



## TEST REPORT

Report Number: 101227082ATL-002

September 16, 2014

**Product Designation: US (6211) Canada (9755) AU (6213)**

Standard: FCC 15.249 - Operation within the bands 902-928 MHz, 2400-2483.5 MHz,  
5725-5875 MHz, and 24.0-24.25 GHz.  
RSS-210, Issue 8, 2010

Tested by:  
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## 1.0 Introduction and Conclusion

The tests indicated in section 2.0 were performed on the product constructed as described in section 3.0. The remaining test sections are the verbatim text from the actual data sheets used during the investigation. These test sections include the test name, the specified test Method, a list of the actual Test Equipment Used, documentation Photos, Results and raw Data. No additions, deviations, or exclusions have been made from the standard(s) unless specifically noted.

Based on the results of our investigation, we have concluded the product tested complies with the requirements of the standard(s) indicated. The results obtained in this test report pertain only to the item(s) tested.

## 2.0 Test Summary

| Section | Test Full Name                                                                                                          | Test Date  | Result |
|---------|-------------------------------------------------------------------------------------------------------------------------|------------|--------|
| 4.0     | Overview of EUT (Low Power Transmitters) (FCC 15C - EUT Overview)                                                       |            |        |
| 5.0     | Duty Cycle Determination (FCC 15A - 15.35(c))                                                                           | 07/25/2013 | PASS   |
| 6.0     | Radiated emissions (E-field) for low power intentional radiators. (Radiated Emissions LPD)                              | 07/26/2013 | PASS   |
| 7.0     | Occupied Bandwidth (FCC Part 2.1049)                                                                                    | 07/29/2013 | PASS   |
| 8.0     | Additional provisions to the general radiated emission limitations. (FCC 15C - 15.215)                                  | 07/29/2013 | PASS   |
| 9.0     | Revision History (Revision History)                                                                                     |            |        |
| NA      | Conducted emissions on AC power lines (Conducted Emissions) was waived due to the device operates in battery mode only. |            |        |

### 3.0 Description of Equipment Under Test

| Equipment Under Test                                                  |                       |              |           |
|-----------------------------------------------------------------------|-----------------------|--------------|-----------|
| Description                                                           | Manufacturer          | Model Number | Country   |
| Contour Next (Plus) Link 2.4 Wireless Blood Glucose Monitoring System | Bayer HealthCare, LLC | 6211         | US        |
| Contour Next (Plus) Link 2.4 Wireless Blood Glucose Monitoring System | Bayer HealthCare, LLC | 9755         | Canada    |
| Contour Next (Plus) Link 2.4 Wireless Blood Glucose Monitoring System | Bayer HealthCare, LLC | 6213         | Australia |

|                        |          |
|------------------------|----------|
| EUT receive date:      | 07/21/13 |
| EUT receive condition: | Good     |

#### Description of EUT provided by Client:

Bayer's Contour Next (Plus) Link 2.4 Wireless Blood Glucose Monitoring System (Meter, test strips and control solution) is intended for self-testing by persons with diabetes to monitor glucose concentrations for the quantitative measurement of glucose in venous and whole blood and fresh capillary whole blood drawn from the fingertip or palm.

The Contour Next (Plus) Link 2.4 Wireless Blood Glucose Monitoring System is intended to be used to measure BG and obtain a result in mg/dL or mmol/L, transmit glucose values and send a remote bolus to Medtronic MiniMed devices (MiniMed 640G Insulin Pump) and facilitate transfer of information to CareLink® Personal therapy management software through use of radio frequency communication.

BGM and Pump needs to go through association process to connect to each other before BG value or Bolus can be sent from the BGM to the Pump. In its simplest form, the system consists of a Pump coordinator and BGM endnode. The coordinator is the center of a star wireless network that may contain multiple BGM end nodes.

The BGM Bolus function allows sending a manual or preset bolus from BGM to the Pump if the pump and BGM are connected. A manual or preset bolus can be sent from the test results screen or from the Main Menu. The Remote Bolus feature can be turned on/turned off at the pump. To summarize, to send a bolus from the BGM, the BGM must be connected to the pump and the Remote Bolus feature must be turned ON at the pump.

#### Description of EUT exercising:

For the transmit mode, the meter was set from 2420-2480MHz, which was monitored by a spectrum analyzer to determine consistent signal strength during the test, and placed in an idle mode for non-transmit tests.

**4.0 Overview of EUT (Low Power Transmitters) (FCC 15C - EUT Overview)****Method:**

Complete the overview spreadsheet.

Related Submittal(s) Grants: This report is for use with an application for certification of a low power transmitter. One transmitter is included in the application.

**Data:**

|                                                     |                                                                                                                                          |
|-----------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------|
| Applicant                                           | Bayer HealthCare LLC                                                                                                                     |
|                                                     | 430 S. Beiger Street                                                                                                                     |
|                                                     | Mishawaka, Indiana 46544                                                                                                                 |
| Trade Name & Model No.                              | Contour Next (Plus) Link 2.4 Wireless Blood Glucose Monitoring System                                                                    |
| FCC Identifier                                      | VN5-N3                                                                                                                                   |
| Trade Name & Model No.                              | Contour Next (Plus) Link 2.4 Wireless Blood Glucose Monitoring System                                                                    |
| IC Identifier                                       | 7347A-3                                                                                                                                  |
| Frequency Range (MHz)                               | 2420-2480                                                                                                                                |
| Antenna Type (15.203)                               | Internal - PCB                                                                                                                           |
| Manufacturer name & address                         | Bayer HealthCare LLC                                                                                                                     |
|                                                     | 430 S. Beiger Street                                                                                                                     |
|                                                     | Mishawaka, Indiana 46544                                                                                                                 |
| Related Submittals and Grants:                      | This report is for use with an application for certification of a low power transmitter. One transmitter is included in the application. |
| Additions, deviations and exclusions from standards | None                                                                                                                                     |

## 5.0 Duty Cycle Determination (FCC 15A - 15.35(c))

### Method:

(c) Unless otherwise specified, e.g. §15.255(b), when the radiated emission limits are expressed in terms of the average value of the emission, and pulsed operation is employed, the measurement field strength shall be determined by averaging over one complete pulse train, including blanking intervals, as long as the pulse train does not exceed 0.1 seconds. As an alternative (provided the transmitter operates for longer than 0.1 seconds) or in cases where the pulse train exceeds 0.1 seconds, the measured field strength shall be determined from the average absolute voltage during a 0.1 second interval during which the field strength is at its maximum value. The exact method of calculating the average field strength shall be submitted with any application for certification or shall be retained in the measurement data file for equipment subject to notification or verification.

Determine the period of the pulse train, T, in mSec and record the results. T is defined as the time from the beginning of one pulse train to the beginning of the next pulse train.

Count the number of different types of pulses, N and record the results.

For each of the different types of pulses, count the number of occurrences within one pulse train.

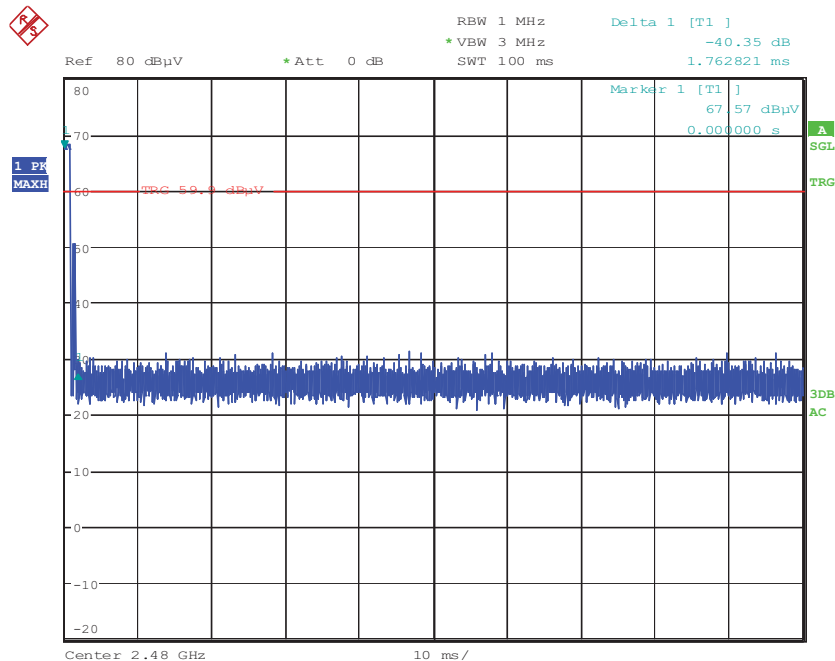
Use the Duty Cycle Correction Factor, DCCF, from the results table and use it to adjust the field strength measurements recorded for radiated emissions.

### Test Equipment Used:

| Description:              | Manufacturer:   | Model: | Asset Number: | Cal Date:  | Cal Due:   |
|---------------------------|-----------------|--------|---------------|------------|------------|
| EMI Receiver (20Hz-40GHz) | Rohde & Schwarz | ESU 40 | 200162        | 02/15/2013 | 02/15/2014 |

**Results: The sample tested was found to Comply.**

### Plot:



Date: 26.FEB.2013 08:46:49

Duty Cycle @ 100mS

## 5.0 Duty Cycle Determination (FCC 15A - 15.35(c))

|                                    |     |
|------------------------------------|-----|
| Duration of Pulse Train, T (mSec): | 100 |
| Averaging Interval, $A_I$ (mSec):  | 100 |
| Number of different Pulses, N:     | 1   |

|                | Number<br>(#P <sub>x</sub> ) | Pulse Width, mSec<br>(PW <sub>x</sub> ) | Product<br>(#P <sub>x</sub> )*(PW <sub>x</sub> ) |
|----------------|------------------------------|-----------------------------------------|--------------------------------------------------|
| Pulse Width 1  | 1                            | 1.762                                   | 1.762                                            |
| Pulse Width 2  |                              |                                         |                                                  |
| Pulse Width 3  |                              |                                         |                                                  |
| Pulse Width 4  |                              |                                         |                                                  |
| Pulse Width 5  |                              |                                         |                                                  |
| Pulse Width 6  |                              |                                         |                                                  |
| Pulse Width 7  |                              |                                         |                                                  |
| Pulse Width 8  |                              |                                         |                                                  |
| Pulse Width 9  |                              |                                         |                                                  |
| Pulse Width 10 |                              |                                         |                                                  |

|                                   |         |
|-----------------------------------|---------|
| Duty Cycle:                       | 0.01762 |
| Duty Cycle Correction Factor, dB: | -35.1   |

$$T_{on} = (PW_1 * \#P_1) + (PW_2 * \#P_2) + \dots + (PW_n * \#P_n)$$

$$DutyCycle = T_{on} \div A_I$$

$$DCCF = 20 * \log_{10}(DutyCycle)$$

## 6.0 Radiated emissions (E-field) for low power intentional radiators. (Radiated Emissions LPD)

### Method:

Measurements shall be performed with a quasi-peak detector instrument that meets the requirements of Section One of CISPR 16.

