



FCC Part 15, Subpart C, Section 15.247  
Industry Canada, RSS-210 and RSS-GEN

Test Report

On

Blink Sync Module  
FCC ID: 2AF77-BSM00200U  
IC: 20741-BSM00200U

**Customer Name:** Immedia Semiconductor

**Customer P.O.:** H109215-1A2

**Date of Report:** November 5, 2015

**Test Report No.:** R-6022N-1

**Test Start Date:** October 5, 2015

**Test Finish Date:** October 9, 2015

**Test Technician:** M. Seamans

**Approved By:** S. Wentworth

**Report Prepared By:** J. Ramsey

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## Technical Information

**Report Number:** R-6022N-1

**Customer:** Immedia Semiconductor

**Address:** 100 Burt Road, Suite 100  
Andover, MA 01810

**Manufacturer:** Immedia Semiconductor

**Manufacturer Address:** 100 Burt Road, Suite 100  
Andover, MA 01810

**Test Sample:** Blink Sync Module

**Model Number:** BSM00200U

**FCC ID:** 2AF77-BSM00200U

**IC:** 20741-BSM00200U

**Type:** Frequency Hopping Spread Spectrum Transmitter

**Power Requirements:** 5VDC Via 120 VAC, 60 Hz AC/DC Power Adapter

**Power Supply:** AC Adapter, Flypower, Model PS06B050K1000UU

**Frequency of Operation:** 902.3 MHz to 927.6 MHz

**Equipment Class:** DSS

**Antenna Type:** Internal PCB Antenna – 1.5 dBi gain

**Equipment Use:** Used in a Home Monitoring System

**Note:** The Blink Sync Module also contains a separately certified WiFi Module:  
FCC ID: 2ACOE-SKW71.  
IC: 20742-SKW71

### Test Specification:

FCC Rules and Regulations Part 15, Subpart C, Section 15.247  
Radio Standards Specification, RSS-210, Issue 8, June, 2010

### Test Procedure:

ANSI C63.4:2009  
RSS-GEN, Issue 4, November 2014



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**Test Facility:**

Retlif Testing Laboratories  
 101 New Boston Road  
 Goffstown, NH 03045

FCC Registered Test Site Number: 90899

IC Registered Test Site Number: 2047C-1

Table 1 – Tests Performed

| <b>FCC<br/>Part 15, Subpart C</b> | <b>Industry Canada<br/>RSS-210</b> | <b>Test Method</b>                                  |
|-----------------------------------|------------------------------------|---|
| 15.247(a)(1)                      | A8.1(b)                            | Channel Separation                                  |
| 15.247(a)(1)                      | A8.1(a)                            | 20 dB Bandwidth                                     |
| 15.247(a)(1)(i)                   | A8.1(c)                            | Number of Channels and Occupancy Time               |
| 15.247(b)(1) and (4)              | A8.4(1)                            | Peak Conducted Output Power                         |
| 15.247(d)                         | A8.5                               | Spurious Emissions, 30 MHz to 10 GHz                |
| 15.247(a)/15.209(a)               | A2.9(b)                            | Field Strength of Spurious Emissions                |
| 15.207(a)                         | 8.8                                | Conducted Emissions, Power Leads, 150 kHz to 30 MHz |
| N/A                               | 7.1                                | Receiver Spurious Emissions                         |

Table 2 – Support Equipment

| <b>Description</b> | <b>Manufacturer</b> | <b>Part Number</b> | <b>Model Number</b> | <b>Serial Number</b> |
|--------------------|---------------------|--------------------|---------------------|----------------------|
| Laptop PC          | HP                  | N/A                | Presario CQ60       | 2CE95012D7           |



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## Certification and Signatures

We certify that this report is a true representation of the results obtained from the tests of the equipment stated. We further certify that the measurements shown in this report were made in accordance with the procedures indicated and vouch for the qualifications of all Retlif Testing Laboratories personnel taking them.



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Scott Wentworth  
Branch Manager  
NVLAP Approved Signatory

### Non-Warranty Provision

The testing services have been performed, findings obtained and reports prepared in accordance with generally accepted laboratory principles and practices. This warranty is in lieu of all others, either expressed or implied.

### Non-Endorsement

This test report contains only findings and results arrived at after employing the specific test procedures and standards listed herein. It is not intended to constitute a recommendation, endorsement or certification of the product or material tested. This test report must not be used by the client to claim product endorsement by NVLAP or any agency of the U.S. Government.



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## Requirements and Test Results

### **Requirement:**

#### **FCC Section 15.247 (a)(1)**

##### **Channel Separation and 20 dB Bandwidth**

Frequency hopping systems shall have hopping channel carrier frequencies separated by a minimum of 25 kHz or the 20 dB bandwidth of the hopping channel, whichever is greater. Alternatively, frequency hopping systems operating in the 2400-2483.5 MHz band may have hopping channel carrier frequencies that are separated by 25 kHz or two-thirds of the 20 dB bandwidth of the hopping channel, whichever is greater, provided the systems operate with an output power no greater than 125 mW. The system shall hop to channel frequencies that are selected at the system hopping rate from a pseudo randomly ordered list of hopping frequencies. Each frequency must be used equally on the average by each transmitter. The system receivers shall have input bandwidths that match the hopping channel bandwidths of their corresponding transmitters and shall shift frequencies in synchronization with the transmitted signals.

#### **IC Section A8.1(b)**

##### **Frequency Hopping Systems**

Frequency hopping systems shall have hopping channel carrier frequencies separated by a minimum of 25 kHz or the 20 dB bandwidth of the hopping channel, whichever is greater. Alternatively, frequency hopping systems operating in the band 2400-2483.5 MHz may have hopping channel carrier frequencies that are separated by 25 kHz or two-thirds of the 20 dB bandwidth of the hopping channel, whichever is greater, provided the systems operate with an output power no greater than 0.125 W. The system receivers shall have input bandwidths that match the hopping channel bandwidths of their corresponding transmitters and shall shift frequencies in synchronization with the transmitted signals.

- **Results:**

The carrier frequencies were separated by 399.29 kHz which exceeded the maximum 20 dB bandwidth of 388.77 kHz which complies with the requirements specified above.



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## Requirements and Test Results (con't)

### **FCC Section 15.247 (a)(1)(i)**

#### **Number of Channels and Occupancy Time**

For frequency hopping systems operating in the 902-928 MHz band: if the 20 dB bandwidth of the hopping channel is less than 250 kHz, the system shall use at least 50 hopping frequencies and the average time of occupancy on any frequency shall not be greater than 0.4 seconds within a 20 second period; if the 20 dB bandwidth of the hopping channel is 250 kHz or greater, the system shall use at least 25 hopping frequencies and the average time of occupancy on any frequency shall not be greater than 0.4 seconds within a 10 second period. The maximum allowed 20 dB bandwidth of the hopping channel is 500 kHz.

### **IC Section A8.1(a)**

#### **Frequency Hopping Systems**

The bandwidth of a frequency hopping channel is the 20 dB emissions bandwidth, measured with the hopping stopped. The system RF bandwidth is equal to the channel bandwidth multiplied by the number of channels in the hopset. The hopset shall be such that the near-term distribution of frequencies appears random, with sequential hops randomly distributed in both direction and magnitude of change in the hopset while the long-term distribution appears evenly distributed.

- **Results:**

The number of hopping frequencies used was 44 and the average time of occupancy was 160.32msec which complied with the above requirements.



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## **Requirements and Test Results (con't)**

### **FCC Section 15.247 (b)(1) and (4) Peak Conducted Output Power**

(1) For frequency hopping systems operating in the 2400-2483.5 MHz band employing at least 75 non-overlapping hopping channels, and all frequency hopping systems in the 5725-5850 MHz band: 1 watt. For all other frequency hopping systems in the 2400-2483.5 MHz band: 0.125 watts.

(4) The conducted output power limit specified in Paragraph (b) of Section 15.247 is based on the use of antenna with directional gains that do not exceed 6 dBi. Except as shown in Paragraph (c) of Section 15.247, if transmitting antennas of directional gain greater than 6 dBi are used, the conducted output power from the intentional radiator shall be reduced below the stated values in Paragraph (b)(1), (b)(2) and (b)(3) of Section 15.247, as appropriate, by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

### **IC Section A8.4(1) Transmitter Output Power and e.i.r.p. Requirements**

For frequency hopping systems operating in the band 902-928 MHz, the maximum peak conducted output power shall not exceed 1.0 W and the e.i.r.p. shall not exceed 4 W, if the hopset uses 50 or more hopping channels; the maximum peak conducted output power shall not exceed 0.25 W and the e.i.r.p. shall not exceed 1 W, if the hopset uses less than 50 hopping channels.

- **Results:**

The frequency hopping system utilizes a transmitting antenna with a gain of 1.5 dBi. The maximum peak conducted output power was measured to be 18.45 milliwatts and the EIRP is less than 1W.



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## **Requirements and Test Results (con't)**

### **FCC Section 15.247 (d) Spurious Emissions**

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under Paragraph (b)(3) of Section 15.247, the attenuation required under this paragraph shall be 30 dB instead of 20 dB. Attenuation below the general limits specified in Section 15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in Section 15.205(a) must also comply with the radiated emission limits specified in Section 15.209(a) (see Section 15.205(c)).

### **IC Section A8.5 Out-of-Band Emissions**

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated device is operating, the radio frequency power that is produced shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under Section A8.4(4) of RSS-210, the attenuation required shall be 30 dB instead of 20 dB. Attenuation below the general limits specified in Tables 2 and 3 of RSS-210 is not required.

- **Results:**

The antenna port conducted spurious emissions comply with the requirement that the radio frequency power be at least 20 dB below the highest in band level.

In addition, Harmonic and Spurious Emissions which were found to be within the restricted bands of operation, as defined in section 15.205 (a) were found to be in compliance with the general limits specified in section 15.209 (a).



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**Requirements and Test Results (con't)**

**FCC Section 15.247 (a)**

**Field Strength of Spurious Radiation**

Operation under the provisions of Section 15.247 is limited to frequency hopping and digitally modulated intentional radiators that comply with the provisions stated in Section 15.247(a)(1).

**FCC Section 15.209(a)**

**Radiated Emission Limits, General Requirements**

Except as provided elsewhere in this subpart, the emissions from an intentional radiator shall not exceed the field strength levels specified in Table 3.

**IC RSS-210, 2.9(b)**

**General Field Strength Limits**

Table 3 shows the general field strength limits of unwanted emissions, where applicable, for transmitters operating in accordance with the provisions specified in this RSS.

Table 3 - Radiated Emission Limits

| Frequency of Emission (MHz) | Field Strength (microvolts/meter) | Measurement Distance (meters) |
|-----------------------------|-----------------------------------|-------------------------------|
| 30 to 88                    | 100                               | 3                             |
| 88 to 216                   | 150                               | 3                             |
| 216 to 960                  | 200                               | 3                             |
| Above 960                   | 500                               | 3                             |

- **Results:**

The field strength of spurious radiated emissions did not exceed the limits specified in Table 3.

**Requirement:**

**IC RSS-Gen, Par. 7.1 - Receiver Radiated Spurious Emissions**

Spurious emissions from receivers must comply with the radiated emissions limits specified in RSS-Gen, Para. 7.1 and as shown above in Table 3.

- **Results:**

No EUT receiver spurious emissions were observed within 10dB of the specified limit.



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## Requirements and Test Results (con't)

### **FCC Section 15.247 (i)**

#### **RF Exposure Limits**

Spread Spectrum Transmitters operating under 15.247 must be operated in a manner that ensures the public is not exposed to RF energy levels in excess of the commission's guidelines. Based on the transmitter power and maximum antenna gain (see calculation below) the minimum separation distance was calculated to determine the distance for acceptable MPE power density levels to meet both the Occupational/Controlled Exposure and the General Population/Uncontrolled Exposure requirements of FCC Part 1.1310. The calculation below uses the more stringent General Population MPE Limits.

$$S = \frac{PG}{4\pi D^2}$$

D = Minimum Separation Distance in cm

S = Max allowed Power Density in mW/cmsq

Per 1.1310 For the Frequency of 928 MHz  $S = 928 / 1500 = 0.618$  mW/cmsq

Power = Max Power Input to Antenna = 18.45 mW

Gain = Max Power Gain of Antenna = 1.5 dBi = 1.41 numeric

$$0.618 \text{ mW/cmsq} = \frac{18.45 \times 1.41}{4 \times (3.14) \times D^2} = \frac{26.0}{12.56 \times D^2}$$

$$D^2 = \frac{26.0}{12.56 \times 0.618}$$

$$D = \sqrt{3.35} = 1.8 \text{ cm}$$

The test sample has an internal antenna and the minimum separation distance will always be maintained.



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**Requirement:**

**FCC Section 15.207(a) - Conducted Limits**

For an intentional radiator that is designed to be connected to the public utility (AC) power line, the radio frequency voltage that is conducted back onto the AC power line on any frequency or frequencies within the band 150 kHz to 30 MHz shall not exceed the limits shown in Table 4, as measured using a 50  $\mu$ H/50 ohms line impedance stabilization network (LISN). Compliance with the provisions of the paragraph shall be based on the measurement of the radio frequency voltage between each power line and ground at the power terminal. The lower limit applies at the boundary between the frequency ranges.

**IC RSS-GEN, Section 8.8:**

**Transmitter and Receiver AC Power Lines Conducted Emission Limits**

The purpose of this test is to measure unwanted radio frequency currents induced in any AC conductor external to the equipment which could conduct interference to other equipment via the AC electrical network.

Except when the requirements applicable to a given device state otherwise, for any license-exempt radio communication device equipped to operate from the public utility AC power supply, either directly or indirectly, the radio frequency voltage that is conducted back onto the AC power lines in the frequency range of 0.15 MHz to 30 MHz shall not exceed the limits shown in Table 4. The tighter limit applies at the frequency range boundaries.

The conducted emissions shall be measured with a 50 ohm/50 microhenry line impedance stabilization network.

Table 4 - Conducted Emission Limits

| Frequency of Emission (MHz) | Conducted Limit (dB $\mu$ V) |           |
|-----------------------------|------------------------------|-----------|
|                             | Quasi-Peak                   | Average   |
| 0.15 to 0.5                 | 66 to 56*                    | 56 to 46* |
| 0.5 to 5                    | 56                           | 46        |
| 5 to 30                     | 60                           | 50        |

\*Decreases due to logarithm of the frequency

- **Results:**

The conducted emissions observed did not exceed the limits specified in Table 4.



