

# EQUIVALENT ISOTROPIC RADIATED POWER (EIRP)



XMIT 2022.02.07.0

Testing was performed using the mode(s) of operation and configuration(s) noted within the report. The individuals and/or the organization requesting the test provided the modes, configurations and settings used to complete the evaluation. The actual test parameters are specified in the test data, this includes items such as investigated frequency range (scanned) and test levels. The testing methods and performance specifications, as well as the test site used for the evaluation are indicated in the test data.

## TEST EQUIPMENT

| Description                  | Manufacturer       | Model                 | ID  | Last Cal.  | Cal. Due   |
|------------------------------|--------------------|-----------------------|-----|------------|------------|
| Generator - Signal           | Keysight           | N5171B (EXG)          | TEY | 2019-12-31 | 2022-12-31 |
| Analyzer - Spectrum Analyzer | Keysight           | N9010A                | AFM | 2021-04-16 | 2022-04-16 |
| Cable                        | Micro-Coax         | UFD150A-1-0720-200200 | MNL | 2021-09-12 | 2022-09-12 |
| Attenuator                   | Fairview Microwave | SA18S5W-20            | RFX | 2021-06-02 | 2022-06-02 |
| Block - DC                   | Fairview Microwave | SD3379                | AMI | 2021-08-13 | 2022-08-13 |

## TEST DESCRIPTION

The measurement was made using a direct connection between the RF output of the EUT and a spectrum analyzer.

The transmit frequency was set to the required channels in each band. The transmit power was set to its default maximum.

Prior to measuring peak transmit power the DTS bandwidth (B) was measured.

The method found in ANSI C63.10:2013 Section 11.9.1.1 was used because the RBW on the analyzer was greater than the DTS Bandwidth of the radio.

Equivalent Isotropic Radiated Power (EIRP) = Max Measured Power + Antenna gain (dBi)

# EQUIVALENT ISOTROPIC RADIATED POWER (EIRP)



TSTx 2021.12.14.1 XMR 2022.02.07.0

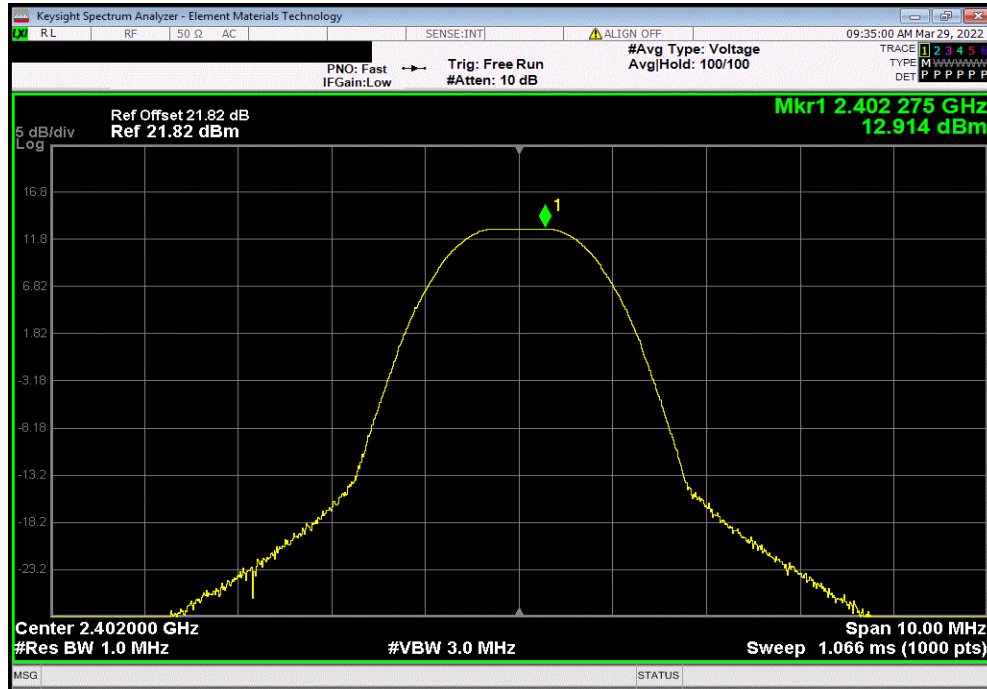
|                                                                                                    |   |                                 |                    |        |    |      |
|----------------------------------------------------------------------------------------------------|---|---------------------------------|--------------------|--------|----|------|
| EUT: SLATESAFETY BAND V2                                                                           |   | Work Order: FITY0001            |                    |        |    |      |
| Serial Number: 6563                                                                                |   | Date: 29-Mar-22                 |                    |        |    |      |
| Customer: FireHUD Inc. DBA SlateSafety                                                             |   | Temperature: 24.4 °C            |                    |        |    |      |
| Attendees: Dustin Morris                                                                           |   | Humidity: 19.9% RH              |                    |        |    |      |
| Project: None                                                                                      |   | Barometric Pres.: 1015 mbar     |                    |        |    |      |
| Tested by: Andrew Rogstad, Christopher Heintzelman                                                 |   | Power: 110VAC/60Hz              |                    |        |    |      |
| Job Site: MN08                                                                                     |   |                                 |                    |        |    |      |
| TEST SPECIFICATIONS                                                                                |   | Test Method                     |                    |        |    |      |
| FCC 15.247:2022                                                                                    |   | ANSI C63.10:2013                |                    |        |    |      |
| COMMENTS                                                                                           |   |                                 |                    |        |    |      |
| Reference level offset accounts for measurement cable, DC block, attenuator, and customer's cable. |   |                                 |                    |        |    |      |
| DEVIATIONS FROM TEST STANDARD                                                                      |   |                                 |                    |        |    |      |
| None                                                                                               |   |                                 |                    |        |    |      |
| Configuration #                                                                                    | 1 | Signature <i>Andrew Rogstad</i> |                    |        |    |      |
|                                                                                                    |   | Out Pwr (dBm)                   | Antenna Gain (dBi) |        |    |      |
|                                                                                                    |   | EIRP (dBm)                      | EIRP Limit (dBm)   |        |    |      |
|                                                                                                    |   |                                 | Result             |        |    |      |
| BLE/GFSK 125 kbps Low Channel, 2402 MHz                                                            |   | 12.914                          | 2.5                | 15.414 | 36 | Pass |
| BLE/GFSK 125 kbps Mid Channel, 2442 MHz                                                            |   | 13.195                          | 2.5                | 15.695 | 36 | Pass |
| BLE/GFSK 125 kbps High Channel, 2480 MHz                                                           |   | 12.994                          | 2.5                | 15.494 | 36 | Pass |
| BLE/GFSK 1 Mbps Low Channel, 2402 MHz                                                              |   | 18.678                          | 2.5                | 21.178 | 36 | Pass |
| BLE/GFSK 1 Mbps Mid Channel, 2442 MHz                                                              |   | 18.949                          | 2.5                | 21.449 | 36 | Pass |
| BLE/GFSK 1 Mbps High Channel, 2480 MHz                                                             |   | 18.794                          | 2.5                | 21.294 | 36 | Pass |
| BLE/GFSK 2 Mbps Low Channel, 2402 MHz                                                              |   | 18.754                          | 2.5                | 21.254 | 36 | Pass |
| BLE/GFSK 2 Mbps Mid Channel, 2442 MHz                                                              |   | 18.957                          | 2.5                | 21.457 | 36 | Pass |
| BLE/GFSK 2 Mbps High Channel, 2480 MHz                                                             |   | 18.835                          | 2.5                | 21.335 | 36 | Pass |

# EQUIVALENT ISOTROPIC RADIATED POWER (EIRP)

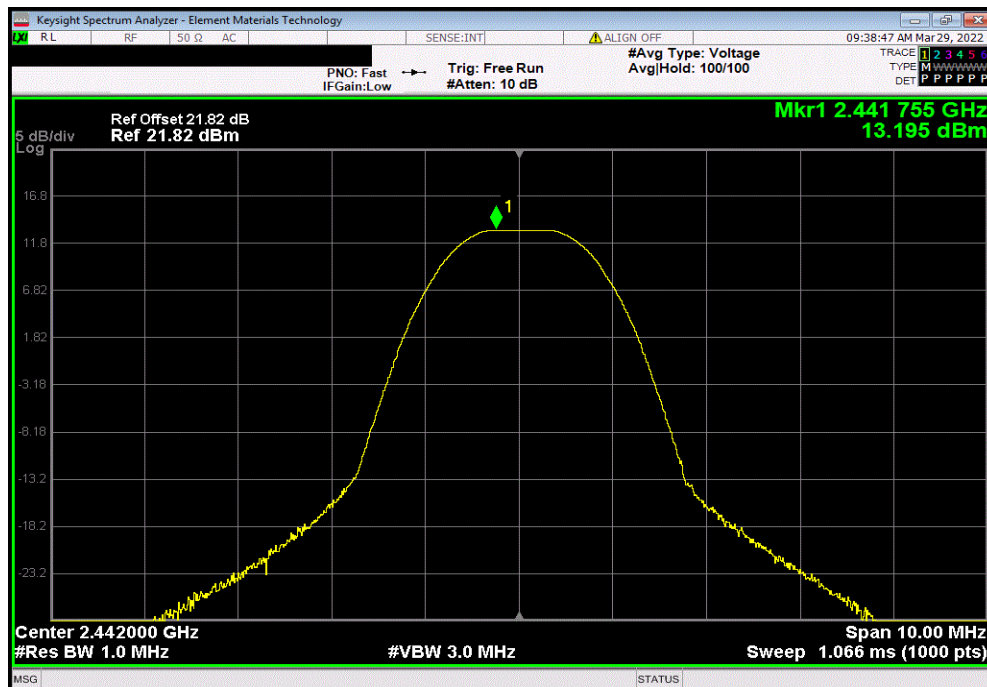


TbTx 2021.12.14.1 XMt 2022.02.07.0

| BLE/GFSK 125 kbps Low Channel, 2402 MHz |                  |                       |               |                     |        |  |
|-----------------------------------------|------------------|-----------------------|---------------|---------------------|--------|--|
|                                         | Out Pwr<br>(dBm) | Antenna<br>Gain (dBi) | EIRP<br>(dBm) | EIRP Limit<br>(dBm) | Result |  |
|                                         | 12.914           | 2.5                   | 15.414        | 36                  | Pass   |  |



| BLE/GFSK 125 kbps Mid Channel, 2442 MHz |                  |                       |               |                     |        |  |
|-----------------------------------------|------------------|-----------------------|---------------|---------------------|--------|--|
|                                         | Out Pwr<br>(dBm) | Antenna<br>Gain (dBi) | EIRP<br>(dBm) | EIRP Limit<br>(dBm) | Result |  |
|                                         | 13.195           | 2.5                   | 15.695        | 36                  | Pass   |  |

