

*FCC PART 15, SUBPART B and C
TEST REPORT*

for
LIGHTING CONTROL NODE
MODEL: LCN300

Prepared for

MESH SYSTEMS LLC
 N1078 QUALITY DRIVE, SUITE B
 GREENVILLE, WISCONSIN 54942

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DATE: JULY 1, 2019

| | REPORT BODY | APPENDICES | | | | | TOTAL |
|-------|----------------|------------|---|---|----|----|-------|
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GENERAL REPORT SUMMARY

This electromagnetic emission test report is generated by Compatible Electronics Inc., which is an independent testing and consulting firm. The test report is based on testing performed by Compatible Electronics personnel according to the measurement procedures described in the test specifications given below and in the "Test Procedures" section of this report.

The measurement data and conclusions appearing herein relate only to the sample tested and this report may not be reproduced without the written permission of Compatible Electronics, unless done so in full.

This report must not be used to claim product certification, approval or endorsement by NVLAP, NIST or any agency of the federal government.

Device Tested: Lighting Control Node
 Model: LCN300
 S/N: N/A

Product Description: The EUT is device to monitor the status of LED lights and shut them on or off.

Modifications: The EUT was not modified during the testing.

Customer: Mesh Systems LLC
 N1078 Quality Drive, Suite B
 Greenville, Wisconsin 54942

Test Dates: June 1 and 3, 2019; July 31 and August 1, 2019

Test Specifications covered by accreditation:

Emissions requirements
CFR Title 47, Part 15, Subpart B; and
Subpart C, sections 15.205, 15.207, 15.209, and 15.247

Test Procedure: ANSI C63.4 and ANSI C63.10



SUMMARY OF TEST RESULTS

| TEST | DESCRIPTION | RESULTS |
|------|---|---|
| 1 | Conducted RF Emissions, 150 kHz – 30 MHz | The EUT complies with the Class B limits of CFR Title 47, Part 15 Subpart B; the limits of CFR Title 47, Part 15, Subpart C, section 15.207 See section 6.3 for Measurement Uncertainty |
| 2 | Spurious Radiated RF Emissions, 30 MHz – 1000 MHz | The EUT complies with the Class B limits of CFR Title 47, Part 15 Subpart B; the limits of CFR Title 47, Part 15, Subpart C, section 15.209 See section 6.3 for Measurement Uncertainty |
| 3 | Spurious Radiated RF Emissions, 9 kHz – 30 MHz and 1000 MHz – 9300 MHz | The EUT complies with the Class B limits of CFR Title 47, Part 15, Subpart B; CFR Title 47, Part 15, Subpart C, section 15.247(d) See section 6.3 for Measurement Uncertainty |
| 4 | Fundamental and Emissions produced by the intentional radiator in non-restricted bands, 9 kHz – 9.3 GHz | Complies with the relevant requirements of CFR Title 47, Part 15, Subpart C, section 15.247(d) |
| 5 | Emissions produced by the intentional radiator in restricted bands, 9 kHz – 9.3 GHz | Complies with the relevant requirements of CFR Title 47, Part 15, Subpart C, section 15.205, 15.209, section 15.247 (d) |
| 6 | DTS Bandwidth | Complies with the relevant requirements of FCC Title 47, Part 15, Subpart C, section 15.247 (a)(2) |
| 7 | Maximum Conducted Output Power | Complies with the relevant requirements of FCC Title 47, Part 15, Subpart C, section 15.247 (b)(3) |
| 8 | RF Conducted Antenna Test | Complies with the relevant requirements of CFR Title 47, Part 15, Subpart C, section 15.247 (d) |
| 9 | Power Spectral Density from the Intentional Radiator to the Antenna | Complies with the relevant requirements of CFR Title 47, Part 15, Subpart C, section 15.247 (e) |

1. PURPOSE

This document is a qualification test report based on the emissions tests performed on the Lighting Control Node, Model: LCN300. The emissions measurements were performed according to the measurement procedure described in ANSI C63.10 and ANSI C63.4. The tests were performed in order to determine whether the electromagnetic emissions from the equipment under test, referred to as EUT hereafter, are within the **Class B specification limits defined by CFR Title 47, Part 15, Subpart B and Subpart C, sections 15.205, 15.207, 15.209, and 15.247.**



2. ADMINISTRATIVE DATA

2.1 Location of Testing

The emissions tests described herein were performed at the test facility of Compatible Electronics, 114 Olinda Drive, Brea, California 92823.

2.2 Traceability Statement

The calibration certificates of all test equipment used during the test are on file at the location of the test. The calibration is traceable to the National Institute of Standards and Technology (NIST).

2.3 Cognizant Personnel

Mesh Systems LLC

Nate Welch Associate Embedded Engineer

Compatible Electronics Inc.

James Ross Test Engineer
Kyle Fujimoto Test Engineer

2.4 Date Test Sample was Received

The test sample was received on June 1, 2019.

2.5 Disposition of the Test Sample

The test sample has not been returned to Mesh Systems LLC as of the date of this test report.

2.6 Abbreviations and Acronyms

The following abbreviations and acronyms may be used in this document.

| | |
|------|--------------------------------------|
| RF | Radio Frequency |
| EMI | Electromagnetic Interference |
| EUT | Equipment Under Test |
| P/N | Part Number |
| S/N | Serial Number |
| HP | Hewlett Packard |
| ITE | Information Technology Equipment |
| CML | Corrected Meter Limit |
| LISN | Line Impedance Stabilization Network |
| N/A | Not Applicable |

3. APPLICABLE DOCUMENTS

The following documents are referenced or used in the preparation of this emissions Test Report.

| SPEC | TITLE |
|---------------------------------------|---|
| FCC Title 47, Part 15 Subpart C | FCC Rules - Radio frequency devices (including digital devices) – Intentional Radiators |
| ANSI C63.4 2014 | Methods of measurement of radio-noise emissions from low-voltage electrical and electronic equipment in the range of 9 kHz to 40 GHz |
| ANSI C63.10 2013 | American National Standard for Testing Unlicensed Wireless Devices |
| FCC Title 47, Part 15 Subpart B | FCC Rules - Radio frequency devices (including digital devices) – Unintentional Radiators |
| KDB 558074 D01 v05r02 | Guidance for Performing Compliance Measurements on Digital Transmission System, Frequency Hopping Spread Spectrum System, and Hybrid System Devices Operating Under Section 15.247 of the FCC Rules |

4. DESCRIPTION OF TEST CONFIGURATION

4.1 Description of Test Configuration – Emissions

The Lighting Control Node, Model: LCN300 (EUT) was connected to the AC public mains and LED Light Stand via its power cord and terminal blocks.

The laptop was used to the program the EUT to continuously transmit or receive at the low, middle, or high channel on a continuous basis.

The EUT was continuously transmitting or receiving at the low, middle, or high channel during the testing.

The LED light stand also was also fully illuminated with all twelve LED's turned on.

The EUT voltage was also varied between 85% and 115% using a variable transformer and the fundamental was verified to not change.

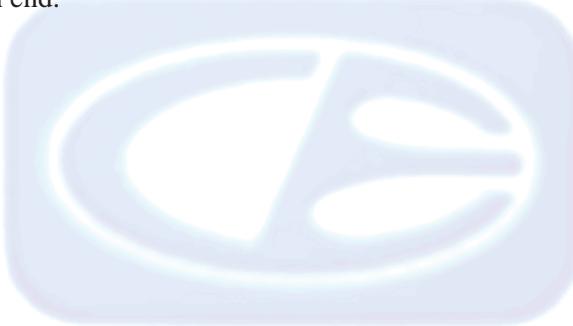
The firmware used for the EUT is stored on the company's servers.

It was determined that the emissions were at their highest level when the EUT was operating in the above configuration. The final emissions data was taken in this mode of operation. All initial investigations were performed with the measurement receiver in manual mode scanning the frequency range continuously. Photographs of the test setup are in Appendix D of this report.

4.1.1 **Cable Construction and Termination**

Cables 1-4

These are 1.2-meter unshielded cables connecting the EUT to the LED light stand. The cables are hard wired at each end.



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5. LISTS OF EUT, ACCESSORIES AND TEST EQUIPMENT

5.1 EUT and Accessory List

| EQUIPMENT | MANUFACTURER | MODEL NUMBER | SERIAL NUMBER | FCC ID |
|--------------------------|------------------|-----------------|---------------|--------------|
| LIGHTING CONTROL NODE | MESH SYSTEMS LLC | LCN300 | N/A | 2AC46-LCN300 |
| ISM 868/915 ANTENNA | MOLEX | 105262 | N/A | N/A |
| LAPTOP* | HEWLETT PACKARD | HSTNN-C28C | N/A | N/A |
| LED LIGHT STAND | CREE | N/A | N/A | N/A |
| AC ADAPTER FOR LAPTOP* | HEWLETT PACKARD | HSTNN-DA40 | N/A | N/A |
| MODFLEX TEST TOOL SUITE* | LS RESEARCH | VERSION 2.6.2.0 | N/A | N/A |

*Used to program the EUT to transmit or receive on a continuous basis.

5.2 Emissions Test Equipment

| EQUIPMENT TYPE | MANU-FACTURER | MODEL NUMBER | SERIAL NUMBER | CALIBRATION DATE | CAL. CYCLE |
|--------------------------------|----------------------------|--------------|----------------|--------------------|------------|
| TDK TestLab | TDK RF Solutions, Inc. | 9.22 | 700145 | N/A | N/A |
| CombiLog Antenna | Com-Power | AC-220 | 61093 | June 5, 2019 | 2 Year |
| Horn Antenna | Com-Power | AH-118 | 071175 | February 22, 2018 | 2 Year |
| EMI Receiver, 20 Hz – 40 GHz | Rohde & Schwarz | ESIB40 | 100172 | March 22, 2019 | 1 Year |
| EMI Receiver, 20 Hz – 26.5 GHz | Keysight Technologies | N9038A | MY51210150 | July 26, 2018 | 1 Year |
| Loop Antenna | Com-Power | AL-130R | 121090 | February 5, 2019 | 2 Year |
| Preamplifier | Com-Power | PA-118 | 181653 | January 25, 2019 | 1 Year |
| Digital Multimeter | Fluke | 115 | 36601149WS | September 20, 2018 | 2 Year |
| Variable Transformer | Superior Electric | Type: 11560 | Spec: BP142056 | N/A | N/A |
| Horn Antenna | Com-Power | AH-826 | 71957 | N/A | N/A |
| Computer | Hewlett Packard | p6716f | MXX1030PX0 | N/A | N/A |
| LCD Monitor | Hewlett Packard | 52031a | 3CQ046N3MG | N/A | N/A |
| System Controller | Sunol Sciences Corporation | SC110V | 112213-1 | N/A | N/A |
| Turntable | Sunol Sciences Corporation | 2011VS | N/A | N/A | N/A |
| Antenna-Mast | Sunol Sciences Corporation | TWR95-4 | 112213-3 | N/A | N/A |
| LISN (EUT) | Com-Power | LI-215A | 191951 | January 10, 2019 | 1 Year |
| Attenuator, 10 dB | SureCall | SC-ATT-10 | 17100025 | November 27, 2018 | 1 Year |

6. TEST SITE DESCRIPTION

6.1 Test Facility Description

Please refer to section 2.1 and 7.1 of this report for emissions test location.

6.2 EUT Mounting, Bonding and Grounding

For frequencies 1 GHz and below: The EUT was mounted on a 1.0 by 1.5 meter non-conductive table 0.8 meters above the ground plane.

For frequencies above 1 GHz: The EUT was mounted on a 1.0 by 1.5 meter non-conductive table 1.5 meters above the ground plane.

The EUT was grounded to earth ground via the safety ground of the power cord.

6.3 Measurement Uncertainty

Compatible Electronics' U_{lab} value is less than U_{cispr} , thus based on this – compliance is deemed to occur if no measured disturbance exceeds the disturbance limit

$$u_c(y) = \sqrt{\sum_i c_i^2 u^2(x_i)}$$

| MEASUREMENT TYPE | UNCERTAINTY VALUES |
|---|--|
| Radiated Emissions 30 MHz to 1000 MHz | 3.26 dB (Vertical) 3.19 dB (Horizontal) |
| Radiated Emissions 1 GHz to 40 GHz | 3.67 dB (Both Vertical and Horizontal) |
| AC Line Conducted Emissions 0.15 MHz to 30 MHz | 2.72 dB (Line and Neutral Leads) |

7. CHARACTERISTICS OF THE TRANSMITTER

7.1 Channel Description and Frequencies

The EUT operates on a total of ten channels.

The low channel is 906 MHz, the middle channel is 914 MHz, and the high channel is 924 MHz.

7.2 Antenna Gain

The gain of the antenna is 1.4 dBi.

8. TEST PROCEDURES

The following sections describe the test methods and the specifications for the tests. Test results are also included in this section.

8.1 RF Emissions

8.1.1 Conducted Emissions Test

The EMI Receiver was used as a measuring meter. A 10 dB Attenuator was used for the protection of the EMI Receiver input stage, and the offset was adjusted accordingly to read the actual data measured. The LISN output was measured using the EMI Receiver. The output of the second LISN was terminated by a 50-ohm termination. The effective measurement bandwidth used for this test was 9 kHz.

Please see section 6.2 of this report for mounting, bonding, and grounding of the EUT. The EUT was powered through the LISN, which was bonded to the ground plane. The LISN power was filtered and the filter was bonded to the ground plane. The EUT was set up with the minimum distances from any conductive surfaces as specified in ANSI C63.4. The excess power cord was wrapped in a figure eight pattern to form a bundle not exceeding 0.4 meters in length.

The conducted emissions from the EUT were maximized for operating mode as well as cable placement. The final data was collected under program control by computer software. The final qualification data is located in Appendix E.

The six highest reading are listed in Table 1.

Test Results:

The EUT complies with the **Class B** limits of CFR Title 47, Part 15, Subpart B; and the limits of CFR Title 47, Part 15, Subpart C, Section 15.207. Please see Appendix E for the data sheets.

8.1.2 Radiated Emissions (Spurious and Harmonics) Test

The EMI Receiver was used as the measuring meter. Below 1 GHz, a built-in, internal preamplifier was used to increase the sensitivity of the instrument. At frequencies above 1 GHz, external preamplifiers were used. The EMI Receiver was initially used with the Analyzer mode feature activated. In this mode, the EMI receiver can then record the actual frequency to be measured. This final reading is then taken accurately in the EMI Receiver mode, which takes into account the cable loss, amplifier gain and antenna factors, so that a true reading is compared to the true limit.

The frequencies above 1 GHz were averaged by using the RMS detector function on the EMI Receiver.

The measurement bandwidths and transducers used for the radiated emissions test were:

| FREQUENCY RANGE | EFFECTIVE MEASUREMENT BANDWIDTH | TRANSDUCER |
|-------------------|---------------------------------|------------------|
| 9 kHz to 150 kHz | 200 Hz | Loop Antenna |
| 150 kHz to 30 MHz | 9 kHz | Loop Antenna |
| 30 MHz to 1 GHz | 120 kHz | Combilog Antenna |
| 1 GHz to 9.3 GHz | 1 MHz | Horn Antenna |

The EMI test chamber of Compatible Electronics, Inc. was used for radiated emissions testing. This test site is in full compliance with ANSI C63.4. Please see section 6.2 of this report for mounting, bonding and grounding of the EUT. The turntable supporting the EUT is remote controlled using a motor. The turntable permits EUT rotation of 360 degrees in order to maximize emissions. Also, the antenna mast allows height variation of the antenna from 1 meter to 4 meters. Data was collected in the worst case (highest emission) configuration of the EUT. At each reading, the EUT was rotated 360 degrees and the antenna height was varied from 1 to 4 meters (for E field radiated field strength). The gunsight method was used when measuring with the horn antenna in order to ensure accurate results.

The six highest reading are listed in Table 2.

Test Results:

The EUT complies with the **Class B** limits of CFR Title 47, Part 15, Subpart B; the limits of CFR Title 47, Part 15, Subpart C, Sections 15.209 and 15.247 (d) for radiated emissions. Please see Appendix E for the data sheets.

8.1.3 RF Emissions Test Results

Table 1.0 CONDUCTED EMISSION RESULTS
 Lighting Control Node, Model: LCN300

| Frequency MHz | Corrected Reading* dBuV | Specification Limit dBuV | Delta (Cor. Reading – Spec. Limit) dB |
|----------------------|-------------------------------|-----------------------------|--|
| 0.486 (BL) (Tx Mode) | 56.11 (QP) | 5.622 | -0.11 |
| 0.430 (BL) (Rx Mode) | 47.04 (Avg) | 47.18 | -0.14 |
| 0.430 (WL) (Rx Mode) | 46.89 (Avg) | 47.18 | -0.29 |
| 0.734 (WL) (Tx Mode) | 45.05 (Avg) | 46.00 | -0.95 |
| 0.474 (BL) (Tx Mode) | 45.46 (Avg) | 46.42 | -0.96 |
| 0.294 (BL) (Tx Mode) | 49.12 (Avg) | 50.17 | -1.05 |

BL Black Lead
 WL White Lead
 Avg Average
 Tx Transmit
 Rx Receive
 QP Quasi-Peak
 Avg Average

Table 2.0 RADIATED EMISSION RESULTS
 Lighting Control Node, Model: LCN300

| Frequency MHz | Corrected Reading* dBuV/m | Specification Limit dBuV | Delta (Cor. Reading – Spec. Limit) dB |
|-------------------|---------------------------------|-----------------------------|--|
| 8154 (V) (Y-Axis) | 47.15 (Avg) | 53.97 | -6.82 |
| 8226 (V) (Y-Axis) | 46.42 (Avg) | 53.97 | -7.55 |
| 7312 (V) (Y-Axis) | 42.59 (Avg) | 53.97 | -11.38 |
| 8154 (H) (Y-Axis) | 40.88 (Avg) | 53.97 | -13.09 |
| 3624 (V) (Y-Axis) | 39.81 (Avg) | 53.97 | -14.16 |
| 8226 (H) (Y-Axis) | 39.58 (Avg) | 53.97 | -14.39 |

QP Quasi-Peak Reading
 H Horizontal Polarization

Avg Average Reading
 V Vertical Polarization

8.2 DTS Bandwidth

The DTS Bandwidth was measured using the EMI Receiver. The bandwidth was measured using a direct connection from the EUT. The following steps were performed for measuring the DTS Bandwidth.

1. Set RBW = 100 kHz
2. Set the video bandwidth (VBW) to equal or greater than 3 times the RBW
3. Detector = Peak
4. Trace Mode = Max Hold
5. Sweep = Auto Couple
6. Allow the trace to stabilize
7. Measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower frequencies) that are attenuated by 6 dB relative to the maximum level measured in the fundamental emission.

Test Results:

The EUT complies with the relevant requirements of FCC Title 47, Part 15, Subpart C section 15.247 (a)(2).

8.3 Maximum Average Output Power

The Conducted Average Output Power was measured using the EMI Receiver. The average output power was measured using the average power measurement procedure described in section 11.9.2.2.2 of ANSI C63.10. The Maximum Average Output Power was then taken. The following steps were performed for measuring the Maximum Average Output Power.

1. Set span to at least 1.5 times the OBW
2. Set RBW = 1% to 5% of the OBW, not to exceed 1 MHz
3. Set VBW $\geq [3 \times \text{RBW}]$
4. Number of points in sweep is $\geq [2 \times \text{span} / \text{RBW}]$. 1001 points were used for the measurement
5. Sweep time - auto
6. Detector = RMS
7. Sweep Trigger = Free Run
8. Trace average at least 100 traces in power averaging (rms) mode
9. Computer power by integrating the spectrum across the OBW of the signal using the instrument's band power measurement function, with band limits set equal to the OBW band edges.

Test Results:

The EUT complies with the relevant requirements of FCC Title 47, Part 15, Subpart C section 15.247 (b)(3).

8.4 Emissions in Non-Restricted Bands

The emissions in the non-restricted frequency bands measurements were performed using the EMI receiver directly connected to the EUT. The reference level was established by setting the instrument center frequency to DTS channel center frequency. The span was set to ≥ 1.5 times the DTS bandwidth. The RBW was set to 100 kHz and the VBW was set to 300 kHz. A peak detector was used with sweep set to auto. A max hold trace was used and allowed to fully stabilize. The peak marker function was used to determine the level and 30 dB below that was the reference level. For emission level measurement, the center frequency and span were set to encompass the frequency range to be measured. The RBW was set to 100 kHz and the VBW was set to 300 kHz. A peak detector was used with a sweep time set to auto. The number of measurement points were greater than the span/RBW. A max hold trace was used and allowed to fully stabilize. The peak marker function was used to determine the maximum amplitude level. The final qualification data sheets are located in Appendix E.

Test Results:

The EUT complies with the relevant requirements of FCC Title 47, Part 15, Subpart C section 15.247 (d).

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8.5

RF Band Edges

The RF band edges were measured using the EMI Receiver. The RF band edges were measured using a direct connection from the RF out on the EUT into the input of the EMI Receiver. The following steps were performed for measuring the spectral density.

The RF band edges were taken at 902 MHz when the EUT was on the low channel and 928 MHz when the EUT was on the high channel using the EMI Receiver. The following steps were performed for measuring the band edges:

1. Set analyzer center frequency to DTS channel center frequency
2. Set the span wide enough to cover the band edges.
3. Set the RBW to 100 kHz
4. Set the VBW $\geq 3 \times$ RBW
5. Detector = Peak
6. Sweep time = auto couple
7. Allow the trace to stabilize
8. Use the peak marker function to determine the maximum amplitude level

Test Results:

The EUT complies with the relevant requirements of FCC Title 47, Part 15, Subpart C section 15.247 (d) for band edges. Please see the data sheets located in Appendix E.

8.6 Spectral Density Test

The spectrum density output was measured using the EMI Receiver. The spectral density output was measured using a direct connection from the RF out on the EUT into the input of the EMI Receiver. The following steps were performed for measuring the spectral density.

1. Set analyzer center frequency to DTS channel center frequency
2. Set the span to at least 1.5 times the OBW.
3. Set the RBW to 3 kHz \leq RBW \leq 100 kHz
4. Set the VBW \geq 3 X RBW
5. Detector = power averaging (RMS)
6. Ensure that the number of measurement points in the sweep \geq 2 x span/RBW
7. Sweep time = auto couple
8. Employ trace averaging (RMS) mode over a minimum of 100 traces
9. Use the peak marker function to determine the maximum amplitude level
10. If measured value exceeds limit, reduce RBW (no less than 3 kHz) and repeat.

Test Results:

The EUT complies with the relevant requirements of FCC Title 47, Part 15, Subpart C section 15.247 (e).

8.7 Variation of the Input Power

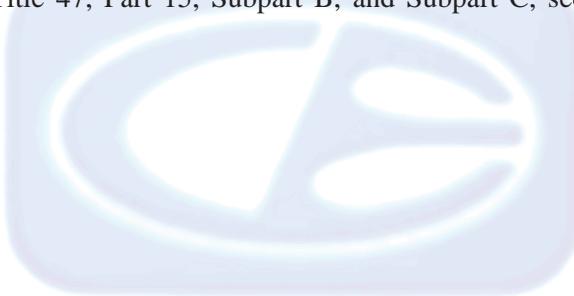
The variation of the input power test was performed using the EMI Receiver. The EUT input power was varied between 85% and 115% of the nominal rated supply voltage. The carrier frequency was monitored for any change in amplitude.

Test Results:

The EUT complies with the relevant requirements of FCC Title 47, Part 15, Subpart A section 15.31 (e).

9. CONCLUSIONS

The Lighting Control Node, Model: LCN300 (EUT), as tested, meets all of the specification limits defined in FCC Title 47, Part 15, Subpart B, and Subpart C, sections 15.205, 15.207, 15.209 and 15.247.



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APPENDIX A

LABORATORY ACCREDITATIONS AND RECOGNITIONS

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LABORATORY ACCREDITATIONS AND RECOGNITIONS



NVLAP LAB CODE 200528-0

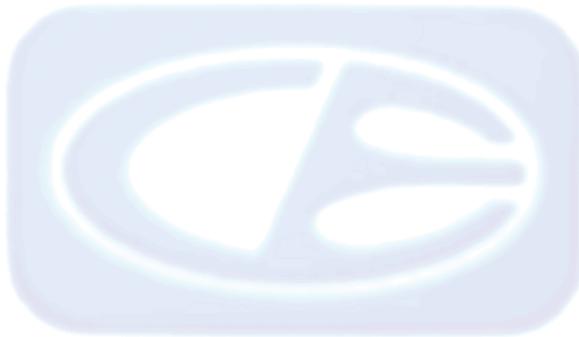
For US, Canada, Australia/New Zealand, Japan, Taiwan, Korea, and the European Union, Compatible Electronics is currently accredited by NVLAP to ISO/IEC 17025.

For the most up-to-date version of our scopes and certificates please visit

<http://celectronics.com/quality/scope/>

Quote from ISO-ILAC-IAF Communiqué on 17025:

"A laboratory's fulfilment of the requirements of ISO/IEC 17025:2005 means the laboratory meets both the technical competence requirements and management system requirements that are necessary for it to consistently deliver technically valid test results and calibrations. The management system requirements in ISO/IEC 17025:2005 (Section 4) are written in language relevant to laboratory operations and meet the principles of ISO 9001:2008 Quality Management Systems — Requirements."



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APPENDIX B

MODIFICATIONS TO THE EUT

Brea Division
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Brea, CA 92823
(714) 579-0500

Newbury Park Division
1050 Lawrence Drive
Newbury Park, CA 91320
(805) 480-4044

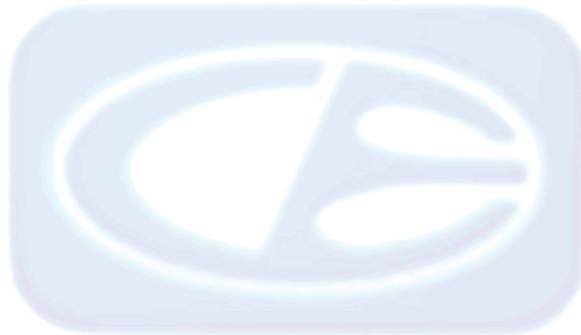
Lake Forest Division
20621 Pascal Way
Lake Forest, CA 92630
(949) 587-0400

MODIFICATIONS TO THE EUT

The modifications listed below were made to the EUT to pass FCC Subpart B and FCC 15.247 specifications.

All the rework described below was implemented during the test in a method that could be reproduced in all the units by the manufacturer.

The EUT was not modified during the testing.



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(949) 587-0400

APPENDIX C

ADDITIONAL MODELS COVERED UNDER THIS REPORT

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Newbury Park, CA 91320
(805) 480-4044

Lake Forest Division
20621 Pascal Way
Lake Forest, CA 92630
(949) 587-0400

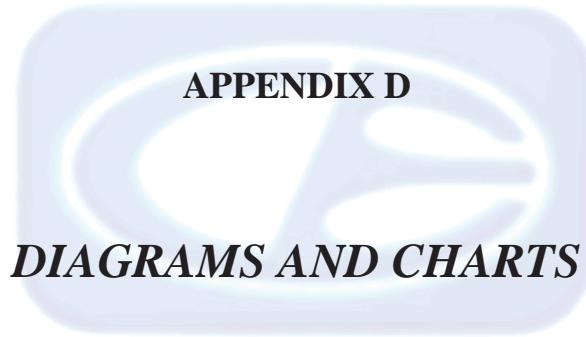
ADDITIONAL MODELS COVERED UNDER THIS REPORT

USED FOR THE PRIMARY TEST

Lighting Control Node
Model: LCN300
S/N: N/A

There are no additional models covered under this report.





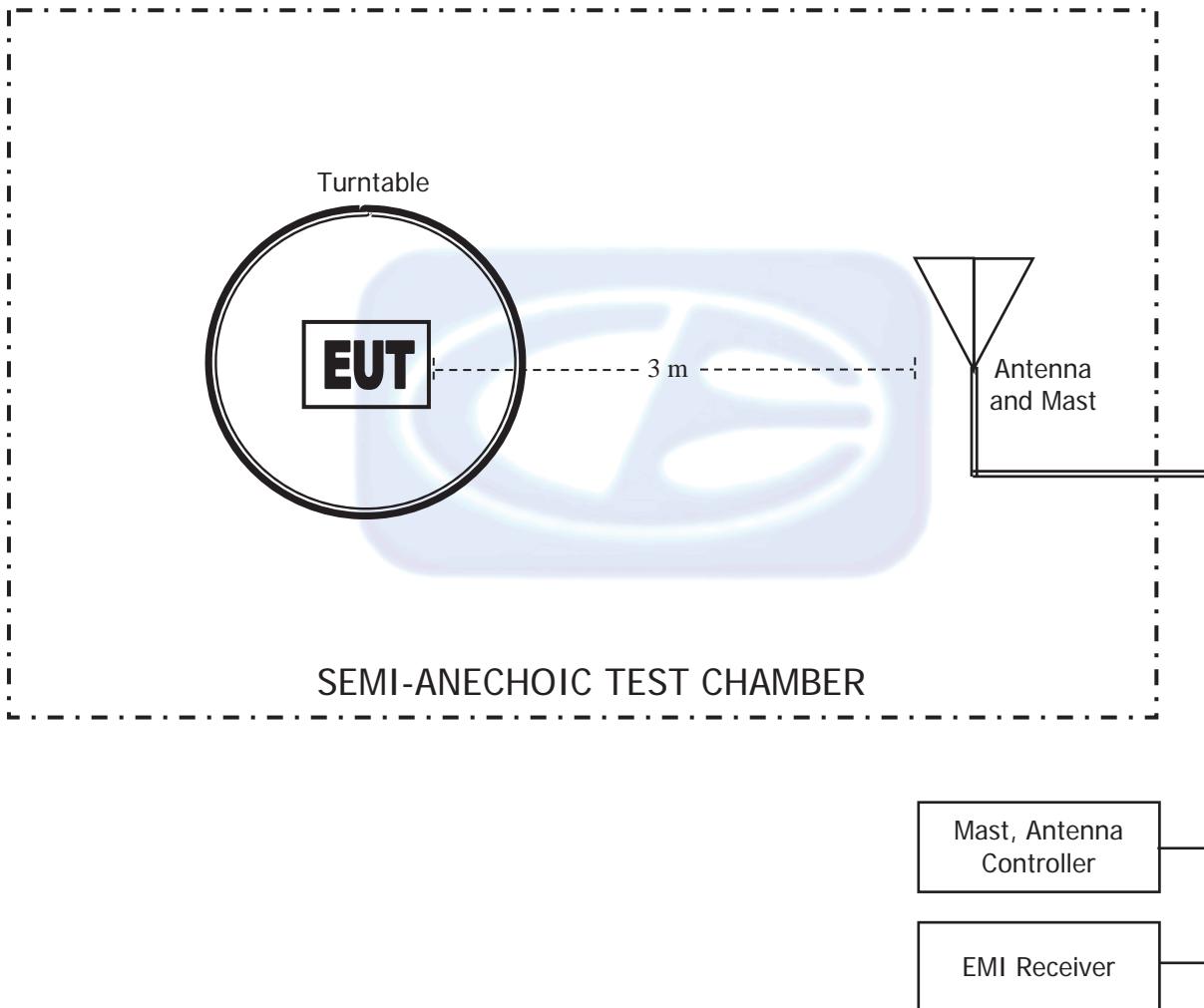
APPENDIX D

DIAGRAMS AND CHARTS

Brea Division
114 Olinda Drive
Brea, CA 92823
(714) 579-0500

Newbury Park Division
1050 Lawrence Drive
Newbury Park, CA 91320
(805) 480-4044

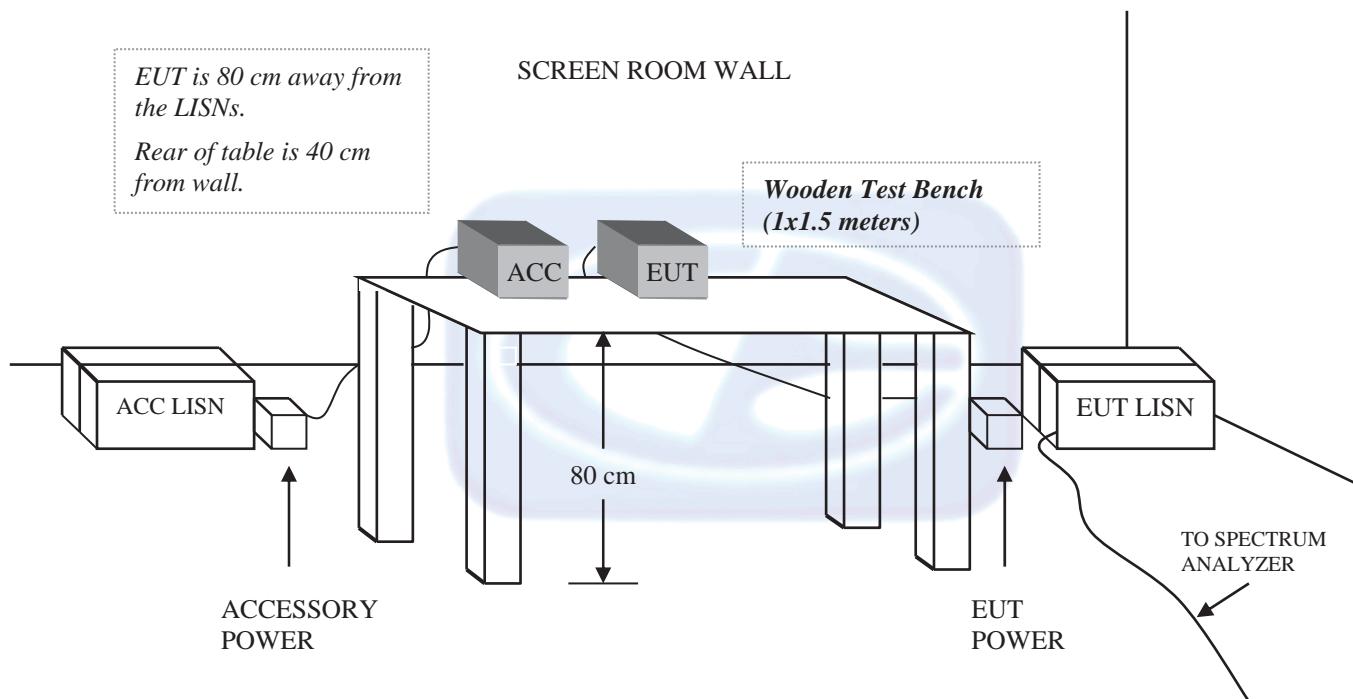
Lake Forest Division
20621 Pascal Way
Lake Forest, CA 92630
(949) 587-0400

FIGURE 1: LAYOUT OF THE SEMI-ANECHOIC TEST CHAMBER

Brea Division
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Lake Forest, CA 92630
(949) 587-0400

FIGURE 2: CONDUCTED EMISSIONS TEST SETUP


COM-POWER AL-130R
LOOP ANTENNA
S/N: 121090
CALIBRATION DATE: FEBRUARY 5, 2019

| FREQUENCY (MHz) | MAGNETIC (dB/m) | ELECTRIC (dB/m) |
|--------------------|--------------------|--------------------|
| 0.01 | 15.6 | -35.9 |
| 0.02 | 14.8 | -36.7 |
| 0.03 | 15.6 | -35.9 |
| 0.04 | 15.1 | -36.4 |
| 0.05 | 14.4 | -37.0 |
| 0.06 | 14.6 | -36.9 |
| 0.07 | 14.4 | -37.1 |
| 0.08 | 14.3 | -37.1 |
| 0.09 | 14.5 | -36.9 |
| 0.10 | 14.1 | -37.3 |
| 0.20 | 14.1 | -37.3 |
| 0.30 | 14.0 | -37.4 |
| 0.40 | 14.0 | -37.4 |
| 0.50 | 14.2 | -37.2 |
| 0.60 | 14.2 | -37.2 |
| 0.70 | 14.2 | -37.2 |
| 0.80 | 14.2 | -37.3 |
| 0.90 | 14.3 | -37.2 |
| 1.00 | 14.5 | -37.0 |
| 2.00 | 14.5 | -36.9 |
| 3.00 | 14.5 | -36.9 |
| 4.00 | 14.7 | -36.8 |
| 5.00 | 14.6 | -36.9 |
| 6.00 | 14.6 | -36.9 |
| 7.00 | 14.6 | -36.9 |
| 8.00 | 14.6 | -36.9 |
| 9.00 | 14.6 | -36.9 |
| 10.00 | 14.8 | -36.6 |
| 11.00 | 14.9 | -36.6 |
| 12.00 | 14.8 | -36.6 |
| 13.00 | 14.8 | -36.7 |
| 14.00 | 14.6 | -36.8 |
| 15.00 | 14.5 | -36.9 |
| 16.00 | 14.5 | -37.0 |
| 17.00 | 14.6 | -36.9 |
| 18.00 | 14.7 | -36.7 |
| 19.00 | 14.8 | -36.6 |
| 20.00 | 14.9 | -36.6 |
| 21.00 | 14.6 | -36.8 |
| 22.00 | 14.2 | -37.2 |
| 23.00 | 13.7 | -37.7 |
| 24.00 | 13.3 | -38.2 |
| 25.00 | 13.0 | -38.5 |
| 26.00 | 12.9 | -38.6 |
| 27.00 | 13.0 | -38.5 |
| 28.00 | 13.1 | -38.4 |
| 29.00 | 13.1 | -38.4 |
| 30.00 | 12.9 | -38.5 |

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**Lake Forest Division
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(949) 587-0400**

COM-POWER AC-220

COMBILOG ANTENNA

S/N: 61093

CALIBRATION DATE: JUNE 5, 2019

| FREQUENCY (MHz) | FACTOR (dB) | FREQUENCY (MHz) | FACTOR (dB) |
|----------------------------|------------------------|----------------------------|------------------------|
| 30 | 22.10 | 200 | 15.30 |
| 35 | 20.90 | 250 | 16.80 |
| 40 | 20.10 | 300 | 19.00 |
| 45 | 19.40 | 350 | 19.60 |
| 50 | 18.40 | 400 | 21.70 |
| 60 | 15.10 | 450 | 21.60 |
| 70 | 12.00 | 500 | 22.20 |
| 80 | 11.60 | 550 | 22.70 |
| 90 | 13.50 | 600 | 24.20 |
| 100 | 14.70 | 650 | 24.40 |
| 120 | 15.90 | 700 | 24.50 |
| 125 | 15.90 | 750 | 25.40 |
| 140 | 14.80 | 800 | 26.30 |
| 150 | 15.50 | 850 | 26.70 |
| 160 | 19.80 | 900 | 27.50 |
| 175 | 15.20 | 950 | 27.80 |
| 180 | 14.90 | 1000 | 27.90 |

COM POWER AH-118

HORN ANTENNA

S/N: 071175

CALIBRATION DATE: FEBRUARY 22, 2018

| FREQUENCY (GHz) | FACTOR (dB) | FREQUENCY (GHz) | FACTOR (dB) |
|--------------------|----------------|--------------------|----------------|
| 1.0 | 23.71 | 10.0 | 40.08 |
| 1.5 | 25.46 | 10.5 | 40.75 |
| 2.0 | 29.26 | 11.0 | 41.78 |
| 2.5 | 27.95 | 11.5 | 41.02 |
| 3.0 | 29.03 | 12.0 | 40.32 |
| 3.5 | 29.70 | 12.5 | 40.96 |
| 4.0 | 30.71 | 13.0 | 40.29 |
| 4.5 | 31.62 | 13.5 | 39.48 |
| 5.0 | 33.23 | 14.0 | 39.89 |
| 5.5 | 35.07 | 14.5 | 42.75 |
| 6.0 | 34.43 | 15.0 | 40.98 |
| 6.5 | 34.98 | 15.5 | 38.54 |
| 7.0 | 36.75 | 16.0 | 39.40 |
| 7.5 | 37.10 | 16.5 | 39.40 |
| 8.0 | 37.66 | 17.0 | 41.74 |
| 8.5 | 39.29 | 17.5 | 42.58 |
| 9.0 | 37.75 | 18.0 | 44.68 |
| 9.5 | 38.23 | | |

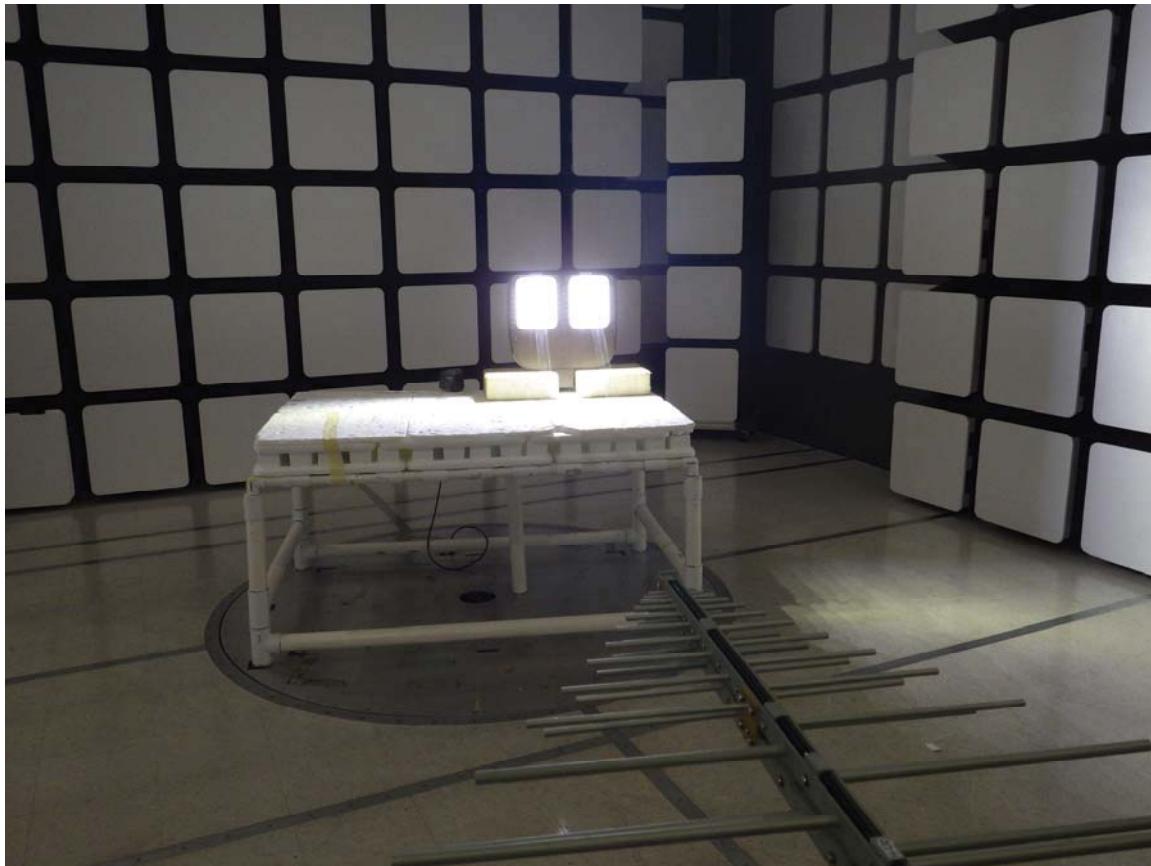
COM-POWER PA-118

PREAMPLIFIER

S/N: 181653

CALIBRATION DATE: JANUARY 25, 2019

| FREQUENCY (GHz) | FACTOR (dB) | FREQUENCY (GHz) | FACTOR (dB) |
|--------------------|----------------|--------------------|----------------|
| 1.0 | 40.10 | 6.0 | 40.60 |
| 1.1 | 40.10 | 6.5 | 39.50 |
| 1.2 | 40.00 | 7.0 | 39.40 |
| 1.3 | 39.70 | 7.5 | 39.30 |
| 1.4 | 39.60 | 8.0 | 39.20 |
| 1.5 | 39.90 | 8.5 | 40.50 |
| 1.6 | 40.00 | 9.0 | 39.60 |
| 1.7 | 39.70 | 9.5 | 39.50 |
| 1.8 | 39.50 | 10.0 | 38.80 |
| 1.9 | 39.60 | 11.0 | 38.70 |
| 2.0 | 39.90 | 12.0 | 42.20 |
| 2.5 | 40.10 | 13.0 | 40.00 |
| 3.0 | 40.80 | 14.0 | 40.30 |
| 3.5 | 40.60 | 15.0 | 40.20 |
| 4.0 | 40.50 | 16.0 | 41.00 |
| 4.5 | 41.60 | 17.0 | 39.70 |
| 5.0 | 39.20 | 18.0 | 40.90 |
| 5.5 | 40.00 | | |