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## Equipment List

### **FCC Section 15.247(a)(1) / IC Section A8.1(b) Channel Separation**

| <b>EN</b> | <b>Manufacturer</b> | <b>Description</b>  | <b>Range</b>             | <b>Model No.</b> | <b>Cal Date</b> | <b>Due Date</b> |
|-----------|---------------------|---------------------|--------------------------|------------------|-----------------|-----------------|
| 5070      | ROHDE & SCHWARZ     | RECEIVER, EMI       | 20 Hz - 40 GHz           | ESIB40           | 10/29/2014      | 10/31/2016      |
| 5137      | NARDA MICROWAVE     | ATTENUATOR, COAXIAL | 10 dB, DC - 11 GHz, 20 W | 768-10           | 10/28/2014      | 10/31/2015      |

### **FCC Section 15.247(a)(1) / IC Section A8.1(b) 20 dB Bandwidth**

| <b>EN</b> | <b>Manufacturer</b> | <b>Description</b>  | <b>Range</b>             | <b>Model No.</b> | <b>Cal Date</b> | <b>Due Date</b> |
|-----------|---------------------|---------------------|--------------------------|------------------|-----------------|-----------------|
| 5070      | ROHDE & SCHWARZ     | RECEIVER, EMI       | 20 Hz - 40 GHz           | ESIB40           | 10/29/2014      | 10/31/2016      |
| 5137      | NARDA MICROWAVE     | ATTENUATOR, COAXIAL | 10 dB, DC - 11 GHz, 20 W | 768-10           | 10/28/2014      | 10/31/2015      |

### **FCC Section 15.247 (a)(1) (iii) / IC Section A8.1(c) Number of Channels and Occupancy Time**

| <b>EN</b> | <b>Manufacturer</b> | <b>Description</b>  | <b>Range</b>             | <b>Model No.</b> | <b>Cal Date</b> | <b>Due Date</b> |
|-----------|---------------------|---------------------|--------------------------|------------------|-----------------|-----------------|
| 5070      | ROHDE & SCHWARZ     | RECEIVER, EMI       | 20 Hz - 40 GHz           | ESIB40           | 10/29/2014      | 10/31/2016      |
| 5137      | NARDA MICROWAVE     | ATTENUATOR, COAXIAL | 10 dB, DC - 11 GHz, 20 W | 768-10           | 10/28/2014      | 10/31/2015      |

### **FCC Section 15.247 (a)(1) / IC Section A8.4(1) Peak Conducted Output Power**

| <b>EN</b> | <b>Manufacturer</b> | <b>Description</b>  | <b>Range</b>             | <b>Model No.</b> | <b>Cal Date</b> | <b>Due Date</b> |
|-----------|---------------------|---------------------|--------------------------|------------------|-----------------|-----------------|
| 5070      | ROHDE & SCHWARZ     | RECEIVER, EMI       | 20 Hz - 40 GHz           | ESIB40           | 10/29/2014      | 10/31/2016      |
| 5137      | NARDA MICROWAVE     | ATTENUATOR, COAXIAL | 10 dB, DC - 11 GHz, 20 W | 768-10           | 10/28/2014      | 10/31/2015      |

### **FCC Section 15.247 (d) / IC Section A8.(5) Conducted Spurious Emissions, 30 MHz to 10 GHz**

| <b>EN</b> | <b>Manufacturer</b> | <b>Description</b>  | <b>Range</b>             | <b>Model No.</b> | <b>Cal Date</b> | <b>Due Date</b> |
|-----------|---------------------|---------------------|--------------------------|------------------|-----------------|-----------------|
| 5070      | ROHDE & SCHWARZ     | RECEIVER, EMI       | 20 Hz - 40 GHz           | ESIB40           | 10/29/2014      | 10/31/2016      |
| 5137      | NARDA MICROWAVE     | ATTENUATOR, COAXIAL | 10 dB, DC - 11 GHz, 20 W | 768-10           | 10/28/2014      | 10/31/2015      |



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**FCC Section 15.247 (a) / 15.209(a) / IC Section A2.9(b)  
Field Strength of Spurious Radiated Emissions**

| EN   | Manufacturer | Description                  | Range            | Model No. | Cal Date  | Due Date  |
|------|--------------|------------------------------|------------------|-----------|-----------|-----------|
| 1232 | AGILENT / HP | PRE-AMPLIFIER                | 1 - 26.5 GHz     | 8449B     | 6/17/2015 | 6/30/2016 |
| 3258 | ETS / EMCO   | ANTENNA, DOUBLE RIDGED GUIDE | 1 - 18 GHz       | 3115      | 3/24/2015 | 9/30/2016 |
| 4029 | RETLIF       | OPEN AREA TEST SITE, FILING  | 3 / 10 Meters    | RNH       | 5/15/2013 | 5/31/2016 |
| 5053 | ETS / EMCO   | ANTENNA, BICONILOG           | 26 MHz - 3 GHz   | 3142C     | 2/24/2015 | 8/31/2016 |
| R462 | AGILENT / HP | ANALYZER, SPECTRUM           | 9 kHz - 26.5 GHz | E7405A    | 1/8/2015  | 1/31/2016 |

**FCC Section 15.207 (a) / RSS GEN 8.8  
AC Line Conducted Emissions**

| EN   | Manufacturer      | Description         | Range                    | Model No.        | Cal Date                | Due Date   |
|------|-------------------|---------------------|--------------------------|------------------|-------------------------|------------|
| 4027 | SOLAR ELECTRONICS | LISN                | 50 uH, 10 kHz - 50 MHz   | 9252-50-R-24-BNC | 2/23/2015               | 2/29/2016  |
| 5070 | ROHDE & SCHWARZ   | RECEIVER, EMI       | 20 Hz - 40 GHz           | ESIB40           | 10/29/2014              | 10/31/2016 |
| 5137 | NARDA MICROWAVE   | ATTENUATOR, COAXIAL | 10 dB, DC - 11 GHz, 20 W | 768-10           | 10/28/2014              | 10/31/2015 |
| 5188 | Cybertron         | COMPUTER, CONTROL   | N/A                      | TSVQJA2221       | No Calibration Required |            |

**RSS GEN 7.1  
Receiver Spurious Emissions**

| EN   | Manufacturer | Description                  | Range            | Model No. | Cal Date  | Due Date  |
|------|--------------|------------------------------|------------------|-----------|-----------|-----------|
| 1232 | AGILENT / HP | PRE-AMPLIFIER                | 1 - 26.5 GHz     | 8449B     | 6/17/2015 | 6/30/2016 |
| 3258 | ETS / EMCO   | ANTENNA, DOUBLE RIDGED GUIDE | 1 - 18 GHz       | 3115      | 3/24/2015 | 9/30/2016 |
| 4029 | RETLIF       | OPEN AREA TEST SITE, FILING  | 3 / 10 Meters    | RNH       | 5/15/2013 | 5/31/2016 |
| 5053 | ETS / EMCO   | ANTENNA, BICONILOG           | 26 MHz - 3 GHz   | 3142C     | 2/24/2015 | 8/31/2016 |
| R462 | AGILENT / HP | ANALYZER, SPECTRUM           | 9 kHz - 26.5 GHz | E7405A    | 1/8/2015  | 1/31/2016 |



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## Test Photographs Channel Separation



Test Setup



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**FCC Section 15.247(a)(1) / IC Section A8.1(b)  
Channel Separation  
Test Data**

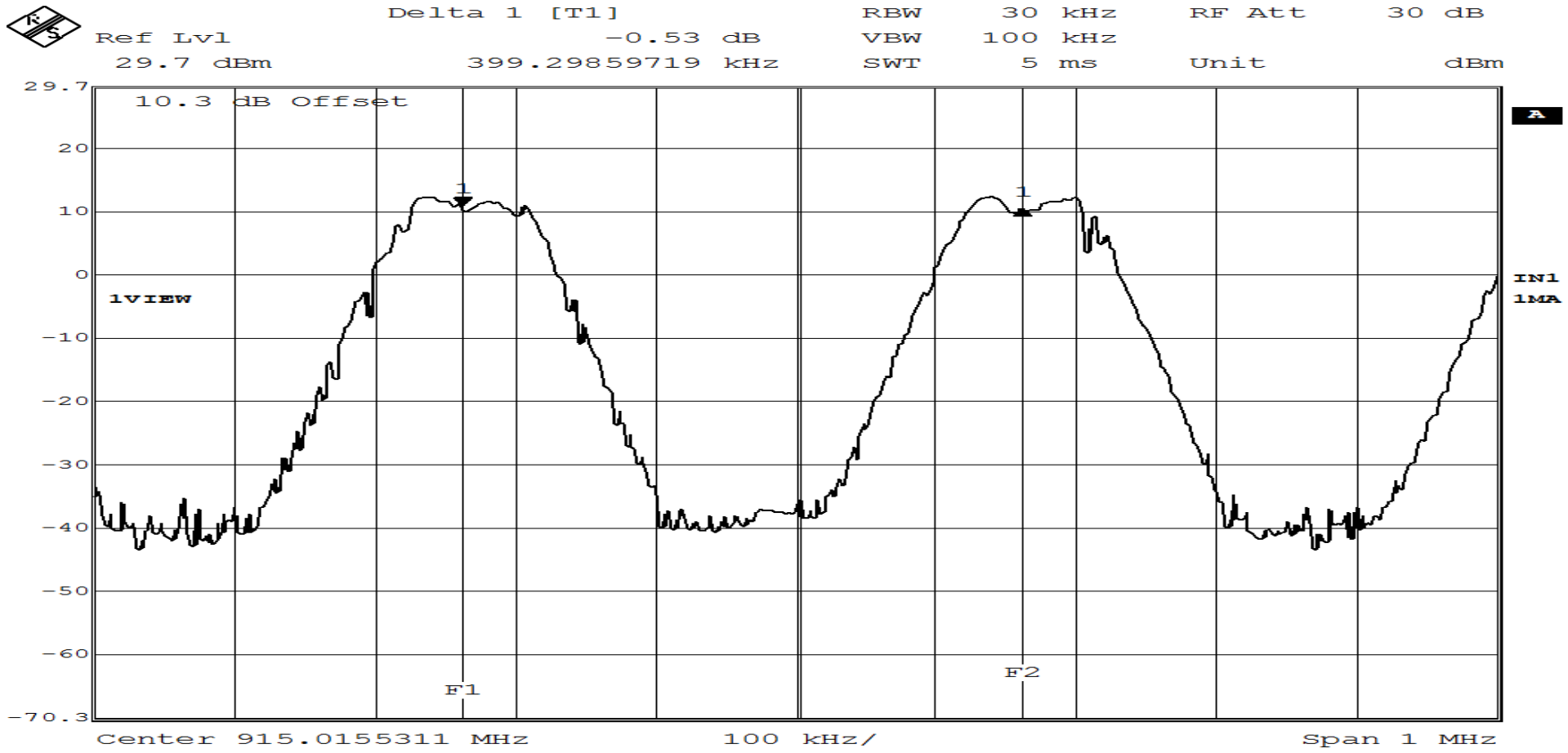


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# RETLIF TESTING LABORATORIES

|                            |   |                   |                                |
|----------------------------|---|-------------------|--------------------------------|
| <b>Test Method:</b>        | Channel Carrier Frequency Separation              |                   |                                |
| <b>Customer</b>            | Immedia Semiconductor                             | <b>Job No.</b>    | R-6022N-1                      |
| <b>Test Sample</b>         | Blink Sync Module                                 |                   |                                |
| <b>Model Number</b>        | BSM00200U   | <b>Serial No.</b> | 200-002-2665                   |
| <b>Operating Mode</b>      | Transmitting hopping frequency data               |                   |                                |
| <b>Test Specification</b>  | FCC Part 15, Subpart C Paragraph: 15.247 (a)(1)   |                   |                                |
| <b>Technician</b>          | M. Seamans  | <b>Date</b>       | October 9 <sup>th</sup> , 2015 |
| <b>Climatic Conditions</b> | Temp: 20.0 °C    Relative Humidity: 32.0 %        |                   |                                |
| <b>Notes</b>               | Channel Carrier Frequency Separation: 399.298 kHz |                   |                                |



Date: 9.OCT.2015 15:03:11  
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**Test Photographs  
20 dB Bandwidth**



Test Setup



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**FCC Section 15.247(a)(1) / IC Section A8.1(b)  
20 dB Bandwidth  
Test Data**



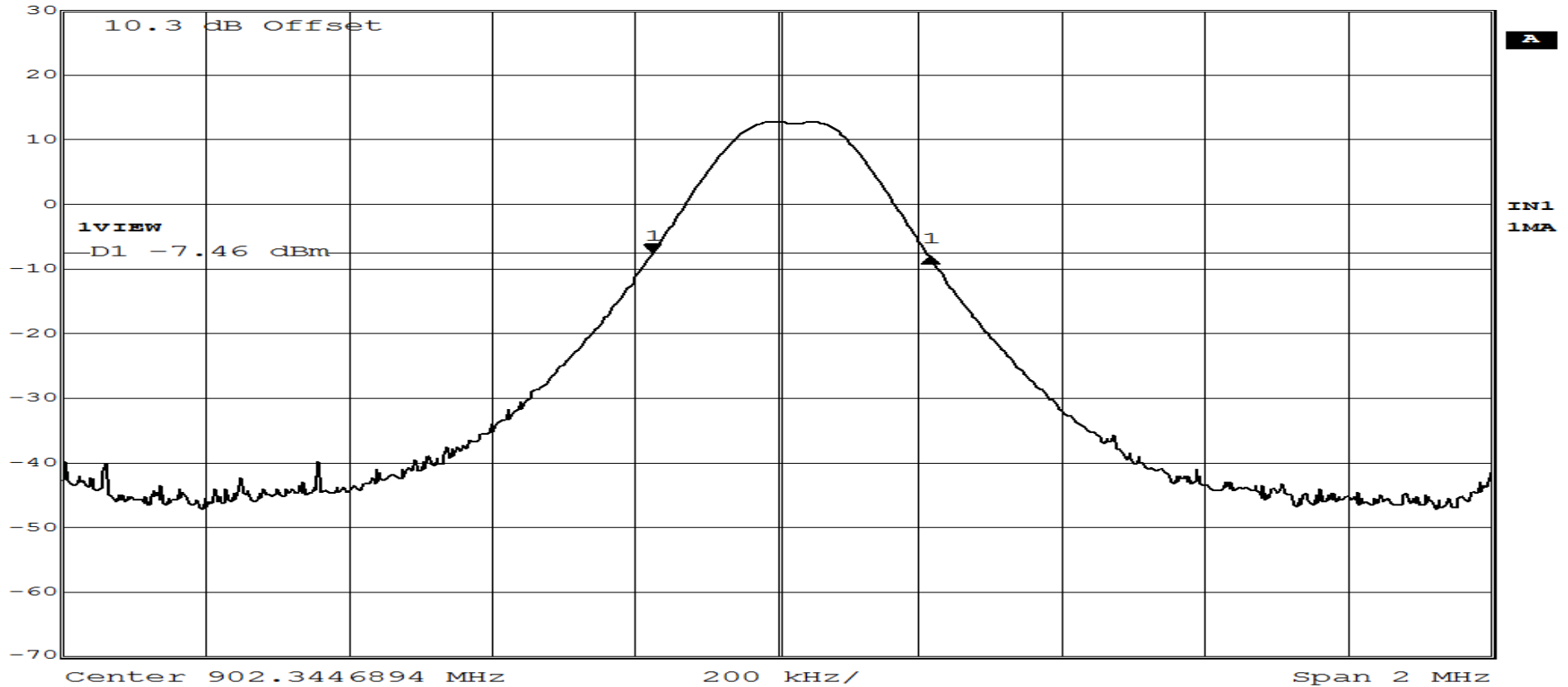
**Retlif Testing Laboratories**

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# RETLIF TESTING LABORATORIES

|                            |   |                   |                                |
|----------------------------|---|-------------------|--------------------------------|
| <b>Test Method:</b>        | 20dB Bandwidth  |                   |                                |
| <b>Customer</b>            | Immedia Semiconductor   | <b>Job No.</b>    | R-6022N-1                      |
| <b>Test Sample</b>         | Blink Sync Module   |                   |                                |
| <b>Model Number</b>        | BSM00200U   | <b>Serial No.</b> | 200-002-2665                   |
| <b>Operating Mode</b>      | Transmitting modulated signal                                 |                   |                                |
| <b>Test Specification</b>  | FCC Part 15, Subpart C Paragraph: 15.247 (a)(1)(i)            |                   |                                |
| <b>Technician</b>          | M. Seamans  | <b>Date</b>       | October 9 <sup>th</sup> , 2015 |
| <b>Climatic Conditions</b> | Temp: 20.0 °C    Relative Humidity: 32.0 %                    |                   |                                |
| <b>Notes</b>               | Transmit Frequency: 902.34 MHz    20dB Bandwidth: 388.777 kHz |                   |                                |

