FCC CFR47 PART 15 SUBPART C
INDUSTRY CANADA RSS-210 ISSUE 8

CERTIFICATION TEST REPORT

FOR

900 MHZ CONVERTIBLE HEADSET

MODEL NUMBER: WH500-XD

FCC ID: AL8-WH500XD
IC: 457A-WH500XD

REPORT NUMBER: 12U14646- 1, REVISION B

ISSUE DATE: DECEMBER 26, 2012

Prepared for
PLANTRONICS
345 ENCINAL STREET
SANTA CRUZ, CA 95060, U.S.A.

Prepared by
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NVLAP LAB CODE 200065-0

Revision History

Rev.	Issue Date	Revisions	Revised By
--	11/12/12	Initial Issue	Tim Lee
A	12/20/12	Added AC Conducted Emission Data	T. Lee
B	12/26/12	Added AC Conducted Emission Test Setup Photos	T. Lee

TABLE OF CONTENTS

1. ATTESTATION OF TEST RESULTS

COMPANY NAME: PLANTRONICS
345 ENCINAL STREET
SANTA CRUZ, CA 95060, U.S.A.

EUT DESCRIPTION: 902-928 MHZ CONVERTIBLE HEADSET

MODEL: WH500-XD

SERIAL NUMBER: For Radiated Unit S/N: Low Channel 102
Mid Channel M005
High Channel 150
For Conducted Unit S/N: Low channel S/N L001
Mid channel S/N M002
High Channel S/N H003

DATE TESTED: NOVEMBER 7- 13, 2012

APPLICABLE STANDARDS	
STANDARD	**TEST RESULTS**
CFR 47 Part 15 Subpart C	Pass
INDUSTRY CANADA RSS-210 Issue 8 Annex 8	Pass
INDUSTRY CANADA RSS-GEN Issue 3	Pass

UL CCS tested the above equipment in accordance with the requirements set forth in the above standards. All indications of Pass/Fail in this report are opinions expressed by UL CCS based on interpretations and/or observations of test results. Measurement Uncertainties were not taken into account and are published for informational purposes only. The test results show that the equipment tested is capable of demonstrating compliance with the requirements as documented in this report.

Note: The results documented in this report apply only to the tested sample, under the conditions and modes of operation as described herein. This document may not be altered or revised in any way unless done so by UL CCS and all revisions are duly noted in the revisions section. Any alteration of this document not carried out by UL CCS will constitute fraud and shall nullify the document. This report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST, any agency of the Federal Government, or any agency of any government.

Approved & Released For UL CCS By:

TIM LEE
WiSE PROJECT MANAGER
UL CCS

Tested By:

THANH NGUYEN
EMC ENGINEER
UL CCS

2. TEST METHODOLOGY

The tests documented in this report were performed in accordance with FCC CFR 47 Part 2, FCC CFR 47 Part 15, ANSI C63.10-2009, RSS-GEN Issue 3, and RSS-210 Issue 8.

3. FACILITIES AND ACCREDITATION

The test sites and measurement facilities used to collect data are located at 47173 Benicia Street, Fremont, California, USA.

UL CCS is accredited by NVLAP, Laboratory Code 200065-0. The full scope of accreditation can be viewed at http://www.ccsemc.com.

4. CALIBRATION AND UNCERTAINTY

4.1. MEASURING INSTRUMENT CALIBRATION

The measuring equipment utilized to perform the tests documented in this report has been calibrated in accordance with the manufacturer's recommendations, and is traceable to recognized national standards.

4.2. SAMPLE CALCULATION

Where relevant, the following sample calculation is provided:

Field Strength (dBuV/m) = Measured Voltage (dBuV) + Antenna Factor (dB/m) + Cable Loss (dB) – Preamp Gain (dB)

36.5 dBuV + 18.7 dB/m + 0.6 dB – 26.9 dB = 28.9 dBuV/m

4.3. MEASUREMENT UNCERTAINTY

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the apparatus:

PARAMETER	UNCERTAINTY
Conducted Disturbance, 0.15 to 30 MHz	3.52 dB
Radiated Disturbance, 30 to 1000 MHz	4.94 dB

Uncertainty figures are valid to a confidence level of 95%.

5. EQUIPMENT UNDER TEST

5.1. DESCRIPTION OF EUT

The EUT is a 900 MHz Headset.

5.2. MAXIMUM OUTPUT POWER

The transmitter has a maximum peak conducted output power as follows:

Frequency Range (MHz)	Output Power (dBM)	Output Power (m W)
902.850 – 927.125	15.44	34.99

5.3. DESCRIPTION OF AVAILABLE ANTENNAS

The radio utilizes a dipole antenna with maximum peak gains of -1 dBi .

5.4. SOFTWARE AND FIRMWARE

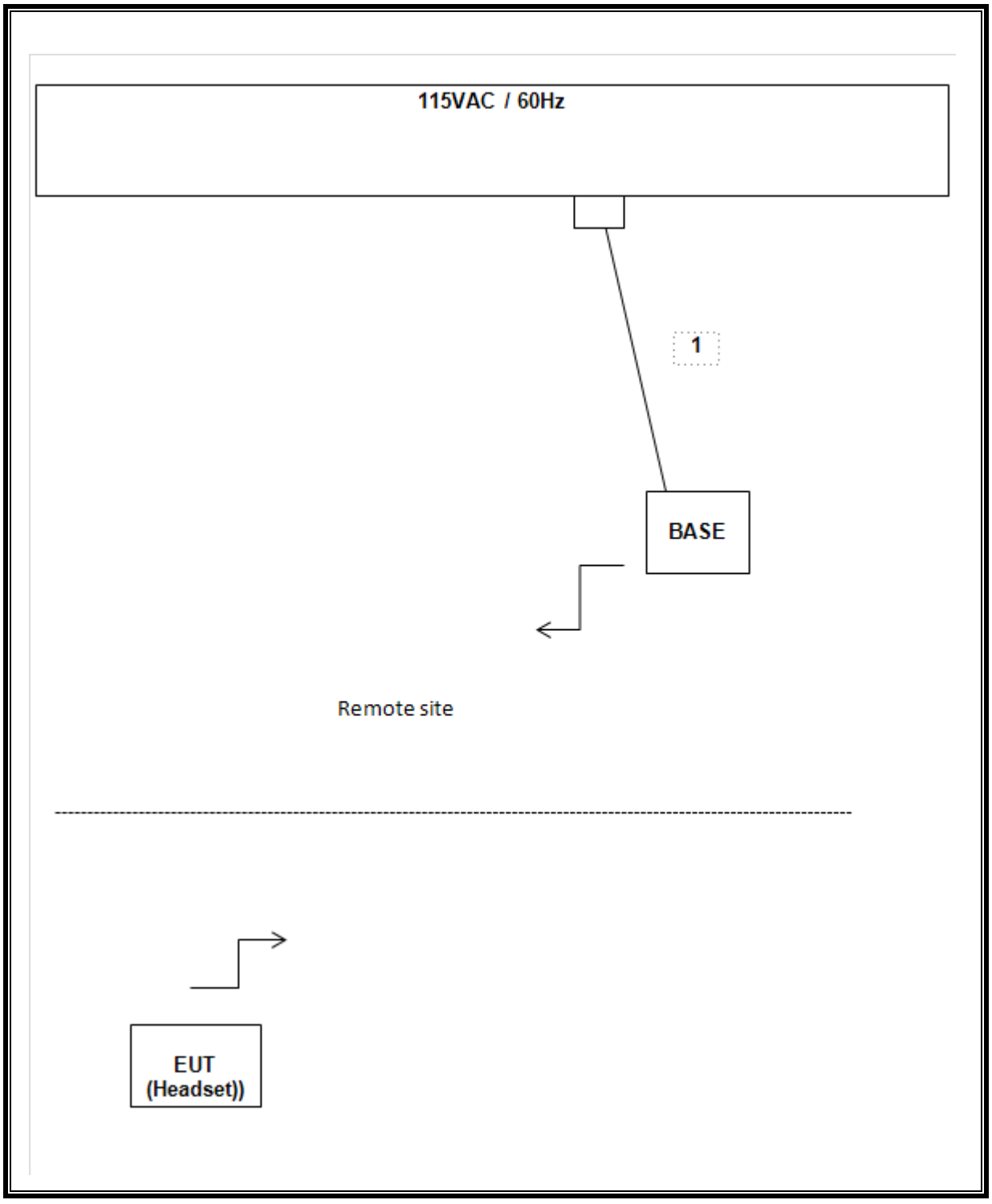
The EUT's firmware installed during testing was FW19.57

5.5. DESCRIPTION OF TEST SETUP

TEST SETUP

The EUT is the standalone unit, setup wireless link to the remote base.

SETUP DIAGRAM FOR TESTS



6. TEST AND MEASUREMENT EQUIPMENT

The following test and measurement equipment was utilized for the tests documented in this report:

TEST EQUIPMENT LIST				
Description	**Manufacturer**	**Model**	**Asset**	**Cal Due**
Antenna, Bilog, 2 GHz	Sunol Sciences	JB1	C01016	01/26/13
Preamplifier, 26.5 GHz	Agilent / HP	8449B	C01052	10/14/13
Spectrum Analyzer, 26.5 GHz	Agilent / HP	E4440A	C01178	08/31/13
Antenna, Horn, 18 GHz	EMCO	3115	C00945	10/20/13
LISN, 30 MHz	FCC	LISN-50/250-25-2	N02625	08/06/13
EMI Test Receiver, 30 MHz	R & S	ESHS 20	N02396	05/06/13
Hi pass Filter, 1.5GHz	Micro-Tronics	BRC13192	N02683	CNR
Peak Power Meter	Agilent / HP	E4416A	C00963	12/13/13
Peak Power Sensor	Agilent / HP	57318	C01202	02/23/13

7. ANTENNA PORT TEST RESULTS

7.1.1. 6 dB BANDWIDTH

LIMITS

FCC §15.247 (a) (2)

IC RSS-210 A8.2 (a)

The minimum 6 dB bandwidth shall be at least 500 kHz.

TEST PROCEDURE

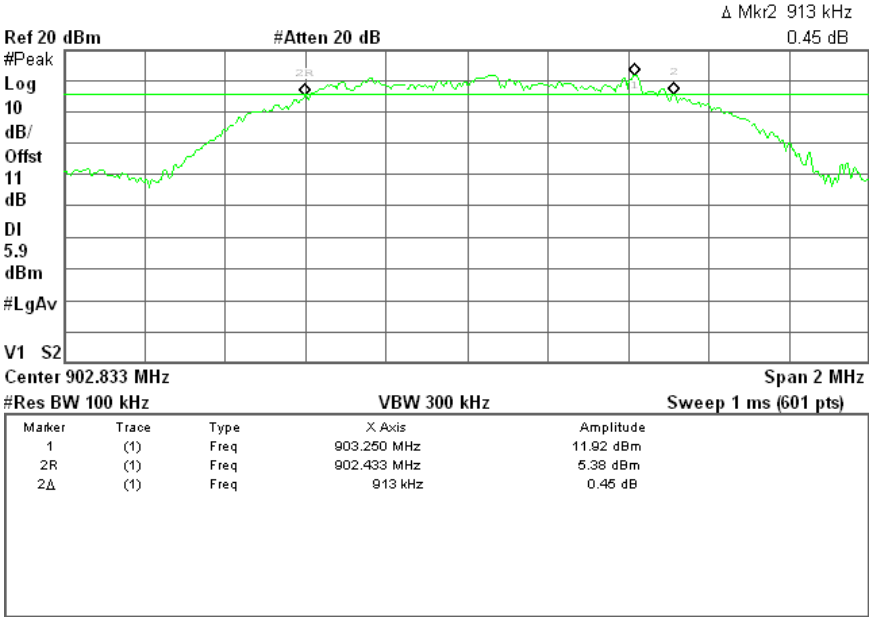
The transmitter output is connected to a spectrum analyzer. The RBW is set to 100 kHz and the VBW is set to 300 kHz. The sweep time is coupled.