#### Bandwidths:

30 MHz to 1000 MHz: 120 kHz RBW and 1 MHz VBW

Above 1000 MHz: 1 MHz RBW and 3 MHz VBW

#### Detectors:

Equal to or less than 1000 MHz: CISPR quasi-peak detector (alternative: peak detector)

Above 1000 MHz: Average detector (applies to average limit)

Above 1000 MHz: Peak detector (applies to peak limit)

#### Limits:

Equal to or less than 1000 MHz, the limits are specified as quasi-peak. If a peak detector is used, the limit does not change.

Above 1000 MHz, the limits are specified as average. The peak limit is 20 dB above the average limit. Both peak and average measurements are required to be reported.

#### Frequency range of radiated measurements

For an intentional radiator, the spectrum shall be investigated from the lowest radio frequency signal generated in the device, without going below 9 kHz, up to at least the frequency shown in this paragraph:

(1) If the intentional radiator operates below 10 GHz: to the tenth harmonic of the highest fundamental frequency or to 40 GHz, whichever is lower.

(2) If the intentional radiator operates at or above 10 GHz and below 30 GHz: to the fifth harmonic of the highest fundamental frequency or to 100 GHz, whichever is lower.

(3) If the intentional radiator operates at or above 30 GHz: to the fifth harmonic of the highest fundamental frequency or to 200 GHz, whichever is lower, unless specified otherwise elsewhere in the rules.

(4) If the intentional radiator contains a digital device, regardless of whether this digital device controls the functions of the intentional radiator or the digital device is used for additional control or function purposes other than to enable the operation of the intentional radiator, the frequency range shall be investigated up to the range specified in paragraphs (a)(1) through (a)(3) of this section or the range applicable to the digital device, as shown in paragraph (b)(1) of this section, whichever is the higher frequency range of investigation.

#### Measurement antenna requirements:

Below 30 MHz - Loop antenna

30 to 1000 MHz - Biconical, Log Periodic, or equivalent

Above 1000 MHz - Horn or equivalent

Measurements of the radiated field are made with the antenna located at a distance of 3 or 10 meters from the EUT. The limit applied to the measurement shall be appropriate for the test distance. The test distance shall be indicated in the results section.

The EUT shall be arranged and connected with cables terminated in accordance with the product specification.

Exploratory tests should be carried out while varying the cable positions to determine the maximum or near-maximum emission level. During manipulation, cables shall not be placed under or on top of the system test components unless such placement is required by the inherent equipment design.

The antenna shall be adjusted between 1m and 4m in height above the ground plane for maximum meter reading at each test frequency.

The antenna-to-EUT azimuth shall be varied during the measurement to find the maximum field-strength readings.

The antenna-to-EUT polarization (horizontal and vertical) shall be varied during the measurements to find the maximum field-strength readings.

If the EUT is handheld, it shall be oriented in each of its orthogonal axes.

If the EUT is intended for tabletop use, it shall be placed on a table whose top is 0.8m above the ground plane. The table shall be constructed of non-conductive materials. Its dimensions are at least 1m by 1.5m, but may be extended for larger EUT.

If EUT is floor standing, the EUT was placed on a horizontal metal ground plane and isolated from the ground plane by up to 12 mm of insulating material.

Equipment setup for radiated disturbance tests shall follow the guidelines of ANSI C63.4:2003.

### TEST SITE

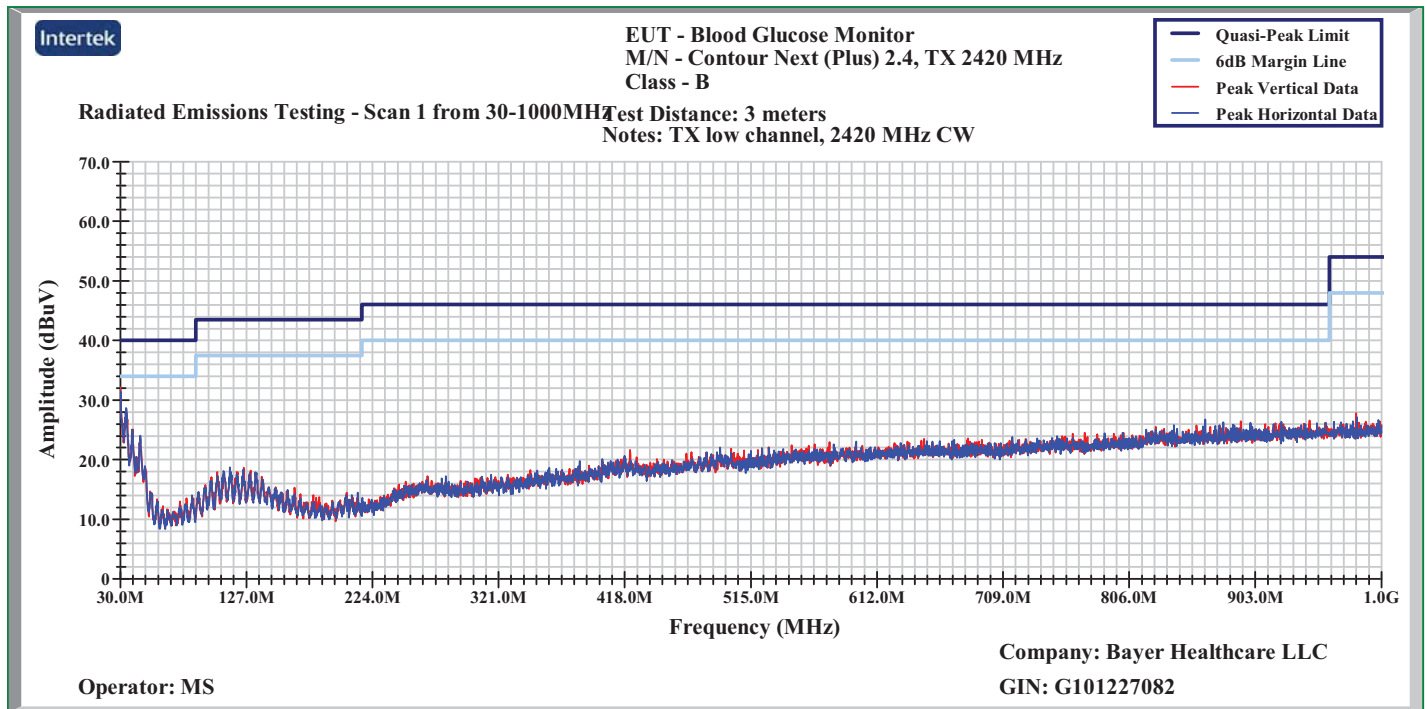
The test site for radiated emissions is located at 1950 Evergreen Blvd, Suite 100, Duluth, Georgia 30096.

### Test Equipment Used:

| Description:      | Manufacturer: | Model: | Asset Number: | Cal Date: | Cal Due: |
|-------------------|---------------|--------|---------------|-----------|----------|
| Antenna (1-18GHz) | EMCO          | 3115   | 213061        | 08/08/12  | 08/08/13 |

**6.0 Radiated emissions (E-field) for low power intentional radiators. (Radiated Emissions LPD)****Test Equipment Used:**

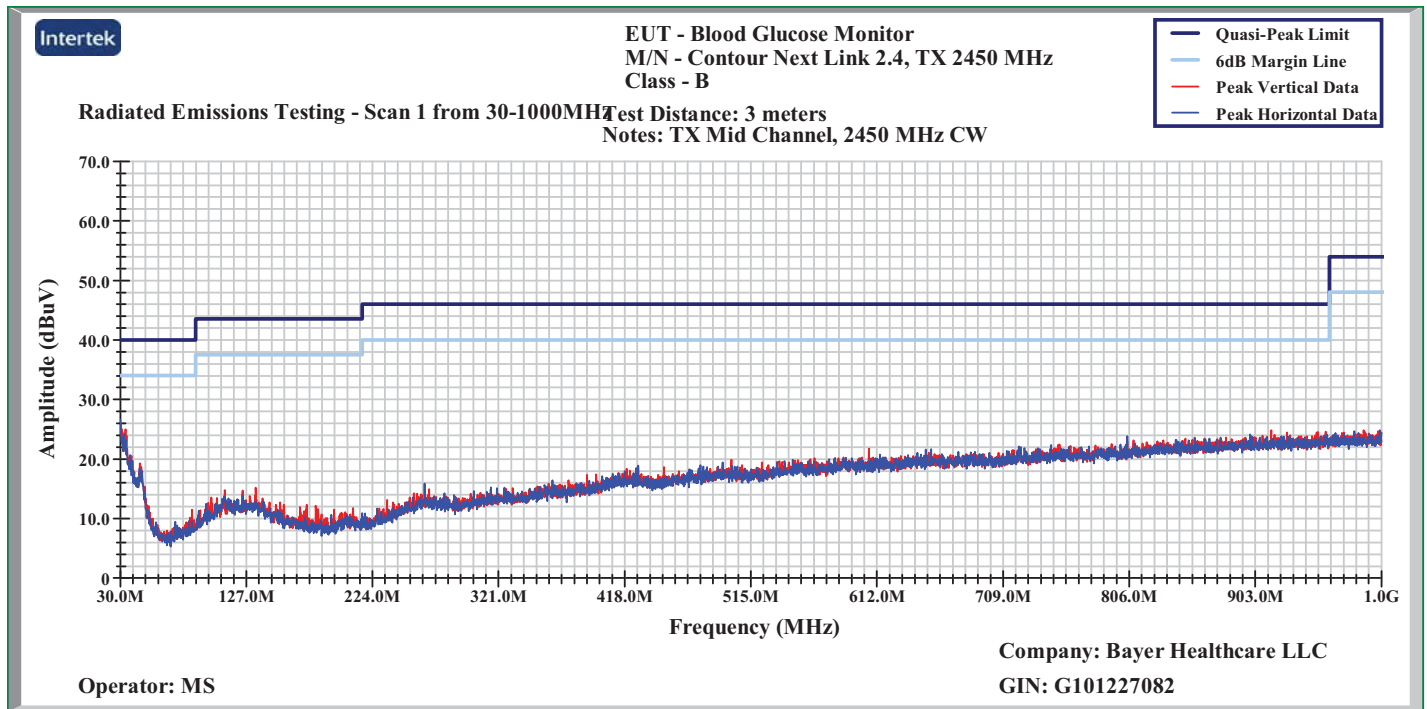
| Description:                      | Manufacturer:      | Model:        | Asset Number: | Cal Date:  | Cal Due:   |
|-----------------------------------|--------------------|---------------|---------------|------------|------------|
| Antenna, BiLog, 20-2000MHz        | Chase              | CBL6112B      | 211386        | 11/12/2012 | 11/12/2013 |
| Antenna, Horn, 18-40 GHz          | EMCO               | 3116          | 213023        | 05/08/2013 | 05/08/2014 |
| Cable MP3, 18 GHz, N, 10m         | Megaphase          | G919-NKNK-394 | MP3           | 05/13/2013 | 05/13/2014 |
| Cable, 7 meters, 1-18GHz          | Storm Products Co. | PR90-195-7MTR | ST-3          | 09/07/2011 | VBV        |
| Cable, N-N 3 meters, 18GHz        | Megaphase          | TM18 NKNK 118 | E203          | 05/08/2013 | 05/08/2014 |
| Cable, N-N, 3 meters, 18GHz       | Megaphase          | TM18-NKNK-118 | E206          | 05/13/2013 | 05/13/2014 |
| EMI Receiver                      | Hewlett Packard    | 8546A         | 213109        | 01/03/2013 | 01/03/2014 |
| EMI Receiver, Preselector section | Hewlett Packard    | 85460A        | 213108        | 01/03/2013 | 01/03/2014 |

