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| | |
|-----------------|--------------|
| Project Number: | 11U13873 |
| FCC ID | V65S3015 |
| Date: | July 7, 2011 |
| Model: | S3015 |

Electromagnetic Compatibility Test Report

For

KYOCERA Communications, Inc.

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Underwriters Laboratories Inc.
333 Pfingsten Rd.
Northbrook, IL 60062

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Tel: (847) 272-8800

FCC ID V65S3015
Model Number: S3015
Client Name: Kyocera Communications

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Test Report Details

Tests Performed By: **Underwriters Laboratories Inc.
333 Pfingsten Rd.
Northbrook, IL 60062**

Tests Performed For: **KYOCERA Communications, Inc.
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San Diego, CA 92123**

Applicant Contact: **Thuy To**
Title: **Senior Regulatory Engineer**
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Test Report Date: **July 7, 2011**

Product Type: **CDMA Mobile Phone with Bluetooth**

Product standards **FCC Part 15, Subpart C 15.247 – Radiated Emissions only**

Model Number: **S3015**

Sample Serial Number: **268435457816722941**

EUT Category: **Transmitter**

Testing Start Date: **June 27, 2011**

Date Testing Complete: **June 30, 2011**

Overall Results: Compliant

Underwriters Laboratories Inc. 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. Underwriters Laboratories Inc. shall have no liability for any deductions, inferences or generalizations drawn by the client or others from Underwriters Laboratories Inc. issued reports. This report shall not be used to claim, constitute or imply product certification, approval, or endorsement by NVLAP, NIST, A2LA, or any agency of the US 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.

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Report Revision History

| Revision Date | Description | Revised By | Revision Reviewed By |
|----------------------|--------------------|-------------------|-----------------------------|
| None | | | |

1.0 G E N E R A L - Product Description

1.1 Equipment Description

The S3015 is a CDMA Mobile Phone with BlueTooth 2.1+EDR.

1.2 Equipment Marking Plate

Power supply for phone:

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. | S3015 | None |
| EUT | Power Supply | KYOCERA Communications, Inc. | SCP-31ADT | Input:100-240Vac 50/60Hz 0.2A Output: 5Vdc 800mA |
| AE | Ear Phones | - | - | None |
| AE | Laptop | Lenovo | T410 | 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 |
| 4 | USB | 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:

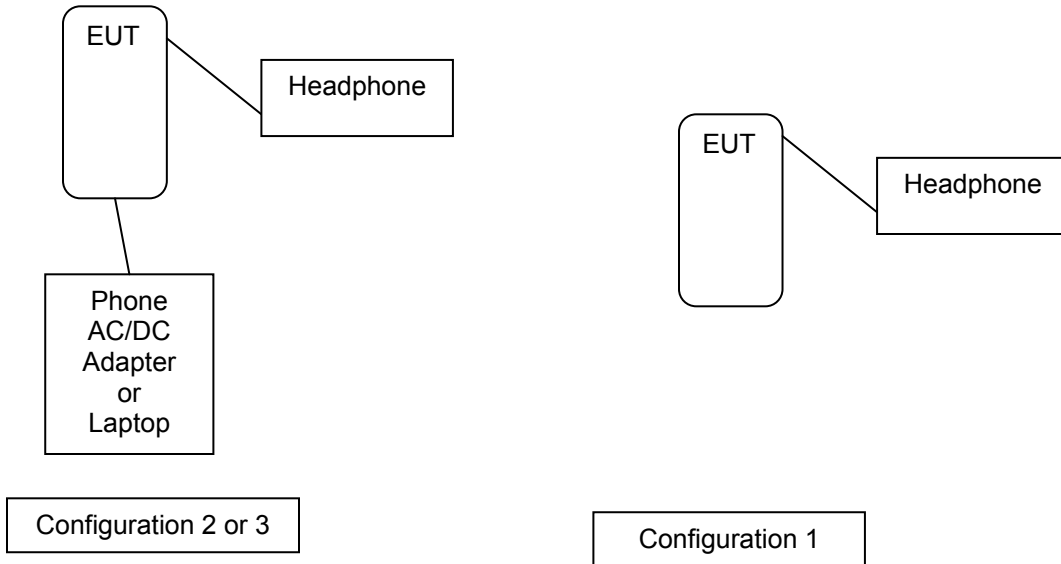
| Frequency (MHz) | Description |
|-----------------|-------------|
| 19.2 | TCXO |
| 26 | Bluetooth |
| 200 | BB |

1.3.4 Power Interface:

| Mode # /Rated | Voltage (V) | Current (A) | Power (W) | Frequency (DC/AC-Hz) | Phases (#) | Comments |
|---------------|------------------|-------------|-----------|----------------------|------------|---------------------|
| 1 | Battery Operated | - | - | DV | - | None |
| 2 | 120Vac | - | - | 60Hz | Single | None |
| 3 | USB | - | - | DC | - | Connected to Laptop |

1.4 Block Diagram:

The diagram below illustrates the configuration of the equipment above.



1.5 EUT Configurations

| Mode # | Description |
|--------|--|
| 1 | EUT configured in Battery Mode |
| 2 | EUT configured in AC mode using AC adapter |
| 3 | EUT configured with Laptop via USB cable |

Worst case was in Battery mode and the EUT is in Y-axis. This was determined with preliminary measurements

1.6 EUT Operation Modes

| Mode # | Description |
|--------|--|
| 1 | EUT set to single channel, DH5 and one modulation |
| 2 | EUT set to hopping channel, DH5 and one modulation |

2.0 Summary

The tests listed in the Summary of Testing section of this report have been performed and the results recorded by Underwriters Laboratories Inc. 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:



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Senior Project Engineer
International EMC Services
Conformity Assessment Services-

Reviewer:



Bartlomiej Mucha(Ext.41216)
Staff Engineer
International EMC Services
Conformity Assessment Services

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

3.0 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.

4.0 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 | |
| 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 (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 |
| Supplementary information: None | | |

Table 1 Conducted Emissions EUT Configuration Settings

| Power Interface Mode # | EUT Configurations Mode # | EUT Operation Mode # |
|---------------------------------|---------------------------|----------------------|
| 2,3 | 2,3 | 2 |
| Supplementary information: None | | |

Table 2 Conducted Emissions Test Equipment

| Description | Manufacturer | Model | Identifier | Cal Date | Cal Due |
|-------------------|-------------------|-----------------|------------|----------|----------|
| EMI Test Receiver | Rohde & Schwarz | ESCI | EMC4328 | 12-28-10 | 12-30-11 |
| 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 | 1-6-11 | 1-6-12 |
| LISN - L2 | Solar | 8602-50-TS-50-N | EMC4064 | 1-6-11 | 1-6-12 |

Figure 1 Test Setup for Conducted Emissions

Figure 2 Conducted Emissions Graph

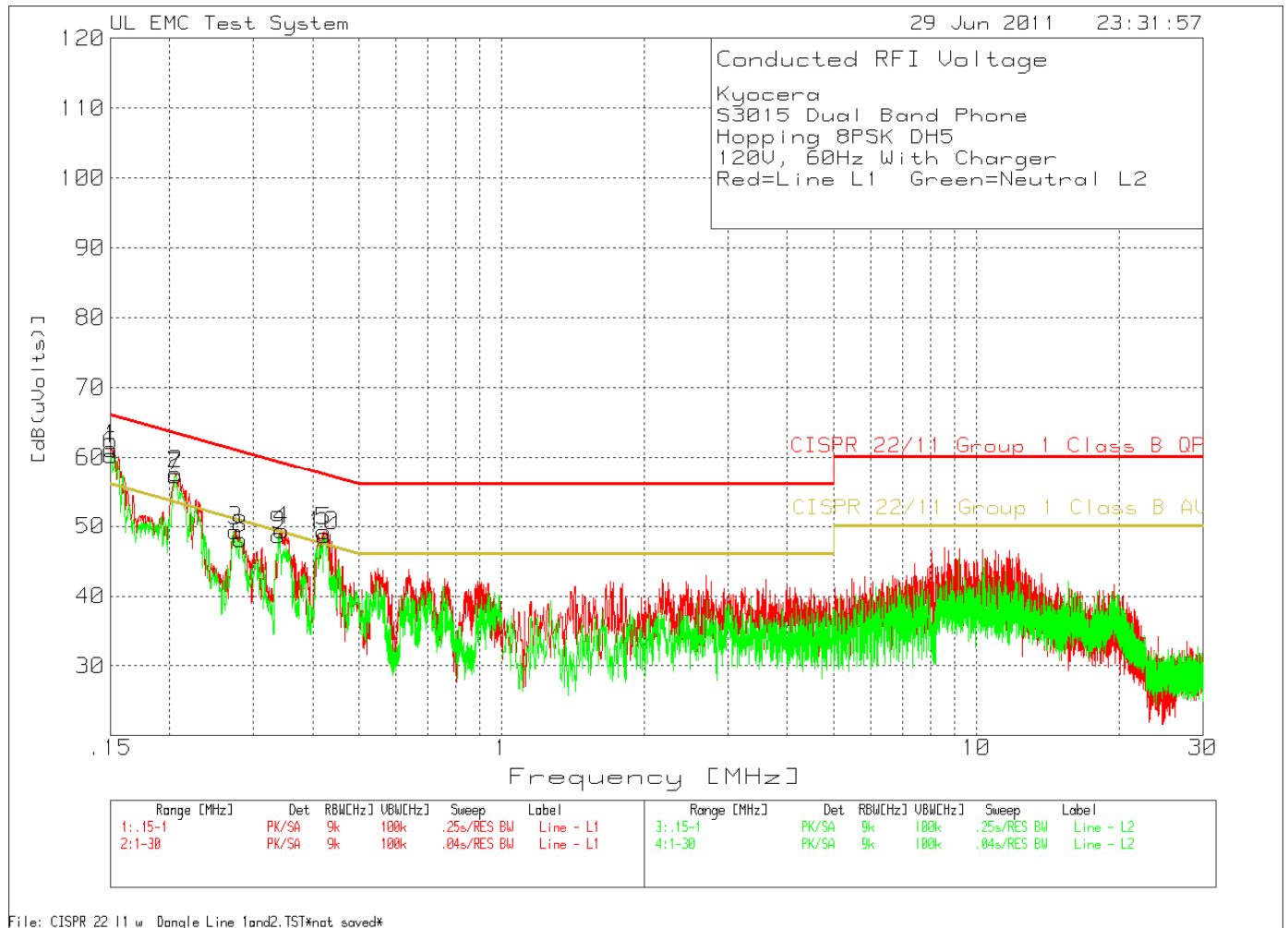


Table 3 Conducted Emissions Data Points

Kyocera

S3015 Dual Band Phone
 Hopping 8PSK DH5
 120V, 60Hz With Charger
 Red=Line L1 Green=Neutral L2

| No. | 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 | .15043 | 45.32 PK | 1.9 | 14 | 61.22 | - | - | 66 | 56 | - | - |
| | | | | Margin [dB] | | - | - | -4.78 | 5.22 | - | - |
| 2 | .20563 | 44.99 PK | 1.2 | 11.4 | 57.59 | - | - | 63.4 | 53.4 | - | - |
| | | | | Margin [dB] | | - | - | -5.81 | 4.19 | - | - |
| 3 | .27549 | 37.52 PK | .8 | 11 | 49.32 | - | - | 61 | 51 | - | - |
| | | | | Margin [dB] | | - | - | -11.68 | -1.68 | - | - |
| 4 | .34472 | 38.02 PK | .6 | 10.8 | 49.42 | - | - | 59.1 | 49.1 | - | - |
| | | | | Margin [dB] | | - | - | -9.68 | .32 | - | - |
| 5 | .42243 | 38.06 PK | .5 | 10.7 | 49.26 | - | - | 57.4 | 47.4 | - | - |
| | | | | Margin [dB] | | - | - | -8.14 | 1.86 | - | - |

| | | | | | | | | | | | |
|----------------------|--------|----------|-----|-------------|-------|---|---|--------|-------|---|---|
| Line - L2 .15 - 1MHz | | | | | | | | | | | |
| 6 | .15064 | 44.25 PK | 1.9 | 14.1 | 60.25 | - | - | 66 | 56 | - | - |
| | | | | Margin [dB] | | - | - | -5.75 | 4.25 | - | - |
| 7 | .20563 | 44.54 PK | 1.2 | 11.5 | 57.24 | - | - | 63.4 | 53.4 | - | - |
| | | | | Margin [dB] | | - | - | -6.16 | 3.84 | - | - |
| 8 | .28186 | 36.35 PK | .7 | 11.1 | 48.15 | - | - | 60.8 | 50.8 | - | - |
| | | | | Margin [dB] | | - | - | -12.65 | -2.65 | - | - |
| 9 | .33909 | 37.22 PK | .6 | 10.9 | 48.72 | - | - | 59.2 | 49.2 | - | - |
| | | | | Margin [dB] | | - | - | -10.48 | -.48 | - | - |
| 10 | .42318 | 37.45 PK | .4 | 10.8 | 48.65 | - | - | 57.4 | 47.4 | - | - |
| | | | | Margin [dB] | | - | - | -8.75 | 1.25 | - | - |

