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FCC Part 15, Subpart C, Section 15.247
Test Report

On

Blink Sync Module 2
FCC ID: 2AF77-H2121520

Customer Name:	Immedia Semiconductor, LLC
Customer P.O:	2D-05430728
Date of Report:	July 9, 2021
Test Report No:	R-6601H-1
Test Start Date:	June 14, 2021
Test Finish Date:	June 17, 2021
Test Engineer:	T. Hannemann
Test Technician:	M. Seamans
Approved By:	S. Wentworth
Report Prepared By:	P. Harris

Corporate Headquarters:
795 Marconi Avenue
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Washington Regulatory Compliance
1600 North Oak Street, #1710
Arlington, VA 22209 USA
Tel: (703) 528-3895

Technical Information

Report Number:	R-6601H-1
Customer:	Immedia Semiconductor, LLC
Address:	100 Riverpark Drive
	North Reading, MA 01864
Manufacturer:	Immedia Semiconductor, LLC
Manufacturer Address:	100 Riverpark Drive
	North Reading, MA 01864
Test Sample:	Blink Sync Module 2
Model Number:	BSM00400U
Serial Number:	G8T1-V700-1173-00DH (Conducted Testing) G8T1-V700-1173-008C (Radiated Testing)
FCC ID:	2AF77-H2121520
Type:	Frequency Hopping Spread Spectrum Transmitter
Power Requirements:	5 VDC via External 120 VAC power adapter
Frequency of Operation:	902.4 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

Test Specification:
FCC Rules and Regulations Part 15, Subpart C, Section 15.247

Test Procedure:
ANSI C63.4:2014
ANSI C63.10:2013
FCC 558074 D01 15.247 Meas Guidance v05r02, April 2, 2019

Test Facility:
Retlif Testing Laboratories
101 New Boston Road
Goffstown, NH 03045
FCC Designation Number: US5327

Tests Performed

FCC Part 15, Subpart C	Test Method
15.247(a)(1)	Channel Separation
15.247(a)(1)	20 dB Bandwidth
15.247(a)(1)(i)	Number of Channels and Occupancy Time
15.247(b)(2) and (4)	Peak Conducted Output Power
15.247(d)	Spurious Emissions, 30 MHz to 10 GHz
15.247(d)	Field Strength of Spurious Emissions
Section 15.207 (a)	Conducted Emissions

EUT Operation:
The EUT (Sync Module) is part of the Blink Home Security Camera System. It connects to internet based Blink Servers through its users Wi-Fi access point and relays command and control information from the user to Blink Camera Modules over a FHSS bi-directional proprietary radio protocol in the 902 to 928 MHz Band. The expected location of the device is inside a residence within range of its user's Blink Camera Module and Wi-Fi access point.

Table 1 – Support Equipment

Description	Manufacturer	Model Number	Serial Number
Laptop PC	HP	Probook 450 G5	5C08390CBN
USB Memory Stick	N/A	N/A	N/A

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.

Scott Wentworth
Branch Manager

Todd Hannemann
EMC Test Engineer
iNARTE Certified Technician ATL-0255-T

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 report must not be used by the client to claim product endorsement by ANSI National Accreditation Board (ANAB).

Revision History

Revisions to this document are listed below; the latest revised document supersedes all previous issues of this document:

Revision	Date	Pages Affected
-	July 9, 2021	Original Release

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.

- **Results**:
  The carrier frequencies were separated by 397.89 kHz which exceeded the maximum 20 dB bandwidth of 114.228 kHz which complies with the requirements specified above.

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.

- **Results:**
  The number of hopping frequencies used was 64 and the average time of occupancy was 388.777 msec which complied with the above requirements.

Requirements and Test Results (con't)

FCC Section 15.247 (b)(2) and (4)
Peak Conducted Output Power

(1) For frequency hopping systems operating in the 902-928 MHz band employing at least 50 non-overlapping hopping channels: 1 watt. For systems employing less than 50 hopping channels, but at least 25 hopping channels: 0.25 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.

- **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 11.38 milliwatts and the EIRP is less than 1W.

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)).

- **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).

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 2.

Table 2 - 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 2.

Field Strength Calculation/Conversion:

The maximized field strength of the emission was obtained as follows:

$C_R = M_R + C_F$

Where:
C_R = Corrected Reading in dBµV/m
M_R = Uncorrected Meter Reading in dBµV
C_F = Correction Factor in dB (Antenna Factor, Pre-amp + Cable Loss)

Example:

M_R = 15.35 dBµV
C_F = 16.85 dB
C_R = 15.35 dBuV + 16.85 = 32.2 dBµV/m

dBµV/M is converted to uV/M for comparison to the specified limit using the formula:

invLog dBµV/M/20

32.2 dBuV/m = 40.74 uV/m

RF Power Conversion:

Power readings in dBm may be converted to mW using the formula:

InvLog dBm/10

Example: 20dBm = 100mW

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 access 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.

$$S = \frac{PG}{4 \prod Dsq}$$

D = Minimum Separation Distance in cm

S = Max allowed Power Density in mW/cmsq

Per 1.1310 For the Frequency of 915 MHz S = 0.6 mW/cmsq

Power = Max Power Input to Antenna = 11.38mW

Gain = Max Power Gain of Antenna = -1.5 dBi = 0.71 numeric

$$0.61 \text{ mW/cmsq} = \frac{11.38 \times 0.71}{4 \times (3.14) \times D^2} = \frac{8.08}{12.56 \times D^2}$$

$$D^2 = \frac{8.08}{12.56 \times 0.61}$$

$$D = \sqrt{0.39} = 0.63 \text{ cm}$$

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

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 3, as measured using a 50 µH/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.

Table 3 - Conducted Emission Limits

Frequency of Emission (MHz)	**Conducted Limit (dBµV)**	
	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 3.

Equipment List

FCC Section 15.247(a)(1)
Channel Separation

EN	Manufacturer	Description	Range	Model No.	Cal Date	Due Date
5229	FLORIDA RS TECHNOLOGY	CABLE, COAXIAL	DC - 40 GHz	FLRST-2.92 (102ö)	2/24/2021	8/31/2021
7044	OMEGA	HYGROMETER	-20 to 70 deg. C, 0 to 99% RH	OM-73	8/21/2020	8/31/2021
896	ROHDE & SCHWARZ	RECEIVER, EMI	20 Hz - 40 GHz	ESIB40	1/29/2021	1/31/2022

FCC Section 15.247(a)(1)
20 dB Bandwidth

EN	Manufacturer	Description	Range	Model No.	Cal Date	Due Date
5229	FLORIDA RS TECHNOLOGY	CABLE, COAXIAL	DC - 40 GHz	FLRST-2.92 (102ö)	2/24/2021	8/31/2021
7044	OMEGA	HYGROMETER	-20 to 70 deg. C, 0 to 99% RH	OM-73	8/21/2020	8/31/2021
896	ROHDE & SCHWARZ	RECEIVER, EMI	20 Hz - 40 GHz	ESIB40	1/29/2021	1/31/2022

FCC Section 15.247 (a)(1) (iii)
Number of Channels and Occupancy Time

EN	Manufacturer	Description	Range	Model No.	Cal Date	Due Date
5229	FLORIDA RS TECHNOLOGY	CABLE, COAXIAL	DC - 40 GHz	FLRST-2.92 (102ö)	2/24/2021	8/31/2021
7044	OMEGA	HYGROMETER	-20 to 70 deg. C, 0 to 99% RH	OM-73	8/21/2020	8/31/2021
896	ROHDE & SCHWARZ	RECEIVER, EMI	20 Hz - 40 GHz	ESIB40	1/29/2021	1/31/2022

FCC Section 15.247 (a)(1)
Peak Conducted Output Power

EN	Manufacturer	Description	Range	Model No.	Cal Date	Due Date
5229	FLORIDA RS TECHNOLOGY	CABLE, COAXIAL	DC - 40 GHz	FLRST-2.92 (102ö)	2/24/2021	8/31/2021
7044	OMEGA	HYGROMETER	-20 to 70 deg. C, 0 to 99% RH	OM-73	8/21/2020	8/31/2021
896	ROHDE & SCHWARZ	RECEIVER, EMI	20 Hz - 40 GHz	ESIB40	1/29/2021	1/31/2022

FCC Section 15.247 (d)
Conducted Spurious Emissions, 30 MHz to 10 GHz

EN	Manufacturer	Description	Range	Model No.	Cal Date	Due Date
5229	FLORIDA RS TECHNOLOGY	CABLE, COAXIAL	DC - 40 GHz	FLRST-2.92 (102ö)	2/24/2021	8/31/2021
7044	OMEGA	HYGROMETER	-20 to 70 deg. C, 0 to 99% RH	OM-73	8/21/2020	8/31/2021
896	ROHDE & SCHWARZ	RECEIVER, EMI	20 Hz - 40 GHz	ESIB40	1/29/2021	1/31/2022

FCC Section 15.247 (a) / 15.209(a)
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	2/12/2021	2/28/2022
3427B	ETS / EMCO	ANTENNA, BICONICAL	20 - 200 MHz	3104	10/27/2020	4/30/2022
4029B	RETLIF	OPEN AREA TEST SITE, ATTENUATION	3 / 10 Meters	RNH	9/30/2019	9/30/2021
443	ELECTRO-METRICS	ANTENNA, LOG PERIODIC	200 MHz - 1000 MHz	LPA-25	12/13/2019	6/30/2021
5188	Cybertron	COMPUTER, CONTROL	N/A	TSVQJA2221	No Calibration Required	
5195	ETS / EMCO	ANTENNA, DOUBLE RIDGED GUIDE	1 - 18 GHz	3117	7/15/2020	1/31/2022
5229	FLORIDA RS TECHNOLOGY	CABLE, COAXIAL	DC - 40 GHz	FLRST-2.92 (102ö)	2/24/2021	8/31/2021
5242	TELEDYNE MICROWAVE	CABLE, COAXIAL	10 kHz - 6 GHz	PR90-195-1275, 106'	9/21/2020	9/30/2021
5259	DYNAWAVE	CABLE, COAXIAL	DC - 40 GHz	DT-NS-072	12/16/2020	12/31/2021
896	ROHDE & SCHWARZ	RECEIVER, EMI	20 Hz - 40 GHz	ESIB40	1/29/2021	1/31/2022

FCC Section 15.207(a)
Conducted Emissions

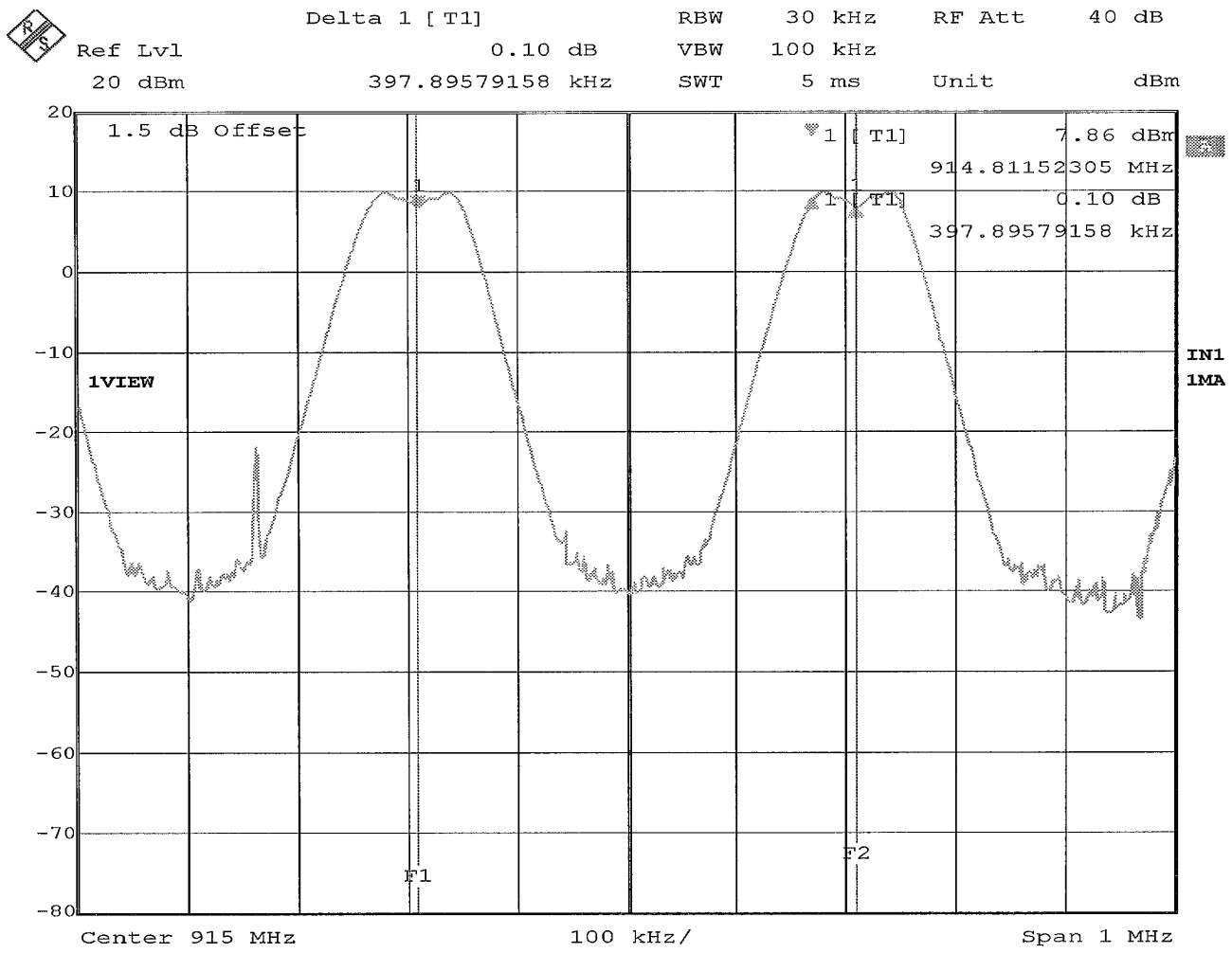
EN	Manufacturer	Description	Range	Model No.	Cal Date	Due Date
5133	NARDA MICROWAVE	ATTENUATOR, COAXIAL	10 dB, DC - 12.4 GHz, 2 W	757C-10	12/8/2020	12/31/2021
5188	Cybertron	COMPUTER, CONTROL	N/A	TSVQJA2221	No Calibration Required	
5209	SOLAR ELECTRONICS	LISN	50 uH, 150 kHz - 30	21106-50-BP-25-BNC	4/28/2021	4/30/2022
5210	SOLAR ELECTRONICS	LISN	50 uH, 150 kHz - 30	21106-50-BP-25-BNC	4/28/2021	4/30/2022
5218	COM-POWER	GENERATOR, COMB	100 kHz - 400 MHz	CGC-510E	8/24/2020	8/31/2021
7044	OMEGA	HYGROMETER	-20 to 70 deg. C, 0 to 99% RH	OM-73	8/21/2020	8/31/2021
896	ROHDE & SCHWARZ	RECEIVER, EMI	20 Hz - 40 GHz	ESIB40	1/29/2021	1/31/2022