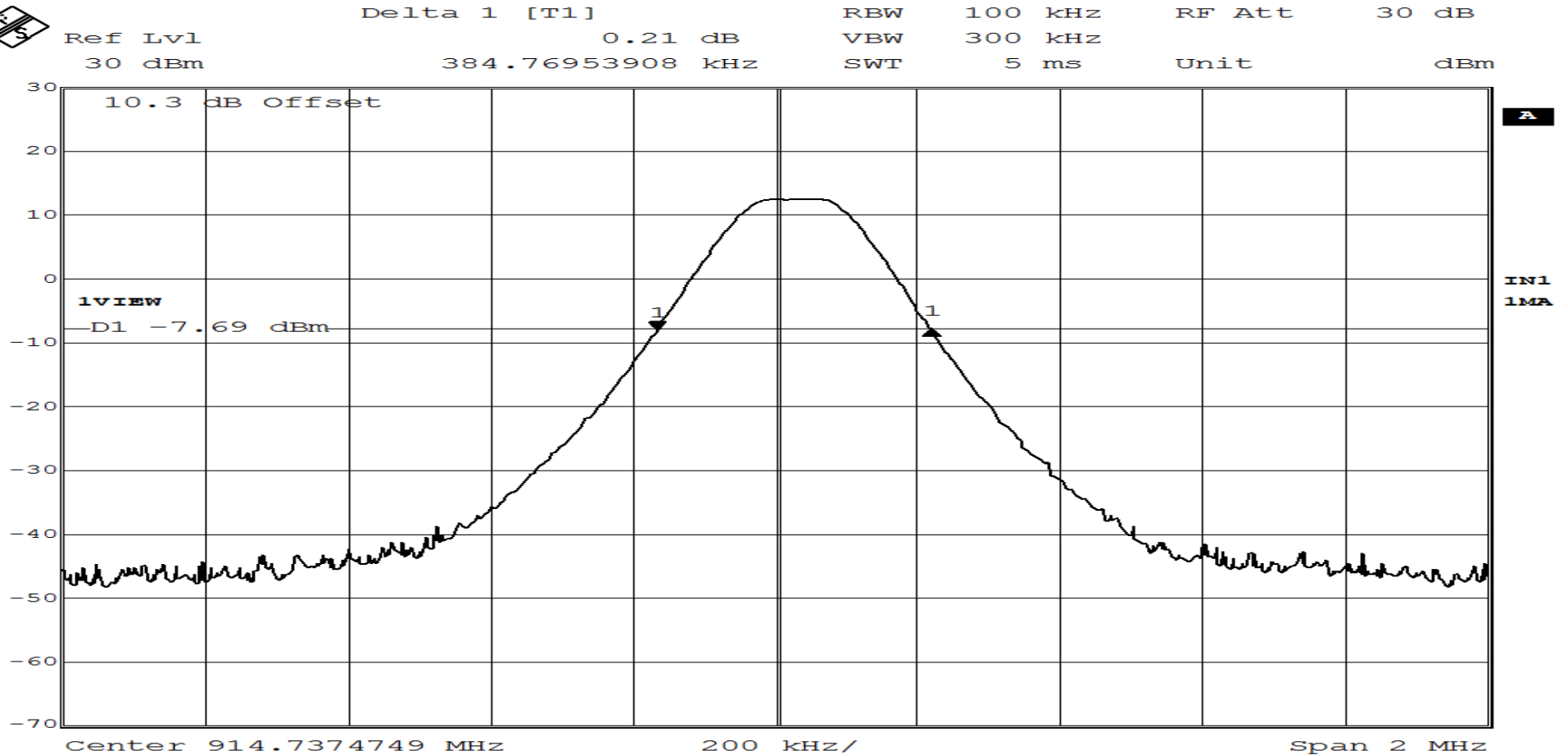
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RBW 100 kHz
RF Att 30 dB  
Ref Lvl -0.38 dB
VBW 300 kHz  
30 dBm
388.77755511 kHz
SWT 5 ms
Unit dBm



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# RETLIF TESTING LABORATORIES

|                            |  |                   |                                |
|----------------------------|--|-------------------|--------------------------------|
| <b>Test Method:</b>        | 20dB Bandwidth   |                   |                                |
| <b>Customer</b>            | Immedia Semiconductor  | <b>Job No.</b>    | R-6022N-1                      |
| <b>Test Sample</b>         | Blink Sync Module  |                   |                                |
| <b>Model Number</b>        | BSM00200U  | <b>Serial No.</b> | 200-002-2665                   |
| <b>Operating Mode</b>      | Transmitting modulated signal                                  |                   |                                |
| <b>Test Specification</b>  | FCC Part 15, Subpart C Paragraph: 15.247 (a)(1)(i)             |                   |                                |
| <b>Technician</b>          | M. Seamans   | <b>Date</b>       | October 9 <sup>th</sup> , 2015 |
| <b>Climatic Conditions</b> | Temp: 20.0 °C    Relative Humidity: 32.0 %                     |                   |                                |
| <b>Notes</b>               | Transmit Frequency: 914.737 MHz    20dB Bandwidth: 384.769 kHz |                   |                                |



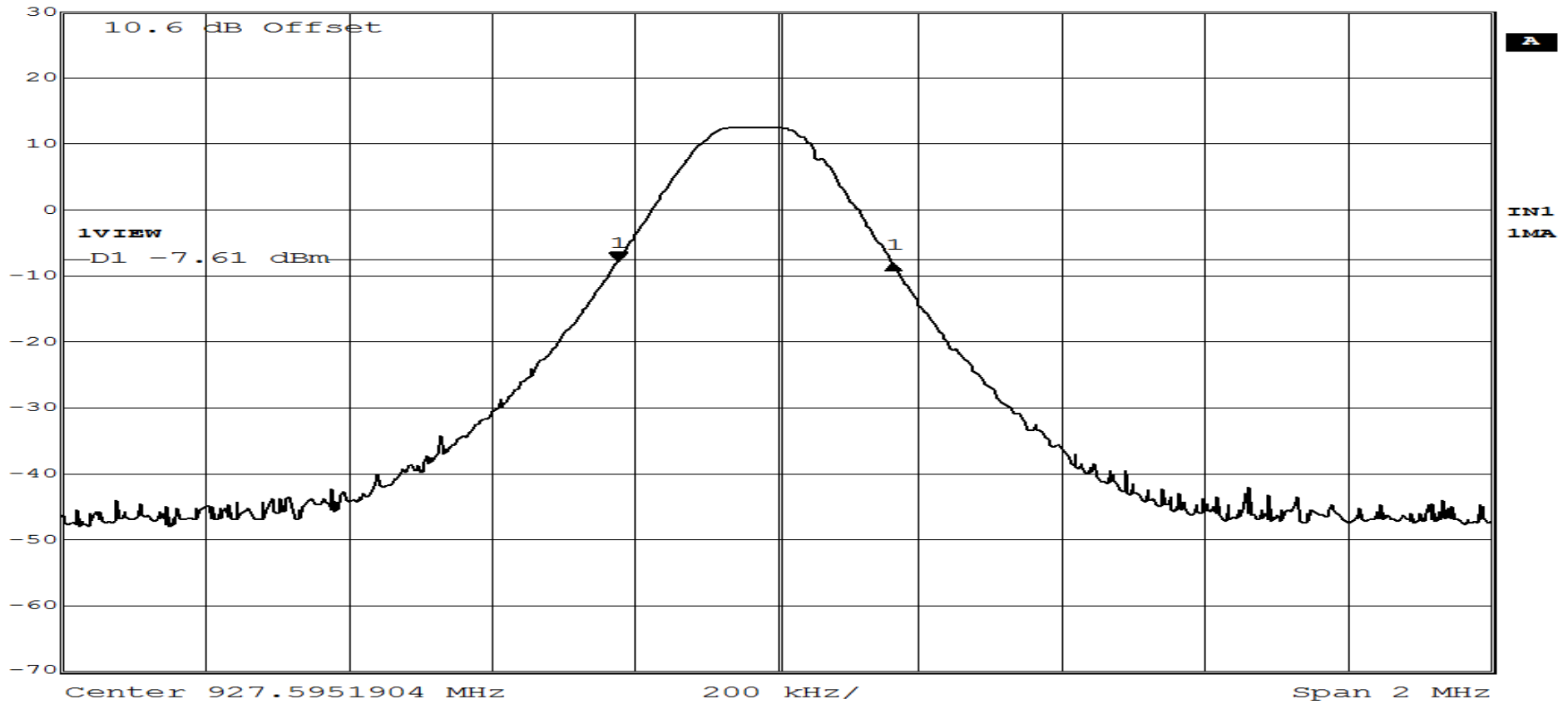
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# RETLIF TESTING LABORATORIES

|                            |  |                   |                                |
|----------------------------|--|-------------------|--------------------------------|
| <b>Test Method:</b>        | 20dB Bandwidth   |                   |                                |
| <b>Customer</b>            | Immedia Semiconductor  | <b>Job No.</b>    | R-6022N-1                      |
| <b>Test Sample</b>         | Blink Sync Module  |                   |                                |
| <b>Model Number</b>        | BSM00200U  | <b>Serial No.</b> | 200-002-2665                   |
| <b>Operating Mode</b>      | Transmitting modulated signal                                      |                   |                                |
| <b>Test Specification</b>  | FCC Part 15, Subpart C Paragraph: 15.247 (a)(1)(i)                 |                   |                                |
| <b>Technician</b>          | M. Seamans   | <b>Date</b>       | October 9 <sup>th</sup> , 2015 |
| <b>Climatic Conditions</b> | Temp: 20.0 °C    Relative Humidity: 32.0 %                         |                   |                                |
| <b>Notes</b>               | Transmit Frequency: 927.595 MHz <b>20dB Bandwidth: 384.769 kHz</b> |                   |                                |



|              |                  |         |         |       |
|--------------|------------------|---------|---------|-------|
| Delta 1 [T1] | RBW              | 100 kHz | RF Att  | 30 dB |
| Ref Lvl      | -0.26 dB         | VBW     | 300 kHz |       |
| 30 dBm       | 384.76953908 kHz | SWT     | 5 ms    | Unit  |
|              |                  |         |         | dBm   |



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**Test Photographs**  
**Number of Channels and Occupancy Time**