LIMIT 3: CISPR 22/11 Group 1 Class B QP
 LIMIT 4: CISPR 22/11 Group 1 Class B AV
 PK - Peak detector

| Test No. | 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 | | | | | | | | | | | |
| | .1508 | 39.1 QP | 1.9 | 14 | 55 | - | - | 65.96 | 55.96 | - | - |
| | | | | Margin [dB]: | | - | - | -10.96 | -.96 | - | - |
| | .21138 | 38.33 QP | 1.1 | 11.4 | 50.83 | - | - | 63.15 | 53.15 | - | - |
| | | | | Margin [dB]: | | - | - | -12.32 | -2.32 | - | - |
| | .2812 | 30.59 QP | .8 | 11 | 42.39 | - | - | 60.78 | 50.78 | - | - |
| | | | | Margin [dB]: | | - | - | -18.39 | -8.39 | - | - |
| | .35031 | 32.23 QP | .6 | 10.8 | 43.63 | - | - | 58.96 | 48.96 | - | - |
| | | | | Margin [dB]: | | - | - | -15.33 | -5.33 | - | - |
| | .42168 | 34.33 QP | .5 | 10.7 | 45.53 | - | - | 57.41 | 47.41 | - | - |
| | | | | Margin [dB]: | | - | - | -11.88 | -1.88 | - | - |
| Line - L2 .15 - 1MHz | | | | | | | | | | | |
| | .1514 | 38.13 QP | 1.9 | 13.9 | 53.93 | - | - | 65.92 | 55.92 | - | - |
| | | | | Margin [dB]: | | - | - | -11.99 | -1.99 | - | - |
| | .21011 | 37.28 QP | 1.2 | 11.5 | 49.98 | - | - | 63.2 | 53.2 | - | - |
| | | | | Margin [dB]: | | - | - | -13.22 | -3.22 | - | - |
| | .28001 | 29.84 QP | .8 | 11.1 | 41.74 | - | - | 60.82 | 50.82 | - | - |
| | | | | Margin [dB]: | | - | - | -19.08 | -9.08 | - | - |
| | .35083 | 30.52 QP | .5 | 10.9 | 41.92 | - | - | 58.94 | 48.94 | - | - |
| | | | | Margin [dB]: | | - | - | -17.02 | -7.02 | - | - |
| | .42139 | 33.07 QP | .4 | 10.8 | 44.27 | - | - | 57.42 | 47.42 | - | - |
| | | | | Margin [dB]: | | - | - | -13.15 | -3.15 | - | - |

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

Kyocera
 S3015 Dual Band Phone
 Hopping 8PSK DH5
 120V, 60Hz With Charger

Red=Line L1 Green=Neutral L2

| Test | Meter | Transducer | Gain/Loss | Level | Limit:1 | 2 | 3 | 4 | 5 | 6 |
|-----------------|------------------|-------------|-------------|--------------|---------|---|---|---|---|---|
| Frequency [MHz] | Reading [dB(uV)] | Factor [dB] | Factor [dB] | [dB(uVolts)] | | | | | | |

| | | | | | | | | | | |
|-----------|------------|-----|--------------|-------|---|---|--------|--------|---|---|
| ===== | | | | | | | | | | |
| Line - L1 | .15 - 1MHz | | | | | | | | | |
| .1508 | 18.72 Av | 1.9 | 14 | 34.62 | - | - | 65.96 | 55.96 | - | - |
| | | | Margin [dB]: | | - | - | -31.34 | -21.34 | - | - |
| .21138 | 24.04 Av | 1.1 | 11.4 | 36.54 | - | - | 63.15 | 53.15 | - | - |
| | | | Margin [dB]: | | - | - | -26.61 | -16.61 | - | - |
| .2812 | 15.27 Av | .8 | 11 | 27.07 | - | - | 60.78 | 50.78 | - | - |
| | | | Margin [dB]: | | - | - | -33.71 | -23.71 | - | - |
| .35031 | 21.41 Av | .6 | 10.8 | 32.81 | - | - | 58.96 | 48.96 | - | - |
| | | | Margin [dB]: | | - | - | -26.15 | -16.15 | - | - |
| .42168 | 25.83 Av | .5 | 10.7 | 37.03 | - | - | 57.41 | 47.41 | - | - |
| | | | Margin [dB]: | | - | - | -20.38 | -10.38 | - | - |
| Line - L2 | .15 - 1MHz | | | | | | | | | |
| .1514 | 17.07 Av | 1.9 | 13.9 | 32.87 | - | - | 65.92 | 55.92 | - | - |
| | | | Margin [dB]: | | - | - | -33.05 | -23.05 | - | - |
| .21011 | 22.98 Av | 1.2 | 11.5 | 35.68 | - | - | 63.2 | 53.2 | - | - |
| | | | Margin [dB]: | | - | - | -27.52 | -17.52 | - | - |
| .28001 | 14.74 Av | .8 | 11.1 | 26.64 | - | - | 60.82 | 50.82 | - | - |
| | | | Margin [dB]: | | - | - | -34.18 | -24.18 | - | - |
| .35083 | 19.33 Av | .5 | 10.9 | 30.73 | - | - | 58.94 | 48.94 | - | - |
| | | | Margin [dB]: | | - | - | -28.21 | -18.21 | - | - |
| .42139 | 24.19 Av | .4 | 10.8 | 35.39 | - | - | 57.42 | 47.42 | - | - |
| | | | Margin [dB]: | | - | - | -22.03 | -12.03 | - | - |

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

Av - average detection

LIMIT 3: CISPR 22/11 Group 1 Class B QP

LIMIT 4: CISPR 22/11 Group 1 Class B AV

Figure 3 Conducted Emissions Graph

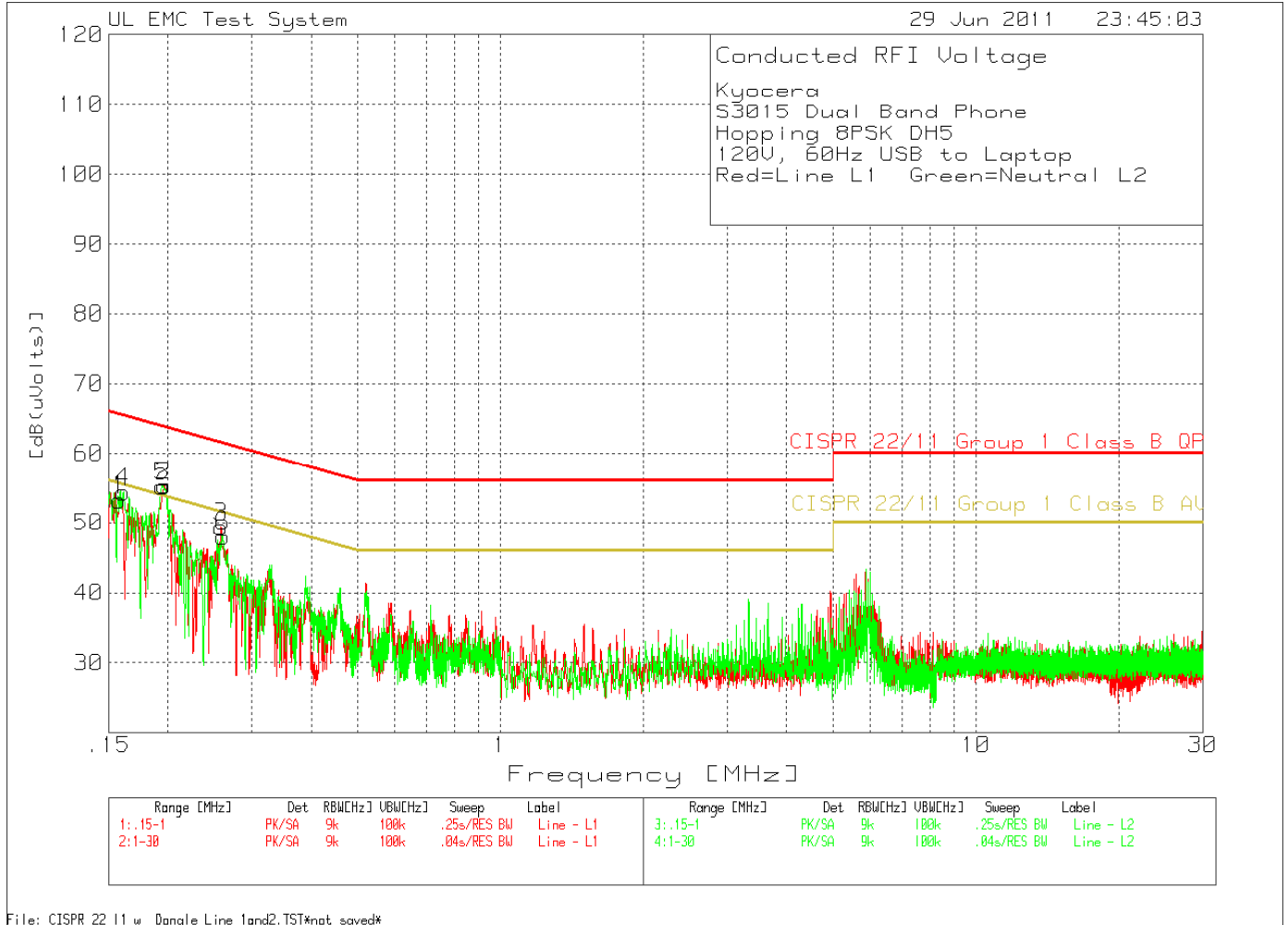


Table 4 Conducted Emissions Data Points

Kyocera

S3015 Dual Band Phone
 Hopping 8PSK DH5
 120V, 60Hz USB to Laptop
 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 | .15786 | 38.6 PK | 1.7 | 12.9 | 53.2 | - | - | 65.6 | 55.6 | - | - | - |
| | | | | Margin [dB] | | - | - | -12.4 | -2.4 | - | - | - |
| 2 | .1965 | 42.49 PK | 1.3 | 11.5 | 55.29 | - | - | 63.8 | 53.8 | - | - | - |
| | | | | Margin [dB] | | - | - | -8.51 | 1.49 | - | - | - |
| 3 | .25851 | 37.27 PK | .9 | 11.2 | 49.37 | - | - | 61.5 | 51.5 | - | - | - |
| | | | | Margin [dB] | | - | - | -12.13 | -2.13 | - | - | - |
| Line - L2 .15 - 1MHz | | | | | | | | | | | | |
| 4 | .16104 | 39.95 PK | 1.7 | 12.7 | 54.35 | - | - | 65.4 | 55.4 | - | - | - |
| | | | | Margin [dB] | | - | - | -11.05 | -1.05 | - | - | - |
| 5 | .1947 | 42.29 PK | 1.3 | 11.6 | 55.19 | - | - | 63.8 | 53.8 | - | - | - |
| | | | | Margin [dB] | | - | - | -8.61 | 1.39 | - | - | - |
| 6 | .26063 | 35.93 PK | .8 | 11.3 | 48.03 | - | - | 61.4 | 51.4 | - | - | - |
| | | | | Margin [dB] | | - | - | -13.37 | -3.37 | - | - | - |

LIMIT 3: CISPR 22/11 Group 1 Class B QP

LIMIT 4: CISPR 22/11 Group 1 Class B AV

PK - Peak detector

Kyocera

S3015 Dual Band Phone
 Hopping 8PSK DH5
 120V, 60Hz USB to Laptop
 Red=Line L1 Green=Neutral L2

| Frequency [MHz] | Test | 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 | | | | | | | | | | | |
| .15298 | | 32.54 QP | 1.8 | 13.4 | 47.74 | - | - | 65.84 | 55.84 | - | - |
| | | | | Margin [dB]: | | - | - | -18.1 | -8.1 | - | - |
| .19543 | | 38.72 QP | 1.3 | 11.5 | 51.52 | - | - | 63.8 | 53.8 | - | - |
| | | | | Margin [dB]: | | - | - | -12.28 | -2.28 | - | - |
| .26147 | | 32.66 QP | .8 | 11.1 | 44.56 | - | - | 61.38 | 51.38 | - | - |
| | | | | Margin [dB]: | | - | - | -16.82 | -6.82 | - | - |
| Line - L2 .15 - 1MHz | | | | | | | | | | | |
| .15448 | | 32.47 QP | 1.8 | 13.3 | 47.57 | - | - | 65.76 | 55.76 | - | - |
| | | | | Margin [dB]: | | - | - | -18.19 | -8.19 | - | - |
| .196 | | 38.5 QP | 1.3 | 11.6 | 51.4 | - | - | 63.78 | 53.78 | - | - |
| | | | | Margin [dB]: | | - | - | -12.38 | -2.38 | - | - |
| .26128 | | 32.18 QP | .8 | 11.3 | 44.28 | - | - | 61.39 | 51.39 | - | - |
| | | | | Margin [dB]: | | - | - | -17.11 | -7.11 | - | - |

