

FCC CERTIFICATION TEST REPORT

FOR

| | | |
|-----------------------------|---|--|
| Applicant | : | inMusic Brands,Inc |
| Address | : | 200 SCENIC VIEW DRIVE, SUITE 201, RI02864, U.S.A. |
| Equipment under Test | : | Clipster |
| Model No | : | ISP29 |
| Trade Mark | : | ION |
| FCC ID | : | Y4O-ISP29 |
| Manufacturer | : | SHENZHEN FENDA TECHNOLOGY CO.,LTD |
| Address | : | Fenda Hi-Tech Park, Zhoushi Road, Shiyan Town, Baoan District, Shenzhen City, Guangdong, China |

Issued By: Dongguan Dongdian Testing Service Co., Ltd.

Add: No. 17, Zongbu Road 2, Songshan Lake Sci&Tech, Industry Park, Dongguan City,
Guangdong Province, China, 523808

Tel: +86-0769-22891499 [Http://www.dgddt.com](http://www.dgddt.com)

REPORT

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TEST REPORT DECLARE

| | | |
|-----------------------------|---|--|
| Applicant | : | inMusic Brands,Inc |
| Address | : | 200 SCENIC VIEW DRIVE, SUITE 201, RI02864, U.S.A. |
| Equipment under Test | : | Clipster |
| Model No | : | ISP29 |
| FCC ID | : | Y4O-ISP29 |
| Trade Mark | : | ION |
| Manufacturer | : | SHENZHEN FENDA TECHNOLOGY CO.,LTD |
| Address | : | Fenda Hi-Tech Park, Zhoushi Road, Shiyan Town, Baoan District, Shenzhen City, Guangdong, China |

Test Standard Used: FCC Rules and Regulations Part 15 Subpart C: 2012

Test procedure used: ANSI C63.10:2009

We Declare:

The equipment described above is tested by Dongguan Dongdian Testing Service Co., Ltd and in the configuration tested the equipment complied with the standards specified above. The test results are contained in this test report and Dongguan Dongdian Testing Service Co., Ltd is assumed of full responsibility for the accuracy and completeness of these tests.

After test and evaluation, our opinion is that the equipment provided for test compliance with the requirement of the above FCC standards.

| | | | |
|----------------------|---------------------|------------------------|-----------|
| Report No: | DDT-RE130072 | | |
| Date of Test: | 2013/3/22~2013/3/25 | Date of Report: | 2013/3/27 |

Prepared By:



Leo Liu/Engineer

Approved By:



Jamy Yu /EMC Manager

Note: This report applies to above tested sample only. This report shall not be reproduced in parts without written approval of Dongguan Dongdian Testing Service Co., Ltd.

1. Summary of test results

| Description of Test Item | Standard | Results |
|--------------------------------|--|---------|
| Maximum Peak Output Power | FCC Part 15: 15.247(b)(1) ANSI C63.10 :2009 | PASS |
| 20dB Bandwidth | FCC Part 15: 15.215 ANSI C63.10 :2009 | PASS |
| Carrier Frequency Separation | FCC Part 15: 15.247(a)(1) ANSI C63.10 :2009 | PASS |
| Number Of Hopping Channel | FCC Part 15: 15.247(a)(1)(iii) ANSI C63.10 :2009 | PASS |
| Dwell Time | FCC Part 15: 15.247(a)(1)(iii) ANSI C63.10 :2009 | PASS |
| Radiated Emission | FCC Part 15: 15.209 FCC Part 15: 15.247(d) ANSI C63.10 :2009 | PASS |
| Band Edge Compliance | FCC Part 15: 15.247(d) ANSI C63.10 :2009 | PASS |
| Power Line Conducted Emissions | FCC Part 15: 15.207 ANSI C63.10 :2009 | PASS |
| Antenna requirement | FCC Part 15: 15.203 | PASS |

2. General test information

2.1. Description of EUT

| | | |
|--------------------------|---|--|
| EUT* Name | : | Clipster |
| Model Number | : | ISP29 |
| Trade Mark | : | ION |
| EUT function description | : | Please reference user manual of this device |
| Power supply | : | DC 5V From battery |
| Radio Specification | : | Bluetooth V3.0+EDR |
| Operation frequency | : | 2402MHz -2480MHz |
| Modulation | : | GFSK, $\pi/4$ QPSK, 8-DPSK |
| Data rate | : | 1Mbps, 2Mbps, 3Mbps |
| Antenna Type | : | built-in undetachable dipole antenna, maximum PK gain:2dBi |
| Date of Receipt | : | 2013/3/22 |
| Sample Type | : | Series production |

Note1: EUT is the ab. of equipment under test.

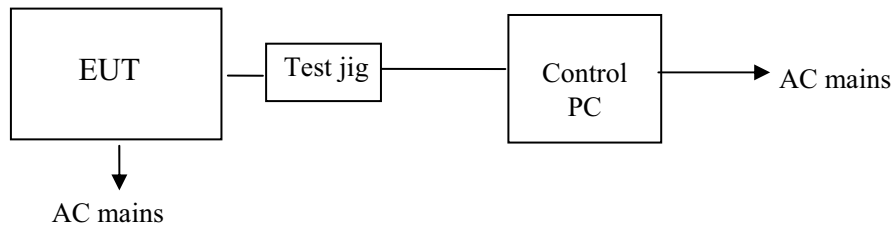
2.2. Accessories of EUT

| Description of Accessories | Manufacturer | Model number or Type | Other |
|----------------------------|--------------|----------------------|-------|
| / | / | / | / |

2.3. Assistant equipment used for test

| Description of Assistant equipment | Manufacturer | Model number or Type | Other |
|------------------------------------|--------------|----------------------|---|
| HP Pro 3330 Small Form Factor (PC) | HP | A6T13PA#AB2 | 1.5m long, unshielded |
| LCD COLOR DISPLAY | HP | GV537A | AC Line: 1.5m long, unshielded VGA line: 1.5m long, unshielded |
| Keyboard | HP | KB-0316 | Signal line: 1.5m long, unshielded |
| Mouse | HP | M-SBF96 | Signal line: 1.5m long, unshielded |

2.4. Block diagram of EUT configuration for test



EUT's Bluetooth module was connected to a special test jig provided by manufacturer which has a standard RSS-232 connector to connect to control PC, and the control PC will run a special test software "BlueSuite2.3" provided by manufacturer to control EUT work in test mode as blow table.

| Tested mode, channel, information | | |
|-----------------------------------|-------------|-----------------|
| Mode | Channel | Frequency (MHz) |
| GFSK hopping on Tx Mode | CH0 to CH78 | 2402 to 2480 |
| 8-DPSK hopping on Tx Mode | CH0 to CH78 | 2402 to 2480 |
| GFSK hopping off Tx Mode | CH0 | 2402 |
| | CH39 | 2441 |
| | CH78 | 2480 |
| $\pi/4$ QPSK hopping off Tx Mode | CH0 | 2402 |
| | CH39 | 2441 |
| | CH78 | 2480 |
| 8-DPSK hopping off Tx Mode | CH0 | 2402 |
| | CH39 | 2441 |
| | CH78 | 2480 |

Note1: Some modes not apply for all the test items.

Note2: For $\pi/4$ QPSK its same modulation type with 8-DPSK, and based exploratory test, there is no significant difference of that two types test result, so except output power, all other items final test were only performed with 8-DPSK and GFSK..

2.5. Test environment conditions

During the measurement the environmental conditions were within the listed ranges:

| | |
|--------------------|-----------|
| Temperature range: | 21-25°C |
| Humidity range: | 40-75% |
| Pressure range: | 86-106kPa |

2.6. Test laboratory

Dongguan Dongdian Testing Service Co., Ltd

Add: No. 17, Zongbu Road 2, Songshan Lake Sci&Tech, Industry Park, Dongguan City, Guangdong Province, China, 523808 Tel: +86-0769-22891499 <http://www.dgddt.com>

FCC Registration Number: 270092

2.7. Measurement uncertainty

| Test Item | Uncertainty |
|---|-----------------------|
| Uncertainty for Conduction emission test | 2.44dB |
| Uncertainty for Radiation Emission test (150KHz-30MHz) | 3.12dB |
| Uncertainty for Radiation Emission test (30MHz-1GHz) | 3.14 dB (Polarize: V) |
| | 3.16 dB (Polarize: H) |
| Uncertainty for Radiation Emission test (1GHz to 25GHz) | 2.08dB(Polarize: V) |
| | 2.56dB (Polarize: H) |
| Uncertainty for radio frequency | 1×10^{-9} |
| Uncertainty for conducted RF Power | 0.65dB |

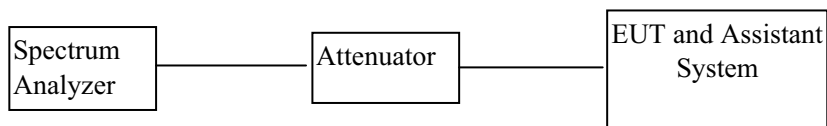
Note: This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of $k=2$.

3. Maximum Peak Output Power

3.1. Test equipment

| Item | Equipment | Manufacturer | Model No. | Serial No. | Last Cal. | Cal. Interval |
|------|-------------------|---------------|-------------|--------------|------------|---------------|
| 1 | Spectrum analyzer | R&S | FSU | 1166.1660.26 | 2012/11/26 | 1 Year |
| 2 | Attenuator | Mini-Circuits | BW-S10W2 | 101109 | 2012/11/26 | 1 Year |
| 3 | RF Cable | Micable | C10-01-01-1 | 100309 | 2012/11/26 | 1 Year |

3.2. Block diagram of test setup



3.3. Limits

For frequency hopping systems operating in the 2400-2483.5 MHz band employing at least 75 non-overlapping hopping channels, and all frequency hopping systems in the 5725-5850 MHz band: 1 watt. For all other frequency hopping systems in the 2400-2483.5 MHz band: 0.125 watts, the e.i.r.p shall not exceed 4W.

3.4. Test Procedure

- (1) Configure EUT and assistant system according clause 2.4 and 3.2
- (2) Connect EUT's antenna output to spectrum analyzer by RF cable.
- (3) Configure EUT work in test mode as stated in clause 2.4.
- (4) Measure the maximum output power of EUT by spectrum analyzer with PK detector and RBW=2MHz(above 6dB bandwidth of measured signal), VBW=3MHz

Note: The attenuator loss was inputted into spectrum analyzer as amplitude offset.

3.5. Test Result

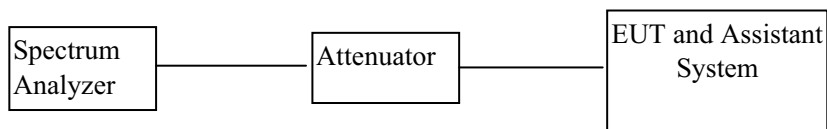
| EUT: Clipster | | M/N: ISP29 | | | |
|-----------------------|------------|--------------|---------------------|-------------|------------|
| Mode | Freq (MHz) | Result (dBm) | Limit (dBm) | Margin (dB) | Conclusion |
| GFSK | 2402 | 4.86 | 30 | 25.14 | PASS |
| | 2441 | 5.56 | 30 | 24.44 | PASS |
| | 2480 | 5.10 | 30 | 24.90 | PASS |
| $\pi/4$ QPSK | 2402 | 2.35 | 30 | 27.65 | PASS |
| | 2441 | 3.40 | 30 | 26.60 | PASS |
| | 2480 | 2.87 | 30 | 27.13 | PASS |
| 8-DPSK | 2402 | 2.02 | 30 | 27.98 | PASS |
| | 2441 | 3.13 | 30 | 26.87 | PASS |
| | 2480 | 2.53 | 30 | 27.47 | PASS |
| Test Date : 2013/3/22 | | | Test Engineer : Leo | | |

4. 20dB Bandwidth

4.1. Test equipment

| Item | Equipment | Manufacturer | Model No. | Serial No. | Last Cal. | Cal. Interval |
|------|-------------------|---------------|-------------|--------------|------------|---------------|
| 1 | Spectrum analyzer | R&S | FSU | 1166.1660.26 | 2012/11/26 | 1 Year |
| 2 | Attenuator | Mini-Circuits | BW-S10W2 | 101109 | 2012/11/26 | 1 Year |
| 3 | RF Cable | Micable | C10-01-01-1 | 100309 | 2012/11/26 | 1 Year |

4.2. Block diagram of test setup



4.3. Limits

Intentional radiators operating under the alternative provisions to the general emission limits, as contained in § 15.217 through 15.257 and in Subpart E of this part, must be designed to ensure that the 20 dB bandwidth of the emission, or whatever bandwidth may otherwise be specified in the specific rule section under which the equipment operates, is contained within the frequency band designated in the rule section under which the equipment is operated.

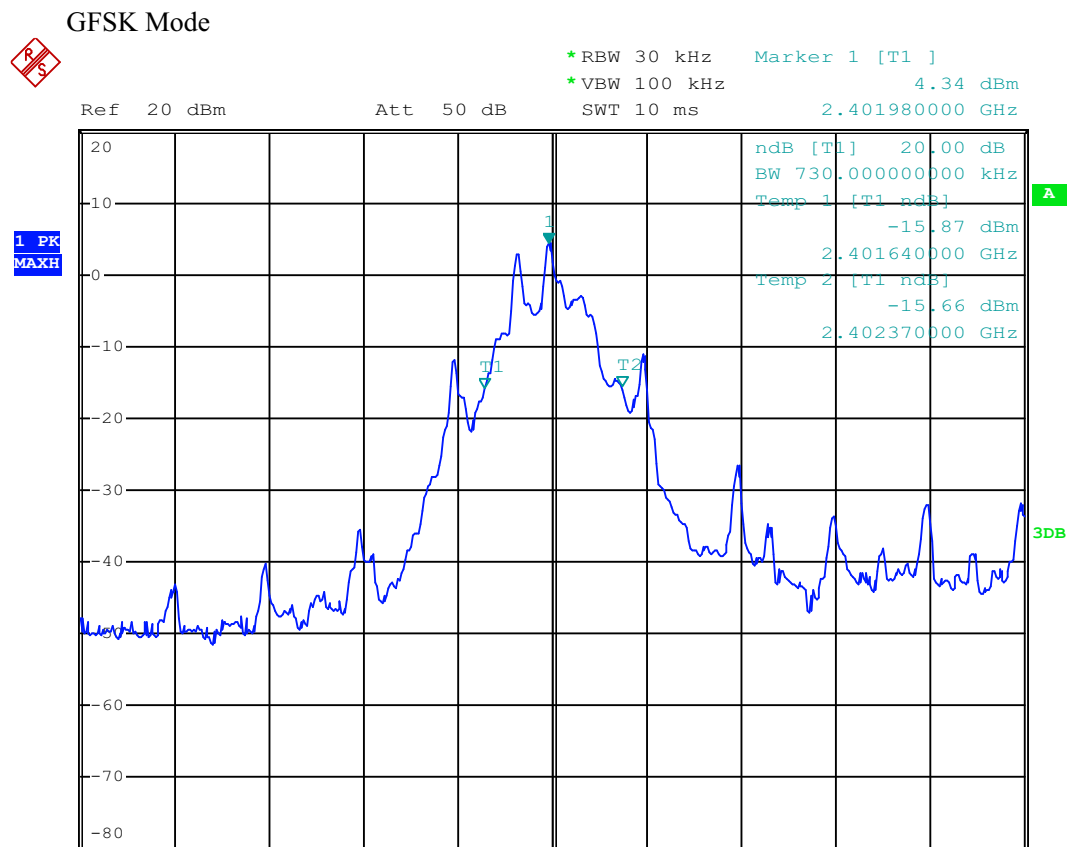
4.4. Test Procedure

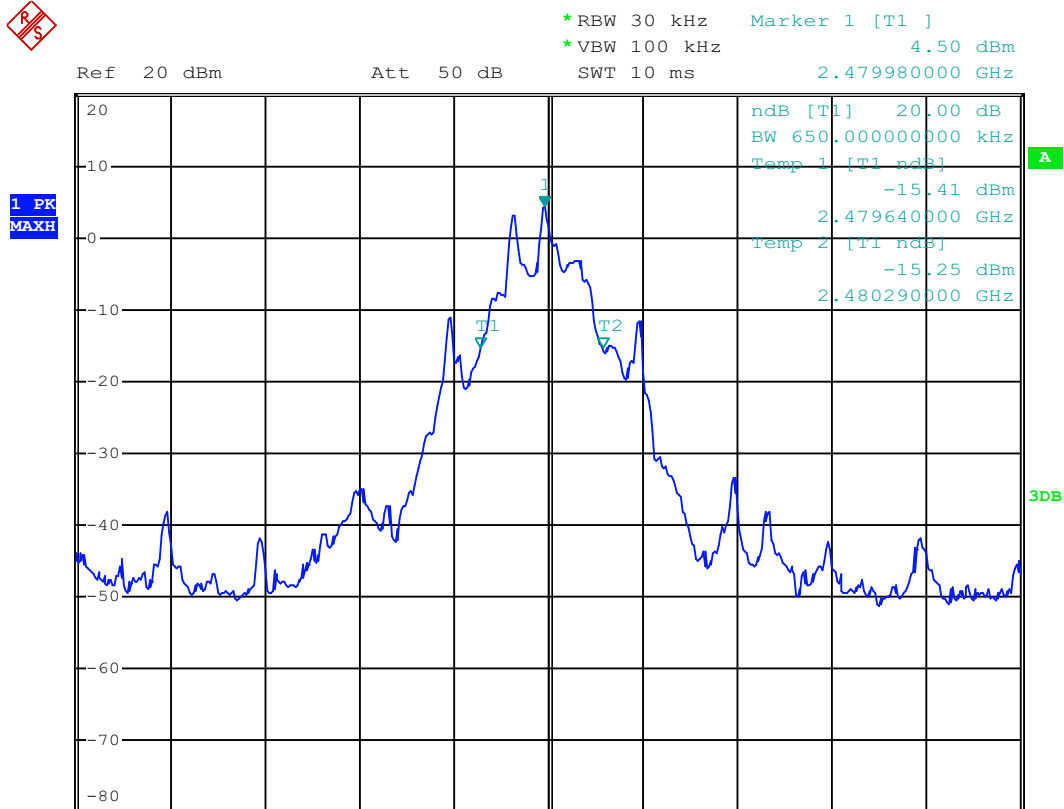
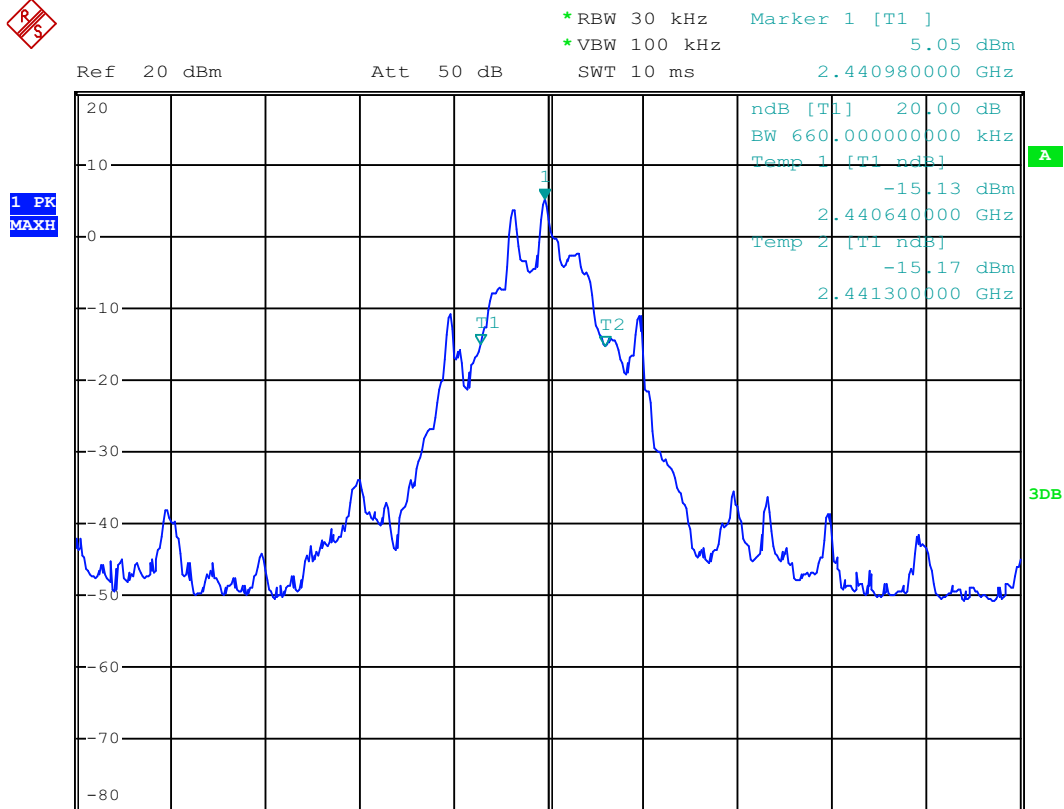
- (1) Configure EUT and assistant system according clause 2.4 and 4.2
- (2) Connect EUT's antenna output to spectrum analyzer by RF cable.
- (3) Configure EUT work in test mode as stated in clause 2.4.
- (4) The bandwidth of the fundamental frequency was measured by spectrum analyzer with 30 kHz RBW and 100 kHz VBW. The 20dB bandwidth is defined as the total spectrum the power of which is higher than peak power minus 20dB.

4.5. Test Result

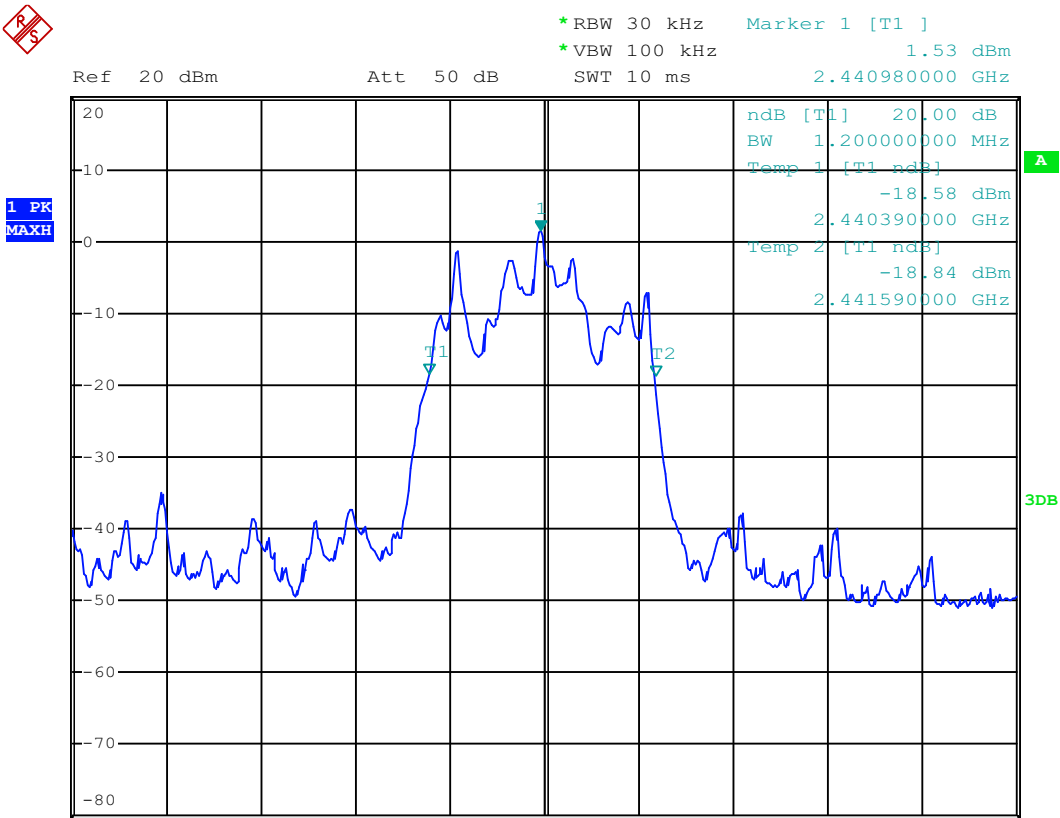
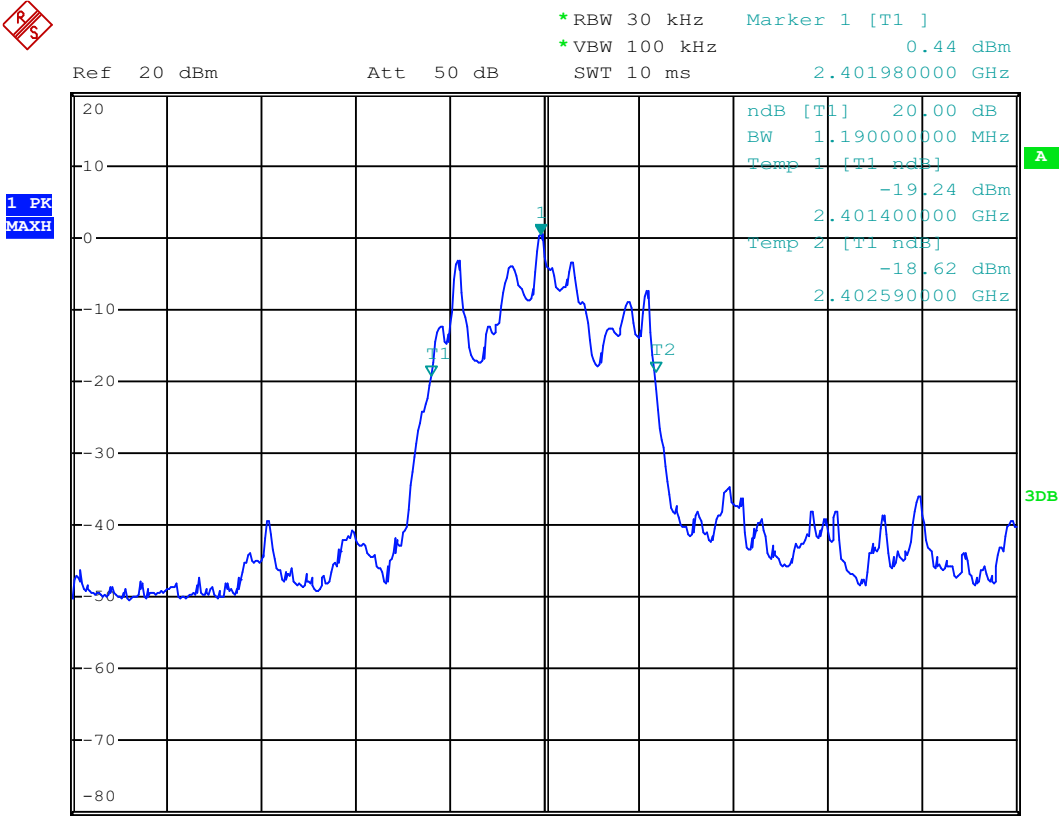
| EUT: Clipster M/N: ISP29 | | | | | |
|--------------------------|------------|--------------|---------------------|--------------|------------|
| Mode | Freq (MHz) | Result (MHz) | Limit (MHz) | Margin (MHz) | Conclusion |
| GFSK | 2402 | 0.73 | / | / | PASS |
| | 2441 | 0.66 | / | / | PASS |
| | 2480 | 0.65 | / | / | PASS |
| 8-DPSK | 2402 | 1.19 | / | / | PASS |
| | 2441 | 1.20 | / | / | PASS |
| | 2480 | 1.20 | / | / | PASS |
| Test Date : 2013/3/22 | | | Test Engineer : Leo | | |

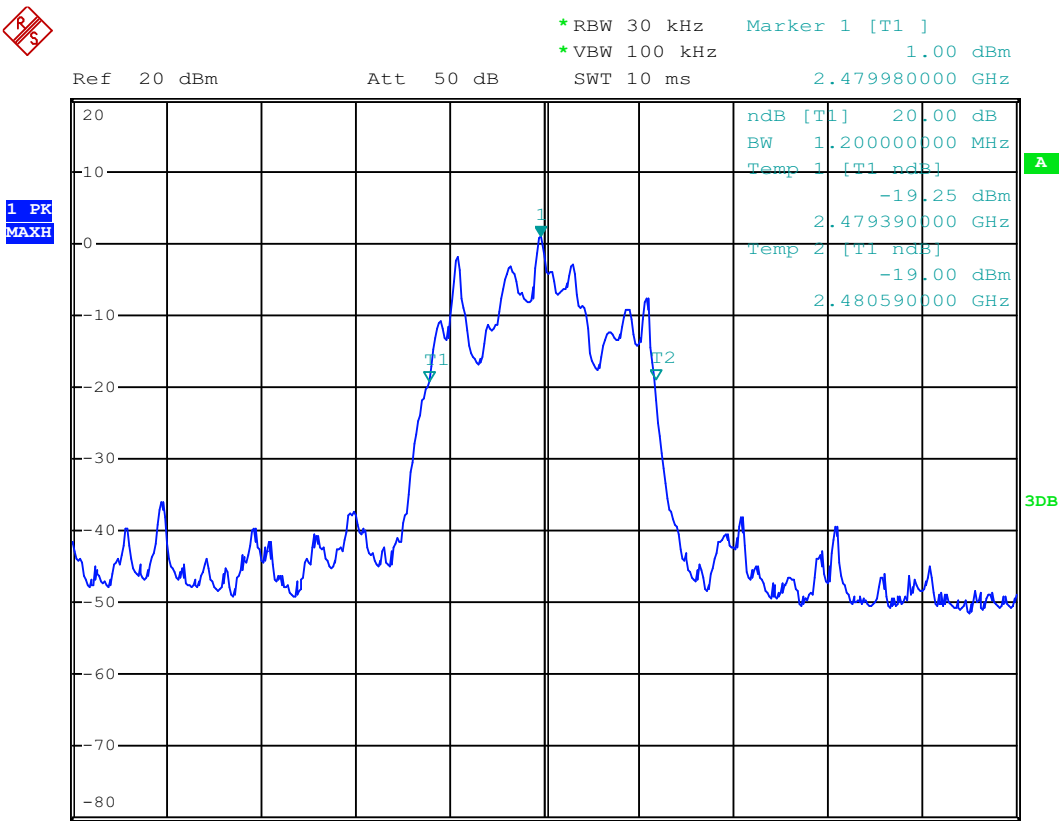
4.6. Original test data





8-DPSK Mode



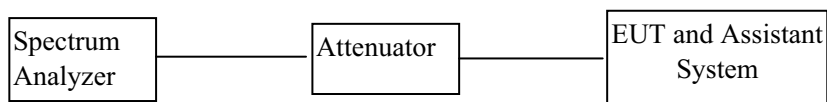


5. Carrier Frequency Separation

5.1. Test equipment

| Item | Equipment | Manufacturer | Model No. | Serial No. | Last Cal. | Cal. Interval |
|------|-------------------|---------------|-------------|--------------|------------|---------------|
| 1 | Spectrum analyzer | R&S | FSU | 1166.1660.26 | 2012/11/26 | 1 Year |
| 2 | Attenuator | Mini-Circuits | BW-S10W2 | 101109 | 2012/11/26 | 1 Year |
| 3 | RF Cable | Micable | C10-01-01-1 | 100309 | 2012/11/26 | 1 Year |

5.2. Block diagram of test setup



5.3. Limits

Frequency hopping systems shall have hopping channel carrier frequencies separated by a minimum of 25 kHz or the 20 dB bandwidth of the hopping channel, whichever is greater. Alternatively, frequency hopping systems operating in the 2400-2483.5 MHz band may have hopping channel carrier frequencies that are separated by 25 kHz or two-thirds of the 20 dB bandwidth of the hopping channel, whichever is greater, provided the systems operate with an output power no greater than 125 mW.

5.4. Test Procedure

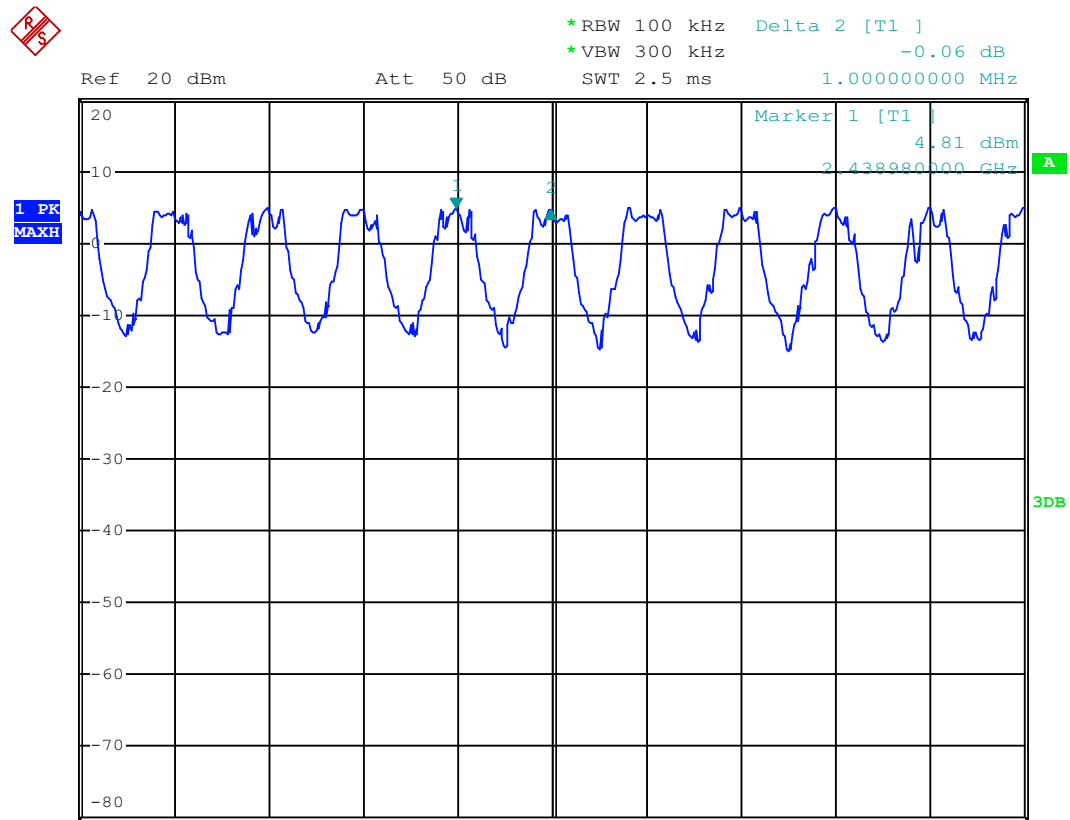
- (1) Configure EUT and assistant system according clause 2.4 and 5.2
- (2) Connect EUT's antenna output to spectrum analyzer by RF cable.
- (3) Configure EUT work in test mode as stated in clause 2.4.
- (4) The carrier frequency was measured by spectrum analyzer with 100 kHz RBW and 300 kHz VBW.