**FRONT VIEW**

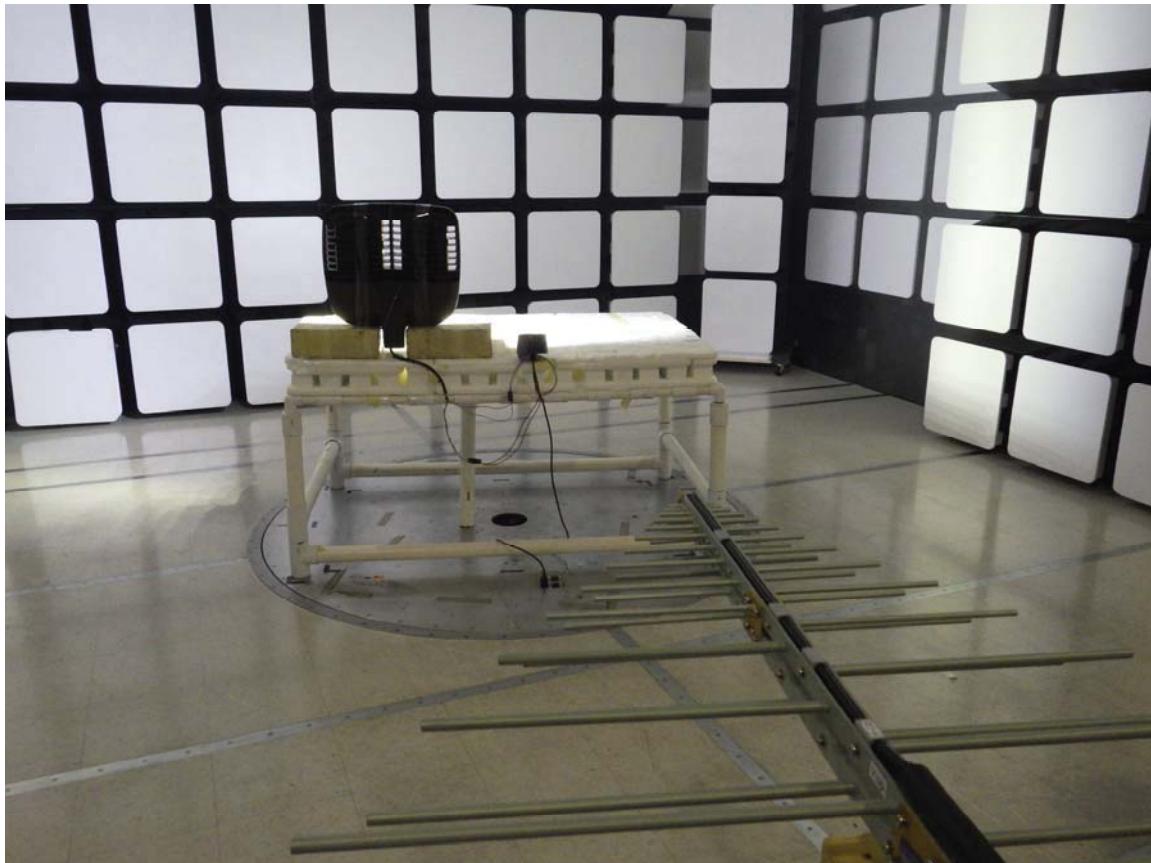
MESH SYSTEMS LLC
LIGHTING CONTROL NODE
MODEL: LCN300
FCC SUBPART B AND C – RADIATED EMISSIONS
BELOW 1 GHz

**PHOTOGRAPH SHOWING THE EUT CONFIGURATION
FOR MAXIMUM EMISSIONS**

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Lake Forest Division
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(949) 587-0400

**REAR VIEW**

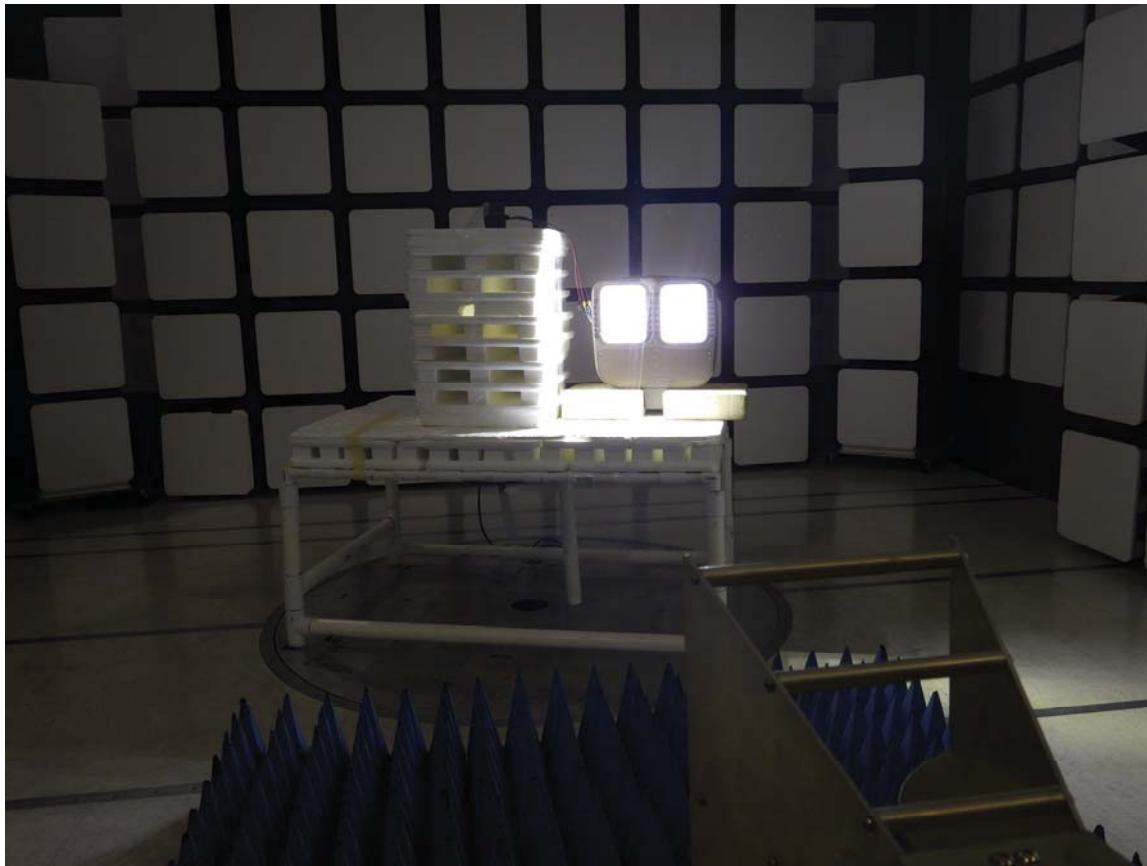
MESH SYSTEMS LLC
LIGHTING CONTROL NODE
MODEL: LCN300
FCC SUBPART B AND C – RADIATED EMISSIONS
BELOW 1 GHz

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**FRONT VIEW**

MESH SYSTEMS LLC
LIGHTING CONTROL NODE
MODEL: LCN300
FCC SUBPART B AND C – RADIATED EMISSIONS
ABOVE 1 GHz

**PHOTOGRAPH SHOWING THE EUT CONFIGURATION
FOR MAXIMUM EMISSIONS**

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**REAR VIEW**

MESH SYSTEMS LLC
LIGHTING CONTROL NODE
MODEL: LCN300
FCC SUBPART B AND C – RADIATED EMISSIONS
ABOVE 1 GHz

**PHOTOGRAPH SHOWING THE EUT CONFIGURATION
FOR MAXIMUM EMISSIONS**

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**FRONT VIEW**

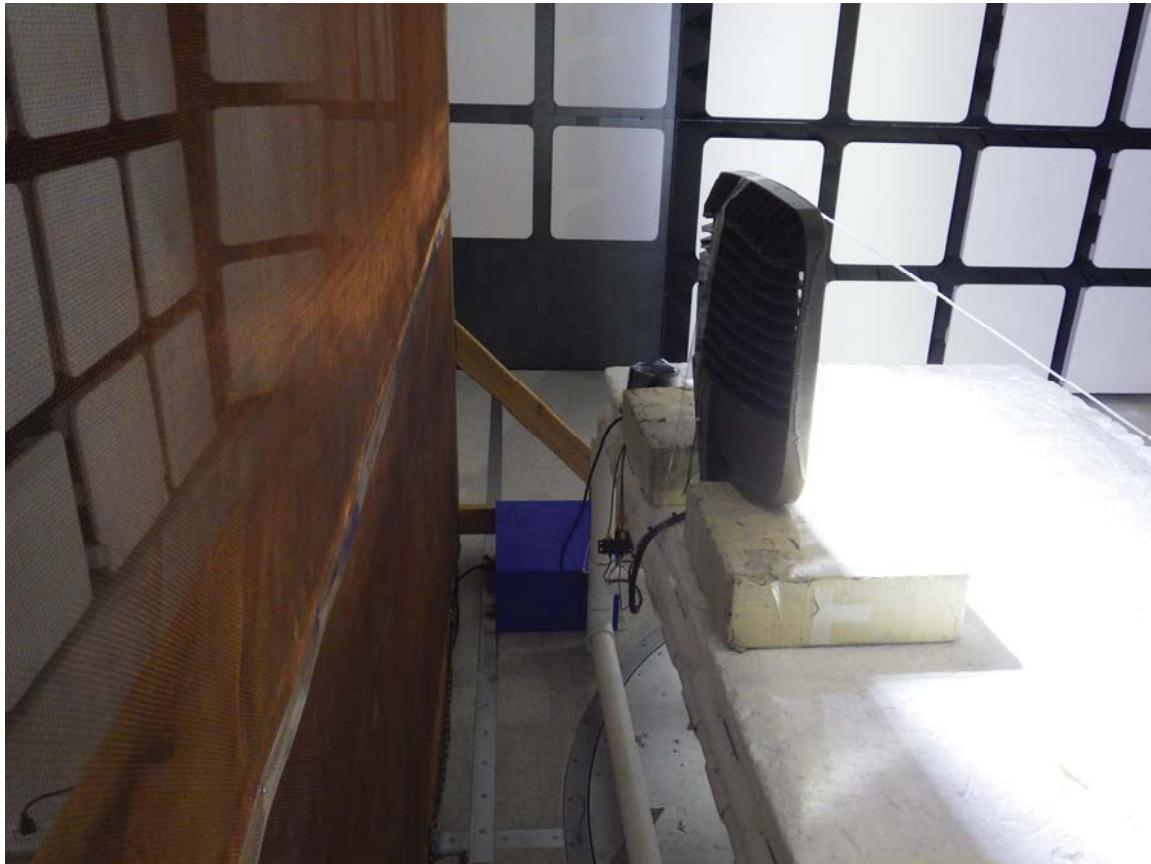
MESH SYSTEMS LLC
LIGHTING CONTROL NODE
MODEL: LCN300
FCC SUBPART B AND C – CONDUCTED EMISSIONS

**PHOTOGRAPH SHOWING THE EUT CONFIGURATION
FOR MAXIMUM EMISSIONS**

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**REAR VIEW**

MESH SYSTEMS LLC
LIGHTING CONTROL NODE
MODEL: LCN300
FCC SUBPART B AND C – CONDUCTED EMISSIONS

**PHOTOGRAPH SHOWING THE EUT CONFIGURATION
FOR MAXIMUM EMISSIONS**

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APPENDIX E

DATA SHEETS

Brea Division
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RADIATED EMISSIONS
DATA SHEETS

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(949) 587-0400

FCC 15.247

 Mesh Systems LLC
 Lighting Control Node
 Model: LCN300

 Date: 07/31/2019
 Lab: D
 Tested By: Kyle Fujimoto

Low Channel - Y-Axis
Transmit Mode

| Freq. (MHz) | Level (dBuV/m) | Pol (v/h) | Limit | Margin | Peak / QP / Avg | Table Angle (deg) | Ant. Height (cm) | Comments |
|-------------|----------------|-----------|-------|--------|-----------------|-------------------|------------------|--|
| 1812 | | | | | | | | N/A - Done via Conducted Not in Restricted Band |
| 2718 | 38.08 | V | 73.97 | -35.89 | Peak | 92.75 | 100.00 | |
| 2718 | 28.48 | V | 53.97 | -25.49 | Avg | 92.75 | 100.00 | |
| 3624 | 45.53 | V | 73.97 | -28.44 | Peak | 128.50 | 136.82 | |
| 3624 | 39.81 | V | 53.97 | -14.16 | Avg | 128.50 | 136.82 | |
| 4530 | 41.93 | V | 73.97 | -32.04 | Peak | 93.75 | 196.16 | |
| 4530 | 32.04 | V | 53.97 | -21.93 | Avg | 93.75 | 196.16 | |
| 5436 | 44.77 | V | 73.97 | -29.20 | Peak | 122.75 | 173.17 | |
| 5436 | 35.53 | V | 53.97 | -18.44 | Avg | 122.75 | 173.17 | |
| 6342 | | | | | | | | N/A - Done via Conducted Not in Restricted Band |
| 7248 | | | | | | | | N/A - Done via Conducted Not in Restricted Band |
| 8154 | 53.55 | V | 73.97 | -20.42 | Peak | 124.00 | 237.35 | |
| 8154 | 47.15 | V | 53.97 | -6.82 | Avg | 124.00 | 237.35 | |
| 9060 | | | | | | | | No Emission detected |
| 9060 | | | | | | | | |

FCC 15.247

 Mesh Systems LLC
 Lighting Control Node
 Model: LCN300

 Date: 07/31/2019
 Lab: D
 Tested By: Kyle Fujimoto

Low Channel - Y-Axis
Transmit Mode

| Freq. (MHz) | Level (dBuV/m) | Pol (v/h) | Limit | Margin | Peak / QP / Avg | Table Angle (deg) | Ant. Height (cm) | Comments |
|-------------|----------------|-----------|-------|--------|-----------------|-------------------|------------------|--------------------------|
| 1812 | | | | | | | | N/A - Done via Conducted |
| | | | | | | | | Not in Restricted Band |
| 2718 | 37.60 | H | 73.97 | -36.37 | Peak | 223.75 | 215.38 | |
| 2718 | 29.58 | H | 53.97 | -24.39 | Avg | 223.75 | 215.38 | |
| 3624 | 44.68 | H | 73.97 | -29.29 | Peak | 195.00 | 236.52 | |
| 3624 | 37.86 | H | 53.97 | -16.11 | Avg | 195.00 | 236.52 | |
| 4530 | 38.94 | H | 73.97 | -35.03 | Peak | 103.75 | 100.00 | |
| 4530 | 28.02 | H | 53.97 | -25.95 | Avg | 103.75 | 100.00 | |
| 5436 | 38.77 | H | 73.97 | -35.20 | Peak | 112.50 | 100.00 | |
| 5436 | 27.79 | H | 53.97 | -26.18 | Avg | 112.50 | 100.00 | |
| 6342 | | | | | | | | N/A - Done via Conducted |
| | | | | | | | | Not in Restricted Band |
| 7248 | | | | | | | | N/A - Done via Conducted |
| | | | | | | | | Not in Restricted Band |
| 8154 | 48.83 | H | 73.97 | -25.14 | Peak | 123.50 | 217.53 | |
| 8154 | 40.88 | H | 53.97 | -13.09 | Avg | 123.50 | 217.53 | |
| 9060 | | | | | | | | No Emission |
| 9060 | | | | | | | | Detected |

FCC 15.247

 Mesh Systems LLC
 Lighting Control Node
 Model: LCN300

 Date: 07/31/2019
 Lab: D
 Tested By: Kyle Fujimoto

Middle Channel - Y-Axis
Transmit Mode

| Freq. (MHz) | Level (dBuV/m) | Pol (v/h) | Limit | Margin | Peak / QP / Avg | Table Angle (deg) | Ant. Height (cm) | Comments |
|-------------|----------------|-----------|-------|--------|-----------------|-------------------|------------------|--------------------------|
| 1828 | | | | | | | | N/A - Done via Conducted |
| | | | | | | | | Not in Restricted Band |
| 2742 | 39.22 | V | 73.97 | -34.75 | Peak | 131.50 | 177.17 | |
| 2742 | 32.19 | V | 53.97 | -21.78 | Avg | 131.50 | 177.17 | |
| 3656 | 44.40 | V | 73.97 | -29.57 | Peak | 111.50 | 202.73 | |
| 3656 | 38.63 | V | 53.97 | -15.34 | Avg | 111.50 | 202.73 | |
| 4570 | 41.74 | V | 73.97 | -32.23 | Peak | 104.00 | 194.61 | |
| 4570 | 32.89 | V | 53.97 | -21.08 | Avg | 104.00 | 194.61 | |
| 5484 | | | | | | | | N/A - Done via Conducted |
| | | | | | | | | Not in Restricted Band |
| 6398 | | | | | | | | N/A - Done via Conducted |
| | | | | | | | | Not in Restricted Band |
| 7312 | 50.48 | V | 73.97 | -23.49 | Peak | 174.50 | 190.37 | |
| 7312 | 42.59 | V | 53.97 | -11.38 | Avg | 174.50 | 190.37 | |
| 8226 | 52.85 | V | 73.97 | -21.12 | Peak | 139.00 | 179.92 | |
| 8226 | 46.42 | V | 53.97 | -7.55 | Avg | 139.00 | 179.92 | |
| 9140 | | V | | | | | | No emission detected |
| 9140 | | V | | | | | | |

FCC 15.247

 Mesh Systems LLC
 Lighting Control Node
 Model: LCN300

 Date: 07/31/2019
 Lab: D
 Tested By: Kyle Fujimoto

Middle Channel - Y-Axis
Transmit Mode

| Freq. (MHz) | Level (dB _{UV} /m) | Pol (v/h) | Limit | Margin | Peak / QP / Avg | Table Angle (deg) | Ant. Height (cm) | Comments |
|-------------|-----------------------------|-----------|-------|--------|-----------------|-------------------|------------------|--------------------------|
| 1828 | | | | | | | | N/A - Done via Conducted |
| | | | | | | | | Not in Restricted Band |
| 2742 | 37.75 | H | 73.97 | -36.22 | Peak | 222.00 | 239.68 | |
| 2742 | 29.82 | H | 53.97 | -24.15 | Avg | 222.00 | 239.68 | |
| 3656 | 42.31 | H | 73.97 | -31.66 | Peak | 253.25 | 100.00 | |
| 3656 | 36.41 | H | 53.97 | -17.56 | Avg | 253.25 | 100.00 | |
| 4570 | 40.94 | H | 73.97 | -33.03 | Peak | 232.50 | 218.37 | |
| 4570 | 31.77 | H | 53.97 | -22.20 | Avg | 232.50 | 218.37 | |
| 5484 | | | | | | | | N/A - Done via Conducted |
| | | | | | | | | Not in Restricted Band |
| 6398 | | | | | | | | N/A - Done via Conducted |
| | | | | | | | | Not in Restricted Band |
| 7312 | 47.02 | H | 73.97 | -26.95 | Peak | 102.25 | 100.00 | |
| 7312 | 38.82 | H | 53.97 | -15.15 | Avg | 102.25 | 100.00 | |
| 8226 | 48.04 | H | 73.97 | -25.93 | Peak | 57.75 | 100.00 | |
| 8226 | 39.58 | H | 53.97 | -14.39 | Avg | 57.75 | 100.00 | |
| 9140 | | | | | | | | No emissions detected |
| 9140 | | | | | | | | |

FCC 15.247

 Mesh Systems LLC
 Lighting Control Node
 Model: LCN300

 Date: 07/31/2019
 Lab: D
 Tested By: Kyle Fujimoto

**High Channel - Y-Axis
Transmit Mode**

| Freq. (MHz) | Level (dBuV/m) | Pol (v/h) | Limit | Margin | Peak / QP / Avg | Table Angle (deg) | Ant. Height (cm) | Comments |
|-------------|----------------|-----------|-------|--------|-----------------|-------------------|------------------|--|
| 1848 | | | | | | | | N/A - Done via Conducted Not in Restricted Band |
| 2772 | 32.55 | V | 73.97 | -41.42 | Peak | 90.75 | 191.92 | |
| 2772 | 24.86 | V | 53.97 | -29.11 | Avg | 90.75 | 191.92 | |
| 3696 | 36.85 | V | 73.97 | -37.12 | Peak | 134.75 | 100.00 | |
| 3696 | 33.09 | V | 53.97 | -20.88 | Avg | 134.75 | 100.00 | |
| 4620 | 31.56 | V | 73.97 | -42.41 | Peak | 74.75 | 100.00 | |
| 4620 | 21.04 | V | 53.97 | -32.93 | Avg | 74.75 | 100.00 | |
| 5544 | | | | | | | | N/A - Done via Conducted Not in Restricted Band |
| 5544 | | | | | | | | |
| 6468 | | | | | | | | N/A - Done via Conducted Not in Restricted Band |
| 7392 | 42.19 | V | 73.97 | -31.78 | Peak | 142.50 | 163.32 | |
| 7392 | 36.01 | V | 53.97 | -17.96 | Avg | 142.50 | 163.32 | |
| 8316 | 39.58 | V | 73.97 | -34.39 | Peak | 159.75 | 100.00 | |
| 8316 | 29.14 | V | 53.97 | -24.83 | Avg | 159.75 | 100.00 | |
| 9240 | | | | | | | | No emission detected |
| 9240 | | | | | | | | |

FCC 15.247

 Mesh Systems
 Lighting Control Node
 Model: LCN300
High Channel - Y-Axis
Transmit Mode

 Date: 07/31/2019
 Lab: D
 Tested By: Kyle Fujimoto

| Freq. (MHz) | Level (dBuV/m) | Pol (v/h) | Limit | Margin | Peak / QP / Avg | Table Angle (deg) | Ant. Height (cm) | Comments |
|-------------|----------------|-----------|-------|--------|-----------------|-------------------|------------------|--------------------------|
| 1848 | | | | | | | | N/A - Done via Conducted |
| | | | | | | | | Not in Restricted Band |
| 2772 | 38.17 | H | 73.97 | -35.80 | Peak | 216.50 | 196.58 | |
| 2772 | 31.23 | H | 53.97 | -22.74 | Avg | 216.50 | 196.58 | |
| 3696 | 41.23 | H | 73.97 | -32.74 | Peak | 114.25 | 100.00 | |
| 3696 | 34.91 | H | 53.97 | -19.06 | Avg | 114.25 | 100.00 | |
| 4620 | 40.35 | H | 73.97 | -33.62 | Peak | 183.75 | 186.07 | |
| 4620 | 30.02 | H | 53.97 | -23.95 | Avg | 183.75 | 186.07 | |
| 5544 | | | | | | | | N/A - Done via Conducted |
| 5544 | | | | | | | | Not in Restricted Band |
| 6468 | | | | | | | | N/A - Done via Conducted |
| | | | | | | | | Not in Restricted Band |
| 7392 | 44.71 | H | 73.97 | -29.26 | Peak | 153.00 | 100.00 | |
| 7392 | 34.58 | H | 53.97 | -19.39 | Avg | 153.00 | 100.00 | |
| 8316 | 45.74 | H | 73.97 | -28.23 | Peak | 108.00 | 250.00 | |
| 8316 | 35.46 | H | 53.97 | -18.51 | Avg | 108.00 | 250.00 | |
| 9240 | | | | | | | | No emissions detected |
| 9240 | | | | | | | | |



COMPATIBLE ELECTRONICS

Report Number: B90603D1
FCC Part 15 Subpart B and C Test Report
Lighting Control Node
Model: LCN300

Page E9

FCC 15.247 and FCC Class B

Mesh Systems LLC

Lighting Control Node

Model: LCN300

Date: 07/31/2019

Lab: D

Tested By: Kyle Fujimoto

Non-Harmonic Emissions and Digital Portion

**Brea Division
114 Olinda Drive
Brea, CA 92823
(714) 579-0500**

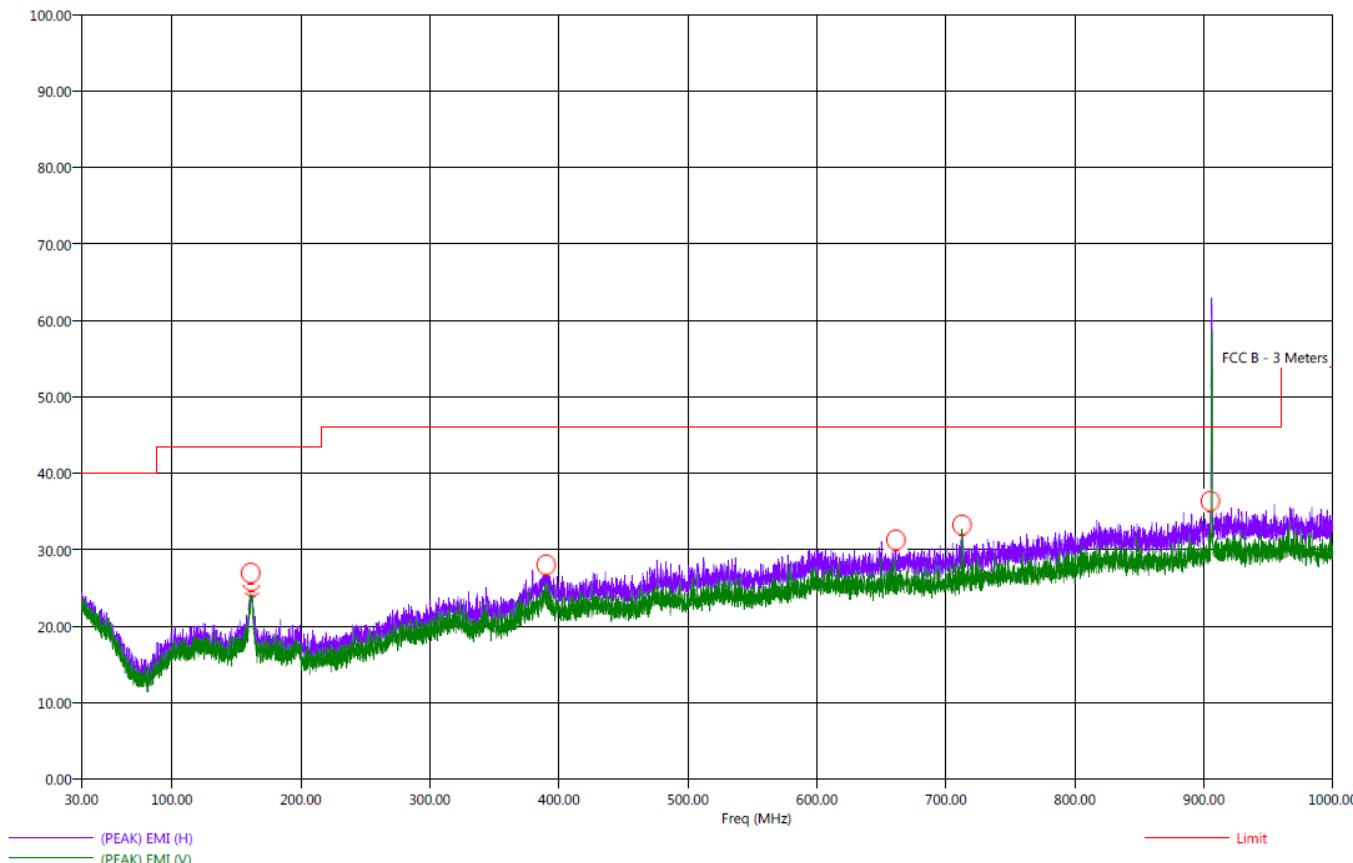
**Newbury Park Division
1050 Lawrence Drive
Newbury Park, CA 91320
(805) 480-4044**

**Lake Forest Division
20621 Pascal Way
Lake Forest, CA 92630
(949) 587-0400**

Title: Pre-Scan - FCC Class B
 File: 1 - RS - Pre-Scan - Tx Mode - FCC Class B - With LED Light.set
 Operator: Kyle Fujimoto
 EUT Type: Lighting Control Node
 EUT Condition: The EUT is continuously transmitting at the low channel
 Company: Mesh Systems LLC
 Model: LCN300
 S/N: N/A
 The frequency at 906 MHz is from the intentional radiator and is subject to the limits of FCC 15.247 instead.
 Low channel is the worst case channel

7/31/2019 8:50:57 AM
 Sequence: Preliminary Scan

FCC Class B

 Electric Field Strength (dB μ V/m)


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20621 Pascal Way
Lake Forest, CA 92630
(949) 587-0400

Title: Radiated Final - FCC Class B
 File: 1 - RS - Final Scan - Tx Mode - FCC Class B - With LED Light.set
 Operator: Kyle Fujimoto
 EUT Type: Lighting Control Node
 EUT Condition: The EUT is continuously transmitting at the low channel
 Company: Mesh Systems LLC
 Model: LCN300
 S/N: N/A

7/31/2019 9:17:58 AM
 Sequence: Final Measurements

FCC Class B

| Freq (MHz) | Pol | (PEAK) EMI (dB μ V/m) | (QP) EMI (dB μ V/m) | (PEAK) Margin (dB) | (QP) Margin (dB) | Limit (dB μ V/m) | Transducer (dB) | Cable (dB) | Ttbl Aql (deq) | Twr Ht (cm) |
|------------|-----|---------------------------|-------------------------|--------------------|------------------|----------------------|-----------------|------------|----------------|-------------|
| 161.20 | H | 26.47 | 21.35 | -17.03 | -22.15 | 43.50 | 22.04 | 1.30 | 134.25 | 274.85 |
| 161.70 | H | 28.21 | 21.41 | -15.29 | -22.09 | 43.50 | 22.09 | 1.30 | 202.50 | 193.53 |
| 162.20 | H | 26.63 | 21.41 | -16.87 | -22.09 | 43.50 | 22.10 | 1.30 | 149.25 | 111.32 |
| 390.20 | H | 27.88 | 22.61 | -18.12 | -23.39 | 46.00 | 23.12 | 2.06 | 72.50 | 275.32 |
| 661.30 | H | 30.76 | 25.19 | -15.24 | -20.81 | 46.00 | 24.85 | 2.50 | 49.00 | 242.79 |
| 712.50 | H | 30.63 | 25.59 | -15.37 | -20.41 | 46.00 | 24.80 | 2.55 | 158.75 | 373.65 |
| 905.10 | H | 34.96 | 29.61 | -11.04 | -16.39 | 46.00 | 27.71 | 3.01 | 292.50 | 373.71 |



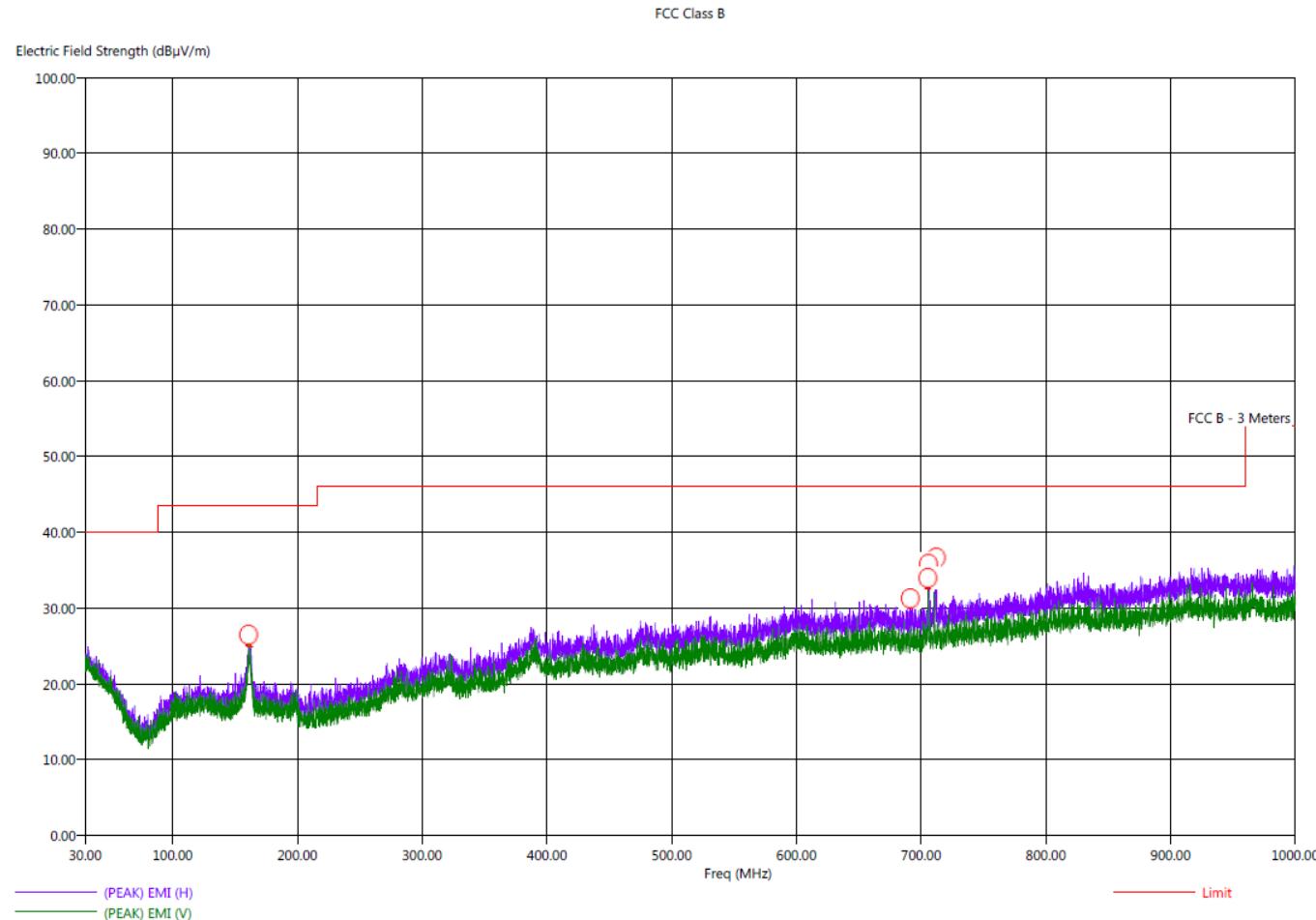
Brea Division
114 Olinda Drive
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1050 Lawrence Drive
Newbury Park, CA 91320
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Lake Forest Division
20621 Pascal Way
Lake Forest, CA 92630
(949) 587-0400

Title: Pre-Scan - FCC Class B
 File: 2 - RS - Pre-Scan - Rx Mode - FCC Class B - With LED Light.set
 Operator: Kyle Fujimoto
 EUT Type: Lighting Control Node
 EUT Condition: The EUT is continuously receiving at the low channel
 Company: Mesh Systems LLC
 Model: LCN300
 S/N: N/A

7/31/2019 9:52:33 AM
 Sequence: Preliminary Scan



Title: Radiated Final - FCC Class B
 File: 2 - RS - Final Scan - Rx Mode - FCC Class B - With LED Light.set
 Operator: Kyle Fujimoto
 EUT Type: Lighting Control Node
 EUT Condition: The EUT is continuously receiving at the low channel
 Company: Mesh Systems LLC
 Model: LCN300
 S/N: N/A

7/31/2019 10:16:32 AM
 Sequence: Final Measurements

FCC Class B

| Freq (MHz) | Pol | (PEAK) EMI (dB μ V/m) | (QP) EMI (dB μ V/m) | (PEAK) Margin (dB) | (QP) Margin (dB) | Limit (dB μ V/m) | Transducer (dB) | Cable (dB) | Ttbl Agl (deg) | Twr Ht (cm) |
|---------------|-----|------------------------------|----------------------------|-----------------------|---------------------|-------------------------|--------------------|---------------|-------------------|----------------|
| 160.90 | H | 26.71 | 20.62 | -16.79 | -22.88 | 43.50 | 21.31 | 1.30 | 0.00 | 324.52 |
| 162.10 | H | 27.38 | 21.39 | -16.12 | -22.11 | 43.50 | 22.08 | 1.30 | 280.75 | 111.20 |
| 691.40 | H | 30.12 | 24.79 | -15.88 | -21.21 | 46.00 | 24.45 | 2.50 | 305.75 | 390.61 |
| 705.50 | V | 30.69 | 38.56 | -15.31 | -7.44 | 46.00 | 24.60 | 2.52 | 161.25 | 373.89 |
| 706.00 | H | 39.97 | 25.37 | -6.03 | -20.63 | 46.00 | 24.60 | 2.52 | 0.00 | 291.62 |
| 712.20 | H | 43.38 | 25.59 | -2.62 | -20.41 | 46.00 | 24.80 | 2.55 | 324.75 | 292.04 |



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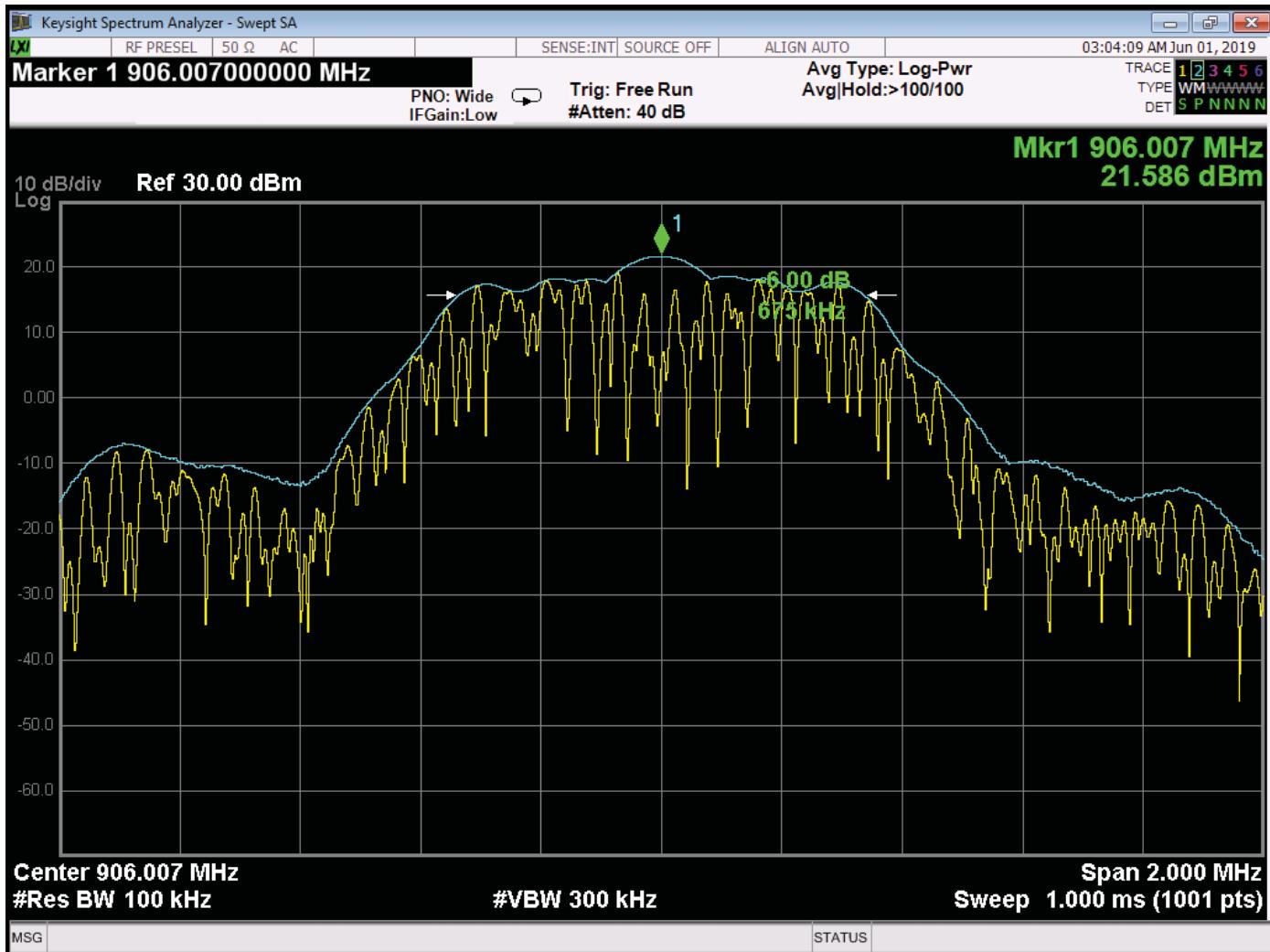
-6 dB BANDWIDTH

DATA SHEETS

Brea Division
114 Olinda Drive
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(714) 579-0500