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

QP - Quasi-Peak detector

LIMIT 3: CISPR 22/11 Group 1 Class B QP

LIMIT 4: CISPR 22/11 Group 1 Class B AV

FCC ID V65S3015
 Model Number: S3015
 Client Name: Kyocera Communications

Kyocera
 S3015 Dual Band Phone
 Hopping 8PSK DH5
 120V, 60Hz USB to Laptop

Red=Line L1 Green=Neutral L2

| Test | Meter | Transducer | Gain/Loss | Level | Limit:1 | 2 | 3 | 4 | 5 | 6 |
|-----------------|------------------|-------------|-------------|--------------|---------|---|---|---|---|---|
| Frequency [MHz] | Reading [dB(uV)] | Factor [dB] | Factor [dB] | [dB(uVolts)] | | | | | | |

| | | | | | | | | | | |
|-----------|------------|-----|--------------|-------|---|---|--------|--------|---|---|
| ===== | | | | | | | | | | |
| Line - L1 | .15 - 1MHz | | | | | | | | | |
| .15298 | 3.6 Av | 1.8 | 13.4 | 18.8 | - | - | 65.84 | 55.84 | - | - |
| | | | Margin [dB]: | | - | - | -47.04 | -37.04 | - | - |
| .19543 | 27.68 Av | 1.3 | 11.5 | 40.48 | - | - | 63.8 | 53.8 | - | - |
| | | | Margin [dB]: | | - | - | -23.32 | -13.32 | - | - |
| .26147 | 24.2 Av | .8 | 11.1 | 36.1 | - | - | 61.38 | 51.38 | - | - |
| | | | Margin [dB]: | | - | - | -25.28 | -15.28 | - | - |
| Line - L2 | .15 - 1MHz | | | | | | | | | |
| .15448 | 3.32 Av | 1.8 | 13.3 | 18.42 | - | - | 65.76 | 55.76 | - | - |
| | | | Margin [dB]: | | - | - | -47.34 | -37.34 | - | - |
| .196 | 25.06 Av | 1.3 | 11.6 | 37.96 | - | - | 63.78 | 53.78 | - | - |
| | | | Margin [dB]: | | - | - | -25.82 | -15.82 | - | - |
| .26128 | 20.98 Av | .8 | 11.3 | 33.08 | - | - | 61.39 | 51.39 | - | - |
| | | | Margin [dB]: | | - | - | -28.31 | -18.31 | - | - |

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

Av - average detection

LIMIT 3: CISPR 22/11 Group 1 Class B QP

LIMIT 4: CISPR 22/11 Group 1 Class B AV

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 and 3 meter as noted. 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 – 26.5GHz | (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 |
| 960-26500 (3m) | 74 (Peak) | 54 |
| Supplementary information: If Emissions detected were at least 6dB below the limit no additional measurements were taken after prescan. | | |

Table 5 Radiated Emissions EUT Configuration Settings

| Power Interface Mode # | EUT Configurations Mode # | EUT Operation Mode # |
|---------------------------------|---------------------------|----------------------|
| 1 | 1 | 1,2 |
| Supplementary information: None | | |

Table 6 Radiated Emissions Test Equipment

| Description | Manufacturer | Model | Identifier | Cal Date | Cal Due |
|-------------------|-----------------|----------|------------|----------|----------|
| EMI Test Receiver | Rohde & Schwarz | ESU | EMC4323 | 12-30-11 | 12-31-12 |
| Bicon Antenna | Chase | VBA6106A | EMC4078 | 12-2-10 | 12-30-11 |
| Log-P Antenna | Chase | UPA6109 | EMC4258 | 8/20/10 | 8/31/11 |
| Spectrum Analyzer | Rhode & Schwarz | FSEK | EMC4182 | 12-28-11 | 12-28-12 |
| Antenna Array | UL | BOMS | EMC4276 | 10-20-10 | 10-20-11 |

Figure 4 Test setup for Radiated Emissions

FCC ID V65S3015
Model Number: S3015
Client Name: Kyocera Communications

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X-axis

Y-axis

FCC ID V65S3015
Model Number: S3015
Client Name: Kyocera Communications

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Z-axis

30-1000MHz

Figure 5 Radiated Emissions Graph Hopping Channel DH5

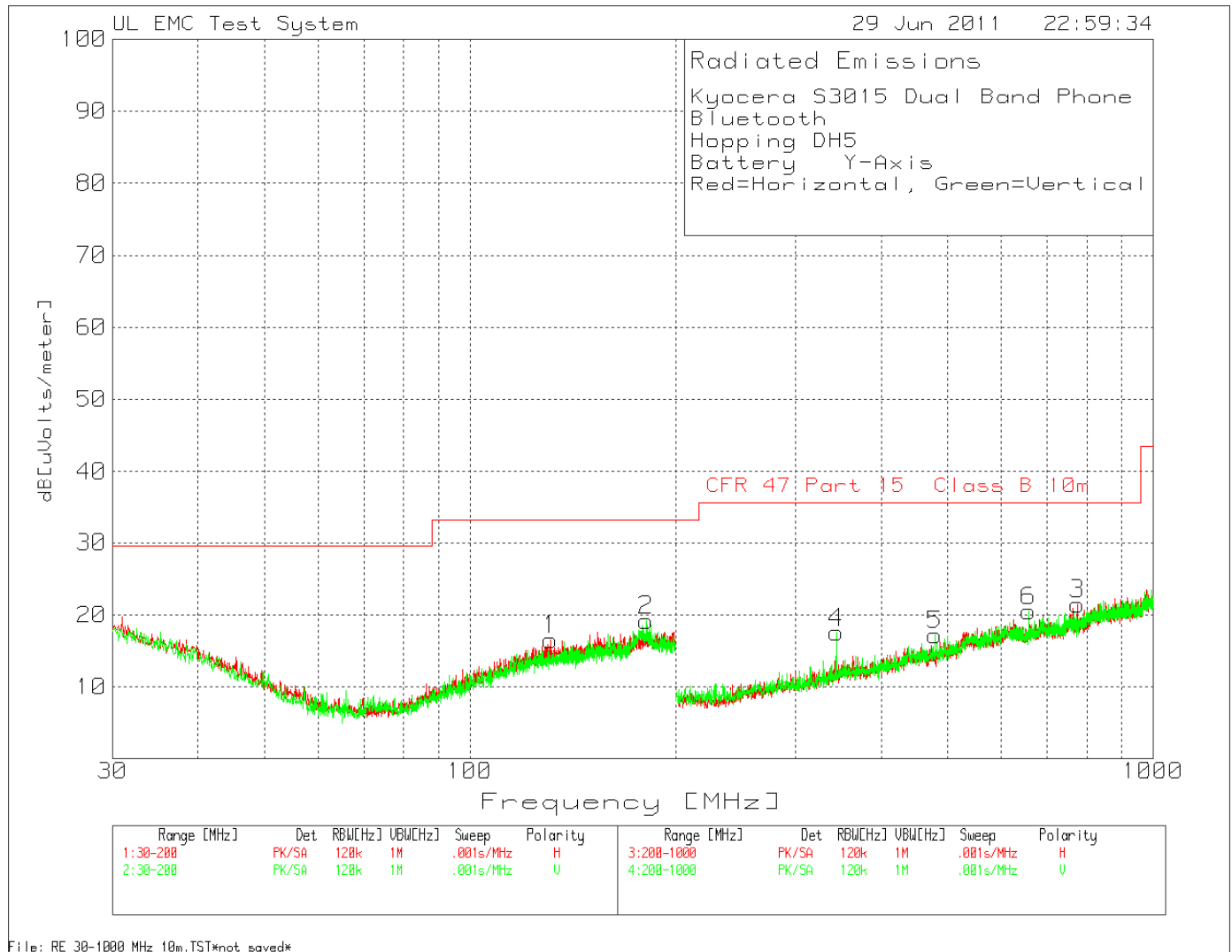


Figure 6 Radiated Emissions Graph Hopping Channel DH5 QPSK

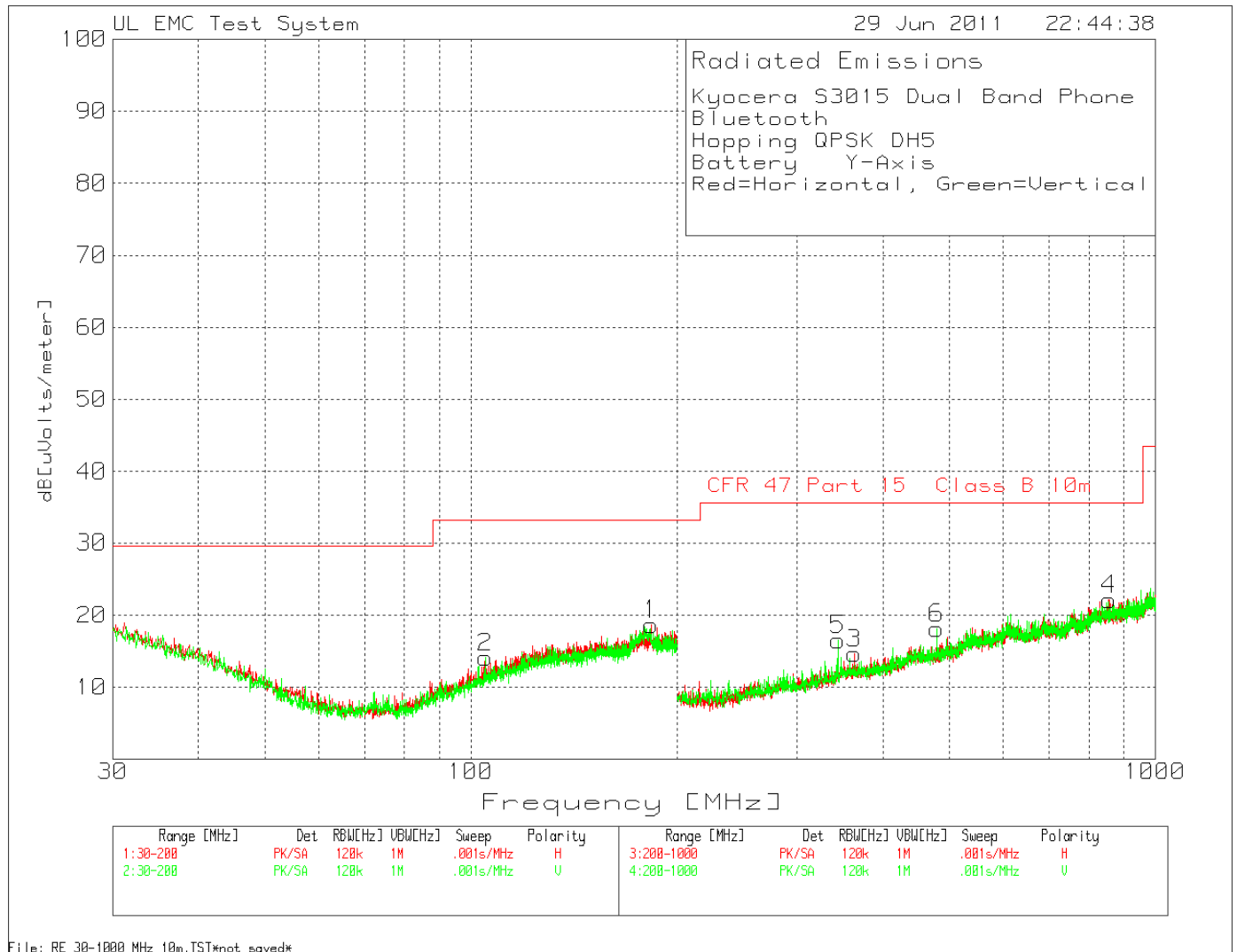
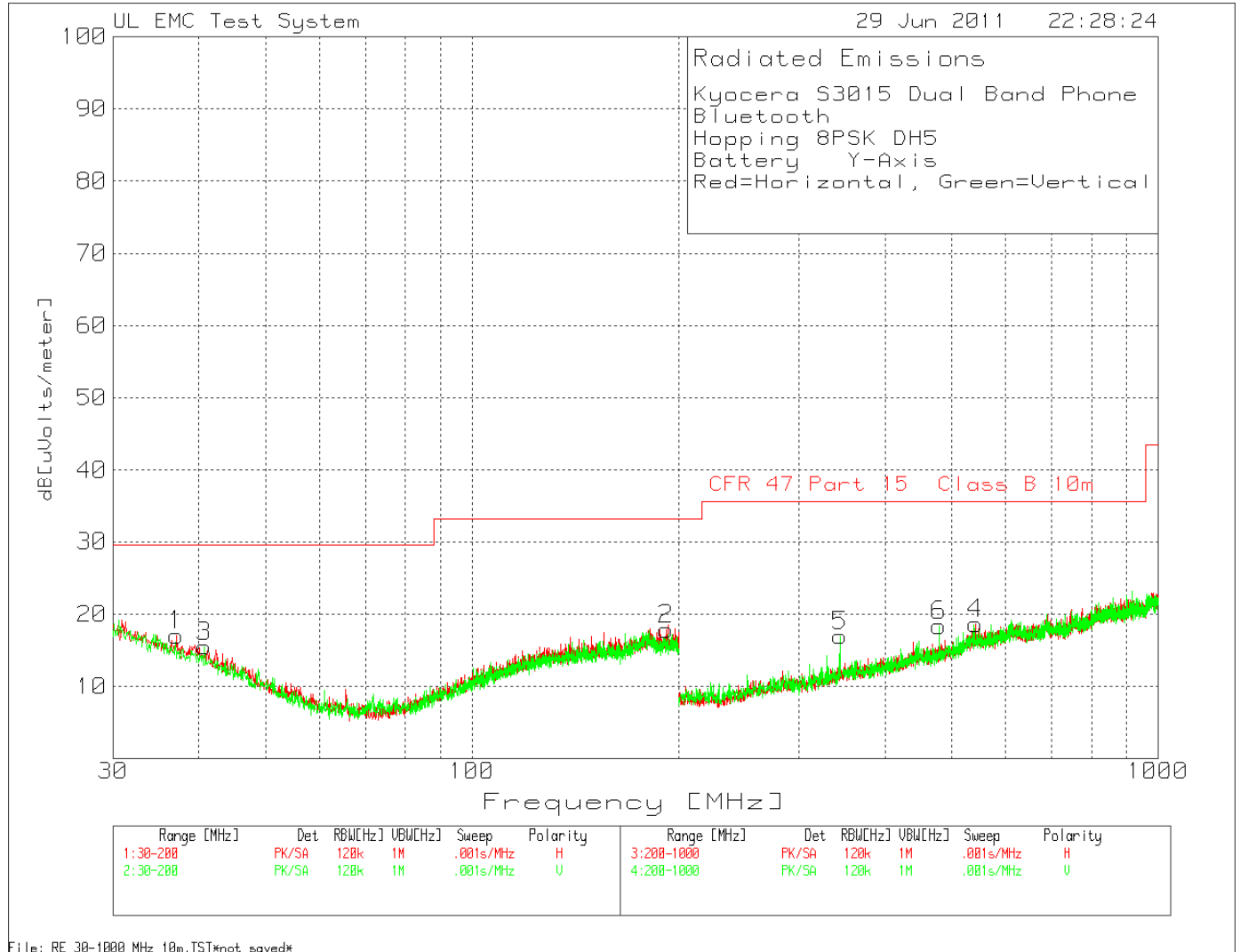
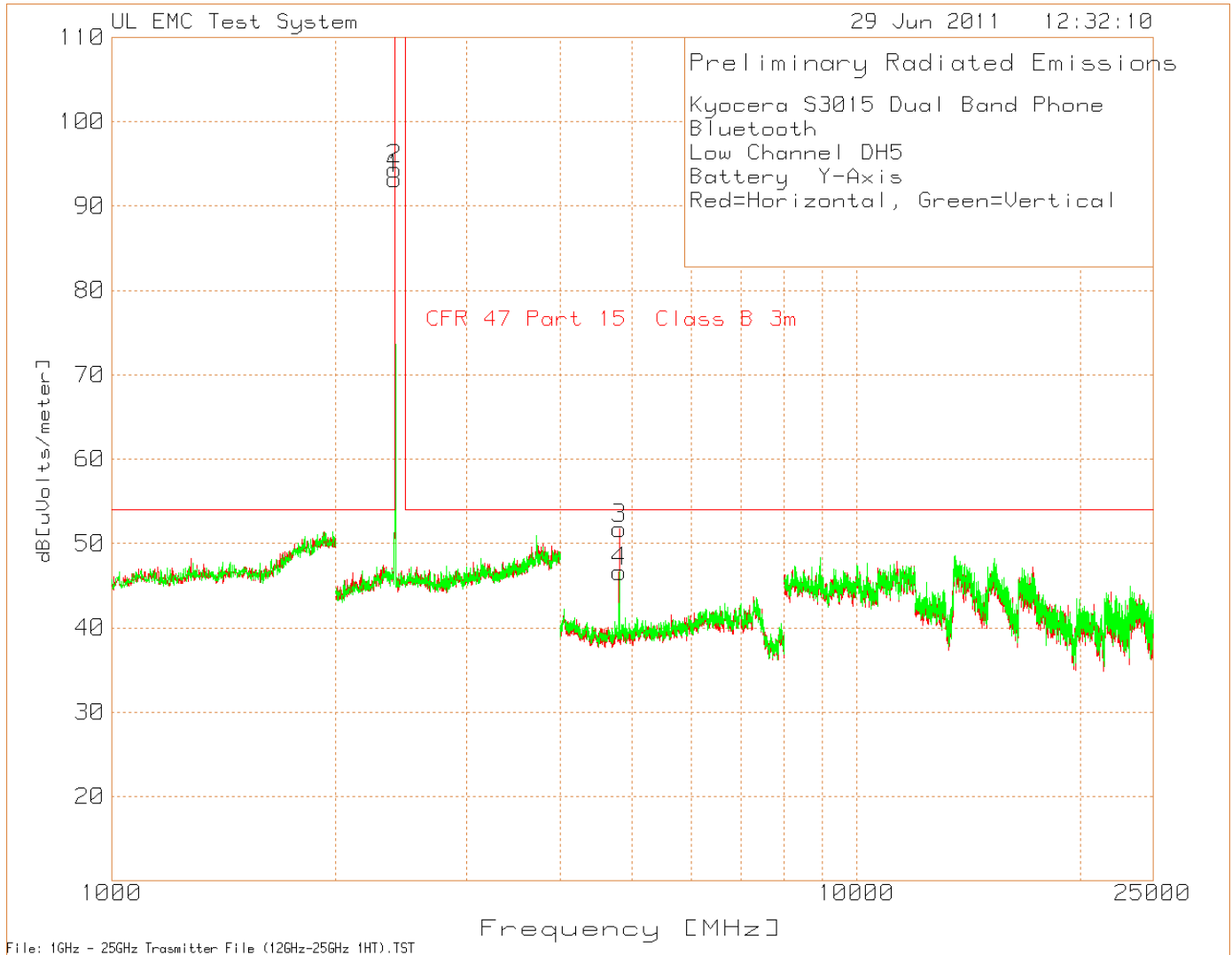


