UL LLC
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Northbrook, IL 60062

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Project Number:	12U4325
FCC ID	V65C5170
Date:	March 26, 2012
Model:	C5170

Electromagnetic Compatibility Test Report

For

KYOCERA Communications, Inc.

Test Report Details

Tests Performed By:	**Underwriters Laboratories Inc. 333 Pfingsten Rd. Northbrook, IL 60062**
Tests Performed For:	**KYOCERA Communications, Inc. 8611 Balboa Ave San Diego, CA 92123**
Applicant Contact:	**Thuy To**
Title:	**Senior Regulatory Engineer**
Phone:	**858-882-2137**
E-mail:	**thuy.to@kyocera.com**
Test Report Date:	**March 26, 2012**
Product Type:	**CDMA Mobile Phone with Bluetooth**
Product standards	**FCC Part 15, Subpart C 15.247 – (15.207 and 15.209 tests), RSS-210, RSS-GEN**
Model Number:	**C5170**
FCC ID	**V65C5170**
EUT Category:	**Transceiver**
Testing Start Date:	**March 1, 2012**
Date Testing Complete:	**March 15, 2012**
Overall Results:	**Compliant**

UL LLC reports apply only to the specific samples tested under stated test conditions. All samples tested were in good operating condition throughout the entire test program. It is the manufacturer's responsibility to assure that additional production units of this model are manufactured with identical electrical and mechanical components. UL LLC shall have no liability for any deductions, inferences or generalizations drawn by the client or others from UL LLC issued reports. 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.

This report may contain test results that are not covered by the NVLAP or A2LA accreditation. The scope of accreditation is limited to the specific tests that are listed on the NVLAP and/or A2LA websites referenced at the end of this report.

Report Directory

Report Revision History

Revision Date	Description	Revised By	Revision Reviewed By
None			

1 G E N E R A L - Product Description

1.1 Equipment Description

FCC V65C5170 Cell phone with BT and Wifi capabilities. Only Radiated Spurious Emissions, Bandedge, and Conducted Emissions AC mains were performed.

1.2 Equipment Marking Plate

N/A

1.3 Device Configuration During Test

1.3.1 Equipment Used During Test:

Use	Product Type	Manufacturer	Model	Comments
EUT	CDMA Mobile Phone	KYOCERA Communications, Inc.	C5170	None
EUT	Power Supply	KYOCERA Communications, Inc.	SCP-31ADT	Input:100-240Vac 50/60Hz 0.2A Output: 5Vdc 800mA
AE	Ear Phones	-	-	None
Note: **EUT** - Equipment Under Test, **AE** - Auxiliary/Associated Equipment, or **SIM** - Simulator (Not Subjected to Test)				

1.3.2 Input/Output Ports:

Port #	Name	Type*	Cable Max. >3m (Y/N)	Cable Shielded (Y/N)	Comments
0	Enclosure	N/E	—	—	None
1	Mains	AC	N	N	None
2	Mains	Batt	-	-	3.7V Rechargeable battery
3	Headphone	I/O	N	N	None

Note:
AC = AC Power Port DC = DC Power Port N/E = Non-Electrical
I/O = Signal Input or Output Port (Not Involved in Process Control)
TP = Telecommunication Ports

1.3.3 EUT Internal Operating Frequencies:

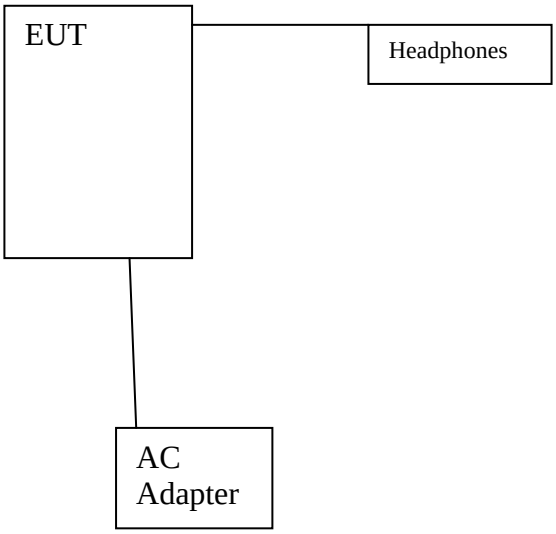
Frequency (MHz)	Description
2400	BT

1.3.4 Power Interface:

Mode # /Rated	Voltage (V)	Current (A)	Power (W)	Frequency (DC/AC-Hz)	Phases (#)	Comments
1	Battery Operated	-	-	DC	-	None
2	120Vac	-	-	60Hz	Single	None

1.4 Block Diagram:

The diagram below illustrates the configuration of the equipment above.



1.5 EUT Configurations

Mode #	Description
1	EUT was configured with headphones connected and either in Battery or AC mode as indicated in the caption of each plot

1.6 EUT Operation Modes

Mode #	Description
1	EUT was programmed to various operating modes indicated by the caption in each plot

1.7 Rational for EUT Configuration

Mode #	Description
1	The selected EUT configuration was chosen to maximize emissions

2 Summary

The tests listed in the Summary of Testing section of this report have been performed and the results recorded by UL LLC in accordance with the procedures stated in each test requirement and specification. The applicant determined the list of tests performed were applicable to the Equipment Under Test. As a result, the subject product has been verified to comply or not comply as noted in the Summary of Testing with each test specification. The test results relate only to the items tested.

2.1 Deviations from standard test methods

None

2.2 Device Modifications Necessary for Compliance

None

2.3 Reference Standards

Standard Number	Standard Name	Standard Date
FCC Part 15, Subpart C	Code of Federal Regulations, Part 15, Radio Frequency Devices	2011

2.4 Results Summary

This product is considered Class B

Requirement – Test	Result (Compliant / Non-Compliant)*
Conducted Emissions	Compliant
Radiated Emissions including Bandedge	Compliant

Test Engineer:

Michael Ferrer (Ext.41312)
Senior Project Engineer
International EMC Services
Conformity Assessment Services

Reviewer:

Mike Antola (Ext. 23053)
Senior Project Engineer
International EMC Services
Conformity Assessment Services

Any information and documentation involving UL Mark services are provided on behalf of UL LLC (UL) or any authorized licensee of UL.

3 Calibration of Equipment Used for Measurement

All test equipment and test accessories are calibrated on a regular basis. The maximum time between calibrations is one year or the manufacturers' recommendation, whichever is less.

All test equipment calibrations are traceable to the National Institute of Standards and Technology (NIST); therefore, all test data recorded in this report is traceable to NIST.

4 EMISSIONS TEST RESULTS

The emissions tests were performed according to following regulations:
---------- United States ----------

Code of Federal Regulations Title 47	Part 15, Subpart C, Radio Frequency Devices

Unless specified otherwise in the individual Methods, the tests shall be conducted under the following ambient conditions. Confirmation of these conditions shall be verified at the time the test is conducted.

Ambient Temperature, °C	22.5 ± 2.5	Relative Humidity, %	45 ± 15	Barometric Pressure, mBar	950 ± 150

Measurement Uncertainty

Test	Uncertainty
Conducted Emissions	+/- 0.6dB (k=2)
Radiated Emissions	+/- 3.1dB (k=2)

Sample Calculations
Radiated Field Strength and Conducted Emissions data contained within this report is calculated on the following basis:

Field Strength (dBuV/m) = Meter Reading (dBuV) + AF (dB/m) - Gain (dB) + Cable Loss (dB)
Conducted Voltage (dBuV) = Meter Reading (dBuV) + Cable Loss (dB) + LISN IL (dB)
Conducted Current (dBuA) = Meter Reading (dBuV) + Cable Loss (dB) - Transducer Factor (dBohms)

4.1

Test Conditions and Results – MAINS TERMINAL – CONDUCTED EMISSIONS

Test Description	Measurements were made on a ground plane. All power was connected to the system through Artificial Mains Network (AMN). Conducted voltage measurements on mains lines were made at the output of the AMN.		
Basic Standard		FCC Part 15.207	
UL LPG		80-EM-S0026	
		Frequency range on each side of line	Measurement Point
Fully configured sample scanned over the following frequency range		150kHz to 30MHz	Mains
Limits - Class B			
Frequency (MHz)	Limit (dBµV)		
	Quasi-Peak	Average	
0.15-0.5	66 to 56	56 to 46	
0.5-5	56	46	
5-30	60	50	
Supplementary information: None			

Table 1 Conducted Emissions EUT Configuration Settings

Power Interface Mode #	EUT Configurations Mode #	EUT Operation Mode #
1	1	1
Supplementary information: None		

Table 2 Conducted Emissions Test Equipment

Description	Manufacturer	Model	Identifier	Cal Date	Cal Due
EMI Test Receiver	Rohde & Schwarz	ESCI	EMC4328	12/28/11	12/28/12
Transient Limiter	Electro-Metrics	EM7600-2	EMC4224	N/A	N/A
HighPass Filter	Solar Electronics	2803-150	EMC4327	N/A	N/A
Attenuator	HP	8494B	2831A00838	N/A	N/A
LISN - L1	Solar	8602-50-TS-50-N	EMC4052	1/6/12	1/7/13
LISN - L2	Solar	8602-50-TS-50-N	EMC4064	1/6/12	1/7/13

Figure 1 Test Setup for Conducted Emissions

See Photos exhibit

Figure 2 Conducted Emissions Graph

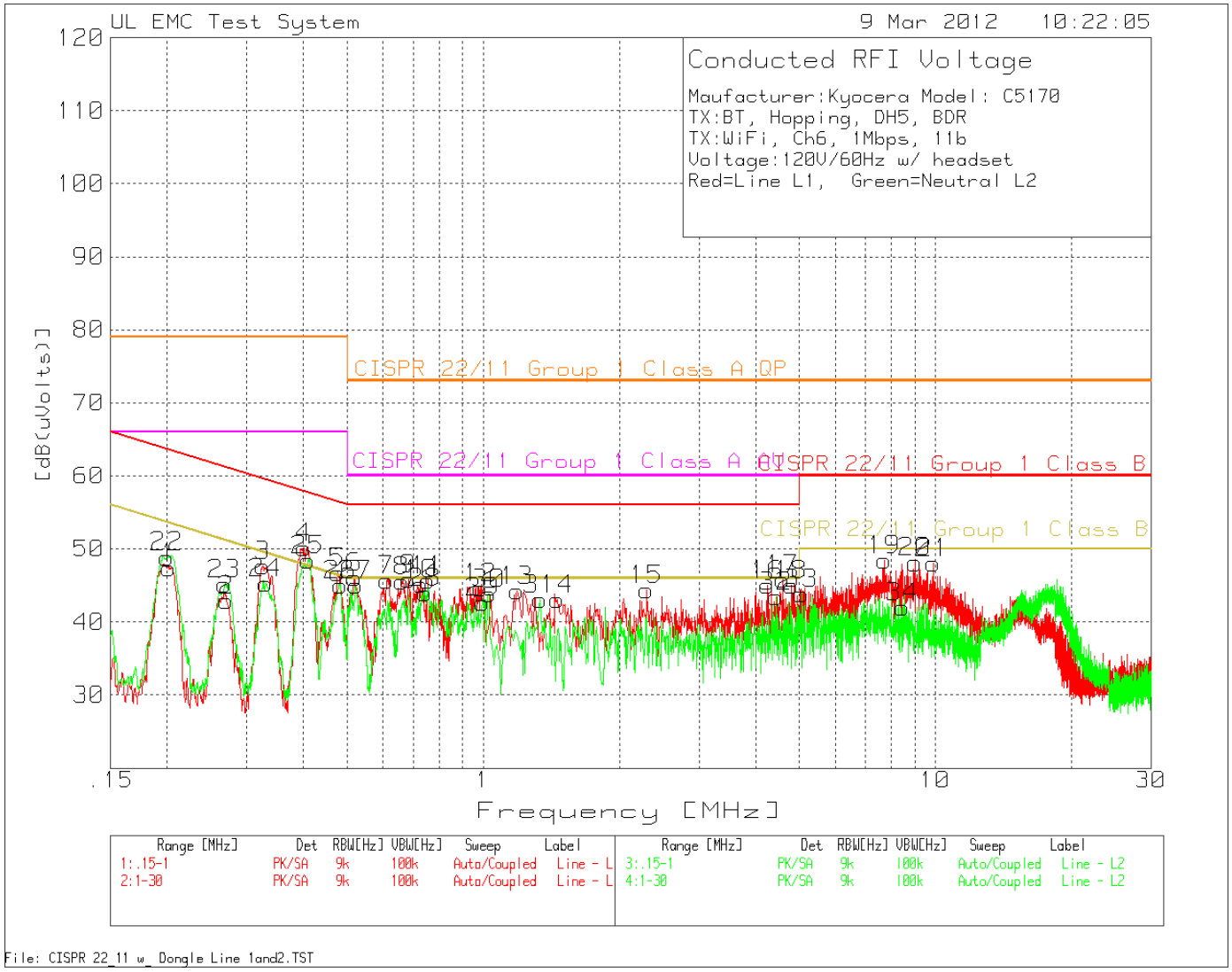


Table 3 Conducted Emissions Data Points

Maufacturer:Kyocera Model: C5170
TX:BT, Hopping, DH5, BDR
TX:WiFi, Ch6, 1Mbps, 11b
Voltage:120V/60Hz w/ headset
Red=Line L1, Green=Neutral L2

No.	Test Frequency [MHz]	Meter Reading [dB(uV)]		Transducer Factor [dB]	Gain/Loss Factor [dB]	Level [dB(uVolts)]	Limit:1	2	3	4	5	6
Line - L1 .15 - 1MHz												
1	.20182	35.81	PK	.1	11.5	47.41	79	66	63.5	53.5	-	-
					Margin [dB]		-31.59	-18.59	-16.09	-6.09	-	-
2	.2709	31.69	PK	.1	11.1	42.89	79	66	61.1	51.1	-	-
					Margin [dB]		-36.11	-23.11	-18.21	-8.21	-	-
3	.32527	36.74	PK	.1	10.8	47.64	79	66	59.6	49.6	-	-
					Margin [dB]		-31.36	-18.36	-11.96	-1.96	-	-
4	.40172	39.2	PK	.1	10.8	50.1	79	66	57.8	47.8	-	-
					Margin [dB]		-28.9	-15.9	-7.7	2.3	-	-
5	.4759	35.9	PK	.1	10.7	46.7	79	66	56.4	46.4	-	-
					Margin [dB]		-32.3	-19.3	-9.7	.3	-	-
6	.51894	35.34	PK	.1	10.6	46.04	73	60	56	46	-	-
					Margin [dB]		-26.96	-13.96	-9.96	.04	-	-
7	.61167	34.94	PK	.1	10.6	45.64	73	60	56	46	-	-
					Margin [dB]		-27.36	-14.36	-10.36	-.36	-	-
8	.66178	34.88	PK	.1	10.6	45.58	73	60	56	46	-	-
					Margin [dB]		-27.42	-14.42	-10.42	-.42	-	-
9	.6826	35.15	PK	.1	10.6	45.85	73	60	56	46	-	-
					Margin [dB]		-27.15	-14.15	-10.15	-.15	-	-
10	.72846	34.47	PK	.1	10.6	45.17	73	60	56	46	-	-
					Margin [dB]		-27.83	-14.83	-10.83	-.83	-	-
11	.75366	35.02	PK	.1	10.6	45.72	73	60	56	46	-	-
					Margin [dB]		-27.28	-14.28	-10.28	-.28	-	-
12	.98471	33.92	PK	.1	10.6	44.62	73	60	56	46	-	-
					Margin [dB]		-28.38	-15.38	-11.38	-1.38	-	-
Line - L1 1 - 30MHz												
13	1.18545	33.58	PK	.1	10.6	44.28	73	60	56	46	-	-
					Margin [dB]		-28.72	-15.72	-11.72	-1.72	-	-
14	1.45783	32.31	PK	.1	10.6	43.01	73	60	56	46	-	-
					Margin [dB]		-29.99	-16.99	-12.99	-2.99	-	-
15	2.29816	33.63	PK	.1	10.6	44.33	73	60	56	46	-	-
					Margin [dB]		-28.67	-15.67	-11.67	-1.67	-	-
16	4.2512	34.17	PK	.2	10.7	45.07	73	60	56	46	-	-
					Margin [dB]		-27.93	-14.93	-10.93	-.93	-	-
17	4.60472	34.94	PK	.2	10.7	45.84	73	60	56	46	-	-
					Margin [dB]		-27.16	-14.16	-10.16	-.16	-	-
18	4.81335	34.07	PK	.2	10.7	44.97	73	60	56	46	-	-
					Margin [dB]		-28.03	-15.03	-11.03	-1.03	-	-
19	7.69944	37.24	PK	.3	10.9	48.44	73	60	60	50	-	-
					Margin [dB]		-24.56	-11.56	-11.56	-1.56	-	-
20	9.01789	36.61	PK	.6	10.9	48.11	73	60	60	50	-	-
					Margin [dB]		-24.89	-11.89	-11.89	-1.89	-	-
21	9.8785	36.52	PK	.5	11	48.02	73	60	60	50	-	-
					Margin [dB]		-24.98	-11.98	-11.98	-1.98	-	-

Line - L2 .15 - 1MHz ----------											
22	.19955	37.29 PK	.1	11.5	48.89	79	66	63.6	53.6	-	-
				Margin [dB]		-30.11	-17.11	-14.71	-4.71	-	-
23	.26807	33.9 PK	.1	11.1	45.1	79	66	61.2	51.2	-	-
				Margin [dB]		-33.9	-20.9	-16.1	-6.1	-	-
24	.33036	34.37 PK	.1	10.8	45.27	79	66	59.4	49.4	-	-
				Margin [dB]		-33.73	-20.73	-14.13	-4.13	-	-
25	.40979	37.55 PK	.1	10.8	48.45	79	66	57.7	47.7	-	-
				Margin [dB]		-30.55	-17.55	-9.25	.75	-	-
26	.48326	34.22 PK	.1	10.7	45.02	79	66	56.3	46.3	-	-
				Margin [dB]		-33.98	-20.98	-11.28	-1.28	-	-
27	.52262	34.26 PK	.1	10.7	45.06	73	60	56	46	-	-
				Margin [dB]		-27.94	-14.94	-10.94	-.94	-	-
28	.74291	33.3 PK	.1	10.6	44	73	60	56	46	-	-
				Margin [dB]		-29	-16	-12	-2	-	-
29	.99858	31.92 PK	.1	10.6	42.62	73	60	56	46	-	-
				Margin [dB]		-30.38	-17.38	-13.38	-3.38	-	-
Line - L2 1 - 30MHz ----------											
30	1.02898	33.09 PK	.1	10.6	43.79	73	60	56	46	-	-
				Margin [dB]		-29.21	-16.21	-12.21	-2.21	-	-
31	1.33613	32.32 PK	.1	10.6	43.02	73	60	56	46	-	-
				Margin [dB]		-29.98	-16.98	-12.98	-2.98	-	-
32	4.44245	32.56 PK	.2	10.7	43.46	73	60	56	46	-	-
				Margin [dB]		-29.54	-16.54	-12.54	-2.54	-	-
33	5.05676	32.84 PK	.2	10.8	43.84	73	60	60	50	-	-
				Margin [dB]		-29.16	-16.16	-16.16	-6.16	-	-
34	8.45284	30.44 PK	.6	11	42.04	73	60	60	50	-	-
				Margin [dB]		-30.96	-17.96	-17.96	-7.96	-	-

LIMIT 1: CISPR 22/11 Group 1 Class A QP
LIMIT 2: CISPR 22/11 Group 1 Class A AV
LIMIT 3: CISPR 22/11 Group 1 Class B QP
LIMIT 4: CISPR 22/11 Group 1 Class B AV
LIMIT 5: NONE
LIMIT 6: NONE

Maufacturer:Kyocera Model: C5170
TX:BT, Hopping, DH5, BDR
TX:WiFi, Ch6, 1Mbps, 11b
Voltage:120V/60Hz w/ headset
Red=Line L1, Green=Neutral L2

Test Frequency [MHz]	Meter Reading [dB(uV)]	Transducer Factor [dB]	Gain/Loss Factor [dB]	Level [dB(uVolts)]	Limit:1	2	3	4	5	6
Line - L1 .15 - 1MHz										
.20087	33.36 QP	.1	11.5	44.96	79	66	63.57	53.57	-	-
			Margin [dB]:		-34.04	-21.04	-18.61	-8.61	-	-
.26895	29.69 QP	.1	11.1	40.89	79	66	61.15	51.15	-	-
			Margin [dB]:		-38.11	-25.11	-20.26	-10.26	-	-
.32749	33.41 QP	.1	10.8	44.31	79	66	59.51	49.51	-	-
			Margin [dB]:		-34.69	-21.69	-15.2	-5.2	-	-
.39962	37.51 QP	.1	10.8	48.41	79	66	57.86	47.86	-	-
			Margin [dB]:		-30.59	-17.59	-9.45	.55	-	-
.47752	29.9 QP	.1	10.7	40.7	79	66	56.38	46.38	-	-
			Margin [dB]:		-38.3	-25.3	-15.68	-5.68	-	-
.52079	31.45 QP	.1	10.6	42.15	73	60	56	46	-	-
			Margin [dB]:		-30.85	-17.85	-13.85	-3.85	-	-
.61279	29.17 QP	.1	10.6	39.87	73	60	56	46	-	-
			Margin [dB]:		-33.13	-20.13	-16.13	-6.13	-	-
.66275	31.88 QP	.1	10.6	42.58	73	60	56	46	-	-
			Margin [dB]:		-30.42	-17.42	-13.42	-3.42	-	-
.68378	29.85 QP	.1	10.6	40.55	73	60	56	46	-	-
			Margin [dB]:		-32.45	-19.45	-15.45	-5.45	-	-
.72902	31.02 QP	.1	10.6	41.72	73	60	56	46	-	-
			Margin [dB]:		-31.28	-18.28	-14.28	-4.28	-	-
.75537	28 QP	.1	10.6	38.7	73	60	56	46	-	-
			Margin [dB]:		-34.3	-21.3	-17.3	-7.3	-	-
.98651	29.38 QP	.1	10.6	40.08	73	60	56	46	-	-
			Margin [dB]:		-32.92	-19.92	-15.92	-5.92	-	-
Line - L1 1 - 30MHz										
1.19507	29.88 QP	.1	10.6	40.58	73	60	56	46	-	-
			Margin [dB]:		-32.42	-19.42	-15.42	-5.42	-	-
1.46031	28.71 QP	.1	10.6	39.41	73	60	56	46	-	-
			Margin [dB]:		-33.59	-20.59	-16.59	-6.59	-	-
2.29341	26.8 QP	.1	10.6	37.5	73	60	56	46	-	-
			Margin [dB]:		-35.5	-22.5	-18.5	-8.5	-	-
4.25573	24.39 QP	.2	10.7	35.29	73	60	56	46	-	-
			Margin [dB]:		-37.71	-24.71	-20.71	-10.71	-	-
4.60988	25.76 QP	.2	10.7	36.66	73	60	56	46	-	-
			Margin [dB]:		-36.34	-23.34	-19.34	-9.34	-	-
4.83169	28.36 QP	.2	10.7	39.26	73	60	56	46	-	-
			Margin [dB]:		-33.74	-20.74	-16.74	-6.74	-	-
7.71494	27.67 QP	.3	10.9	38.87	73	60	60	50	-	-
			Margin [dB]:		-34.13	-21.13	-21.13	-11.13	-	-
9.03079	28.01 QP	.6	10.9	39.51	73	60	60	50	-	-
			Margin [dB]:		-33.49	-20.49	-20.49	-10.49	-	-
9.86506	27.11 QP	.5	11	38.61	73	60	60	50	-	-
			Margin [dB]:		-34.39	-21.39	-21.39	-11.39	-	-

Line - L2 .15 - 1MHz										
.20154	35.26 QP	.1	11.5	46.86	79	66	63.55	53.55	-	-
			Margin [dB]:		-32.14	-19.14	-16.69	-6.69	-	-
.2697	30.98 QP	.1	11.1	42.18	79	66	61.13	51.13	-	-
			Margin [dB]:		-36.82	-23.82	-18.95	-8.95	-	-
.33245	30.21 QP	.1	10.8	41.11	79	66	59.39	49.39	-	-
			Margin [dB]:		-37.89	-24.89	-18.28	-8.28	-	-
.40774	32.82 QP	.1	10.8	43.72	79	66	57.69	47.69	-	-
			Margin [dB]:		-35.28	-22.28	-13.97	-3.97	-	-
.48134	31.51 QP	.1	10.7	42.31	79	66	56.32	46.32	-	-
			Margin [dB]:		-36.69	-23.69	-14.01	-4.01	-	-
.52461	29.88 QP	.1	10.7	40.68	73	60	56	46	-	-
			Margin [dB]:		-32.32	-19.32	-15.32	-5.32	-	-
.74113	29.45 QP	.1	10.6	40.15	73	60	56	46	-	-
			Margin [dB]:		-32.85	-19.85	-15.85	-5.85	-	-
.99911	25.91 QP	.1	10.6	36.61	73	60	56	46	-	-
			Margin [dB]:		-36.39	-23.39	-19.39	-9.39	-	-
Line - L2 1 - 30MHz										
1.01139	27.04 QP	.1	10.6	37.74	73	60	56	46	-	-
			Margin [dB]:		-35.26	-22.26	-18.26	-8.26	-	-
1.35153	26.89 QP	.1	10.6	37.59	73	60	56	46	-	-
			Margin [dB]:		-35.41	-22.41	-18.41	-8.41	-	-
4.4269	24.22 QP	.2	10.7	35.12	73	60	56	46	-	-
			Margin [dB]:		-37.88	-24.88	-20.88	-10.88	-	-
5.07221	27.46 QP	.2	10.8	38.46	73	60	60	50	-	-
			Margin [dB]:		-34.54	-21.54	-21.54	-11.54	-	-
8.44773	24.24 QP	.6	11	35.84	73	60	60	50	-	-
			Margin [dB]:		-37.16	-24.16	-24.16	-14.16	-	-

NOTE: "+" - Indicates an emission level in excess of the applicable limit (s).