5.5. Test Result

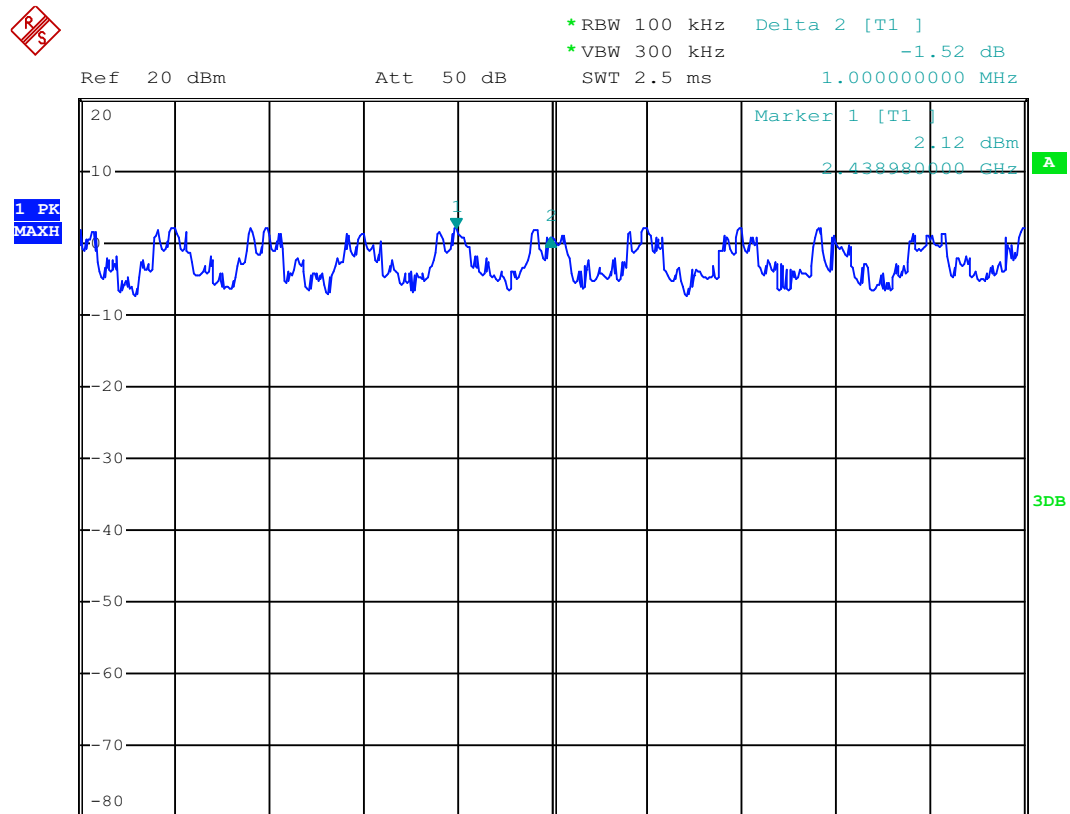
| EUT: Clipster | | M/N: ISP29 | | |
|-----------------------|--------------------------|----------------------|--------------------------------------|------------|
| Mode | Channel separation (MHz) | 20dB Bandwidth (MHz) | Limit (MHz) 2/3 of 20dB bandwidth | Conclusion |
| GFSK | 1.0 | 0.68 | 0.453 | PASS |
| 8-DPSK | 1.0 | 1.20 | 0.798 | PASS |
| Test Date : 2013/3/22 | | | Test Engineer : Leo | |

5.6. Original test data

GFSK



8-DPSK

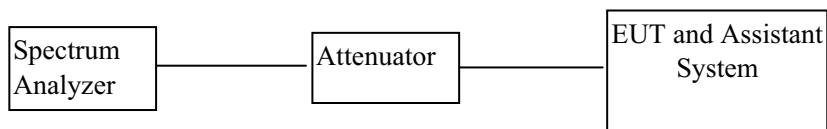


6. Number Of Hopping Channel

6.1. Test equipment

| Item | Equipment | Manufacturer | Model No. | Serial No. | Last Cal. | Cal. Interval |
|------|-------------------|---------------|-------------|--------------|------------|---------------|
| 1 | Spectrum analyzer | R&S | FSU | 1166.1660.26 | 2012/11/26 | 1 Year |
| 2 | Attenuator | Mini-Circuits | BW-S10W2 | 101109 | 2012/11/26 | 1 Year |
| 3 | RF Cable | Micable | C10-01-01-1 | 100309 | 2012/11/26 | 1 Year |

6.2. Block diagram of test setup



6.3. Limits

Frequency hopping systems in the 2400-2483.5 MHz band shall use at least 15 channels.

6.4. Test Procedure

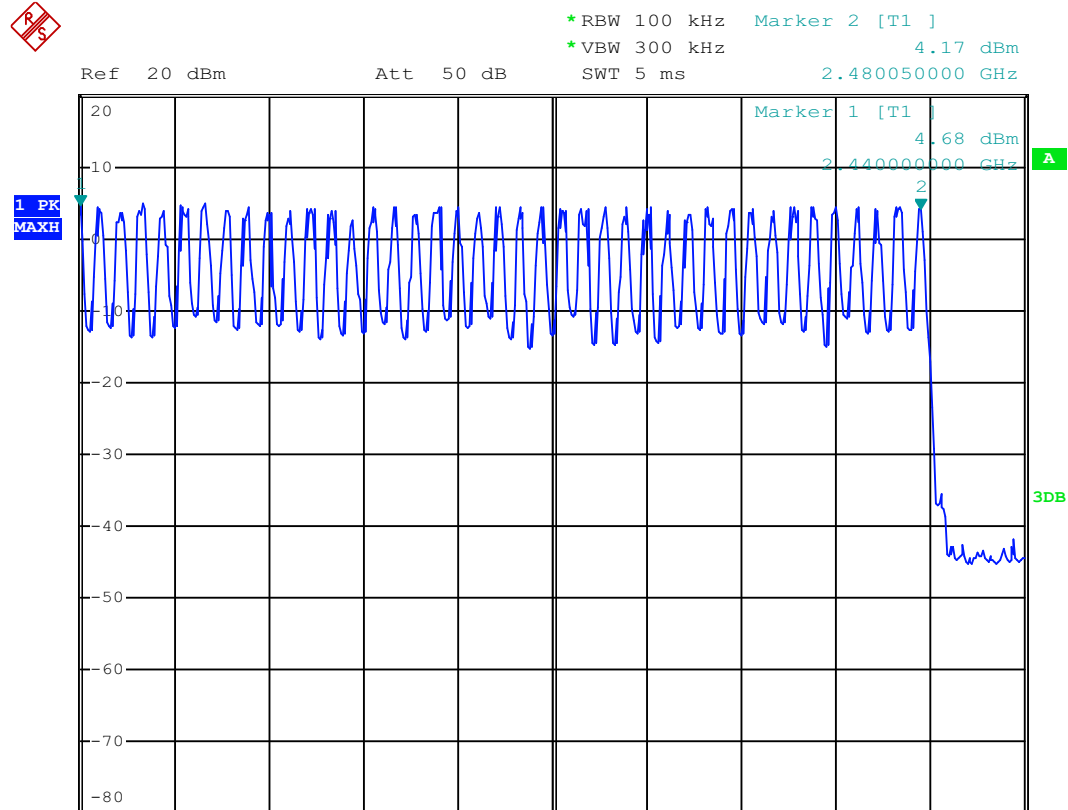
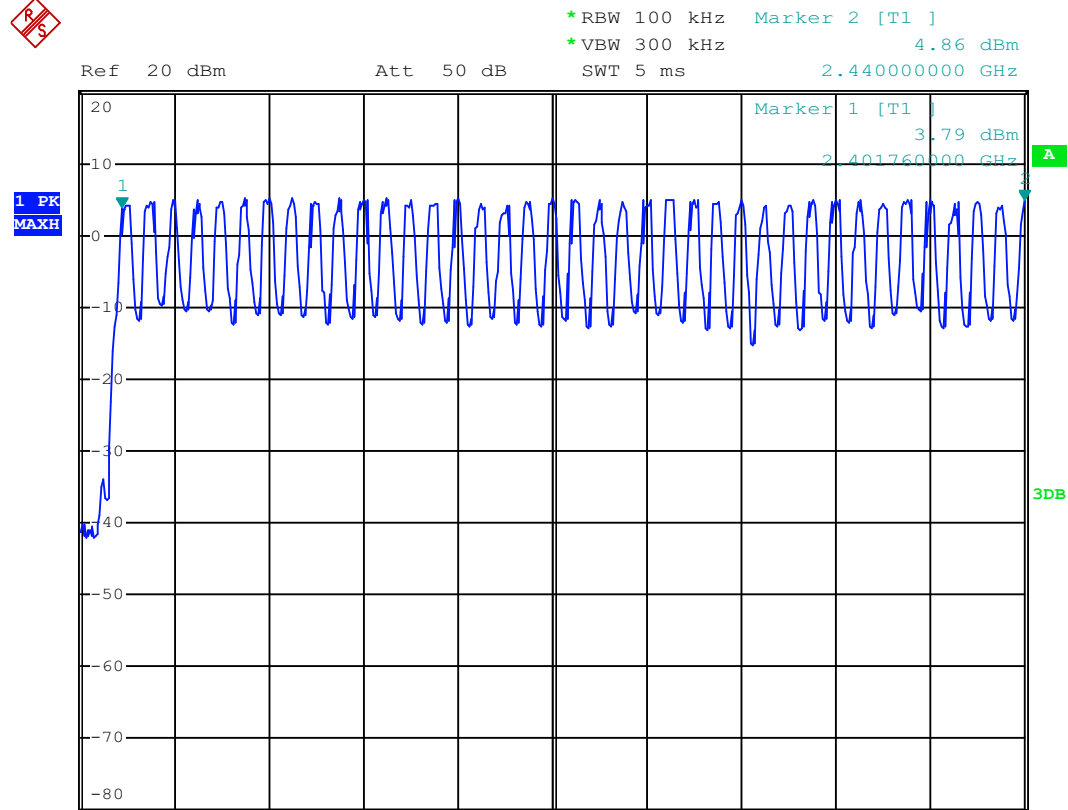
- (1) Configure EUT and assistant system according clause 2.4 and 6.2
- (2) Connect EUT's antenna output to spectrum analyzer by RF cable.
- (3) Configure EUT work in test mode as stated in clause 2.4.
- (4) The number of hopping channel was measured by spectrum analyzer with 100 kHz RBW and 300 KHz VBW.

6.5. Test Result

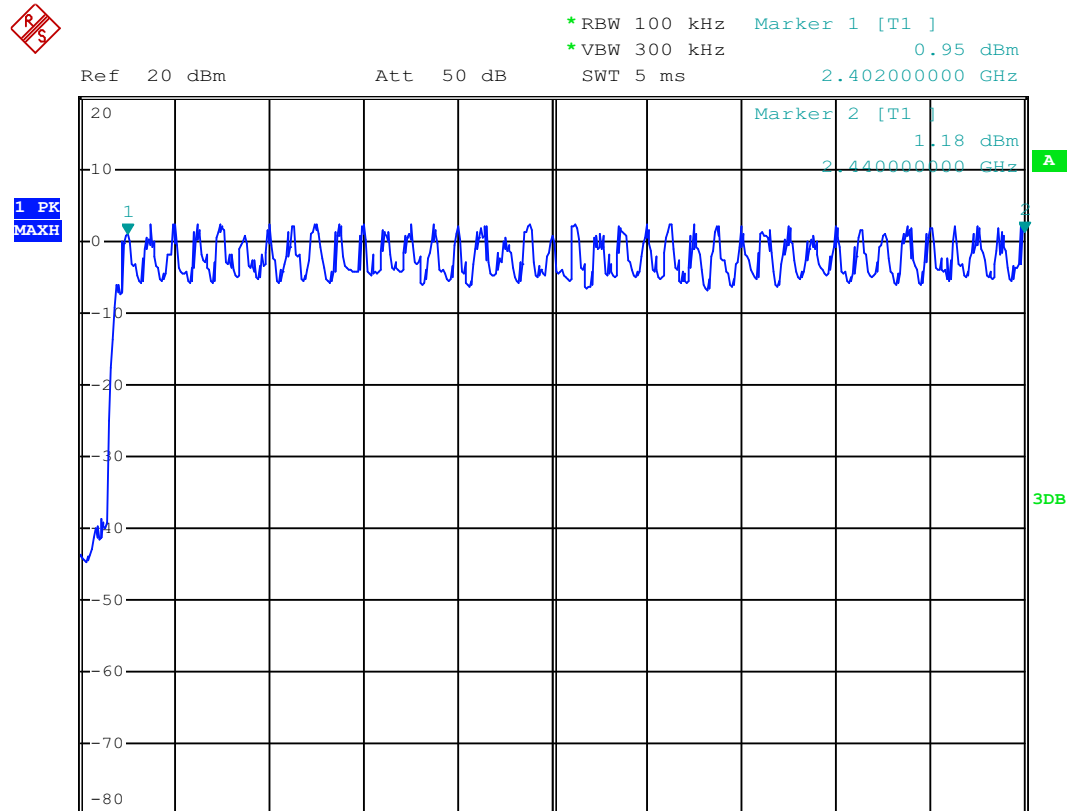
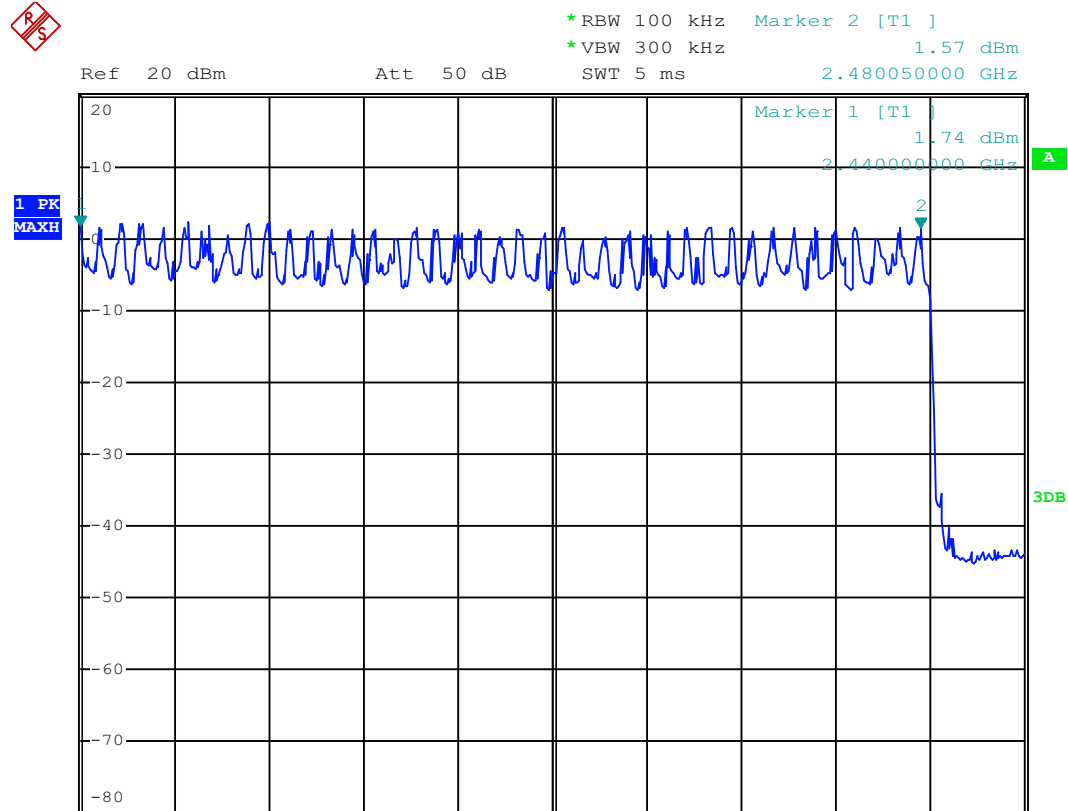
| EUT: Clipster M/N: ISP29 | | | |
|--------------------------|---------------------------|---------------------|------------|
| Mode | Number of hopping channel | Limit | Conclusion |
| GFSK | 79 | >15 | PASS |
| 8-DPSK | 79 | >15 | PASS |
| Test Date : 2013/3/22 | | Test Engineer : Leo | |

6.6. Original test data

GFSK:



8-DPSK:

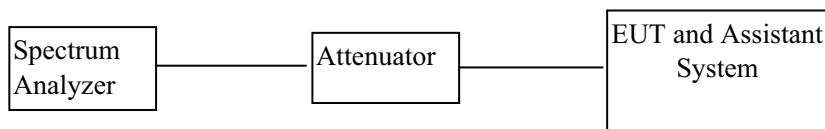


7. Dwell Time

7.1. Test equipment

| Item | Equipment | Manufacturer | Model No. | Serial No. | Last Cal. | Cal. Interval |
|------|-------------------|---------------|-------------|--------------|------------|---------------|
| 1 | Spectrum analyzer | R&S | FSU | 1166.1660.26 | 2012/11/26 | 1 Year |
| 2 | Attenuator | Mini-Circuits | BW-S10W2 | 101109 | 2012/11/26 | 1 Year |
| 3 | RF Cable | Micable | C10-01-01-1 | 100309 | 2012/11/26 | 1 Year |

7.2. Block diagram of test setup



7.3. Limits

The average time of occupancy on any channel shall not be greater than 0.4 seconds within a period of 0.4 seconds multiplied by the number of hopping channels employed.

7.4. Test Procedure

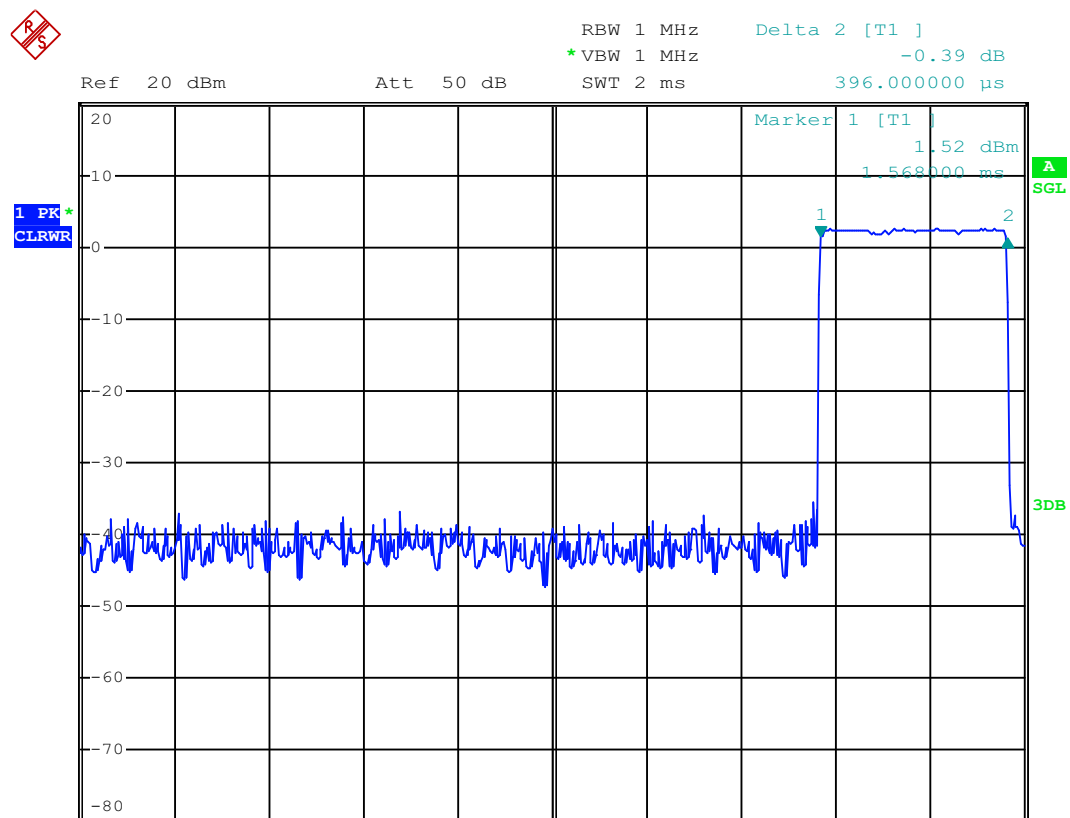
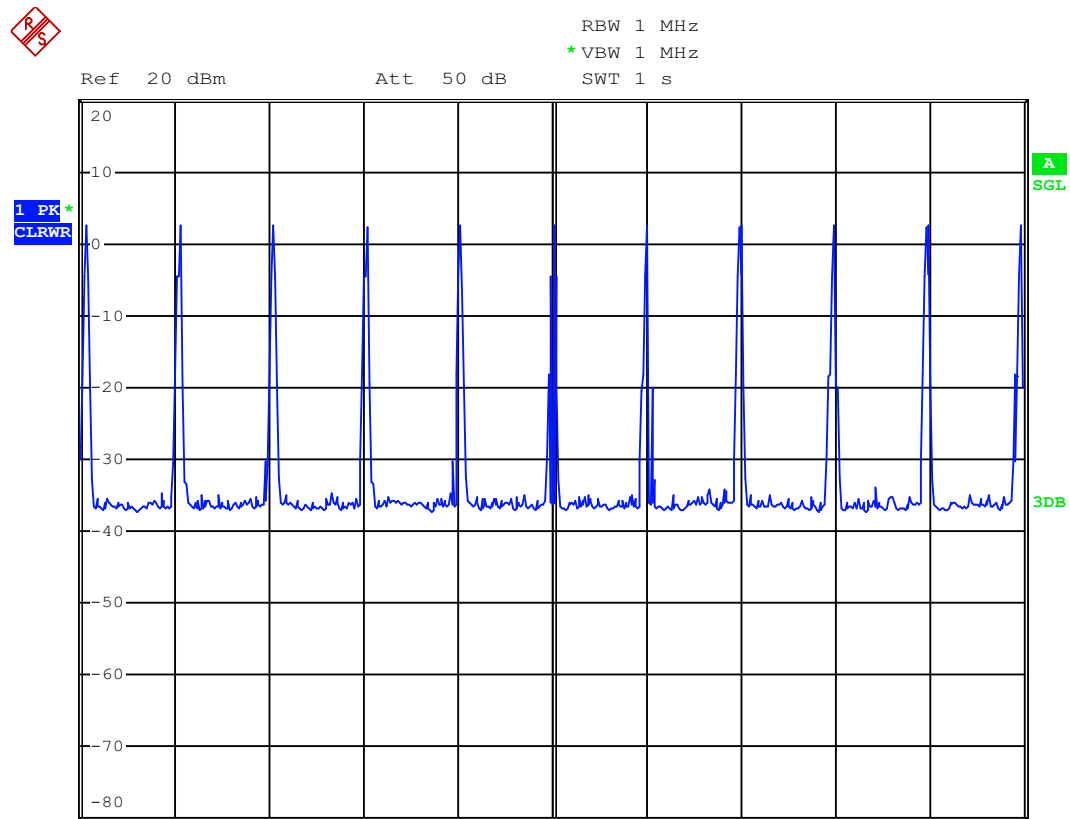
- (1) Configure EUT and assistant system according clause 2.4 and 7.2
- (2) Connect EUT's antenna output to spectrum analyzer by RF cable.
- (3) Configure EUT work in test mode as stated in clause 2.4.
- (4) Measure the hopping number and on time of each pulse with spectrum analyzer in zero span set, and calculate dwell time with formula $\text{Dwell time} = \text{Hopping number} / \text{measure time} \times 0.4 \times 79 \times \text{pulse's on time}$

7.5. Test Result

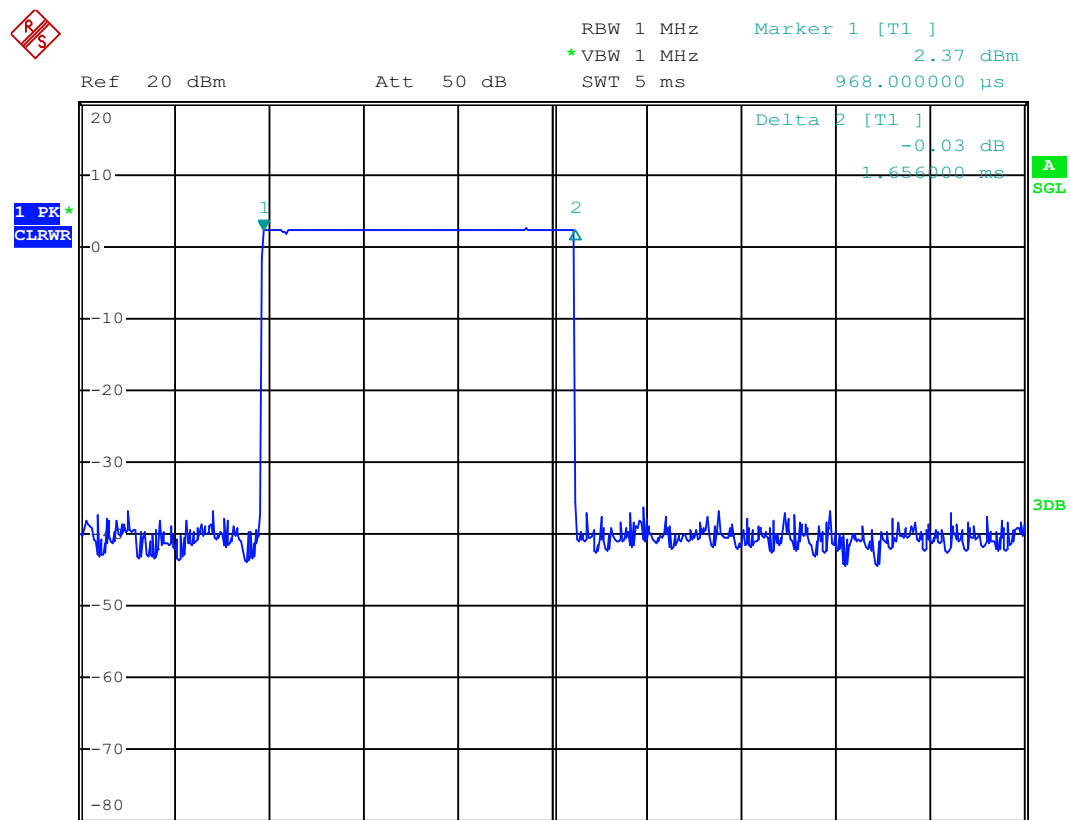
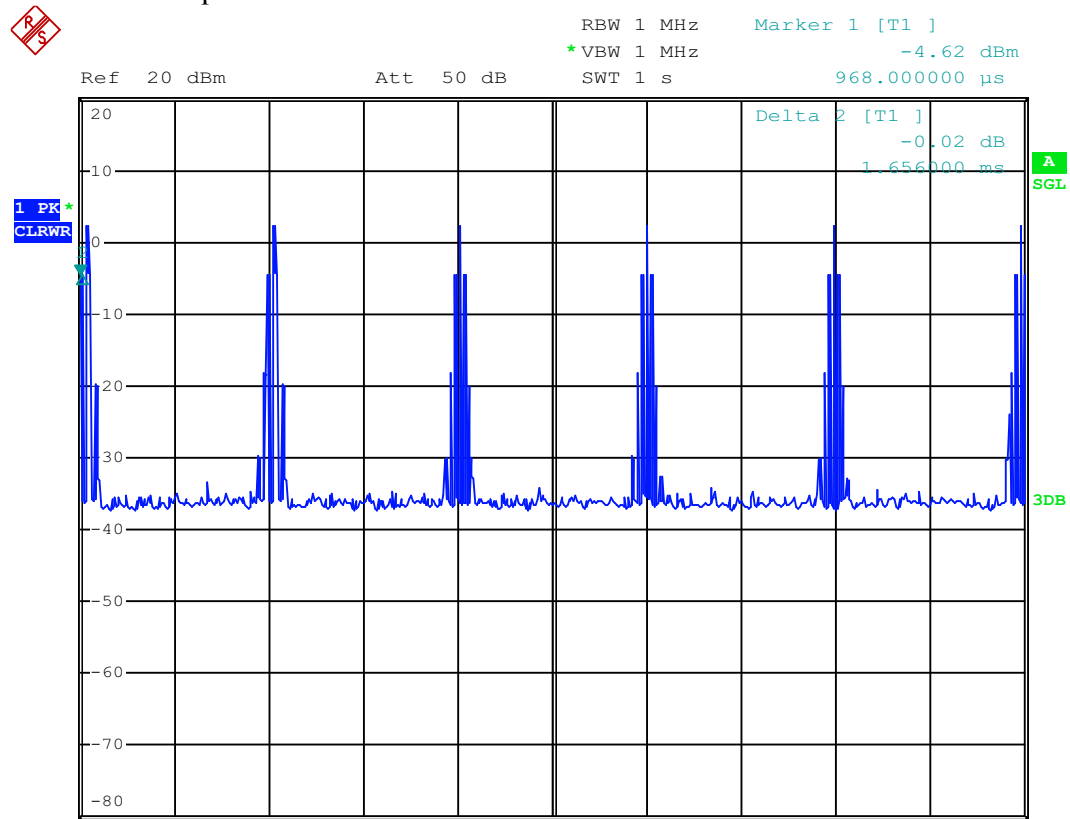
| EUT: Clipster M/N: ISP29 | | | |
|--------------------------|---------------------------|---------------------|------------|
| Mode | Number of hopping channel | Limit | Conclusion |
| DH1 | 137.65ms | <400ms | PASS |
| DH3 | 313.98ms | <400ms | PASS |
| DH5 | 366.56ms | <400ms | PASS |
| 3-DH1 | 142.52ms | <400ms | PASS |
| 3-DH3 | 310.94ms | <400ms | PASS |
| 3-DH5 | 369.09ms | <400ms | PASS |
| Test Date : 2013/2/26 | | Test Engineer : Leo | |

7.6. Original test data

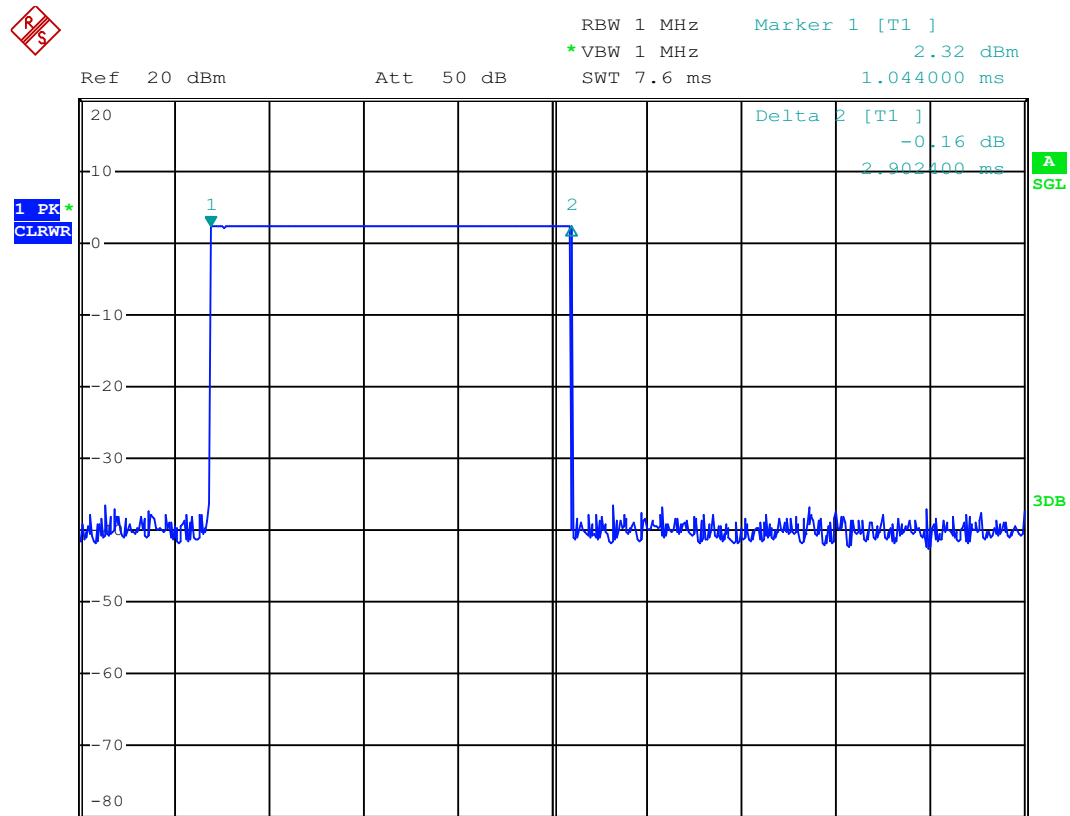
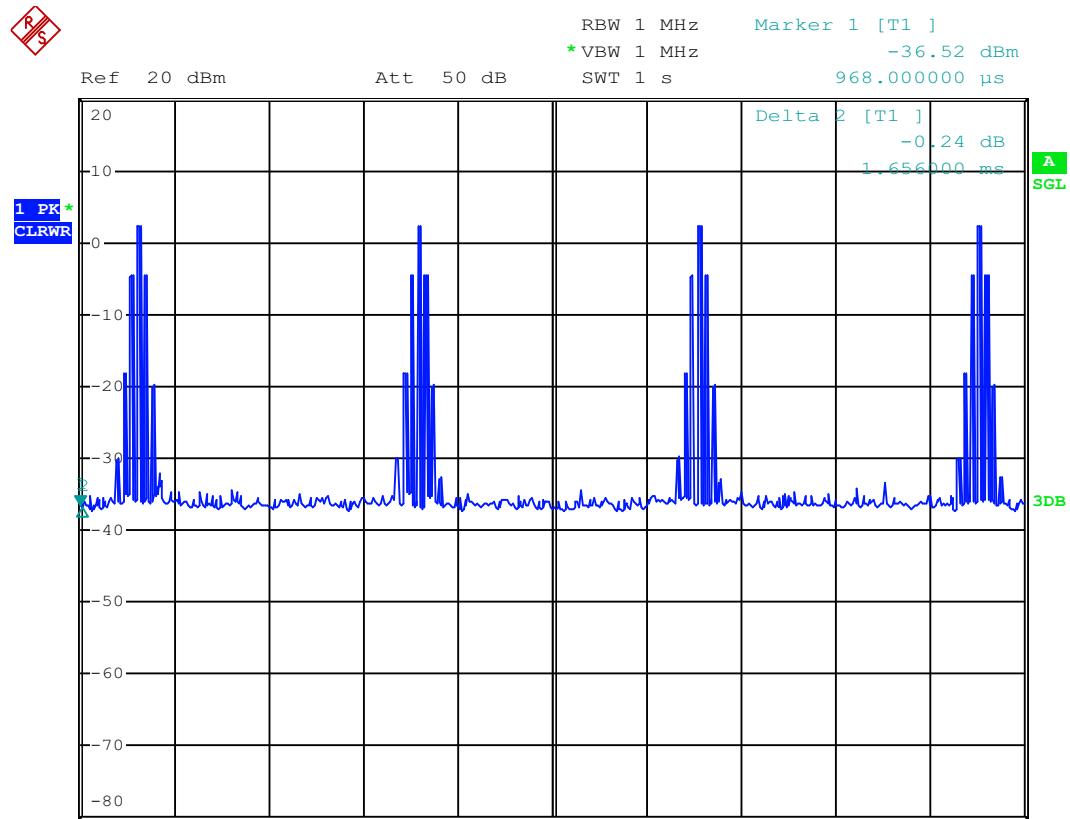
DH1: $11\text{p}/1*0.4*79*0.396\text{ms}=137.65\text{ms}$