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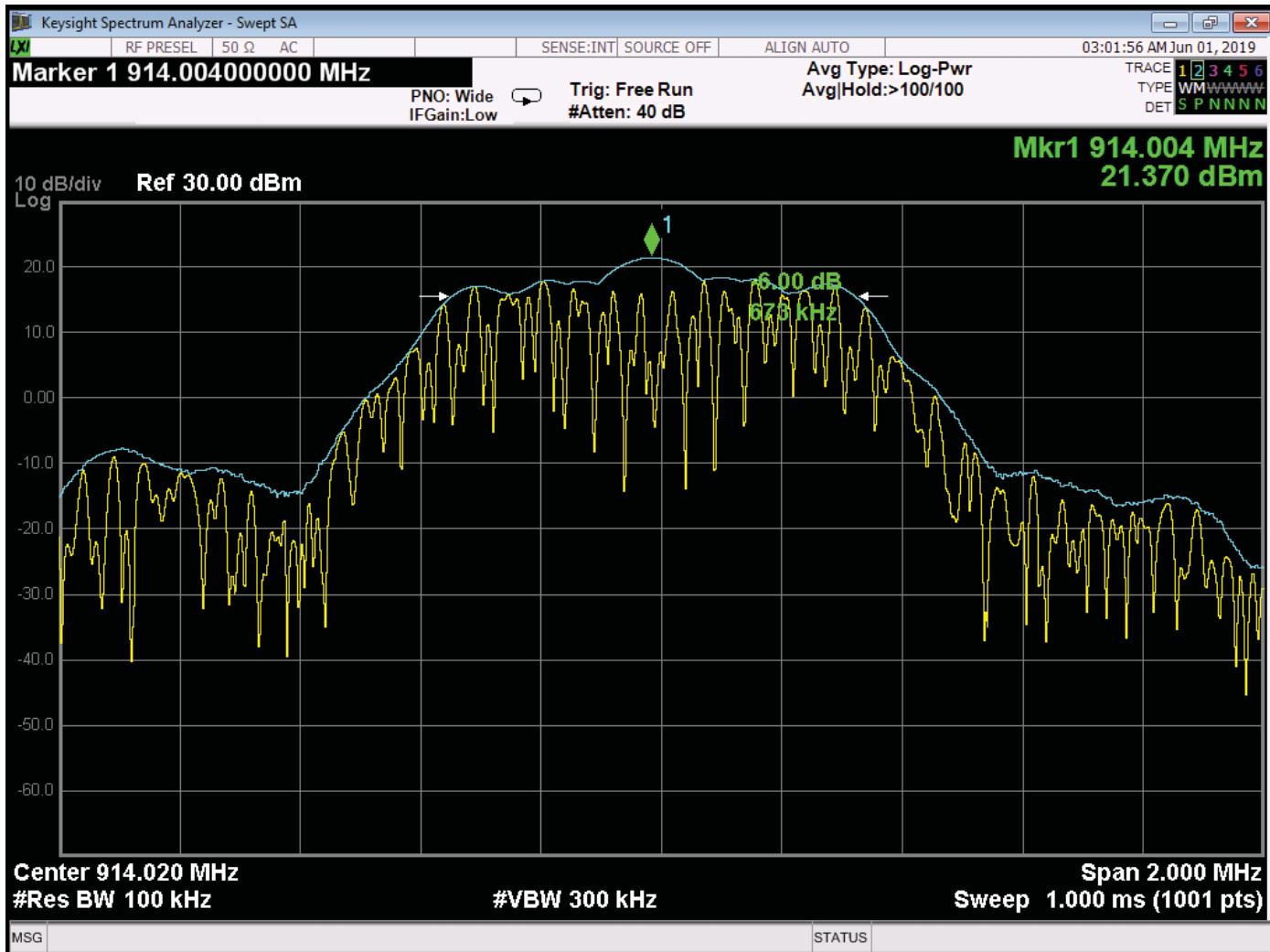


-6 dB Bandwidth – Low Channel

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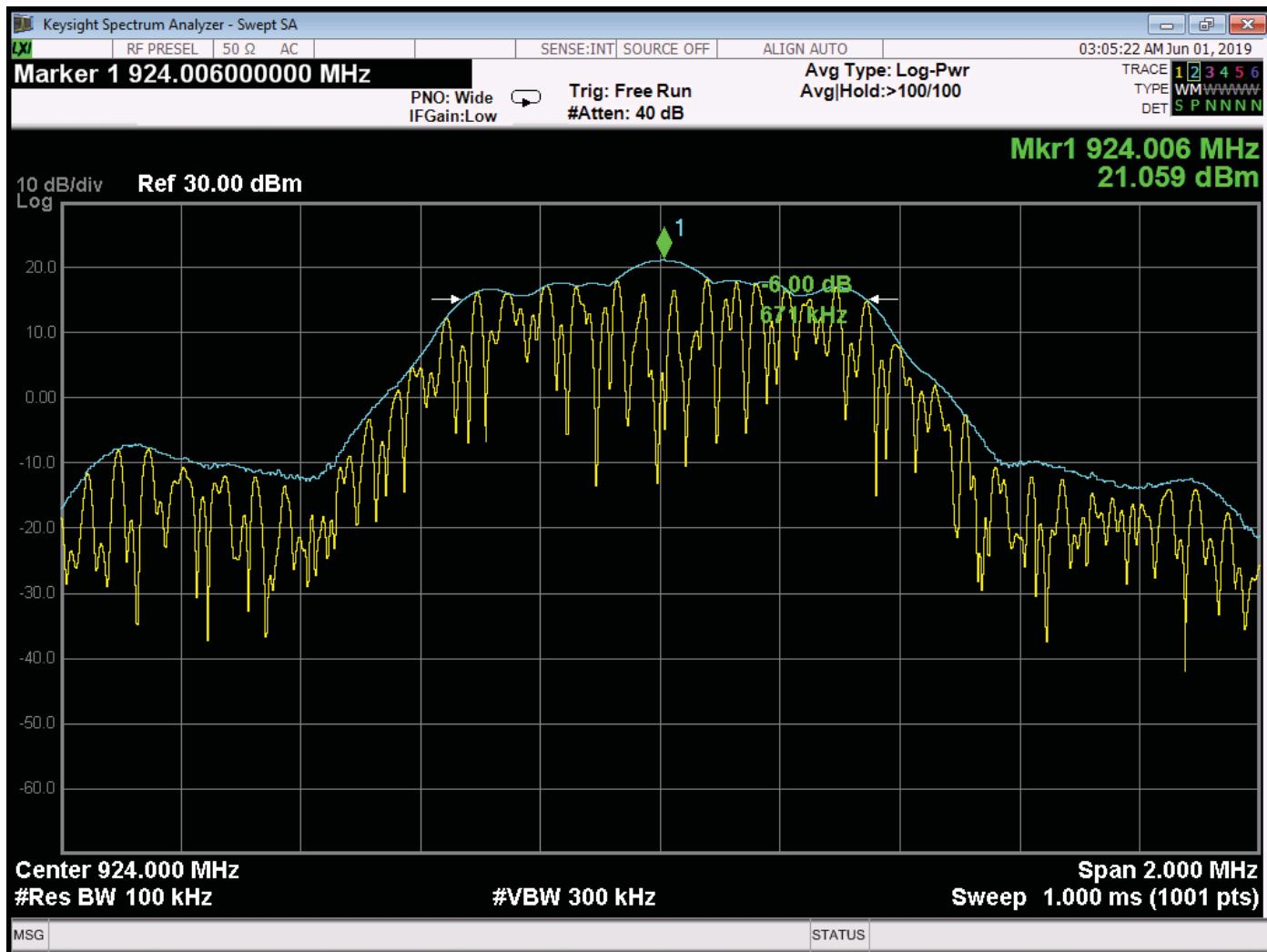


-6 dB Bandwidth – Middle Channel

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-6 dB Bandwidth – High Channel

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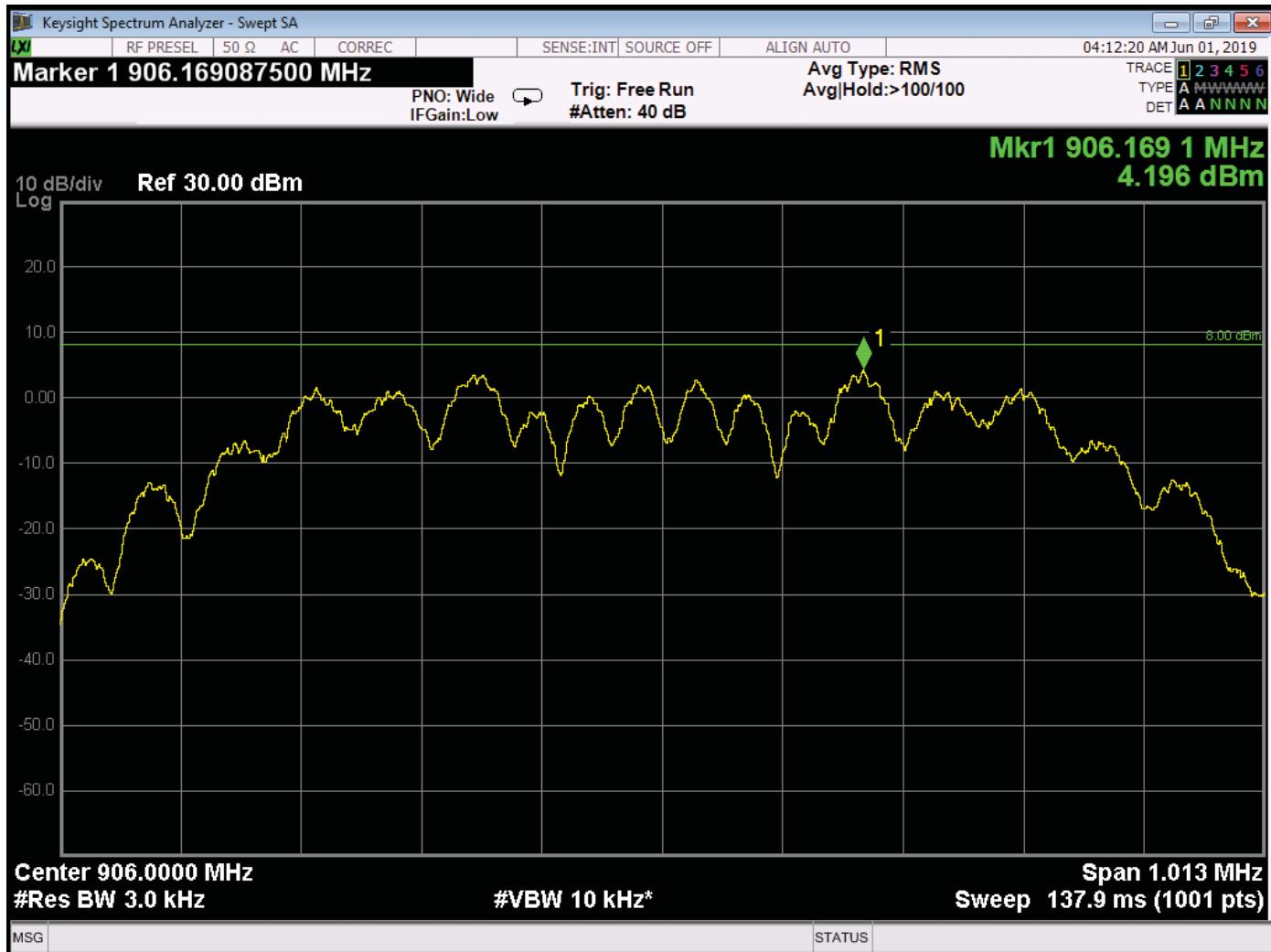
SPECTRAL DENSITY OUTPUT

DATA SHEETS

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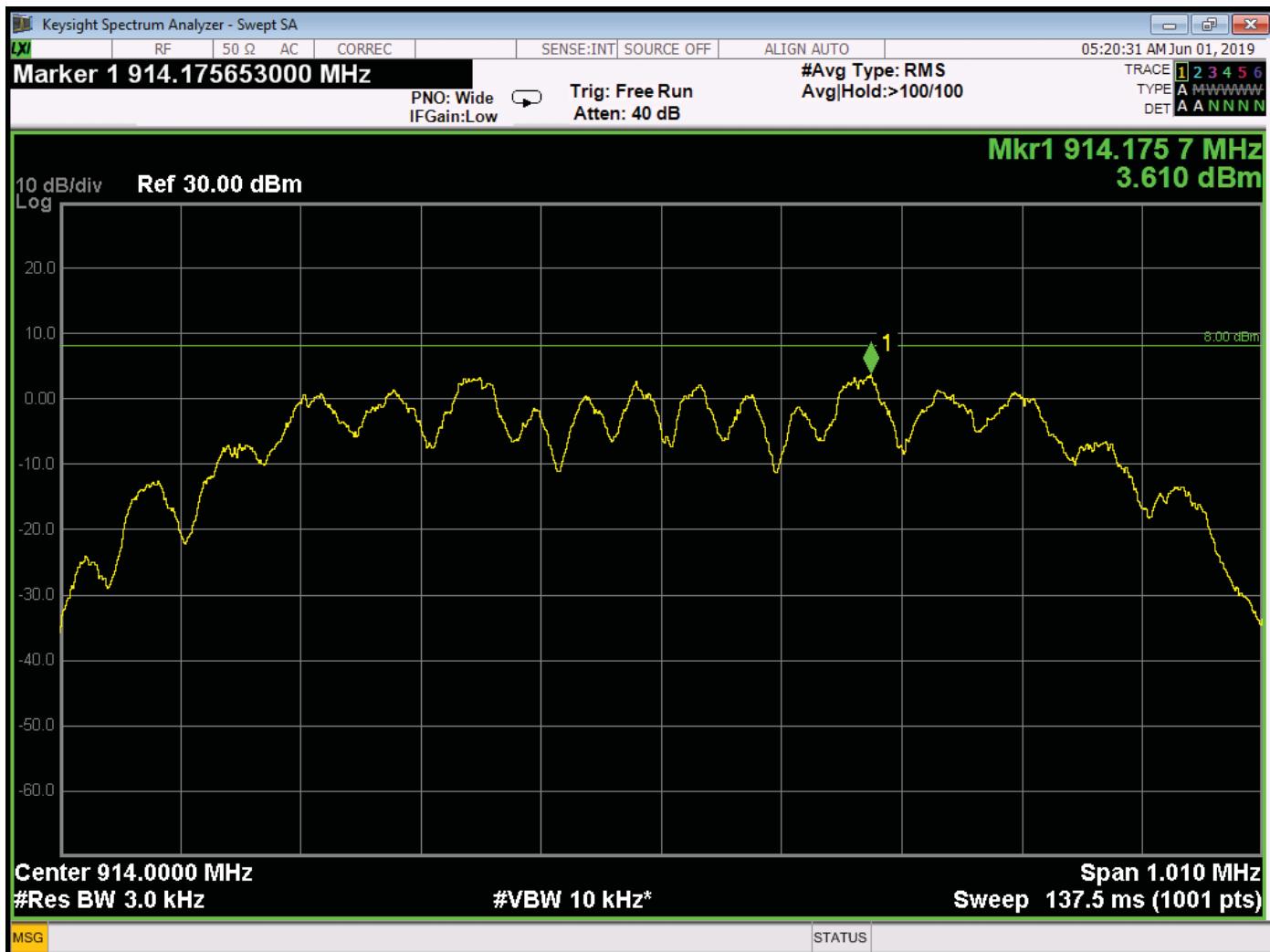


Spectral Density – Low Channel

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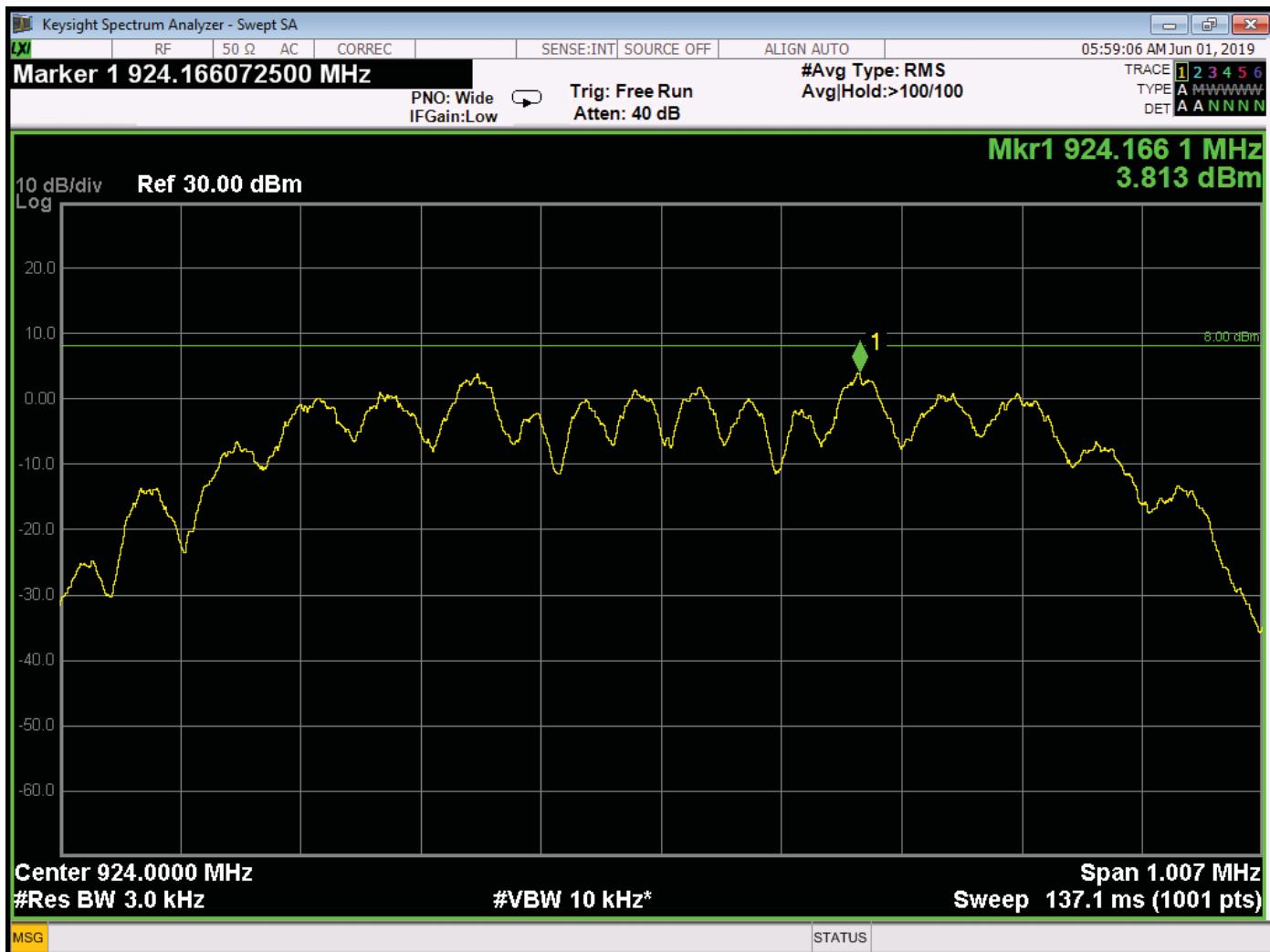


Spectral Density – Middle Channel

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Spectral Density – High Channel

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AVERAGE POWER

DATA SHEETS

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Average Output Power – Low Channel



Average Output Power – Middle Channel

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Average Output Power – High Channel

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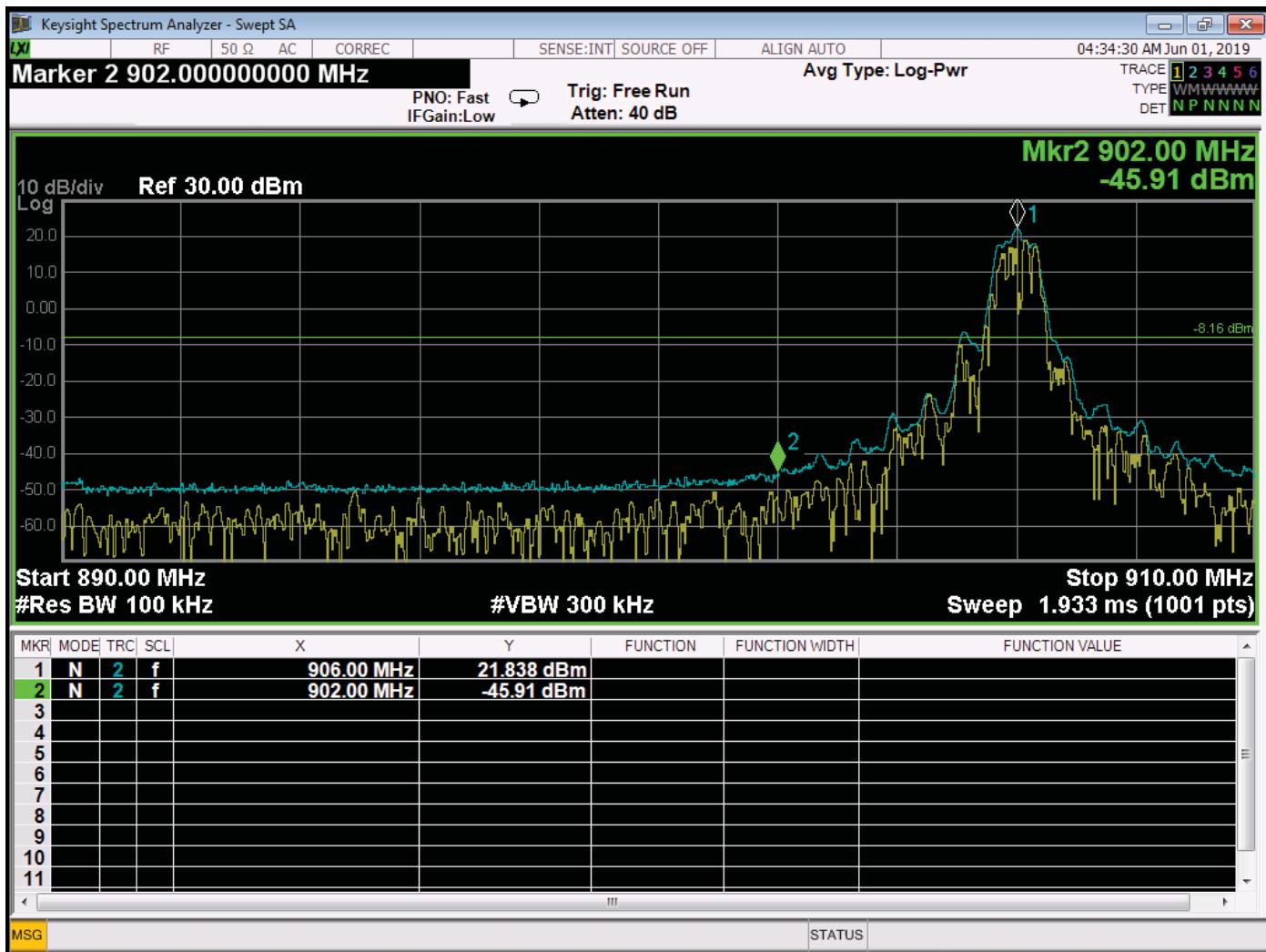
BAND EDGES

DATA SHEETS

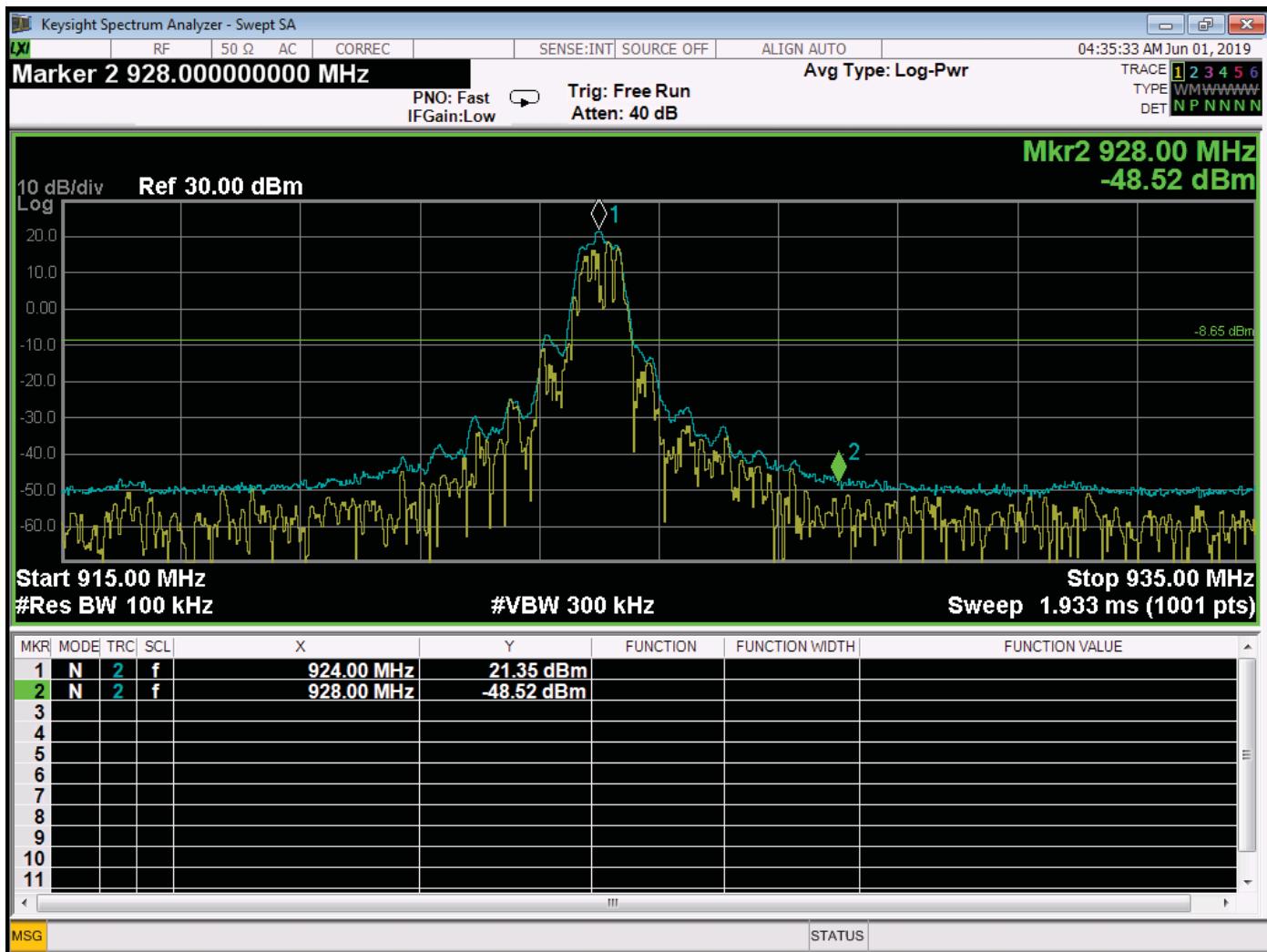
Brea Division
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Band Edges – Low Channel



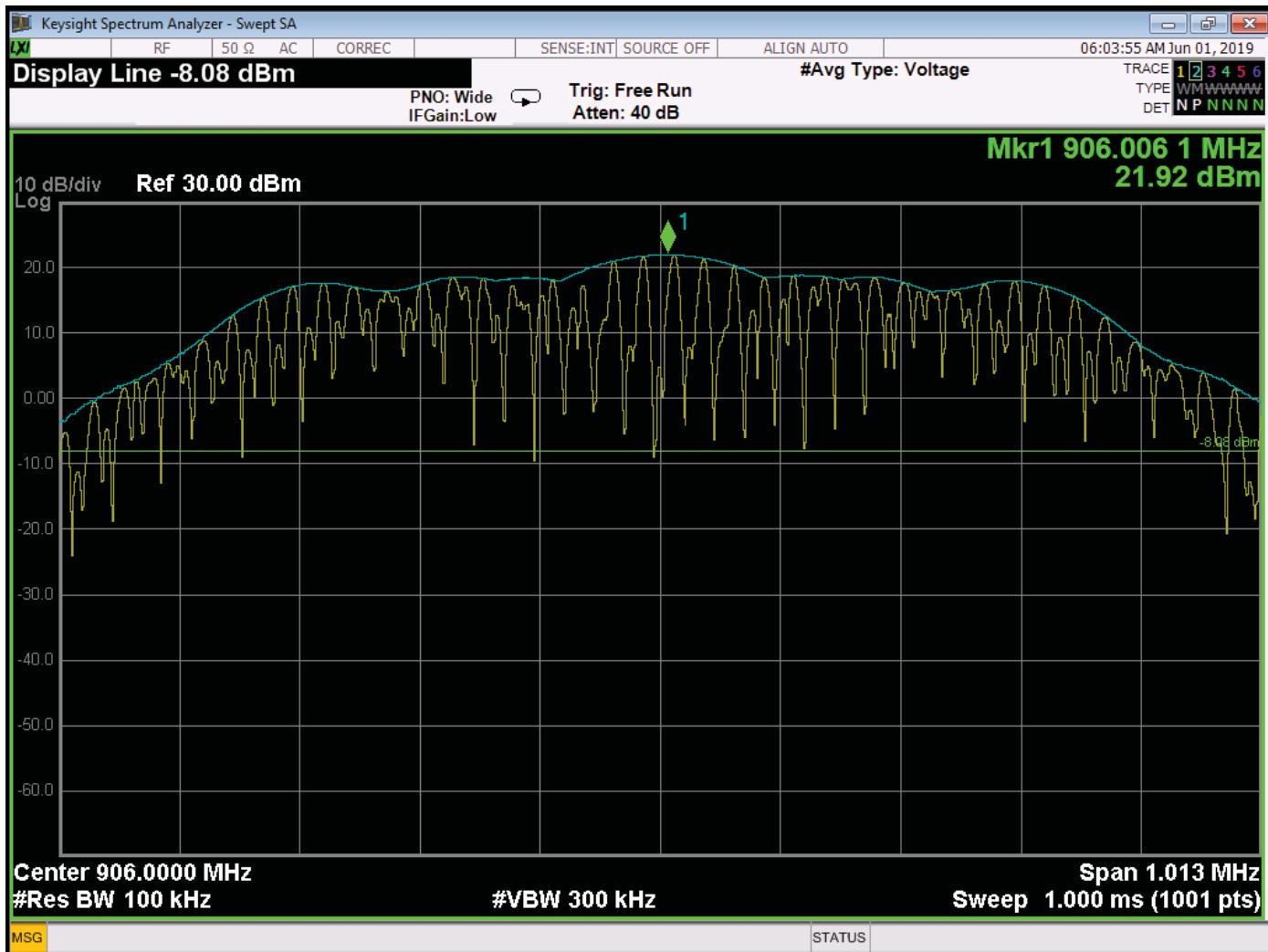
Band Edges – High Channel

**EMISSIONS IN
NON-RESTRICTED BANDS**
DATA SHEETS

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Newbury Park, CA 91320
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Lake Forest Division
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(949) 587-0400

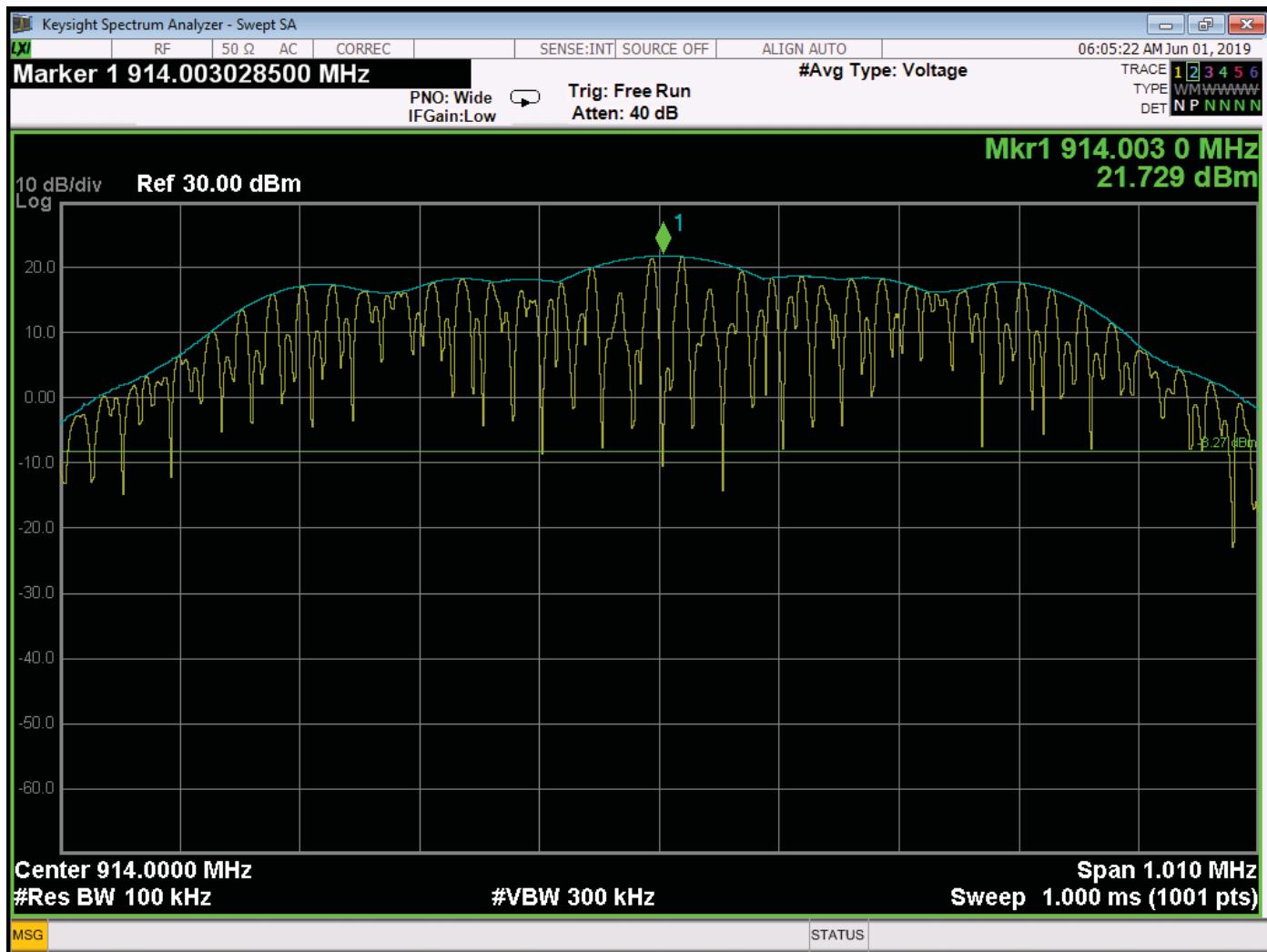


RF Antenna Conducted – Reference Level – Low Channel

Brea Division
114 Olinda Drive
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(714) 579-0500

Newbury Park Division
1050 Lawrence Drive
Newbury Park, CA 91320
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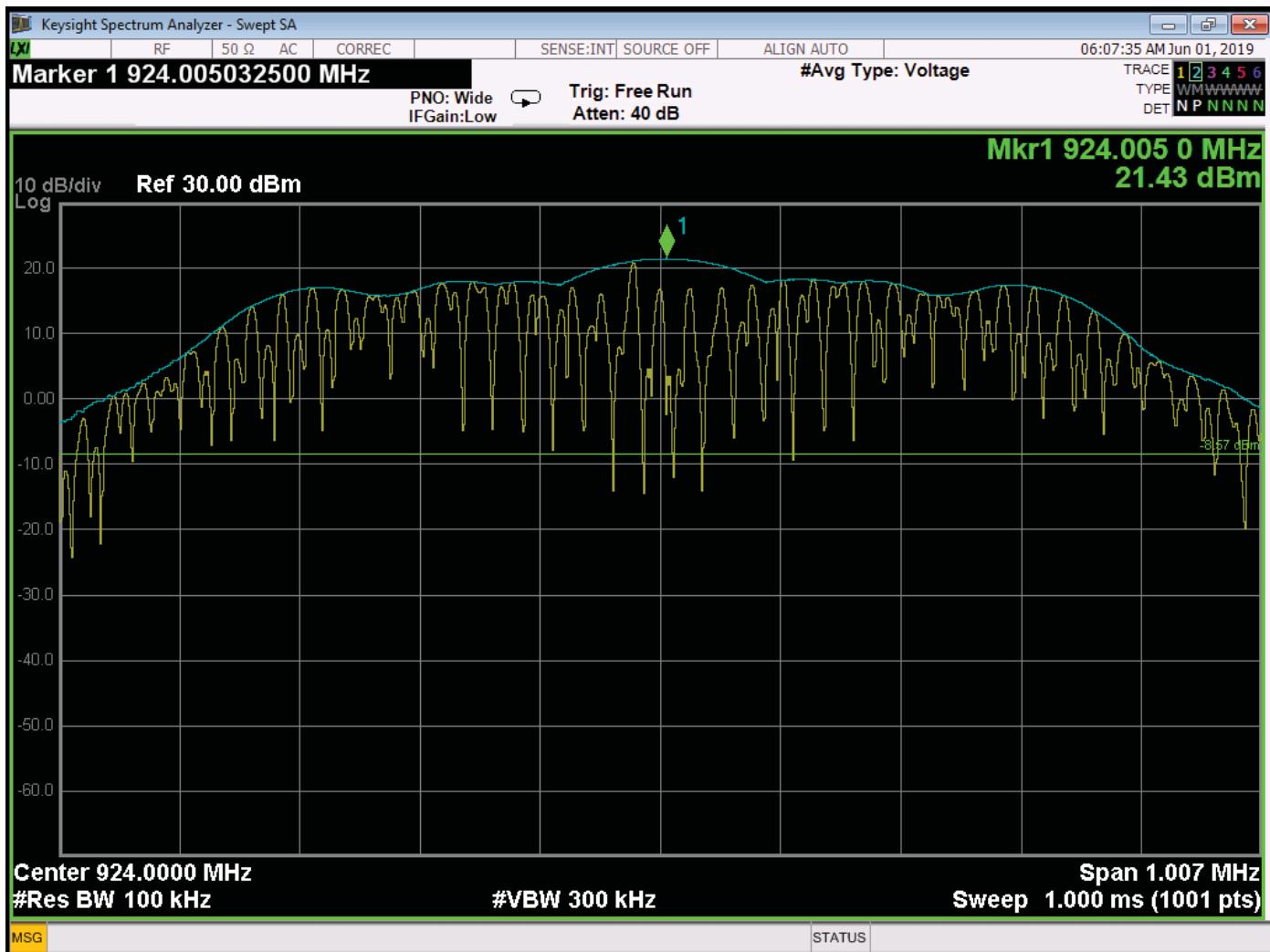


RF Antenna Conducted – Reference Level – Middle Channel

Brea Division
114 Olinda Drive
Brea, CA 92823
(714) 579-0500

Newbury Park Division
1050 Lawrence Drive
Newbury Park, CA 91320
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Lake Forest Division
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(949) 587-0400



RF Antenna Conducted – Reference Level – High Channel

Brea Division
114 Olinda Drive
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1050 Lawrence Drive
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20621 Pascal Way
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MESH SYSTEMS LLC

LIGHTING CONTROL NODE

MODEL: LCN300

EMISSIONS IN NON-RESTRICTED BANDS

| FREQUENCY (MHz) | LEVEL (dBm) | Limit*(dBm) | Margin (dB) |
|--------------------|----------------|-------------|----------------|
| 1813.19 | -44.884 | -8.08 | -36.804 |
| 1828.00 | -46.842 | -8.08 | -38.762 |
| 6607.20 | -47.871 | -8.08 | -39.791 |

Note: The three highest non-restricted emissions are reported.

*The Limit is based on 30 dB below the highest reference level obtained on the previous pages.