RESULTS

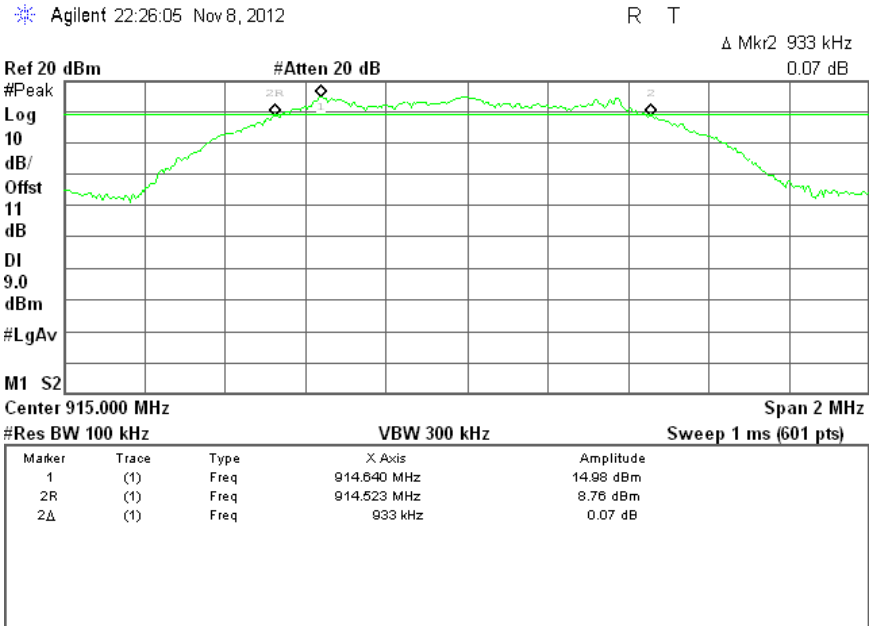
Channel	Frequency (MHz)	6 dB Bandwidth (KHz)	Minimum Limit (MHz)
Low	902.85	913.000	0.5
Middle	915	933.000	0.5
High	927.125	957.000	0.5

6 dB BANDWIDTH

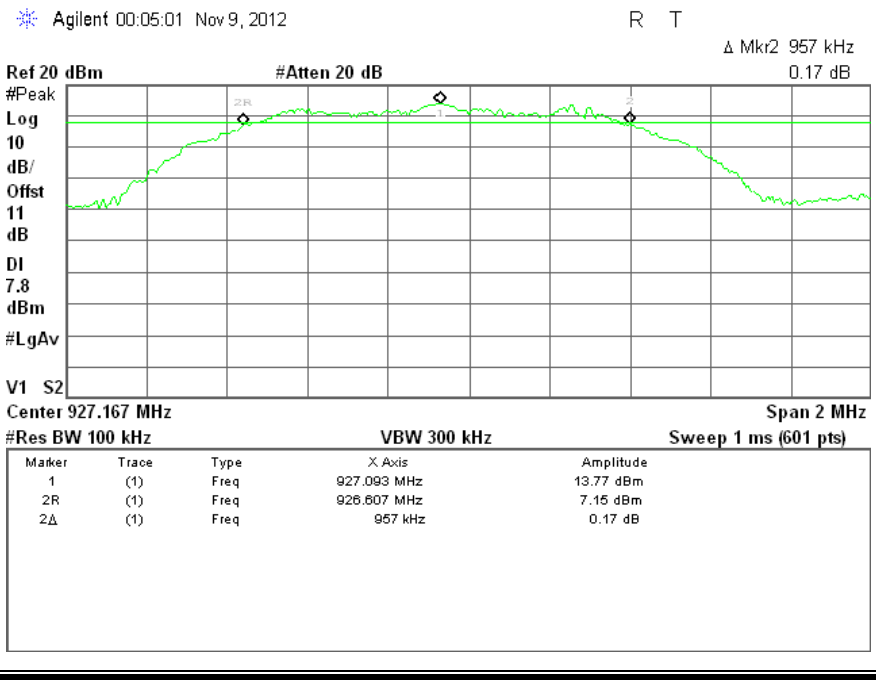
6 dB BANDWIDTH LOW CH



6 dB BANDWIDTH MID CH



6 dB BANDWIDTH HIGH CH



7.1.2. 99% BANDWIDTH

LIMITS

None; for reporting purposes only.

TEST PROCEDURE

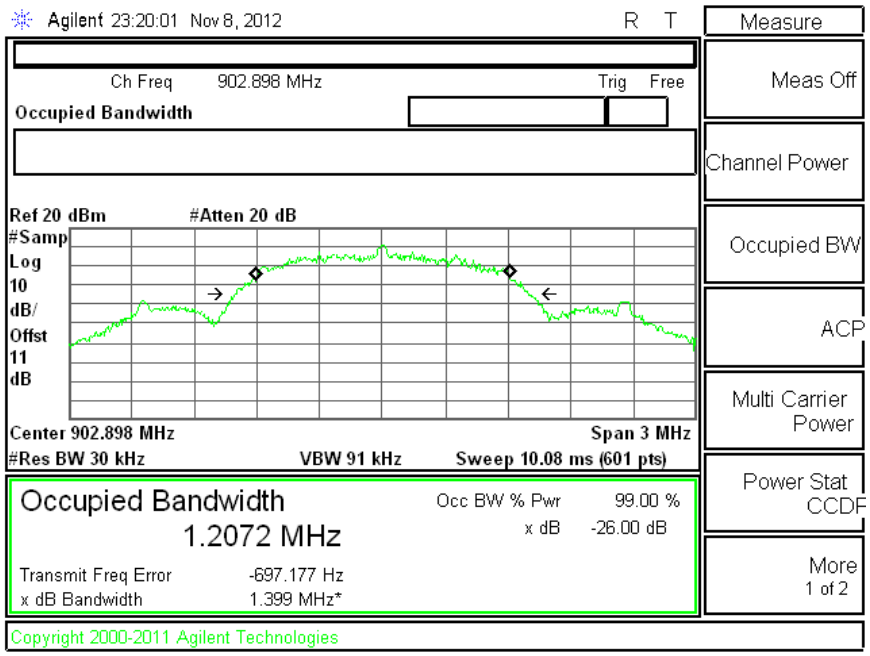
The transmitter output is connected to the spectrum analyzer. The RBW is set to 1% to 3% of the 99 % bandwidth. The VBW is set to 3 times the RBW. The sweep time is coupled. The spectrum analyzer internal 99% bandwidth function is utilized.

RESULTS

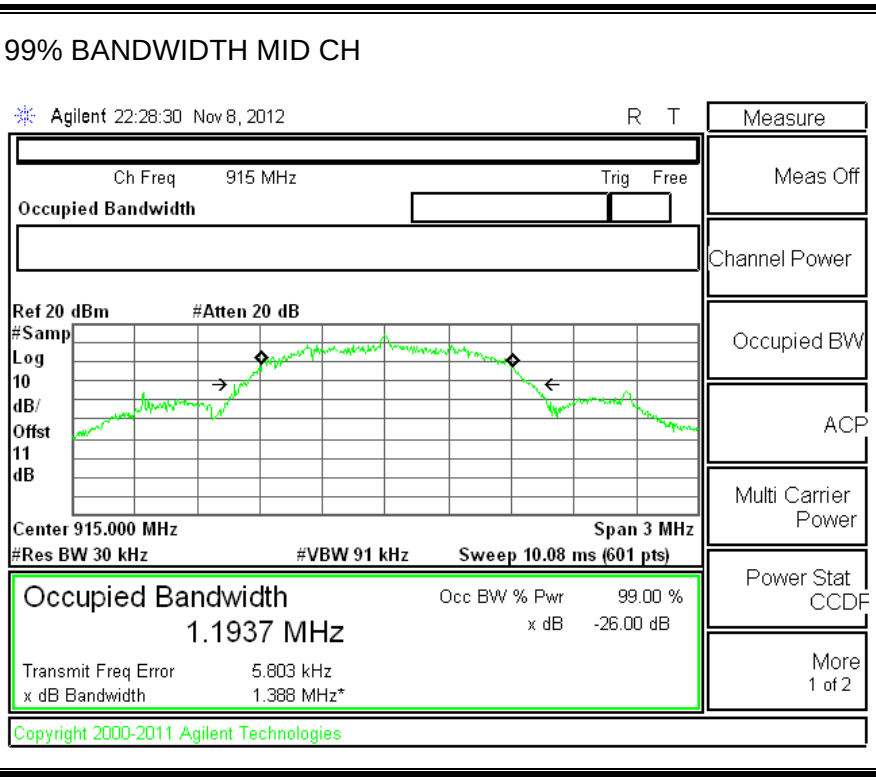
Channel	Frequency (MHz)	99% Bandwidth (KHz)
Low	902.850	1207.2
Middle	915.000	1193.7
High	927.125	1200.8

99% BANDWIDTH

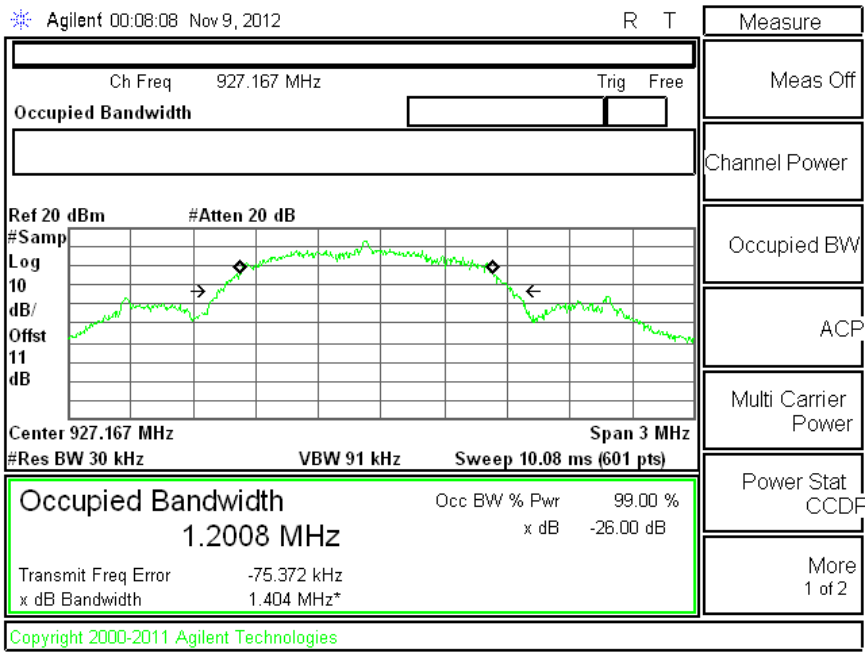
99% BANDWIDTH LOW CH



99% BANDWIDTH MID CH



99% BANDWIDTH HIGH CH



7.1.3. OUTPUT POWER

LIMIT

§15.247 (b) (1)

RSS-210 Issue 7 Clause A8.4

The maximum antenna gain is less than 6 dBi, therefore the limit is 30 dBm.