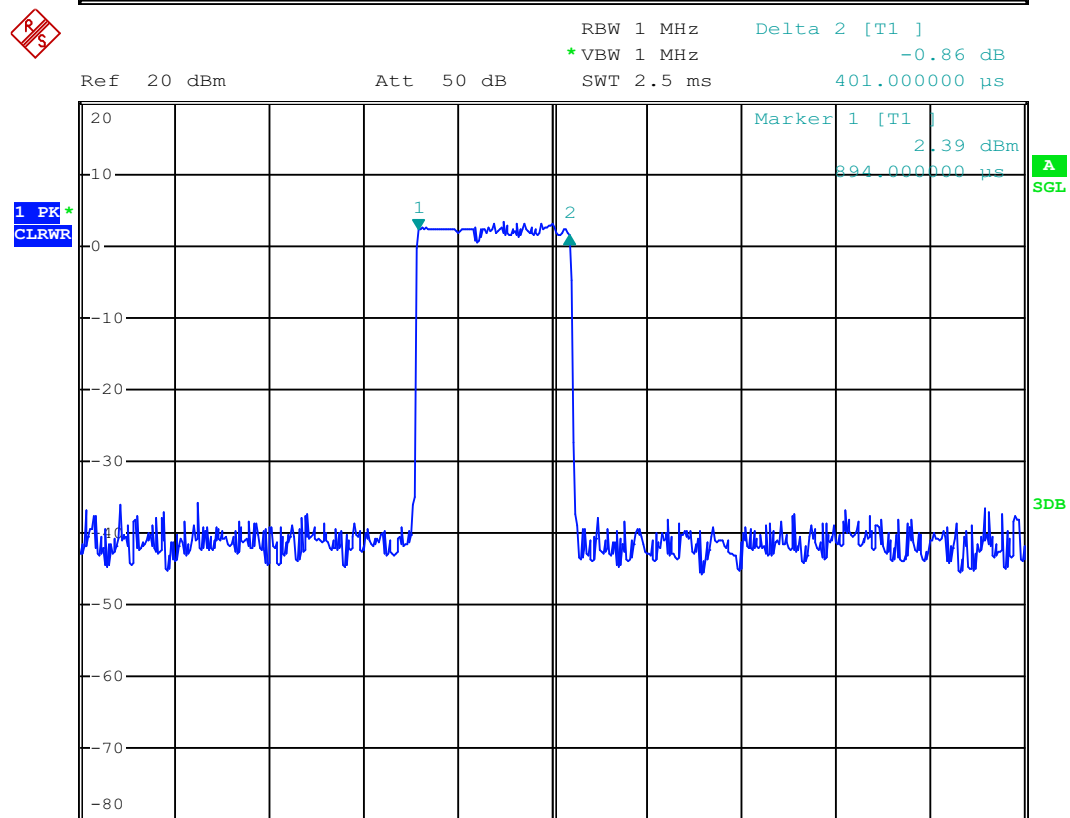
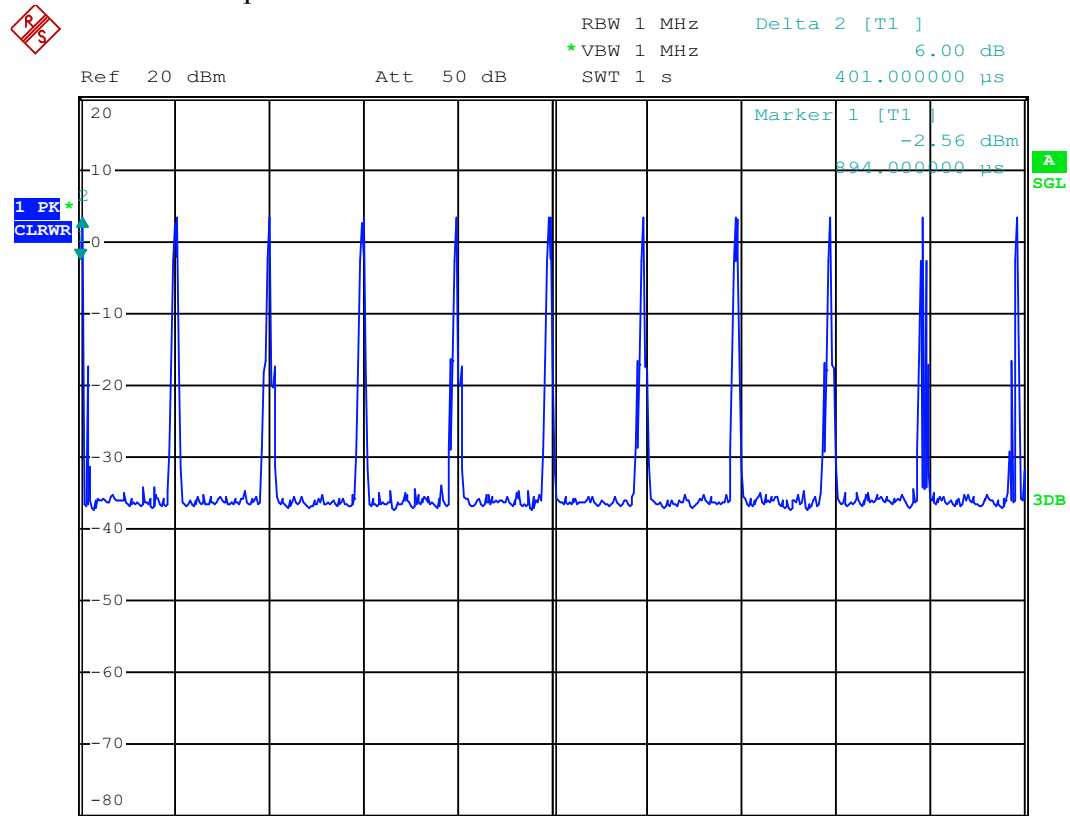
DH3: $6\text{hop}/1\text{s} * 0.4 * 79 * 1.656\text{ms} = 313.98\text{ms}$



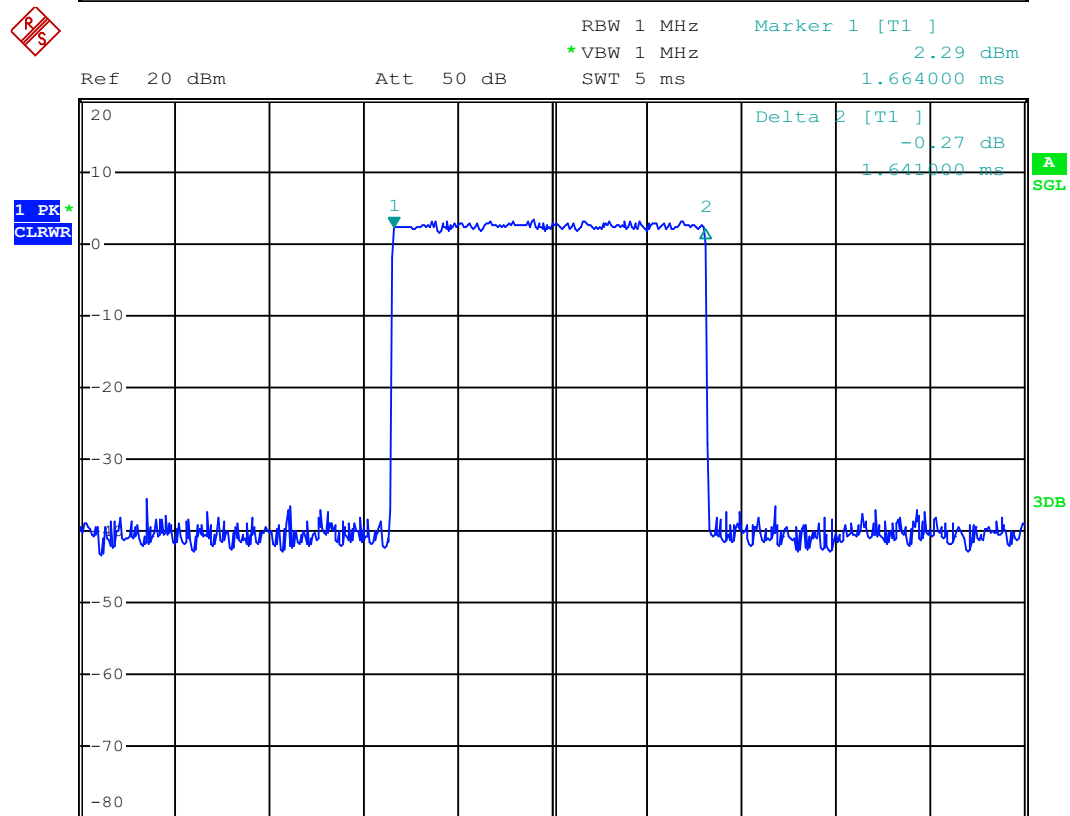
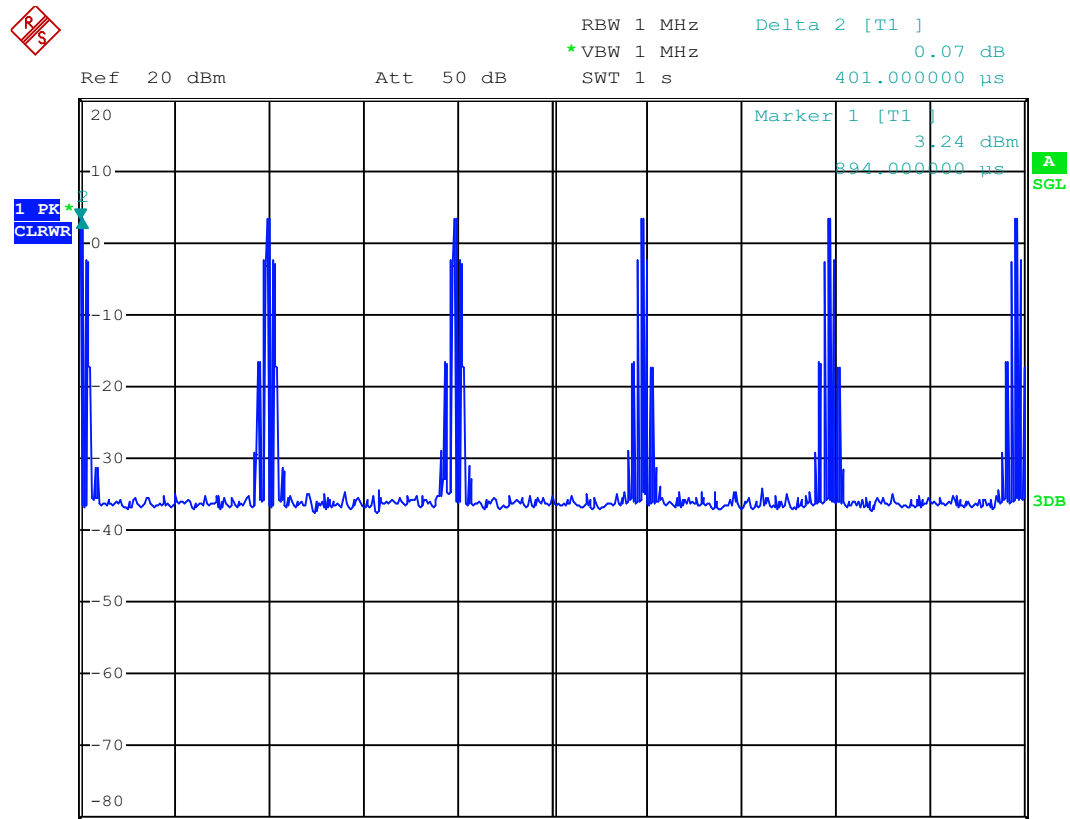
DH5: $4\text{hop}/1\text{s} \times 0.4 \times 79 \times 2.90\text{ms} = 366.56\text{ms}$



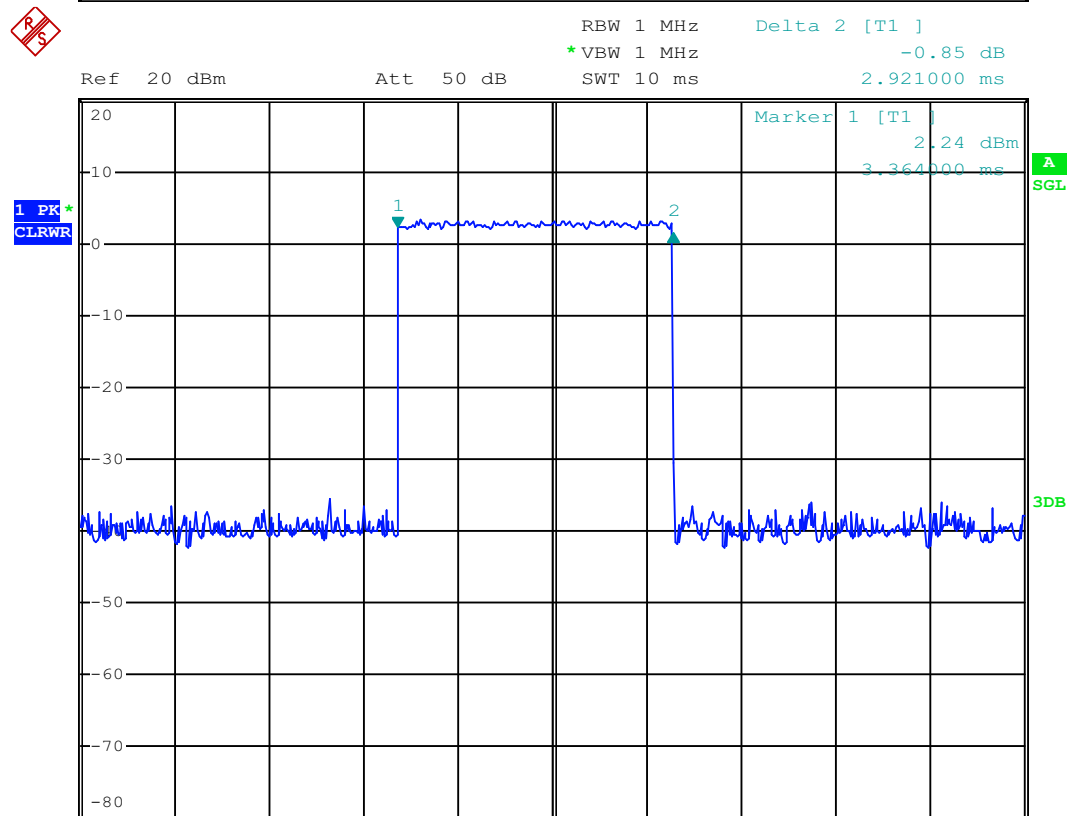
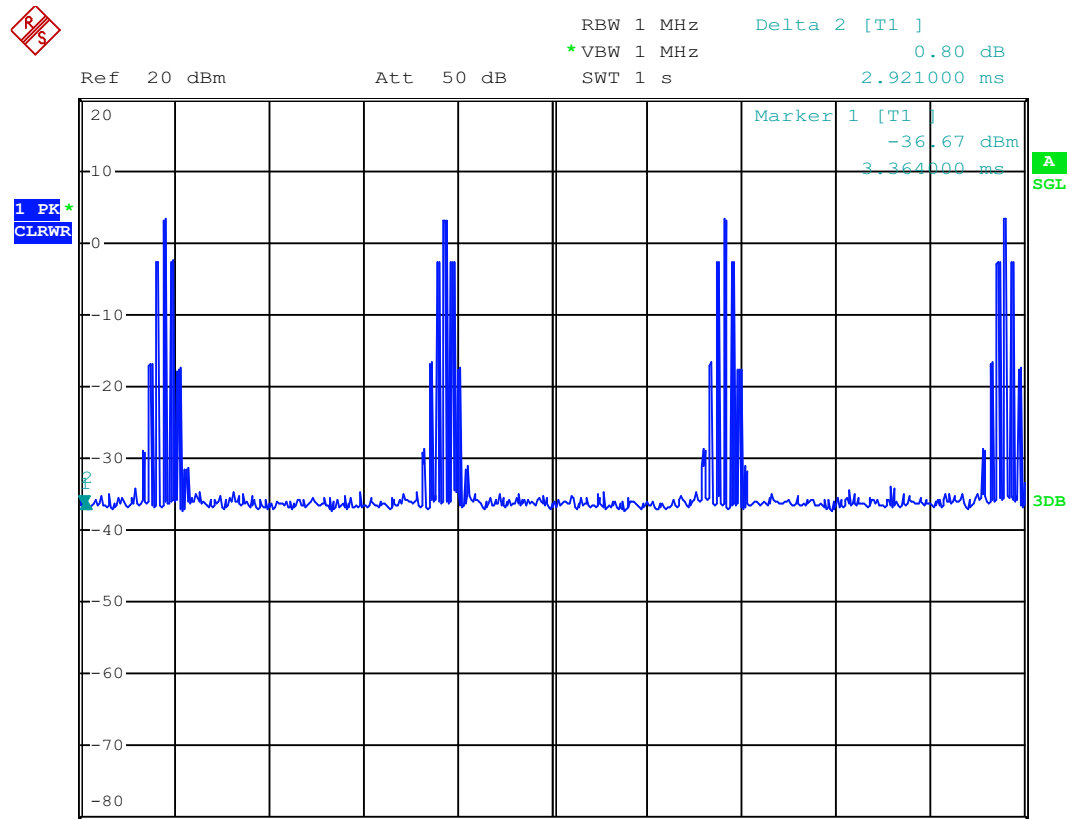
3-DH1: $11\text{hop}/1\text{s} \times 0.4 \times 79 \times 0.410\text{ms} = 142.52\text{ms}$



3-DH3: $6\text{hop}/1\text{s} \times 0.4 \times 79 \times 1.64\text{ms} = 310.94\text{ms}$



3-DH5: $4\text{hop}/1\text{s} \times 0.4 \times 79 \times 2.92 = 369.09\text{ms}$



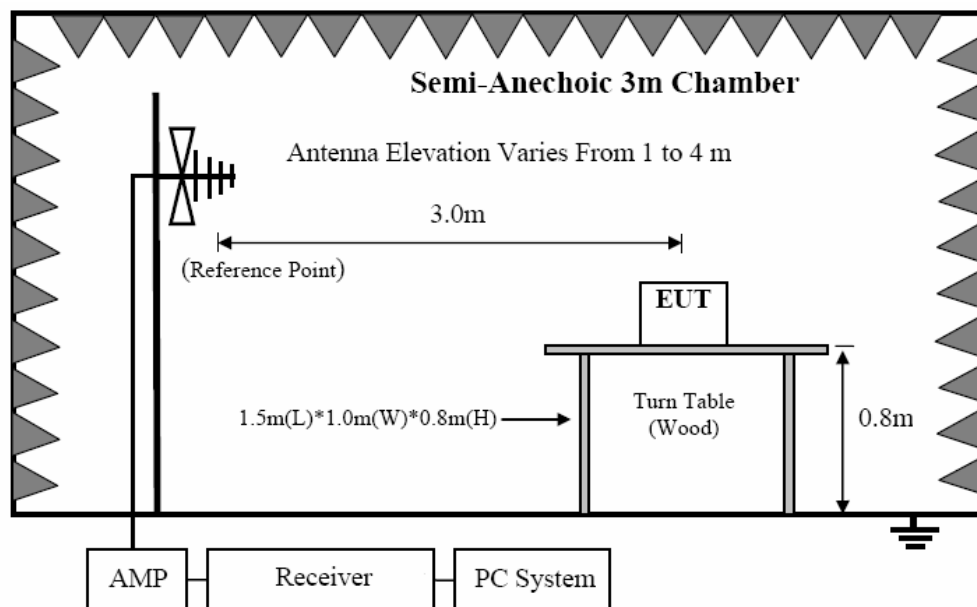
8. Radiated emission

8.1. Test equipment

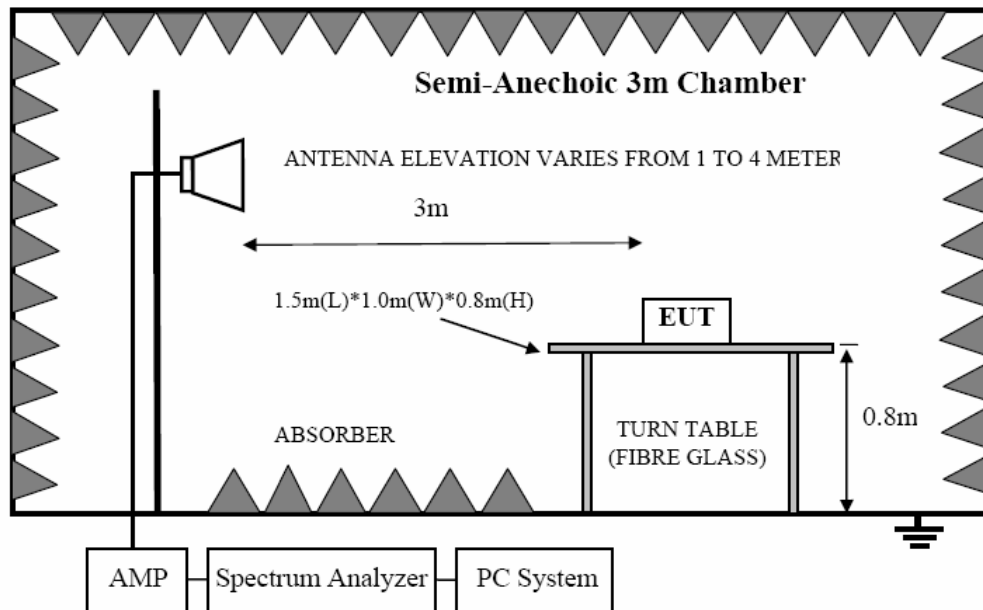
| Item | Equipment | Manufacturer | Model No. | Serial No. | Last Cal. | Cal. Interval |
|------|----------------------------|--------------|------------|--------------|------------|---------------|
| 1 | EMI Test Receiver | R&S | ESU8 | 100316 | 2012/11/26 | 1 Year |
| 2 | Spectrum analyzer | R&S | FSU | 1166.1660.26 | 2012/11/26 | 1 Year |
| 3 | Loop antenna | TESEQ | HLA6120 | 20129 | 2012/11/26 | 1 Year |
| 4 | Trilog Broadband Antenna | Schwarzbeck | VULB9163 | 9163-462 | 2012/11/26 | 1 Year |
| 5 | Double Ridged Horn Antenna | R&S | HF907 | 100276 | 2012/11/26 | 1 Year |
| 6 | Horn Antenna | EMCO | 3116 | 00060095 | 2012/11/26 | 1 Year |
| 7 | Pre-Amplifier | R&S | SCU-01 | 10049 | 2012/11/26 | 1 Year |
| 8 | Pre-amplifier | A.H. | PAM0-0118 | 360 | 2012/11/26 | 1 Year |
| 9 | Pre-amplifier | A.H. | PAM-1840VH | 562 | 2012/11/26 | 1 Year |
| 10 | RF Cable | R&S | R01 | 10403 | 2012/11/26 | 1 Year |
| 11 | RF Cable | R&S | R02 | 10512 | 2012/11/26 | 1 Year |

8.2. Block diagram of test setup

In 3m Anechoic Chamber Test Setup Diagram for below 1GHz



In 3m Anechoic Chamber Test Setup Diagram for frequency above 1GHz



Note: For harmonic emissions test a appropriate high pass filter was inserted in the input port of AMP.

8.3. Limit

8.3.1 FCC 15.205 Restricted frequency band

| MHz | MHz | MHz | GHz |
|----------------------------|-----------------------|-----------------|------------------|
| 0.090 - 0.110 | 16.42 - 16.423 | 399.9 - 410 | 4.5 - 5.15 |
| ¹ 0.495 - 0.505 | 16.69475 - 16.69525 | 608 - 614 | 5.35 - 5.46 |
| 2.1735 - 2.1905 | 16.80425 - 16.80475 | 960 - 1240 | 7.25 - 7.75 |
| 4.125 - 4.128 | 25.5 - 25.67 | 1300 - 1427 | 8.025 - 8.5 |
| 4.17725 - 4.17775 | 37.5 - 38.25 | 1435 - 1626.5 | 9.0 - 9.2 |
| 4.20725 - 4.20775 | 73 - 74.6 | 1645.5 - 1646.5 | 9.3 - 9.5 |
| 6.215 - 6.218 | 74.8 - 75.2 | 1660 - 1710 | 10.6 - 12.7 |
| 6.26775 - 6.26825 | 108 - 121.94 | 1718.8 - 1722.2 | 13.25 - 13.4 |
| 6.31175 - 6.31225 | 123 - 138 | 2200 - 2300 | 14.47 - 14.5 |
| 8.291 - 8.294 | 149.9 - 150.05 | 2310 - 2390 | 15.35 - 16.2 |
| 8.362 - 8.366 | 156.52475 - 156.52525 | 2483.5 - 2500 | 17.7 - 21.4 |
| 8.37625 - 8.38675 | 156.7 - 156.9 | 2690 - 2900 | 22.01 - 23.12 |
| 8.41425 - 8.41475 | 162.0125 - 167.17 | 3260 - 3267 | 23.6 - 24.0 |
| 12.29 - 12.293 | 167.72 - 173.2 | 3332 - 3339 | 31.2 - 31.8 |
| 12.51975 - 12.52025 | 240 - 285 | 3345.8 - 3358 | 36.43 - 36.5 |
| 12.57675 - 12.57725 | 322 - 335.4 | 3600 - 4400 | (²) |

8.3.2 FCC 15.209 Limit.

| FREQUENCY MHz | DISTANCE Meters | FIELD STRENGTHS LIMIT | |
|------------------|--------------------|---|----------|
| | | μV/m | dB(μV)/m |
| 30 ~ 88 | 3 | 100 | 40.0 |
| 88 ~ 216 | 3 | 150 | 43.5 |
| 216 ~ 960 | 3 | 200 | 46.0 |
| 960 ~ 1000 | 3 | 500 | 54.0 |
| Above 1000 | 3 | 74.0 dB(μV)/m (Peak) 54.0 dB(μV)/m (Average) | |

8.3.3 Limit for this EUT

All the emissions appearing within 15.205 restricted frequency bands shall not exceed the limits shown in 15.209, all the other emissions shall be at least 20dB below the fundamental emissions, or comply with 15.209 limits.

8.4. Test Procedure

- (1) EUT was placed on a non-metallic table, 80 cm above the ground plane inside a semi-anechoic chamber.
- (2) Setup EUT and assistant system according clause 2.4 and 8.2
- (3) Test antenna was located 3m from the EUT on an adjustable mast. Below pre-scan procedure was first performed in order to find prominent radiated emissions.
 - (a) Change work frequency or channel of device if practicable.
 - (b) Change modulation type of device if practicable.
 - (c) Change power supply range from 85% to 115% of the rated supply voltage
 - (d) Rotated EUT though three orthogonal axes to determine the attitude of EUT arrangement produces highest emissions
- (4) Spectrum frequency from 9KHz to 25GHz (tenth harmonic of fundamental frequency) was investigated, and no any obvious emission were detected from 9KHz to 30MHz and 18GHz to 25GHz, so below final test was performed with frequency range from 30MHz to 18GHz.
- (5) For final emissions measurements at each frequency of interest, the EUT were rotated and the antenna height was varied between 1m and 4m in order to maximize the emission. Measurements in both horizontal and vertical polarities were made and the data was recorded. In order to find the maximum emission, the relative positions of equipments and all of the interface cables were changed according to ANSI C63.10 2009 on Radiated Emission test.
- (6) For emissions from 30MHz to 1GHz, Quasi-Peak values were measured with EMI Receiver and the bandwidth of Receiver is 120 KHz.
- (7) For emissions above 1GHz, both Peak and Average level were measured with Spectrum Analyzer, and the RBW is set at 1MHz, VBW is set at 3MHz for Peak measure; RBW is set at 1MHz, VBW is set at 10Hz for Average measure.
- (8) For emissions below 1GHz, according explorer test, when change Tx mode and channel, have no distinct influence on emissions level, so for emissions below 1GHz, the final test was only performed with EUT working in GFSK, Tx 2441MHz mode.

8.5. Test result

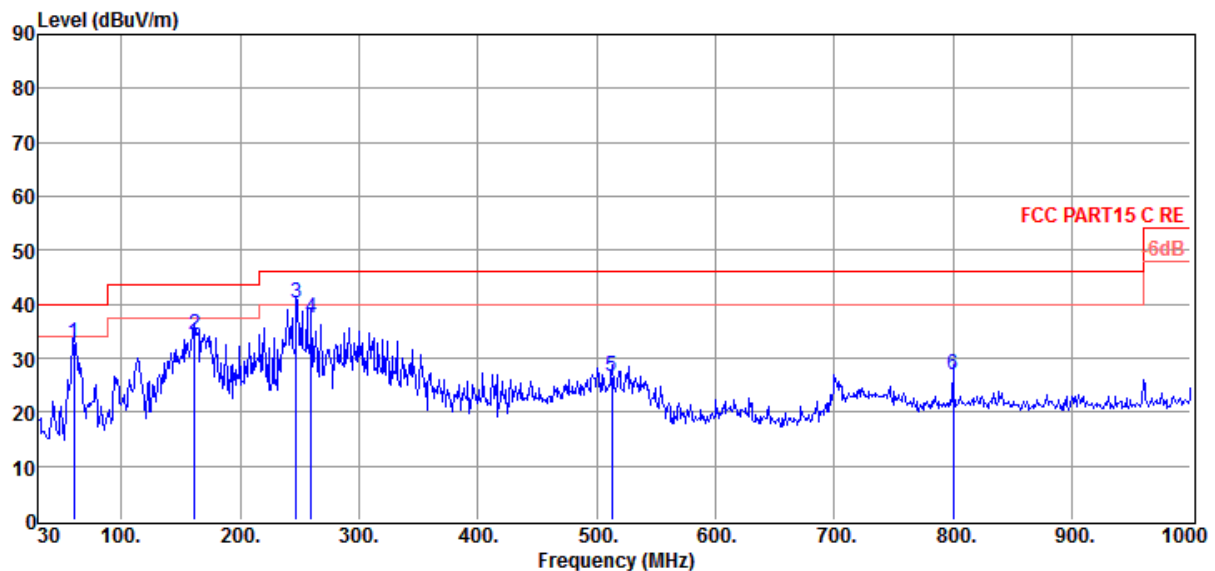
PASS. (See below detailed test result)

All the emissions except fundamental emission from 9KHz to 25GHz were comply with 15.209 limit.