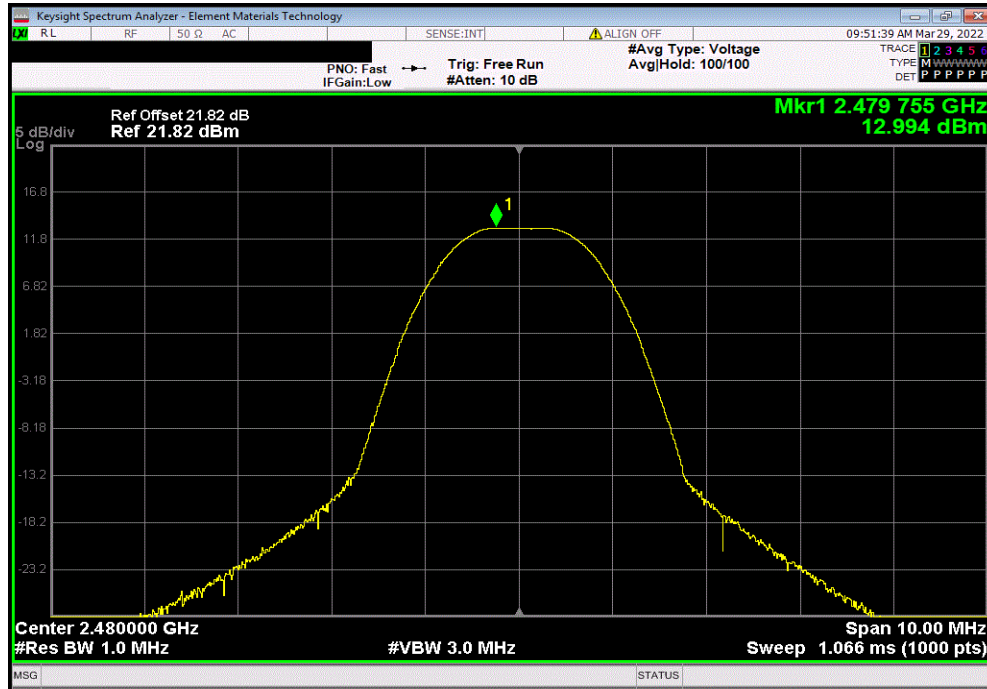


# EQUIVALENT ISOTROPIC RADIATED POWER (EIRP)

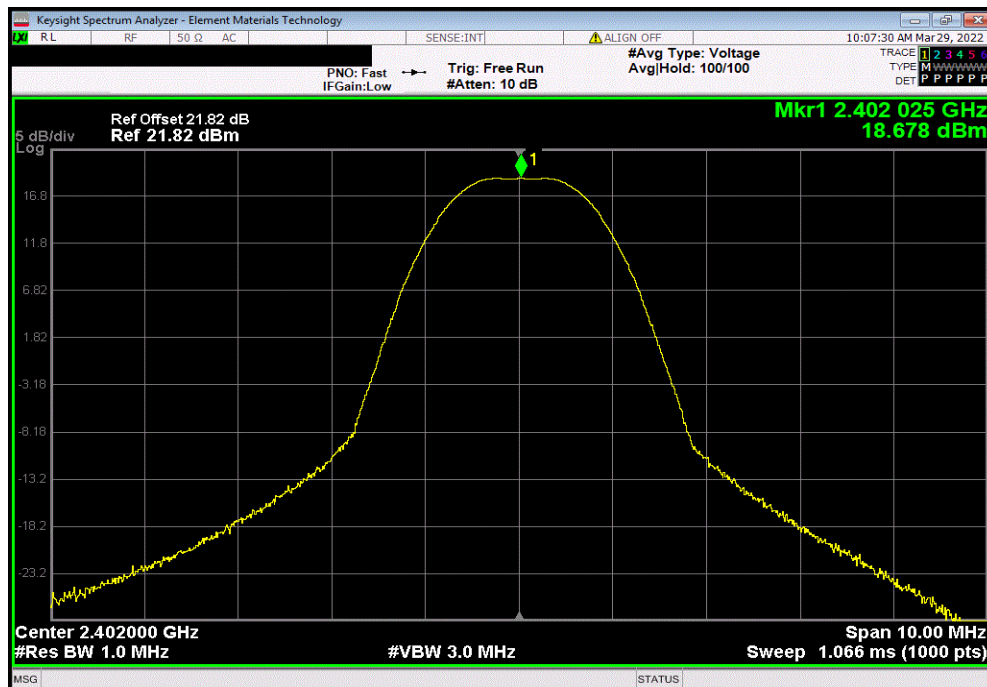


TbTx 2021.12.14.1 XMt 2022.02.07.0

| BLE/GFSK 125 kbps High Channel, 2480 MHz |               |                    |            |                  |        |  |
|------------------------------------------|---------------|--------------------|------------|------------------|--------|--|
|                                          | Out Pwr (dBm) | Antenna Gain (dBi) | EIRP (dBm) | EIRP Limit (dBm) | Result |  |
|                                          | 12.994        | 2.5                | 15.494     | 36               | Pass   |  |



| BLE/GFSK 1 Mbps Low Channel, 2402 MHz |               |                    |            |                  |        |  |
|---------------------------------------|---------------|--------------------|------------|------------------|--------|--|
|                                       | Out Pwr (dBm) | Antenna Gain (dBi) | EIRP (dBm) | EIRP Limit (dBm) | Result |  |
|                                       | 18.678        | 2.5                | 21.178     | 36               | Pass   |  |

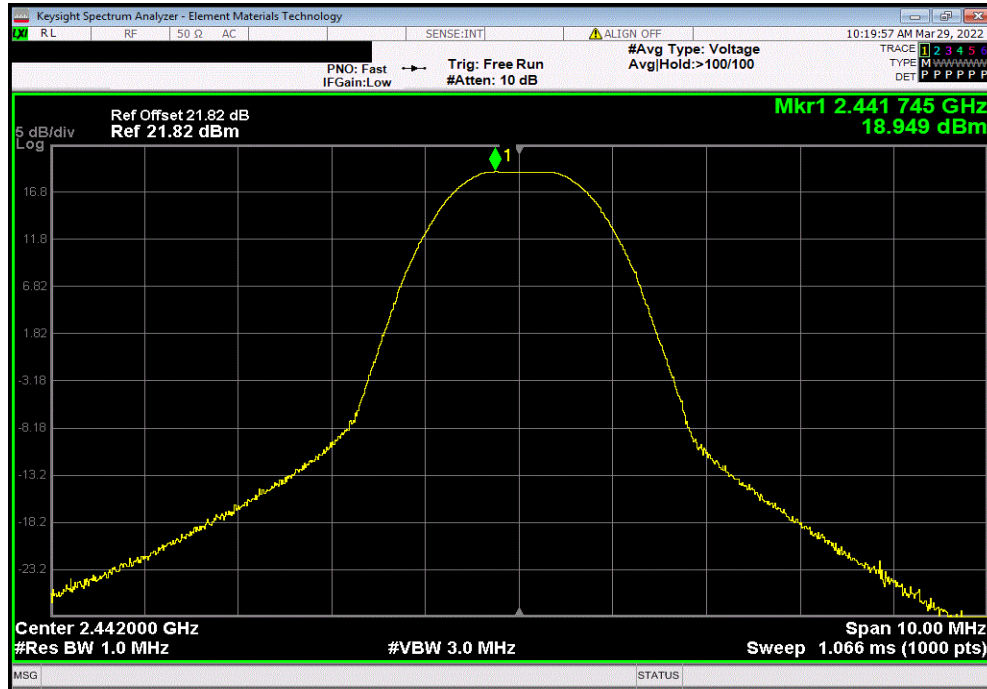


# EQUIVALENT ISOTROPIC RADIATED POWER (EIRP)

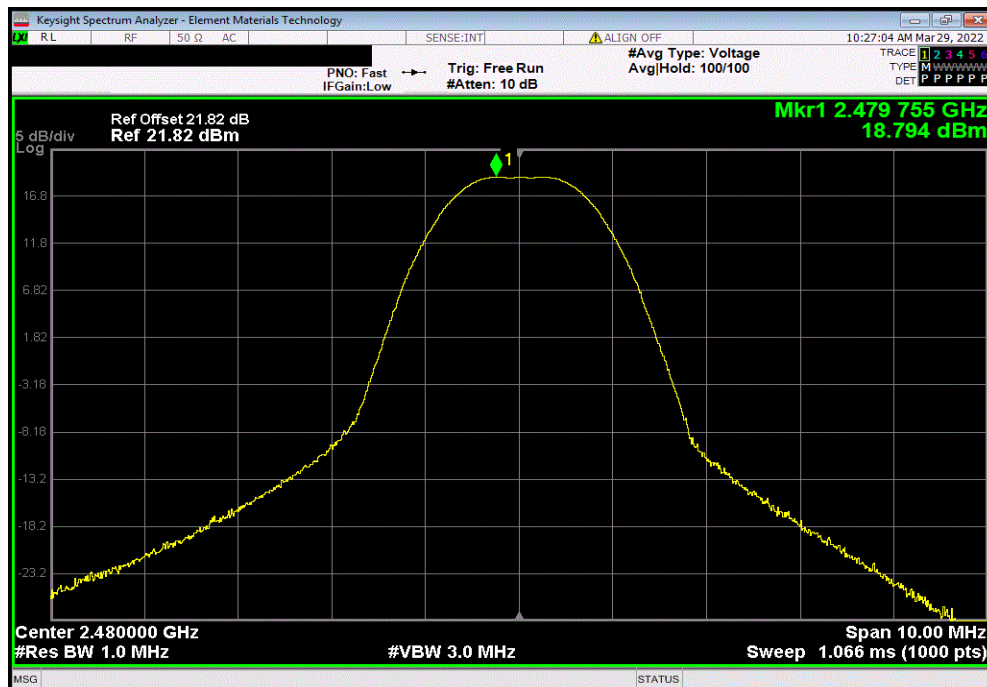


TbTx 2021.12.14.1 XMt 2022.02.07.0

| BLE/GFSK 1 Mbps Mid Channel, 2442 MHz |               |                    |            |                  |        |  |
|---------------------------------------|---------------|--------------------|------------|------------------|--------|--|
|                                       | Out Pwr (dBm) | Antenna Gain (dBi) | EIRP (dBm) | EIRP Limit (dBm) | Result |  |
|                                       | 18.949        | 2.5                | 21.449     | 36               | Pass   |  |



| BLE/GFSK 1 Mbps High Channel, 2480 MHz |               |                    |            |                  |        |  |
|----------------------------------------|---------------|--------------------|------------|------------------|--------|--|
|                                        | Out Pwr (dBm) | Antenna Gain (dBi) | EIRP (dBm) | EIRP Limit (dBm) | Result |  |
|                                        | 18.794        | 2.5                | 21.294     | 36               | Pass   |  |