Test Setup



**Retlif Testing Laboratories**

Report No. R-6022N-1

**FCC Section 15.247 (a)(1)(i) / IC Section A8.1(c)  
Number of Channels and Occupancy Time  
Test Data**



**Retlif Testing Laboratories**

Report No. R-6022N-1







**Number of Hopping Frequencies  
Test Data**



**Retlif Testing Laboratories**

Report No. R-6022N-1



**Test Photographs**  
**Peak Conducted Output Power**



Test Setup



**Retlif Testing Laboratories**

Report No. R-6022N-1

**FCC Section 15.247 (a)(1) / IC Section A8.4(1)  
Peak Conducted Output Power  
Test Data**

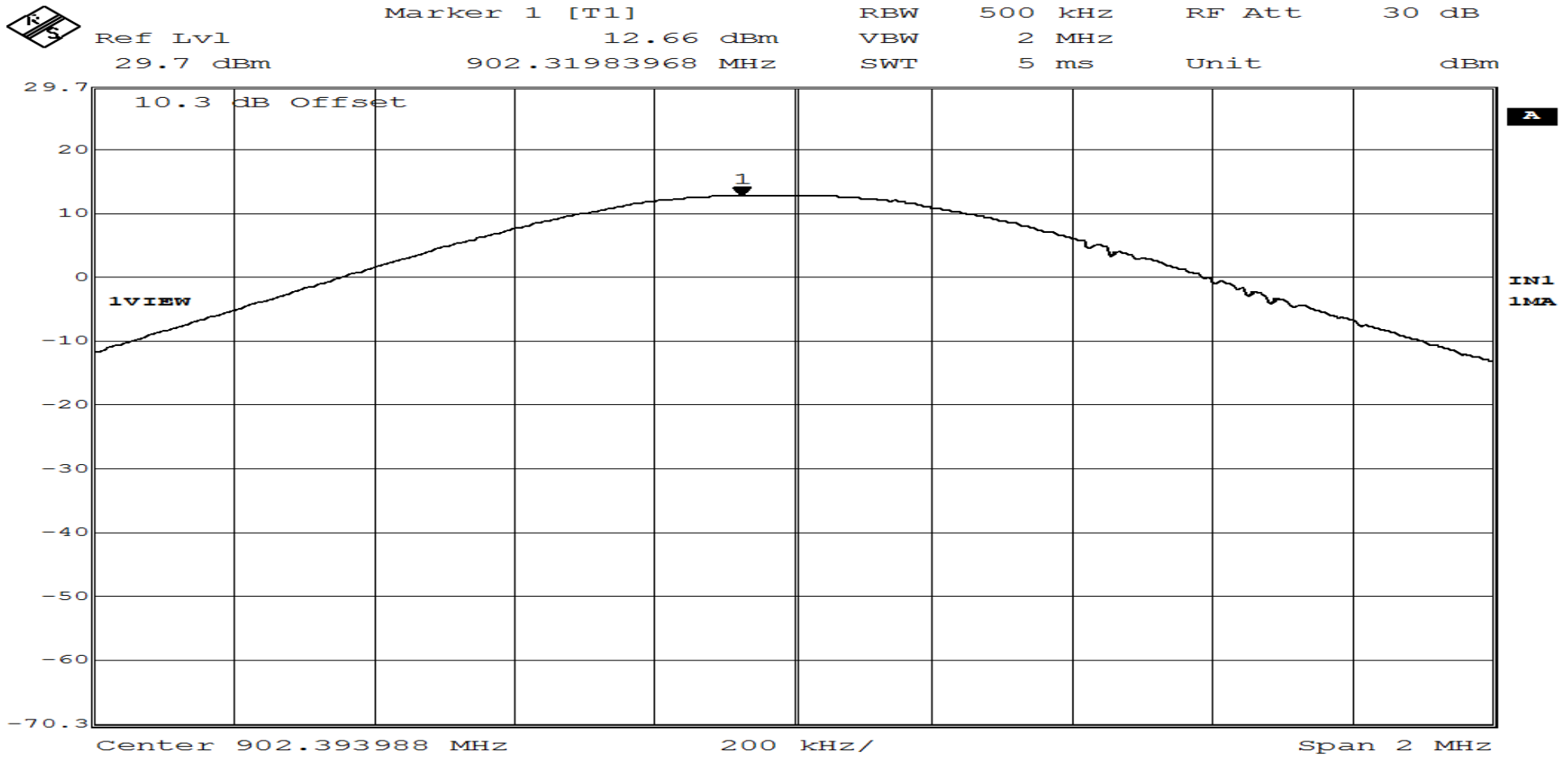


**Retlif Testing Laboratories**

Report No. R-6022N-1

# RETLIF TESTING LABORATORIES

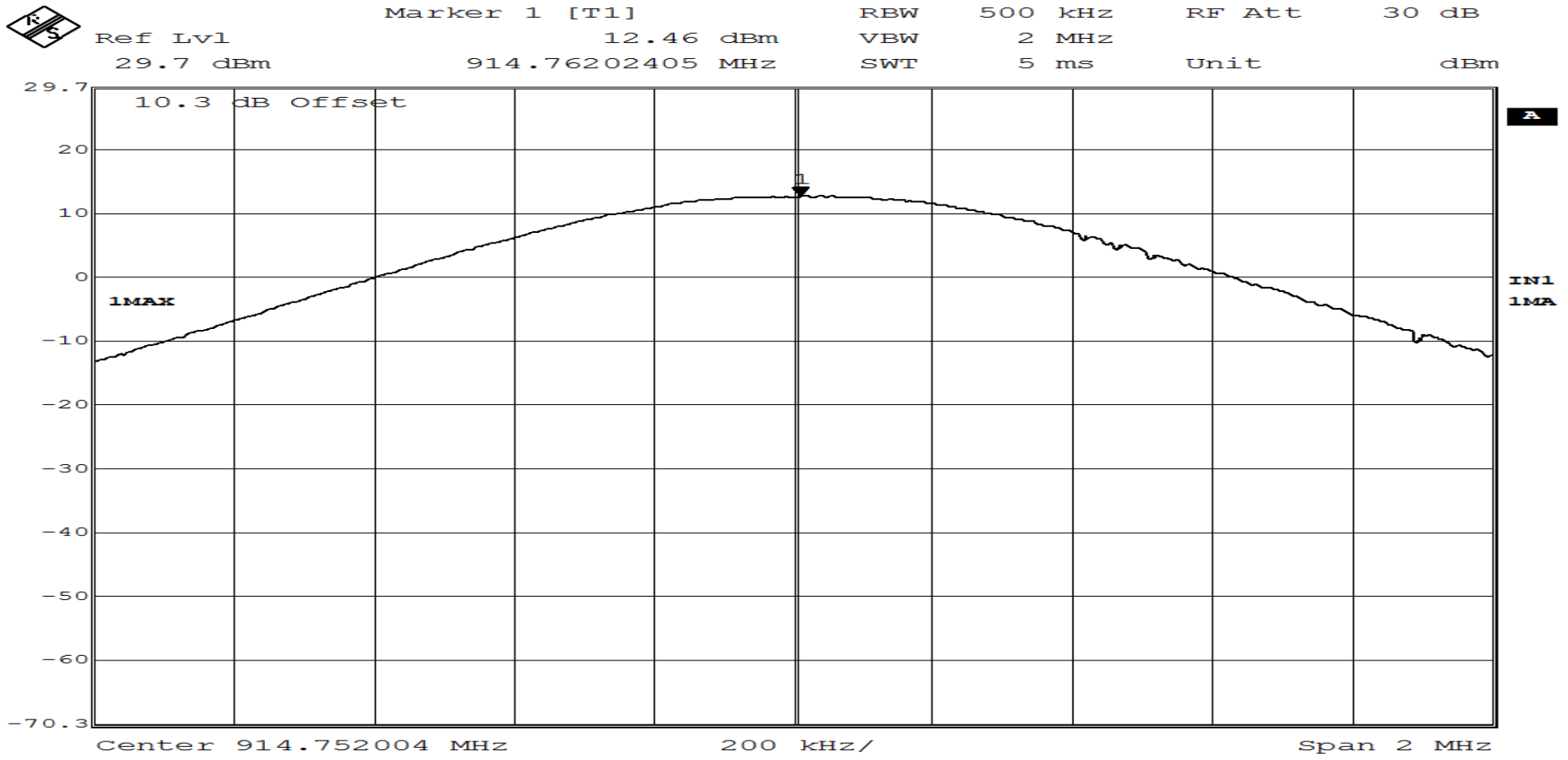
|                            |   |                   |                                |
|----------------------------|---|-------------------|--------------------------------|
| <b>Test Method</b>         | Peak Power Output   |                   |                                |
| <b>Customer</b>            | Immedia Semiconductor   | <b>Job No.</b>    | R-6022N-1                      |
| <b>Test Sample</b>         | Blink Sync Module   |                   |                                |
| <b>Model Number</b>        | BSM00200U   | <b>Serial No.</b> | 200-002-2665                   |
| <b>Operating Mode</b>      | Transmitting modulated signal   |                   |                                |
| <b>Test Specification</b>  | FCC Part 15, Subpart C Paragraph: 15.247 (b)(3)                           |                   |                                |
| <b>Technician</b>          | M. Seamans  | <b>Date</b>       | October 9 <sup>th</sup> , 2015 |
| <b>Climatic Conditions</b> | Temp: 20.0 °C    Relative Humidity: 32.0 %                                |                   |                                |
| <b>Notes</b>               | Transmit Frequency: 902.34 MHz    Peak Power Output: 12.66 dBm (18.450mW) |                   |                                |



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# RETLIF TESTING LABORATORIES

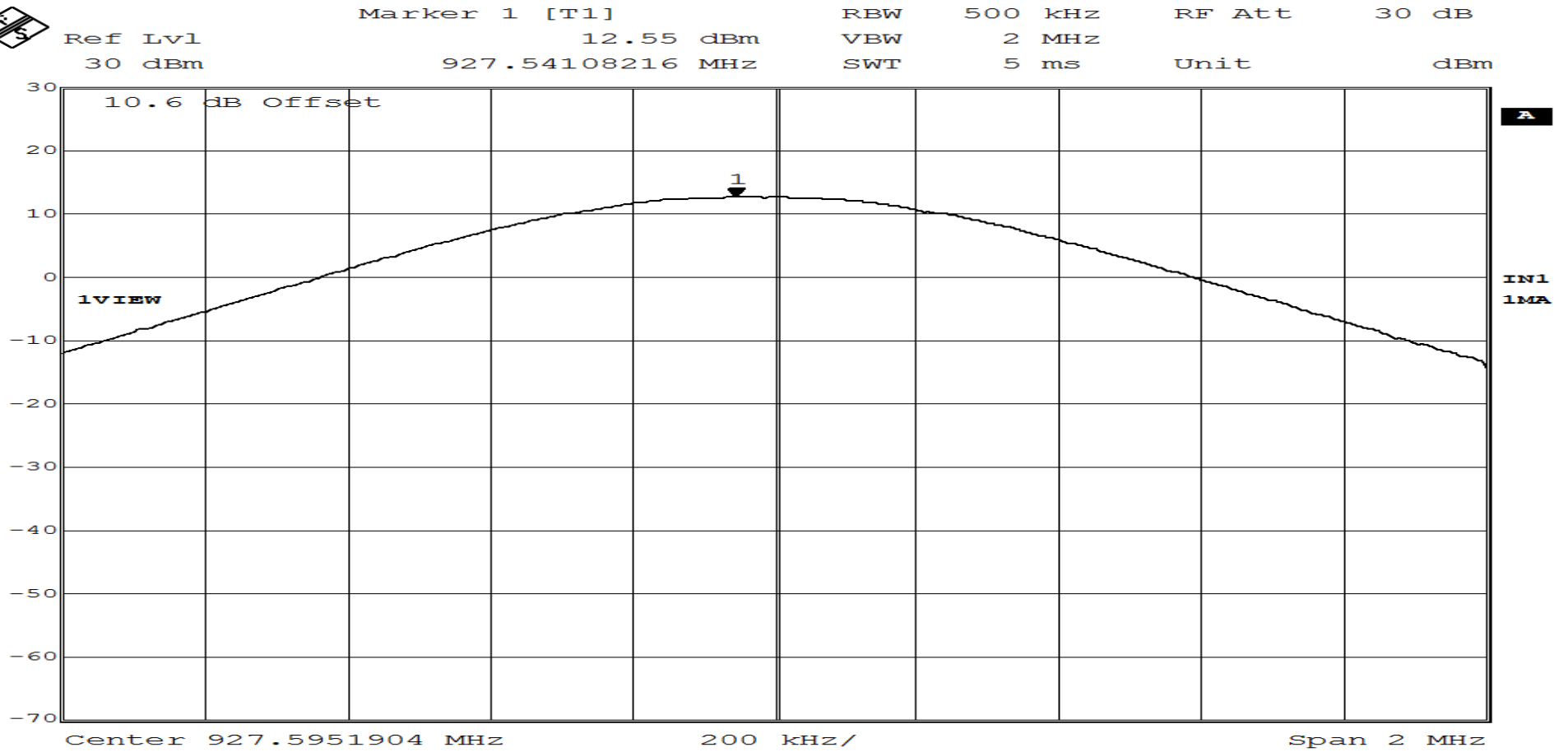
|                            |   |                   |                                |
|----------------------------|---|-------------------|--------------------------------|
| <b>Test Method</b>         | Peak Power Output   |                   |                                |
| <b>Customer</b>            | Immedia Semiconductor   | <b>Job No.</b>    | R-6022N-1                      |
| <b>Test Sample</b>         | Blink Sync Module   |                   |                                |
| <b>Model Number</b>        | BSM00200U   | <b>Serial No.</b> | 200-002-2665                   |
| <b>Operating Mode</b>      | Transmitting modulated signal   |                   |                                |
| <b>Test Specification</b>  | FCC Part 15, Subpart C Paragraph: 15.247 (b)(3)                           |                   |                                |
| <b>Technician</b>          | M. Seamans  | <b>Date</b>       | October 9 <sup>th</sup> , 2015 |
| <b>Climatic Conditions</b> | Temp: 20.0 °C    Relative Humidity: 32.0 %                                |                   |                                |
| <b>Notes</b>               | Transmit Frequency: 914.75 MHz    Peak Power Output: 12.46 dBm (17.620mW) |                   |                                |



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# RETLIF TESTING LABORATORIES

|                            |   |                   |                                |
|----------------------------|---|-------------------|--------------------------------|
| <b>Test Method</b>         | Peak Power Output   |                   |                                |
| <b>Customer</b>            | Immedia Semiconductor   | <b>Job No.</b>    | R-6022N-1                      |
| <b>Test Sample</b>         | Blink Sync Module   |                   |                                |
| <b>Model Number</b>        | BSM00200U   | <b>Serial No.</b> | 200-002-2665                   |
| <b>Operating Mode</b>      | Transmitting modulated signal   |                   |                                |
| <b>Test Specification</b>  | FCC Part 15, Subpart C Paragraph: 15.247 (b)(3)                           |                   |                                |
| <b>Technician</b>          | M. Seamans  | <b>Date</b>       | October 9 <sup>th</sup> , 2015 |
| <b>Climatic Conditions</b> | Temp: 20.0 °C    Relative Humidity: 32.0 %                                |                   |                                |
| <b>Notes</b>               | Transmit Frequency: 927.60 MHz    Peak Power Output: 12.55 dBm (17.989mW) |                   |                                |



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**Test Photographs**  
**Conducted Spurious Emissions, 30 MHz to 10 GHz**



Test Setup



**Retlif Testing Laboratories**

Report No. R-6022N-1

**FCC Section 15.247 (d) / IC Section A8.(5)  
Conducted Spurious Emissions, 30 MHz to 10 GHz  
Band Edge Test Data**



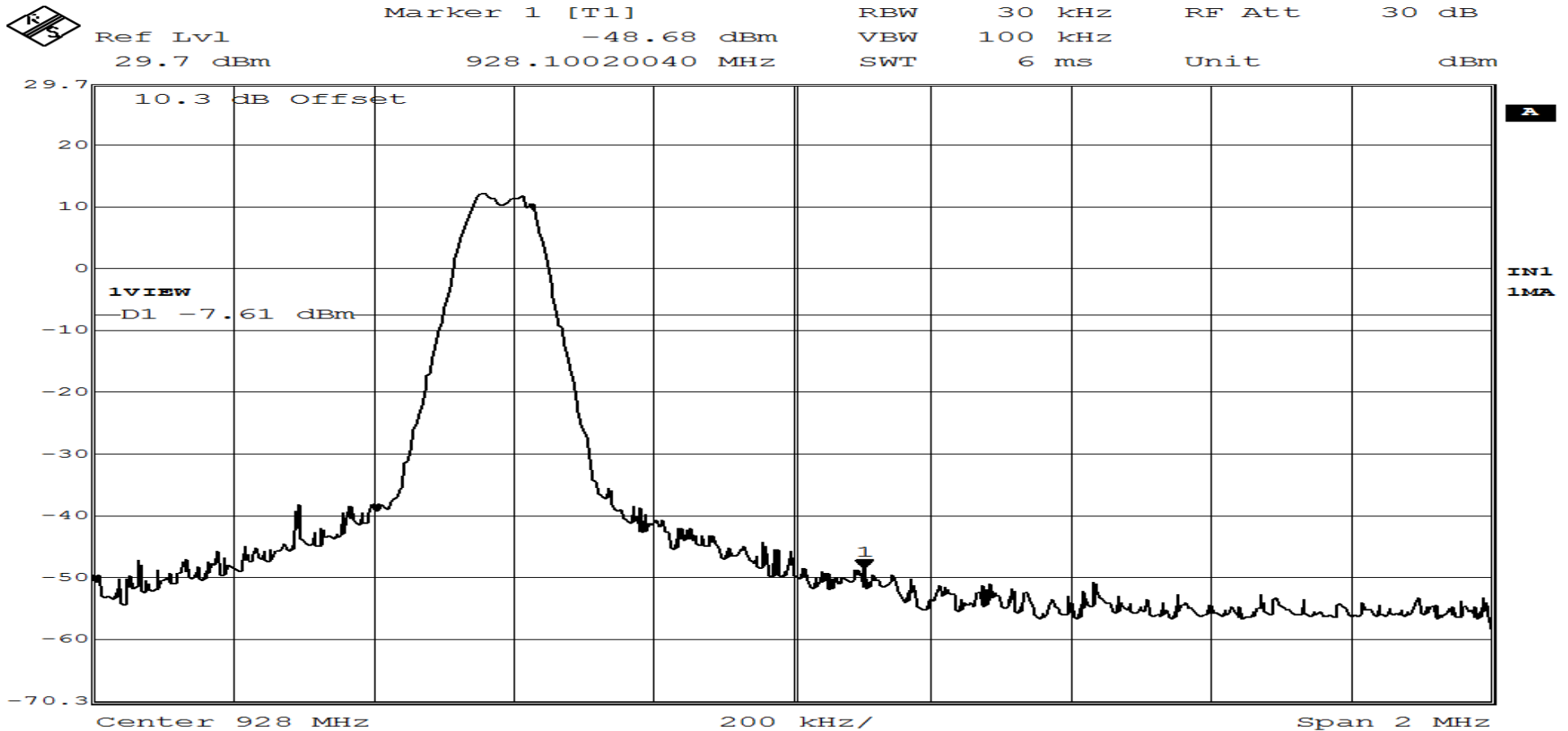
**Retlif Testing Laboratories**

Report No. R-6022N-1



# RETLIF TESTING LABORATORIES

|                            |  |                   |                                |
|----------------------------|--|-------------------|--------------------------------|
| <b>Test Method</b>         | Band Edge Emissions Conducted                |                   |                                |
| <b>Customer</b>            | Immedia Semiconductor                        | <b>Job No.</b>    | R-6022N-1                      |
| <b>Test Sample</b>         | Blink Sync Module                            |                   |                                |
| <b>Model Number</b>        | BSM00200U                                    | <b>Serial No.</b> | 200-002-2665                   |
| <b>Operating Mode</b>      | Transmitting modulated signal                |                   |                                |
| <b>Test Specification</b>  | FCC Part 15, Subpart C Paragraph: 15.247 (d) |                   |                                |
| <b>Technician</b>          | M. Seamans                                   | <b>Date</b>       | October 9 <sup>th</sup> , 2015 |
| <b>Climatic Conditions</b> | Temp: 20.0 °C    Relative Humidity: 32.0 %   |                   |                                |
| <b>Notes</b>               | Transmit Frequency: 927.3 MHz                |                   |                                |



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**Unwanted Emissions into Non-Restricted Frequency Bands  
25 MHz to 10 GHz  
Conducted Spurious Emissions Test Data**