Radiated Emission Test Result

| | | |
|---------------------|---|---|
| Test Site | : DDT 3m Chamber | E:\2013 Report data\13QE0013\13QE0013RE.EM6 |
| Test Date | : 03-23-2013 | Tested By : Leo |
| EUT | : Clipster | Model Number : ISP29 |
| Power Supply | : DC 5V From PC input AC 120V/60Hz | Test Mode : Tx mode |
| Condition | : Temp:24.5°C,Humi:55%,Press:100 .1kPa | Antenna/Distance : VULB 9163/3m/HORIZONTAL |
| Memo | : | |

Data : 1



| Item (Mark) | Freq (MHz) | Read Level (dBμV) | Antenna Factor (dB/m) | PRM Factor dB | Cable Loss dB | Result Level (dBμV/m) | Limit Line (dBμV/m) | Over Limit (dB) | Detector | Polarization |
|----------------|---------------|-------------------------|-----------------------------|---------------------|---------------------|-----------------------------|---------------------------|-----------------------|----------|--------------|
| 1 | 60.07 | 57.09 | 12.69 | 38.03 | 0.90 | 32.65 | 40.00 | -7.35 | QP | HORIZONTAL |
| 2 | 161.92 | 65.71 | 8.67 | 41.49 | 1.59 | 34.48 | 43.50 | -9.02 | QP | HORIZONTAL |
| 3 | 247.28 | 68.57 | 12.07 | 42.23 | 1.94 | 40.35 | 46.00 | -5.65 | QP | HORIZONTAL |
| 4 | 259.89 | 65.43 | 12.05 | 42.23 | 2.06 | 37.31 | 46.00 | -8.69 | QP | HORIZONTAL |
| 5 | 513.06 | 49.91 | 16.87 | 43.10 | 2.98 | 26.66 | 46.00 | -19.34 | QP | HORIZONTAL |
| 6 | 800.18 | 46.00 | 20.06 | 43.14 | 3.88 | 26.80 | 46.00 | -19.20 | QP | HORIZONTAL |

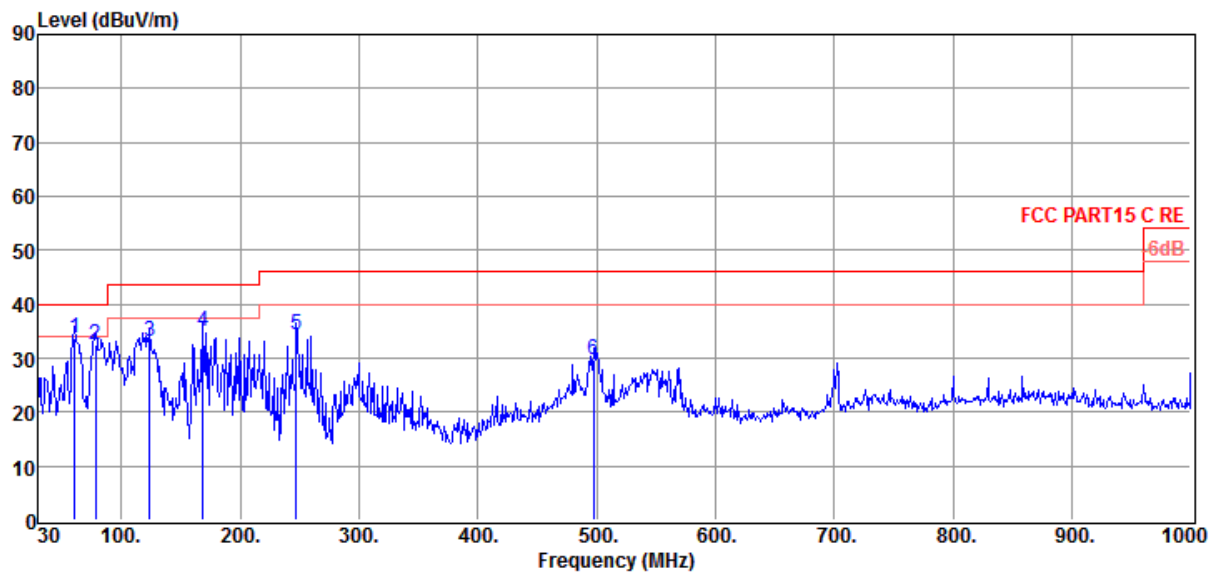
Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor

2. If Peak Result comply with QP limit,QP Result is deemed to comply with QP limit

Radiated Emission Test Result

Test Site : DDT 3m Chamber **E:\2013 Report data\13QE0013\13QE0013RE.EM6**
Test Date : 03-23-2013 **Tested By** : Leo
EUT : Clipster **Model Number** : ISP29
Power Supply : DC 5V From PC input AC **Test Mode** : Tx mode
 : 120V/60Hz
Condition : Temp:24.5°C,Humi:55%,Press:100 **Antenna/Distance** : VULB 9163/3m/VERTICAL
 : .1kPa
Memo :

Data : 2



| Item (Mark) | Freq (MHz) | Read Level (dBμV) | Antenna Factor (dB/m) | PRM Factor dB | Cable Loss dB | Result Level (dBμV/m) | Limit Line (dBμV/m) | Over Limit (dB) | Detector | Polarization |
|----------------|---------------|-------------------------|-----------------------------|---------------------|---------------------|-----------------------------|---------------------------|-----------------------|----------|--------------|
| 1 | 61.04 | 58.17 | 12.69 | 38.03 | 0.91 | 33.74 | 40.00 | -6.26 | QP | VERTICAL |
| 2 | 78.50 | 61.75 | 7.80 | 38.03 | 1.05 | 32.57 | 40.00 | -7.43 | QP | VERTICAL |
| 3 | 124.09 | 63.10 | 9.70 | 40.91 | 1.27 | 33.16 | 43.50 | -10.34 | QP | VERTICAL |
| 4 | 168.71 | 65.75 | 8.97 | 41.49 | 1.64 | 34.87 | 43.50 | -8.63 | QP | VERTICAL |
| 5 | 247.28 | 62.69 | 12.07 | 42.23 | 1.94 | 34.47 | 46.00 | -11.53 | QP | VERTICAL |
| 6 | 497.54 | 53.35 | 16.58 | 43.10 | 2.96 | 29.79 | 46.00 | -16.21 | QP | VERTICAL |

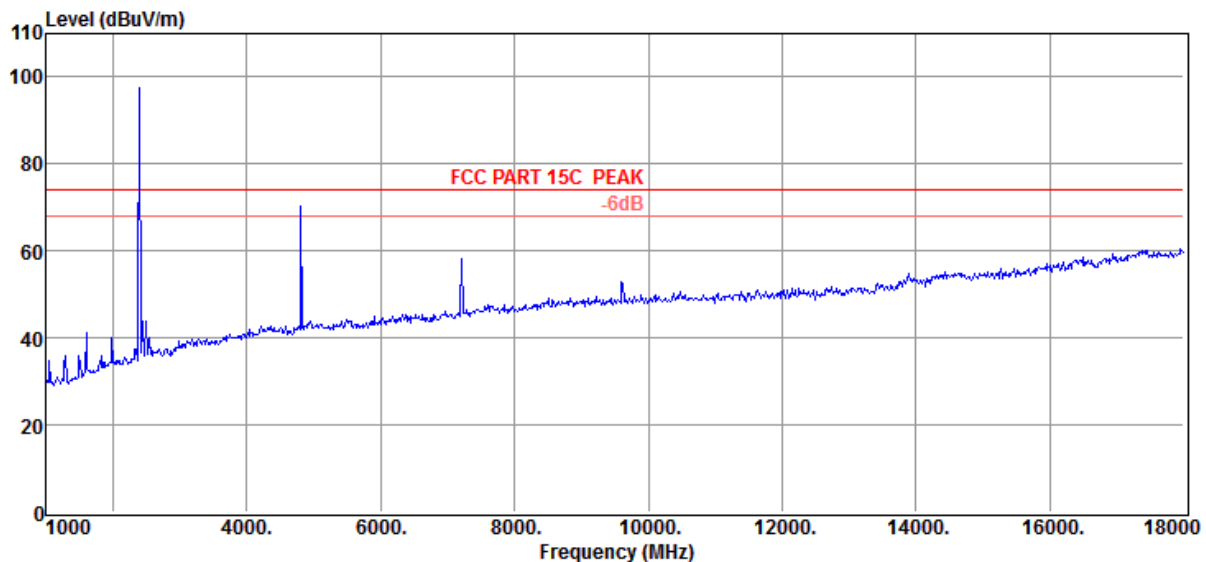
Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor

2. If Peak Result comply with QP limit,QP Result is deemed to comply with QP limit

Radiated Emission Test Result

Test Site : DDT 3m Chamber **E:\2013 Report data\13QE0013\13QE0013RE-RF.EM6**
Test Date : 03-23-2013 **Tested By** : Leo
EUT : Clipster **Model Number** : ISP29
Power Supply : DC 5V From PC input AC **Test Mode** : Tx Mode GFSK CH0
 120V/60Hz
Condition : Temp:24.5°C,Humi:55%,Press:100.1 kPa **Antenna/Distance** : HF907 SN100276/3m/VERTICAL
Memo :

Data : 1



| Item | Freq | Read Level | Antenna Factor | PRM Factor | Cable Loss | Result Level | Limit Line | Over Limit | Detector | Polarization |
|--------|-------|------------|----------------|------------|------------|--------------|------------|------------|----------|--------------|
| (Mark) | (MHz) | (dBμV) | (dB/m) | dB | dB | (dBμV/m) | (dBμV/m) | (dB) | | |

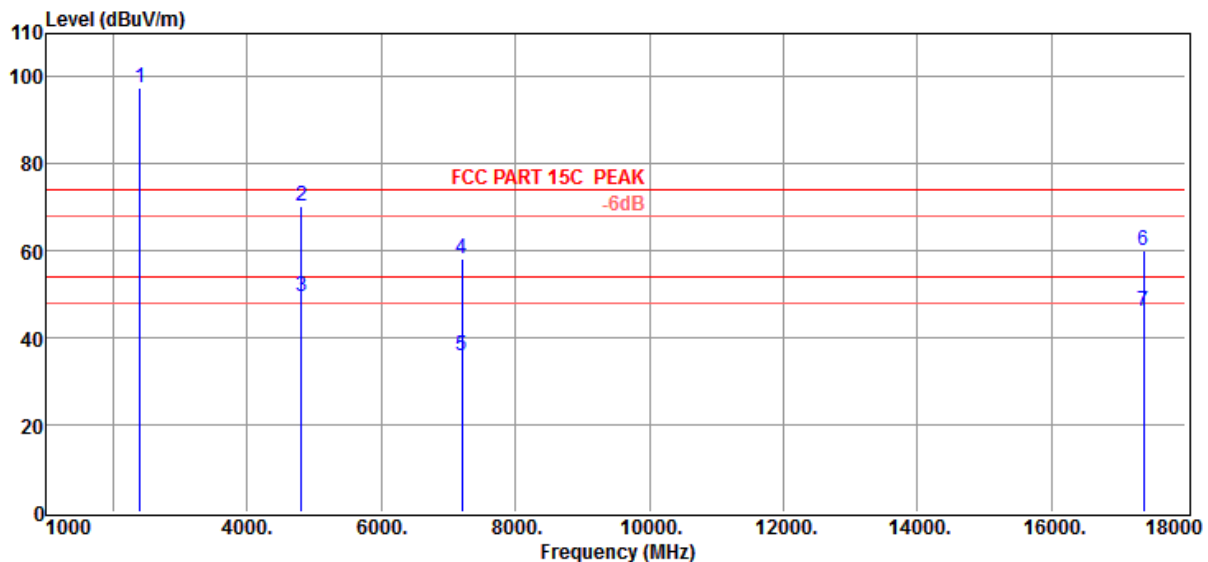
Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor

2. If Peak Result comply with AV limit, AV Result is deemed to comply with AV limit

Radiated Emission Test Result

Test Site : DDT 3m Chamber **E:** \2013 Report data\13QE0013\13QE0013RE-RF.EM6
Test Date : 03-23-2013 **Tested By** : Leo
EUT : Clipster **Model Number** : ISP29
Power Supply : DC 5V From PC input AC **Test Mode** : Tx Mode GFSK CH0
 : 120V/60Hz
Condition : Temp:24.5°C,Humi:55%,Press:100.1 kPa **Antenna/Distance** : HF907 SN100276/3m/VERTICAL
Memo :

Data : 2



| Item (Mark) | Freq (MHz) | Read Level (dBμV) | Antenna Factor (dB/m) | PRM Factor dB | Cable Loss dB | Result Level (dBμV/m) | Limit Line (dBμV/m) | Over Limit (dB) | Detector | Polarization |
|----------------|---------------|-------------------------|-----------------------------|---------------------|---------------------|-----------------------------|---------------------------|-----------------------|----------|--------------|
| 1 | 2402.00 | 105.55 | 28.93 | 43.49 | 6.47 | 97.46 | 74.00 | 23.46 | Peak | VERTICAL |
| 2 | 4804.00 | 71.22 | 34.01 | 44.06 | 9.32 | 70.49 | 74.00 | -3.51 | Peak | VERTICAL |
| 3 | 4804.00 | 50.24 | 34.01 | 44.06 | 9.32 | 49.51 | 54.00 | -4.49 | Average | VERTICAL |
| 4 | 7206.00 | 54.55 | 35.72 | 43.62 | 11.48 | 58.13 | 74.00 | -15.87 | Peak | VERTICAL |
| 5 | 7206.00 | 32.16 | 35.72 | 43.62 | 11.48 | 35.74 | 54.00 | -18.26 | Average | VERTICAL |
| 6 | 17371.00 | 38.89 | 43.16 | 40.91 | 18.89 | 60.03 | 74.00 | -13.97 | Peak | VERTICAL |
| 7 | 17371.00 | 24.93 | 43.16 | 40.91 | 18.89 | 46.07 | 54.00 | -7.93 | Average | VERTICAL |

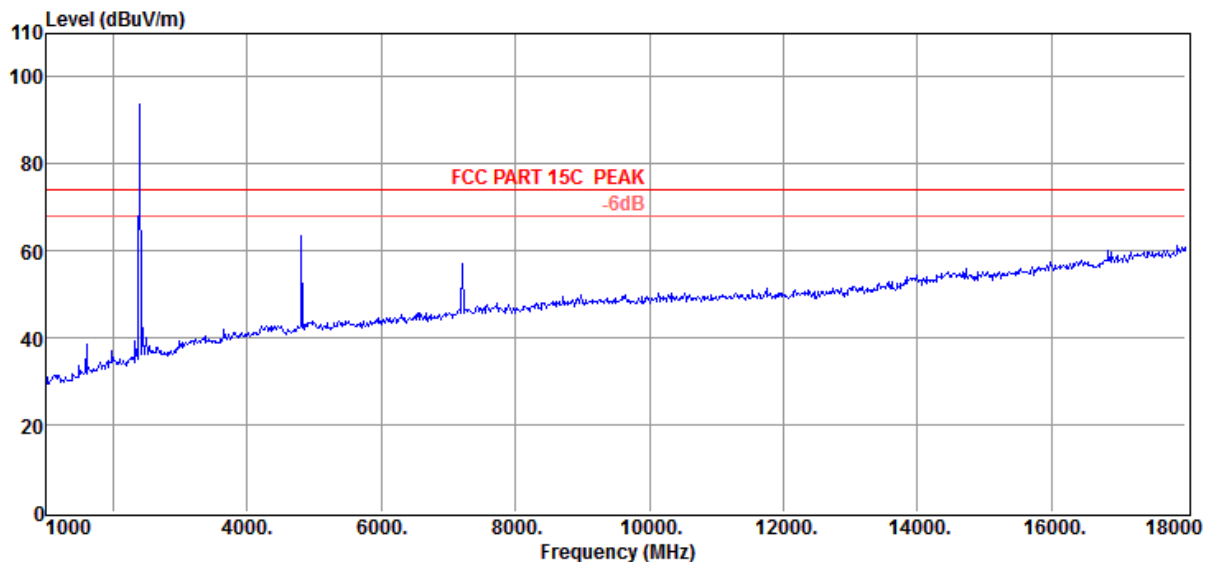
Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor

2. If Peak Result comply with AV limit, AV Result is deemed to comply with AV limit

Radiated Emission Test Result

Test Site : DDT 3m Chamber **E:\2013 Report data\13QE0013\13QE0013RE-RF.EM6**
Test Date : 03-23-2013 **Tested By** : Leo
EUT : Clipster **Model Number** : ISP29
Power Supply : DC 5V From PC input AC **Test Mode** : Tx Mode GFSK CH0
 120V/60Hz
Condition : Temp:24.5°C,Humi:55%,Press:100.1 kPa **Antenna/Distance** : HF907 SN100276/3m/HORIZONTAL
Memo :

Data : 3



| Item | Freq | Read Level | Antenna Factor | PRM Factor | Cable Loss | Result Level | Limit Line | Over Limit | Detector | Polarization |
|--------|-------|------------|----------------|------------|------------|--------------|------------|------------|----------|--------------|
| (Mark) | (MHz) | (dBμV) | (dB/m) | dB | dB | (dBμV/m) | (dBμV/m) | (dB) | | |

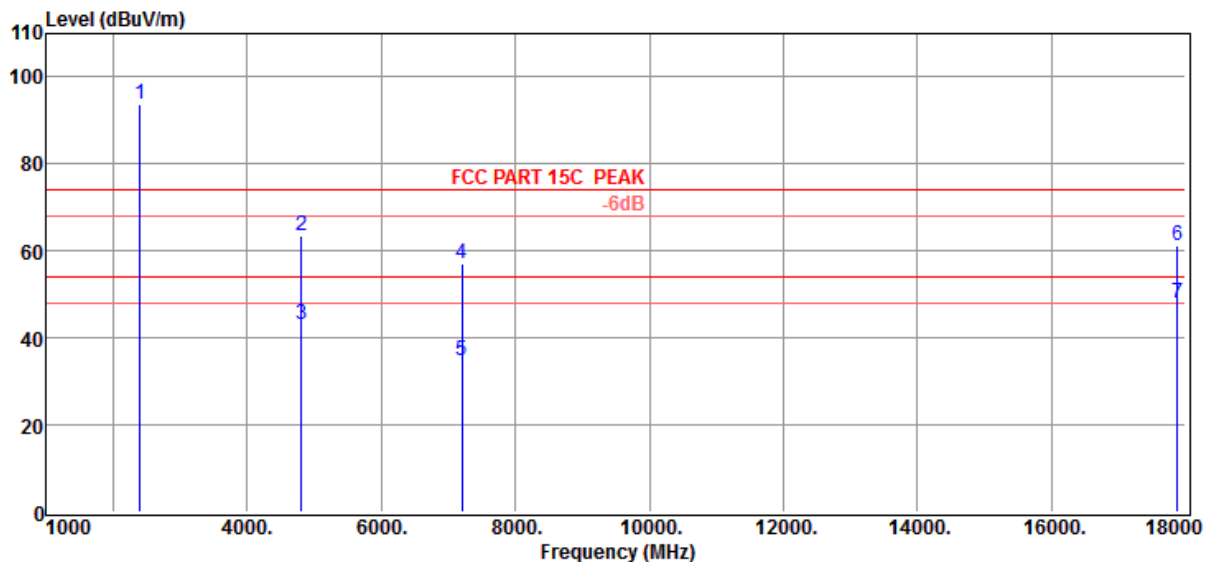
Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor

2. If Peak Result comply with AV limit, AV Result is deemed to comply with AV limit

Radiated Emission Test Result

Test Site : DDT 3m Chamber **E:** \2013 Report data\13QE0013\13QE0013RE-RF.EM6
Test Date : 03-23-2013 **Tested By** : Leo
EUT : Clipster **Model Number** : ISP29
Power Supply : DC 5V From PC input AC **Test Mode** : Tx Mode GFSK CH0
 : 120V/60Hz
Condition : Temp:24.5°C,Humi:55%,Press:100.1 kPa **Antenna/Distance** : HF907 SN100276/3m/HORIZONTAL
Memo :

Data : 4



| Item (Mark) | Freq (MHz) | Read Level (dBμV) | Antenna Factor (dB/m) | PRM Factor dB | Cable Loss dB | Result Level (dBμV/m) | Limit Line (dBμV/m) | Over Limit (dB) | Detector | Polarization |
|----------------|---------------|-------------------------|-----------------------------|---------------------|---------------------|-----------------------------|---------------------------|-----------------------|----------|--------------|
| 1 | 2402.00 | 101.97 | 28.93 | 43.49 | 6.47 | 93.88 | 74.00 | 19.88 | Peak | HORIZONTAL |
| 2 | 4804.00 | 64.37 | 34.01 | 44.06 | 9.32 | 63.64 | 74.00 | -10.36 | Peak | HORIZONTAL |
| 3 | 4804.00 | 43.66 | 34.01 | 44.06 | 9.32 | 42.93 | 54.00 | -11.07 | Average | HORIZONTAL |
| 4 | 7206.00 | 53.45 | 35.72 | 43.62 | 11.48 | 57.03 | 74.00 | -16.97 | Peak | HORIZONTAL |
| 5 | 7206.00 | 31.23 | 35.72 | 43.62 | 11.48 | 34.81 | 54.00 | -19.19 | Average | HORIZONTAL |
| 6 | 17881.00 | 39.72 | 43.97 | 41.63 | 19.04 | 61.10 | 74.00 | -12.90 | Peak | HORIZONTAL |
| 7 | 17881.00 | 26.49 | 43.97 | 41.63 | 19.04 | 47.87 | 54.00 | -6.13 | Average | HORIZONTAL |

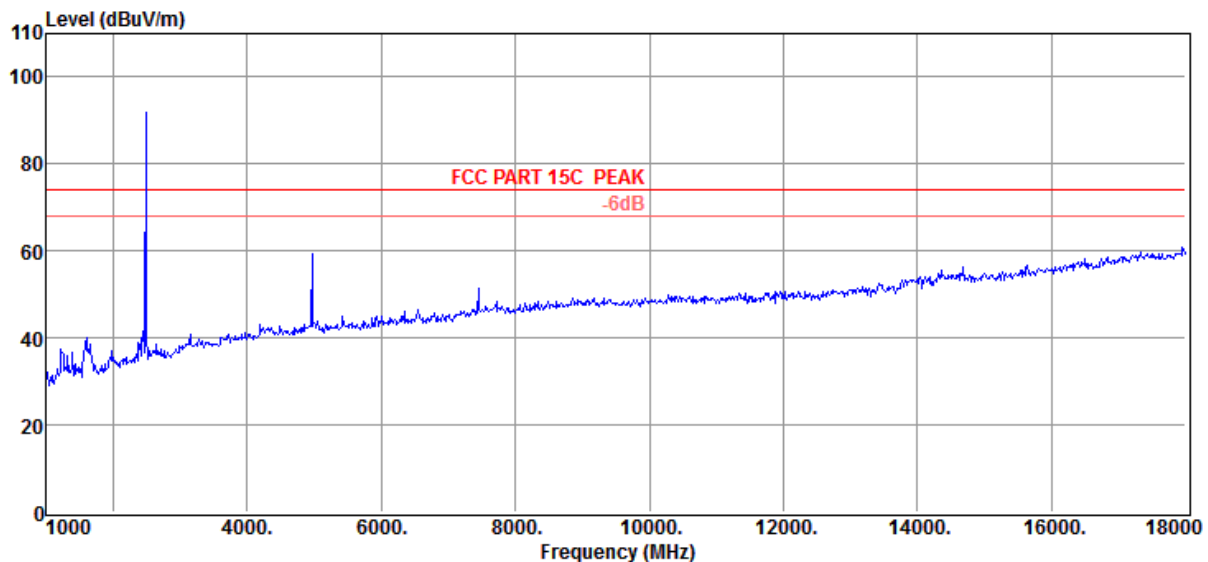
Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor

2. If Peak Result comply with AV limit, AV Result is deemed to comply with AV limit

Radiated Emission Test Result

| | | |
|---------------------|---|--|
| Test Site | : DDT 3m Chamber | E:\2013 Report data\13QE0013\13QE0013RE-RF.EM6 |
| Test Date | : 03-23-2013 | Tested By : Leo |
| EUT | : Clipster | Model Number : ISP29 |
| Power Supply | : DC 5V From PC input AC 120V/60Hz | Test Mode : Tx Mode GFSK CH78 |
| Condition | : Temp:24.5°C,Humi:55%,Press:100.1 kPa | Antenna/Distance : HF907 SN100276/3m/HORIZONTAL |
| Memo | : | |

Data : 9



| Item | Freq | Read Level | Antenna Factor | PRM Factor | Cable Loss | Result Level | Limit Line | Over Limit | Detector | Polarization |
|--------|-------|------------|----------------|------------|------------|--------------|------------|------------|----------|--------------|
| (Mark) | (MHz) | (dBμV) | (dB/m) | dB | dB | (dBμV/m) | (dBμV/m) | (dB) | | |

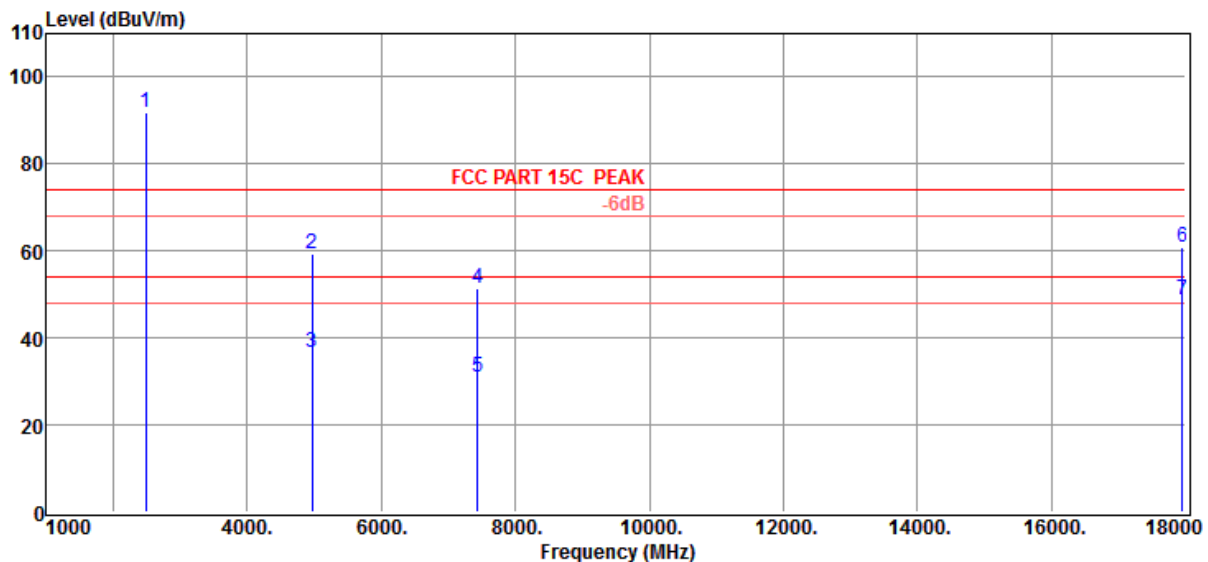
Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor

2. If Peak Result comply with AV limit, AV Result is deemed to comply with AV limit

Radiated Emission Test Result

Test Site : DDT 3m Chamber **E:\2013 Report data\13QE0013\13QE0013RE-RF.EM6**
Test Date : 03-23-2013 **Tested By** : Leo
EUT : Clipster **Model Number** : ISP29
Power Supply : DC 5V From PC input AC **Test Mode** : Tx Mode GFSK CH78
 120V/60Hz
Condition : Temp:24.5'C,Humi:55%,Press:100.1 kPa **Antenna/Distance** : HF907 SN100276/3m/HORIZONTAL
Memo :

Data : 10



| Item (Mark) | Freq (MHz) | Read Level (dBμV) | Antenna Factor (dB/m) | PRM Factor dB | Cable Loss dB | Result Level (dBμV/m) | Limit Line (dBμV/m) | Over Limit (dB) | Detector | Polarization |
|----------------|---------------|-------------------------|-----------------------------|---------------------|---------------------|-----------------------------|---------------------------|-----------------------|----------|--------------|
| 1 | 2480.00 | 99.57 | 29.18 | 43.50 | 6.57 | 91.82 | 74.00 | 17.82 | Peak | HORIZONTAL |
| 2 | 4960.00 | 59.40 | 34.34 | 44.01 | 9.48 | 59.21 | 74.00 | -14.79 | Peak | HORIZONTAL |
| 3 | 4960.00 | 36.80 | 34.34 | 44.01 | 9.48 | 36.61 | 54.00 | -17.39 | Average | HORIZONTAL |
| 4 | 7440.00 | 46.90 | 35.84 | 43.07 | 11.70 | 51.37 | 74.00 | -22.63 | Peak | HORIZONTAL |
| 5 | 7440.00 | 26.35 | 35.84 | 43.07 | 11.70 | 30.82 | 54.00 | -23.18 | Average | HORIZONTAL |
| 6 | 17949.00 | 39.15 | 44.21 | 41.72 | 19.06 | 60.70 | 74.00 | -13.30 | Peak | HORIZONTAL |
| 7 | 17949.00 | 27.36 | 44.21 | 41.72 | 19.06 | 48.91 | 54.00 | -5.09 | Average | HORIZONTAL |

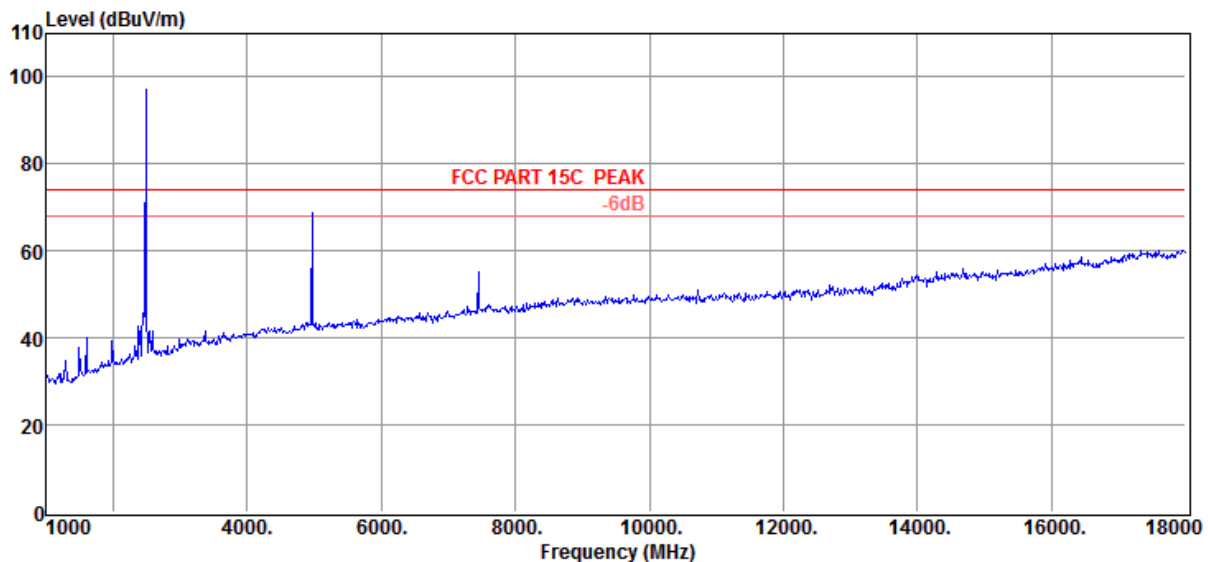
Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor

2. If Peak Result comply with AV limit, AV Result is deemed to comply with AV limit

Radiated Emission Test Result

Test Site : DDT 3m Chamber **E:\2013 Report data\13QE0013\13QE0013RE-RF.EM6**
Test Date : 03-23-2013 **Tested By** : Leo
EUT : Clipster **Model Number** : ISP29
Power Supply : DC 5V From PC input AC **Test Mode** : Tx Mode GFSK CH78
 120V/60Hz
Condition : Temp:24.5°C,Humi:55%,Press:100.1 kPa **Antenna/Distance** : HF907 SN100276/3m/VERTICAL
Memo :

Data : 11



| Item | Freq | Read Level | Antenna Factor | PRM Factor | Cable Loss | Result Level | Limit Line | Over Limit | Detector | Polarization |
|--------|-------|------------|----------------|------------|------------|--------------|------------|------------|----------|--------------|
| (Mark) | (MHz) | (dBμV) | (dB/m) | dB | dB | (dBμV/m) | (dBμV/m) | (dB) | | |

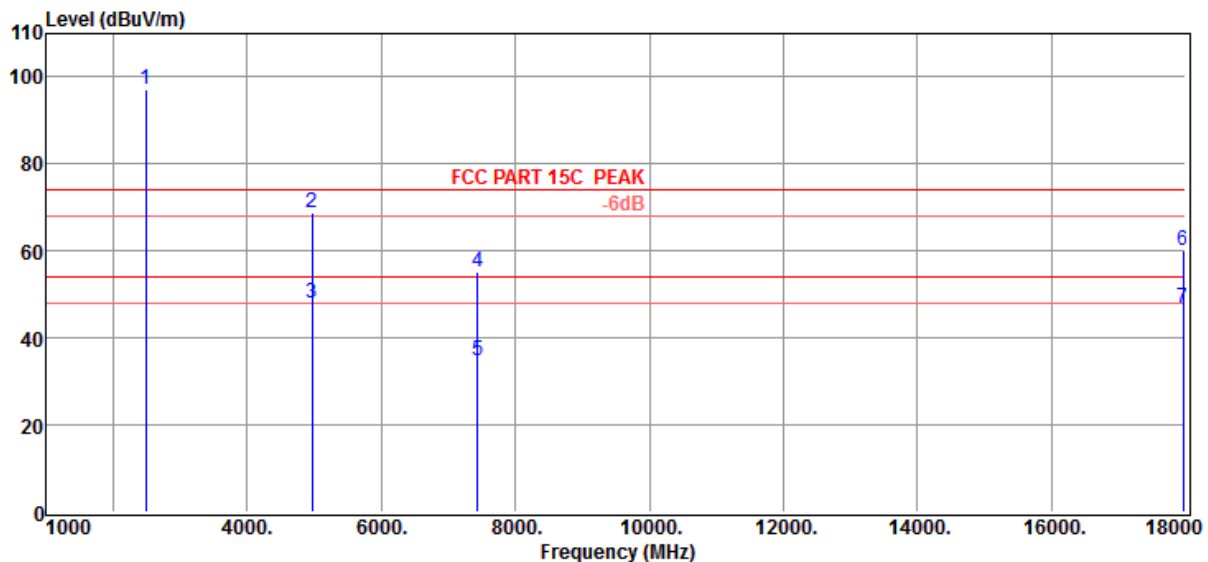
Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor

2. If Peak Result comply with AV limit, AV Result is deemed to comply with AV limit

Radiated Emission Test Result

Test Site : DDT 3m Chamber **E:\2013 Report data\13QE0013\13QE0013RE-RF.EM6**
Test Date : 03-23-2013 **Tested By** : Leo
EUT : Clipster **Model Number** : ISP29
Power Supply : DC 5V From PC input AC **Test Mode** : Tx Mode GFSK CH78
 120V/60Hz
Condition : Temp:24.5°C,Humi:55%,Press:100.1 kPa **Antenna/Distance** : HF907 SN100276/3m/VERTICAL
Memo :

Data : 12



| Item (Mark) | Freq (MHz) | Read Level (dBμV) | Antenna Factor (dB/m) | PRM Factor dB | Cable Loss dB | Result Level (dBμV/m) | Limit Line (dBμV/m) | Over Limit (dB) | Detector | Polarization |
|----------------|---------------|-------------------------|-----------------------------|---------------------|---------------------|-----------------------------|---------------------------|-----------------------|----------|--------------|
| 1 | 2480.00 | 104.71 | 29.18 | 43.50 | 6.57 | 96.96 | 74.00 | 22.96 | Peak | VERTICAL |
| 2 | 4960.00 | 68.86 | 34.34 | 44.01 | 9.48 | 68.67 | 74.00 | -5.33 | Peak | VERTICAL |
| 3 | 4960.00 | 48.23 | 34.34 | 44.01 | 9.48 | 48.04 | 54.00 | -5.96 | Average | VERTICAL |
| 4 | 7440.00 | 50.53 | 35.84 | 43.07 | 11.70 | 55.00 | 74.00 | -19.00 | Peak | VERTICAL |
| 5 | 7440.00 | 30.23 | 35.84 | 43.07 | 11.70 | 34.70 | 54.00 | -19.30 | Average | VERTICAL |
| 6 | 17966.00 | 38.76 | 44.27 | 41.80 | 19.06 | 60.29 | 74.00 | -13.71 | Peak | VERTICAL |
| 7 | 17966.00 | 25.33 | 44.27 | 41.80 | 19.06 | 46.86 | 54.00 | -7.14 | Average | VERTICAL |