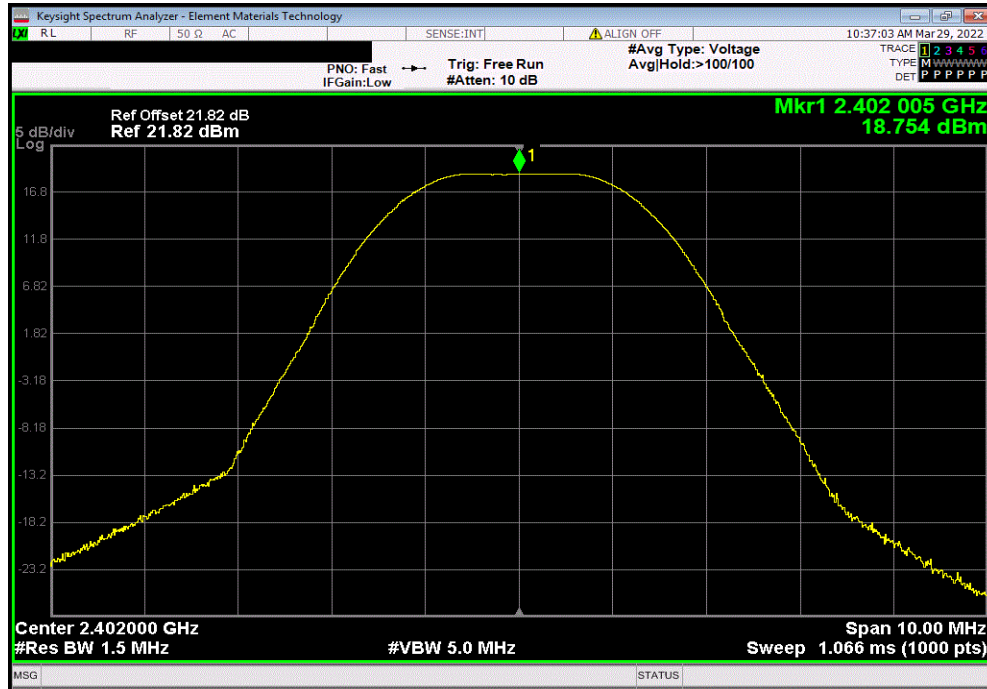


# EQUIVALENT ISOTROPIC RADIATED POWER (EIRP)

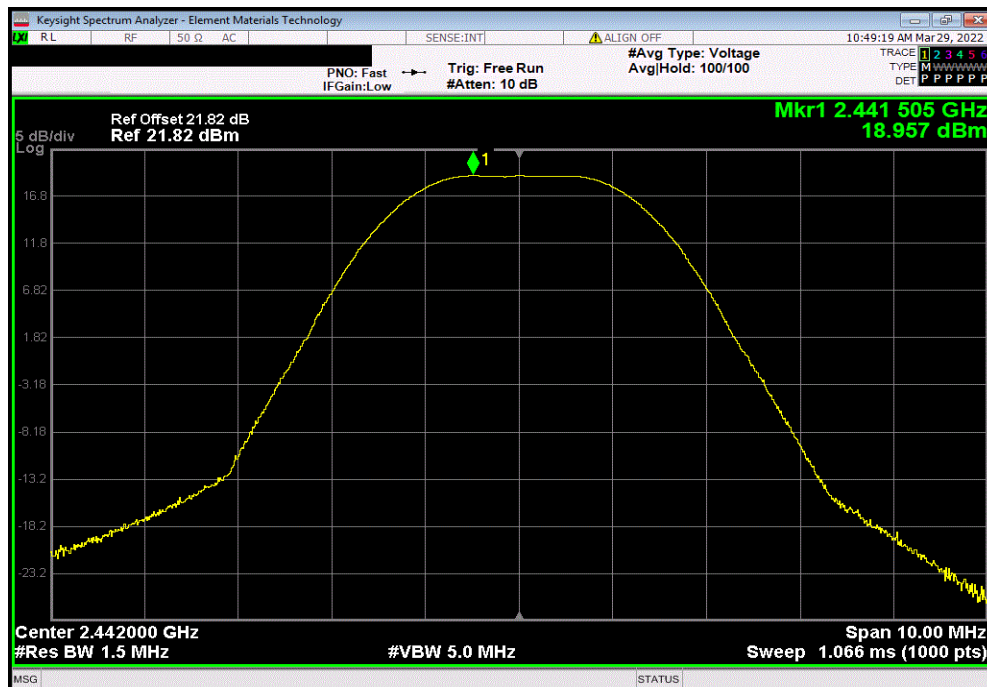


TbTx 2021.12.14.1 XMt 2022.02.07.0

| BLE/GFSK 2 Mbps Low Channel, 2402 MHz |               |                    |            |                  |        |  |
|---------------------------------------|---------------|--------------------|------------|------------------|--------|--|
|                                       | Out Pwr (dBm) | Antenna Gain (dBi) | EIRP (dBm) | EIRP Limit (dBm) | Result |  |
|                                       | 18.754        | 2.5                | 21.254     | 36               | Pass   |  |



| BLE/GFSK 2 Mbps Mid Channel, 2442 MHz |               |                    |            |                  |        |  |
|---------------------------------------|---------------|--------------------|------------|------------------|--------|--|
|                                       | Out Pwr (dBm) | Antenna Gain (dBi) | EIRP (dBm) | EIRP Limit (dBm) | Result |  |
|                                       | 18.957        | 2.5                | 21.457     | 36               | Pass   |  |

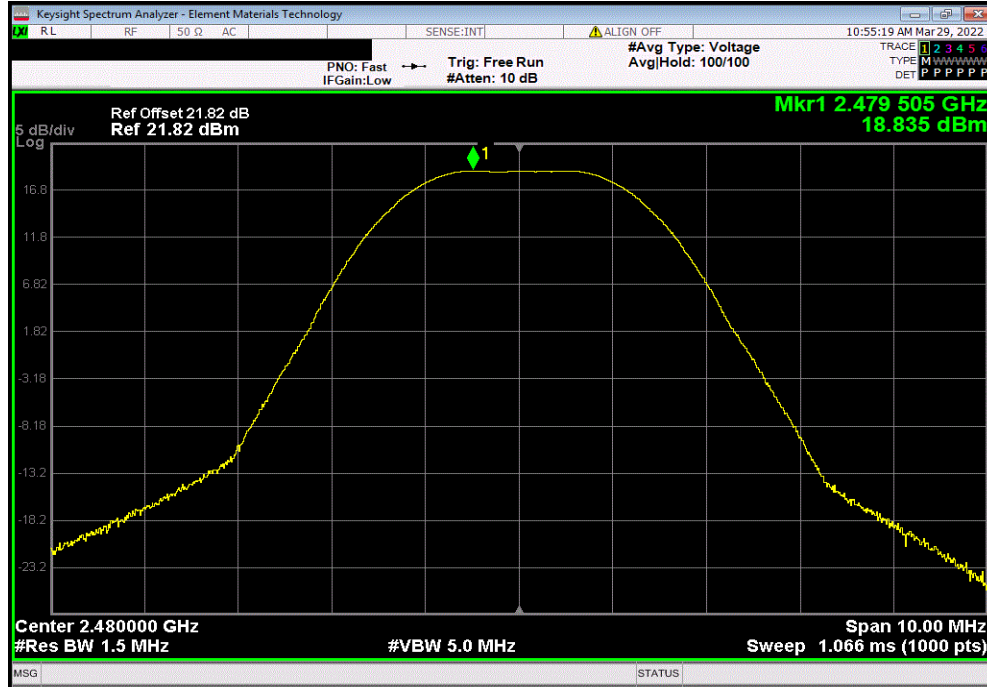


# EQUIVALENT ISOTROPIC RADIATED POWER (EIRP)



TbTx 2021.12.14.1 XMt 2022.02.07.0

| BLE/GFSK 2 Mbps High Channel, 2480 MHz |                    |            |                  |        |  |
|----------------------------------------|--------------------|------------|------------------|--------|--|
| Out Pwr (dBm)                          | Antenna Gain (dBi) | EIRP (dBm) | EIRP Limit (dBm) | Result |  |
| 18.835                                 | 2.5                | 21.335     | 36               | Pass   |  |



# POWER SPECTRAL DENSITY



XMIT 2022.02.07.0

Testing was performed using the mode(s) of operation and configuration(s) noted within the report. The individuals and/or the organization requesting the test provided the modes, configurations and settings used to complete the evaluation. The actual test parameters are specified in the test data, this includes items such as investigated frequency range (scanned) and test levels. The testing methods and performance specifications, as well as the test site used for the evaluation are indicated in the test data.