PK - Peak detector
QP - Quasi-Peak detector
LnAv - Linear average detector
LgAv - average log detection
Av - average detection
CAV - CISPR average detection
RMS - RMS detection
CRMS - CISPR RMS detection

LIMIT 1: CISPR 22/11 Group 1 Class A QP
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Maufacturer:Kyocera Model: C5170
TX:BT, Hopping, DH5, BDR
TX:WiFi, Ch6, 1Mbps, 11b
Voltage:120V/60Hz w/ headset
Red=Line L1, Green=Neutral L2

Test Frequency [MHz]	Meter Reading [dB(uV)]	Transducer Factor [dB]	Gain/Loss Factor [dB]	Level [dB(uVolts)]	Limit:1	2	3	4	5	6
Line - L1 .15 - 1MHz										
.20087	25.7 Av	.1	11.5	37.3	79	66	63.57	53.57	-	-
			Margin [dB]:		-41.7	-28.7	-26.27	-16.27	-	-
.26895	19.71 Av	.1	11.1	30.91	79	66	61.15	51.15	-	-
			Margin [dB]:		-48.09	-35.09	-30.24	-20.24	-	-
.32749	21.15 Av	.1	10.8	32.05	79	66	59.51	49.51	-	-
			Margin [dB]:		-46.95	-33.95	-27.46	-17.46	-	-
.39962	27.37 Av	.1	10.8	38.27	79	66	57.86	47.86	-	-
			Margin [dB]:		-40.73	-27.73	-19.59	-9.59	-	-
.47752	17.96 Av	.1	10.7	28.76	79	66	56.38	46.38	-	-
			Margin [dB]:		-50.24	-37.24	-27.62	-17.62	-	-
.52079	16.6 Av	.1	10.6	27.3	73	60	56	46	-	-
			Margin [dB]:		-45.7	-32.7	-28.7	-18.7	-	-
.61279	14.45 Av	.1	10.6	25.15	73	60	56	46	-	-
			Margin [dB]:		-47.85	-34.85	-30.85	-20.85	-	-
.66275	18.64 Av	.1	10.6	29.34	73	60	56	46	-	-
			Margin [dB]:		-43.66	-30.66	-26.66	-16.66	-	-
.68378	16.17 Av	.1	10.6	26.87	73	60	56	46	-	-
			Margin [dB]:		-46.13	-33.13	-29.13	-19.13	-	-
.72902	19.73 Av	.1	10.6	30.43	73	60	56	46	-	-
			Margin [dB]:		-42.57	-29.57	-25.57	-15.57	-	-
.75537	15.7 Av	.1	10.6	26.4	73	60	56	46	-	-
			Margin [dB]:		-46.6	-33.6	-29.6	-19.6	-	-
.98651	17.42 Av	.1	10.6	28.12	73	60	56	46	-	-
			Margin [dB]:		-44.88	-31.88	-27.88	-17.88	-	-
Line - L1 1 - 30MHz										
1.19507	16.43 Av	.1	10.6	27.13	73	60	56	46	-	-
			Margin [dB]:		-45.87	-32.87	-28.87	-18.87	-	-
1.46031	16.88 Av	.1	10.6	27.58	73	60	56	46	-	-
			Margin [dB]:		-45.42	-32.42	-28.42	-18.42	-	-
2.29341	16.73 Av	.1	10.6	27.43	73	60	56	46	-	-
			Margin [dB]:		-45.57	-32.57	-28.57	-18.57	-	-
4.25573	15.32 Av	.2	10.7	26.22	73	60	56	46	-	-
			Margin [dB]:		-46.78	-33.78	-29.78	-19.78	-	-
4.60988	17.29 Av	.2	10.7	28.19	73	60	56	46	-	-
			Margin [dB]:		-44.81	-31.81	-27.81	-17.81	-	-
4.83169	17.64 Av	.2	10.7	28.54	73	60	56	46	-	-
			Margin [dB]:		-44.46	-31.46	-27.46	-17.46	-	-
7.71494	18.03 Av	.3	10.9	29.23	73	60	60	50	-	-
			Margin [dB]:		-43.77	-30.77	-30.77	-20.77	-	-
9.03079	17.86 Av	.6	10.9	29.36	73	60	60	50	-	-
			Margin [dB]:		-43.64	-30.64	-30.64	-20.64	-	-
9.86506	16.76 Av	.5	11	28.26	73	60	60	50	-	-
			Margin [dB]:		-44.74	-31.74	-31.74	-21.74	-	-

Line - L2 .15 - 1MHz										
.20154	24.19 Av	.1	11.5	35.79	79	66	63.55	53.55	-	-
			Margin [dB]:		-43.21	-30.21	-27.76	-17.76	-	-
.2697	18.96 Av	.1	11.1	30.16	79	66	61.13	51.13	-	-
			Margin [dB]:		-48.84	-35.84	-30.97	-20.97	-	-
.33245	19.34 Av	.1	10.8	30.24	79	66	59.39	49.39	-	-
			Margin [dB]:		-48.76	-35.76	-29.15	-19.15	-	-
.40774	21.68 Av	.1	10.8	32.58	79	66	57.69	47.69	-	-
			Margin [dB]:		-46.42	-33.42	-25.11	-15.11	-	-
.48134	16.09 Av	.1	10.7	26.89	79	66	56.32	46.32	-	-
			Margin [dB]:		-52.11	-39.11	-29.43	-19.43	-	-
.52461	14.5 Av	.1	10.7	25.3	73	60	56	46	-	-
			Margin [dB]:		-47.7	-34.7	-30.7	-20.7	-	-
.74113	17.94 Av	.1	10.6	28.64	73	60	56	46	-	-
			Margin [dB]:		-44.36	-31.36	-27.36	-17.36	-	-
.99911	14.98 Av	.1	10.6	25.68	73	60	56	46	-	-
			Margin [dB]:		-47.32	-34.32	-30.32	-20.32	-	-
Line - L2 1 - 30MHz										
1.01139	16.35 Av	.1	10.6	27.05	73	60	56	46	-	-
			Margin [dB]:		-45.95	-32.95	-28.95	-18.95	-	-
1.35153	14.73 Av	.1	10.6	25.43	73	60	56	46	-	-
			Margin [dB]:		-47.57	-34.57	-30.57	-20.57	-	-
4.4269	14.34 Av	.2	10.7	25.24	73	60	56	46	-	-
			Margin [dB]:		-47.76	-34.76	-30.76	-20.76	-	-
5.07221	15.43 Av	.2	10.8	26.43	73	60	60	50	-	-
			Margin [dB]:		-46.57	-33.57	-33.57	-23.57	-	-
8.44773	15.03 Av	.6	11	26.63	73	60	60	50	-	-
			Margin [dB]:		-46.37	-33.37	-33.37	-23.37	-	-

NOTE: "+" - Indicates an emission level in excess of the applicable limit (s).

PK - Peak detector
QP - Quasi-Peak detector
LnAv - Linear average detector
LgAv - average log detection
Av - average detection
CAV - CISPR average detection
RMS - RMS detection
CRMS - CISPR RMS detection

LIMIT 1: CISPR 22/11 Group 1 Class A QP
LIMIT 2: CISPR 22/11 Group 1 Class A AV
LIMIT 3: CISPR 22/11 Group 1 Class B QP
LIMIT 4: CISPR 22/11 Group 1 Class B AV
LIMIT 5: NONE
LIMIT 6: NONE

4.2 Test Conditions and Results – RADIATED EMISSIONS

Test Description	Measurements were made in a 10-meter semi-anechoic chamber that complies to CISPR 16/ANSI C63.4. Preliminary (peak) measurements were performed at an antenna to EUT separation distance of 10-meter. The EUT was rotated 360° about its azimuth with the receive antenna located at various heights in both horizontal and vertical polarities. Final measurements (quasi-peak or average as noted) were then performed by rotating the EUT 360° and adjusting the receive antenna height from 1 to 4-meters. All frequencies were investigated in both horizontal and vertical antenna polarity, where applicable.

Basic Standard	FCC Part 15	
UL LPG	80-EM-S0029	
	Frequency range	Measurement Point
Fully configured sample scanned over the following frequency range	30MHz – 1GHz	(10 meter measurement distance)
Fully configured sample scanned over the following frequency range	1GHz – 25GHz	(3 meter measurement distance)

Limits - Class B

Frequency (MHz)	Limit (dBµV/m)	
	Quasi-Peak	Average
30-88	29.6	NA
88-216	33.1	NA
216-960	35.6	NA
960-1000	43.5	NA
1000-25000 (3m)	74 (Peak)	54

Supplementary information: If Emissions detected were at least 6dB below the limit no additional measurements were taken after prescan. The EUT was scanned in three orthogonal axis from 1GHz-25GHz set to BT BDR mode, low, middle and high channels. In addition the EUT was set to BT QPSK mode and BT 8PSK mode to determine if any additional spurious emissions are generated by switching to different modulation. Band-edge scans were conducted at axis determined as worst case from initial 1GHz-25GHz scans in multiple modulation modes and data rates. Below 1GHz the EUT was scanned only in one axis, one modulation. No emissions related the transmitter were noted.

For Bandedge Z-axis for horizontal polarity and Y-axis for vertical polarity was found to be worst case.

Emissions found near 1.9GHz is noise floor.

Table 4 Radiated Emissions EUT Configuration Settings

Power Interface Mode #	EUT Configurations Mode #	EUT Operation Mode #
1	1	1
Supplementary information: None		

Table 5 Radiated Emissions Test Equipment

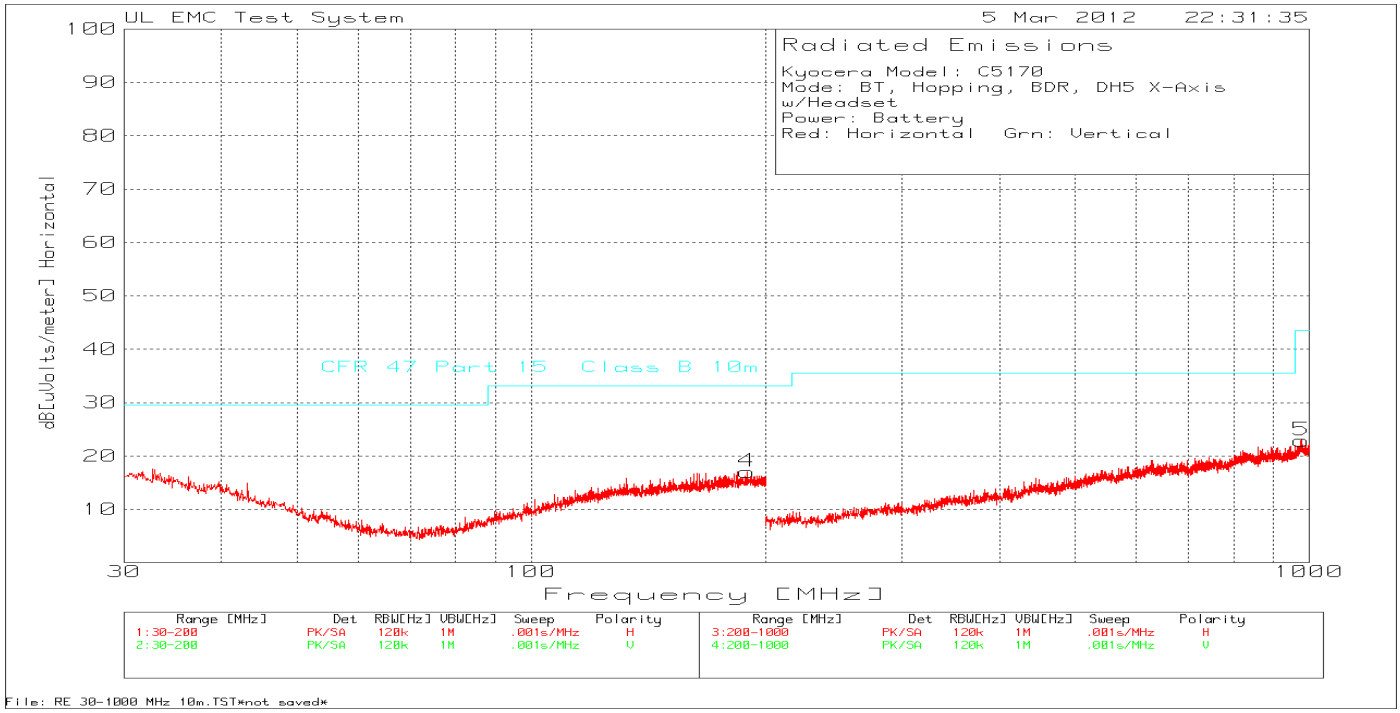
Description	Manufacturer	Model	Identifier	Cal Date	Cal Due
EMI Test Receiver	Rohde & Schwarz	ESU	EMC4323	12/27/11	12/27/12
Bicon Antenna	Chase	VBA6106A	EMC4078	1/17/12	1/31/13
Log-P Antenna	Chase	UPA6109	EMC4313	6/29/11	6/29/12
Spectrum Analyzer	Rhode & Schwarz	FSEK	EMC4182	12/27/11	12/31/12
Antenna Array	UL	BOMS	EMC4276	1/2/2012	1/2/2013

Figure 3 Test setup for Radiated Emissions

See Photo Exhibit

4.2.1.1 Spurious, BT, DH5, BDR, Hopping Channel, Battery Mode, 30MHz – 1GHz

Figure 4 Radiated Emissions Graph X-Axis



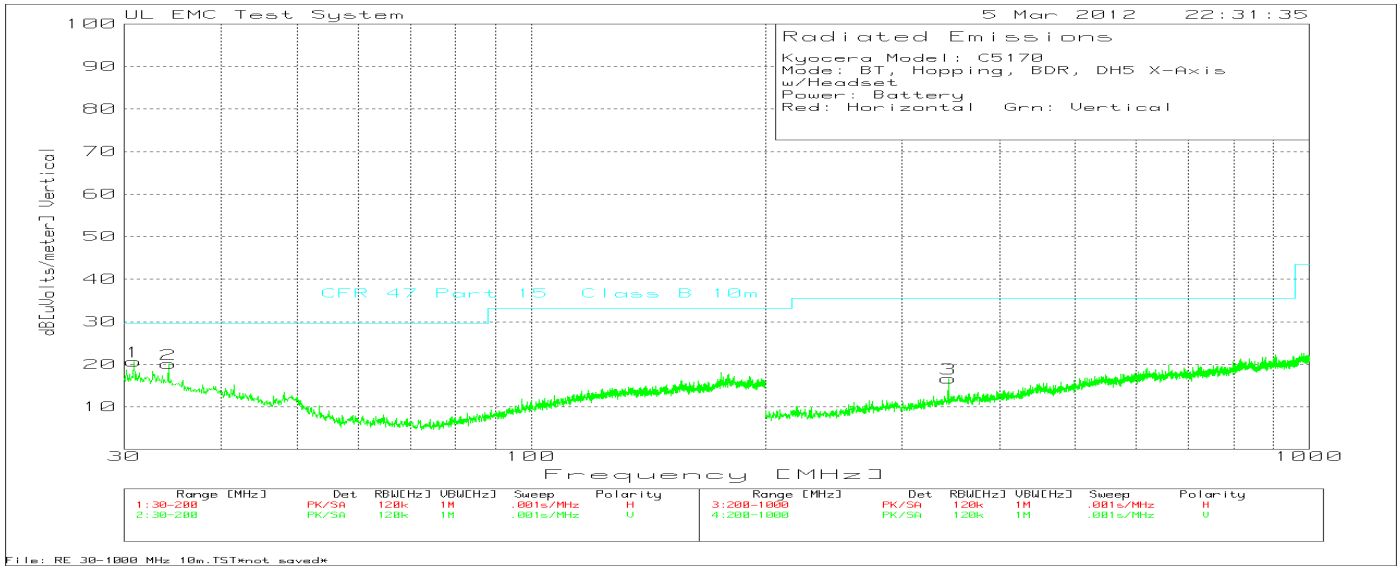


Table 6 Radiated Emissions Data Points X-Axis

Kyocera Model: C5170
Mode: BT, Hopping, BDR, DH5 X-Axis
w/Headset
Power: Battery
Red: Horizontal Grn: Vertical

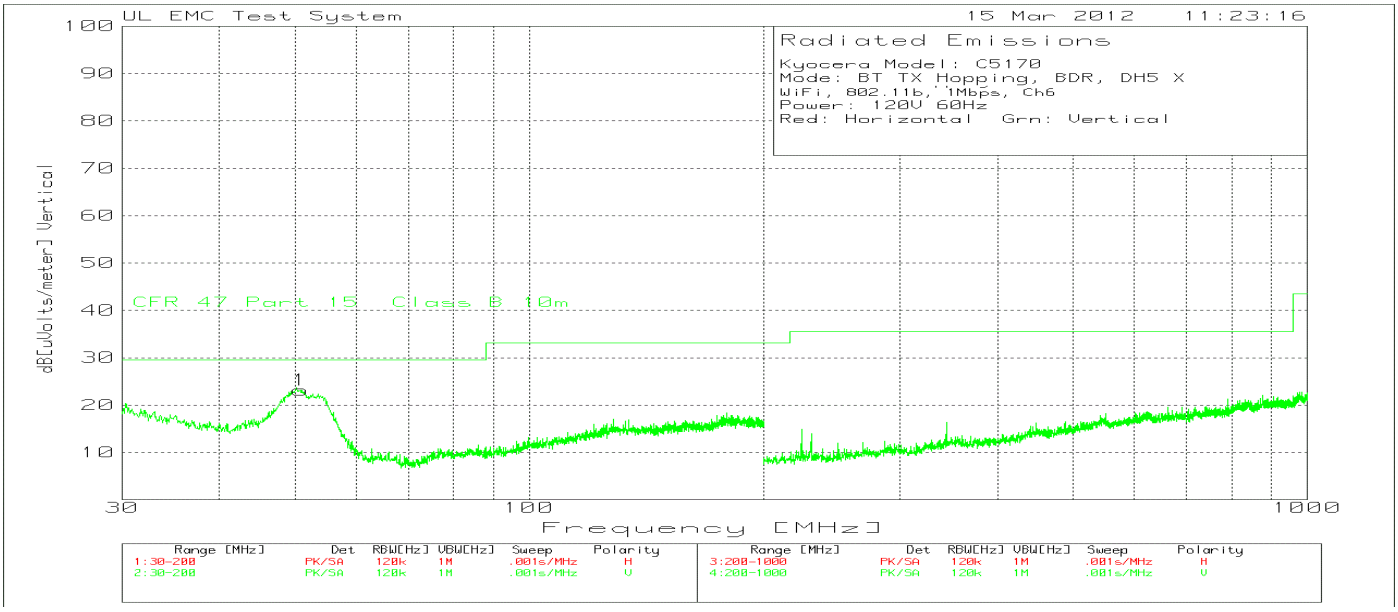
Test Frequency	Meter Reading	Detector	Antenna Factor dB	Path Loss/Gain dB	dB[uV/m]	CFR 47 Part 15 Class B 10m	Margin	Height [cm]	Polarity
189.6352	29.98	PK	16	-28.9	17.08	33.1	-16.02	200	Horz
30.8496	32.38	PK	17.6	-29.3	20.68	29.6	-8.92	200	Vert
34.1629	33.16	PK	16.3	-29.4	20.06	29.6	-9.54	200	Vert
978.1479	30.05	PK	24	-31.1	22.95	43.5	-20.55	99	Horz
343.6376	34.76	PK	14.5	-32.6	16.66	35.6	-18.94	199	Vert
30.8496	32.38	PK	17.6	-29.3	20.68	29.6	-8.92	200	Vert

There are no emissions recorded, noise floor only.