Figure 7 Radiated Emissions Graph Hopping Channel DH5 8PSK



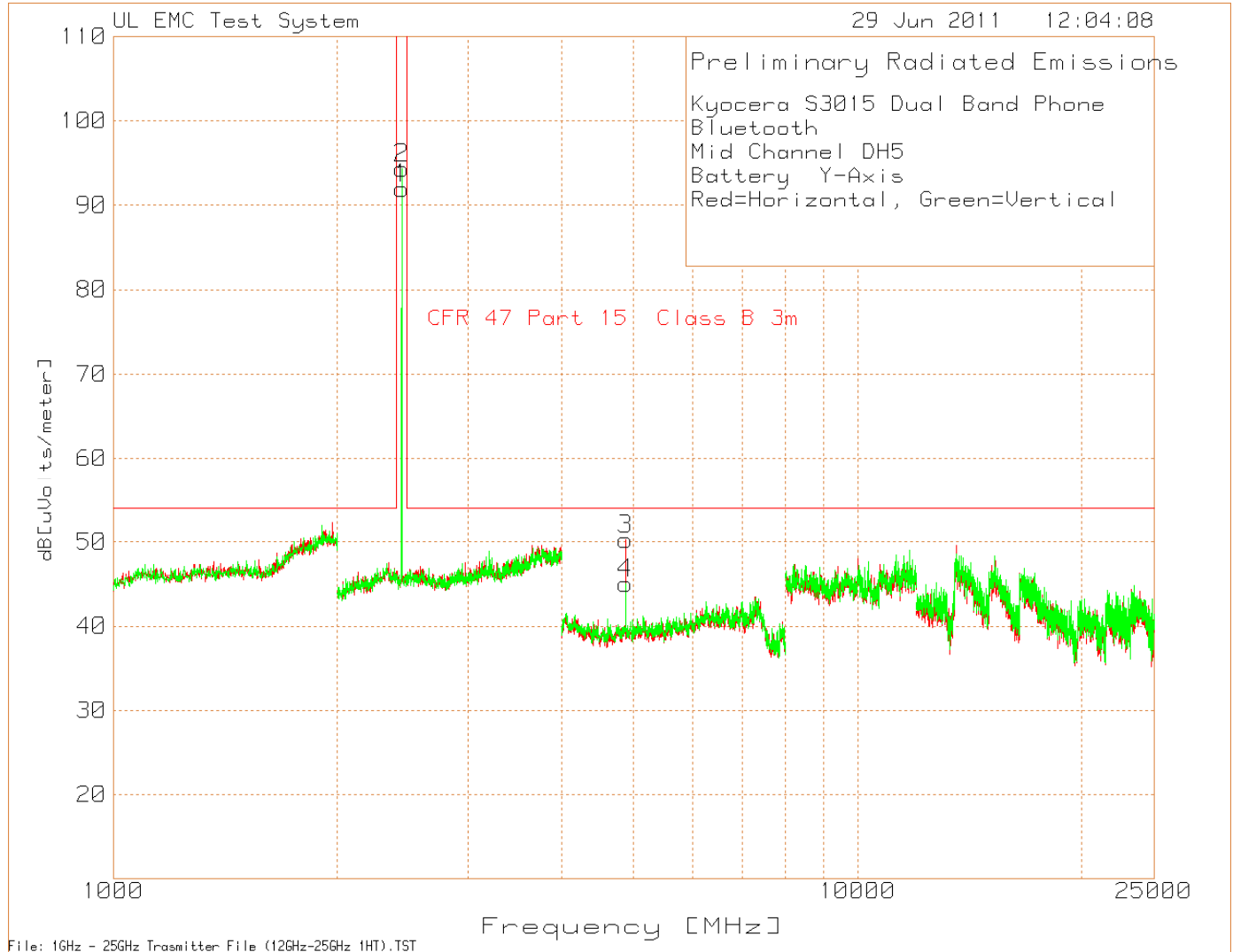
1-25GHz

Figure 8 Radiated Emissions Graph – Low Channel DH5



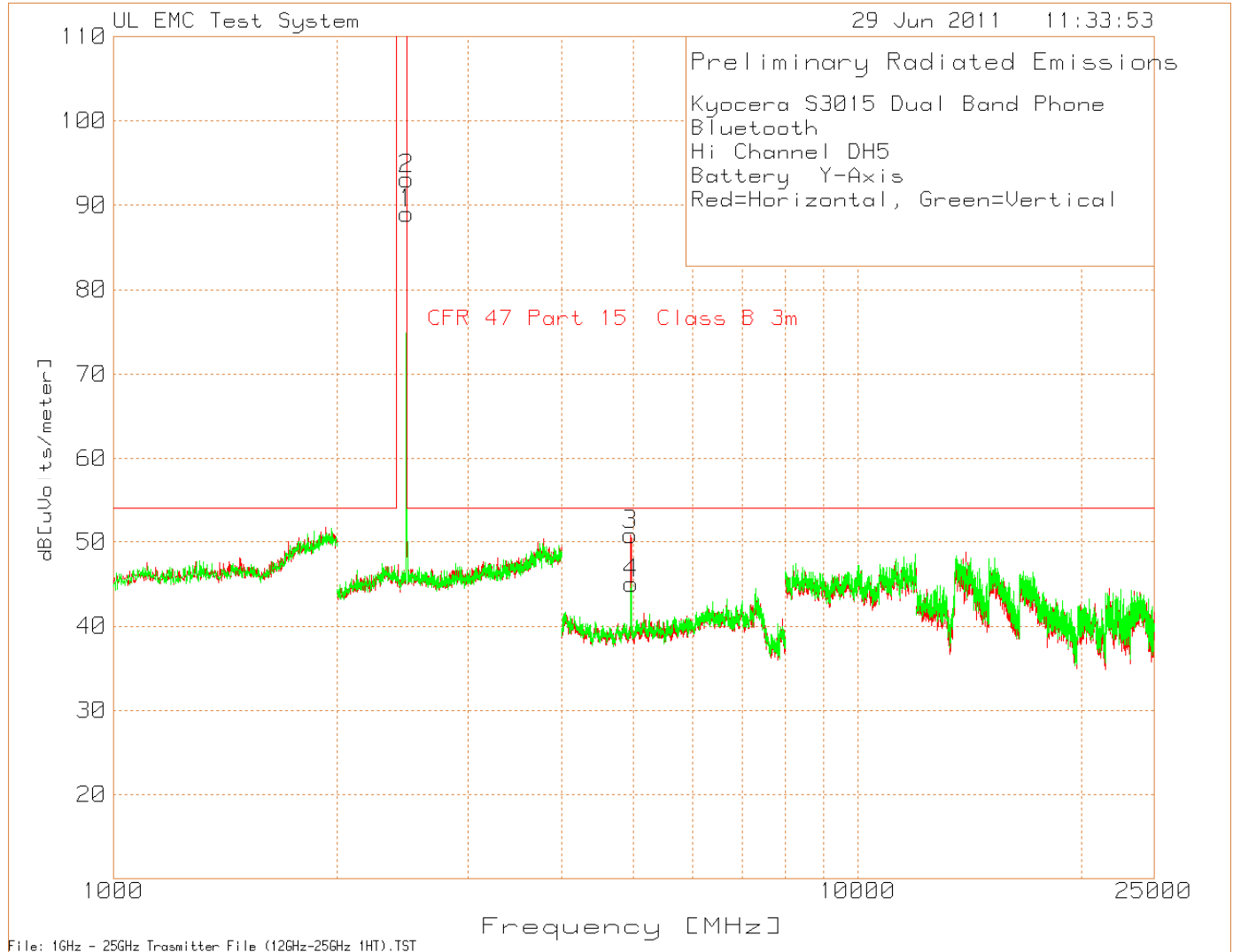
See table 10 for data

Figure 9 Radiated Emissions Graph Mid Channel DH5



See table 10 for data

Figure 10 Radiated Emissions Graph Hi Channel DH5



See table 10 for data

Table 7 Radiated Emissions Data Points

| Test Frequency | Meter Reading | Detector | Antenna Factor | BOMS Factor [dB] | Result | Limit | Margin | Azimuth [Degs] | Height [cm] | Polarity |
|--------------------------------|---------------|----------|----------------|------------------|--------|-------|--------|----------------|-------------|----------|
| 4804.291 | 77.37 | PK | 27.7 | -51.07 | 54 | 74 | -20 | 174 | 109 | Horz |
| 4803.984 | 73 | LnAv | 27.7 | -51.08 | 49.62 | 54 | -4.38 | 174 | 109 | Horz |
| 4803.882 | 72.29 | PK | 27.7 | -51.08 | 48.91 | 74 | -25.09 | 265 | 106 | Vert |
| 4803.978 | 67.01 | LnAv | 27.7 | -51.08 | 43.63 | 54 | -10.37 | 265 | 106 | Vert |
| 4881.531 | 70.78 | PK | 27.7 | -50.54 | 47.94 | 74 | -26.06 | 263 | 102 | Vert |
| 4882 | 64.83 | LnAv | 27.7 | -50.55 | 41.98 | 54 | -12.02 | 263 | 102 | Vert |
| 4881.603 | 75.92 | PK | 27.7 | -50.54 | 53.08 | 74 | -20.92 | 156 | 120 | Horz |
| 4881.982 | 71.62 | LnAv | 27.7 | -50.55 | 48.77 | 54 | -5.23 | 156 | 120 | Horz |
| 4959.666 | 76.22 | PK | 27.8 | -50.59 | 53.43 | 74 | -20.57 | 160 | 102 | Horz |
| 4959.961 | 71.94 | LnAv | 27.8 | -50.58 | 49.16 | 54 | -4.84 | 160 | 102 | Horz |
| 4959.666 | 69.91 | PK | 27.8 | -50.59 | 47.12 | 74 | -26.88 | 258 | 103 | Vert |
| 4959.937 | 63.39 | LnAv | 27.8 | -50.58 | 40.61 | 54 | -13.39 | 258 | 103 | Vert |
| | | | | | | | | | | |
| PK - Peak detector | | | | | | | | | | |
| LnAv - Linear Average detector | | | | | | | | | | |