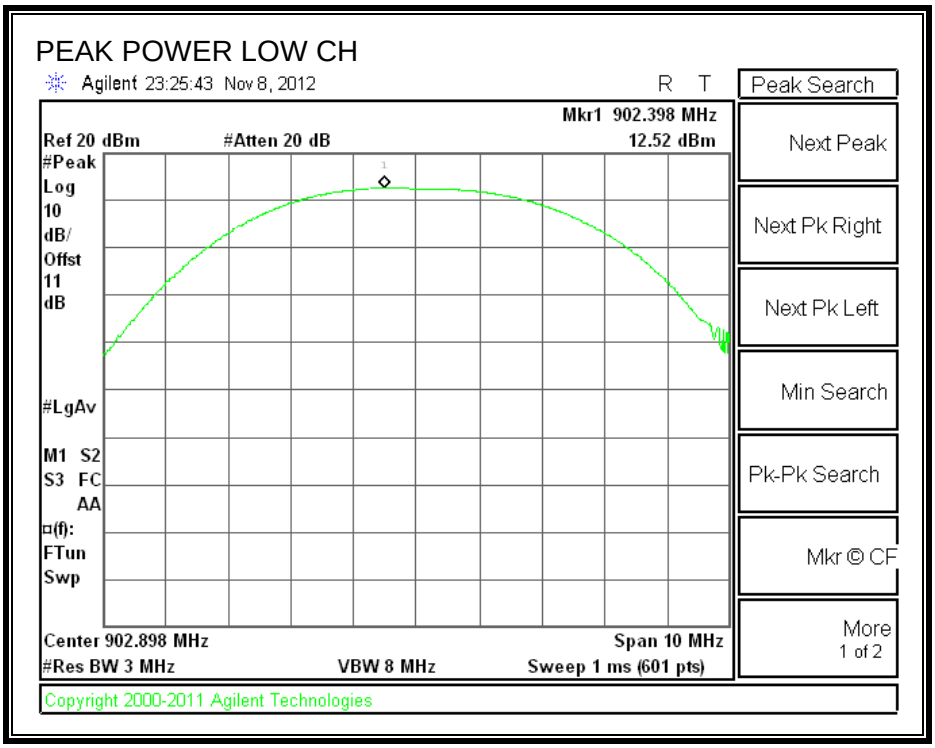
TEST PROCEDURE

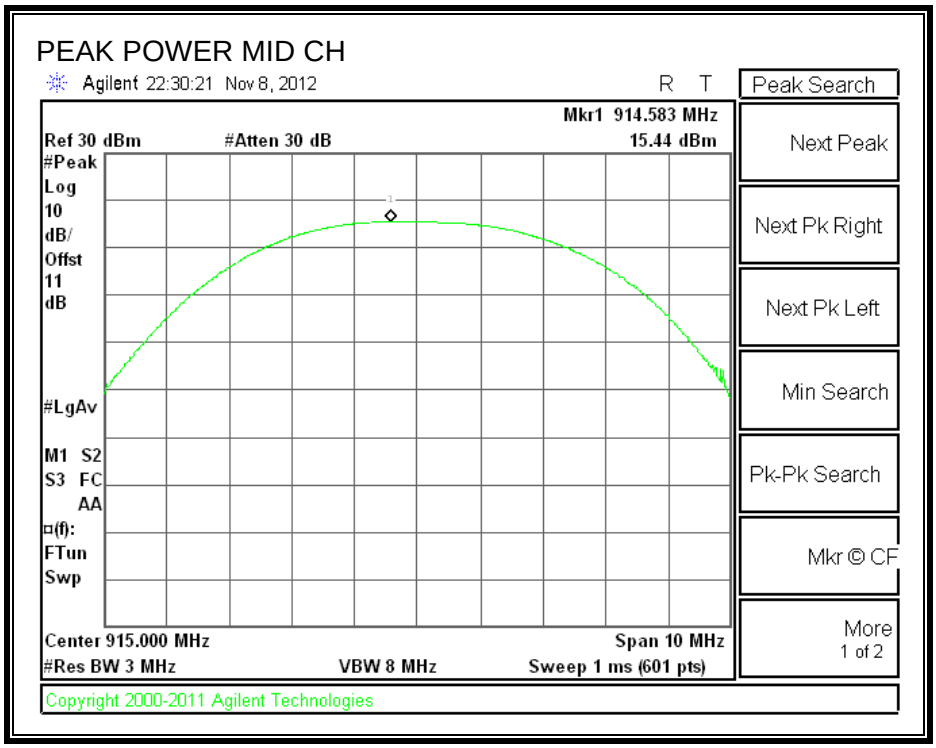
The transmitter output is connected to a spectrum analyzer the analyzer bandwidth is set to a value greater than the 20 dB bandwidth of the EUT.

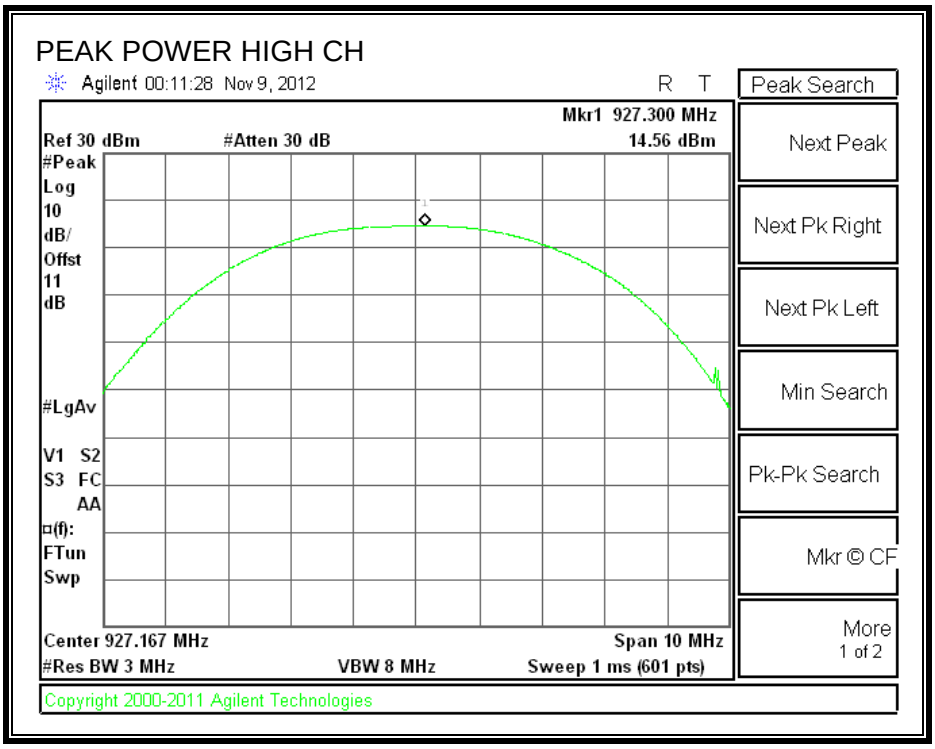
RESULTS

Channel	Frequency (MHz)	Output Power (dBm)	Limit (dBm)	Margin (dB)
Low	902.85	12.52	30	-17.48
Middle	915	15.44	30	-14.56
High	927.125	14.56	30	-15.44

OUTPUT POWER







7.1.4. AVERAGE POWER

LIMIT

None; for reporting purposes only.

TEST PROCEDURE

The transmitter output is connected to a power meter.

RESULTS

The cable assembly insertion loss of 11 dB (including 10 dB pad and 1dB cable) was entered as an offset in the power meter to allow for direct reading of power.

Channel	Frequency (MHz)	Average Power (dBm)
Low	902.85	-0.54
Middle	915	1.04
High	927.125	0.19

7.1.5. POWER SPECTRAL DENSITY

LIMITS

FCC §15.247 (e)

IC RSS-210 A8.2 (b)

The power spectral density conducted from the transmitter to the antenna shall not be greater than 8 dBm in any 3 kHz band during any time interval of continuous transmission.

TEST PROCEDURE

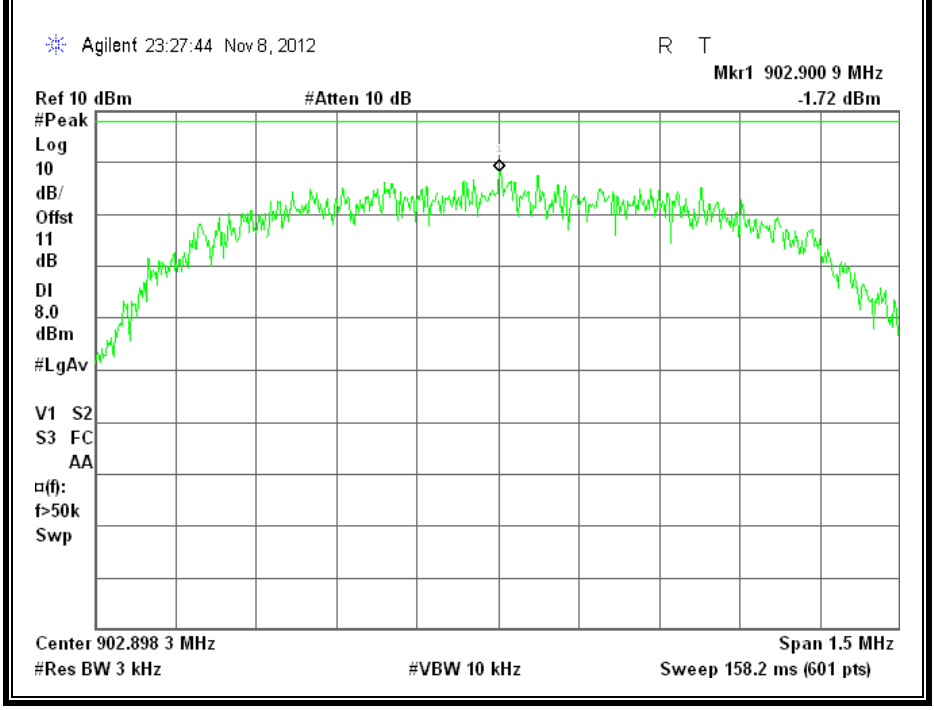
The transmitter output is connected to a spectrum analyzer, the maximum level in a 3 kHz bandwidth is measured with the spectrum analyzer using RBW = 3kHz and VBW > 3 kHz, sweep time = span/3 kHz, and video averaging is turned off. The PPSD is the highest level found across the emissions in any 3 kHz band.

RESULTS

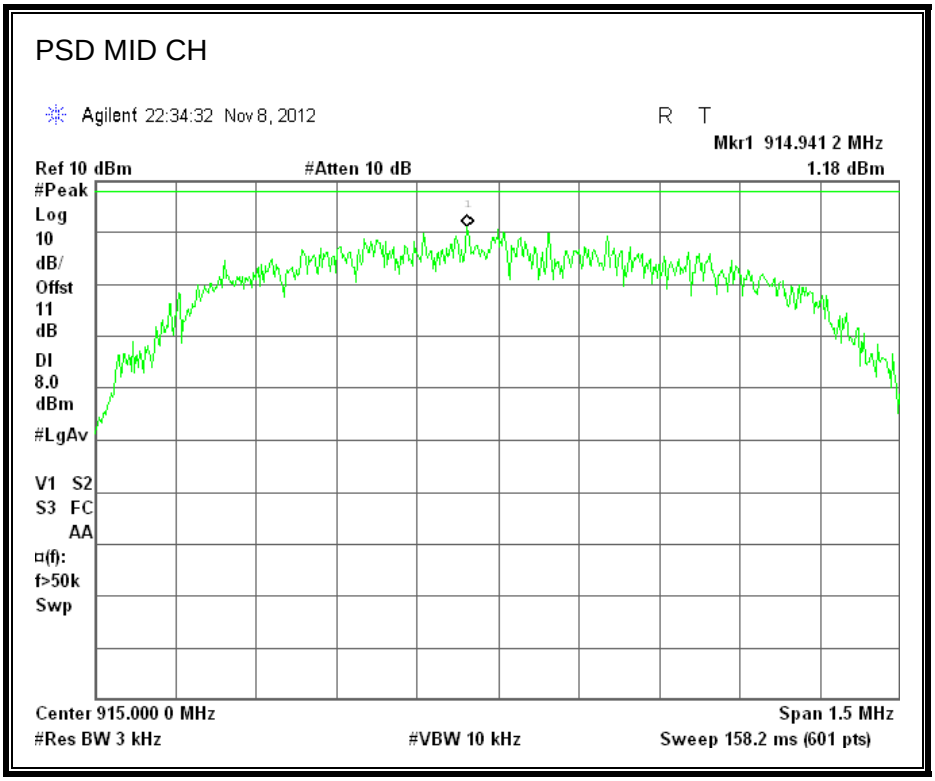
Channel	Frequency (MHz)	PPSD (dBm)	Limit (dBm)	Margin (dB)
Low	902.850	-1.72	8	-9.72
Middle	915.000	1.18	8	-6.82
High	927.125	0.25	8	-7.75