**Retlif Testing Laboratories**

Report No. R-6022N-1

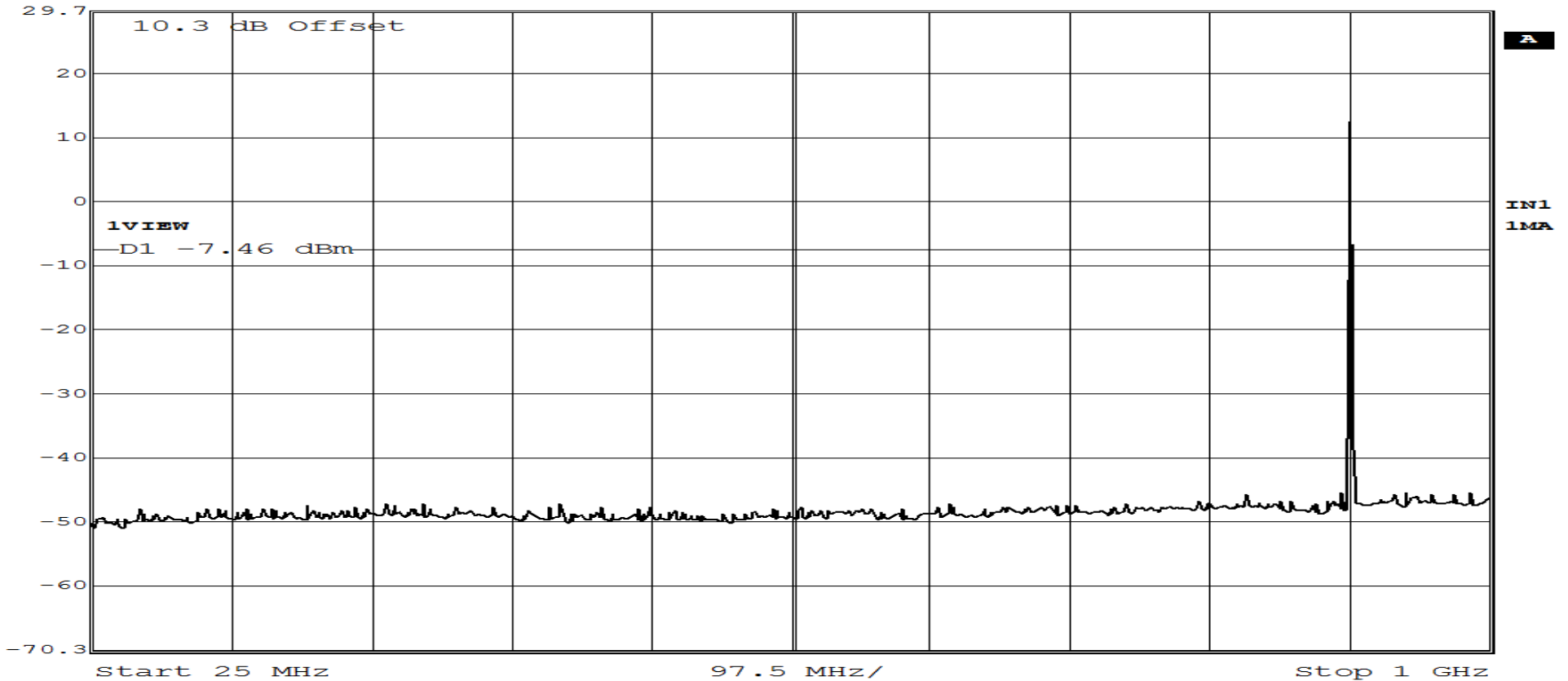
# RETLIF TESTING LABORATORIES

|                            |  |                   |                   |
|----------------------------|--|-------------------|-------------------|
| <b>Test Method</b>         | Unwanted Emissions into Non-Restricted Frequency Bands   |                   |                   |
| <b>Customer</b>            | Immedia Semiconductor  | <b>Job No.</b>    | R-6022N-1         |
| <b>Test Sample</b>         | Blink Sync Module  |                   |                   |
| <b>Model Number</b>        | BSM00200U  | <b>Serial No.</b> | 200-002-2665      |
| <b>Operating Mode</b>      | Transmitting modulated signal  |                   |                   |
| <b>Test Specification</b>  | FCC Part 15, Subpart C Paragraph: 15.247 (d)   |                   |                   |
| <b>Technician</b>          | M. Seamans   | <b>Date</b>       | October 9th, 2015 |
| <b>Climatic Conditions</b> | Temp: 20.0 °C    Relative Humidity: 32.0 %   |                   |                   |
| <b>Notes</b>               | Transmit Frequency: 902.4 MHz <b>Limit is 20dB down from the Fundamental Frequency Peak Power Output</b> |                   |                   |



Ref Lvl  
29.7 dBm

RBW 100 kHz    RF Att 30 dB  
VBW 300 kHz  
SWT 245 ms    Unit dBm



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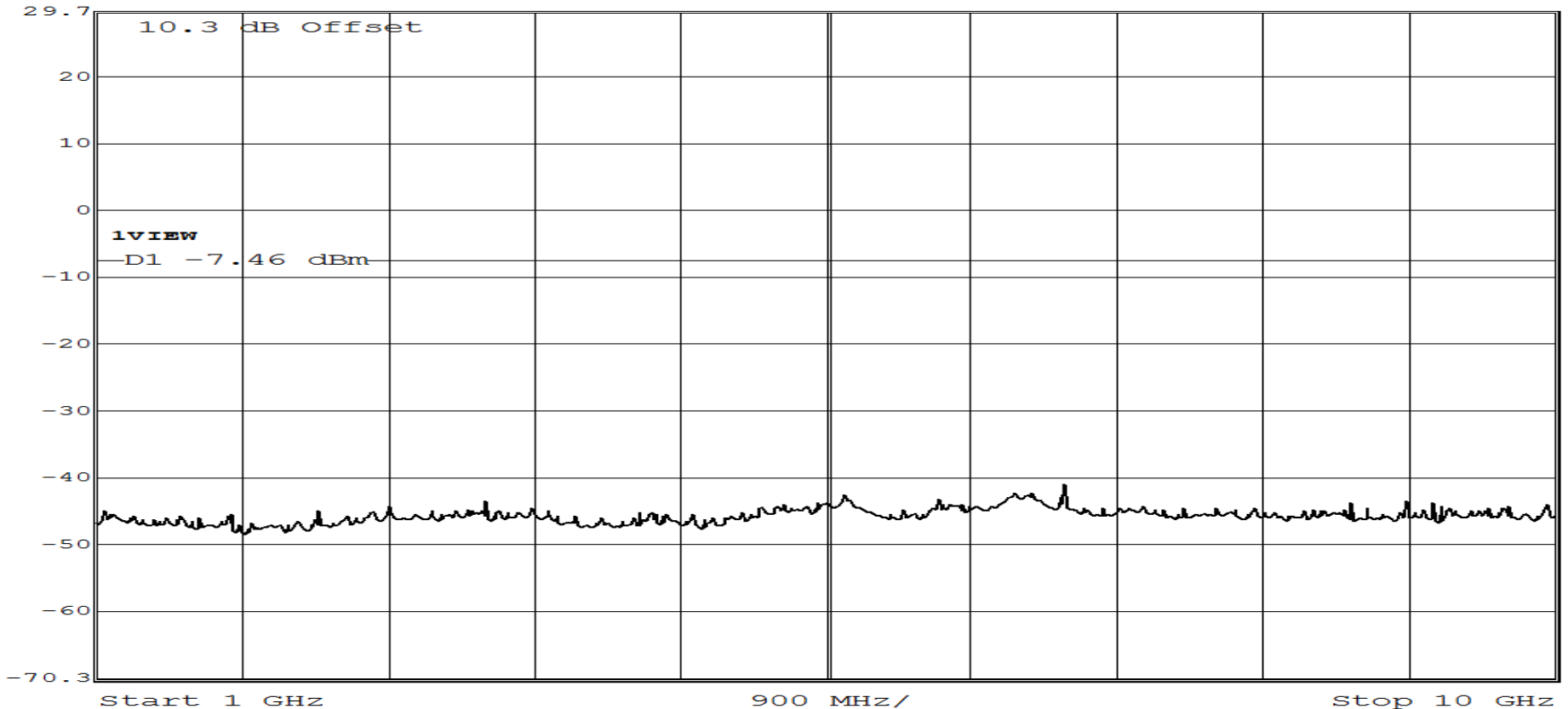
# RETLIF TESTING LABORATORIES

|                            |  |                   |                   |
|----------------------------|--|-------------------|-------------------|
| <b>Test Method</b>         | Unwanted Emissions into Non-Restricted Frequency Bands   |                   |                   |
| <b>Customer</b>            | Immedia Semiconductor  | <b>Job No.</b>    | R-6022N-1         |
| <b>Test Sample</b>         | Blink Sync Module  |                   |                   |
| <b>Model Number</b>        | BSM00200U  | <b>Serial No.</b> | 200-002-2665      |
| <b>Operating Mode</b>      | Transmitting modulated signal  |                   |                   |
| <b>Test Specification</b>  | FCC Part 15, Subpart C Paragraph: 15.247 (d)   |                   |                   |
| <b>Technician</b>          | M. Seamans   | <b>Date</b>       | October 9th, 2015 |
| <b>Climatic Conditions</b> | Temp: 20.0 °C    Relative Humidity: 32.0 %   |                   |                   |
| <b>Notes</b>               | Transmit Frequency: 902.4 MHz <b>Limit is 20dB down from the Fundamental Frequency Peak Power Output</b> |                   |                   |



Ref Lvl  
29.7 dBm

RBW 100 kHz    RF Att 30 dB  
 VBW 300 kHz  
 SWT 2.25 s    Unit dBm



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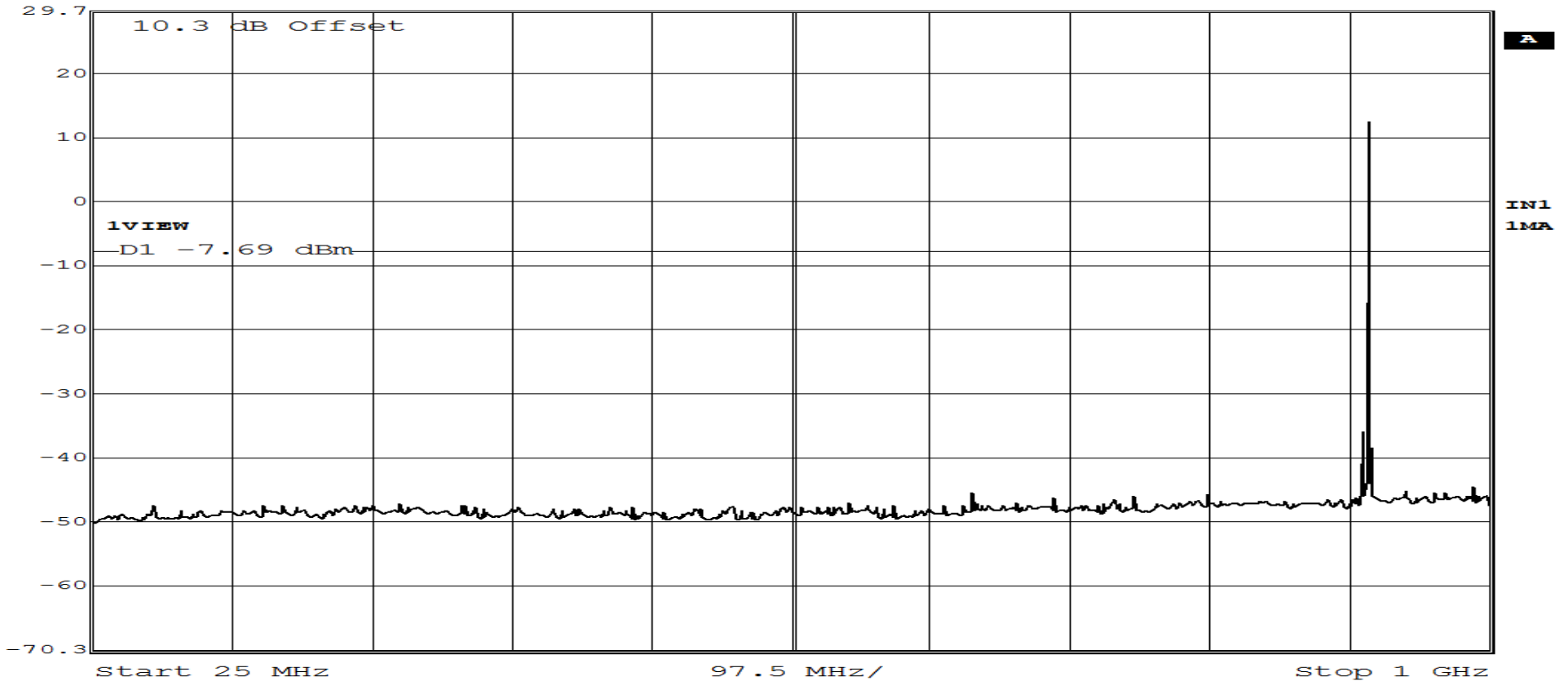
# RETLIF TESTING LABORATORIES

|                            |  |                   |                   |
|----------------------------|--|-------------------|-------------------|
| <b>Test Method</b>         | Unwanted Emissions into Non-Restricted Frequency Bands   |                   |                   |
| <b>Customer</b>            | Immedia Semiconductor  | <b>Job No.</b>    | R-6022N-1         |
| <b>Test Sample</b>         | Blink Sync Module  |                   |                   |
| <b>Model Number</b>        | BSM00200U  | <b>Serial No.</b> | 200-002-2665      |
| <b>Operating Mode</b>      | Transmitting modulated signal  |                   |                   |
| <b>Test Specification</b>  | FCC Part 15, Subpart C Paragraph: 15.247 (d)   |                   |                   |
| <b>Technician</b>          | M. Seamans   | <b>Date</b>       | October 9th, 2015 |
| <b>Climatic Conditions</b> | Temp: 20.0 °C    Relative Humidity: 32.0 %   |                   |                   |
| <b>Notes</b>               | Transmit Frequency: 915 MHz <b>Limit is 20dB down from the Fundamental Frequency Peak Power Output</b> |                   |                   |



Ref Lvl  
29.7 dBm

RBW 100 kHz    RF Att 30 dB  
VBW 300 kHz  
SWT 245 ms    Unit dBm



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**Test Photographs**  
**Field Strength of Spurious Emissions**



Test Configuration



**Retlif Testing Laboratories**

Report No. R-6022N-1

## Test Photographs Field Strength of Spurious Emissions



Horizontal Antenna Polarization, 25 MHz – 1 GHz



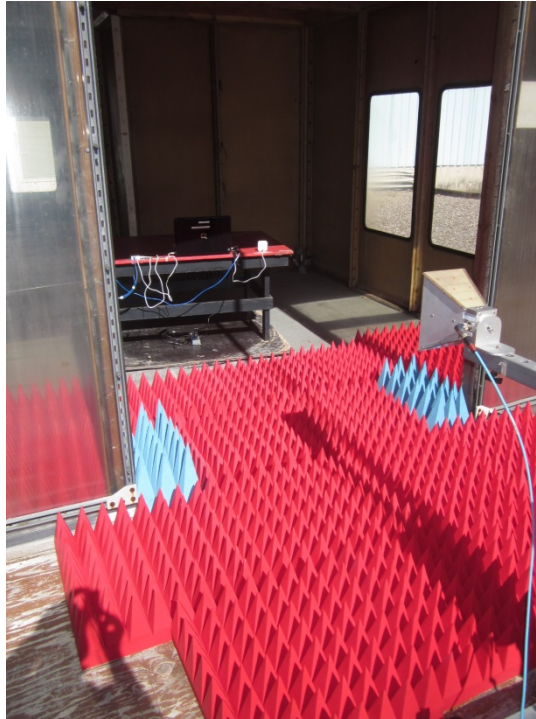
Vertical Antenna Polarization, 25 MHz – 1 GHz



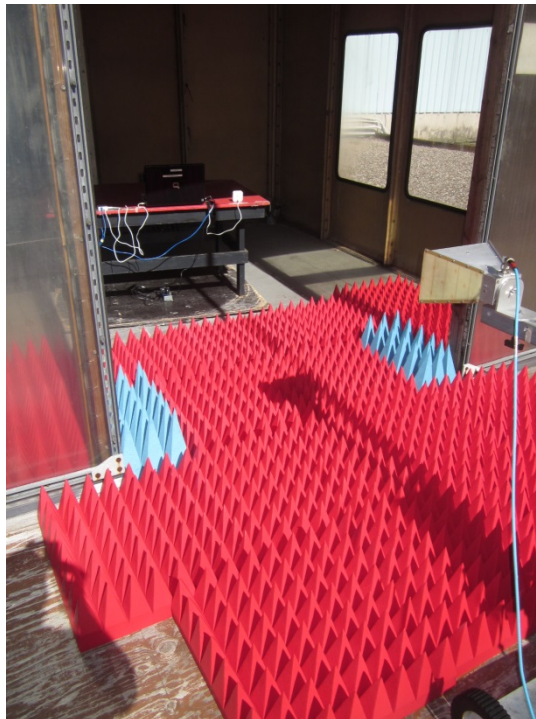
**Retlif Testing Laboratories**

Report No. R-6022N-1

**Test Photographs**  
**Field Strength of Spurious Emissions**



Horizontal Antenna Polarization, 1 GHz – 10 GHz



Vertical Antenna Polarization, 1 GHz – 10 GHz



**Retlif Testing Laboratories**

Report No. R-6022N-1

**FCC Section 15.247 (a) / 15.209(a) / IC Section A2.9(b)  
Field Strength of Spurious Emissions  
Test Data**



**Retlif Testing Laboratories**

Report No. R-6022N-1

# RETLIF TESTING LABORATORIES

## EMISSIONS TEST DATA SHEET

|                           |  |                      |
|---------------------------|--|----------------------|
| <b>Test Method</b>        | Unwanted Emissions into Restricted Frequency Bands |                      |
| <b>Customer</b>           | Immedia Semiconductor                              |                      |
| <b>Job Number</b>         | R-6022N-1  |                      |
| <b>Test Sample</b>        | Blink Sync Module                                  |                      |
| <b>Model Number</b>       | BSM00200U  |                      |
| <b>Serial Number</b>      | 200-002-2665                                       |                      |
| <b>Test Specification</b> | FCC Part 15 Subpart C                              | Paragraph: 15.247(d) |
| <b>Operating Mode</b>     | Transmitting hopping frequency data                |                      |
| <b>Technician</b>         | M. Seamans   |                      |
| <b>Date</b>               | October 6 <sup>th</sup> , 2015                     |                      |