**Results: The sample tested was found to Comply.****Plot:**

Radiated Emissions - 30-1000MHz Low Channel

## 6.0 Radiated emissions (E-field) for low power intentional radiators. (Radiated Emissions LPD)

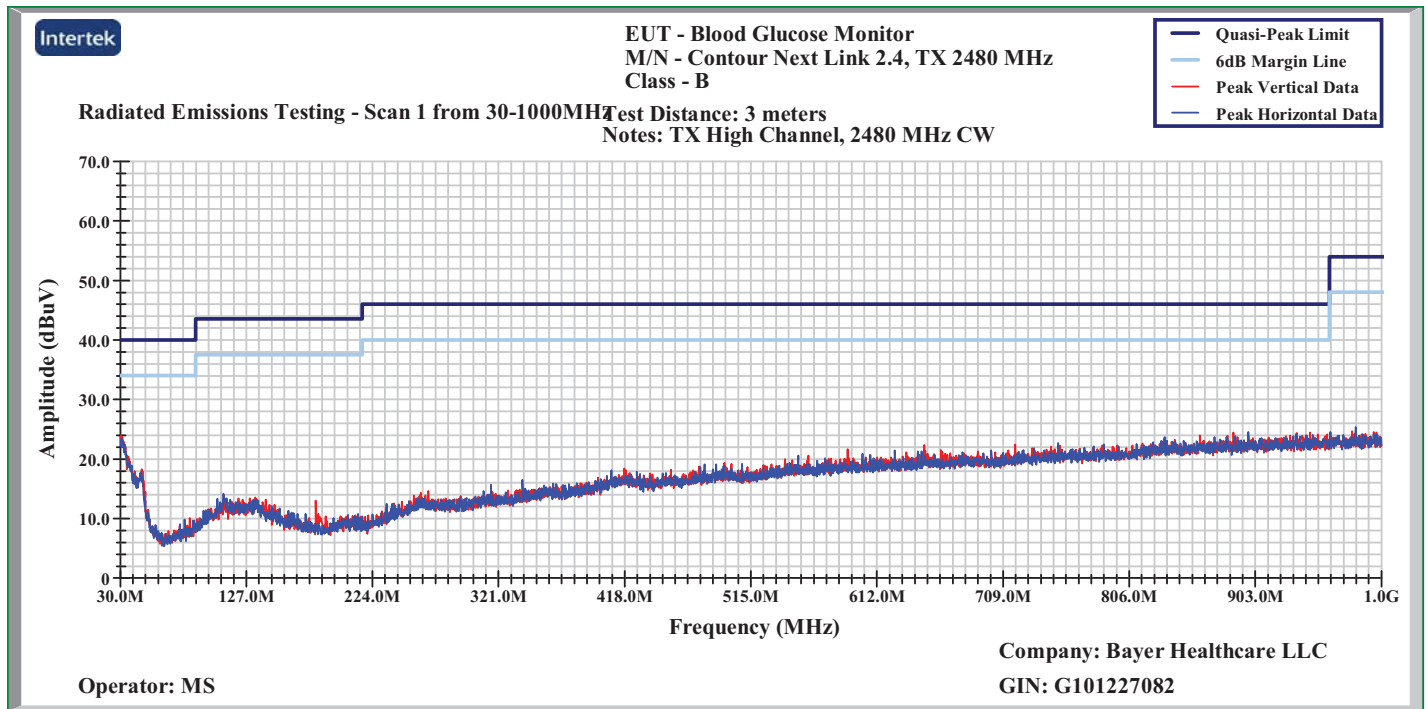
Plot:



Radiated Emissions - 30-1000MHz Mid Channel

## 6.0 Radiated emissions (E-field) for low power intentional radiators. (Radiated Emissions LPD)

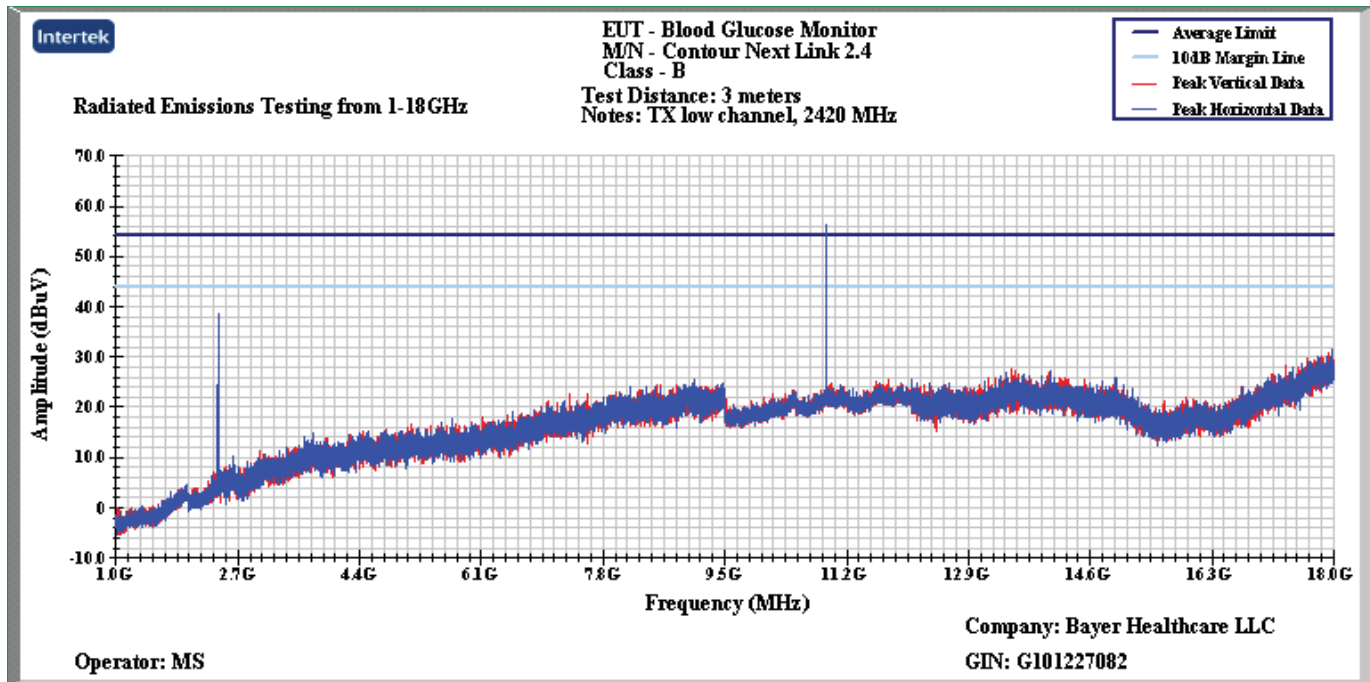
Plot:



Radiated Emissions - 30-1000MHz High Channel

## 6.0 Radiated emissions (E-field) for low power intentional radiators. (Radiated Emissions LPD)

Plot:

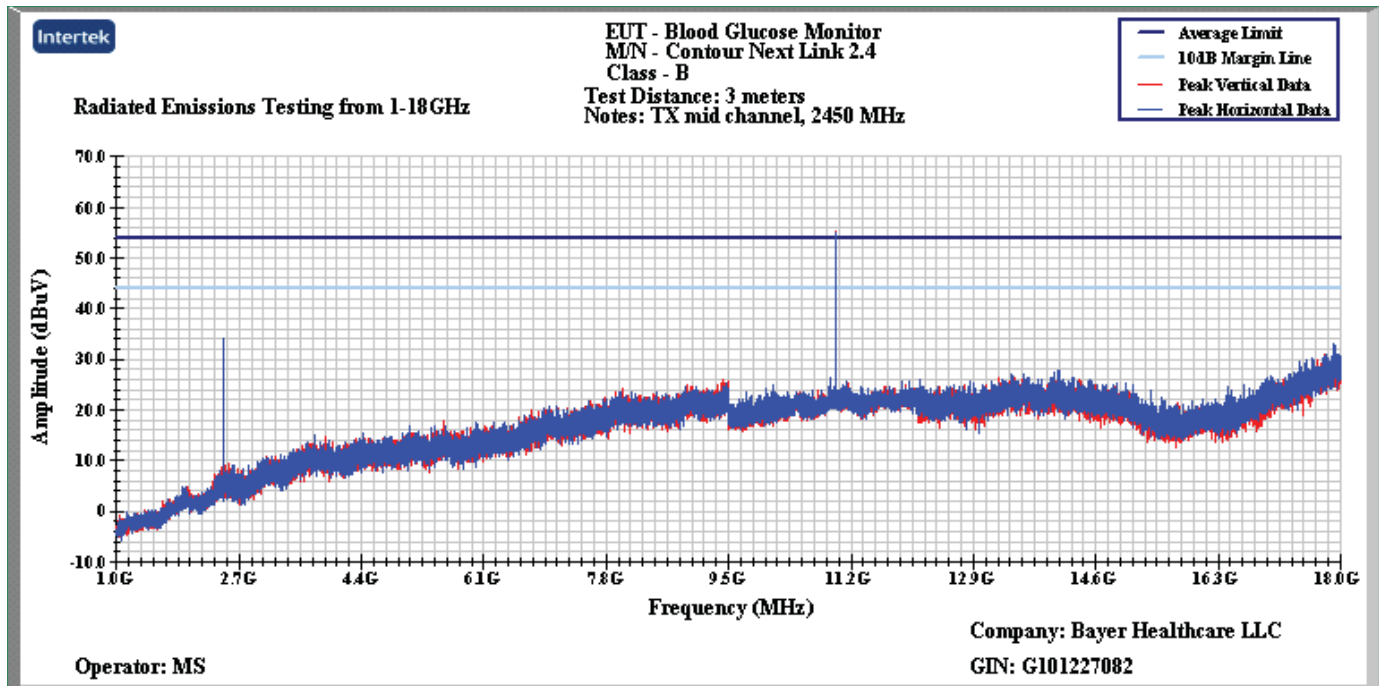


The signal 10919.5MHz is a pulsed emission.