PK - Peak detector
QP - Quasi-Peak detector

4.2.2 Spurious, BT, BDR, Hopping Channel, Charging Mode, 30MHz – 1GHz

Figure 5 Radiated Emissions Graph X-Axis



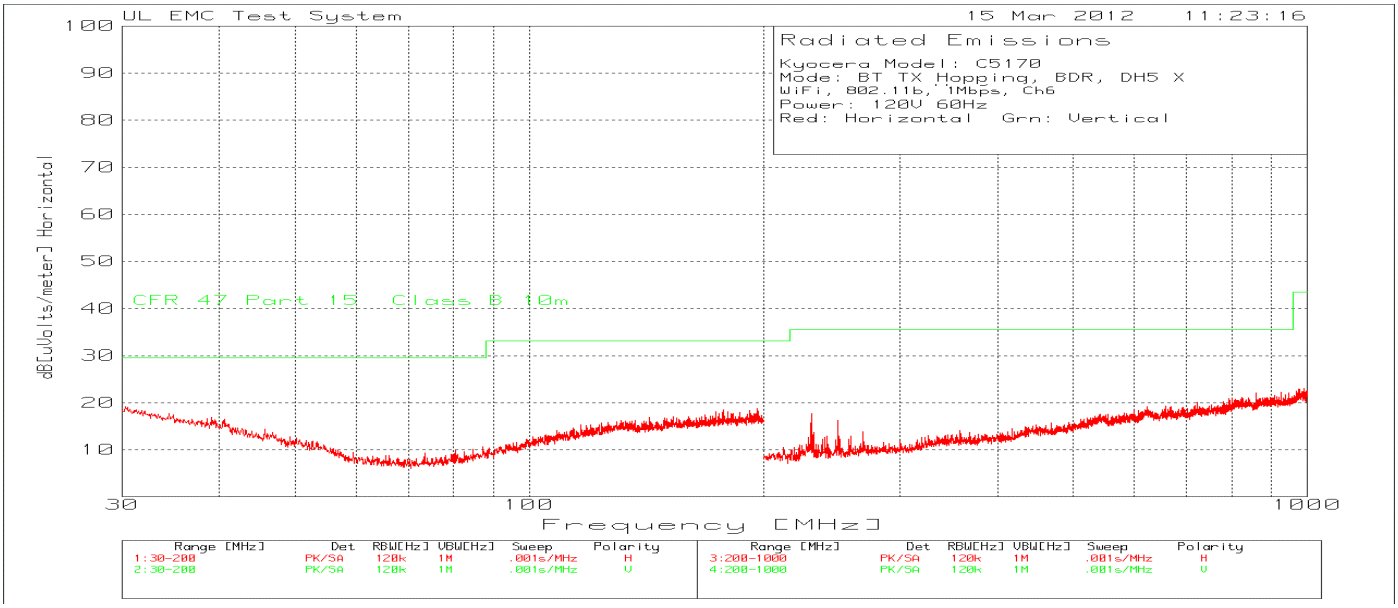


Table 7 Radiated Emissions Data Points X-Axis

Kyocera Model: C5170
Mode: BT TX Hopping, BDR, DH5 X

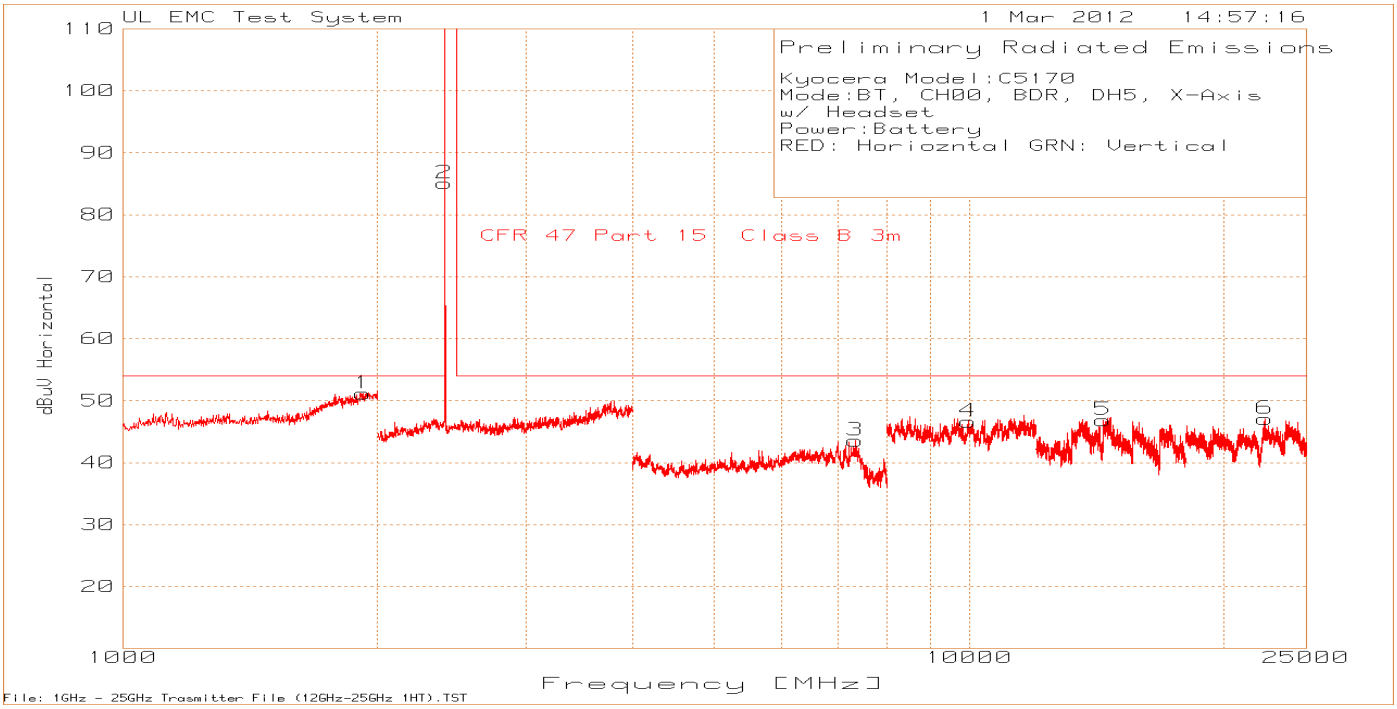
Power: 120V 60Hz
Red: Horizontal Grn: Vertical

Test Frequency	Meter Reading	Detector	Antenna Factor dB	Path Loss/Gain dB	Level dBuV/m	CFR 47 Part 15 Class B 10m	Margin	Height [cm]	Polarity
50.8146	42.76	PK	9.7	-29.3	23.16	29.6	-6.44	99	Vert

PK - Peak detector
QP - Quasi-Peak detector

4.2.3 Spurious, BT, BDR, Low Channel, 1GHz – 25GHz

Figure 6 Radiated Emissions Graph X-Axis



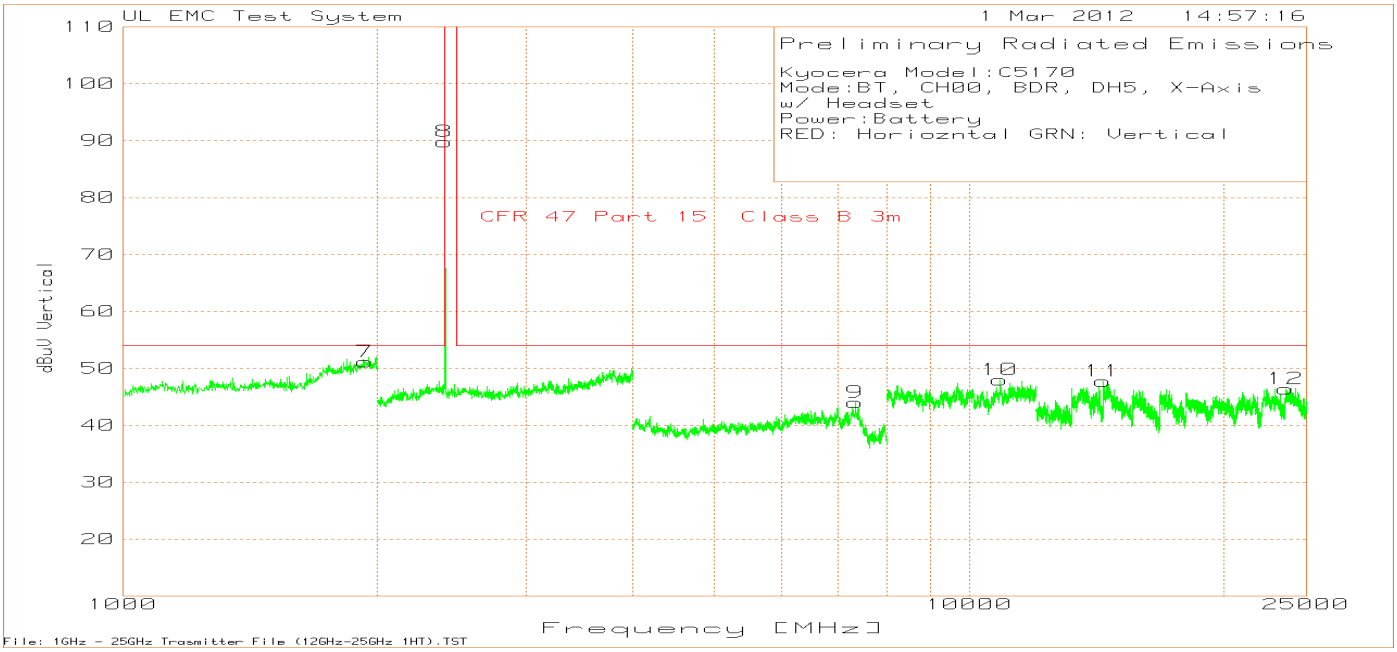


Table 8 Radiated Emissions Data Points X-Axis

Kyocera Model:C5170

Mode:BT, CH00, BDR, DH5, X-Axis
w/
Headset

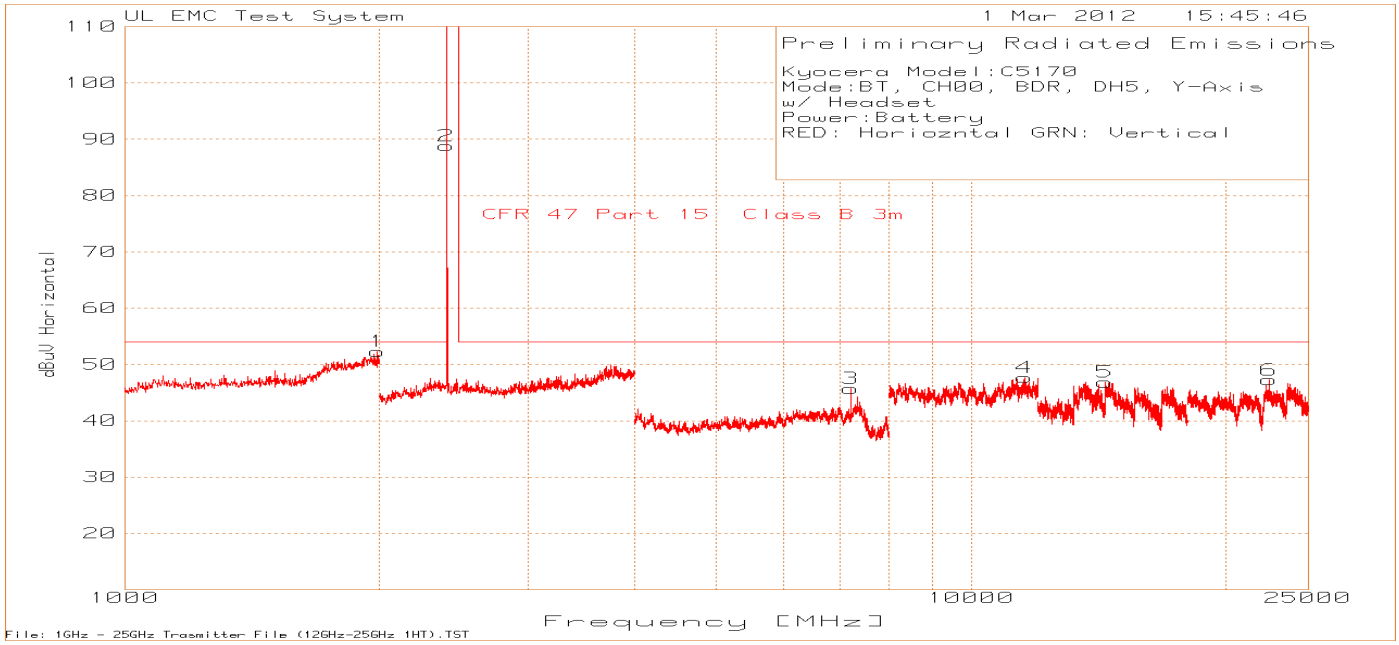
Power:Battery

RED: Horizontal GRN: Vertical

Test Frequency	Meter Reading	Detector	Antenna Factor dB	Path Loss/Gain dB	Level dBuV/m	CFR 47 Part 15 Class B 3m	Margin	Height [cm]	Polarity
1923.848	19.83	PK	27.4	3.89	51.12	54	-2.88	150	Horz
2402.402	59.06	PK	21.8	4.25	85.11	-	-	100	Horz
7340.894	59.33	PK	30.8	-46.59	43.54	54	-10.46	100	Horz
9993.329	59.25	PK	36.4	-49.06	46.59	54	-7.41	150	Horz
14415.37	46.78	PK	39.8	-39.68	46.9	54	-7.1	100	Horz
22333.33	59.26	PK	40.5	-52.65	47.11	54	-6.89	100	Horz
1933.868	19.8	PK	27.4	3.97	51.17	54	-2.83	100	Vert
2402.402	63.77	PK	21.8	4.25	89.82	-	-	150	Vert
7332.889	59.65	PK	30.7	-46.31	44.04	54	-9.96	102	Vert
10876.58	59.08	PK	36.3	-47.41	47.97	54	-6.03	150	Vert
14405.76	47.22	PK	39.8	-39.25	47.77	54	-6.23	100	Vert
23658.26	58.71	PK	40.3	-52.65	46.36	54	-7.64	100	Vert

PK - Peak detector

Figure 7 Radiated Emissions Graph Y-Axis



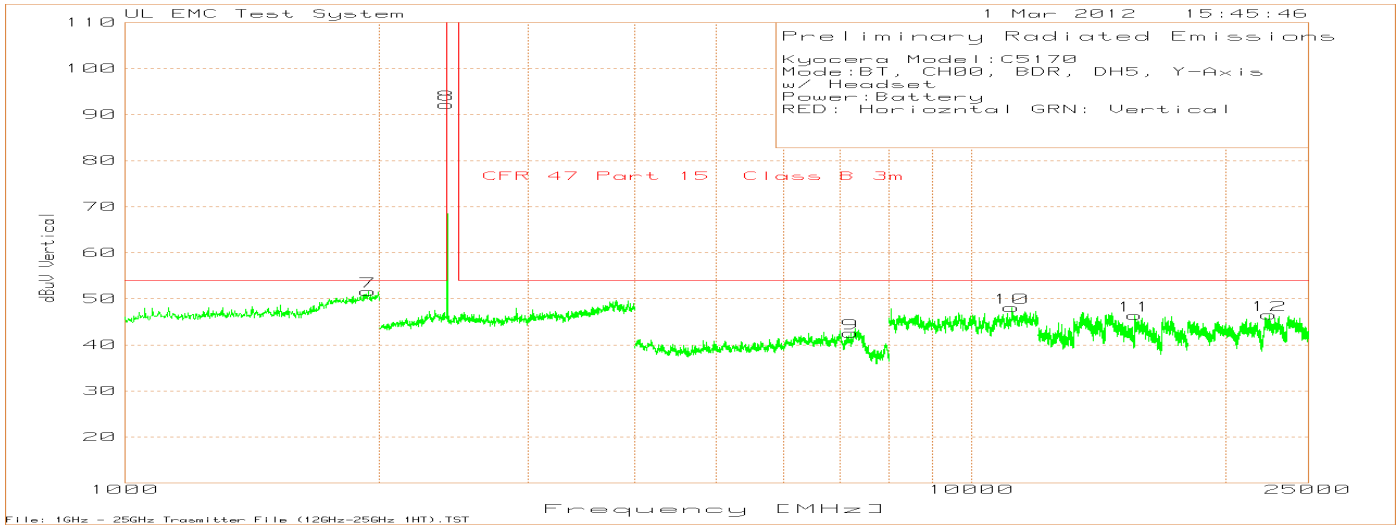


Table 9 Radiated Emissions Data Points Y-Axis

Kyocera Model:C5170

Mode:BT, CH00, BDR, DH5, Y-Axis

w/ Headset

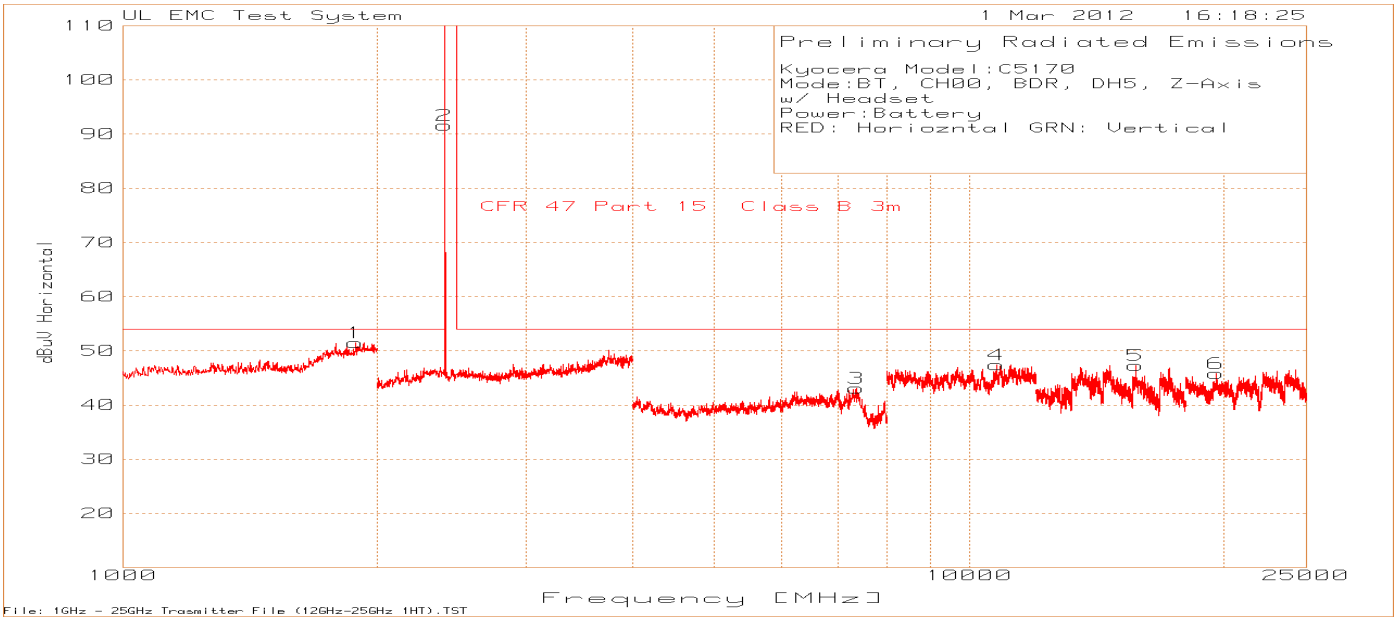
Power:Battery

RED: Horizontal GRN: Vertical

Test Frequency	Meter Reading	Detector	Antenna Factor dB	Path Loss/Gain dB	Level dBuV/m	CFR 47 Part 15 Class B 3m	Margin	Height [cm]	Polarity
1989.98	20.72	PK	27.5	4.07	52.29	54	-1.71	100	Horz
2402.402	62.8	PK	21.8	4.25	88.85	-	-	100	Horz
7207.472	63.43	PK	29.8	-47.46	45.77	54	-8.23	100	Horz
11557.04	57.26	PK	37.3	-46.85	47.71	54	-6.29	100	Horz
14400.96	46.3	PK	39.8	-39.21	46.89	54	-7.11	100	Horz
22467.79	58.99	PK	40.5	-52.23	47.26	54	-6.74	100	Horz
1939.88	20.29	PK	27.4	3.94	51.63	54	-2.37	100	Vert
2402.402	66.14	PK	21.8	4.25	92.19	-	-	100	Vert
7207.472	60.23	PK	29.8	-47.46	42.57	54	-11.43	100	Vert
11180.79	58.23	PK	36.7	-46.83	48.1	54	-5.9	150	Vert
15615.85	46.3	PK	40.1	-39.95	46.45	54	-7.55	102	Vert
22521.01	58.31	PK	40.5	-52.26	46.55	54	-7.45	100	Vert