POWER SPECTRAL DENSITY

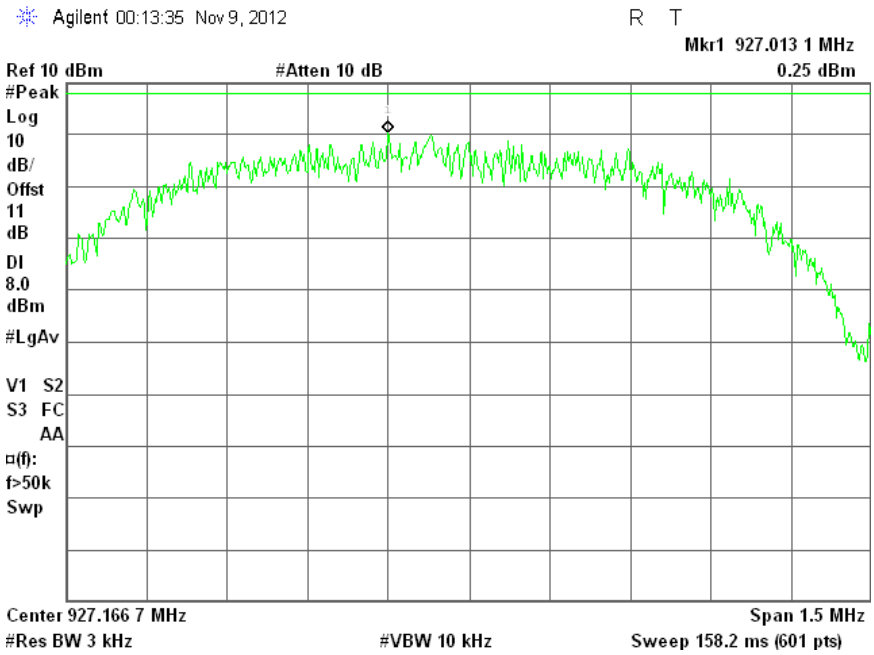
PSD LOW CH



PSD MID CH



PSD HIGH CH



7.1.6. CONDUCTED SPURIOUS EMISSIONS

LIMITS

FCC §15.247 (d)

IC RSS-210 A8.5

Output power was measured based on the use of a peak measurement, therefore the required attenuation is 20 dB.

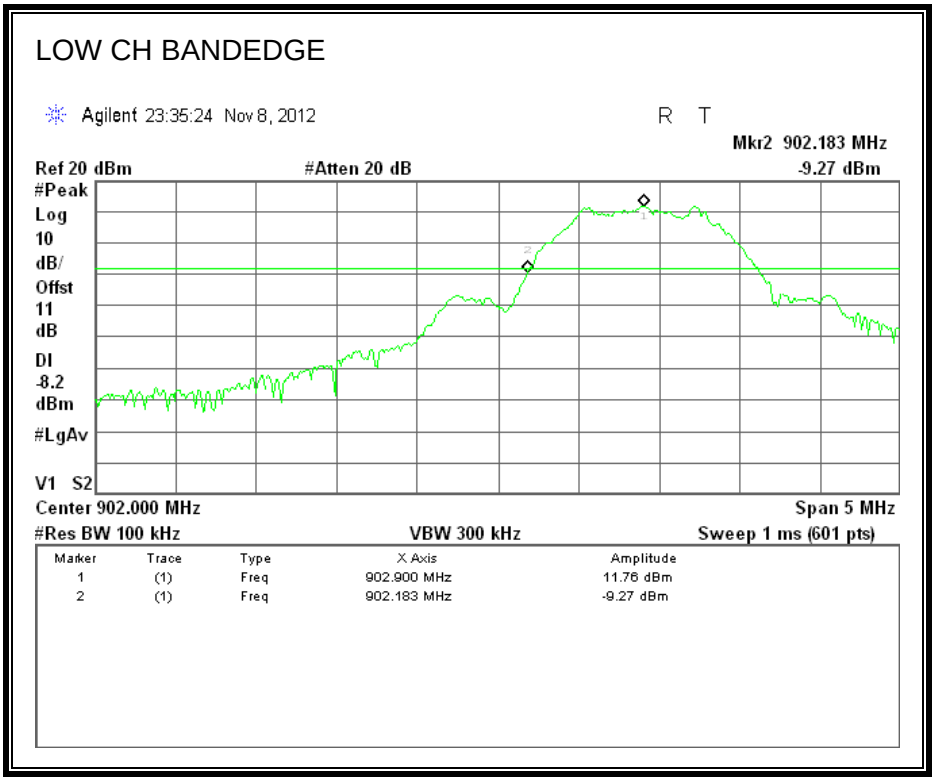
TEST PROCEDURE

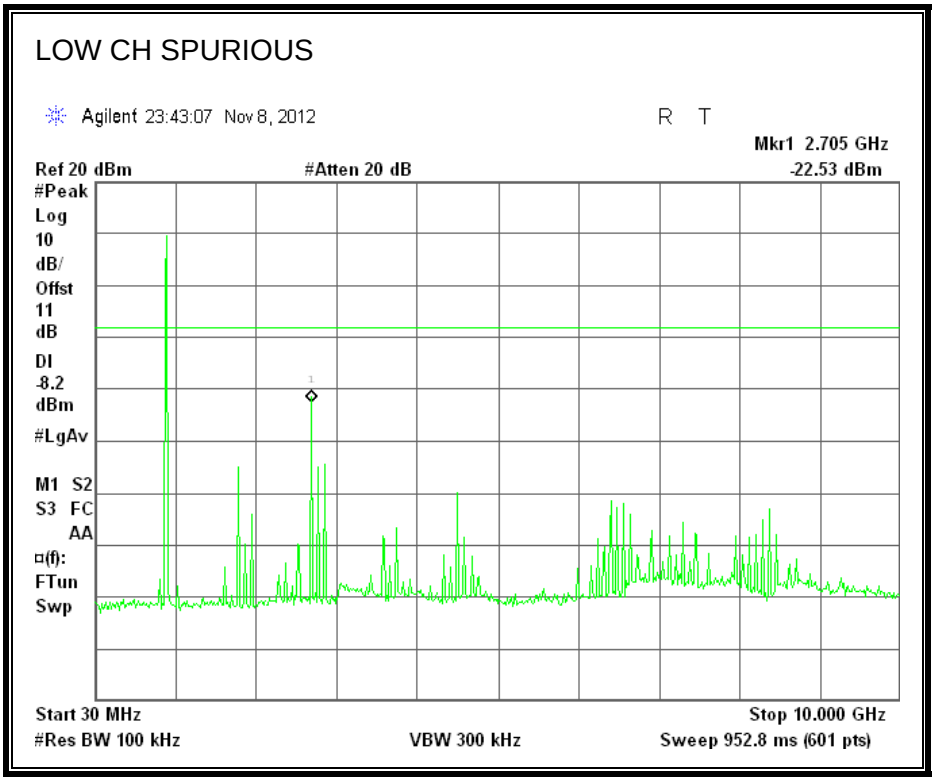
The transmitter output is connected to a spectrum analyzer. The resolution bandwidth is set to 100 kHz. The video bandwidth is set to 300 kHz.

The spectrum from 30 MHz to 10 GHz is investigated with the transmitter set to the lowest, middle, and highest channels.

