



HERMON LABORATORIES

Report ID: AIRRAD\_FCC.44746\_Rev1

Date of Issue: 24-Nov-21

|                                                                             |                                |                               |                      |
|-----------------------------------------------------------------------------|--------------------------------|-------------------------------|----------------------|
| <b>Test specification:</b> Section 96.41(e)(2), Radiated spurious emissions |                                |                               |                      |
| <b>Test procedure:</b> Section 96.41(e)(3)                                  |                                |                               |                      |
| <b>Test mode:</b> Compliance                                                |                                | <b>Verdict:</b> PASS          |                      |
| <b>Date(s):</b> 04-Nov-21                                                   |                                |                               |                      |
| <b>Temperature:</b> 25 °C                                                   | <b>Relative Humidity:</b> 54 % | <b>Air Pressure:</b> 1010 hPa | <b>Power:</b> 48 VDC |
| <b>Remarks:</b>                                                             |                                |                               |                      |

Table 7.5.3 Field strength of spurious emissions above 1 GHz

ASSIGNED FREQUENCY RANGE: 3550 - 3700 MHz  
 TEST DISTANCE: 3 m  
 TEST SITE: Semi anechoic chamber  
 DETECTOR USED: Peak  
 VIDEO BANDWIDTH: > Resolution bandwidth  
 TEST ANTENNA TYPE: Double ridged guide (above 1000 MHz)  
 MODULATION: QPSK  
 CHANNEL BANDWIDTH: 40 MHz  
 TRANSMITTER OUTPUT POWER SETTINGS: Maximum

| Frequency,<br>MHz               | Antenna      |              | Azimuth,<br>degrees* | Peak field strength(VBW=3 MHz) |                    |                 | Average field strength(VBW=10 Hz) |                 |                  | Verdict |
|---------------------------------|--------------|--------------|----------------------|--------------------------------|--------------------|-----------------|-----------------------------------|-----------------|------------------|---------|
|                                 | Polarization | Height,<br>m |                      | Measured,<br>dB(μV/m)          | Limit,<br>dB(μV/m) | Margin,<br>dB** | Measured,<br>dB(μV/m)             | Limit, dB(μV/m) | Margin,<br>dB*** |         |
| Low carrier frequency 3570 MHz  |              |              |                      |                                |                    |                 |                                   |                 |                  |         |
| 1040.175                        | Vertical     | 1.0          | -136                 | 35.58                          | 75.2               | -39.62          | 35.58                             | 55.2            | -19.62           | Pass    |
| 1267.227                        | Horizontal   | 1.0          | -54                  | 42.48                          | 75.2               | -32.72          | 42.48                             | 55.2            | -12.72           | Pass    |
| 13379.415                       | Horizontal   | 1.0          | -29                  | 49.80                          | 75.2               | -25.40          | 49.80                             | 55.2            | -5.40            | Pass    |
| 13500.098                       | Vertical     | 1.0          | -136                 | 50.50                          | 75.2               | -24.70          | 50.50                             | 55.2            | -4.70            | Pass    |
| Mid carrier frequency 3625 MHz  |              |              |                      |                                |                    |                 |                                   |                 |                  |         |
| 1267.227                        | Horizontal   | 1.0          | -53                  | 42.26                          | 75.2               | -32.94          | 42.26                             | 55.2            | -12.94           | Pass    |
| 1536.112                        | Vertical     | 1.0          | -121                 | 36.52                          | 75.2               | -38.68          | 36.52                             | 55.2            | -18.68           | Pass    |
| 4266.610                        | Vertical     | 1.0          | 114                  | 42.16                          | 75.2               | -33.04          | 42.16                             | 55.2            | -13.04           | Pass    |
| High carrier frequency 3680 MHz |              |              |                      |                                |                    |                 |                                   |                 |                  |         |
| 1267.227                        | Horizontal   | 1.0          | -52                  | 39.68                          | 75.2               | -35.52          | 39.68                             | 55.2            | -15.52           | Pass    |
| 3071.939                        | Horizontal   | 1.0          | -164                 | 38.13                          | 75.2               | -37.07          | 38.13                             | 55.2            | -17.07           | Pass    |
| 13286.598                       | Vertical     | 1.0          | -168                 | 48.29                          | 75.2               | -26.91          | 48.29                             | 55.2            | -6.91            | Pass    |

Reference numbers of test equipment used

|         |         |         |         |         |         |         |         |
|---------|---------|---------|---------|---------|---------|---------|---------|
| HL 0446 | HL 3903 | HL 4280 | HL 4360 | HL 4933 | HL 4956 | HL 5112 | HL 5288 |
| HL 5902 |         |         |         |         |         |         |         |

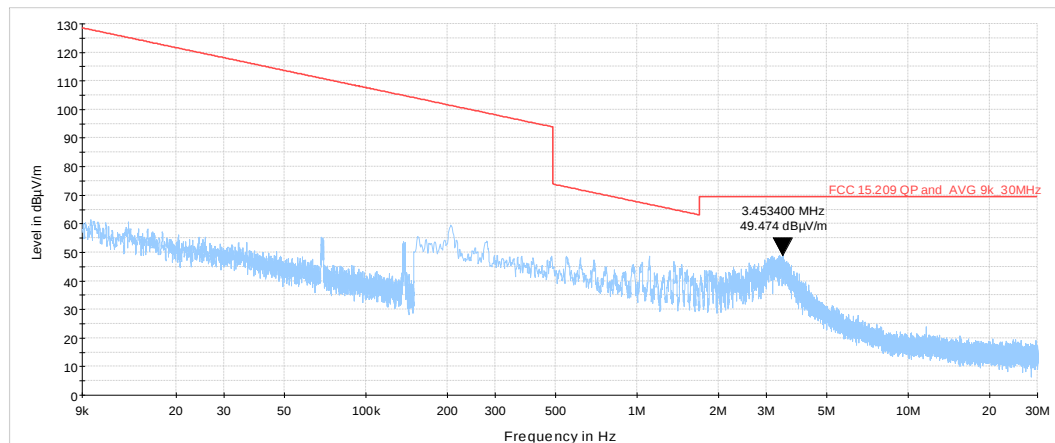
Full description is given in Appendix A.



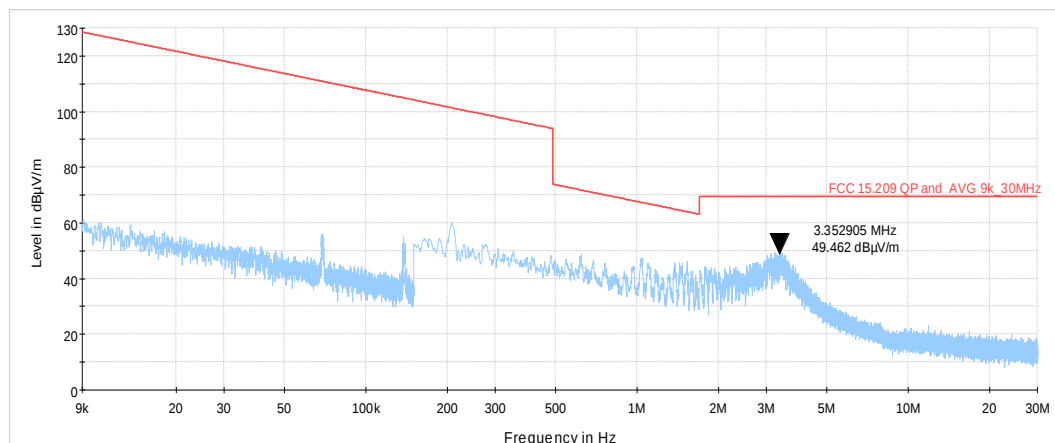
|                                                                             |                                |                               |                      |
|-----------------------------------------------------------------------------|--------------------------------|-------------------------------|----------------------|
| <b>Test specification:</b> Section 96.41(e)(2), Radiated spurious emissions |                                |                               |                      |
| <b>Test procedure:</b> Section 96.41(e)(3)                                  |                                |                               |                      |
| <b>Test mode:</b> Compliance                                                |                                | <b>Verdict:</b> PASS          |                      |
| <b>Date(s):</b> 04-Nov-21                                                   |                                |                               |                      |
| <b>Temperature:</b> 25 °C                                                   | <b>Relative Humidity:</b> 54 % | <b>Air Pressure:</b> 1010 hPa | <b>Power:</b> 48 VDC |
| <b>Remarks:</b>                                                             |                                |                               |                      |

**Plot 7.5.1 Radiated emission measurements in 9 kHz - 30 MHz range**

TEST SITE: Semi anechoic chamber  
CARRIER FREQUENCY: Low  
TEST DISTANCE: 3 m

**Plot 7.5.2 Radiated emission measurements in 9 kHz - 30 MHz range**

TEST SITE: Semi anechoic chamber  
CARRIER FREQUENCY: Mid  
TEST DISTANCE: 3 m





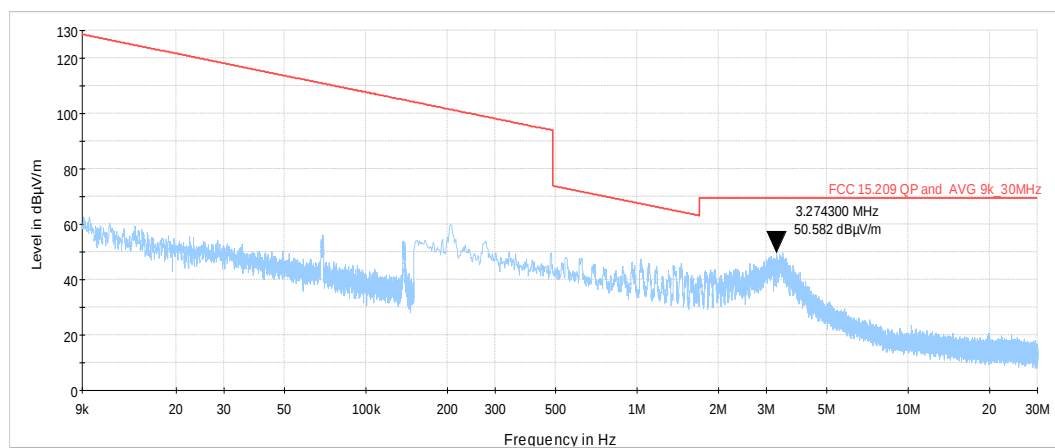
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|                     |                         |                                                  |               |
|---------------------|-------------------------|--------------------------------------------------|---------------|
| Test specification: |                         | Section 96.41(e)(2), Radiated spurious emissions |               |
| Test procedure:     |                         | Section 96.41(e)(3)                              |               |
| Test mode:          |                         | Verdict: PASS                                    |               |
| Date(s):            |                         |                                                  |               |
| 04-Nov-21           |                         |                                                  |               |
| Temperature: 25 °C  | Relative Humidity: 54 % | Air Pressure: 1010 hPa                           | Power: 48 VDC |
| Remarks:            |                         |                                                  |               |

Plot 7.5.3 Radiated emission measurements in 9 kHz - 30 MHz range

TEST SITE: Semi anechoic chamber  
CARRIER FREQUENCY: High  
TEST DISTANCE: 3 m

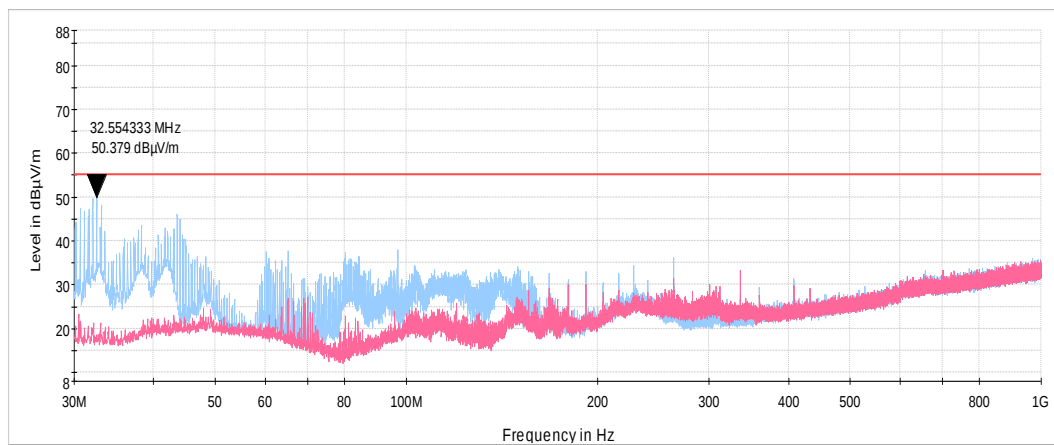




|                                                                             |                                |                               |                      |
|-----------------------------------------------------------------------------|--------------------------------|-------------------------------|----------------------|
| <b>Test specification:</b> Section 96.41(e)(2), Radiated spurious emissions |                                |                               |                      |
| <b>Test procedure:</b> Section 96.41(e)(3)                                  |                                |                               |                      |
| <b>Test mode:</b> Compliance                                                |                                | <b>Verdict:</b> PASS          |                      |
| <b>Date(s):</b> 04-Nov-21                                                   |                                |                               |                      |
| <b>Temperature:</b> 25 °C                                                   | <b>Relative Humidity:</b> 54 % | <b>Air Pressure:</b> 1010 hPa | <b>Power:</b> 48 VDC |
| <b>Remarks:</b>                                                             |                                |                               |                      |