PK - Peak detector

Figure 8 Radiated Emissions Graph Z-Axis



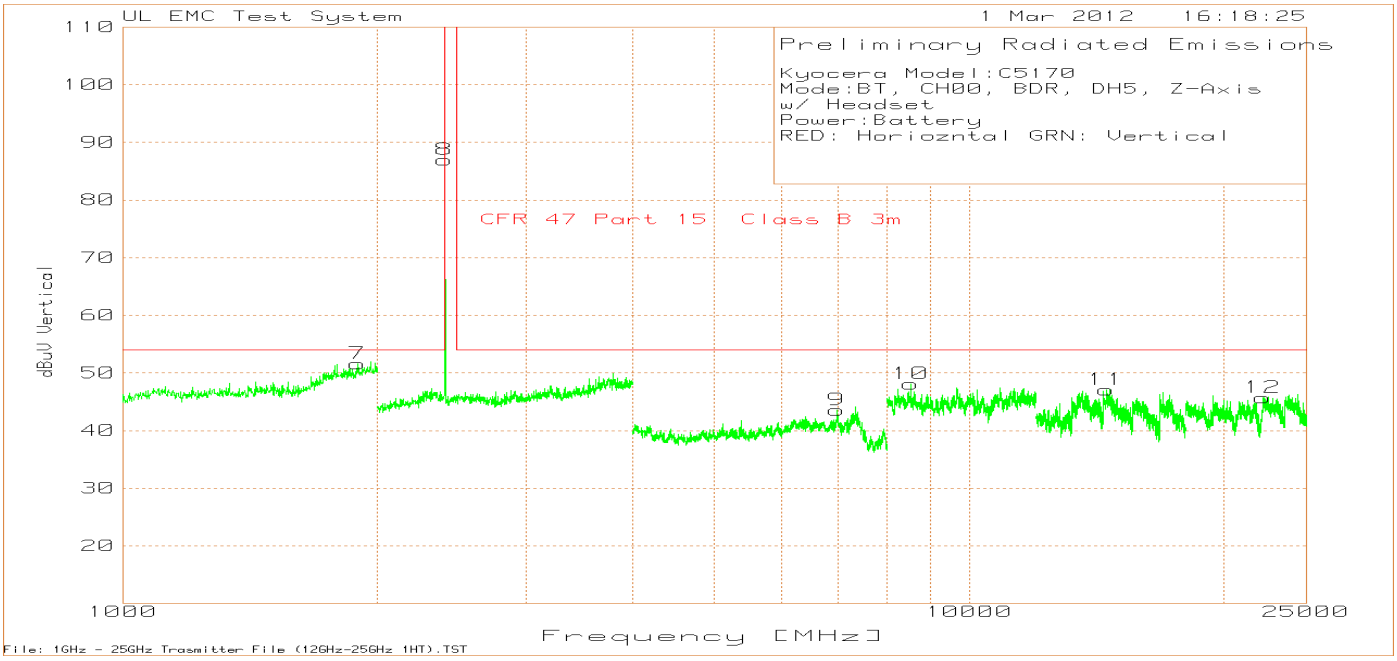


Table 10 Radiated Emissions Data Points Z-Axis

Kyocera Model:C5170

Mode:BT, CH00, BDR, DH5, Z-Axis

w/ Headset

Power:Battery

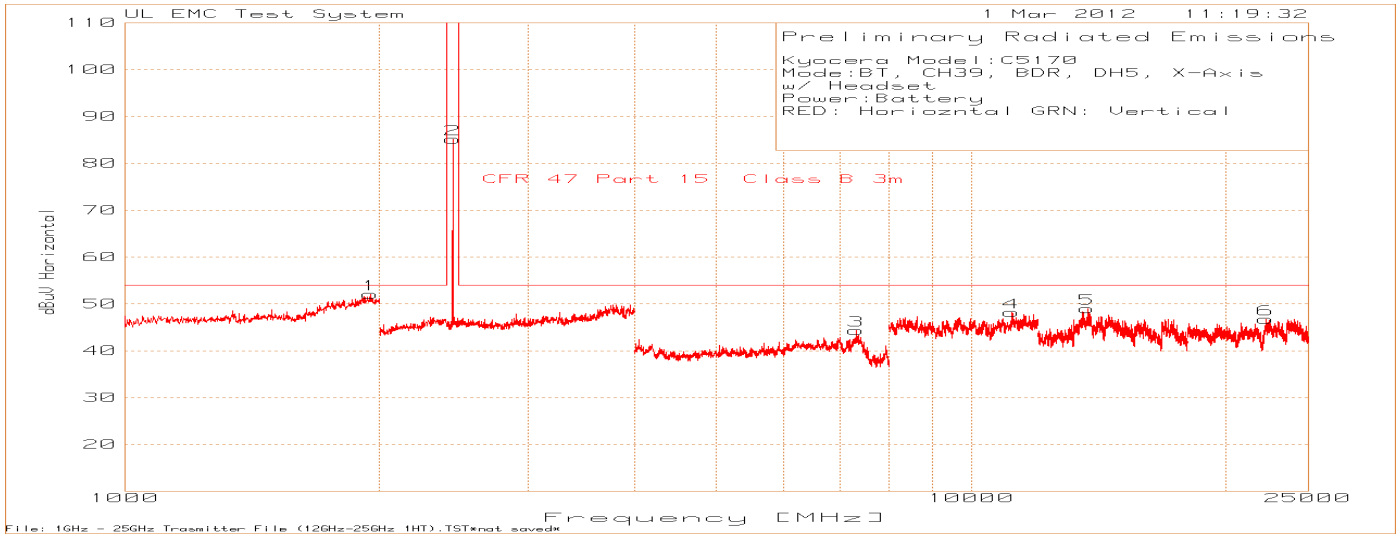
RED: Horizontal GRN: Vertical

Test Frequency	Meter Reading	Detector	Antenna Factor dB	Path Loss/Gain dB	Level dBuV/m	CFR 47 Part 15 Class B 3m	Margin	Height [cm]	Polarity
1883.768	20.39	PK	27.3	3.82	51.51	54	-2.49	100	Horz
2400.4	65.5	PK	21.8	4.3	91.6	-	-	100	Horz
7354.236	58.58	PK	30.9	-46.31	43.17	54	-10.83	100	Horz
10785.86	59.14	PK	36.4	-48.08	47.46	54	-6.54	150	Horz
15743.1	47.44	PK	40	-40.16	47.28	54	-6.72	100	Horz
19605.04	66.5	PK	40.3	-60.97	45.83	54	-8.17	100	Horz
1893.788	20.44	PK	27.4	3.8	51.64	54	-2.36	100	Vert
2402.402	60.94	PK	21.8	4.25	86.99	-	-	100	Vert
6975.317	60.15	PK	29.3	-45.83	43.62	54	-10.38	100	Vert
8523.015	60.94	PK	36.7	-49.58	48.06	54	-5.94	150	Vert
14530.61	46.33	PK	39.8	-39.06	47.07	54	-6.93	102	Vert
22257.7	58.01	PK	40.5	-52.75	45.76	54	-8.24	100	Vert

PK - Peak detector

4.2.4 Spurious, BT, BDR, Middle Channel, 1GHz – 25GHz

Figure 9 Radiated Emissions Graph X-Axis



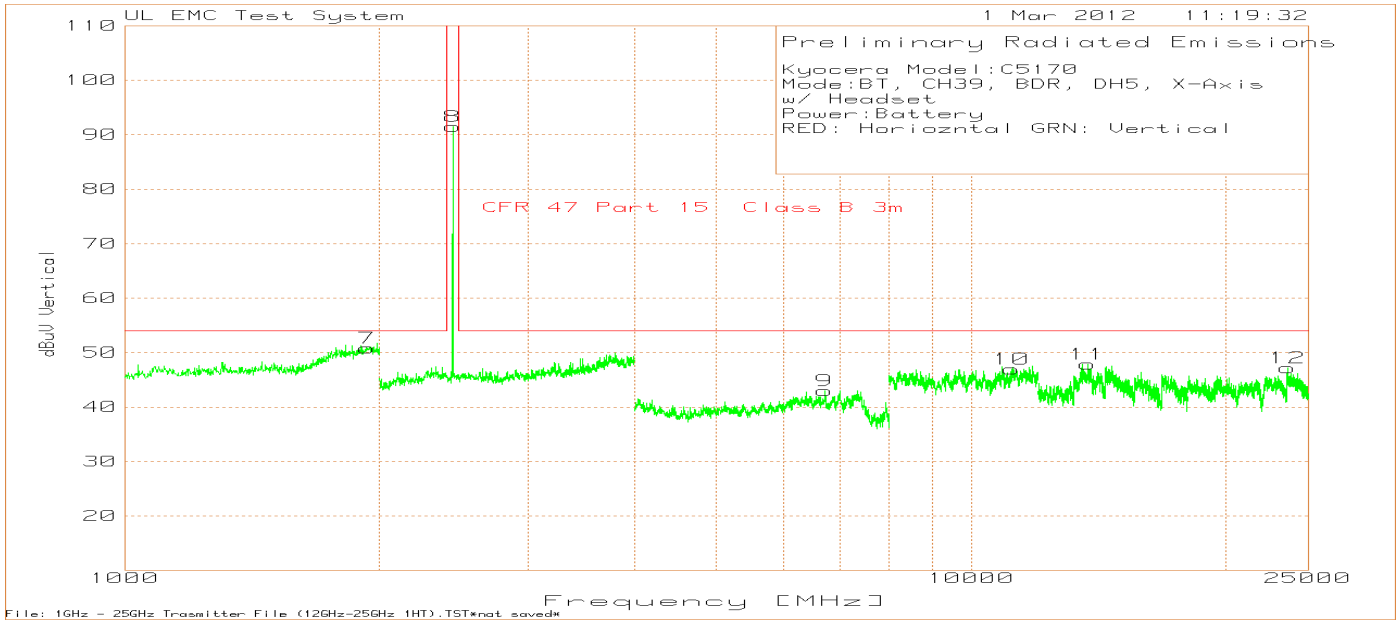


Table 11 Radiated Emissions Data Points X-Axis

Kyocera Model:C5170

Mode:BT, CH39, BDR, DH5, X-Axis

w/ Headset

Power:Battery

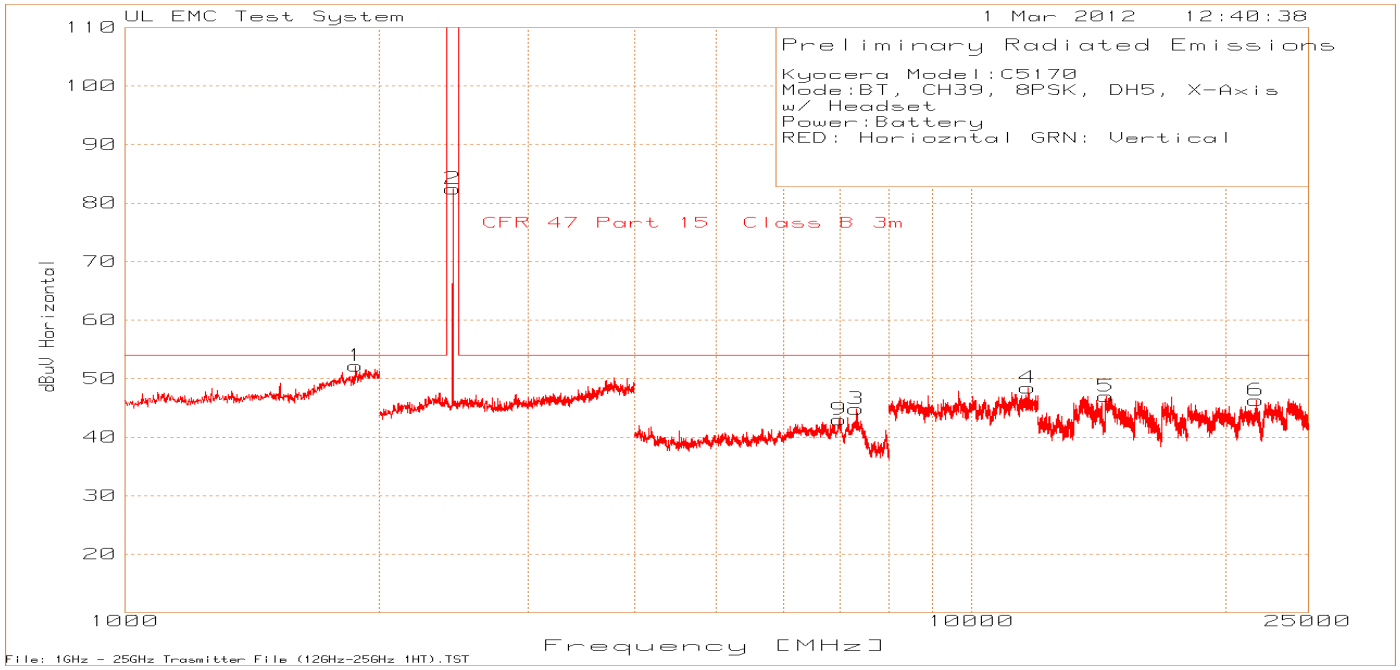
RED: Horizontal GRN: Vertical

Test Frequency	Meter Reading	Detector	Antenna Factor dB	Path Loss/Gain dB	Level dBuV/m	CFR 47 Part 15 Class B 3m	Margin	Height [cm]	Polarity
1951.904	20.83	PK	27.4	3.81	52.04	54	-1.96	100	Horz
2440.44	59.05	PK	21.9	4.25	85.2	-	-	100	Horz
7324.883	59.99	PK	30.6	-46.24	44.35	54	-9.65	99	Horz
11172.78	58.45	PK	36.6	-46.88	48.17	54	-5.83	150	Horz
13711.89	49.43	PK	39.8	-40.24	48.99	54	-5.01	100	Horz
22277.31	58.93	PK	40.5	-52.65	46.78	54	-7.22	100	Horz
1935.872	19.46	PK	27.4	3.97	50.83	54	-3.17	150	Vert
2440.44	65.32	PK	21.9	4.25	91.47	-	-	150	Vert
6719.146	60.37	PK	28.9	-46.23	43.04	54	-10.96	101	Vert
11178.12	57.02	PK	36.7	-46.75	46.97	54	-7.03	150	Vert
13750.3	48.18	PK	39.9	-40.16	47.92	54	-6.08	102	Vert
23675.07	59.59	PK	40.3	-52.66	47.23	54	-6.77	100	Vert

PK - Peak detector

4.2.5 Spurious, BT, QPSK, Middle Channel, 1GHz – 25GHz

Figure 10 Radiated Emissions Graph X-Axis



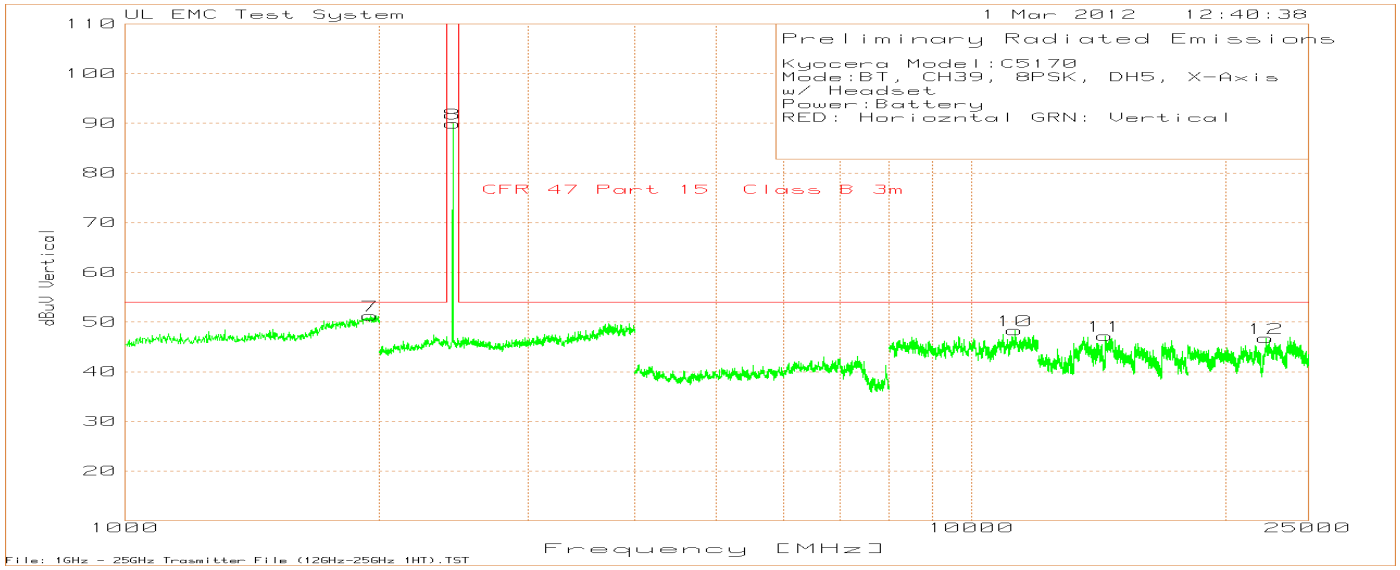


Table 12 Radiated Emissions Data Points X-Axis

Kyocera Model:C5170
Mode:BT, CH39, QPSK, DH5, X-Axis

w/ Headset

Power:Battery

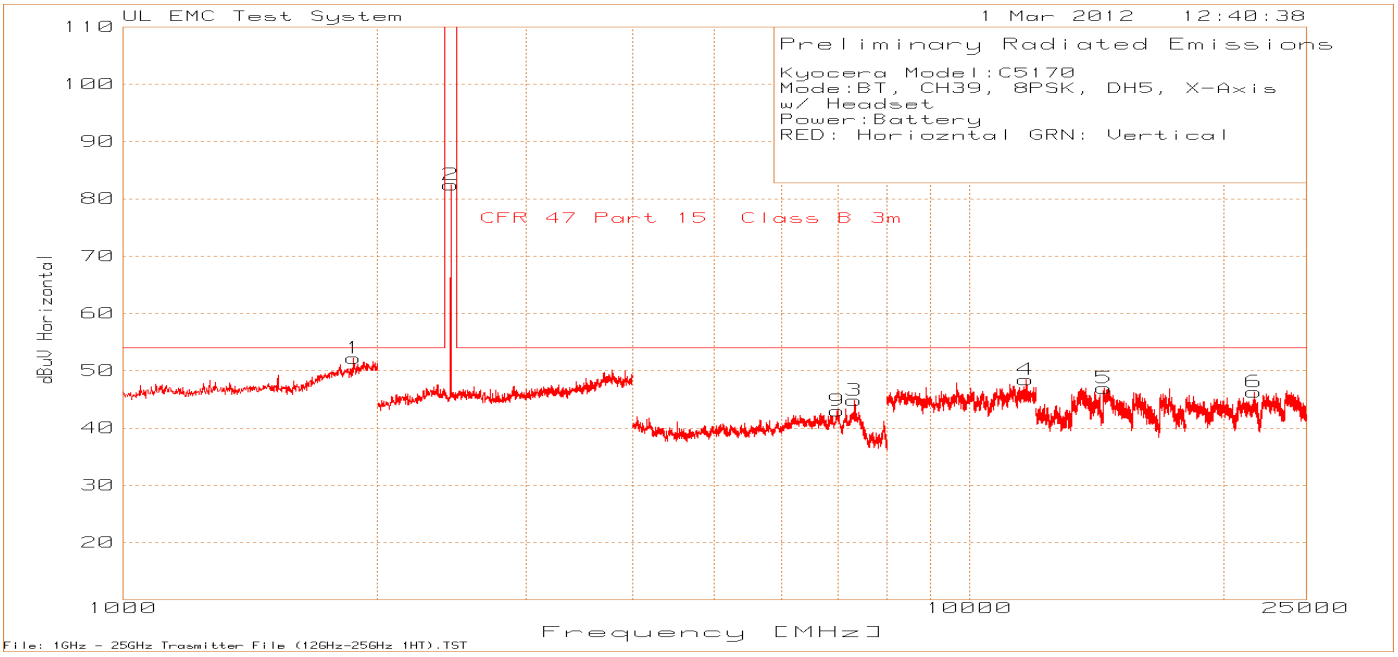
RED: Horizontal GRN: Vertical

Test Frequency	Meter Reading	Detector	Antenna Factor dB	Path Loss/Gain dB	Level dBuV/m	CFR 47 Part 15 Class B 3m	Margin	Height [cm]	Polarity
1945.892	20.43	PK	27.4	3.88	51.71	54	-2.29	150	Horz
2440.44	57.06	PK	21.9	4.25	83.21	-	-	99	Horz
7324.883	59.24	PK	30.6	-46.24	43.6	54	-10.4	100	Horz
9686.458	58.77	PK	36.4	-48.66	46.51	54	-7.49	150	Horz
14530.61	45.57	PK	39.8	-39.06	46.31	54	-7.69	100	Horz
23789.92	60.22	PK	40.3	-54.14	46.38	54	-7.62	100	Horz
1943.888	20	PK	27.4	3.9	51.3	54	-2.7	150	Vert
2440.44	63.89	PK	21.9	4.25	90.04	-	-	150	Vert
6999.333	58.88	PK	29.3	-45.19	42.99	54	-11.01	150	Vert
9675.784	60.27	PK	36.4	-48.58	48.09	54	-5.91	100	Vert
14400.96	47.39	PK	39.8	-39.21	47.98	54	-6.02	100	Vert
21070.03	61.4	PK	40.1	-55.22	46.28	54	-7.72	100	Vert

PK - Peak detector

4.2.6 Spurious, BT, 8PSK, Middle Channel, 1GHz – 25GHz

Figure 11 Radiated Emissions Graph X-Axis



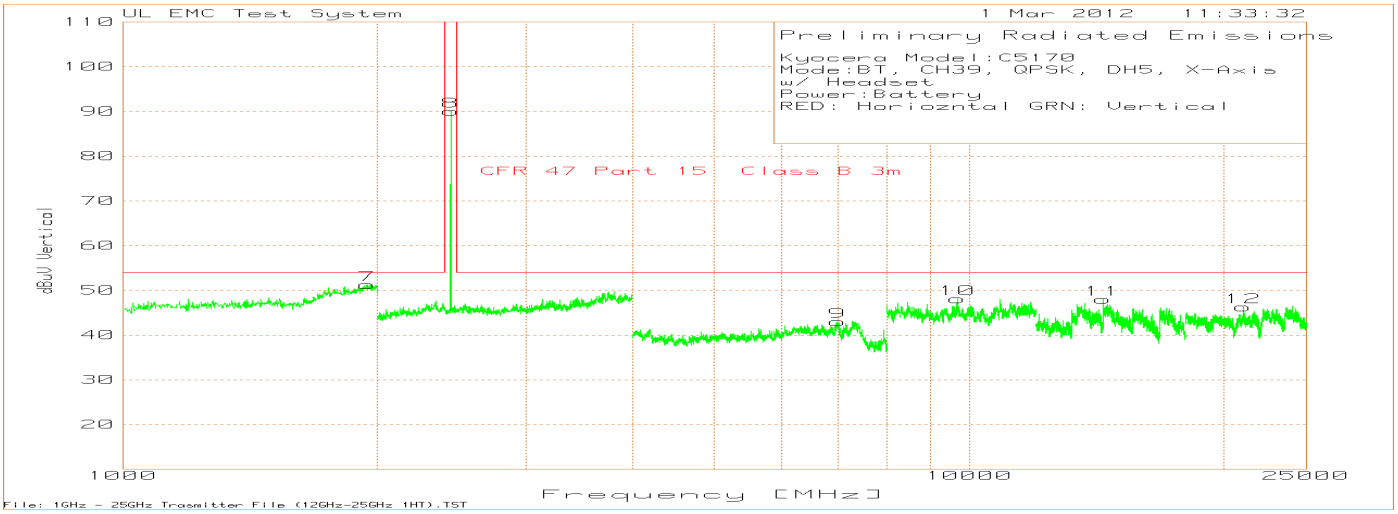


Table 13 Radiated Emissions Data Points X-Axis

Kyocera Model:C5170

Mode:BT, CH39, 8PSK, DH5, X-Axis

w/ Headset

Power:Battery

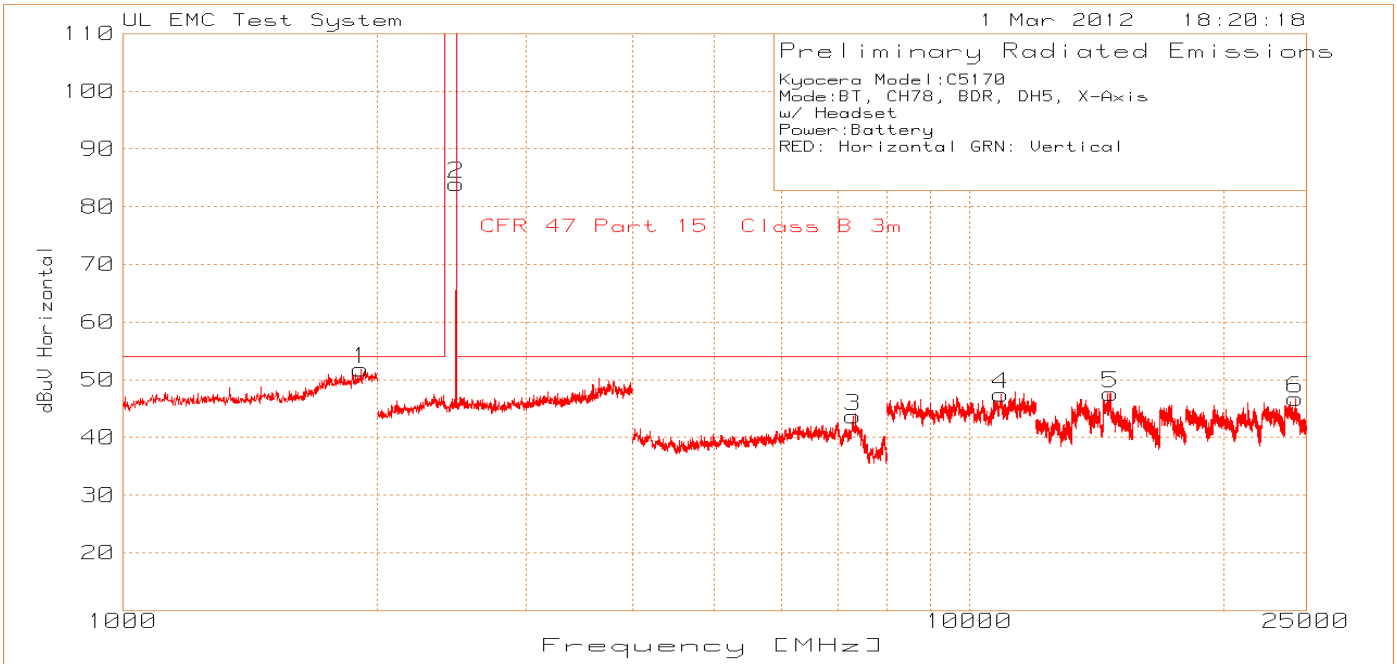
RED: Horizontal GRN: Vertical

Test Frequency	Meter Reading	Detector	Antenna Factor dB	Path Loss/Gain dB	Level dBuV/m	CFR 47 Part 15 Class B 3m	Margin	Height [cm]	Polarity
1875.752	21.15	PK	27.3	3.75	52.2	54	-1.8	100	Horz
2440.44	56.3	PK	21.9	4.25	82.45	-	-	99	Horz
7324.883	60.5	PK	30.6	-46.24	44.86	54	-9.14	100	Horz
6988.659	59.33	PK	29.3	-45.58	43.05	54	-10.95	100	Horz
11666.44	58.6	PK	37.6	-47.71	48.49	54	-5.51	100	Horz
14420.17	47.07	PK	39.8	-39.94	46.93	54	-7.07	100	Horz
21719.89	60.1	PK	40.4	-54.24	46.26	54	-7.74	100	Horz
1951.904	20.1	PK	27.4	3.81	51.31	54	-2.69	150	Vert
2440.44	63.74	PK	21.9	4.25	89.89	-	-	150	Vert
11268.85	59.46	PK	36.8	-47.88	48.38	54	-5.62	100	Vert
14405.76	46.7	PK	39.8	-39.25	47.25	54	-6.75	102	Vert
22296.92	58.92	PK	40.5	-52.7	46.72	54	-7.28	100	Vert

