| | | |
|---|---|---|
| | 1100 E Chalk Creek Road<br>Coalville, UT 84017<br>(435) 336-4433<br>FAX (435) 336-4436 | **Max Time on Channel Freq** |

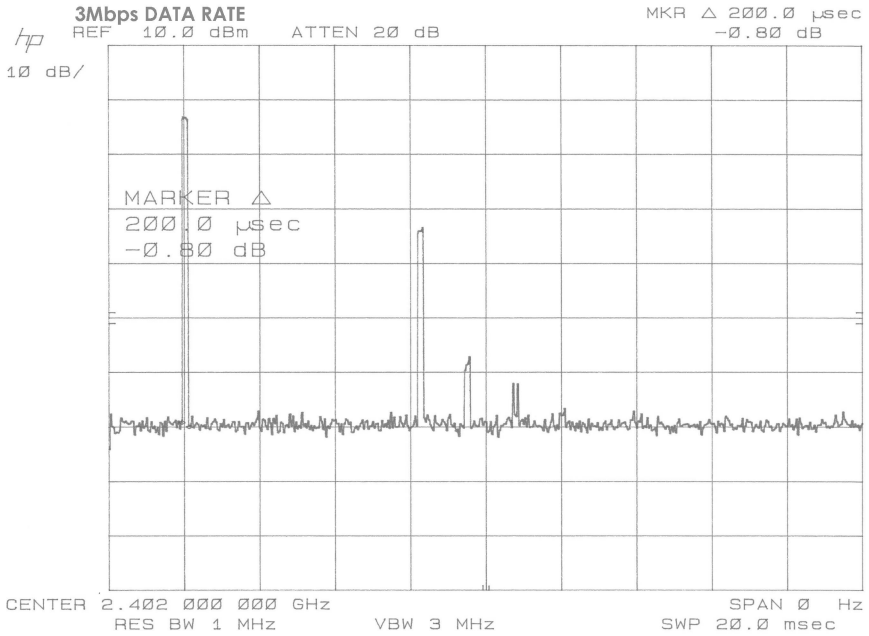
| | | | |
|---|---|---|---|
| DNB Job Number: | 96011 | Date: 15 Aug 2008 | **Conformance Standard**<br>FCC Part 15 |
| Customer: | Celio Technology Corporation | | |
| Model Number: | REDFLY C8-N (Inclusive of REDFLY C7) | | |
| Description: | Smart Phone Companion<br>3Mbps data rate | | **Clause**<br>15.247(a,1,iii) |

| Environmental Conditions | | |
|---|---|---|
| Ambient Temperature | Relative Humidity | Barometric Pressure |
| 19 °C | 28 % | 101.8 kPa |

EUT performed within the requirements of the applicable standard [X] Yes [ ] No *Les Payne*

| Center Freq Chl | Pulse Duration | Time to Next Pulse | Calculated on time | Allowed On Time | Pass/Fail |
|---|---|---|---|---|---|
| 2402MHz | 0.0002 Sec | 30.15 mSec | 0.2096 sec | 0.4sec in 31.6sec window | Pass |

Single channel on time = 0.0002 sec = 0.2msec = 200usec
Calculated on time = 31600msec / 30.15msec * 0.2msec = 209.6msec = 0.2096 seconds
Limit is based upon 0.4seconds times number of hopping channels = 0.4 * 79 = 31.6sec



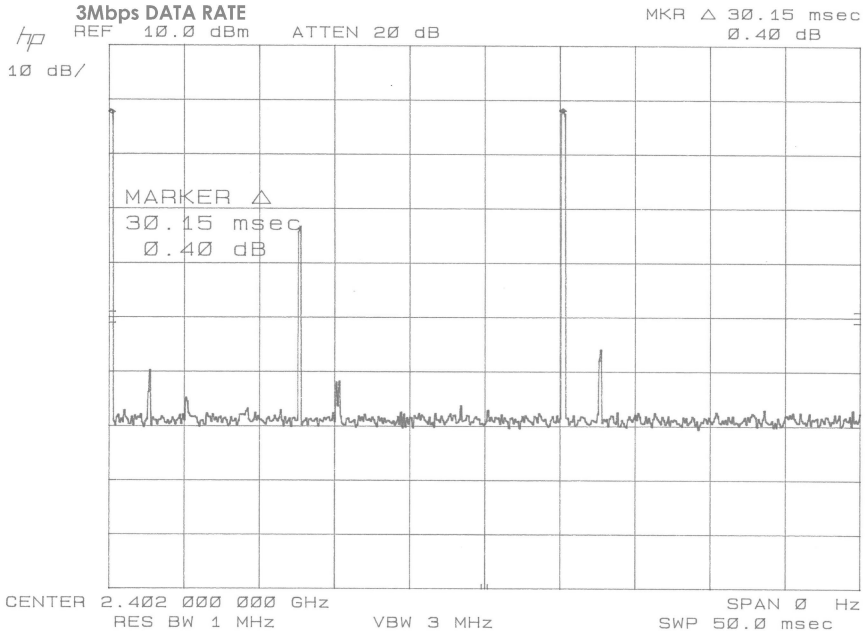
| | | | |
|---|---|---|---|
| | 1100 E Chalk Creek Road<br>Coalville, UT 84017<br>(435) 336-4433<br>FAX (435) 336-4436 | **Max Time on Channel Freq** | |
| DNB Job Number: | 96011 | Date: 15 Aug 2008 | **Conformance Standard**<br>FCC Part 15 |
| Customer: | Celio Technology Corporation | | |
| Model Number: | REDFLY C8-N (Inclusive of REDFLY C7) | | |
| Description: | Smart Phone Companion<br>3Mbps data rate | | **Clause**<br>15.247(a,1,iii) |

| Environmental Conditions | | |
|---|---|---|
| Ambient Temperature | Relative Humidity | Barometric Pressure |
| 19 °C | 28 % | 101.8 kPa |

EUT performed within the requirements of the applicable standard [X] Yes [ ] No *Les Payne*

| Center Freq Chl | Pulse Duration | Time to Next Pulse | Calculated on time | Allowed On Time | Pass/Fail |
|---|---|---|---|---|---|
| 2402MHz | 0.0002 Sec | 30.15 mSec | 0.2096 sec | 0.4sec in 31.6sec window | Pass |

Single channel on time = 0.0002 sec = 0.2msec = 200usec
Calculated on time = 31600msec / 30.15msec * 0.2msec = 209.6msec = 0.2096 seconds
Limit is based upon 0.4seconds times number of hopping channels = 0.4 * 79 = 31.6sec



15.247 (b,2) Maximum Peak Output Power (Conducted)

Test Procedure:

**Peak Output Power**

Use the following spectrum analyzer settings:
Span = approximately 5 times the 20 dB bandwidth, centered on a hopping channel
RBW > the 20 dB bandwidth of the emission being measured
VBW ≥ RBW
Sweep = auto
Detector function = peak
Trace = max hold

Allow the trace to stabilize. Use the marker-to-peak function to set the marker to the peak of the emission. The indicated level is the peak output power (see the NOTE above regarding external attenuation and cable loss). The limit is specified in one of the subparagraphs of this Section. Submit this plot. A peak responding power meter may be used instead of a spectrum analyzer.

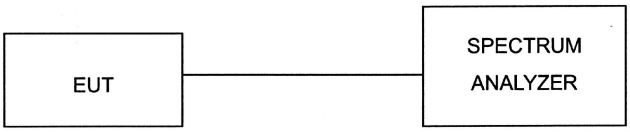
The transmitter output was connected to a spectrum analyzer.

Requirement: The maximum peak output power shall not exceed .125W (21dBm)

EUT operating conditions:

The software provided by the client to enable the EUT to transmit continuously at the low, mid, and upper channels respectively.

Test Set Up:

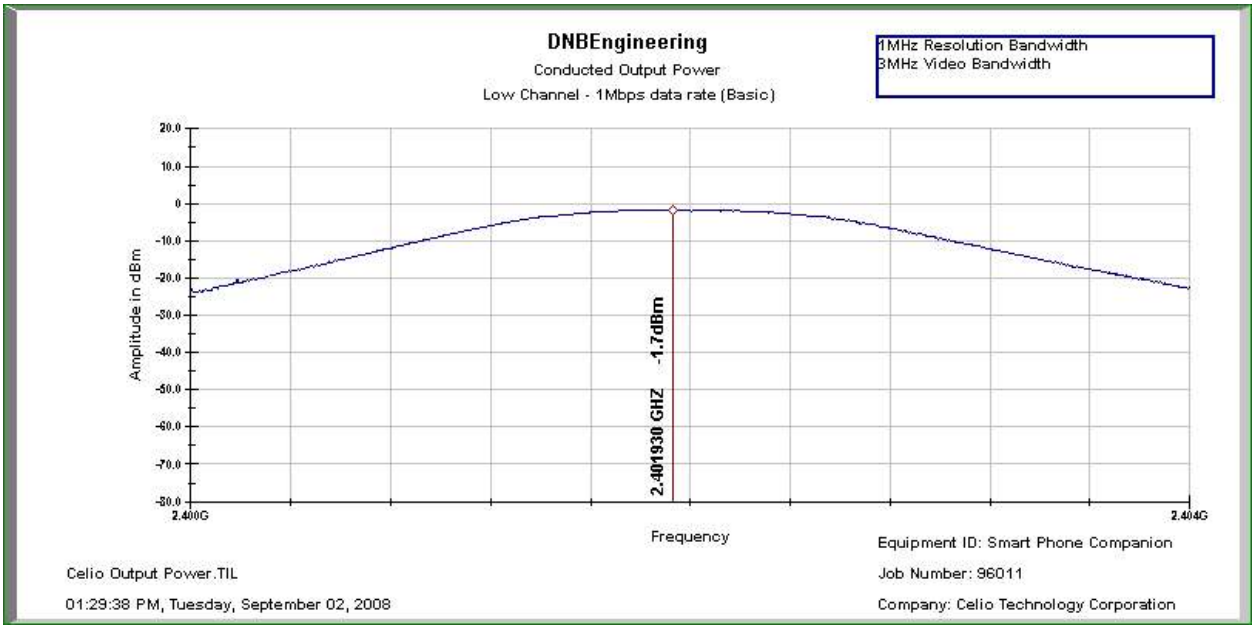


| | | | |
|---|---|---|---|
| | 1100 E Chalk Creek Road<br>Coalville, UT 84017<br>(435) 336-4433<br>FAX (435) 336-4436 | **Peak Output Power** (Cond) | |
| DNB Job Number: | 96011 | Date: 2 Sep 2008 | **Conformance Standard**<br>FCC Part 15 |
| Customer: | Celio Technology Corporation | | |
| Model Number: | REDFLY C8-N (Inclusive of REDFLY C7) | | |
| Description: | Smart Phone Companion<br>1Mbps data rate (Basic data rate) - Low Channel | | **Clause**<br>15.247(b,1) |

| Environmental Conditions | | |
|---|---|---|
| Ambient Temperature | Relative Humidity | Barometric Pressure |
| 21 °C | 25 % | 101.2 kPa |

EUT performed within the requirements of the applicable standard [X] Yes [ ] No *Les Payne*

| Freq MHz | Meas Peak Pwr (dBm) | Limit (dBm) | Delta (dBm) | Meas Peak Pwr (mW) | Limit (mW) | Delta (mW) | Pass/Fail |
|---|---|---|---|---|---|---|---|
| 2402 | - 1.7 | 20.97 | -22.67 | 0.676 | 125 | -124.324 | Pass |

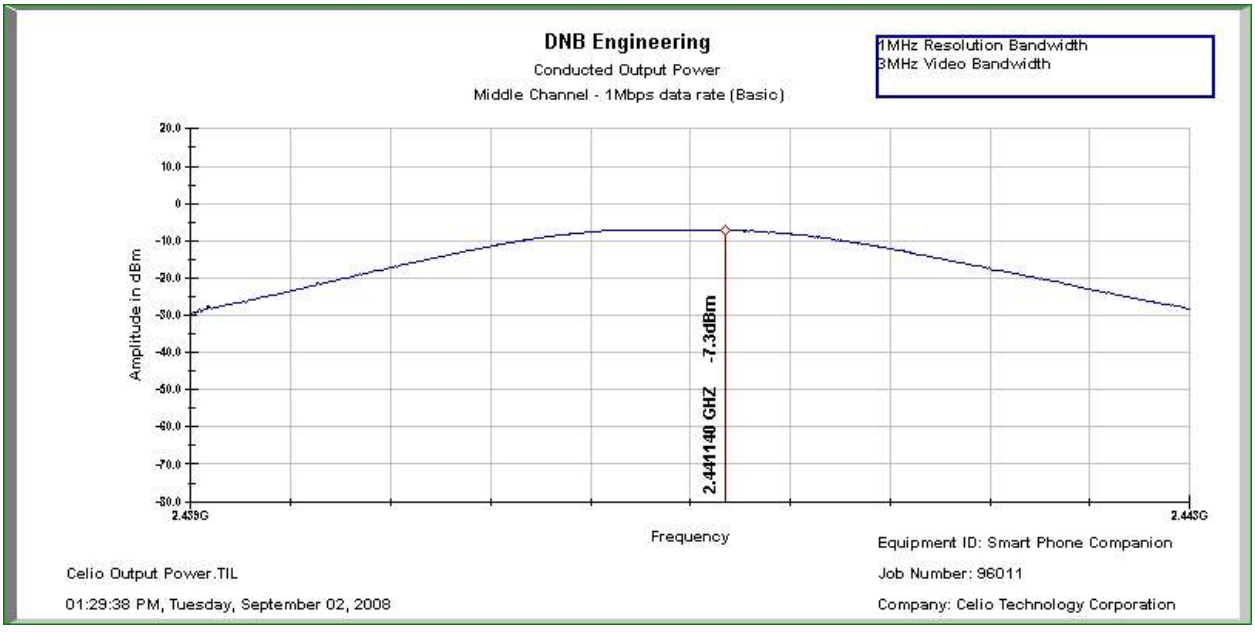


| | | | |
|---|---|---|---|
| | 1100 E Chalk Creek Road<br>Coalville, UT 84017<br>(435) 336-4433<br>FAX (435) 336-4436 | **Peak Output Power** (Cond) | |
| DNB Job Number: | 96011 | Date: 2 Sep 2008 | **Conformance Standard**<br>FCC Part 15 |
| Customer: | Celio Technology Corporation | | |
| Model Number: | REDFLY C8-N (Inclusive of REDFLY C7) | | |
| Description: | Smart Phone Companion<br>1Mbps data rate (Basic data rate) - Mid Channel | | **Clause**<br>15.247(b,1) |

| Environmental Conditions | | |
|---|---|---|
| Ambient Temperature | Relative Humidity | Barometric Pressure |
| 21 °C | 25 % | 101.2 kPa |

EUT performed within the requirements of the applicable standard [X] Yes [ ] No *Les Payne*

| Freq MHz | Meas Peak Pwr (dBm) | Limit (dBm) | Delta (dBm) | Meas Peak Pwr (mW) | Limit (mW) | Delta (mW) | Pass/Fail |
|---|---|---|---|---|---|---|---|
| 2441 | -7.3 | 20.97 | -28.27 | 0.186 | 125 | -124.814 | Pass |

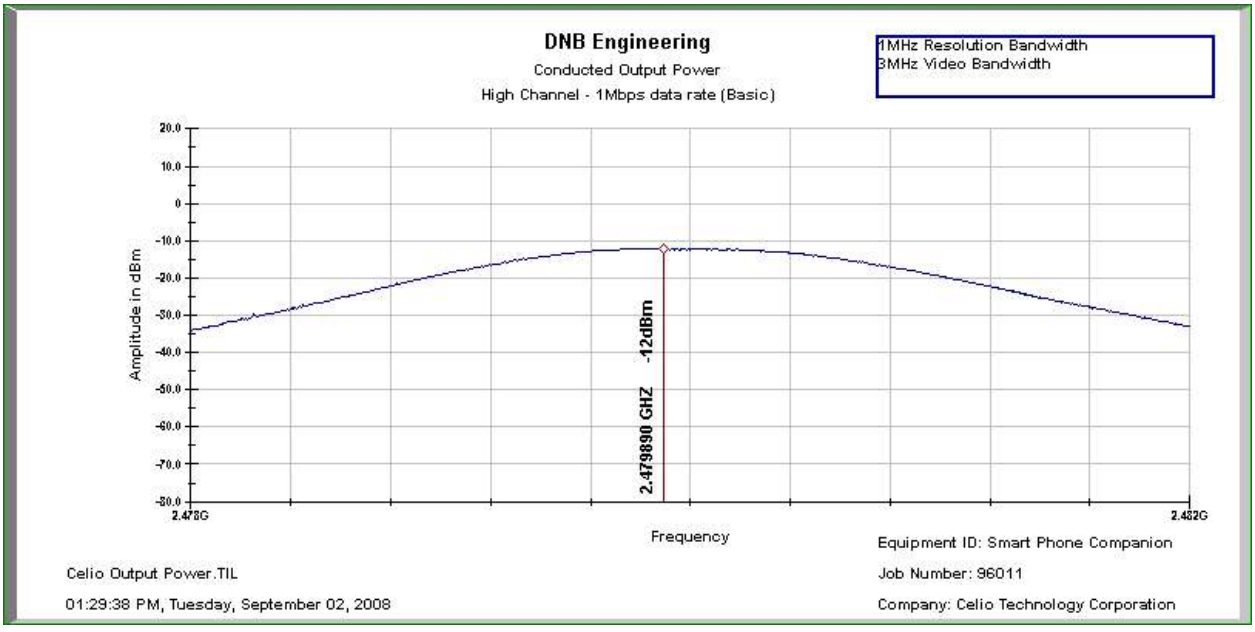


| | | | |
|---|---|---|---|
| | 1100 E Chalk Creek Road<br>Coalville, UT 84017<br>(435) 336-4433<br>FAX (435) 336-4436 | **Peak Output Power** (Cond) | |
| DNB Job Number: | 96011 | Date: 2 Sep 2008 | **Conformance Standard**<br>FCC Part 15 |
| Customer: | Celio Technology Corporation | | |
| Model Number: | REDFLY C8-N (Inclusive of REDFLY C7) | | |
| Description: | Smart Phone Companion<br>1Mbps data rate (Basic data rate) - High Channel | | **Clause**<br>15.247(b,1) |

| Environmental Conditions | | |
|---|---|---|
| Ambient Temperature | Relative Humidity | Barometric Pressure |
| 21 °C | 25 % | 101.2 kPa |

EUT performed within the requirements of the applicable standard [X] Yes [ ] No *Les Payne*

| Freq MHz | Meas Peak Pwr (dBm) | Limit (dBm) | Delta (dBm) | Meas Peak Pwr (mW) | Limit (mW) | Delta (mW) | Pass/Fail |
|---|---|---|---|---|---|---|---|
| 2480 | -12.0 | 20.97 | -32.97 | 0.063 | 125 | -124.937 | Pass |