Figure 11 Radiated Emissions Graph Low Channel DH5 QPSK

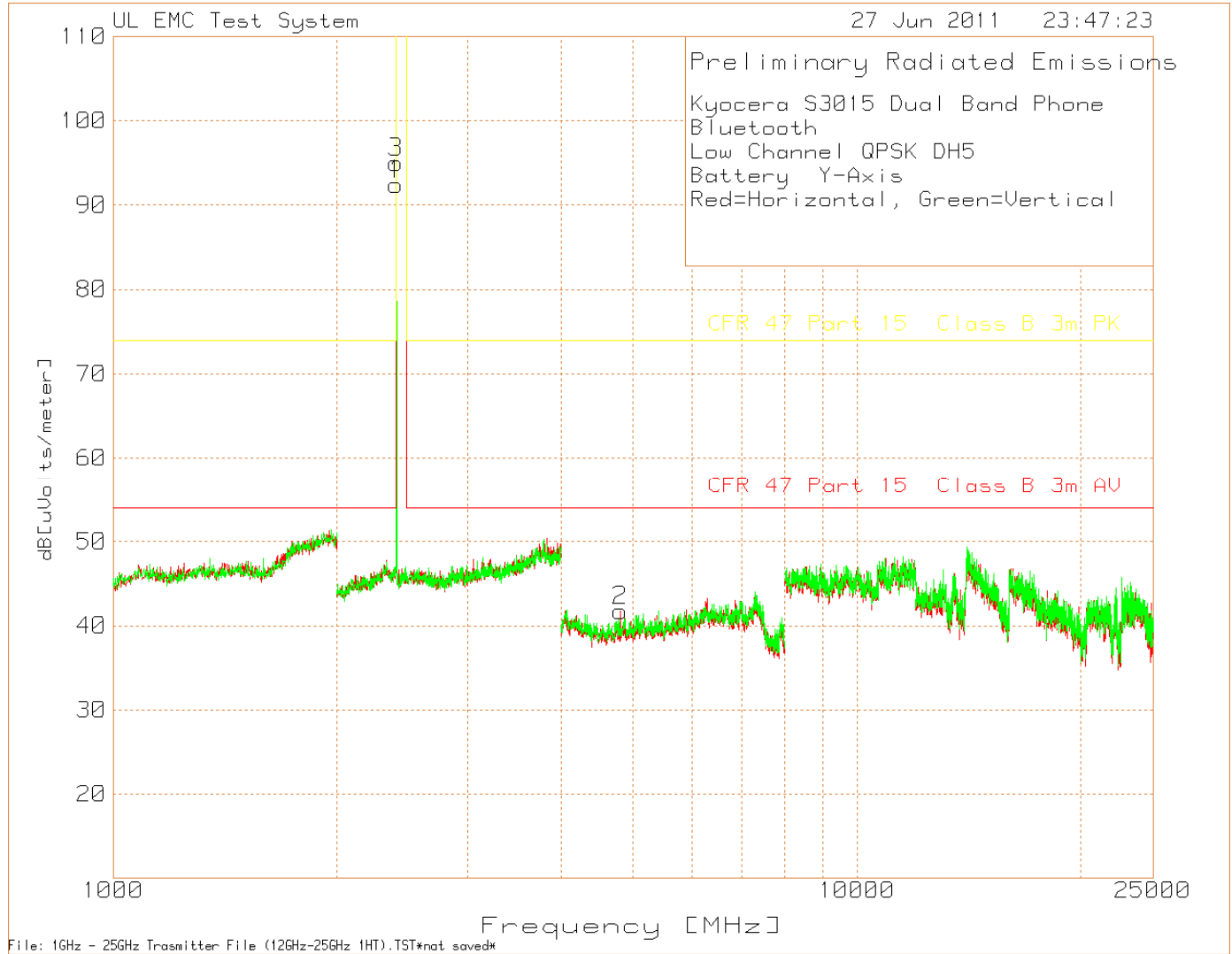


Figure 12 Radiated Emissions Graph Mid Channel DH5 QPSK

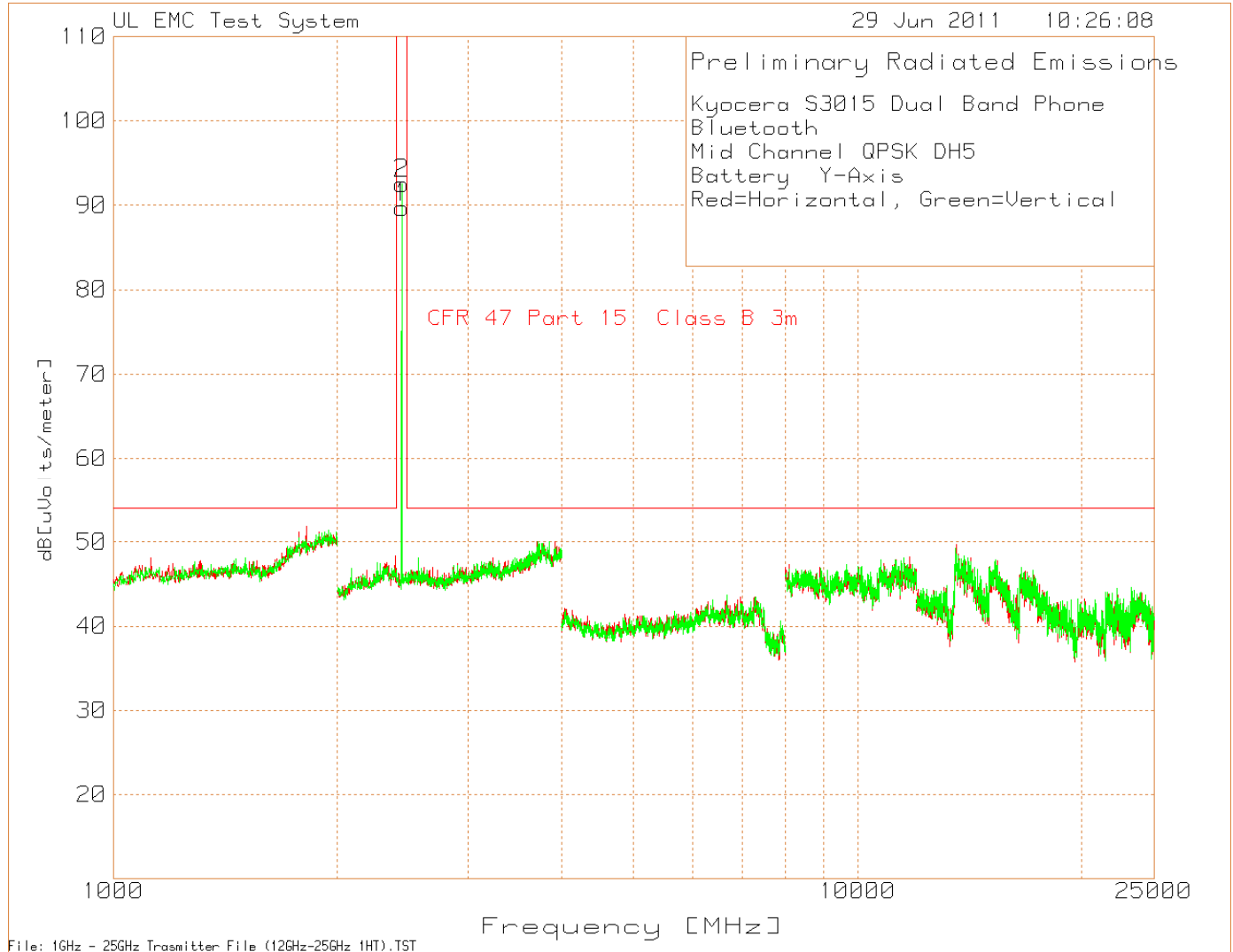


Figure 13 Radiated Emissions Graph Hi Channel DH5 QPSK

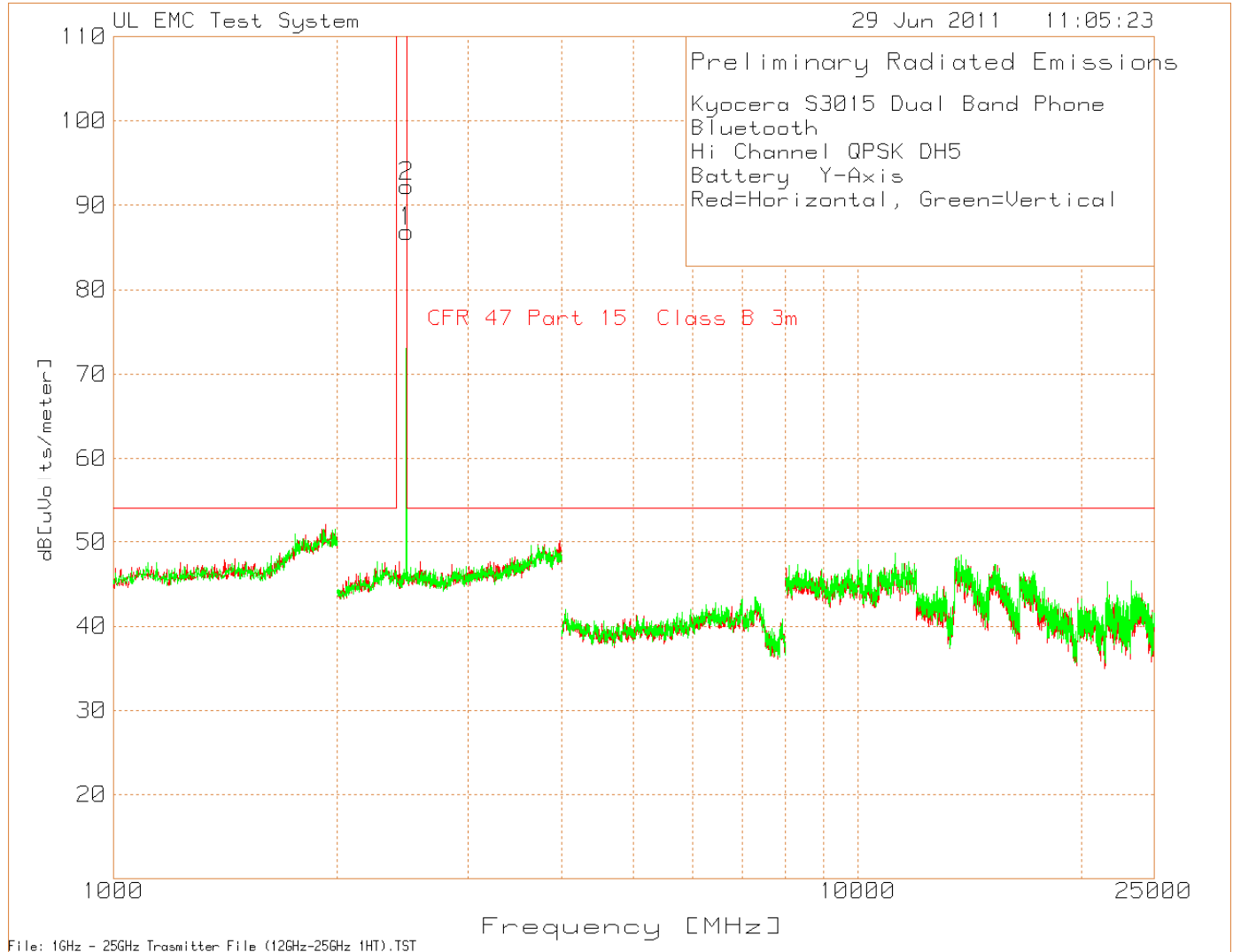