PK - Peak detector

4.2.7 Spurious, BT, BDR, High Channel, 1GHz – 25GHz

Figure 12 Radiated Emissions Graph X-Axis



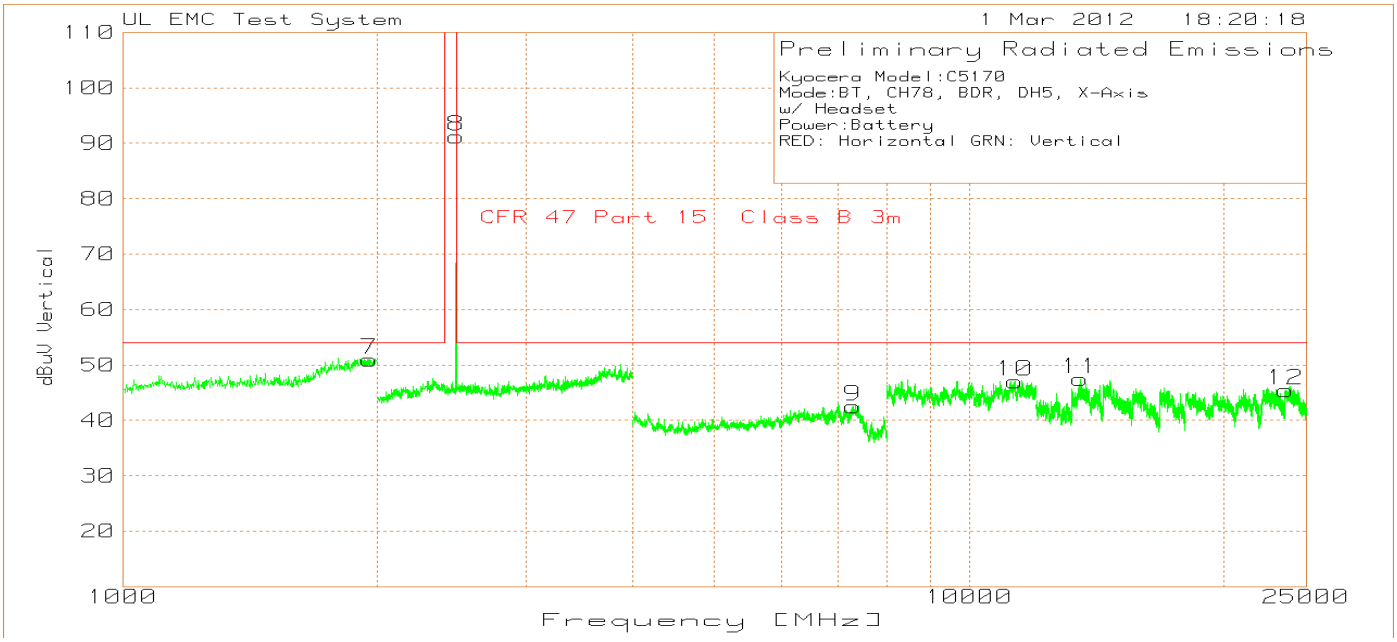


Table 14 Radiated Emissions Data Points X-Axis

Kyocera Model:C5170

Mode:BT, CH78, BDR, DH5, X-Axis

w/ Headset

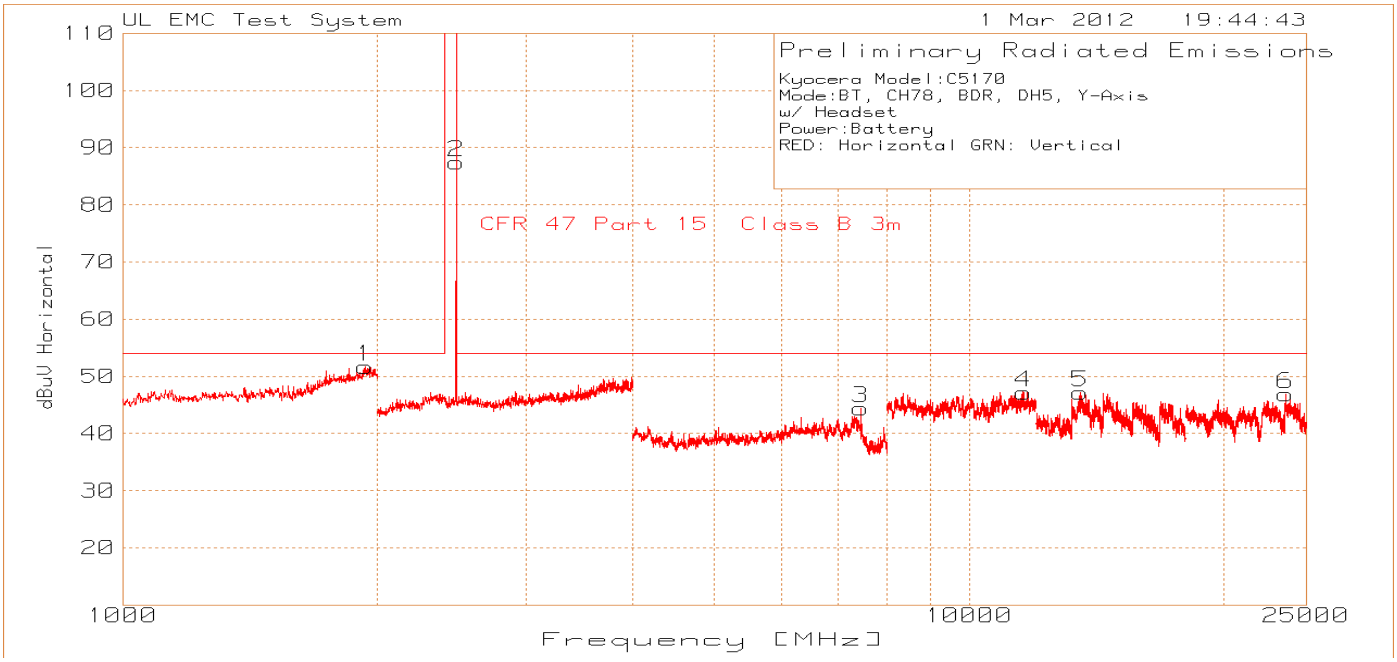
Power:Battery

Horizontal Band Edge

Test Frequency	Meter Reading	Detector	Antenna Factor dB	Path Loss/Gain dB	Level dBuV/m	CFR 47 Part 15 Class B 3m	Margin	Height [cm]	Polarity
1911.824	20.71	PK	27.4	3.74	51.85	54	-2.15	150	Horz
2480.48	58.21	PK	22	3.77	83.98	-	-	100	Horz
7292.862	59.57	PK	30.4	-46.29	43.68	54	-10.32	100	Horz
10895.26	58.54	PK	36.3	-47.37	47.47	54	-6.53	150	Horz
14703.48	47.1	PK	39.8	-39.24	47.66	54	-6.34	99	Horz
24260.5	62.67	PK	40.3	-56.23	46.74	54	-7.26	99	Horz
1957.916	19.82	PK	27.4	3.75	50.97	54	-3.03	101	Vert
2480.48	65.51	PK	22	3.77	91.28	-	-	150	Vert
7295.53	58.17	PK	30.4	-46.07	42.5	54	-11.5	150	Vert
11319.55	57.67	PK	36.9	-47.52	47.05	54	-6.95	100	Vert
13536.62	49.01	PK	39.8	-41.35	47.46	54	-6.54	100	Vert
23672.27	57.75	PK	40.3	-52.65	45.4	54	-8.6	100	Vert

PK - Peak detector

Figure 13 Radiated Emissions Graph Y-Axis



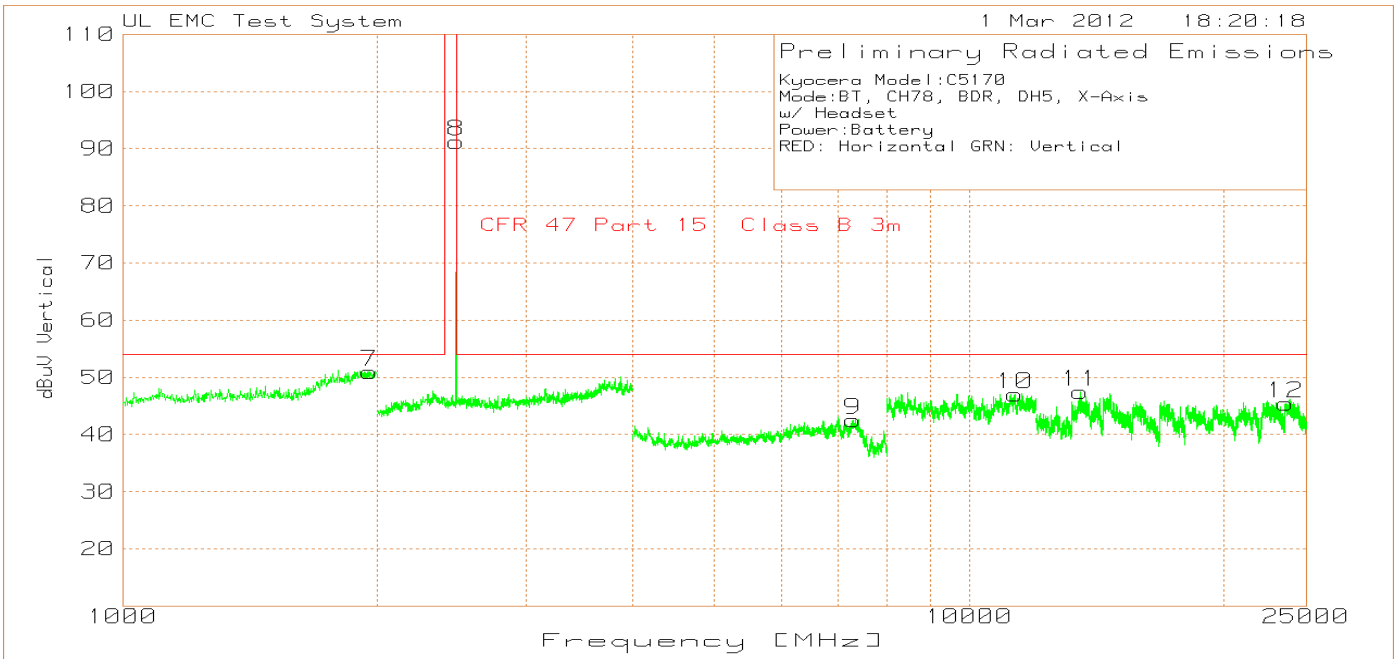


Table 15 Radiated Emissions Data Points Y-Axis

Kyocera Model:C5170

Mode:BT, CH78, BDR, DH5, Y-Axis

w/ Headset

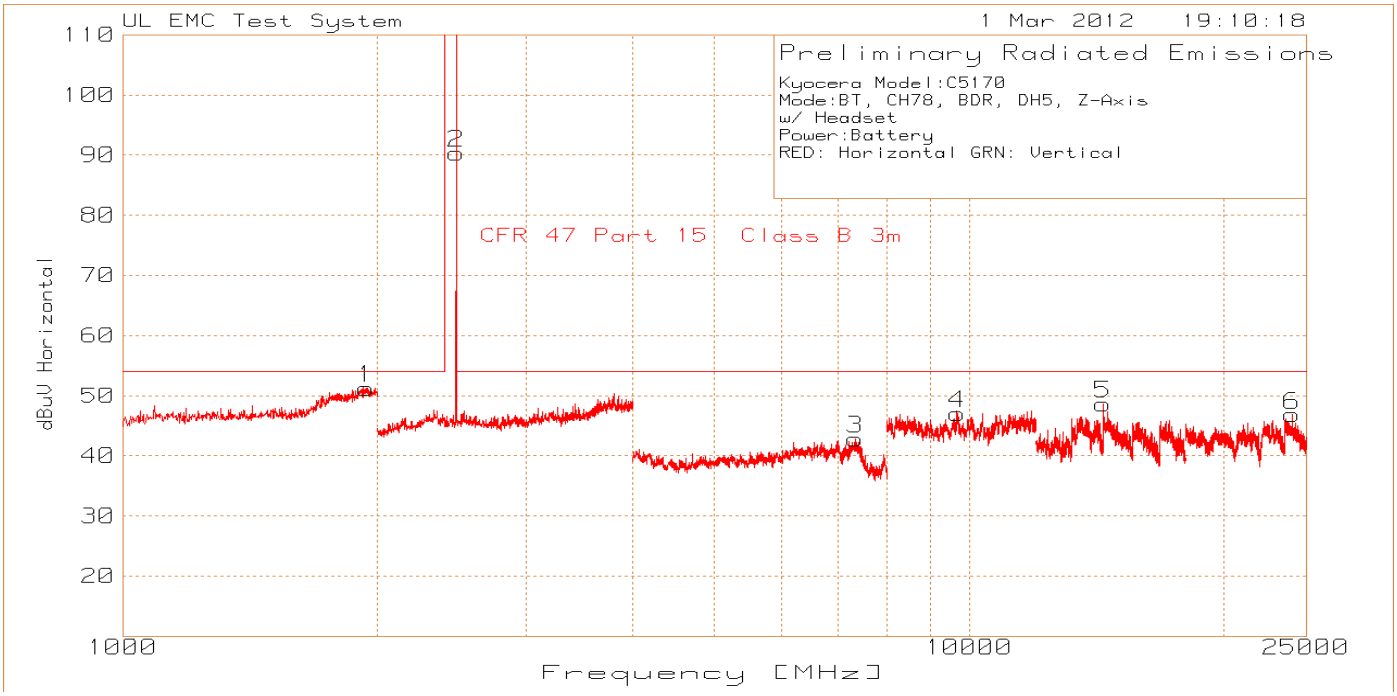
Power:Battery

Horizontal Band Edge

Test Frequency	Meter Reading	Detector	Antenna Factor dB	Path Loss/Gain dB	Level dBuV/m	CFR 47 Part 15 Class B 3m	Margin	Height [cm]	Polarity
1935.872	20.33	PK	27.4	3.97	51.7	54	-2.3	100	Horz
2480.48	61.75	PK	22	3.77	87.52	-	-	100	Horz
7439.626	61.06	PK	30.6	-47.27	44.39	54	-9.61	99	Horz
11607.74	57.07	PK	37.4	-47.23	47.24	54	-6.76	150	Horz
13541.42	48.71	PK	39.8	-41.33	47.18	54	-6.82	100	Horz
23649.86	59.2	PK	40.3	-52.55	46.95	54	-7.05	100	Horz
1951.904	20.77	PK	27.4	3.81	51.98	54	-2.02	150	Vert
2480.48	65.68	PK	22	3.77	91.45	-	-	150	Vert
7263.509	59.15	PK	30.2	-46.55	42.8	54	-11.2	100	Vert
11607.74	56.04	PK	37.4	-47.23	46.21	54	-7.79	101	Vert
14444.18	47.08	PK	39.8	-39.55	47.33	54	-6.67	100	Vert
20806.72	62.5	PK	40.2	-56.5	46.2	54	-7.8	100	Vert

PK - Peak detector

Figure 14 Radiated Emissions Graph Z-Axis



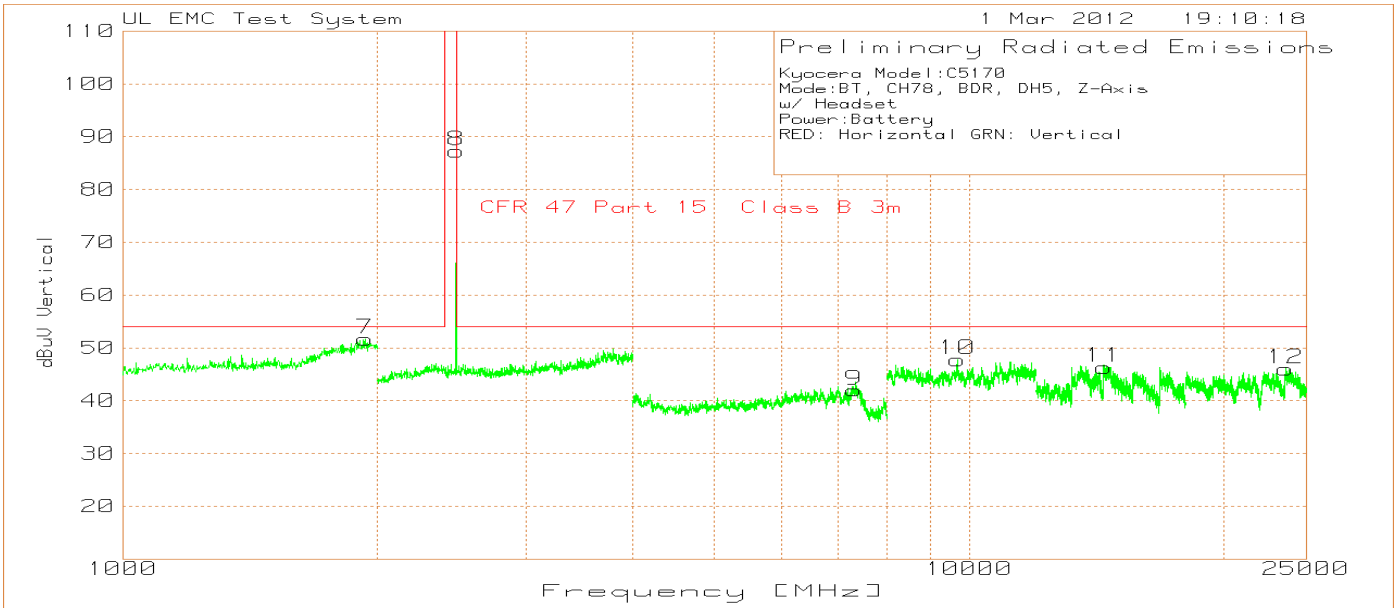


Table 16 Radiated Emissions Data Points Z-Axis

Kyocera Model:C5170

Mode:BT, CH00, BDR, DH5, Z-Axis

w/ Headset

Power:Battery

RED: Horizontal GRN: Vertical

Test Frequency	Meter Reading	Detector	Antenna Factor dB	Path Loss/Gain dB	Level dBuV/m	CFR 47 Part 15 Class B 3m	Margin	Height [cm]	Polarity
1883.768	20.39	PK	27.3	3.82	51.51	54	-2.49	100	Horz
2400.4	65.5	PK	21.8	4.3	91.6	-	-	100	Horz
7354.236	58.58	PK	30.9	-46.31	43.17	54	-10.83	100	Horz
10785.86	59.14	PK	36.4	-48.08	47.46	54	-6.54	150	Horz
15743.1	47.44	PK	40	-40.16	47.28	54	-6.72	100	Horz
19605.04	66.5	PK	40.3	-60.97	45.83	54	-8.17	100	Horz
1893.788	20.44	PK	27.4	3.8	51.64	54	-2.36	100	Vert
2402.402	60.94	PK	21.8	4.25	86.99	-	-	100	Vert
6975.317	60.15	PK	29.3	-45.83	43.62	54	-10.38	100	Vert
8523.015	60.94	PK	36.7	-49.58	48.06	54	-5.94	150	Vert
14530.61	46.33	PK	39.8	-39.06	47.07	54	-6.93	102	Vert
22257.7	58.01	PK	40.5	-52.75	45.76	54	-8.24	100	Vert