CONDUCTED EMISSIONS

DATA SHEETS

Brea Division
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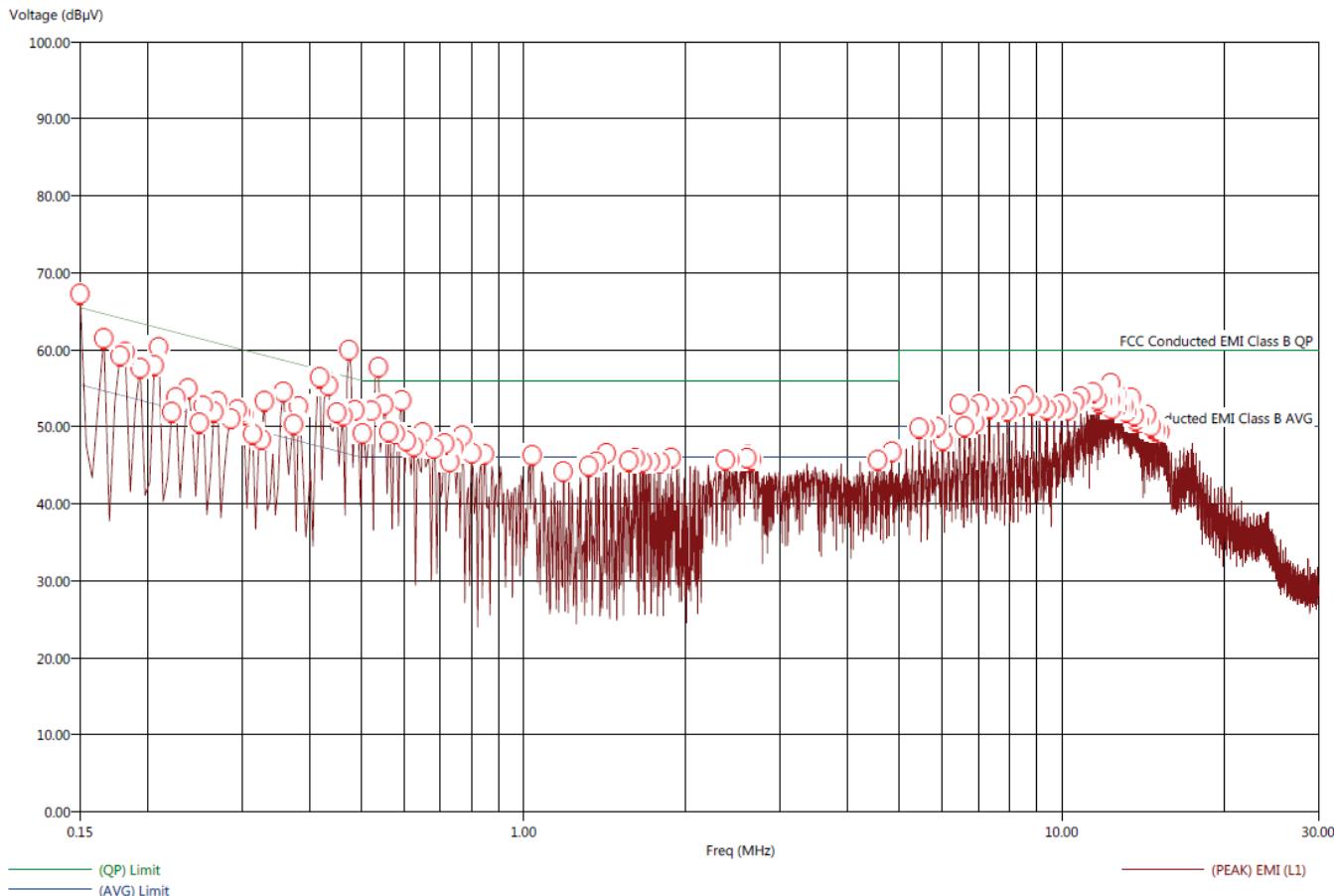
Newbury Park Division
1050 Lawrence Drive
Newbury Park, CA 91320
(805) 480-4044

Lake Forest Division
20621 Pascal Way
Lake Forest, CA 92630
(949) 587-0400

Title: FCC B - Conducted Emissions - Black Lead
 File: 1 - RS - Pre-Scan - Black Lead - Tx Mode - FCC Class B - With LED Lights - 30 MHz to 1000 MHz.set
 Operator: Kyle Fujimoto
 EUT Type: Lighting Control Node
 EUT Condition: The EUT is continuously transmitting at the low channel - Worst Case
 Company: Mesh Systems LLC
 Model: LCN300
 S/N: N/A

8/1/2019 9:19:07 AM
 Sequence: Preliminary Scan

FCC Class B - Conducted Emissions - Black Lead



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1050 Lawrence Drive
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Lake Forest Division
20621 Pascal Way
Lake Forest, CA 92630
(949) 587-0400



Title: FCC B - Conducted Emissions - Black Lead
File: 1 - RS - Final Scan - Black Lead - Tx Mode - FCC Class B - With LED Lights - 30 MHz to 1000 MHz.set
Operator: Kyle Fujimoto
EUT Type: Lighting Control Node
EUT Condition: The EUT is continuously transmitting at the low channel
Company: Mesh Systems LLC
Model: LCN300
S/N: N/A

8/1/2019 9:31:02 AM
Sequence: Final Measurements

FCC Class B - Conducted Emissions - Black Lead

| Freq (MHz) | (PEAK) EMI (dB μ V) | (QP) EMI (dB μ V) | (PEAK) Margin QPL (dB) | (QP) Margin QPL (dB) | (QP) Limit (dB μ V) | Cable (dB) | Transducer (dB) | Filter (dB) |
|------------|-------------------------|-----------------------|------------------------|----------------------|-------------------------|------------|-----------------|-------------|
| 0.150 | 69.45 | 57.97 | 3.99 | -7.49 | 65.46 | 0.00 | 0.42 | 9.80 |
| 0.166 | 65.11 | 54.07 | 0.45 | -10.59 | 64.66 | 0.00 | 0.38 | 9.80 |
| 0.178 | 62.63 | 52.36 | -1.49 | -11.76 | 64.11 | 0.00 | 0.35 | 9.80 |
| 0.182 | 61.75 | 52.29 | -2.18 | -11.65 | 63.94 | 0.00 | 0.34 | 9.80 |
| 0.194 | 62.46 | 52.12 | -0.98 | -11.31 | 63.44 | 0.00 | 0.31 | 9.80 |
| 0.206 | 61.83 | 49.90 | -1.14 | -13.07 | 62.97 | 0.00 | 0.28 | 9.80 |
| 0.210 | 58.89 | 49.05 | -3.92 | -13.77 | 62.81 | 0.01 | 0.27 | 9.79 |
| 0.222 | 58.03 | 47.16 | -4.34 | -15.22 | 62.38 | 0.01 | 0.25 | 9.79 |
| 0.226 | 58.05 | 46.75 | -4.19 | -15.49 | 62.24 | 0.01 | 0.24 | 9.79 |
| 0.238 | 57.61 | 51.03 | -4.22 | -10.80 | 61.83 | 0.02 | 0.22 | 9.78 |
| 0.250 | 57.65 | 49.26 | -3.80 | -12.18 | 61.45 | 0.02 | 0.20 | 9.78 |
| 0.254 | 58.96 | 47.13 | -2.36 | -14.19 | 61.32 | 0.03 | 0.19 | 9.77 |
| 0.266 | 57.43 | 45.40 | -3.52 | -15.56 | 60.96 | 0.03 | 0.17 | 9.77 |
| 0.270 | 55.99 | 44.99 | -4.85 | -15.85 | 60.84 | 0.03 | 0.16 | 9.77 |
| 0.286 | 56.60 | 46.25 | -3.78 | -14.14 | 60.39 | 0.04 | 0.14 | 9.76 |
| 0.294 | 56.91 | 51.37 | -3.26 | -8.80 | 60.17 | 0.04 | 0.13 | 9.76 |
| 0.298 | 57.38 | 47.76 | -2.68 | -12.30 | 60.07 | 0.04 | 0.12 | 9.76 |
| 0.302 | 56.12 | 46.99 | -3.84 | -12.97 | 59.96 | 0.04 | 0.11 | 9.76 |
| 0.314 | 54.59 | 48.39 | -5.07 | -11.26 | 59.65 | 0.05 | 0.10 | 9.75 |
| 0.326 | 55.00 | 44.50 | -4.36 | -14.86 | 59.36 | 0.05 | 0.08 | 9.75 |
| 0.330 | 56.41 | 45.63 | -2.86 | -13.63 | 59.26 | 0.05 | 0.08 | 9.75 |
| 0.358 | 54.50 | 48.36 | -4.12 | -10.26 | 58.62 | 0.06 | 0.05 | 9.74 |
| 0.374 | 54.27 | 46.69 | -4.01 | -11.59 | 58.28 | 0.07 | 0.05 | 9.73 |
| 0.382 | 55.49 | 43.85 | -2.63 | -14.27 | 58.11 | 0.07 | 0.04 | 9.73 |
| 0.418 | 60.41 | 53.71 | 3.00 | -3.70 | 57.41 | 0.08 | 0.04 | 9.72 |
| 0.434 | 61.40 | 52.81 | 4.29 | -4.30 | 57.11 | 0.08 | 0.03 | 9.72 |
| 0.450 | 57.09 | 48.59 | 0.26 | -8.24 | 56.83 | 0.09 | 0.03 | 9.71 |
| 0.462 | 55.48 | 48.60 | -1.14 | -8.02 | 56.62 | 0.09 | 0.03 | 9.71 |
| 0.474 | 59.38 | 52.90 | 2.96 | -3.52 | 56.42 | 0.09 | 0.03 | 9.71 |
| 0.486 | 61.19 | 56.11 | 4.97 | -0.11 | 56.22 | 0.10 | 0.04 | 9.70 |
| 0.502 | 55.86 | 46.49 | -0.14 | -9.51 | 56.00 | 0.10 | 0.04 | 9.70 |
| 0.522 | 56.45 | 50.79 | 0.45 | -5.21 | 56.00 | 0.09 | 0.04 | 9.71 |
| 0.538 | 58.83 | 50.95 | 2.83 | -5.05 | 56.00 | 0.09 | 0.04 | 9.72 |
| 0.550 | 58.34 | 54.41 | 2.34 | -1.59 | 56.00 | 0.09 | 0.04 | 9.73 |
| 0.562 | 53.84 | 47.24 | -2.16 | -8.76 | 56.00 | 0.08 | 0.04 | 9.73 |
| 0.578 | 54.03 | 47.61 | -1.97 | -8.39 | 56.00 | 0.08 | 0.04 | 9.74 |
| 0.594 | 53.41 | 46.73 | -2.59 | -9.27 | 56.00 | 0.08 | 0.04 | 9.75 |
| 0.606 | 52.86 | 47.88 | -3.14 | -8.12 | 56.00 | 0.07 | 0.04 | 9.76 |
| 0.626 | 50.17 | 44.29 | -5.83 | -11.71 | 56.00 | 0.07 | 0.04 | 9.76 |
| 0.650 | 50.78 | 45.00 | -5.22 | -11.00 | 56.00 | 0.06 | 0.04 | 9.78 |
| 0.682 | 49.10 | 42.69 | -6.90 | -13.31 | 56.00 | 0.06 | 0.04 | 9.79 |
| 0.714 | 49.96 | 44.57 | -6.04 | -11.43 | 56.00 | 0.05 | 0.04 | 9.80 |
| 0.730 | 51.73 | 46.33 | -4.27 | -9.67 | 56.00 | 0.05 | 0.04 | 9.81 |
| 0.742 | 51.24 | 43.21 | -4.76 | -12.79 | 56.00 | 0.04 | 0.04 | 9.81 |
| 0.770 | 48.47 | 42.03 | -7.53 | -13.97 | 56.00 | 0.04 | 0.04 | 9.82 |
| 0.802 | 49.71 | 43.85 | -6.29 | -12.15 | 56.00 | 0.03 | 0.04 | 9.84 |

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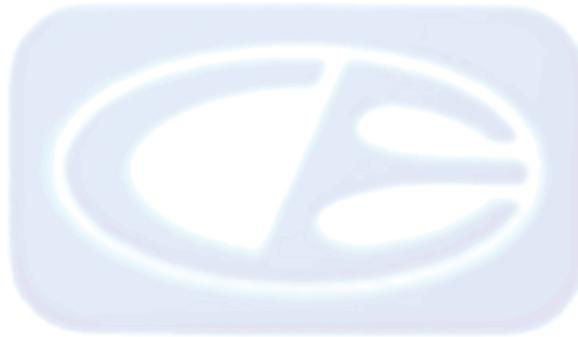
| Freq (MHz) | (PEAK) EMI (dB μ V) | (OP) EMI (dB μ V) | (PEAK) Margin QPL (dB) | (QP) Margin QPL (dB) | (OP) Limit (dB μ V) | Cable (dB) | Transducer (dB) | Filter (dB) |
|---------------|----------------------------|--------------------------|---------------------------|-------------------------|----------------------------|---------------|--------------------|----------------|
| 0.846 | 47.23 | 42.19 | -8.77 | -13.81 | 56.00 | 0.02 | 0.04 | 9.85 |
| 1.038 | 46.61 | 43.53 | -9.39 | -12.47 | 56.00 | 0.01 | 0.04 | 9.89 |
| 1.186 | 46.04 | 43.32 | -9.96 | -12.68 | 56.00 | 0.02 | 0.04 | 9.88 |
| 1.322 | 46.68 | 41.92 | -9.32 | -14.08 | 56.00 | 0.04 | 0.04 | 9.86 |
| 1.366 | 46.33 | 42.77 | -9.67 | -13.23 | 56.00 | 0.04 | 0.04 | 9.86 |
| 1.426 | 46.86 | 43.99 | -9.14 | -12.01 | 56.00 | 0.05 | 0.04 | 9.85 |
| 1.570 | 44.95 | 38.18 | -11.05 | -17.82 | 56.00 | 0.07 | 0.04 | 9.83 |
| 1.614 | 47.55 | 41.88 | -8.45 | -14.12 | 56.00 | 0.07 | 0.04 | 9.83 |
| 1.662 | 45.98 | 41.99 | -10.02 | -14.01 | 56.00 | 0.07 | 0.04 | 9.83 |
| 1.722 | 46.54 | 39.27 | -9.46 | -16.73 | 56.00 | 0.08 | 0.04 | 9.82 |
| 1.794 | 46.02 | 41.72 | -9.98 | -14.28 | 56.00 | 0.08 | 0.04 | 9.82 |
| 1.882 | 46.04 | 39.82 | -9.96 | -16.18 | 56.00 | 0.09 | 0.04 | 9.81 |
| 2.374 | 45.82 | 42.79 | -10.18 | -13.21 | 56.00 | 0.12 | 0.04 | 9.80 |
| 2.418 | 46.74 | 43.46 | -9.26 | -12.54 | 56.00 | 0.12 | 0.04 | 9.80 |
| 2.602 | 45.41 | 41.17 | -10.59 | -14.83 | 56.00 | 0.13 | 0.05 | 9.80 |
| 2.614 | 46.31 | 41.18 | -9.69 | -14.82 | 56.00 | 0.13 | 0.05 | 9.80 |
| 2.654 | 45.76 | 42.72 | -10.24 | -13.28 | 56.00 | 0.13 | 0.05 | 9.80 |
| 4.554 | 45.30 | 40.56 | -10.70 | -15.44 | 56.00 | 0.19 | 0.05 | 9.80 |
| 4.838 | 47.20 | 41.67 | -8.80 | -14.33 | 56.00 | 0.20 | 0.05 | 9.80 |
| 5.434 | 47.01 | 40.51 | -12.99 | -19.49 | 60.00 | 0.21 | 0.05 | 9.80 |
| 5.578 | 48.25 | 42.33 | -11.75 | -17.67 | 60.00 | 0.22 | 0.05 | 9.80 |
| 5.862 | 51.19 | 48.53 | -8.81 | -11.47 | 60.00 | 0.22 | 0.05 | 9.80 |
| 6.018 | 49.27 | 43.07 | -10.73 | -16.93 | 60.00 | 0.23 | 0.05 | 9.80 |
| 6.458 | 52.35 | 46.41 | -7.65 | -13.59 | 60.00 | 0.24 | 0.05 | 9.80 |
| 6.602 | 49.15 | 44.91 | -10.85 | -15.09 | 60.00 | 0.24 | 0.05 | 9.80 |
| 6.746 | 53.14 | 49.50 | -6.86 | -10.50 | 60.00 | 0.24 | 0.05 | 9.80 |
| 6.898 | 48.94 | 43.49 | -11.06 | -16.51 | 60.00 | 0.25 | 0.05 | 9.80 |
| 7.038 | 53.65 | 50.43 | -6.35 | -9.57 | 60.00 | 0.25 | 0.05 | 9.80 |
| 7.338 | 51.30 | 47.19 | -8.70 | -12.81 | 60.00 | 0.26 | 0.04 | 9.80 |
| 7.634 | 51.95 | 46.18 | -8.05 | -13.82 | 60.00 | 0.26 | 0.04 | 9.80 |
| 7.934 | 47.72 | 43.76 | -12.28 | -16.24 | 60.00 | 0.27 | 0.04 | 9.80 |
| 8.218 | 52.27 | 47.09 | -7.73 | -12.91 | 60.00 | 0.27 | 0.04 | 9.80 |
| 8.518 | 50.35 | 44.73 | -9.65 | -15.27 | 60.00 | 0.28 | 0.04 | 9.80 |
| 8.798 | 54.24 | 49.30 | -5.76 | -10.70 | 60.00 | 0.28 | 0.04 | 9.80 |
| 9.090 | 54.62 | 49.50 | -5.38 | -10.50 | 60.00 | 0.29 | 0.04 | 9.81 |
| 9.390 | 51.82 | 47.28 | -8.18 | -12.72 | 60.00 | 0.29 | 0.04 | 9.84 |
| 9.686 | 51.49 | 46.59 | -8.51 | -13.41 | 60.00 | 0.30 | 0.04 | 9.87 |
| 9.974 | 52.09 | 47.80 | -7.91 | -12.20 | 60.00 | 0.30 | 0.04 | 9.90 |
| 10.270 | 52.08 | 47.36 | -7.92 | -12.64 | 60.00 | 0.30 | 0.04 | 9.90 |
| 10.574 | 52.95 | 45.50 | -7.05 | -14.50 | 60.00 | 0.31 | 0.04 | 9.90 |
| 10.842 | 54.21 | 49.82 | -5.79 | -10.18 | 60.00 | 0.31 | 0.04 | 9.90 |
| 11.438 | 53.79 | 48.48 | -6.21 | -11.52 | 60.00 | 0.32 | 0.03 | 9.90 |
| 11.654 | 53.36 | 46.64 | -6.64 | -13.36 | 60.00 | 0.32 | 0.03 | 9.90 |
| 11.734 | 54.94 | 48.26 | -5.06 | -11.74 | 60.00 | 0.32 | 0.03 | 9.90 |
| 11.898 | 52.97 | 47.73 | -7.03 | -12.27 | 60.00 | 0.33 | 0.03 | 9.90 |
| 11.942 | 53.14 | 47.39 | -6.86 | -12.61 | 60.00 | 0.33 | 0.03 | 9.90 |
| 12.026 | 53.65 | 48.57 | -6.35 | -11.43 | 60.00 | 0.33 | 0.03 | 9.90 |
| 12.130 | 53.12 | 47.38 | -6.88 | -12.62 | 60.00 | 0.33 | 0.03 | 9.89 |
| 12.298 | 55.43 | 49.45 | -4.57 | -10.55 | 60.00 | 0.33 | 0.03 | 9.88 |
| 12.342 | 54.07 | 47.66 | -5.93 | -12.34 | 60.00 | 0.33 | 0.03 | 9.87 |
| 12.390 | 52.91 | 47.38 | -7.09 | -12.62 | 60.00 | 0.33 | 0.03 | 9.87 |
| 12.478 | 52.48 | 47.08 | -7.52 | -12.92 | 60.00 | 0.33 | 0.03 | 9.86 |
| 12.626 | 54.61 | 47.72 | -5.39 | -12.28 | 60.00 | 0.33 | 0.03 | 9.85 |
| 12.666 | 52.97 | 47.35 | -7.03 | -12.65 | 60.00 | 0.33 | 0.03 | 9.85 |
| 12.818 | 53.91 | 47.09 | -6.09 | -12.91 | 60.00 | 0.34 | 0.03 | 9.84 |
| 13.046 | 53.24 | 47.19 | -6.76 | -12.81 | 60.00 | 0.34 | 0.03 | 9.83 |
| 13.194 | 53.04 | 47.65 | -6.96 | -12.35 | 60.00 | 0.34 | 0.03 | 9.81 |
| 13.266 | 51.93 | 46.73 | -8.07 | -13.27 | 60.00 | 0.34 | 0.03 | 9.81 |

Brea Division
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(805) 480-4044

Lake Forest Division
20621 Pascal Way
Lake Forest, CA 92630
(949) 587-0400

| Freq (MHz) | (PEAK) EMI (dB μ V) | (QP) EMI (dB μ V) | (PEAK) Margin QPL (dB) | (QP) Margin QPL (dB) | (QP) Limit (dB μ V) | Cable (dB) | Transducer (dB) | Filter (dB) |
|---------------|----------------------------|--------------------------|---------------------------|-------------------------|----------------------------|---------------|--------------------|----------------|
| 13.470 | 52.82 | 47.67 | -7.18 | -12.33 | 60.00 | 0.34 | 0.03 | 9.80 |
| 13.642 | 51.45 | 45.91 | -8.55 | -14.09 | 60.00 | 0.34 | 0.02 | 9.79 |
| 13.730 | 51.52 | 45.87 | -8.48 | -14.13 | 60.00 | 0.35 | 0.02 | 9.78 |
| 13.934 | 49.81 | 45.42 | -10.19 | -14.58 | 60.00 | 0.35 | 0.02 | 9.77 |
| 14.382 | 50.40 | 44.53 | -9.60 | -15.47 | 60.00 | 0.35 | 0.02 | 9.74 |
| 14.654 | 51.65 | 45.65 | -8.35 | -14.35 | 60.00 | 0.36 | 0.02 | 9.72 |
| 14.662 | 50.94 | 45.00 | -9.06 | -15.00 | 60.00 | 0.36 | 0.02 | 9.72 |
| 14.726 | 48.67 | 43.50 | -11.33 | -16.50 | 60.00 | 0.36 | 0.02 | 9.72 |
| 14.942 | 49.77 | 45.30 | -10.23 | -14.70 | 60.00 | 0.36 | 0.02 | 9.70 |
| 15.242 | 49.63 | 44.59 | -10.37 | -15.41 | 60.00 | 0.36 | 0.02 | 9.71 |



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20621 Pascal Way
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(949) 587-0400

Title: FCC B - Conducted Emissions - Black Lead
 File: 1 - RS - Final Scan - Black Lead - Tx Mode - FCC Class B - With LED Lights - 30 MHz to 1000 MHz.set
 Operator: Kyle Fujimoto
 EUT Type: Lighting Control Node
 EUT Condition: The EUT is continuously transmitting at the low channel
 Company: Mesh Systems LLC
 Model: LCN300
 S/N: N/A

8/1/2019 9:31:02 AM
 Sequence: Final Measurements

FCC Class B - Conducted Emissions - Black Lead

| Freq (MHz) | (PEAK) EMI (dB μ V) | (AVG) EMI (dB μ V) | (PEAK) Margin AVL (dB) | (AVG) Margin AVL (dB) | (AVG) Limit (dB μ V) | Cable (dB) | Transducer (dB) | Filter (dB) |
|---------------|----------------------------|---------------------------|---------------------------|--------------------------|-----------------------------|---------------|--------------------|----------------|
| 0.150 | 69.45 | 45.86 | 13.99 | -9.60 | 55.46 | 0.00 | 0.42 | 9.80 |
| 0.166 | 65.11 | 36.55 | 10.45 | -18.11 | 54.66 | 0.00 | 0.38 | 9.80 |
| 0.178 | 62.63 | 36.05 | 8.51 | -18.06 | 54.11 | 0.00 | 0.35 | 9.80 |
| 0.182 | 61.75 | 40.71 | 7.82 | -13.23 | 53.94 | 0.00 | 0.34 | 9.80 |
| 0.194 | 62.46 | 40.04 | 9.02 | -13.40 | 53.44 | 0.00 | 0.31 | 9.80 |
| 0.206 | 61.83 | 34.61 | 8.86 | -18.35 | 52.97 | 0.00 | 0.28 | 9.80 |
| 0.210 | 58.89 | 33.78 | 6.08 | -19.03 | 52.81 | 0.01 | 0.27 | 9.79 |
| 0.222 | 58.03 | 34.35 | 5.66 | -18.03 | 52.38 | 0.01 | 0.25 | 9.79 |
| 0.226 | 58.05 | 33.92 | 5.81 | -18.31 | 52.24 | 0.01 | 0.24 | 9.79 |
| 0.238 | 57.61 | 38.94 | 5.78 | -12.89 | 51.83 | 0.02 | 0.22 | 9.78 |
| 0.250 | 57.65 | 35.09 | 6.20 | -16.36 | 51.45 | 0.02 | 0.20 | 9.78 |
| 0.254 | 58.96 | 33.82 | 7.64 | -17.50 | 51.32 | 0.03 | 0.19 | 9.77 |
| 0.266 | 57.43 | 33.51 | 6.48 | -17.45 | 50.96 | 0.03 | 0.17 | 9.77 |
| 0.270 | 55.99 | 32.64 | 5.15 | -18.20 | 50.84 | 0.03 | 0.16 | 9.77 |
| 0.286 | 56.60 | 38.56 | 6.22 | -11.82 | 50.39 | 0.04 | 0.14 | 9.76 |
| 0.294 | 56.91 | 49.12 | 6.74 | -1.05 | 50.17 | 0.04 | 0.13 | 9.76 |
| 0.298 | 57.38 | 42.49 | 7.32 | -7.58 | 50.07 | 0.04 | 0.12 | 9.76 |
| 0.302 | 56.12 | 35.94 | 6.16 | -14.02 | 49.96 | 0.04 | 0.11 | 9.76 |
| 0.314 | 54.59 | 32.67 | 4.93 | -16.99 | 49.65 | 0.05 | 0.10 | 9.75 |
| 0.326 | 55.00 | 32.36 | 5.64 | -17.00 | 49.36 | 0.05 | 0.08 | 9.75 |
| 0.330 | 56.41 | 34.02 | 7.14 | -15.25 | 49.26 | 0.05 | 0.08 | 9.75 |
| 0.358 | 54.50 | 33.92 | 5.88 | -14.71 | 48.62 | 0.06 | 0.05 | 9.74 |
| 0.374 | 54.27 | 32.70 | 5.99 | -15.58 | 48.28 | 0.07 | 0.05 | 9.73 |
| 0.382 | 55.49 | 32.14 | 7.37 | -15.97 | 48.11 | 0.07 | 0.04 | 9.73 |
| 0.418 | 60.41 | 40.09 | 13.00 | -7.32 | 47.41 | 0.08 | 0.04 | 9.72 |
| 0.434 | 61.40 | 42.27 | 14.29 | -4.84 | 47.11 | 0.08 | 0.03 | 9.72 |
| 0.450 | 57.09 | 43.05 | 10.26 | -3.78 | 46.83 | 0.09 | 0.03 | 9.71 |
| 0.462 | 55.48 | 35.28 | 8.86 | -11.34 | 46.62 | 0.09 | 0.03 | 9.71 |
| 0.474 | 59.38 | 45.46 | 12.96 | -0.96 | 46.42 | 0.09 | 0.03 | 9.71 |
| 0.486 | 61.19 | 39.32 | 14.97 | -6.90 | 46.22 | 0.10 | 0.04 | 9.70 |
| 0.502 | 55.86 | 31.59 | 9.86 | -14.41 | 46.00 | 0.10 | 0.04 | 9.70 |
| 0.522 | 56.45 | 38.66 | 10.45 | -7.34 | 46.00 | 0.09 | 0.04 | 9.71 |
| 0.538 | 58.83 | 32.65 | 12.83 | -13.35 | 46.00 | 0.09 | 0.04 | 9.72 |
| 0.550 | 58.34 | 35.16 | 12.34 | -10.84 | 46.00 | 0.09 | 0.04 | 9.73 |
| 0.562 | 53.84 | 34.28 | 7.84 | -11.72 | 46.00 | 0.08 | 0.04 | 9.73 |
| 0.578 | 54.03 | 33.24 | 8.03 | -12.76 | 46.00 | 0.08 | 0.04 | 9.74 |
| 0.594 | 53.41 | 32.34 | 7.41 | -13.66 | 46.00 | 0.08 | 0.04 | 9.75 |
| 0.606 | 52.86 | 33.10 | 6.86 | -12.90 | 46.00 | 0.07 | 0.04 | 9.76 |
| 0.626 | 50.17 | 30.22 | 4.17 | -15.78 | 46.00 | 0.07 | 0.04 | 9.76 |
| 0.650 | 50.78 | 30.39 | 4.78 | -15.61 | 46.00 | 0.06 | 0.04 | 9.78 |
| 0.682 | 49.10 | 27.11 | 3.10 | -18.89 | 46.00 | 0.06 | 0.04 | 9.79 |
| 0.714 | 49.96 | 35.17 | 3.96 | -10.83 | 46.00 | 0.05 | 0.04 | 9.80 |
| 0.730 | 51.73 | 43.43 | 5.73 | -2.57 | 46.00 | 0.05 | 0.04 | 9.81 |
| 0.742 | 51.24 | 30.43 | 5.24 | -15.57 | 46.00 | 0.04 | 0.04 | 9.81 |
| 0.770 | 48.47 | 27.47 | 2.47 | -18.53 | 46.00 | 0.04 | 0.04 | 9.82 |
| 0.802 | 49.71 | 32.82 | 3.71 | -13.18 | 46.00 | 0.03 | 0.04 | 9.84 |

1

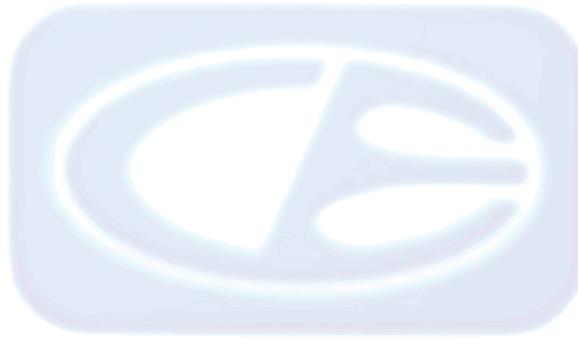
Brea Division
114 Olinda Drive
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Newbury Park Division
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(805) 480-4044

Lake Forest Division
20621 Pascal Way
Lake Forest, CA 92630
(949) 587-0400

| Freq (MHz) | (PEAK) EMI (dB μ V) | (AVG) EMI (dB μ V) | (PEAK) Margin AVL (dB) | (AVG) Margin AVL (dB) | (AVG) Limit (dB μ V) | Cable (dB) | Transducer (dB) | Filter (dB) |
|---------------|----------------------------|---------------------------|---------------------------|--------------------------|-----------------------------|---------------|--------------------|----------------|
| 0.846 | 47.23 | 31.18 | 1.23 | -14.82 | 46.00 | 0.02 | 0.04 | 9.85 |
| 1.038 | 46.61 | 30.56 | 0.61 | -15.44 | 46.00 | 0.01 | 0.04 | 9.89 |
| 1.186 | 46.04 | 27.17 | 0.04 | -18.83 | 46.00 | 0.02 | 0.04 | 9.88 |
| 1.322 | 46.68 | 29.61 | 0.68 | -16.39 | 46.00 | 0.04 | 0.04 | 9.86 |
| 1.366 | 46.33 | 28.12 | 0.33 | -17.88 | 46.00 | 0.04 | 0.04 | 9.86 |
| 1.426 | 46.86 | 27.59 | 0.86 | -18.41 | 46.00 | 0.05 | 0.04 | 9.85 |
| 1.570 | 44.95 | 25.94 | -1.05 | -20.06 | 46.00 | 0.07 | 0.04 | 9.83 |
| 1.614 | 47.55 | 33.86 | 1.55 | -12.14 | 46.00 | 0.07 | 0.04 | 9.83 |
| 1.662 | 45.98 | 27.00 | -0.02 | -19.00 | 46.00 | 0.07 | 0.04 | 9.83 |
| 1.722 | 46.54 | 23.02 | 0.54 | -22.98 | 46.00 | 0.08 | 0.04 | 9.82 |
| 1.794 | 46.02 | 25.73 | 0.02 | -20.27 | 46.00 | 0.08 | 0.04 | 9.82 |
| 1.882 | 46.04 | 24.75 | 0.04 | -21.25 | 46.00 | 0.09 | 0.04 | 9.81 |
| 2.374 | 45.82 | 24.24 | -0.18 | -21.76 | 46.00 | 0.12 | 0.04 | 9.80 |
| 2.418 | 46.74 | 26.56 | 0.74 | -19.44 | 46.00 | 0.12 | 0.04 | 9.80 |
| 2.602 | 45.41 | 24.97 | -0.59 | -21.03 | 46.00 | 0.13 | 0.05 | 9.80 |
| 2.614 | 46.31 | 24.12 | 0.31 | -21.88 | 46.00 | 0.13 | 0.05 | 9.80 |
| 2.654 | 45.76 | 25.60 | -0.24 | -20.40 | 46.00 | 0.13 | 0.05 | 9.80 |
| 4.554 | 45.30 | 28.89 | -0.70 | -17.11 | 46.00 | 0.19 | 0.05 | 9.80 |
| 4.838 | 47.20 | 36.55 | 1.20 | -9.45 | 46.00 | 0.20 | 0.05 | 9.80 |
| 5.434 | 47.01 | 33.55 | -2.99 | -16.45 | 50.00 | 0.21 | 0.05 | 9.80 |
| 5.578 | 48.25 | 36.13 | -1.75 | -13.87 | 50.00 | 0.22 | 0.05 | 9.80 |
| 5.862 | 51.19 | 45.27 | 1.19 | -4.73 | 50.00 | 0.22 | 0.05 | 9.80 |
| 6.018 | 49.27 | 37.01 | -0.73 | -12.99 | 50.00 | 0.23 | 0.05 | 9.80 |
| 6.458 | 52.35 | 40.65 | 2.35 | -9.35 | 50.00 | 0.24 | 0.05 | 9.80 |
| 6.602 | 49.15 | 38.96 | -0.85 | -11.04 | 50.00 | 0.24 | 0.05 | 9.80 |
| 6.746 | 53.14 | 44.16 | 3.14 | -5.84 | 50.00 | 0.24 | 0.05 | 9.80 |
| 6.898 | 48.94 | 37.80 | -1.06 | -12.20 | 50.00 | 0.25 | 0.05 | 9.80 |
| 7.038 | 53.65 | 44.99 | 3.65 | -5.01 | 50.00 | 0.25 | 0.05 | 9.80 |
| 7.338 | 51.30 | 41.81 | 1.30 | -8.19 | 50.00 | 0.26 | 0.04 | 9.80 |
| 7.634 | 51.95 | 40.40 | 1.95 | -9.60 | 50.00 | 0.26 | 0.04 | 9.80 |
| 7.934 | 47.72 | 37.33 | -2.28 | -12.67 | 50.00 | 0.27 | 0.04 | 9.80 |
| 8.218 | 52.27 | 41.52 | 2.27 | -8.48 | 50.00 | 0.27 | 0.04 | 9.80 |
| 8.518 | 50.35 | 38.67 | 0.35 | -11.33 | 50.00 | 0.28 | 0.04 | 9.80 |
| 8.798 | 54.24 | 43.94 | 4.24 | -6.06 | 50.00 | 0.28 | 0.04 | 9.80 |
| 9.090 | 54.62 | 44.14 | 4.62 | -5.86 | 50.00 | 0.29 | 0.04 | 9.81 |
| 9.390 | 51.82 | 41.90 | 1.82 | -8.10 | 50.00 | 0.29 | 0.04 | 9.84 |
| 9.686 | 51.49 | 40.50 | 1.49 | -9.50 | 50.00 | 0.30 | 0.04 | 9.87 |
| 9.974 | 52.09 | 42.18 | 2.09 | -7.82 | 50.00 | 0.30 | 0.04 | 9.90 |
| 10.270 | 52.08 | 41.24 | 2.08 | -8.76 | 50.00 | 0.30 | 0.04 | 9.90 |
| 10.574 | 52.95 | 38.00 | 2.95 | -12.00 | 50.00 | 0.31 | 0.04 | 9.90 |
| 10.842 | 54.21 | 45.46 | 4.21 | -4.54 | 50.00 | 0.31 | 0.04 | 9.90 |
| 11.438 | 53.79 | 42.01 | 3.79 | -7.99 | 50.00 | 0.32 | 0.03 | 9.90 |
| 11.654 | 53.36 | 35.29 | 3.36 | -14.71 | 50.00 | 0.32 | 0.03 | 9.90 |
| 11.734 | 54.94 | 41.21 | 4.94 | -8.79 | 50.00 | 0.32 | 0.03 | 9.90 |
| 11.898 | 52.97 | 34.83 | 2.97 | -15.17 | 50.00 | 0.33 | 0.03 | 9.90 |
| 11.942 | 53.14 | 35.38 | 3.14 | -14.62 | 50.00 | 0.33 | 0.03 | 9.90 |
| 12.026 | 53.65 | 41.30 | 3.65 | -8.70 | 50.00 | 0.33 | 0.03 | 9.90 |
| 12.130 | 53.12 | 35.81 | 3.12 | -14.19 | 50.00 | 0.33 | 0.03 | 9.89 |
| 12.298 | 55.43 | 43.32 | 5.43 | -6.68 | 50.00 | 0.33 | 0.03 | 9.88 |
| 12.342 | 54.07 | 37.25 | 4.07 | -12.75 | 50.00 | 0.33 | 0.03 | 9.87 |
| 12.390 | 52.91 | 36.03 | 2.91 | -13.97 | 50.00 | 0.33 | 0.03 | 9.87 |
| 12.478 | 52.48 | 35.24 | 2.48 | -14.76 | 50.00 | 0.33 | 0.03 | 9.86 |
| 12.626 | 54.61 | 38.18 | 4.61 | -11.82 | 50.00 | 0.33 | 0.03 | 9.85 |
| 12.666 | 52.97 | 36.09 | 2.97 | -13.91 | 50.00 | 0.33 | 0.03 | 9.85 |
| 12.818 | 53.91 | 35.16 | 3.91 | -14.84 | 50.00 | 0.34 | 0.03 | 9.84 |
| 13.046 | 53.24 | 36.39 | 3.24 | -13.61 | 50.00 | 0.34 | 0.03 | 9.83 |
| 13.194 | 53.04 | 40.83 | 3.04 | -9.17 | 50.00 | 0.34 | 0.03 | 9.81 |
| 13.266 | 51.93 | 35.66 | 1.93 | -14.34 | 50.00 | 0.34 | 0.03 | 9.81 |

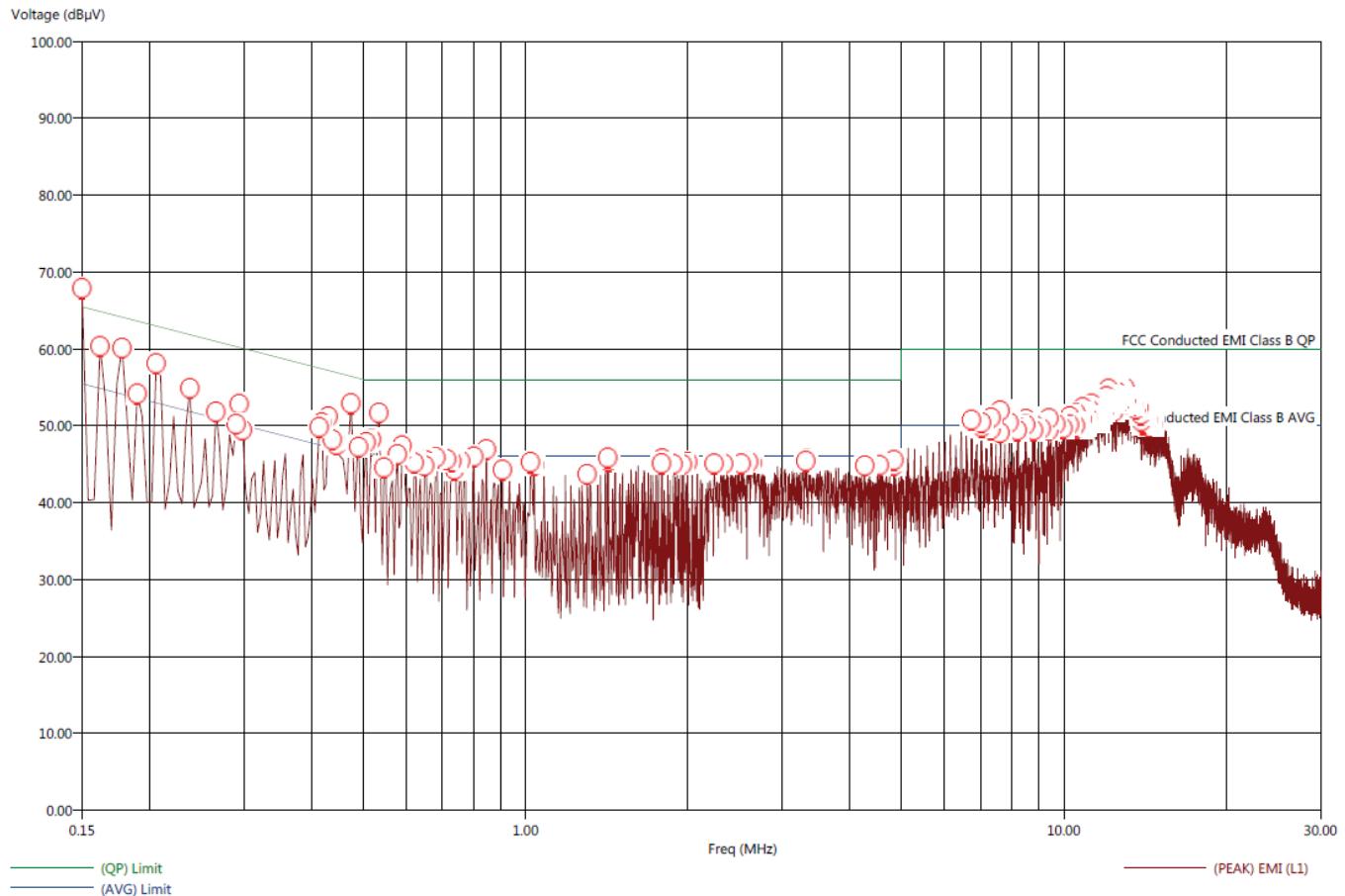
| Freq (MHz) | (PEAK) EMI (dB μ V) | (AVG) EMI (dB μ V) | (PEAK) Margin AVL (dB) | (AVG) Margin AVL (dB) | (AVG) Limit (dB μ V) | Cable (dB) | Transducer (dB) | Filter (dB) |
|---------------|----------------------------|---------------------------|---------------------------|--------------------------|-----------------------------|---------------|--------------------|----------------|
| 13.470 | 52.82 | 41.58 | 2.82 | -8.42 | 50.00 | 0.34 | 0.03 | 9.80 |
| 13.642 | 51.45 | 35.85 | 1.45 | -14.15 | 50.00 | 0.34 | 0.02 | 9.79 |
| 13.730 | 51.52 | 37.14 | 1.52 | -12.86 | 50.00 | 0.35 | 0.02 | 9.78 |
| 13.934 | 49.81 | 35.90 | -0.19 | -14.10 | 50.00 | 0.35 | 0.02 | 9.77 |
| 14.382 | 50.40 | 36.82 | 0.40 | -13.18 | 50.00 | 0.35 | 0.02 | 9.74 |
| 14.654 | 51.65 | 39.31 | 1.65 | -10.69 | 50.00 | 0.36 | 0.02 | 9.72 |
| 14.662 | 50.94 | 38.38 | 0.94 | -11.62 | 50.00 | 0.36 | 0.02 | 9.72 |
| 14.726 | 48.67 | 35.46 | -1.33 | -14.54 | 50.00 | 0.36 | 0.02 | 9.72 |
| 14.942 | 49.77 | 39.51 | -0.23 | -10.49 | 50.00 | 0.36 | 0.02 | 9.70 |
| 15.242 | 49.63 | 38.62 | -0.37 | -11.38 | 50.00 | 0.36 | 0.02 | 9.71 |



Title: FCC B - Conducted Emissions - White Lead
 File: 2 - RS - Pre-Scan - White Lead - Tx Mode - FCC Class B - Wth LED Lights - 30 MHz to 1000 MHz.set
 Operator: Kyle Fujimoto
 EUT Type: Lighting Control Node
 EUT Condition: The EUT is continuously transmitting at the low channel - Worst Case
 Company: Mesh Systems LLC
 Model: LCN300
 S/N: N/A

8/1/2019 10:12:13 AM
 Sequence: Preliminary Scan

FCC Class B - Conducted Emissions - White Lead



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Newbury Park Division
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Lake Forest Division
20621 Pascal Way
Lake Forest, CA 92630
(949) 587-0400

Title: FCC B - Conducted Emissions - White Lead
 File: 2 - RS - Final Scan - White Lead - Tx Mode - FCC Class B - With LED Lights - 30 MHz to 1000 MHz.set
 Operator: Kyle Fujimoto
 EUT Type: Lighting Control Node
 EUT Condition: The EUT is continuously transmitting at the low channel
 Company: Mesh Systems LLC
 Model: LCN300
 S/N: N/A