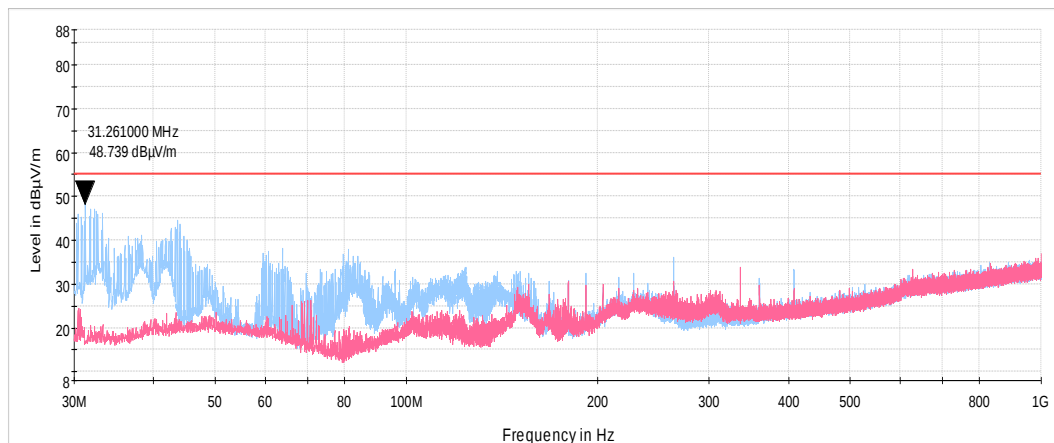
Plot 7.5.4 Radiated emission measurements in 30 - 1000 MHz range

|                       |                         |
|-----------------------|-------------------------|
| TEST SITE:            | Semi anechoic chamber   |
| CARRIER FREQUENCY:    | Low                     |
| ANTENNA POLARIZATION: | Vertical and Horizontal |
| TEST DISTANCE:        | 3 m                     |



Plot 7.5.5 Radiated emission measurements in 30 - 1000 MHz range

|                       |                         |
|-----------------------|-------------------------|
| TEST SITE:            | Semi anechoic chamber   |
| CARRIER FREQUENCY:    | Mid                     |
| ANTENNA POLARIZATION: | Vertical and Horizontal |
| TEST DISTANCE:        | 3 m                     |





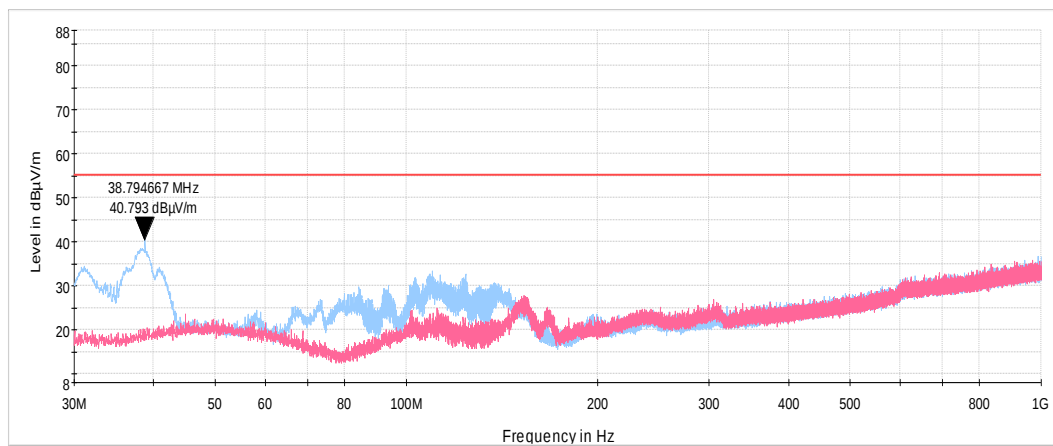
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|                     |                         |                                                  |               |
|---------------------|-------------------------|--------------------------------------------------|---------------|
| Test specification: |                         | Section 96.41(e)(2), Radiated spurious emissions |               |
| Test procedure:     |                         | Section 96.41(e)(3)                              |               |
| Test mode:          |                         | Verdict: PASS                                    |               |
| Date(s):            |                         |                                                  |               |
| 04-Nov-21           |                         |                                                  |               |
| Temperature: 25 °C  | Relative Humidity: 54 % | Air Pressure: 1010 hPa                           | Power: 48 VDC |
| Remarks:            |                         |                                                  |               |

Plot 7.5.6 Radiated emission measurements in 30 - 1000 MHz range

|                       |                         |
|-----------------------|-------------------------|
| TEST SITE:            | Semi anechoic chamber   |
| CARRIER FREQUENCY:    | High                    |
| ANTENNA POLARIZATION: | Vertical and Horizontal |
| TEST DISTANCE:        | 3 m                     |





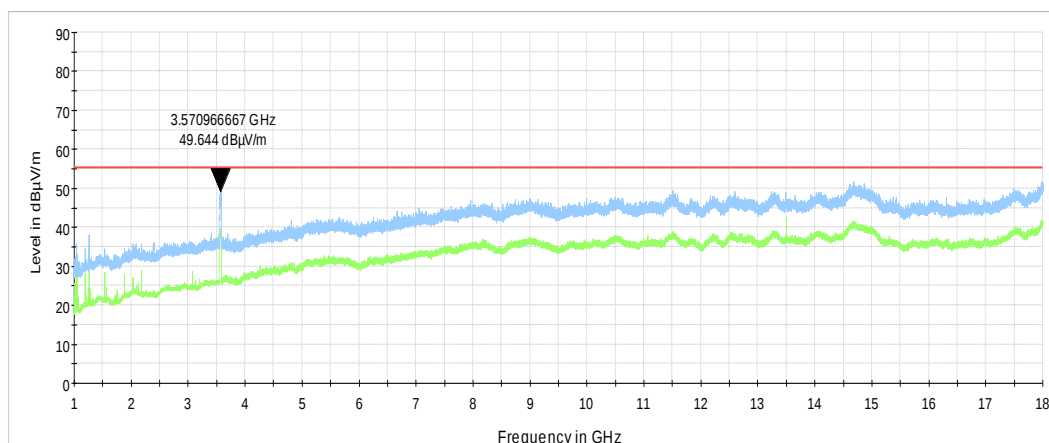
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|                                                                      |                         |                        |               |
|----------------------------------------------------------------------|-------------------------|------------------------|---------------|
| Test specification: Section 96.41(e)(2), Radiated spurious emissions |                         |                        |               |
| Test procedure: Section 96.41(e)(3)                                  |                         |                        |               |
| Test mode: Compliance                                                |                         | Verdict: PASS          |               |
| Date(s): 04-Nov-21                                                   |                         |                        |               |
| Temperature: 25 °C                                                   | Relative Humidity: 54 % | Air Pressure: 1010 hPa | Power: 48 VDC |
| Remarks:                                                             |                         |                        |               |

Plot 7.5.7 Radiated emission measurements in 1000 –18000 MHz range

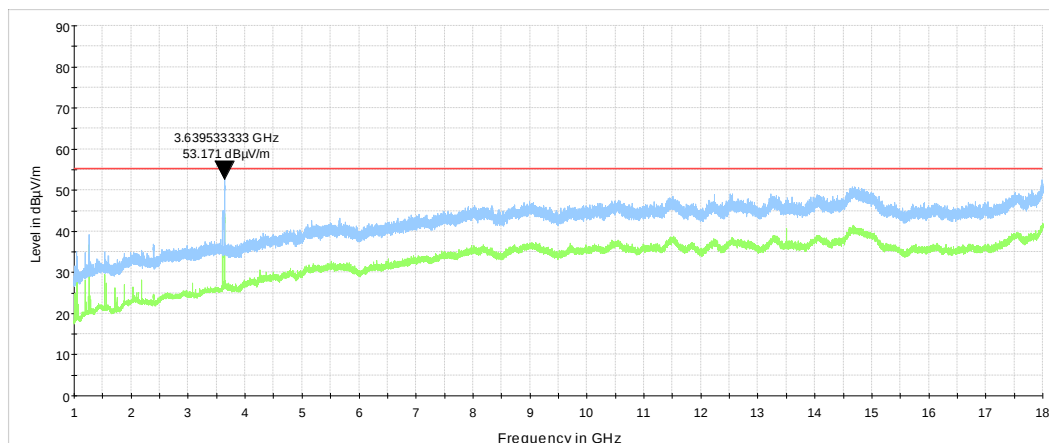
TEST SITE: Semi anechoic chamber  
CARRIER FREQUENCY: Low  
ANTENNA POLARIZATION: Vertical and Horizontal  
TEST DISTANCE: 3 m



Note: 3570.9 MHz – low fundamental frequency

Plot 7.5.8 Radiated emission measurements in 1000 –18000 MHz range

TEST SITE: Semi anechoic chamber  
CARRIER FREQUENCY: Mid  
ANTENNA POLARIZATION: Vertical and Horizontal  
TEST DISTANCE: 3 m



Note: 3639.5 MHz – mid fundamental frequency



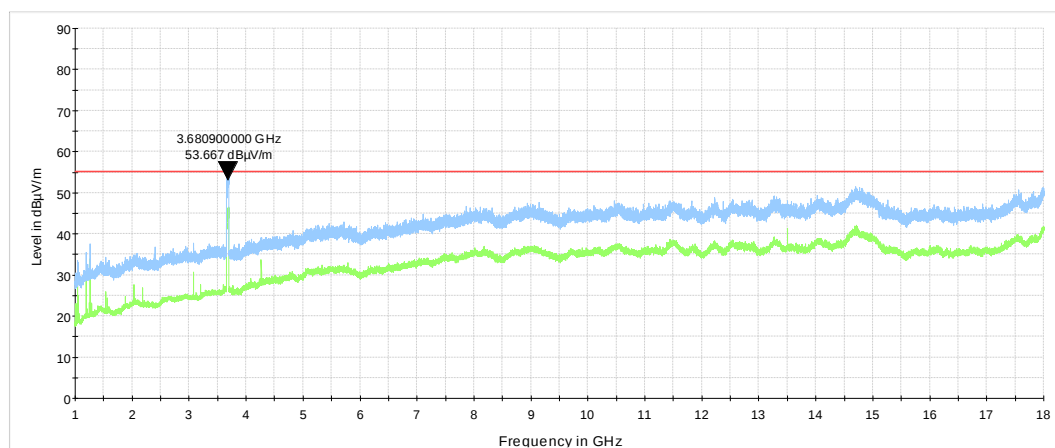
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|                                                                      |                         |                        |               |
|----------------------------------------------------------------------|-------------------------|------------------------|---------------|
| Test specification: Section 96.41(e)(2), Radiated spurious emissions |                         |                        |               |
| Test procedure: Section 96.41(e)(3)                                  |                         |                        |               |
| Test mode: Compliance                                                |                         | Verdict: PASS          |               |
| Date(s): 04-Nov-21                                                   |                         |                        |               |
| Temperature: 25 °C                                                   | Relative Humidity: 54 % | Air Pressure: 1010 hPa | Power: 48 VDC |
| Remarks:                                                             |                         |                        |               |

Plot 7.5.9 Radiated emission measurements in 1000 –18000 MHz range

|                       |                         |
|-----------------------|-------------------------|
| TEST SITE:            | Semi anechoic chamber   |
| CARRIER FREQUENCY:    | High                    |
| ANTENNA POLARIZATION: | Vertical and Horizontal |
| TEST DISTANCE:        | 3 m                     |



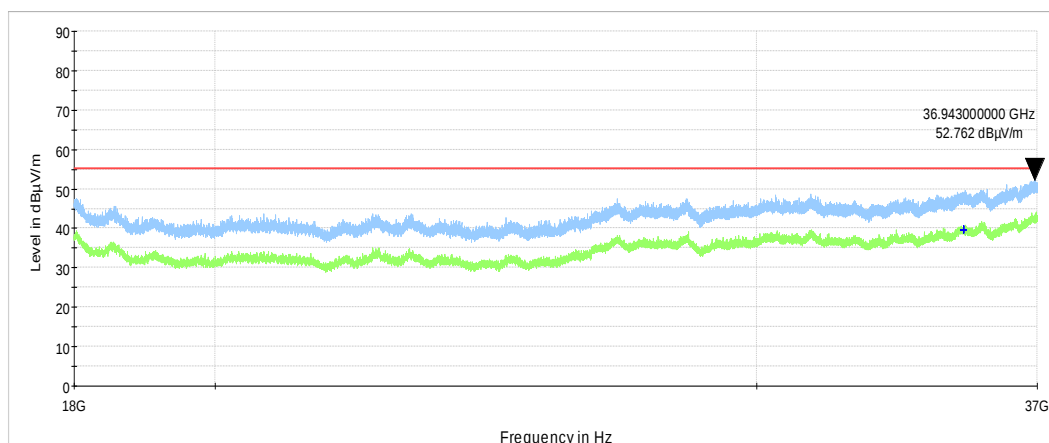
Note: 3680.9 MHz – high fundamental frequency



|                                                                      |                         |                        |               |
|----------------------------------------------------------------------|-------------------------|------------------------|---------------|
| Test specification: Section 96.41(e)(2), Radiated spurious emissions |                         |                        |               |
| Test procedure: Section 96.41(e)(3)                                  |                         |                        |               |
| Test mode: Compliance                                                |                         | Verdict: PASS          |               |
| Date(s): 04-Nov-21                                                   |                         |                        |               |
| Temperature: 25 °C                                                   | Relative Humidity: 54 % | Air Pressure: 1010 hPa | Power: 48 VDC |
| Remarks:                                                             |                         |                        |               |