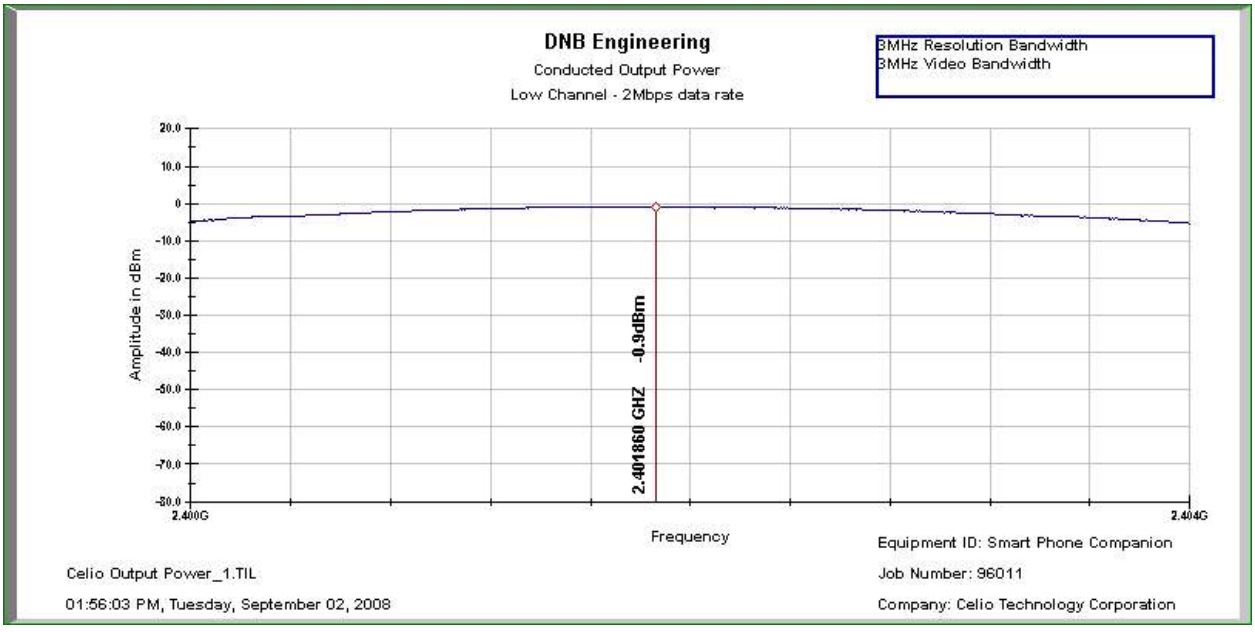


| | | | |
|---|---|---|---|
| | 1100 E Chalk Creek Road<br>Coalville, UT 84017<br>(435) 336-4433<br>FAX (435) 336-4436 | **Peak Output Power** (Cond) | |
| DNB Job Number: | 96011 | Date: 2 Sep 2008 | **Conformance Standard**<br>FCC Part 15 |
| Customer: | Celio Technology Corporation | | |
| Model Number: | REDFLY C8-N (Inclusive of REDFLY C7) | | |
| Description: | Smart Phone Companion<br>2Mbps data rate - Low Channel | | **Clause**<br>15.247(b,1) |

| Environmental Conditions | | |
|---|---|---|
| Ambient Temperature | Relative Humidity | Barometric Pressure |
| 21 °C | 25 % | 101.2 kPa |

EUT performed within the requirements of the applicable standard [X] Yes [ ] No *Les Payne*

| Freq MHz | Meas Peak Pwr (dBm) | Limit (dBm) | Delta (dBm) | Meas Peak Pwr (mW) | Limit (mW) | Delta (mW) | Pass/Fail |
|---|---|---|---|---|---|---|---|
| 2402 | -0.90 | 20.97 | -21.87 | 0.813 | 125 | -124.187 | Pass |

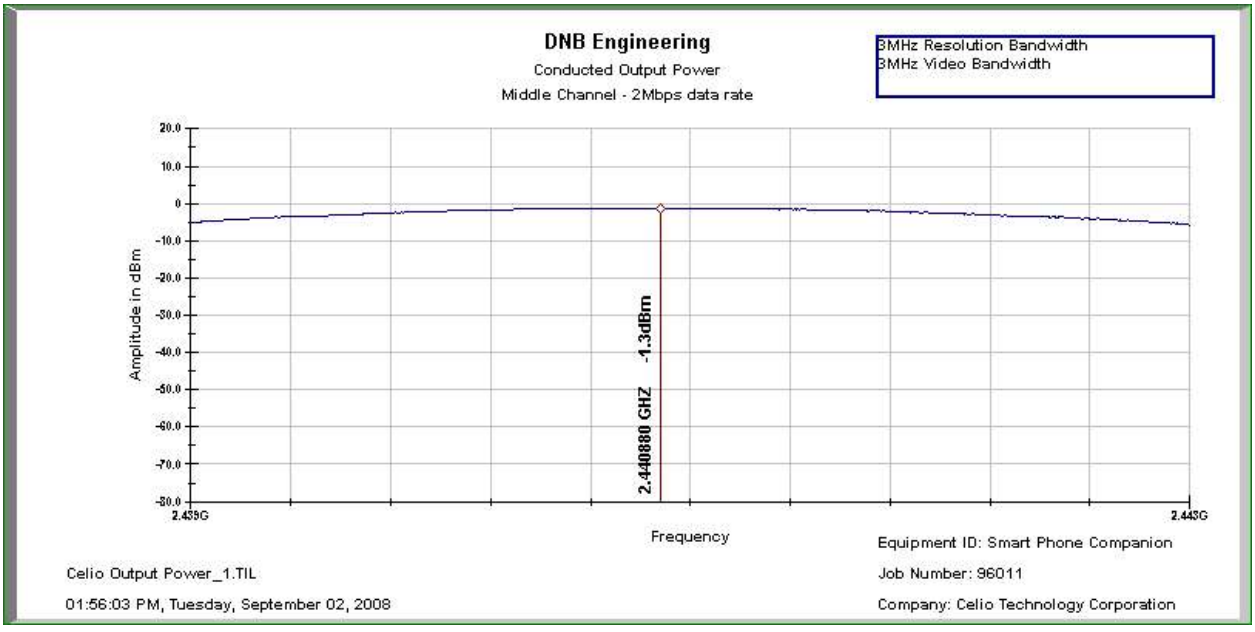


| | | | |
|---|---|---|---|
| | 1100 E Chalk Creek Road<br>Coalville, UT 84017<br>(435) 336-4433<br>FAX (435) 336-4436 | **Peak Output Power** (Cond) | |
| DNB Job Number: | 96011 | Date: 2 Sep 2008 | **Conformance Standard**<br>FCC Part 15 |
| Customer: | Celio Technology Corporation | | |
| Model Number: | REDFLY C8-N (Inclusive of REDFLY C7) | | |
| Description: | Smart Phone Companion<br>2Mbps data rate - Mid Channel | | **Clause**<br>15.247(b,1) |

| Environmental Conditions | | |
|---|---|---|
| Ambient Temperature | Relative Humidity | Barometric Pressure |
| 21 °C | 25 % | 101.2 kPa |

EUT performed within the requirements of the applicable standard [X] Yes [ ] No *Les Payne*

| Freq MHz | Meas Peak Pwr (dBm) | Limit (dBm) | Delta (dBm) | Meas Peak Pwr (mW) | Limit (mW) | Delta (mW) | Pass/Fail |
|---|---|---|---|---|---|---|---|
| 2441 | -1.30 | 20.97 | -22.27 | 0.741 | 125 | -124.259 | Pass |

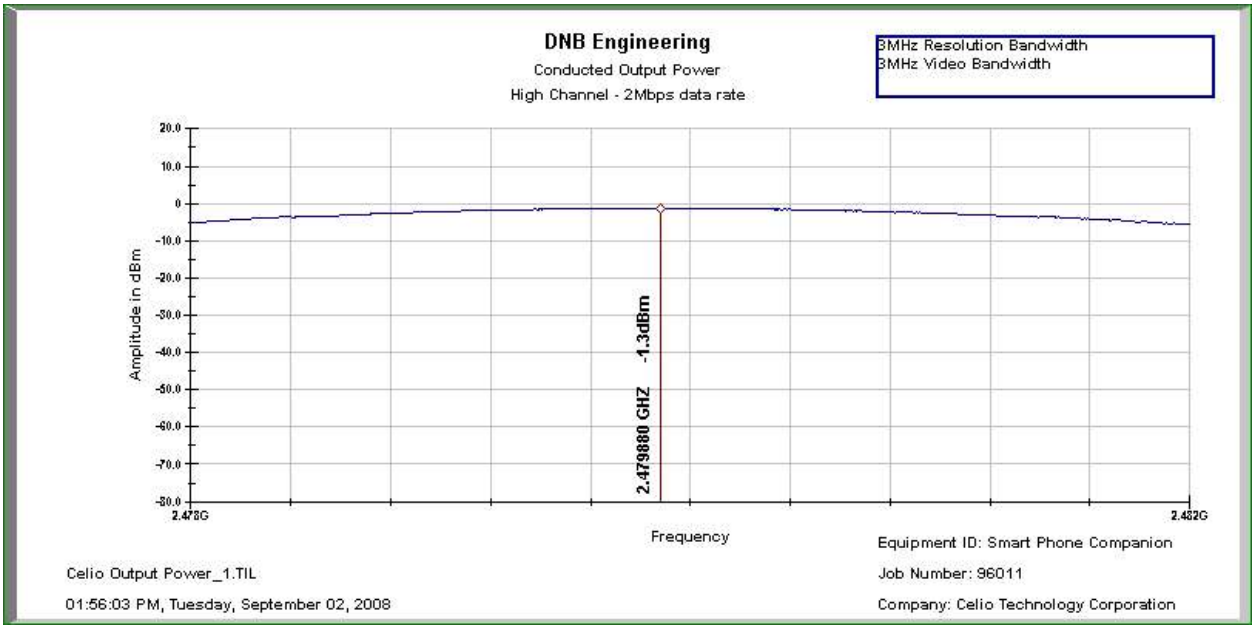


| | | | |
|---|---|---|---|
| | 1100 E Chalk Creek Road<br>Coalville, UT 84017<br>(435) 336-4433<br>FAX (435) 336-4436 | **Peak Output Power** (Cond) | |
| DNB Job Number: | 96011 | Date: 2 Sep 2008 | **Conformance Standard**<br>FCC Part 15 |
| Customer: | Celio Technology Corporation | | |
| Model Number: | REDFLY C8-N (Inclusive of REDFLY C7) | | |
| Description: | Smart Phone Companion<br>2Mbps data rate - High Channel | | **Clause**<br>15.247(b,1) |

| Environmental Conditions | | |
|---|---|---|
| Ambient Temperature | Relative Humidity | Barometric Pressure |
| 21 °C | 25 % | 101.2 kPa |

EUT performed within the requirements of the applicable standard [X] Yes [ ] No *Les Payne*

| Freq MHz | Meas Peak Pwr (dBm) | Limit (dBm) | Delta (dBm) | Meas Peak Pwr (mW) | Limit (mW) | Delta (mW) | Pass/Fail |
|---|---|---|---|---|---|---|---|
| 2480 | -1.30 | 20.97 | -22.27 | 0.741 | 125 | -124.259 | Pass |

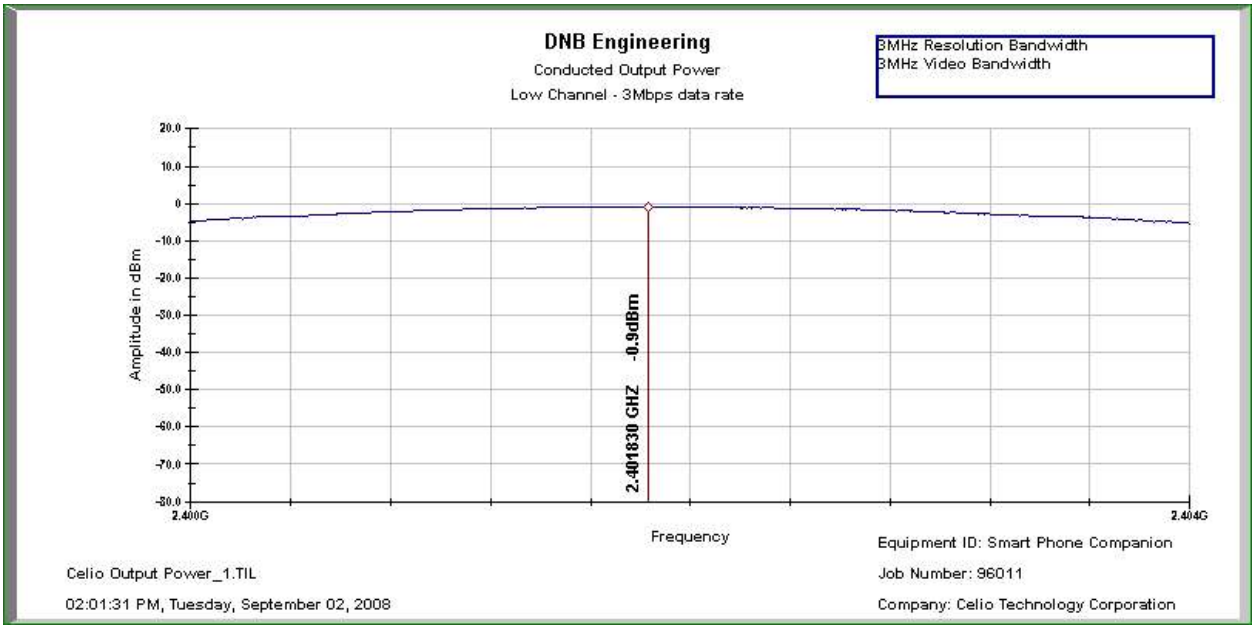


| | | | |
|---|---|---|---|
| | 1100 E Chalk Creek Road<br>Coalville, UT 84017<br>(435) 336-4433<br>FAX (435) 336-4436 | **Peak Output Power** (Cond) | |
| DNB Job Number: | 96011 | Date: 2 Sep 2008 | **Conformance Standard**<br>FCC Part 15 |
| Customer: | Celio Technology Corporation | | |
| Model Number: | REDFLY C8-N (Inclusive of REDFLY C7) | | |
| Description: | Smart Phone Companion<br>3Mbps data rate - Low Channel | | **Clause**<br>15.247(b,1) |

| Environmental Conditions | | |
|---|---|---|
| Ambient Temperature | Relative Humidity | Barometric Pressure |
| 21 °C | 25 % | 101.2 kPa |

EUT performed within the requirements of the applicable standard [X] Yes [ ] No *Les Payne*

| Freq MHz | Meas Peak Pwr (dBm) | Limit (dBm) | Delta (dBm) | Meas Peak Pwr (mW) | Limit (mW) | Delta (mW) | Pass/Fail |
|---|---|---|---|---|---|---|---|
| 2402 | -0.90 | 20.97 | -21.87 | 0.813 | 125 | -124.187 | Pass |

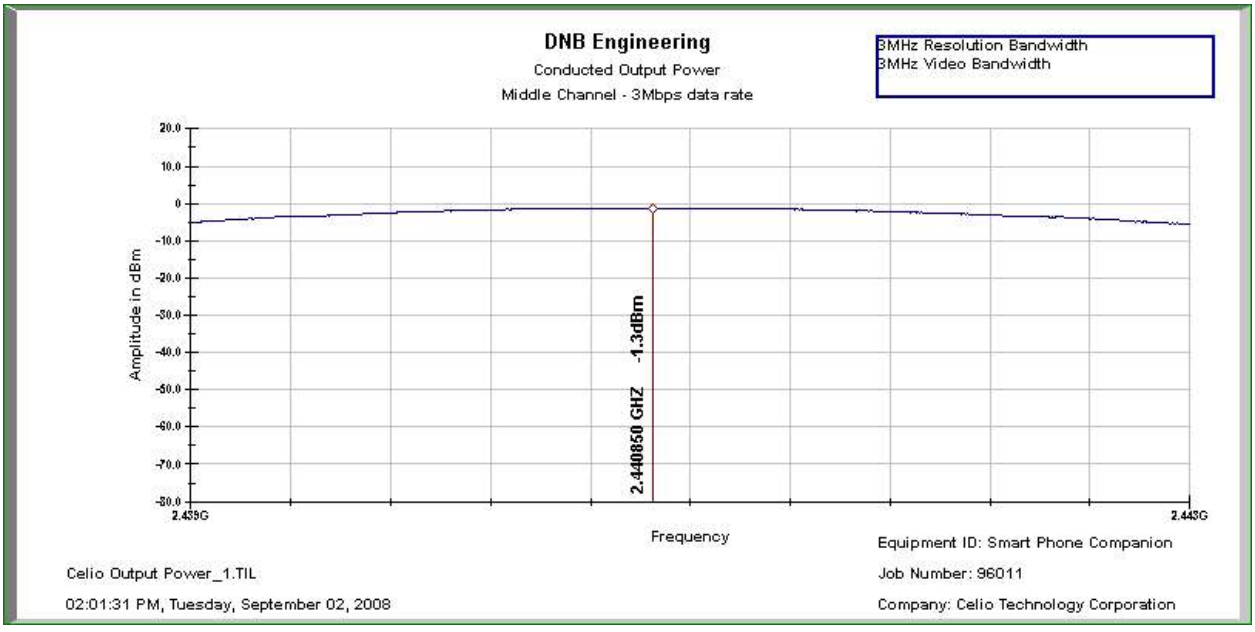


| | | | |
|---|---|---|---|
| | 1100 E Chalk Creek Road<br>Coalville, UT 84017<br>(435) 336-4433<br>FAX (435) 336-4436 | **Peak Output Power** (Cond) | |
| DNB Job Number: | 96011 | Date: 2 Sep 2008 | **Conformance Standard**<br>FCC Part 15 |
| Customer: | Celio Technology Corporation | | |
| Model Number: | REDFLY C8-N (Inclusive of REDFLY C7) | | |
| Description: | Smart Phone Companion<br>3Mbps data rate - Mid Channel | | **Clause**<br>15.247(b,1) |

| Environmental Conditions | | |
|---|---|---|
| Ambient Temperature | Relative Humidity | Barometric Pressure |
| 21 °C | 25 % | 101.2 kPa |

EUT performed within the requirements of the applicable standard [X] Yes [ ] No *Les Payne*

| Freq MHz | Meas Peak Pwr (dBm) | Limit (dBm) | Delta (dBm) | Meas Peak Pwr (mW) | Limit (mW) | Delta (mW) | Pass/Fail |
|---|---|---|---|---|---|---|---|
| 2441 | -1.30 | 20.97 | -22.27 | 0.741 | 125 | -124.259 | Pass |