PK - Peak detector

4.2.8 Band-edge, BT, BDR, Low Channel

Figure 15 Band-edge Graph Z-Axis, Horizontal

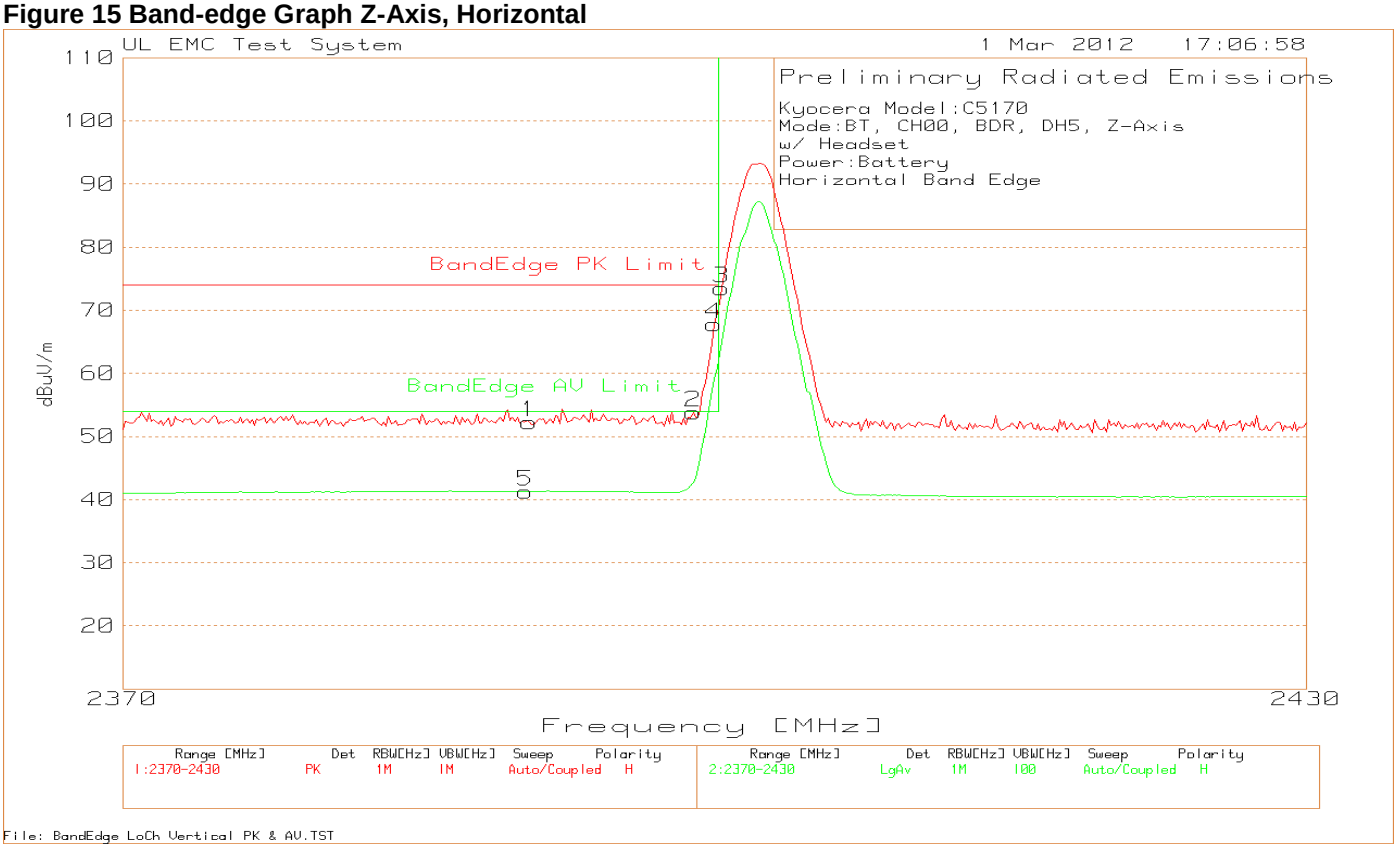


Table 17 Band-edge Data Z-Axis, Horizontal

Kyocera Model:C5170
Mode:BT, CH00, BDR, DH5, Z-Axis
w/ Headset
Power:Battery
Horizontal Band Edge

Test Frequency	Meter Reading	Detector	Antenna Factor dB	Path Loss/Gain Factor dB	dBuV/m	BandEdge Limit	Margin	Height [cm]	Polarity
2390.441	26.01	PK	21.8	4.49	52.3	74	-21.7	100	Horz
2398.737	27.71	PK	21.8	4.34	53.85	-	-	150	Horz
2400.18	47.35	PK	21.8	4.31	73.46	-	-	100	Horz
2399.82	41.71	PK	21.8	4.32	67.83	-	-	100	Horz
2390.261	15.01	AV	21.8	4.49	41.3	54	-12.7	100	Horz

PK - Peak detector
Av - Average detector

Figure 16 Band-edge Graph Y-Axis, Vertical

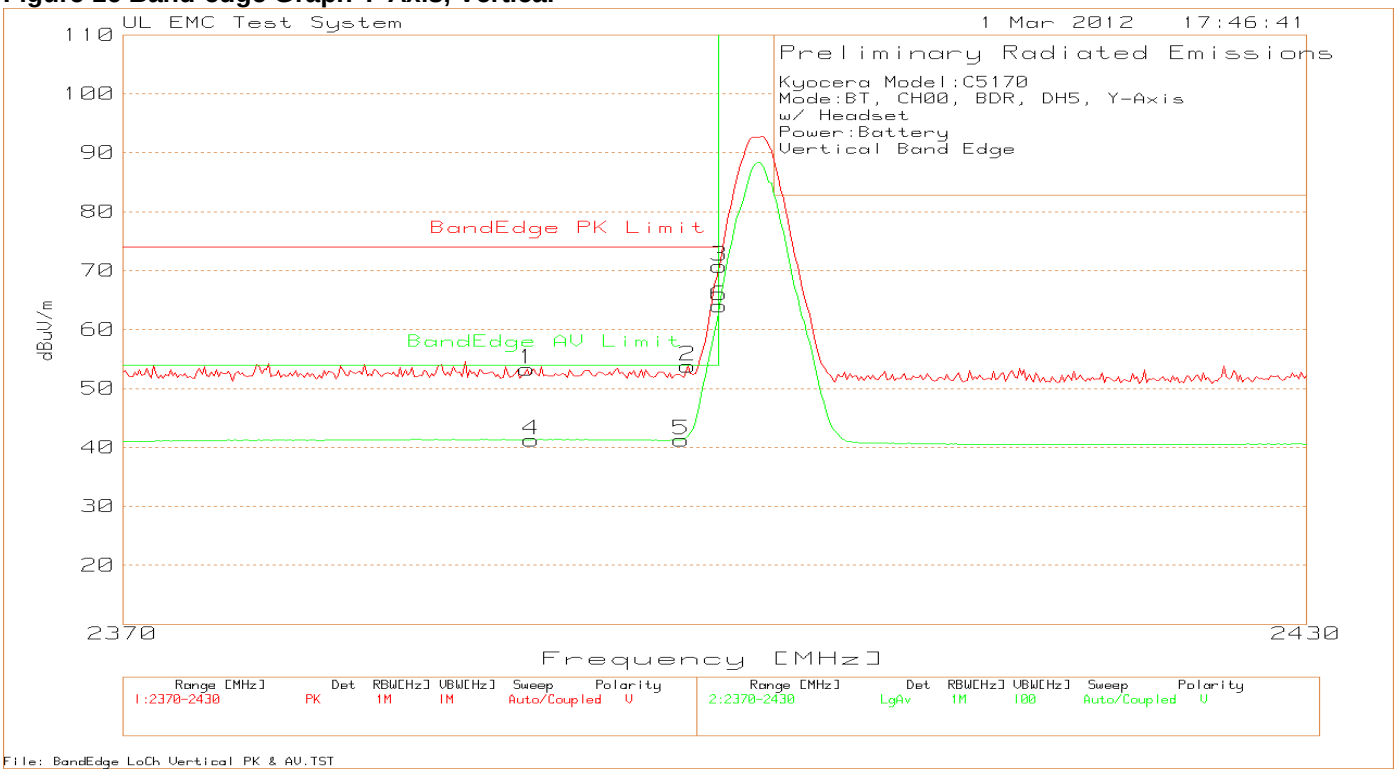


Table 18 Band-edge Data Y-Axis, Vertical

Kyocera Model:C5170
Mode:BT, CH00, BDR, DH5, Y-Axis
w/ Headset
Power:Battery
Vertical Band Edge

Test Frequency	Meter Reading	Detector	Antenna Factor dB	Path Loss/Gain Factor dB	dBuV/m	BandEdge Limit	Margin	Height [cm]	Polarity
2390.321	26.97	PK	21.8	4.49	53.26	74	-20.74	100	Vert
2398.497	27.65	PK	21.8	4.35	53.8	-	-	150	Vert
2400.06	44.7	PK	21.8	4.31	70.81	-	-	150	Vert
2390.561	15.02	AV	21.8	4.49	41.31	74	-32.69	54	-12.69
2398.136	15.15	Av	21.8	4.36	41.31	-	-	54	-12.69
2400.06	37.97	Av	21.8	4.31	64.08	-	-	999	-934.92

PK - Peak detector
Av - Average detector

4.2.9 Band-edge, BT, 8PSK, Low Channel

Figure 17 Band-edge Graph Z-Axis, Horizontal

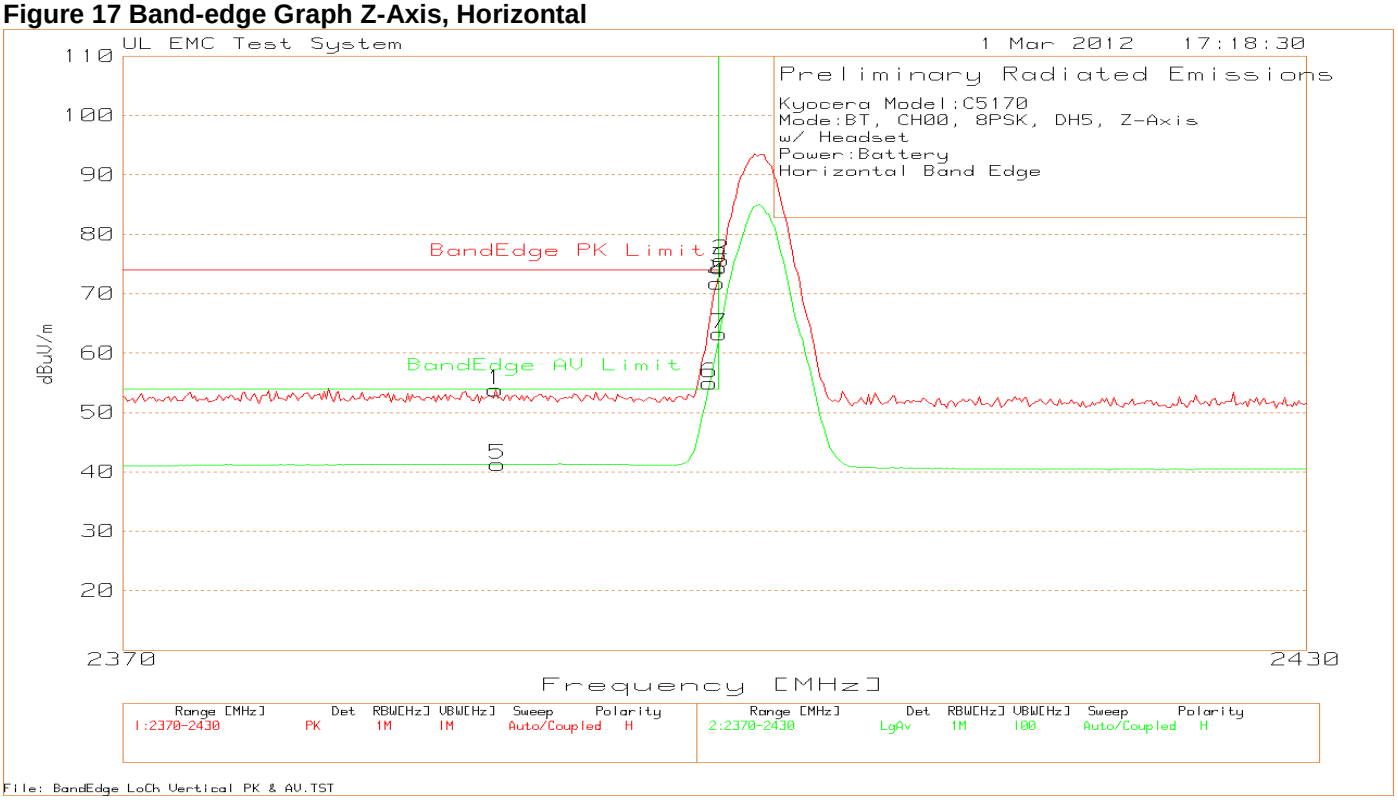


Table 19 Band-edge Data Z-Axis, Horizontal

Kyocera Model:C5170
Mode:BT, CH00, 8PSK, DH5, Z-Axis
w/ Headset
Power:Battery
Horizontal Band Edge

Test Frequency	Meter Reading	Detector	Antenna Factor dB	Path Loss/Gain Factor dB	dBuV/m	BandEdge Limit	Margin	Height [cm]	Polarity
2388.758	27.59	PK	21.8	4.46	53.85	74	-20.15	150	Horz
2400.18	49.55	PK	21.8	4.31	75.66	-	-	100	Horz
2400.06	48.31	PK	21.8	4.31	74.42	-	-	100	Horz
2399.94	45.7	PK	21.8	4.31	71.81	-	-	100	Horz
2388.878	15.04	Av	21.8	4.46	41.3	54	-12.7	100	Horz
2399.579	28.84	Av	21.8	4.32	54.96	-	-	100	Horz
2400.06	37.17	Av	21.8	4.31	63.28	-	-	100	Horz

PK - Peak detector
Av - Average detector

Figure 18 Band-edge Graph Y-Axis, Vertical

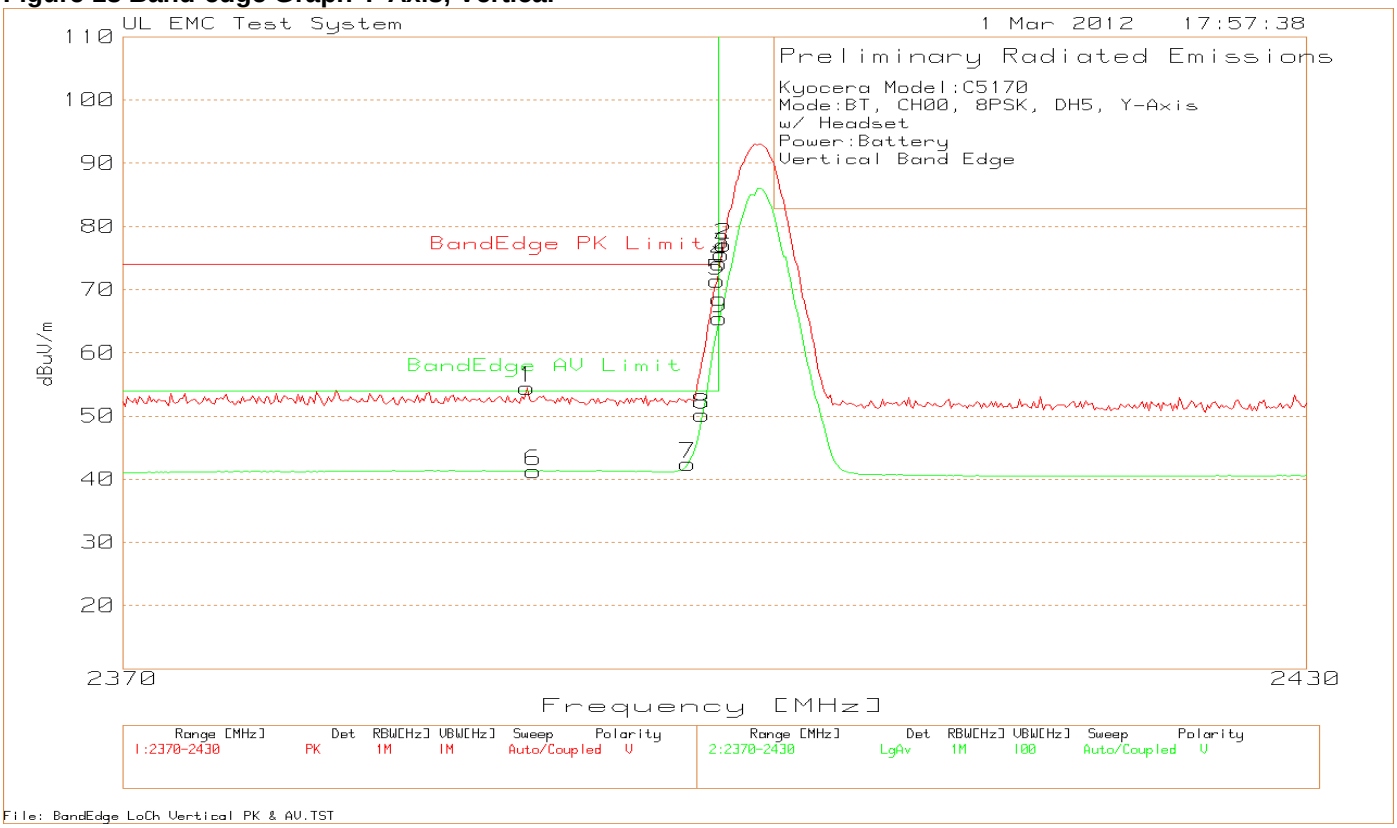


Table 20 Band-edge Data Y-Axis, Vertical

Kyocera Model:C5170
Mode:BT, CH00, 8PSK, DH5, Y-Axis
w/ Headset
Power:Battery
Vertical Band Edge

Test Frequency	Meter Reading	Detector	Antenna Factor dB	Path Loss/Gain Factor dB	dBuV/m	BandEdge Limit	Margin	Height [cm]	Polarity
2390.321	28.13	PK	21.8	4.49	54.42	74	-19.58	150	Vert
2400.301	50.99	PK	21.8	4.3	77.09	-	-	150	Vert
2400.18	49.43	PK	21.8	4.31	75.54	-	-	150	Vert
2400.06	48.06	PK	21.8	4.31	74.17	-	-	150	Vert
2399.94	45.26	PK	21.8	4.31	71.37	-	-	150	Vert
2390.681	15.02	Av	21.8	4.49	41.31	54	-12.69	150	Vert
2398.497	16.28	Av	21.8	4.35	42.43	-	-	150	Vert
2399.218	24.04	Av	21.8	4.33	50.17	-	-	150	Vert
2400.06	39.39	Av	21.8	4.31	65.5	-	-	150	Vert

PK - Peak detector
Av - Average detector

4.2.10 Band-edge, BT, 8PSK, Hopping Channel

Figure 19 Band-edge Graph Z-Axis, Horizontal

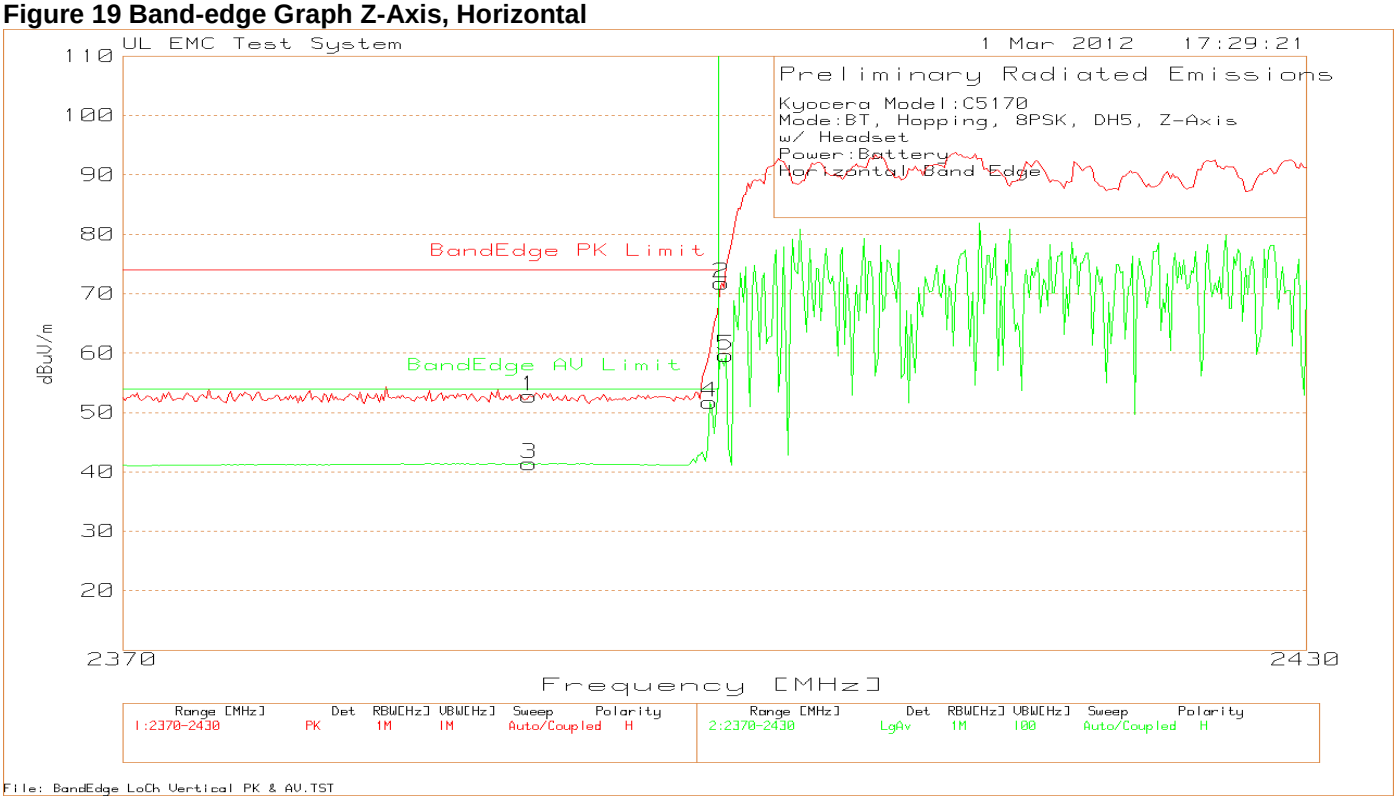


Table 21 Band-edge Data Z-Axis, Horizontal

Kyocera Model:C5170
Mode:BT, Hopping, 8PSK, DH5, Z-Axis
w/ Headset
Power:Battery
Horizontal Band Edge

Test Frequency	Meter Reading	Detector	Antenna Factor dB	Path Loss/Gain Factor dB	dBuV/m	BandEdge Limit	Margin	Height [cm]	Polarity
2390.441	26.45	PK	21.8	4.49	52.74	74	-21.26	150	Horz
2400.18	45.7	PK	21.8	4.31	71.81	-	-	100	Horz
2390.441	15.08	AV	21.8	4.49	41.37	54	-12.63	150	Horz
2399.579	25.63	AV	21.8	4.32	51.75	-	-	100	Horz
2400.421	33.52	AV	21.8	4.3	59.62	-	-	150	Horz

PK - Peak detector
Av - Average detector

Figure 20 Band-edge Graph Y-Axis, Vertical

Table 22 Band-edge Data Y-Axis, Vertical

Kyocera Model:C5170
Mode:BT, CH00, Hopping, DH5, Y-Axis
w/ Headset
Power:Battery
Vertical Band Edge

Test Frequency	Meter Reading	Detector	Antenna Factor dB	Path Loss/Gain Factor dB	dBuV/m	BandEdge Limit	Margin	Height [cm]	Polarity
2390.08	26.55	PK	21.8	4.48	52.83	74	-21.17	100	Vert
2399.94	43.05	PK	21.8	4.31	69.16	-	-	150	Vert
2400.421	49.6	PK	21.8	4.3	75.7	-	-	150	Vert
2390.08	15.1	Av	21.8	4.48	41.38	54	-12.62	150	Vert
2399.76	30.18	Av	21.8	4.32	56.3	-	-	100	Vert
2401.503	43.97	Av	21.8	4.27	70.04	-	-	150	Vert
2401.623	52.79	Av	21.8	4.27	78.86	-	-	150	Vert