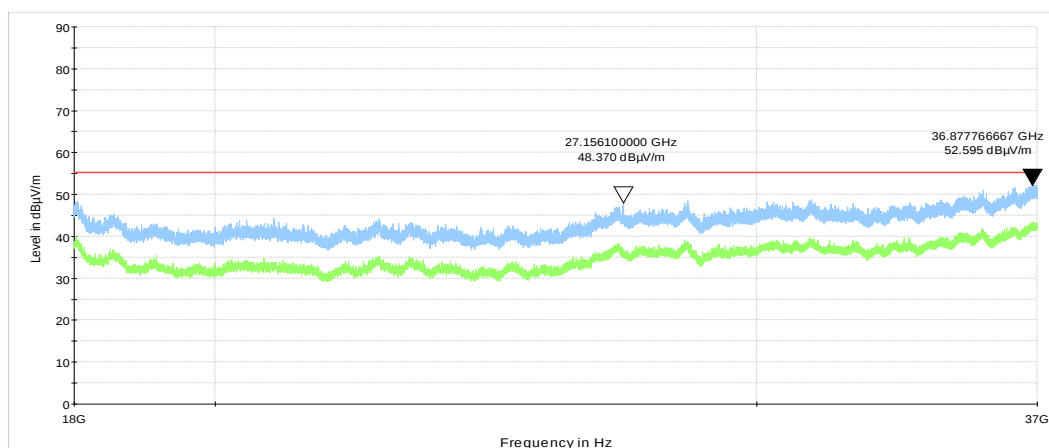
Plot 7.5.10 Radiated emission measurements in 18000 –37000 MHz range

TEST SITE: Semi anechoic chamber  
CARRIER FREQUENCY: Low  
ANTENNA POLARIZATION: Vertical and Horizontal  
TEST DISTANCE: 3 m



Plot 7.5.11 Radiated emission measurements in 18000 –37000 MHz range

TEST SITE: Semi anechoic chamber  
CARRIER FREQUENCY: Mid  
ANTENNA POLARIZATION: Vertical and Horizontal  
TEST DISTANCE: 3 m

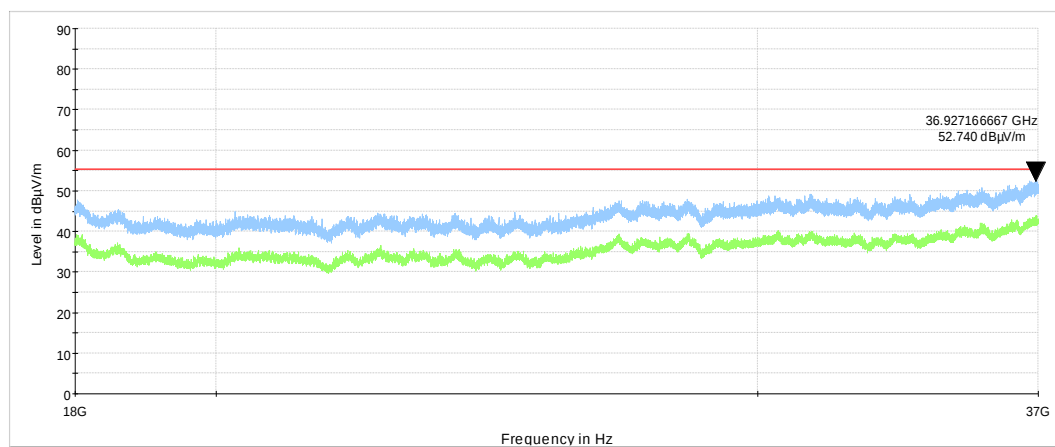




|                     |                         |                                                  |               |
|---------------------|-------------------------|--------------------------------------------------|---------------|
| Test specification: |                         | Section 96.41(e)(2), Radiated spurious emissions |               |
| Test procedure:     |                         | Section 96.41(e)(3)                              |               |
| Test mode:          |                         | Verdict: PASS                                    |               |
| Date(s):            |                         |                                                  |               |
| 04-Nov-21           |                         |                                                  |               |
| Temperature: 25 °C  | Relative Humidity: 54 % | Air Pressure: 1010 hPa                           | Power: 48 VDC |
| Remarks:            |                         |                                                  |               |

Plot 7.5.12 Radiated emission measurements in 18000 –37000 MHz range

|                       |                         |
|-----------------------|-------------------------|
| TEST SITE:            | Semi anechoic chamber   |
| CARRIER FREQUENCY:    | High                    |
| ANTENNA POLARIZATION: | Vertical and Horizontal |
| TEST DISTANCE:        | 3 m                     |





|                     |                         |                                                   |               |
|---------------------|-------------------------|---------------------------------------------------|---------------|
| Test specification: |                         | Section 96.41(e)(3), Conducted spurious emissions |               |
| Test procedure:     |                         | Section 96.41(e)(3)                               |               |
| Test mode:          |                         | Verdict: PASS                                     |               |
| Date(s):            |                         |                                                   |               |
| 16-Nov-21           |                         |                                                   |               |
| Temperature: 24 °C  | Relative Humidity: 53 % | Air Pressure: 1010 hPa                            | Power: 48 VDC |
| Remarks:            |                         |                                                   |               |

## 7.6 Spurious emissions at RF antenna connector test

### 7.6.1 General

This test was performed to measure spurious emissions at RF antenna connector. Specification test limits are given in Table 7.6.1.

Table 7.6.1 Spurious emission limits

| Frequency, MHz          | Conducted power of spurious, dBm/MHz |
|-------------------------|--------------------------------------|
| 0.009 – below 3530.0    | -40.0                                |
| 3720.0 – 10th harmonic* | -40.0                                |

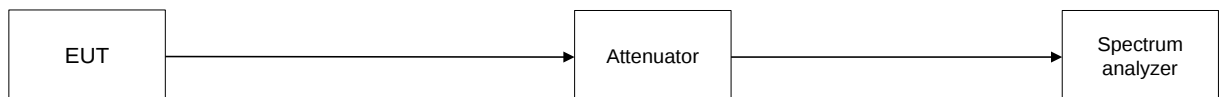
### 7.6.2 Test procedure

**7.6.2.1** The EUT was set up as shown in Figure 7.6.1, energized and its proper operation was checked.

**7.6.2.2** The EUT was adjusted to produce maximum available for end user RF output power.

**7.6.2.3** The spurious emission was measured with spectrum analyzer as provided in Table 7.6.2 and associated plots.

Figure 7.6.1 Spurious emission test setup





|                                                                              |                                |                               |                      |
|------------------------------------------------------------------------------|--------------------------------|-------------------------------|----------------------|
| <b>Test specification:</b> Section 96.41(e)(3), Conducted spurious emissions |                                |                               |                      |
| <b>Test procedure:</b> Section 96.41(e)(3)                                   |                                |                               |                      |
| <b>Test mode:</b> Compliance                                                 |                                | <b>Verdict:</b> PASS          |                      |
| <b>Date(s):</b> 16-Nov-21                                                    |                                |                               |                      |
| <b>Temperature:</b> 24 °C                                                    | <b>Relative Humidity:</b> 53 % | <b>Air Pressure:</b> 1010 hPa | <b>Power:</b> 48 VDC |
| <b>Remarks:</b>                                                              |                                |                               |                      |

Table 7.6.2 Spurious emission test results

ASSIGNED FREQUENCY RANGE: 3550 - 3700 MHz  
 INVESTIGATED FREQUENCY RANGE: 0.009 – 37000 MHz  
 DETECTOR USED: Peak  
 VIDEO BANDWIDTH: ≥ Resolution bandwidth  
 MODULATION: QPSK  
 TRANSMITTER OUTPUT POWER SETTINGS: Maximum  
 NUMBER ANTENNA PORTS: N = 4

| Frequency,<br>MHz               | Average power (RMS)                     |                           |               |                | Verdict |
|---------------------------------|-----------------------------------------|---------------------------|---------------|----------------|---------|
|                                 | Maximun<br>emission per<br>chain, dBm** | Total emission,<br>dBm*** | Limit,<br>dBm | Margin,<br>dB* |         |
| Channel bandwidth 20 MHz        |                                         |                           |               |                |         |
| Low carrier frequency 3560 MHz  |                                         |                           |               |                |         |
| 3058.87                         | -47.41                                  | -41.41                    | -40.00        | -1.41          | Pass    |
| Mid carrier frequency 3625 MHz  |                                         |                           |               |                |         |
| 3073.32                         | -47.33                                  | -41.33                    | -40.00        | -1.33          | Pass    |
| High carrier frequency 3690 MHz |                                         |                           |               |                |         |
| 3099.05                         | -48.08                                  | -42.08                    | -40.00        | -2.08          | Pass    |
| Channel bandwidth 40 MHz        |                                         |                           |               |                |         |
| Low carrier frequency 3570 MHz  |                                         |                           |               |                |         |
| 3067.03                         | -51.50                                  | -45.5                     | -40.00        | -5.50          | Pass    |
| Mid carrier frequency 3625 MHz  |                                         |                           |               |                |         |
| 3024.91                         | -52.08                                  | -46.08                    | -40.00        | -6.08          | Pass    |
| High carrier frequency 3680 MHz |                                         |                           |               |                |         |
| 3730.08                         | -51.08                                  | -45.08                    | -40.00        | -5.08          | Pass    |

\*- Margin = Total spurious emission - specification limit.

\*\* - Total emission = Maximum emission per chain + 10\*log(N)

\*\* - SA Reading over 1 chain = Max SA reading (Chains #1&2 or chains #3&4)

#### Reference numbers of test equipment used

|         |         |         |         |         |         |         |         |
|---------|---------|---------|---------|---------|---------|---------|---------|
| HL 3287 | HL 3301 | HL 3302 | HL 5642 | HL 3356 | HL 3433 | HL 3434 | HL 3435 |
| HL 3818 | HL 4355 | HL 5637 | HL 5174 | HL 5286 | HL 5409 | HL 5611 |         |

Full description is given in Appendix A.

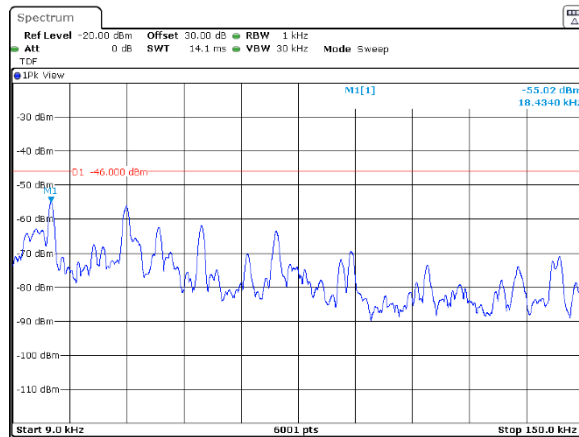


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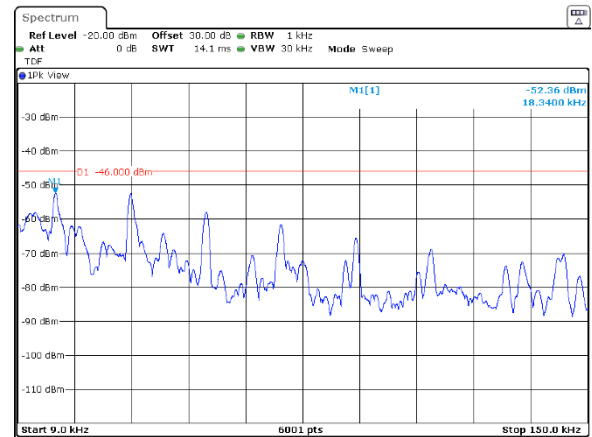
|                     |                         |                                                   |               |
|---------------------|-------------------------|---------------------------------------------------|---------------|
| Test specification: |                         | Section 96.41(e)(3), Conducted spurious emissions |               |
| Test procedure:     |                         | Section 96.41(e)(3)                               |               |
| Test mode:          |                         | Verdict: PASS                                     |               |
| Date(s):            |                         |                                                   |               |
| 16-Nov-21           |                         |                                                   |               |
| Temperature: 24 °C  | Relative Humidity: 53 % | Air Pressure: 1010 hPa                            | Power: 48 VDC |
| Remarks:            |                         |                                                   |               |

Plot 7.6.1 Spurious emission measurements in 9 - 150 kHz range at low carrier frequency

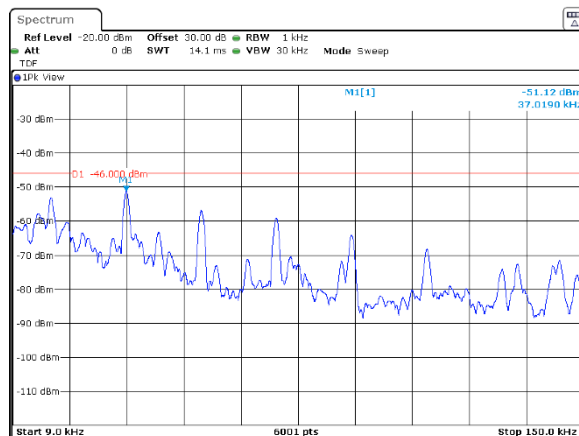
MODULATION:  
CHANNEL SPACING:  
ANTENNA CHAIN: #1