## TEST EQUIPMENT

| Description                  | Manufacturer       | Model                 | ID  | Last Cal.  | Cal. Due   |
|------------------------------|--------------------|-----------------------|-----|------------|------------|
| Generator - Signal           | Keysight           | N5171B (EXG)          | TEY | 2019-12-31 | 2022-12-31 |
| Cable                        | Micro-Coax         | UFD150A-1-0720-200200 | MNL | 2021-09-12 | 2022-09-12 |
| Attenuator                   | Fairview Microwave | SA18S5W-20            | RFX | 2021-06-02 | 2022-06-02 |
| Block - DC                   | Fairview Microwave | SD3379                | AMI | 2021-08-13 | 2022-08-13 |
| Analyzer - Spectrum Analyzer | Keysight           | N9010A                | AFM | 2021-04-16 | 2022-04-16 |

## TEST DESCRIPTION

The measurement was made using a direct connection between the RF output of the EUT and a spectrum analyzer.

The maximum power spectral density measurements was measured using the channels and modes as called out on the following data sheets.

Per the procedure outlined in ANSI C63.10 the peak power spectral density was measured in a 3 kHz RBW.

# POWER SPECTRAL DENSITY



TSTx 2021.12.14.1 XMR 2022.02.07.0

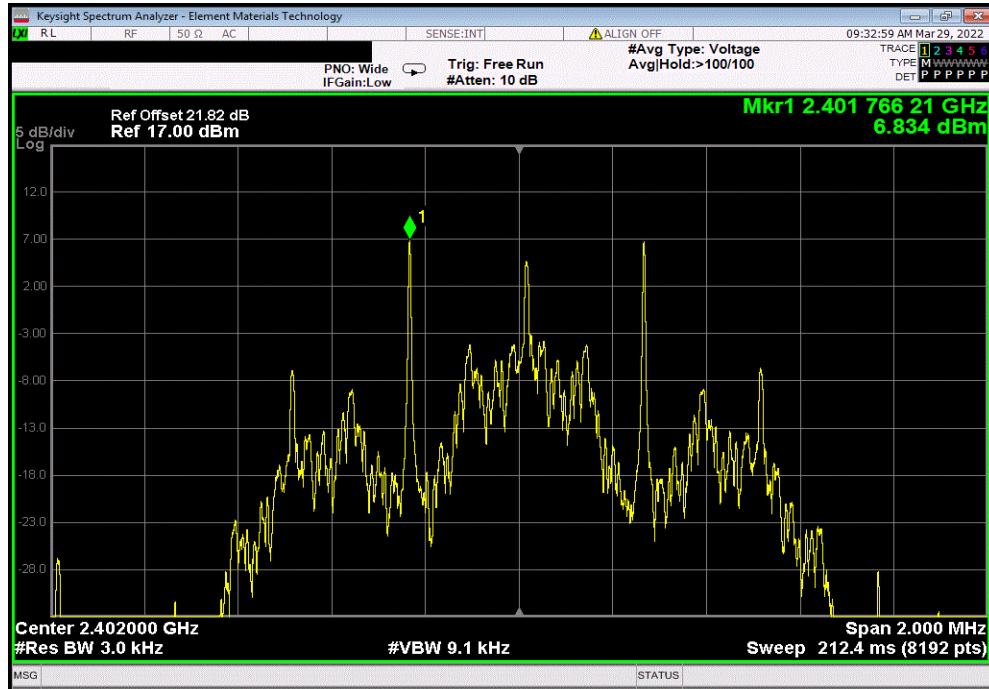
|                                                                                                    |   |                                 |                     |
|----------------------------------------------------------------------------------------------------|---|---------------------------------|---------------------|
| EUT: SLATESAFETY BAND V2                                                                           |   | Work Order: FITY0001            |                     |
| Serial Number: 6563                                                                                |   | Date: 29-Mar-22                 |                     |
| Customer: FireHUD Inc. DBA SlateSafety                                                             |   | Temperature: 24.4 °C            |                     |
| Attendees: Dustin Morris                                                                           |   | Humidity: 20% RH                |                     |
| Project: None                                                                                      |   | Barometric Pres.: 1015 mbar     |                     |
| Tested by: Andrew Rogstad, Christopher Heintzelman                                                 |   | Power: 110VAC/60Hz              |                     |
|                                                                                                    |   | Job Site: MN08                  |                     |
| TEST SPECIFICATIONS                                                                                |   | Test Method                     |                     |
| FCC 15.247:2022                                                                                    |   | ANSI C63.10:2013                |                     |
| COMMENTS                                                                                           |   |                                 |                     |
| Reference level offset accounts for measurement cable, DC block, attenuator, and customer's cable. |   |                                 |                     |
| DEVIATIONS FROM TEST STANDARD                                                                      |   |                                 |                     |
| None                                                                                               |   |                                 |                     |
| Configuration #                                                                                    | 1 | Signature <i>Andrew Rogstad</i> |                     |
|                                                                                                    |   | Value<br>dBm/3kHz               | Limit<br>< dBm/3kHz |
| BLE/GFSK 125 kbps Low Channel, 2402 MHz                                                            |   | 6.834                           | 8                   |
| BLE/GFSK 125 kbps Mid Channel, 2442 MHz                                                            |   | 7.172                           | 8                   |
| BLE/GFSK 125 kbps High Channel, 2480 MHz                                                           |   | 6.985                           | 8                   |
| BLE/GFSK 1 Mbps Low Channel, 2402 MHz                                                              |   | 2.046                           | 8                   |
| BLE/GFSK 1 Mbps Mid Channel, 2442 MHz                                                              |   | 2.185                           | 8                   |
| BLE/GFSK 1 Mbps High Channel, 2480 MHz                                                             |   | 2.147                           | 8                   |
| BLE/GFSK 2 Mbps Low Channel, 2402 MHz                                                              |   | 0.303                           | 8                   |
| BLE/GFSK 2 Mbps Mid Channel, 2442 MHz                                                              |   | 0.489                           | 8                   |
| BLE/GFSK 2 Mbps High Channel, 2480 MHz                                                             |   | 0.372                           | 8                   |
|                                                                                                    |   |                                 | Results             |
|                                                                                                    |   |                                 | Pass                |
|                                                                                                    |   |                                 | Pass                |
|                                                                                                    |   |                                 | Pass                |
|                                                                                                    |   |                                 | Pass                |
|                                                                                                    |   |                                 | Pass                |
|                                                                                                    |   |                                 | Pass                |
|                                                                                                    |   |                                 | Pass                |
|                                                                                                    |   |                                 | Pass                |

# POWER SPECTRAL DENSITY

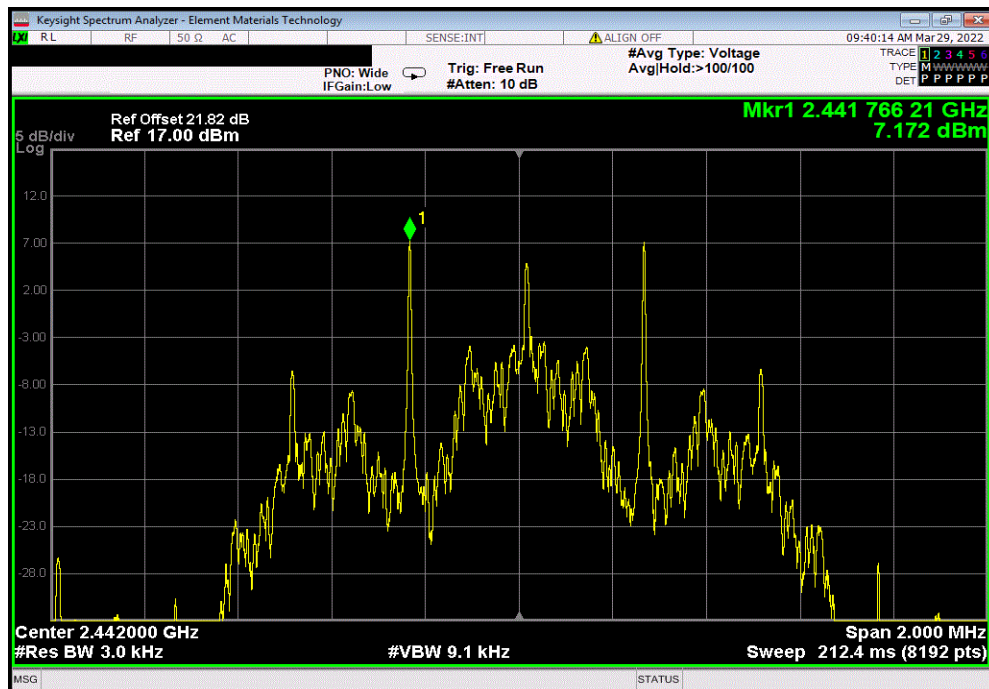


TbTx 2021.12.14.1 XMt 2022.02.07.0

| BLE/GFSK 125 kbps Low Channel, 2402 MHz |          |            |         |  |  |  |
|-----------------------------------------|----------|------------|---------|--|--|--|
|                                         | Value    | Limit      | Results |  |  |  |
|                                         | dBm/3kHz | < dBm/3kHz |         |  |  |  |
|                                         | 6.834    | 8          | Pass    |  |  |  |



| BLE/GFSK 125 kbps Mid Channel, 2442 MHz |          |            |         |  |  |  |
|-----------------------------------------|----------|------------|---------|--|--|--|
|                                         | Value    | Limit      | Results |  |  |  |
|                                         | dBm/3kHz | < dBm/3kHz |         |  |  |  |
|                                         | 7.172    | 8          | Pass    |  |  |  |