**Notes:** Antenna Test Distance: 3 meters      Detector: Quasi-Peak <1GHz, Average >1GHz

### TEST PARAMETERS

| Restricted Band | Measured Frequency | Meter Reading | Correction Factor | Corrected Reading |   | Converted Reading | Limit at 3M |
|-----------------|--------------------|---------------|-------------------|-------------------|---|-------------------|-------------|
| MHz             | MHz                | dBuV          | dB                | dBuV/m            |   | uV/m              | uV/m        |
| 37.50           | -                  | -             | -                 | -                 |   | -                 | 100.00      |
|                 | 38.00              | 21.99         | 14.20             | 36.19             | * | 64.49             | I           |
| 38.25           | -                  | -             | -                 | -                 |   | -                 | 100.00      |
| 73.00           | -                  | -             | -                 | -                 |   | -                 | 100.00      |
|                 | 74.00              | 17.88         | 8.36              | 26.24             | * | 20.51             | I           |
| 74.60           | -                  | -             | -                 | -                 |   | -                 | 100.00      |
| 74.80           | -                  | -             | -                 | -                 |   | -                 | 100.00      |
|                 | 75.00              | 17.14         | 8.36              | 25.50             | * | 18.84             |             |
| 75.20           | -                  | -             | -                 | -                 |   | -                 | 100.00      |
| 108.00          | -                  | -             | -                 | -                 |   | -                 | 150.00      |
|                 | 111.60             | 18.65         | 10.02             | 28.67             |   | 27.13             |             |
|                 | 114.20             | 24.29         | 9.86              | 34.15             |   | 50.99             |             |
| 121.94          | -                  | -             | -                 | -                 |   | -                 | 150.00      |
| 123.00          | -                  | -             | -                 | -                 |   | -                 | 150.00      |
|                 | 123.30             | 13.29         | 9.44              | 22.73             |   | 13.69             |             |
|                 | 125.60             | 19.34         | 9.40              | 28.74             |   | 27.35             |             |
| 138.00          | -                  | -             | -                 | -                 |   | -                 | 150.00      |

EUT emissions observed throughout the given frequency spectrum were recorded and evaluated. Emission levels closest to the limit are listed on this data sheet. \* This emission is not from the EUT. It is a measurement of minimum measurement system sensitivity (Noise Floor).

Data Sheet 1 of 7



**Retlif Testing Laboratories**

Report No. R-6022N-1



# RETLIF TESTING LABORATORIES

## EMISSIONS TEST DATA SHEET

|                           |  |                      |
|---------------------------|--|----------------------|
| <b>Test Method</b>        | Unwanted Emissions into Restricted Frequency Bands |                      |
| <b>Customer</b>           | Immedia Semiconductor                              |                      |
| <b>Job Number</b>         | R-6022N-1  |                      |
| <b>Test Sample</b>        | Blink Sync Module                                  |                      |
| <b>Model Number</b>       | BSM00200U  |                      |
| <b>Serial Number</b>      | 200-002-2665                                       |                      |
| <b>Test Specification</b> | FCC Part 15 Subpart C                              | Paragraph: 15.247(d) |
| <b>Operating Mode</b>     | Transmitting hopping frequency data                |                      |
| <b>Technician</b>         | M. Seamans   |                      |
| <b>Date</b>               | October 6 <sup>th</sup> , 2015                     |                      |

**Notes:** Antenna Test Distance: 3 meters      Detector: Quasi-Peak <1GHz, Average >1GHz

### TEST PARAMETERS

| Restricted Band | Measured Frequency | Meter Reading | Correction Factor | Corrected Reading |   |  | Converted Reading | Limit at 3M |
|-----------------|--------------------|---------------|-------------------|-------------------|---|--|-------------------|-------------|
| MHz             | MHz                | dBuV          | dB                | dBuV/m            |   |  | uV/m              | uV/m        |
| 149.90          | -                  | -             | -                 | -                 |   |  | -                 | 150.00      |
|                 | 150.00             | 13.66         | 11.17             | 24.83             | * |  | 17.44             |             |
| 150.05          | -                  | -             | -                 | -                 |   |  | -                 | 150.00      |
| 156.52          | -                  | -             | -                 | -                 |   |  | -                 | 150.00      |
|                 | 156.52             | 8.88          | 12.08             | 20.96             | * |  | 11.17             |             |
| 156.52          | -                  | -             | -                 | -                 |   |  | -                 | 150.00      |
| 156.70          | -                  | -             | -                 | -                 |   |  | -                 | 150.00      |
|                 | 156.80             | 6.31          | 12.12             | 18.43             | * |  | 8.35              |             |
| 156.90          | -                  | -             | -                 | -                 |   |  | -                 | 150.00      |
| 162.01          | -                  | -             | -                 | -                 |   |  | -                 | 150.00      |
|                 | 165.00             | 9.21          | 12.68             | 21.89             | * |  | 12.43             |             |
| 167.17          | -                  | -             | -                 | -                 |   |  | -                 | 150.00      |
| 167.72          | -                  | -             | -                 | -                 |   |  | -                 | 150.00      |
|                 | 170.00             | 9.50          | 12.80             | 22.30             | * |  | 13.03             |             |
| 173.20          | -                  | -             | -                 | -                 |   |  | -                 | 150.00      |

No EUT emissions within 10 dB of the specified test limit were observed at the specified test distance throughout the given frequency spectrum.  
 \* This emission is not from the EUT. It is a measurement of minimum measurement system sensitivity (Noise Floor).

Data Sheet 2 of 7



**Retlif Testing Laboratories**

Report No. R-6022N-1

# RETLIF TESTING LABORATORIES

## EMISSIONS TEST DATA SHEET

|                           |  |                      |
|---------------------------|--|----------------------|
| <b>Test Method</b>        | Unwanted Emissions into Restricted Frequency Bands |                      |
| <b>Customer</b>           | Immedia Semiconductor                              |                      |
| <b>Job Number</b>         | R-6022N-1  |                      |
| <b>Test Sample</b>        | Blink Sync Module                                  |                      |
| <b>Model Number</b>       | BSM00200U  |                      |
| <b>Serial Number</b>      | 200-002-2665                                       |                      |
| <b>Test Specification</b> | FCC Part 15 Subpart C                              | Paragraph: 15.247(d) |
| <b>Operating Mode</b>     | Transmitting hopping frequency data                |                      |
| <b>Technician</b>         | M. Seamans   |                      |
| <b>Date</b>               | October 6 <sup>th</sup> , 2015                     |                      |

**Notes:** Antenna Test Distance: 3 meters      Detector: Quasi-Peak <1GHz, Average >1GHz

### TEST PARAMETERS

| Restricted Band | Measured Frequency | Meter Reading | Correction Factor | Corrected Reading |   |  | Converted Reading | Limit at 3M |
|-----------------|--------------------|---------------|-------------------|-------------------|---|--|-------------------|-------------|
| MHz             | MHz                | dBuV          | dB                | dBuV/m            |   |  | uV/m              | uV/m        |
| 240.00          | -                  | -             | -                 | -                 |   |  | -                 | 200.00      |
|                 | 266.70             | 15.35         | 16.85             | 32.20             |   |  | 40.74             |             |
| 285.00          | -                  | -             | -                 | -                 |   |  | -                 | 200.00      |
| 322.80          | -                  | -             | -                 | -                 |   |  | -                 | 200.00      |
|                 | 330.00             | 3.41          | 18.91             | 22.32             | * |  | 13.06             |             |
| 335.40          | -                  | -             | -                 | -                 |   |  | -                 | 200.00      |
| 399.90          | -                  | -             | -                 | -                 |   |  | -                 | 200.00      |
|                 | 405.00             | 3.40          | 21.49             | 24.89             | * |  | 17.56             |             |
| 410.00          | -                  | -             | -                 | -                 |   |  | -                 | 200.00      |
| 608.00          | -                  | -             | -                 | -                 |   |  | -                 | 200.00      |
|                 | 611.00             | 0.54          | 27.34             | 27.88             | * |  | 24.77             |             |
| 614.00          | -                  | -             | -                 | -                 |   |  | -                 | 200.00      |
| 960.00          | -                  | -             | -                 | -                 |   |  | -                 | 500.00      |
|                 | 975.00             | 1.33          | 32.10             | 33.43             | * |  | 46.94             |             |
| 1240.00         | -                  | -             | -                 | -                 |   |  | -                 | 500.00      |
| 1300.00         | -                  | -             | -                 | -                 |   |  | -                 | 500.00      |
|                 | 1350.00            | 32.8          | -9.50             | 23.30             | * |  | 14.62             |             |
| 1427.00         | -                  | -             | -                 | -                 |   |  | -                 | 500.00      |

EUT emissions observed throughout the given frequency spectrum were recorded and evaluated. Emission levels closest to the limit are listed on this data sheet. \* This emission is not from the EUT. It is a measurement of minimum measurement system sensitivity (Noise Floor).

Data Sheet 3 of 7



**Retlif Testing Laboratories**

Report No. R-6022N-1

# RETLIF TESTING LABORATORIES

## EMISSIONS TEST DATA SHEET

|                           |  |                      |
|---------------------------|--|----------------------|
| <b>Test Method</b>        | Unwanted Emissions into Restricted Frequency Bands |                      |
| <b>Customer</b>           | Immedia Semiconductor                              |                      |
| <b>Job Number</b>         | R-6022N-1  |                      |
| <b>Test Sample</b>        | Blink Sync Module                                  |                      |
| <b>Model Number</b>       | BSM00200U  |                      |
| <b>Serial Number</b>      | 200-002-2665                                       |                      |
| <b>Test Specification</b> | FCC Part 15 Subpart C                              | Paragraph: 15.247(d) |
| <b>Operating Mode</b>     | Transmitting hopping frequency data                |                      |
| <b>Technician</b>         | M. Seamans   |                      |
| <b>Date</b>               | October 6 <sup>th</sup> , 2015                     |                      |

**Notes:** Antenna Test Distance: 3 meters      Detector: Quasi-Peak <1GHz, Average >1GHz

### TEST PARAMETERS

| Restricted Band | Measured Frequency | Meter Reading | Correction Factor | Corrected Reading |   |  | Converted Reading | Limit at 3M |
|-----------------|--------------------|---------------|-------------------|-------------------|---|--|-------------------|-------------|
| MHz             | MHz                | dBuV          | dB                | dBuV/m            |   |  | uV/m              | uV/m        |
| 1435.00         | -                  | -             | -                 | -                 |   |  | -                 | 500.00      |
|                 | 1500.00            | 36.73         | -9.4              | 27.33             | * |  | 23.25             |             |
| 1646.50         | -                  | -             | -                 | -                 |   |  | -                 | 500.00      |
| 1660.00         | -                  | -             | -                 | -                 |   |  | -                 | 500.00      |
|                 | 1680.00            | 31.71         | -9.04             | 22.67             | * |  | 13.59             |             |
| 1710.00         | -                  | -             | -                 | -                 |   |  | -                 | 500.00      |
| 1718.80         | -                  | -             | -                 | -                 |   |  | -                 | 500.00      |
|                 | 1720.00            | 31.46         | -8.64             | 22.82             | * |  | 13.83             |             |
| 1722.20         | -                  | -             | -                 | -                 |   |  | -                 | 500.00      |
| 2200.00         | -                  | -             | -                 | -                 |   |  | -                 | 500.00      |
|                 | 2250.00            | 31.79         | -6.76             | 25.03             | * |  | 17.84             |             |
| 2300.00         | -                  | -             | -                 | -                 |   |  | -                 | 500.00      |
| 2310.00         | -                  | -             | -                 | -                 |   |  | -                 | 500.00      |
|                 | 2360.00            | 30.93         | -6.51             | 24.42             | * |  | 16.63             |             |
| 2390.00         | -                  | -             | -                 | -                 |   |  | -                 | 500.00      |
| 2483.50         | -                  | -             | -                 | -                 |   |  | -                 | 500.00      |
|                 | 2490.00            | 32.19         | -6.11             | 26.08             | * |  | 20.13             |             |
| 2500.00         | -                  | -             | -                 | -                 |   |  | -                 | 500.00      |

No EUT emissions within 10 dB of the specified test limit were observed at the specified test distance throughout the given frequency spectrum.  
 \* This emission is not from the EUT. It is a measurement of minimum measurement system sensitivity (Noise Floor).

Data Sheet 4 of 7



**Retlif Testing Laboratories**

Report No. R-6022N-1

# RETLIF TESTING LABORATORIES

## EMISSIONS TEST DATA SHEET

|                           |  |                      |
|---------------------------|--|----------------------|
| <b>Test Method</b>        | Unwanted Emissions into Restricted Frequency Bands |                      |
| <b>Customer</b>           | Immedia Semiconductor                              |                      |
| <b>Job Number</b>         | R-6022N-1  |                      |
| <b>Test Sample</b>        | Blink Sync Module                                  |                      |
| <b>Model Number</b>       | BSM00200U  |                      |
| <b>Serial Number</b>      | 200-002-2665                                       |                      |
| <b>Test Specification</b> | FCC Part 15 Subpart C                              | Paragraph: 15.247(d) |
| <b>Operating Mode</b>     | Transmitting hopping frequency data                |                      |
| <b>Technician</b>         | M. Seamans   |                      |
| <b>Date</b>               | October 6 <sup>th</sup> , 2015                     |                      |

**Notes:** Antenna Test Distance: 3 meters      Detector: Quasi-Peak <1GHz, Average >1GHz

### TEST PARAMETERS

| Restricted Band | Measured Frequency | Meter Reading | Correction Factor | Corrected Reading |   | Converted Reading | Limit at 3M |
|-----------------|--------------------|---------------|-------------------|-------------------|---|-------------------|-------------|
| MHz             | MHz                | dBuV          | dB                | dBuV/m            |   | uV/m              | uV/m        |
| 2690.00         | -                  | -             | -                 | -                 |   | -                 | 500.00      |
|                 | 2706.00            | 36.42         | -5.4              | 31.02             |   | 35.56             |             |
|                 | 2745.00            | 36.91         | -5.4              | 31.51             |   | 37.62             |             |
|                 | 2781.00            | 37.15         | -5.4              | 31.51             |   | 38.68             |             |
| 2900.00         | -                  | -             | -                 | -                 |   | -                 | 500.00      |
| 3260.00         | -                  | -             | -                 | -                 |   | -                 | 500.00      |
|                 | 3263.00            | 29.93         | -3.4              | 26.53             | * | 21.20             |             |
| 3267.00         | -                  | -             | -                 | -                 |   | -                 | 500.00      |
| 3332.00         | -                  | -             | -                 | -                 |   | -                 | 500.00      |
|                 | 3336.00            | 30.58         | -3.1              | 27.48             | * | 23.65             |             |
| 3339.00         | -                  | -             | -                 | -                 |   | -                 | 500.00      |
| 3345.00         | -                  | -             | -                 | -                 |   | -                 | 500.00      |
|                 | 3350.00            | 30.1          | -3.1              | 27.00             | * | 22.38             |             |
| 3358.00         | -                  | -             | -                 | -                 |   | -                 | 500.00      |
| 3600.00         | -                  | -             | -                 | -                 |   | -                 | 500.00      |
|                 | 3608.00            | 38.19         | -2.4              | 35.79             |   | 61.58             |             |
|                 | 3660.00            | 37.90         | -2.4              | 35.50             |   | 59.56             |             |
|                 | 3708.00            | 37.50         | -2.4              | 35.10             |   | 56.88             |             |

EUT emissions observed throughout the given frequency spectrum were recorded and evaluated. Emission levels closest to the limit are listed on this data sheet. \* This emission is not from the EUT. It is a measurement of minimum measurement system sensitivity (Noise Floor).