Radiated Emissions - 1-18GHz Low Channel

## 6.0 Radiated emissions (E-field) for low power intentional radiators. (Radiated Emissions LPD)

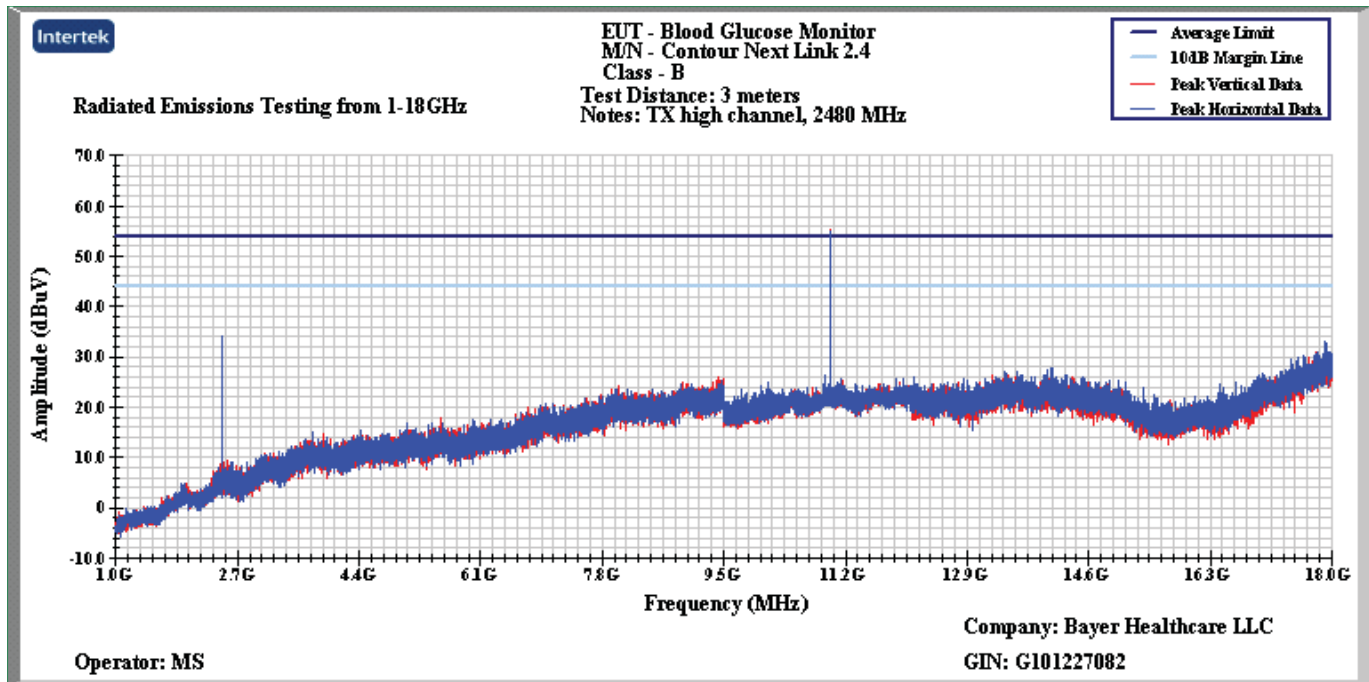
Plot:



Radiated Emissions - 1-18GHz Mid Channel

## 6.0 Radiated emissions (E-field) for low power intentional radiators. (Radiated Emissions LPD)

Plot:

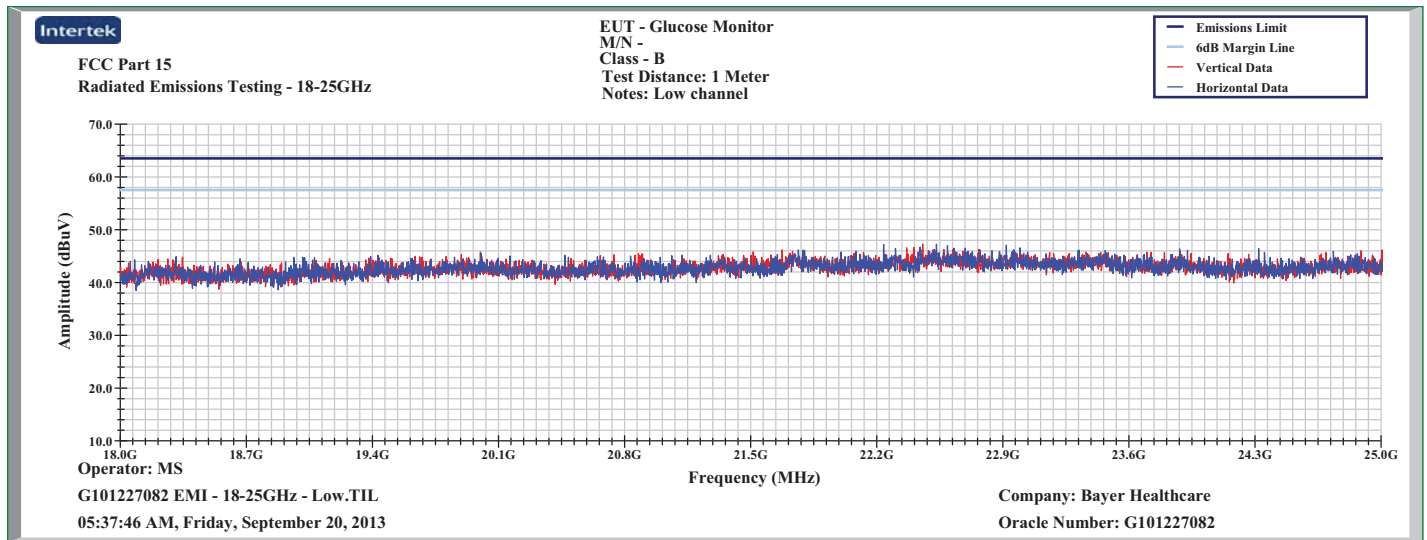


The signal 10975.0MHz is a pulsed emission.

Radiated Emissions - 1-18GHz High Channel

## 6.0 Radiated emissions (E-field) for low power intentional radiators. (Radiated Emissions LPD)

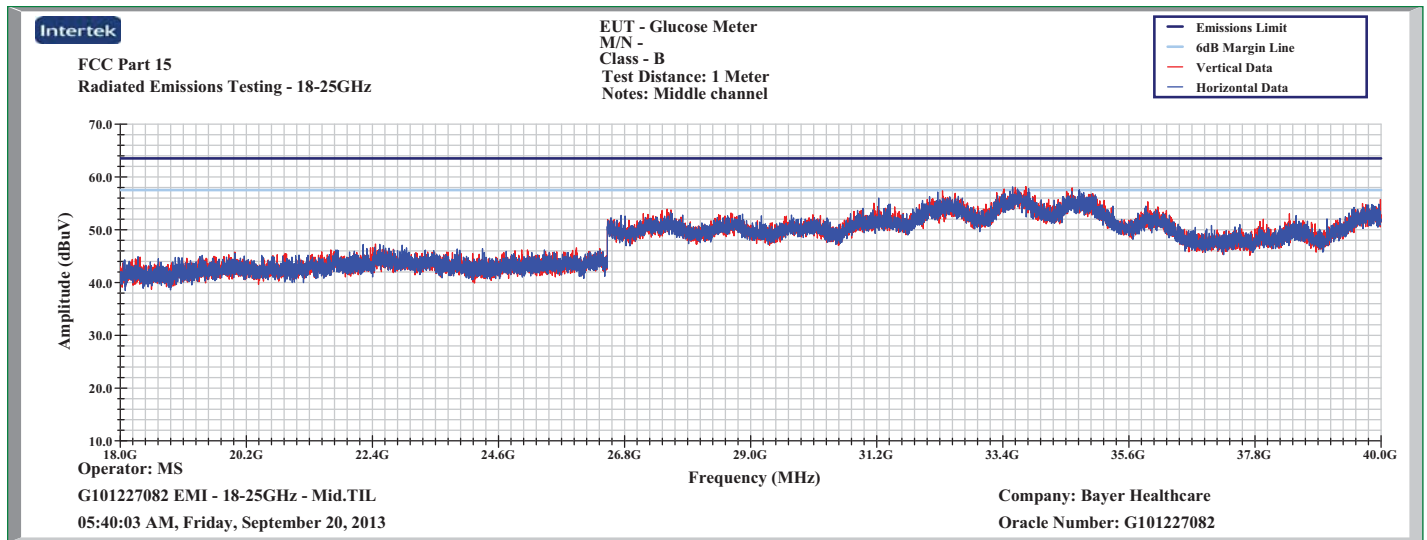
Plot:



Radiated Emissions - 18-25GHz Low Channel

## 6.0 Radiated emissions (E-field) for low power intentional radiators. (Radiated Emissions LPD)

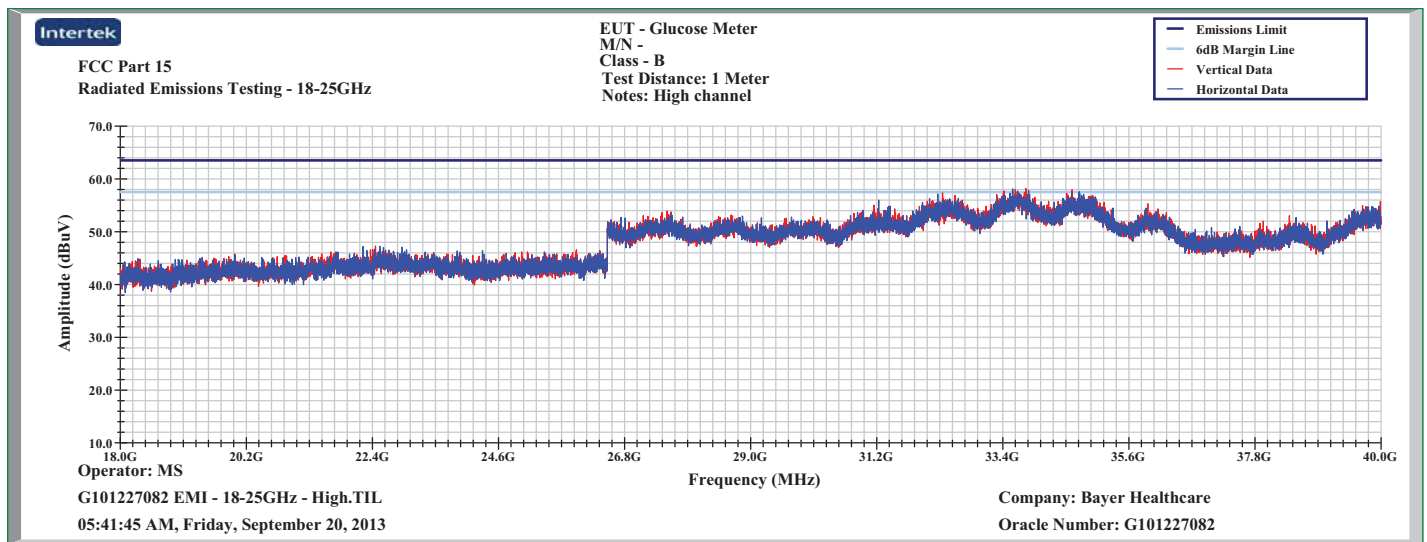
Plot:



Radiated Emissions - 18-25GHz Mid Channel

## 6.0 Radiated emissions (E-field) for low power intentional radiators. (Radiated Emissions LPD)

Plot:



Radiated Emissions - 18-25GHz High Channel

**6.0 Radiated emissions (E-field) for low power intentional radiators. (Radiated Emissions LPD)****Frequency Range (MHz):** 30-1000**Test Distance (m):** 3**Input power:** Battery**Limit:** FCC15 Class B-3m**Channel:** Low

| A                     | B                | C                 | D                            | E                   | F                       | G               | H                       | I            | J                                        |
|-----------------------|------------------|-------------------|------------------------------|---------------------|-------------------------|-----------------|-------------------------|--------------|------------------------------------------|
| Ant.<br>Pol.<br>(V/H) | Frequency<br>MHz | Reading<br>dB(uV) | Antenna<br>Factor<br>dB(1/m) | Cable<br>Loss<br>dB | Pre-amp<br>Factor<br>dB | Net<br>dB(uV/m) | 3m<br>Limit<br>dB(uV/m) | Margin<br>dB | Detectors /<br>Bandwidths<br>Det/RBW/VBW |
| V                     | 30.000           | 46.3              | 19.5                         | 1.2                 | 40.8                    | 26.3            | 40.0                    | -13.7        | QP/120k/300K                             |
| V                     | 39.550           | 45.0              | 14.1                         | 1.5                 | 41.7                    | 18.9            | 40.0                    | -21.1        | QP/120k/300K                             |
| H                     | 30.390           | 45.6              | 17.5                         | 1.2                 | 40.8                    | 23.5            | 40.0                    | -16.5        | QP/120k/300K                             |
| H                     | 34.600           | 45.5              | 15.2                         | 1.4                 | 41.3                    | 20.8            | 40.0                    | -19.2        | QP/120k/300K                             |
| H                     | 39.050           | 44.3              | 13.0                         | 1.5                 | 41.7                    | 17.0            | 40.0                    | -23.0        | QP/120k/300K                             |
| H                     | 44.790           | 43.8              | 11.1                         | 1.5                 | 42.1                    | 14.3            | 40.0                    | -25.7        | QP/120k/300K                             |
| <b>Calculations</b>   |                  | $G=C+D+E-F$       |                              | $I=G-H$             |                         |                 |                         |              |                                          |

Radiated Emissions - 30-1000MHz Low Channel

**6.0 Radiated emissions (E-field) for low power intentional radiators. (Radiated Emissions LPD)****Data:****Frequency Range (MHz):** 30-1000**Test Distance (m):** 3**Input power:** Battery**Limit:** FCC15 Class B-3m**Channel:** Mid

| A                     | B                | C                 | D                            | E                   | F                       | G               | H                       | I            | J                                        |
|-----------------------|------------------|-------------------|------------------------------|---------------------|-------------------------|-----------------|-------------------------|--------------|------------------------------------------|
| Ant.<br>Pol.<br>(V/H) | Frequency<br>MHz | Reading<br>dB(uV) | Antenna<br>Factor<br>dB(1/m) | Cable<br>Loss<br>dB | Pre-amp<br>Factor<br>dB | Net<br>dB(uV/m) | 3m<br>Limit<br>dB(uV/m) | Margin<br>dB | Detectors /<br>Bandwidths<br>Det/RBW/VBW |
| V                     | 30.213           | 45.2              | 19.3                         | 1.2                 | 40.8                    | 25.0            | 40.0                    | -15.0        | QP/120k/300K                             |
| V                     | 39.506           | 45.6              | 14.1                         | 1.5                 | 41.7                    | 19.5            | 40.0                    | -20.5        | QP/120k/300K                             |
| H                     | 31.766           | 46.7              | 16.7                         | 1.3                 | 41.0                    | 23.7            | 40.0                    | -16.3        | QP/120k/300K                             |
| H                     | 35.778           | 46.1              | 14.6                         | 1.4                 | 41.4                    | 20.7            | 40.0                    | -19.3        | QP/120k/300K                             |
| H                     | 43.094           | 45.1              | 11.7                         | 1.5                 | 42.0                    | 16.3            | 40.0                    | -23.7        | QP/120k/300K                             |
| H                     | 45.099           | 43.2              | 11.0                         | 1.5                 | 42.1                    | 13.6            | 40.0                    | -26.4        | QP/120k/300K                             |
| <b>Calculations</b>   |                  | <b>G=C+D+E-F</b>  |                              | <b>I=G-H</b>        |                         |                 |                         |              |                                          |

Radiated Emissions - 30-1000MHz Mid Channel

**6.0 Radiated emissions (E-field) for low power intentional radiators. (Radiated Emissions LPD)****Data:****Frequency Range (MHz):** 30-1000**Test Distance (m):** 3**Input power:** Battery**Limit:** FCC15 Class B-3m**Channel:** High

| A                     | B                | C                 | D                            | E                   | F                       | G               | H                       | I            | J                                        |
|-----------------------|------------------|-------------------|------------------------------|---------------------|-------------------------|-----------------|-------------------------|--------------|------------------------------------------|
| Ant.<br>Pol.<br>(V/H) | Frequency<br>MHz | Reading<br>dB(uV) | Antenna<br>Factor<br>dB(1/m) | Cable<br>Loss<br>dB | Pre-amp<br>Factor<br>dB | Net<br>dB(uV/m) | 3m<br>Limit<br>dB(uV/m) | Margin<br>dB | Detectors /<br>Bandwidths<br>Det/RBW/VBW |
| V                     | 30.111           | 45.0              | 19.4                         | 1.2                 | 40.8                    | 24.9            | 40.0                    | -15.1        | QP/120k/300K                             |
| V                     | 31.769           | 45.7              | 18.5                         | 1.3                 | 41.0                    | 24.5            | 40.0                    | -15.5        | QP/120k/300K                             |
| V                     | 32.460           | 46.2              | 18.0                         | 1.3                 | 41.0                    | 24.5            | 40.0                    | -15.5        | QP/120k/300K                             |
| V                     | 34.511           | 45.2              | 16.8                         | 1.4                 | 41.2                    | 22.1            | 40.0                    | -17.9        | QP/120k/300K                             |
| H                     | 42.556           | 44.9              | 11.8                         | 1.5                 | 42.0                    | 16.3            | 40.0                    | -23.7        | QP/120k/300K                             |
| H                     | 46.551           | 43.0              | 10.2                         | 1.6                 | 42.3                    | 12.5            | 40.0                    | -27.5        | QP/120k/300K                             |
| <b>Calculations</b>   |                  | G=C+D+E-F         |                              | I=G-H               |                         |                 |                         |              |                                          |

Radiated Emissions - 30-1000MHz High Channel

## 6.0 Radiated emissions (E-field) for low power intentional radiators. (Radiated Emissions LPD)

### Data:

Frequency Range (MHz): 2400-2485.5

Test Distance (m): 3

Input power: Battery

Modifications for compliance (y/n): N

Notes:

| A               | B             | C              | D                      | E             | F                 | G                    | H            | I                 | J         | K               |
|-----------------|---------------|----------------|------------------------|---------------|-------------------|----------------------|--------------|-------------------|-----------|-----------------|
| Ant. Pol. (V/H) | Frequency MHz | Reading dB(uV) | Antenna Factor dB(1/m) | Cable Loss dB | Pre-amp Factor dB | Duty Cycle Factor dB | Net dB(uV/m) | 3m Limit dB(uV/m) | Margin dB | Axis / Detector |
| V               | 2420.000      | 85.4           | 28.4                   | 8.7           | 37.2              | 0.0                  | 85.3         | 114.0             | -28.7     | X/PK            |
| V               | 2420.000      | 85.4           | 28.4                   | 8.7           | 37.2              | 35.9                 | 49.4         | 94.0              | -44.6     | X/PK            |
| H               | 2420.000      | 92.4           | 28.3                   | 8.7           | 37.2              | 0.0                  | 92.2         | 114.0             | -21.8     | X/PK            |
| H               | 2420.000      | 92.4           | 28.3                   | 8.7           | 37.2              | 35.9                 | 56.3         | 94.0              | -37.7     | X/PK            |
| V               | 2420.000      | 87.6           | 28.4                   | 8.7           | 37.2              | 0.0                  | 87.5         | 114.0             | -26.5     | Y/PK            |
| V               | 2420.000      | 87.6           | 28.4                   | 8.7           | 37.2              | 35.9                 | 51.6         | 94.0              | -42.4     | Y/PK            |
| H               | 2420.000      | 87.9           | 28.3                   | 8.7           | 37.2              | 0.0                  | 87.7         | 114.0             | -26.3     | Y/PK            |
| H               | 2420.000      | 87.9           | 28.3                   | 8.7           | 37.2              | 35.9                 | 51.8         | 94.0              | -42.2     | Y/PK            |
| V               | 2420.000      | 86.5           | 28.4                   | 8.7           | 37.2              | 0.0                  | 86.4         | 114.0             | -27.6     | Z/PK            |
| V               | 2420.000      | 86.5           | 28.4                   | 8.7           | 37.2              | 35.9                 | 50.5         | 94.0              | -43.5     | Z/PK            |
| H               | 2420.000      | 90.8           | 28.3                   | 8.7           | 37.2              | 0.0                  | 90.6         | 114.0             | -23.4     | Z/PK            |
| H               | 2420.000      | 90.8           | 28.3                   | 8.7           | 37.2              | 35.9                 | 54.7         | 94.0              | -39.3     | Z/PK            |
| V               | 2450.000      | 79.8           | 28.5                   | 8.7           | 37.2              | 0.0                  | 79.8         | 114.0             | -34.2     | X/PK            |
| V               | 2450.000      | 79.8           | 28.5                   | 8.7           | 37.2              | 35.9                 | 43.9         | 94.0              | -50.1     | X/PK            |
| H               | 2450.000      | 77.3           | 28.6                   | 8.7           | 37.2              | 0.0                  | 77.4         | 114.0             | -36.6     | X/PK            |
| H               | 2450.000      | 77.3           | 28.6                   | 8.7           | 37.2              | 35.9                 | 41.5         | 94.0              | -52.5     | X/PK            |
| V               | 2450.000      | 78.2           | 28.5                   | 8.7           | 37.2              | 0.0                  | 78.2         | 114.0             | -35.8     | Y/PK            |
| V               | 2450.000      | 78.2           | 28.5                   | 8.7           | 37.2              | 35.9                 | 42.3         | 94.0              | -51.7     | Y/PK            |
| H               | 2450.000      | 79.0           | 28.6                   | 8.7           | 37.2              | 0.0                  | 79.1         | 114.0             | -34.9     | Y/PK            |
| H               | 2450.000      | 79.0           | 28.6                   | 8.7           | 37.2              | 35.9                 | 43.2         | 94.0              | -50.8     | Y/PK            |
| V               | 2450.000      | 75.3           | 28.5                   | 8.7           | 37.2              | 0.0                  | 75.3         | 114.0             | -38.7     | Z/PK            |
| V               | 2450.000      | 75.3           | 28.5                   | 8.7           | 37.2              | 35.9                 | 39.4         | 94.0              | -54.6     | Z/PK            |
| H               | 2450.000      | 81.1           | 28.6                   | 8.7           | 37.2              | 0.0                  | 81.2         | 114.0             | -32.8     | Z/PK            |
| H               | 2450.000      | 81.1           | 28.6                   | 8.7           | 37.2              | 35.9                 | 45.3         | 94.0              | -48.7     | Z/PK            |
| V               | 2480.000      | 80.0           | 28.5                   | 8.7           | 37.2              | 0.0                  | 80.0         | 114.0             | -34.0     | X/PK            |
| V               | 2480.000      | 80.0           | 28.5                   | 8.7           | 37.2              | 35.9                 | 44.1         | 94.0              | -49.9     | X/PK            |
| H               | 2480.000      | 76.9           | 28.6                   | 8.7           | 37.2              | 0.0                  | 77.0         | 114.0             | -37.0     | X/PK            |
| H               | 2480.000      | 76.9           | 28.6                   | 8.7           | 37.2              | 35.9                 | 41.1         | 94.0              | -52.9     | X/PK            |
| V               | 2480.000      | 75.4           | 28.5                   | 8.7           | 37.2              | 0.0                  | 75.4         | 114.0             | -38.6     | Y/PK            |
| V               | 2480.000      | 75.4           | 28.5                   | 8.7           | 37.2              | 35.9                 | 39.5         | 94.0              | -54.5     | Y/PK            |
| H               | 2480.000      | 80.5           | 28.6                   | 8.7           | 37.2              | 0.0                  | 80.6         | 114.0             | -33.4     | Y/PK            |
| H               | 2480.000      | 80.5           | 28.6                   | 8.7           | 37.2              | 35.9                 | 44.7         | 94.0              | -49.3     | Y/PK            |
| V               | 2480.000      | 77.5           | 28.5                   | 8.7           | 37.2              | 0.0                  | 77.5         | 114.0             | -36.5     | Z/PK            |
| V               | 2480.000      | 77.5           | 28.5                   | 8.7           | 37.2              | 35.9                 | 41.6         | 94.0              | -52.4     | Z/PK            |
| H               | 2480.000      | 74.2           | 28.6                   | 8.7           | 37.2              | 0.0                  | 74.3         | 114.0             | -39.7     | Z/PK            |
| H               | 2480.000      | 74.2           | 28.6                   | 8.7           | 37.2              | 35.9                 | 38.4         | 94.0              | -55.6     | Z/PK            |
| Calculations    |               | G=C+D+E-F      |                        | I=G-H         |                   |                      |              |                   |           |                 |

Fundamental 2400-2483.5

**6.0 Radiated emissions (E-field) for low power intentional radiators. (Radiated Emissions LPD)****Data:****Client:** Bayer Healthcare LLC**Model Number:** Contour Next Link 2.4**Project Number:** G101227482**Tested By:** MS**Date:** 31-Jul-2013**Frequency Range (MHz):** 1000-25000**Input power:** Battery**Receiver:** HP 8546A**Antenna:** EMCO 3115**Cables:** ST-3+MP3+E-203+E-206**Preamp:** AH PAM-0118**Limit:** FCC15 Class B**Test Distance (m):** 3**Modifications for compliance (y/n):** N**Notes:**

| A                     | B                | C                 | D                            | E                   | F                       | G                          | H               | I                       | J            | K                  |
|-----------------------|------------------|-------------------|------------------------------|---------------------|-------------------------|----------------------------|-----------------|-------------------------|--------------|--------------------|
| Ant.<br>Pol.<br>(V/H) | Frequency<br>MHz | Reading<br>dB(uV) | Antenna<br>Factor<br>dB(1/m) | Cable<br>Loss<br>dB | Pre-amp<br>Factor<br>dB | Duty Cycle<br>Factor<br>dB | Net<br>dB(uV/m) | 3m<br>Limit<br>dB(uV/m) | Margin<br>dB | Axis /<br>Detector |
| v                     | 10919.500        | 40.3              | 38.2                         | 19.5                | 32.3                    | 0.0                        | 65.7            | 74.0                    | -8.3         | X/Pk               |
| v                     | 10919.500        | 40.3              | 38.2                         | 19.5                | 32.3                    | 35.1                       | 30.6            | 54.0                    | -23.4        | X/Pk               |
| h                     | 10919.500        | 37.6              | 38.2                         | 19.5                | 32.3                    | 0.0                        | 63.0            | 74.0                    | -11.0        | X/Pk               |
| h                     | 10919.500        | 37.6              | 38.2                         | 19.5                | 32.3                    | 35.1                       | 27.9            | 54.0                    | -26.1        | X/Pk               |
| v                     | 10919.500        | 40.9              | 38.2                         | 19.5                | 32.3                    | 0.0                        | 66.3            | 74.0                    | -7.7         | Y/Pk               |
| v                     | 10919.500        | 40.9              | 38.2                         | 19.5                | 32.3                    | 35.1                       | 31.2            | 54.0                    | -22.8        | Y/Pk               |
| h                     | 10919.500        | 38.7              | 38.2                         | 19.5                | 32.3                    | 0.0                        | 64.1            | 74.0                    | -9.9         | Y/Pk               |
| h                     | 10919.500        | 38.7              | 38.2                         | 19.5                | 32.3                    | 35.1                       | 29.0            | 54.0                    | -25.0        | Y/Pk               |
| v                     | 10919.500        | 41.0              | 38.2                         | 19.5                | 32.3                    | 0.0                        | 66.4            | 74.0                    | -7.6         | Z/Pk               |
| v                     | 10919.500        | 41.0              | 38.2                         | 19.5                | 32.3                    | 35.1                       | 31.3            | 54.0                    | -22.7        | Z/Pk               |
| h                     | 10919.500        | 36.8              | 38.2                         | 19.5                | 32.3                    | 0.0                        | 62.2            | 74.0                    | -11.8        | Z/Pk               |
| h                     | 10919.500        | 36.8              | 38.2                         | 19.5                | 32.3                    | 35.1                       | 27.1            | 54.0                    | -26.9        | Z/Pk               |
| <b>Calculations</b>   |                  | G=C+D+E-F         |                              | I=G-H               |                         |                            |                 |                         |              |                    |

Note: X, Y, and Z denote the EUT was placed in the X, Y and Z orthogonal axes.

Note: P indicates peak detection. A indicates the peak reading corrected by the duty cycle.

Radiated Emissions - 1-25GHz Low Channel

**6.0 Radiated emissions (E-field) for low power intentional radiators. (Radiated Emissions LPD)****Data:****Client:** Bayer Healthcare LLC**Model Number:** Contour Next Link 2.4**Project Number:** G101227482**Tested By:** MS**Date:** 31-Jul-2013**Frequency Range (MHz):** 1000-25000**Input power:** Battery**Receiver:** HP 8546A**Antenna:** EMCO 3115**Cables:** ST-3+MP3+E-203+E-206**Preamp:** AH PAM-0118**Limit:** FCC15 Class B**Test Distance (m):** 3**Modifications for compliance (y/n):** N**Notes:**