8/1/2019 10:24:56 AM
 Sequence: Final Measurements

FCC Class B - Conducted Emissions - White Lead

| Freq (MHz) | (PEAK) EMI (dB μ V) | (QP) EMI (dB μ V) | (PEAK) Margin QPL (dB) | (QP) Margin QPL (dB) | (QP) Limit (dB μ V) | Cable (dB) | Transducer (dB) | Filter (dB) |
|---------------|----------------------------|--------------------------|---------------------------|-------------------------|----------------------------|---------------|--------------------|----------------|
| 0.15 | 67.46 | 58.04 | 2.00 | -7.42 | 65.46 | 0.00 | 0.40 | 9.80 |
| 0.16 | 63.36 | 53.73 | -1.49 | -11.12 | 64.85 | 0.00 | 0.36 | 9.80 |
| 0.18 | 60.29 | 51.25 | -3.82 | -12.86 | 64.11 | 0.00 | 0.32 | 9.80 |
| 0.19 | 63.82 | 54.45 | 0.22 | -9.15 | 63.60 | 0.00 | 0.29 | 9.80 |
| 0.21 | 58.06 | 48.32 | -4.91 | -14.65 | 62.97 | 0.00 | 0.26 | 9.80 |
| 0.24 | 58.36 | 50.08 | -3.47 | -11.75 | 61.83 | 0.02 | 0.19 | 9.78 |
| 0.27 | 53.15 | 42.37 | -7.80 | -18.58 | 60.96 | 0.03 | 0.14 | 9.77 |
| 0.29 | 54.41 | 47.50 | -5.87 | -12.78 | 60.28 | 0.04 | 0.10 | 9.76 |
| 0.29 | 55.00 | 50.36 | -5.17 | -9.81 | 60.17 | 0.04 | 0.10 | 9.76 |
| 0.30 | 51.91 | 44.97 | -8.16 | -15.09 | 60.07 | 0.04 | 0.09 | 9.76 |
| 0.41 | 50.67 | 44.14 | -6.81 | -13.34 | 57.48 | 0.08 | 0.02 | 9.72 |
| 0.42 | 55.95 | 50.00 | -1.46 | -7.41 | 57.41 | 0.08 | 0.02 | 9.72 |
| 0.43 | 58.01 | 52.63 | 0.83 | -4.56 | 57.18 | 0.08 | 0.02 | 9.72 |
| 0.44 | 54.76 | 47.85 | -2.28 | -9.19 | 57.04 | 0.09 | 0.02 | 9.71 |
| 0.44 | 51.67 | 47.18 | -5.29 | -9.79 | 56.97 | 0.09 | 0.02 | 9.71 |
| 0.45 | 50.68 | 44.15 | -6.22 | -12.75 | 56.90 | 0.09 | 0.02 | 9.71 |
| 0.47 | 56.25 | 49.20 | -0.16 | -7.22 | 56.42 | 0.09 | 0.02 | 9.71 |
| 0.49 | 56.75 | 50.84 | 0.59 | -5.32 | 56.16 | 0.10 | 0.02 | 9.70 |
| 0.51 | 47.79 | 41.25 | -8.21 | -14.75 | 56.00 | 0.10 | 0.02 | 9.70 |
| 0.52 | 50.45 | 46.03 | -5.55 | -9.97 | 56.00 | 0.09 | 0.02 | 9.71 |
| 0.52 | 51.62 | 46.38 | -4.38 | -9.62 | 56.00 | 0.09 | 0.02 | 9.71 |
| 0.53 | 51.82 | 46.02 | -4.18 | -9.98 | 56.00 | 0.09 | 0.02 | 9.72 |
| 0.55 | 51.86 | 46.49 | -4.14 | -9.51 | 56.00 | 0.09 | 0.02 | 9.73 |
| 0.58 | 48.78 | 42.59 | -7.22 | -13.41 | 56.00 | 0.08 | 0.02 | 9.74 |
| 0.59 | 49.03 | 42.64 | -6.97 | -13.36 | 56.00 | 0.08 | 0.02 | 9.75 |
| 0.59 | 48.37 | 40.86 | -7.63 | -15.14 | 56.00 | 0.08 | 0.02 | 9.75 |
| 0.62 | 46.87 | 40.41 | -9.13 | -15.59 | 56.00 | 0.07 | 0.02 | 9.76 |
| 0.65 | 45.39 | 40.31 | -10.61 | -15.69 | 56.00 | 0.06 | 0.02 | 9.78 |
| 0.65 | 47.50 | 39.79 | -8.50 | -16.21 | 56.00 | 0.06 | 0.02 | 9.78 |
| 0.68 | 45.94 | 37.65 | -10.06 | -18.35 | 56.00 | 0.06 | 0.02 | 9.79 |
| 0.71 | 49.66 | 42.87 | -6.34 | -13.13 | 56.00 | 0.05 | 0.02 | 9.80 |
| 0.73 | 49.66 | 43.98 | -6.34 | -12.02 | 56.00 | 0.05 | 0.02 | 9.81 |
| 0.73 | 51.95 | 46.14 | -4.05 | -9.86 | 56.00 | 0.04 | 0.02 | 9.81 |
| 0.74 | 48.33 | 41.52 | -7.67 | -14.48 | 56.00 | 0.04 | 0.02 | 9.81 |
| 0.74 | 46.55 | 38.64 | -9.45 | -17.36 | 56.00 | 0.04 | 0.02 | 9.81 |
| 0.76 | 49.10 | 43.08 | -6.90 | -12.92 | 56.00 | 0.04 | 0.02 | 9.82 |
| 0.80 | 47.23 | 41.69 | -8.77 | -14.31 | 56.00 | 0.03 | 0.02 | 9.84 |
| 0.85 | 47.84 | 40.38 | -8.16 | -15.62 | 56.00 | 0.02 | 0.02 | 9.85 |
| 0.91 | 46.59 | 36.80 | -9.41 | -19.20 | 56.00 | 0.01 | 0.02 | 9.87 |
| 1.02 | 45.38 | 38.30 | -10.62 | -17.70 | 56.00 | 0.00 | 0.02 | 9.90 |
| 1.03 | 47.48 | 43.33 | -8.52 | -12.67 | 56.00 | 0.00 | 0.02 | 9.90 |
| 1.04 | 45.43 | 42.10 | -10.57 | -13.90 | 56.00 | 0.01 | 0.02 | 9.89 |
| 1.30 | 38.60 | 31.62 | -17.40 | -24.38 | 56.00 | 0.04 | 0.03 | 9.86 |
| 1.42 | 45.98 | 43.94 | -10.02 | -12.06 | 56.00 | 0.05 | 0.03 | 9.85 |
| 1.43 | 45.63 | 42.01 | -10.37 | -13.99 | 56.00 | 0.05 | 0.03 | 9.85 |
| 1.79 | 45.31 | 40.75 | -10.69 | -15.25 | 56.00 | 0.08 | 0.04 | 9.82 |

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20621 Pascal Way
Lake Forest, CA 92630
(949) 587-0400

| Freq (MHz) | (PEAK) EMI (dB μ V) | (OP) EMI (dB μ V) | (PEAK) Margin QPL (dB) | (QP) Margin QPL (dB) | (OP) Limit (dB μ V) | Cable (dB) | Transducer (dB) | Filter (dB) |
|---------------|----------------------------|--------------------------|---------------------------|-------------------------|----------------------------|---------------|--------------------|----------------|
| 1.79 | 44.98 | 41.04 | -11.02 | -14.96 | 56.00 | 0.08 | 0.04 | 9.82 |
| 1.88 | 44.09 | 39.20 | -11.91 | -16.80 | 56.00 | 0.09 | 0.04 | 9.81 |
| 1.96 | 45.22 | 38.34 | -10.78 | -17.66 | 56.00 | 0.10 | 0.04 | 9.80 |
| 2.00 | 45.10 | 39.28 | -10.90 | -16.72 | 56.00 | 0.10 | 0.04 | 9.80 |
| 2.24 | 44.93 | 39.53 | -11.07 | -16.47 | 56.00 | 0.11 | 0.04 | 9.80 |
| 2.33 | 45.48 | 40.01 | -10.52 | -15.99 | 56.00 | 0.12 | 0.04 | 9.80 |
| 2.52 | 45.62 | 38.86 | -10.38 | -17.14 | 56.00 | 0.13 | 0.04 | 9.80 |
| 2.60 | 45.42 | 41.01 | -10.58 | -14.99 | 56.00 | 0.13 | 0.04 | 9.80 |
| 2.64 | 45.95 | 41.46 | -10.05 | -14.54 | 56.00 | 0.13 | 0.04 | 9.80 |
| 3.32 | 46.15 | 42.20 | -9.85 | -13.80 | 56.00 | 0.16 | 0.04 | 9.80 |
| 3.33 | 45.51 | 38.02 | -10.49 | -17.98 | 56.00 | 0.16 | 0.04 | 9.80 |
| 4.27 | 44.32 | 39.83 | -11.68 | -16.17 | 56.00 | 0.18 | 0.04 | 9.80 |
| 4.55 | 46.40 | 41.95 | -9.60 | -14.05 | 56.00 | 0.19 | 0.03 | 9.80 |
| 4.83 | 46.38 | 41.22 | -9.62 | -14.78 | 56.00 | 0.20 | 0.03 | 9.80 |
| 4.84 | 47.15 | 41.72 | -8.85 | -14.28 | 56.00 | 0.20 | 0.03 | 9.80 |
| 6.74 | 51.51 | 48.33 | -8.49 | -11.67 | 60.00 | 0.24 | 0.04 | 9.80 |
| 7.04 | 53.13 | 49.06 | -6.87 | -10.94 | 60.00 | 0.25 | 0.04 | 9.80 |
| 7.04 | 50.97 | 48.02 | -9.03 | -11.98 | 60.00 | 0.25 | 0.04 | 9.80 |
| 7.33 | 52.52 | 48.97 | -7.48 | -11.03 | 60.00 | 0.26 | 0.04 | 9.80 |
| 7.33 | 52.35 | 49.15 | -7.65 | -10.85 | 60.00 | 0.26 | 0.04 | 9.80 |
| 7.61 | 51.09 | 47.10 | -8.91 | -12.90 | 60.00 | 0.26 | 0.04 | 9.80 |
| 7.62 | 52.90 | 48.63 | -7.10 | -11.37 | 60.00 | 0.26 | 0.04 | 9.80 |
| 7.63 | 50.61 | 47.27 | -9.39 | -12.73 | 60.00 | 0.26 | 0.04 | 9.80 |
| 7.91 | 52.08 | 48.82 | -7.92 | -11.18 | 60.00 | 0.27 | 0.04 | 9.80 |
| 8.20 | 50.56 | 46.32 | -9.44 | -13.68 | 60.00 | 0.27 | 0.04 | 9.80 |
| 8.20 | 50.97 | 47.65 | -9.03 | -12.35 | 60.00 | 0.27 | 0.04 | 9.80 |
| 8.50 | 51.76 | 48.12 | -8.24 | -11.88 | 60.00 | 0.28 | 0.05 | 9.80 |
| 8.51 | 51.79 | 47.77 | -8.21 | -12.23 | 60.00 | 0.28 | 0.05 | 9.80 |
| 8.79 | 52.02 | 47.79 | -7.98 | -12.21 | 60.00 | 0.28 | 0.05 | 9.80 |
| 8.80 | 52.11 | 47.82 | -7.89 | -12.18 | 60.00 | 0.28 | 0.05 | 9.80 |
| 9.09 | 52.63 | 48.04 | -7.37 | -11.96 | 60.00 | 0.29 | 0.05 | 9.81 |
| 9.39 | 52.08 | 47.11 | -7.92 | -12.89 | 60.00 | 0.29 | 0.05 | 9.84 |
| 9.39 | 51.04 | 46.32 | -8.96 | -13.68 | 60.00 | 0.29 | 0.05 | 9.84 |
| 9.67 | 52.20 | 47.48 | -7.80 | -12.52 | 60.00 | 0.30 | 0.05 | 9.87 |
| 9.97 | 52.98 | 46.67 | -7.02 | -13.33 | 60.00 | 0.30 | 0.05 | 9.90 |
| 10.25 | 51.29 | 46.10 | -8.71 | -13.90 | 60.00 | 0.30 | 0.05 | 9.90 |
| 10.25 | 52.87 | 46.51 | -7.13 | -13.49 | 60.00 | 0.30 | 0.05 | 9.90 |
| 10.26 | 54.37 | 47.36 | -5.63 | -12.64 | 60.00 | 0.30 | 0.05 | 9.90 |
| 10.51 | 51.11 | 45.16 | -8.89 | -14.84 | 60.00 | 0.31 | 0.05 | 9.90 |
| 10.53 | 51.68 | 46.13 | -8.32 | -13.87 | 60.00 | 0.31 | 0.05 | 9.90 |
| 10.54 | 53.50 | 46.64 | -6.50 | -13.36 | 60.00 | 0.31 | 0.05 | 9.90 |
| 10.55 | 52.89 | 47.09 | -7.11 | -12.91 | 60.00 | 0.31 | 0.05 | 9.90 |
| 10.55 | 53.52 | 47.43 | -6.48 | -12.57 | 60.00 | 0.31 | 0.05 | 9.90 |
| 10.55 | 53.36 | 47.59 | -6.64 | -12.41 | 60.00 | 0.31 | 0.05 | 9.90 |
| 10.56 | 53.58 | 47.49 | -6.42 | -12.51 | 60.00 | 0.31 | 0.05 | 9.90 |
| 10.65 | 51.74 | 45.36 | -8.26 | -14.64 | 60.00 | 0.31 | 0.05 | 9.90 |
| 10.68 | 51.56 | 45.41 | -8.44 | -14.59 | 60.00 | 0.31 | 0.05 | 9.90 |
| 10.81 | 52.30 | 46.05 | -7.70 | -13.95 | 60.00 | 0.31 | 0.05 | 9.90 |
| 10.82 | 52.82 | 46.61 | -7.18 | -13.39 | 60.00 | 0.31 | 0.05 | 9.90 |
| 10.83 | 53.14 | 46.73 | -6.86 | -13.27 | 60.00 | 0.31 | 0.05 | 9.90 |
| 10.83 | 54.68 | 47.24 | -5.32 | -12.76 | 60.00 | 0.31 | 0.05 | 9.90 |
| 10.84 | 54.14 | 47.28 | -5.86 | -12.72 | 60.00 | 0.31 | 0.05 | 9.90 |
| 10.85 | 54.63 | 47.71 | -5.37 | -12.29 | 60.00 | 0.31 | 0.05 | 9.90 |
| 10.93 | 51.99 | 46.12 | -8.01 | -13.88 | 60.00 | 0.31 | 0.05 | 9.90 |
| 10.95 | 52.25 | 46.54 | -7.75 | -13.46 | 60.00 | 0.31 | 0.05 | 9.90 |
| 10.97 | 52.25 | 46.28 | -7.75 | -13.72 | 60.00 | 0.31 | 0.05 | 9.90 |
| 11.06 | 51.67 | 46.45 | -8.33 | -13.55 | 60.00 | 0.31 | 0.05 | 9.90 |
| 11.09 | 54.07 | 46.78 | -5.93 | -13.22 | 60.00 | 0.31 | 0.06 | 9.90 |

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| Freq (MHz) | (PEAK) EMI (dB μ V) | (QP) EMI (dB μ V) | (PEAK) Margin QPL (dB) | (QP) Margin QPL (dB) | (QP) Limit (dB μ V) | Cable (dB) | Transducer (dB) | Filter (dB) |
|---------------|----------------------------|--------------------------|---------------------------|-------------------------|----------------------------|---------------|--------------------|----------------|
| 11.12 | 52.33 | 47.54 | -7.67 | -12.46 | 60.00 | 0.32 | 0.06 | 9.90 |
| 11.13 | 53.69 | 47.89 | -6.31 | -12.11 | 60.00 | 0.32 | 0.06 | 9.90 |
| 11.17 | 53.23 | 47.18 | -6.77 | -12.82 | 60.00 | 0.32 | 0.06 | 9.90 |
| 11.18 | 52.22 | 46.90 | -7.78 | -13.10 | 60.00 | 0.32 | 0.06 | 9.90 |
| 11.21 | 52.68 | 46.86 | -7.32 | -13.14 | 60.00 | 0.32 | 0.06 | 9.90 |
| 11.24 | 53.76 | 47.31 | -6.24 | -12.69 | 60.00 | 0.32 | 0.06 | 9.90 |
| 11.27 | 53.43 | 47.23 | -6.57 | -12.77 | 60.00 | 0.32 | 0.06 | 9.90 |
| 11.29 | 54.34 | 47.25 | -5.66 | -12.75 | 60.00 | 0.32 | 0.06 | 9.90 |
| 11.33 | 53.24 | 47.16 | -6.76 | -12.84 | 60.00 | 0.32 | 0.06 | 9.90 |
| 11.34 | 52.30 | 47.16 | -7.70 | -12.84 | 60.00 | 0.32 | 0.06 | 9.90 |
| 11.36 | 53.56 | 47.33 | -6.44 | -12.67 | 60.00 | 0.32 | 0.06 | 9.90 |
| 11.37 | 52.89 | 47.50 | -7.11 | -12.50 | 60.00 | 0.32 | 0.06 | 9.90 |
| 11.39 | 53.45 | 47.52 | -6.55 | -12.48 | 60.00 | 0.32 | 0.06 | 9.90 |
| 11.40 | 53.55 | 47.64 | -6.45 | -12.36 | 60.00 | 0.32 | 0.06 | 9.90 |
| 11.42 | 53.81 | 48.33 | -6.19 | -11.67 | 60.00 | 0.32 | 0.06 | 9.90 |
| 11.43 | 55.46 | 48.80 | -4.54 | -11.20 | 60.00 | 0.32 | 0.06 | 9.90 |
| 11.44 | 53.74 | 48.61 | -6.26 | -11.39 | 60.00 | 0.32 | 0.06 | 9.90 |
| 11.45 | 53.15 | 48.18 | -6.85 | -11.82 | 60.00 | 0.32 | 0.06 | 9.90 |
| 11.46 | 54.10 | 47.93 | -5.90 | -12.07 | 60.00 | 0.32 | 0.06 | 9.90 |
| 11.48 | 53.55 | 47.59 | -6.45 | -12.41 | 60.00 | 0.32 | 0.06 | 9.90 |
| 11.49 | 53.04 | 47.52 | -6.96 | -12.48 | 60.00 | 0.32 | 0.06 | 9.90 |
| 11.50 | 53.57 | 47.68 | -6.43 | -12.32 | 60.00 | 0.32 | 0.06 | 9.90 |
| 11.52 | 53.27 | 47.54 | -6.73 | -12.46 | 60.00 | 0.32 | 0.06 | 9.90 |
| 11.53 | 53.16 | 47.65 | -6.84 | -12.35 | 60.00 | 0.32 | 0.06 | 9.90 |
| 11.55 | 54.13 | 47.71 | -5.87 | -12.29 | 60.00 | 0.32 | 0.06 | 9.90 |
| 11.56 | 53.27 | 47.82 | -6.73 | -12.18 | 60.00 | 0.32 | 0.06 | 9.90 |
| 11.57 | 53.54 | 47.99 | -6.46 | -12.01 | 60.00 | 0.32 | 0.06 | 9.90 |
| 11.59 | 53.60 | 47.81 | -6.40 | -12.19 | 60.00 | 0.32 | 0.06 | 9.90 |
| 11.61 | 54.62 | 47.81 | -5.38 | -12.19 | 60.00 | 0.32 | 0.06 | 9.90 |
| 11.61 | 53.52 | 47.75 | -6.48 | -12.25 | 60.00 | 0.32 | 0.06 | 9.90 |
| 11.64 | 54.35 | 47.60 | -5.65 | -12.40 | 60.00 | 0.32 | 0.06 | 9.90 |
| 11.65 | 53.43 | 47.76 | -6.57 | -12.24 | 60.00 | 0.32 | 0.06 | 9.90 |
| 11.67 | 53.22 | 48.04 | -6.78 | -11.96 | 60.00 | 0.32 | 0.06 | 9.90 |
| 11.69 | 54.68 | 48.18 | -5.32 | -11.82 | 60.00 | 0.32 | 0.06 | 9.90 |
| 11.71 | 54.29 | 48.56 | -5.71 | -11.44 | 60.00 | 0.32 | 0.06 | 9.90 |
| 11.73 | 54.31 | 49.03 | -5.69 | -10.97 | 60.00 | 0.32 | 0.06 | 9.90 |
| 11.75 | 54.22 | 48.54 | -5.78 | -11.46 | 60.00 | 0.32 | 0.06 | 9.90 |
| 11.81 | 54.69 | 47.93 | -5.31 | -12.07 | 60.00 | 0.32 | 0.06 | 9.90 |
| 11.88 | 53.86 | 48.37 | -6.14 | -11.63 | 60.00 | 0.32 | 0.06 | 9.90 |
| 11.90 | 54.53 | 48.20 | -5.47 | -11.80 | 60.00 | 0.33 | 0.06 | 9.90 |
| 11.94 | 53.42 | 48.40 | -6.58 | -11.60 | 60.00 | 0.33 | 0.06 | 9.90 |
| 11.97 | 53.81 | 48.41 | -6.19 | -11.59 | 60.00 | 0.33 | 0.06 | 9.90 |
| 11.99 | 54.50 | 48.65 | -5.50 | -11.35 | 60.00 | 0.33 | 0.06 | 9.90 |
| 12.01 | 55.12 | 49.20 | -4.88 | -10.80 | 60.00 | 0.33 | 0.06 | 9.90 |
| 12.02 | 54.13 | 49.07 | -5.87 | -10.93 | 60.00 | 0.33 | 0.06 | 9.90 |
| 12.07 | 54.23 | 48.89 | -5.77 | -11.11 | 60.00 | 0.33 | 0.06 | 9.89 |
| 12.10 | 53.72 | 48.32 | -6.28 | -11.68 | 60.00 | 0.33 | 0.06 | 9.89 |
| 12.14 | 54.79 | 48.58 | -5.21 | -11.42 | 60.00 | 0.33 | 0.06 | 9.89 |
| 12.17 | 54.23 | 48.49 | -5.77 | -11.51 | 60.00 | 0.33 | 0.06 | 9.89 |
| 12.22 | 55.24 | 48.48 | -4.76 | -11.52 | 60.00 | 0.33 | 0.06 | 9.88 |
| 12.25 | 55.32 | 48.89 | -4.68 | -11.11 | 60.00 | 0.33 | 0.06 | 9.88 |
| 12.29 | 54.49 | 48.82 | -5.51 | -11.18 | 60.00 | 0.33 | 0.06 | 9.88 |
| 12.31 | 54.94 | 49.70 | -5.06 | -10.30 | 60.00 | 0.33 | 0.06 | 9.88 |
| 12.35 | 53.85 | 48.64 | -6.15 | -11.36 | 60.00 | 0.33 | 0.06 | 9.87 |
| 12.39 | 54.08 | 48.70 | -5.92 | -11.30 | 60.00 | 0.33 | 0.06 | 9.87 |
| 12.41 | 54.95 | 49.07 | -5.05 | -10.93 | 60.00 | 0.33 | 0.06 | 9.87 |
| 12.49 | 54.76 | 48.67 | -5.24 | -11.33 | 60.00 | 0.33 | 0.06 | 9.86 |
| 12.55 | 54.93 | 48.86 | -5.07 | -11.14 | 60.00 | 0.33 | 0.06 | 9.86 |

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| Freq (MHz) | (PEAK) EMI (dB μ V) | (OP) EMI (dB μ V) | (PEAK) Margin QPL (dB) | (QP) Margin QPL (dB) | (OP) Limit (dB μ V) | Cable (dB) | Transducer (dB) | Filter (dB) |
|---------------|----------------------------|--------------------------|---------------------------|-------------------------|----------------------------|---------------|--------------------|----------------|
| 12.57 | 54.32 | 48.63 | -5.68 | -11.37 | 60.00 | 0.33 | 0.06 | 9.86 |
| 12.61 | 55.54 | 49.41 | -4.46 | -10.59 | 60.00 | 0.33 | 0.06 | 9.86 |
| 12.70 | 54.04 | 48.84 | -5.96 | -11.16 | 60.00 | 0.33 | 0.06 | 9.85 |
| 12.74 | 53.72 | 48.42 | -6.28 | -11.58 | 60.00 | 0.33 | 0.06 | 9.85 |
| 12.79 | 53.84 | 48.34 | -6.16 | -11.66 | 60.00 | 0.34 | 0.06 | 9.84 |
| 12.82 | 54.25 | 48.30 | -5.75 | -11.70 | 60.00 | 0.34 | 0.06 | 9.84 |
| 12.87 | 54.33 | 48.80 | -5.67 | -11.20 | 60.00 | 0.34 | 0.06 | 9.84 |
| 12.91 | 55.62 | 49.02 | -4.38 | -10.98 | 60.00 | 0.34 | 0.06 | 9.83 |
| 12.99 | 53.23 | 48.43 | -6.77 | -11.57 | 60.00 | 0.34 | 0.06 | 9.83 |
| 13.06 | 53.49 | 48.34 | -6.51 | -11.66 | 60.00 | 0.34 | 0.06 | 9.82 |
| 13.12 | 53.09 | 47.89 | -6.91 | -12.11 | 60.00 | 0.34 | 0.06 | 9.82 |
| 13.15 | 53.78 | 48.21 | -6.22 | -11.79 | 60.00 | 0.34 | 0.06 | 9.82 |
| 13.27 | 53.52 | 47.98 | -6.48 | -12.02 | 60.00 | 0.34 | 0.06 | 9.81 |
| 13.32 | 54.02 | 47.90 | -5.98 | -12.10 | 60.00 | 0.34 | 0.06 | 9.81 |
| 13.43 | 52.88 | 47.77 | -7.12 | -12.23 | 60.00 | 0.34 | 0.06 | 9.80 |
| 13.51 | 53.20 | 47.47 | -6.80 | -12.53 | 60.00 | 0.34 | 0.06 | 9.79 |
| 13.62 | 53.73 | 47.46 | -6.27 | -12.54 | 60.00 | 0.34 | 0.07 | 9.79 |
| 13.63 | 53.03 | 47.58 | -6.97 | -12.42 | 60.00 | 0.34 | 0.07 | 9.79 |
| 13.79 | 53.44 | 47.34 | -6.56 | -12.66 | 60.00 | 0.35 | 0.07 | 9.78 |
| 13.87 | 52.59 | 46.88 | -7.41 | -13.12 | 60.00 | 0.35 | 0.07 | 9.77 |
| 13.90 | 52.91 | 46.86 | -7.09 | -13.14 | 60.00 | 0.35 | 0.07 | 9.77 |
| 13.94 | 53.56 | 46.78 | -6.44 | -13.22 | 60.00 | 0.35 | 0.07 | 9.77 |
| 13.99 | 51.88 | 46.66 | -8.12 | -13.34 | 60.00 | 0.35 | 0.07 | 9.76 |
| 14.02 | 52.16 | 46.89 | -7.84 | -13.11 | 60.00 | 0.35 | 0.07 | 9.76 |
| 14.05 | 52.56 | 46.94 | -7.44 | -13.06 | 60.00 | 0.35 | 0.07 | 9.76 |
| 14.09 | 52.22 | 46.46 | -7.78 | -13.54 | 60.00 | 0.35 | 0.07 | 9.76 |
| 14.15 | 52.25 | 46.19 | -7.75 | -13.81 | 60.00 | 0.35 | 0.07 | 9.75 |
| 14.21 | 51.89 | 46.39 | -8.11 | -13.61 | 60.00 | 0.35 | 0.07 | 9.75 |
| 14.32 | 52.88 | 45.90 | -7.12 | -14.10 | 60.00 | 0.35 | 0.07 | 9.74 |
| 14.39 | 51.93 | 46.03 | -8.07 | -13.97 | 60.00 | 0.35 | 0.07 | 9.74 |
| 14.44 | 51.91 | 45.71 | -8.09 | -14.29 | 60.00 | 0.35 | 0.07 | 9.73 |
| 14.50 | 52.11 | 45.86 | -7.89 | -14.14 | 60.00 | 0.35 | 0.07 | 9.73 |
| 14.62 | 51.92 | 45.46 | -8.08 | -14.54 | 60.00 | 0.35 | 0.07 | 9.72 |
| 14.63 | 52.17 | 45.69 | -7.83 | -14.31 | 60.00 | 0.35 | 0.07 | 9.72 |
| 14.65 | 51.46 | 45.90 | -8.54 | -14.10 | 60.00 | 0.36 | 0.07 | 9.72 |

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Title: FCC B - Conducted Emissions - White Lead
File: 2 - RS - Final Scan - White Lead - Tx Mode - FCC Class B - With LED Lights - 30 MHz to 1000 MHz.set
Operator: Kyle Fujimoto
EUT Type: Lighting Control Node
EUT Condition: The EUT is continuously transmitting at the low channel - Worst Case
Company: Mesh Systems LLC
Model: LCN300
S/N: N/A

8/1/2019 10:24:56 AM
Sequence: Final Measurements

FCC Class B - Conducted Emissions - White Lead

| Freq (MHz) | (PEAK) EMI (dB μ V) | (AVG) EMI (dB μ V) | (PEAK) Margin AVL (dB) | (AVG) Margin AVL (dB) | (AVG) Limit (dB μ V) | Cable (dB) | Transducer (dB) | Filter (dB) |
|---------------|----------------------------|---------------------------|---------------------------|--------------------------|-----------------------------|---------------|--------------------|----------------|
| 0.150 | 67.46 | 45.27 | 12.00 | -10.19 | 55.46 | 0.00 | 0.40 | 9.80 |
| 0.162 | 63.36 | 34.99 | 8.51 | -19.86 | 54.85 | 0.00 | 0.36 | 9.80 |
| 0.178 | 60.29 | 34.38 | 6.18 | -19.74 | 54.11 | 0.00 | 0.32 | 9.80 |
| 0.190 | 63.82 | 42.02 | 10.22 | -11.58 | 53.60 | 0.00 | 0.29 | 9.80 |
| 0.206 | 58.06 | 33.18 | 5.09 | -19.79 | 52.97 | 0.00 | 0.26 | 9.80 |
| 0.238 | 58.36 | 37.85 | 6.53 | -13.99 | 51.83 | 0.02 | 0.19 | 9.78 |
| 0.266 | 53.15 | 31.99 | 2.20 | -18.97 | 50.96 | 0.03 | 0.14 | 9.77 |
| 0.290 | 54.41 | 45.88 | 4.13 | -4.40 | 50.28 | 0.04 | 0.10 | 9.76 |
| 0.294 | 55.00 | 48.97 | 4.83 | -1.20 | 50.17 | 0.04 | 0.10 | 9.76 |
| 0.298 | 51.91 | 42.37 | 1.84 | -7.69 | 50.07 | 0.04 | 0.09 | 9.76 |
| 0.414 | 50.67 | 37.04 | 3.19 | -10.44 | 47.48 | 0.08 | 0.02 | 9.72 |
| 0.418 | 55.95 | 37.96 | 8.54 | -9.45 | 47.41 | 0.08 | 0.02 | 9.72 |
| 0.430 | 58.01 | 42.27 | 10.83 | -4.92 | 47.18 | 0.08 | 0.02 | 9.72 |
| 0.438 | 54.76 | 45.74 | 7.72 | -1.30 | 47.04 | 0.09 | 0.02 | 9.71 |
| 0.442 | 51.67 | 45.14 | 4.71 | -1.82 | 46.97 | 0.09 | 0.02 | 9.71 |
| 0.446 | 50.68 | 39.83 | 3.78 | -7.07 | 46.90 | 0.09 | 0.02 | 9.71 |
| 0.474 | 56.25 | 43.81 | 9.84 | -2.61 | 46.42 | 0.09 | 0.02 | 9.71 |
| 0.490 | 56.75 | 35.93 | 10.59 | -10.23 | 46.16 | 0.10 | 0.02 | 9.70 |
| 0.506 | 47.79 | 27.24 | 1.79 | -18.76 | 46.00 | 0.10 | 0.02 | 9.70 |
| 0.518 | 50.45 | 37.10 | 4.45 | -8.90 | 46.00 | 0.09 | 0.02 | 9.71 |
| 0.522 | 51.62 | 36.10 | 5.62 | -9.90 | 46.00 | 0.09 | 0.02 | 9.71 |
| 0.534 | 51.82 | 29.95 | 5.82 | -16.05 | 46.00 | 0.09 | 0.02 | 9.72 |
| 0.546 | 51.86 | 30.34 | 5.86 | -15.66 | 46.00 | 0.09 | 0.02 | 9.73 |
| 0.578 | 48.78 | 29.06 | 2.78 | -16.94 | 46.00 | 0.08 | 0.02 | 9.74 |
| 0.590 | 49.03 | 33.16 | 3.03 | -12.84 | 46.00 | 0.08 | 0.02 | 9.75 |
| 0.594 | 48.37 | 28.19 | 2.37 | -17.81 | 46.00 | 0.08 | 0.02 | 9.75 |
| 0.622 | 46.87 | 27.30 | 0.87 | -18.70 | 46.00 | 0.07 | 0.02 | 9.76 |
| 0.650 | 45.39 | 27.10 | -0.61 | -18.90 | 46.00 | 0.06 | 0.02 | 9.78 |
| 0.654 | 47.50 | 28.20 | 1.50 | -17.80 | 46.00 | 0.06 | 0.02 | 9.78 |
| 0.682 | 45.94 | 23.40 | -0.06 | -22.60 | 46.00 | 0.06 | 0.02 | 9.79 |
| 0.714 | 49.66 | 33.33 | 3.66 | -12.67 | 46.00 | 0.05 | 0.02 | 9.80 |
| 0.730 | 49.66 | 42.31 | 3.66 | -3.69 | 46.00 | 0.05 | 0.02 | 9.81 |
| 0.734 | 51.95 | 45.05 | 5.95 | -0.95 | 46.00 | 0.04 | 0.02 | 9.81 |
| 0.738 | 48.33 | 38.18 | 2.33 | -7.82 | 46.00 | 0.04 | 0.02 | 9.81 |
| 0.742 | 46.55 | 29.50 | 0.55 | -16.50 | 46.00 | 0.04 | 0.02 | 9.81 |
| 0.758 | 49.10 | 32.41 | 3.10 | -13.59 | 46.00 | 0.04 | 0.02 | 9.82 |
| 0.802 | 47.23 | 31.62 | 1.23 | -14.38 | 46.00 | 0.03 | 0.02 | 9.84 |
| 0.846 | 47.84 | 30.43 | 1.84 | -15.57 | 46.00 | 0.02 | 0.02 | 9.85 |
| 0.906 | 46.59 | 26.20 | 0.59 | -19.80 | 46.00 | 0.01 | 0.02 | 9.87 |
| 1.022 | 45.38 | 34.63 | -0.62 | -11.37 | 46.00 | 0.00 | 0.02 | 9.90 |
| 1.026 | 47.48 | 39.91 | 1.48 | -6.09 | 46.00 | 0.00 | 0.02 | 9.90 |
| 1.038 | 45.43 | 30.45 | -0.57 | -15.55 | 46.00 | 0.01 | 0.02 | 9.89 |
| 1.302 | 38.60 | 16.76 | -7.40 | -29.24 | 46.00 | 0.04 | 0.03 | 9.86 |
| 1.422 | 45.98 | 27.66 | -0.02 | -18.34 | 46.00 | 0.05 | 0.03 | 9.85 |
| 1.426 | 45.63 | 27.64 | -0.37 | -18.36 | 46.00 | 0.05 | 0.03 | 9.85 |
| 1.790 | 45.31 | 25.07 | -0.69 | -20.93 | 46.00 | 0.08 | 0.04 | 9.82 |

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| Freq (MHz) | (PEAK) EMI (dB _p V) | (AVG) EMI (dB _p V) | (PEAK) Margin AVL (dB) | (AVG) Margin AVL (dB) | (AVG) Limit (dB _p V) | Cable (dB) | Transducer (dB) | Filter (dB) |
|---------------|-----------------------------------|----------------------------------|---------------------------|--------------------------|------------------------------------|---------------|--------------------|----------------|
| 1.794 | 44.98 | 26.74 | -1.02 | -19.26 | 46.00 | 0.08 | 0.04 | 9.82 |
| 1.882 | 44.09 | 25.06 | -1.91 | -20.94 | 46.00 | 0.09 | 0.04 | 9.81 |
| 1.958 | 45.22 | 22.28 | -0.78 | -23.72 | 46.00 | 0.10 | 0.04 | 9.80 |
| 2.002 | 45.10 | 25.37 | -0.90 | -20.63 | 46.00 | 0.10 | 0.04 | 9.80 |
| 2.242 | 44.93 | 23.02 | -1.07 | -22.98 | 46.00 | 0.11 | 0.04 | 9.80 |
| 2.334 | 45.48 | 25.47 | -0.52 | -20.53 | 46.00 | 0.12 | 0.04 | 9.80 |
| 2.518 | 45.62 | 24.96 | -0.38 | -21.04 | 46.00 | 0.13 | 0.04 | 9.80 |
| 2.598 | 45.42 | 24.35 | -0.58 | -21.65 | 46.00 | 0.13 | 0.04 | 9.80 |
| 2.638 | 45.95 | 28.75 | -0.05 | -17.25 | 46.00 | 0.13 | 0.04 | 9.80 |
| 3.318 | 46.15 | 27.35 | 0.15 | -18.65 | 46.00 | 0.16 | 0.04 | 9.80 |
| 3.334 | 45.51 | 25.38 | -0.49 | -20.62 | 46.00 | 0.16 | 0.04 | 9.80 |
| 4.270 | 44.32 | 24.29 | -1.68 | -21.71 | 46.00 | 0.18 | 0.04 | 9.80 |
| 4.546 | 46.40 | 33.15 | 0.40 | -12.85 | 46.00 | 0.19 | 0.03 | 9.80 |
| 4.834 | 46.38 | 33.88 | 0.38 | -12.12 | 46.00 | 0.20 | 0.03 | 9.80 |
| 4.838 | 47.15 | 35.74 | 1.15 | -10.26 | 46.00 | 0.20 | 0.03 | 9.80 |
| 6.738 | 51.51 | 43.36 | 1.51 | -6.64 | 50.00 | 0.24 | 0.04 | 9.80 |
| 7.038 | 53.13 | 45.64 | 3.13 | -4.36 | 50.00 | 0.25 | 0.04 | 9.80 |
| 7.042 | 50.97 | 43.37 | 0.97 | -6.63 | 50.00 | 0.25 | 0.04 | 9.80 |
| 7.326 | 52.52 | 44.73 | 2.52 | -5.27 | 50.00 | 0.26 | 0.04 | 9.80 |
| 7.330 | 52.35 | 45.73 | 2.35 | -4.27 | 50.00 | 0.26 | 0.04 | 9.80 |
| 7.614 | 51.09 | 41.83 | 1.09 | -8.17 | 50.00 | 0.26 | 0.04 | 9.80 |
| 7.618 | 52.90 | 44.07 | 2.90 | -5.93 | 50.00 | 0.26 | 0.04 | 9.80 |
| 7.630 | 50.61 | 42.19 | 0.61 | -7.81 | 50.00 | 0.26 | 0.04 | 9.80 |
| 7.914 | 52.08 | 44.66 | 2.08 | -5.34 | 50.00 | 0.27 | 0.04 | 9.80 |
| 8.198 | 50.56 | 40.91 | 0.56 | -9.09 | 50.00 | 0.27 | 0.04 | 9.80 |
| 8.202 | 50.97 | 42.22 | 0.97 | -7.78 | 50.00 | 0.27 | 0.04 | 9.80 |
| 8.498 | 51.76 | 44.00 | 1.76 | -6.00 | 50.00 | 0.28 | 0.05 | 9.80 |
| 8.506 | 51.79 | 43.08 | 1.79 | -6.92 | 50.00 | 0.28 | 0.05 | 9.80 |
| 8.790 | 52.02 | 43.24 | 2.02 | -6.76 | 50.00 | 0.28 | 0.05 | 9.80 |
| 8.798 | 52.11 | 43.73 | 2.11 | -6.27 | 50.00 | 0.28 | 0.05 | 9.80 |
| 9.086 | 52.63 | 43.53 | 2.63 | -6.47 | 50.00 | 0.29 | 0.05 | 9.81 |
| 9.386 | 52.08 | 42.30 | 2.08 | -7.70 | 50.00 | 0.29 | 0.05 | 9.84 |
| 9.390 | 51.04 | 40.86 | 1.04 | -9.14 | 50.00 | 0.29 | 0.05 | 9.84 |
| 9.670 | 52.20 | 42.72 | 2.20 | -7.28 | 50.00 | 0.30 | 0.05 | 9.87 |
| 9.974 | 52.98 | 41.36 | 2.98 | -8.64 | 50.00 | 0.30 | 0.05 | 9.90 |
| 10.246 | 51.29 | 39.42 | 1.29 | -10.58 | 50.00 | 0.30 | 0.05 | 9.90 |
| 10.250 | 52.87 | 40.13 | 2.87 | -9.87 | 50.00 | 0.30 | 0.05 | 9.90 |
| 10.258 | 54.37 | 42.24 | 4.37 | -7.76 | 50.00 | 0.30 | 0.05 | 9.90 |
| 10.514 | 51.11 | 35.21 | 1.11 | -14.79 | 50.00 | 0.31 | 0.05 | 9.90 |
| 10.534 | 51.68 | 38.50 | 1.68 | -11.50 | 50.00 | 0.31 | 0.05 | 9.90 |
| 10.542 | 53.50 | 39.88 | 3.50 | -10.12 | 50.00 | 0.31 | 0.05 | 9.90 |
| 10.546 | 52.89 | 40.96 | 2.89 | -9.04 | 50.00 | 0.31 | 0.05 | 9.90 |
| 10.550 | 53.52 | 41.41 | 3.52 | -8.59 | 50.00 | 0.31 | 0.05 | 9.90 |
| 10.554 | 53.36 | 42.39 | 3.36 | -7.61 | 50.00 | 0.31 | 0.05 | 9.90 |
| 10.558 | 53.58 | 41.24 | 3.58 | -8.76 | 50.00 | 0.31 | 0.05 | 9.90 |
| 10.654 | 51.74 | 33.11 | 1.74 | -16.89 | 50.00 | 0.31 | 0.05 | 9.90 |
| 10.678 | 51.56 | 32.53 | 1.56 | -17.47 | 50.00 | 0.31 | 0.05 | 9.90 |
| 10.810 | 52.30 | 35.83 | 2.30 | -14.17 | 50.00 | 0.31 | 0.05 | 9.90 |
| 10.818 | 52.82 | 37.43 | 2.82 | -12.57 | 50.00 | 0.31 | 0.05 | 9.90 |
| 10.826 | 53.14 | 38.55 | 3.14 | -11.45 | 50.00 | 0.31 | 0.05 | 9.90 |
| 10.834 | 54.68 | 39.77 | 4.68 | -10.23 | 50.00 | 0.31 | 0.05 | 9.90 |
| 10.838 | 54.14 | 40.19 | 4.14 | -9.81 | 50.00 | 0.31 | 0.05 | 9.90 |
| 10.846 | 54.63 | 41.88 | 4.63 | -8.12 | 50.00 | 0.31 | 0.05 | 9.90 |
| 10.930 | 51.99 | 33.89 | 1.99 | -16.11 | 50.00 | 0.31 | 0.05 | 9.90 |
| 10.950 | 52.25 | 33.66 | 2.25 | -16.34 | 50.00 | 0.31 | 0.05 | 9.90 |
| 10.974 | 52.25 | 33.24 | 2.25 | -16.76 | 50.00 | 0.31 | 0.05 | 9.90 |
| 11.058 | 51.67 | 33.35 | 1.67 | -16.65 | 50.00 | 0.31 | 0.05 | 9.90 |
| 11.090 | 54.07 | 34.87 | 4.07 | -15.13 | 50.00 | 0.31 | 0.06 | 9.90 |