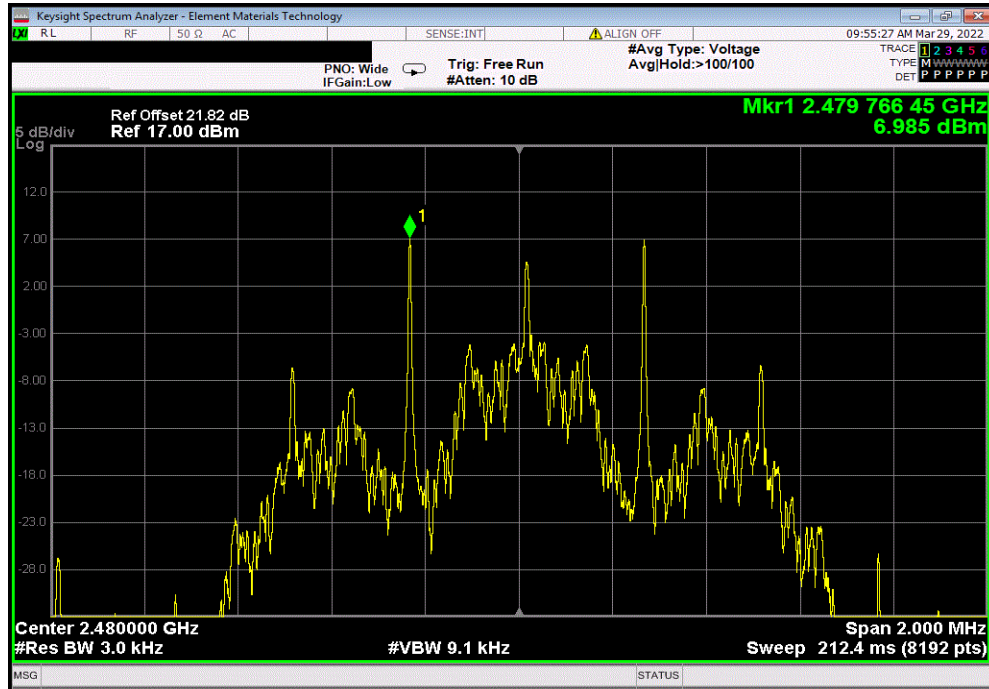


# POWER SPECTRAL DENSITY

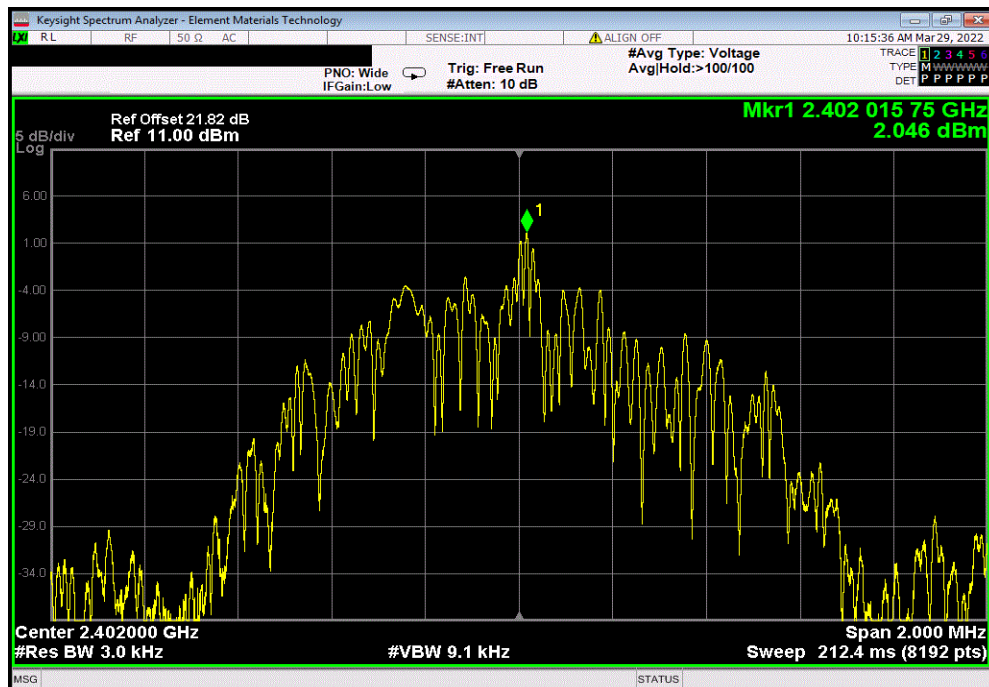


TbTb 2021.12.14.1 XMt 2022.02.07.0

| BLE/GFSK 125 kbps High Channel, 2480 MHz |          |            |         |  |  |  |
|------------------------------------------|----------|------------|---------|--|--|--|
|                                          | Value    | Limit      | Results |  |  |  |
|                                          | dBm/3kHz | < dBm/3kHz |         |  |  |  |
|                                          | 6.985    | 8          | Pass    |  |  |  |



| BLE/GFSK 1 Mbps Low Channel, 2402 MHz |          |            |         |  |  |  |
|---------------------------------------|----------|------------|---------|--|--|--|
|                                       | Value    | Limit      | Results |  |  |  |
|                                       | dBm/3kHz | < dBm/3kHz |         |  |  |  |
|                                       | 2.046    | 8          | Pass    |  |  |  |

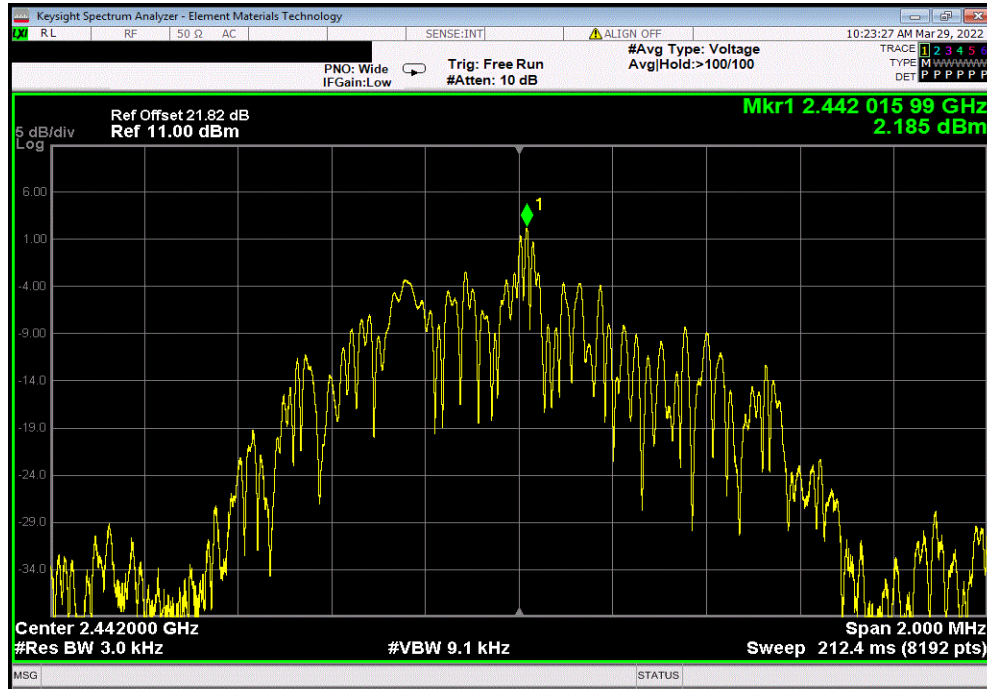


# POWER SPECTRAL DENSITY

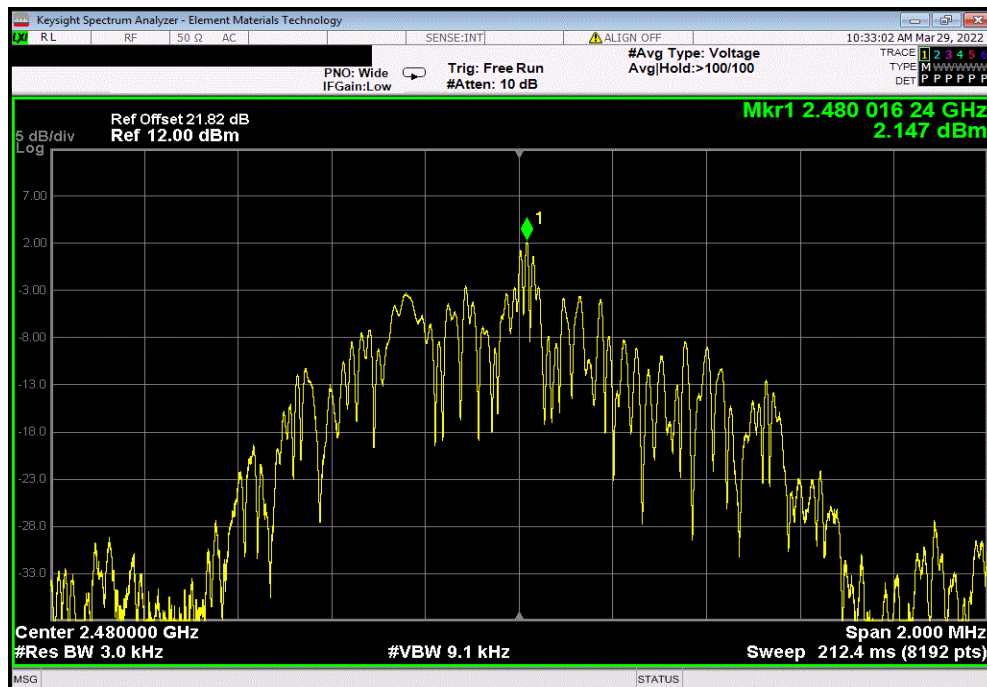


TbTtx 2021.12.14.1 XMR 2022.02.07.0

| BLE/GFSK 1 Mbps Mid Channel, 2442 MHz |          |            |         |  |  |  |
|---------------------------------------|----------|------------|---------|--|--|--|
|                                       | Value    | Limit      |         |  |  |  |
|                                       | dBm/3kHz | < dBm/3kHz | Results |  |  |  |
|                                       | 2.185    | 8          | Pass    |  |  |  |



| BLE/GFSK 1 Mbps High Channel, 2480 MHz |          |            |         |  |  |  |
|----------------------------------------|----------|------------|---------|--|--|--|
|                                        | Value    | Limit      |         |  |  |  |
|                                        | dBm/3kHz | < dBm/3kHz | Results |  |  |  |
|                                        | 2.147    | 8          | Pass    |  |  |  |