Test Photographs
Channel Separation

Test Setup

FCC Section 15.247(a)(1)
Channel Separation
Test Data

EMISSIONS TEST DATA SHEET	
Method:	**Channel Separation**
Test Specification:	FCC Part 15, Subpart C Paragraph: 15.247 (a)(1)
Job Number:	R-6601H-1
Customer:	Immedia Semiconductor, LLC.
Test Sample:	Blink Sync Module 2
Model Number:	BSM00400U
Serial Number:	G8T1-V700-1173-00DH
Operating Mode:	Transmitting modulated signal
Technician:	M. Seamans
Date(s):	June 16th, 2021
Temp/ Relative Humidity:	22.3 °C / 51.8 %
Result:	Channel Separation: 397.895 kHz

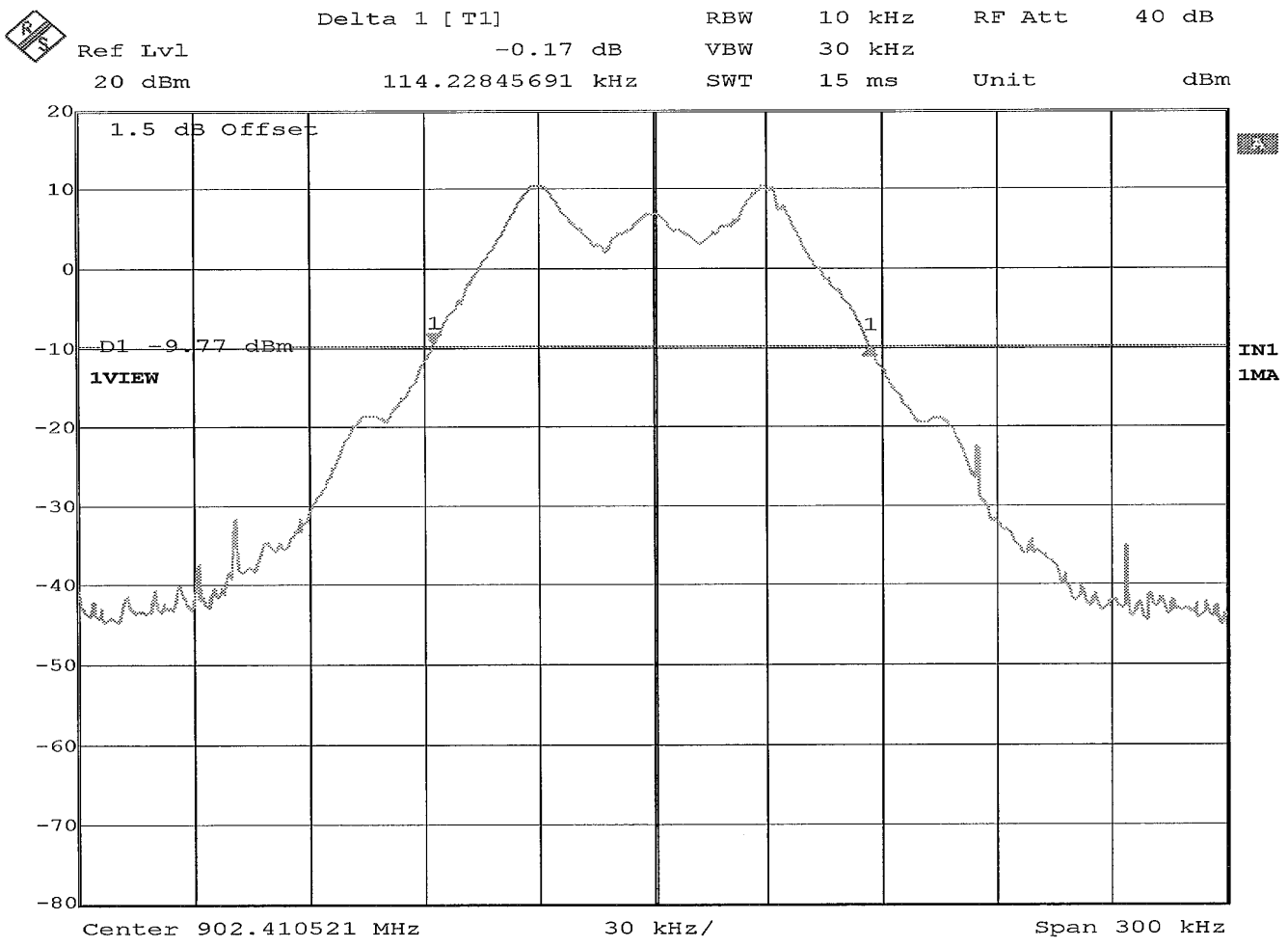


Test Photographs
20 dB Bandwidth

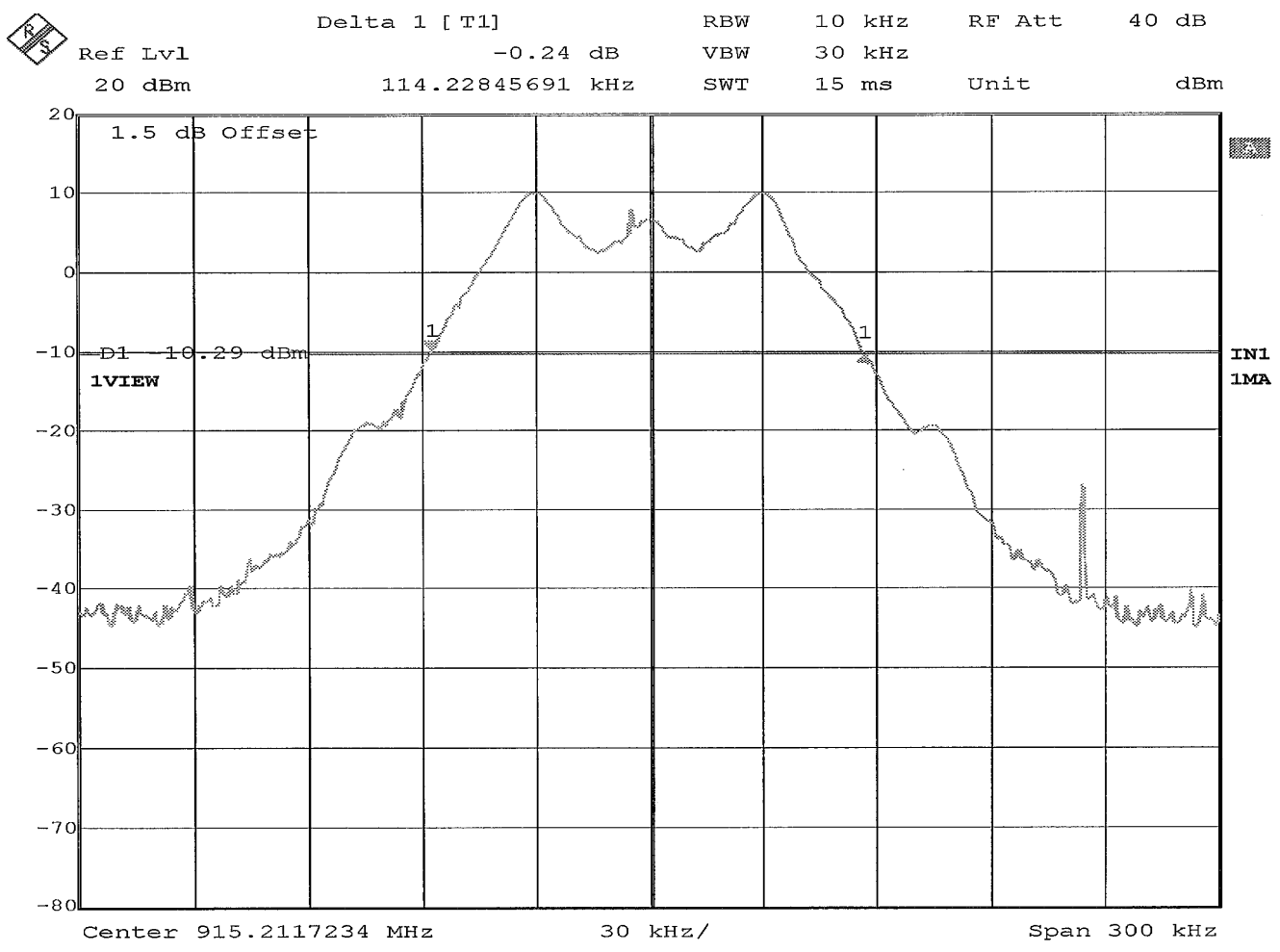
Test Setup

FCC Section 15.247(a)(1)
20 dB Bandwidth
Test Data

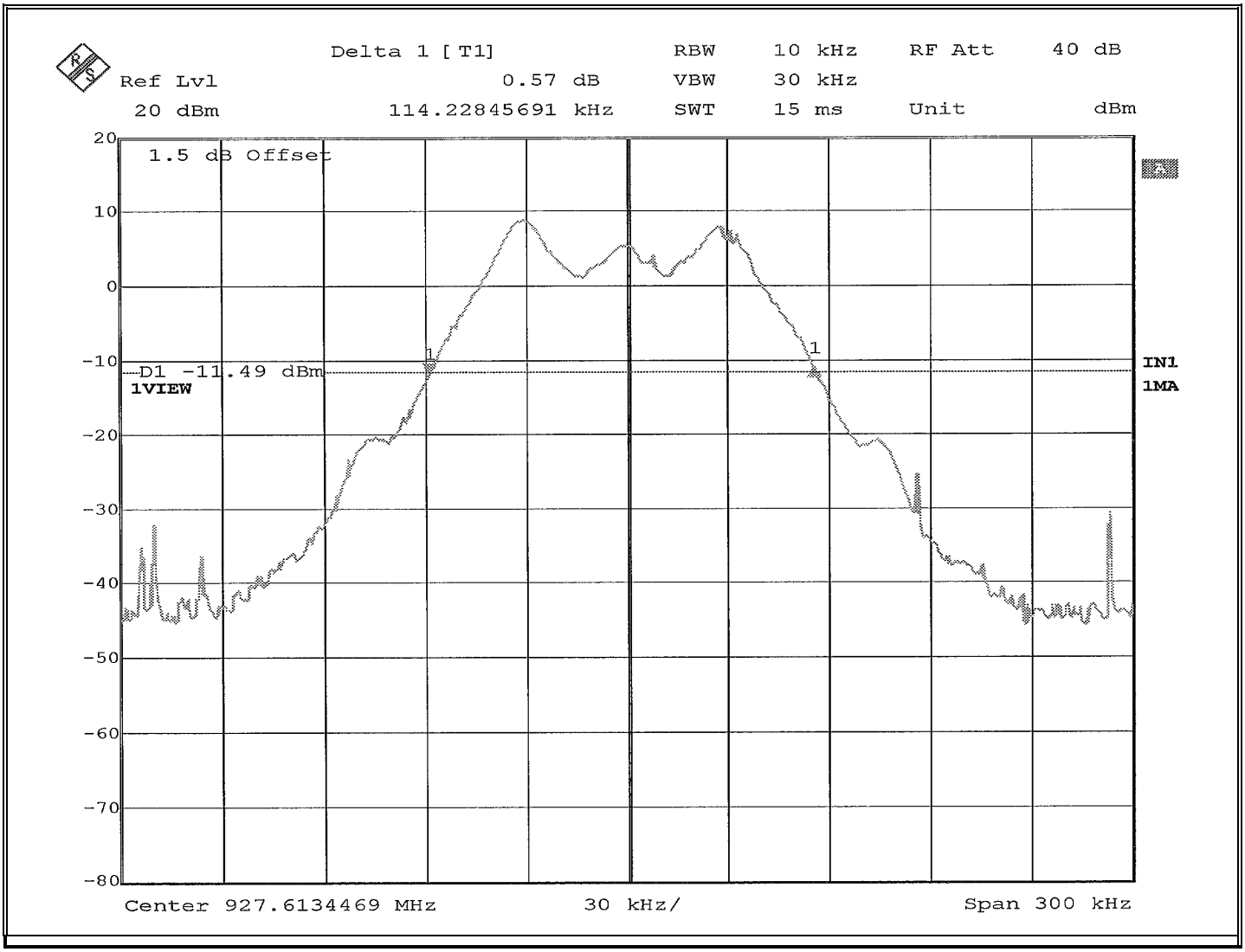
EMISSIONS TEST DATA SHEET	
Method:	**Occupied Bandwidth**
Test Specification:	FCC Part 15, Subpart C Paragraph: 15.247 (a)(i)
Job Number:	R-6601H-1
Customer:	Immedia Semiconductor, LLC.
Test Sample:	Blink Sync Module 2
Model Number:	BSM00400U
Serial Number:	G8T1-V700-1173-00DH
Operating Mode:	Transmitting modulated signal
Technician:	M. Seamans
Date(s):	June 16th, 2021
Temp/ Relative Humidity:	21.5 °C / 52.8 %
Result:	20dB Bandwidth: 114.228 kHz



EMISSIONS TEST DATA SHEET	
Method:	**Occupied Bandwidth**
Test Specification:	FCC Part 15, Subpart C Paragraph: 15.247 (a)(i)
Job Number:	R-6601H-1
Customer:	Immedia Semiconductor, LLC.
Test Sample:	Blink Sync Module 2
Model Number:	BSM00400U
Serial Number:	G8T1-V700-1173-00DH
Operating Mode:	Transmitting modulated signal
Technician:	M. Seamans
Date(s):	June 16th, 2021
Temp/ Relative Humidity:	21.5 °C / 52.8 %
Result:	20dB Bandwidth: 114.228 kHz



EMISSIONS TEST DATA SHEET	
Method:	**Occupied Bandwidth**
Test Specification:	FCC Part 15, Subpart C Paragraph: 15.247 (a)(i)
Job Number:	R-6601H-1
Customer:	Immedia Semiconductor, LLC.
Test Sample:	Blink Sync Module 2
Model Number:	BSM00400U
Serial Number:	G8T1-V700-1173-00DH
Operating Mode:	Transmitting modulated signal
Technician:	M. Seamans
Date(s):	June 16th, 2021
Temp/ Relative Humidity:	21.5 °C / 52.8 %
Result:	20dB Bandwidth: 114.228 kHz