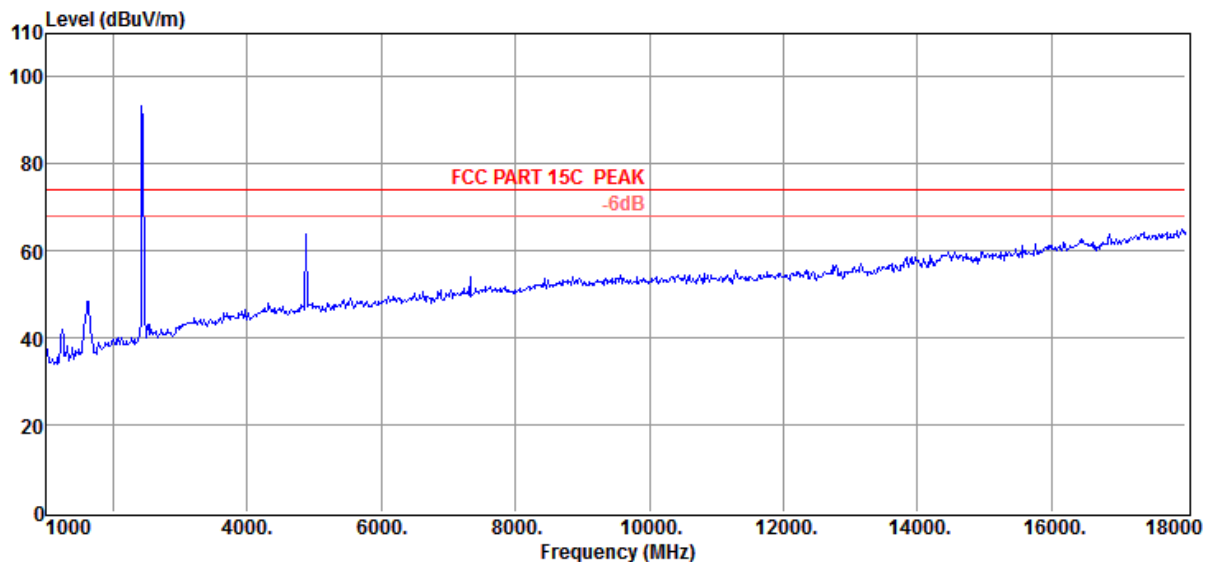
Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor

2. If Peak Result comply with AV limit, AV Result is deemed to comply with AV limit

Radiated Emission Test Result

Test Site : DDT 3m Chamber **E:\2013 Report data\13QE0013\13QE0013RE-RF.EM6**
Test Date : 03-23-2013 **Tested By** : Leo
EUT : Clipster **Model Number** : ISP29
Power Supply : DC 5V From PC input AC **Test Mode** : Tx Mode GFSK CH39
 120V/60Hz
Condition : Temp:24.5°C,Humi:55%,Press:100.1 kPa **Antenna/Distance** : HF907 SN100276/3m/HORIZONTAL
Memo :

Data : 13



| Item | Freq | Read Level | Antenna Factor | PRM Factor | Cable Loss | Result Level | Limit Line | Over Limit | Detector | Polarization |
|--------|-------|------------|----------------|------------|------------|--------------|------------|------------|----------|--------------|
| (Mark) | (MHz) | (dBμV) | (dB/m) | dB | dB | (dBμV/m) | (dBμV/m) | (dB) | | |

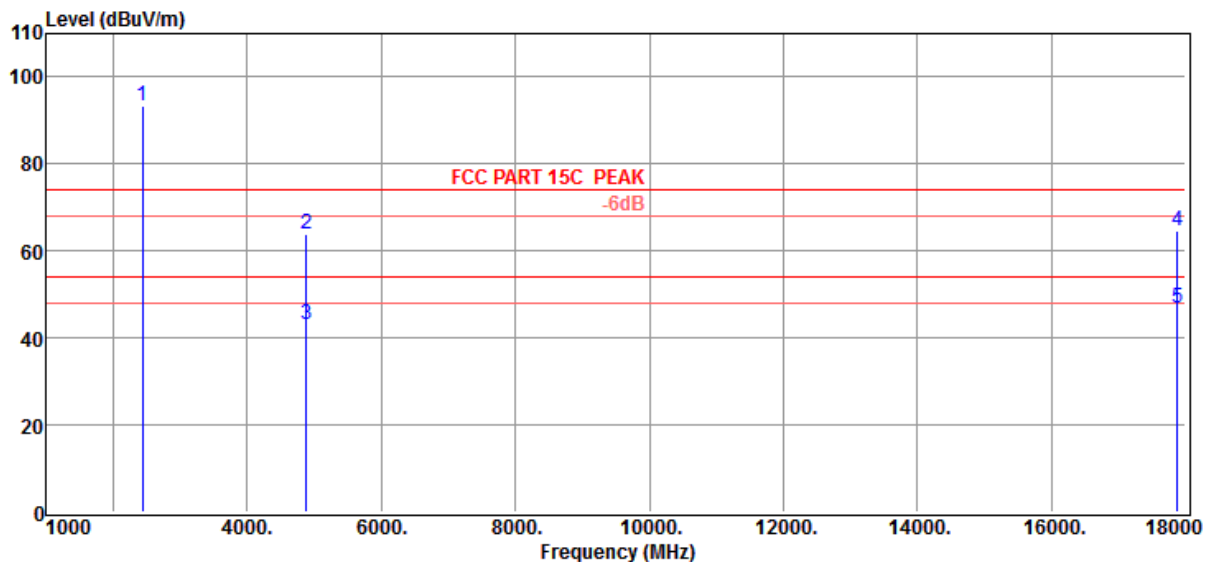
Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor

2. If Peak Result comply with AV limit, AV Result is deemed to comply with AV limit

Radiated Emission Test Result

Test Site : DDT 3m Chamber **E:\2013 Report data\13QE0013\13QE0013RE-RF.EM6**
Test Date : 03-23-2013 **Tested By** : Leo
EUT : Clipster **Model Number** : ISP29
Power Supply : DC 5V From PC input AC **Test Mode** : Tx Mode GFSK CH39
 120V/60Hz
Condition : Temp:24.5'C,Humi:55%,Press:100.1 kPa **Antenna/Distance** : HF907 SN100276/3m/HORIZONTAL
Memo :

Data : 14



| Item (Mark) | Freq (MHz) | Read Level (dBμV) | Antenna Factor (dB/m) | PRM Factor dB | Cable Loss dB | Result Level (dBμV/m) | Limit Line (dBμV/m) | Over Limit (dB) | Detector | Polarization |
|----------------|---------------|-------------------------|-----------------------------|---------------------|---------------------|-----------------------------|---------------------------|-----------------------|----------|--------------|
| 1 | 2441.00 | 101.39 | 29.03 | 43.49 | 6.53 | 93.46 | 74.00 | 19.46 | Peak | HORIZONTAL |
| 2 | 4882.00 | 64.08 | 34.29 | 44.03 | 9.41 | 63.75 | 74.00 | -10.25 | Peak | HORIZONTAL |
| 3 | 4882.00 | 43.25 | 34.29 | 44.03 | 9.41 | 42.92 | 54.00 | -11.08 | Average | HORIZONTAL |
| 4 | 17881.00 | 43.30 | 43.97 | 41.63 | 19.04 | 64.68 | 74.00 | -9.32 | Peak | HORIZONTAL |
| 5 | 17881.00 | 25.35 | 43.97 | 41.63 | 19.04 | 46.73 | 54.00 | -7.27 | Average | HORIZONTAL |

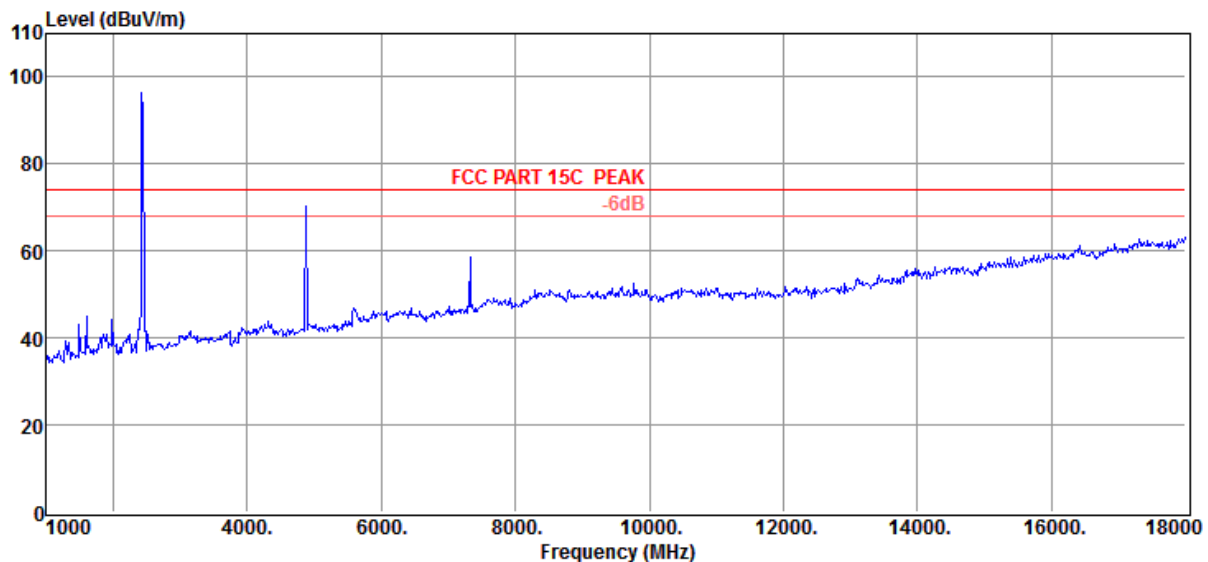
Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor

2. If Peak Result comply with AV limit, AV Result is deemed to comply with AV limit

Radiated Emission Test Result

Test Site : DDT 3m Chamber **E:\2013 Report data\13QE0013\13QE0013RE-RF.EM6**
Test Date : 03-23-2013 **Tested By** : Leo
EUT : Clipster **Model Number** : ISP29
Power Supply : DC 5V From PC input AC **Test Mode** : Tx Mode GFSK CH39
 120V/60Hz
Condition : Temp:24.5°C,Humi:55%,Press:100.1 kPa **Antenna/Distance** : HF907 SN100276/3m/VERTICAL
Memo :

Data : 15



| Item | Freq | Read Level | Antenna Factor | PRM Factor | Cable Loss | Result Level | Limit Line | Over Limit | Detector | Polarization |
|--------|-------|------------|----------------|------------|------------|--------------|------------|------------|----------|--------------|
| (Mark) | (MHz) | (dBμV) | (dB/m) | dB | dB | (dBμV/m) | (dBμV/m) | (dB) | | |

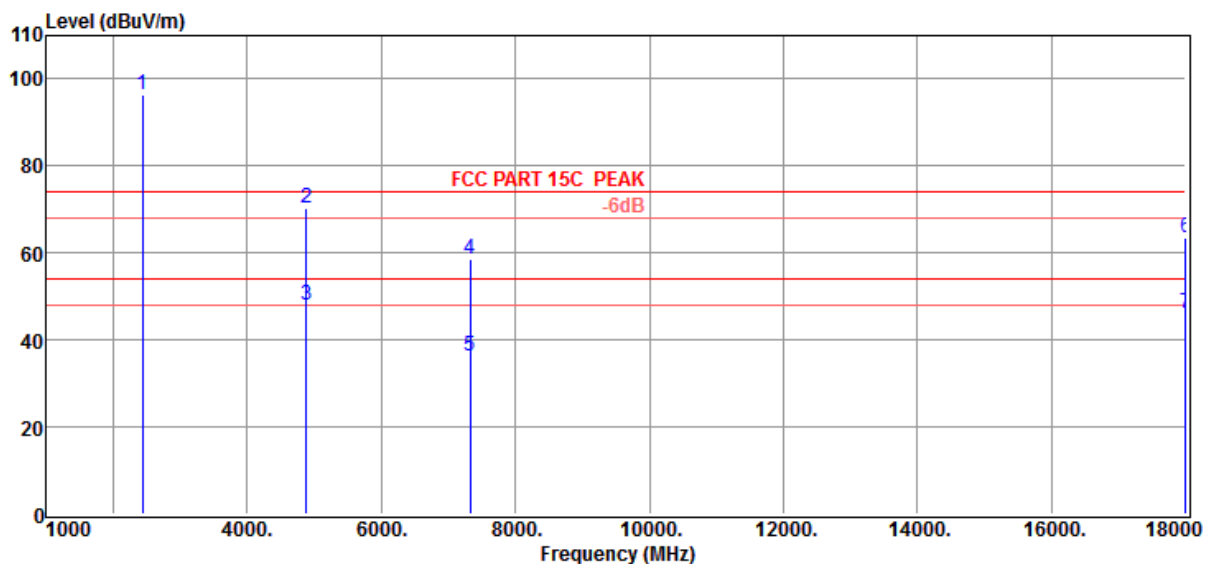
Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor

2. If Peak Result comply with AV limit, AV Result is deemed to comply with AV limit

Radiated Emission Test Result

Test Site : DDT 3m Chamber **E:** \2013 Report data\13QE0013\13QE0013RE-RF.EM6
Test Date : 03-23-2013 **Tested By** : Leo
EUT : Clipster **Model Number** : ISP29
Power Supply : DC 5V From PC input AC **Test Mode** : Tx Mode GFSK CH39
 : 120V/60Hz
Condition : Temp:24.5°C,Humi:55%,Press:100.1 kPa **Antenna/Distance** : HF907 SN100276/3m/VERTICAL
Memo :

Data : 16



| Item (Mark) | Freq (MHz) | Read Level (dBμV) | Antenna Factor (dB/m) | PRM Factor dB | Cable Loss dB | Result Level (dBμV/m) | Limit Line (dBμV/m) | Over Limit (dB) | Detector | Polarization |
|----------------|---------------|-------------------------|-----------------------------|---------------------|---------------------|-----------------------------|---------------------------|-----------------------|----------|--------------|
| 1 | 2441.00 | 104.39 | 29.03 | 43.49 | 6.53 | 96.46 | 74.00 | 22.46 | Peak | VERTICAL |
| 2 | 4882.00 | 70.66 | 34.29 | 44.03 | 9.41 | 70.33 | 74.00 | -3.67 | Peak | VERTICAL |
| 3 | 4882.00 | 48.31 | 34.29 | 44.03 | 9.41 | 47.98 | 54.00 | -6.02 | Average | VERTICAL |
| 4 | 7323.00 | 54.66 | 35.63 | 43.32 | 11.62 | 58.59 | 74.00 | -15.41 | Peak | VERTICAL |
| 5 | 7323.00 | 32.36 | 35.63 | 43.32 | 11.62 | 36.29 | 54.00 | -17.71 | Average | VERTICAL |
| 6 | 18000.00 | 42.09 | 44.39 | 41.87 | 19.07 | 63.68 | 74.00 | -10.32 | Peak | VERTICAL |
| 7 | 18000.00 | 24.36 | 44.39 | 41.87 | 19.07 | 45.95 | 54.00 | -8.05 | Average | VERTICAL |

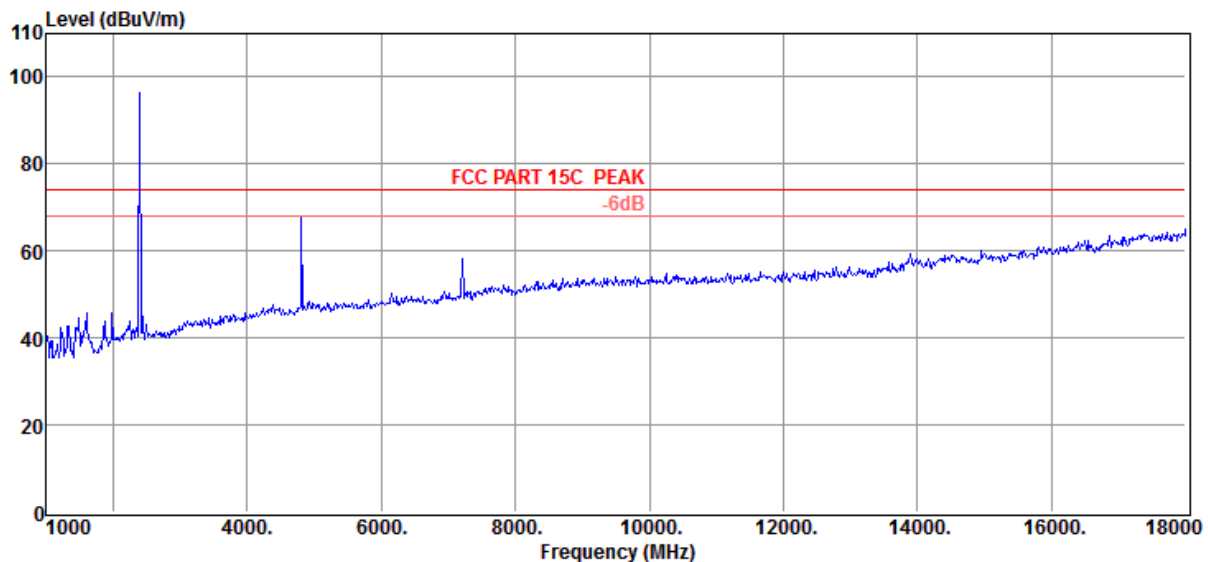
Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor

2. If Peak Result comply with AV limit, AV Result is deemed to comply with AV limit

Radiated Emission Test Result

Test Site : DDT 3m Chamber **E:\2013 Report data\13QE0013\13QE0013RE-RF.EM6**
Test Date : 03-23-2013 **Tested By** : Leo
EUT : Clipster **Model Number** : ISP29
Power Supply : DC 5V From PC input AC **Test Mode** : Tx Mode 8-DPSK CH0
 120V/60Hz
Condition : Temp:24.5'C,Humi:55%,Press:100.1 kPa **Antenna/Distance** : HF907 SN100276/3m/VERTICAL
Memo :

Data : 17



| Item | Freq | Read Level | Antenna Factor | PRM Factor | Cable Loss | Result Level | Limit Line | Over Limit | Detector | Polarization |
|--------|-------|------------|----------------|------------|------------|--------------|------------|------------|----------|--------------|
| (Mark) | (MHz) | (dBμV) | (dB/m) | dB | dB | (dBμV/m) | (dBμV/m) | (dB) | | |

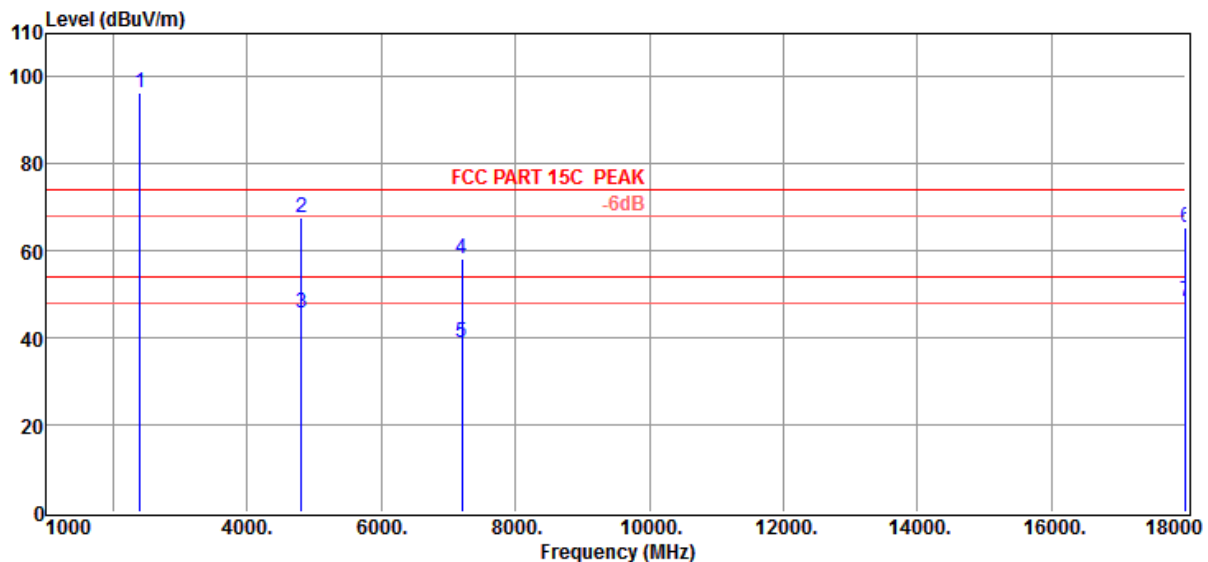
Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor

2. If Peak Result comply with AV limit, AV Result is deemed to comply with AV limit

Radiated Emission Test Result

Test Site : DDT 3m Chamber **E:\2013 Report data\13QE0013\13QE0013RE-RF.EM6**
Test Date : 03-23-2013 **Tested By** : Leo
EUT : Clipster **Model Number** : ISP29
Power Supply : DC 5V From PC input AC **Test Mode** : Tx Mode 8-DPSK CH0
 120V/60Hz
Condition : Temp:24.5'C,Humi:55%,Press:100.1 kPa **Antenna/Distance** : HF907 SN100276/3m/VERTICAL
Memo :

Data : 18



| Item (Mark) | Freq (MHz) | Read Level (dBμV) | Antenna Factor (dB/m) | PRM Factor dB | Cable Loss dB | Result Level (dBμV/m) | Limit Line (dBμV/m) | Over Limit (dB) | Detector | Polarization |
|----------------|---------------|-------------------------|-----------------------------|---------------------|---------------------|-----------------------------|---------------------------|-----------------------|----------|--------------|
| 1 | 2402.00 | 104.32 | 28.93 | 43.49 | 6.47 | 96.23 | 74.00 | 22.23 | Peak | VERTICAL |
| 2 | 4804.00 | 68.50 | 34.01 | 44.06 | 9.32 | 67.77 | 74.00 | -6.23 | Peak | VERTICAL |
| 3 | 4804.00 | 46.36 | 34.01 | 44.06 | 9.32 | 45.63 | 54.00 | -8.37 | Average | VERTICAL |
| 4 | 7206.00 | 54.46 | 35.72 | 43.62 | 11.48 | 58.04 | 74.00 | -15.96 | Peak | VERTICAL |
| 5 | 7206.00 | 35.23 | 35.72 | 43.62 | 11.48 | 38.81 | 54.00 | -15.19 | Average | VERTICAL |
| 6 | 18000.00 | 43.86 | 44.39 | 41.87 | 19.07 | 65.45 | 74.00 | -8.55 | Peak | VERTICAL |
| 7 | 18000.00 | 26.98 | 44.39 | 41.87 | 19.07 | 48.57 | 54.00 | -5.43 | Average | VERTICAL |

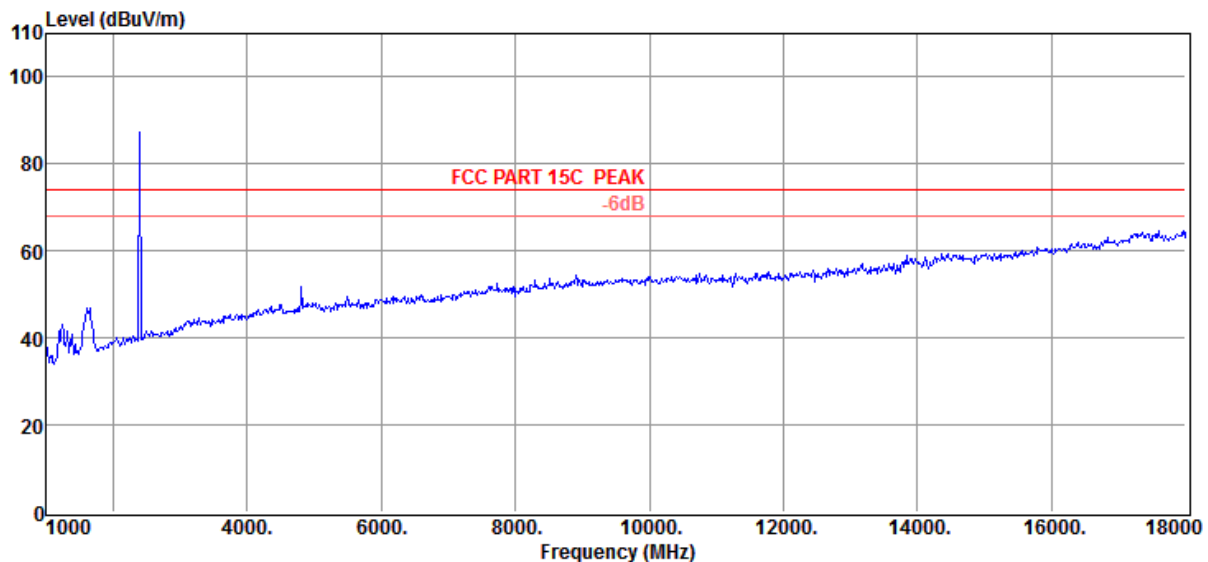
Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor

2. If Peak Result comply with AV limit, AV Result is deemed to comply with AV limit

Radiated Emission Test Result

Test Site : DDT 3m Chamber **E:\2013 Report data\13QE0013\13QE0013RE-RF.EM6**
Test Date : 03-23-2013 **Tested By** : Leo
EUT : Clipster **Model Number** : ISP29
Power Supply : DC 5V From PC input AC **Test Mode** : Tx Mode 8-DPSK CH0
 : 120V/60Hz
Condition : Temp:24.5°C,Humi:55%,Press:100.1 kPa **Antenna/Distance** : HF907 SN100276/3m/HORIZONTAL
Memo :

Data : 19



| Item | Freq | Read Level | Antenna Factor | PRM Factor | Cable Loss | Result Level | Limit Line | Over Limit | Detector | Polarization |
|--------|-------|------------|----------------|------------|------------|--------------|------------|------------|----------|--------------|
| (Mark) | (MHz) | (dBμV) | (dB/m) | dB | dB | (dBμV/m) | (dBμV/m) | (dB) | | |

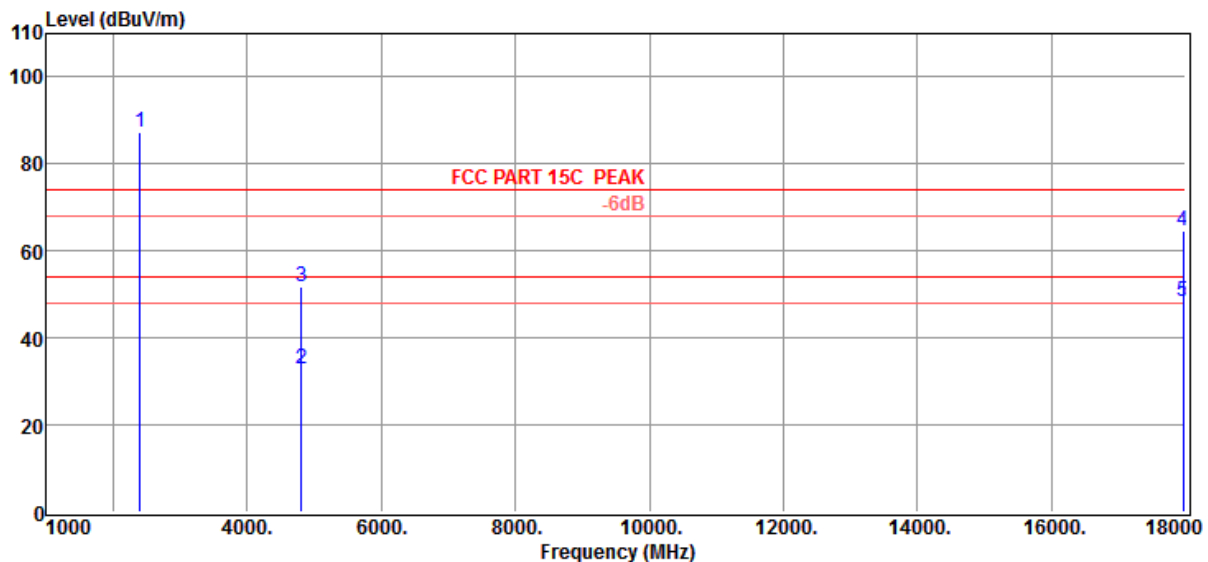
Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor

2. If Peak Result comply with AV limit, AV Result is deemed to comply with AV limit

Radiated Emission Test Result

Test Site : DDT 3m Chamber **E:\2013 Report data\13QE0013\13QE0013RE-RF.EM6**
Test Date : 03-23-2013 **Tested By** : Leo
EUT : Clipster **Model Number** : ISP29
Power Supply : DC 5V From PC input AC **Test Mode** : Tx Mode 8-DPSK CH0
 120V/60Hz
Condition : Temp:24.5'C,Humi:55%,Press:100.1 kPa **Antenna/Distance** : HF907 SN100276/3m/HORIZONTAL
Memo :

Data : 20



| Item (Mark) | Freq (MHz) | Read Level (dBμV) | Antenna Factor (dB/m) | PRM Factor dB | Cable Loss dB | Result Level (dBμV/m) | Limit Line (dBμV/m) | Over Limit (dB) | Detector | Polarization |
|----------------|---------------|-------------------------|-----------------------------|---------------------|---------------------|-----------------------------|---------------------------|-----------------------|----------|--------------|
| 1 | 2402.00 | 95.43 | 28.93 | 43.49 | 6.47 | 87.34 | 74.00 | 13.34 | Peak | HORIZONTAL |
| 2 | 4804.00 | 33.57 | 34.01 | 44.06 | 9.32 | 32.84 | 74.00 | -41.16 | QP | HORIZONTAL |
| 3 | 4804.00 | 52.57 | 34.01 | 44.06 | 9.32 | 51.84 | 74.00 | -22.16 | Peak | HORIZONTAL |
| 4 | 17966.00 | 43.24 | 44.27 | 41.80 | 19.06 | 64.77 | 74.00 | -9.23 | Peak | HORIZONTAL |
| 5 | 17966.00 | 26.99 | 44.27 | 41.80 | 19.06 | 48.52 | 54.00 | -5.48 | Average | HORIZONTAL |

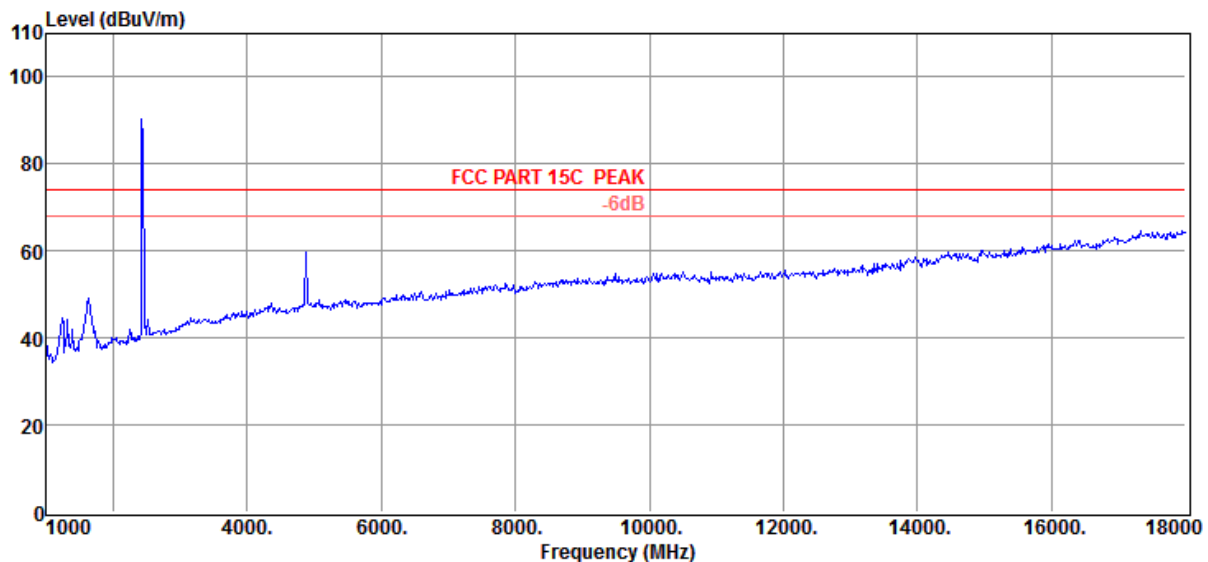
Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor

2. If Peak Result comply with AV limit, AV Result is deemed to comply with AV limit

Radiated Emission Test Result

Test Site : DDT 3m Chamber **E:\2013 Report data\13QE0013\13QE0013RE-RF.EM6**
Test Date : 03-23-2013 **Tested By** : Leo
EUT : Clipster **Model Number** : ISP29
Power Supply : DC 5V From PC input AC **Test Mode** : Tx Mode 8-DPSK CH39
 120V/60Hz
Condition : Temp:24.5°C,Humi:55%,Press:100.1 kPa **Antenna/Distance** : HF907 SN100276/3m/HORIZONTAL
Memo :

Data : 21



| Item | Freq | Read Level | Antenna Factor | PRM Factor | Cable Loss | Result Level | Limit Line | Over Limit | Detector | Polarization |
|--------|-------|------------|----------------|------------|------------|--------------|------------|------------|----------|--------------|
| (Mark) | (MHz) | (dBμV) | (dB/m) | dB | dB | (dBμV/m) | (dBμV/m) | (dB) | | |