Data Sheet 5 of 7



**Retlif Testing Laboratories**

Report No. R-6022N-1

# RETLIF TESTING LABORATORIES

## EMISSIONS TEST DATA SHEET

|                           |  |                      |
|---------------------------|--|----------------------|
| <b>Test Method</b>        | Unwanted Emissions into Restricted Frequency Bands |                      |
| <b>Customer</b>           | Immedia Semiconductor                              |                      |
| <b>Job Number</b>         | R-6022N-1  |                      |
| <b>Test Sample</b>        | Blink Sync Module                                  |                      |
| <b>Model Number</b>       | BSM00200U  |                      |
| <b>Serial Number</b>      | 200-002-2665                                       |                      |
| <b>Test Specification</b> | FCC Part 15 Subpart C                              | Paragraph: 15.247(d) |
| <b>Operating Mode</b>     | Transmitting hopping frequency data                |                      |
| <b>Technician</b>         | M. Seamans   |                      |
| <b>Date</b>               | October 6 <sup>th</sup> , 2015                     |                      |

**Notes:** Antenna Test Distance: 3 meters      Detector: Quasi-Peak <1GHz, Average >1GHz

### TEST PARAMETERS

| Restricted Band<br>MHz | Measured Frequency<br>MHz | Meter Reading<br>dBuV | Correction Factor<br>dB | Corrected Reading<br>dBuV/m |   |  | Converted Reading<br>uV/m | Limit at 3M<br>uV/m |
|------------------------|---------------------------|-----------------------|-------------------------|-----------------------------|---|--|---------------------------|---------------------|
|                        | 3800.00                   | 29.29                 | -0.74                   | 28.55                       | * |  | 26.76                     |                     |
| 4400.00                | -                         | -                     | -                       | -                           |   |  | -                         | 500.00              |
| 4500.00                | -                         | -                     | -                       | -                           |   |  | -                         | 500.00              |
|                        | 4510.00                   | 40.17                 | -1.16                   | 39.01                       |   |  | 89.22                     |                     |
|                        | 4575.00                   | 39.85                 | -1.16                   | 38.69                       |   |  | 86.00                     |                     |
|                        | 4635.00                   | 40.16                 | -0.91                   | 39.25                       |   |  | 91.72                     |                     |
|                        | 4900.00                   | 29.47                 | -0.48                   | 28.99                       | * |  | 28.15                     |                     |
| 5150.00                | -                         | -                     | -                       | -                           |   |  | -                         | 500.00              |
| 5350.00                | -                         | -                     | -                       | -                           |   |  | -                         | 500.00              |
|                        | 5400.00                   | 28.45                 | 0.89                    | 29.34                       | * |  | 29.32                     |                     |
| 5460.00                | -                         | -                     | -                       | -                           |   |  | -                         | 500.00              |
| 7250.00                | -                         | -                     | -                       | -                           |   |  | -                         | 500.00              |
|                        | 7500.00                   | 30.58                 | 2.87                    | 33.45                       | * |  | 47.04                     |                     |
| 7750.00                | -                         | -                     | -                       | -                           |   |  | -                         | 500.00              |
| 8025.00                | -                         | -                     | -                       | -                           |   |  | -                         | 500.00              |
|                        | 8118.00                   | 30.89                 | 3.20                    | 34.09                       | * |  | 50.64                     |                     |
|                        | 8235.00                   | 30.56                 | 3.30                    | 33.86                       | * |  | 49.31                     |                     |
|                        | 8250.00                   | 30.35                 | 3.50                    | 33.90                       | * |  | 49.54                     |                     |
|                        | 8343.00                   | 30.30                 | 3.30                    | 33.60                       | * |  | 47.86                     |                     |
| 8500.00                | -                         | -                     | -                       | -                           |   |  | -                         | 500.00              |

EUT emissions observed throughout the given frequency spectrum were recorded and evaluated. Emission levels closest to the limit are listed on this data sheet. \* This emission is not from the EUT. It is a measurement of minimum measurement system sensitivity (Noise Floor).

Data Sheet 6 of 7

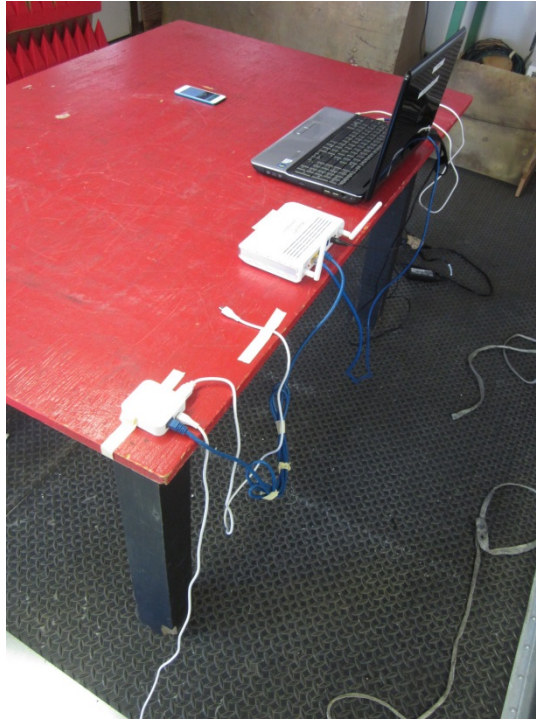


**Retlif Testing Laboratories**

Report No. R-6022N-1



## Test Photographs AC Line Conducted Emissions



Test Configuration



Test Setup



**Retlif Testing Laboratories**

Report No. R-6022N-1

**FCC Section 15.207 (a) / RSS GEN 7.2.4  
AC Line Conducted Emissions  
Test Data**



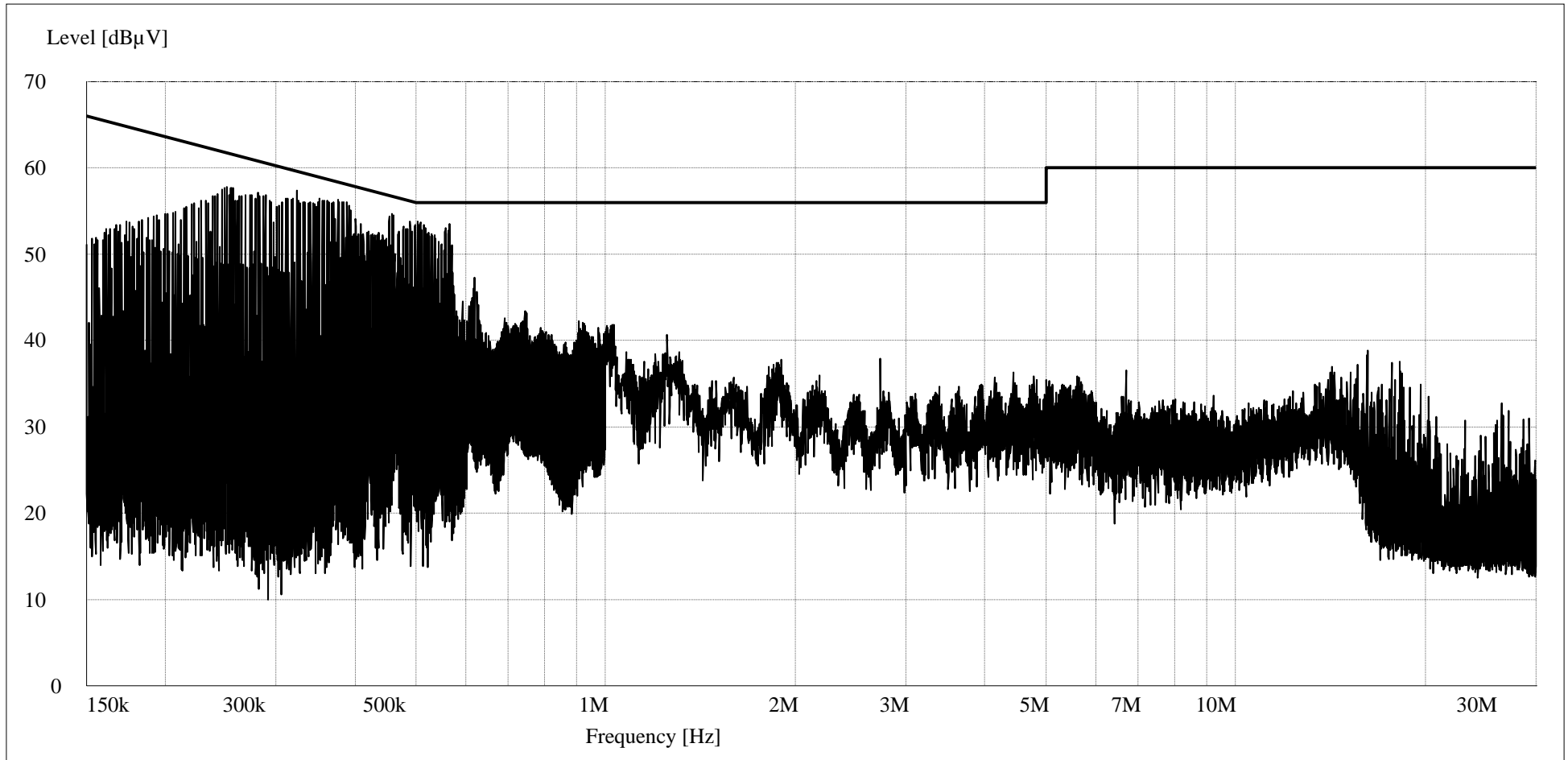
**Retlif Testing Laboratories**

Report No. R-6022N-1



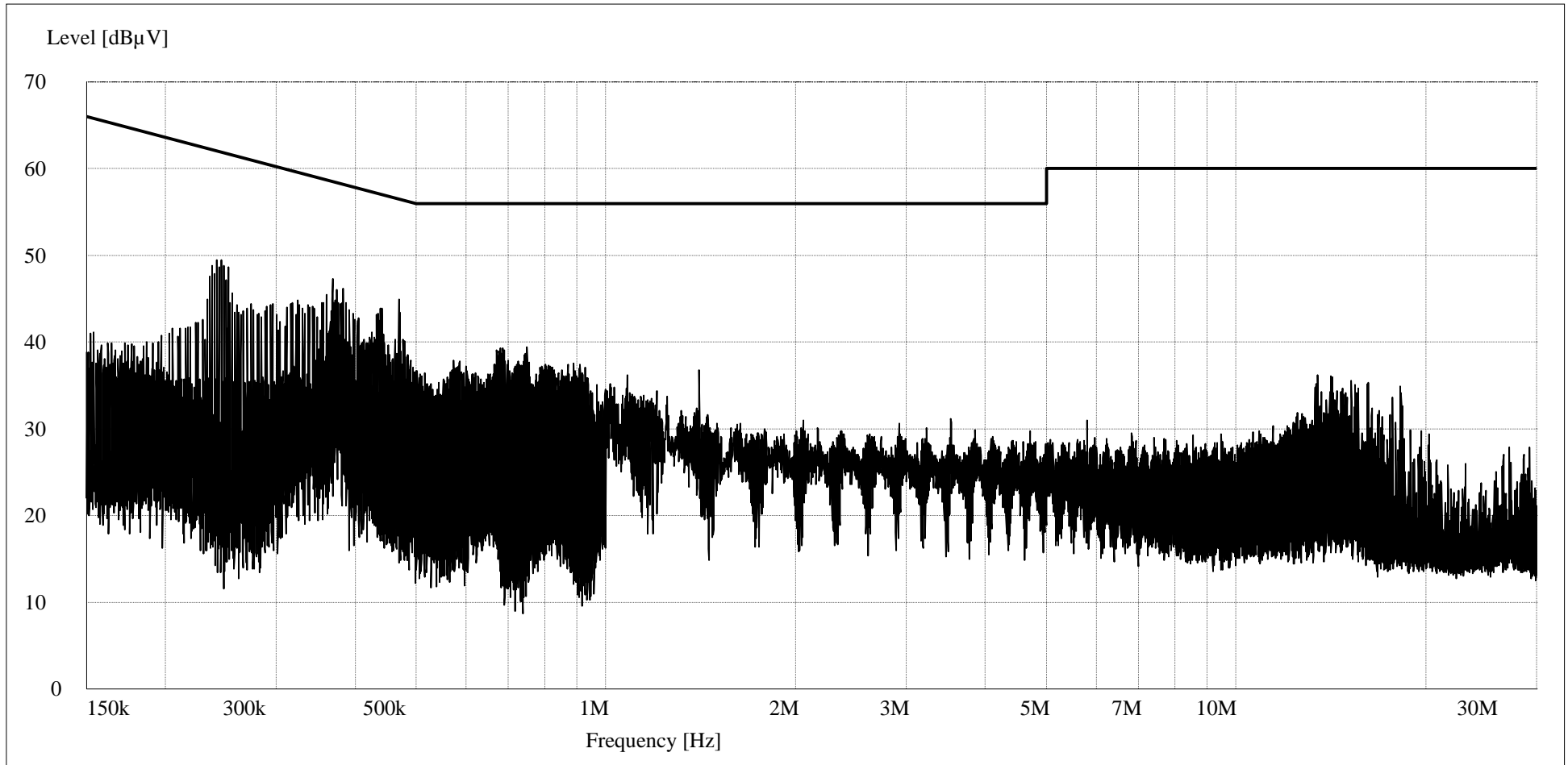
# RETLIF TESTING LABORATORIES

|                            |  |                   |                                |
|----------------------------|--|-------------------|--------------------------------|
| <b>Test Method</b>         | Conducted Emissions 150 kHz to 30 MHz                    |                   |                                |
| <b>Customer</b>            | Immedia Semiconductor                                    | <b>Job No.</b>    | R-6022N-1                      |
| <b>Test Sample</b>         | Blink Sync Module  |                   |                                |
| <b>Model No.</b>           | BSM00200U  | <b>Serial No.</b> | 200-002-2665                   |
| <b>Operating Mode</b>      | Live streaming video to iPod                             |                   |                                |
| <b>Test Specification</b>  | FCC Part 15. 207(a)                                      |                   |                                |
| <b>Technician</b>          | M. Seamans   | <b>Date</b>       | October 6 <sup>th</sup> , 2015 |
| <b>Climatic Conditions</b> | Temp: 21.0 °C    Relative Humidity: 40.0 %               |                   |                                |
| <b>Lead Tested</b>         | 120 VAC 60 Hz Hot    Peak Readings to Quasi-Peak Limits. |                   |                                |