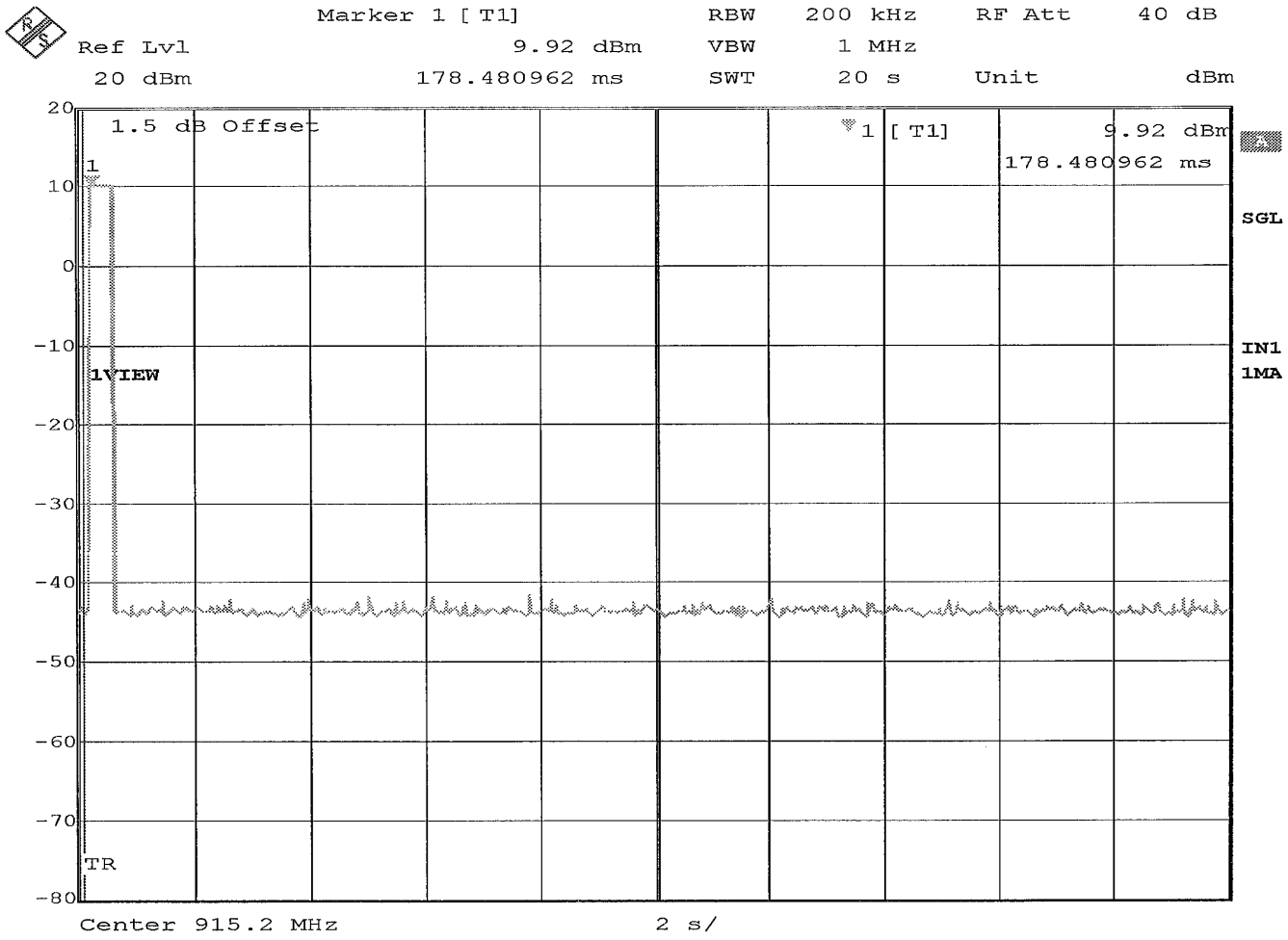


Test Photographs
Number of Channels and Occupancy Time

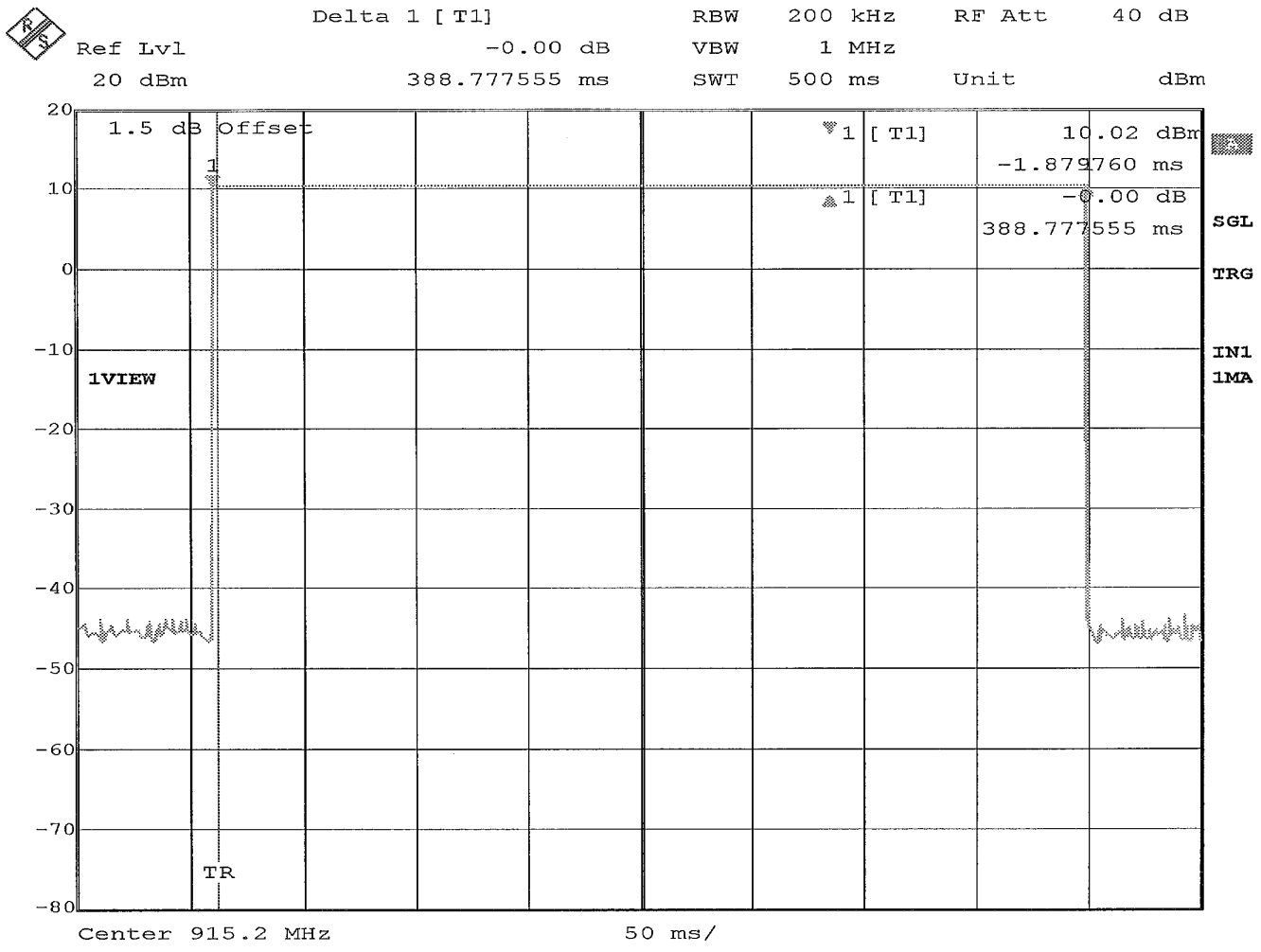
Test Setup

FCC Section 15.247 (a)(1)(i)
Number of Channels and Occupancy Time
Test Data

EMISSIONS TEST DATA SHEET	
Method:	**Time of Occupancy**
Test Specification:	FCC Part 15, Subpart C Paragraph: 15.247 (a)(iii)
Job Number:	R-6601H-1
Customer:	Immedia Semiconductor, LLC.
Test Sample:	Blink Sync Module 2
Model Number:	BSM00400U
Serial Number:	G8T1-V700-1173-00DH
Operating Mode:	Transmitting modulated signal
Technician:	M. Seamans
Date(s):	June 16th, 2021
Temp/ Relative Humidity:	21.8 °C / 52.5 %
Result:	1 pulse in 20 second window



EMISSIONS TEST DATA SHEET	
Method:	**Time of Occupancy**
Test Specification:	FCC Part 15, Subpart C Paragraph: 15.247 (a)(iii)
Job Number:	R-6601H-1
Customer:	Immedia Semiconductor, LLC.
Test Sample:	Blink Sync Module 2
Model Number:	BSM00400U
Serial Number:	G8T1-V700-1173-00DH
Operating Mode:	Transmitting modulated signal
Technician:	M. Seamans
Date(s):	June 16th, 2021
Temp/ Relative Humidity:	21.8 °C / 52.5 %
Result:	Time of Occupancy: 388.777ms (1 pulse in 20 second window)

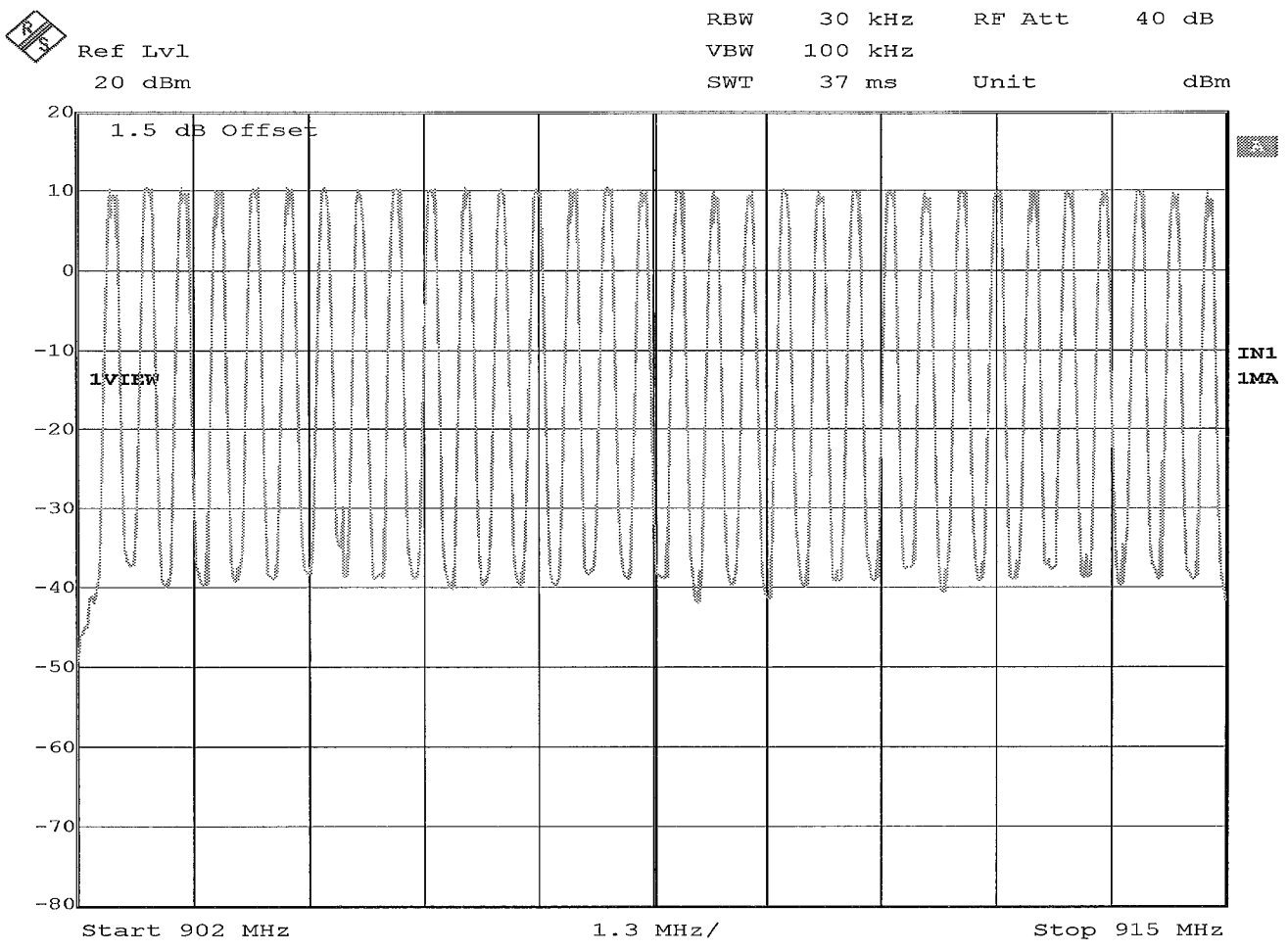


Test Photographs
Number of Hopping Frequencies

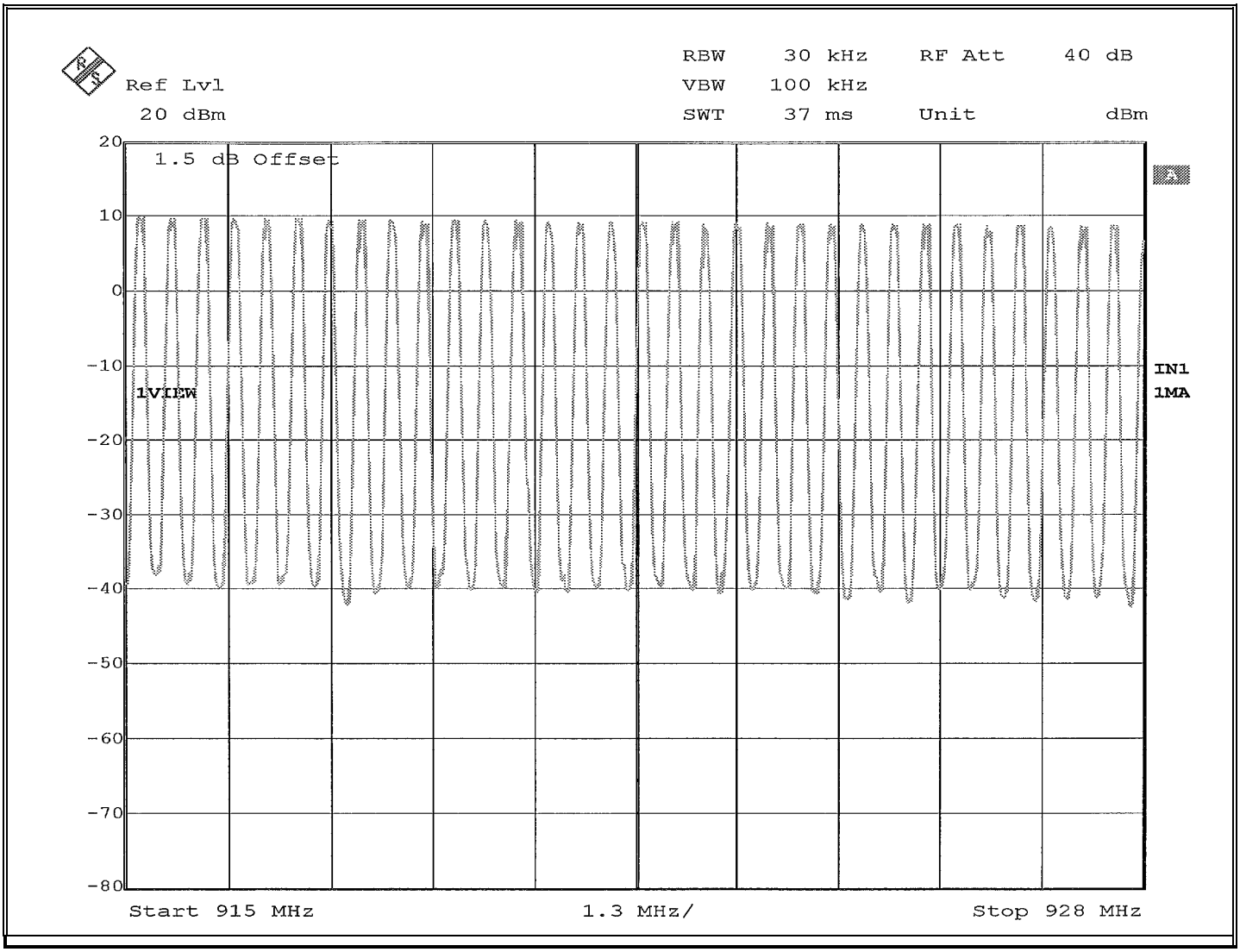
Test Setup

Number of Hopping Frequencies
Test Data

EMISSIONS TEST DATA SHEET	
Method:	**Number of Hopping Channels**
Test Specification:	FCC Part 15, Subpart C Paragraph: 15.247 (a)(iii)
Job Number:	R-66601H-1
Customer:	Immedia Semiconductor, LLC.
Test Sample:	Blink Sync Module 2
Model Number:	BSM00400U
Serial Number:	G8T1-V700-1173-00DH
Operating Mode:	Transmitting modulated signal
Technician:	M. Seamans
Date(s):	June 16th, 2021
Temp/ Relative Humidity:	22.3 °C / 51.6 %
Result:	Number of Hopping Channels: 64