RESULTS

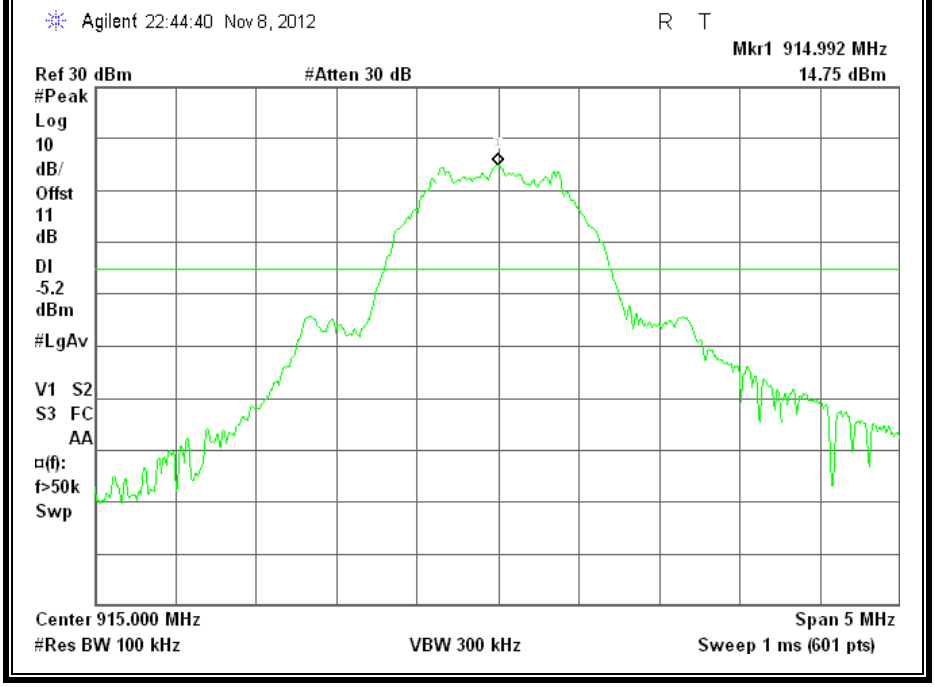
SPURIOUS EMISSIONS, LOW CHANNEL



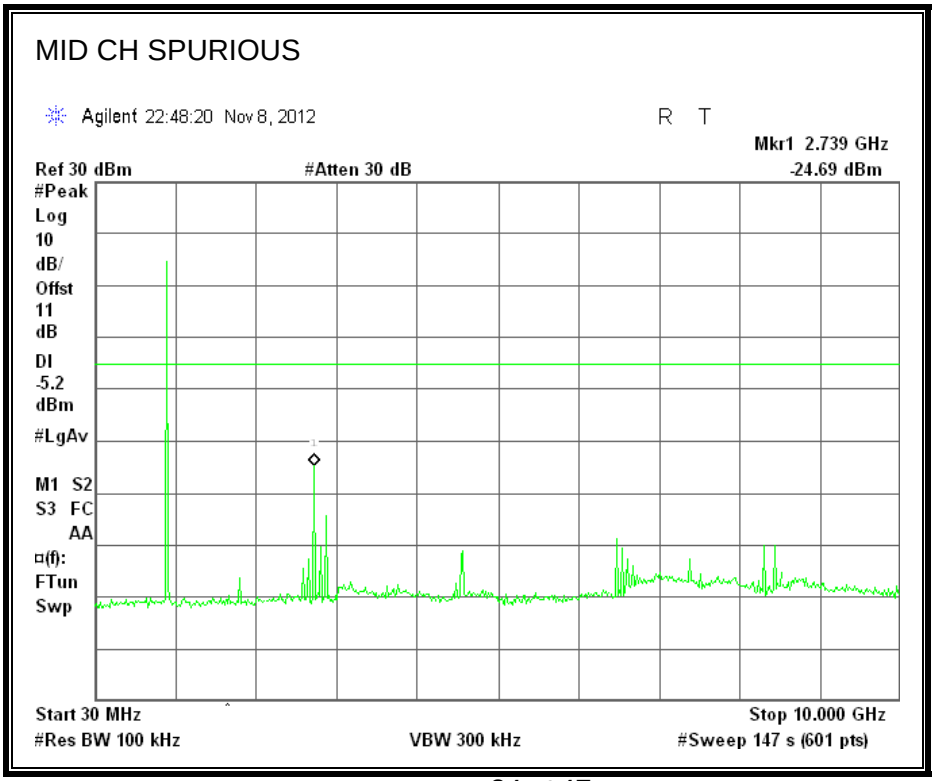


SPURIOUS EMISSIONS, MID CHANNEL

MID CH REFERENCE

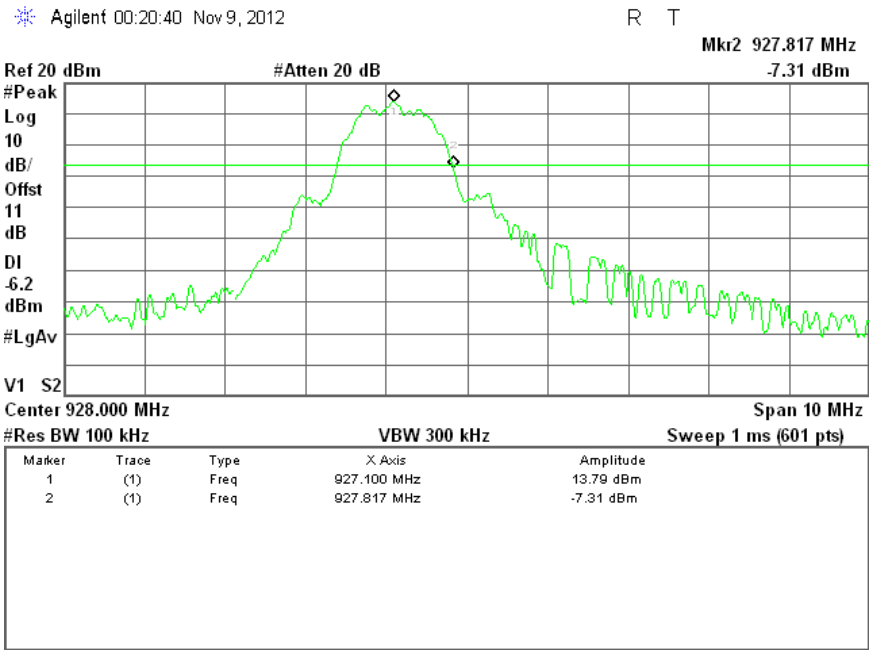


MID CH SPURIOUS

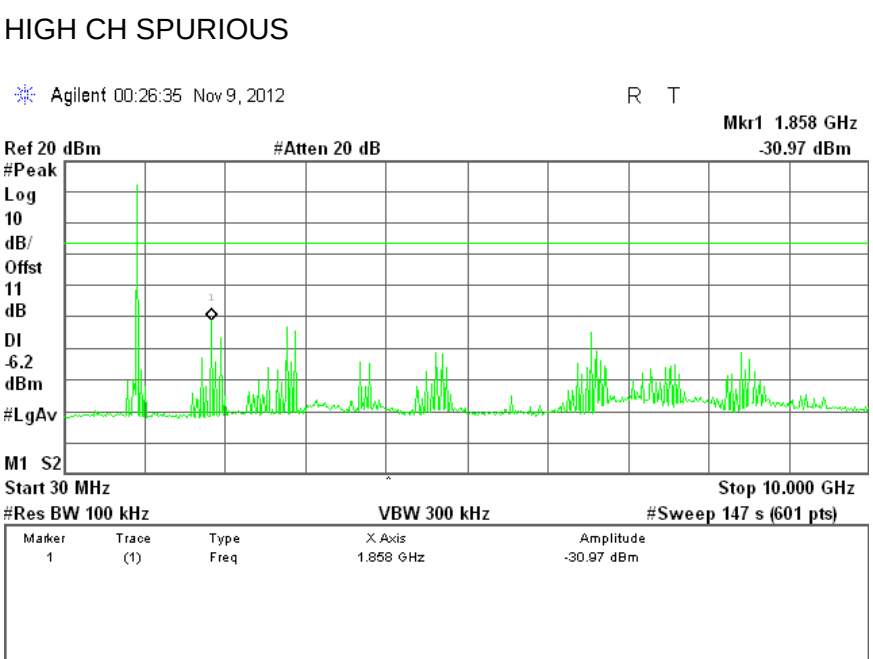


SPURIOUS EMISSIONS, HIGH CHANNEL

HIGH CH BANDEDGE



HIGH CH SPURIOUS



8. RADIATED TEST RESULTS

8.1. LIMITS AND PROCEDURE

LIMITS

FCC §15.205 and §15.209

IC RSS-210 Clause 2.6 (Transmitter)

IC RSS-GEN Clause 6 (Receiver)

Frequency Range (MHz)	Field Strength Limit (uV/m) at 3 m	Field Strength Limit (dBuV/m) at 3 m
30 - 88	100	40
88 - 216	150	43.5
216 - 960	200	46
Above 960	500	54

TEST PROCEDURE

The EUT is placed on a non-conducting table 80 cm above the ground plane. The antenna to EUT distance is 3 meters. The EUT is configured in accordance with ANSI C63.4. The EUT is set to transmit in a continuous mode.

For measurements below 1 GHz the resolution bandwidth is set to 100 kHz for peak detection measurements or 120 kHz for quasi-peak detection measurements. Peak detection is used unless otherwise noted as quasi-peak.

For measurements above 1 GHz the resolution bandwidth is set to 1 MHz, then the video bandwidth is set to 1 MHz for peak measurements and 10 Hz for average measurements.

The spectrum from 30 MHz to 10 GHz is investigated with the transmitter set to the lowest, middle, and highest channels in the 900 MHz band.

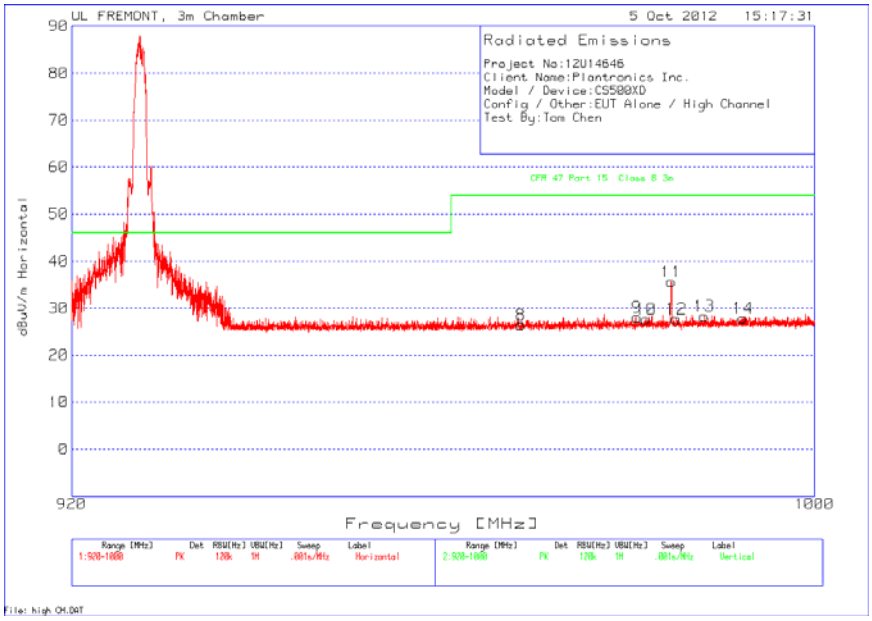
The frequency range of interest is monitored at a fixed antenna height and EUT azimuth. The EUT is rotated through 360 degrees to maximize emissions received. The antenna is scanned from 1 to 4 meters above the ground plane to further maximize the emission. Measurements are made with the antenna polarized in both the vertical and the horizontal positions.

8.2. TRANSMITTER BELOW 1 GHz

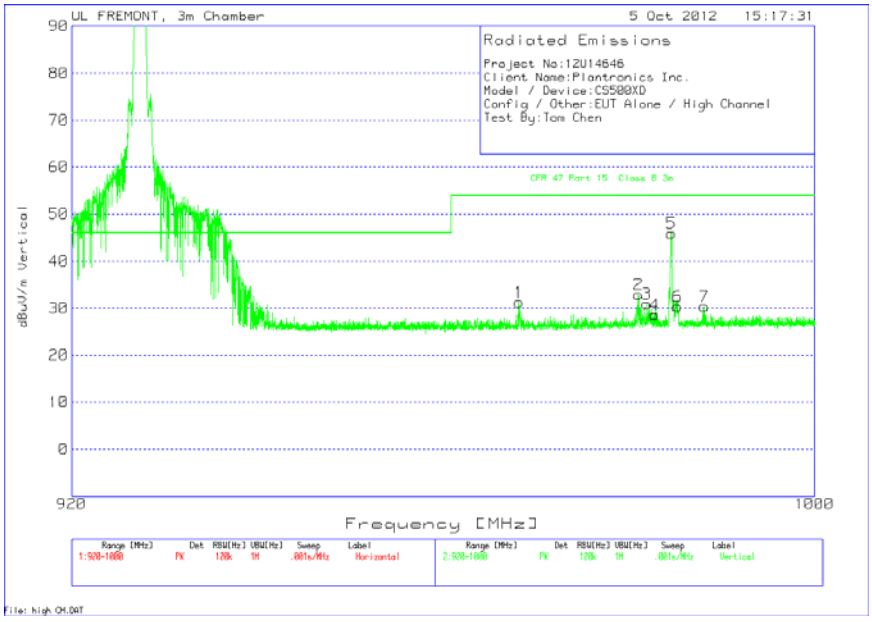
8.2.1. BANDEDGE

RESTRICTED BANDEDGE (HIGH CHANNEL)

HIGH CHANNEL RESTRICTED, PEAK, HORIZ



HIGH CHANNEL RESTRICTED, PEAK, VERT



HIGH CHANNEL RESTRICTED (VERTICAL AND HORIZONTAL DATA)

Project No:12U14646
Client Name:Plantronics Inc.
Model / Device:CS500XD
Config / Other:EUT Alone / High Channel
Test By:Tom Chen

Horizontal 920 - 1000MHz

Marker No.	Test Frequency	Meter Reading	Detector	25MHz-1GHz Chambr 3m Amplified (dB)	Antenna T185 (dB)	dBuV/m	CFR 47 Part 15 Class B 3m	Margin	Height [cm]	Polarity
8	967.6099	27.4	PK	-23.6	22.7	26.5	54	-27.5	201	Horz
9	980.2718	28.69	PK	-23.5	22.9	28.09	54	-25.91	101	Horz
10	981.295	28.27	PK	-23.5	22.9	27.67	54	-26.33	301	Horz
11	984.0688	36.02	PK	-23.4	23	35.62	54	-18.38	101	Horz
12	984.6203	28.16	PK	-23.4	23	27.76	54	-26.24	301	Horz
13	987.7058	28.76	PK	-23.5	23.1	28.36	54	-25.64	201	Horz
14	992.0224	28.25	PK	-23.5	23.1	27.85	54	-26.15	101	Horz