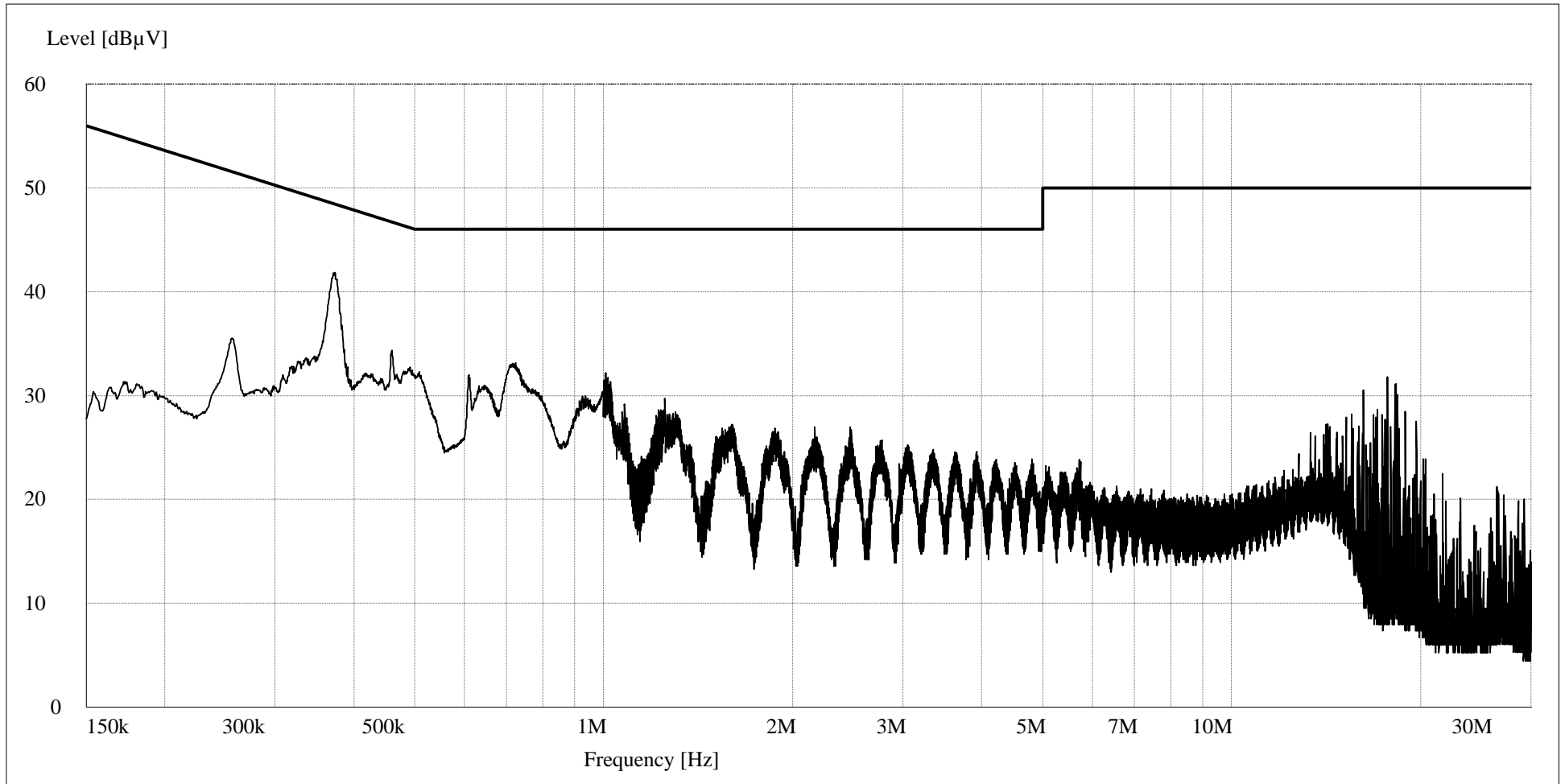
# RETLIF TESTING LABORATORIES

|                            |  |                   |                                |
|----------------------------|--|-------------------|--------------------------------|
| <b>Test Method</b>         | Conducted Emissions 150 kHz to 30 MHz                        |                   |                                |
| <b>Customer</b>            | Immedia Semiconductor  | <b>Job No.</b>    | R-6022N-1                      |
| <b>Test Sample</b>         | Blink Sync Module  |                   |                                |
| <b>Model No.</b>           | BSM00200U  | <b>Serial No.</b> | 200-002-2665                   |
| <b>Operating Mode</b>      | Live streaming video to iPod                                 |                   |                                |
| <b>Test Specification</b>  | FCC Part 15. 207(a)  |                   |                                |
| <b>Technician</b>          | M. Seamans   | <b>Date</b>       | October 6 <sup>th</sup> , 2015 |
| <b>Climatic Conditions</b> | Temp: 21.0 °C    Relative Humidity: 40.0 %                   |                   |                                |
| <b>Lead Tested</b>         | 120 VAC 60 Hz Neutral    Peak Readings to Quasi-Peak Limits. |                   |                                |



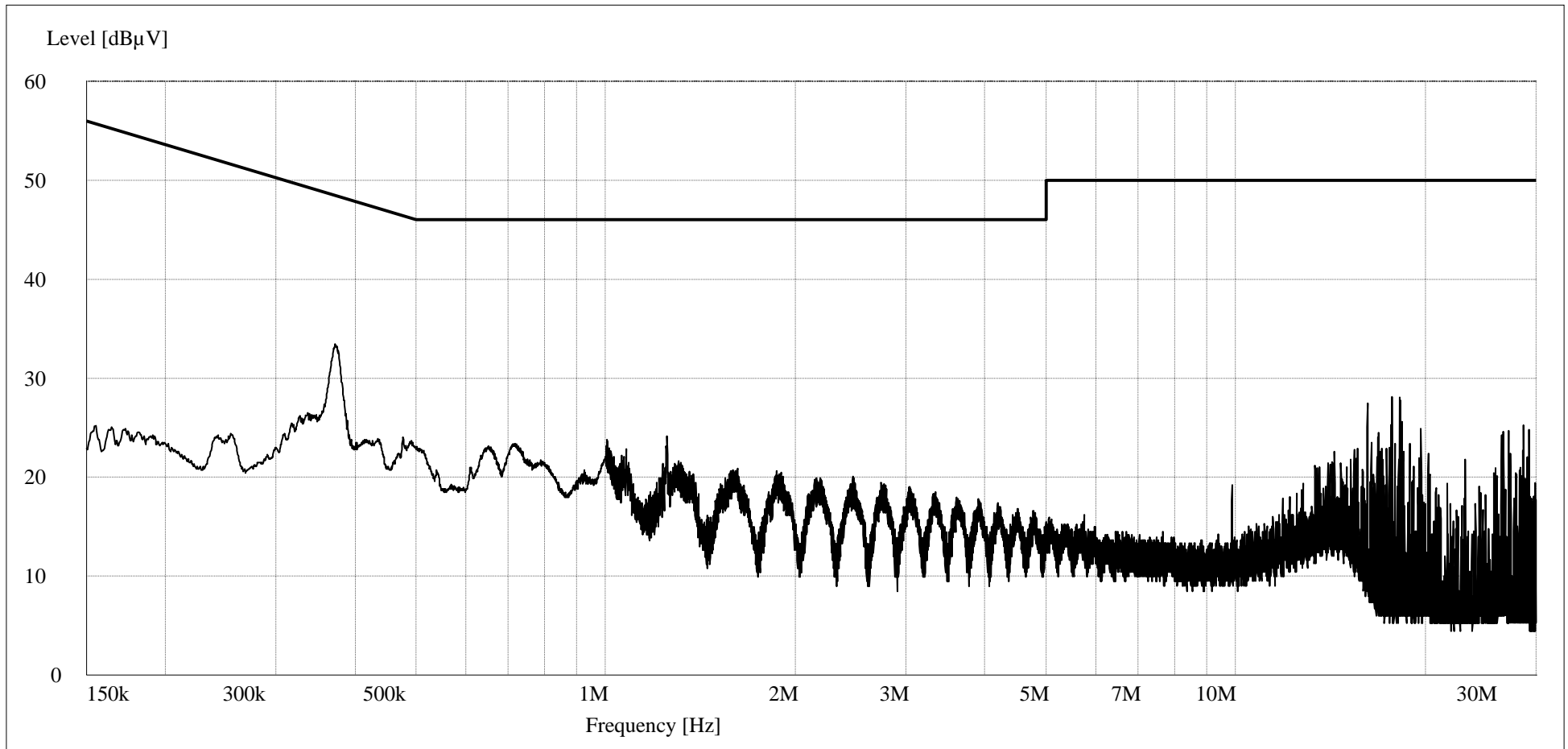
# RETLIF TESTING LABORATORIES

|                            |  |                   |                                |
|----------------------------|--|-------------------|--------------------------------|
| <b>Test Method</b>         | Conducted Emissions 150 kHz to 30 MHz                    |                   |                                |
| <b>Customer</b>            | Immedia Semiconductor                                    | <b>Job No.</b>    | R-6022N-1                      |
| <b>Test Sample</b>         | Blink Sync Module  |                   |                                |
| <b>Model No.</b>           | BSM00200U  | <b>Serial No.</b> | 200-002-2665                   |
| <b>Operating Mode</b>      | Live streaming video to iPod                             |                   |                                |
| <b>Test Specification</b>  | FCC Part 15. 207(a)                                      |                   |                                |
| <b>Technician</b>          | M. Seamans   | <b>Date</b>       | October 6 <sup>th</sup> , 2015 |
| <b>Climatic Conditions</b> | Temp: 21.0 °C    Relative Humidity: 40.0 %               |                   |                                |
| <b>Lead Tested</b>         | 120 VAC 60 Hz Hot    Average Readings to Average Limits. |                   |                                |



# RETLIF TESTING LABORATORIES

|                            |  |                   |                                |
|----------------------------|--|-------------------|--------------------------------|
| <b>Test Method</b>         | Conducted Emissions 150 kHz to 30 MHz                        |                   |                                |
| <b>Customer</b>            | Immedia Semiconductor  | <b>Job No.</b>    | R-6022N-1                      |
| <b>Test Sample</b>         | Blink Sync Module  |                   |                                |
| <b>Model No.</b>           | BSM00200U  | <b>Serial No.</b> | 200-002-2665                   |
| <b>Operating Mode</b>      | Live streaming video to iPod                                 |                   |                                |
| <b>Test Specification</b>  | FCC Part 15. 207(a)  |                   |                                |
| <b>Technician</b>          | M. Seamans   | <b>Date</b>       | October 6 <sup>th</sup> , 2015 |
| <b>Climatic Conditions</b> | Temp: 21.0 °C    Relative Humidity: 40.0 %                   |                   |                                |
| <b>Lead Tested</b>         | 120 VAC 60 Hz Neutral    Average Readings to Average Limits. |                   |                                |



**Test Photographs**  
**Receiver Spurious Emissions**



EUT Configuration



**Retlif Testing Laboratories**

Report No. R-6022N-1

## Test Photographs Receiver Spurious Emissions



Horizontal Antenna Polarization, 25 MHz to 1 GHz



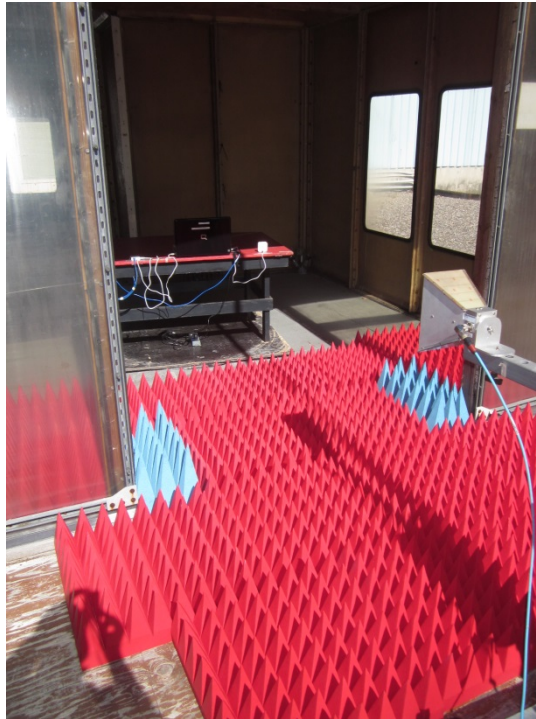
Vertical Antenna Polarization, 25 MHz to 1 GHz



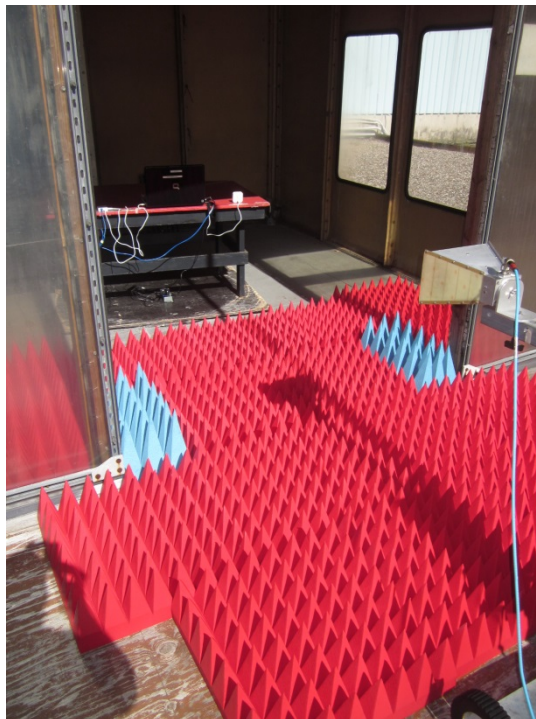
**Retlif Testing Laboratories**

Report No. R-6022N-1

**Test Photographs**  
**Receiver Spurious Emissions**



Horizontal Antenna Polarization, 1 GHz to 10 GHz



Vertical Antenna Polarization, 1 GHz to 10 GHz



**Retlif Testing Laboratories**

Report No. R-6022N-1

**RSS GEN 6.5  
Receiver Spurious Emissions  
Test Data**



**Retlif Testing Laboratories**

Report No. R-6022N-1



# RETLIF TESTING LABORATORIES

## EMISSIONS TEST DATA SHEET

|                           |   |                |
|---------------------------|---|----------------|
| <b>Test Method</b>        | <b>Receiver Spurious Emissions 25 MHz to 10 GHz</b> |                |
| <b>Customer</b>           | Immedia Semiconductor                               |                |
| <b>Job Number</b>         | R-6022N-1   |                |
| <b>Test Sample</b>        | Blink Sync Module                                   |                |
| <b>Model Number</b>       | BSM00200U   |                |
| <b>Serial Number</b>      | 200-002-2665  |                |
| <b>Test Specification</b> | RSS-GEN   | Paragraph: 6.1 |
| <b>Operating Mode</b>     | Live streaming video to iPod                        |                |
| <b>Technician</b>         | M. Seamans  |                |
| <b>Date</b>               | October 6 <sup>th</sup> , 2015                      |                |

**Notes:** Test Antenna Distance: 3 meters      Detector: Quasi-Peak <1GHz, Average >1GHz

### TEST PARAMETERS

| Test Frequency | Measured Frequency | Meter Reading | Correction Factor | Corrected Reading |   | Converted Reading | Limit at 3M |
|----------------|--------------------|---------------|-------------------|-------------------|---|-------------------|-------------|
| MHz            | MHz                | dBuV          | dB                | dBuV/m            |   | uV/m              | uV/m        |
| 30.00          | -                  | -             | -                 | -                 |   | -                 | 100.00      |
|                | 38.00              | 21.99         | 14.20             | 36.19             | * | 64.49             | I           |
|                | 74.00              | 17.88         | 8.36              | 26.24             | * | 20.51             |             |
| 88.00          | -                  | -             | -                 | -                 |   | -                 | 100.00      |
| 88.00          | -                  | -             | -                 | -                 |   | -                 | 150.00      |
|                | 111.60             | 18.65         | 10.02             | 28.67             |   | 27.13             | I           |
|                | 114.20             | 24.29         | 9.86              | 34.15             |   | 50.99             |             |
|                | 123.30             | 13.29         | 9.44              | 22.73             |   | 13.69             |             |
|                | 125.60             | 19.34         | 9.40              | 28.74             |   | 27.35             |             |
| 216.00         | -                  | -             | -                 | -                 |   | -                 | 150.00      |
| 216.00         | -                  | -             | -                 | -                 |   | -                 | 200.00      |
|                | 266.70             | 15.35         | 16.85             | 32.20             |   | 40.74             |             |
|                | 330.00             | 3.41          | 18.91             | 22.32             | * | 13.06             |             |
|                | 611.00             | 0.54          | 27.34             | 27.88             | * | 24.77             |             |
| 960.00         | -                  | -             | -                 | -                 |   | -                 | 200.00      |
| 960.00         | -                  | -             | -                 | -                 |   | -                 | 500.00      |
|                | 2706.00            | 36.42         | -5.4              | 31.02             |   | 35.56             |             |
|                | 8118.00            | 30.89         | 3.20              | 34.09             | * | 50.64             | I           |
| 10000.00       | -                  | -             | -                 | -                 |   | -                 | 500.00      |
|                |                    |               |                   |                   |   |                   |             |
|                |                    |               |                   |                   |   |                   |             |

EUT emissions observed throughout the given frequency spectrum were recorded and evaluated. Emission levels closest to the limit are listed on this data sheet. \* This emission is not from the EUT. It is a measurement of minimum measurement system sensitivity (Noise Floor).

Data Sheet 1 of 1



**Retlif Testing Laboratories**

Report No. R-6022N-1