EMISSIONS TEST DATA SHEET	
Method:	**Number of Hopping Channels**
Test Specification:	FCC Part 15, Subpart C Paragraph: 15.247 (a)(iii)
Job Number:	R-66601H-1
Customer:	Immedia Semiconductor, LLC.
Test Sample:	Blink Sync Module 2
Model Number:	BSM00400U
Serial Number:	G8T1-V700-1173-00DH
Operating Mode:	Transmitting modulated signal
Technician:	M. Seamans
Date(s):	June 16th, 2021
Temp/ Relative Humidity:	22.3 °C / 51.6 %
Result:	Number of Hopping Channels: 64

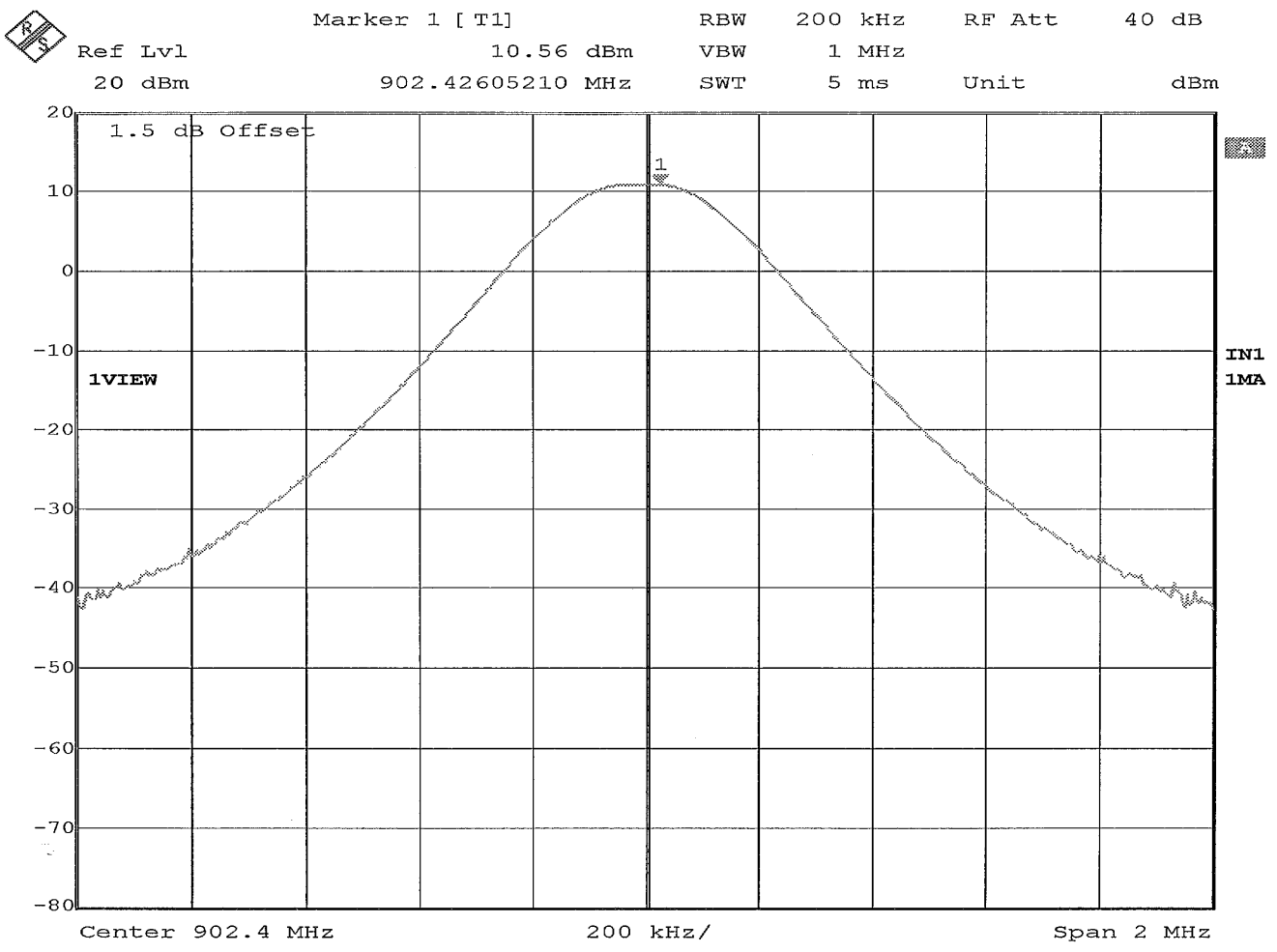


Test Photographs
Peak Conducted Output Power

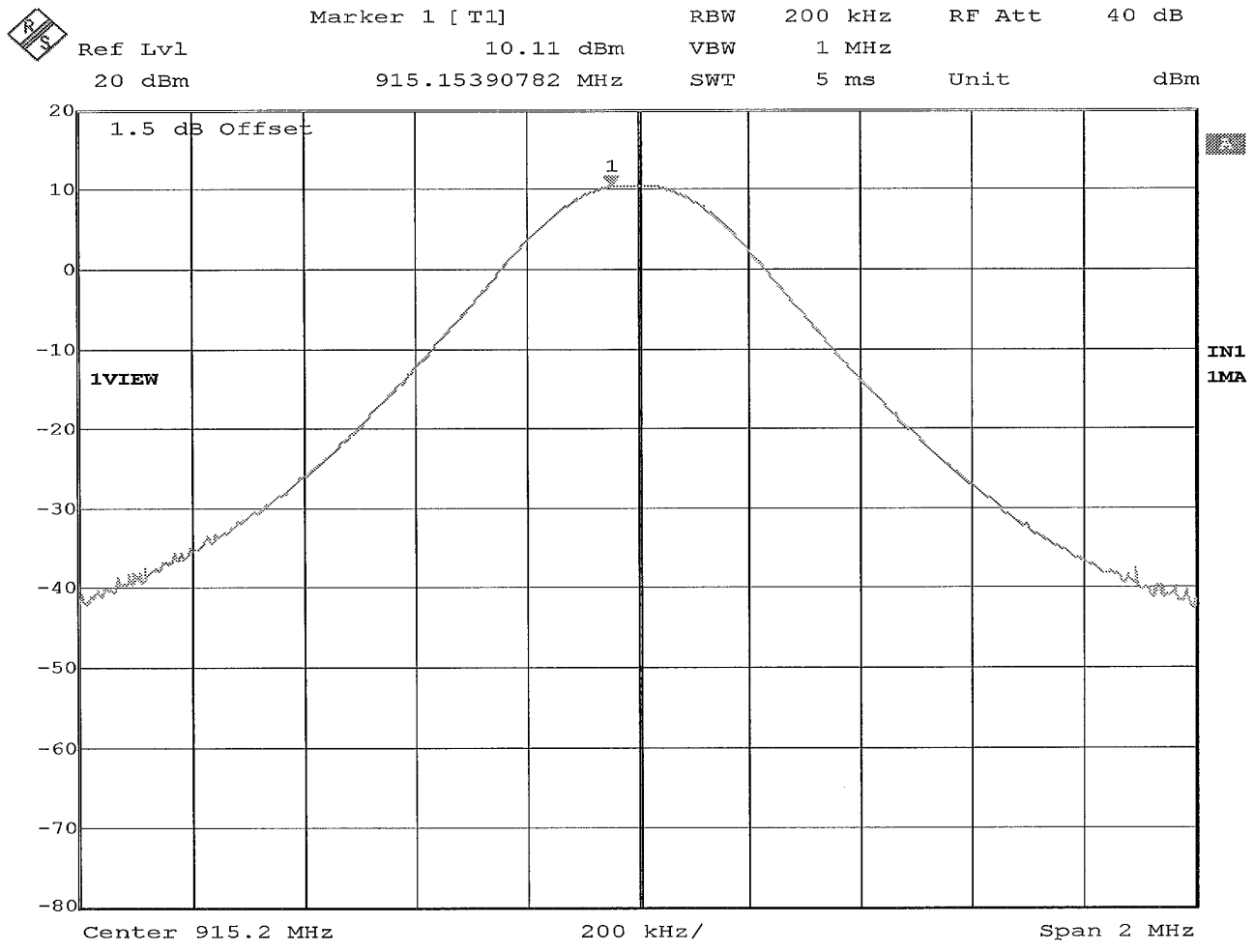
Test Setup

FCC Section 15.247 (a)(1)
Peak Conducted Output Power
Test Data

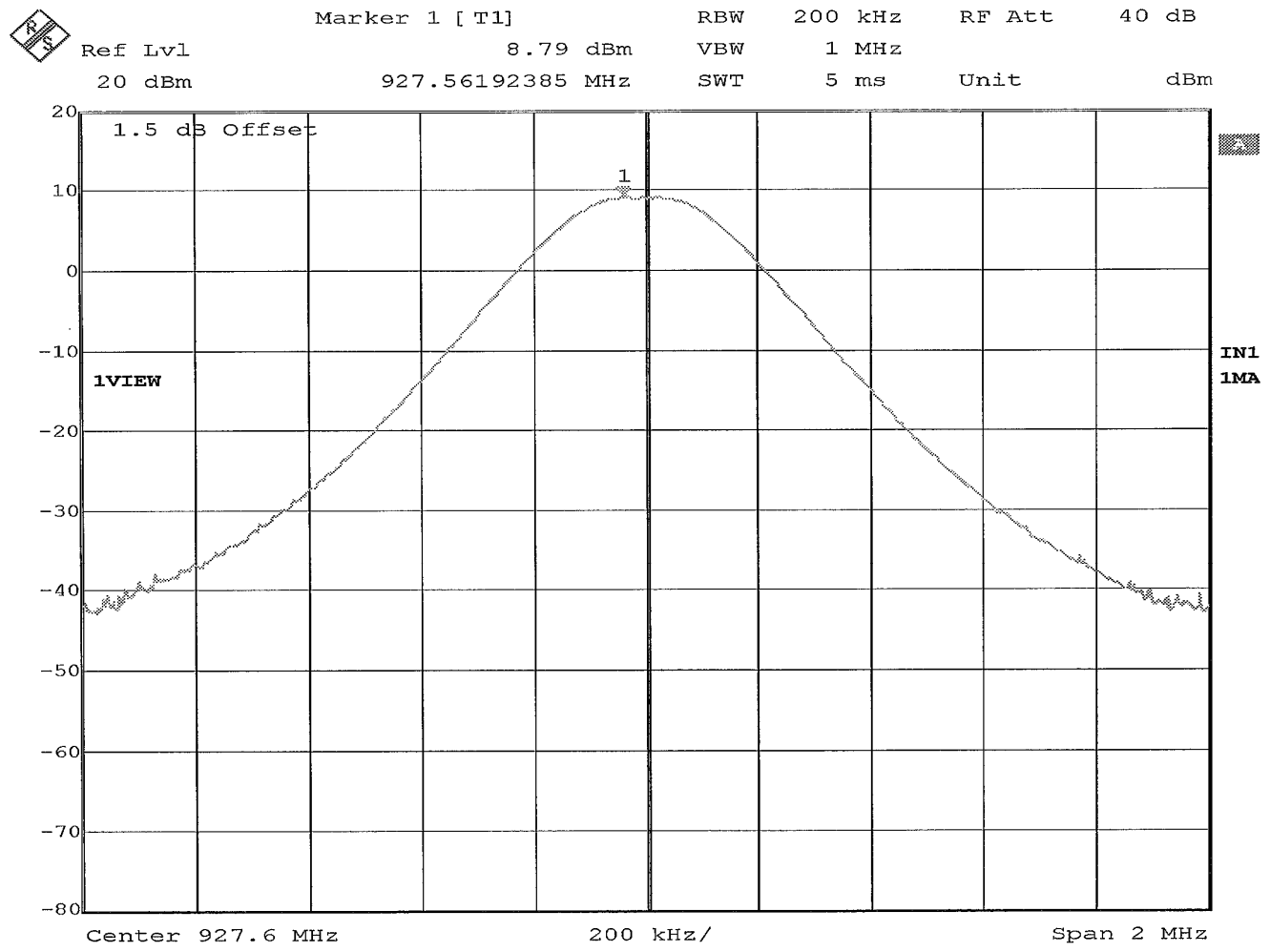
EMISSIONS TEST DATA SHEET	
Method:	**Power Output**
Test Specification:	FCC Part 15, Subpart C Paragraph: 15.247 (b)(1)
Job Number:	R-6601H-1
Customer:	Immedia Semiconductor, LLC.
Test Sample:	Blink Sync Module 2
Model Number:	BSM00400U
Serial Number:	G8T1-V700-1173-00DH
Operating Mode:	Transmitting modulated signal
Technician:	M. Seamans
Date(s):	June 16th, 2021
Temp/ Relative Humidity:	20.6 °C / 53.1 %
Result:	Power Output: 10.56 dBm



EMISSIONS TEST DATA SHEET	
Method:	**Power Output**
Test Specification:	FCC Part 15, Subpart C Paragraph: 15.247 (b)(1)
Job Number:	R-6601H-1
Customer:	Immedia Semiconductor, LLC.
Test Sample:	Blink Sync Module 2
Model Number:	BSM00400U
Serial Number:	G8T1-V700-1173-00DH
Operating Mode:	Transmitting modulated signal
Technician:	M. Seamans
Date(s):	June 16th, 2021
Temp/ Relative Humidity:	20.6 °C / 53.1 %
Result:	Power Output: 10.11 dBm



EMISSIONS TEST DATA SHEET	
Method:	**Power Output**
Test Specification:	FCC Part 15, Subpart C Paragraph: 15.247 (b)(1)
Job Number:	R-6601H-1
Customer:	Immedia Semiconductor, LLC.
Test Sample:	Blink Sync Module 2
Model Number:	BSM00400U
Serial Number:	G8T1-V700-1173-00DH
Operating Mode:	Transmitting modulated signal
Technician:	M. Seamans
Date(s):	June 16th, 2021
Temp/ Relative Humidity:	20.6 °C / 53.1 %
Result:	Power Output: 8.79 dBm