Figure 14 Radiated Emissions Graph Low Channel DH5 8PSK

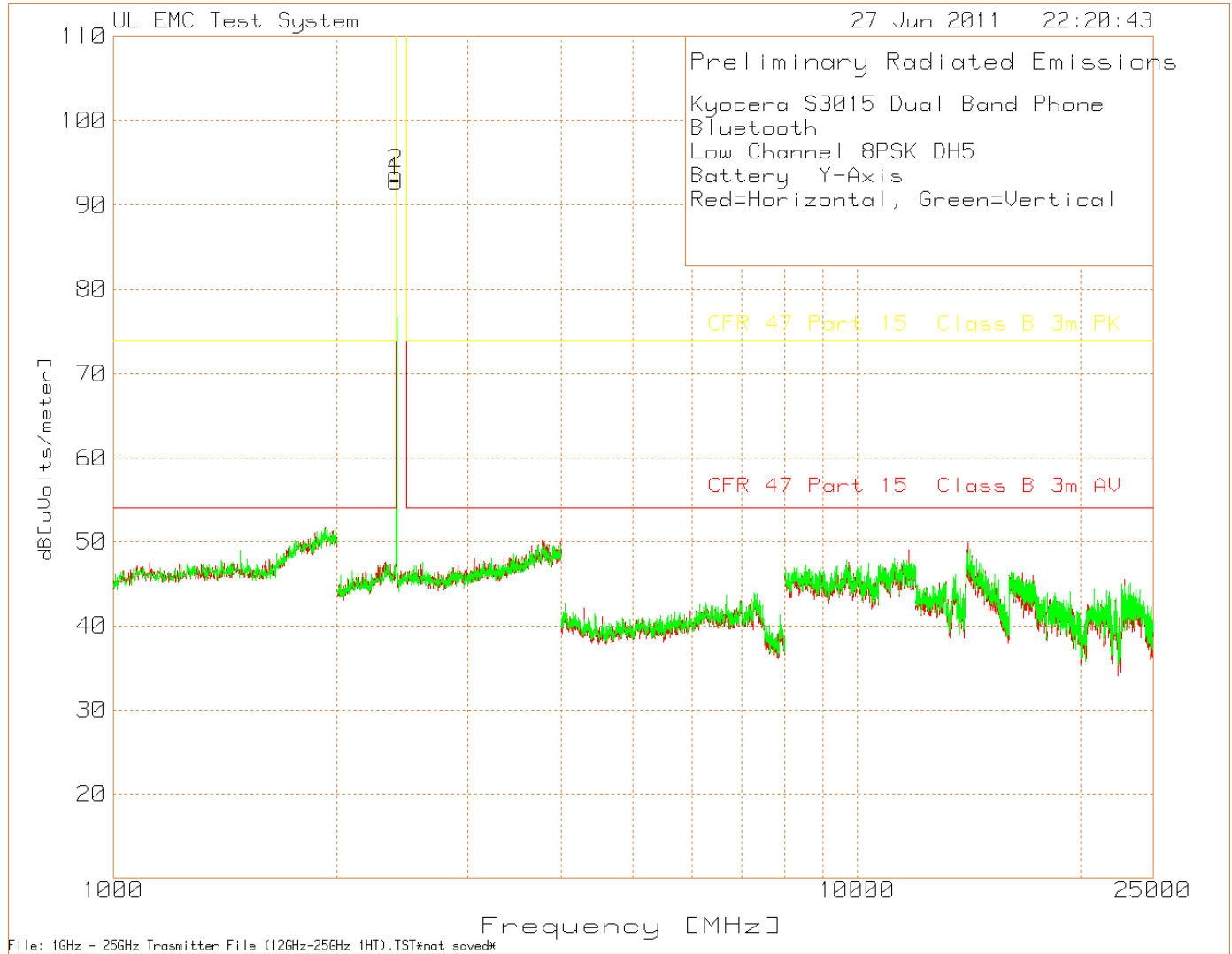


Figure 15 Radiated Emissions Graph Mid Channel DH5 8PSK

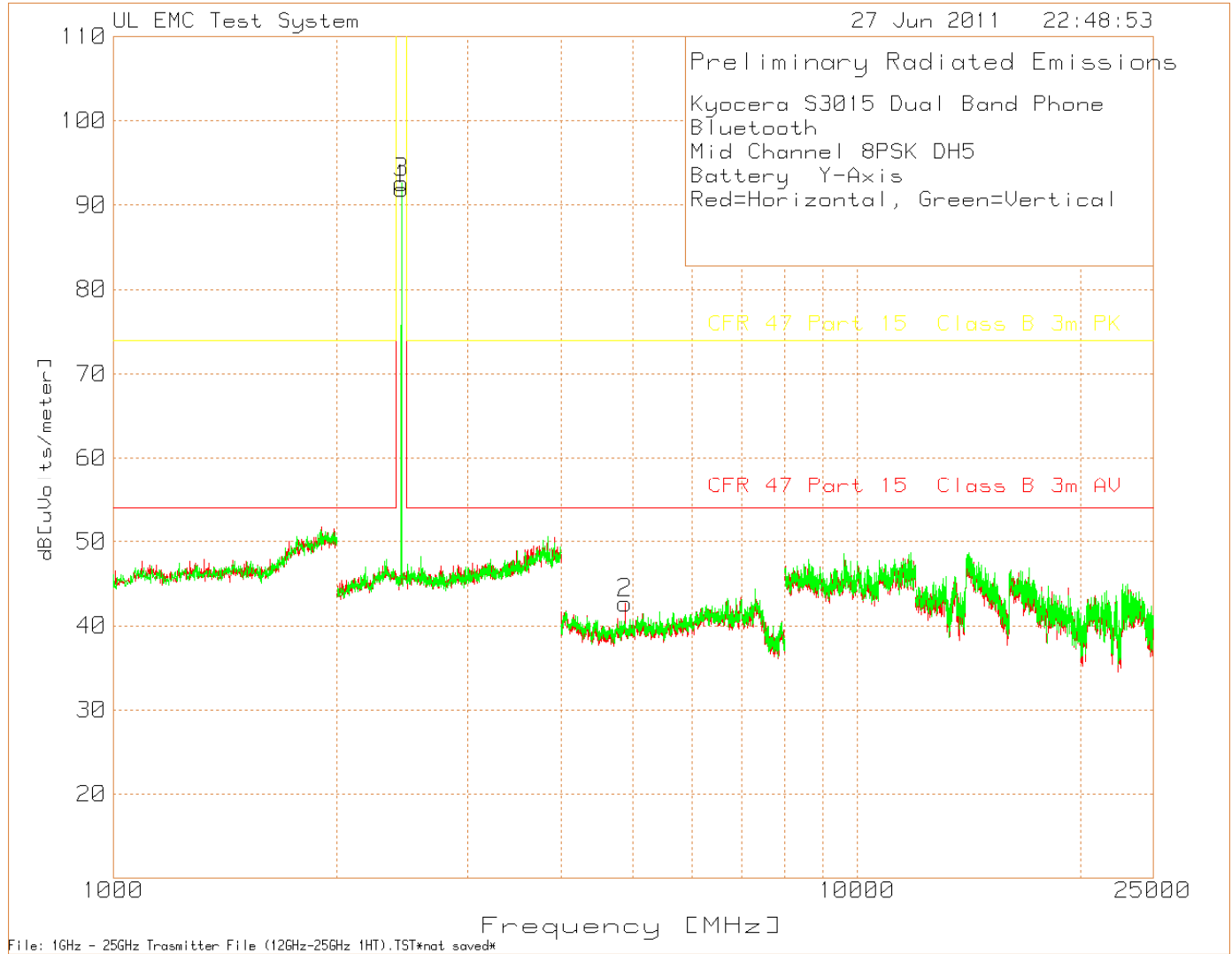


Figure 16 Radiated Emissions Graph Hi Channel DH5 8PSK

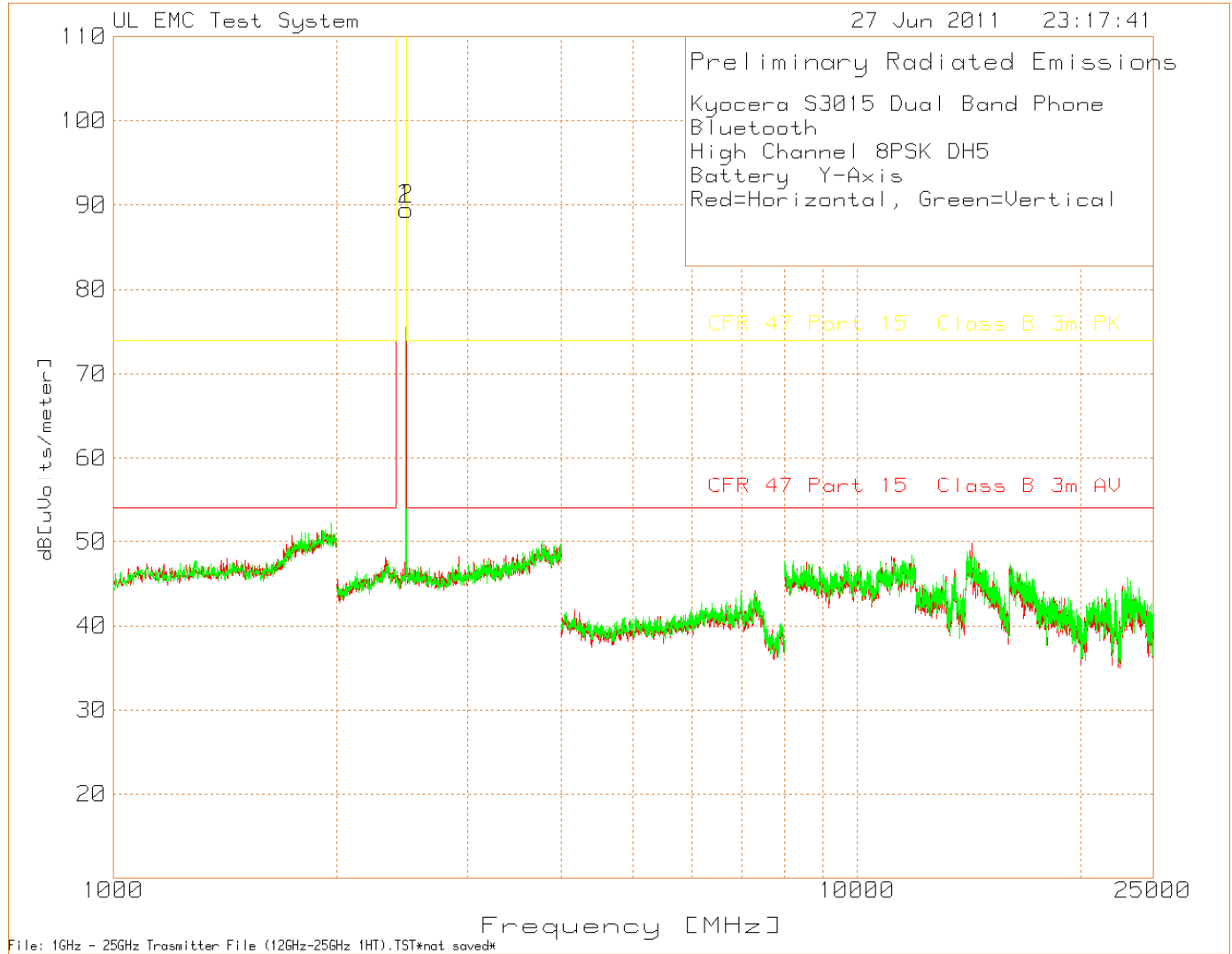
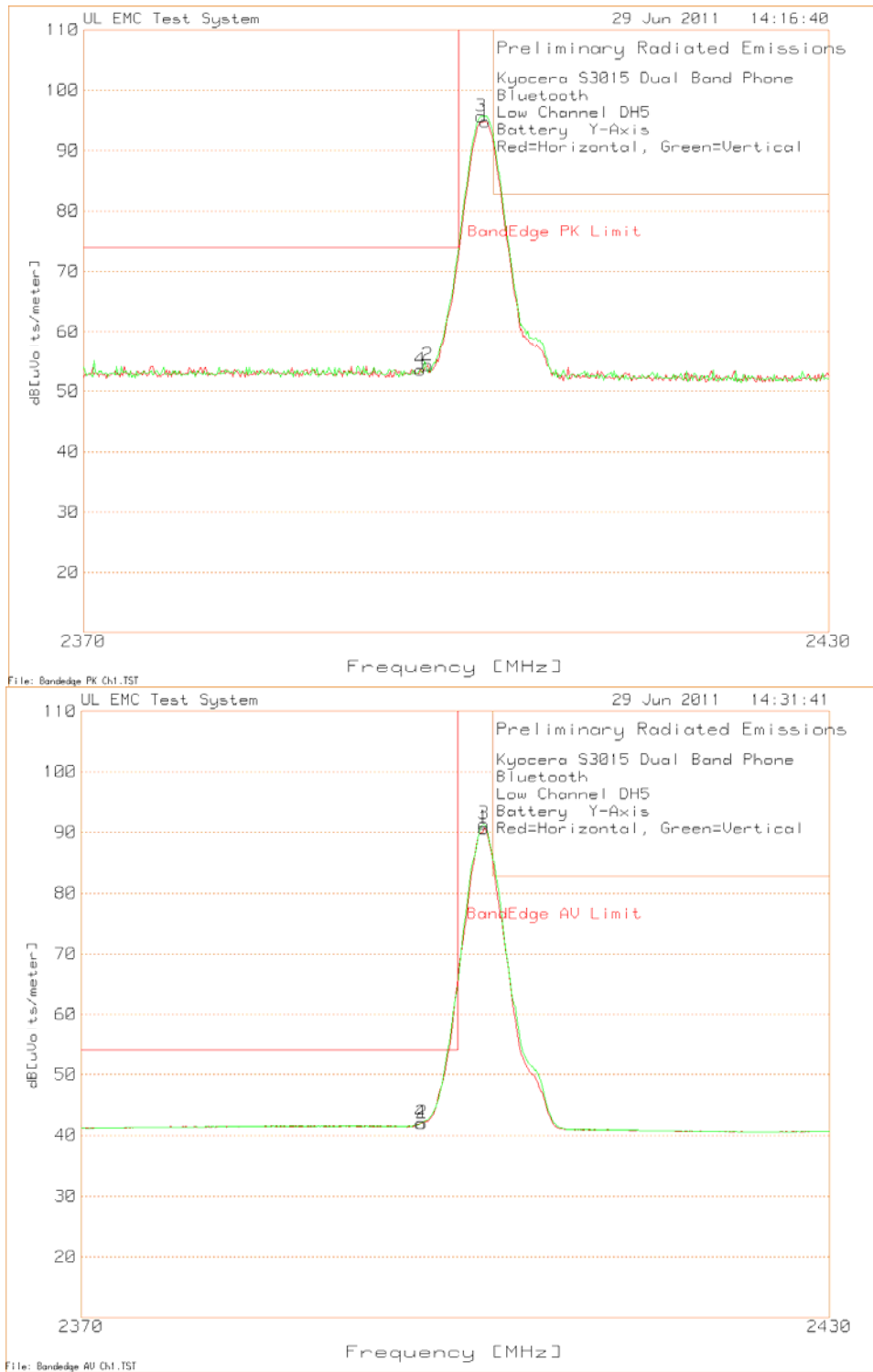