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| Freq (MHz) | (PEAK) EMI (dB μ V) | (AVG) EMI (dB μ V) | (PEAK) Margin AVL (dB) | (AVG) Margin AVL (dB) | (AVG) Limit (dB μ V) | Cable (dB) | Transducer (dB) | Filter (dB) |
|---------------|----------------------------|---------------------------|---------------------------|--------------------------|-----------------------------|---------------|--------------------|----------------|
| 11.122 | 52.33 | 38.81 | 2.33 | -11.19 | 50.00 | 0.32 | 0.06 | 9.90 |
| 11.134 | 53.69 | 40.76 | 3.69 | -9.24 | 50.00 | 0.32 | 0.06 | 9.90 |
| 11.166 | 53.23 | 36.65 | 3.23 | -13.35 | 50.00 | 0.32 | 0.06 | 9.90 |
| 11.178 | 52.22 | 35.18 | 2.22 | -14.82 | 50.00 | 0.32 | 0.06 | 9.90 |
| 11.206 | 52.68 | 34.21 | 2.68 | -15.79 | 50.00 | 0.32 | 0.06 | 9.90 |
| 11.238 | 53.76 | 34.48 | 3.76 | -15.52 | 50.00 | 0.32 | 0.06 | 9.90 |
| 11.274 | 53.43 | 34.24 | 3.43 | -15.76 | 50.00 | 0.32 | 0.06 | 9.90 |
| 11.286 | 54.34 | 34.21 | 4.34 | -15.79 | 50.00 | 0.32 | 0.06 | 9.90 |
| 11.326 | 53.24 | 33.88 | 3.24 | -16.12 | 50.00 | 0.32 | 0.06 | 9.90 |
| 11.342 | 52.30 | 33.75 | 2.30 | -16.25 | 50.00 | 0.32 | 0.06 | 9.90 |
| 11.362 | 53.56 | 34.14 | 3.56 | -15.86 | 50.00 | 0.32 | 0.06 | 9.90 |
| 11.370 | 52.89 | 34.53 | 2.89 | -15.47 | 50.00 | 0.32 | 0.06 | 9.90 |
| 11.390 | 53.45 | 35.89 | 3.45 | -14.11 | 50.00 | 0.32 | 0.06 | 9.90 |
| 11.402 | 53.55 | 37.06 | 3.55 | -12.94 | 50.00 | 0.32 | 0.06 | 9.90 |
| 11.418 | 53.81 | 39.14 | 3.81 | -10.86 | 50.00 | 0.32 | 0.06 | 9.90 |
| 11.430 | 55.46 | 41.26 | 5.46 | -8.74 | 50.00 | 0.32 | 0.06 | 9.90 |
| 11.442 | 53.74 | 39.71 | 3.74 | -10.29 | 50.00 | 0.32 | 0.06 | 9.90 |
| 11.450 | 53.15 | 38.33 | 3.15 | -11.67 | 50.00 | 0.32 | 0.06 | 9.90 |
| 11.458 | 54.10 | 37.25 | 4.10 | -12.75 | 50.00 | 0.32 | 0.06 | 9.90 |
| 11.478 | 53.55 | 35.55 | 3.55 | -14.45 | 50.00 | 0.32 | 0.06 | 9.90 |
| 11.490 | 53.04 | 34.82 | 3.04 | -15.18 | 50.00 | 0.32 | 0.06 | 9.90 |
| 11.502 | 53.57 | 34.97 | 3.57 | -15.03 | 50.00 | 0.32 | 0.06 | 9.90 |
| 11.522 | 53.27 | 35.00 | 3.27 | -15.00 | 50.00 | 0.32 | 0.06 | 9.90 |
| 11.530 | 53.16 | 34.71 | 3.16 | -15.29 | 50.00 | 0.32 | 0.06 | 9.90 |
| 11.546 | 54.13 | 34.50 | 4.13 | -15.50 | 50.00 | 0.32 | 0.06 | 9.90 |
| 11.558 | 53.27 | 34.66 | 3.27 | -15.34 | 50.00 | 0.32 | 0.06 | 9.90 |
| 11.570 | 53.54 | 35.00 | 3.54 | -15.00 | 50.00 | 0.32 | 0.06 | 9.90 |
| 11.586 | 53.60 | 34.48 | 3.60 | -15.52 | 50.00 | 0.32 | 0.06 | 9.90 |
| 11.606 | 54.62 | 34.17 | 4.62 | -15.83 | 50.00 | 0.32 | 0.06 | 9.90 |
| 11.614 | 53.52 | 34.34 | 3.52 | -15.66 | 50.00 | 0.32 | 0.06 | 9.90 |
| 11.642 | 54.35 | 34.51 | 4.35 | -15.49 | 50.00 | 0.32 | 0.06 | 9.90 |
| 11.650 | 53.43 | 34.49 | 3.43 | -15.51 | 50.00 | 0.32 | 0.06 | 9.90 |
| 11.670 | 53.22 | 35.31 | 3.22 | -14.69 | 50.00 | 0.32 | 0.06 | 9.90 |
| 11.694 | 54.68 | 37.03 | 4.68 | -12.97 | 50.00 | 0.32 | 0.06 | 9.90 |
| 11.706 | 54.29 | 38.69 | 4.29 | -11.31 | 50.00 | 0.32 | 0.06 | 9.90 |
| 11.726 | 54.31 | 40.80 | 4.31 | -9.20 | 50.00 | 0.32 | 0.06 | 9.90 |
| 11.754 | 54.22 | 37.11 | 4.22 | -12.89 | 50.00 | 0.32 | 0.06 | 9.90 |
| 11.814 | 54.69 | 35.36 | 4.69 | -14.64 | 50.00 | 0.32 | 0.06 | 9.90 |
| 11.882 | 53.86 | 35.37 | 3.86 | -14.63 | 50.00 | 0.32 | 0.06 | 9.90 |
| 11.902 | 54.53 | 35.33 | 4.53 | -14.67 | 50.00 | 0.33 | 0.06 | 9.90 |
| 11.938 | 53.42 | 35.80 | 3.42 | -14.20 | 50.00 | 0.33 | 0.06 | 9.90 |
| 11.966 | 53.81 | 35.59 | 3.81 | -14.41 | 50.00 | 0.33 | 0.06 | 9.90 |
| 11.986 | 54.50 | 37.10 | 4.50 | -12.90 | 50.00 | 0.33 | 0.06 | 9.90 |
| 12.006 | 55.12 | 39.12 | 5.12 | -10.88 | 50.00 | 0.33 | 0.06 | 9.90 |
| 12.022 | 54.13 | 40.60 | 4.13 | -9.40 | 50.00 | 0.33 | 0.06 | 9.90 |
| 12.070 | 54.23 | 36.05 | 4.23 | -13.95 | 50.00 | 0.33 | 0.06 | 9.89 |
| 12.102 | 53.72 | 35.40 | 3.72 | -14.60 | 50.00 | 0.33 | 0.06 | 9.89 |
| 12.138 | 54.79 | 35.36 | 4.79 | -14.64 | 50.00 | 0.33 | 0.06 | 9.89 |
| 12.166 | 54.23 | 35.83 | 4.23 | -14.17 | 50.00 | 0.33 | 0.06 | 9.88 |
| 12.218 | 55.24 | 34.90 | 5.24 | -15.10 | 50.00 | 0.33 | 0.06 | 9.88 |
| 12.254 | 55.32 | 35.89 | 5.32 | -14.11 | 50.00 | 0.33 | 0.06 | 9.88 |
| 12.286 | 54.49 | 37.89 | 4.49 | -12.11 | 50.00 | 0.33 | 0.06 | 9.88 |
| 12.314 | 54.94 | 40.16 | 4.94 | -9.84 | 50.00 | 0.33 | 0.06 | 9.88 |
| 12.346 | 53.85 | 36.56 | 3.85 | -13.44 | 50.00 | 0.33 | 0.06 | 9.87 |
| 12.394 | 54.08 | 35.53 | 4.08 | -14.47 | 50.00 | 0.33 | 0.06 | 9.87 |
| 12.414 | 54.95 | 35.84 | 4.95 | -14.16 | 50.00 | 0.33 | 0.06 | 9.87 |
| 12.490 | 54.76 | 35.82 | 4.76 | -14.18 | 50.00 | 0.33 | 0.06 | 9.86 |
| 12.550 | 54.93 | 35.74 | 4.93 | -14.26 | 50.00 | 0.33 | 0.06 | 9.86 |

Brea Division
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(714) 579-0500

Newbury Park Division
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Newbury Park, CA 91320
(805) 480-4044

Lake Forest Division
20621 Pascal Way
Lake Forest, CA 92630
(949) 587-0400



| Freq (MHz) | (PEAK) EMI (dB μ V) | (AVG) EMI (dB μ V) | (PEAK) Margin (dB) | AVL | (AVG) Margin (dB) | AVL | (AVG) Limit (dB μ V) | Cable (dB) | Transducer (dB) | Filter (dB) |
|---------------|----------------------------|---------------------------|-----------------------|--------|----------------------|------|-----------------------------|---------------|--------------------|----------------|
| 12.574 | 54.32 | 37.20 | 4.32 | -12.80 | 50.00 | 0.33 | 0.06 | 9.86 | | |
| 12.614 | 55.54 | 39.02 | 5.54 | -10.98 | 50.00 | 0.33 | 0.06 | 9.86 | | |
| 12.698 | 54.04 | 35.74 | 4.04 | -14.26 | 50.00 | 0.33 | 0.06 | 9.85 | | |
| 12.738 | 53.72 | 36.24 | 3.72 | -13.76 | 50.00 | 0.33 | 0.06 | 9.85 | | |
| 12.794 | 53.84 | 35.45 | 3.84 | -14.55 | 50.00 | 0.34 | 0.06 | 9.84 | | |
| 12.822 | 54.25 | 35.54 | 4.25 | -14.46 | 50.00 | 0.34 | 0.06 | 9.84 | | |
| 12.874 | 54.33 | 37.93 | 4.33 | -12.07 | 50.00 | 0.34 | 0.06 | 9.84 | | |
| 12.914 | 55.62 | 37.85 | 5.62 | -12.15 | 50.00 | 0.34 | 0.06 | 9.83 | | |
| 12.994 | 53.23 | 35.61 | 3.23 | -14.39 | 50.00 | 0.34 | 0.06 | 9.83 | | |
| 13.062 | 53.49 | 36.13 | 3.49 | -13.87 | 50.00 | 0.34 | 0.06 | 9.82 | | |
| 13.122 | 53.09 | 35.76 | 3.09 | -14.24 | 50.00 | 0.34 | 0.06 | 9.82 | | |
| 13.146 | 53.78 | 36.00 | 3.78 | -14.00 | 50.00 | 0.34 | 0.06 | 9.82 | | |
| 13.266 | 53.52 | 35.83 | 3.52 | -14.17 | 50.00 | 0.34 | 0.06 | 9.81 | | |
| 13.322 | 54.02 | 36.59 | 4.02 | -13.41 | 50.00 | 0.34 | 0.06 | 9.81 | | |
| 13.430 | 52.88 | 35.87 | 2.88 | -14.13 | 50.00 | 0.34 | 0.06 | 9.80 | | |
| 13.510 | 53.20 | 36.78 | 3.20 | -13.22 | 50.00 | 0.34 | 0.06 | 9.79 | | |
| 13.622 | 53.73 | 36.44 | 3.73 | -13.56 | 50.00 | 0.34 | 0.07 | 9.79 | | |
| 13.626 | 53.03 | 36.88 | 3.03 | -13.12 | 50.00 | 0.34 | 0.07 | 9.79 | | |
| 13.786 | 53.44 | 37.76 | 3.44 | -12.24 | 50.00 | 0.35 | 0.07 | 9.78 | | |
| 13.874 | 52.59 | 36.01 | 2.59 | -13.99 | 50.00 | 0.35 | 0.07 | 9.77 | | |
| 13.902 | 52.91 | 36.35 | 2.91 | -13.65 | 50.00 | 0.35 | 0.07 | 9.77 | | |
| 13.938 | 53.56 | 36.36 | 3.56 | -13.64 | 50.00 | 0.35 | 0.07 | 9.77 | | |
| 13.990 | 51.88 | 35.45 | 1.88 | -14.55 | 50.00 | 0.35 | 0.07 | 9.76 | | |
| 14.022 | 52.16 | 35.94 | 2.16 | -14.06 | 50.00 | 0.35 | 0.07 | 9.76 | | |
| 14.054 | 52.56 | 37.14 | 2.56 | -12.86 | 50.00 | 0.35 | 0.07 | 9.76 | | |
| 14.086 | 52.22 | 36.83 | 2.22 | -13.17 | 50.00 | 0.35 | 0.07 | 9.76 | | |
| 14.154 | 52.25 | 35.68 | 2.25 | -14.32 | 50.00 | 0.35 | 0.07 | 9.75 | | |
| 14.214 | 51.89 | 37.17 | 1.89 | -12.83 | 50.00 | 0.35 | 0.07 | 9.75 | | |
| 14.318 | 52.88 | 35.99 | 2.88 | -14.01 | 50.00 | 0.35 | 0.07 | 9.74 | | |
| 14.386 | 51.93 | 36.77 | 1.93 | -13.23 | 50.00 | 0.35 | 0.07 | 9.74 | | |
| 14.438 | 51.91 | 35.82 | 1.91 | -14.18 | 50.00 | 0.35 | 0.07 | 9.73 | | |
| 14.498 | 52.11 | 37.05 | 2.11 | -12.95 | 50.00 | 0.35 | 0.07 | 9.73 | | |
| 14.618 | 51.92 | 36.62 | 1.92 | -13.38 | 50.00 | 0.35 | 0.07 | 9.72 | | |
| 14.630 | 52.17 | 36.74 | 2.17 | -13.26 | 50.00 | 0.35 | 0.07 | 9.72 | | |
| 14.654 | 51.46 | 37.26 | 1.46 | -12.74 | 50.00 | 0.36 | 0.07 | 9.72 | | |

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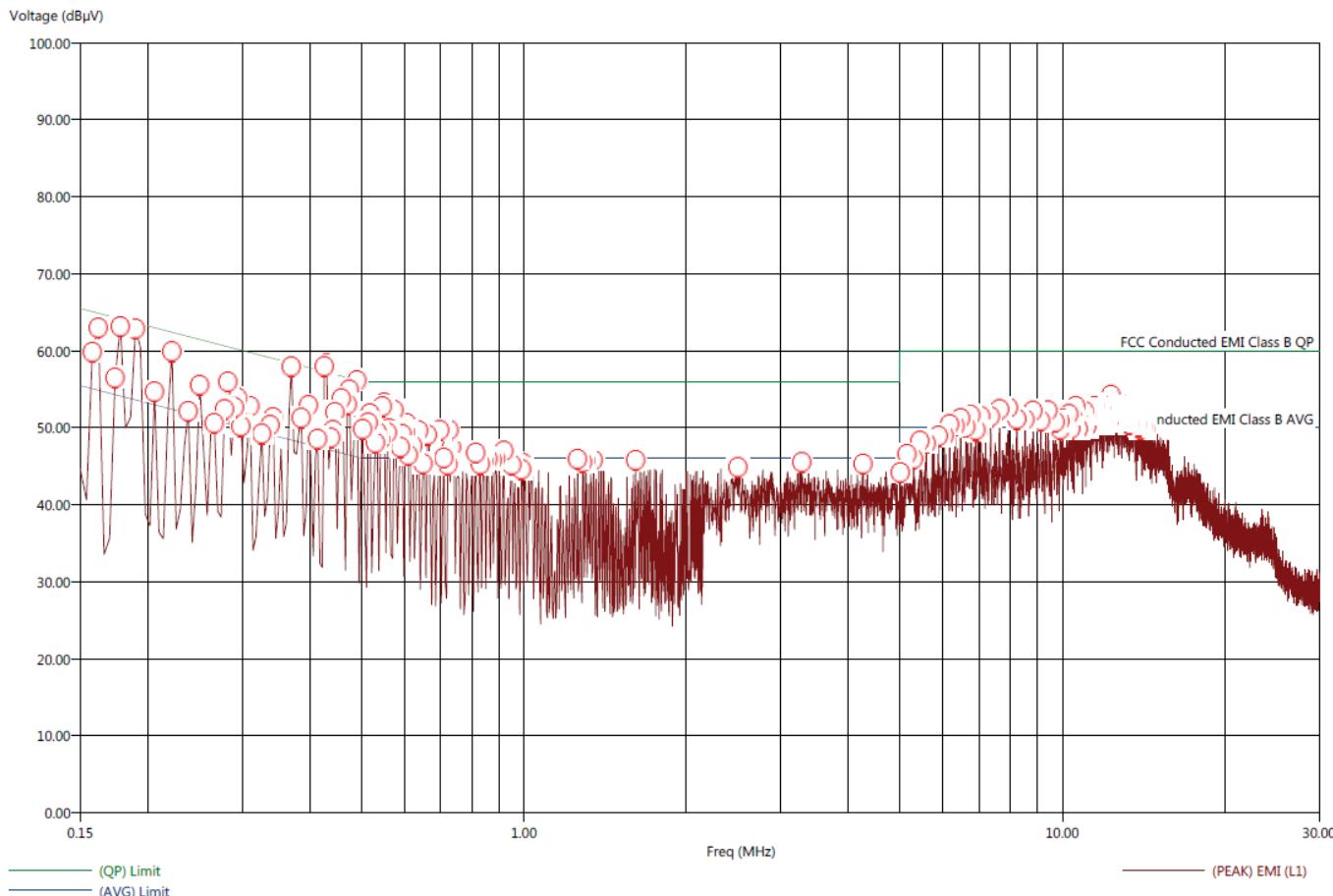
Newbury Park Division
1050 Lawrence Drive
Newbury Park, CA 91320
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Lake Forest Division
20621 Pascal Way
Lake Forest, CA 92630
(949) 587-0400

Title: FCC B - Conducted Emissions - Black Lead
 File: 3 - RS - Pre-Scan - Black Lead - Rx Mode - FCC Class B - With LED Lights - 30 MHz to 1000 MHz.set
 Operator: Kyle Fujimoto
 EUT Type: Lighting Control Node
 EUT Condition: The EUT is continuously receiving at the low channel - Worst Case
 Company: Mesh Systems LLC
 Model: LCN300
 S/N: N/A

8/1/2019 11:36:06 AM
 Sequence: Preliminary Scan

FCC Class B - Conducted Emissions - Black Lead



Title: FCC B - Conducted Emissions - Black Lead
 File: 3 - RS - Final Scan - Black Lead - Rx Mode - FCC Class B - With LED Lights - 30 MHz to 1000 MHz.set
 Operator: Kyle Fujimoto
 EUT Type: Lighting Control Node
 EUT Condition: The EUT is continuously receiving at the low channel - Worst Case
 Company: Mesh Systems LLC
 Model: LCN300
 S/N: N/A

8/1/2019 3:52:59 PM
 Sequence: Final Measurements

FCC Class B - Conducted Emissions - Black Lead

| Freq (MHz) | (PEAK) EMI (dB μ V) | (QP) EMI (dB μ V) | (PEAK) Margin QPL (dB) | (QP) Margin QPL (dB) | (QP) Limit (dB μ V) | Cable (dB) | Transducer (dB) | Filter (dB) |
|------------|-------------------------|-----------------------|------------------------|----------------------|-------------------------|------------|-----------------|-------------|
| 0.158 | 72.25 | 61.46 | 7.20 | -3.59 | 65.05 | 0.00 | 0.40 | 9.80 |
| 0.162 | 71.86 | 60.48 | 7.01 | -4.37 | 64.85 | 0.00 | 0.39 | 9.80 |
| 0.174 | 68.93 | 58.21 | 4.64 | -6.08 | 64.29 | 0.00 | 0.36 | 9.80 |
| 0.178 | 68.86 | 57.82 | 4.75 | -6.30 | 64.11 | 0.00 | 0.35 | 9.80 |
| 0.190 | 68.45 | 57.97 | 4.85 | -5.63 | 63.60 | 0.00 | 0.32 | 9.80 |
| 0.206 | 66.45 | 55.45 | 3.48 | -7.52 | 62.97 | 0.00 | 0.28 | 9.80 |
| 0.222 | 62.68 | 53.63 | 0.30 | -8.74 | 62.38 | 0.00 | 0.25 | 9.79 |
| 0.238 | 61.81 | 52.76 | -0.02 | -9.08 | 61.83 | 0.00 | 0.22 | 9.78 |
| 0.250 | 61.55 | 52.10 | 0.10 | -9.34 | 61.45 | 0.00 | 0.20 | 9.78 |
| 0.266 | 61.68 | 51.12 | 0.72 | -9.84 | 60.96 | 0.00 | 0.17 | 9.77 |
| 0.278 | 61.25 | 49.90 | 0.64 | -10.71 | 60.61 | 0.00 | 0.15 | 9.76 |
| 0.282 | 61.17 | 49.46 | 0.67 | -11.03 | 60.50 | 0.00 | 0.14 | 9.76 |
| 0.290 | 57.93 | 49.47 | -2.35 | -10.81 | 60.28 | 0.00 | 0.13 | 9.76 |
| 0.294 | 60.45 | 50.56 | 0.27 | -9.61 | 60.17 | 0.00 | 0.13 | 9.76 |
| 0.298 | 58.17 | 52.51 | -1.89 | -7.55 | 60.07 | 0.00 | 0.12 | 9.76 |
| 0.310 | 55.04 | 47.01 | -4.72 | -12.75 | 59.76 | 0.00 | 0.10 | 9.75 |
| 0.326 | 54.30 | 42.73 | -5.06 | -16.63 | 59.36 | 0.00 | 0.08 | 9.75 |
| 0.338 | 51.34 | 40.83 | -7.74 | -18.25 | 59.08 | 0.00 | 0.07 | 9.74 |
| 0.342 | 50.71 | 40.47 | -8.27 | -18.51 | 58.98 | 0.00 | 0.06 | 9.74 |
| 0.370 | 46.46 | 37.39 | -11.91 | -20.98 | 58.37 | 0.00 | 0.05 | 9.73 |
| 0.386 | 45.62 | 34.68 | -12.41 | -23.35 | 58.03 | 0.00 | 0.04 | 9.73 |
| 0.398 | 44.98 | 33.73 | -12.81 | -24.07 | 57.79 | 0.00 | 0.04 | 9.72 |
| 0.414 | 43.74 | 32.94 | -13.74 | -24.54 | 57.48 | 0.00 | 0.04 | 9.72 |
| 0.426 | 51.03 | 48.81 | -6.23 | -8.45 | 57.26 | 0.00 | 0.03 | 9.72 |
| 0.430 | 51.46 | 48.66 | -5.73 | -8.52 | 57.18 | 0.00 | 0.03 | 9.72 |
| 0.438 | 42.17 | 31.90 | -14.87 | -25.14 | 57.04 | 0.00 | 0.03 | 9.71 |
| 0.442 | 41.69 | 30.25 | -15.28 | -26.72 | 56.97 | 0.00 | 0.03 | 9.71 |
| 0.446 | 40.41 | 29.84 | -16.49 | -27.06 | 56.90 | 0.00 | 0.03 | 9.71 |
| 0.458 | 39.49 | 28.79 | -17.20 | -27.90 | 56.69 | 0.00 | 0.03 | 9.71 |
| 0.470 | 39.40 | 32.69 | -17.09 | -23.79 | 56.49 | 0.00 | 0.03 | 9.71 |
| 0.474 | 40.01 | 32.84 | -16.41 | -23.58 | 56.42 | 0.00 | 0.03 | 9.71 |
| 0.490 | 37.74 | 27.41 | -18.42 | -28.75 | 56.16 | 0.00 | 0.04 | 9.70 |
| 0.502 | 37.02 | 26.24 | -18.98 | -29.76 | 56.00 | 0.00 | 0.04 | 9.70 |
| 0.514 | 36.67 | 32.27 | -19.33 | -23.73 | 56.00 | 0.00 | 0.04 | 9.71 |
| 0.518 | 38.73 | 33.10 | -17.27 | -22.90 | 56.00 | 0.00 | 0.04 | 9.71 |
| 0.530 | 36.11 | 28.94 | -19.89 | -27.06 | 56.00 | 0.00 | 0.04 | 9.72 |
| 0.534 | 34.20 | 28.65 | -21.80 | -27.35 | 56.00 | 0.00 | 0.04 | 9.72 |
| 0.542 | 31.87 | 24.59 | -24.13 | -31.41 | 56.00 | 0.00 | 0.04 | 9.72 |
| 0.546 | 31.67 | 25.35 | -24.33 | -30.65 | 56.00 | 0.00 | 0.04 | 9.73 |
| 0.550 | 32.56 | 24.49 | -23.44 | -31.51 | 56.00 | 0.00 | 0.04 | 9.73 |
| 0.558 | 34.68 | 28.05 | -21.32 | -27.95 | 56.00 | 0.00 | 0.04 | 9.73 |
| 0.562 | 36.33 | 32.69 | -19.67 | -23.31 | 56.00 | 0.00 | 0.04 | 9.73 |
| 0.574 | 36.77 | 31.90 | -19.23 | -24.10 | 56.00 | 0.00 | 0.04 | 9.74 |
| 0.590 | 34.73 | 30.82 | -21.27 | -25.18 | 56.00 | 0.00 | 0.04 | 9.75 |
| 0.594 | 34.71 | 30.06 | -21.29 | -25.94 | 56.00 | 0.00 | 0.04 | 9.75 |
| 0.602 | 37.24 | 34.31 | -18.76 | -21.69 | 56.00 | 0.00 | 0.04 | 9.75 |

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| Freq (MHz) | (PEAK) EMI (dB μ V) | (OP) EMI (dB μ V) | (PEAK) Margin QPL (dB) | (QP) Margin QPL (dB) | (OP) Limit (dB μ V) | Cable (dB) | Transducer (dB) | Filter (dB) |
|---------------|----------------------------|--------------------------|---------------------------|-------------------------|----------------------------|---------------|--------------------|----------------|
| 0.606 | 37.95 | 34.83 | -18.05 | -21.17 | 56.00 | 0.00 | 0.04 | 9.76 |
| 0.610 | 38.22 | 34.82 | -17.78 | -21.18 | 56.00 | 0.00 | 0.04 | 9.76 |
| 0.622 | 36.12 | 31.43 | -19.88 | -24.57 | 56.00 | 0.00 | 0.04 | 9.76 |
| 0.638 | 38.44 | 34.10 | -17.56 | -21.90 | 56.00 | 0.00 | 0.04 | 9.77 |
| 0.650 | 36.30 | 31.28 | -19.70 | -24.72 | 56.00 | 0.00 | 0.04 | 9.78 |
| 0.662 | 36.68 | 31.87 | -19.32 | -24.13 | 56.00 | 0.00 | 0.04 | 9.78 |
| 0.666 | 36.93 | 32.07 | -19.07 | -23.93 | 56.00 | 0.00 | 0.04 | 9.78 |
| 0.698 | 36.98 | 31.12 | -19.02 | -24.88 | 56.00 | 0.00 | 0.04 | 9.80 |
| 0.710 | 48.50 | 46.25 | -7.50 | -9.75 | 56.00 | 0.00 | 0.04 | 9.80 |
| 0.722 | 37.32 | 31.64 | -18.68 | -24.36 | 56.00 | 0.00 | 0.04 | 9.81 |
| 0.726 | 35.60 | 30.21 | -20.40 | -25.79 | 56.00 | 0.00 | 0.04 | 9.81 |
| 0.734 | 34.06 | 28.97 | -21.94 | -27.03 | 56.00 | 0.00 | 0.04 | 9.81 |
| 0.738 | 34.44 | 29.33 | -21.56 | -26.67 | 56.00 | 0.00 | 0.04 | 9.81 |
| 0.814 | 33.32 | 27.79 | -22.68 | -28.21 | 56.00 | 0.00 | 0.04 | 9.84 |
| 0.830 | 27.64 | 21.25 | -28.36 | -34.75 | 56.00 | 0.00 | 0.04 | 9.85 |
| 0.842 | 34.05 | 30.07 | -21.95 | -25.93 | 56.00 | 0.00 | 0.04 | 9.85 |
| 0.858 | 34.98 | 30.90 | -21.02 | -25.10 | 56.00 | 0.00 | 0.04 | 9.86 |
| 0.874 | 29.44 | 23.94 | -26.56 | -32.06 | 56.00 | 0.00 | 0.04 | 9.86 |
| 0.886 | 34.09 | 26.70 | -21.91 | -29.30 | 56.00 | 0.00 | 0.04 | 9.87 |
| 0.918 | 28.16 | 22.20 | -27.84 | -33.80 | 56.00 | 0.00 | 0.04 | 9.88 |
| 0.950 | 32.82 | 30.15 | -23.18 | -25.85 | 56.00 | 0.00 | 0.04 | 9.89 |
| 0.990 | 35.73 | 30.41 | -20.27 | -25.59 | 56.00 | 0.00 | 0.04 | 9.90 |
| 0.994 | 41.45 | 39.06 | -14.55 | -16.94 | 56.00 | 0.00 | 0.04 | 9.90 |
| 1.258 | 22.23 | 15.63 | -33.77 | -40.37 | 56.00 | 0.00 | 0.04 | 9.87 |
| 1.286 | 36.91 | 33.67 | -19.09 | -22.33 | 56.00 | 0.00 | 0.04 | 9.86 |
| 1.302 | 23.67 | 15.70 | -32.33 | -40.30 | 56.00 | 0.00 | 0.04 | 9.86 |
| 1.346 | 24.33 | 18.30 | -31.67 | -37.70 | 56.00 | 0.00 | 0.04 | 9.86 |
| 1.614 | 33.20 | 30.97 | -22.80 | -25.03 | 56.00 | 0.00 | 0.04 | 9.83 |
| 2.498 | 32.72 | 28.35 | -23.28 | -27.65 | 56.00 | 0.02 | 0.05 | 9.80 |
| 2.510 | 33.64 | 30.40 | -22.36 | -25.60 | 56.00 | 0.02 | 0.05 | 9.80 |
| 3.282 | 35.76 | 30.69 | -20.24 | -25.31 | 56.00 | 0.05 | 0.05 | 9.80 |
| 4.266 | 30.97 | 27.30 | -25.03 | -28.70 | 56.00 | 0.08 | 0.05 | 9.80 |
| 5.002 | 37.82 | 33.19 | -22.18 | -26.81 | 60.00 | 0.10 | 0.05 | 9.80 |
| 5.146 | 30.33 | 25.14 | -29.67 | -34.86 | 60.00 | 0.10 | 0.05 | 9.80 |
| 5.294 | 38.05 | 34.91 | -21.95 | -25.09 | 60.00 | 0.10 | 0.05 | 9.80 |
| 5.442 | 32.01 | 27.90 | -27.99 | -32.10 | 60.00 | 0.10 | 0.05 | 9.80 |
| 5.590 | 36.09 | 30.88 | -23.91 | -29.12 | 60.00 | 0.10 | 0.05 | 9.80 |
| 5.886 | 37.02 | 32.44 | -22.98 | -27.56 | 60.00 | 0.10 | 0.05 | 9.80 |
| 6.034 | 37.70 | 33.06 | -22.30 | -26.94 | 60.00 | 0.10 | 0.05 | 9.80 |
| 6.178 | 36.51 | 29.50 | -23.49 | -30.50 | 60.00 | 0.10 | 0.05 | 9.80 |
| 6.318 | 39.12 | 35.88 | -20.88 | -24.12 | 60.00 | 0.10 | 0.05 | 9.80 |
| 6.474 | 38.08 | 33.20 | -21.92 | -26.80 | 60.00 | 0.10 | 0.05 | 9.80 |
| 6.618 | 39.45 | 34.77 | -20.55 | -25.23 | 60.00 | 0.10 | 0.05 | 9.80 |
| 6.766 | 43.48 | 37.94 | -16.52 | -22.06 | 60.00 | 0.10 | 0.05 | 9.80 |
| 6.914 | 41.89 | 37.57 | -18.11 | -22.43 | 60.00 | 0.10 | 0.05 | 9.80 |
| 6.970 | 49.76 | 45.70 | -10.24 | -14.30 | 60.00 | 0.10 | 0.05 | 9.80 |
| 7.058 | 41.76 | 37.95 | -18.24 | -22.05 | 60.00 | 0.10 | 0.05 | 9.80 |
| 7.358 | 39.30 | 36.17 | -20.70 | -23.83 | 60.00 | 0.10 | 0.04 | 9.80 |
| 7.650 | 38.96 | 34.24 | -21.04 | -25.76 | 60.00 | 0.10 | 0.04 | 9.80 |
| 7.942 | 38.14 | 34.22 | -21.86 | -25.78 | 60.00 | 0.10 | 0.04 | 9.80 |
| 8.234 | 38.19 | 33.61 | -21.81 | -26.39 | 60.00 | 0.10 | 0.04 | 9.80 |
| 8.530 | 35.78 | 31.73 | -24.22 | -28.27 | 60.00 | 0.10 | 0.04 | 9.80 |
| 8.822 | 34.59 | 31.15 | -25.41 | -28.85 | 60.00 | 0.10 | 0.04 | 9.80 |
| 9.118 | 35.19 | 30.83 | -24.81 | -29.17 | 60.00 | 0.10 | 0.04 | 9.81 |
| 9.402 | 35.23 | 30.47 | -24.77 | -29.53 | 60.00 | 0.10 | 0.04 | 9.84 |
| 9.706 | 37.75 | 32.69 | -22.25 | -27.31 | 60.00 | 0.10 | 0.04 | 9.87 |
| 9.714 | 39.67 | 35.91 | -20.33 | -24.09 | 60.00 | 0.10 | 0.04 | 9.87 |
| 9.894 | 40.10 | 35.33 | -19.90 | -24.67 | 60.00 | 0.10 | 0.04 | 9.89 |

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| Freq (MHz) | (PEAK) EMI (dB μ V) | (QP) EMI (dB μ V) | (PEAK) Margin QPL (dB) | (QP) Margin QPL (dB) | (QP) Limit (dB μ V) | Cable (dB) | Transducer (dB) | Filter (dB) |
|---------------|----------------------------|--------------------------|---------------------------|-------------------------|----------------------------|---------------|--------------------|----------------|
| 9.914 | 41.57 | 37.68 | -18.43 | -22.32 | 60.00 | 0.10 | 0.04 | 9.89 |
| 10.006 | 42.07 | 37.80 | -17.93 | -22.20 | 60.00 | 0.10 | 0.04 | 9.90 |
| 10.290 | 41.82 | 37.85 | -18.18 | -22.15 | 60.00 | 0.10 | 0.04 | 9.90 |
| 10.298 | 42.78 | 39.68 | -17.22 | -20.32 | 60.00 | 0.10 | 0.04 | 9.90 |
| 10.378 | 44.13 | 39.04 | -15.87 | -20.96 | 60.00 | 0.11 | 0.04 | 9.90 |
| 10.474 | 43.36 | 38.94 | -16.64 | -21.06 | 60.00 | 0.11 | 0.04 | 9.90 |
| 10.486 | 42.09 | 37.77 | -17.91 | -22.23 | 60.00 | 0.11 | 0.04 | 9.90 |
| 10.590 | 43.29 | 40.57 | -16.71 | -19.43 | 60.00 | 0.11 | 0.04 | 9.90 |
| 10.710 | 46.98 | 43.74 | -13.02 | -16.26 | 60.00 | 0.11 | 0.04 | 9.90 |
| 10.766 | 43.59 | 38.45 | -16.41 | -21.55 | 60.00 | 0.11 | 0.04 | 9.90 |
| 10.802 | 39.15 | 34.19 | -20.85 | -25.81 | 60.00 | 0.11 | 0.04 | 9.90 |
| 10.854 | 41.59 | 36.78 | -18.41 | -23.22 | 60.00 | 0.11 | 0.04 | 9.90 |
| 10.878 | 44.57 | 40.62 | -15.43 | -19.38 | 60.00 | 0.11 | 0.04 | 9.90 |
| 10.978 | 49.11 | 46.34 | -10.89 | -13.66 | 60.00 | 0.11 | 0.04 | 9.90 |
| 11.062 | 43.84 | 38.19 | -16.16 | -21.81 | 60.00 | 0.11 | 0.04 | 9.90 |
| 11.110 | 41.46 | 35.98 | -18.54 | -24.02 | 60.00 | 0.12 | 0.03 | 9.90 |
| 11.130 | 41.06 | 35.65 | -18.94 | -24.35 | 60.00 | 0.12 | 0.03 | 9.90 |
| 11.154 | 44.77 | 39.87 | -15.23 | -20.13 | 60.00 | 0.12 | 0.03 | 9.90 |
| 11.162 | 44.49 | 40.80 | -15.51 | -19.20 | 60.00 | 0.12 | 0.03 | 9.90 |
| 11.178 | 43.86 | 37.90 | -16.14 | -22.10 | 60.00 | 0.12 | 0.03 | 9.90 |
| 11.210 | 43.22 | 36.55 | -16.78 | -23.45 | 60.00 | 0.12 | 0.03 | 9.90 |
| 11.238 | 46.05 | 40.11 | -13.95 | -19.89 | 60.00 | 0.12 | 0.03 | 9.90 |
| 11.274 | 47.78 | 44.32 | -12.22 | -15.68 | 60.00 | 0.12 | 0.03 | 9.90 |
| 11.302 | 45.56 | 39.88 | -14.44 | -20.12 | 60.00 | 0.12 | 0.03 | 9.90 |
| 11.354 | 43.94 | 38.05 | -16.06 | -21.95 | 60.00 | 0.12 | 0.03 | 9.90 |
| 11.370 | 44.07 | 36.98 | -15.93 | -23.02 | 60.00 | 0.12 | 0.03 | 9.90 |
| 11.390 | 43.30 | 37.18 | -16.70 | -22.82 | 60.00 | 0.12 | 0.03 | 9.90 |
| 11.410 | 44.16 | 37.48 | -15.84 | -22.52 | 60.00 | 0.12 | 0.03 | 9.90 |
| 11.470 | 46.16 | 39.10 | -13.84 | -20.90 | 60.00 | 0.12 | 0.03 | 9.90 |
| 11.514 | 45.31 | 39.58 | -14.69 | -20.42 | 60.00 | 0.12 | 0.03 | 9.90 |
| 11.554 | 50.04 | 45.72 | -9.96 | -14.28 | 60.00 | 0.12 | 0.03 | 9.90 |
| 11.570 | 48.55 | 43.90 | -11.45 | -16.10 | 60.00 | 0.12 | 0.03 | 9.90 |
| 11.586 | 47.33 | 40.93 | -12.67 | -19.07 | 60.00 | 0.12 | 0.03 | 9.90 |
| 11.610 | 45.76 | 39.99 | -14.24 | -20.01 | 60.00 | 0.12 | 0.03 | 9.90 |
| 11.630 | 47.14 | 40.25 | -12.86 | -19.75 | 60.00 | 0.12 | 0.03 | 9.90 |
| 11.658 | 45.89 | 39.41 | -14.11 | -20.59 | 60.00 | 0.12 | 0.03 | 9.90 |
| 11.674 | 46.71 | 39.86 | -13.29 | -20.14 | 60.00 | 0.12 | 0.03 | 9.90 |
| 11.698 | 45.92 | 39.64 | -14.08 | -20.36 | 60.00 | 0.12 | 0.03 | 9.90 |
| 11.722 | 47.58 | 41.18 | -12.42 | -18.82 | 60.00 | 0.12 | 0.03 | 9.90 |
| 11.762 | 47.92 | 41.09 | -12.08 | -18.91 | 60.00 | 0.12 | 0.03 | 9.90 |
| 11.794 | 47.11 | 40.51 | -12.89 | -19.49 | 60.00 | 0.12 | 0.03 | 9.90 |
| 11.826 | 49.59 | 44.27 | -10.41 | -15.73 | 60.00 | 0.12 | 0.03 | 9.90 |
| 11.838 | 50.79 | 45.80 | -9.21 | -14.20 | 60.00 | 0.12 | 0.03 | 9.90 |
| 11.874 | 47.84 | 42.16 | -12.16 | -17.84 | 60.00 | 0.12 | 0.03 | 9.90 |
| 11.898 | 47.76 | 41.74 | -12.24 | -18.26 | 60.00 | 0.13 | 0.03 | 9.90 |
| 11.906 | 48.46 | 42.35 | -11.54 | -17.65 | 60.00 | 0.13 | 0.03 | 9.90 |
| 11.918 | 47.41 | 42.75 | -12.59 | -17.25 | 60.00 | 0.13 | 0.03 | 9.90 |
| 11.930 | 47.75 | 41.90 | -12.25 | -18.10 | 60.00 | 0.13 | 0.03 | 9.90 |
| 11.942 | 47.46 | 41.16 | -12.54 | -18.84 | 60.00 | 0.13 | 0.03 | 9.90 |
| 11.962 | 47.13 | 42.44 | -12.87 | -17.56 | 60.00 | 0.13 | 0.03 | 9.90 |
| 11.974 | 47.64 | 41.28 | -12.36 | -18.72 | 60.00 | 0.13 | 0.03 | 9.90 |
| 11.986 | 48.19 | 43.00 | -11.81 | -17.00 | 60.00 | 0.13 | 0.03 | 9.90 |
| 12.002 | 48.14 | 43.11 | -11.86 | -16.89 | 60.00 | 0.13 | 0.03 | 9.90 |
| 12.014 | 49.70 | 43.49 | -10.30 | -16.51 | 60.00 | 0.13 | 0.03 | 9.90 |
| 12.050 | 49.02 | 43.72 | -10.98 | -16.28 | 60.00 | 0.13 | 0.03 | 9.90 |
| 12.074 | 48.21 | 42.74 | -11.79 | -17.26 | 60.00 | 0.13 | 0.03 | 9.89 |
| 12.110 | 50.64 | 45.04 | -9.36 | -14.96 | 60.00 | 0.13 | 0.03 | 9.89 |
| 12.134 | 52.11 | 45.82 | -7.89 | -14.18 | 60.00 | 0.13 | 0.03 | 9.89 |