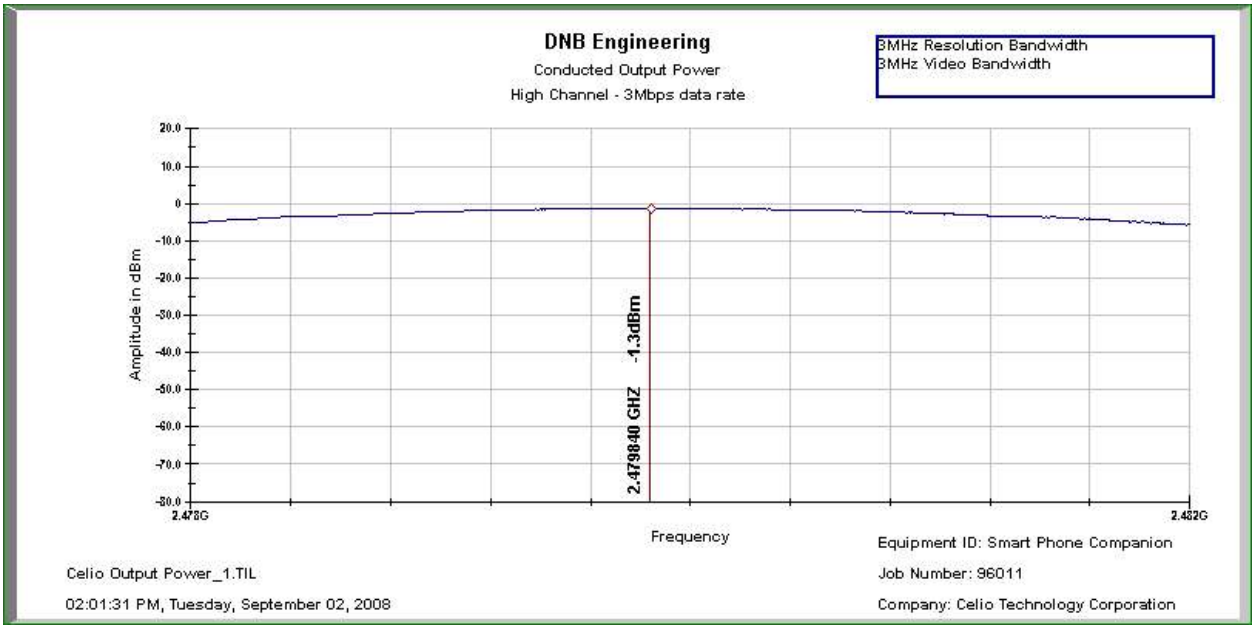


| | | | |
|---|---|---|---|
| | 1100 E Chalk Creek Road<br>Coalville, UT 84017<br>(435) 336-4433<br>FAX (435) 336-4436 | **Peak Output Power** (Cond) | |
| DNB Job Number: | 96011 | Date: 2 Sep 2008 | **Conformance Standard**<br>FCC Part 15 |
| Customer: | Celio Technology Corporation | | |
| Model Number: | REDFLY C8-N (Inclusive of REDFLY C7) | | |
| Description: | Smart Phone Companion<br>3Mbps data rate - High Channel | | **Clause**<br>15.247(b,1) |

| Environmental Conditions | | |
|---|---|---|
| Ambient Temperature | Relative Humidity | Barometric Pressure |
| 21 °C | 25 % | 101.2 kPa |

EUT performed within the requirements of the applicable standard [X] Yes [ ] No *Les Payne*

| Freq MHz | Meas Peak Pwr (dBm) | Limit (dBm) | Delta (dBm) | Meas Peak Pwr (mW) | Limit (mW) | Delta (mW) | Pass/Fail |
|---|---|---|---|---|---|---|---|
| 2480 | -1.30 | 20.97 | -22.27 | 0.741 | 125 | -124.259 | Pass |



15.247 (d) Conducted Band Edge Measurements and Out of Band Emissions

**Band-edge Compliance of RF Conducted Emissions**

Use the following spectrum analyzer settings:

Span = wide enough to capture the peak level of the emission operating on the channel closest to the bandedge, as well as any modulation products which fall outside of the authorized band of operation
RBW ≥ 1% of the span
VBW ≥ RBW
Sweep = auto
Detector function = peak
Trace = max hold

Allow the trace to stabilize. Set the marker on the emission at the bandedge, or on the highest modulation product outside of the band, if this level is greater than that at the bandedge. Enable the marker-delta function, then use the marker-to-peak function to move the marker to the peak of the in-band emission. The marker-delta value now displayed must comply with the limit specified in this Section. Submit this plot.

Now, using the same instrument settings, enable the hopping function of the EUT. Allow the trace to stabilize. Follow the same procedure listed above to determine if any spurious emissions caused by the hopping function also comply with the specified limit. Submit this plot.

Test Set Up: Same as 15.247 (a,2) 20 dB Emission Bandwidth

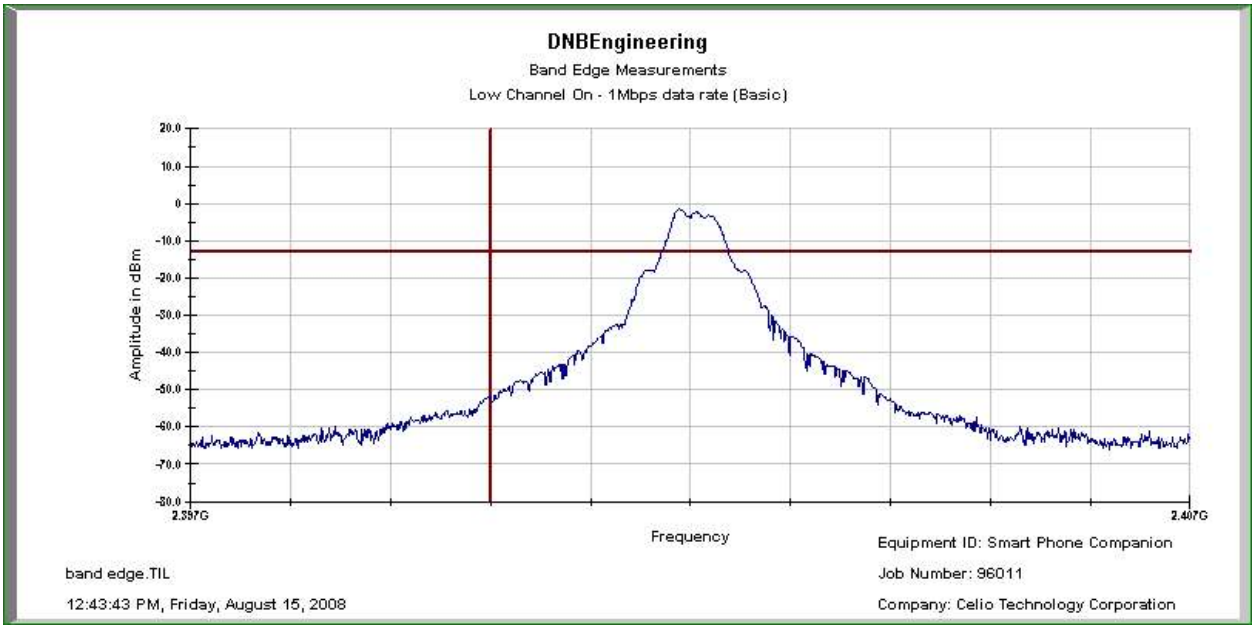
| | | | |
|---|---|---|---|
| | 1100 E Chalk Creek Road<br>Coalville, UT 84017<br>(435) 336-4433<br>FAX (435) 336-4436 | **Band Edge Measurements** | |

| | | | |
|---|---|---|---|
| DNB Job Number: | 96011 | Date: 15 Aug 2008 | **Conformance Standard**<br>FCC Part 15 |
| Customer: | Celio Technology Corporation | | |
| Model Number: | REDFLY C8-N (Inclusive of REDFLY C7) | | |
| Description: | Smart Phone Companion<br>1Mbps data rate (Basic data rate) | | **Clause**<br>15.247(d) |

| Ambient Temperature | Relative Humidity | Barometric Pressure |
|---|---|---|
| 19 °C | 28 % | 101.8 kPa |

EUT performed within the requirements of the applicable standard [X] Yes [ ] No *Les Payne*

| Band Edge | | | Radiated Corrected Edge Measurement | | | Freq Delta (MHz) | Pass/Fail |
|---|---|---|---|---|---|---|---|
| Limit | Lower (MHz) | Upper (MHz) | Limit (dBuV/m) | Measured (dBuV/m) | Delta (dBuV) | | |
| 2400 | 2401.815 | | 54.0 | 44.1 | -9.4 | 1.815 | Pass |



1100 E Chalk Creek Road
Coalville, UT 84017
(435) 336-4433
FAX (435) 336-4436

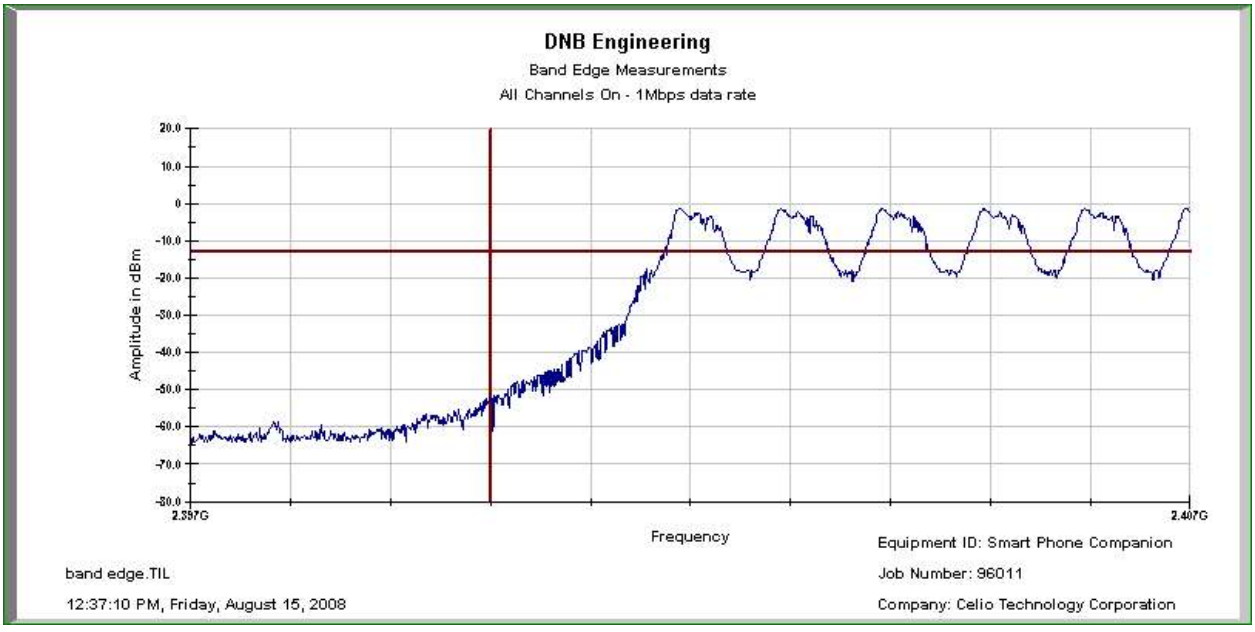
# Band Edge Measurements

| | | | |
|---|---|---|---|
| DNB Job Number: | 96011 | Date: 15 Aug 2008 | **Conformance Standard** |
| Customer: | Celio Technology Corporation | | FCC Part 15 |
| Model Number: | REDFLY C8-N (Inclusive of REDFLY C7) | | |
| Description: | Smart Phone Companion | | **Clause** 15.247(d) |
| | 1Mbps data rate (Basic data rate) | | |

| Ambient Temperature | Relative Humidity | Barometric Pressure |
|---|---|---|
| 19 °C | 28 % | 101.8 kPa |

EUT performed within the requirements of the applicable standard [X] Yes [ ] No *Les Payne*

| Band Edge | | | Radiated Corrected Edge Measurement | | | Freq Delta (MHz) | Pass/Fail |
|---|---|---|---|---|---|---|---|
| Limit | Lower (MHz) | Upper (MHz) | Limit (dBuV/m) | Measured (dBuV/m) | Delta (dBuV) | | |
| 2400 | 2401.815 | | 54.0 | 44.1 | -9.9 | 1.815 | Pass |



| | |
|---|---|
| | 1100 E Chalk Creek Road<br>Coalville, UT 84017<br>(435) 336-4433<br>FAX (435) 336-4436 |

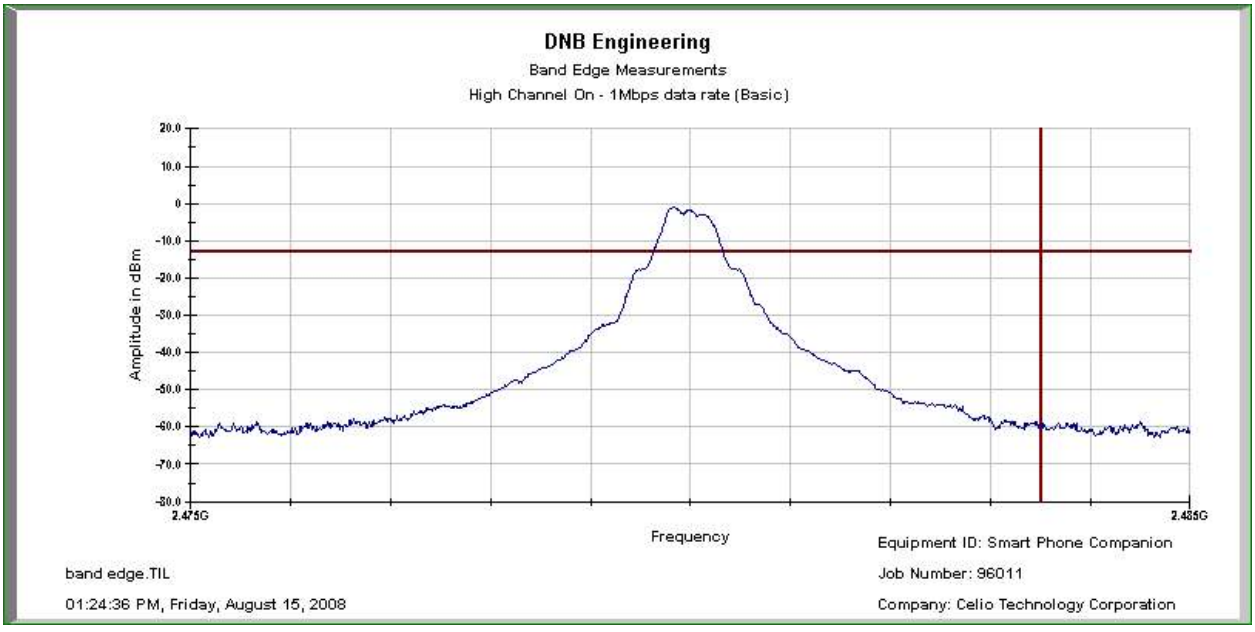
# Band Edge Measurements

| | | | | |
|---|---|---|---|---|
| DNB Job Number: | 96011 | Date: | 15 Aug 2008 | **Conformance Standard** |
| Customer: | Celio Technology Corporation | | | FCC Part 15 |
| Model Number: | REDFLY C8-N (Inclusive of REDFLY C7) | | | |
| Description: | Smart Phone Companion | | | **Clause** 15.247(d) |
| | 1Mbps data rate (Basic data rate) | | | |

| Ambient Temperature | Relative Humidity | Barometric Pressure |
|---|---|---|
| 19 °C | 28 % | 101.8 kPa |

EUT performed within the requirements of the applicable standard [X] Yes [ ] No *Les Payne*

| Band Edge | | | Radiated Corrected Edge Measurement | | | Freq Delta (MHz) | Pass/Fail |
|---|---|---|---|---|---|---|---|
| Limit | Lower (MHz) | Upper (MHz) | Limit (dBuV/m) | Measured (dBuV/m) | Delta (dBuV) | | |
| 2483.5 | | 2479.779 | 54.0 | 43.8 | -10.2 | 3.721 | Pass |



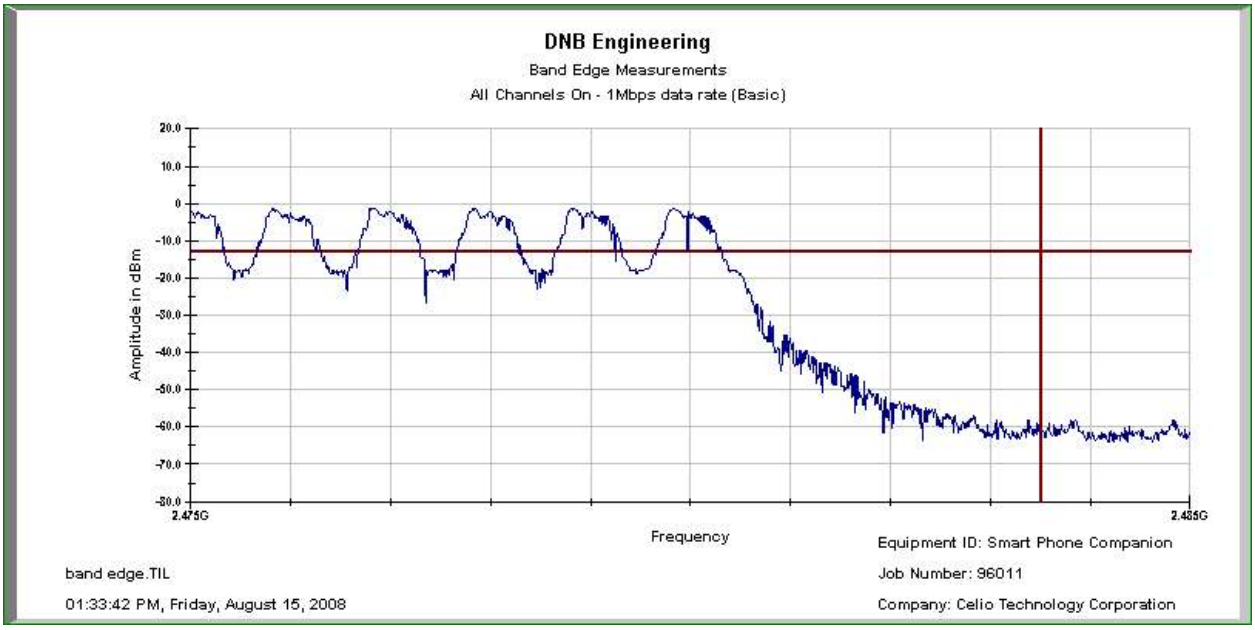
| | | | |
|---|---|---|---|
| | 1100 E Chalk Creek Road<br>Coalville, UT 84017<br>(435) 336-4433<br>FAX (435) 336-4436 | **Band Edge Measurements** | |

| | | | |
|---|---|---|---|
| DNB Job Number: | 96011 | Date: 15 Aug 2008 | **Conformance Standard**<br>FCC Part 15 |
| Customer: | Celio Technology Corporation | | |
| Model Number: | REDFLY C8-N (Inclusive of REDFLY C7) | | |
| Description: | Smart Phone Companion<br>1Mbps data rate (Basic data rate) | | **Clause**<br>15.247(d) |

| Ambient Temperature | Relative Humidity | Barometric Pressure |
|---|---|---|
| 19 °C | 28 % | 101.8 kPa |

EUT performed within the requirements of the applicable standard [X] Yes [ ] No *Les Payne*

| Band Edge | | | Radiated Corrected Edge Measurement | | | Freq Delta (MHz) | Pass/Fail |
|---|---|---|---|---|---|---|---|
| Limit | Lower (MHz) | Upper (MHz) | Limit (dBuV/m) | Measured (dBuV/m) | Delta (dBuV) | | |
| 2483.5 | | 2479.779 | 54.0 | 43.8 | -10.2 | 3.721 | Pass |