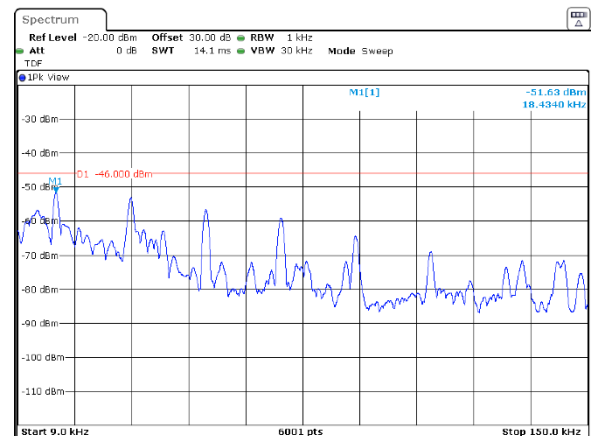
QPSK  
20 MHz  
ANTENNA CHAIN: #2



ANTENNA CHAIN: #3



ANTENNA CHAIN: #4



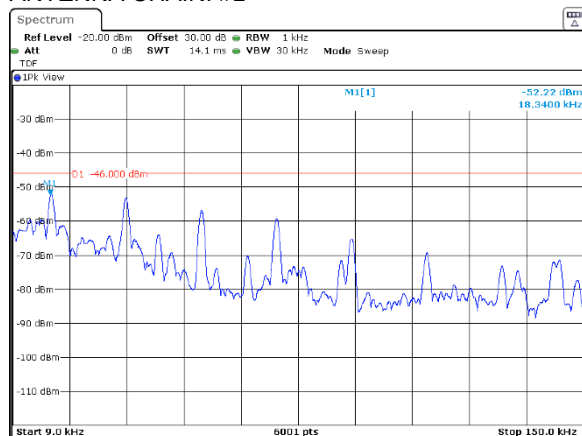


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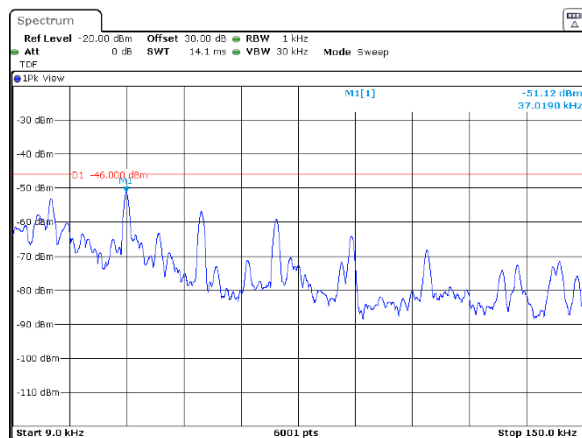
|                                                                       |                         |                        |               |
|-----------------------------------------------------------------------|-------------------------|------------------------|---------------|
| Test specification: Section 96.41(e)(3), Conducted spurious emissions |                         |                        |               |
| Test procedure: Section 96.41(e)(3)                                   |                         |                        |               |
| Test mode: Compliance                                                 |                         | Verdict: PASS          |               |
| Date(s): 16-Nov-21                                                    |                         |                        |               |
| Temperature: 24 °C                                                    | Relative Humidity: 53 % | Air Pressure: 1010 hPa | Power: 48 VDC |
| Remarks:                                                              |                         |                        |               |

Plot 7.6.2 Spurious emission measurements in 9 - 150 kHz range at mid carrier frequency

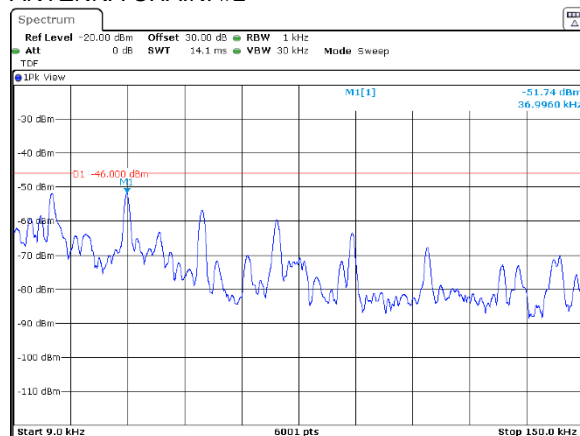
MODULATION:  
CHANNEL SPACING:  
ANTENNA CHAIN: #1



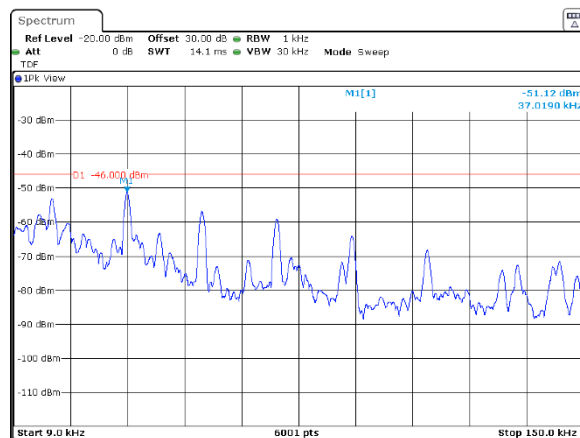
ANTENNA CHAIN: #3



QPSK  
20 MHz  
ANTENNA CHAIN: #2



ANTENNA CHAIN: #4





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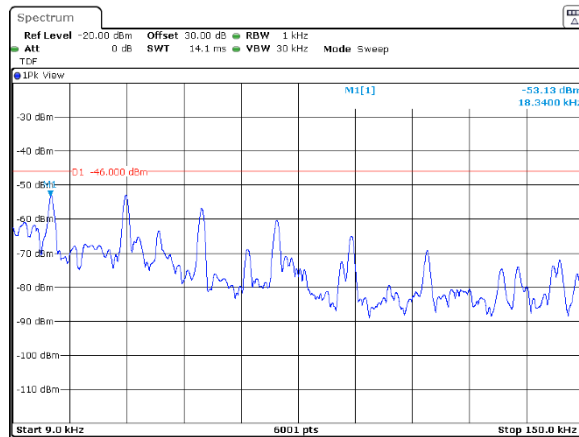
Report ID: AIRRAD\_FCC.44746\_Rev1

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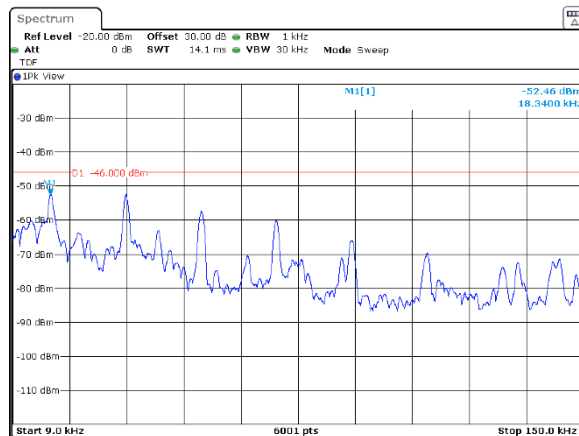
|                     |                         |                                                   |               |
|---------------------|-------------------------|---------------------------------------------------|---------------|
| Test specification: |                         | Section 96.41(e)(3), Conducted spurious emissions |               |
| Test procedure:     |                         | Section 96.41(e)(3)                               |               |
| Test mode:          |                         | Verdict: PASS                                     |               |
| Date(s):            |                         |                                                   |               |
| 16-Nov-21           |                         |                                                   |               |
| Temperature: 24 °C  | Relative Humidity: 53 % | Air Pressure: 1010 hPa                            | Power: 48 VDC |
| Remarks:            |                         |                                                   |               |

Plot 7.6.3 Spurious emission measurements in 9 - 150 kHz range at high carrier frequency

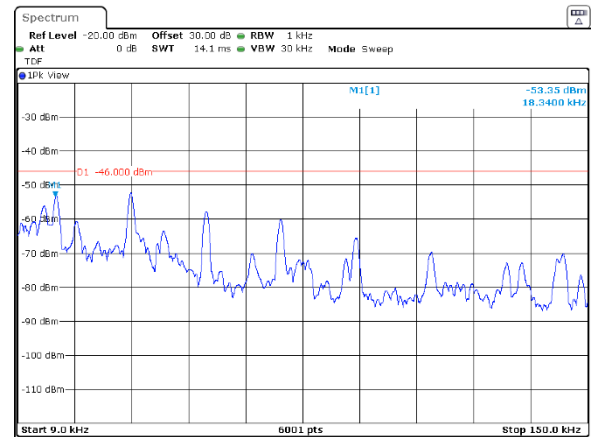
MODULATION:  
CHANNEL SPACING:  
ANTENNA CHAIN: #1



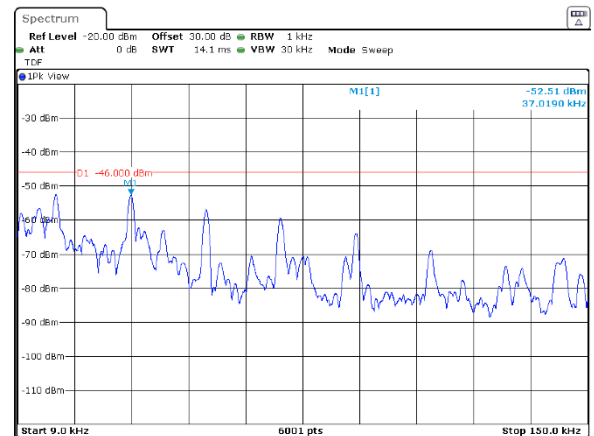
ANTENNA CHAIN: #3



QPSK  
20 MHz  
ANTENNA CHAIN: #2



ANTENNA CHAIN: #4





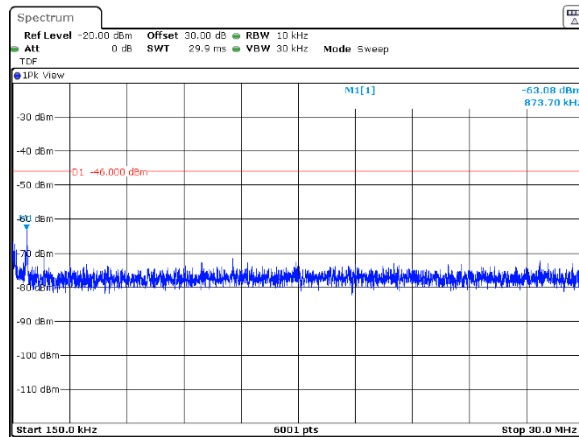
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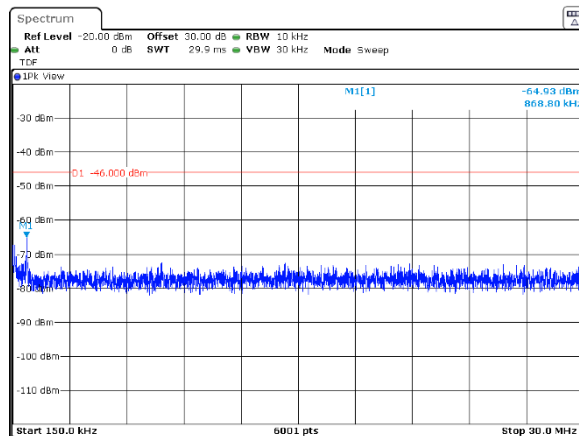
|                     |                         |                                                   |               |
|---------------------|-------------------------|---------------------------------------------------|---------------|
| Test specification: |                         | Section 96.41(e)(3), Conducted spurious emissions |               |
| Test procedure:     |                         | Section 96.41(e)(3)                               |               |
| Test mode:          |                         | Verdict: PASS                                     |               |
| Date(s):            |                         |                                                   |               |
| 16-Nov-21           |                         |                                                   |               |
| Temperature: 24 °C  | Relative Humidity: 53 % | Air Pressure: 1010 hPa                            | Power: 48 VDC |
| Remarks:            |                         |                                                   |               |

Plot 7.6.4 Spurious emission measurements in 150 kHz - 30 MHz range at low carrier frequency