| A                   | B             | C              | D                      | E             | F                 | G                    | H            | I                 | J         | K               |
|---------------------|---------------|----------------|------------------------|---------------|-------------------|----------------------|--------------|-------------------|-----------|-----------------|
| Ant. Pol. (V/H)     | Frequency MHz | Reading dB(uV) | Antenna Factor dB(1/m) | Cable Loss dB | Pre-amp Factor dB | Duty Cycle Factor dB | Net dB(uV/m) | 3m Limit dB(uV/m) | Margin dB | Axis / Detector |
| v                   | 10979.000     | 39.6           | 38.1                   | 19.5          | 31.2              | 0.0                  | 66.0         | 74.0              | -8.0      | X/Pk            |
| v                   | 10979.000     | 39.6           | 38.1                   | 19.5          | 31.2              | 35.1                 | 30.9         | 54.0              | -23.1     | X/Pk            |
| h                   | 10979.000     | 38.1           | 38.1                   | 19.5          | 31.2              | 0.0                  | 64.5         | 74.0              | -9.5      | X/Pk            |
| h                   | 10979.000     | 38.1           | 38.1                   | 19.5          | 31.2              | 35.1                 | 29.4         | 54.0              | -24.6     | X/Pk            |
| v                   | 10979.000     | 41.2           | 38.1                   | 19.5          | 31.2              | 0.0                  | 67.6         | 74.0              | -6.4      | Y/Pk            |
| v                   | 10979.000     | 41.2           | 38.1                   | 19.5          | 31.2              | 35.1                 | 32.5         | 54.0              | -21.5     | Y/Pk            |
| h                   | 10979.000     | 39.0           | 38.1                   | 19.5          | 31.2              | 0.0                  | 65.4         | 74.0              | -8.6      | Y/Pk            |
| h                   | 10979.000     | 39.0           | 38.1                   | 19.5          | 31.2              | 35.1                 | 30.3         | 54.0              | -23.7     | Y/Pk            |
| v                   | 10979.000     | 40.9           | 38.1                   | 19.5          | 31.2              | 0.0                  | 67.3         | 74.0              | -6.7      | Z/Pk            |
| v                   | 10979.000     | 40.9           | 38.1                   | 19.5          | 31.2              | 35.1                 | 32.2         | 54.0              | -21.8     | Z/Pk            |
| h                   | 10979.000     | 37.5           | 38.1                   | 19.5          | 31.2              | 0.0                  | 63.9         | 74.0              | -10.1     | Z/Pk            |
| h                   | 10979.000     | 37.5           | 38.1                   | 19.5          | 31.2              | 35.1                 | 28.8         | 54.0              | -25.2     | Z/Pk            |
| <b>Calculations</b> |               | G=C+D+E-F      |                        | I=G-H         |                   |                      |              |                   |           |                 |

Note: X, Y, and Z denote the EUT was placed in the X, Y and Z orthogonal axes.

Note: P indicates peak detection. A indicates the peak reading corrected by the duty cycle.

Radiated Emissions - 1-25GHz Mid Channel

**6.0 Radiated emissions (E-field) for low power intentional radiators. (Radiated Emissions LPD)****Data:****Client:** Bayer Healthcare LLC**Model Number:** Contour Next Link 2.4**Project Number:** G101227482**Tested By:** MS**Date:** 31-Jul-2013**Frequency Range (MHz):** 1000-25000**Input power:** Battery**Receiver:** HP 8546A**Antenna:** EMCO 3115**Cables:** ST-3+MP3+E-203+E-206**Preamp:** AH PAM-0118**Limit:** FCC15 Class B**Test Distance (m):** 3**Modifications for compliance (y/n):** N**Notes:**

| A                     | B                | C                 | D                            | E                   | F                       | G                          | H               | I                       | J            | K                  |
|-----------------------|------------------|-------------------|------------------------------|---------------------|-------------------------|----------------------------|-----------------|-------------------------|--------------|--------------------|
| Ant.<br>Pol.<br>(V/H) | Frequency<br>MHz | Reading<br>dB(uV) | Antenna<br>Factor<br>dB(1/m) | Cable<br>Loss<br>dB | Pre-amp<br>Factor<br>dB | Duty Cycle<br>Factor<br>dB | Net<br>dB(uV/m) | 3m<br>Limit<br>dB(uV/m) | Margin<br>dB | Axis /<br>Detector |
| v                     | 10975.000        | 40.8              | 38.1                         | 19.5                | 31.2                    | 0.0                        | 67.2            | 74.0                    | -6.8         | X/Pk               |
| v                     | 10975.000        | 40.8              | 38.1                         | 19.5                | 31.2                    | 35.1                       | 32.1            | 54.0                    | -21.9        | X/Pk               |
| h                     | 10975.000        | 39.0              | 38.1                         | 19.5                | 31.2                    | 0.0                        | 65.4            | 74.0                    | -8.6         | X/Pk               |
| h                     | 10975.000        | 39.0              | 38.1                         | 19.5                | 31.2                    | 35.1                       | 30.3            | 54.0                    | -23.7        | X/Pk               |
| v                     | 10975.000        | 40.9              | 38.1                         | 19.5                | 31.2                    | 0.0                        | 67.3            | 74.0                    | -6.7         | Y/Pk               |
| v                     | 10975.000        | 40.9              | 38.1                         | 19.5                | 31.2                    | 35.1                       | 32.2            | 54.0                    | -21.8        | Y/Pk               |
| h                     | 10975.000        | 39.8              | 38.1                         | 19.5                | 31.2                    | 0.0                        | 66.2            | 74.0                    | -7.8         | Y/Pk               |
| h                     | 10975.000        | 39.8              | 38.1                         | 19.5                | 31.2                    | 35.1                       | 31.1            | 54.0                    | -22.9        | Y/Pk               |
| v                     | 10975.000        | 41.0              | 38.1                         | 19.5                | 31.2                    | 0.0                        | 67.4            | 74.0                    | -6.6         | Z/Pk               |
| v                     | 10975.000        | 41.0              | 38.1                         | 19.5                | 31.2                    | 35.1                       | 32.3            | 54.0                    | -21.7        | Z/Pk               |
| h                     | 10975.000        | 38.7              | 38.1                         | 19.5                | 31.2                    | 0.0                        | 65.1            | 74.0                    | -8.9         | Z/Pk               |
| h                     | 10975.000        | 38.7              | 38.1                         | 19.5                | 31.2                    | 35.1                       | 30.0            | 54.0                    | -24.0        | Z/Pk               |
| <b>Calculations</b>   |                  | G=C+D+E-F         |                              | I=G-H               |                         |                            |                 |                         |              |                    |

Note: X, Y, and Z denote the EUT was placed in the X, Y and Z orthogonal axes.

Note: P indicates peak detection. A indicates the peak reading corrected by the duty cycle.

Radiated Emissions - 1-25GHz High Channel

## 7.0 Occupied Bandwidth (FCC Part 2.1049)

### Method:

The occupied bandwidth is the frequency bandwidth such that, below its lower and above its upper frequency limits, the mean powers radiated are each equal to 0.5 percent of the total mean power radiated by a given emission.

Connect the antenna port of the EUT to a spectrum analyzer using a calibrated coaxial cable and attenuator. Set the EUT to transmit at its highest power setting. The 99% bandwidth function of the analyzer was used to automatically generate the occupied bandwidth plots. Repeat for low, mid, and high channels of each band of the EUT.

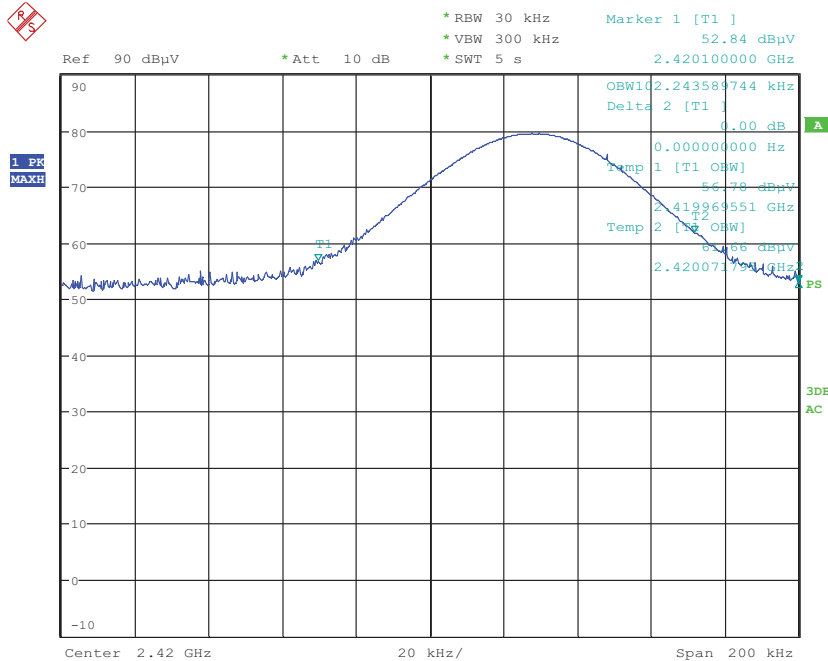
For amplifiers, the output bandwidth shall be less than or equal to the input bandwidth.

### Test Equipment Used:

| Description:              | Manufacturer:   | Model: | Asset Number: | Cal Date:  | Cal Due:   |
|---------------------------|-----------------|--------|---------------|------------|------------|
| EMI Receiver (20Hz-40GHz) | Rohde & Schwarz | ESU 40 | 200162        | 02/15/2013 | 02/15/2014 |

**Results: The sample tested was found to Comply.**

### Plot:

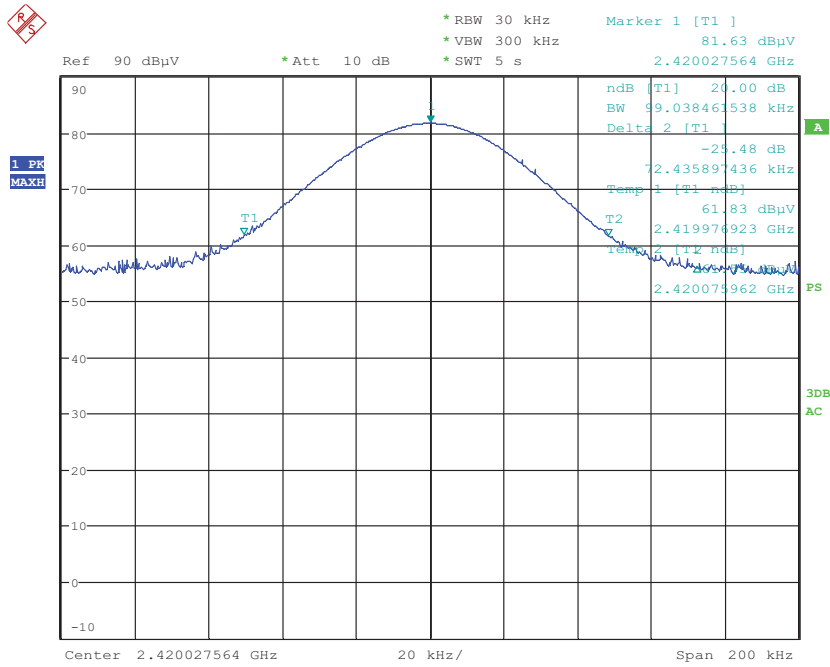


Date: 29.JUL.2013 17:06:09

Low Channel, 99%

## 7.0 Occupied Bandwidth (FCC Part 2.1049)

Plot:

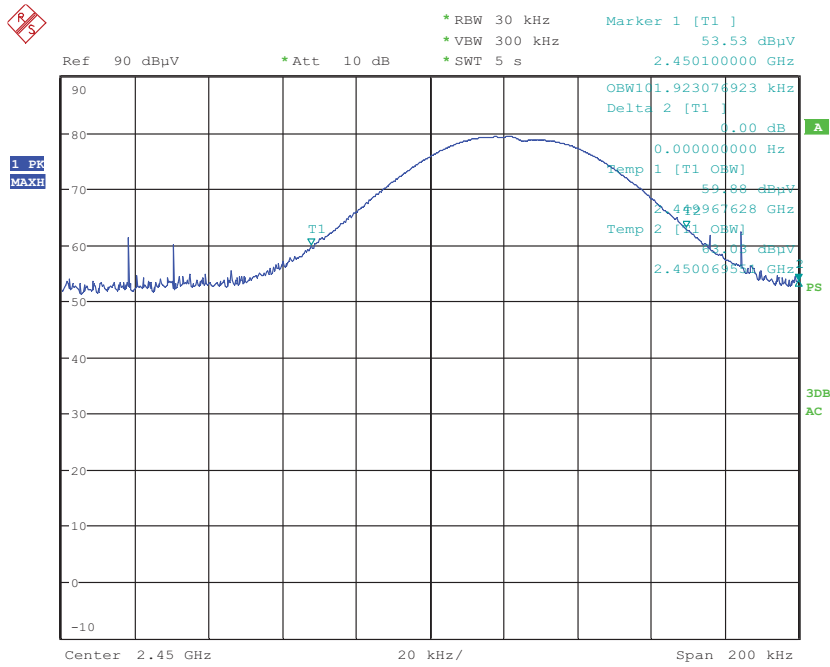


Date: 29.JUL.2013 17:18:04

Low Channel, 20 dB BW

## 7.0 Occupied Bandwidth (FCC Part 2.1049)

Plot:

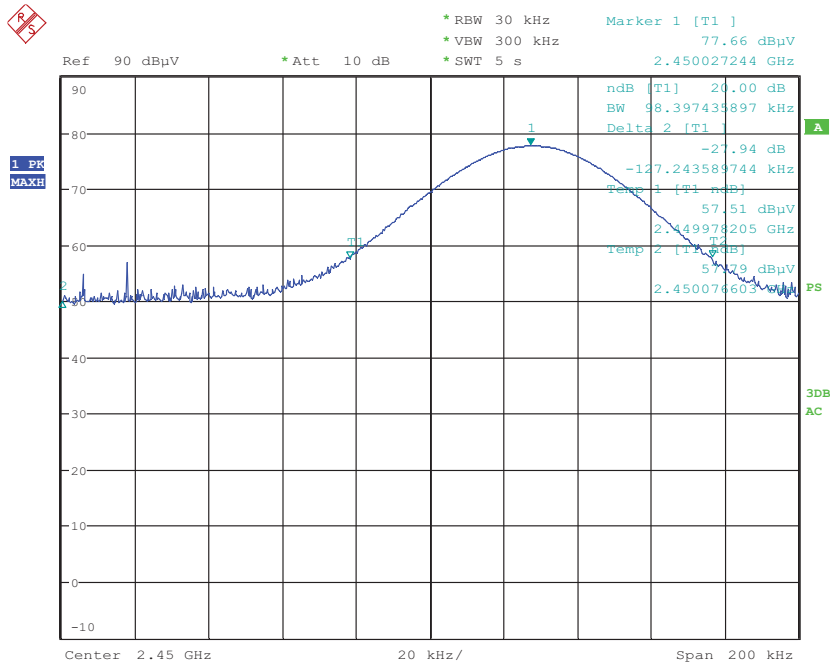


Date: 29.JUL.2013 17:00:54

Mid Channel, 99%

## 7.0 Occupied Bandwidth (FCC Part 2.1049)

Plot:

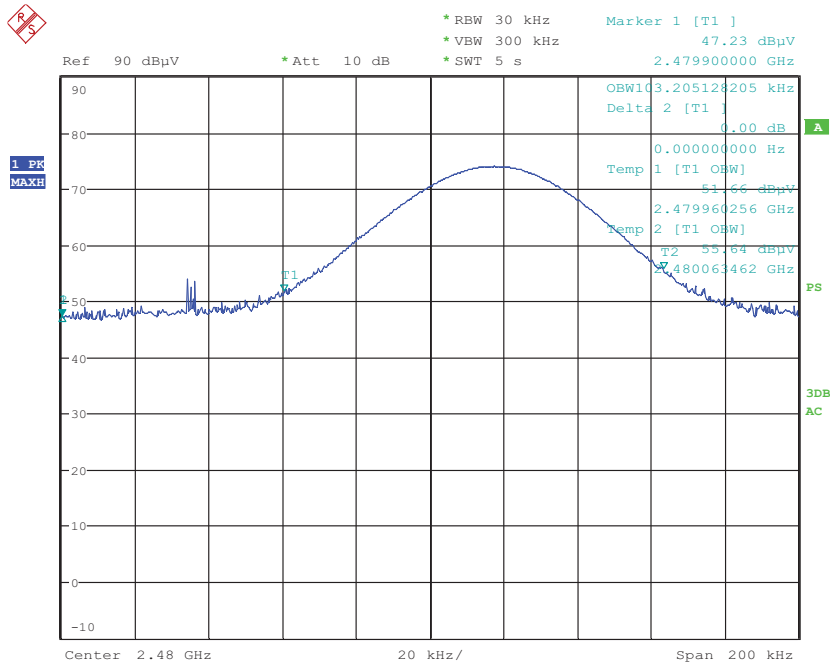


Date: 29.JUL.2013 17:22:48

Mid Channel, 20 dB BW

## 7.0 Occupied Bandwidth (FCC Part 2.1049)

Plot:

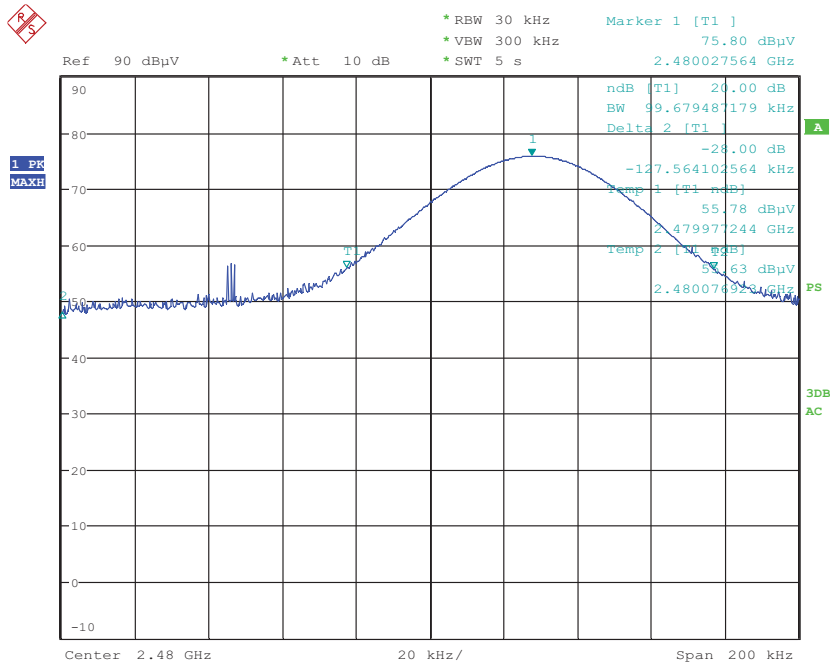


Date: 29.JUL.2013 16:48:40

High Channel, 99%

## 7.0 Occupied Bandwidth (FCC Part 2.1049)

Plot:



Date: 29.JUL.2013 17:24:54

High Channel, 20 dB BW

**7.0 Occupied Bandwidth (FCC Part 2.1049)**

| Mode            | Frequency<br>MHz | Resolution<br>Bandwidth (1) | Video<br>Bandwidth | Sweep time<br>Seconds | Output<br>Measured<br>Bandwidth<br>kHz | Input<br>Measured<br>Bandwidth<br>MHz |
|-----------------|------------------|-----------------------------|--------------------|-----------------------|----------------------------------------|---------------------------------------|
| <b>99% BW</b>   |                  |                             |                    |                       |                                        |                                       |
| Continuous      | 2420             | 30 kHz                      | 300 kHz            | 5                     | 102.24                                 | NA                                    |
| Continuous      | 2450             | 30 kHz                      | 300 kHz            | 5                     | 101.92                                 | NA                                    |
| Continuous      | 2480             | 30 kHz                      | 300 kHz            | 5                     | 103.21                                 | NA                                    |
| <b>20 dB BW</b> |                  |                             |                    |                       |                                        |                                       |
| Continuous      | 2420             | 30 kHz                      | 300 kHz            | 5                     | 99.04                                  | NA                                    |
| Continuous      | 2450             | 30 kHz                      | 300 kHz            | 5                     | 98.39                                  | NA                                    |
| Continuous      | 2480             | 30 kHz                      | 300 kHz            | 5                     | 99.68                                  | NA                                    |

Note (1): Greater or equal to 1% of emission bandwidth.

## **8.0 Additional provisions to the general radiated emission limitations. (FCC 15C - 15.215)**

### **Method:**

§ 15.215 Additional provisions to the general radiated emission limitations.

(a) The regulations in §§15.217 through 15.257 provide alternatives to the general radiated emission limits for intentional radiators operating in specified frequency bands. Unless otherwise stated, there are no restrictions as to the types of operation permitted under these sections.

(b) In most cases, unwanted emissions outside of the frequency bands shown in these alternative provisions must be attenuated to the emission limits shown in §15.209. In no case shall the level of the unwanted emissions from an intentional radiator operating under these additional provisions exceed the field strength of the fundamental emission.

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

**Results: The sample tested was found to Comply.**

## 9.0 Revision History (Revision History)

**Method:**

Document the history of the report.

| Revision Level | Date               | Report Number    | Notes                                                                                             |
|----------------|--------------------|------------------|---------------------------------------------------------------------------------------------------|
| Original issue | September 20, 2013 | 101227082ATL-002 | --                                                                                                |
| 1              | September 25, 2013 | 101227082ATL-002 | Changed the trade name to "Contour Next (Plus) Link 2.4 Wireless Blood Glucose Monitoring System" |
| 1              | September 25, 2013 | 101227082ATL-002 | Added statement about ambient noise at 10.919GHz                                                  |
| 2              | September 16, 2014 | 101227082ATL-002 | Updated with corrections per TCB Reviewer comments.                                               |