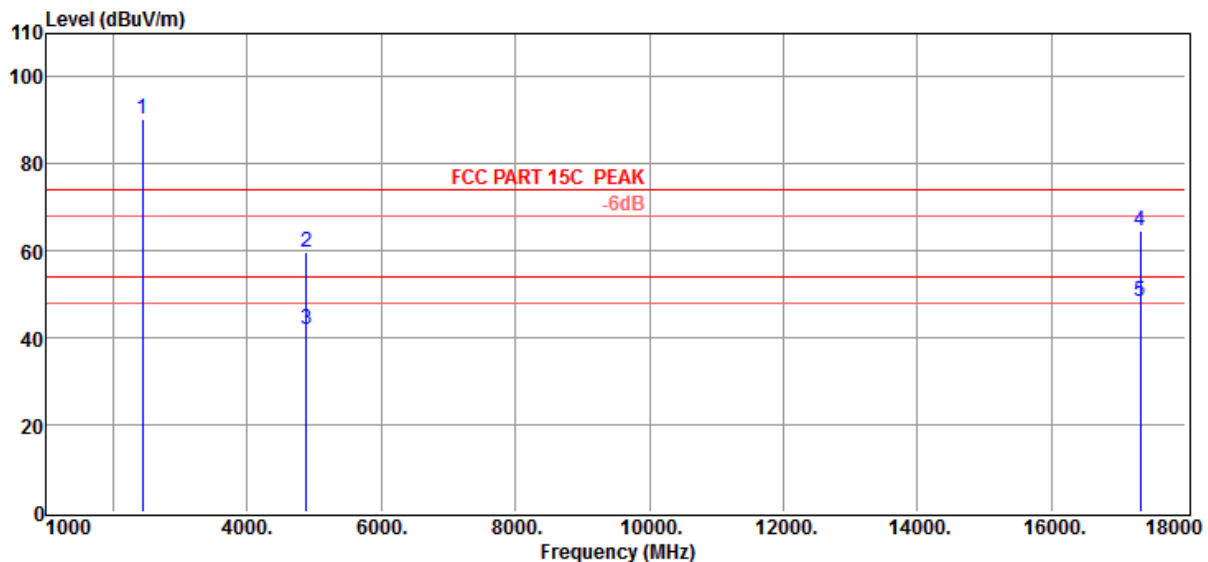
Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor

2. If Peak Result comply with AV limit, AV Result is deemed to comply with AV limit

Radiated Emission Test Result

Test Site : DDT 3m Chamber **E:\2013 Report data\13QE0013\13QE0013RE-RF.EM6**
Test Date : 03-23-2013 **Tested By** : Leo
EUT : Clipster **Model Number** : ISP29
Power Supply : DC 5V From PC input AC **Test Mode** : Tx Mode 8-DPSK CH39
 120V/60Hz
Condition : Temp:24.5'C,Humi:55%,Press:100.1 kPa **Antenna/Distance** : HF907 SN100276/3m/HORIZONTAL
Memo :

Data : 22



| Item (Mark) | Freq (MHz) | Read Level (dBμV) | Antenna Factor (dB/m) | PRM Factor dB | Cable Loss dB | Result Level (dBμV/m) | Limit Line (dBμV/m) | Over Limit (dB) | Detector | Polarization |
|----------------|---------------|-------------------------|-----------------------------|---------------------|---------------------|-----------------------------|---------------------------|-----------------------|----------|--------------|
| 1 | 2441.00 | 98.15 | 29.03 | 43.49 | 6.53 | 90.22 | 74.00 | 16.22 | Peak | HORIZONTAL |
| 2 | 4882.00 | 60.14 | 34.29 | 44.03 | 9.41 | 59.81 | 74.00 | -14.19 | Peak | HORIZONTAL |
| 3 | 4882.00 | 42.30 | 34.29 | 44.03 | 9.41 | 41.97 | 54.00 | -12.03 | Average | HORIZONTAL |
| 4 | 17320.00 | 43.62 | 43.05 | 40.95 | 18.88 | 64.60 | 74.00 | -9.40 | Peak | HORIZONTAL |
| 5 | 17320.00 | 27.22 | 43.05 | 40.95 | 18.88 | 48.20 | 54.00 | -5.80 | Average | HORIZONTAL |

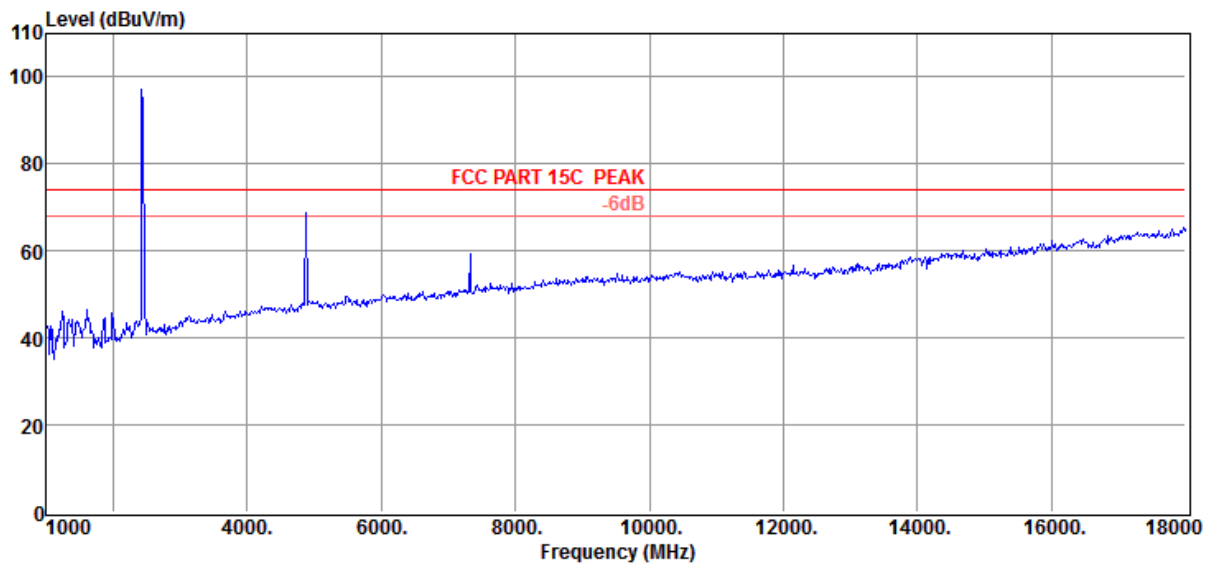
Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor

2. If Peak Result comply with AV limit, AV Result is deemed to comply with AV limit

Radiated Emission Test Result

Test Site : DDT 3m Chamber **E:\2013 Report data\13QE0013\13QE0013RE-RF.EM6**
Test Date : 03-23-2013 **Tested By** : Leo
EUT : Clipster **Model Number** : ISP29
Power Supply : DC 5V From PC input AC **Test Mode** : Tx Mode 8-DPSK CH39
 120V/60Hz
Condition : Temp:24.5'C,Humi:55%,Press:100.1 kPa **Antenna/Distance** : HF907 SN100276/3m/VERTICAL
Memo :

Data : 23



| Item | Freq | Read Level | Antenna Factor | PRM Factor | Cable Loss | Result Level | Limit Line | Over Limit | Detector | Polarization |
|--------|-------|------------|----------------|------------|------------|--------------|------------|------------|----------|--------------|
| (Mark) | (MHz) | (dBμV) | (dB/m) | dB | dB | (dBμV/m) | (dBμV/m) | (dB) | | |

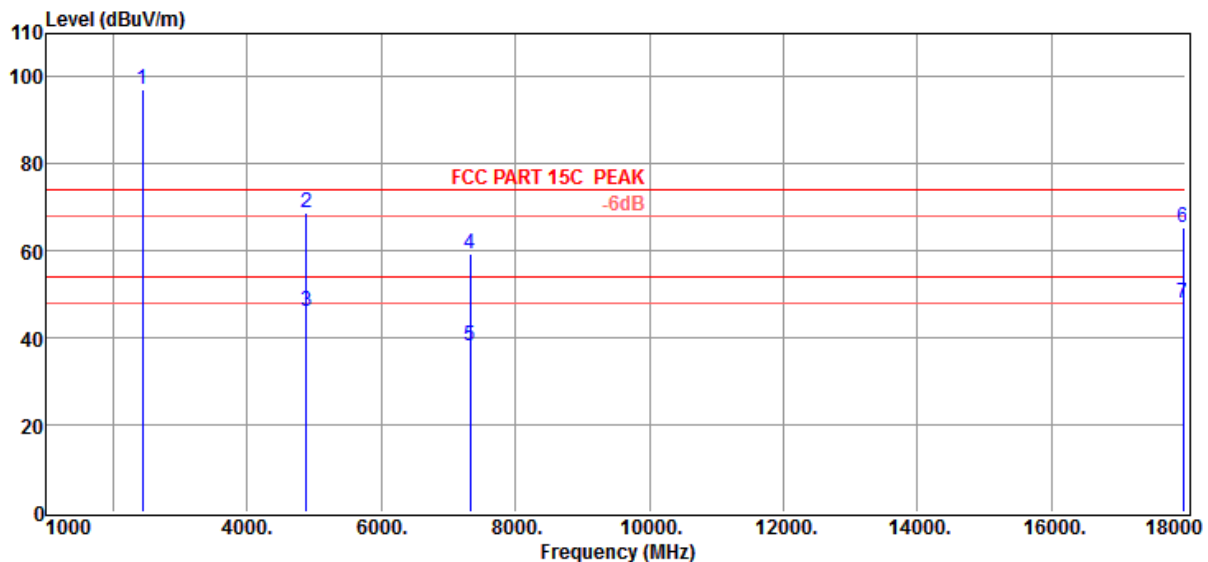
Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor

2. If Peak Result comply with AV limit, AV Result is deemed to comply with AV limit

Radiated Emission Test Result

Test Site : DDT 3m Chamber **E:\2013 Report data\13QE0013\13QE0013RE-RF.EM6**
Test Date : 03-23-2013 **Tested By** : Leo
EUT : Clipster **Model Number** : ISP29
Power Supply : DC 5V From PC input AC **Test Mode** : Tx Mode 8-DPSK CH39
 120V/60Hz
Condition : Temp:24.5°C,Humi:55%,Press:100.1 kPa **Antenna/Distance** : HF907 SN100276/3m/VERTICAL
Memo :

Data : 24



| Item (Mark) | Freq (MHz) | Read Level (dBμV) | Antenna Factor (dB/m) | PRM Factor dB | Cable Loss dB | Result Level (dBμV/m) | Limit Line (dBμV/m) | Over Limit (dB) | Detector | Polarization |
|----------------|---------------|-------------------------|-----------------------------|---------------------|---------------------|-----------------------------|---------------------------|-----------------------|----------|--------------|
| 1 | 2441.00 | 105.00 | 29.03 | 43.49 | 6.53 | 97.07 | 74.00 | 23.07 | Peak | VERTICAL |
| 2 | 4882.00 | 69.25 | 34.29 | 44.03 | 9.41 | 68.92 | 74.00 | -5.08 | Peak | VERTICAL |
| 3 | 4882.00 | 46.34 | 34.29 | 44.03 | 9.41 | 46.01 | 54.00 | -7.99 | Average | VERTICAL |
| 4 | 7323.00 | 55.50 | 35.63 | 43.32 | 11.62 | 59.43 | 74.00 | -14.57 | Peak | VERTICAL |
| 5 | 7323.00 | 34.26 | 35.63 | 43.32 | 11.62 | 38.19 | 54.00 | -15.81 | Average | VERTICAL |
| 6 | 17966.00 | 43.83 | 44.27 | 41.80 | 19.06 | 65.36 | 74.00 | -8.64 | Peak | VERTICAL |
| 7 | 17966.00 | 26.32 | 44.27 | 41.80 | 19.06 | 47.85 | 54.00 | -6.15 | Average | VERTICAL |

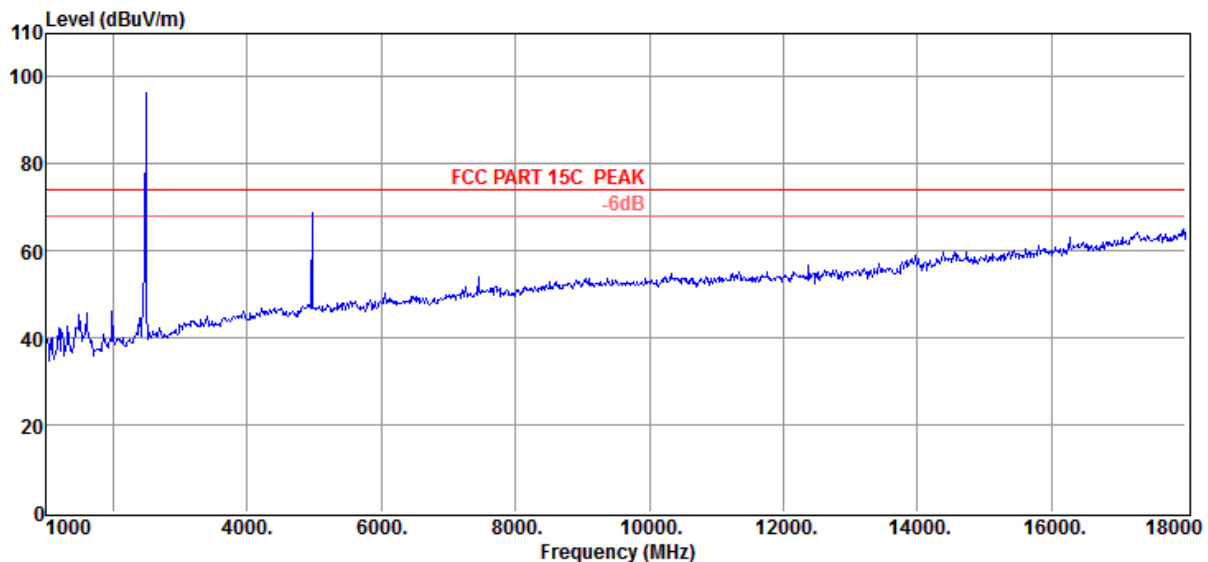
Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor

2. If Peak Result comply with AV limit, AV Result is deemed to comply with AV limit

Radiated Emission Test Result

Test Site : DDT 3m Chamber **E:\2013 Report data\13QE0013\13QE0013RE-RF.EM6**
Test Date : 03-23-2013 **Tested By** : Leo
EUT : Clipster **Model Number** : ISP29
Power Supply : DC 5V From PC input AC **Test Mode** : Tx Mode 8-DPSK CH78
 120V/60Hz
Condition : Temp:24.5°C,Humi:55%,Press:100.1 kPa **Antenna/Distance** : HF907 SN100276/3m/VERTICAL
Memo :

Data : 25



| Item | Freq | Read Level | Antenna Factor | PRM Factor | Cable Loss | Result Level | Limit Line | Over Limit | Detector | Polarization |
|--------|-------|------------|----------------|------------|------------|--------------|------------|------------|----------|--------------|
| (Mark) | (MHz) | (dBμV) | (dB/m) | dB | dB | (dBμV/m) | (dBμV/m) | (dB) | | |

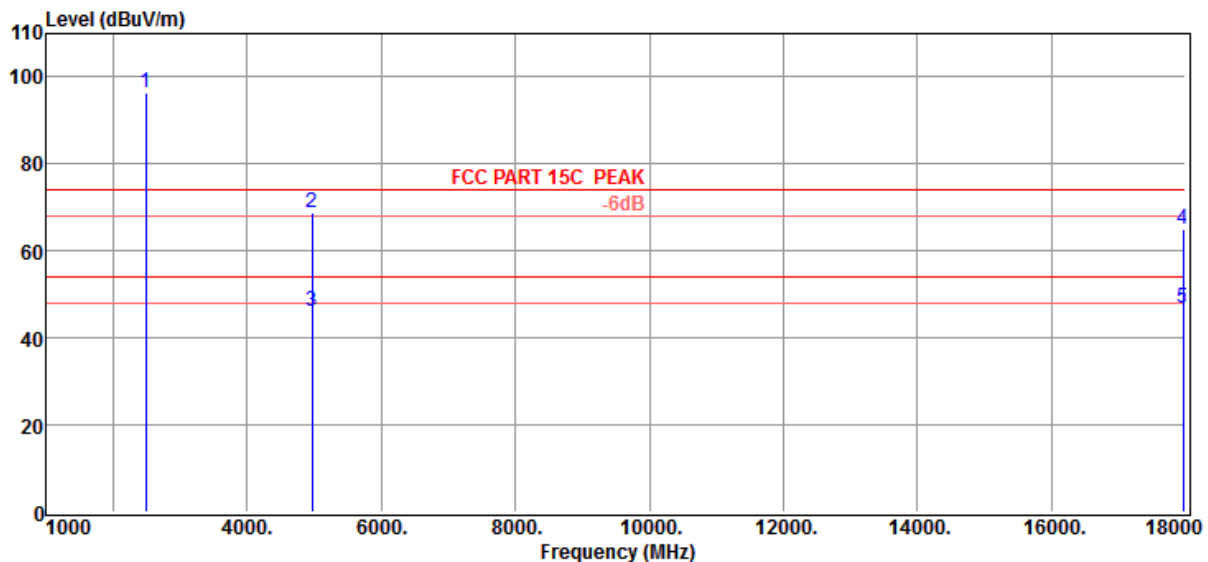
Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor

2. If Peak Result comply with AV limit, AV Result is deemed to comply with AV limit

Radiated Emission Test Result

Test Site : DDT 3m Chamber **E:\2013 Report data\13QE0013\13QE0013RE-RF.EM6**
Test Date : 03-23-2013 **Tested By** : Leo
EUT : Clipster **Model Number** : ISP29
Power Supply : DC 5V From PC input AC **Test Mode** : Tx Mode 8-DPSK CH78
 120V/60Hz
Condition : Temp:24.5'C,Humi:55%,Press:100.1 kPa **Antenna/Distance** : HF907 SN100276/3m/VERTICAL
Memo :

Data : 26



| Item (Mark) | Freq (MHz) | Read Level (dBμV) | Antenna Factor (dB/m) | PRM Factor dB | Cable Loss dB | Result Level (dBμV/m) | Limit Line (dBμV/m) | Over Limit (dB) | Detector | Polarization |
|----------------|---------------|-------------------------|-----------------------------|---------------------|---------------------|-----------------------------|---------------------------|-----------------------|----------|--------------|
| 1 | 2480.00 | 104.20 | 29.18 | 43.50 | 6.57 | 96.45 | 74.00 | 22.45 | Peak | VERTICAL |
| 2 | 4960.00 | 68.91 | 34.34 | 44.01 | 9.48 | 68.72 | 74.00 | -5.28 | Peak | VERTICAL |
| 3 | 4960.00 | 46.25 | 34.34 | 44.01 | 9.48 | 46.06 | 54.00 | -7.94 | Average | VERTICAL |
| 4 | 17966.00 | 43.36 | 44.27 | 41.80 | 19.06 | 64.89 | 74.00 | -9.11 | Peak | VERTICAL |
| 5 | 17966.00 | 25.35 | 44.27 | 41.80 | 19.06 | 46.88 | 54.00 | -7.12 | Average | VERTICAL |

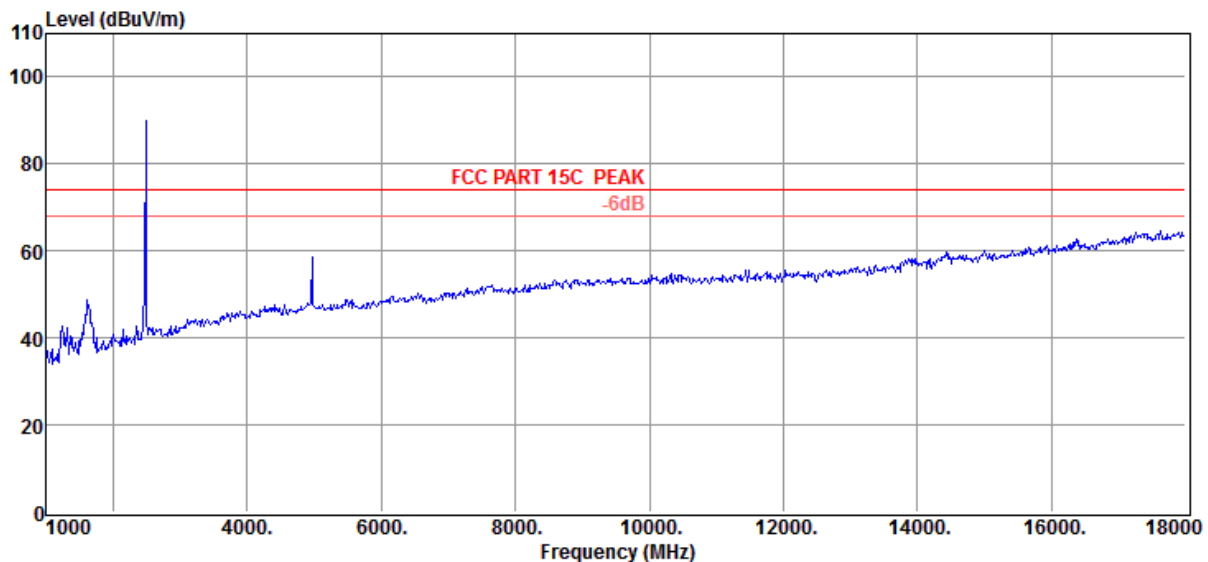
Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor

2. If Peak Result comply with AV limit, AV Result is deemed to comply with AV limit

Radiated Emission Test Result

Test Site : DDT 3m Chamber **E:\2013 Report data\13QE0013\13QE0013RE-RF.EM6**
Test Date : 03-23-2013 **Tested By** : Leo
EUT : Clipster **Model Number** : ISP29
Power Supply : DC 5V From PC input AC **Test Mode** : Tx Mode 8-DPSK CH78
 120V/60Hz
Condition : Temp:24.5°C,Humi:55%,Press:100.1 kPa **Antenna/Distance** : HF907 SN100276/3m/HORIZONTAL
Memo :

Data : 27



| Item | Freq | Read Level | Antenna Factor | PRM Factor | Cable Loss | Result Level | Limit Line | Over Limit | Detector | Polarization |
|--------|-------|------------|----------------|------------|------------|--------------|------------|------------|----------|--------------|
| (Mark) | (MHz) | (dBμV) | (dB/m) | dB | dB | (dBμV/m) | (dBμV/m) | (dB) | | |

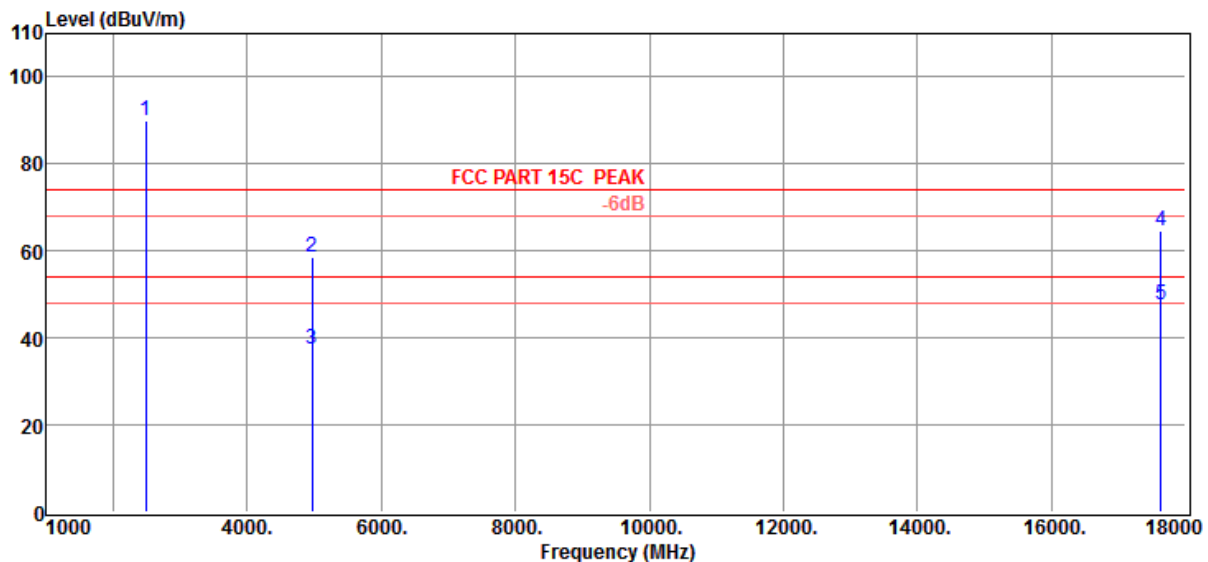
Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor

2. If Peak Result comply with AV limit, AV Result is deemed to comply with AV limit

Radiated Emission Test Result

Test Site : DDT 3m Chamber **E:** \2013 Report data\13QE0013\13QE0013RE-RF.EM6
Test Date : 03-23-2013 **Tested By** : Leo
EUT : Clipster **Model Number** : ISP29
Power Supply : DC 5V From PC input AC **Test Mode** : Tx Mode 8-DPSK CH78
 : 120V/60Hz
Condition : Temp:24.5'C,Humi:55%,Press:100.1 kPa **Antenna/Distance** : HF907 SN100276/3m/HORIZONTAL
Memo :

Data : 28



| Item (Mark) | Freq (MHz) | Read Level (dBμV) | Antenna Factor (dB/m) | PRM Factor dB | Cable Loss dB | Result Level (dBμV/m) | Limit Line (dBμV/m) | Over Limit (dB) | Detector | Polarization |
|----------------|---------------|-------------------------|-----------------------------|---------------------|---------------------|-----------------------------|---------------------------|-----------------------|----------|--------------|
| 1 | 2480.00 | 97.72 | 29.18 | 43.50 | 6.57 | 89.97 | 74.00 | 15.97 | Peak | HORIZONTAL |
| 2 | 4960.00 | 58.89 | 34.34 | 44.01 | 9.48 | 58.70 | 74.00 | -15.30 | Peak | HORIZONTAL |
| 3 | 4960.00 | 37.65 | 34.34 | 44.01 | 9.48 | 37.46 | 54.00 | -16.54 | Average | HORIZONTAL |
| 4 | 17626.00 | 43.24 | 43.47 | 41.00 | 18.94 | 64.65 | 74.00 | -9.35 | Peak | HORIZONTAL |
| 5 | 17626.00 | 26.12 | 43.47 | 41.00 | 18.94 | 47.53 | 54.00 | -6.47 | Average | HORIZONTAL |

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor

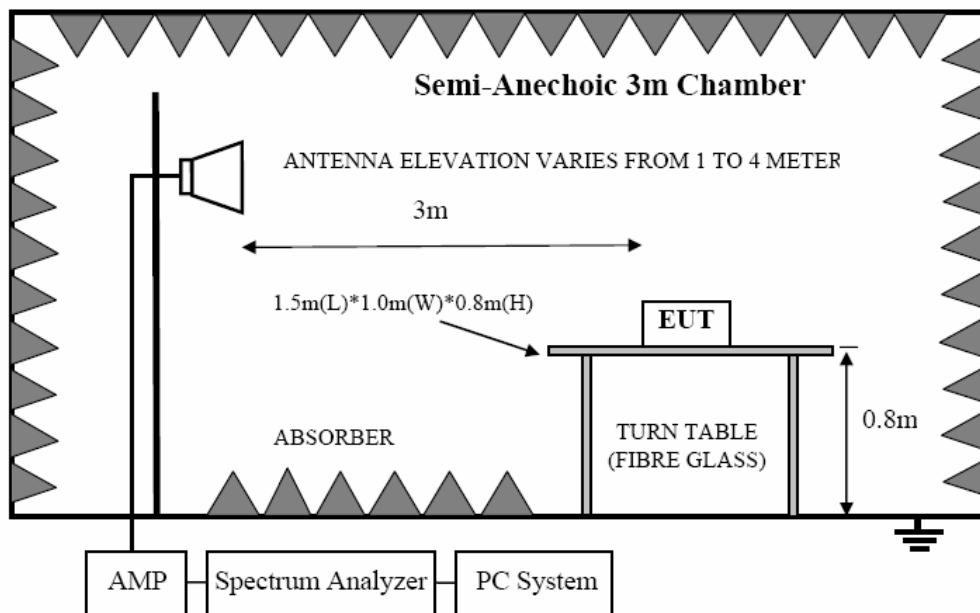
2. If Peak Result comply with AV limit, AV Result is deemed to comply with AV limit

9. Band Edge Compliance

9.1. Test equipment

| Item | Equipment | Manufacturer | Model No. | Serial No. | Last Cal. | Cal. Interval |
|------|----------------------------|--------------|-----------|--------------|------------|---------------|
| 1 | EMI Test Receiver | R&S | ESU8 | 100316 | 2012/11/26 | 1 Year |
| 2 | Spectrum analyzer | R&S | FSU | 1166.1660.26 | 2012/11/26 | 1 Year |
| 3 | Trilog Broadband Antenna | Schwarzbeck | VULB9163 | 9163-462 | 2012/11/26 | 1 Year |
| 4 | Double Ridged Horn Antenna | R&S | HF907 | 100276 | 2012/11/26 | 1 Year |
| 5 | Pre-Amplifier | R&S | SCU-01 | 10049 | 2012/11/26 | 1 Year |
| 6 | Pre-amplifier | A.H. | PAM0-0118 | 360 | 2012/11/26 | 1 Year |
| 7 | RF Cable | R&S | R01 | 10403 | 2012/11/26 | 1 Year |
| 8 | RF Cable | R&S | R02 | 10512 | 2012/11/26 | 1 Year |

9.2. Block diagram of test setup



9.3. Limit

All the lower and upper band-edges emissions appearing within 2310MHz to 2390MHz and 2483.5MHz to 2500MHz restricted frequency bands shall not exceed the limits shown in 15.209, all the other emissions outside operation frequency band 2400MHz to 2483.5MHz and 5725MHz to 5850MHz shall be at least 20dB below the fundamental emissions, or comply with 15.209 limits.

9.4. Test Procedure

Same with clause 8.4 except change investigated frequency range from 2310MHz to 2415MHz and 2475MHz to 2500MHz.

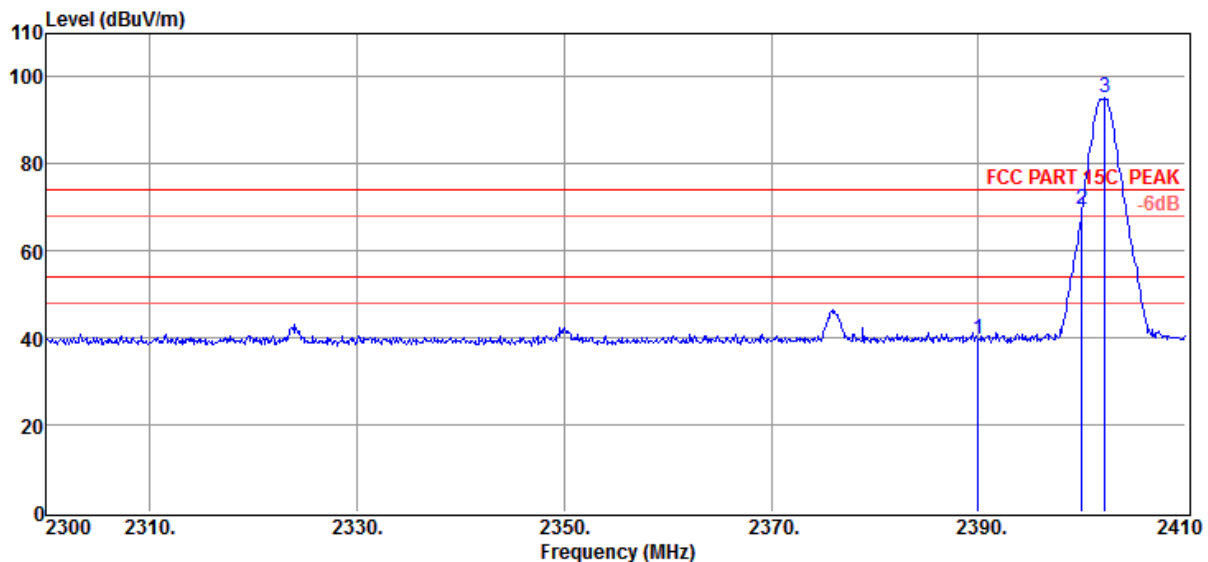
9.5. Test result

PASS. (See below detailed test result)

Radiated Emission Test Result

Test Site : DDT 3m Chamber **E:\2013 Report data\13QE0013\13QE0013RE-RF.EM6**
Test Date : 03-23-2013 **Tested By** : Leo
EUT : Clipster **Model Number** : ISP29
Power Supply : DC 5V From PC input AC **Test Mode** : Tx Mode GFSK CH0
 120V/60Hz
Condition : Temp:24.5°C,Humi:55%,Press:100.1 kPa **Antenna/Distance** : HF907 SN100276/3m/HORIZONTAL
Memo :

Data : 5



| Item (Mark) | Freq (MHz) | Read Level (dBμV) | Antenna Factor (dB/m) | PRM Factor dB | Cable Loss dB | Result Level (dBμV/m) | Limit Line (dBμV/m) | Over Limit (dB) | Detector | Polarization |
|----------------|---------------|-------------------------|-----------------------------|---------------------|---------------------|-----------------------------|---------------------------|-----------------------|----------|--------------|
| 1 | 2390.00 | 47.98 | 28.70 | 43.48 | 6.47 | 39.67 | 74.00 | -34.33 | Peak | HORIZONTAL |
| 2 | 2400.00 | 77.49 | 28.93 | 43.49 | 6.47 | 69.40 | 74.00 | -4.60 | Peak | HORIZONTAL |
| 3 | 2402.19 | 103.19 | 28.93 | 43.49 | 6.47 | 95.10 | 74.00 | 21.10 | Peak | HORIZONTAL |

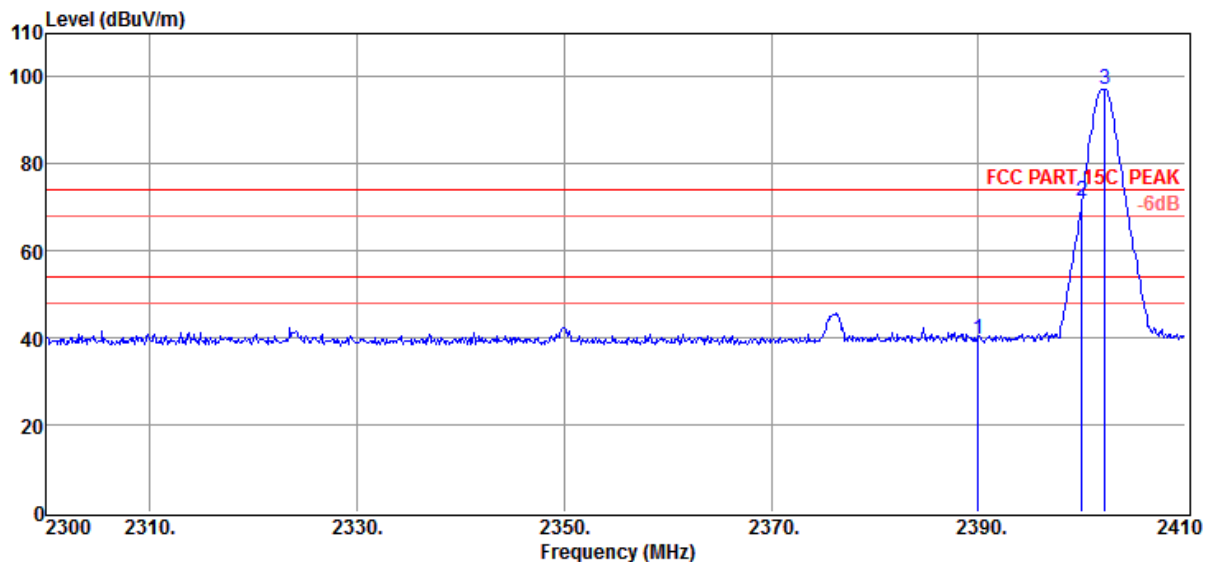
Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor