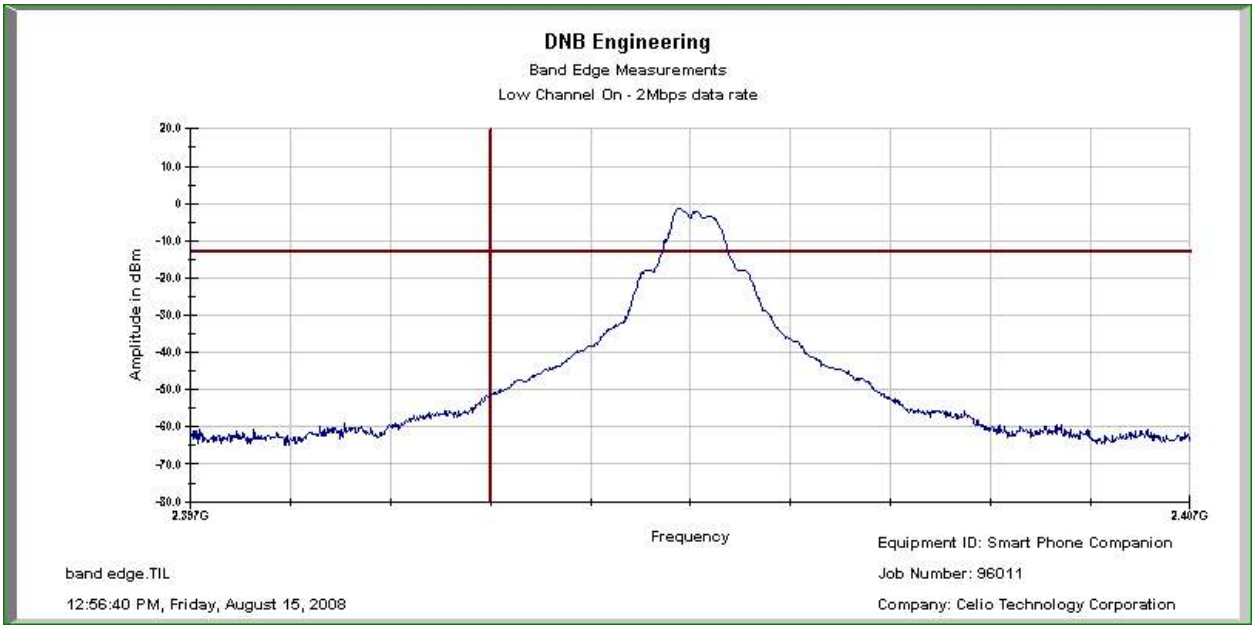
| | | | |
|---|---|---|---|
| | 1100 E Chalk Creek Road<br>Coalville, UT 84017<br>(435) 336-4433<br>FAX (435) 336-4436 | **Band Edge Measurements** | |

| | | | |
|---|---|---|---|
| DNB Job Number: | 96011 | Date: 15 Aug 2008 | **Conformance Standard**<br>FCC Part 15 |
| Customer: | Celio Technology Corporation | | |
| Model Number: | REDFLY C8-N (Inclusive of REDFLY C7) | | |
| Description: | Smart Phone Companion<br>2Mbps data rate | | **Clause**<br>15.247(d) |

| Ambient Temperature | Relative Humidity | Barometric Pressure |
|---|---|---|
| 19 °C | 28 % | 101.8 kPa |

EUT performed within the requirements of the applicable standard [X] Yes [ ] No *Les Payne*

| Band Edge | | | Radiated Corrected Edge Measurement | | | Freq Delta (MHz) | Pass/Fail |
|---|---|---|---|---|---|---|---|
| Limit | Lower (MHz) | Upper (MHz) | Limit (dBuV/m) | Measured (dBuV/m) | Delta (dBuV) | | |
| 2400 | 2401.815 | | 54.0 | 44.1 | -9.9 | 1.815 | Pass |



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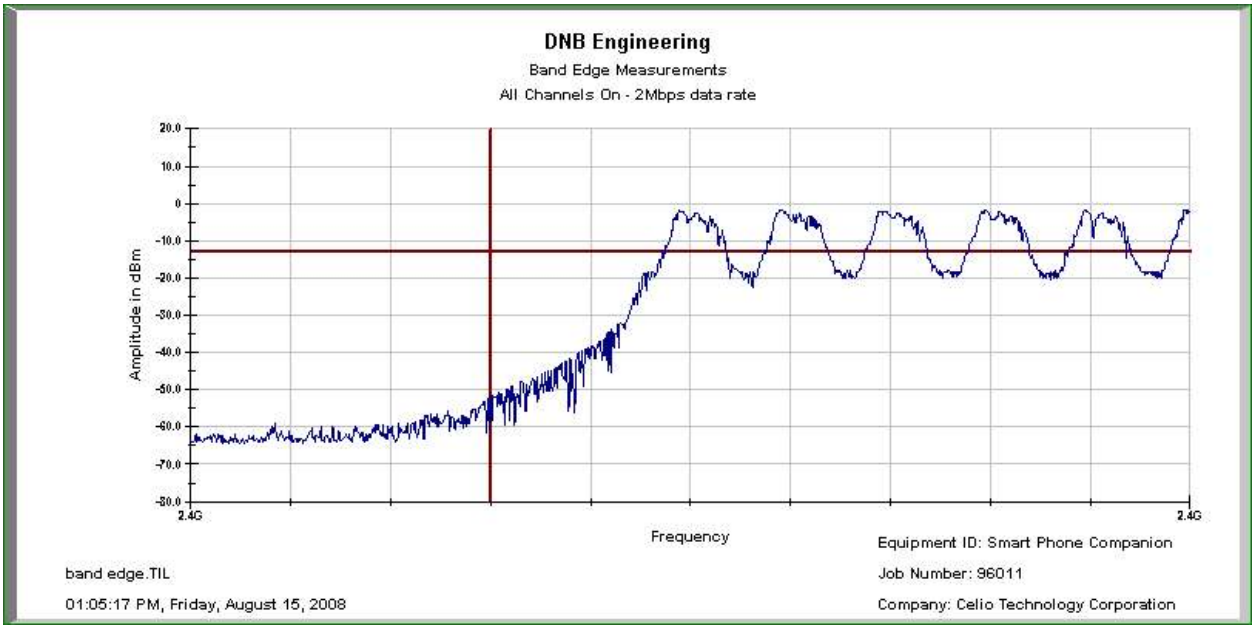
# Band Edge Measurements

| | | | |
|---|---|---|---|
| DNB Job Number: | 96011 | Date: 15 Aug 2008 | **Conformance Standard** |
| Customer: | Celio Technology Corporation | | FCC Part 15 |
| Model Number: | REDFLY C8-N (Inclusive of REDFLY C7) | | |
| Description: | Smart Phone Companion | | **Clause** 15.247(d) |
| | 2Mbps data rate | | |

| Ambient Temperature | Relative Humidity | Barometric Pressure |
|---|---|---|
| 19 °C | 28 % | 101.8 kPa |

EUT performed within the requirements of the applicable standard [X] Yes [ ] No *Les Payne*

| Band Edge | | | Radiated Corrected Edge Measurement | | | Freq Delta (MHz) | Pass/Fail |
|---|---|---|---|---|---|---|---|
| Limit | Lower (MHz) | Upper (MHz) | Limit (dBuV/m) | Measured (dBuV/m) | Delta (dBuV) | | |
| 2400 | 2401.815 | | 54.0 | 44.1 | -9.9 | 1.815 | Pass |



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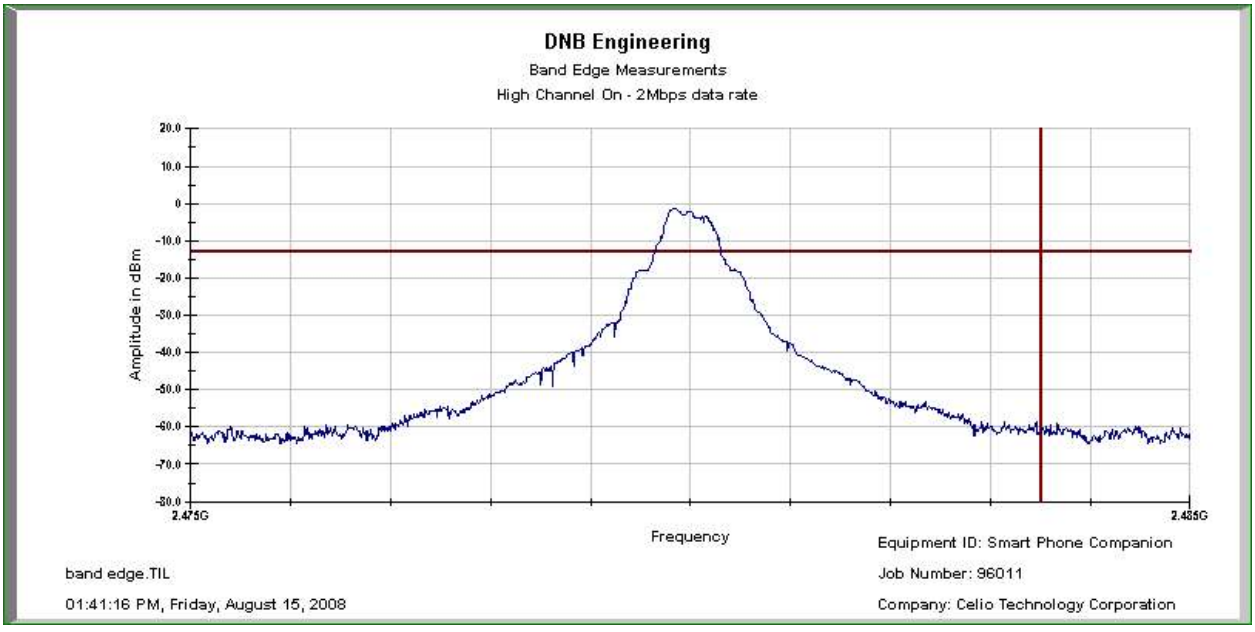
# Band Edge Measurements

| | | | |
|---|---|---|---|
| DNB Job Number: | 96011 | Date: 15 Aug 2008 | **Conformance Standard** |
| Customer: | Celio Technology Corporation | | FCC Part 15 |
| Model Number: | REDFLY C8-N (Inclusive of REDFLY C7) | | |
| Description: | Smart Phone Companion | | **Clause** 15.247(d) |
| | 2Mbps data rate | | |

| Ambient Temperature | Relative Humidity | Barometric Pressure |
|---|---|---|
| 19 °C | 28 % | 101.8 kPa |

EUT performed within the requirements of the applicable standard [X] Yes [ ] No *Les Payne*

| Band Edge | | | Radiated Corrected Edge Measurement | | | Freq Delta (MHz) | Pass/Fail |
|---|---|---|---|---|---|---|---|
| Limit | Lower (MHz) | Upper (MHz) | Limit (dBuV/m) | Measured (dBuV/m) | Delta (dBuV) | | |
| 2483.5 | | 2479.779 | 54.0 | 43.8 | -10.2 | 3.721 | Pass |



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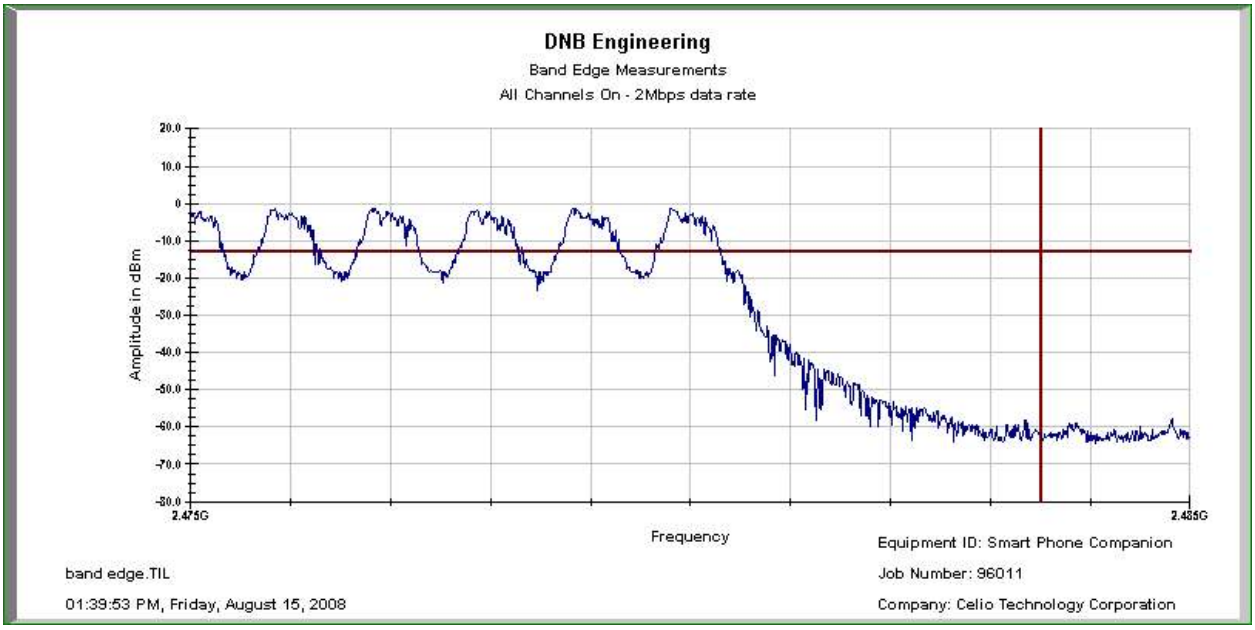
# Band Edge Measurements

| | | | |
|---|---|---|---|
| DNB Job Number: | 96011 | Date: 15 Aug 2008 | **Conformance Standard** |
| Customer: | Celio Technology Corporation | | FCC Part 15 |
| Model Number: | REDFLY C8-N (Inclusive of REDFLY C7) | | |
| Description: | Smart Phone Companion | | **Clause** 15.247(d) |
| | 2Mbps data rate | | |

| Ambient Temperature | Relative Humidity | Barometric Pressure |
|---|---|---|
| 19 °C | 28 % | 101.8 kPa |

EUT performed within the requirements of the applicable standard [X] Yes [ ] No *Les Payne*

| Band Edge | | | Radiated Corrected Edge Measurement | | | Freq Delta (MHz) | Pass/Fail |
|---|---|---|---|---|---|---|---|
| Limit | Lower (MHz) | Upper (MHz) | Limit (dBuV/m) | Measured (dBuV/m) | Delta (dBuV) | | |
| 2483.5 | | 2479.779 | 54.0 | 43.8 | -10.2 | 3.721 | Pass |



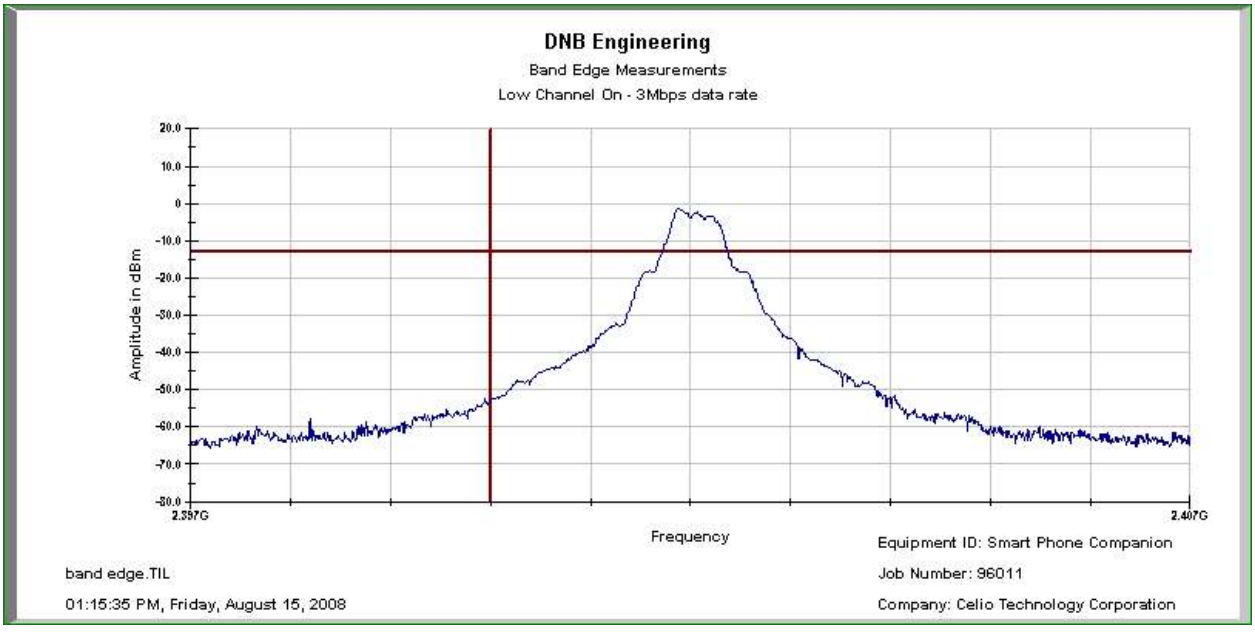
| | | | |
|---|---|---|---|
| | 1100 E Chalk Creek Road<br>Coalville, UT 84017<br>(435) 336-4433<br>FAX (435) 336-4436 | **Band Edge Measurements** | |

| | | | |
|---|---|---|---|
| DNB Job Number: | 96011 | Date: 15 Aug 2008 | **Conformance Standard**<br>FCC Part 15 |
| Customer: | Celio Technology Corporation | | |
| Model Number: | REDFLY C8-N (Inclusive of REDFLY C7) | | |
| Description: | Smart Phone Companion<br>3Mbps data rate | | **Clause**<br>15.247(d) |

| Ambient Temperature | Relative Humidity | Barometric Pressure |
|---|---|---|
| 19 °C | 28 % | 101.8 kPa |

EUT performed within the requirements of the applicable standard [X] Yes [ ] No *Les Payne*

| Band Edge | | | Radiated Corrected Edge Measurement | | | Freq Delta (MHz) | Pass/Fail |
|---|---|---|---|---|---|---|---|
| Limit | Lower (MHz) | Upper (MHz) | Limit (dBuV/m) | Measured (dBuV/m) | Delta (dBuV) | | |
| 2400 | 2401.815 | | 54.0 | 44.1 | -9.9 | 1.815 | Pass |