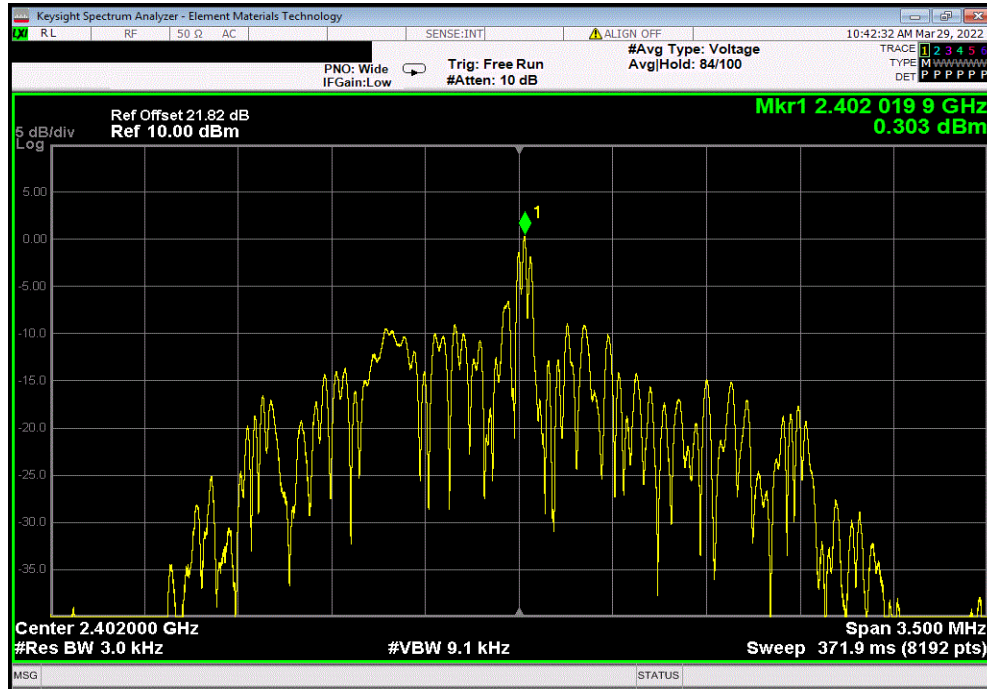


# POWER SPECTRAL DENSITY

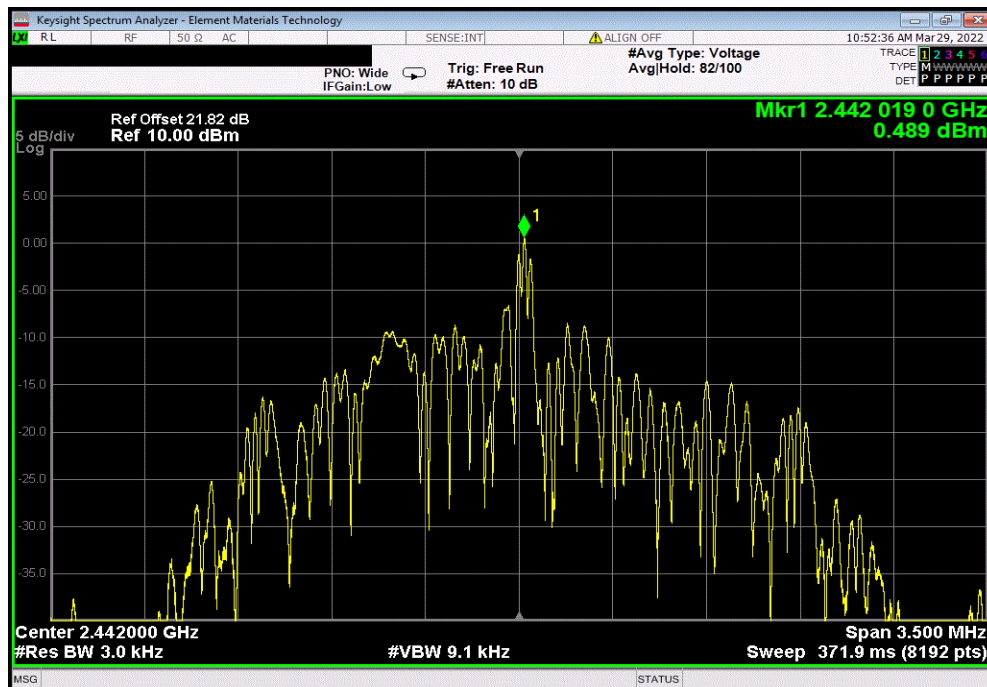


TbTb 2021.12.14.1 XMR 2022.02.07.0

| BLE/GFSK 2 Mbps Low Channel, 2402 MHz |          |            |         |  |  |  |
|---------------------------------------|----------|------------|---------|--|--|--|
|                                       | Value    | Limit      | Results |  |  |  |
|                                       | dBm/3kHz | < dBm/3kHz |         |  |  |  |
|                                       | 0.303    | 8          | Pass    |  |  |  |



| BLE/GFSK 2 Mbps Mid Channel, 2442 MHz |          |            |         |  |  |  |
|---------------------------------------|----------|------------|---------|--|--|--|
|                                       | Value    | Limit      | Results |  |  |  |
|                                       | dBm/3kHz | < dBm/3kHz |         |  |  |  |
|                                       | 0.489    | 8          | Pass    |  |  |  |

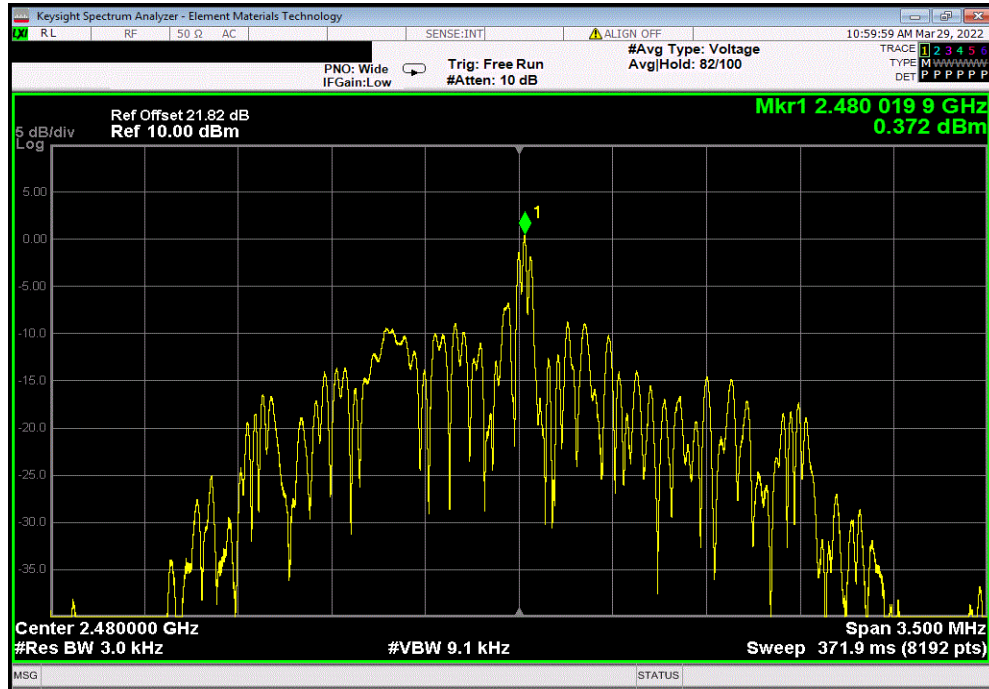


# POWER SPECTRAL DENSITY



TbTx 2021.12.14.1 XMR 2022.02.07.0

| BLE/GFSK 2 Mbps High Channel, 2480 MHz |          |            |         |  |  |  |
|----------------------------------------|----------|------------|---------|--|--|--|
|                                        | Value    | Limit      |         |  |  |  |
|                                        | dBm/3kHz | < dBm/3kHz | Results |  |  |  |
|                                        | 0.372    | 8          | Pass    |  |  |  |



# BAND EDGE COMPLIANCE



XMit 2022.02.07.0

Testing was performed using the mode(s) of operation and configuration(s) noted within the report. The individuals and/or the organization requesting the test provided the modes, configurations and settings used to complete the evaluation. The actual test parameters are specified in the test data, this includes items such as investigated frequency range (scanned) and test levels. The testing methods and performance specifications, as well as the test site used for the evaluation are indicated in the test data.

## TEST EQUIPMENT

| Description                  | Manufacturer       | Model            | ID  | Last Cal.  | Cal. Due   |
|------------------------------|--------------------|------------------|-----|------------|------------|
| Generator - Signal           | Keysight           | N5171B (EXG)     | TEY | 2019-12-31 | 2022-12-31 |
| Cable                        | Micro-Coax         | D150A-1-0720-200 | MNL | 2021-09-12 | 2022-09-12 |
| Attenuator                   | Fairview Microwave | SA18S5W-20       | RFX | 2021-06-02 | 2022-06-02 |
| Block - DC                   | Fairview Microwave | SD3379           | AMI | 2021-08-13 | 2022-08-13 |
| Analyzer - Spectrum Analyzer | Keysight           | N9010A           | AFM | 2021-04-16 | 2022-04-16 |

## TEST DESCRIPTION

The measurement was made using a direct connection between the RF output of the EUT and a spectrum analyzer.

The spurious RF conducted emissions at the edges of the authorized bands were measured with the EUT set to low and high transmit frequencies in each available band. The channels closest to the band edges were selected. The EUT was transmitting at the data rate(s) listed in the datasheet.

The spectrum was scanned below the lower band edge and above the higher band edge.