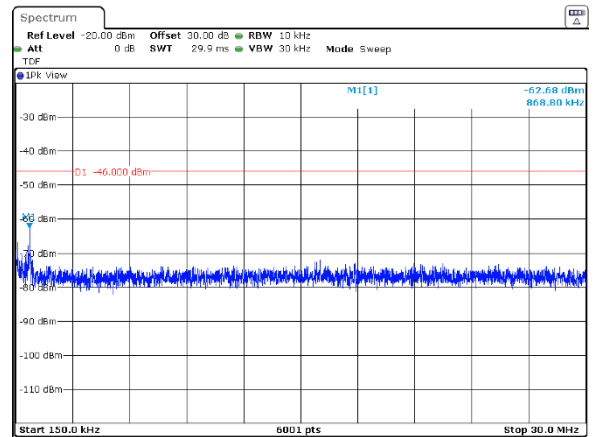
MODULATION:  
CHANNEL SPACING:  
ANTENNA CHAIN: #1



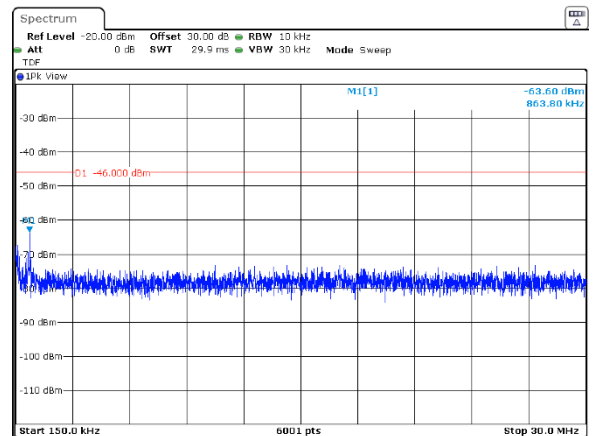
ANTENNA CHAIN: #3



QPSK  
20 MHz  
ANTENNA CHAIN: #2



ANTENNA CHAIN: #4





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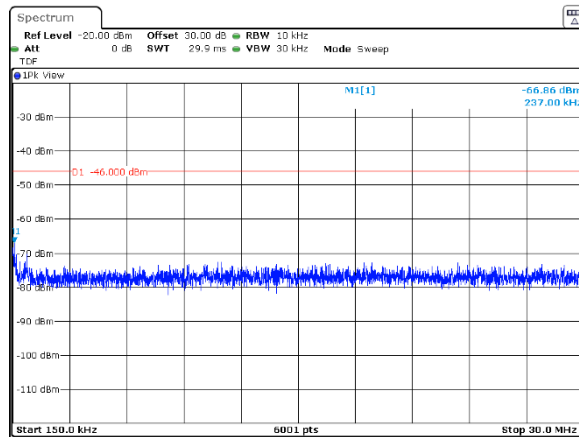
Report ID: AIRRAD\_FCC.44746\_Rev1

Date of Issue: 24-Nov-21

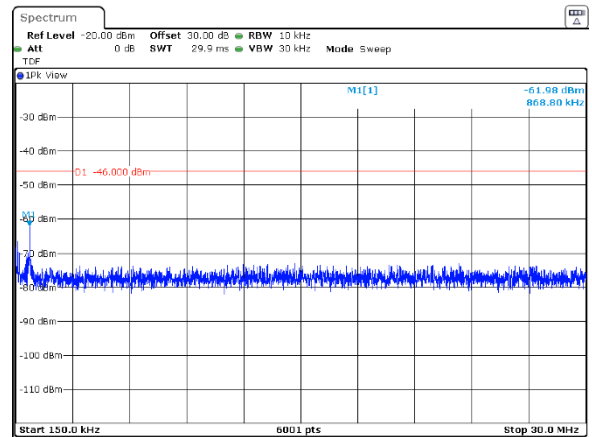
|                     |                         |                                                   |               |
|---------------------|-------------------------|---------------------------------------------------|---------------|
| Test specification: |                         | Section 96.41(e)(3), Conducted spurious emissions |               |
| Test procedure:     |                         | Section 96.41(e)(3)                               |               |
| Test mode:          |                         | Verdict: PASS                                     |               |
| Date(s):            |                         |                                                   |               |
| 16-Nov-21           |                         |                                                   |               |
| Temperature: 24 °C  | Relative Humidity: 53 % | Air Pressure: 1010 hPa                            | Power: 48 VDC |
| Remarks:            |                         |                                                   |               |

Plot 7.6.5 Spurious emission measurements in 150 kHz - 30 MHz range at mid carrier frequency

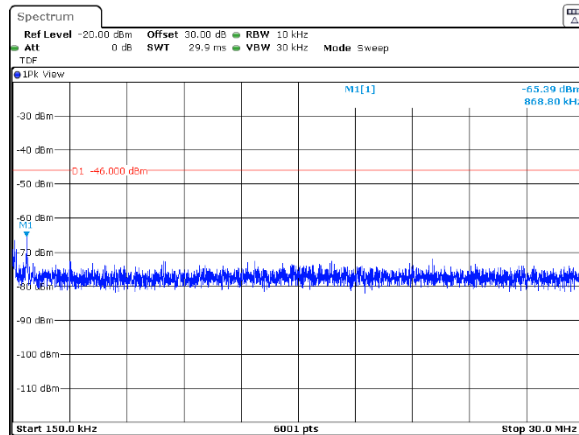
MODULATION:  
CHANNEL SPACING:  
ANTENNA CHAIN: #1



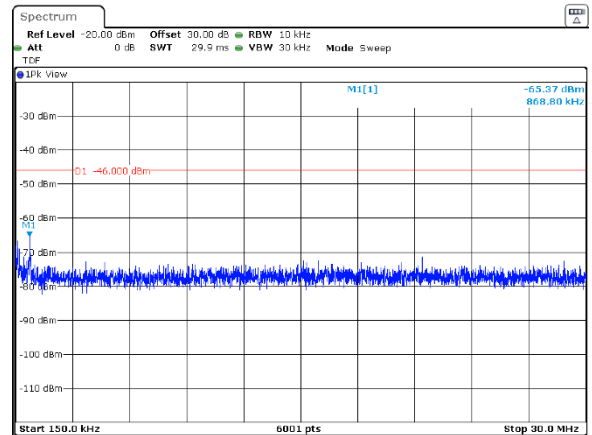
QPSK  
20 MHz  
ANTENNA CHAIN: #2



ANTENNA CHAIN: #3



ANTENNA CHAIN: #4





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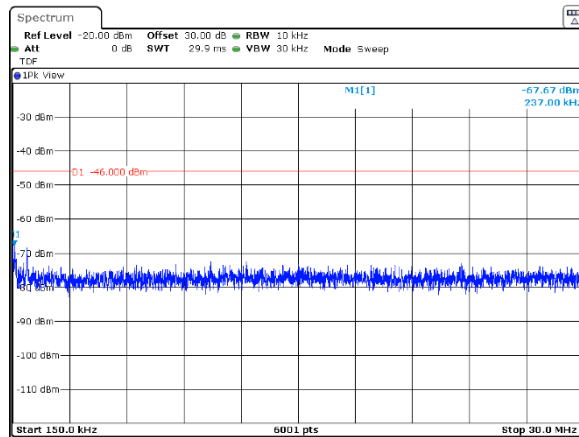
Report ID: AIRRAD\_FCC.44746\_Rev1

Date of Issue: 24-Nov-21

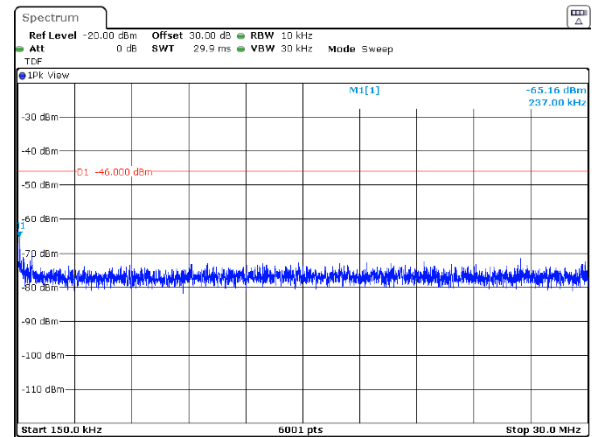
|                                                                       |                         |                        |               |
|-----------------------------------------------------------------------|-------------------------|------------------------|---------------|
| Test specification: Section 96.41(e)(3), Conducted spurious emissions |                         |                        |               |
| Test procedure: Section 96.41(e)(3)                                   |                         |                        |               |
| Test mode: Compliance                                                 |                         | Verdict: PASS          |               |
| Date(s): 16-Nov-21                                                    |                         |                        |               |
| Temperature: 24 °C                                                    | Relative Humidity: 53 % | Air Pressure: 1010 hPa | Power: 48 VDC |
| Remarks:                                                              |                         |                        |               |

Plot 7.6.6 Spurious emission measurements in 150 kHz - 30 MHz range at high carrier frequency

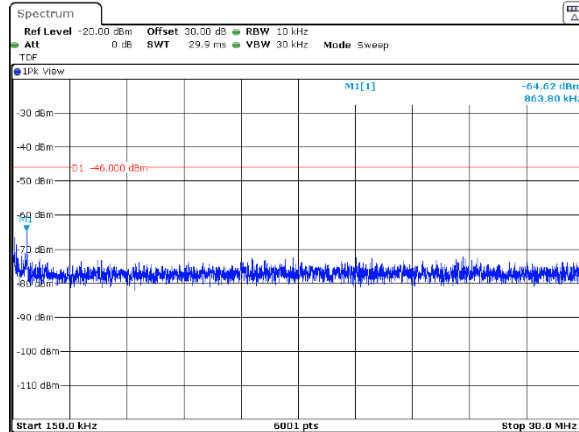
MODULATION:  
CHANNEL SPACING:  
ANTENNA CHAIN: #1



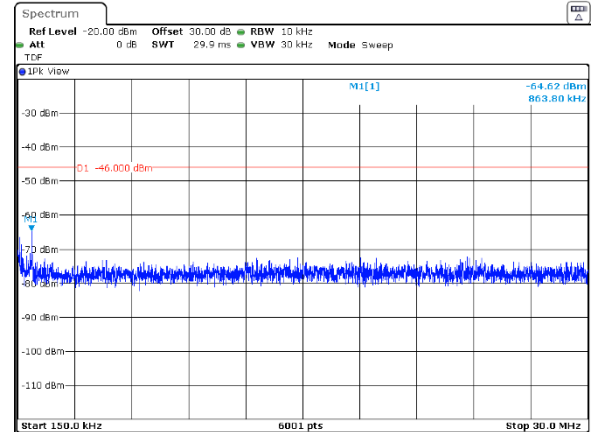
QPSK  
20 MHz  
ANTENNA CHAIN: #2



ANTENNA CHAIN: #3



ANTENNA CHAIN: #4





HERMON LABORATORIES

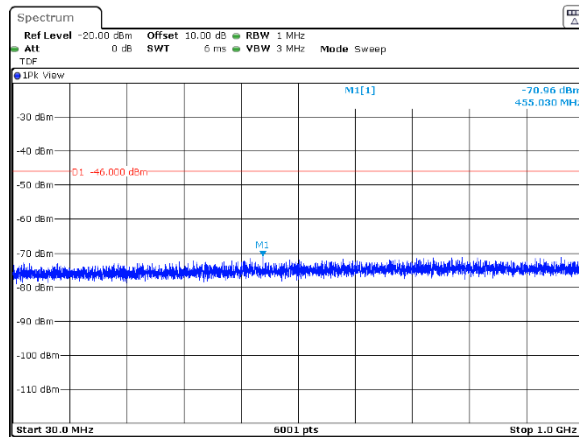
Report ID: AIRRAD\_FCC.44746\_Rev1

Date of Issue: 24-Nov-21

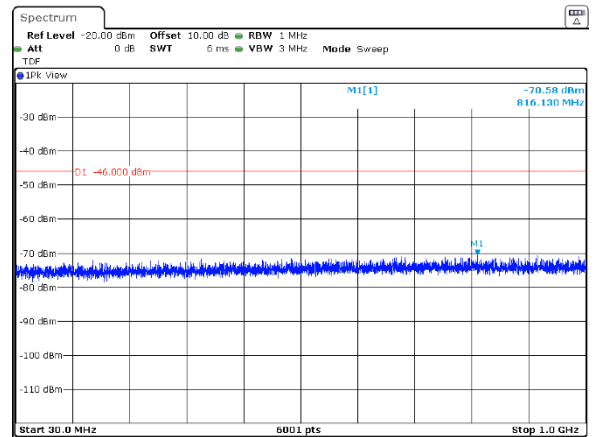
|                                                                       |                         |                        |               |
|-----------------------------------------------------------------------|-------------------------|------------------------|---------------|
| Test specification: Section 96.41(e)(3), Conducted spurious emissions |                         |                        |               |
| Test procedure: Section 96.41(e)(3)                                   |                         |                        |               |
| Test mode: Compliance                                                 |                         | Verdict: PASS          |               |
| Date(s): 16-Nov-21                                                    |                         |                        |               |
| Temperature: 24 °C                                                    | Relative Humidity: 53 % | Air Pressure: 1010 hPa | Power: 48 VDC |
| Remarks:                                                              |                         |                        |               |

Plot 7.6.7 Spurious emission measurements in 30 - 1000 MHz range at low carrier frequency