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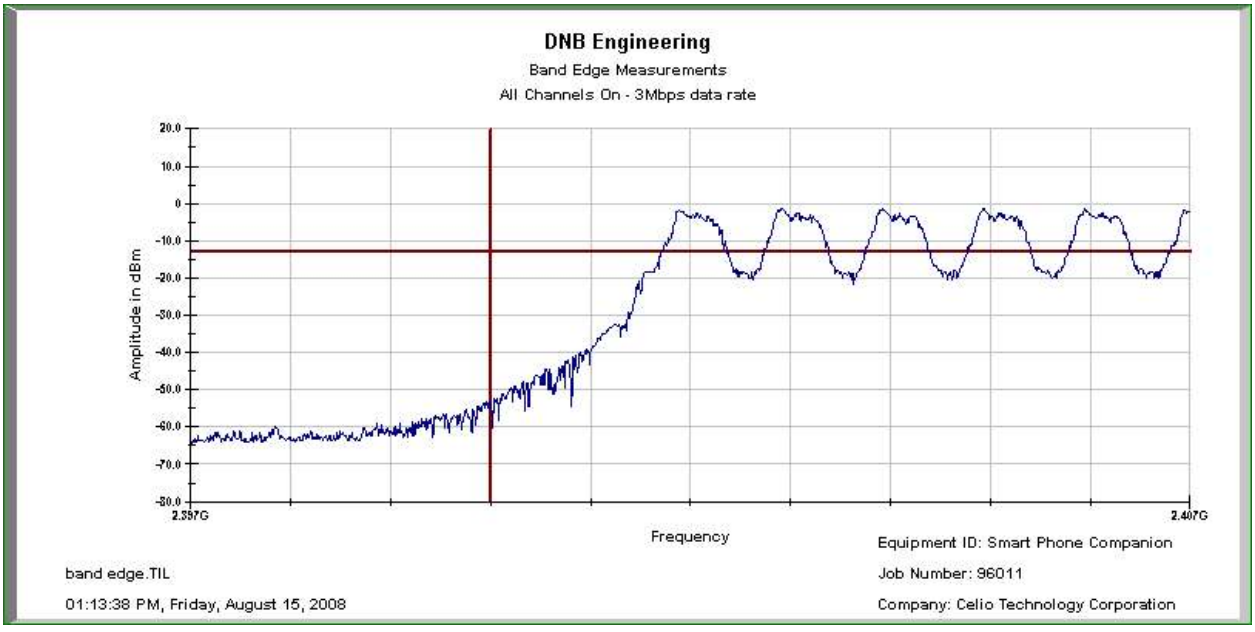
# Band Edge Measurements

| | | | |
|---|---|---|---|
| DNB Job Number: | 96011 | Date: 15 Aug 2008 | **Conformance Standard** |
| Customer: | Celio Technology Corporation | | FCC Part 15 |
| Model Number: | REDFLY C8-N (Inclusive of REDFLY C7) | | |
| Description: | Smart Phone Companion | | **Clause** 15.247(d) |
| | 3Mbps data rate | | |

| Ambient Temperature | Relative Humidity | Barometric Pressure |
|---|---|---|
| 19 °C | 28 % | 101.8 kPa |

EUT performed within the requirements of the applicable standard [X] Yes [ ] No *Les Payne*

| Band Edge | | | Radiated Corrected Edge Measurement | | | Freq Delta (MHz) | Pass/Fail |
|---|---|---|---|---|---|---|---|
| Limit | Lower (MHz) | Upper (MHz) | Limit (dBuV/m) | Measured (dBuV/m) | Delta (dBuV) | | |
| 2400 | 2401.815 | | 54.0 | 44.1 | -9.9 | 1.815 | Pass |



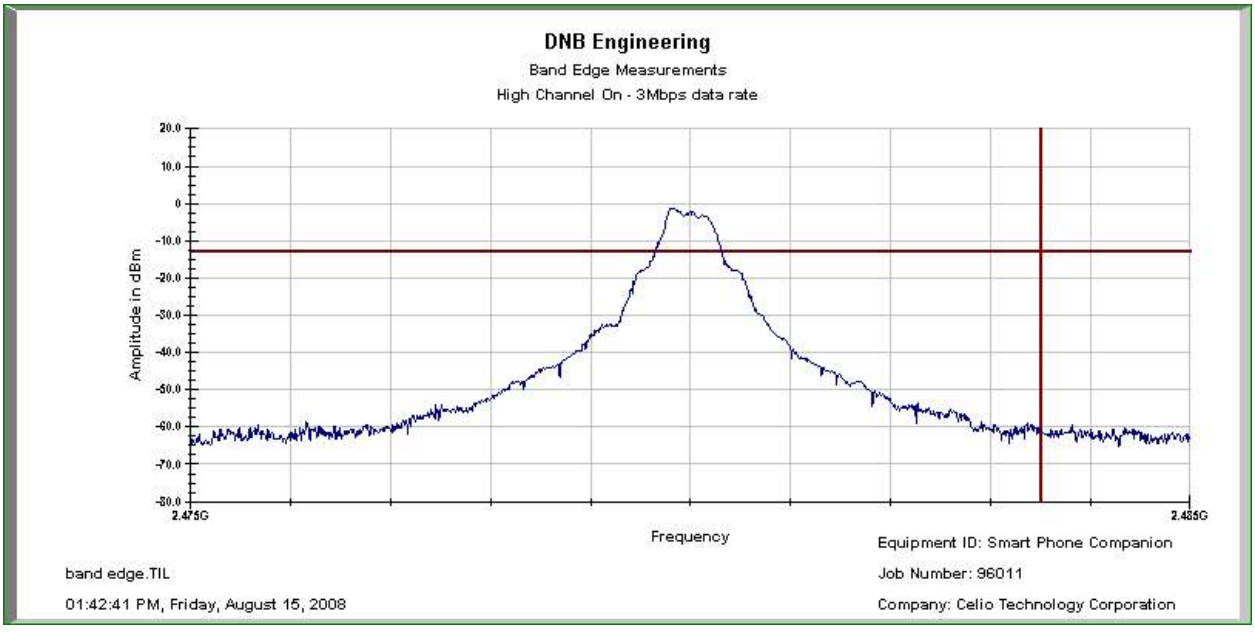
| | | | |
|---|---|---|---|
| | 1100 E Chalk Creek Road<br>Coalville, UT 84017<br>(435) 336-4433<br>FAX (435) 336-4436 | **Band Edge Measurements** | |

| | | | |
|---|---|---|---|
| DNB Job Number: | 96011 | Date: 15 Aug 2008 | **Conformance Standard**<br>FCC Part 15 |
| Customer: | Celio Technology Corporation | | |
| Model Number: | REDFLY C8-N (Inclusive of REDFLY C7) | | |
| Description: | Smart Phone Companion<br>3Mbps data rate | | **Clause**<br>15.247(d) |

| Ambient Temperature | Relative Humidity | Barometric Pressure |
|---|---|---|
| 19 °C | 28 % | 101.8 kPa |

EUT performed within the requirements of the applicable standard [X] Yes [ ] No *Les Payne*

| Band Edge | | | Radiated Corrected Edge Measurement | | | Freq Delta (MHz) | Pass/Fail |
|---|---|---|---|---|---|---|---|
| Limit | Lower (MHz) | Upper (MHz) | Limit (dBuV/m) | Measured (dBuV/m) | Delta (dBuV) | | |
| 2483.500 | | 2479.779 | 54.0 | 43.8 | -10.2 | 3.721 | Pass |



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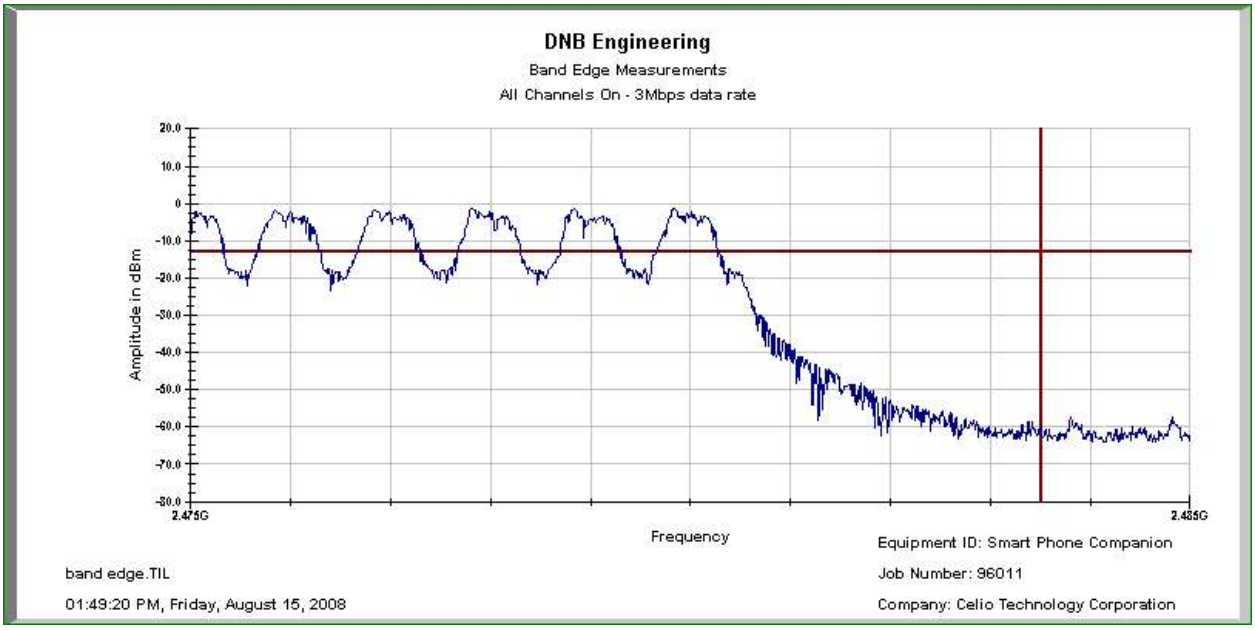
# Band Edge Measurements

| | | | |
|---|---|---|---|
| DNB Job Number: | 96011 | Date: 15 Aug 2008 | **Conformance Standard** |
| Customer: | Celio Technology Corporation | | FCC Part 15 |
| Model Number: | REDFLY C8-N (Inclusive of REDFLY C7) | | |
| Description: | Smart Phone Companion | | **Clause** 15.247(d) |
| | 3Mbps data rate | | |

| Ambient Temperature | Relative Humidity | Barometric Pressure |
|---|---|---|
| 19 °C | 28 % | 101.8 kPa |

EUT performed within the requirements of the applicable standard [X] Yes [ ] No *Les Payne*

| Band Edge | | | Radiated Corrected Edge Measurement | | | Freq Delta (MHz) | Pass/Fail |
|---|---|---|---|---|---|---|---|
| Limit | Lower (MHz) | Upper (MHz) | Limit (dBuV/m) | Measured (dBuV/m) | Delta (dBuV) | | |
| 2483.500 | | 2479.779 | 54.0 | 43.8 | -10.2 | 3.721 | Pass |



| | | | |
|---|---|---|---|
| | 1100 E Chalk Creek Road<br>Coalville, UT 84017<br>(435) 336-4433<br>FAX (435) 336-4436 | **Conducted Spurious** | |
| DNB Job Number: | 96011 | Date: 14 Aug 2008 | **Conformance Standard**<br>FCC Part 15 |
| Customer: | Celio Technology Corporation | | |
| Model Number: | REDFLY C8-N (Inclusive of REDFLY C7) | | |
| Description: | Smart Phone Companion | | **Clause**<br>15.247(d) |
| | Test Procedure | | |

| Ambient Temperature | Relative Humidity | Barometric Pressure |
|---|---|---|
| 21 °C | 25 % | 101.2 kPa |

EUT performed within the requirements of the applicable standard [X] Yes [ ] No *Les Payne*

Spurious RF Conducted Emissions

Use the following spectrum analyzer settings:

Span = wide enough to capture the peak level of the in-band emission and all spurious emissions (e.g., harmonics) from the lowest frequency generated in the EUT up through the 10$^{th}$ harmonic. Typically, several plots are required to cover this entire span.
RBW = 100 kHz
VBW ≥ RBW
Sweep = auto
Detector function = peak
Trace = max hold

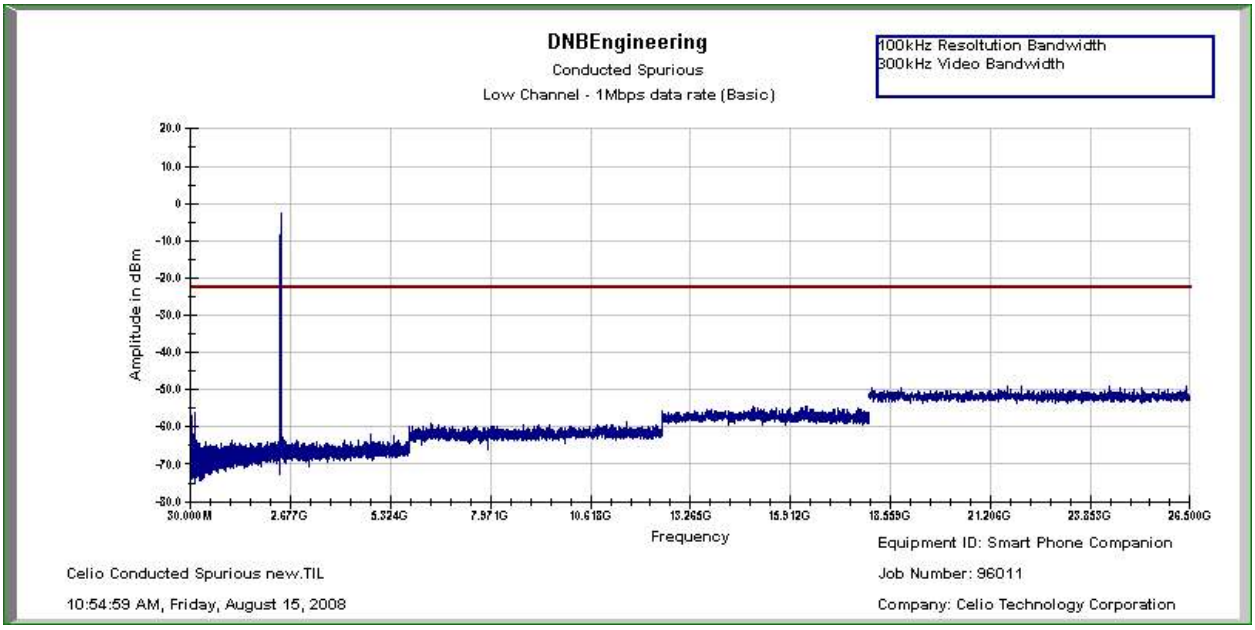
Allow the trace to stabilize. Set the marker on the peak of any spurious emission recorded. The level displayed must comply with the limit specified in this Section. Submit these plots.

| | | | |
|---|---|---|---|
| | 1100 E Chalk Creek Road<br>Coalville, UT 84017<br>(435) 336-4433<br>FAX (435) 336-4436 | **Conducted Spurious** | |
| DNB Job Number: | 96011 | Date: 14 Aug 2008 | **Conformance Standard**<br>FCC Part 15 |
| Customer: | Celio Technology Corporation | | |
| Model Number: | REDFLY C8-N (Inclusive of REDFLY C7) | | |
| Description: | Smart Phone Companion<br>1Mbps data rate (Basic data rate) - Low Channel | | **Clause**<br>15.247(d) |

| Ambient Temperature | Relative Humidity | Barometric Pressure |
|---|---|---|
| 21 °C | 25 % | 101.2 kPa |

EUT performed within the requirements of the applicable standard [X] Yes [ ] No *Les Payne*

| Peak Output Power | Reading | -20dBc | Pass/Fall |
|---|---|---|---|
| -2.9 dBm | -2.9 dBm | -22.9 dBm | Pass |

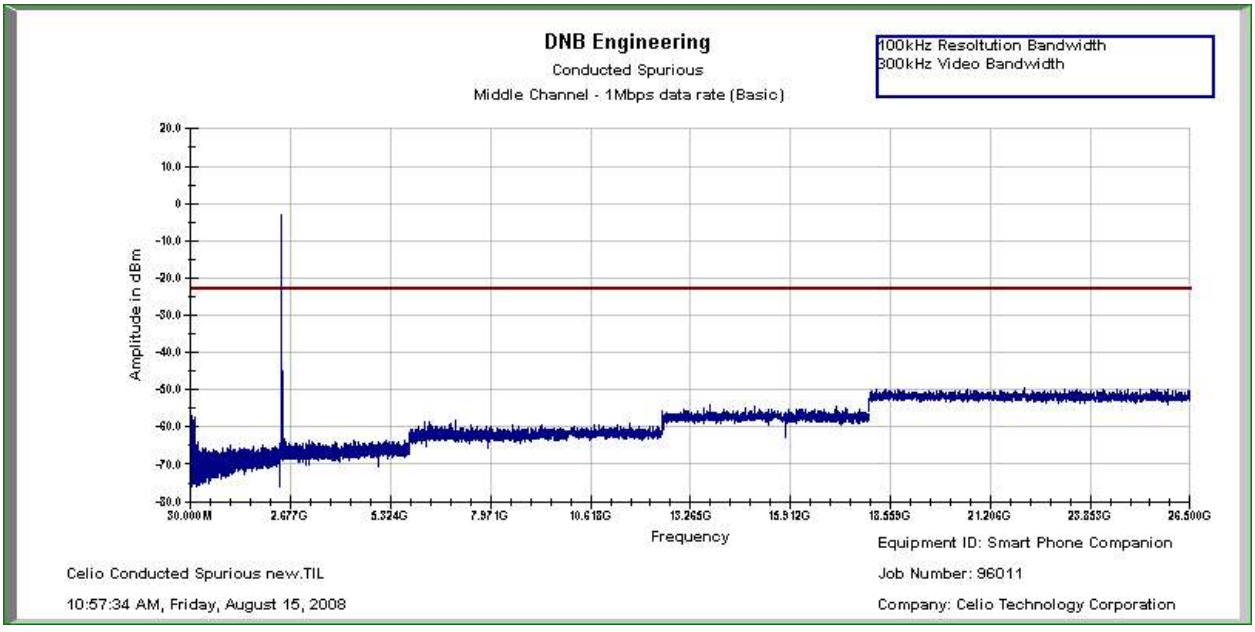


| | | | |
|---|---|---|---|
| | 1100 E Chalk Creek Road<br>Coalville, UT 84017<br>(435) 336-4433<br>FAX (435) 336-4436 | **Conducted Spurious** | |
| DNB Job Number: | 96011 | Date: 14 Aug 2008 | **Conformance Standard**<br>FCC Part 15 |
| Customer: | Celio Technology Corporation | | |
| Model Number: | REDFLY C8-N (Inclusive of REDFLY C7) | | |
| Description: | Smart Phone Companion<br>1Mbps data rate (Basic data rate) - Mid Channel | | **Clause**<br>15.247(d) |

| Ambient Temperature | Relative Humidity | Barometric Pressure |
|---|---|---|
| 21 °C | 25 % | 101.2 kPa |

EUT performed within the requirements of the applicable standard [X] Yes [ ] No *Les Payne*

| Peak Output Power | Reading | -20dBc | Pass/Fall |
|---|---|---|---|
| 0.20 dBm | -2.9 dBm | -22.9 dBm | Pass |