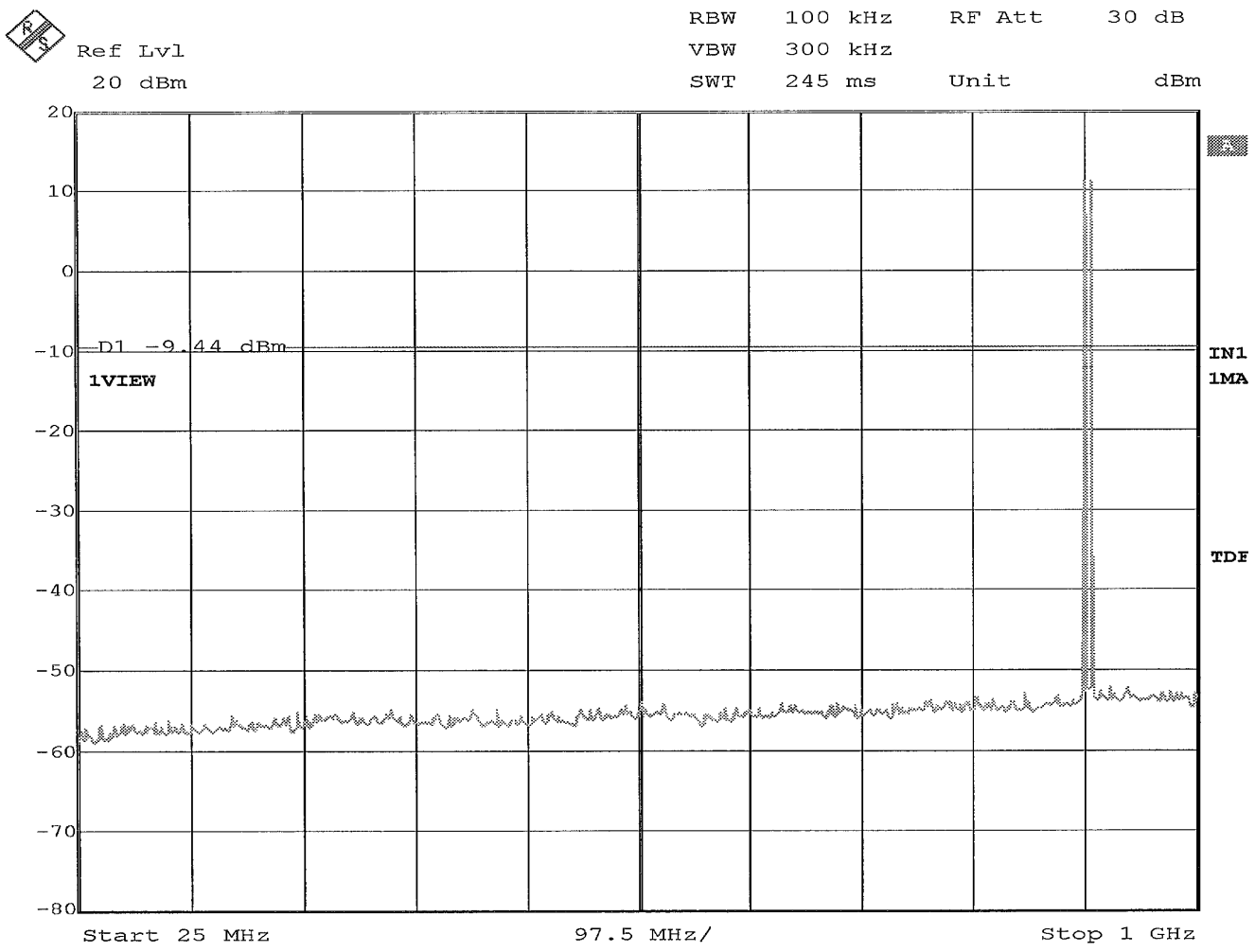
Test Photographs
Conducted Spurious Emissions, 30 MHz to 10 GHz

Test Setup

FCC Section 15.247 (d)
Conducted Spurious Emissions, 30 MHz to 10 GHz
Test Data

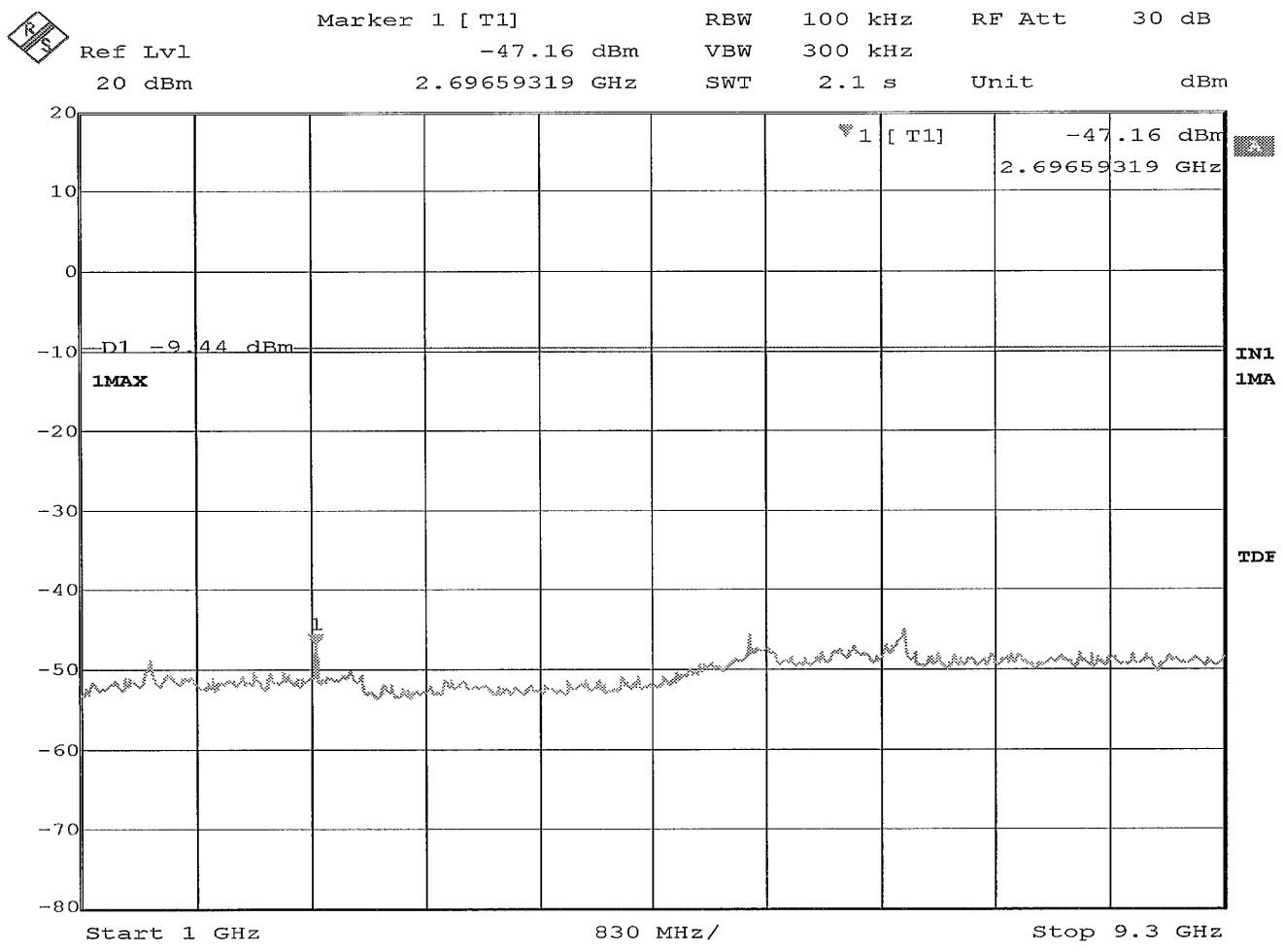
Out Of Band
Test Data

EMISSIONS TEST DATA SHEET	
Method:	**Conducted Out of Band**
Test Specification:	FCC Part 15, Subpart C Paragraph: 15.247 (d)
Job Number:	R-6601H-1
Customer:	Immedia Semiconductor, LLC.
Test Sample:	Blink Sync Module 2
Model Number:	BSM00400U
Serial Number:	G8T1-V700-1173-00DH
Operating Mode:	Transmitting modulated signal
Technician:	M. Seamans
Date(s):	June 16th, 2021
Temp/ Relative Humidity:	22.7 °C / 51.1 %
Notes:	Limit: -9.44 dBm



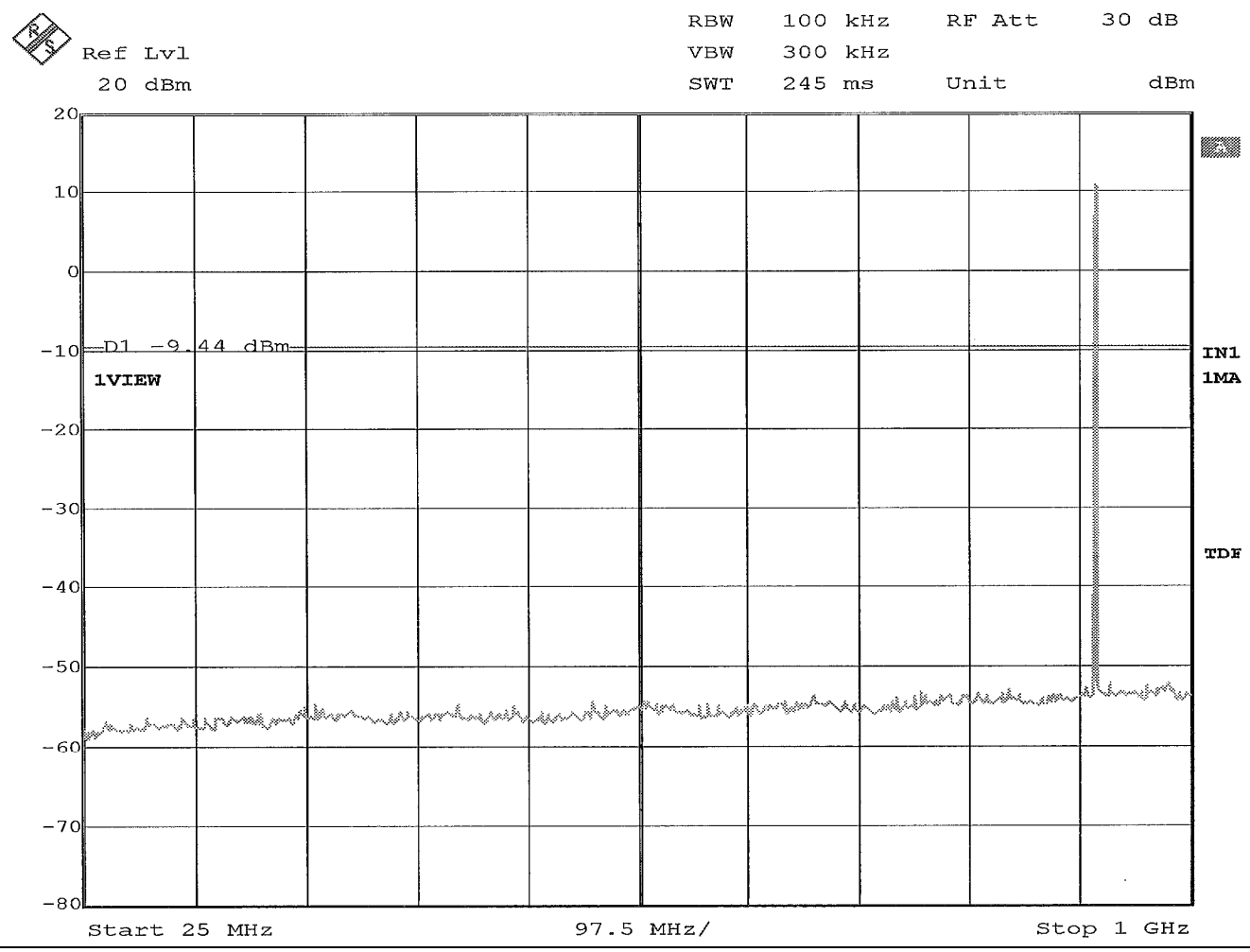
25 MHz to 1 GHz

EMISSIONS TEST DATA SHEET	
Method:	**Conducted Out of Band**
Test Specification:	FCC Part 15, Subpart C Paragraph: 15.247 (d)
Job Number:	R-6601H-1
Customer:	Immedia Semiconductor, LLC.
Test Sample:	Blink Sync Module 2
Model Number:	BSM00400U
Serial Number:	G8T1-V700-1173-00DH
Operating Mode:	Transmitting modulated signal
Technician:	M. Seamans
Date(s):	June 16th, 2021
Temp/ Relative Humidity:	22.7 °C / 51.1 %
Notes:	Limit: -9.44 dBm



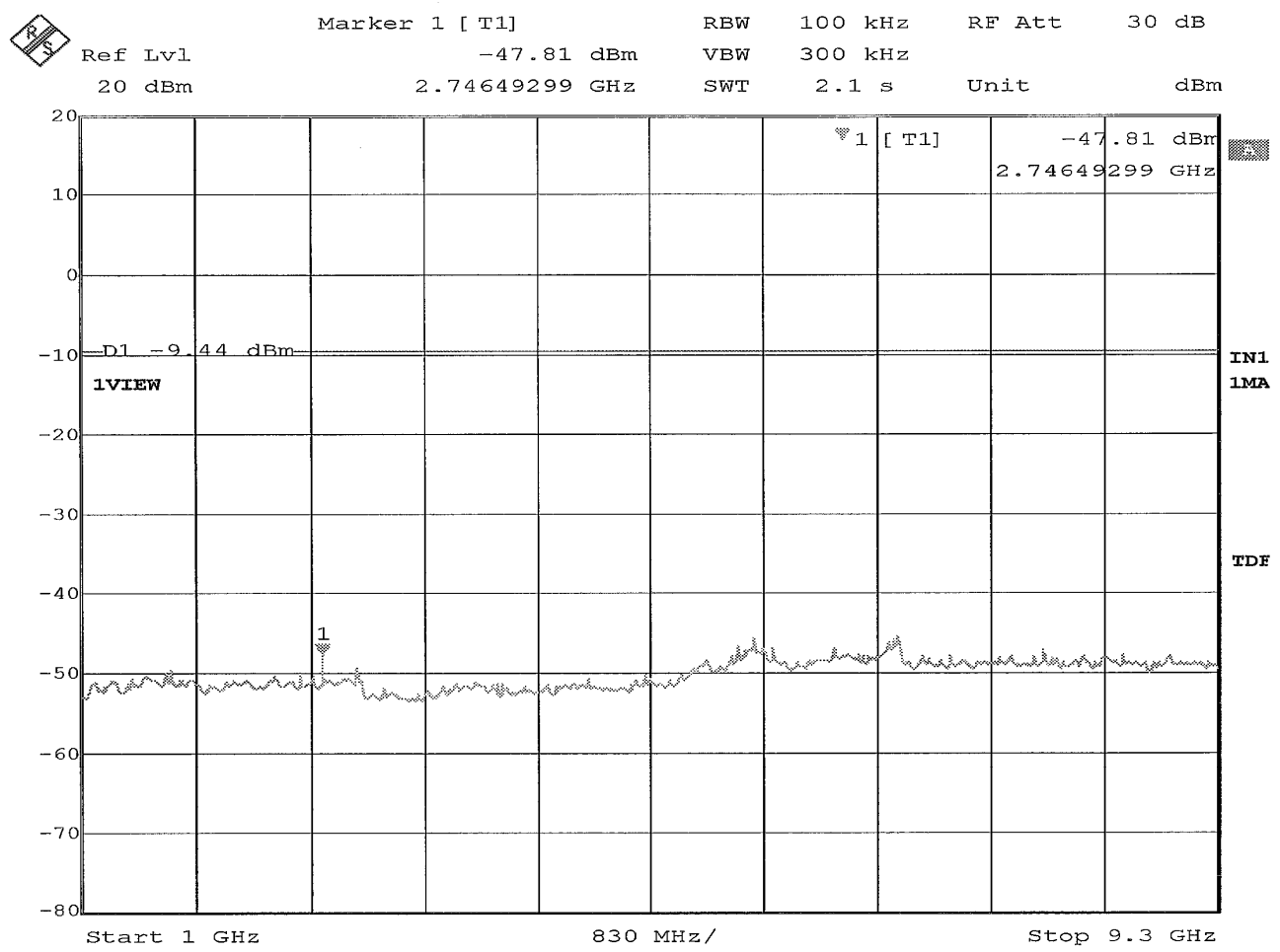
1 GHz to 9.3 GHz

EMISSIONS TEST DATA SHEET	
Method:	**Conducted Out of Band**
Test Specification:	FCC Part 15, Subpart C Paragraph: 15.247 (d)
Job Number:	R-6601H-1
Customer:	Immedia Semiconductor, LLC.
Test Sample:	Blink Sync Module 2
Model Number:	BSM00400U
Serial Number:	G8T1-V700-1173-00DH
Operating Mode:	Transmitting modulated signal
Technician:	M. Seamans
Date(s):	June 16th, 2021
Temp/ Relative Humidity:	22.7 °C / 51.1 %
Notes:	Limit: -9.44 dBm



