, Subpart B, Class B
Loop Ant. #: NA
Bicon Ant. #: 114_3m Temp. (°C) : 17
Log Ant. #: 110_3m Humidity (%) : 63
DRG Ant. # : NA Spec Analyzer #: 898
Cable LF#: SOATS Analyzer Display #: 898
Cable HF#: NA Quasi-Peak Detector #: 898
Preamp LF#: NA Preselector #: 899
Preamp HF# : NA

Quasi-Peak	RBW: 120 kHz
Video Bandwidth	300 kHz
Peak	RBW: 1 MHz
Video Bandwidth	3 MHz
Average	RBW: 1 MHz
Video Bandwidth	10 Hz

Measurements below 1 GHz are Quasi-Peak values, unless otherwise stated.
Measurements above 1 GHz are Average values, unless otherwise stated.

Meas. Freq. (MHz)	Meter Reading Vertical	Meter Reading Horizontal	Det.	EUT Side F/L/R/B	Ant. Height m	Max. Reading (dBµV)	Corrected Reading (dBµV/m)	Spec. limit (dBµV/m)	CR/SL Diff. (dB)	Pass Fail	Comment
45.3	16.7	17.4	Q		1.0	17.4	29.7	40.0	-10.3	Pass	
134.7	7.3	8.2	Q		1.0	8.2	21.1	43.5	-22.4	Pass	
145.6	7.5	7.1	Q		1.0	7.5	21.1	43.5	-22.4	Pass	
179.9	6.7	8.4	Q		1.0	8.4	26.2	43.5	-17.3	Pass	
191.7	6.9	12.1	Q		1.0	12.1	30.5	43.5	-13.0	Pass	
905.6	10.1	7.5	Q		1.0	10.1	37.7	46.0	-8.4	Pass	

7.2.3 (RSS-Gen) – Receiver Spurious Emission Limits

All spurious emissions shall comply with the limits of Table 1 (see Section 6).

Spurious Frequency (MHz)	Field Strength (microvolt/m at 3 metres)
30-88	100
88-216	150
216-960	200
Above 960	500

Test Conditions:

Sample Number:	NVC	Temperature:	17°C
Date:	November 19, 2010	Humidity:	63 %
Modification State:	Receive Mode	Tester:	FSCustodio
		Laboratory:	SOATS

Test Results:

See attached plot.

Additional Observations:

- Fresh batteries were used during assessment.
- The Spectrum was searched from 30MHz to 8GHz.
- No spurious detected above 1GHz.
- Results were identical with RSS-210 A2.9 - Spurious Emissions Outside of the band.

FCC ID: VIK-OH004
IC: 7260A-OH004

Report Number: 2010 10158450 Charger FCC
Specification: FCC Part 15 Subpart C, 15.249

NV model number is now updated to NVC



NEMKO USA, Inc.

San Diego Headquarters:

11696 Sorrento Valley Rd.
San Diego, CA 92121
Tel: (858) 755-5525
Fax: (858) 452-1810

Radiated Emissions Data

Job # : 61447-1 Date : 11/19/2010
NEX #: 158450 Time : 1:30PM
Staff : FSC

Page 1 of 1

Client Name : Discus Dental Inc.
EUT Name : Base Charger (Cradle)
EUT Model # : NV
EUT Serial # : C70735
EUT Config : Receive Mode

EUT Voltage : 120VAC
EUT Frequency : 60Hz
Phase : 1
NOATS
SOATS X
Distance < 1000 MHz : 3 m
Distance > 1000 MHz : 3 m

Specification : CFR47 Part 15, Subpart B, Class B
Loop Ant. # : NA
Bicon Ant. # : 114_3m Temp. (°C) : 17
Log Ant. # : 110_3m Humidity (%) : 63
DRG Ant. # : NA Spec Analyzer # : 898
Cable LF# : SOATS Analyzer Display # : 898
Cable HF# : NA Quasi-Peak Detector # : 898
Preamp LF# : NA Preselector # : 899
Preamp HF# : NA

Quasi-Peak	RBW: 120 kHz
Video Bandwidth	300 kHz
Peak	RBW: 1 MHz
Video Bandwidth	3 MHz
Average	RBW: 1 MHz
Video Bandwidth	10 Hz

Measurements below 1 GHz are Quasi-Peak values, unless otherwise stated.

Measurements above 1 GHz are Average values, unless otherwise stated.

Meas. Freq. (MHz)	Meter Reading Vertical	Meter Reading Horizontal	Det.	EUT Side F/L/R/B	Ant. Height m	Max. Reading (dBμV)	Corrected Reading (dBμV/m)	Spec. limit (dBμV/m)	CR/SL Diff. (dB)	Pass Fail	Comment
45.3	16.7	17.4	Q		1.0	17.4	29.7	40.0	-10.3	Pass	
134.7	7.3	8.2	Q		1.0	8.2	21.1	43.5	-22.4	Pass	
145.6	7.5	7.1	Q		1.0	7.5	21.1	43.5	-22.4	Pass	
179.9	6.7	8.4	Q		1.0	8.4	26.2	43.5	-17.3	Pass	
191.7	6.9	12.1	Q		1.0	12.1	30.5	43.5	-13.0	Pass	
905.6	10.1	7.5	Q		1.0	10.1	37.7	46.0	-8.4	Pass	