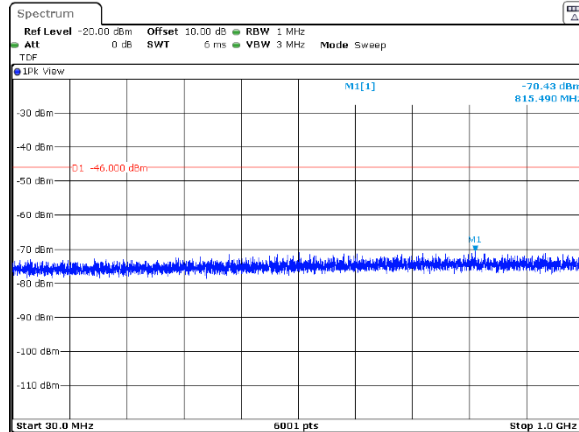
MODULATION:  
CHANNEL SPACING:  
ANTENNA CHAIN: #1



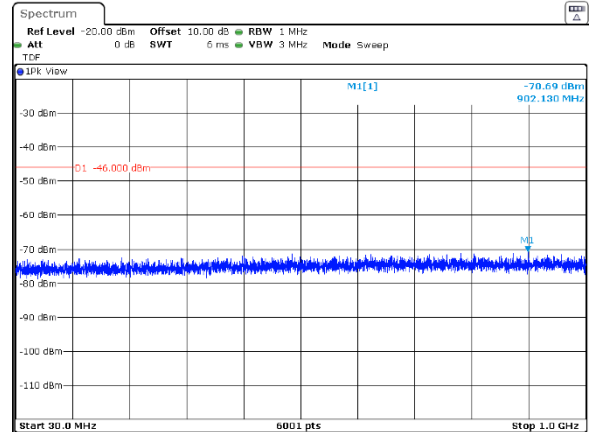
QPSK  
20 MHz  
ANTENNA CHAIN: #2



ANTENNA CHAIN: #3



ANTENNA CHAIN: #4





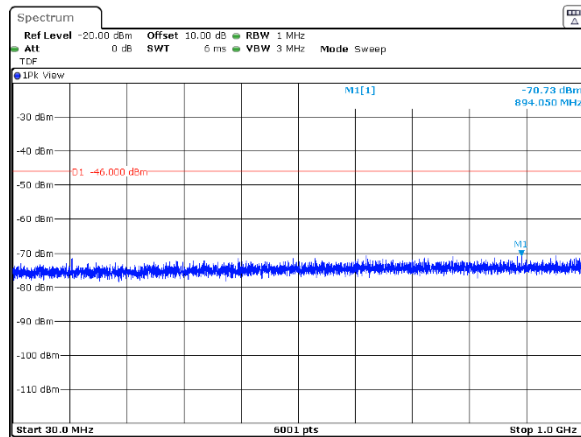
HERMON LABORATORIES

Report ID: AIRRAD\_FCC.44746\_Rev1  
Date of Issue: 24-Nov-21

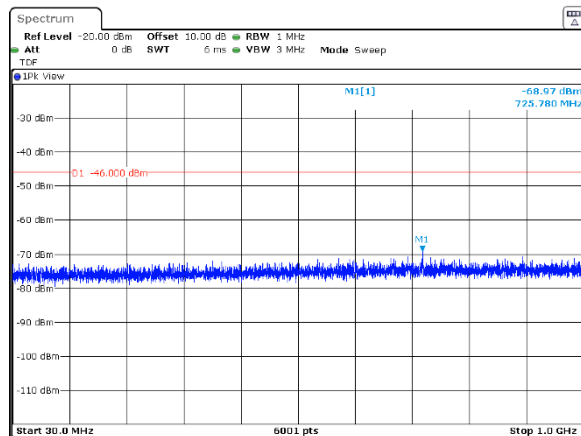
|                                                                       |                         |                        |               |
|-----------------------------------------------------------------------|-------------------------|------------------------|---------------|
| Test specification: Section 96.41(e)(3), Conducted spurious emissions |                         |                        |               |
| Test procedure: Section 96.41(e)(3)                                   |                         |                        |               |
| Test mode: Compliance                                                 |                         | Verdict: PASS          |               |
| Date(s): 16-Nov-21                                                    |                         |                        |               |
| Temperature: 24 °C                                                    | Relative Humidity: 53 % | Air Pressure: 1010 hPa | Power: 48 VDC |
| Remarks:                                                              |                         |                        |               |

Plot 7.6.8 Spurious emission measurements in 30 - 1000 MHz range at mid carrier frequency

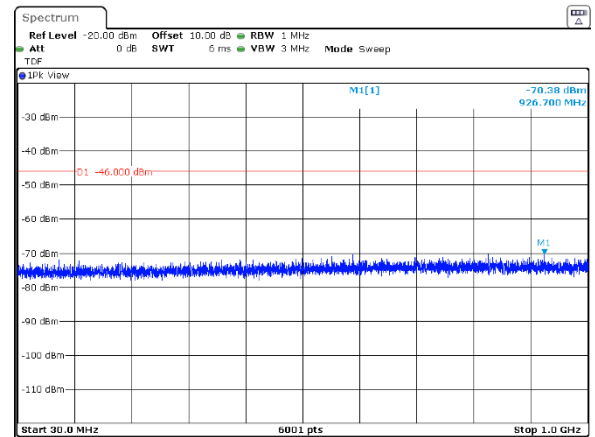
MODULATION:  
CHANNEL SPACING:  
ANTENNA CHAIN: #1



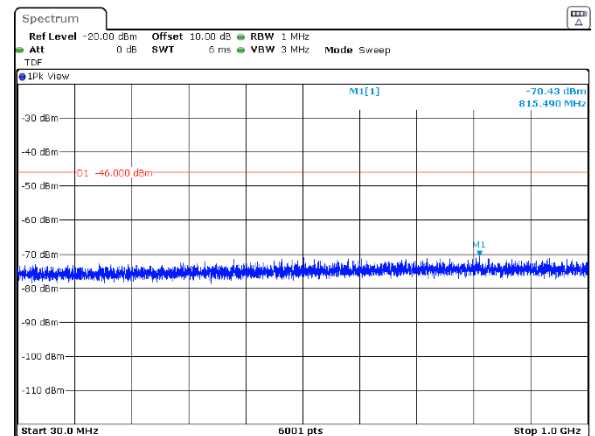
ANTENNA CHAIN: #3



QPSK  
20 MHz  
ANTENNA CHAIN: #2



ANTENNA CHAIN: #4





HERMON LABORATORIES

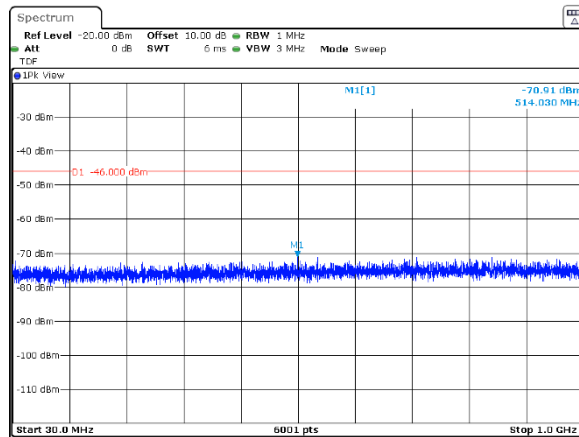
Report ID: AIRRAD\_FCC.44746\_Rev1

Date of Issue: 24-Nov-21

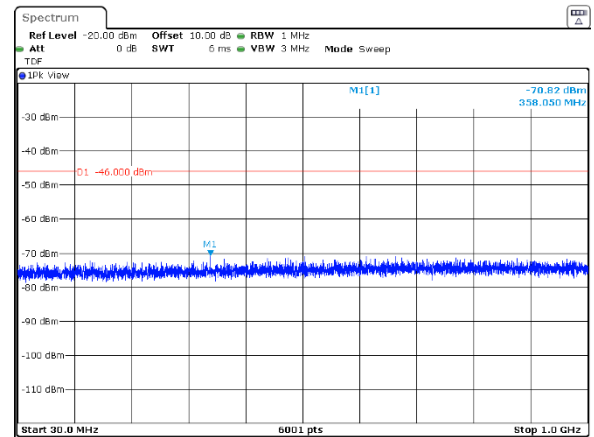
|                     |                         |                                                   |               |
|---------------------|-------------------------|---------------------------------------------------|---------------|
| Test specification: |                         | Section 96.41(e)(3), Conducted spurious emissions |               |
| Test procedure:     |                         | Section 96.41(e)(3)                               |               |
| Test mode:          |                         | Verdict: PASS                                     |               |
| Date(s):            |                         |                                                   |               |
| 16-Nov-21           |                         |                                                   |               |
| Temperature: 24 °C  | Relative Humidity: 53 % | Air Pressure: 1010 hPa                            | Power: 48 VDC |
| Remarks:            |                         |                                                   |               |

Plot 7.6.9 Spurious emission measurements in 30 - 1000 MHz range at high carrier frequency

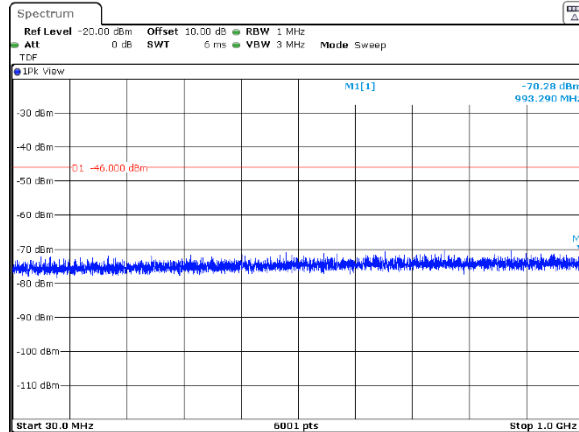
MODULATION:  
CHANNEL SPACING:  
ANTENNA CHAIN: #1



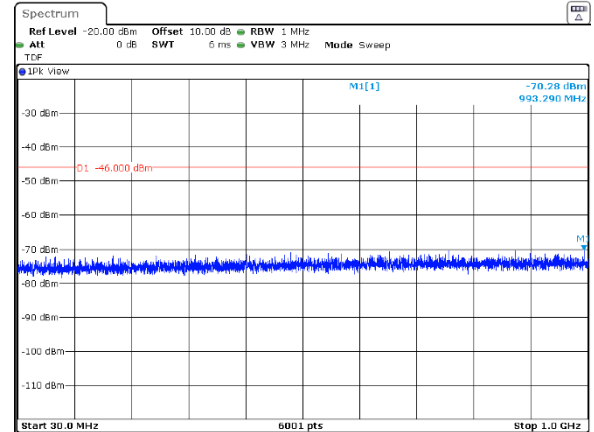
QPSK  
20 MHz  
ANTENNA CHAIN: #2



ANTENNA CHAIN: #3



ANTENNA CHAIN: #4





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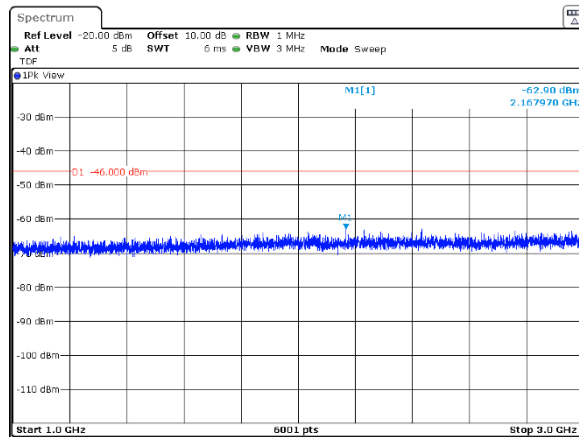
Report ID: AIRRAD\_FCC.44746\_Rev1

Date of Issue: 24-Nov-21

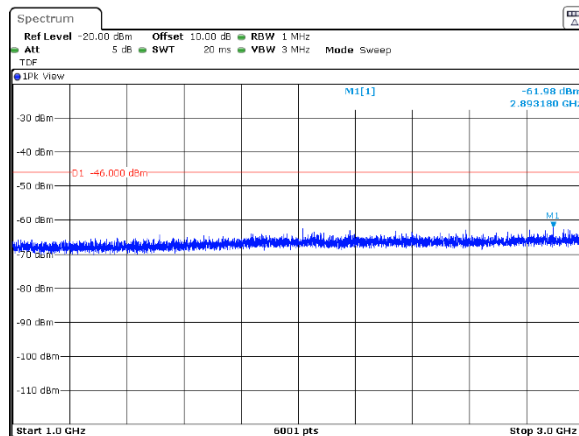
|                                                                       |                         |                        |               |
|-----------------------------------------------------------------------|-------------------------|------------------------|---------------|
| Test specification: Section 96.41(e)(3), Conducted spurious emissions |                         |                        |               |
| Test procedure: Section 96.41(e)(3)                                   |                         |                        |               |
| Test mode: Compliance                                                 |                         | Verdict: PASS          |               |
| Date(s): 16-Nov-21                                                    |                         |                        |               |
| Temperature: 24 °C                                                    | Relative Humidity: 53 % | Air Pressure: 1010 hPa | Power: 48 VDC |
| Remarks:                                                              |                         |                        |               |

Plot 7.6.10 Spurious emission measurements in 1000 - 3000 MHz range at low carrier frequency

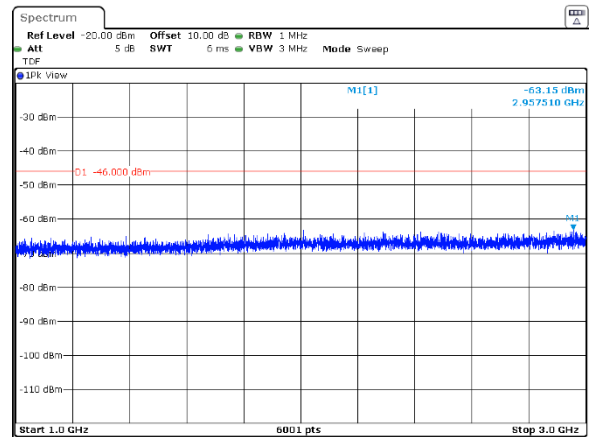
MODULATION:  
CHANNEL SPACING:  
ANTENNA CHAIN: #1