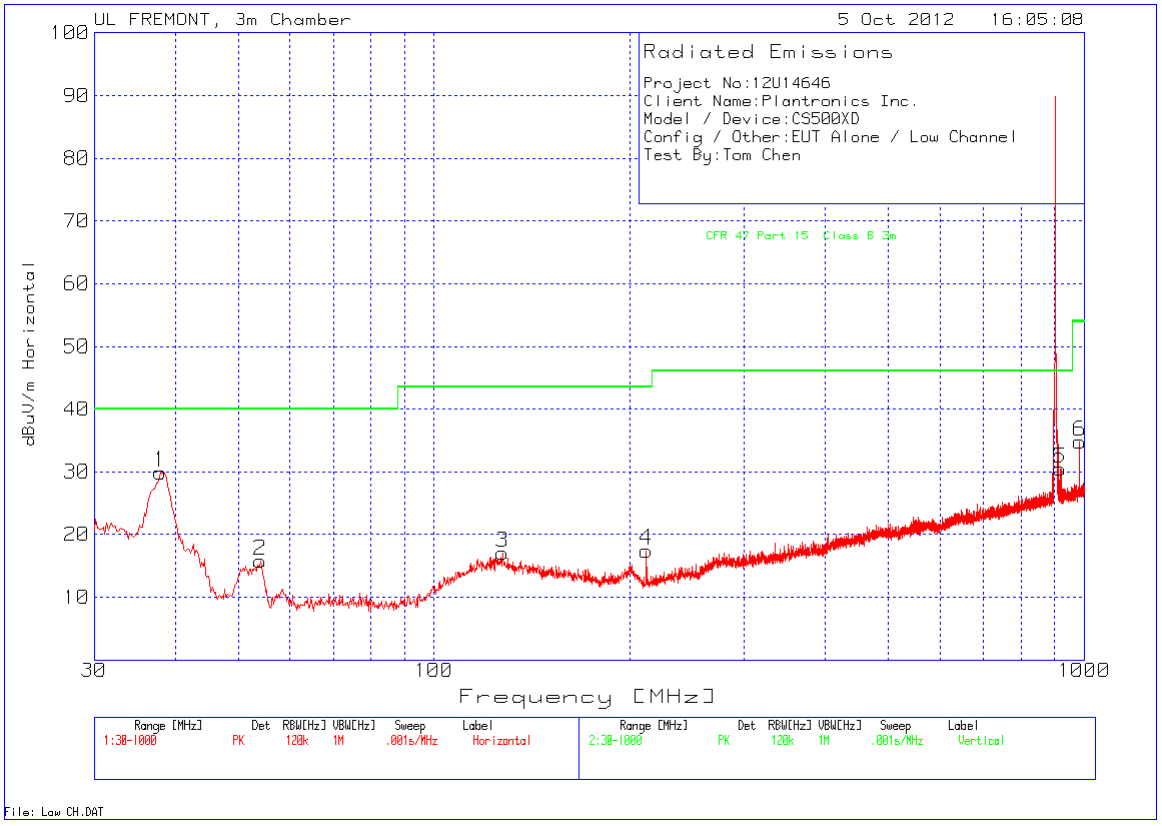
Vertical 920 - 1000MHz

Marker No.	Test Frequency	Meter Reading	Detector	25MHz-1GHz Chambr 3m Amplified (dB)	Antenna T185 (dB)	dBuV/m	CFR 47 Part 15 Class B 3m	Margin	Height [cm]	Polarity
1	967.3861	32.19	PK	-23.6	22.7	31.29	54	-22.71	100	Vert
2	980.4317	33.55	PK	-23.5	22.9	32.95	54	-21.05	100	Vert
3	981.3749	31.56	PK	-23.5	22.9	30.96	54	-23.04	100	Vert
4	982.2222	29.2	PK	-23.5	22.9	28.6	54	-25.4	100	Vert
5	984.0608	46.33	PK	-23.4	23	45.93	54	-8.07	100	Vert
6	984.7802	30.76	PK	-23.4	23	30.36	54	-23.64	201	Vert
7	987.7218	30.79	PK	-23.5	23.1	30.39	54	-23.61	100	Vert

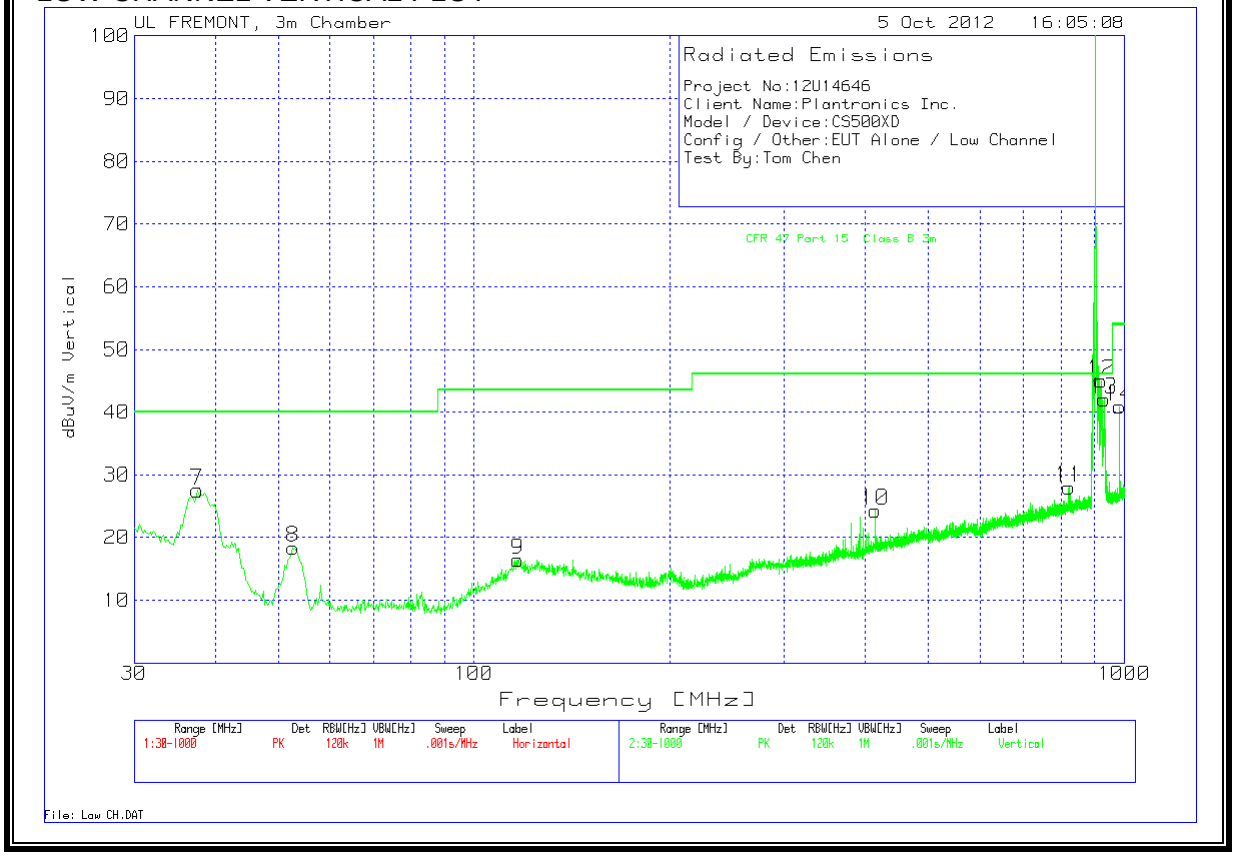
8.2.2. HARMONICS AND SPURIOUS ENISSION

LOW CHANNEL EMISSIONS

LOW CHANNEL HORIZONTAL PLOT



LOW CHANNEL VERTICAL PLOT



LOW CHANNEL DATA

Project No:12U14646
Client Name:Plantronics Inc.
Model / Device:CS500XD
Config / Other:EUT Alone / Low Channel
Test By:Tom Chen

Horizontal 30 - 1000MHz

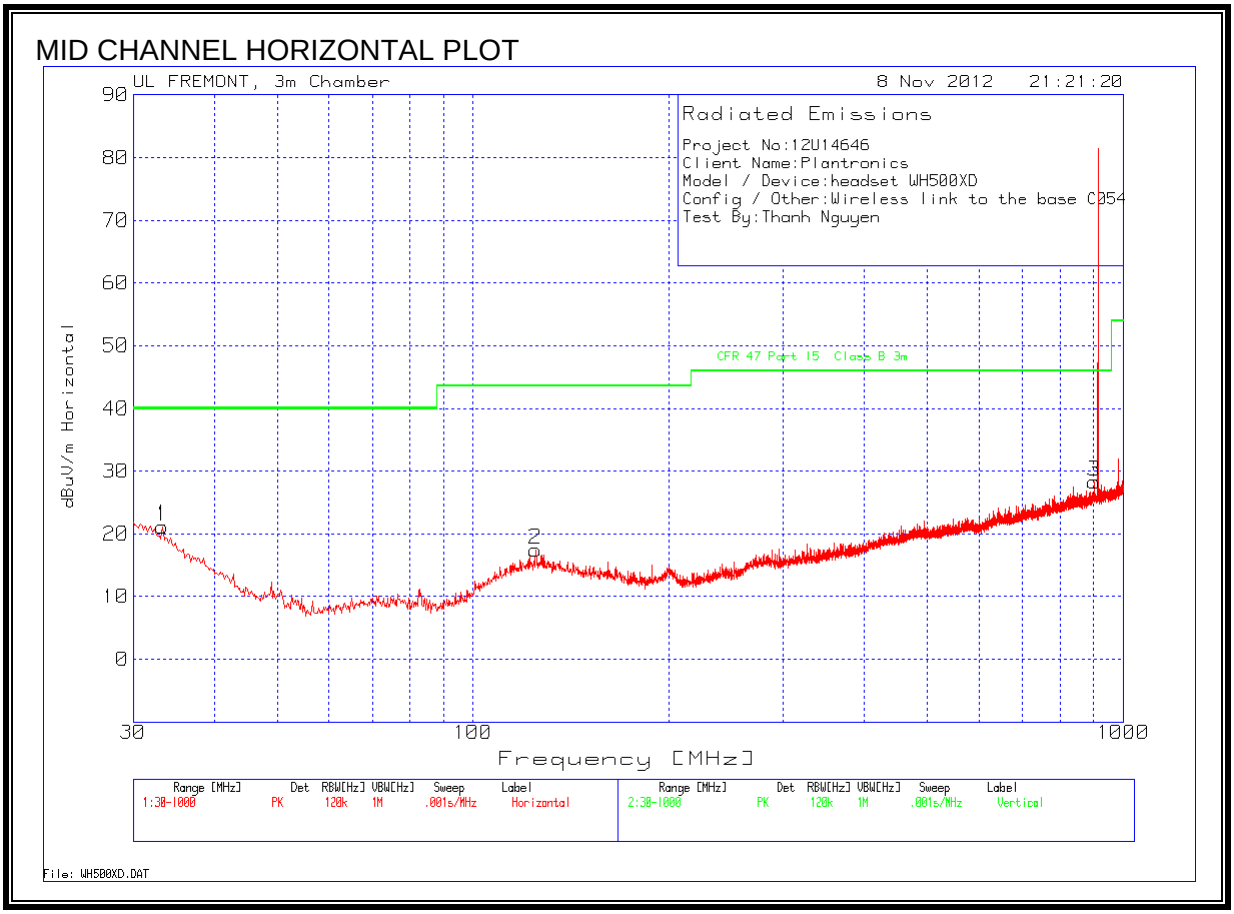
Marker No.	Test Frequency	Meter Reading	Detector	25MHz-1GHz Chambr 3m Amplified (dB)	Antenna T185 (dB)	dBuV/m	CFR 47 Part 15 Class B 3m	Margin	Height [cm]	Polarity
1	37.9476	42.01	PK	-27.4	15.3	29.91	40	-10.09	400	Horz
2	54.0368	35.95	PK	-27.2	7	15.75	40	-24.25	400	Horz
3	127.504	29.64	PK	-26.5	13.9	17.04	43.5	-26.46	201	Horz
4	212.0204	32.82	PK	-25.8	10.4	17.42	43.5	-26.08	400	Horz
5	918.3913	32.05	PK	-23.9	22.3	30.45	46	-15.55	99	Horz
6	984.1047	35.17	PK	-23.4	23	34.77	54	-19.23	99	Horz