Figure 17 Radiated Emissions Graph Low Channel DH5 Bandedge



| Kyocera S3015 Dual Band Phone | | | | | | | | | |
|--------------------------------|---------------|----------|----------------|------------------|-----------------|-------------------|---------|-------------|----------|
| Bluetooth | | | | | | | | | |
| Low Channel DH5 | | | | | | | | | |
| Battery Y-Axis | | | | | | | | | |
| Red=Horizontal, Green=Vertical | | | | | | | | | |
| | | | | | | | | | |
| 2 - 4GHz 2370 - 2430MHz | | | | | | | | | |
| Test Frequency | Meter Reading | Detector | Antenna Factor | BOMS Factor [dB] | Result dB[uV/m] | BandEdge PK Limit | Margin | Height [cm] | Polarity |
| 2402.164 | 68.64 | PK | 21.8 | 4.32 | 94.76 | 999 | -904.24 | 100 | Horz |
| 2397.535 | 28.14 | PK | 21.8 | 4.43 | 54.37 | 74 | -19.63 | 100 | Horz |
| 2401.864 | 69.53 | PK | 21.8 | 4.33 | 95.66 | 999 | -903.34 | 100 | Vert |
| 2396.934 | 27.26 | PK | 21.8 | 4.45 | 53.51 | 74 | -20.49 | 100 | Vert |
| | | | | | | | | | |
| 2402.104 | 64.64 | AV | 21.8 | 4.32 | 90.76 | 999 | -908.24 | 99 | Horz |
| 2397.174 | 15.79 | AV | 21.8 | 4.44 | 42.03 | 54 | -11.97 | 99 | Horz |
| 2402.104 | 65.31 | AV | 21.8 | 4.32 | 91.43 | 999 | -907.57 | 100 | Vert |
| 2397.054 | 15.71 | AV | 21.8 | 4.44 | 41.95 | 54 | -12.05 | 100 | Vert |
| | | | | | | | | | |
| PK – Peak detector | | | | | | | | | |
| Av - Average detector | | | | | | | | | |

Figure 18 Radiated Emissions Graph Hi Channel DH5 Bandedge

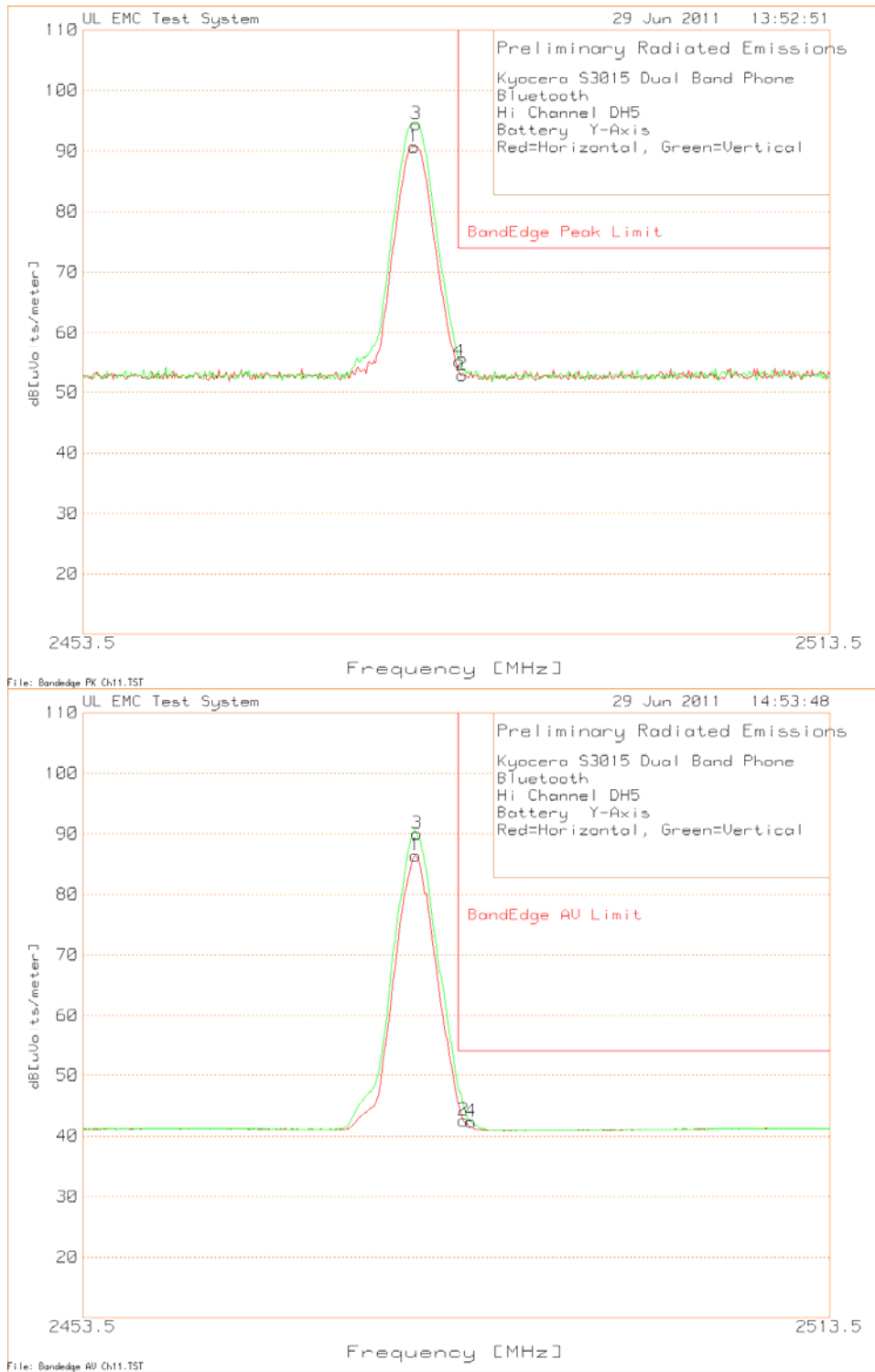
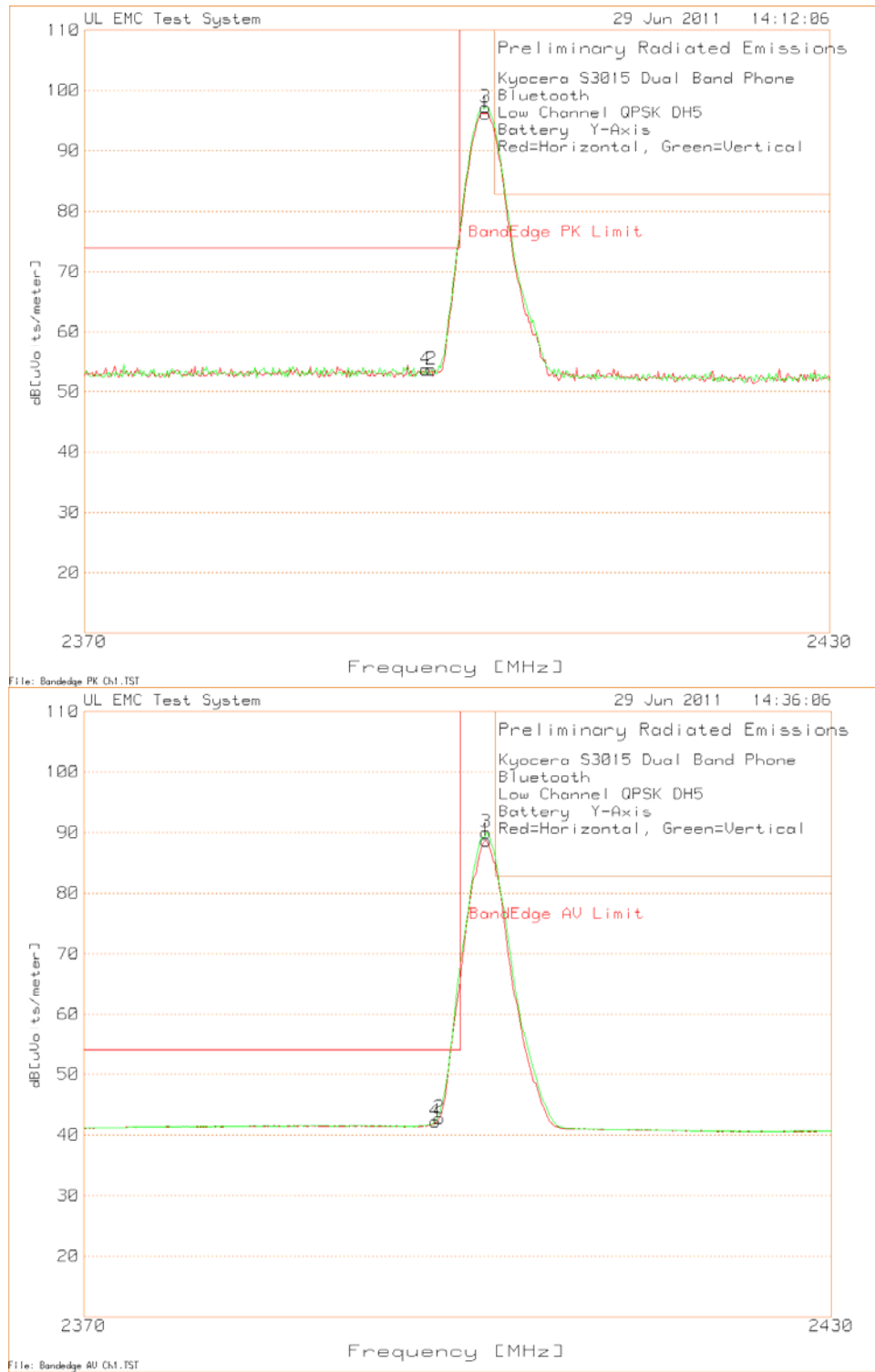


Figure 19 Radiated Emissions Graph Low Channel DH5 QPSK Bandedge



| Kyocera S3015 Dual Band Phone | | | | | | | | | |
|--------------------------------|---------------|----------|----------------|------------------|-----------------|-------------------|---------|-------------|----------|
| Bluetooth | | | | | | | | | |
| Low Channel QPSK DH5 | | | | | | | | | |
| Battery Y-Axis | | | | | | | | | |
| Red=Horizontal, Green=Vertical | | | | | | | | | |
| | | | | | | | | | |
| 2 - 4GHz 2370 - 2430MHz | | | | | | | | | |
| Test Frequency | Meter Reading | Detector | Antenna Factor | BOMS Factor [dB] | Result dB[uV/m] | BandEdge PK Limit | Margin | Height [cm] | Polarity |
| 2402.104 | 70.03 | PK | 21.8 | 4.32 | 96.15 | 999 | -902.85 | 100 | Horz |
| 2397.776 | 27.44 | PK | 21.8 | 4.43 | 53.67 | 74 | -20.33 | 150 | Horz |
| 2402.104 | 71.08 | PK | 21.8 | 4.32 | 97.2 | 999 | -901.8 | 100 | Vert |
| 2397.295 | 27.39 | PK | 21.8 | 4.44 | 53.63 | 74 | -20.37 | 150 | Vert |
| | | | | | | | | | |
| 2402.104 | 62.53 | AV | 21.8 | 4.32 | 88.65 | 999 | -910.35 | 100 | Horz |
| 2398.377 | 16.57 | AV | 21.8 | 4.41 | 42.78 | 54 | -11.22 | 100 | Horz |
| 2402.104 | 63.94 | AV | 21.8 | 4.32 | 90.06 | 999 | -908.94 | 100 | Vert |
| 2398.016 | 15.98 | AV | 21.8 | 4.42 | 42.2 | 54 | -11.8 | 100 | Vert |
| | | | | | | | | | |
| PK – Peak detector | | | | | | | | | |
| Av - Average detector | | | | | | | | | |