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| Freq (MHz) | (PEAK) EMI (dB μ V) | (OP) EMI (dB μ V) | (PEAK) Margin QPL (dB) | (QP) Margin QPL (dB) | (OP) Limit (dB μ V) | Cable (dB) | Transducer (dB) | Filter (dB) |
|---------------|----------------------------|--------------------------|---------------------------|-------------------------|----------------------------|---------------|--------------------|----------------|
| 12.142 | 51.34 | 44.82 | -8.66 | -15.18 | 60.00 | 0.13 | 0.03 | 9.89 |
| 12.170 | 51.19 | 44.71 | -8.81 | -15.29 | 60.00 | 0.13 | 0.03 | 9.89 |
| 12.190 | 51.04 | 44.02 | -8.96 | -15.98 | 60.00 | 0.13 | 0.03 | 9.89 |
| 12.238 | 49.51 | 44.13 | -10.49 | -15.87 | 60.00 | 0.13 | 0.03 | 9.88 |
| 12.262 | 50.43 | 43.89 | -9.57 | -16.11 | 60.00 | 0.13 | 0.03 | 9.88 |
| 12.274 | 50.01 | 44.47 | -9.99 | -15.53 | 60.00 | 0.13 | 0.03 | 9.88 |
| 12.290 | 50.25 | 44.11 | -9.75 | -15.89 | 60.00 | 0.13 | 0.03 | 9.88 |
| 12.310 | 50.88 | 45.32 | -9.12 | -14.68 | 60.00 | 0.13 | 0.03 | 9.88 |
| 12.318 | 50.89 | 45.18 | -9.11 | -14.82 | 60.00 | 0.13 | 0.03 | 9.88 |
| 12.358 | 50.53 | 44.72 | -9.47 | -15.28 | 60.00 | 0.13 | 0.03 | 9.87 |
| 12.390 | 50.86 | 45.66 | -9.14 | -14.34 | 60.00 | 0.13 | 0.03 | 9.87 |
| 12.418 | 51.66 | 46.51 | -8.34 | -13.49 | 60.00 | 0.13 | 0.03 | 9.87 |
| 12.446 | 51.43 | 45.70 | -8.57 | -14.30 | 60.00 | 0.13 | 0.03 | 9.87 |
| 12.506 | 51.42 | 45.48 | -8.58 | -14.52 | 60.00 | 0.13 | 0.03 | 9.86 |
| 12.538 | 51.41 | 44.87 | -8.59 | -15.13 | 60.00 | 0.13 | 0.03 | 9.86 |
| 12.558 | 51.95 | 45.68 | -8.05 | -14.32 | 60.00 | 0.13 | 0.03 | 9.86 |
| 12.566 | 50.80 | 45.72 | -9.20 | -14.28 | 60.00 | 0.13 | 0.03 | 9.86 |
| 12.578 | 51.81 | 45.90 | -8.19 | -14.10 | 60.00 | 0.13 | 0.03 | 9.86 |
| 12.606 | 51.47 | 45.70 | -8.53 | -14.30 | 60.00 | 0.13 | 0.03 | 9.86 |
| 12.618 | 51.46 | 45.38 | -8.54 | -14.62 | 60.00 | 0.13 | 0.03 | 9.85 |
| 12.650 | 50.79 | 45.17 | -9.21 | -14.83 | 60.00 | 0.13 | 0.03 | 9.85 |
| 12.706 | 52.69 | 46.84 | -7.31 | -13.16 | 60.00 | 0.13 | 0.03 | 9.85 |
| 12.726 | 52.81 | 46.56 | -7.19 | -13.44 | 60.00 | 0.13 | 0.03 | 9.85 |
| 12.746 | 51.11 | 46.02 | -8.89 | -13.98 | 60.00 | 0.14 | 0.03 | 9.85 |
| 12.758 | 50.61 | 45.57 | -9.39 | -14.43 | 60.00 | 0.14 | 0.03 | 9.85 |
| 12.802 | 50.62 | 45.80 | -9.38 | -14.20 | 60.00 | 0.14 | 0.03 | 9.84 |
| 12.826 | 50.73 | 45.34 | -9.27 | -14.66 | 60.00 | 0.14 | 0.03 | 9.84 |
| 12.854 | 50.55 | 45.11 | -9.45 | -14.89 | 60.00 | 0.14 | 0.03 | 9.84 |
| 12.882 | 50.86 | 46.04 | -9.14 | -13.96 | 60.00 | 0.14 | 0.03 | 9.84 |
| 12.942 | 51.51 | 45.13 | -8.49 | -14.87 | 60.00 | 0.14 | 0.03 | 9.83 |
| 12.994 | 51.94 | 46.68 | -8.06 | -13.32 | 60.00 | 0.14 | 0.03 | 9.83 |
| 13.042 | 50.65 | 45.14 | -9.35 | -14.86 | 60.00 | 0.14 | 0.03 | 9.83 |
| 13.054 | 50.57 | 45.10 | -9.43 | -14.90 | 60.00 | 0.14 | 0.03 | 9.82 |
| 13.102 | 49.79 | 44.57 | -10.21 | -15.43 | 60.00 | 0.14 | 0.03 | 9.82 |
| 13.114 | 49.46 | 44.31 | -10.54 | -15.69 | 60.00 | 0.14 | 0.03 | 9.82 |
| 13.142 | 49.90 | 44.77 | -10.10 | -15.23 | 60.00 | 0.14 | 0.03 | 9.82 |
| 13.150 | 51.26 | 44.61 | -8.74 | -15.39 | 60.00 | 0.14 | 0.03 | 9.82 |
| 13.202 | 50.29 | 44.91 | -9.71 | -15.09 | 60.00 | 0.14 | 0.03 | 9.81 |
| 13.238 | 50.07 | 43.96 | -9.93 | -16.04 | 60.00 | 0.14 | 0.03 | 9.81 |
| 13.294 | 51.24 | 44.92 | -8.76 | -15.08 | 60.00 | 0.14 | 0.03 | 9.81 |
| 13.330 | 48.88 | 44.38 | -11.12 | -15.62 | 60.00 | 0.14 | 0.03 | 9.81 |
| 13.402 | 49.21 | 43.72 | -10.79 | -16.28 | 60.00 | 0.14 | 0.03 | 9.80 |
| 13.422 | 48.93 | 43.35 | -11.07 | -16.65 | 60.00 | 0.14 | 0.03 | 9.80 |
| 13.454 | 50.43 | 45.00 | -9.57 | -15.00 | 60.00 | 0.14 | 0.03 | 9.80 |
| 13.482 | 49.16 | 43.87 | -10.84 | -16.13 | 60.00 | 0.14 | 0.03 | 9.80 |
| 13.510 | 48.81 | 43.45 | -11.19 | -16.55 | 60.00 | 0.14 | 0.03 | 9.79 |
| 13.558 | 50.89 | 45.13 | -9.11 | -14.87 | 60.00 | 0.14 | 0.02 | 9.79 |
| 13.610 | 50.09 | 44.55 | -9.91 | -15.45 | 60.00 | 0.14 | 0.02 | 9.79 |
| 13.718 | 48.61 | 43.77 | -11.39 | -16.23 | 60.00 | 0.15 | 0.02 | 9.78 |
| 13.818 | 48.07 | 44.64 | -11.93 | -15.36 | 60.00 | 0.15 | 0.02 | 9.77 |
| 13.858 | 50.83 | 45.63 | -9.17 | -14.37 | 60.00 | 0.15 | 0.02 | 9.77 |
| 13.938 | 49.41 | 44.13 | -10.59 | -15.87 | 60.00 | 0.15 | 0.02 | 9.77 |
| 13.970 | 49.44 | 44.50 | -10.56 | -15.50 | 60.00 | 0.15 | 0.02 | 9.76 |
| 14.086 | 50.36 | 44.57 | -9.64 | -15.43 | 60.00 | 0.15 | 0.02 | 9.76 |
| 14.250 | 49.58 | 45.04 | -10.42 | -14.96 | 60.00 | 0.15 | 0.02 | 9.75 |

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Title: FCC B - Conducted Emissions - Black Lead
 File: 3 - RS - Final Scan - Black Lead - Rx Mode - FCC Class B - With LED Lights - 30 MHz to 1000 MHz.set
 Operator: Kyle Fujimoto
 EUT Type: Lighting Control Node
 EUT Condition: The EUT is continuously receiving at the low channel - Worst Case
 Company: Mesh Systems LLC
 Model: LCN300
 S/N: N/A

8/1/2019 3:52:59 PM
 Sequence: Final Measurements

FCC Class B - Conducted Emissions - Black Lead

| Freq (MHz) | (PEAK) EMI (dB μ V) | (AVG) EMI (dB μ V) | (PEAK) Margin AVL (dB) | (AVG) Margin AVL (dB) | (AVG) Limit (dB μ V) | Cable (dB) | Transducer (dB) | Filter (dB) |
|------------|-------------------------|------------------------|------------------------|-----------------------|--------------------------|------------|-----------------|-------------|
| 0.158 | 72.25 | 37.56 | 17.20 | -17.49 | 55.05 | 0.00 | 0.40 | 9.80 |
| 0.162 | 71.86 | 36.19 | 17.01 | -18.67 | 54.85 | 0.00 | 0.39 | 9.80 |
| 0.174 | 68.93 | 35.31 | 14.64 | -18.98 | 54.29 | 0.00 | 0.36 | 9.80 |
| 0.178 | 68.86 | 36.77 | 14.75 | -17.35 | 54.11 | 0.00 | 0.35 | 9.80 |
| 0.190 | 68.45 | 44.20 | 14.85 | -9.41 | 53.60 | 0.00 | 0.32 | 9.80 |
| 0.206 | 66.45 | 31.63 | 13.48 | -21.34 | 52.97 | 0.00 | 0.28 | 9.80 |
| 0.222 | 62.68 | 29.51 | 10.30 | -22.86 | 52.38 | 0.00 | 0.25 | 9.79 |
| 0.238 | 61.81 | 38.39 | 9.98 | -13.44 | 51.83 | 0.00 | 0.22 | 9.78 |
| 0.250 | 61.55 | 29.45 | 10.10 | -22.00 | 51.45 | 0.00 | 0.20 | 9.78 |
| 0.266 | 61.68 | 26.87 | 10.72 | -24.09 | 50.96 | 0.00 | 0.17 | 9.77 |
| 0.278 | 61.25 | 31.18 | 10.64 | -19.44 | 50.61 | 0.00 | 0.15 | 9.76 |
| 0.282 | 61.17 | 36.15 | 10.67 | -14.35 | 50.50 | 0.00 | 0.14 | 9.76 |
| 0.290 | 57.93 | 34.90 | 7.65 | -15.38 | 50.28 | 0.00 | 0.13 | 9.76 |
| 0.294 | 60.45 | 32.92 | 10.27 | -17.25 | 50.17 | 0.00 | 0.13 | 9.76 |
| 0.298 | 58.17 | 33.17 | 8.11 | -16.89 | 50.07 | 0.00 | 0.12 | 9.76 |
| 0.310 | 55.04 | 28.96 | 5.28 | -20.80 | 49.76 | 0.00 | 0.10 | 9.75 |
| 0.326 | 54.30 | 27.16 | 4.94 | -22.20 | 49.36 | 0.00 | 0.08 | 9.75 |
| 0.338 | 51.34 | 22.56 | 2.26 | -26.52 | 49.08 | 0.00 | 0.07 | 9.74 |
| 0.342 | 50.71 | 22.17 | 1.73 | -26.81 | 48.98 | 0.00 | 0.06 | 9.74 |
| 0.370 | 46.46 | 18.95 | -1.91 | -29.42 | 48.37 | 0.00 | 0.05 | 9.73 |
| 0.386 | 45.62 | 19.02 | -2.41 | -29.02 | 48.03 | 0.00 | 0.04 | 9.73 |
| 0.398 | 44.98 | 24.61 | -2.81 | -23.19 | 47.79 | 0.00 | 0.04 | 9.72 |
| 0.414 | 43.74 | 23.32 | -3.74 | -24.16 | 47.48 | 0.00 | 0.04 | 9.72 |
| 0.426 | 51.03 | 46.55 | 3.77 | -0.71 | 47.26 | 0.00 | 0.03 | 9.72 |
| 0.430 | 51.46 | 47.04 | 4.27 | -0.14 | 47.18 | 0.00 | 0.03 | 9.72 |
| 0.438 | 42.17 | 27.96 | -4.87 | -19.08 | 47.04 | 0.00 | 0.03 | 9.71 |
| 0.442 | 41.69 | 21.05 | -5.28 | -25.92 | 46.97 | 0.00 | 0.03 | 9.71 |
| 0.446 | 40.41 | 18.42 | -6.49 | -28.48 | 46.90 | 0.00 | 0.03 | 9.71 |
| 0.458 | 39.49 | 17.34 | -7.20 | -29.35 | 46.69 | 0.00 | 0.03 | 9.71 |
| 0.470 | 39.40 | 27.66 | -7.09 | -18.83 | 46.49 | 0.00 | 0.03 | 9.71 |
| 0.474 | 40.01 | 27.02 | -6.41 | -19.40 | 46.42 | 0.00 | 0.03 | 9.71 |
| 0.490 | 37.74 | 16.44 | -8.42 | -29.71 | 46.16 | 0.00 | 0.04 | 9.70 |
| 0.502 | 37.02 | 21.73 | -8.98 | -24.27 | 46.00 | 0.00 | 0.04 | 9.70 |
| 0.514 | 36.67 | 25.35 | -9.33 | -20.65 | 46.00 | 0.00 | 0.04 | 9.71 |
| 0.518 | 38.73 | 29.35 | -7.27 | -16.65 | 46.00 | 0.00 | 0.04 | 9.71 |
| 0.530 | 36.11 | 26.19 | -9.89 | -19.81 | 46.00 | 0.00 | 0.04 | 9.72 |
| 0.534 | 34.20 | 24.62 | -11.80 | -21.38 | 46.00 | 0.00 | 0.04 | 9.72 |
| 0.542 | 31.87 | 18.77 | -14.13 | -27.23 | 46.00 | 0.00 | 0.04 | 9.72 |
| 0.546 | 31.67 | 19.83 | -14.33 | -26.17 | 46.00 | 0.00 | 0.04 | 9.73 |
| 0.550 | 32.56 | 18.83 | -13.44 | -27.17 | 46.00 | 0.00 | 0.04 | 9.73 |
| 0.558 | 34.68 | 22.13 | -11.32 | -23.87 | 46.00 | 0.00 | 0.04 | 9.73 |
| 0.562 | 36.33 | 27.09 | -9.67 | -18.91 | 46.00 | 0.00 | 0.04 | 9.73 |
| 0.574 | 36.77 | 25.99 | -9.23 | -20.01 | 46.00 | 0.00 | 0.04 | 9.74 |
| 0.590 | 34.73 | 26.45 | -11.27 | -19.55 | 46.00 | 0.00 | 0.04 | 9.75 |
| 0.594 | 34.71 | 25.09 | -11.29 | -20.91 | 46.00 | 0.00 | 0.04 | 9.75 |
| 0.602 | 37.24 | 30.41 | -8.76 | -15.59 | 46.00 | 0.00 | 0.04 | 9.75 |

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| Freq (MHz) | (PEAK) EMI (dB μ V) | (AVG) EMI (dB μ V) | (PEAK) Margin (dB) | AVL (dB) | (AVG) Margin (dB) | AVL (dB) | (AVG) Limit (dB μ V) | Cable (dB) | Transducer (dB) | Filter (dB) |
|---------------|----------------------------|---------------------------|-----------------------|-------------|----------------------|-------------|-----------------------------|---------------|--------------------|----------------|
| 0.606 | 37.95 | 30.42 | -8.05 | -15.58 | 46.00 | 0.00 | 0.04 | 9.76 | | |
| 0.610 | 38.22 | 29.60 | -7.78 | -16.40 | 46.00 | 0.00 | 0.04 | 9.76 | | |
| 0.622 | 36.12 | 26.77 | -9.88 | -19.23 | 46.00 | 0.00 | 0.04 | 9.76 | | |
| 0.638 | 38.44 | 33.77 | -7.56 | -12.23 | 46.00 | 0.00 | 0.04 | 9.77 | | |
| 0.650 | 36.30 | 25.48 | -9.70 | -20.52 | 46.00 | 0.00 | 0.04 | 9.78 | | |
| 0.662 | 36.68 | 25.92 | -9.32 | -20.08 | 46.00 | 0.00 | 0.04 | 9.78 | | |
| 0.666 | 36.93 | 26.28 | -9.07 | -19.72 | 46.00 | 0.00 | 0.04 | 9.78 | | |
| 0.698 | 36.98 | 25.79 | -9.02 | -20.21 | 46.00 | 0.00 | 0.04 | 9.80 | | |
| 0.710 | 48.50 | 44.92 | 2.50 | -1.08 | 46.00 | 0.00 | 0.04 | 9.80 | | |
| 0.722 | 37.32 | 29.54 | -8.68 | -16.46 | 46.00 | 0.00 | 0.04 | 9.81 | | |
| 0.726 | 35.60 | 25.60 | -10.40 | -20.40 | 46.00 | 0.00 | 0.04 | 9.81 | | |
| 0.734 | 34.06 | 23.81 | -11.94 | -22.19 | 46.00 | 0.00 | 0.04 | 9.81 | | |
| 0.738 | 34.44 | 25.89 | -11.56 | -20.11 | 46.00 | 0.00 | 0.04 | 9.81 | | |
| 0.814 | 33.32 | 20.19 | -12.68 | -25.81 | 46.00 | 0.00 | 0.04 | 9.84 | | |
| 0.830 | 27.64 | 15.13 | -18.36 | -30.87 | 46.00 | 0.00 | 0.04 | 9.85 | | |
| 0.842 | 34.05 | 21.96 | -11.95 | -24.04 | 46.00 | 0.00 | 0.04 | 9.85 | | |
| 0.858 | 34.98 | 23.33 | -11.02 | -22.67 | 46.00 | 0.00 | 0.04 | 9.86 | | |
| 0.874 | 29.44 | 17.91 | -16.56 | -28.09 | 46.00 | 0.00 | 0.04 | 9.86 | | |
| 0.886 | 34.09 | 20.65 | -11.91 | -25.35 | 46.00 | 0.00 | 0.04 | 9.87 | | |
| 0.918 | 28.16 | 16.49 | -17.84 | -29.51 | 46.00 | 0.00 | 0.04 | 9.88 | | |
| 0.950 | 32.82 | 21.52 | -13.18 | -24.48 | 46.00 | 0.00 | 0.04 | 9.89 | | |
| 0.990 | 35.73 | 27.69 | -10.27 | -18.31 | 46.00 | 0.00 | 0.04 | 9.90 | | |
| 0.994 | 41.45 | 37.65 | -4.55 | -8.35 | 46.00 | 0.00 | 0.04 | 9.90 | | |
| 1.258 | 22.23 | 9.21 | -23.77 | -36.79 | 46.00 | 0.00 | 0.04 | 9.87 | | |
| 1.286 | 36.91 | 31.21 | -9.09 | -14.79 | 46.00 | 0.00 | 0.04 | 9.86 | | |
| 1.302 | 23.67 | 10.69 | -22.33 | -35.31 | 46.00 | 0.00 | 0.04 | 9.86 | | |
| 1.346 | 24.33 | 10.90 | -21.67 | -35.10 | 46.00 | 0.00 | 0.04 | 9.86 | | |
| 1.614 | 33.20 | 18.74 | -12.80 | -27.26 | 46.00 | 0.00 | 0.04 | 9.83 | | |
| 2.498 | 32.72 | 17.39 | -13.28 | -28.61 | 46.00 | 0.02 | 0.05 | 9.80 | | |
| 2.510 | 33.64 | 19.00 | -12.36 | -27.00 | 46.00 | 0.02 | 0.05 | 9.80 | | |
| 3.282 | 35.76 | 23.25 | -10.24 | -22.75 | 46.00 | 0.05 | 0.05 | 9.80 | | |
| 4.266 | 30.97 | 17.15 | -15.03 | -28.85 | 46.00 | 0.08 | 0.05 | 9.80 | | |
| 5.002 | 37.82 | 28.78 | -12.18 | -21.22 | 50.00 | 0.10 | 0.05 | 9.80 | | |
| 5.146 | 30.33 | 16.68 | -19.67 | -33.32 | 50.00 | 0.10 | 0.05 | 9.80 | | |
| 5.294 | 38.05 | 30.67 | -11.95 | -19.33 | 50.00 | 0.10 | 0.05 | 9.80 | | |
| 5.442 | 32.01 | 21.40 | -17.99 | -28.60 | 50.00 | 0.10 | 0.05 | 9.80 | | |
| 5.590 | 36.09 | 26.59 | -13.91 | -23.41 | 50.00 | 0.10 | 0.05 | 9.80 | | |
| 5.886 | 37.02 | 26.70 | -12.98 | -23.30 | 50.00 | 0.10 | 0.05 | 9.80 | | |
| 6.034 | 37.70 | 28.31 | -12.30 | -21.69 | 50.00 | 0.10 | 0.05 | 9.80 | | |
| 6.178 | 36.51 | 23.60 | -13.49 | -26.40 | 50.00 | 0.10 | 0.05 | 9.80 | | |
| 6.318 | 39.12 | 31.33 | -10.88 | -18.67 | 50.00 | 0.10 | 0.05 | 9.80 | | |
| 6.474 | 38.08 | 27.55 | -11.92 | -22.45 | 50.00 | 0.10 | 0.05 | 9.80 | | |
| 6.618 | 39.45 | 30.06 | -10.55 | -19.94 | 50.00 | 0.10 | 0.05 | 9.80 | | |
| 6.766 | 43.48 | 33.05 | -6.52 | -16.95 | 50.00 | 0.10 | 0.05 | 9.80 | | |
| 6.914 | 41.89 | 34.79 | -8.11 | -15.21 | 50.00 | 0.10 | 0.05 | 9.80 | | |
| 6.970 | 49.76 | 41.62 | -0.24 | -8.38 | 50.00 | 0.10 | 0.05 | 9.80 | | |
| 7.058 | 41.76 | 36.12 | -8.24 | -13.88 | 50.00 | 0.10 | 0.05 | 9.80 | | |
| 7.358 | 39.30 | 31.82 | -10.70 | -18.18 | 50.00 | 0.10 | 0.04 | 9.80 | | |
| 7.650 | 38.96 | 28.38 | -11.04 | -21.62 | 50.00 | 0.10 | 0.04 | 9.80 | | |
| 7.942 | 38.14 | 29.79 | -11.86 | -20.21 | 50.00 | 0.10 | 0.04 | 9.80 | | |
| 8.234 | 38.19 | 29.90 | -11.81 | -20.10 | 50.00 | 0.10 | 0.04 | 9.80 | | |
| 8.530 | 35.78 | 27.15 | -14.22 | -22.85 | 50.00 | 0.10 | 0.04 | 9.80 | | |
| 8.822 | 34.59 | 26.15 | -15.41 | -23.85 | 50.00 | 0.10 | 0.04 | 9.80 | | |
| 9.118 | 35.19 | 25.72 | -14.81 | -24.28 | 50.00 | 0.10 | 0.04 | 9.81 | | |
| 9.402 | 35.23 | 26.04 | -14.77 | -23.96 | 50.00 | 0.10 | 0.04 | 9.84 | | |
| 9.706 | 37.75 | 26.85 | -12.25 | -23.15 | 50.00 | 0.10 | 0.04 | 9.87 | | |
| 9.714 | 39.67 | 30.98 | -10.33 | -19.02 | 50.00 | 0.10 | 0.04 | 9.87 | | |
| 9.894 | 40.10 | 29.72 | -9.90 | -20.28 | 50.00 | 0.10 | 0.04 | 9.89 | | |

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20621 Pascal Way
Lake Forest, CA 92630
(949) 587-0400

| Freq (MHz) | (PEAK) EMI (dB μ V) | (AVG) EMI (dB μ V) | (PEAK) Margin (dB) | AVL (dB) | (AVG) Margin (dB) | AVL (dB) | (AVG) Limit (dB μ V) | Cable (dB) | Transducer (dB) | Filter (dB) |
|---------------|----------------------------|---------------------------|-------------------------------------|-------------|----------------------|-------------|-----------------------------|---------------|--------------------|----------------|
| 9.914 | 41.57 | 33.24 | -8.43 | -16.76 | 50.00 | 0.10 | 0.04 | 9.89 | | |
| 10.006 | 42.07 | 33.11 | -7.93 | -16.89 | 50.00 | 0.10 | 0.04 | 9.90 | | |
| 10.290 | 41.82 | 33.28 | -8.18 | -16.72 | 50.00 | 0.10 | 0.04 | 9.90 | | |
| 10.298 | 42.78 | 35.45 | -7.22 | -14.55 | 50.00 | 0.10 | 0.04 | 9.90 | | |
| 10.378 | 44.13 | 33.41 | -5.87 | -16.59 | 50.00 | 0.11 | 0.04 | 9.90 | | |
| 10.474 | 43.36 | 34.74 | -6.64 | -15.26 | 50.00 | 0.11 | 0.04 | 9.90 | | |
| 10.486 | 42.09 | 32.76 | -7.91 | -17.24 | 50.00 | 0.11 | 0.04 | 9.90 | | |
| 10.590 | 43.29 | 36.24 | -6.71 | -13.76 | 50.00 | 0.11 | 0.04 | 9.90 | | |
| 10.710 | 46.98 | 40.05 | -3.02 | -9.95 | 50.00 | 0.11 | 0.04 | 9.90 | | |
| 10.766 | 43.59 | 35.10 | -6.41 | -14.90 | 50.00 | 0.11 | 0.04 | 9.90 | | |
| 10.802 | 39.15 | 27.75 | -10.85 | -22.25 | 50.00 | 0.11 | 0.04 | 9.90 | | |
| 10.854 | 41.59 | 30.93 | -8.41 | -19.07 | 50.00 | 0.11 | 0.04 | 9.90 | | |
| 10.878 | 44.57 | 36.17 | -5.43 | -13.83 | 50.00 | 0.11 | 0.04 | 9.90 | | |
| 10.978 | 49.11 | 43.00 | -0.89 | -7.00 | 50.00 | 0.11 | 0.04 | 9.90 | | |
| 11.062 | 43.84 | 32.70 | -6.16 | -17.30 | 50.00 | 0.11 | 0.04 | 9.90 | | |
| 11.110 | 41.46 | 27.68 | -8.54 | -22.32 | 50.00 | 0.12 | 0.03 | 9.90 | | |
| 11.130 | 41.06 | 28.32 | -8.94 | -21.68 | 50.00 | 0.12 | 0.03 | 9.90 | | |
| 11.154 | 44.77 | 35.61 | -5.23 | -14.39 | 50.00 | 0.12 | 0.03 | 9.90 | | |
| 11.162 | 44.49 | 36.14 | -5.51 | -13.86 | 50.00 | 0.12 | 0.03 | 9.90 | | |
| 11.178 | 43.86 | 31.94 | -6.14 | -18.06 | 50.00 | 0.12 | 0.03 | 9.90 | | |
| 11.210 | 43.22 | 29.46 | -6.78 | -20.54 | 50.00 | 0.12 | 0.03 | 9.90 | | |
| 11.238 | 46.05 | 33.85 | -3.95 | -16.15 | 50.00 | 0.12 | 0.03 | 9.90 | | |
| 11.274 | 47.78 | 39.41 | -2.22 | -10.59 | 50.00 | 0.12 | 0.03 | 9.90 | | |
| 11.302 | 45.56 | 33.93 | -4.44 | -16.07 | 50.00 | 0.12 | 0.03 | 9.90 | | |
| 11.354 | 43.94 | 31.95 | -6.06 | -18.05 | 50.00 | 0.12 | 0.03 | 9.90 | | |
| 11.370 | 44.07 | 28.82 | -5.93 | -21.18 | 50.00 | 0.12 | 0.03 | 9.90 | | |
| 11.390 | 43.30 | 28.97 | -6.70 | -21.03 | 50.00 | 0.12 | 0.03 | 9.90 | | |
| 11.410 | 44.16 | 29.41 | -5.84 | -20.59 | 50.00 | 0.12 | 0.03 | 9.90 | | |
| 11.470 | 46.16 | 32.02 | -3.84 | -17.98 | 50.00 | 0.12 | 0.03 | 9.90 | | |
| 11.514 | 45.31 | 32.31 | -4.69 | -17.69 | 50.00 | 0.12 | 0.03 | 9.90 | | |
| 11.554 | 50.04 | 42.27 | 0.04 | -7.73 | 50.00 | 0.12 | 0.03 | 9.90 | | |
| 11.570 | 48.55 | 39.36 | -1.45 | -10.64 | 50.00 | 0.12 | 0.03 | 9.90 | | |
| 11.586 | 47.33 | 34.23 | -2.67 | -15.77 | 50.00 | 0.12 | 0.03 | 9.90 | | |
| 11.610 | 45.76 | 31.94 | -4.24 | -18.06 | 50.00 | 0.12 | 0.03 | 9.90 | | |
| 11.630 | 47.14 | 34.14 | -2.86 | -15.86 | 50.00 | 0.12 | 0.03 | 9.90 | | |
| 11.658 | 45.89 | 29.74 | -4.11 | -20.26 | 50.00 | 0.12 | 0.03 | 9.90 | | |
| 11.674 | 46.71 | 30.20 | -3.29 | -19.80 | 50.00 | 0.12 | 0.03 | 9.90 | | |
| 11.698 | 45.92 | 30.21 | -4.08 | -19.79 | 50.00 | 0.12 | 0.03 | 9.90 | | |
| 11.722 | 47.58 | 34.79 | -2.42 | -15.21 | 50.00 | 0.12 | 0.03 | 9.90 | | |
| 11.762 | 47.92 | 34.59 | -2.08 | -15.41 | 50.00 | 0.12 | 0.03 | 9.90 | | |
| 11.794 | 47.11 | 31.62 | -2.89 | -18.38 | 50.00 | 0.12 | 0.03 | 9.90 | | |
| 11.826 | 49.59 | 38.98 | -0.41 | -11.02 | 50.00 | 0.12 | 0.03 | 9.90 | | |
| 11.838 | 50.79 | 40.41 | 0.79 | -9.59 | 50.00 | 0.12 | 0.03 | 9.90 | | |
| 11.874 | 47.84 | 34.89 | -2.16 | -15.11 | 50.00 | 0.12 | 0.03 | 9.90 | | |
| 11.898 | 47.76 | 33.06 | -2.24 | -16.94 | 50.00 | 0.13 | 0.03 | 9.90 | | |
| 11.906 | 48.46 | 34.53 | -1.54 | -15.47 | 50.00 | 0.13 | 0.03 | 9.90 | | |
| 11.918 | 47.41 | 34.80 | -2.59 | -15.20 | 50.00 | 0.13 | 0.03 | 9.90 | | |
| 11.930 | 47.75 | 32.99 | -2.25 | -17.01 | 50.00 | 0.13 | 0.03 | 9.90 | | |
| 11.942 | 47.46 | 30.73 | -2.54 | -19.27 | 50.00 | 0.13 | 0.03 | 9.90 | | |
| 11.962 | 47.13 | 31.10 | -2.87 | -18.90 | 50.00 | 0.13 | 0.03 | 9.90 | | |
| 11.974 | 47.64 | 30.66 | -2.36 | -19.34 | 50.00 | 0.13 | 0.03 | 9.90 | | |
| 11.986 | 48.19 | 31.83 | -1.81 | -18.17 | 50.00 | 0.13 | 0.03 | 9.90 | | |
| 12.002 | 48.14 | 33.44 | -1.86 | -16.56 | 50.00 | 0.13 | 0.03 | 9.90 | | |
| 12.014 | 49.70 | 35.83 | -0.30 | -14.17 | 50.00 | 0.13 | 0.03 | 9.90 | | |
| 12.050 | 49.02 | 35.75 | -0.98 | -14.25 | 50.00 | 0.13 | 0.03 | 9.90 | | |
| 12.074 | 48.21 | 32.33 | -1.79 | -17.67 | 50.00 | 0.13 | 0.03 | 9.89 | | |
| 12.110 | 50.64 | 38.25 | 0.64 | -11.75 | 50.00 | 0.13 | 0.03 | 9.89 | | |
| 12.134 | 52.11 | 40.56 | 2.11 | -9.44 | 50.00 | 0.13 | 0.03 | 9.89 | | |

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Lake Forest, CA 92630
(949) 587-0400

| Freq (MHz) | (PEAK) EMI (dB μ V) | (AVG) EMI (dB μ V) | (PEAK) Margin AVL (dB) | (AVG) Margin AVL (dB) | (AVG) Limit (dB μ V) | Cable (dB) | Transducer (dB) | Filter (dB) |
|---------------|----------------------------|---------------------------|---------------------------|--------------------------|-----------------------------|---------------|--------------------|----------------|
| 12.142 | 51.34 | 38.37 | 1.34 | -11.63 | 50.00 | 0.13 | 0.03 | 9.89 |
| 12.170 | 51.19 | 35.61 | 1.19 | -14.39 | 50.00 | 0.13 | 0.03 | 9.89 |
| 12.190 | 51.04 | 34.63 | 1.04 | -15.37 | 50.00 | 0.13 | 0.03 | 9.89 |
| 12.238 | 49.51 | 32.35 | -0.49 | -17.65 | 50.00 | 0.13 | 0.03 | 9.88 |
| 12.262 | 50.43 | 32.10 | 0.43 | -17.90 | 50.00 | 0.13 | 0.03 | 9.88 |
| 12.274 | 50.01 | 32.53 | 0.01 | -17.47 | 50.00 | 0.13 | 0.03 | 9.88 |
| 12.290 | 50.25 | 34.16 | 0.25 | -15.84 | 50.00 | 0.13 | 0.03 | 9.88 |
| 12.310 | 50.88 | 37.20 | 0.88 | -12.80 | 50.00 | 0.13 | 0.03 | 9.88 |
| 12.318 | 50.89 | 36.74 | 0.89 | -13.26 | 50.00 | 0.13 | 0.03 | 9.88 |
| 12.358 | 50.53 | 33.79 | 0.53 | -16.21 | 50.00 | 0.13 | 0.03 | 9.87 |
| 12.390 | 50.86 | 35.96 | 0.86 | -14.04 | 50.00 | 0.13 | 0.03 | 9.87 |
| 12.418 | 51.66 | 40.33 | 1.66 | -9.67 | 50.00 | 0.13 | 0.03 | 9.87 |
| 12.446 | 51.43 | 36.89 | 1.43 | -13.11 | 50.00 | 0.13 | 0.03 | 9.87 |
| 12.506 | 51.42 | 34.80 | 1.42 | -15.20 | 50.00 | 0.13 | 0.03 | 9.86 |
| 12.538 | 51.41 | 33.42 | 1.41 | -16.58 | 50.00 | 0.13 | 0.03 | 9.86 |
| 12.558 | 51.95 | 33.96 | 1.95 | -16.04 | 50.00 | 0.13 | 0.03 | 9.86 |
| 12.566 | 50.80 | 34.21 | 0.80 | -15.79 | 50.00 | 0.13 | 0.03 | 9.86 |
| 12.578 | 51.81 | 35.21 | 1.81 | -14.79 | 50.00 | 0.13 | 0.03 | 9.86 |
| 12.606 | 51.47 | 36.65 | 1.47 | -13.35 | 50.00 | 0.13 | 0.03 | 9.86 |
| 12.618 | 51.46 | 35.35 | 1.46 | -14.65 | 50.00 | 0.13 | 0.03 | 9.85 |
| 12.650 | 50.79 | 34.47 | 0.79 | -15.53 | 50.00 | 0.13 | 0.03 | 9.85 |
| 12.706 | 52.69 | 41.03 | 2.69 | -8.97 | 50.00 | 0.13 | 0.03 | 9.85 |
| 12.726 | 52.81 | 38.90 | 2.81 | -11.10 | 50.00 | 0.13 | 0.03 | 9.85 |
| 12.746 | 51.11 | 36.54 | 1.11 | -13.46 | 50.00 | 0.14 | 0.03 | 9.85 |
| 12.758 | 50.61 | 34.98 | 0.61 | -15.02 | 50.00 | 0.14 | 0.03 | 9.85 |
| 12.802 | 50.62 | 34.43 | 0.62 | -15.57 | 50.00 | 0.14 | 0.03 | 9.84 |
| 12.826 | 50.73 | 34.25 | 0.73 | -15.75 | 50.00 | 0.14 | 0.03 | 9.84 |
| 12.854 | 50.55 | 34.19 | 0.55 | -15.81 | 50.00 | 0.14 | 0.03 | 9.84 |
| 12.882 | 50.86 | 37.24 | 0.86 | -12.76 | 50.00 | 0.14 | 0.03 | 9.84 |
| 12.942 | 51.51 | 34.70 | 1.51 | -15.30 | 50.00 | 0.14 | 0.03 | 9.83 |
| 12.994 | 51.94 | 40.64 | 1.94 | -9.36 | 50.00 | 0.14 | 0.03 | 9.83 |
| 13.042 | 50.65 | 35.61 | 0.65 | -14.39 | 50.00 | 0.14 | 0.03 | 9.83 |
| 13.054 | 50.57 | 36.06 | 0.57 | -13.94 | 50.00 | 0.14 | 0.03 | 9.82 |
| 13.102 | 49.79 | 34.29 | -0.21 | -15.71 | 50.00 | 0.14 | 0.03 | 9.82 |
| 13.114 | 49.46 | 34.25 | -0.54 | -15.75 | 50.00 | 0.14 | 0.03 | 9.82 |
| 13.142 | 49.90 | 34.96 | -0.10 | -15.04 | 50.00 | 0.14 | 0.03 | 9.82 |
| 13.150 | 51.26 | 35.20 | 1.26 | -14.80 | 50.00 | 0.14 | 0.03 | 9.82 |
| 13.202 | 50.29 | 36.88 | 0.29 | -13.12 | 50.00 | 0.14 | 0.03 | 9.81 |
| 13.238 | 50.07 | 35.43 | 0.07 | -14.57 | 50.00 | 0.14 | 0.03 | 9.81 |
| 13.294 | 51.24 | 38.43 | 1.24 | -11.57 | 50.00 | 0.14 | 0.03 | 9.81 |
| 13.330 | 48.88 | 35.77 | -1.12 | -14.23 | 50.00 | 0.14 | 0.03 | 9.81 |
| 13.402 | 49.21 | 34.96 | -0.79 | -15.04 | 50.00 | 0.14 | 0.03 | 9.80 |
| 13.422 | 48.93 | 34.78 | -1.07 | -15.22 | 50.00 | 0.14 | 0.03 | 9.80 |
| 13.454 | 50.43 | 37.43 | 0.43 | -12.57 | 50.00 | 0.14 | 0.03 | 9.80 |
| 13.482 | 49.16 | 36.06 | -0.84 | -13.94 | 50.00 | 0.14 | 0.03 | 9.80 |
| 13.510 | 48.81 | 35.56 | -1.19 | -14.44 | 50.00 | 0.14 | 0.03 | 9.79 |
| 13.558 | 50.89 | 38.61 | 0.89 | -11.39 | 50.00 | 0.14 | 0.02 | 9.79 |
| 13.610 | 50.09 | 37.39 | 0.09 | -12.61 | 50.00 | 0.14 | 0.02 | 9.79 |
| 13.718 | 48.61 | 36.24 | -1.39 | -13.76 | 50.00 | 0.15 | 0.02 | 9.78 |
| 13.818 | 48.07 | 36.63 | -1.93 | -13.37 | 50.00 | 0.15 | 0.02 | 9.77 |
| 13.858 | 50.83 | 39.24 | 0.83 | -10.76 | 50.00 | 0.15 | 0.02 | 9.77 |
| 13.938 | 49.41 | 37.18 | -0.59 | -12.82 | 50.00 | 0.15 | 0.02 | 9.77 |
| 13.970 | 49.44 | 36.73 | -0.56 | -13.27 | 50.00 | 0.15 | 0.02 | 9.76 |
| 14.086 | 50.36 | 37.14 | 0.36 | -12.86 | 50.00 | 0.15 | 0.02 | 9.76 |
| 14.250 | 49.58 | 37.03 | -0.42 | -12.97 | 50.00 | 0.15 | 0.02 | 9.75 |

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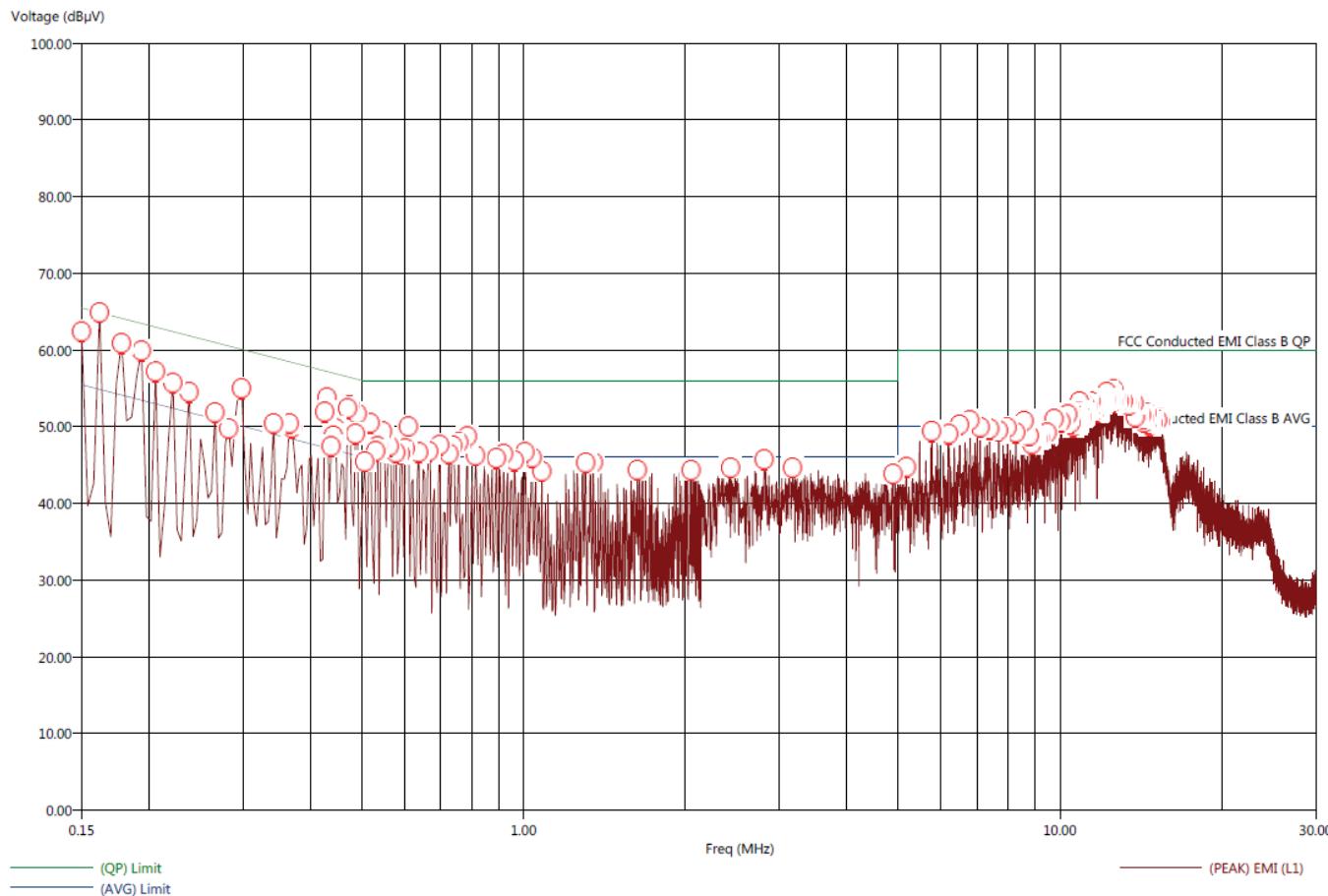
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Lake Forest, CA 92630
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Title: FCC B - Conducted Emissions - White Lead
 File: 4 - RS - Pre-Scan - White Lead - Rx Mode - FCC Class B - With LED Lights - 30 MHz to 1000 MHz.set
 Operator: Kyle Fujimoto
 EUT Type: Lighting Control Node
 EUT Condition: The EUT is continuously receiving at the low channel - Worst Case
 Company: Mesh Systems LLC
 Model: LCN300
 S/N: N/A