2. If Peak Result comply with AV limit, AV Result is deemed to comply with AV limit

Radiated Emission Test Result

Test Site : DDT 3m Chamber **E:** \2013 Report data\13QE0013\13QE0013RE-RF.EM6
Test Date : 03-23-2013 **Tested By** : Leo
EUT : Clipster **Model Number** : ISP29
Power Supply : DC 5V From PC input AC **Test Mode** : Tx Mode GFSK CH0
 : 120V/60Hz
Condition : Temp:24.5°C,Humi:55%,Press:100.1 kPa **Antenna/Distance** : HF907 SN100276/3m/VERTICAL
Memo :

Data : 6



| Item (Mark) | Freq (MHz) | Read Level (dBμV) | Antenna Factor (dB/m) | PRM Factor dB | Cable Loss dB | Result Level (dBμV/m) | Limit Line (dBμV/m) | Over Limit (dB) | Detector | Polarization |
|----------------|---------------|-------------------------|-----------------------------|---------------------|---------------------|-----------------------------|---------------------------|-----------------------|----------|--------------|
| 1 | 2390.00 | 48.12 | 28.70 | 43.48 | 6.47 | 39.81 | 74.00 | -34.19 | Peak | VERTICAL |
| 2 | 2400.00 | 79.67 | 28.93 | 43.49 | 6.47 | 71.58 | 74.00 | -2.42 | Peak | VERTICAL |
| 3 | 2402.19 | 105.25 | 28.93 | 43.49 | 6.47 | 97.16 | 74.00 | 23.16 | Peak | VERTICAL |

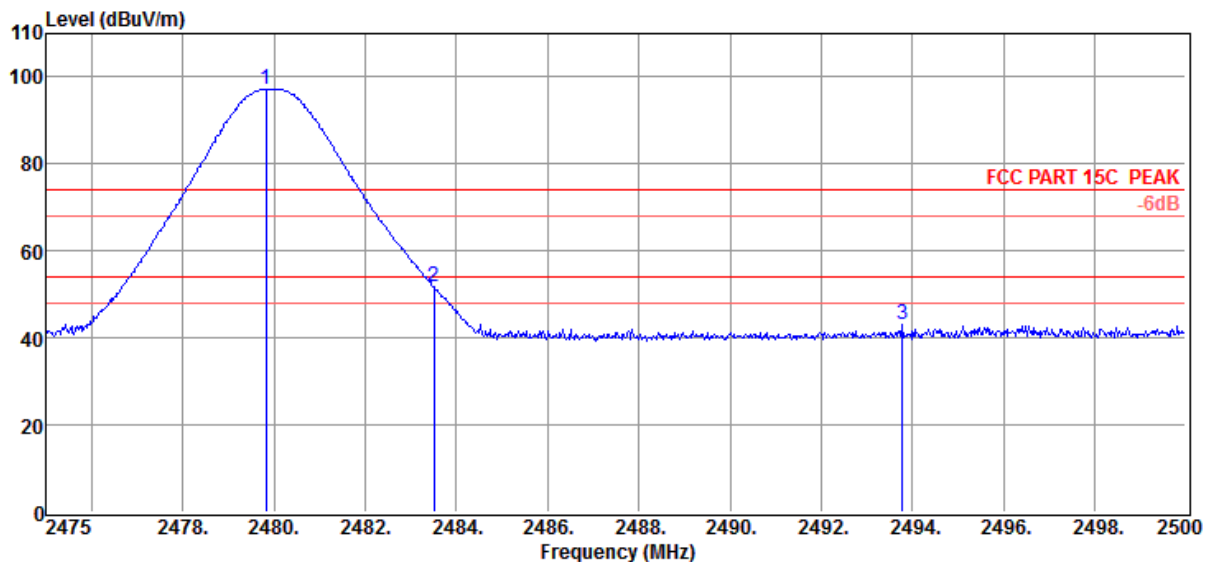
Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor

2. If Peak Result comply with AV limit, AV Result is deemed to comply with AV limit

Radiated Emission Test Result

Test Site : DDT 3m Chamber **E:\2013 Report data\13QE0013\13QE0013RE-RF.EM6**
Test Date : 03-23-2013 **Tested By** : Leo
EUT : Clipster **Model Number** : ISP29
Power Supply : DC 5V From PC input AC **Test Mode** : Tx Mode GFSK CH78
 120V/60Hz
Condition : Temp:24.5°C,Humi:55%,Press:100.1 kPa **Antenna/Distance** : HF907 SN100276/3m/VERTICAL
Memo :

Data : 7



| Item (Mark) | Freq (MHz) | Read Level (dBμV) | Antenna Factor (dB/m) | PRM Factor dB | Cable Loss dB | Result Level (dBμV/m) | Limit Line (dBμV/m) | Over Limit (dB) | Detector | Polarization |
|----------------|---------------|-------------------------|-----------------------------|---------------------|---------------------|-----------------------------|---------------------------|-----------------------|----------|--------------|
| 1 | 2479.83 | 104.97 | 29.18 | 43.50 | 6.57 | 97.22 | 74.00 | 23.22 | Peak | VERTICAL |
| 2 | 2483.50 | 59.66 | 29.18 | 43.50 | 6.57 | 51.91 | 74.00 | -22.09 | Peak | VERTICAL |
| 3 | 2493.78 | 50.75 | 29.18 | 43.50 | 6.59 | 43.02 | 74.00 | -30.98 | Peak | VERTICAL |

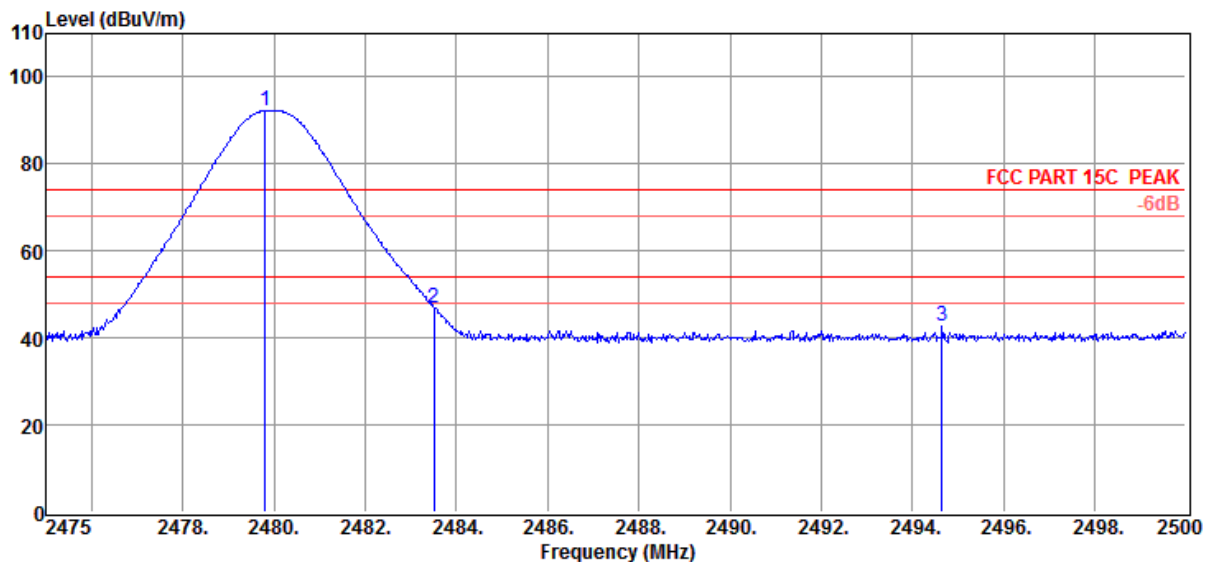
Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor

2. If Peak Result comply with AV limit, AV Result is deemed to comply with AV limit

Radiated Emission Test Result

Test Site : DDT 3m Chamber **E:\2013 Report data\13QE0013\13QE0013RE-RF.EM6**
Test Date : 03-23-2013 **Tested By** : Leo
EUT : Clipster **Model Number** : ISP29
Power Supply : DC 5V From PC input AC **Test Mode** : Tx Mode GFSK CH78
 120V/60Hz
Condition : Temp:24.5°C,Humi:55%,Press:100.1 kPa **Antenna/Distance** : HF907 SN100276/3m/HORIZONTAL
Memo :

Data : 8



| Item (Mark) | Freq (MHz) | Read Level (dBμV) | Antenna Factor (dB/m) | PRM Factor dB | Cable Loss dB | Result Level (dBμV/m) | Limit Line (dBμV/m) | Over Limit (dB) | Detector | Polarization |
|----------------|---------------|-------------------------|-----------------------------|---------------------|---------------------|-----------------------------|---------------------------|-----------------------|----------|--------------|
| 1 | 2479.80 | 99.94 | 29.18 | 43.50 | 6.57 | 92.19 | 74.00 | 18.19 | Peak | HORIZONTAL |
| 2 | 2483.50 | 54.74 | 29.18 | 43.50 | 6.57 | 46.99 | 74.00 | -27.01 | Peak | HORIZONTAL |
| 3 | 2494.65 | 50.34 | 29.25 | 43.50 | 6.59 | 42.68 | 74.00 | -31.32 | Peak | HORIZONTAL |

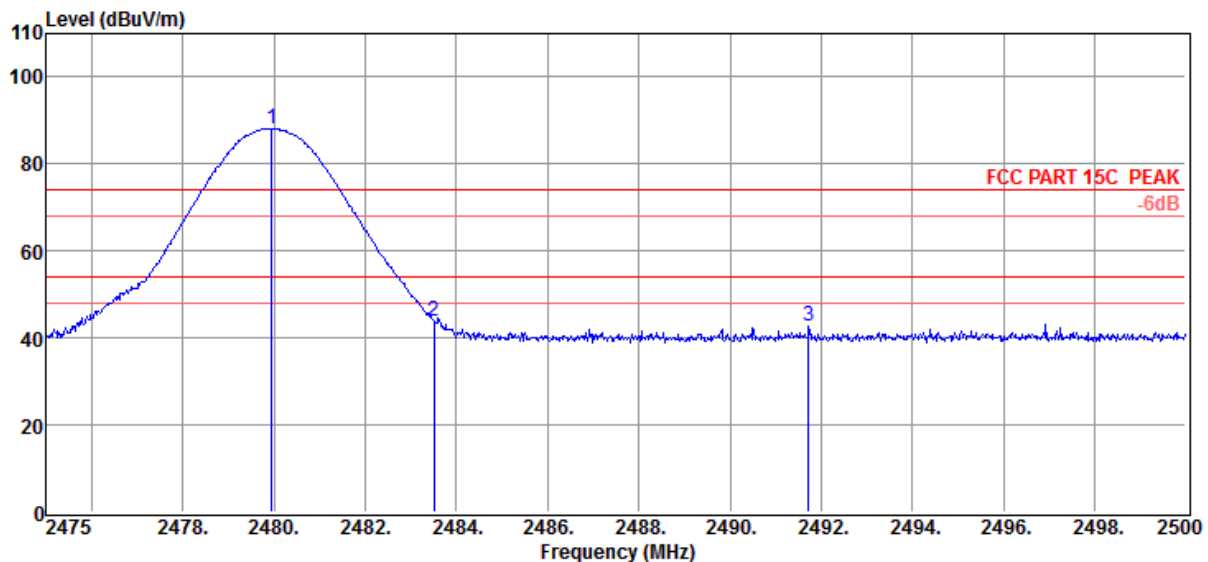
Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor

2. If Peak Result comply with AV limit, AV Result is deemed to comply with AV limit

Radiated Emission Test Result

Test Site : DDT 3m Chamber **E:** \2013 Report data\13QE0013\13QE0013RE-RF.EM6
Test Date : 03-23-2013 **Tested By** : Leo
EUT : Clipster **Model Number** : ISP29
Power Supply : DC 5V From PC input AC **Test Mode** : Tx Mode 8-DPSK CH78
 : 120V/60Hz
Condition : Temp:24.5°C,Humi:55%,Press:100.1 kPa **Antenna/Distance** : HF907 SN100276/3m/HORIZONTAL
Memo :

Data : 29



| Item (Mark) | Freq (MHz) | Read Level (dBμV) | Antenna Factor (dB/m) | PRM Factor dB | Cable Loss dB | Result Level (dBμV/m) | Limit Line (dBμV/m) | Over Limit (dB) | Detector | Polarization |
|----------------|---------------|-------------------------|-----------------------------|---------------------|---------------------|-----------------------------|---------------------------|-----------------------|----------|--------------|
| 1 | 2479.95 | 95.88 | 29.18 | 43.50 | 6.57 | 88.13 | 74.00 | 14.13 | Peak | HORIZONTAL |
| 2 | 2483.50 | 51.58 | 29.18 | 43.50 | 6.57 | 43.83 | 74.00 | -30.17 | Peak | HORIZONTAL |
| 3 | 2491.73 | 50.30 | 29.18 | 43.50 | 6.57 | 42.55 | 74.00 | -31.45 | Peak | HORIZONTAL |

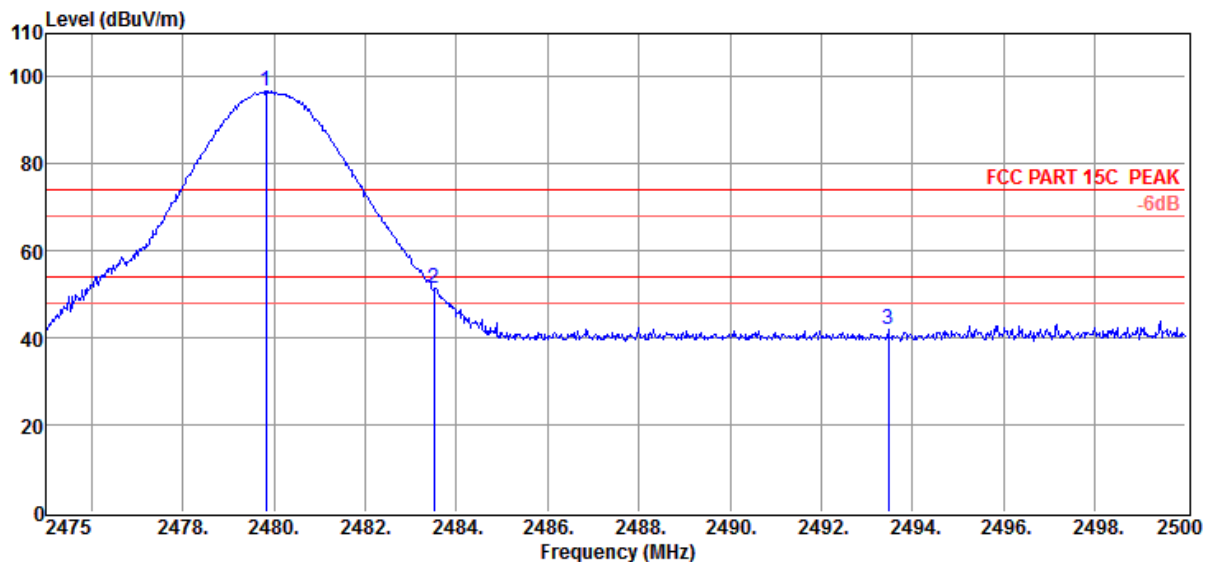
Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor

2. If Peak Result comply with AV limit, AV Result is deemed to comply with AV limit

Radiated Emission Test Result

Test Site : DDT 3m Chamber **E:\2013 Report data\13QE0013\13QE0013RE-RF.EM6**
Test Date : 03-23-2013 **Tested By** : Leo
EUT : Clipster **Model Number** : ISP29
Power Supply : DC 5V From PC input AC **Test Mode** : Tx Mode 8-DPSK CH78
 120V/60Hz
Condition : Temp:24.5°C,Humi:55%,Press:100.1 kPa **Antenna/Distance** : HF907 SN100276/3m/VERTICAL
Memo :

Data : 30



| Item (Mark) | Freq (MHz) | Read Level (dBμV) | Antenna Factor (dB/m) | PRM Factor dB | Cable Loss dB | Result Level (dBμV/m) | Limit Line (dBμV/m) | Over Limit (dB) | Detector | Polarization |
|----------------|---------------|-------------------------|-----------------------------|---------------------|---------------------|-----------------------------|---------------------------|-----------------------|----------|--------------|
| 1 | 2479.83 | 104.66 | 29.18 | 43.50 | 6.57 | 96.91 | 74.00 | 22.91 | Peak | VERTICAL |
| 2 | 2483.50 | 58.98 | 29.18 | 43.50 | 6.57 | 51.23 | 74.00 | -22.77 | Peak | VERTICAL |
| 3 | 2493.48 | 49.62 | 29.18 | 43.50 | 6.59 | 41.89 | 74.00 | -32.11 | Peak | VERTICAL |

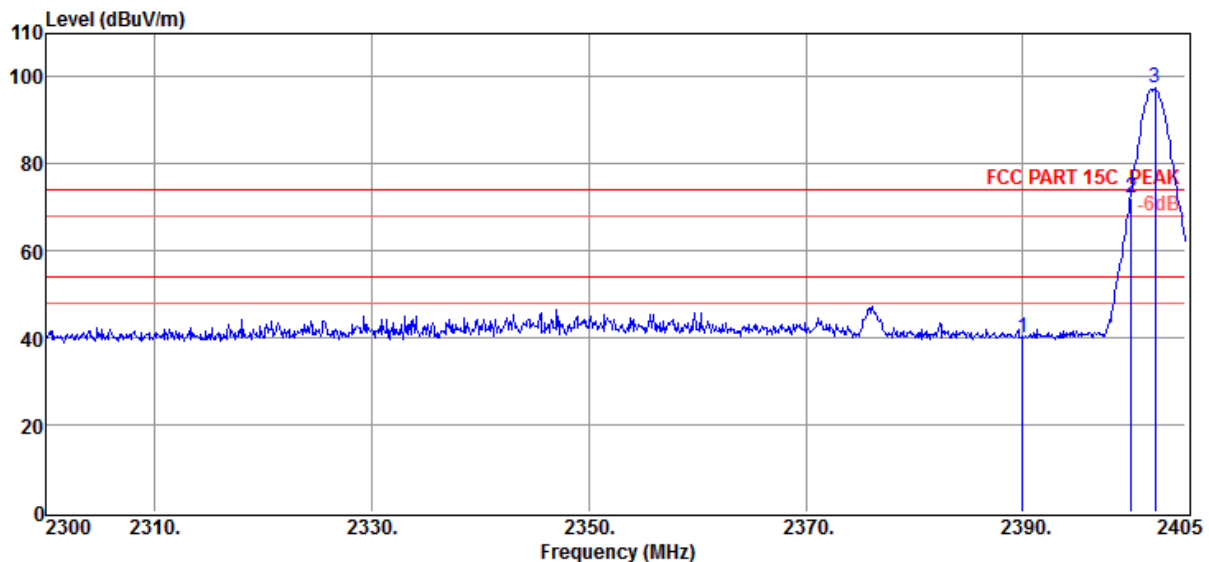
Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor

2. If Peak Result comply with AV limit, AV Result is deemed to comply with AV limit

Radiated Emission Test Result

Test Site : DDT 3m Chamber **E:\2013 Report data\13QE0013\13QE0013RE-RF.EM6**
Test Date : 03-23-2013 **Tested By** : Leo
EUT : Clipster **Model Number** : ISP29
Power Supply : DC 5V From PC input AC **Test Mode** : Tx Mode 8-DPSK CH0
 120V/60Hz
Condition : Temp:24.5°C,Humi:55%,Press:100.1 kPa **Antenna/Distance** : HF907 SN100276/3m/VERTICAL
Memo :

Data : 31



| Item (Mark) | Freq (MHz) | Read Level (dBμV) | Antenna Factor (dB/m) | PRM Factor dB | Cable Loss dB | Result Level (dBμV/m) | Limit Line (dBμV/m) | Over Limit (dB) | Detector | Polarization |
|----------------|---------------|-------------------------|-----------------------------|---------------------|---------------------|-----------------------------|---------------------------|-----------------------|----------|--------------|
| 1 | 2390.00 | 48.40 | 28.70 | 43.48 | 6.47 | 40.09 | 74.00 | -33.91 | Peak | VERTICAL |
| 2 | 2400.00 | 80.19 | 28.93 | 43.49 | 6.47 | 72.10 | 74.00 | -1.90 | Peak | VERTICAL |
| 3 | 2402.17 | 105.62 | 28.93 | 43.49 | 6.47 | 97.53 | 74.00 | 23.53 | Peak | VERTICAL |

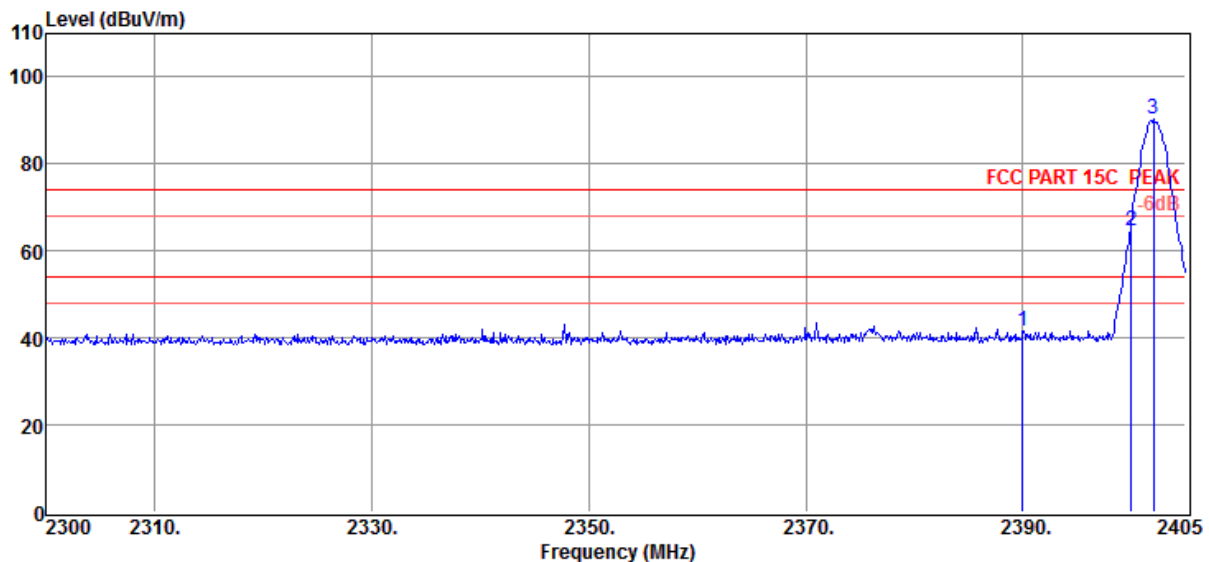
Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor

2. If Peak Result comply with AV limit, AV Result is deemed to comply with AV limit

Radiated Emission Test Result

Test Site : DDT 3m Chamber **E:** \2013 Report data\13QE0013\13QE0013RE-RF.EM6
Test Date : 03-23-2013 **Tested By** : Leo
EUT : Clipster **Model Number** : ISP29
Power Supply : DC 5V From PC input AC **Test Mode** : Tx Mode 8-DPSK CH0
 : 120V/60Hz
Condition : Temp:24.5°C,Humi:55%,Press:100.1 kPa **Antenna/Distance** : HF907 SN100276/3m/HORIZONTAL
Memo :

Data : 32



| Item (Mark) | Freq (MHz) | Read Level (dBμV) | Antenna Factor (dB/m) | PRM Factor dB | Cable Loss dB | Result Level (dBμV/m) | Limit Line (dBμV/m) | Over Limit (dB) | Detector | Polarization |
|----------------|---------------|-------------------------|-----------------------------|---------------------|---------------------|-----------------------------|---------------------------|-----------------------|----------|--------------|
| 1 | 2390.00 | 49.80 | 28.70 | 43.48 | 6.47 | 41.49 | 74.00 | -32.51 | Peak | HORIZONTAL |
| 2 | 2400.00 | 72.82 | 28.93 | 43.49 | 6.47 | 64.73 | 74.00 | -9.27 | Peak | HORIZONTAL |
| 3 | 2402.06 | 98.52 | 28.93 | 43.49 | 6.47 | 90.43 | 74.00 | 16.43 | Peak | HORIZONTAL |

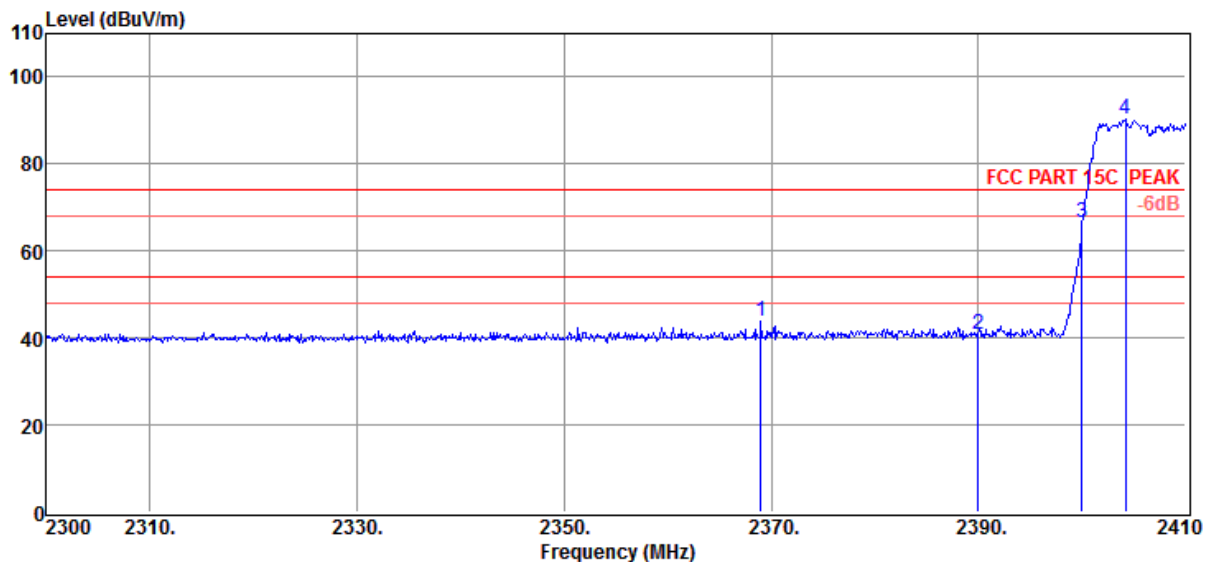
Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor

2. If Peak Result comply with AV limit, AV Result is deemed to comply with AV limit

Radiated Emission Test Result

Test Site : DDT 3m Chamber **E:** \2013 Report data\13QE0013\13QE0013RE-RF.EM6
Test Date : 03-23-2013 **Tested By** : Leo
EUT : Clipster **Model Number** : ISP29
Power Supply : DC 5V From PC input AC **Test Mode** : 8-DPSK Hopping on
 : 120V/60Hz
Condition : Temp:24.5°C,Humi:55%,Press:100.1 kPa **Antenna/Distance** : HF907 SN100276/3m/HORIZONTAL
Memo :

Data : 33



| Item (Mark) | Freq (MHz) | Read Level (dBμV) | Antenna Factor (dB/m) | PRM Factor dB | Cable Loss dB | Result Level (dBμV/m) | Limit Line (dBμV/m) | Over Limit (dB) | Detector | Polarization |
|----------------|---------------|-------------------------|-----------------------------|---------------------|---------------------|-----------------------------|---------------------------|-----------------------|----------|--------------|
| 1 | 2368.97 | 52.31 | 28.48 | 43.48 | 6.45 | 43.76 | 74.00 | -30.24 | Peak | HORIZONTAL |
| 2 | 2390.00 | 49.20 | 28.70 | 43.48 | 6.47 | 40.89 | 74.00 | -33.11 | Peak | HORIZONTAL |
| 3 | 2400.00 | 74.46 | 28.93 | 43.49 | 6.47 | 66.37 | 74.00 | -7.63 | Peak | HORIZONTAL |
| 4 | 2404.17 | 98.57 | 28.93 | 43.49 | 6.49 | 90.50 | 74.00 | 16.50 | Peak | HORIZONTAL |

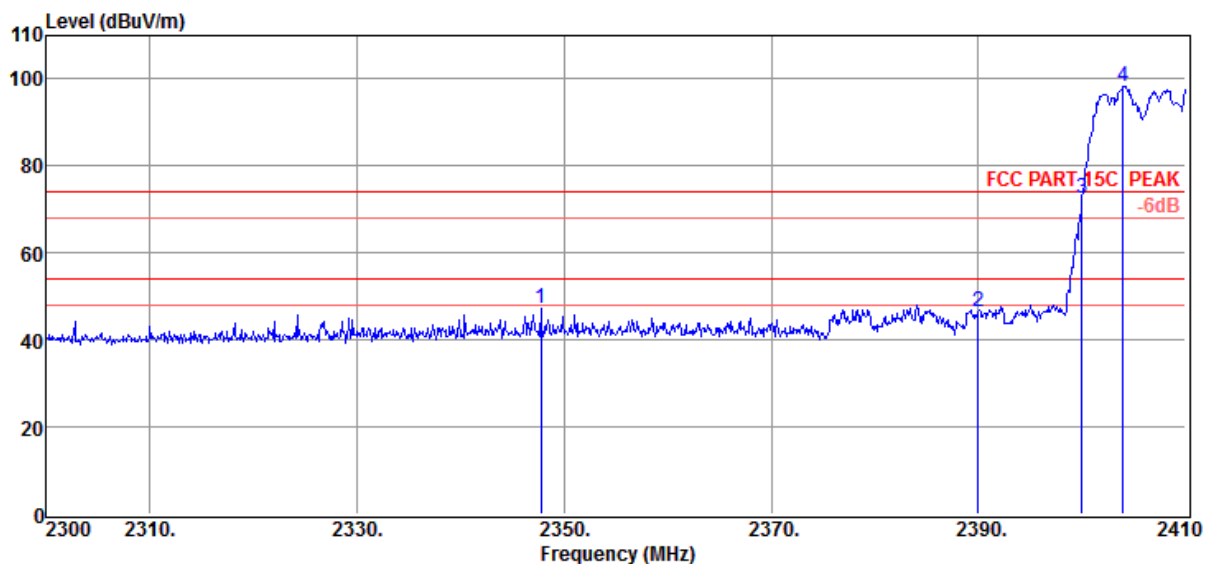
Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor

2. If Peak Result comply with AV limit, AV Result is deemed to comply with AV limit

Radiated Emission Test Result

Test Site : DDT 3m Chamber **E:\2013 Report data\13QE0013\13QE0013RE-RF.EM6**
Test Date : 03-23-2013 **Tested By** : Leo
EUT : Clipster **Model Number** : ISP29
Power Supply : DC 5V From PC input AC **Test Mode** : 8-DPSK Hopping on
 120V/60Hz
Condition : Temp:24.5°C,Humi:55%,Press:100.1 kPa **Antenna/Distance** : HF907 SN100276/3m/VERTICAL
Memo :

Data : 34



| Item (Mark) | Freq (MHz) | Read Level (dBμV) | Antenna Factor (dB/m) | PRM Factor dB | Cable Loss dB | Result Level (dBμV/m) | Limit Line (dBμV/m) | Over Limit (dB) | Detector | Polarization |
|----------------|---------------|-------------------------|-----------------------------|---------------------|---------------------|-----------------------------|---------------------------|-----------------------|----------|--------------|
| 1 | 2347.74 | 55.77 | 28.44 | 43.47 | 6.39 | 47.13 | 74.00 | -26.87 | Peak | VERTICAL |
| 2 | 2390.00 | 54.80 | 28.70 | 43.48 | 6.47 | 46.49 | 74.00 | -27.51 | Peak | VERTICAL |
| 3 | 2400.00 | 80.62 | 28.93 | 43.49 | 6.47 | 72.53 | 74.00 | -1.47 | Peak | VERTICAL |
| 4 | 2403.95 | 106.45 | 28.93 | 43.49 | 6.49 | 98.38 | 74.00 | 24.38 | Peak | VERTICAL |

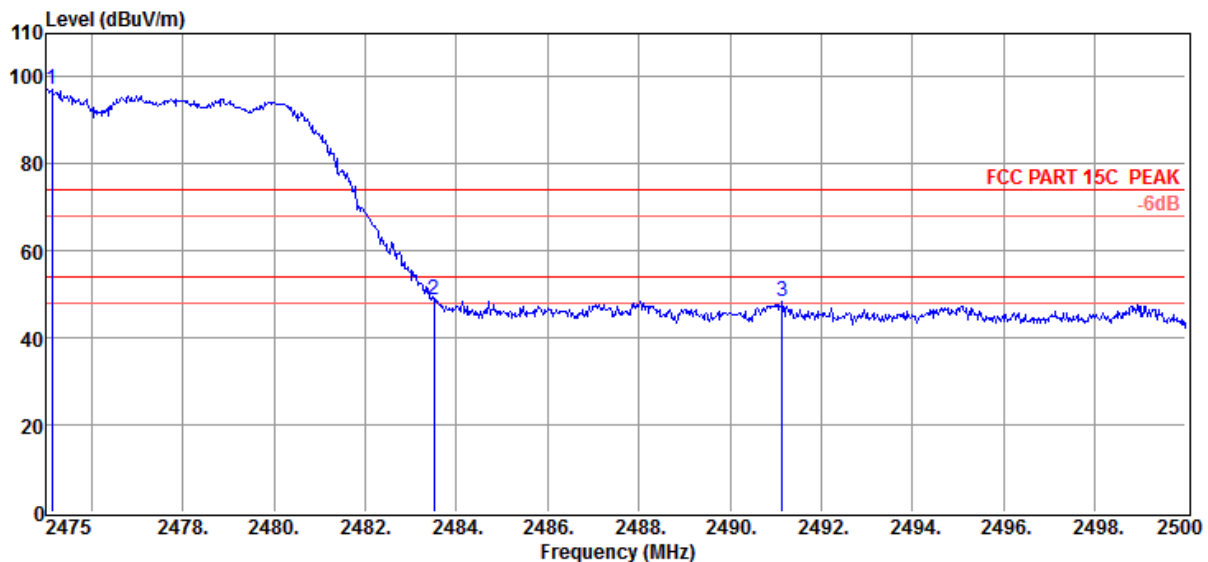
Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor