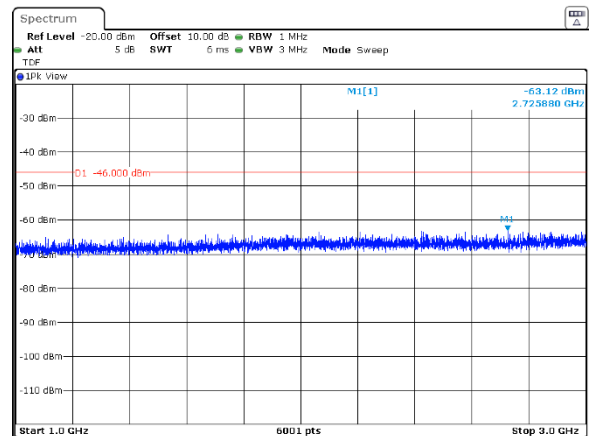
ANTENNA CHAIN: #3



QPSK  
20 MHz  
ANTENNA CHAIN: #2



ANTENNA CHAIN: #4





HERMON LABORATORIES

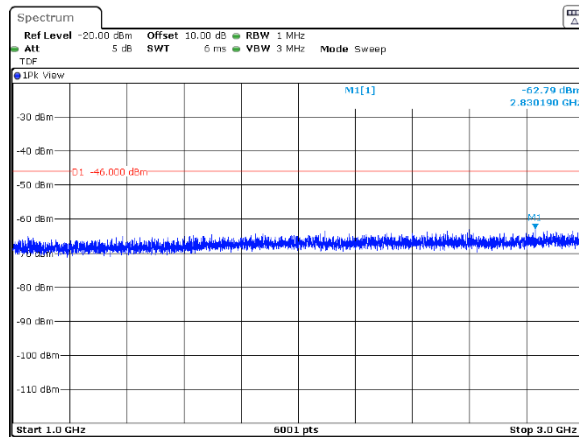
Report ID: AIRRAD\_FCC.44746\_Rev1

Date of Issue: 24-Nov-21

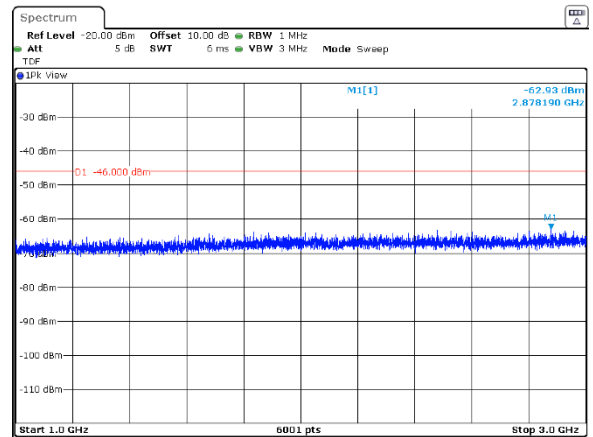
|                                                                       |                         |                        |               |
|-----------------------------------------------------------------------|-------------------------|------------------------|---------------|
| Test specification: Section 96.41(e)(3), Conducted spurious emissions |                         |                        |               |
| Test procedure: Section 96.41(e)(3)                                   |                         |                        |               |
| Test mode: Compliance                                                 |                         | Verdict: PASS          |               |
| Date(s): 16-Nov-21                                                    |                         |                        |               |
| Temperature: 24 °C                                                    | Relative Humidity: 53 % | Air Pressure: 1010 hPa | Power: 48 VDC |
| Remarks:                                                              |                         |                        |               |

Plot 7.6.11 Spurious emission measurements in 1000 - 3000 MHz range at mid carrier frequency

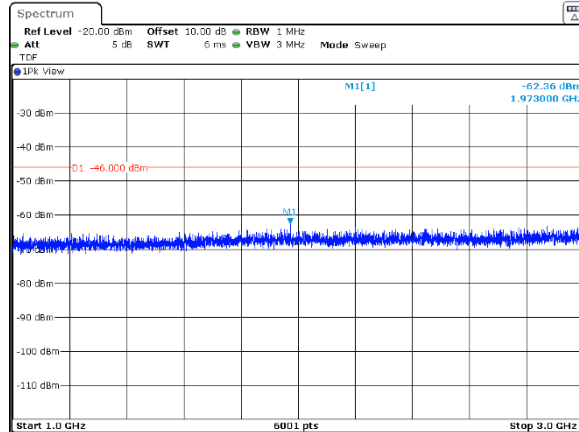
MODULATION:  
CHANNEL SPACING:  
ANTENNA CHAIN: #1



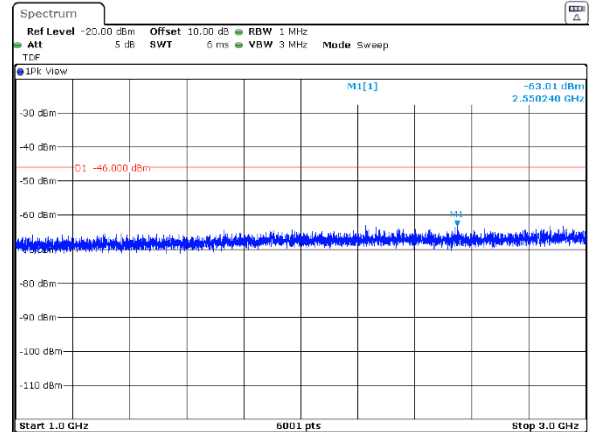
QPSK  
20 MHz  
ANTENNA CHAIN: #2



ANTENNA CHAIN: #3



ANTENNA CHAIN: #4





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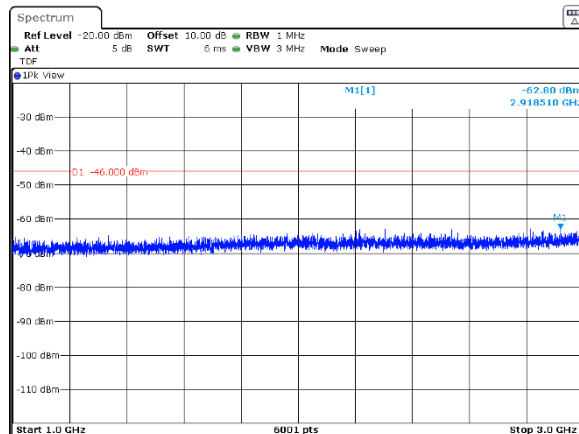
Report ID: AIRRAD\_FCC.44746\_Rev1

Date of Issue: 24-Nov-21

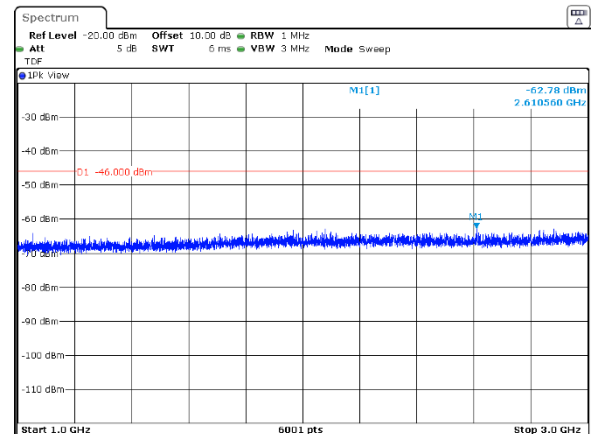
|                     |                         |                                                   |               |
|---------------------|-------------------------|---------------------------------------------------|---------------|
| Test specification: |                         | Section 96.41(e)(3), Conducted spurious emissions |               |
| Test procedure:     |                         | Section 96.41(e)(3)                               |               |
| Test mode:          |                         | Verdict: PASS                                     |               |
| Date(s):            |                         |                                                   |               |
| 16-Nov-21           |                         |                                                   |               |
| Temperature: 24 °C  | Relative Humidity: 53 % | Air Pressure: 1010 hPa                            | Power: 48 VDC |
| Remarks:            |                         |                                                   |               |

Plot 7.6.12 Spurious emission measurements in 1000 - 3000 MHz range at high carrier frequency

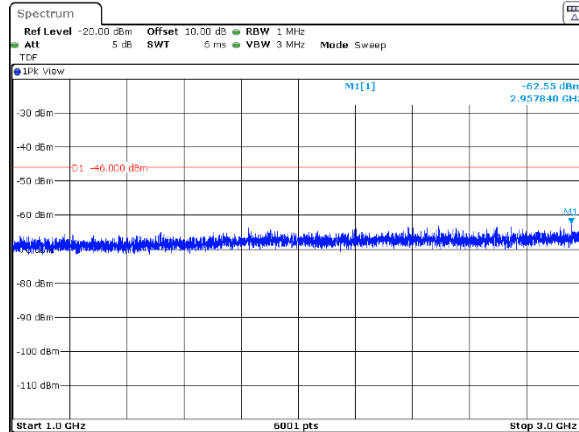
MODULATION:  
CHANNEL SPACING:  
ANTENNA CHAIN: #1



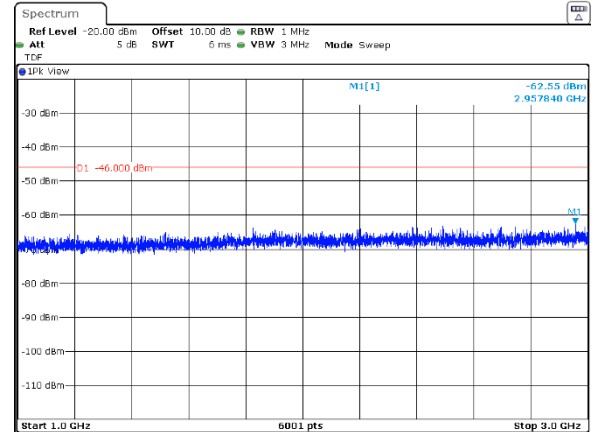
QPSK  
20 MHz  
ANTENNA CHAIN: #2



ANTENNA CHAIN: #3



ANTENNA CHAIN: #4





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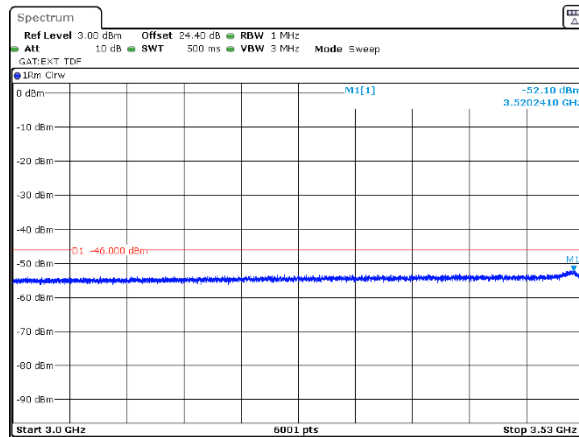
Report ID: AIRRAD\_FCC.44746\_Rev1

Date of Issue: 24-Nov-21

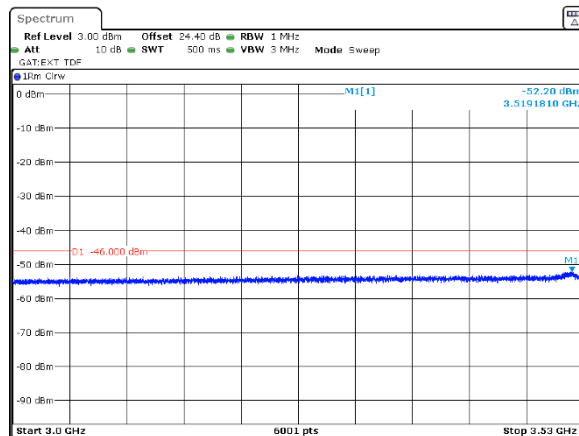
|                     |                         |                                                   |               |
|---------------------|-------------------------|---------------------------------------------------|---------------|
| Test specification: |                         | Section 96.41(e)(3), Conducted spurious emissions |               |
| Test procedure:     |                         | Section 96.41(e)(3)                               |               |
| Test mode:          |                         | Verdict: PASS                                     |               |
| Date(s):            |                         |                                                   |               |
| 16-Nov-21           |                         |                                                   |               |
| Temperature: 24 °C  | Relative Humidity: 53 % | Air Pressure: 1010 hPa                            | Power: 48 VDC |
| Remarks:            |                         |                                                   |               |

Plot 7.6.13 Spurious emission measurements in 3000 - 3530 MHz range at low carrier frequency

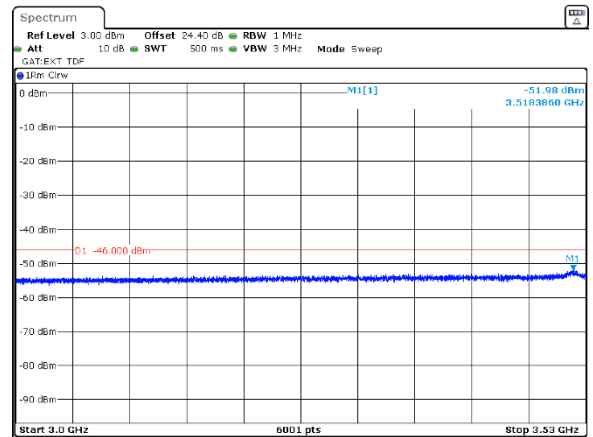
MODULATION:  
CHANNEL SPACING:  
ANTENNA CHAIN: #1