# BAND EDGE COMPLIANCE



TSTx 2021.12.14.1 XMR 2022.02.07.0

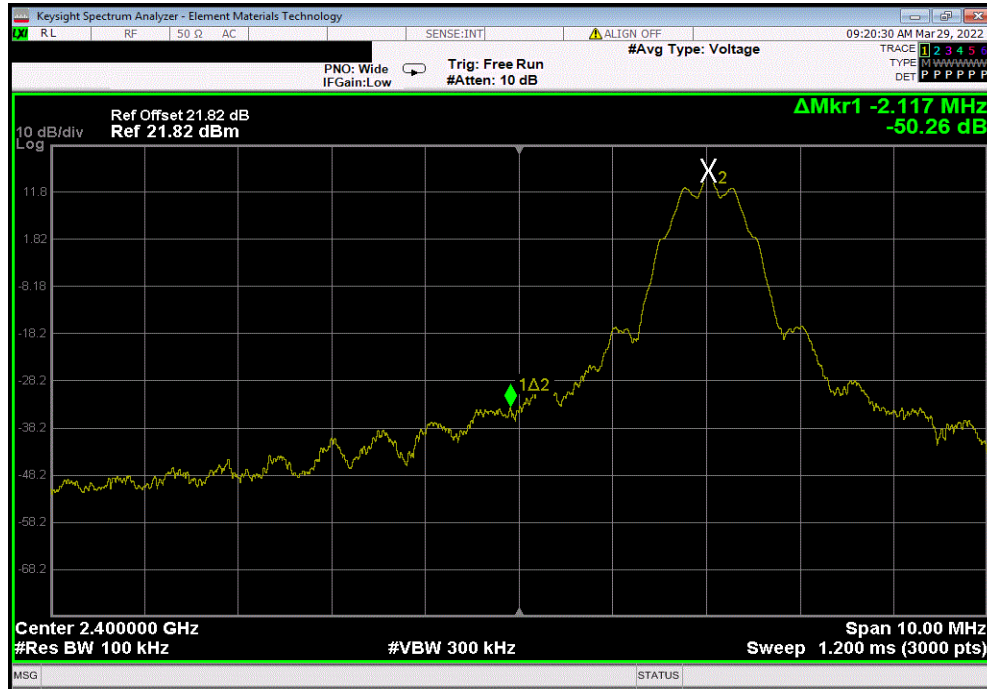
|                                                                                                    |   |                                 |                      |
|----------------------------------------------------------------------------------------------------|---|---------------------------------|----------------------|
| EUT: SLATESAFETY BAND V2                                                                           |   | Work Order: FITY0001            |                      |
| Serial Number: 6563                                                                                |   | Date: 29-Mar-22                 |                      |
| Customer: FireHUD Inc. DBA SlateSafety                                                             |   | Temperature: 24.4 °C            |                      |
| Attendees: Dustin Morris                                                                           |   | Humidity: 20% RH                |                      |
| Project: None                                                                                      |   | Barometric Pres.: 1015 mbar     |                      |
| Tested by: Andrew Rogstad, Christopher Heintzelman                                                 |   | Power: 110VAC/60Hz              |                      |
|                                                                                                    |   | Job Site: MN08                  |                      |
| TEST SPECIFICATIONS                                                                                |   | Test Method                     |                      |
| FCC 15.247:2022                                                                                    |   | ANSI C63.10:2013                |                      |
| COMMENTS                                                                                           |   |                                 |                      |
| Reference level offset accounts for measurement cable, DC block, attenuator, and customer's cable. |   |                                 |                      |
| DEVIATIONS FROM TEST STANDARD                                                                      |   |                                 |                      |
| None                                                                                               |   |                                 |                      |
| Configuration #                                                                                    | 1 | Signature <i>Andrew Rogstad</i> |                      |
|                                                                                                    |   | Value (dBc)                     | Limit ≤ (dBc) Result |
| BLE/GFSK 125 kbps Low Channel, 2402 MHz                                                            |   | -50.26                          | -20 Pass             |
| BLE/GFSK 125 kbps High Channel, 2480 MHz                                                           |   | -57.14                          | -20 Pass             |
| BLE/GFSK 1 Mbps Low Channel, 2402 MHz                                                              |   | -49.3                           | -20 Pass             |
| BLE/GFSK 1 Mbps High Channel, 2480 MHz                                                             |   | -56.44                          | -20 Pass             |
| BLE/GFSK 2 Mbps Low Channel, 2402 MHz                                                              |   | -32.67                          | -20 Pass             |
| BLE/GFSK 2 Mbps High Channel, 2480 MHz                                                             |   | -52.52                          | -20 Pass             |

# BAND EDGE COMPLIANCE



TbTtx 2021.12.14.1 XMt 2022.02.07.0

| BLE/GFSK 125 kbps Low Channel, 2402 MHz |  |  |  |                |                  |        |
|-----------------------------------------|--|--|--|----------------|------------------|--------|
|                                         |  |  |  | Value<br>(dBc) | Limit<br>≤ (dBc) | Result |
|                                         |  |  |  | -50.26         | -20              | Pass   |



| BLE/GFSK 125 kbps High Channel, 2480 MHz |  |  |  |                |                  |        |
|------------------------------------------|--|--|--|----------------|------------------|--------|
|                                          |  |  |  | Value<br>(dBc) | Limit<br>≤ (dBc) | Result |
|                                          |  |  |  | -57.14         | -20              | Pass   |

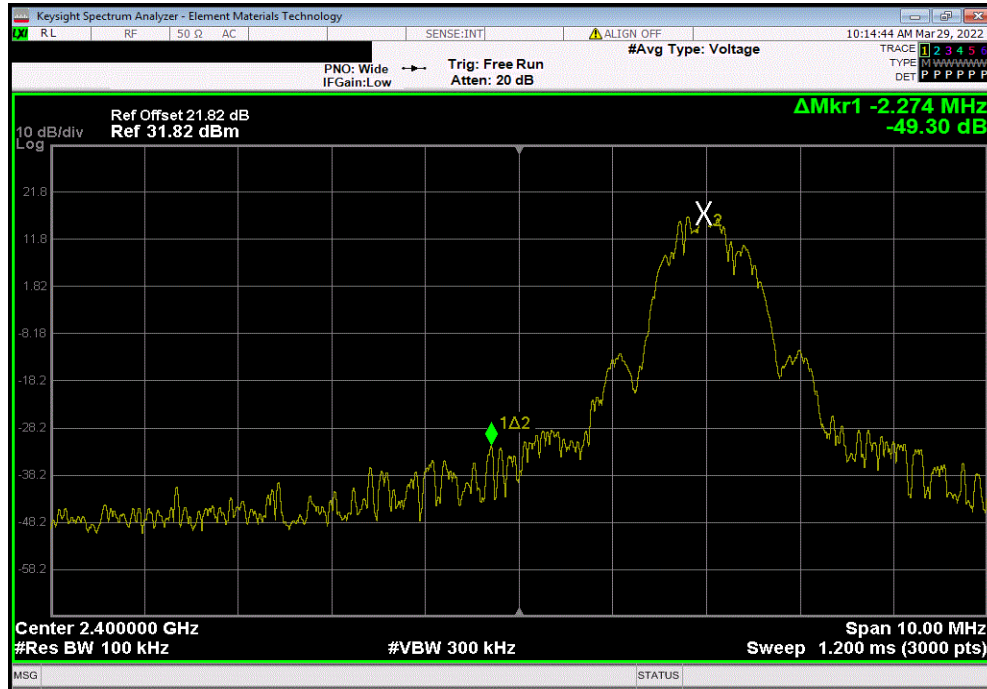


# BAND EDGE COMPLIANCE



TbTx 2021.12.14.1 XMt 2022.02.07.0

| BLE/GFSK 1 Mbps Low Channel, 2402 MHz |  |  |  |                |                  |        |
|---------------------------------------|--|--|--|----------------|------------------|--------|
|                                       |  |  |  | Value<br>(dBc) | Limit<br>≤ (dBc) | Result |
|                                       |  |  |  | -49.3          | -20              | Pass   |



| BLE/GFSK 1 Mbps High Channel, 2480 MHz |  |  |  |                |                  |        |
|----------------------------------------|--|--|--|----------------|------------------|--------|
|                                        |  |  |  | Value<br>(dBc) | Limit<br>≤ (dBc) | Result |
|                                        |  |  |  | -56.44         | -20              | Pass   |

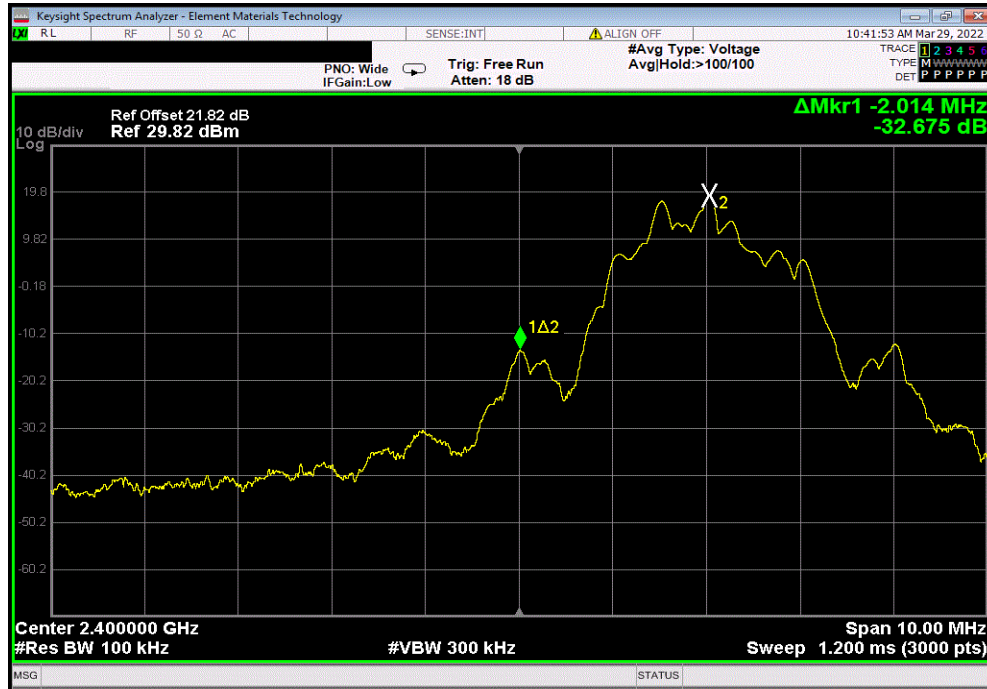


# BAND EDGE COMPLIANCE



TbTx 2021.12.14.1 XMt 2022.02.07.0

| BLE/GFSK 2 Mbps Low Channel, 2402 MHz |  |  |  |                |                  |        |
|---------------------------------------|--|--|--|----------------|------------------|--------|
|                                       |  |  |  | Value<br>(dBc) | Limit<br>≤ (dBc) | Result |
|                                       |  |  |  | -32.67         | -20              | Pass   |



| BLE/GFSK 2 Mbps High Channel, 2480 MHz |  |  |  |                |                  |        |
|----------------------------------------|--|--|--|----------------|------------------|--------|
|                                        |  |  |  | Value<br>(dBc) | Limit<br>≤ (dBc) | Result |
|                                        |  |  |  | -52.52         | -20              | Pass   |



# SPURIOUS CONDUCTED EMISSIONS



XMIT 2022.02.07.0

Testing was performed using the mode(s) of operation and configuration(s) noted within the report. The individuals and/or the organization requesting the test provided the modes, configurations and settings used to complete the evaluation. The actual test parameters are specified in the test data, this includes items such as investigated frequency range (scanned) and test levels. The testing methods and performance specifications, as well as the test site used for the evaluation are indicated in the test data.