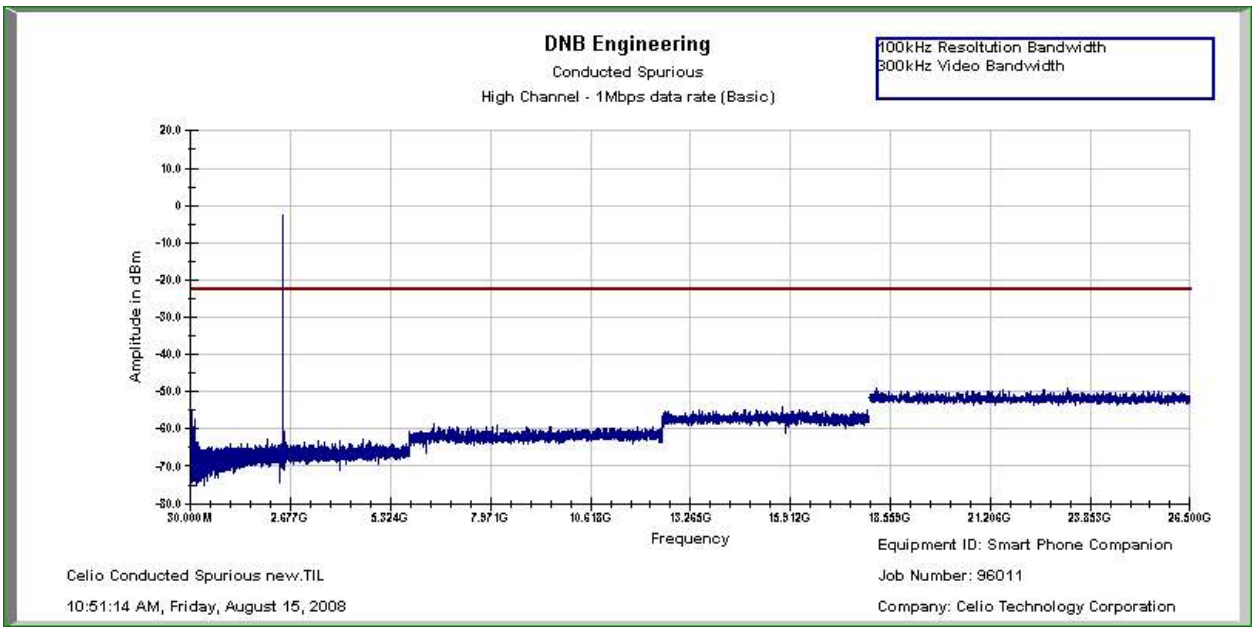


| | | | |
|---|---|---|---|
| | 1100 E Chalk Creek Road<br>Coalville, UT 84017<br>(435) 336-4433<br>FAX (435) 336-4436 | **Conducted Spurious** | |
| DNB Job Number: | 96011 | Date: 14 Aug 2008 | **Conformance Standard**<br>FCC Part 15 |
| Customer: | Celio Technology Corporation | | |
| Model Number: | REDFLY C8-N (Inclusive of REDFLY C7) | | |
| Description: | Smart Phone Companion<br>1Mbps data rate (Basic data rate) - High Channel | | **Clause**<br>15.247(d) |

| Ambient Temperature | Relative Humidity | Barometric Pressure |
|---|---|---|
| 21 °C | 25 % | 101.2 kPa |

EUT performed within the requirements of the applicable standard [X] Yes [ ] No *Les Payne*

| Peak Output Power | Reading | -20dBc | Pass/Fall |
|---|---|---|---|
| 0.20 dBm | -2.5 dBm | -22.5 dBm | Pass |

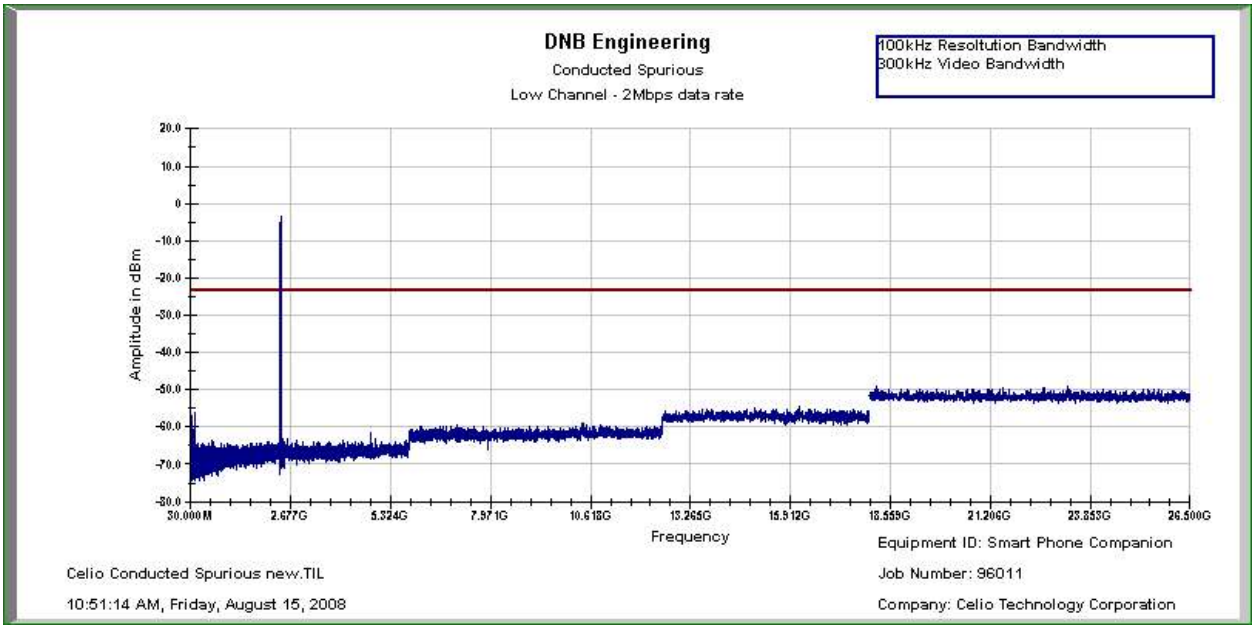


| | | | |
|---|---|---|---|
| | 1100 E Chalk Creek Road<br>Coalville, UT 84017<br>(435) 336-4433<br>FAX (435) 336-4436 | **Conducted Spurious** | |
| DNB Job Number: | 96011 | Date: 14 Aug 2008 | **Conformance Standard**<br>FCC Part 15 |
| Customer: | Celio Technology Corporation | | |
| Model Number: | REDFLY C8-N (Inclusive of REDFLY C7) | | |
| Description: | Smart Phone Companion<br>2Mbps data rate - Low Channel | | **Clause**<br>15.247(d) |

| Ambient Temperature | Relative Humidity | Barometric Pressure |
|---|---|---|
| 21 °C | 25 % | 101.2 kPa |

EUT performed within the requirements of the applicable standard [X] Yes [ ] No *Les Payne*

| Peak Output Power | Reading | -20dBc | Pass/Fall |
|---|---|---|---|
| 0.20 dBm | -3.3 dBm | -23.3 dBm | Pass |



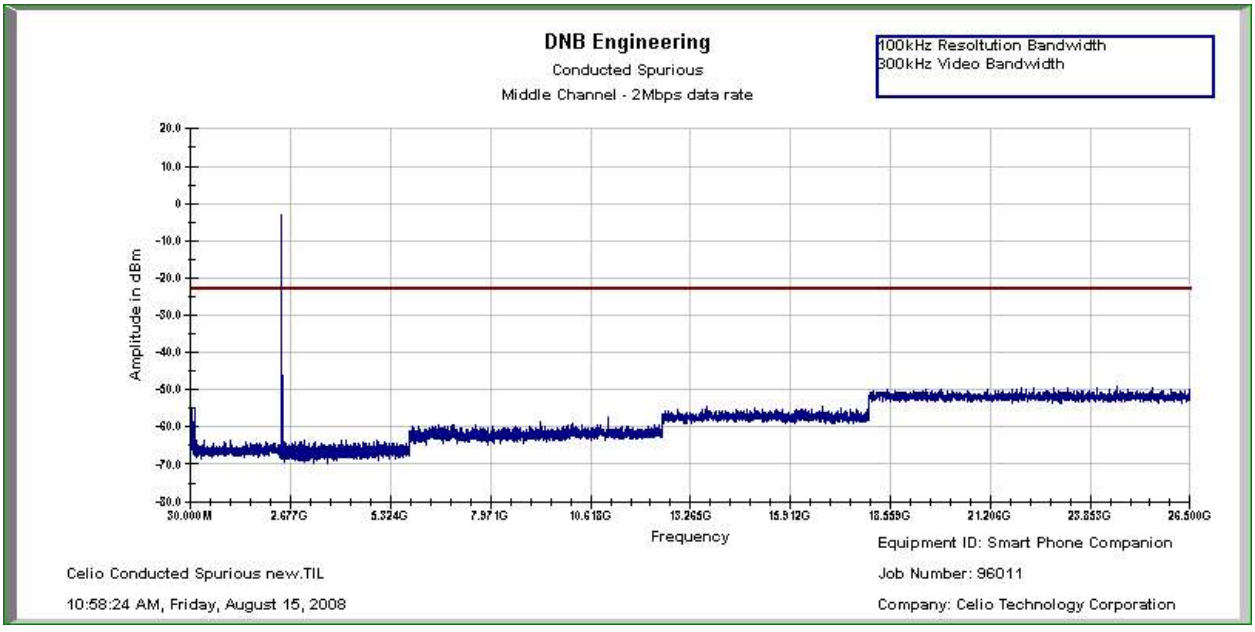
| | | |
|---|---|---|
| | 1100 E Chalk Creek Road<br>Coalville, UT 84017<br>(435) 336-4433<br>FAX (435) 336-4436 | **Conducted Spurious** |

| | | | |
|---|---|---|---|
| DNB Job Number: | 96011 | Date: 14 Aug 2008 | **Conformance Standard**<br>FCC Part 15 |
| Customer: | Celio Technology Corporation | | |
| Model Number: | REDFLY C8-N (Inclusive of REDFLY C7) | | |
| Description: | Smart Phone Companion<br>2Mbps data rate - Mid Channel | | **Clause**<br>15.247(d) |

| Ambient Temperature | Relative Humidity | Barometric Pressure |
|---|---|---|
| 21 °C | 25 % | 101.2 kPa |

EUT performed within the requirements of the applicable standard [X] Yes [ ] No *Les Payne*

| Peak Output Power | Reading | -20dBc | Pass/Fall |
|---|---|---|---|
| 0.20 dBm | -2.9 dBm | -22.9 dBm | Pass |

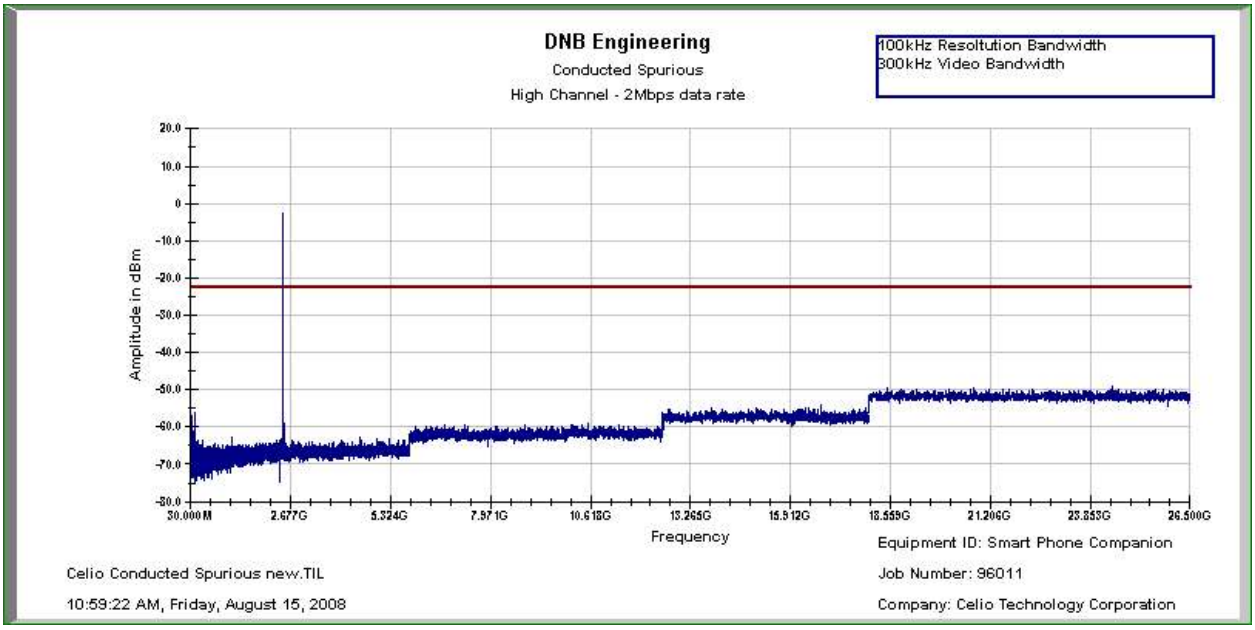


| | | | |
|---|---|---|---|
| | 1100 E Chalk Creek Road<br>Coalville, UT 84017<br>(435) 336-4433<br>FAX (435) 336-4436 | **Conducted Spurious** | |
| DNB Job Number: | 96011 | Date: 14 Aug 2008 | **Conformance Standard**<br>FCC Part 15 |
| Customer: | Celio Technology Corporation | | |
| Model Number: | REDFLY C8-N (Inclusive of REDFLY C7) | | |
| Description: | Smart Phone Companion<br>2Mbps data rate - High Channel | | **Clause**<br>15.247(d) |

| Ambient Temperature | Relative Humidity | Barometric Pressure |
|---|---|---|
| 21 °C | 25 % | 101.2 kPa |

EUT performed within the requirements of the applicable standard [X] Yes [ ] No *Les Payne*

| Peak Output Power | Reading | -20dBc | Pass/Fall |
|---|---|---|---|
| 0.20 dBm | -2.5 dBm | -22.5 dBm | Pass |

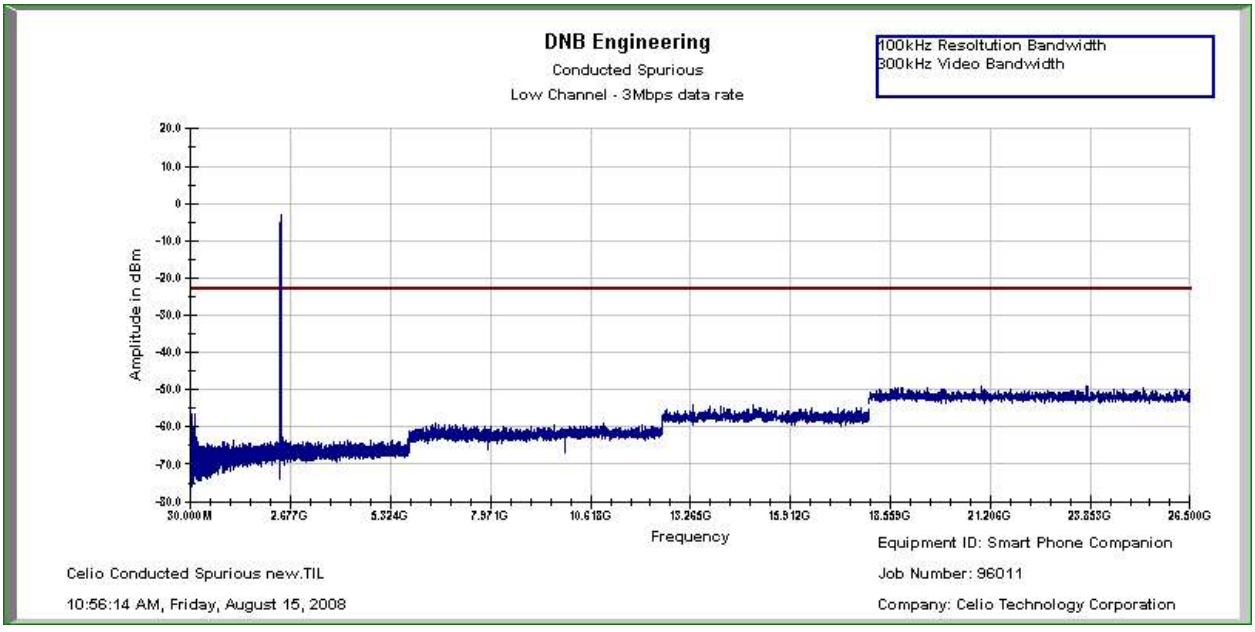


| | | | |
|---|---|---|---|
| | 1100 E Chalk Creek Road<br>Coalville, UT 84017<br>(435) 336-4433<br>FAX (435) 336-4436 | **Conducted Spurious** | |
| DNB Job Number: | 96011 | Date: 14 Aug 2008 | **Conformance Standard**<br>FCC Part 15 |
| Customer: | Celio Technology Corporation | | |
| Model Number: | REDFLY C8-N (Inclusive of REDFLY C7) | | |
| Description: | Smart Phone Companion<br>3Mbps data rate - Low Channel | | **Clause**<br>15.247(d) |

| Ambient Temperature | Relative Humidity | Barometric Pressure |
|---|---|---|
| 21 °C | 25 % | 101.2 kPa |

EUT performed within the requirements of the applicable standard [X] Yes [ ] No *Les Payne*

| Peak Output Power | Reading | -20dBc | Pass/Fall |
|---|---|---|---|
| 0.20 dBm | -2.9 dBm | -22.9 dBm | Pass |

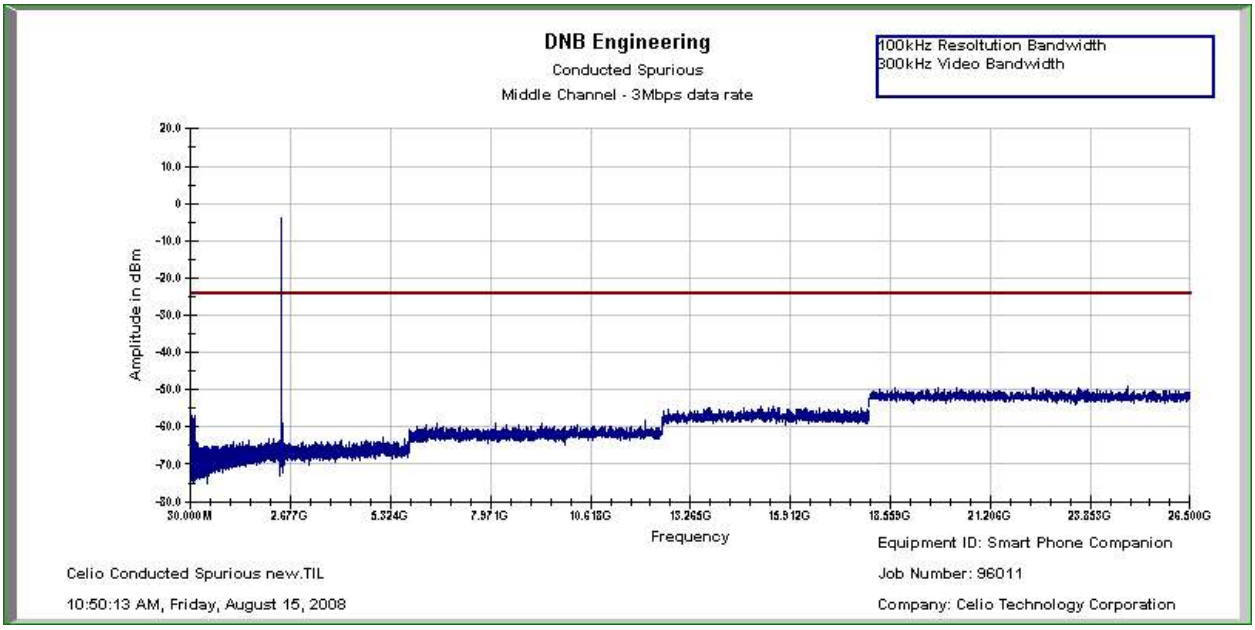


| | | | |
|---|---|---|---|
| | 1100 E Chalk Creek Road<br>Coalville, UT 84017<br>(435) 336-4433<br>FAX (435) 336-4436 | **Conducted Spurious** | |
| DNB Job Number: | 96011 | Date: 14 Aug 2008 | **Conformance Standard**<br>FCC Part 15 |
| Customer: | Celio Technology Corporation | | |
| Model Number: | REDFLY C8-N (Inclusive of REDFLY C7) | | |
| Description: | Smart Phone Companion<br>3Mbps data rate - Mid Channel | | **Clause**<br>15.247(d) |

| Ambient Temperature | Relative Humidity | Barometric Pressure |
|---|---|---|
| 21 °C | 25 % | 101.2 kPa |