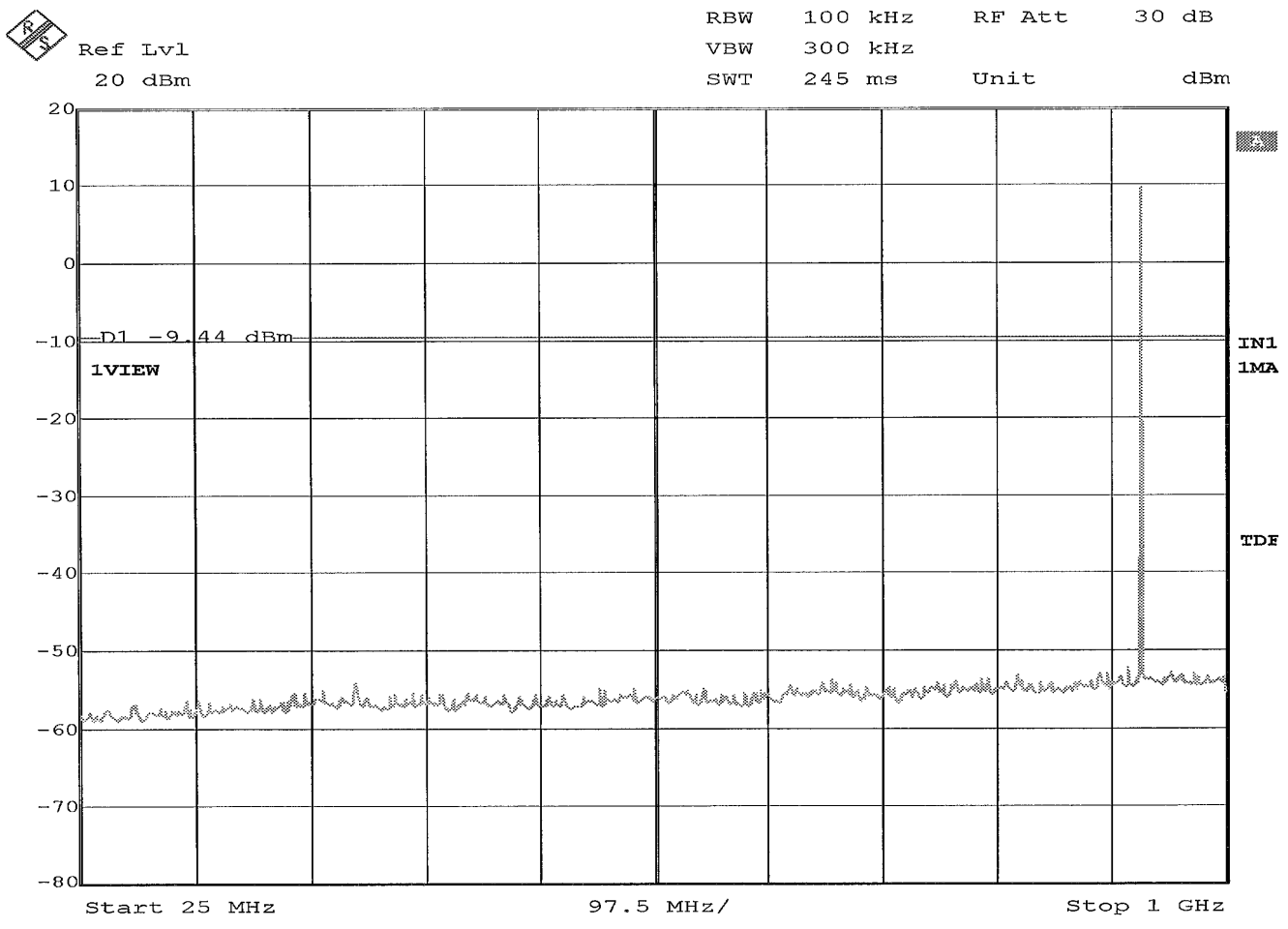
25 MHz to 1 GHz

EMISSIONS TEST DATA SHEET	
Method:	**Conducted Out of Band**
Test Specification:	FCC Part 15, Subpart C Paragraph: 15.247 (d)
Job Number:	R-6601H-1
Customer:	Immedia Semiconductor, LLC.
Test Sample:	Blink Sync Module 2
Model Number:	BSM00400U
Serial Number:	G8T1-V700-1173-00DH
Operating Mode:	Transmitting modulated signal
Technician:	M. Seamans
Date(s):	June 16th, 2021
Temp/ Relative Humidity:	22.7 °C / 51.1 %
Notes:	Limit: -9.44 dBm



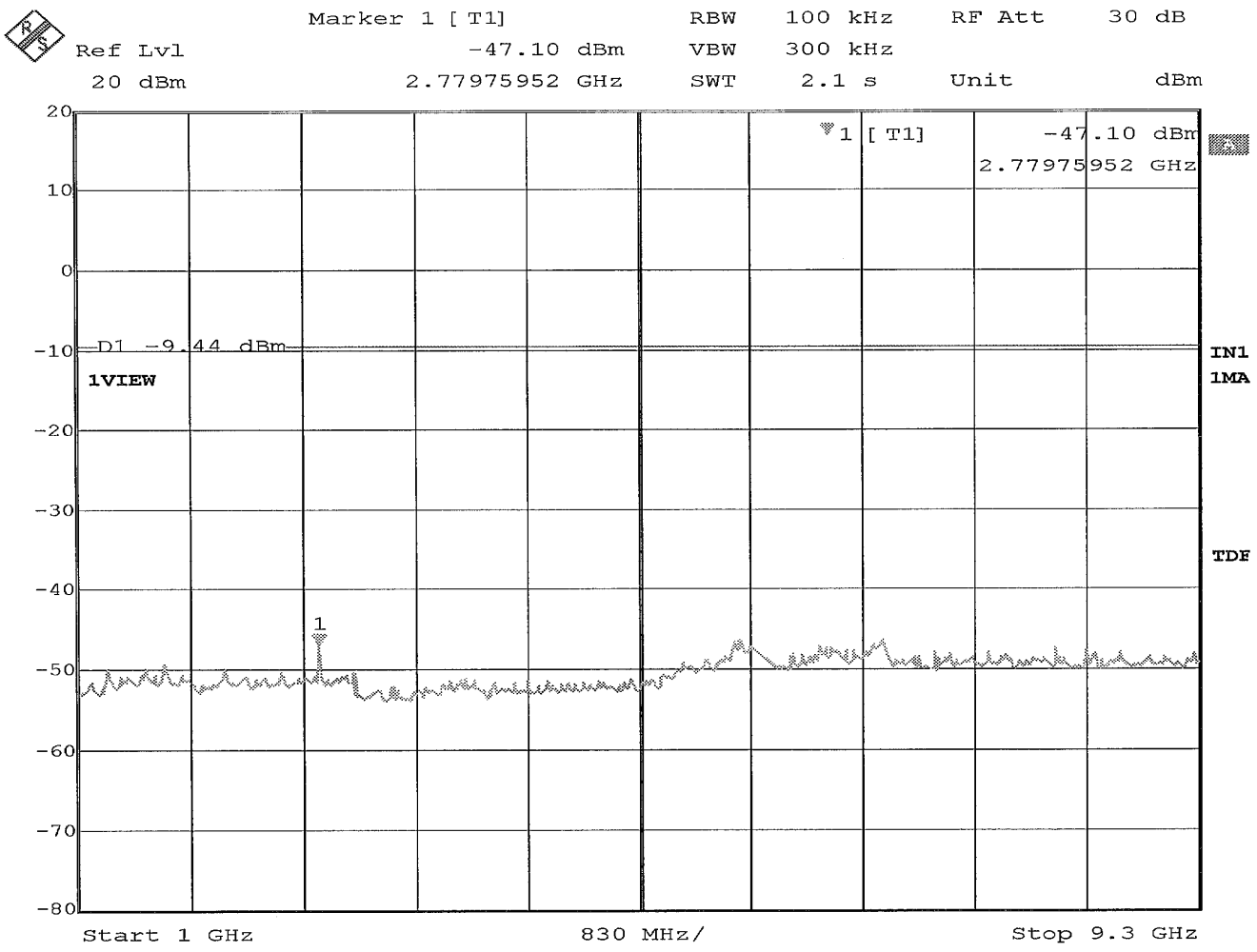
1 GHz to 9.3 GHz

EMISSIONS TEST DATA SHEET	
Method:	**Conducted Out of Band**
Test Specification:	FCC Part 15, Subpart C Paragraph: 15.247 (d)
Job Number:	R-6601H-1
Customer:	Immedia Semiconductor, LLC.
Test Sample:	Blink Sync Module 2
Model Number:	BSM00400U
Serial Number:	G8T1-V700-1173-00DH
Operating Mode:	Transmitting modulated signal
Technician:	M. Seamans
Date(s):	June 16th, 2021
Temp/ Relative Humidity:	22.7 °C / 51.1 %
Notes:	Limit: -9.44 dBm



25 MHz to 1 GHz

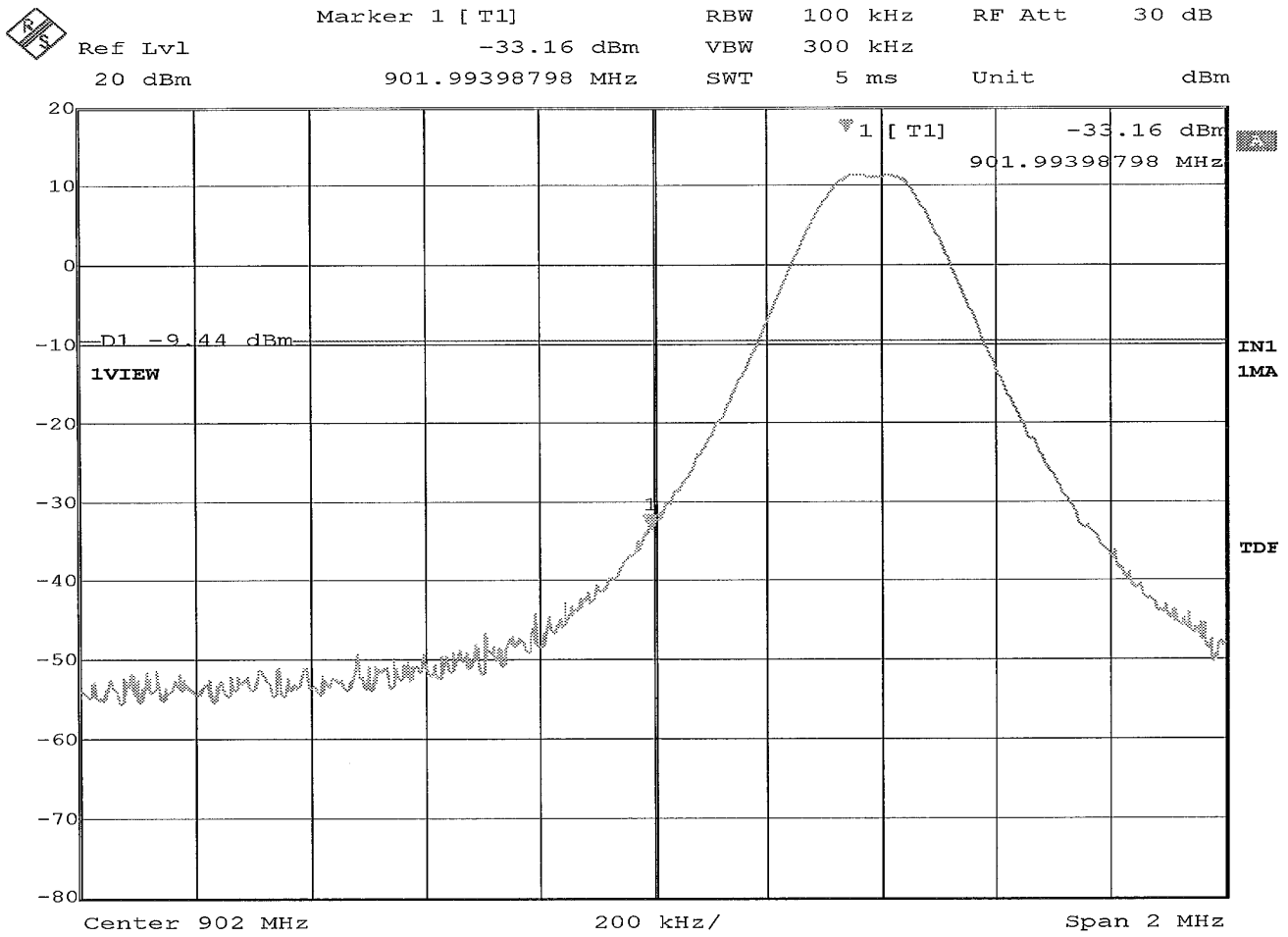
EMISSIONS TEST DATA SHEET	
Method:	**Conducted Out of Band**
Test Specification:	FCC Part 15, Subpart C Paragraph: 15.247 (d)
Job Number:	R-6601H-1
Customer:	Immedia Semiconductor, LLC.
Test Sample:	Blink Sync Module 2
Model Number:	BSM00400U
Serial Number:	G8T1-V700-1173-00DH
Operating Mode:	Transmitting modulated signal
Technician:	M. Seamans
Date(s):	June 16th, 2021
Temp/ Relative Humidity:	22.7 °C / 51.1 %
Notes:	Limit: -9.44 dBm