8/1/2019 12:17:11 PM
 Sequence: Preliminary Scan

FCC Class B - Conducted Emissions - White Lead



Title: FCC B - Conducted Emissions - White Lead
 File: 4 - RS - Final Scan - White Lead - Rx Mode - FCC Class B - With LED Lights - 30 MHz to 1000 MHz.set
 Operator: Kyle Fujimoto
 EUT Type: Lighting Control Node
 EUT Condition: The EUT is continuously receiving at the low channel - Worst Case
 Company: Mesh Systems LLC
 Model: LCN300
 S/N: N/A

8/1/2019 5:16:56 PM
 Sequence: Final Measurements

FCC Class B - Conducted Emissions - White Lead

| Freq (MHz) | (PEAK) EMI (dB μ V) | (QP) EMI (dB μ V) | (PEAK) Margin QPL (dB) | (QP) Margin QPL (dB) | (QP) Limit (dB μ V) | Cable (dB) | Transducer (dB) | Filter (dB) |
|---------------|----------------------------|--------------------------|---------------------------|-------------------------|----------------------------|---------------|--------------------|----------------|
| 0.150 | 73.08 | 63.69 | 7.62 | -1.77 | 65.46 | 0.00 | 0.40 | 9.80 |
| 0.162 | 70.71 | 60.95 | 5.86 | -3.90 | 64.85 | 0.00 | 0.36 | 9.80 |
| 0.178 | 68.07 | 57.45 | 3.96 | -6.67 | 64.11 | 0.00 | 0.32 | 9.80 |
| 0.194 | 67.03 | 57.19 | 3.59 | -6.25 | 63.44 | 0.00 | 0.28 | 9.80 |
| 0.206 | 66.20 | 56.65 | 3.24 | -6.32 | 62.97 | 0.00 | 0.26 | 9.80 |
| 0.222 | 64.19 | 54.01 | 1.82 | -8.37 | 62.38 | 0.01 | 0.22 | 9.79 |
| 0.238 | 62.15 | 53.35 | 0.32 | -8.48 | 61.83 | 0.02 | 0.19 | 9.78 |
| 0.266 | 59.43 | 50.30 | -1.52 | -10.66 | 60.96 | 0.03 | 0.14 | 9.77 |
| 0.282 | 59.82 | 49.62 | -0.68 | -10.88 | 60.50 | 0.04 | 0.12 | 9.76 |
| 0.298 | 57.90 | 52.05 | -2.17 | -8.01 | 60.07 | 0.04 | 0.09 | 9.76 |
| 0.342 | 49.18 | 40.82 | -9.80 | -18.17 | 58.98 | 0.06 | 0.03 | 9.74 |
| 0.366 | 48.26 | 38.62 | -10.19 | -19.83 | 58.45 | 0.07 | 0.02 | 9.73 |
| 0.370 | 47.24 | 37.08 | -11.13 | -21.29 | 58.37 | 0.07 | 0.02 | 9.73 |
| 0.426 | 51.81 | 49.02 | -5.45 | -8.24 | 57.26 | 0.08 | 0.02 | 9.72 |
| 0.430 | 53.20 | 50.06 | -3.98 | -7.12 | 57.18 | 0.08 | 0.02 | 9.72 |
| 0.438 | 41.87 | 33.12 | -15.17 | -23.92 | 57.04 | 0.09 | 0.02 | 9.71 |
| 0.442 | 40.85 | 30.05 | -16.12 | -26.92 | 56.97 | 0.09 | 0.02 | 9.71 |
| 0.446 | 39.48 | 29.88 | -17.42 | -27.02 | 56.90 | 0.09 | 0.02 | 9.71 |
| 0.470 | 40.15 | 36.07 | -16.33 | -20.41 | 56.49 | 0.09 | 0.02 | 9.71 |
| 0.474 | 40.78 | 35.42 | -15.64 | -21.00 | 56.42 | 0.09 | 0.02 | 9.71 |
| 0.486 | 38.59 | 27.00 | -17.63 | -29.22 | 56.22 | 0.10 | 0.02 | 9.70 |
| 0.490 | 36.38 | 26.66 | -19.78 | -29.50 | 56.16 | 0.10 | 0.02 | 9.70 |
| 0.506 | 35.80 | 26.47 | -20.20 | -29.53 | 56.00 | 0.10 | 0.02 | 9.70 |
| 0.518 | 38.03 | 34.47 | -17.97 | -21.53 | 56.00 | 0.09 | 0.02 | 9.71 |
| 0.530 | 35.60 | 29.30 | -20.40 | -26.70 | 56.00 | 0.09 | 0.02 | 9.72 |
| 0.534 | 37.01 | 29.58 | -18.99 | -26.42 | 56.00 | 0.09 | 0.02 | 9.72 |
| 0.546 | 34.14 | 26.48 | -21.86 | -29.52 | 56.00 | 0.09 | 0.02 | 9.73 |
| 0.562 | 37.66 | 33.13 | -18.34 | -22.87 | 56.00 | 0.08 | 0.02 | 9.73 |
| 0.578 | 34.16 | 29.05 | -21.84 | -26.95 | 56.00 | 0.08 | 0.02 | 9.74 |
| 0.590 | 36.14 | 32.51 | -19.86 | -23.49 | 56.00 | 0.08 | 0.02 | 9.75 |
| 0.602 | 36.94 | 33.34 | -19.06 | -22.66 | 56.00 | 0.07 | 0.02 | 9.75 |
| 0.610 | 38.89 | 35.47 | -17.11 | -20.53 | 56.00 | 0.07 | 0.02 | 9.76 |
| 0.638 | 35.18 | 34.93 | -20.82 | -21.07 | 56.00 | 0.06 | 0.02 | 9.77 |
| 0.666 | 35.65 | 31.97 | -20.35 | -24.03 | 56.00 | 0.06 | 0.02 | 9.78 |
| 0.698 | 35.34 | 30.23 | -20.66 | -25.77 | 56.00 | 0.05 | 0.02 | 9.80 |
| 0.726 | 35.61 | 30.58 | -20.39 | -25.42 | 56.00 | 0.05 | 0.02 | 9.81 |
| 0.738 | 34.11 | 28.93 | -21.89 | -27.07 | 56.00 | 0.04 | 0.02 | 9.81 |
| 0.758 | 35.01 | 30.89 | -20.99 | -25.11 | 56.00 | 0.04 | 0.02 | 9.82 |
| 0.786 | 29.45 | 24.90 | -26.55 | -31.10 | 56.00 | 0.03 | 0.02 | 9.83 |
| 0.814 | 31.98 | 26.85 | -24.02 | -29.15 | 56.00 | 0.03 | 0.02 | 9.84 |
| 0.890 | 31.97 | 26.93 | -24.03 | -29.07 | 56.00 | 0.02 | 0.02 | 9.87 |
| 0.918 | 26.19 | 22.05 | -29.81 | -33.95 | 56.00 | 0.01 | 0.02 | 9.88 |
| 0.962 | 24.32 | 19.50 | -31.68 | -36.50 | 56.00 | 0.01 | 0.02 | 9.89 |
| 1.006 | 36.50 | 33.92 | -19.50 | -22.08 | 56.00 | 0.00 | 0.02 | 9.90 |
| 1.038 | 30.16 | 25.84 | -25.84 | -30.16 | 56.00 | 0.01 | 0.02 | 9.89 |
| 1.082 | 31.48 | 28.34 | -24.52 | -27.66 | 56.00 | 0.01 | 0.02 | 9.89 |

Brea Division
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Newbury Park Division
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Lake Forest Division
20621 Pascal Way
Lake Forest, CA 92630
(949) 587-0400

| Freq (MHz) | (PEAK) EMI (dB μ V) | (OP) EMI (dB μ V) | (PEAK) Margin QPL (dB) | (QP) Margin QPL (dB) | (OP) Limit (dB μ V) | Cable (dB) | Transducer (dB) | Filter (dB) |
|---------------|----------------------------|--------------------------|---------------------------|-------------------------|----------------------------|---------------|--------------------|----------------|
| 1.306 | 25.82 | 17.59 | -30.18 | -38.41 | 56.00 | 0.04 | 0.03 | 9.86 |
| 1.350 | 21.64 | 14.01 | -34.36 | -41.99 | 56.00 | 0.04 | 0.03 | 9.86 |
| 1.630 | 26.92 | 18.72 | -29.08 | -37.28 | 56.00 | 0.07 | 0.03 | 9.83 |
| 2.054 | 31.64 | 24.59 | -24.36 | -31.41 | 56.00 | 0.10 | 0.04 | 9.80 |
| 2.434 | 35.30 | 29.27 | -20.70 | -26.73 | 56.00 | 0.12 | 0.04 | 9.80 |
| 2.810 | 32.13 | 27.02 | -23.87 | -28.98 | 56.00 | 0.14 | 0.04 | 9.80 |
| 3.174 | 35.16 | 29.65 | -20.84 | -26.35 | 56.00 | 0.15 | 0.04 | 9.80 |
| 4.886 | 32.12 | 27.19 | -23.88 | -28.81 | 56.00 | 0.20 | 0.03 | 9.80 |
| 5.174 | 34.20 | 27.74 | -25.80 | -32.26 | 60.00 | 0.20 | 0.03 | 9.80 |
| 5.770 | 34.42 | 30.08 | -25.58 | -29.92 | 60.00 | 0.22 | 0.03 | 9.80 |
| 6.206 | 39.23 | 33.62 | -20.77 | -26.38 | 60.00 | 0.23 | 0.04 | 9.80 |
| 6.502 | 41.08 | 36.91 | -18.92 | -23.09 | 60.00 | 0.24 | 0.04 | 9.80 |
| 6.794 | 40.32 | 37.04 | -19.68 | -22.96 | 60.00 | 0.24 | 0.04 | 9.80 |
| 7.102 | 39.25 | 34.81 | -20.75 | -25.19 | 60.00 | 0.25 | 0.04 | 9.80 |
| 7.398 | 36.92 | 32.39 | -23.08 | -27.61 | 60.00 | 0.26 | 0.04 | 9.80 |
| 7.686 | 35.84 | 31.47 | -24.16 | -28.53 | 60.00 | 0.26 | 0.04 | 9.80 |
| 7.978 | 36.12 | 32.16 | -23.88 | -27.84 | 60.00 | 0.27 | 0.04 | 9.80 |
| 8.274 | 36.58 | 30.24 | -23.42 | -29.76 | 60.00 | 0.27 | 0.04 | 9.80 |
| 8.578 | 37.45 | 31.28 | -22.55 | -28.72 | 60.00 | 0.28 | 0.05 | 9.80 |
| 8.770 | 39.78 | 34.68 | -20.22 | -25.32 | 60.00 | 0.28 | 0.05 | 9.80 |
| 8.866 | 37.01 | 31.55 | -22.99 | -28.45 | 60.00 | 0.28 | 0.05 | 9.80 |
| 8.958 | 41.37 | 36.41 | -18.63 | -23.59 | 60.00 | 0.28 | 0.05 | 9.80 |
| 9.078 | 41.10 | 37.77 | -18.90 | -22.23 | 60.00 | 0.29 | 0.05 | 9.81 |
| 9.166 | 41.08 | 37.25 | -18.92 | -22.75 | 60.00 | 0.29 | 0.05 | 9.82 |
| 9.470 | 43.42 | 40.37 | -16.58 | -19.63 | 60.00 | 0.29 | 0.05 | 9.85 |
| 9.758 | 42.64 | 39.13 | -17.36 | -20.87 | 60.00 | 0.30 | 0.05 | 9.88 |
| 10.050 | 40.70 | 36.63 | -19.30 | -23.37 | 60.00 | 0.30 | 0.05 | 9.90 |
| 10.082 | 40.99 | 34.90 | -19.01 | -25.10 | 60.00 | 0.30 | 0.05 | 9.90 |
| 10.342 | 42.62 | 37.24 | -17.38 | -22.76 | 60.00 | 0.30 | 0.05 | 9.90 |
| 10.478 | 41.13 | 35.42 | -18.87 | -24.58 | 60.00 | 0.31 | 0.05 | 9.90 |
| 10.534 | 40.03 | 33.23 | -19.97 | -26.77 | 60.00 | 0.31 | 0.05 | 9.90 |
| 10.594 | 43.58 | 38.87 | -16.42 | -21.13 | 60.00 | 0.31 | 0.05 | 9.90 |
| 10.630 | 43.91 | 38.84 | -16.09 | -21.16 | 60.00 | 0.31 | 0.05 | 9.90 |
| 10.646 | 41.49 | 36.22 | -18.51 | -23.78 | 60.00 | 0.31 | 0.05 | 9.90 |
| 10.666 | 41.97 | 36.98 | -18.03 | -23.02 | 60.00 | 0.31 | 0.05 | 9.90 |
| 10.710 | 49.16 | 46.45 | -10.84 | -13.55 | 60.00 | 0.31 | 0.05 | 9.90 |
| 10.734 | 45.78 | 40.33 | -14.22 | -19.67 | 60.00 | 0.31 | 0.05 | 9.90 |
| 10.798 | 42.03 | 35.88 | -17.97 | -24.12 | 60.00 | 0.31 | 0.05 | 9.90 |
| 10.862 | 41.55 | 36.40 | -18.45 | -23.60 | 60.00 | 0.31 | 0.05 | 9.90 |
| 10.870 | 42.82 | 38.56 | -17.18 | -21.44 | 60.00 | 0.31 | 0.05 | 9.90 |
| 10.958 | 44.74 | 39.25 | -15.26 | -20.75 | 60.00 | 0.31 | 0.05 | 9.90 |
| 10.974 | 48.72 | 43.72 | -11.28 | -16.28 | 60.00 | 0.31 | 0.05 | 9.90 |
| 11.002 | 47.20 | 43.56 | -12.80 | -16.44 | 60.00 | 0.31 | 0.05 | 9.90 |
| 11.086 | 41.50 | 35.94 | -18.50 | -24.06 | 60.00 | 0.31 | 0.06 | 9.90 |
| 11.158 | 44.67 | 40.04 | -15.33 | -19.96 | 60.00 | 0.32 | 0.06 | 9.90 |
| 11.234 | 44.94 | 39.13 | -15.06 | -20.87 | 60.00 | 0.32 | 0.06 | 9.90 |
| 11.286 | 47.71 | 43.61 | -12.29 | -16.39 | 60.00 | 0.32 | 0.06 | 9.90 |
| 11.418 | 44.01 | 38.08 | -15.99 | -21.92 | 60.00 | 0.32 | 0.06 | 9.90 |
| 11.446 | 46.59 | 41.29 | -13.41 | -18.71 | 60.00 | 0.32 | 0.06 | 9.90 |
| 11.530 | 47.66 | 42.67 | -12.34 | -17.33 | 60.00 | 0.32 | 0.06 | 9.90 |
| 11.574 | 48.33 | 43.16 | -11.67 | -16.84 | 60.00 | 0.32 | 0.06 | 9.90 |
| 11.586 | 47.34 | 41.07 | -12.66 | -18.93 | 60.00 | 0.32 | 0.06 | 9.90 |
| 11.626 | 46.37 | 41.31 | -13.63 | -18.69 | 60.00 | 0.32 | 0.06 | 9.90 |
| 11.686 | 46.28 | 40.29 | -13.72 | -19.71 | 60.00 | 0.32 | 0.06 | 9.90 |
| 11.746 | 46.20 | 41.28 | -13.80 | -18.72 | 60.00 | 0.32 | 0.06 | 9.90 |
| 11.758 | 47.49 | 42.42 | -12.51 | -17.58 | 60.00 | 0.32 | 0.06 | 9.90 |
| 11.790 | 47.37 | 41.27 | -12.63 | -18.73 | 60.00 | 0.32 | 0.06 | 9.90 |
| 11.806 | 47.80 | 42.68 | -12.20 | -17.32 | 60.00 | 0.32 | 0.06 | 9.90 |

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Lake Forest, CA 92630
(949) 587-0400

| Freq (MHz) | (PEAK) EMI (dB μ V) | (OP) EMI (dB μ V) | (PEAK) Margin QPL (dB) | (QP) Margin QPL (dB) | (OP) Limit (dB μ V) | Cable (dB) | Transducer (dB) | Filter (dB) |
|---------------|----------------------------|--------------------------|---------------------------|-------------------------|----------------------------|---------------|--------------------|----------------|
| 11.826 | 51.59 | 45.91 | -8.41 | -14.09 | 60.00 | 0.32 | 0.06 | 9.90 |
| 11.850 | 48.91 | 44.11 | -11.09 | -15.89 | 60.00 | 0.32 | 0.06 | 9.90 |
| 11.858 | 48.56 | 42.73 | -11.44 | -17.27 | 60.00 | 0.32 | 0.06 | 9.90 |
| 11.894 | 47.76 | 42.57 | -12.24 | -17.43 | 60.00 | 0.33 | 0.06 | 9.90 |
| 11.962 | 48.83 | 42.43 | -11.17 | -17.57 | 60.00 | 0.33 | 0.06 | 9.90 |
| 12.070 | 49.77 | 43.87 | -10.23 | -16.13 | 60.00 | 0.33 | 0.06 | 9.89 |
| 12.170 | 50.78 | 44.71 | -9.22 | -15.29 | 60.00 | 0.33 | 0.06 | 9.89 |
| 12.222 | 50.48 | 44.54 | -9.52 | -15.46 | 60.00 | 0.33 | 0.06 | 9.88 |
| 12.298 | 51.43 | 45.42 | -8.57 | -14.58 | 60.00 | 0.33 | 0.06 | 9.88 |
| 12.350 | 51.18 | 45.51 | -8.82 | -14.49 | 60.00 | 0.33 | 0.06 | 9.87 |
| 12.462 | 51.55 | 45.67 | -8.45 | -14.33 | 60.00 | 0.33 | 0.06 | 9.87 |
| 12.550 | 51.44 | 45.72 | -8.56 | -14.28 | 60.00 | 0.33 | 0.06 | 9.86 |
| 12.598 | 50.59 | 45.47 | -9.41 | -14.53 | 60.00 | 0.33 | 0.06 | 9.86 |
| 12.678 | 52.75 | 46.98 | -7.25 | -13.02 | 60.00 | 0.33 | 0.06 | 9.85 |
| 12.902 | 50.87 | 45.84 | -9.13 | -14.16 | 60.00 | 0.34 | 0.06 | 9.84 |
| 13.126 | 50.97 | 44.92 | -9.03 | -15.08 | 60.00 | 0.34 | 0.06 | 9.82 |
| 13.158 | 50.30 | 45.37 | -9.70 | -14.63 | 60.00 | 0.34 | 0.06 | 9.82 |
| 13.290 | 50.83 | 44.67 | -9.17 | -15.33 | 60.00 | 0.34 | 0.06 | 9.81 |
| 13.438 | 50.72 | 44.33 | -9.28 | -15.67 | 60.00 | 0.34 | 0.06 | 9.80 |
| 13.750 | 48.42 | 44.04 | -11.58 | -15.96 | 60.00 | 0.35 | 0.07 | 9.78 |
| 13.830 | 50.40 | 45.21 | -9.60 | -14.79 | 60.00 | 0.35 | 0.07 | 9.77 |
| 13.926 | 48.76 | 44.46 | -11.24 | -15.54 | 60.00 | 0.35 | 0.07 | 9.77 |
| 14.186 | 49.75 | 44.63 | -10.25 | -15.37 | 60.00 | 0.35 | 0.07 | 9.75 |
| 14.322 | 49.50 | 44.91 | -10.50 | -15.09 | 60.00 | 0.35 | 0.07 | 9.74 |
| 14.330 | 50.61 | 44.90 | -9.39 | -15.10 | 60.00 | 0.35 | 0.07 | 9.74 |
| 14.362 | 50.18 | 45.11 | -9.82 | -14.89 | 60.00 | 0.35 | 0.07 | 9.74 |
| 14.514 | 49.68 | 44.37 | -10.32 | -15.63 | 60.00 | 0.35 | 0.07 | 9.73 |
| 14.566 | 50.22 | 45.02 | -9.78 | -14.98 | 60.00 | 0.35 | 0.07 | 9.73 |
| 14.610 | 50.04 | 44.19 | -9.96 | -15.81 | 60.00 | 0.35 | 0.07 | 9.72 |
| 14.698 | 49.07 | 44.46 | -10.93 | -15.54 | 60.00 | 0.36 | 0.07 | 9.72 |
| 14.894 | 48.94 | 43.80 | -11.06 | -16.20 | 60.00 | 0.36 | 0.07 | 9.71 |
| 15.206 | 49.92 | 44.40 | -10.08 | -15.60 | 60.00 | 0.36 | 0.07 | 9.70 |
| 15.366 | 49.08 | 43.41 | -10.92 | -16.59 | 60.00 | 0.36 | 0.07 | 9.71 |
| 15.434 | 49.24 | 44.00 | -10.76 | -16.00 | 60.00 | 0.36 | 0.07 | 9.71 |



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Title: FCC B - Conducted Emissions - White Lead
 File: 4 - RS - Final Scan - White Lead - Rx Mode - FCC Class B - With LED Lights - 30 MHz to 1000 MHz.set
 Operator: Kyle Fujimoto
 EUT Type: Lighting Control Node
 EUT Condition: The EUT is continuously receiving at the low channel - Worst Case
 Company: Mesh Systems LLC
 Model: LCN300
 S/N: N/A

8/1/2019 5:16:56 PM
 Sequence: Final Measurements

FCC Class B - Conducted Emissions - White Lead

| Freq (MHz) | (PEAK) EMI (dB μ V) | (AVG) EMI (dB μ V) | (PEAK) Margin AVL (dB) | (AVG) Margin AVL (dB) | (AVG) Limit (dB μ V) | Cable (dB) | Transducer (dB) | Filter (dB) |
|---------------|----------------------------|---------------------------|---------------------------|--------------------------|-----------------------------|---------------|--------------------|----------------|
| 0.150 | 73.08 | 43.23 | 17.62 | -12.22 | 55.46 | 0.00 | 0.40 | 9.80 |
| 0.162 | 70.71 | 35.73 | 15.86 | -19.12 | 54.85 | 0.00 | 0.36 | 9.80 |
| 0.178 | 68.07 | 35.36 | 13.96 | -18.75 | 54.11 | 0.00 | 0.32 | 9.80 |
| 0.194 | 67.03 | 38.39 | 13.59 | -15.05 | 53.44 | 0.00 | 0.28 | 9.80 |
| 0.206 | 66.20 | 31.76 | 13.24 | -21.20 | 52.97 | 0.00 | 0.26 | 9.80 |
| 0.222 | 64.19 | 29.98 | 11.82 | -22.40 | 52.38 | 0.01 | 0.22 | 9.79 |
| 0.238 | 62.15 | 36.98 | 10.32 | -14.85 | 51.83 | 0.02 | 0.19 | 9.78 |
| 0.266 | 59.43 | 26.53 | 8.48 | -24.43 | 50.96 | 0.03 | 0.14 | 9.77 |
| 0.282 | 59.82 | 35.52 | 9.32 | -14.98 | 50.50 | 0.04 | 0.12 | 9.76 |
| 0.298 | 57.90 | 31.77 | 7.83 | -18.29 | 50.07 | 0.04 | 0.09 | 9.76 |
| 0.342 | 49.18 | 22.16 | 0.20 | -26.82 | 48.98 | 0.06 | 0.03 | 9.74 |
| 0.366 | 48.26 | 21.30 | -0.19 | -27.15 | 48.45 | 0.07 | 0.02 | 9.73 |
| 0.370 | 47.24 | 19.45 | -1.13 | -28.91 | 48.37 | 0.07 | 0.02 | 9.73 |
| 0.426 | 51.81 | 45.71 | 4.55 | -1.55 | 47.26 | 0.08 | 0.02 | 9.72 |
| 0.430 | 53.20 | 46.89 | 6.02 | -0.29 | 47.18 | 0.08 | 0.02 | 9.72 |
| 0.438 | 41.87 | 29.77 | -5.17 | -17.27 | 47.04 | 0.09 | 0.02 | 9.71 |
| 0.442 | 40.85 | 21.52 | -6.12 | -25.45 | 46.97 | 0.09 | 0.02 | 9.71 |
| 0.446 | 39.48 | 19.81 | -7.42 | -27.08 | 46.90 | 0.09 | 0.02 | 9.71 |
| 0.470 | 40.15 | 29.57 | -6.33 | -16.91 | 46.49 | 0.09 | 0.02 | 9.71 |
| 0.474 | 40.78 | 29.15 | -5.64 | -17.27 | 46.42 | 0.09 | 0.02 | 9.71 |
| 0.486 | 38.59 | 17.01 | -7.63 | -29.22 | 46.22 | 0.10 | 0.02 | 9.70 |
| 0.490 | 36.38 | 16.37 | -9.78 | -29.79 | 46.16 | 0.10 | 0.02 | 9.70 |
| 0.506 | 35.80 | 22.18 | -10.20 | -23.82 | 46.00 | 0.10 | 0.02 | 9.70 |
| 0.518 | 38.03 | 28.70 | -7.97 | -17.30 | 46.00 | 0.09 | 0.02 | 9.71 |
| 0.530 | 35.60 | 25.31 | -10.40 | -20.69 | 46.00 | 0.09 | 0.02 | 9.72 |
| 0.534 | 37.01 | 25.09 | -8.99 | -20.91 | 46.00 | 0.09 | 0.02 | 9.72 |
| 0.546 | 34.14 | 20.67 | -11.86 | -25.33 | 46.00 | 0.09 | 0.02 | 9.73 |
| 0.562 | 37.66 | 26.15 | -8.34 | -19.85 | 46.00 | 0.08 | 0.02 | 9.73 |
| 0.578 | 34.16 | 23.79 | -11.84 | -22.21 | 46.00 | 0.08 | 0.02 | 9.74 |
| 0.590 | 36.14 | 28.19 | -9.86 | -17.81 | 46.00 | 0.08 | 0.02 | 9.75 |
| 0.602 | 36.94 | 28.36 | -9.06 | -17.64 | 46.00 | 0.07 | 0.02 | 9.75 |
| 0.610 | 38.89 | 30.92 | -7.11 | -15.08 | 46.00 | 0.07 | 0.02 | 9.76 |
| 0.638 | 35.18 | 27.83 | -10.82 | -18.17 | 46.00 | 0.06 | 0.02 | 9.77 |
| 0.666 | 35.65 | 26.35 | -10.35 | -19.65 | 46.00 | 0.06 | 0.02 | 9.78 |
| 0.698 | 35.34 | 25.16 | -10.66 | -20.84 | 46.00 | 0.05 | 0.02 | 9.80 |
| 0.726 | 35.61 | 26.52 | -10.39 | -19.48 | 46.00 | 0.05 | 0.02 | 9.81 |
| 0.738 | 34.11 | 23.87 | -11.89 | -22.13 | 46.00 | 0.04 | 0.02 | 9.81 |
| 0.758 | 35.01 | 25.11 | -10.99 | -20.89 | 46.00 | 0.04 | 0.02 | 9.82 |
| 0.786 | 29.45 | 20.00 | -16.55 | -26.00 | 46.00 | 0.03 | 0.02 | 9.83 |
| 0.814 | 31.98 | 19.06 | -14.02 | -26.94 | 46.00 | 0.03 | 0.02 | 9.84 |
| 0.890 | 31.97 | 21.11 | -14.03 | -24.89 | 46.00 | 0.02 | 0.02 | 9.87 |
| 0.918 | 26.19 | 16.18 | -19.81 | -29.82 | 46.00 | 0.01 | 0.02 | 9.88 |
| 0.962 | 24.32 | 14.46 | -21.68 | -31.54 | 46.00 | 0.01 | 0.02 | 9.89 |
| 1.006 | 36.50 | 32.35 | -9.50 | -13.65 | 46.00 | 0.00 | 0.02 | 9.90 |
| 1.038 | 30.16 | 18.00 | -15.84 | -28.00 | 46.00 | 0.01 | 0.02 | 9.89 |
| 1.082 | 31.48 | 21.50 | -14.52 | -24.50 | 46.00 | 0.01 | 0.02 | 9.89 |

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| Freq (MHz) | (PEAK) EMI (dB μ V) | (AVG) EMI (dB μ V) | (PEAK) Margin AVL (dB) | (AVG) Margin AVL (dB) | (AVG) Limit (dB μ V) | Cable (dB) | Transducer (dB) | Filter (dB) |
|---------------|----------------------------|---------------------------|---------------------------|--------------------------|-----------------------------|---------------|--------------------|----------------|
| 1.306 | 25.82 | 11.14 | -20.18 | -34.86 | 46.00 | 0.04 | 0.03 | 9.86 |
| 1.350 | 21.64 | 8.59 | -24.36 | -37.41 | 46.00 | 0.04 | 0.03 | 9.86 |
| 1.630 | 26.92 | 8.43 | -19.08 | -37.57 | 46.00 | 0.07 | 0.03 | 9.83 |
| 2.054 | 31.64 | 14.70 | -14.36 | -31.30 | 46.00 | 0.10 | 0.04 | 9.80 |
| 2.434 | 35.30 | 24.59 | -10.70 | -21.41 | 46.00 | 0.12 | 0.04 | 9.80 |
| 2.810 | 32.13 | 17.11 | -13.87 | -28.89 | 46.00 | 0.14 | 0.04 | 9.80 |
| 3.174 | 35.16 | 21.20 | -10.84 | -24.80 | 46.00 | 0.15 | 0.04 | 9.80 |
| 4.886 | 32.12 | 18.92 | -13.88 | -27.08 | 46.00 | 0.20 | 0.03 | 9.80 |
| 5.174 | 34.20 | 22.90 | -15.80 | -27.10 | 50.00 | 0.20 | 0.03 | 9.80 |
| 5.770 | 34.42 | 24.88 | -15.58 | -25.12 | 50.00 | 0.22 | 0.03 | 9.80 |
| 6.206 | 39.23 | 28.94 | -10.77 | -21.06 | 50.00 | 0.23 | 0.04 | 9.80 |
| 6.502 | 41.08 | 32.20 | -8.92 | -17.80 | 50.00 | 0.24 | 0.04 | 9.80 |
| 6.794 | 40.32 | 32.22 | -9.68 | -17.78 | 50.00 | 0.24 | 0.04 | 9.80 |
| 7.102 | 39.25 | 30.66 | -10.75 | -19.34 | 50.00 | 0.25 | 0.04 | 9.80 |
| 7.398 | 36.92 | 27.67 | -13.08 | -22.33 | 50.00 | 0.26 | 0.04 | 9.80 |
| 7.686 | 35.84 | 26.01 | -14.16 | -23.99 | 50.00 | 0.26 | 0.04 | 9.80 |
| 7.978 | 36.12 | 27.10 | -13.88 | -22.90 | 50.00 | 0.27 | 0.04 | 9.80 |
| 8.274 | 36.58 | 24.56 | -13.42 | -25.44 | 50.00 | 0.27 | 0.04 | 9.80 |
| 8.578 | 37.45 | 25.64 | -12.55 | -24.36 | 50.00 | 0.28 | 0.05 | 9.80 |
| 8.770 | 39.78 | 28.88 | -10.22 | -21.12 | 50.00 | 0.28 | 0.05 | 9.80 |
| 8.866 | 37.01 | 25.68 | -12.99 | -24.32 | 50.00 | 0.28 | 0.05 | 9.80 |
| 8.958 | 41.37 | 30.69 | -8.63 | -19.31 | 50.00 | 0.28 | 0.05 | 9.80 |
| 9.078 | 41.10 | 32.62 | -8.90 | -17.38 | 50.00 | 0.29 | 0.05 | 9.81 |
| 9.166 | 41.08 | 32.60 | -8.92 | -17.40 | 50.00 | 0.29 | 0.05 | 9.82 |
| 9.470 | 43.42 | 36.28 | -6.58 | -13.72 | 50.00 | 0.29 | 0.05 | 9.85 |
| 9.758 | 42.64 | 34.44 | -7.36 | -15.56 | 50.00 | 0.30 | 0.05 | 9.88 |
| 10.050 | 40.70 | 31.14 | -9.30 | -18.86 | 50.00 | 0.30 | 0.05 | 9.90 |
| 10.082 | 40.99 | 28.83 | -9.01 | -21.17 | 50.00 | 0.30 | 0.05 | 9.90 |
| 10.342 | 42.62 | 31.45 | -7.38 | -18.55 | 50.00 | 0.30 | 0.05 | 9.90 |
| 10.478 | 41.13 | 29.69 | -8.87 | -20.31 | 50.00 | 0.31 | 0.05 | 9.90 |
| 10.534 | 40.03 | 27.83 | -9.97 | -22.17 | 50.00 | 0.31 | 0.05 | 9.90 |
| 10.594 | 43.58 | 34.75 | -6.42 | -15.25 | 50.00 | 0.31 | 0.05 | 9.90 |
| 10.630 | 43.91 | 34.63 | -6.09 | -15.37 | 50.00 | 0.31 | 0.05 | 9.90 |
| 10.646 | 41.49 | 30.10 | -8.51 | -19.90 | 50.00 | 0.31 | 0.05 | 9.90 |
| 10.666 | 41.97 | 31.13 | -8.03 | -18.87 | 50.00 | 0.31 | 0.05 | 9.90 |
| 10.710 | 49.16 | 42.50 | -0.84 | -7.50 | 50.00 | 0.31 | 0.05 | 9.90 |
| 10.734 | 45.78 | 34.80 | -4.22 | -15.20 | 50.00 | 0.31 | 0.05 | 9.90 |
| 10.798 | 42.03 | 29.65 | -7.97 | -20.35 | 50.00 | 0.31 | 0.05 | 9.90 |
| 10.862 | 41.55 | 29.91 | -8.45 | -20.09 | 50.00 | 0.31 | 0.05 | 9.90 |
| 10.870 | 42.82 | 33.59 | -7.18 | -16.41 | 50.00 | 0.31 | 0.05 | 9.90 |
| 10.958 | 44.74 | 33.50 | -5.26 | -16.50 | 50.00 | 0.31 | 0.05 | 9.90 |
| 10.974 | 48.72 | 38.97 | -1.28 | -11.03 | 50.00 | 0.31 | 0.05 | 9.90 |
| 11.002 | 47.20 | 39.10 | -2.80 | -10.90 | 50.00 | 0.31 | 0.05 | 9.90 |
| 11.086 | 41.50 | 28.77 | -8.50 | -21.23 | 50.00 | 0.31 | 0.06 | 9.90 |
| 11.158 | 44.67 | 35.56 | -5.33 | -14.44 | 50.00 | 0.32 | 0.06 | 9.90 |
| 11.234 | 44.94 | 32.75 | -5.06 | -17.25 | 50.00 | 0.32 | 0.06 | 9.90 |
| 11.286 | 47.71 | 39.27 | -2.29 | -10.73 | 50.00 | 0.32 | 0.06 | 9.90 |
| 11.418 | 44.01 | 29.73 | -5.99 | -20.27 | 50.00 | 0.32 | 0.06 | 9.90 |
| 11.446 | 46.59 | 36.44 | -3.41 | -13.56 | 50.00 | 0.32 | 0.06 | 9.90 |
| 11.530 | 47.66 | 37.03 | -2.34 | -12.97 | 50.00 | 0.32 | 0.06 | 9.90 |
| 11.574 | 48.33 | 37.87 | -1.67 | -12.13 | 50.00 | 0.32 | 0.06 | 9.90 |
| 11.586 | 47.34 | 34.34 | -2.66 | -15.66 | 50.00 | 0.32 | 0.06 | 9.90 |
| 11.626 | 46.37 | 34.23 | -3.63 | -15.77 | 50.00 | 0.32 | 0.06 | 9.90 |
| 11.686 | 46.28 | 30.61 | -3.72 | -19.39 | 50.00 | 0.32 | 0.06 | 9.90 |
| 11.746 | 46.20 | 33.04 | -3.80 | -16.96 | 50.00 | 0.32 | 0.06 | 9.90 |
| 11.758 | 47.49 | 36.27 | -2.51 | -13.73 | 50.00 | 0.32 | 0.06 | 9.90 |
| 11.790 | 47.37 | 33.02 | -2.63 | -16.98 | 50.00 | 0.32 | 0.06 | 9.90 |
| 11.806 | 47.80 | 36.14 | -2.20 | -13.86 | 50.00 | 0.32 | 0.06 | 9.90 |

| Freq (MHz) | (PEAK) EMI (dB μ V) | (AVG) EMI (dB μ V) | (PEAK) Margin AVL (dB) | (AVG) Margin AVL (dB) | (AVG) Limit (dB μ V) | Cable (dB) | Transducer (dB) | Filter (dB) |
|---------------|----------------------------|---------------------------|---------------------------|--------------------------|-----------------------------|---------------|--------------------|----------------|
| 11.826 | 51.59 | 41.73 | 1.59 | -8.27 | 50.00 | 0.32 | 0.06 | 9.90 |
| 11.850 | 48.91 | 38.56 | -1.09 | -11.44 | 50.00 | 0.32 | 0.06 | 9.90 |
| 11.858 | 48.56 | 35.02 | -1.44 | -14.98 | 50.00 | 0.32 | 0.06 | 9.90 |
| 11.894 | 47.76 | 35.26 | -2.24 | -14.74 | 50.00 | 0.33 | 0.06 | 9.90 |
| 11.962 | 48.83 | 31.53 | -1.17 | -18.47 | 50.00 | 0.33 | 0.06 | 9.90 |
| 12.070 | 49.77 | 34.28 | -0.23 | -15.72 | 50.00 | 0.33 | 0.06 | 9.89 |
| 12.170 | 50.78 | 35.83 | 0.78 | -14.17 | 50.00 | 0.33 | 0.06 | 9.89 |
| 12.222 | 50.48 | 32.59 | 0.48 | -17.41 | 50.00 | 0.33 | 0.06 | 9.88 |
| 12.298 | 51.43 | 35.52 | 1.43 | -14.48 | 50.00 | 0.33 | 0.06 | 9.88 |
| 12.350 | 51.18 | 34.91 | 1.18 | -15.09 | 50.00 | 0.33 | 0.06 | 9.87 |
| 12.462 | 51.55 | 36.10 | 1.55 | -13.90 | 50.00 | 0.33 | 0.06 | 9.87 |
| 12.550 | 51.44 | 35.63 | 1.44 | -14.37 | 50.00 | 0.33 | 0.06 | 9.86 |
| 12.598 | 50.59 | 36.56 | 0.59 | -13.44 | 50.00 | 0.33 | 0.06 | 9.86 |
| 12.678 | 52.75 | 40.09 | 2.75 | -9.91 | 50.00 | 0.33 | 0.06 | 9.85 |
| 12.902 | 50.87 | 35.34 | 0.87 | -14.66 | 50.00 | 0.34 | 0.06 | 9.84 |
| 13.126 | 50.97 | 36.97 | 0.97 | -13.03 | 50.00 | 0.34 | 0.06 | 9.82 |
| 13.158 | 50.30 | 36.02 | 0.30 | -13.98 | 50.00 | 0.34 | 0.06 | 9.82 |
| 13.290 | 50.83 | 36.28 | 0.83 | -13.72 | 50.00 | 0.34 | 0.06 | 9.81 |
| 13.438 | 50.72 | 36.42 | 0.72 | -13.58 | 50.00 | 0.34 | 0.06 | 9.80 |
| 13.750 | 48.42 | 36.50 | -1.58 | -13.50 | 50.00 | 0.35 | 0.07 | 9.78 |
| 13.830 | 50.40 | 38.77 | 0.40 | -11.23 | 50.00 | 0.35 | 0.07 | 9.77 |
| 13.926 | 48.76 | 36.73 | -1.24 | -13.27 | 50.00 | 0.35 | 0.07 | 9.77 |
| 14.186 | 49.75 | 37.31 | -0.25 | -12.69 | 50.00 | 0.35 | 0.07 | 9.75 |
| 14.322 | 49.50 | 37.43 | -0.50 | -12.57 | 50.00 | 0.35 | 0.07 | 9.74 |
| 14.330 | 50.61 | 37.41 | 0.61 | -12.59 | 50.00 | 0.35 | 0.07 | 9.74 |
| 14.362 | 50.18 | 38.60 | 0.18 | -11.40 | 50.00 | 0.35 | 0.07 | 9.74 |
| 14.514 | 49.68 | 36.95 | -0.32 | -13.05 | 50.00 | 0.35 | 0.07 | 9.73 |
| 14.566 | 50.22 | 37.99 | 0.22 | -12.01 | 50.00 | 0.35 | 0.07 | 9.73 |
| 14.610 | 50.04 | 36.89 | 0.04 | -13.11 | 50.00 | 0.35 | 0.07 | 9.72 |
| 14.698 | 49.07 | 37.15 | -0.93 | -12.85 | 50.00 | 0.36 | 0.07 | 9.72 |
| 14.894 | 48.94 | 35.90 | -1.06 | -14.10 | 50.00 | 0.36 | 0.07 | 9.71 |
| 15.206 | 49.92 | 35.72 | -0.08 | -14.28 | 50.00 | 0.36 | 0.07 | 9.70 |
| 15.366 | 49.08 | 33.97 | -0.92 | -16.03 | 50.00 | 0.36 | 0.07 | 9.71 |
| 15.434 | 49.24 | 35.27 | -0.76 | -14.73 | 50.00 | 0.36 | 0.07 | 9.71 |



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