EUT performed within the requirements of the applicable standard [X] Yes [ ] No *Les Payne*

| Peak Output Power | Reading | -20dBc | Pass/Fall |
|---|---|---|---|
| 0.20 dBm | -4.1 dBm | -23.7 dBm | Pass |

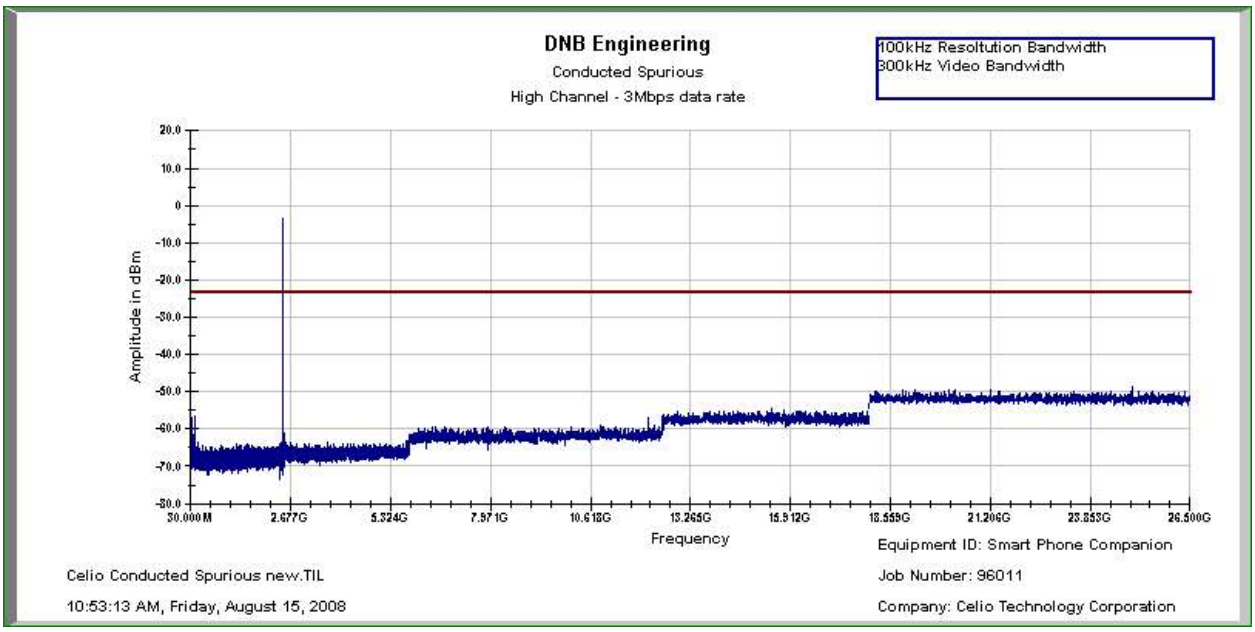


| | | | |
|---|---|---|---|
| | 1100 E Chalk Creek Road<br>Coalville, UT 84017<br>(435) 336-4433<br>FAX (435) 336-4436 | **Conducted Spurious** | |
| DNB Job Number: | 96011 | Date: 14 Aug 2008 | **Conformance Standard**<br>FCC Part 15 |
| Customer: | Celio Technology Corporation | | |
| Model Number: | REDFLY C8-N (Inclusive of REDFLY C7) | | |
| Description: | Smart Phone Companion<br>3Mbps data rate - High Channel | | **Clause**<br>15.247(d) |

| Ambient Temperature | Relative Humidity | Barometric Pressure |
|---|---|---|
| 21 °C | 25 % | 101.2 kPa |

EUT performed within the requirements of the applicable standard [X] Yes [ ] No *Les Payne*

| Peak Output Power | Reading | -20dBc | Pass/Fall |
|---|---|---|---|
| 0.20 dBm | -3.3 dBm | -23.3 dBm | Pass |



15.247(d): Power spectral density(PSD).

The same method of determining the conducted output power shall be used to determine the power spectral density.

If a peak output power is measured, then a peak power spectral density measurement is required. If an average output power is measured, then an average power spectral density measurement should be used.

Locate and zoom in on emission peak(s) within the passband.
Set RBW = 3 kHz,
VBW > RBW, sweep= (SPAN/3 kHz) e.g., for a span of 1.5 MHz, the sweep
should be 1.5 x $10_6$ 8 3 x$10_3$ = 500 seconds.

The peak level measured must be no greater than + 8 dBm. If external attenuation is used, don`t forget to add this value to the reading. Use the following guidelines for modifying the power spectral density measurement procedure when necessary.

For devices with spectrum line spacing greater than 3 kHz no change is required.

For devices with spectrum line spacing equal to or less than 3 kHz, the resolution bandwidth must be reduced below 3kHz until the individual lines in the spectrum are resolved. The measurement data must then be normalized to 3 kHz by summing the power of all the individual spectral lines within a 3kHz band (in linear power units) to determine compliance.

If the spectrum line spacing cannot be resolved on the available spectrum analyzer, the noise density function on most modern conventional spectrum analyzers will directly measure the noise power density normalized to a 1 Hz noise power bandwidth. Add 35dB for correction to 3 kHz.

Should all the above fail or any controversy develop regarding accuracy of measurement, the Laboratory will use the HP 89440A Vector Signal Analyzer for final measurement unless a clear showing can be made for a further alternate.

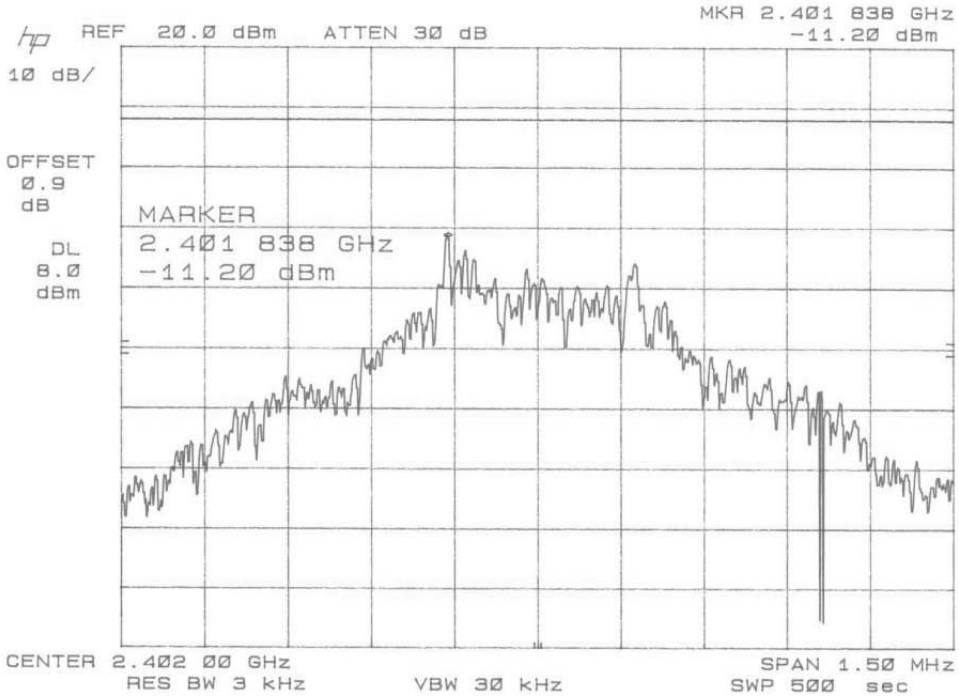
| | | | |
|---|---|---|---|
| | 1100 E Chalk Creek Road<br>Coalville, UT 84017<br>(435) 336-4433<br>FAX (435) 336-4436 | **Power Spectral Density** | |

| | | | |
|---|---|---|---|
| DNB Job Number: | 96011 | Date: 15 Jan 2008 | **Conformance Standard** |
| Customer: | Celio Technology Corporation | | FCC Part 15 |
| Model Number: | REDFLY C8-N (Inclusive of REDFLY C7) | | |
| Description: | Smart Phone Companion | | **Clause** 15.247(e) |
| | 1Mbps data rate (Basic data rate) | | |

| Environmental Conditions | | |
|---|---|---|
| Ambient Temperature | Relative Humidity | Barometric Pressure |
| 19 °C | 28 % | 101.8 kPa |

EUT performed within the requirements of the applicable standard [X] Yes [ ] No *Les Payne*

| Channel | Freq MHz | Meas PSD (dBm) | Limit (dBm) | Delta (dBm) | Pass/Fail |
|---|---|---|---|---|---|
| Low | 2402 | -11.2 | 8.0 | -19.2 | Pass |



| | | | |
|---|---|---|---|
| | 1100 E Chalk Creek Road<br>Coalville, UT 84017<br>(435) 336-4433<br>FAX (435) 336-4436 | **Power Spectral Density** | |

| | | | |
|---|---|---|---|
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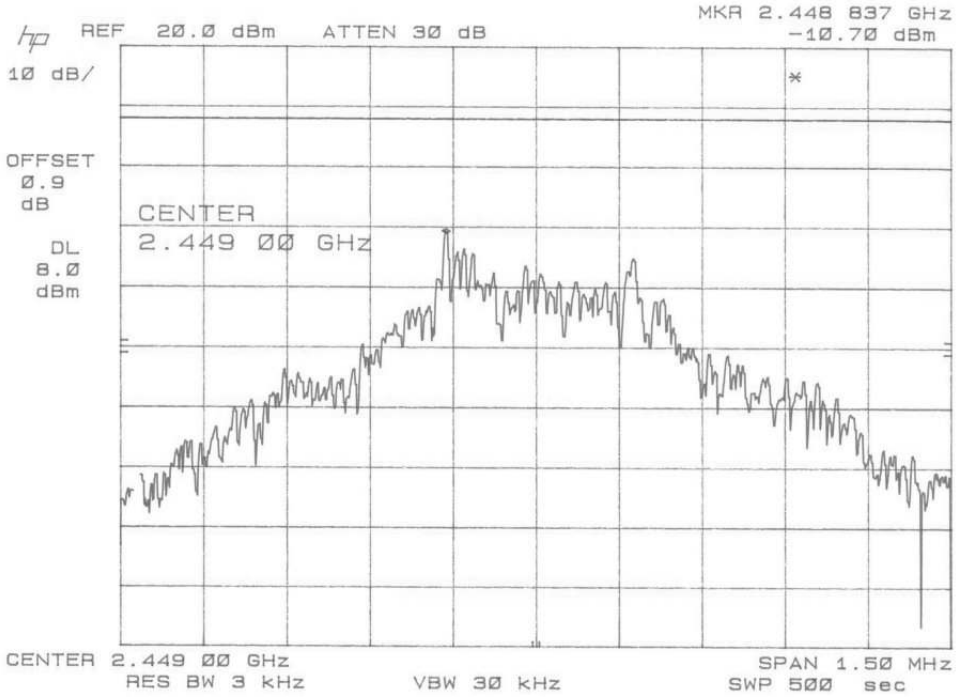
| Customer: | Celio Technology Corporation | | FCC Part 15 |
| Model Number: | REDFLY C8-N (Inclusive of REDFLY C7) | | |
| Description: | Smart Phone Companion | | **Clause** 15.247(e) |
| | 1Mbps data rate (Basic data rate) | | |

| Environmental Conditions | | |
|---|---|---|
| Ambient Temperature | Relative Humidity | Barometric Pressure |
| 19 °C | 28 % | 101.8 kPa |

EUT performed within the requirements of the applicable standard [X] Yes [ ] No *Les Payne*

| Channel | Freq MHz | Meas PSD (dBm) | Limit (dBm) | Delta (dBm) | Pass/Fail |
|---|---|---|---|---|---|
| Middle | 2449 | -10.7 | 8.0 | -18.7 | Pass |

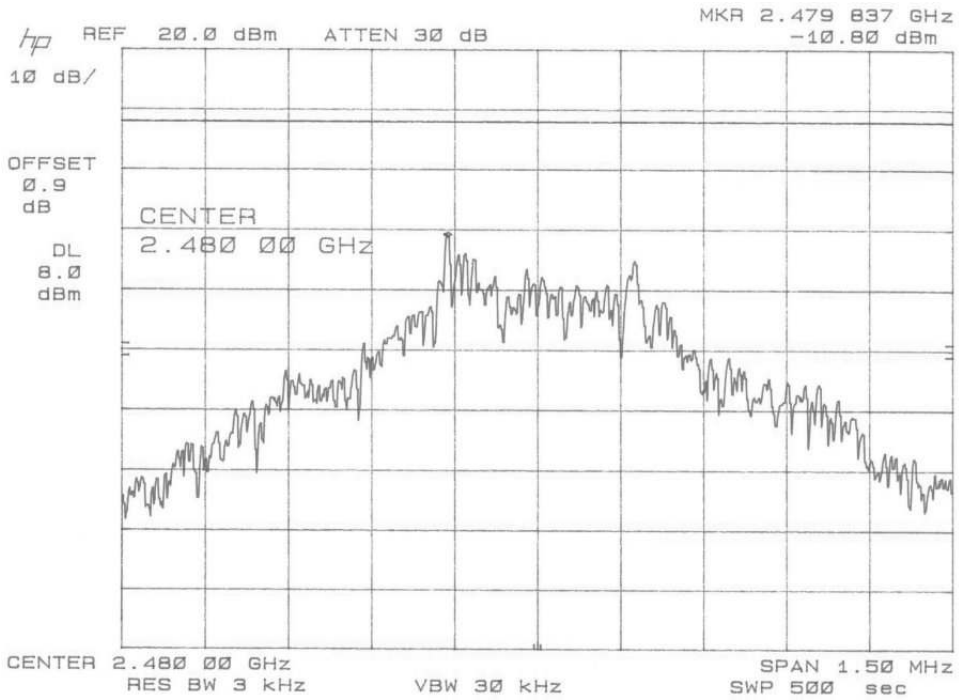


| | | | |
|---|---|---|---|
| 1100 E Chalk Creek Road<br>Coalville, UT 84017<br>(435) 336-4433<br>FAX (435) 336-4436 | | **Power Spectral Density** | |
| DNB Job Number: | 96011 | Date: 15 Jan 2008 | **Conformance Standard**<br>FCC Part 15 |
| Customer: | Celio Technology Corporation | | |
| Model Number: | REDFLY C8-N (Inclusive of REDFLY C7) | | |
| Description: | Smart Phone Companion | | **Clause**<br>15.247(e) |
| | 1Mbps data rate (Basic data rate) | | |

| Environmental Conditions | | |
|---|---|---|
| Ambient Temperature | Relative Humidity | Barometric Pressure |
| 19 °C | 28 % | 101.8 kPa |

EUT performed within the requirements of the applicable standard [X] Yes [ ] No *Les Payne*

| Channel | Freq MHz | Meas PSD (dBm) | Limit (dBm) | Delta (dBm) | Pass/Fail |
|---|---|---|---|---|---|
| High | 2480 | -10.8 | 8.0 | -18.8 | Pass |



| | | | |
|---|---|---|---|
| | 1100 E Chalk Creek Road<br>Coalville, UT 84017<br>(435) 336-4433<br>FAX (435) 336-4436 | **Power Spectral Density** | |
| DNB Job Number: | 96011 | Date: 15 Jan 2008 | **Conformance Standard**<br>FCC Part 15 |
| Customer: | Celio Technology Corporation | | |
| Model Number: | REDFLY C8-N (Inclusive of REDFLY C7) | | |
| Description: | Smart Phone Companion<br>2Mbps data rate | | **Clause**<br>15.247(e) |

| Environmental Conditions | | |
|---|---|---|
| Ambient Temperature | Relative Humidity | Barometric Pressure |
| 19 °C | 28 % | 101.8 kPa |

EUT performed within the requirements of the applicable standard [X] Yes [ ] No *Les Payne*

| Channel | Freq MHz | Meas PSD (dBm) | Limit (dBm) | Delta (dBm) | Pass/Fail |
|---|---|---|---|---|---|
| Low | 2402 | -15.8 | 8.0 | -23.8 | Pass |

| | | | |
|---|---|---|---|
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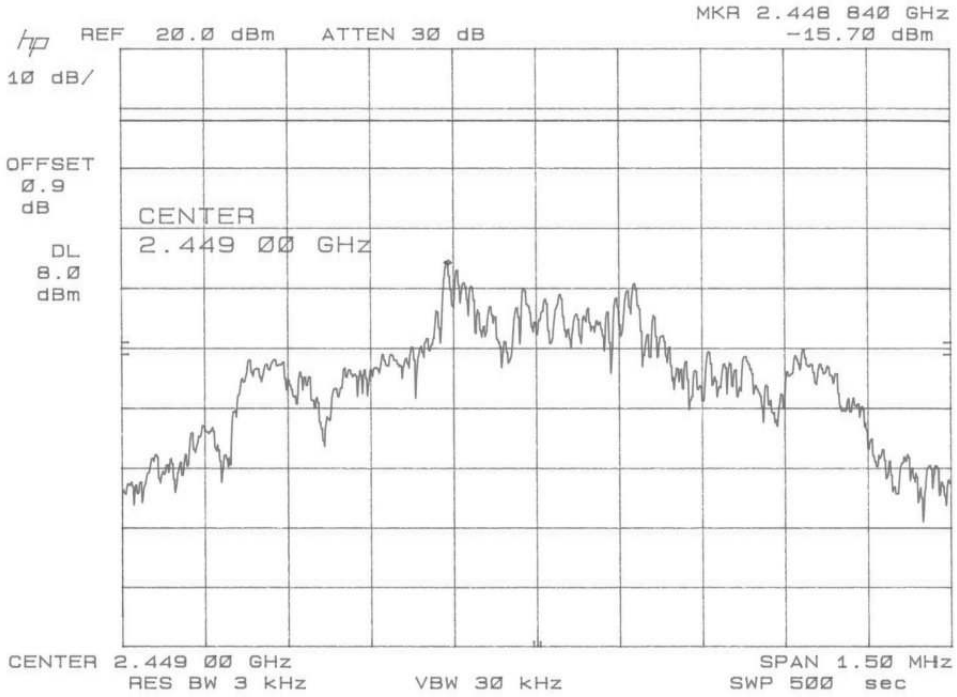
| | | | |
|---|---|---|---|
| DNB Job Number: | 96011 | Date: 15 Jan 2008 | **Conformance Standard**<br>FCC Part 15 |
| Customer: | Celio Technology Corporation | | |
| Model Number: | REDFLY C8-N (Inclusive of REDFLY C7) | | |
| Description: | Smart Phone Companion<br>2Mbps data rate | | **Clause**<br>15.247(e) |

| Environmental Conditions | | |
|---|---|---|
| Ambient Temperature | Relative Humidity | Barometric Pressure |
| 19 °C | 28 % | 101.8 kPa |