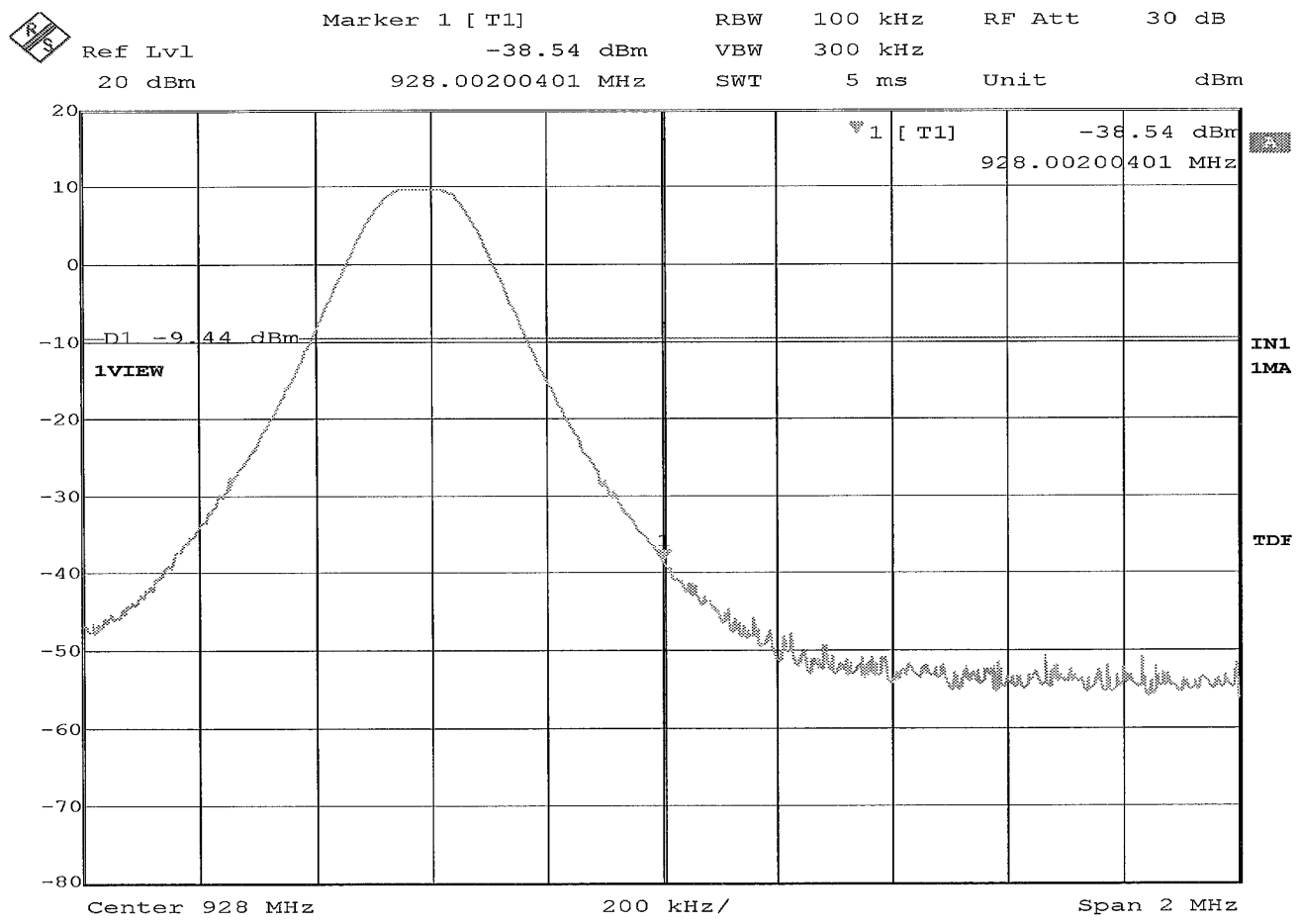
1 GHz to 9.3 GHz

Band Edge
Test Data

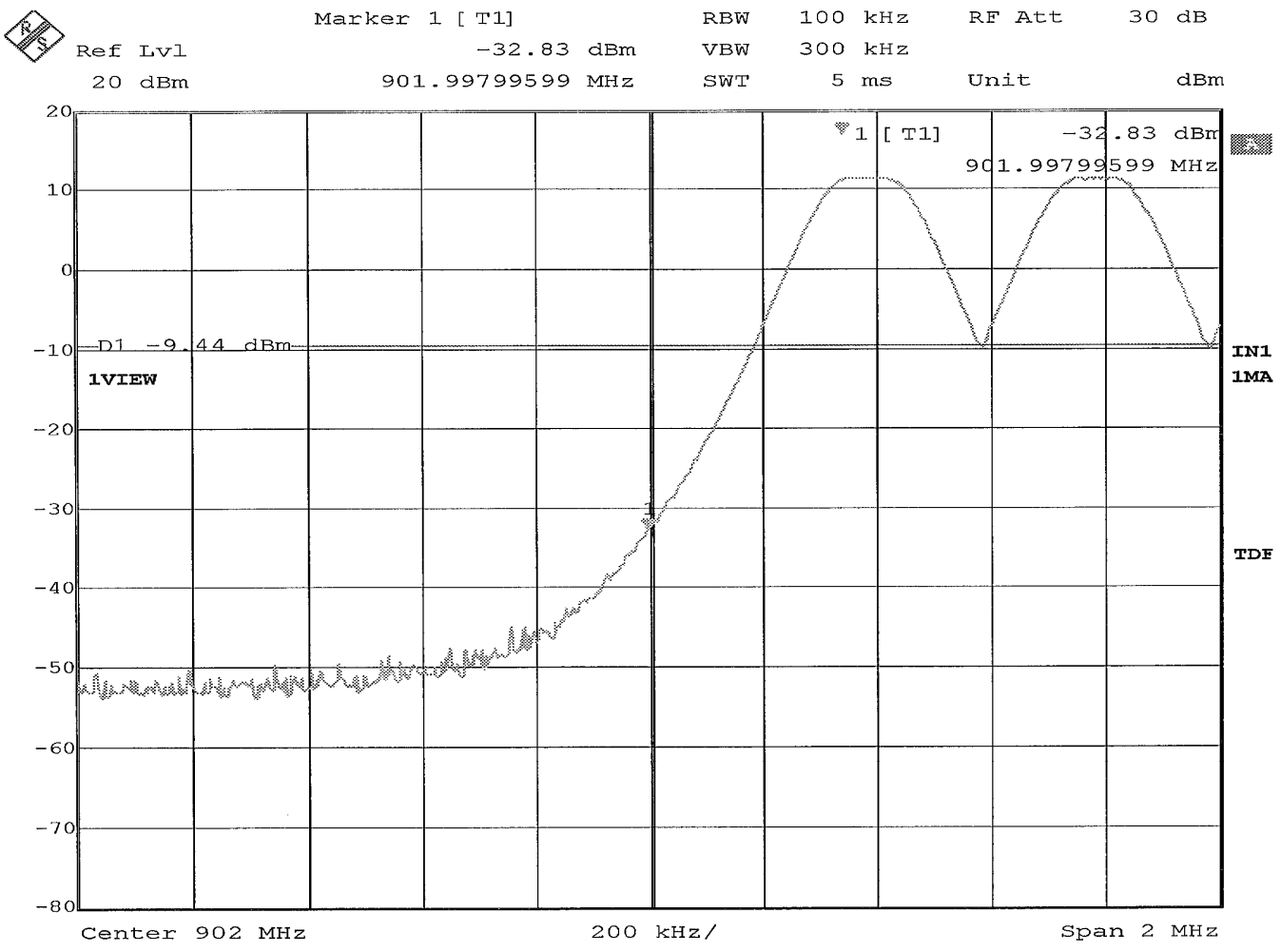
EMISSIONS TEST DATA SHEET	
Method:	**Band Edge**
Test Specification:	FCC Part 15, Subpart C Paragraph: 15.247 (d)
Job Number:	R-6601H-1
Customer:	Immedia Semiconductor, LLC.
Test Sample:	Blink Sync Module 2
Model Number:	BSM00400U
Serial Number:	G8T1-V700-1173-00DH
Operating Mode:	Transmitting modulated signal
Technician:	M. Seamans
Date(s):	June 16th, 2021
Temp/ Relative Humidity:	22.7 °C / 51.1 %
Notes:	Limit: -9.44 dBm



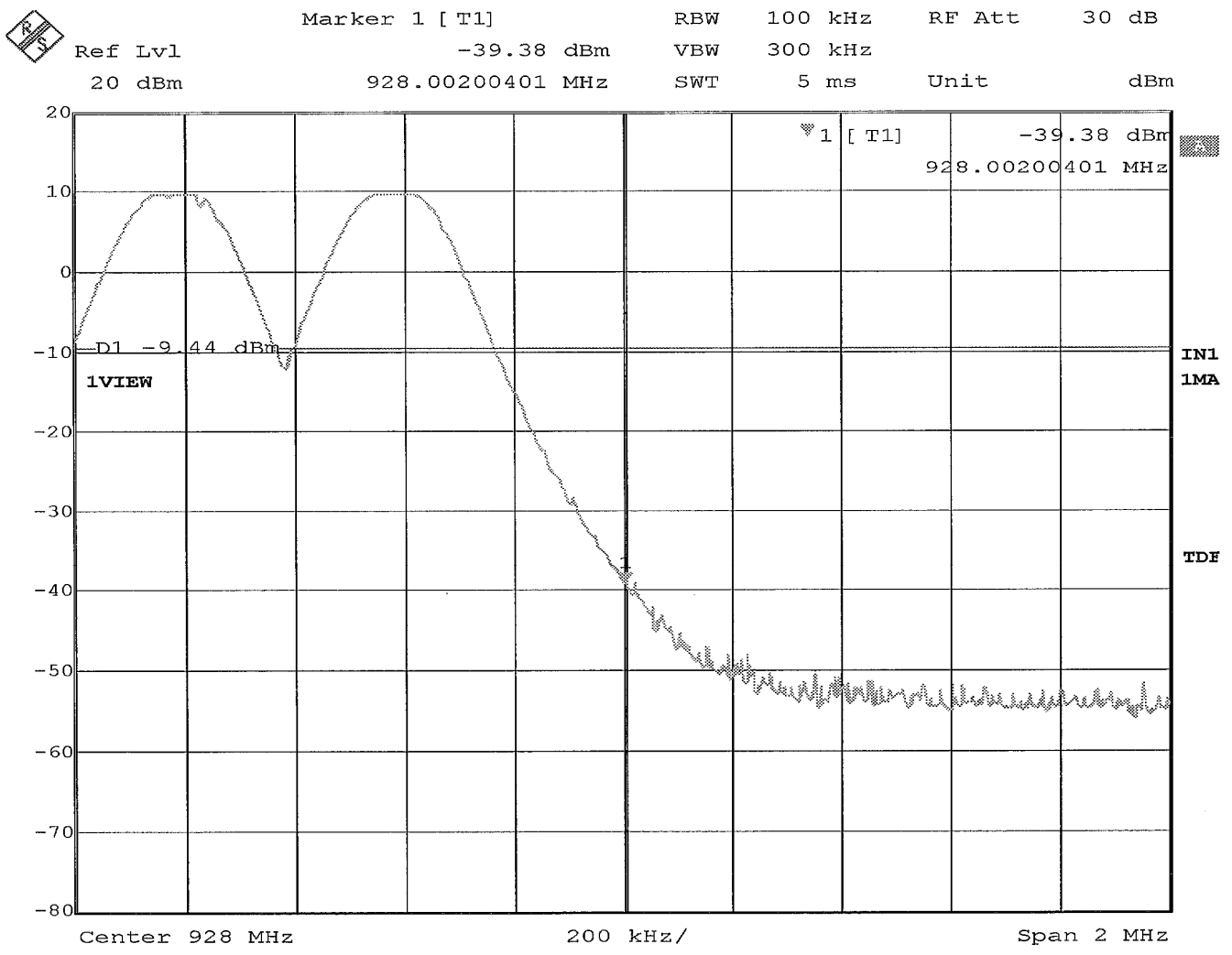
EMISSIONS TEST DATA SHEET	
Method:	**Band Edge**
Test Specification:	FCC Part 15, Subpart C Paragraph: 15.247 (d)
Job Number:	R-6601H-1
Customer:	Immedia Semiconductor, LLC.
Test Sample:	Blink Sync Module 2
Model Number:	BSM00400U
Serial Number:	G8T1-V700-1173-00DH
Operating Mode:	Transmitting modulated signal
Technician:	M. Seamans
Date(s):	June 16th, 2021
Temp/ Relative Humidity:	22.7 °C / 51.1 %
Notes:	Limit: -9.44 dBm



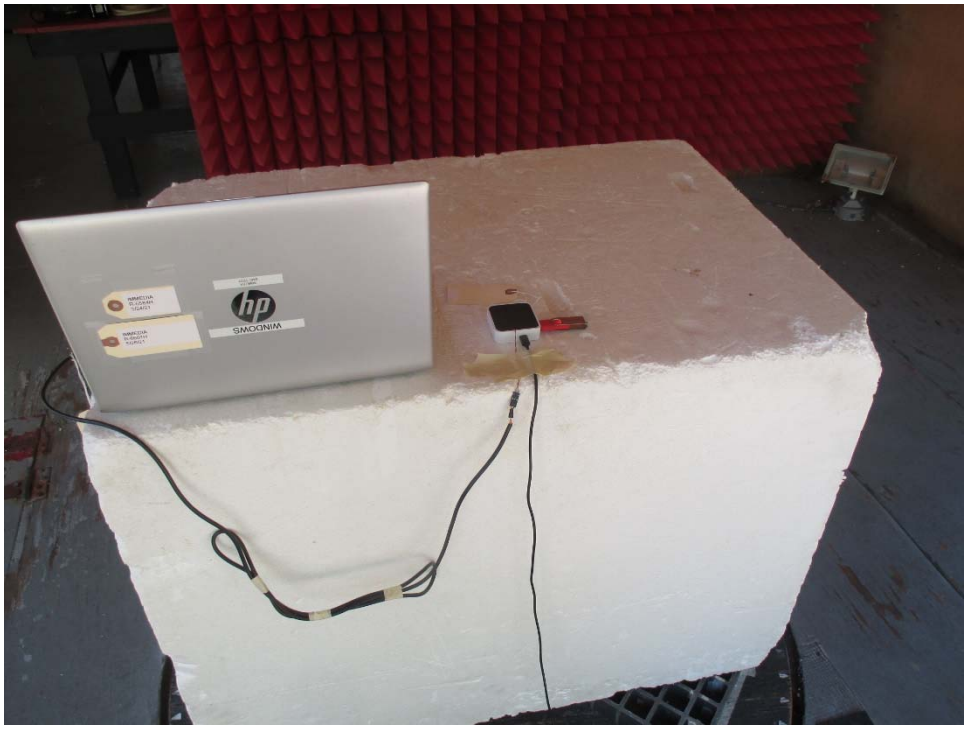
EMISSIONS TEST DATA SHEET	
Method:	**Band Edge**
Test Specification:	FCC Part 15, Subpart C Paragraph: 15.247 (d)
Job Number:	R-6601H-1
Customer:	Immedia Semiconductor, LLC.
Test Sample:	Blink Sync Module 2
Model Number:	BSM00400U
Serial Number:	G8T1-V700-1173-00DH
Operating Mode:	Transmitting modulated signal (Hopping)
Technician:	M. Seamans
Date(s):	June 16th, 2021
Temp/ Relative Humidity:	22.7 °C / 51.1 %
Notes:	Limit: -9.44 dBm