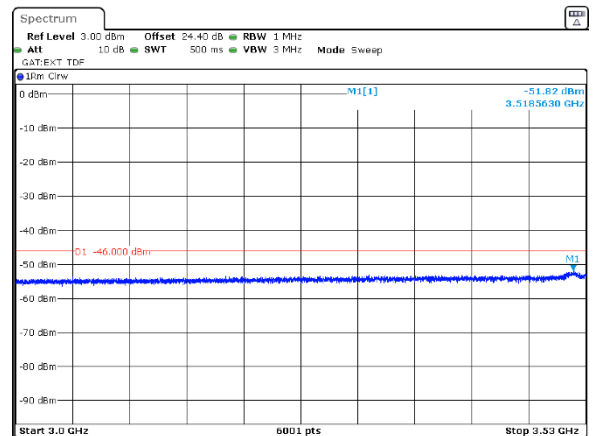
ANTENNA CHAIN: #3



QPSK  
20 MHz  
ANTENNA CHAIN: #2



ANTENNA CHAIN: #4





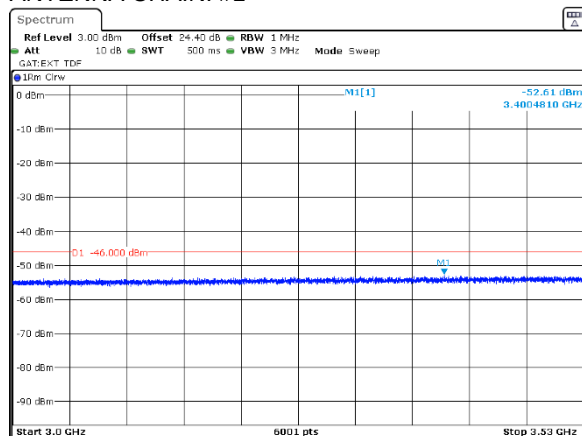
HERMON LABORATORIES

Report ID: AIRRAD\_FCC.44746\_Rev1  
Date of Issue: 24-Nov-21

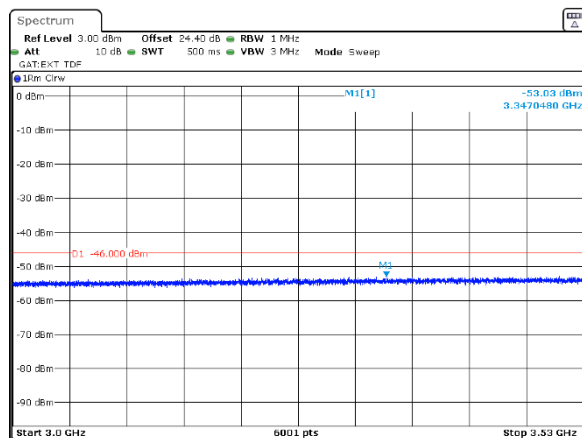
|                                                                       |                         |                        |               |
|-----------------------------------------------------------------------|-------------------------|------------------------|---------------|
| Test specification: Section 96.41(e)(3), Conducted spurious emissions |                         |                        |               |
| Test procedure: Section 96.41(e)(3)                                   |                         |                        |               |
| Test mode: Compliance                                                 |                         | Verdict: PASS          |               |
| Date(s): 16-Nov-21                                                    |                         |                        |               |
| Temperature: 24 °C                                                    | Relative Humidity: 53 % | Air Pressure: 1010 hPa | Power: 48 VDC |
| Remarks:                                                              |                         |                        |               |

Plot 7.6.14 Spurious emission measurements in 3000 - 3530 MHz range at mid carrier frequency

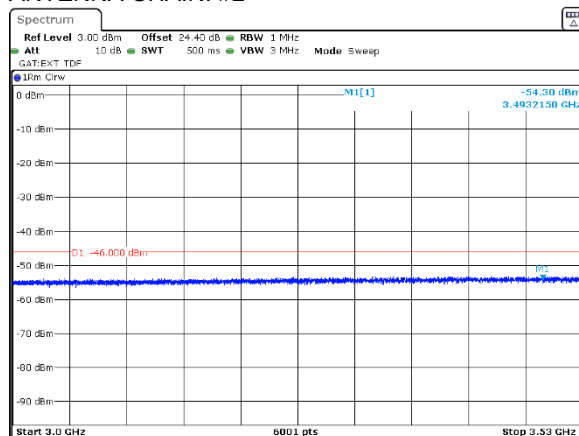
MODULATION:  
CHANNEL SPACING:  
ANTENNA CHAIN: #1



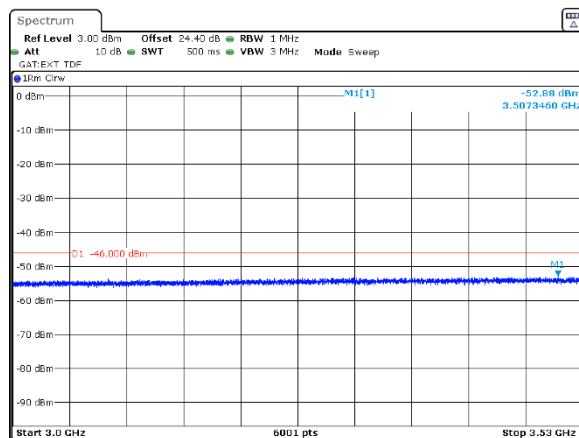
ANTENNA CHAIN: #3



QPSK  
20 MHz  
ANTENNA CHAIN: #2



ANTENNA CHAIN: #4





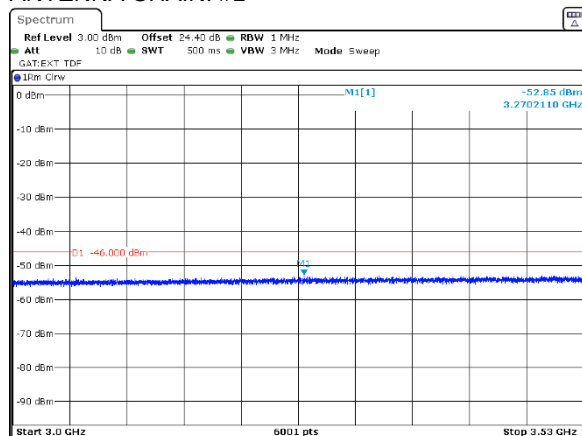
HERMON LABORATORIES

Report ID: AIRRAD\_FCC.44746\_Rev1  
Date of Issue: 24-Nov-21

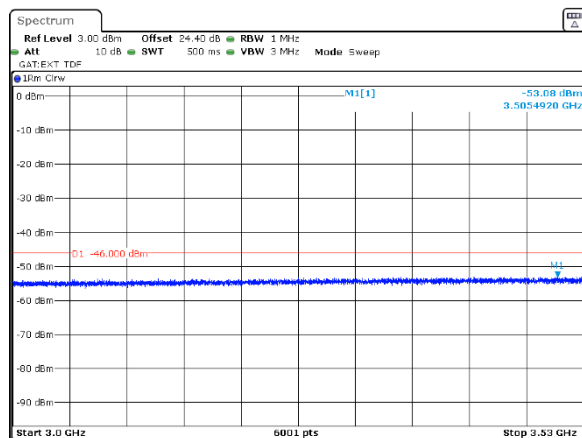
|                                                                       |                         |                        |               |
|-----------------------------------------------------------------------|-------------------------|------------------------|---------------|
| Test specification: Section 96.41(e)(3), Conducted spurious emissions |                         |                        |               |
| Test procedure: Section 96.41(e)(3)                                   |                         |                        |               |
| Test mode: Compliance                                                 |                         | Verdict: PASS          |               |
| Date(s): 16-Nov-21                                                    |                         |                        |               |
| Temperature: 24 °C                                                    | Relative Humidity: 53 % | Air Pressure: 1010 hPa | Power: 48 VDC |
| Remarks:                                                              |                         |                        |               |

Plot 7.6.15 Spurious emission measurements in 3000 - 3530 MHz range at high carrier frequency

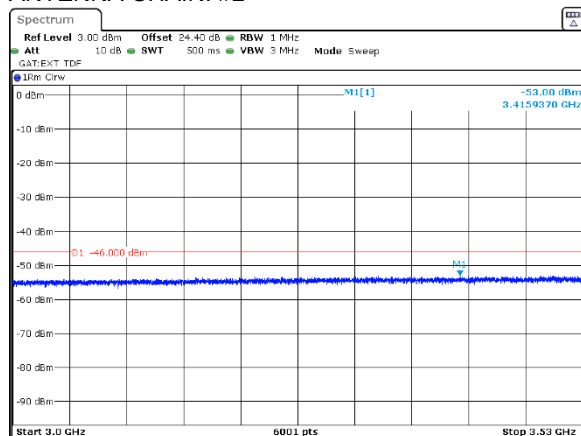
MODULATION:  
CHANNEL SPACING:  
ANTENNA CHAIN: #1



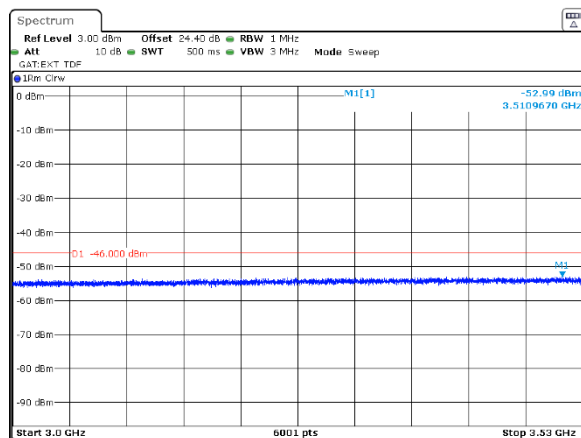
ANTENNA CHAIN: #3



QPSK  
20 MHz  
ANTENNA CHAIN: #2



ANTENNA CHAIN: #4





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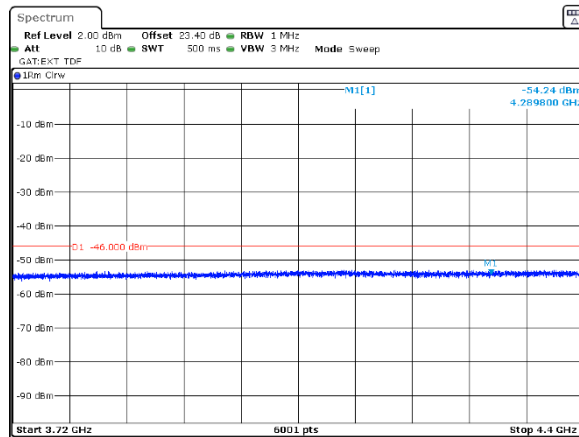
Report ID: AIRRAD\_FCC.44746\_Rev1

Date of Issue: 24-Nov-21

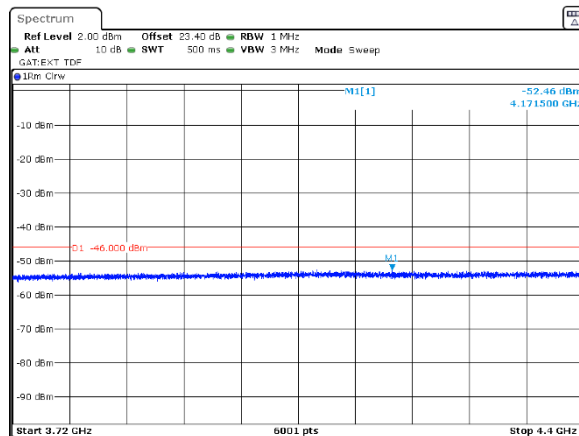
|                     |                         |                                                   |               |
|---------------------|-------------------------|---------------------------------------------------|---------------|
| Test specification: |                         | Section 96.41(e)(3), Conducted spurious emissions |               |
| Test procedure:     |                         | Section 96.41(e)(3)                               |               |
| Test mode:          |                         | Verdict: PASS                                     |               |
| Date(s):            |                         |                                                   |               |
| 16-Nov-21           |                         |                                                   |               |
| Temperature: 24 °C  | Relative Humidity: 53 % | Air Pressure: 1010 hPa                            | Power: 48 VDC |
| Remarks:            |                         |                                                   |               |

Plot 7.6.16 Spurious emission measurements in 3720 - 4400 MHz range at low carrier frequency

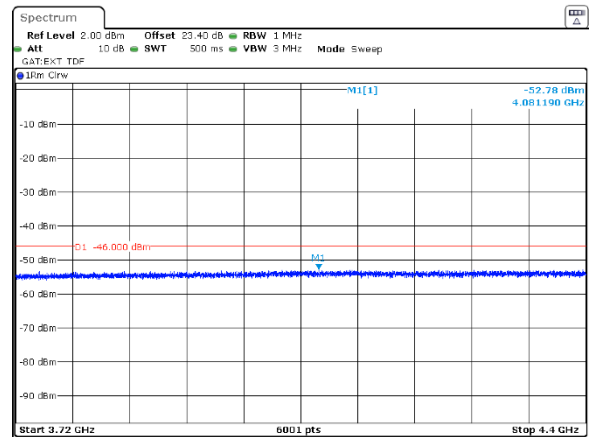
MODULATION:  
CHANNEL SPACING:  
ANTENNA CHAIN: #1



ANTENNA CHAIN: #3



QPSK  
20 MHz  
ANTENNA CHAIN: #2



ANTENNA CHAIN: #4