EUT performed within the requirements of the applicable standard [X] Yes [ ] No *Les Payne*

| Channel | Freq MHz | Meas PSD (dBm) | Limit (dBm) | Delta (dBm) | Pass/Fail |
|---|---|---|---|---|---|
| Middle | 2402 | -15.7 | 8.0 | -23.7 | Pass |



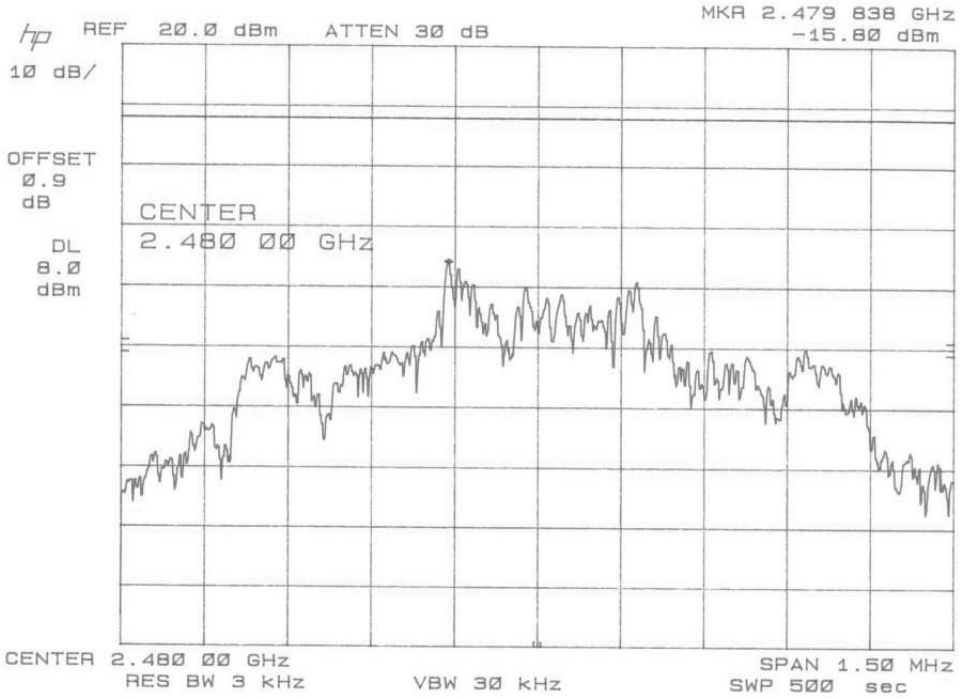
| | | | |
|---|---|---|---|
| | 1100 E Chalk Creek Road<br>Coalville, UT 84017<br>(435) 336-4433<br>FAX (435) 336-4436 | **Power Spectral Density** | |

| | | | |
|---|---|---|---|
| DNB Job Number: | 96011 | Date: 15 Jan 2008 | **Conformance Standard** |
| Customer: | Celio Technology Corporation | | FCC Part 15 |
| Model Number: | REDFLY C8-N (Inclusive of REDFLY C7) | | |
| Description: | Smart Phone Companion | | **Clause** 15.247(e) |
| | 2Mbps data rate | | |

| Environmental Conditions | | |
|---|---|---|
| Ambient Temperature | Relative Humidity | Barometric Pressure |
| 19 °C | 28 % | 101.8 kPa |

EUT performed within the requirements of the applicable standard [X] Yes [ ] No *Les Payne*

| Channel | Freq MHz | Meas PSD (dBm) | Limit (dBm) | Delta (dBm) | Pass/Fail |
|---|---|---|---|---|---|
| High | 2480 | -15.8 | 8.0 | -23.8 | Pass |



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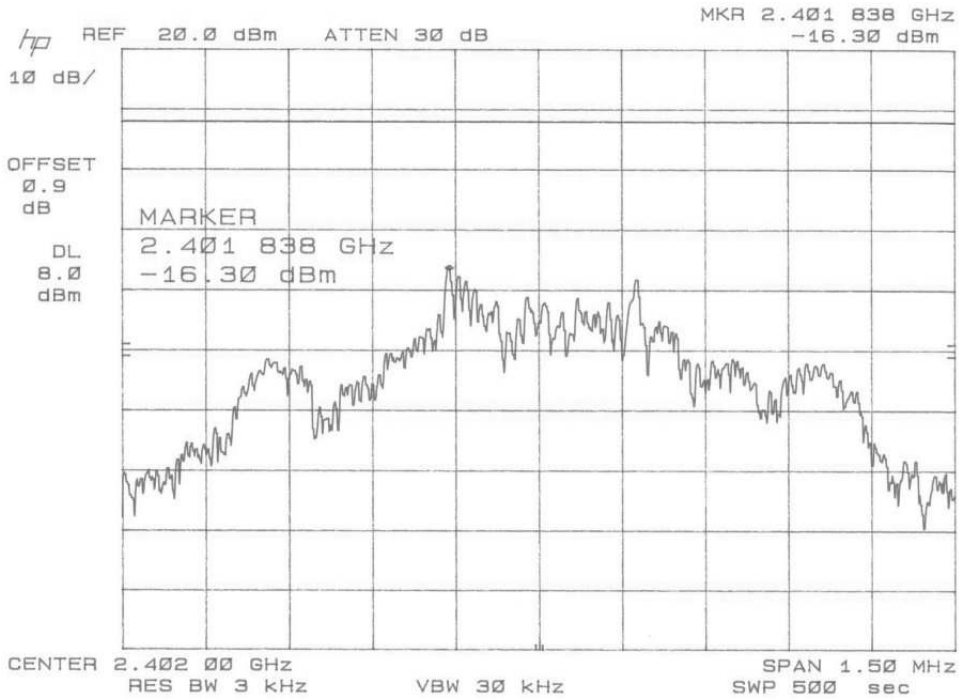
# Power Spectral Density

| | | | |
|---|---|---|---|
| DNB Job Number: | 96011 | Date: 15 Jan 2008 | **Conformance Standard** |
| Customer: | Celio Technology Corporation | | FCC Part 15 |
| Model Number: | REDFLY C8-N (Inclusive of REDFLY C7) | | |
| Description: | Smart Phone Companion | | **Clause** 15.247(e) |
| | 3Mbps data rate | | |

| Environmental Conditions | | |
|---|---|---|
| Ambient Temperature | Relative Humidity | Barometric Pressure |
| 19 °C | 28 % | 101.8 kPa |

EUT performed within the requirements of the applicable standard [X] Yes [ ] No *Les Payne*

| Channel | Freq MHz | Meas PSD (dBm) | Limit (dBm) | Delta (dBm) | Pass/Fail |
|---|---|---|---|---|---|
| Low | 2402 | -16.3 | 8.0 | -24.3 | Pass |



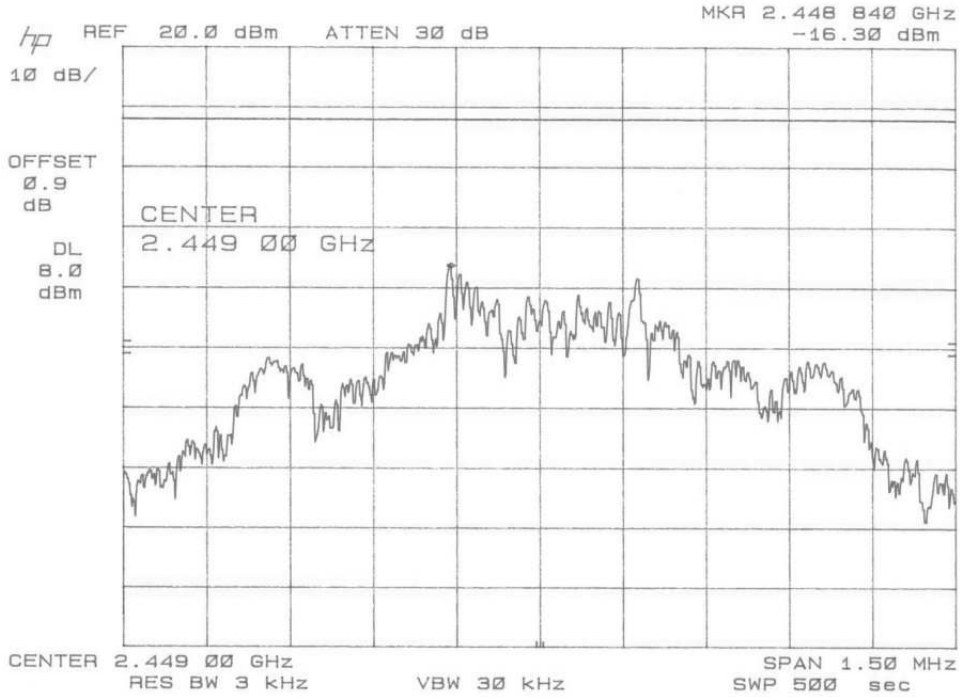
| | | | |
|---|---|---|---|
| | 1100 E Chalk Creek Road<br>Coalville, UT 84017<br>(435) 336-4433<br>FAX (435) 336-4436 | **Power Spectral Density** | |

| | | | |
|---|---|---|---|
| DNB Job Number: | 96011 | Date: 15 Jan 2008 | **Conformance Standard** |
| Customer: | Celio Technology Corporation | | FCC Part 15 |
| Model Number: | REDFLY C8-N (Inclusive of REDFLY C7) | | |
| Description: | Smart Phone Companion | | **Clause** 15.247(e) |
| | 3Mbps data rate | | |

| Environmental Conditions | | |
|---|---|---|
| Ambient Temperature | Relative Humidity | Barometric Pressure |
| 19 °C | 28 % | 101.8 kPa |

EUT performed within the requirements of the applicable standard [X] Yes [ ] No *Les Payne*

| Channel | Freq MHz | Meas PSD (dBm) | Limit (dBm) | Delta (dBm) | Pass/Fail |
|---|---|---|---|---|---|
| Middle | 2449 | -16.3 | 8.0 | -24.3 | Pass |



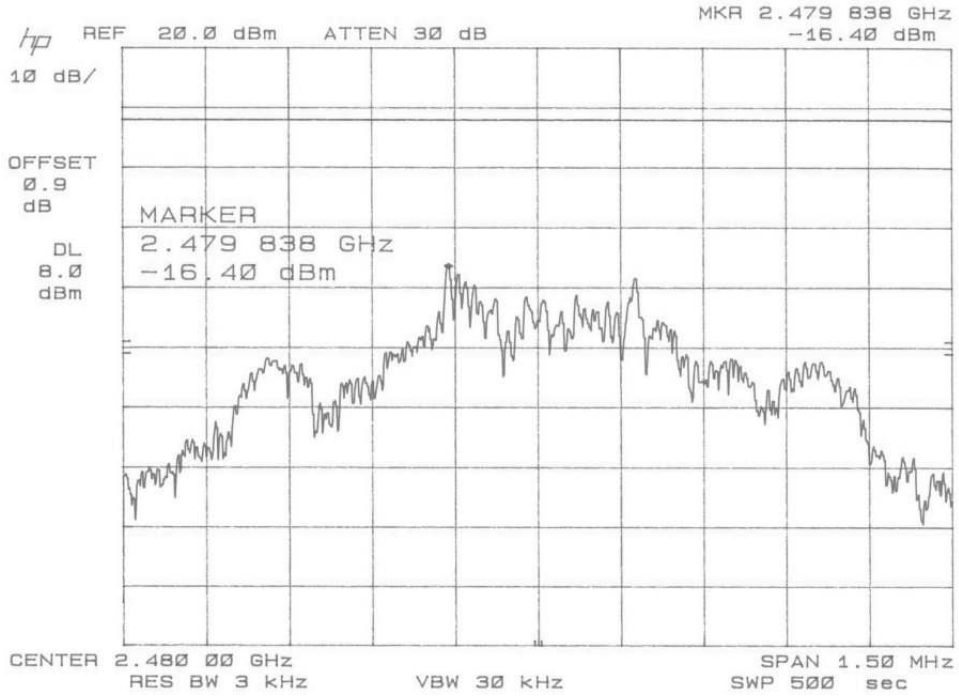
| | | | |
|---|---|---|---|
| | 1100 E Chalk Creek Road<br>Coalville, UT 84017<br>(435) 336-4433<br>FAX (435) 336-4436 | **Power Spectral Density** | |

| | | | |
|---|---|---|---|
| DNB Job Number: | 96011 | Date: 15 Jan 2008 | **Conformance Standard**<br>FCC Part 15 |
| Customer: | Celio Technology Corporation | | |
| Model Number: | REDFLY C8-N (Inclusive of REDFLY C7) | | |
| Description: | Smart Phone Companion<br>3Mbps data rate | | **Clause**<br>15.247(e) |

| Environmental Conditions | | |
|---|---|---|
| Ambient Temperature | Relative Humidity | Barometric Pressure |
| 19 °C | 28 % | 101.8 kPa |

EUT performed within the requirements of the applicable standard [X] Yes [ ] No *Les Payne*

| Channel | Freq MHz | Meas PSD (dBm) | Limit (dBm) | Delta (dBm) | Pass/Fail |
|---|---|---|---|---|---|
| High | 2480 | -16.4 | 8.0 | -24.4 | Pass |



2.1033 (b) (7) Equipment Photographs

| | | |
|---|---|---|
| Photo 1 | Internal | Top of PCB |
| Photo 2 | Internal | Bottom of PCB |
| Photo 3 | Internal | Close up of Bluetooth Radio Section |
| Photo 4 | External | Front of Unit - Closed |
| Photo 5 | External | Front of Unit - Opened |
| Photo 6 | External | Back of Unit - Opened |
| Photo 7 | External | Bottom of Unit - Label Location |

Photo 1 Internal Top of PCB

Photo 2 Internal Bottom of PCB

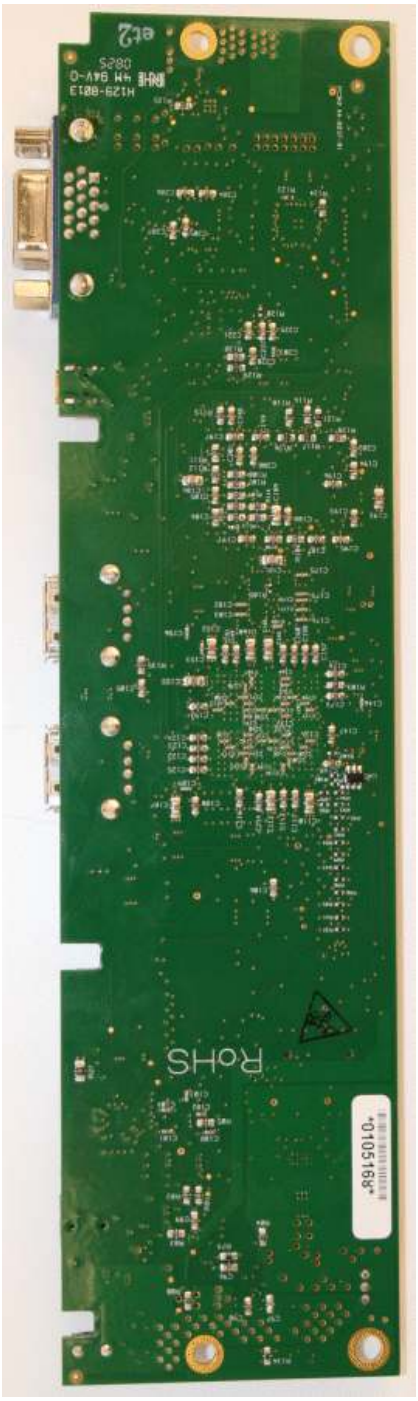


Photo 3 Internal Close up of Bluetooth Radio Section

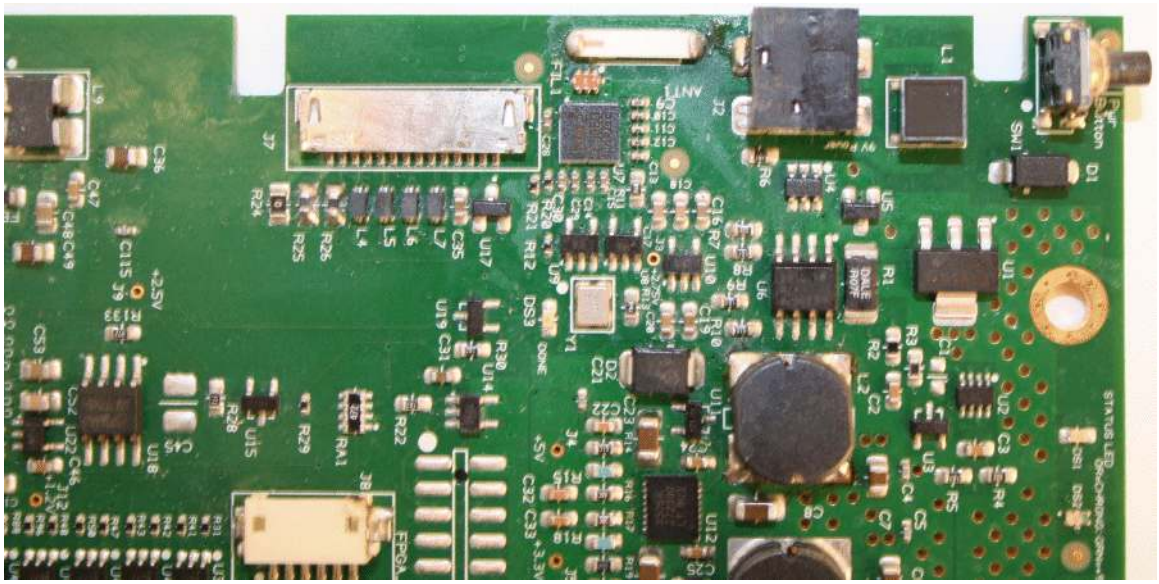


Photo 4 External Front of Unit - Closed

Photo 5 External Front of Unit - Opened

Photo 6 External Back of Unit - Opened

Photo 7 External Bottom of Unit - Label Location

RF Exposure Requirements 15.247 (b)(5)

RF Exposure – MPE Calculations (2400-2483.5 MHz Band)

Transmitter Power: 1.05 mW

Antenna Gain: 3 dB

Cable loss: 0 dB

Frequency range: 2400 - 2483.5 MHz

Assumptions

1. A single ¼ wavelength radiating antenna is assumed.

2. Closest exposure distance is assumed to be 2 cm

Calculations

The following results shall be assumed to be accurate for the far-field only. These predictions will over-estimate power density in the near–field. Based on the use of a ¼ wavelength radiator, a distance of 2 cm is considered to be in the far-field for all cases.

$S = PG/4*PI*R^2$

P is 1.05 mW
G is 3 dB (Antenna gain – loss) or $10^{(3/10)}$ or 2.0
R is 5 cm

$S = 0.041700$ mW/cm$^2$

For Occupational/Controlled Exposure
From 1,500 to 100,000 MHz, power density limit is **5 mW/cm$^2$ for 6 minutes**

For General Population/Uncontrolled Exposure
From 1,500 to 100,000 MHz, power density limit is **1 mW/cm$^2$ for 30 minutes**

Conclusion: ***Meets MPE limits***

End of Report