EMISSIONS TEST DATA SHEET	
Method:	**Band Edge**
Test Specification:	FCC Part 15, Subpart C Paragraph: 15.247 (d)
Job Number:	R-6601H-1
Customer:	Immedia Semiconductor, LLC.
Test Sample:	Blink Sync Module 2
Model Number:	BSM00400U
Serial Number:	G8T1-V700-1173-00DH
Operating Mode:	Transmitting modulated signal (Hopping)
Technician:	M. Seamans
Date(s):	June 16th, 2021
Temp/ Relative Humidity:	22.7 °C / 51.1 %
Notes:	Limit: -9.44 dBm

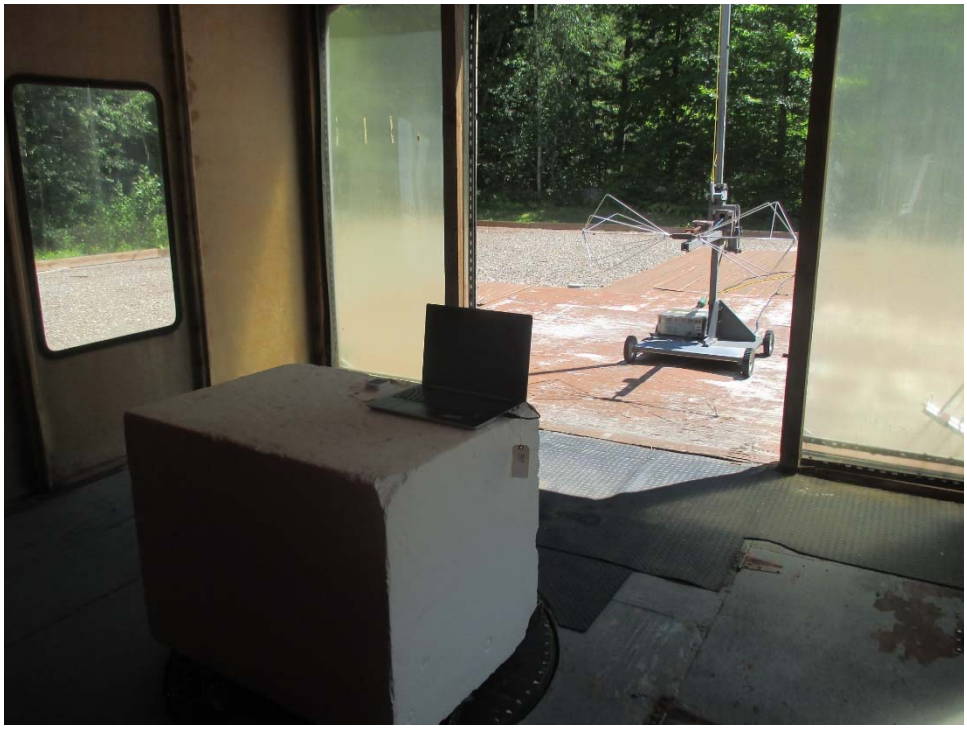


Test Photographs
Field Strength of Spurious Emissions



EUT Configuration

Test Photographs
Field Strength of Spurious Emissions



Horizontal Antenna Polarization, 30 to 200 MHz

Vertical Antenna Polarization, 30 to 200 MHz

Test Photographs
Field Strength of Spurious Emissions

Horizontal Antenna Polarization, 200 MHz to 1 GHz

Vertical Antenna Polarization, 200 MHz to 1 GHz

Test Photographs
Field Strength of Spurious Emissions

Horizontal Antenna Polarization, 1 GHz to 10 GHz

Vertical Antenna Polarization, 1 GHz to 10 GHz

FCC Section 15.247 (d)
Field Strength of Spurious Emissions
Test Data

RETLIF TESTING LABORATORIES

EMISSIONS TEST DATA SHEET

Test Method	Unwanted Emissions into Restricted Frequency Bands	
Customer	Immedia Semiconductor LLC	
Job Number	R-6601H-1	
Test Sample	Blink Sync Module 2	
Model Number	BSM00400U	
Serial Number	G8T1-V700-1173-008C	
Test Specification	FCC Part 15 Subpart C	Paragraph: 15.247(d)
Operating Mode	Transmitting modulated signal	
Technician	M. Seamans	
Date	June 17th, 2021	

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	7.75	12.35	20.10	*		10.12	|
38.25	-	-	-	-			-	100.00
73.00	-	-	-	-			-	100.00
|	74.00	14.17	8.63	22.80	*		13.80	|
74.60	-	-	-	-			-	100.00
74.80	-	-	-	-			-	100.00
|	75.00	11.20	8.60	19.80	*		9.77	|
75.20	-	-	-	-			-	100.00
108.00	-	-	-	-			-	150.00
|	115.00	8.24	14.56	22.80	*		13.80	|
|	-	-	-	-			-	|
121.94	-	-	-	-			-	150.00
123.00	-	-	-	-			-	150.00
|	130.00	7.63	14.67	22.30	*		13.03	|
|	-	-	-	-			-	|
138.00	-	-	-	-			-	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).

RETLIF TESTING LABORATORIES

EMISSIONS TEST DATA SHEET

Test Method	Unwanted Emissions into Restricted Frequency Bands	
Customer	Immedia Semiconductor LLC	
Job Number	R-6601H-1	
Test Sample	Blink Sync Module 2	
Model Number	BSM00400U	
Serial Number	G8T1-V700-1173-008C	
Test Specification	FCC Part 15 Subpart C	Paragraph: 15.247(d)
Operating Mode	Transmitting modulated signal	
Technician	M. Seamans	
Date	June 17th, 2021	

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	9.93	14.37	24.30	*		16.41	|
150.05	-	-	-	-			-	150.00
156.52	-	-	-	-			-	150.00
|	156.52	10.03	15.27	25.30	*		18.41	|
156.52	-	-	-	-			-	150.00
156.70	-	-	-	-			-	150.00
|	156.80	9.99	15.31	25.30	*		18.41	|
156.90	-	-	-	-			-	150.00
162.01	-	-	-	-			-	150.00
|	165.00	9.70	16.50	26.20	*		20.42	|
167.17	-	-	-	-			-	150.00
167.72	-	-	-	-			-	150.00
|	170.00	9.74	17.26	27.00	*		22.39	|
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).

RETLIF TESTING LABORATORIES

EMISSIONS TEST DATA SHEET

Test Method	Unwanted Emissions into Restricted Frequency Bands	
Customer	Immedia Semiconductor LLC	
Job Number	R-6601H-1	
Test Sample	Blink Sync Module 2	
Model Number	BSM00400U	
Serial Number	G8T1-V700-1173-008C	
Test Specification	FCC Part 15 Subpart C	Paragraph: 15.247(d)
Operating Mode	Transmitting modulated signal	
Technician	M. Seamans	
Date	June 17th, 2021	

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
|	260.00	7.75	15.25	23.00	*		14.13	|
285.00	-	-	-	-			-	200.00
322.80	-	-	-	-			-	200.00
|	330.00	7.83	17.47	25.30	*		18.41	|
335.40	-	-	-	-			-	200.00
399.90	-	-	-	-			-	200.00
|	405.00	7.58	19.22	26.80	*		21.88	|
410.00	-	-	-	-			-	200.00
608.00	-	-	-	-			-	200.00
|	611.00	8.91	23.49	32.40	*		41.69	|
614.00	-	-	-	-			-	200.00
960.00	-	-	-	-			-	500.00
|	975.00	10.09	29.71	39.80	*		97.72	|
1240.00	-	-	-	-			-	500.00
1300.00	-	-	-	-			-	500.00
|	1350.00	32.55	-3.21	29.34	*		29.31	|
1427.00	-	-	-	-			-	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).

RETLIF TESTING LABORATORIES

EMISSIONS TEST DATA SHEET

Test Method	Unwanted Emissions into Restricted Frequency Bands	
Customer	Immedia Semiconductor LLC	
Job Number	R-6601H-1	
Test Sample	Blink Sync Module 2	
Model Number	BSM00400U	
Serial Number	G8T1-V700-1173-008C	
Test Specification	FCC Part 15 Subpart C	Paragraph: 15.247(d)
Operating Mode	Transmitting modulated signal	
Technician	M. Seamans	
Date	June 17th, 2021	

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	33.19	-2.34	30.85	*		34.87	|
1646.50	-	-	-	-			-	500.00
1660.00	-	-	-	-			-	500.00
|	1680.00	32.70	-1.40	31.30	*		36.73	|
1710.00	-	-	-	-			-	500.00
1718.80	-	-	-	-			-	500.00
|	1720.00	33.45	-1.21	32.24	*		40.93	|
1722.20	-	-	-	-			-	500.00
2200.00	-	-	-	-			-	500.00
|	2250.00	31.03	0.57	31.60	*		38.02	|
2300.00	-	-	-	-			-	500.00
2310.00	-	-	-	-			-	500.00
|	2390.00	32.80	0.85	33.65	*		48.14	|
2390.00	-	-	-	-			-	500.00
2483.50	-	-	-	-			-	500.00
|	2490.00	31.00	1.03	32.03	*		39.95	|
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).

RETLIF TESTING LABORATORIES

EMISSIONS TEST DATA SHEET

Test Method	Unwanted Emissions into Restricted Frequency Bands	
Customer	Immedia Semiconductor LLC	
Job Number	R-6601H-1	
Test Sample	Blink Sync Module 2	
Model Number	BSM00400U	
Serial Number	G8T1-V700-1173-008C	
Test Specification	FCC Part 15 Subpart C	Paragraph: 15.247(d)
Operating Mode	Transmitting modulated signal	
Technician	M. Seamans	
Date	June 17th, 2021	

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
|	-	-	-	-			-	|
|	2750.00	30.73	1.49	32.22	*		40.83	|
|	-	-	-	-			-	|
2900.00	-	-	-	-			-	500.00
3260.00	-	-	-	-			-	500.00
|	3263.00	30.40	2.36	32.76	*		43.45	|
3267.00	-	-	-	-			-	500.00
3332.00	-	-	-	-			-	500.00
|	3336.00	30.45	2.48	32.93	*		44.31	|
3339.00	-	-	-	-			-	500.00
3345.00	-	-	-	-			-	500.00
|	3350.00	30.77	2.51	33.28	*		46.13	|
3358.00	-	-	-	-			-	500.00
3600.00	-	-	-	-			-	500.00
|	-	-	-	-			-	|
|	3700.00	30.73	3.07	33.80	*		48.98	|
|	-	-	-	-			-	|

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).

RETLIF TESTING LABORATORIES

EMISSIONS TEST DATA SHEET

Test Method	Unwanted Emissions into Restricted Frequency Bands	
Customer	Immedia Semiconductor LLC	
Job Number	R-6601H-1	
Test Sample	Blink Sync Module 2	
Model Number	BSM00400U	
Serial Number	G8T1-V700-1173-008C	
Test Specification	FCC Part 15 Subpart C	Paragraph: 15.247(d)
Operating Mode	Transmitting modulated signal	
Technician	M. Seamans	
Date	June 17th, 2021	

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
|	-	-	-	-			-	|
4400.00	-	-	-	-			-	500.00
4500.00	-	-	-	-			-	500.00
|	4800.00	30.02	4.55	34.57	*		53.52	|
5150.00	-	-	-	-			-	500.00
5350.00	-	-	-	-			-	500.00
|	5400.00	30.42	5.43	35.85	*		62.02	|
5460.00	-	-	-	-			-	500.00
7250.00	-	-	-	-			-	500.00
|	7440.00	30.91	7.75	38.66	*		85.70	|
7750.00	-	-	-	-			-	500.00
8025.00	-	-	-	-			-	500.00
|	8300.00	30.84	7.92	38.76	*		86.70	|
8500.00	-	-	-	-			-	500.00
9000.00	-	-	-	-			-	500.00
|	9100.00	30.80	8.29	39.09	*		90.05	|
9200.00	-	-	-	-			-	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).

RETLIF TESTING LABORATORIES

EMISSIONS TEST DATA SHEET

Test Method	Unwanted Emissions into Restricted Frequency Bands	
Customer	Immedia Semiconductor LLC	
Job Number	R-6601H-1	
Test Sample	Blink Sync Module 2	
Model Number	BSM00400U	
Serial Number	G8T1-V700-1173-008C	
Test Specification	FCC Part 15 Subpart C	Paragraph: 15.247(d)
Operating Mode	Transmitting modulated signal	
Technician	M. Seamans	
Date	June 17th, 2021	

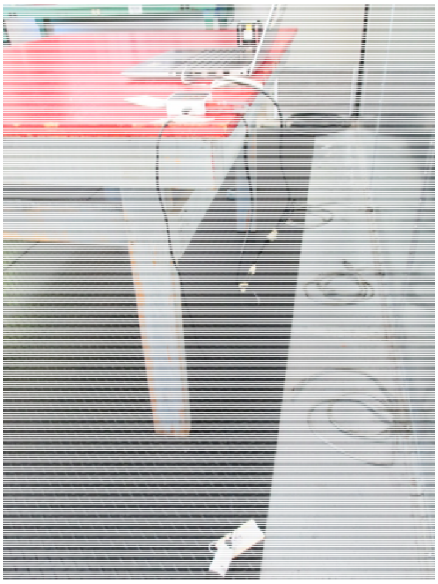
Notes: Antenna Test Distance: 3 meters Detector: Quasi-Peak <1GHz, Average >1GHz

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
9300.00	-	-	-	-			-	500.00
|	9400.00	31.01	8.77	39.78	*		97.50	|
9500.00	-	-	-	-			-	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).

Test Photographs
Conducted Emissions



EUT Configuration

Test Setup

FCC Part 15, Section 15.207 (a)
Conducted Emissions
150 kHz to 30 MHz
Test Data

EMISSIONS TEST DATA SHEET	
Test Specification:	FCC Part 15, Section 15.207(a), Conducted Emissions
Method:	ANSI C63.4, Section 7., AC power-line conducted emission measurements
Job Number/Customer:	R-6601H-1 / Immedia Semiconductor, LLC.
Test Sample:	Blink Sync Module 2
Model Number:	BSM00400U
Serial Number:	G8T1-V700-1173-008C
Operating Mode:	Transmitting modulated signal
Technician:	M. Seamans
Date(s):	June 17th, 2021
Temp/ Relative Humidity:	21.6 °C / 45.8 %
Lead Tested:	120 VAC 60 Hz

Frequency	Lead Tested	Peak Meter Reading	Quasi-Peak Meter Reading	Average Meter Reading	Quasi-Peak Limit	Average Limit
MHz		**dBuV**	**dBuv**	**dBuV**	**dBuV**	**dBuV**
0.158	Hot	39.38	37.30	23.30	65.57	55.57
0.155	Neutral	38.51	36.40	20.80	65.73	55.73
0.426	Hot	37.53	35.70	29.30	57.33	47.33
0.244	Neutral	32.90	29.80	16.80	61.96	51.96
0.446	Hot	42.76	41.80	35.80	56.95	46.95
0.425	Neutral	29.78	28.00	25.00	57.35	47.35
0.987	Hot	33.64	31.40	22.70	56	46
0.445	Neutral	34.72	33.60	30.60	56.97	46.97
1.364	Hot	33.42	31.20	24.70	56	46
1.040	Neutral	26.23	20.00	12.40	56	46
2.255	Hot	34.31	30.80	22.50	56	46
2.255	Neutral	26.49	23.10	16.00	56	46

The frequency range was scanned from 0.15 MHz to 30 MHz.
The six highest emissions relative to the limit are presented.
The emissions observed from the EUT do not exceed the specified limits.