Vertical 30 - 1000MHz

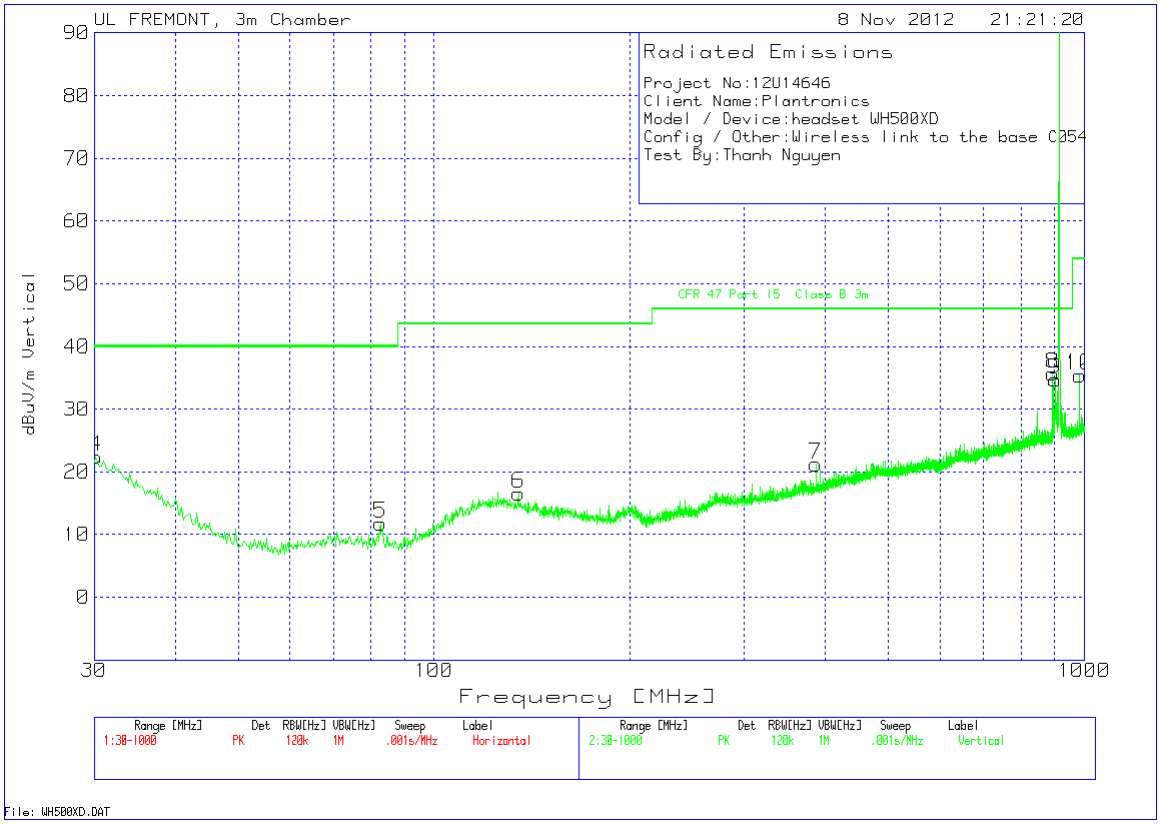
Marker No.	Test Frequency	Meter Reading	Detector	25MHz-1GHz Chambr 3m Amplified (dB)	Antenna T185 (dB)	dBuV/m	CFR 47 Part 15 Class B 3m	Margin	Height [cm]	Polarity
7	37.56	39.36	PK	-27.4	15.6	27.56	40	-12.44	100	Vert
8	52.6799	38.37	PK	-27.3	7.3	18.37	40	-21.63	201	Vert
9	116.8425	29.52	PK	-26.6	13.5	16.42	43.5	-27.08	301	Vert
10	414.2006	33.92	PK	-25.7	16.1	24.32	46	-21.68	201	Vert
11	821.8565	30.8	PK	-24.4	21.6	28	46	-18	100	Vert
12	921.8805	46.59	PK	-23.9	22.3	44.99	46	-1.01	100	Vert
13	931.5727	43.45	PK	-23.8	22.4	42.05	46	-3.95	100	Vert
14	984.1047	41.29	PK	-23.4	23	40.89	54	-13.11	100	Vert

MID CHANNEL EMISSIONS

MID CHANNEL HORIZONTAL PLOT



MID CHANNEL VERTICAL PLOT



MID CHANNEL DATA

Project No:12U14646
Client Name:Plantronics
Model / Device:headset WH500XD
Config / Other: Mid channel Wireless link to the base C054
Test By:Thanh Nguyen

Horizontal 30 - 1000MHz

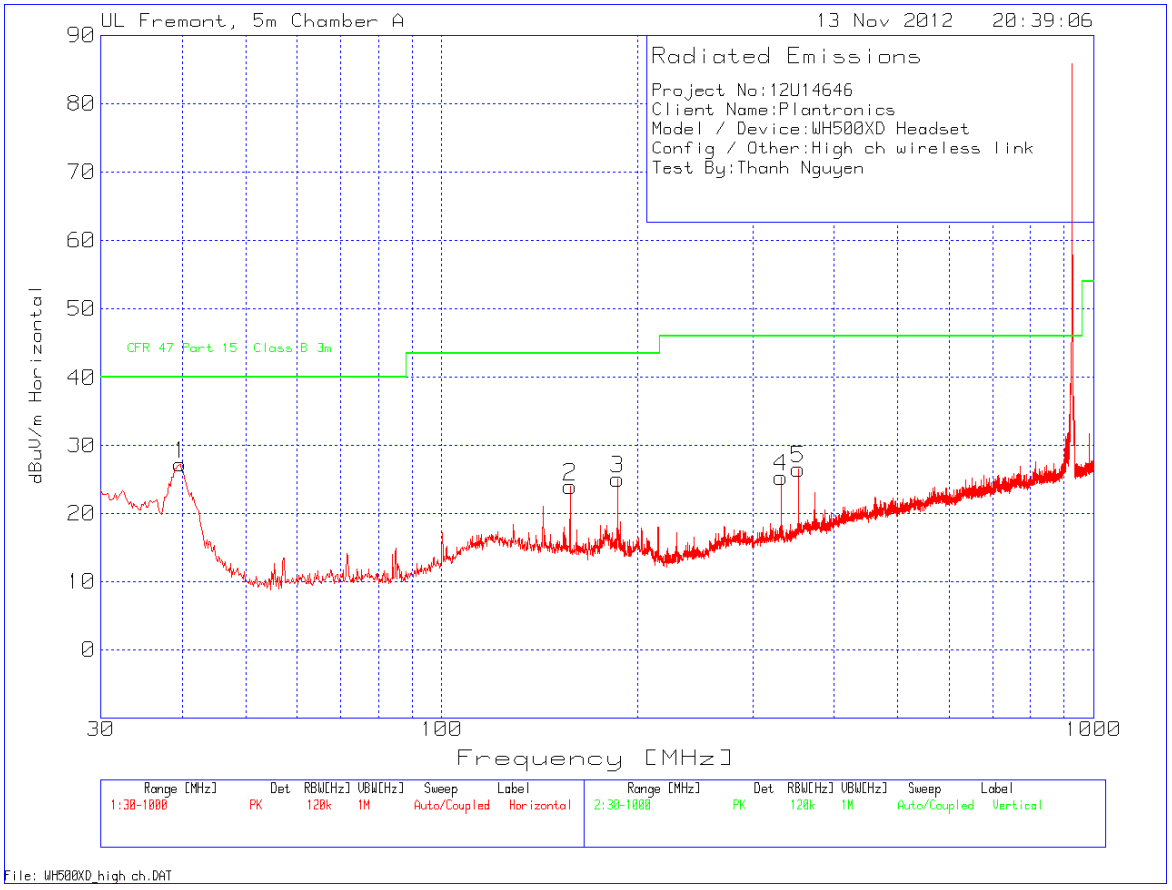
Marker No.	Test Frequency	Meter Reading	Detector	25MHz-1GHz Chambr 3m Amplified (dB)	Antenna T185 (dB)	dBuV/m	CFR 47 Part 15 Class B 3m	Margin	Height [cm]	Polarity
1	33.2954	29.85	PK	-27.5	18.8	21.15	40	-18.85	201	Horz
2	124.7902	29.92	PK	-26.5	14	17.42	43.5	-26.08	400	Horz
3	902.496	30.2	PK	-24.1	22.2	28.3	46	-17.7	99	Horz

Vertical 30 - 1000MHz

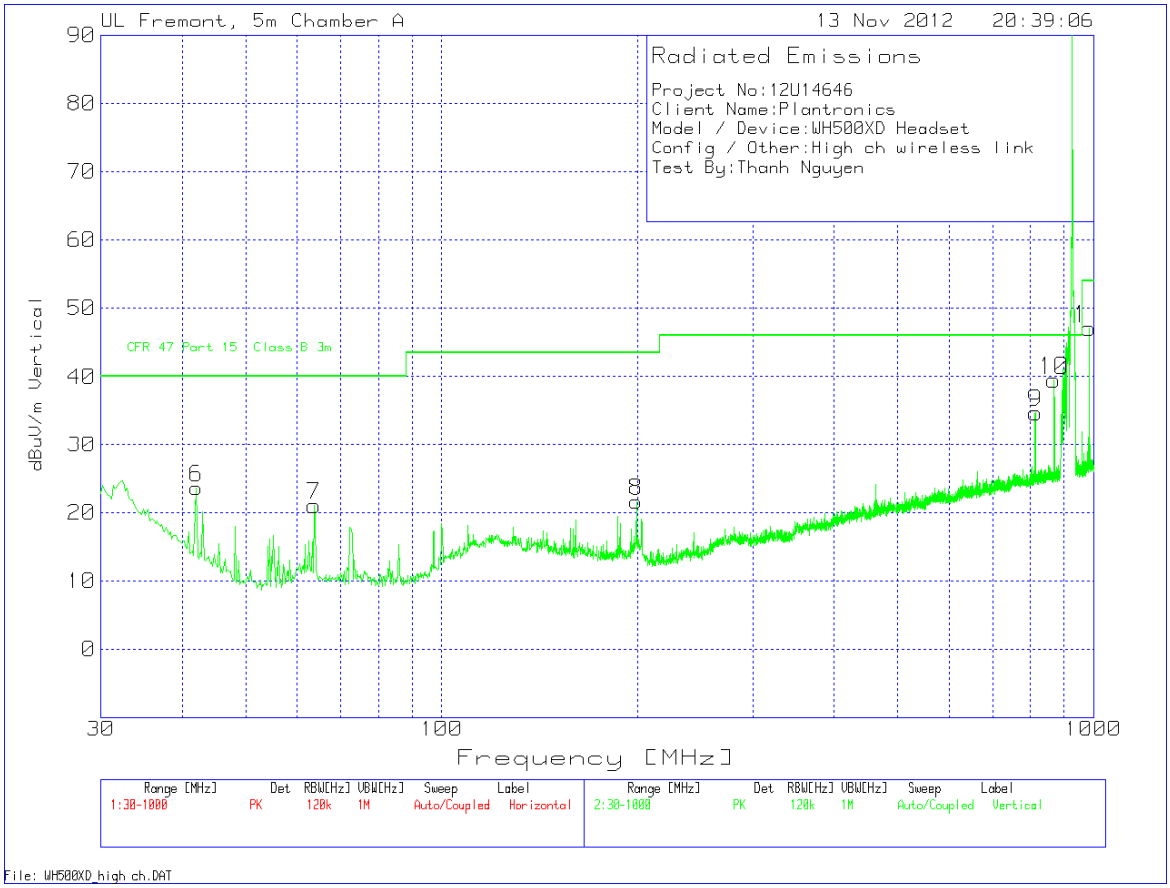
Marker No.	Test Frequency	Meter Reading	Detector	25MHz-1GHz Chambr 3m Amplified (dB)	Antenna T185 (dB)	dBuV/m	CFR 47 Part 15 Class B 3m	Margin	Height [cm]	Polarity
4	30.1938	28.8	PK	-27.5	21.1	22.4	40	-17.6	99	Vert
5	82.7258	31.26	PK	-27	7.5	11.76	40	-28.24	99	Vert
6	134.8701	29.58	PK	-26.5	13.5	16.58	43.5	-26.92	300	Vert
7	386.4808	31.73	PK	-25.5	15	21.23	46	-24.77	400	Vert
8	894.1607	37.54	PK	-24	22.1	35.64	46	-10.36	99	Vert
9	902.496	36.6	PK	-24.1	22.2	34.7	46	-11.3	99	Vert
10	984.1047	35.78	PK	-23.4	23	35.38	54	-18.62	400	Vert