2. If Peak Result comply with AV limit, AV Result is deemed to comply with AV limit

Radiated Emission Test Result

Test Site : DDT 3m Chamber **E:\2013 Report data\13QE0013\13QE0013RE-RF.EM6**
Test Date : 03-23-2013 **Tested By** : Leo
EUT : Clipster **Model Number** : ISP29
Power Supply : DC 5V From PC input AC **Test Mode** : 8-DPSK Hopping on
 120V/60Hz
Condition : Temp:24.5°C,Humi:55%,Press:100.1 kPa **Antenna/Distance** : HF907 SN100276/3m/VERTICAL
Memo :

Data : 35



| Item (Mark) | Freq (MHz) | Read Level (dBμV) | Antenna Factor (dB/m) | PRM Factor dB | Cable Loss dB | Result Level (dBμV/m) | Limit Line (dBμV/m) | Over Limit (dB) | Detector | Polarization |
|----------------|---------------|-------------------------|-----------------------------|---------------------|---------------------|-----------------------------|---------------------------|-----------------------|----------|--------------|
| 1 | 2475.13 | 104.98 | 29.13 | 43.49 | 6.57 | 97.19 | 74.00 | 23.19 | Peak | VERTICAL |
| 2 | 2483.50 | 56.59 | 29.18 | 43.50 | 6.57 | 48.84 | 74.00 | -25.16 | Peak | VERTICAL |
| 3 | 2491.15 | 56.20 | 29.18 | 43.50 | 6.57 | 48.45 | 74.00 | -25.55 | Peak | VERTICAL |

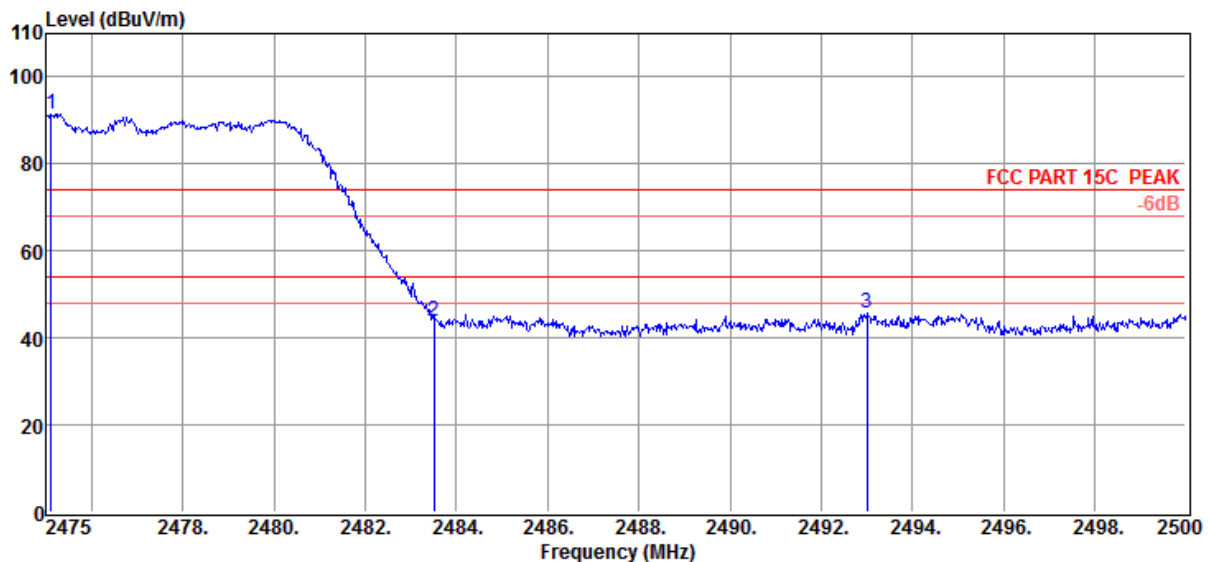
Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor

2. If Peak Result comply with AV limit, AV Result is deemed to comply with AV limit

Radiated Emission Test Result

Test Site : DDT 3m Chamber **E:\2013 Report data\13QE0013\13QE0013RE-RF.EM6**
Test Date : 03-23-2013 **Tested By** : Leo
EUT : Clipster **Model Number** : ISP29
Power Supply : DC 5V From PC input AC **Test Mode** : 8-DPSK Hopping on
 120V/60Hz
Condition : Temp:24.5°C,Humi:55%,Press:100.1 kPa **Antenna/Distance** : HF907 SN100276/3m/HORIZONTAL
Memo :

Data : 36



| Item (Mark) | Freq (MHz) | Read Level (dBμV) | Antenna Factor (dB/m) | PRM Factor dB | Cable Loss dB | Result Level (dBμV/m) | Limit Line (dBμV/m) | Over Limit (dB) | Detector | Polarization |
|----------------|---------------|-------------------------|-----------------------------|---------------------|---------------------|-----------------------------|---------------------------|-----------------------|----------|--------------|
| 1 | 2475.10 | 99.43 | 29.13 | 43.49 | 6.57 | 91.64 | 74.00 | 17.64 | Peak | HORIZONTAL |
| 2 | 2483.50 | 51.72 | 29.18 | 43.50 | 6.57 | 43.97 | 74.00 | -30.03 | Peak | HORIZONTAL |
| 3 | 2493.00 | 53.36 | 29.18 | 43.50 | 6.57 | 45.61 | 74.00 | -28.39 | Peak | HORIZONTAL |

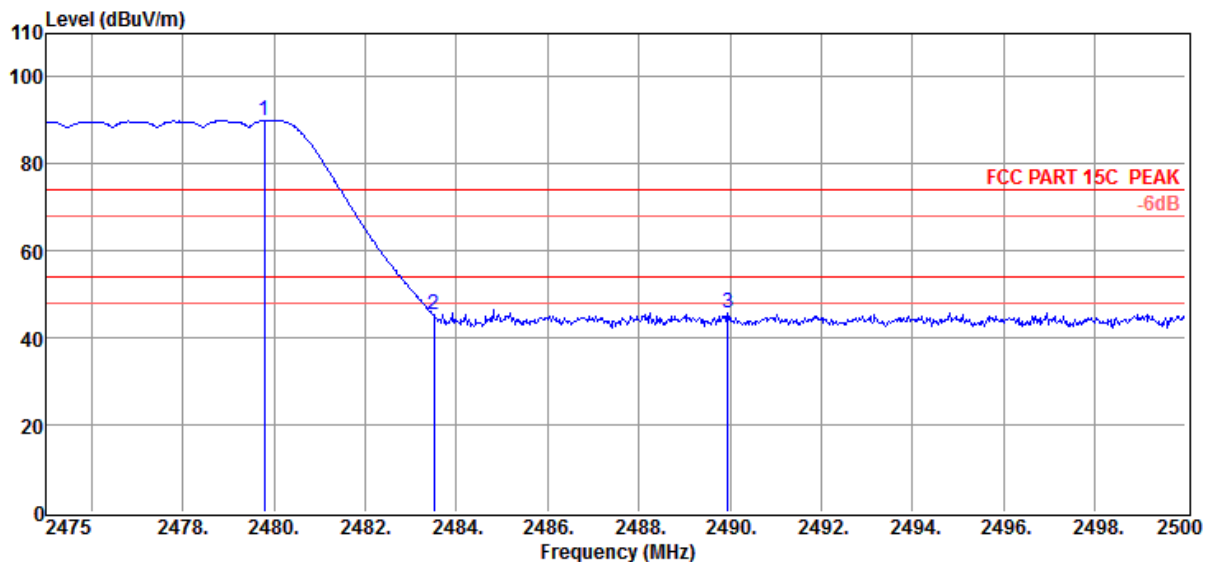
Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor

2. If Peak Result comply with AV limit, AV Result is deemed to comply with AV limit

Radiated Emission Test Result

Test Site : DDT 3m Chamber **E:\2013 Report data\13QE0013\13QE0013RE-RF.EM6**
Test Date : 03-23-2013 **Tested By** : Leo
EUT : Clipster **Model Number** : ISP29
Power Supply : DC 5V From PC input AC **Test Mode** : GFSK Hopping on
 120V/60Hz
Condition : Temp:24.5'C,Humi:55%,Press:100.1 kPa **Antenna/Distance** : HF907 SN100276/3m/HORIZONTAL
Memo :

Data : 37



| Item (Mark) | Freq (MHz) | Read Level (dBμV) | Antenna Factor (dB/m) | PRM Factor dB | Cable Loss dB | Result Level (dBμV/m) | Limit Line (dBμV/m) | Over Limit (dB) | Detector | Polarization |
|----------------|---------------|-------------------------|-----------------------------|---------------------|---------------------|-----------------------------|---------------------------|-----------------------|----------|--------------|
| 1 | 2479.78 | 97.76 | 29.18 | 43.50 | 6.57 | 90.01 | 74.00 | 16.01 | Peak | HORIZONTAL |
| 2 | 2483.50 | 52.95 | 29.18 | 43.50 | 6.57 | 45.20 | 74.00 | -28.80 | Peak | HORIZONTAL |
| 3 | 2489.95 | 53.39 | 29.18 | 43.50 | 6.57 | 45.64 | 74.00 | -28.36 | Peak | HORIZONTAL |

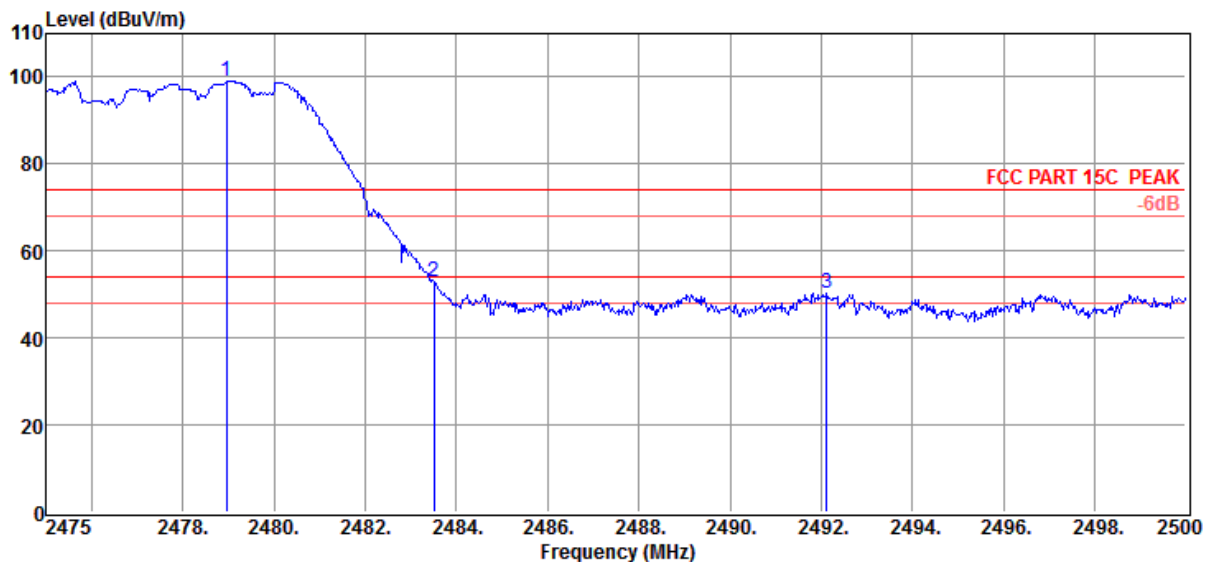
Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor

2. If Peak Result comply with AV limit, AV Result is deemed to comply with AV limit

Radiated Emission Test Result

Test Site : DDT 3m Chamber **E:\2013 Report data\13QE0013\13QE0013RE-RF.EM6**
Test Date : 03-23-2013 **Tested By** : Leo
EUT : Clipster **Model Number** : ISP29
Power Supply : DC 5V From PC input AC **Test Mode** : GFSK Hopping on
 120V/60Hz
Condition : Temp:24.5°C,Humi:55%,Press:100.1 kPa **Antenna/Distance** : HF907 SN100276/3m/VERTICAL
Memo :

Data : 38



| Item (Mark) | Freq (MHz) | Read Level (dBμV) | Antenna Factor (dB/m) | PRM Factor dB | Cable Loss dB | Result Level (dBμV/m) | Limit Line (dBμV/m) | Over Limit (dB) | Detector | Polarization |
|----------------|---------------|-------------------------|-----------------------------|---------------------|---------------------|-----------------------------|---------------------------|-----------------------|----------|--------------|
| 1 | 2478.95 | 106.86 | 29.18 | 43.50 | 6.57 | 99.11 | 74.00 | 25.11 | Peak | VERTICAL |
| 2 | 2483.50 | 60.65 | 29.18 | 43.50 | 6.57 | 52.90 | 74.00 | -21.10 | Peak | VERTICAL |
| 3 | 2492.13 | 57.97 | 29.18 | 43.50 | 6.57 | 50.22 | 74.00 | -23.78 | Peak | VERTICAL |

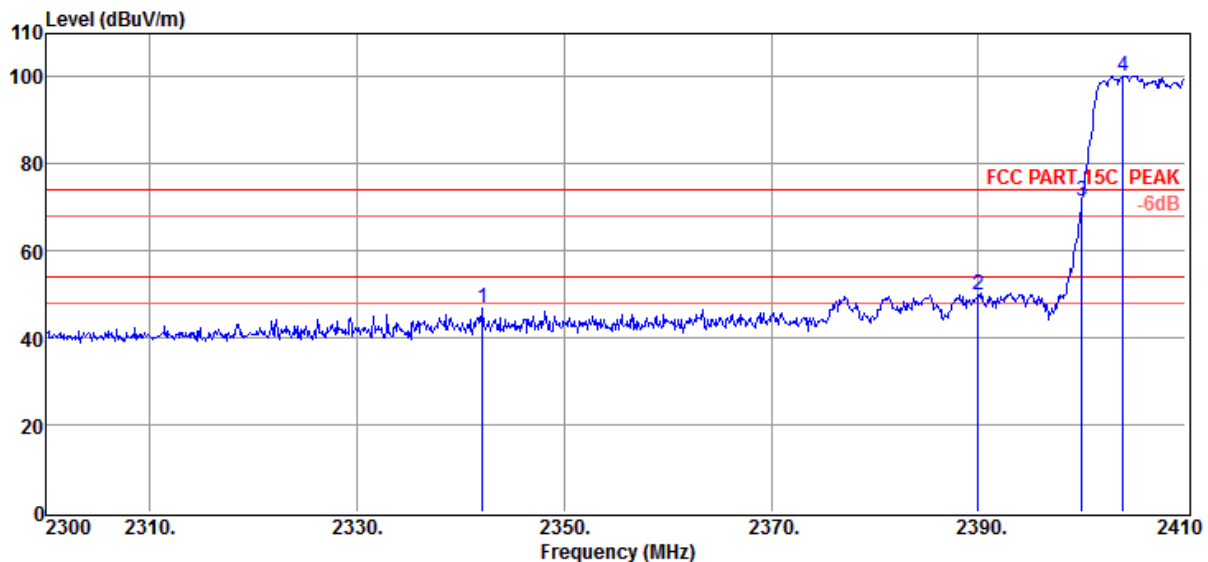
Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor

2. If Peak Result comply with AV limit, AV Result is deemed to comply with AV limit

Radiated Emission Test Result

Test Site : DDT 3m Chamber **E:\2013 Report data\13QE0013\13QE0013RE-RF.EM6**
Test Date : 03-23-2013 **Tested By** : Leo
EUT : Clipster **Model Number** : ISP29
Power Supply : DC 5V From PC input AC **Test Mode** : GFSK Hopping on
 120V/60Hz
Condition : Temp:24.5°C,Humi:55%,Press:100.1 kPa **Antenna/Distance** : HF907 SN100276/3m/VERTICAL
Memo :

Data : 39



| Item (Mark) | Freq (MHz) | Read Level (dBμV) | Antenna Factor (dB/m) | PRM Factor dB | Cable Loss dB | Result Level (dBμV/m) | Limit Line (dBμV/m) | Over Limit (dB) | Detector | Polarization |
|----------------|---------------|-------------------------|-----------------------------|---------------------|---------------------|-----------------------------|---------------------------|-----------------------|----------|--------------|
| 1 | 2342.13 | 55.41 | 28.44 | 43.47 | 6.39 | 46.77 | 74.00 | -27.23 | Peak | VERTICAL |
| 2 | 2390.00 | 58.35 | 28.70 | 43.48 | 6.47 | 50.04 | 74.00 | -23.96 | Peak | VERTICAL |
| 3 | 2400.00 | 79.41 | 28.93 | 43.49 | 6.47 | 71.32 | 74.00 | -2.68 | Peak | VERTICAL |
| 4 | 2403.95 | 108.24 | 28.93 | 43.49 | 6.49 | 100.17 | 74.00 | 26.17 | Peak | VERTICAL |

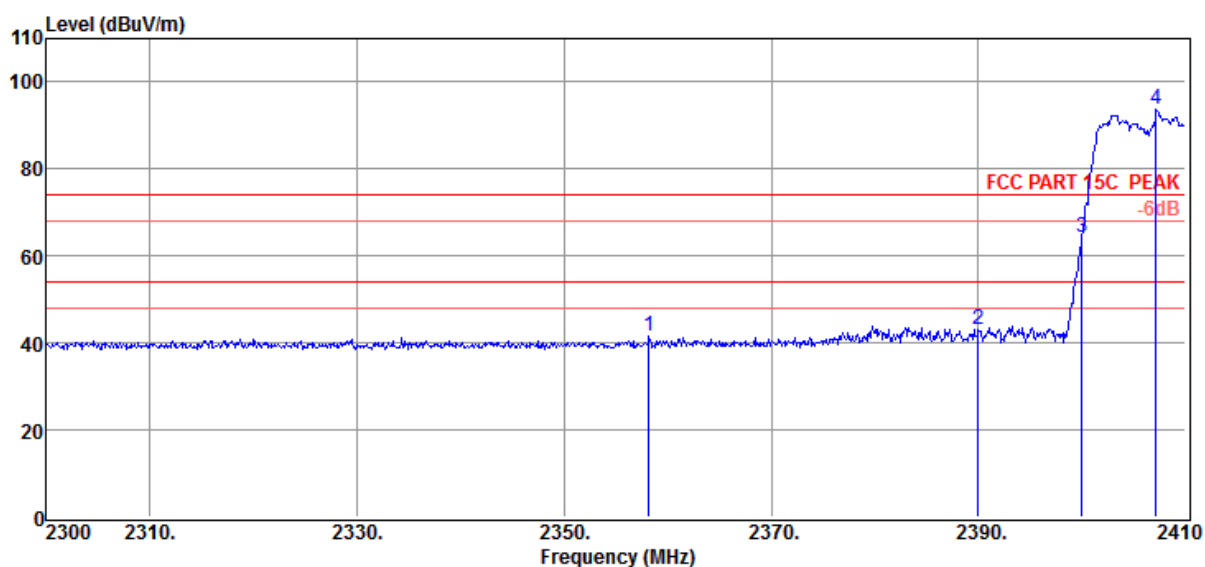
Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor

2. If Peak Result comply with AV limit, AV Result is deemed to comply with AV limit

Radiated Emission Test Result

Test Site : DDT 3m Chamber **E:** \2013 Report data\13QE0013\13QE0013RE-RF.EM6
Test Date : 03-23-2013 **Tested By** : Leo
EUT : Clipster **Model Number** : ISP29
Power Supply : DC 5V From PC input AC **Test Mode** : GFSK Hopping on
 : 120V/60Hz
Condition : Temp:24.5°C,Humi:55%,Press:100.1 kPa **Antenna/Distance** : HF907 SN100276/3m/HORIZONTAL
Memo :

Data : 40



| Item (Mark) | Freq (MHz) | Read Level (dBμV) | Antenna Factor (dB/m) | PRM Factor dB | Cable Loss dB | Result Level (dBμV/m) | Limit Line (dBμV/m) | Over Limit (dB) | Detector | Polarization |
|----------------|---------------|-------------------------|-----------------------------|---------------------|---------------------|-----------------------------|---------------------------|-----------------------|----------|--------------|
| 1 | 2358.19 | 50.10 | 28.48 | 43.47 | 6.42 | 41.53 | 74.00 | -32.47 | Peak | HORIZONTAL |
| 2 | 2390.00 | 51.39 | 28.70 | 43.48 | 6.47 | 43.08 | 74.00 | -30.92 | Peak | HORIZONTAL |
| 3 | 2400.00 | 72.40 | 28.93 | 43.49 | 6.47 | 64.31 | 74.00 | -9.69 | Peak | HORIZONTAL |
| 4 | 2407.14 | 101.79 | 28.93 | 43.49 | 6.49 | 93.72 | 74.00 | 19.72 | Peak | HORIZONTAL |

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor

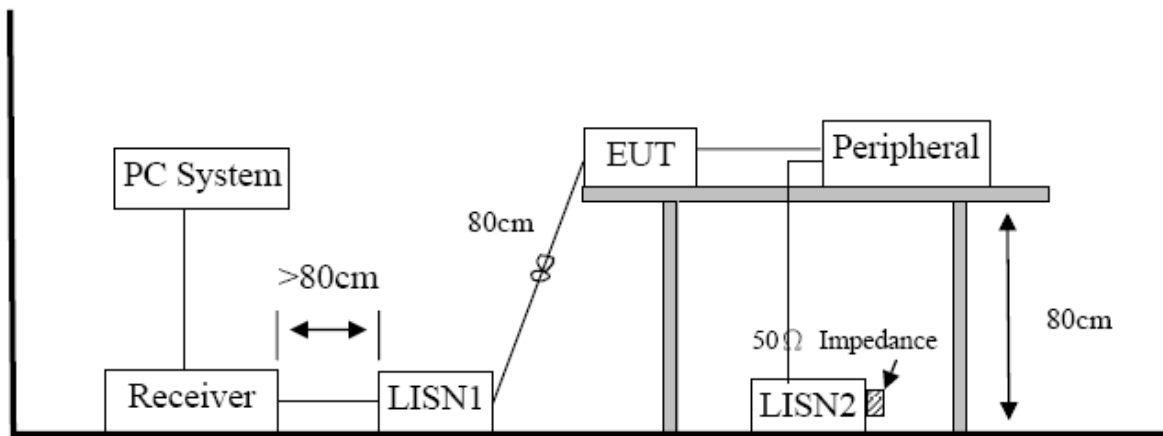
2. If Peak Result comply with AV limit, AV Result is deemed to comply with AV limit

10. Power Line Conducted Emission

10.1. Test equipment

| Item | Equipment | Manufacturer | Model No. | Serial No. | Last Cal. | Cal. Interval |
|------|---------------|--------------|-----------|------------|------------|---------------|
| 1 | Test Receiver | R&S | ESU8 | 100316 | 2012/11/26 | 1 Year |
| 2 | LISN 1 | R&S | ENV216 | 101109 | 2012/11/26 | 1 Year |
| 3 | LISN 2 | R&S | ESH2-Z5 | 100309 | 2012/11/26 | 1 Year |
| 4 | Pulse Limiter | R&S | ESH3-Z2 | 101242 | 2012/11/26 | 1 Year |

10.2. Block diagram of test setup



10.3. Power Line Conducted Emission Limits(Class B)

| Frequency | Quasi-Peak Level dB(μ V) | Average Level dB(μ V) |
|-----------------|----------------------------------|-------------------------------|
| 150kHz ~ 500kHz | 66 ~ 56* | 56 ~ 46* |
| 500kHz ~ 5MHz | 56 | 46 |
| 5MHz ~ 30MHz | 60 | 50 |

Note 1: * Decreasing linearly with logarithm of frequency.

Note 2: The lower limit shall apply at the transition frequencies.

10.4. Test Procedure

The EUT and Support equipment, if needed, were put placed on a non-metallic table, 80cm above the ground plane.

Configuration EUT to simulate typical usage as described in clause 2.4 and test equipment as described in clause 10.2 of this report.

All I/O cables were positioned to simulate typical actual usage as per ANSI C63.4.

All support equipment power received from a second LISN.

Emissions were measured on each current carrying line of the EUT using an EMI Test Receiver connected to the LISN powering the EUT.

The Receiver scanned from 150 kHz to 30MHz for emissions in each of the test modes.

During the above scans, the emissions were maximized by cable manipulation.

The test mode(s) described in clause 2.4 were scanned during the preliminary test.

After the preliminary scan, we found the test mode producing the highest emission level.

The EUT configuration and worse cable configuration of the above highest emission levels were recorded for reference of the final test.

EUT and support equipment were set up on the test bench as per the configuration with highest emission level in the preliminary test.

A scan was taken on both power lines, Neutral and Line, recording at least the six highest emissions.

Emission frequency and amplitude were recorded into a computer in which correction factors were used to calculate the emission level and compare reading to the applicable limit.

The test data of the worst-case condition(s) was recorded.

The bandwidth of test receiver is set at 9 KHz.

10.5. Test Result

PASS. (See below detailed test result)

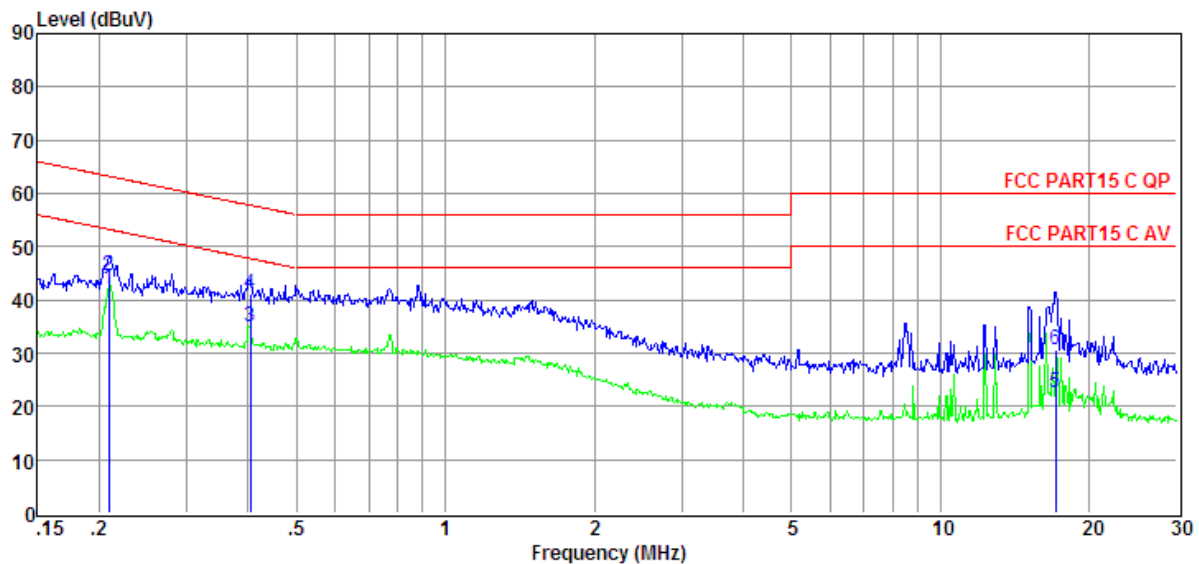
Note1: All emissions not reported below are too low against the prescribed limits.

Note2: “----” means average detection; “----” mans peak detection

Conducted Emission Test Result

Test Site : DDT 1# Shield Room **E:\2013 report data\13QE0013\CE.EM6**
Test Date : 2013-03-22 **Tested By** : Leo
EUT : Clipster **Model Number** : ISP29
Power Supply : DC 5V From PC input AC **Test Mode** : Tx mode
 120V/60Hz
Condition : Temp:24.5°C,Humi:55%, **LISN** : 2013 ENV216/LINE
 Press:100.1kPa
Memo :

Data : 10



| Item (Mark) | Freq (MHz) | Read Level (dBμV) | LISN Factor (dB) | Cable Loss (dB) | Pluse Limiter Factor (dB) | Result Level (dBμV) | Limit Line (dBμV) | Over Limit (dB) | Detector | Phase |
|----------------|---------------|-------------------------|------------------------|-----------------------|------------------------------------|---------------------------|-------------------------|-----------------------|----------|-------|
| 1 | 0.21 | 22.49 | 9.62 | 0.02 | 9.85 | 41.98 | 53.23 | -11.25 | Average | LINE |
| 2 | 0.21 | 25.07 | 9.62 | 0.02 | 9.85 | 44.56 | 63.23 | -18.67 | QP | LINE |
| 3 | 0.40 | 15.39 | 9.63 | 0.03 | 9.86 | 34.91 | 47.77 | -12.86 | Average | LINE |
| 4 | 0.40 | 21.49 | 9.63 | 0.03 | 9.86 | 41.01 | 57.77 | -16.76 | QP | LINE |
| 5 | 17.11 | 2.41 | 10.04 | 0.15 | 9.92 | 22.52 | 50.00 | -27.48 | Average | LINE |
| 6 | 17.11 | 10.43 | 10.04 | 0.15 | 9.92 | 30.54 | 60.00 | -29.46 | QP | LINE |

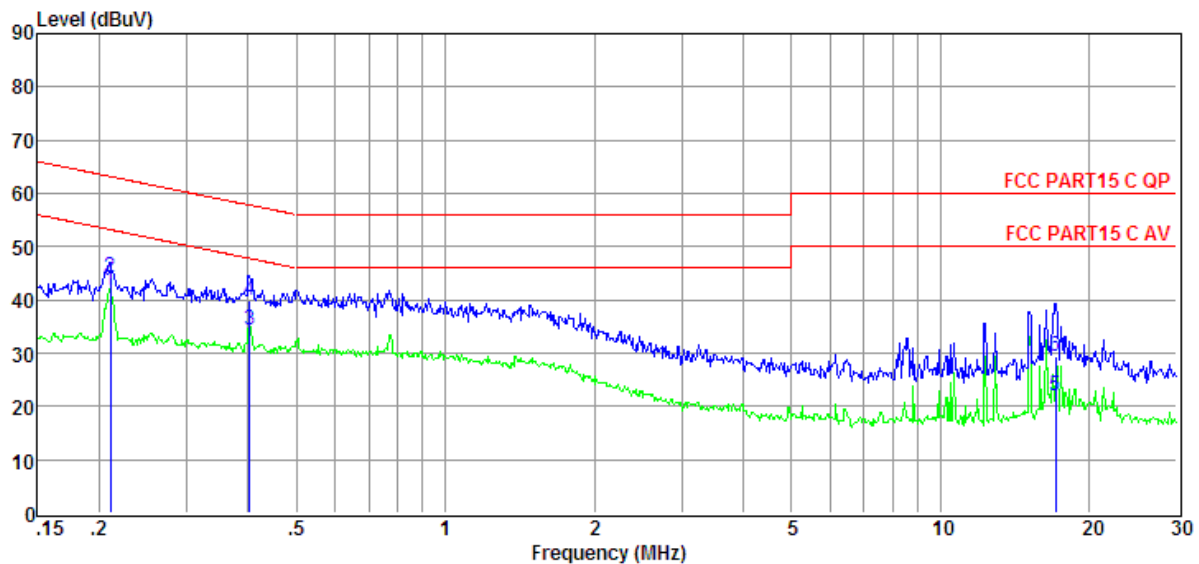
Note: 1. Result Level = Read Level + LISN Factor + Pluse Limiter Factor + Cable loss

2. If QP Result comply with AV limit, AV Result is deemed to comply with AV limit

Conducted Emission Test Result

Test Site : DDT 1# Shield Room **E:\2013 report data\13QE0013\CE.EM6**
Test Date : 2013-03-22 **Tested By** : Leo
EUT : Clipster **Model Number** : ISP29
Power Supply : DC 5V From PC input AC **Test Mode** : Tx mode
 120V/60Hz
Condition : Temp:24.5°C,Humi:55%, **LISN** : 2013 ENV216/NEUTRAL
 Press:100.1kPa
Memo :

Data : 12



| Item | Freq | Read Level | LISN Factor | Cable Loss | Pluse Limiter Factor | Result Level | Limit Line | Over Limit | Detector | Phase |
|--------|-------|------------|-------------|------------|----------------------|--------------|------------|------------|----------|---------|
| (Mark) | (MHz) | (dBμV) | (dB) | (dB) | (dB) | (dBμV) | (dBμV) | (dB) | | |
| 1 | 0.21 | 22.24 | 9.59 | 0.02 | 9.85 | 41.70 | 53.18 | -11.48 | Average | NEUTRAL |
| 2 | 0.21 | 24.81 | 9.59 | 0.02 | 9.85 | 44.27 | 63.18 | -18.91 | QP | NEUTRAL |
| 3 | 0.40 | 14.90 | 9.61 | 0.03 | 9.86 | 34.40 | 47.81 | -13.41 | Average | NEUTRAL |
| 4 | 0.40 | 20.48 | 9.61 | 0.03 | 9.86 | 39.98 | 57.81 | -17.83 | QP | NEUTRAL |
| 5 | 17.11 | 1.81 | 10.06 | 0.15 | 9.92 | 21.94 | 50.00 | -28.06 | Average | NEUTRAL |
| 6 | 17.11 | 9.30 | 10.06 | 0.15 | 9.92 | 29.43 | 60.00 | -30.57 | QP | NEUTRAL |

Note: 1. Result Level = Read Level + LISN Factor + Pluse Limiter Factor + Cable loss

2. If QP Result comply with AV limit, AV Result is deemed to comply with AV limit

11. Antenna Requirements

11.1. Limit

For intentional device, according to FCC 47 CFR Section 15.203, an intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. And according to FCC 47 CFR Section 15.247 (b), if transmitting antennas of directional gain greater than 6dBi are used, the power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6dBi.

11.2. Result

The antennas used for this product are built-in undetachable dipole antenna and that no antenna other than that furnished by the responsible party shall be used with the device, the maximum peak gain of the transmit antenna is only 2dBi.