Figure 20 Radiated Emissions Graph Hi Channel DH5 QPSK Bandedge

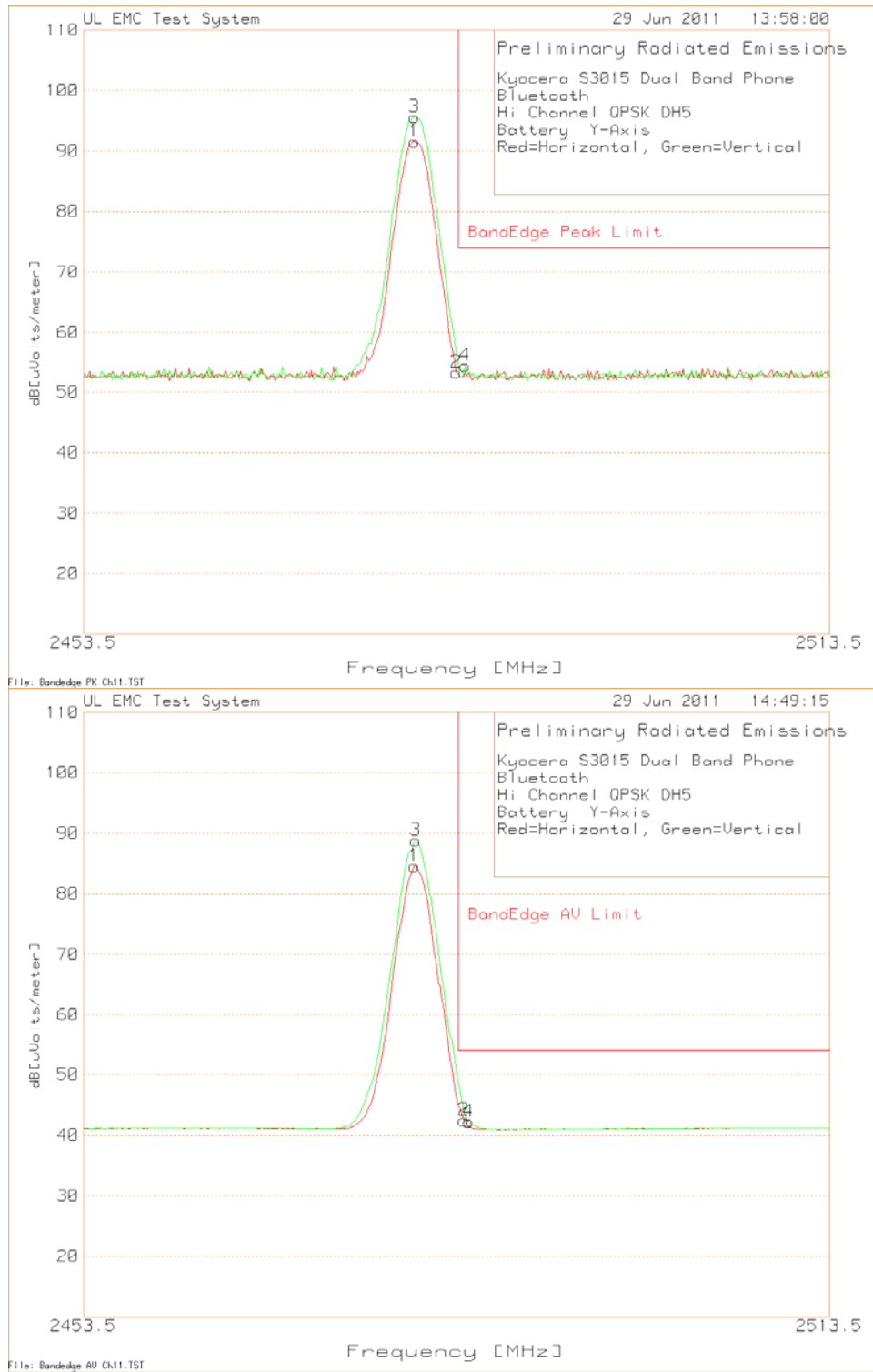
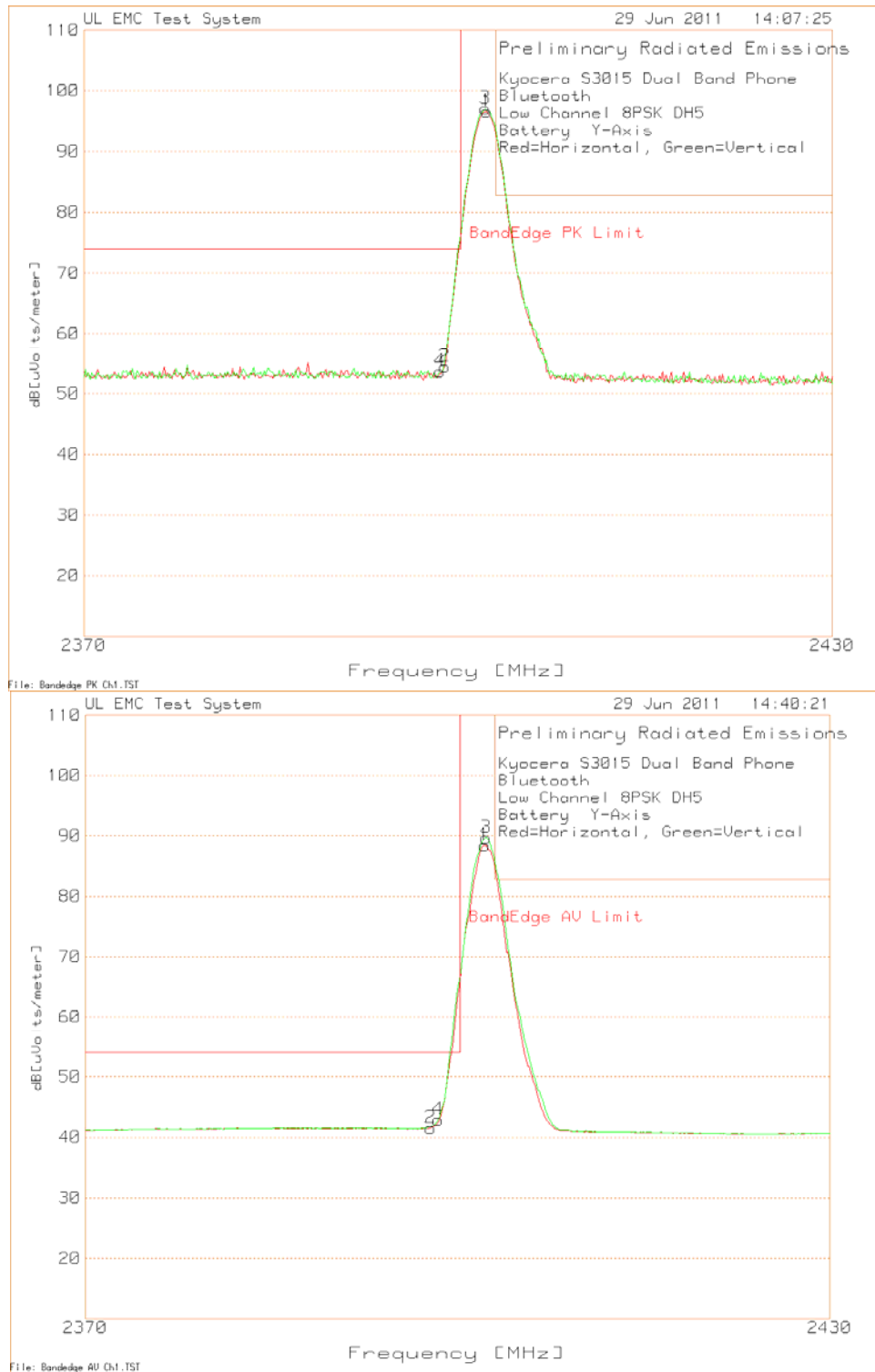
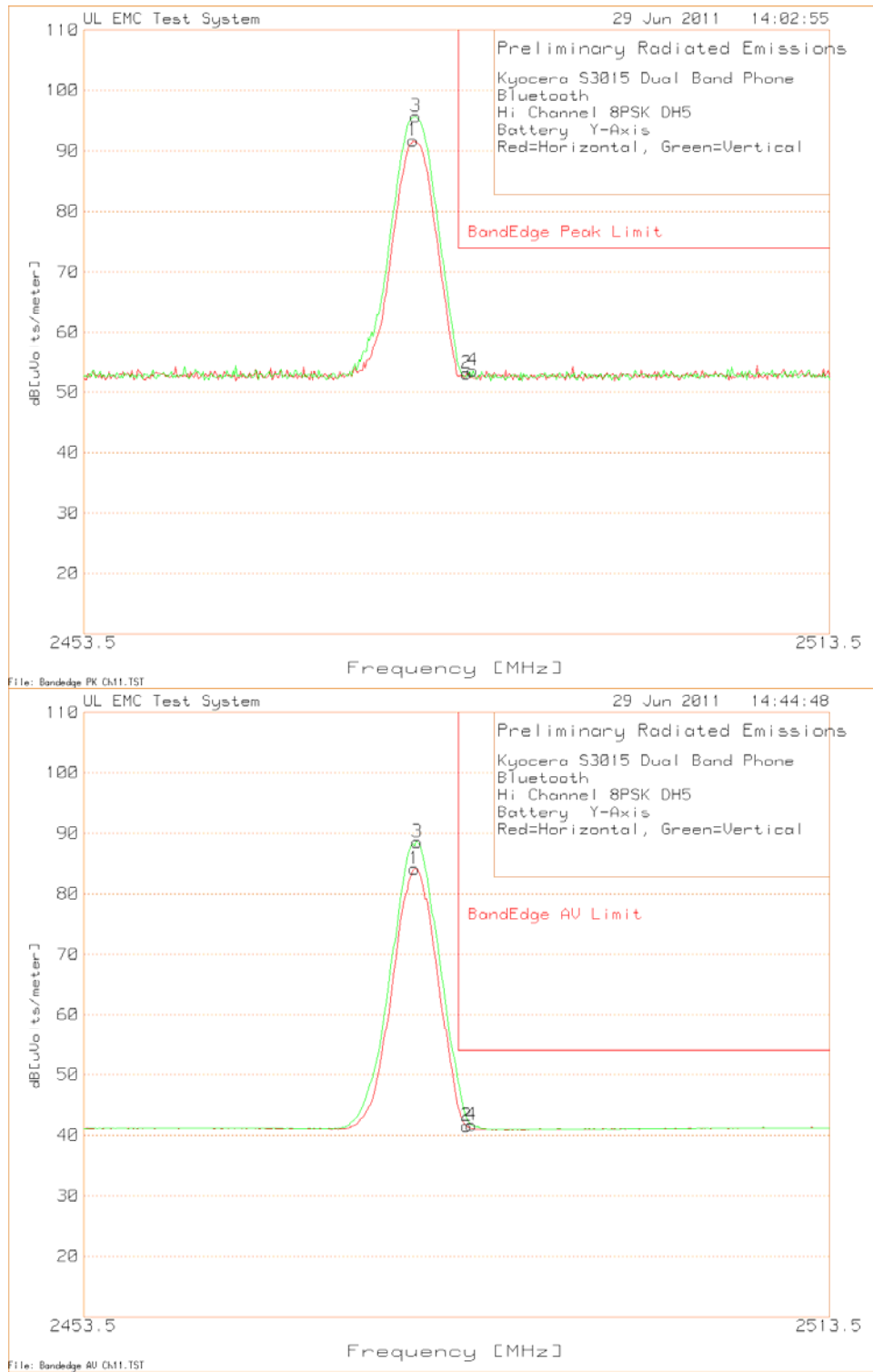


Figure 21 Radiated Emissions Graph Low Channel DH5 8PSK Bandedge



| Kyocera S3015 Dual Band Phone | | | | | | | | | |
|--------------------------------|---------------|----------|----------------|------------------|-----------------|-------------------|---------|-------------|----------|
| Bluetooth | | | | | | | | | |
| Low Channel 8PSK DH5 | | | | | | | | | |
| Battery Y-Axis | | | | | | | | | |
| Red=Horizontal, Green=Vertical | | | | | | | | | |
| | | | | | | | | | |
| 2 - 4GHz 2370 - 2430MHz | | | | | | | | | |
| Test Frequency | Meter Reading | Detector | Antenna Factor | BOMS Factor [dB] | Result dB[uV/m] | BandEdge PK Limit | Margin | Height [cm] | Polarity |
| 2402.104 | 70.47 | PK | 21.8 | 4.32 | 96.59 | 999 | -902.41 | 100 | Horz |
| 2398.737 | 28.23 | PK | 21.8 | 4.4 | 54.43 | 74 | -19.57 | 100 | Horz |
| 2401.984 | 70.93 | PK | 21.8 | 4.33 | 97.06 | 999 | -901.94 | 101 | Vert |
| 2398.377 | 27.45 | PK | 21.8 | 4.41 | 53.66 | 74 | -20.34 | 101 | Vert |
| | | | | | | | | | |
| 2401.984 | 62.35 | PK | 21.8 | 4.33 | 88.48 | 999 | -910.52 | 100 | Horz |
| 2397.655 | 15.31 | PK | 21.8 | 4.43 | 41.54 | 54 | -12.46 | 100 | Horz |
| 2402.104 | 63.6 | PK | 21.8 | 4.32 | 89.72 | 999 | -909.28 | 100 | Vert |
| 2398.257 | 16.73 | PK | 21.8 | 4.41 | 42.94 | 54 | -11.06 | 100 | Vert |
| | | | | | | | | | |
| PK – Peak detector | | | | | | | | | |
| Av - Average detector | | | | | | | | | |

Figure 22 Radiated Emissions Graph Hi Channel DH5 8PSK Bandedge



5.0 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/ts/htdocs/210/214/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

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