PK - Peak detector
Av - Average detector

4.2.11 Band-edge, BT, BDR, High Channel

Figure 21 Band-edge Graph Z-Axis, Horizontal

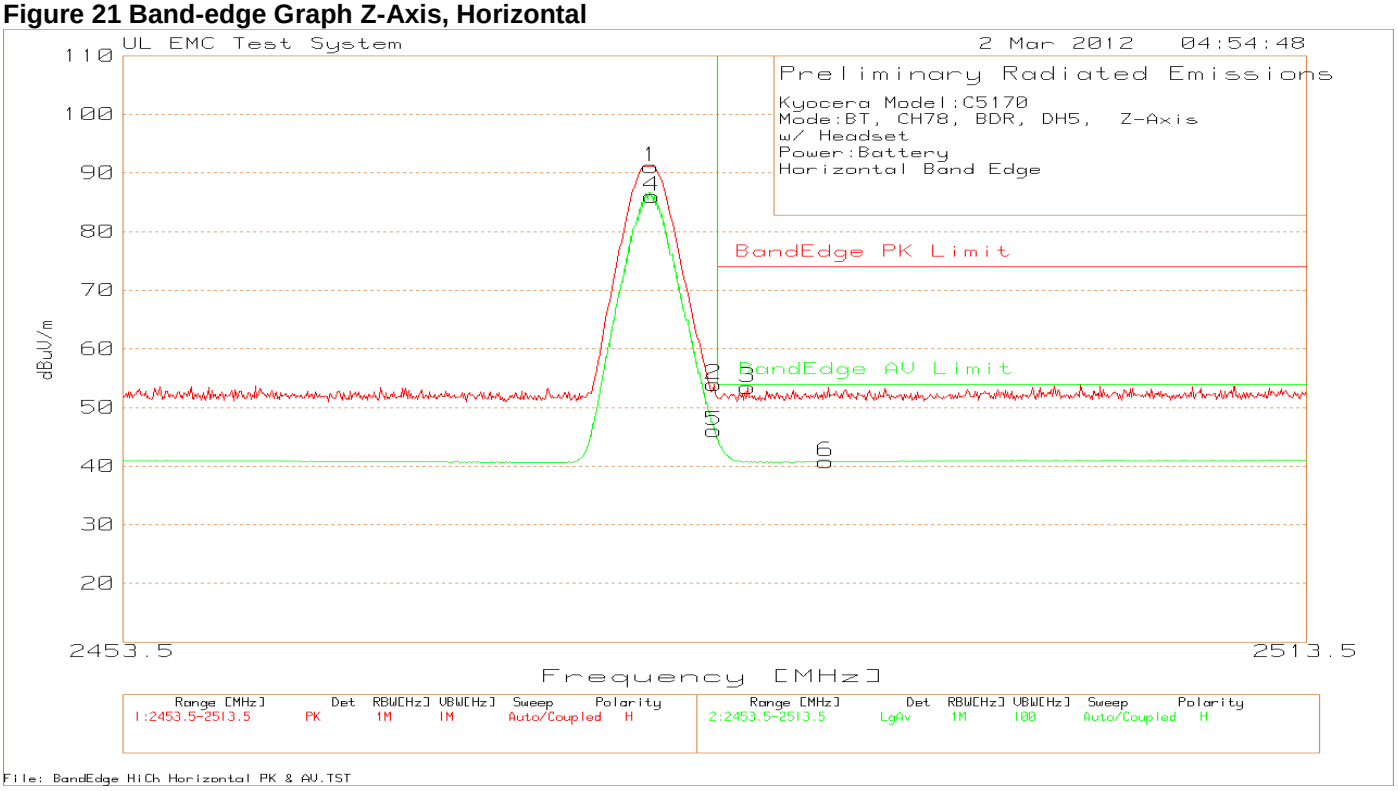


Table 23 Band-edge Data Z-Axis, Horizontal

Kyocera Model: C5170
Mode:BT, CH78, BDR, DH5, Z-Axis
w/ Headset
Power: Batttery
Horizontal Band Edge

Test Frequency	Meter Reading	Detector	Antenna Factor dB	Path Loss/Gain Factor dB	dBuV/m	BandEdge Limit	Margin	Height [cm]	Polarity
2480.137	65.37	PK	22	3.77	91.14	-	-	100	Horz
2483.29	28.21	PK	22	3.77	53.98	-	-	150	Horz
2485.032	27.54	PK	22.1	3.77	53.41	74	-20.59	100	Horz
2480.167	60.25	Av	22	3.77	86.02	-	-	100	Horz
2483.32	20.23	Av	22	3.77	46	-	-	100	Horz
2488.995	14.85	Av	22.1	3.79	40.74	54	-13.26	100	Horz

PK - Peak detector
Av - Average detector

Figure 22 Band-edge Graph Y-Axis, Vertical

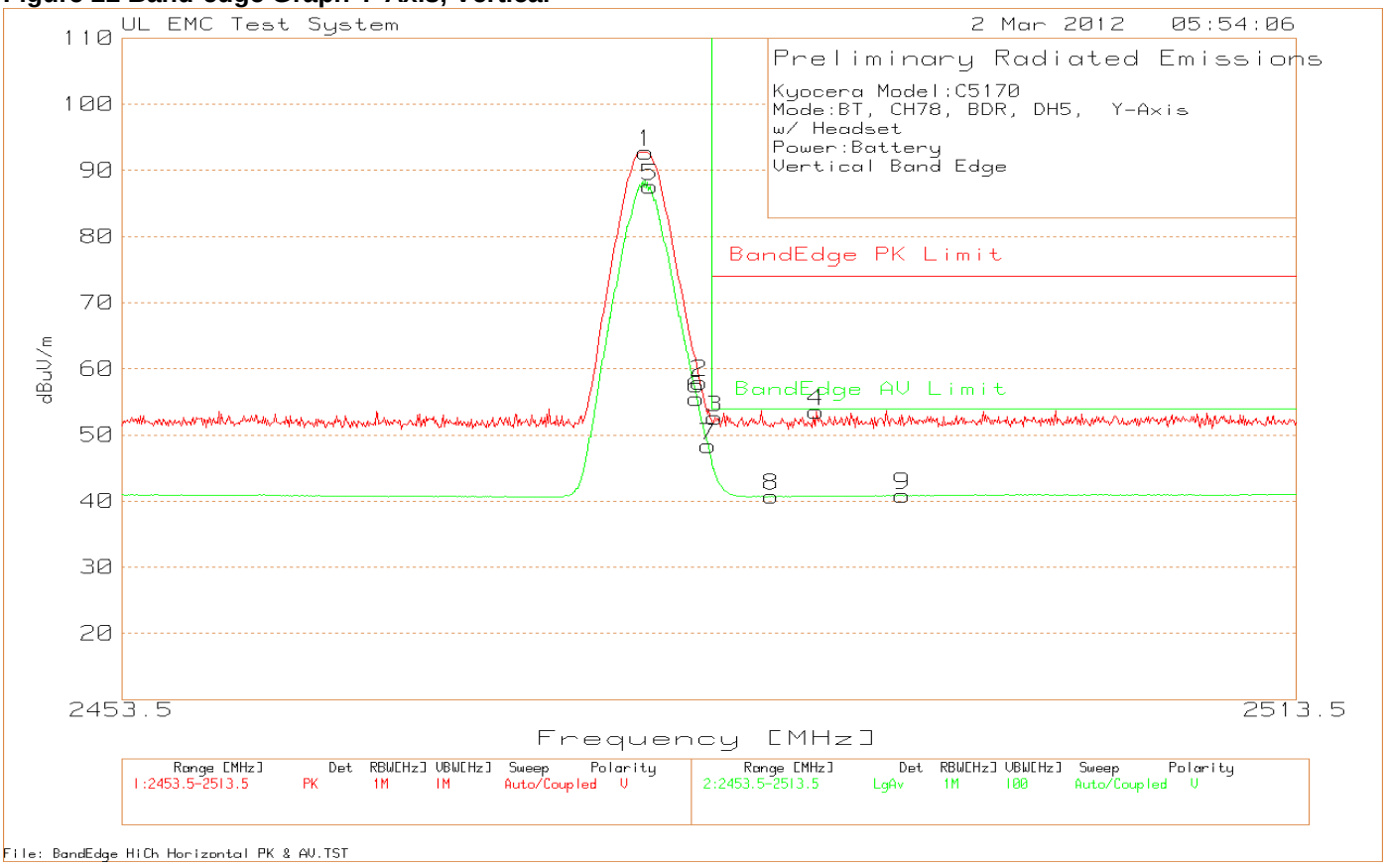


Table 24 Band-edge Data Y-Axis, Vertical

Kyocera Model: C5170
Mode:BT, CH78, BDR, DH5, Y-Axis
w/ Headset
Power: Batttery
Vertical Band Edge

Test Frequency	Meter Reading	Detector	Antenna Factor dB	Path Loss/Gain Factor dB	dBuV/m	BandEdge Limit	Margin	Height [cm]	Polarity
2480.107	67	PK	22	3.77	92.77	-	-	150	Vert
2482.869	32.16	PK	22	3.77	57.93	-	-	150	Vert
2483.65	26.73	PK	22.1	3.77	52.6	74	-21.4	100	Vert
2488.815	27.7	PK	22.1	3.79	53.59	74	-20.41	100	Vert
2480.347	61.85	PK	22	3.77	87.62	-	-	150	Vert
2482.689	29.71	Av	22	3.77	55.48	-	-	150	Vert
2483.29	22.63	Av	22	3.77	48.4	-	-	150	Vert
2486.533	14.86	Av	22.1	3.77	40.73	54	-13.27	100	Vert
2493.26	14.89	Av	22.1	3.86	40.85	54	-13.15	100	Vert

PK - Peak detector
Av - Average detector

4.2.12 Band-edge, BT, 8PSK, High Channel

Figure 23 Band-edge Graph Z-Axis, Horizontal

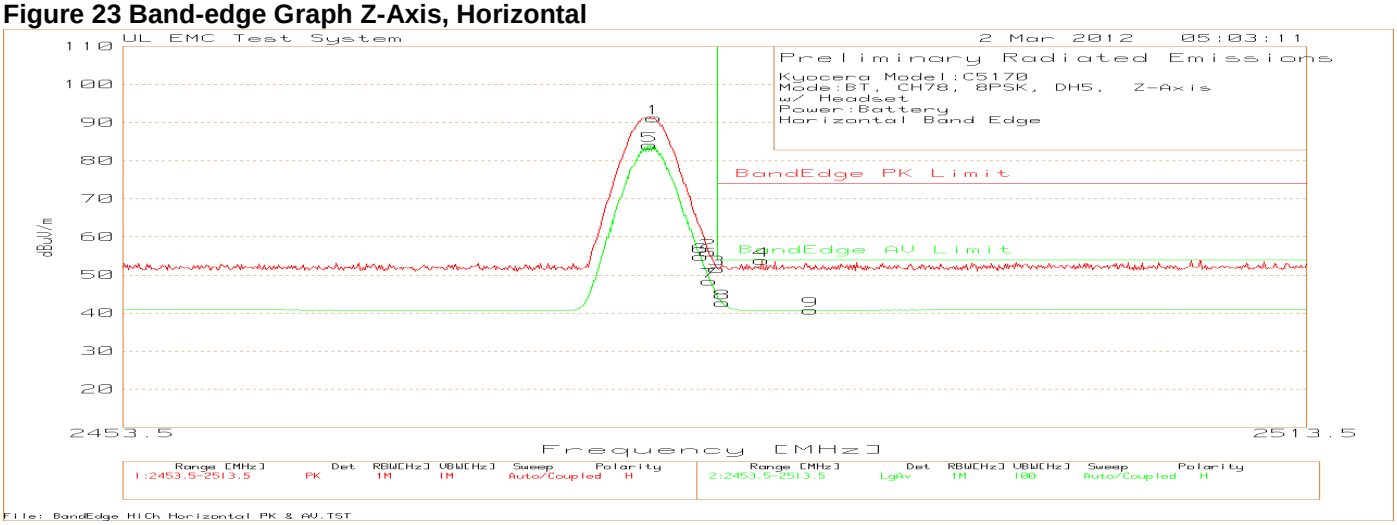


Table 25 Band-edge Data Z-Axis, Horizontal

Kyocera Model: C5170
Mode:BT, CH78, 8PSK, DH5, Z-Axis
w/ Headset
Power: Batttery
Horizontal Band Edge

Test Frequency	Meter Reading	Detector	Antenna Factor dB	Path Loss/Gain Factor dB	dBuV/m	BandEdge Limit	Margin	Height [cm]	Polarity
2480.287	65.4	PK	22	3.77	91.17	-	-	100	Horz
2483.05	30.21	PK	22	3.77	55.98	-	-	100	Horz
2483.47	25.8	PK	22.1	3.77	51.67	-	-	150	Horz
2485.752	27.93	PK	22.1	3.77	53.8	74	-20.2	150	Horz
2480.047	58.27	Av	22	3.77	84.04	-	-	99	Horz
2482.629	29.04	Av	22	3.77	54.81	-	-	99	Horz
2483.11	22.57	Av	22	3.77	48.34	-	-	99	Horz
2483.77	16.8	Av	22.1	3.77	42.67	54	-11.33	99	Horz
2488.215	14.85	Av	22.1	3.78	40.73	54	-13.27	150	Horz

PK - Peak detector
Av - Average detector

Figure 24 Band-edge Graph Y-Axis, Vertical

Table 26 Band-edge Data Y-Axis, Vertical

Kyocera Model: C5170
Mode:BT, CH78, 8PSK, DH5, Y-Axis
w/ Headset
Power: Batttery
Vertical Band Edge

Test Frequency	Meter Reading	Detector	Antenna Factor dB	Path Loss/Gain Factor dB	dBuV/m	BandEdge Limit	Margin	Height [cm]	Polarity
2479.866	67.17	PK	22	3.77	92.94	-	-	150	Vert
2482.929	32.99	PK	22	3.77	58.76	-	-	150	Vert
2483.53	26.77	PK	22.1	3.77	52.64	74	-21.36	150	Vert
2488.995	27.24	PK	22.1	3.79	53.13	74	-20.87	150	Vert
2480.227	59.78	Av	22	3.77	85.55	-	-	150	Vert
2482.989	25.5	Av	22	3.77	51.27	-	-	150	Vert
2483.59	18.81	Av	22.1	3.77	44.68	54	-9.32	150	Vert
2488.335	14.86	Av	22.1	3.78	40.74	54	-13.26	102	Vert

PK - Peak detector
Av - Average detector

4.2.13 Band-edge, BT, 8PSK, Hopping Channel

Figure 25 Band-edge Graph Z-Axis, Horizontal

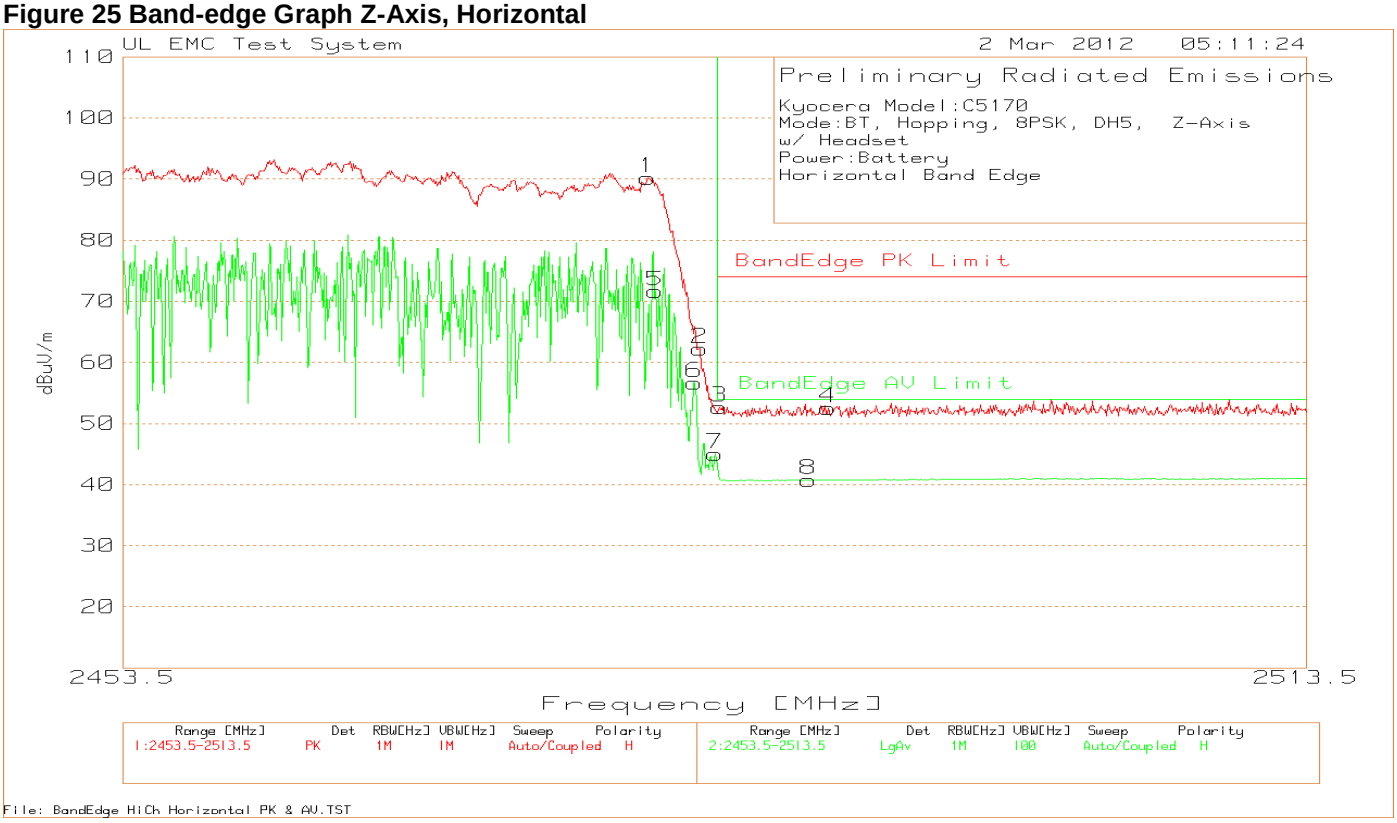


Table 27 Band-edge Data Z-Axis, Horizontal
Kyocera Model: C5170
Mode:BT, Hopping, 8PSK, DH5, Z-Axis
w/ Headset
Power: Batttery
Horizontal Band Edge

Test Frequency	Meter Reading	Detector	Antenna Factor dB	Path Loss/Gain Factor dB	dBuV/m	BandEdge Limit	Margin	Height [cm]	Polarity
2479.926	64.41	PK	22	3.77	90.18	-	-	99	Horz
2482.569	36.48	PK	22	3.77	62.25	-	-	99	Horz
2483.59	26.77	PK	22.1	3.77	52.64	74	-21.36	99	Horz
2489.116	26.63	PK	22.1	3.79	52.52	74	-21.48	99	Horz
2480.347	45.85	Av	22	3.77	71.62	-	-	150	Horz
2482.329	30.89	Av	22	3.77	56.66	-	-	99	Horz
2483.35	19.13	Av	22.1	3.77	45	-	-	99	Horz
2488.095	14.83	Av	22.1	3.78	40.71	54	-13.29	99	Horz

PK - Peak detector
Av - Average detector

Figure 26 Band-edge Graph Y-Axis, Vertical

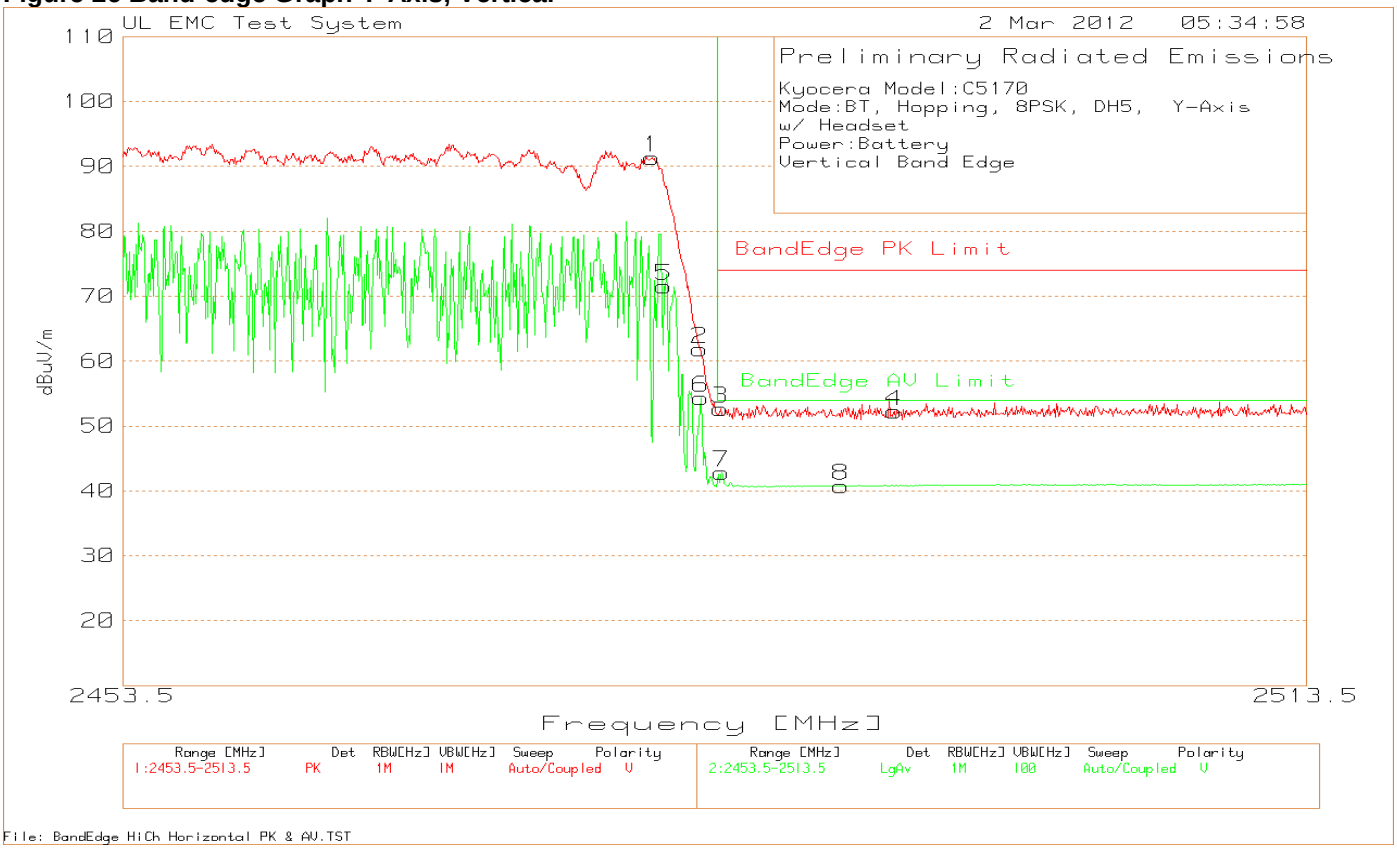


Table 28 Band-edge Data Y-Axis, Vertical

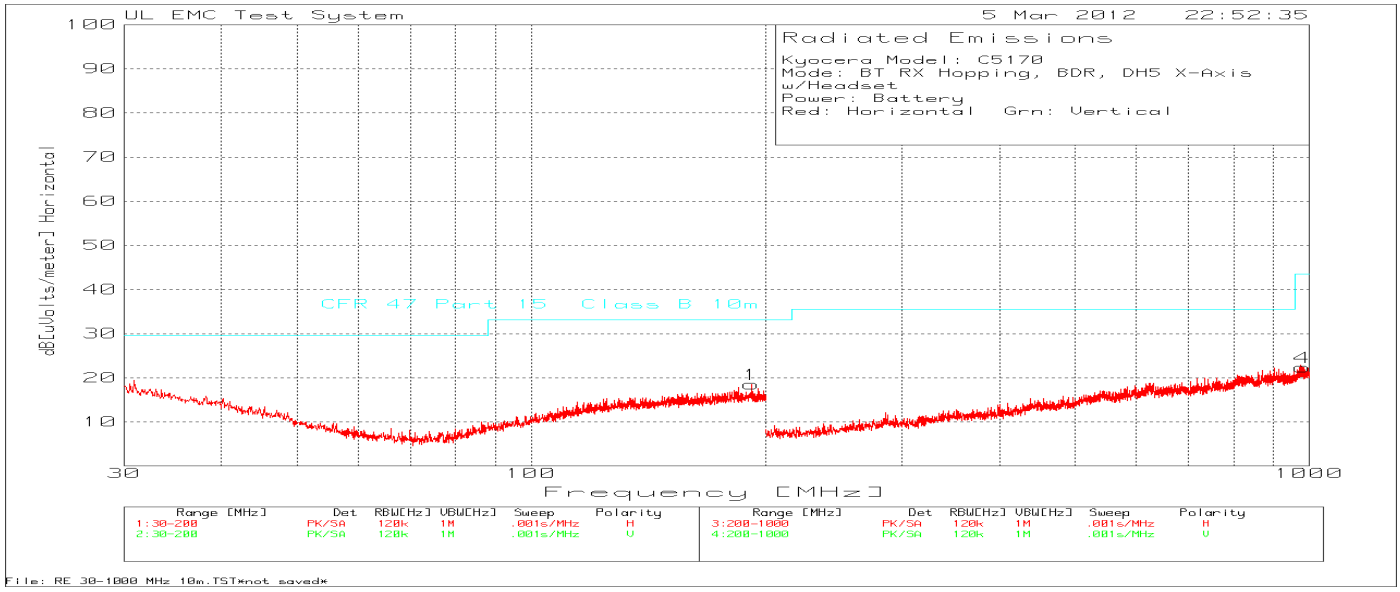
Kyocera Model: C5170
Mode:BT, Hopping, 8PSK, DH5, Y-Axis
w/ Headset
Power: Batttery
Vertical Band Edge