HIGH CHANNEL EMISSIONS

HIGH CHANNEL HORIZONTAL PLOT



HIGH CHANNEL VERTICAL PLOT



HIGH CHANNEL DATA

Project No:12U14646
Client Name:Plantronics
Model / Device:WH500XD Headset
Config / Other:High ch wireless link
Test By:Thanh Nguyen

Horizontal 30 - 1000MHz									
Test Frequency	Meter Reading	Detector	25MHz-1GHz ChmbrA Amplified.TX (dB)	T243 Sunol Bilog.TXT (dB)	dBuV/m	CFR 47 Part 15 Class B 3m	Margin	Height [cm]	Polarity
39.6922	40.41	PK	-27.3	14.1	27.21	40	-12.79	100	Horz
157.3561	38.4	PK	-26.5	12	23.9	43.5	-19.6	100	Horz
186.0452	40.23	PK	-26.4	11.2	25.03	43.5	-18.47	100	Horz
331.8165	37.31	PK	-25.7	13.7	25.31	46	-20.69	100	Horz
352.461	37.38	PK	-25.5	14.6	26.48	46	-19.52	100	Horz
Vertical 30 - 1000MHz									
Test Frequency	Meter Reading	Detector	25MHz-1GHz ChmbrA Amplified.TX (dB)	T243 Sunol Bilog.TXT (dB)	dBuV/m	CFR 47 Part 15 Class B 3m	Margin	Height [cm]	Polarity
42.0184	38.6	PK	-27.4	12.4	23.6	40	-16.4	100	Vert
63.729	40.6	PK	-27.2	7.6	21	40	-19	200	Vert
198.8389	35.6	PK	-26.2	12.2	21.6	43.5	-21.9	100	Vert
814.2966	36.64	PK	-23.2	21.3	34.74	46	-11.26	200	Vert
869.5424	41.39	PK	-23.3	21.4	39.49	46	-6.51	200	Vert
984.1047	47.48	PK	-23.2	22.8	47.08	54	-6.92	100	Vert

TRANSMITTER ABOVE 1 GHz; LOW, MID, and HIGH CHANNELS

High Frequency Measurement
Compliance Certification Services, Fremont 3m Chamber

Company: Plantronics
Project #: 12U14646
Date: 11/7/2012
Test Engineer: Thanh Nguyen
Configuration: EUT Headset500_XD and the remote Base C52
Mode: Wireless link to the Base

Test Equipment:

Horn 1-18GHz	Pre-amplifer 1-26GHz	Pre-amplifer 26-40GHz	Horn > 18GHz	Limit
T60; S/N: 2238 @3m	T34 HP 8449B			FCC 15.209

Hi Frequency Cables

3' cable 22807700	12' cable 22807600	20' cable 22807500	HPF	Reject Filter
3' cable 22807700	12' cable 22807600	20' cable 22807500		R_001

Peak Measurements
RBW=VBW=1MHz
Average Measurements
RBW=1MHz ; VBW=10Hz

f GHz	Dist (m)	Read Pk dBuV	Read Avg. dBuV	AF dB/m	CL dB	Amp dB	D Corr dB	Fltr dB	Peak dBuV/m	Avg dBuV/m	Pk Lim dBuV/m	Avg Lim dBuV/m	Pk Mar dB	Avg Mar dB	Notes (V/H)
Low ch 902.85MHz															
1.805	3.0	69.00	31.89	27.4	4.0	-36.6	0.0	0.0	63.8	26.7	74	54	-10.2	-27.3	V
2.709	3.0	60.79	28.69	29.4	5.0	-35.6	0.0	0.0	59.6	27.5	74	54	-14.4	-26.5	V
1.805	3.0	52.96	30.91	27.4	4.0	-36.6	0.0	0.0	47.7	25.7	74	54	-26.3	-28.3	H
2.709	3.0	56.95	28.50	29.4	5.0	-35.6	0.0	0.0	55.8	27.3	74	54	-18.2	-26.7	H
Mid ch 915MHz															
1.830	3.0	49.99	30.48	27.5	4.0	-36.6	0.0	0.0	44.9	25.4	74	54	-29.1	-28.6	V
2.745	3.0	51.64	29.57	29.5	5.0	-35.6	0.0	0.0	50.6	28.5	74	54	-23.4	-25.5	V
3.660	3.0	43.35	28.06	31.8	6.0	-34.8	0.0	0.0	46.4	31.1	74	54	-27.6	-22.9	V
1.830	3.0	48.32	30.16	27.5	4.0	-36.6	0.0	0.0	43.2	25.1	74	54	-30.8	-28.9	H
2.745	3.0	49.23	29.03	29.5	5.0	-35.6	0.0	0.0	48.2	28.0	74	54	-25.8	-26.0	H
3.660	3.0	43.26	28.43	31.8	6.0	-34.8	0.0	0.0	46.3	31.5	74	54	-27.7	-22.5	H
High ch 927MHz															
1.854	3.0	57.0	30.1	27.5	4.0	-36.6	0.0	0.0	44.9	25.4	74	54	-29.1	-28.6	V
2.781	3.0	45.1	28.8	29.5	5.0	-35.6	0.0	0.0	50.6	28.5	74	54	-23.4	-25.5	V
1.854	3.0	48.3	30.2	27.5	4.0	-36.6	0.0	0.0	43.2	25.1	74	54	-30.8	-28.9	H
2.781	3.0	41.5	28.6	29.5	5.0	-35.6	0.0	0.0	48.2	28.0	74	54	-25.8	-26.0	H

Rev. 11.10.11

f	Measurement Frequency	Amp	Preamp Gain	Avg Lim	Average Field Strength Limit
Dist	Distance to Antenna	D Corr	Distance Correct to 3 meters	Pk Lim	Peak Field Strength Limit
Read	Analyzer Reading	Avg	Average Field Strength @ 3 m	Avg Mar	Margin vs. Average Limit
AF	Antenna Factor	Peak	Calculated Peak Field Strength	Pk Mar	Margin vs. Peak Limit
CL	Cable Loss	HPF	High Pass Filter		

9. AC POWER LINE CONDUCTED EMISSIONS

LIMITS

FCC §15.207 (a)

RSS-Gen 7.2.2

Frequency of Emission (MHz)	Conducted Limit (dBuV)	
	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 PROCEDURE

ANSI C63.4

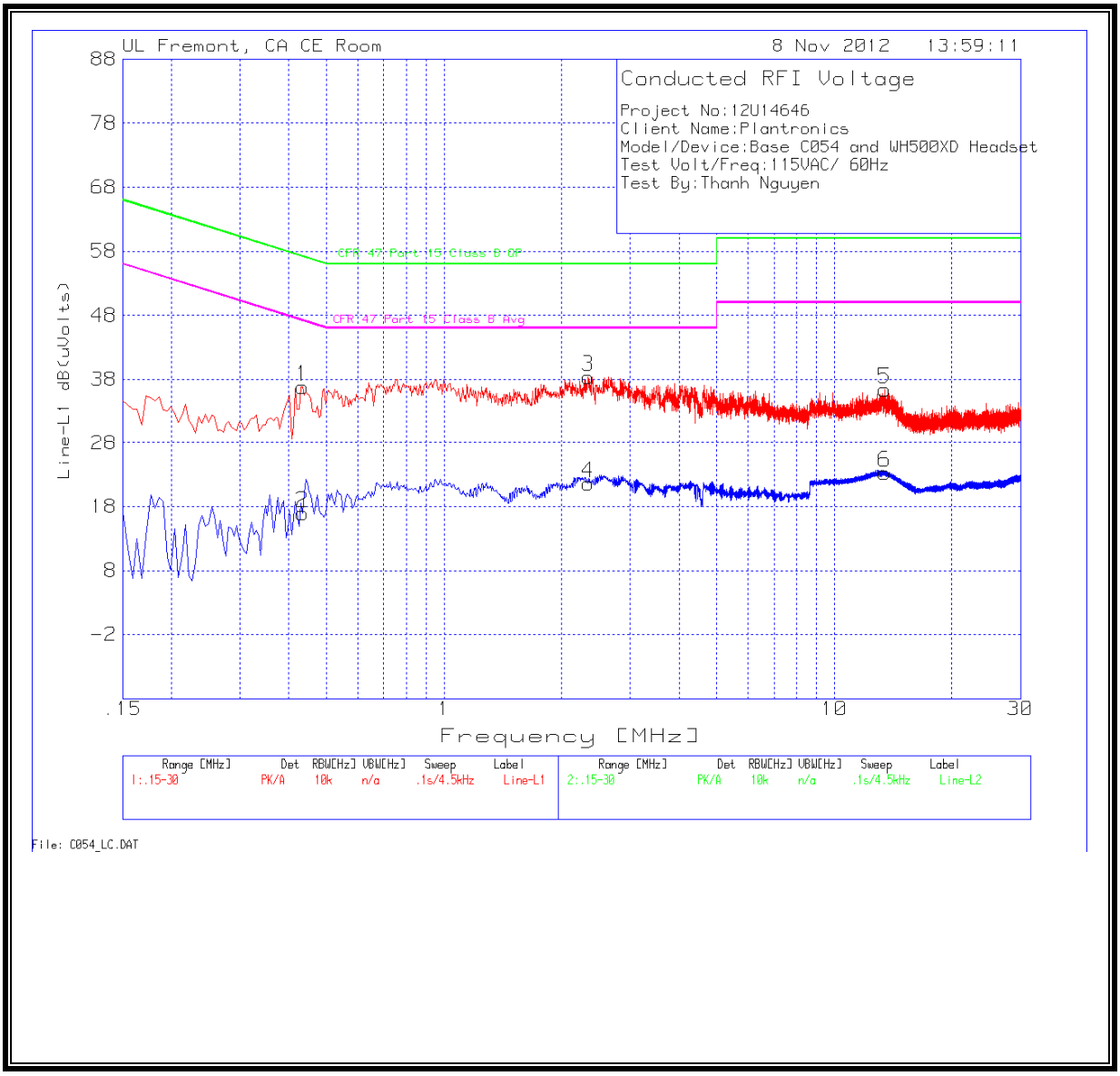
RESULTS

6 WORST EMISSIONS (WORST CASE)

Project No:12U14646
Client Name:Plantronics
Model/Device:Base C054 and WH500XD Headset
Test Volt/Freq:115VAC/ 60Hz
Test By:Thanh Nguyen

Line-L1 .15 - 30MHz									
Test Frequency	Meter Reading	Detector	T24 IL L1.TXT (dB)	LC Cables 1&3.TXT (dB)	dB(uVolts)	CFR 47 Part 15 Class B QP	Margin	CFR 47 Part 15 Class B Avg	Margin
0.4335	36.74	PK	0.1	0	36.84	57.2	-20.36	-	-
0.4335	16.84	Av	0.1	0	16.94	-	-	47.2	-30.26
2.3415	38.12	PK	0.1	0.1	38.32	56	-17.68	-	-
2.3415	21.35	Av	0.1	0.1	21.55	-	-	46	-24.45
13.47	36.02	PK	0.2	0.2	36.42	60	-23.58	-	-
13.47	22.93	Av	0.2	0.2	23.33	-	-	50	-26.67
Line-L2 .15 - 30MHz									
Test Frequency	Meter Reading	Detector	T24 IL L1.TXT (dB)	LC Cables 1&3.TXT (dB)	dB(uVolts)	CFR 47 Part 15 Class B QP	Margin	CFR 47 Part 15 Class B Avg	Margin
0.555	34.9	PK	0.1	0	35	56	-21	-	-
0.555	16.25	Av	0.1	0	16.35	-	-	46	-29.65
2.2155	36.77	PK	0.1	0.1	36.97	56	-19.03	-	-
2.2155	19.77	Av	0.1	0.1	19.97	-	-	46	-26.03
6.378	35.52	PK	0.1	0.1	35.72	60	-24.28	-	-
6.378	20.11	Av	0.1	0.1	20.31	-	-	50	-29.69

LINE 1 RESULTS



LINE 2 RESULTS