Test Frequency	Meter Reading	Detector	Antenna Factor dB	Path Loss/Gain Factor dB	dBuV/m	BandEdge Limit	Margin	Height [cm]	Polarity
2480.167	65.6	PK	22	3.77	91.37	-	-	150	Vert
2482.569	36.11	PK	22	3.77	61.88	-	-	150	Vert
2483.65	26.82	PK	22.1	3.77	52.69	74	-21.31	101	Vert
2492.479	26.26	PK	22.1	3.85	52.21	74	-21.79	150	Vert
2480.767	45.77	Av	22	3.77	71.54	-	-	101	Vert
2482.629	28.54	Av	22	3.77	54.31	-	-	150	Vert
2483.71	16.95	Av	22.1	3.77	42.82	54	-11.18	101	Vert
2489.776	14.88	Av	22.1	3.8	40.78	54	-13.22	150	Vert

PK - Peak detector
Av - Average detector

4.2.14 Receiver and Digital Radiated Emissions, Battery Mode, 30MHz – 1GHz

Figure 27 Radiated Emissions Graph



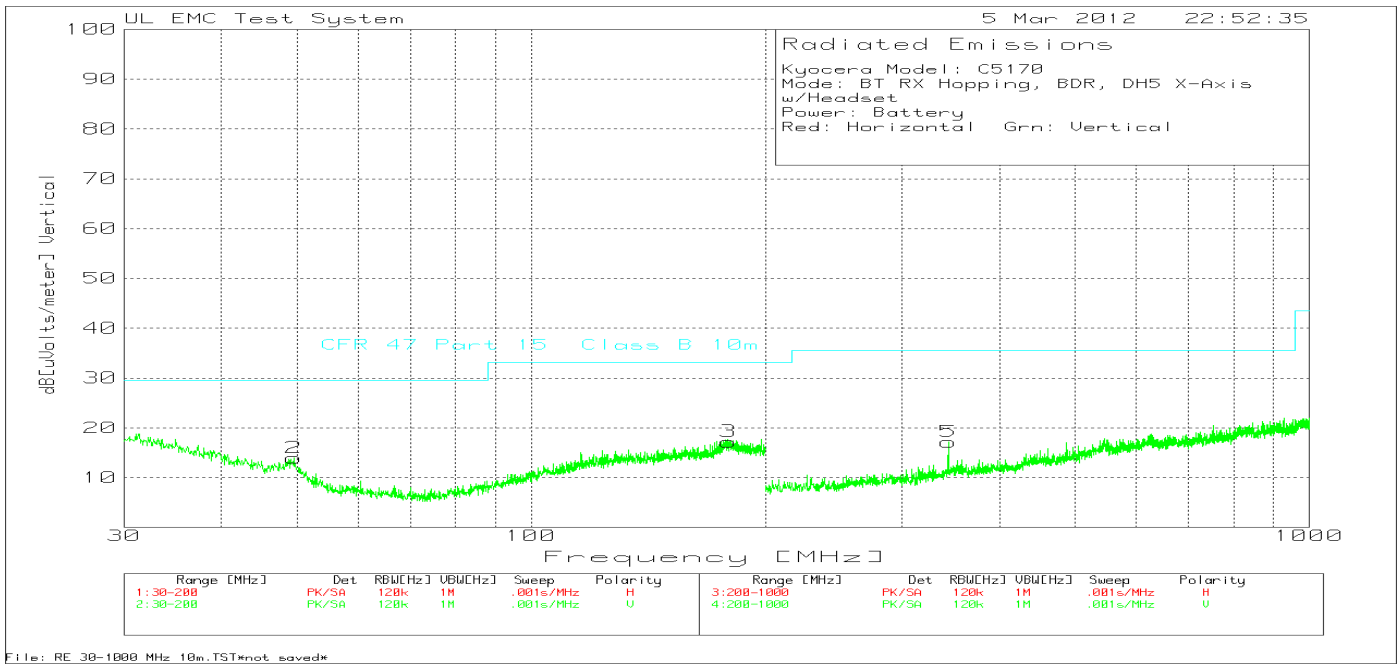


Table 29 Radiated Emissions Data Points

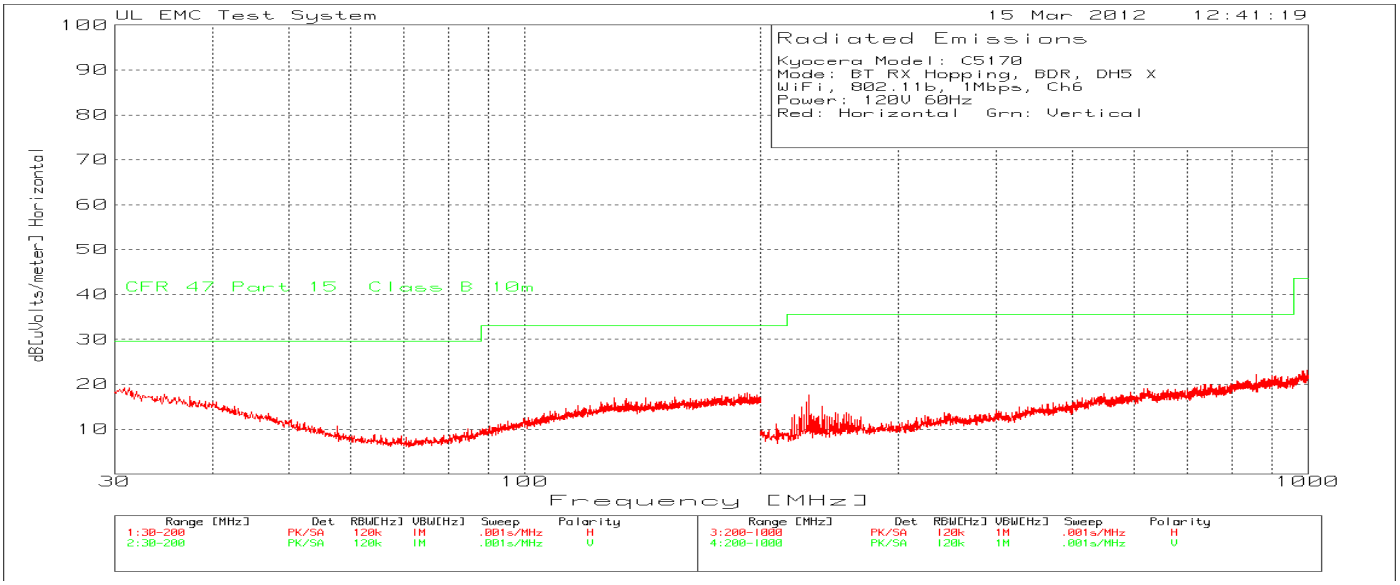
Kyocera Model: C5170
Mode: BT RX Hopping, BDR, DH5 X-Axis
w/Headset
Power: Battery
Red: Horizontal Grn: Vertical

Test Frequency	Meter Reading	Detector	Antenna Factor dB	Path Loss/Gain dB	dB[uV/m]	CFR 47 Part 15 Class B 10m	Margin	Height [cm]	Polarity
191.929	31.36	PK	16	-28.8	18.56	33.1	-14.54	99	Horz
49.6252	33.24	PK	10.1	-29.4	13.94	29.6	-15.66	102	Vert
179.2704	30.59	PK	15.7	-29.1	17.19	33.1	-15.91	102	Vert
981.0793	29.37	PK	24	-31	22.37	43.5	-21.13	99	Horz
343.6376	35.24	PK	14.5	-32.6	17.14	35.6	-18.46	100	Vert

PK - Peak detector
QP - Quasi-Peak detector

4.2.15 Receiver and Digital Radiated Emissions, Charging Mode, 30MHz – 1GHz

Figure 28 Radiated Emissions Graph



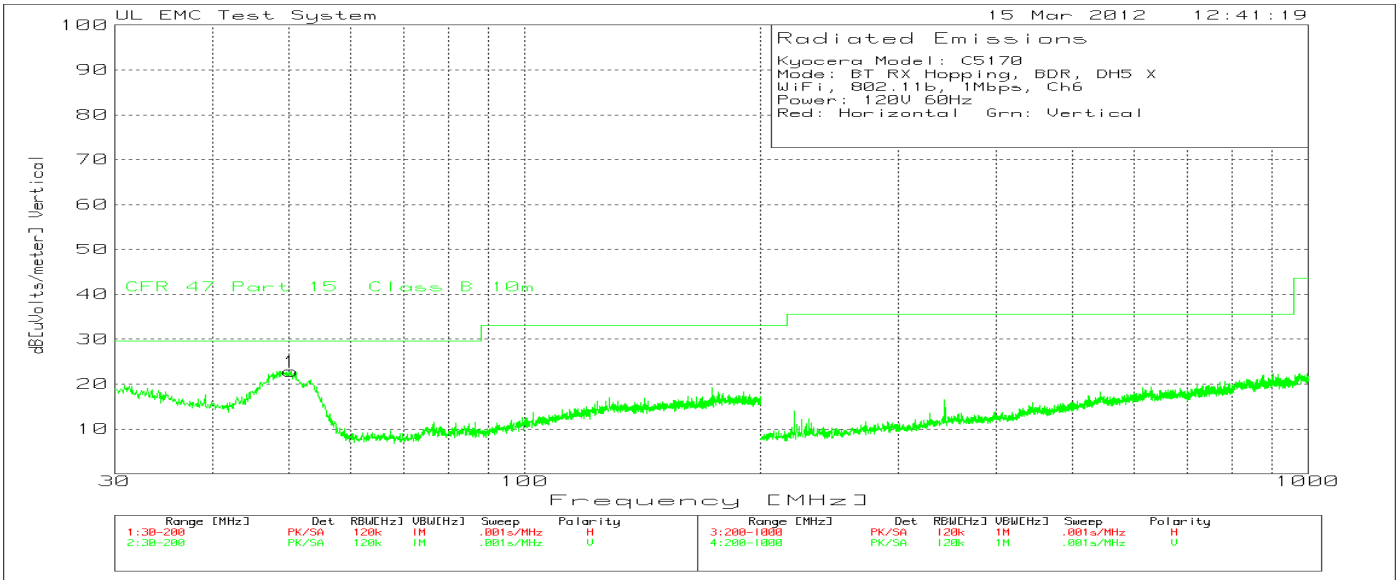


Table 30 Radiated Emissions Data Points

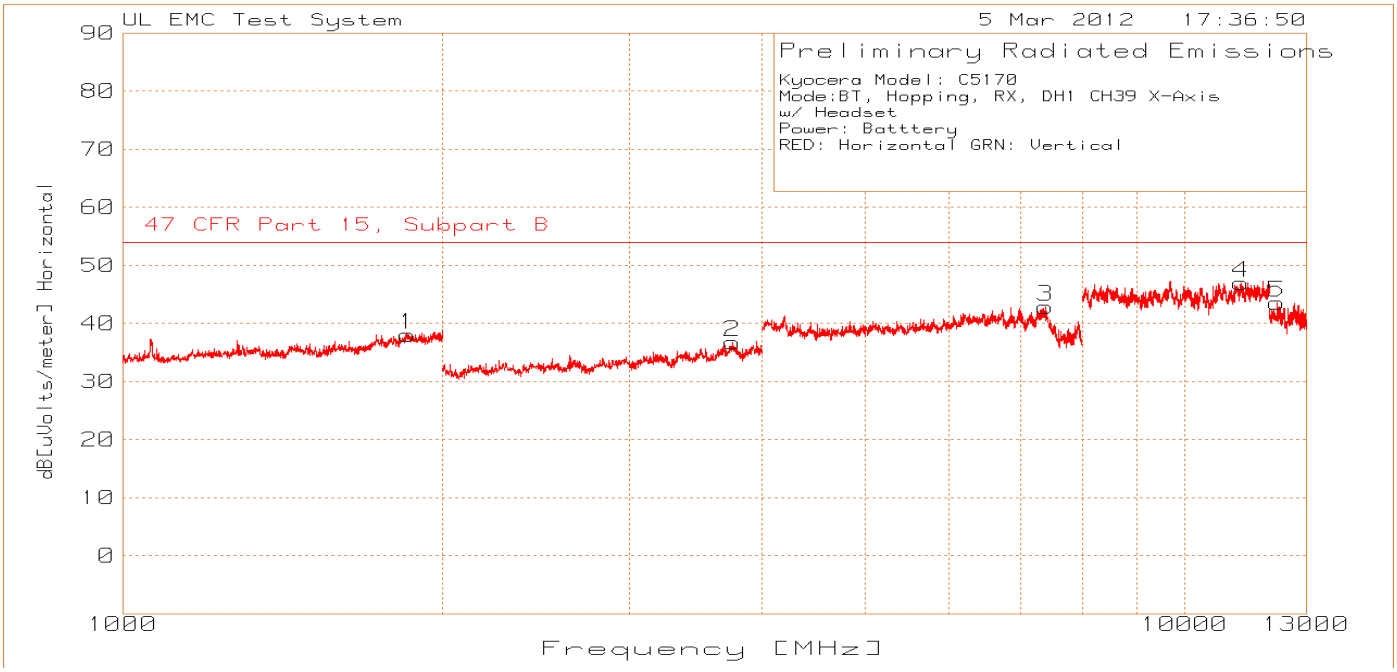
Kyocera Model: C5170
Mode: BT RX Hopping, BDR, DH5 X
WiFi, 802.11b, 1Mbps, Ch6
Power: 120V 60Hz
Red: Horizontal Grn: Vertical

Test Frequency	Meter Reading	Detector	Antenna Factor dB	Path Loss/Gain dB	dB[uV/m]	CFR 47 Part 15 Class B 10m	Margin	Height [cm]	Polarity
50.3048	42.44	PK	9.8	-29.4	22.84	29.6	-6.76	99	Vert

PK - Peak detector
QP - Quasi-Peak detector

4.2.16 Receiver and Digital Radiated Emissions, Battery Mode, 1GHz – 13GHz

Figure 29 Radiated Emissions Graph



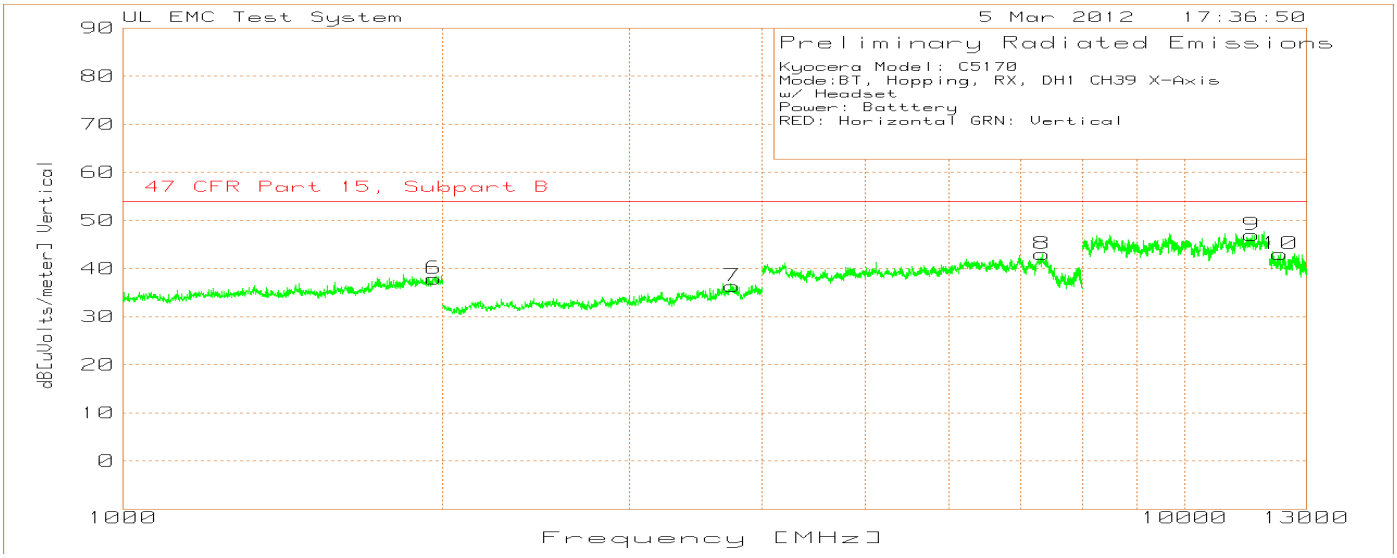


Table 31 Radiated Emissions Data Points

Kyocera Model: C5170
Mode:BT, Hopping, RX, DH1 CH39 X-Axis
w/ Headset
Power: Batttery
RED: Horizontal GRN: Vertical

Test Frequency	Meter Reading	Detector	Antenna Factor dB	Path Loss/Gain dB	dB[uV/m]	CFR 47 Part 15 Class B 3m	Margin	Height [cm]	Polarity
1856.857	65.21	PK	27.2	-54.38	38.03	54	-15.97	100	Horz
3751.752	64.23	PK	23.8	-51.19	36.84	54	-17.16	150	Horz
7396.931	58.8	PK	31.2	-47.1	42.9	54	-11.1	100	Horz
11300.87	57.58	PK	36.9	-47.48	47	54	-7	150	Horz
12208.42	50.74	PK	39.4	-46.51	43.63	54	-10.37	150	Horz
1964.965	64.65	PK	27.5	-54.22	37.93	54	-16.07	150	Vert
3749.75	63.65	PK	23.8	-51.14	36.31	54	-17.69	150	Vert
7338.225	58.78	PK	30.7	-46.49	42.99	54	-11.01	100	Vert
11570.38	56.69	PK	37.3	-46.97	47.02	54	-6.98	150	Vert
12290.58	49.24	PK	39.4	-45.66	42.98	54	-11.02	150	Vert

PK - Peak detector
Av - Average detector

5 IMMUNITY TEST RESULTS

Immunity tests are not required per the standard

Appendix A

Accreditations and Authorizations

NVLAP Lab code: 100414-0

NVLAP: The National Institute of Standards and Technology (NIST) administers the National Voluntary Laboratory Accreditation Program (NVLAP). NVLAP is comprised of laboratory accreditation programs (LAPs) which are established on the basis of requests and demonstrated need. Each LAP includes specific calibration and/or test standards and related methods and protocols assembled to satisfy the unique needs for accreditation in a field of testing or calibration. NVLAP accredits public and private laboratories based on evaluation of their technical qualifications and competence to carry out specific calibrations or tests. Accreditation criteria are established in accordance with the U.S. Code of Federal Regulations (CFR, Title 15, Part 285), NVLAP Procedures and General Requirements, and encompass the requirements of ISO/IEC 17025. For a full scope listing see http://ts.nist.gov/standards/scopes/1004140.htm

FCC: Details of the measurement facilities used for these tests have been filed with the Federal Communications Commission's Laboratory in Columbia, Maryland (Ref. No. 91044).

Industry Canada Industrie Canada

Industry of Canada: Accredited by Industry Canada for performance of radiated measurements. Our test site complies with RSP 100, Issue 7, Section 3.3. File #: IC 2180

VCCI: Accepted as an Associate Member to the VCCI. The measurement facilities detailed in this test report have been registered in accordance with Regulations for Voluntary Control Measures, Article 8. Registration Nos.: Radiated Emissions R-621, Conducted Emissions C-642.

ICASA: ICASA (Independent Communications Authority of South Africa) has appointed UL as a Designated Test Laboratory to test Telecommunications equipment for type approval in compliance with CISPR 22 to assist in fulfilling its mandate under section 54(1) of the Telecommunications Act, 1996 (Act 103 of 1996).

NIST/CAB: Validated by the European Commission as a U.S. Conformity Assessment Body (CAB) of the U.S.-EU Mutual Recognition Agreement (MRA) for the Electromagnetic Compatibility - Council Directive 2004/108/EC, Annex III (2-3). Also validated for the Telecommunication Equipment-Council Directive 99/5/EC, Annex III and IV, Identification Number: 0983.
NIST/CAB: Provisioned to act as a U.S. Conformity Assessment Body (CAB) under Appendix B, Phase I Procedures, of the Asia Pacific Economic Cooperation (APEC) MRA between the American Institute in Taiwan (AIT) and the United States. Our laboratory is considered qualified to test equipment subject to the applicable EMC regulations of the Chinese Taipei Bureau of Standards, Metrology and Inspection (BSMI) which require testing to CNS 13438 (CISPR 22).
NIST/CAB: Recognized by the Infocomm Development Authority of Singapore (IDA) under the Asia Pacific Economic Cooperation Mutual Recognition Agreement (APEC MRA). Our laboratory is provisionally designated to act as a Conformity Assessment Body (CAB) under Appendix B, Phase I Procedures, of the APEC MRA. Our scope of designation includes IDA TS EMC (CISPR 22), IEC 61000-4-2, -4-3, -4-4, -4-5, and -4-6