## TEST EQUIPMENT

| Description                  | Manufacturer       | Model                 | ID  | Last Cal.  | Cal. Due   |
|------------------------------|--------------------|-----------------------|-----|------------|------------|
| Generator - Signal           | Keysight           | N5171B (EXG)          | TEY | 2019-12-31 | 2022-12-31 |
| Cable                        | Micro-Coax         | UFD150A-1-0720-200200 | MNL | 2021-09-12 | 2022-09-12 |
| Attenuator                   | Fairview Microwave | SA18S5W-20            | RFX | 2021-06-02 | 2022-06-02 |
| Block - DC                   | Fairview Microwave | SD3379                | AMI | 2021-08-13 | 2022-08-13 |
| Analyzer - Spectrum Analyzer | Keysight           | N9010A                | AFM | 2021-04-16 | 2022-04-16 |

## TEST DESCRIPTION

The spurious RF conducted emissions were measured with the EUT set to low, medium and high transmit frequencies. The EUT was transmitting at the data rate(s) listed in the datasheet. For each transmit frequency, the fundamental was measured with a 100 kHz resolution bandwidth and the highest value was recorded. The rest of the spectrum was then measured with a 100 kHz resolution bandwidth and the highest value was found. The difference between the value found on the fundamental and the rest of the spectrum was compared against the limit to determine compliance.

The reference level offset for the fundamental screen capture was based on a measured value of the loss between the spectrum analyzer and the EUT which was verified at the time of test. The remaining screen capture(s) use an internal transducer factor on the analyzer to correct the displayed trace based on the cable loss over frequency. The reference level offset for the additional screen capture(s) is then based on the expected attenuator value and any other losses.

Fundamental Offset = Ref Lvl Offset showing measured composite factor of all losses

Remaining Screen capture(s) Offset = "Internal" cable loss factor not shown on screen capture + Ref Lvl Offset showing expected attenuator value and any other losses

# SPURIOUS CONDUCTED EMISSIONS



TWtX 2021.12.14.1 XMR 2022.02.07.0

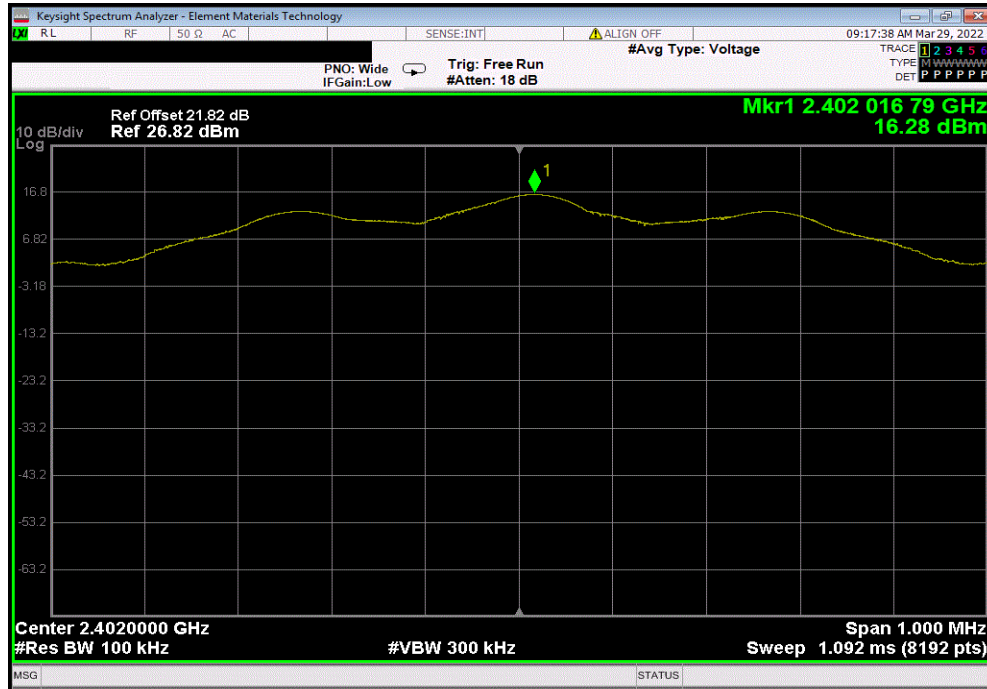
|                                                                                                    |   |                                 |                     |
|----------------------------------------------------------------------------------------------------|---|---------------------------------|---------------------|
| <b>EUT: SLATESAFETY BAND V2</b>                                                                    |   | <b>Work Order: FITY0001</b>     |                     |
| Serial Number: 6563                                                                                |   | Date: 29-Mar-22                 |                     |
| Customer: FireHUD Inc. DBA SlateSafety                                                             |   | Temperature: 24.4 °C            |                     |
| Attendees: Dustin Morris                                                                           |   | Humidity: 19.7% RH              |                     |
| Project: None                                                                                      |   | Barometric Pres.: 1015 mbar     |                     |
| Tested by: Andrew Rogstad, Christopher Heintzelman                                                 |   | Power: 110VAC/60Hz              |                     |
| TEST SPECIFICATIONS                                                                                |   | Job Site: MN08                  |                     |
| FCC 15.247:2022                                                                                    |   | Test Method                     |                     |
|                                                                                                    |   | ANSI C63.10:2013                |                     |
| COMMENTS                                                                                           |   |                                 |                     |
| Reference level offset accounts for measurement cable, DC block, attenuator, and customer's cable. |   |                                 |                     |
| DEVIATIONS FROM TEST STANDARD                                                                      |   |                                 |                     |
| None                                                                                               |   |                                 |                     |
| Configuration #                                                                                    | 1 | Signature <i>Andrew Rogstad</i> |                     |
|                                                                                                    |   | Frequency Range                 | Measured Freq (MHz) |
|                                                                                                    |   |                                 | Max Value (dBc)     |
|                                                                                                    |   |                                 | Limit ≤ (dBc)       |
|                                                                                                    |   |                                 | Result              |
| BLE/GFSK 125 kbps Low Channel, 2402 MHz                                                            |   | Fundamental                     | 2402.02             |
| BLE/GFSK 125 kbps Low Channel, 2402 MHz                                                            |   | 30 MHz - 12.5 GHz               | 7090.9              |
| BLE/GFSK 125 kbps Low Channel, 2402 MHz                                                            |   | 12.5 GHz - 25 GHz               | 24870.28            |
| BLE/GFSK 125 kbps Mid Channel, 2442 MHz                                                            |   | Fundamental                     | 2442.02             |
| BLE/GFSK 125 kbps Mid Channel, 2442 MHz                                                            |   | 30 MHz - 12.5 GHz               | 5856.23             |
| BLE/GFSK 125 kbps Mid Channel, 2442 MHz                                                            |   | 12.5 GHz - 25 GHz               | 24980.16            |
| BLE/GFSK 125 kbps High Channel, 2480 MHz                                                           |   | Fundamental                     | 2480.02             |
| BLE/GFSK 125 kbps High Channel, 2480 MHz                                                           |   | 30 MHz - 12.5 GHz               | 2671.37             |
| BLE/GFSK 125 kbps High Channel, 2480 MHz                                                           |   | 12.5 GHz - 25 GHz               | 24618.48            |
| BLE/GFSK 1 Mbps Low Channel, 2402 MHz                                                              |   | Fundamental                     | 2401.76             |
| BLE/GFSK 1 Mbps Low Channel, 2402 MHz                                                              |   | 30 MHz - 12.5 GHz               | 5713.13             |
| BLE/GFSK 1 Mbps Low Channel, 2402 MHz                                                              |   | 12.5 GHz - 25 GHz               | 24591.01            |
| BLE/GFSK 1 Mbps Mid Channel, 2442 MHz                                                              |   | Fundamental                     | 2441.76             |
| BLE/GFSK 1 Mbps Mid Channel, 2442 MHz                                                              |   | 30 MHz - 12.5 GHz               | 7380.16             |
| BLE/GFSK 1 Mbps Mid Channel, 2442 MHz                                                              |   | 12.5 GHz - 25 GHz               | 24955.74            |
| BLE/GFSK 1 Mbps High Channel, 2480 MHz                                                             |   | Fundamental                     | 2479.76             |
| BLE/GFSK 1 Mbps High Channel, 2480 MHz                                                             |   | 30 MHz - 12.5 GHz               | 12104.18            |
| BLE/GFSK 1 Mbps High Channel, 2480 MHz                                                             |   | 12.5 GHz - 25 GHz               | 24981.69            |
| BLE/GFSK 2 Mbps Low Channel, 2402 MHz                                                              |   | Fundamental                     | 2402.02             |
| BLE/GFSK 2 Mbps Low Channel, 2402 MHz                                                              |   | 30 MHz - 12.5 GHz               | 7206.61             |
| BLE/GFSK 2 Mbps Low Channel, 2402 MHz                                                              |   | 12.5 GHz - 25 GHz               | 24919.12            |
| BLE/GFSK 2 Mbps Mid Channel, 2442 MHz                                                              |   | Fundamental                     | 2442.02             |
| BLE/GFSK 2 Mbps Mid Channel, 2442 MHz                                                              |   | 30 MHz - 12.5 GHz               | 7508.04             |
| BLE/GFSK 2 Mbps Mid Channel, 2442 MHz                                                              |   | 12.5 GHz - 25 GHz               | 24821.45            |
| BLE/GFSK 2 Mbps High Channel, 2480 MHz                                                             |   | Fundamental                     | 2480.02             |
| BLE/GFSK 2 Mbps High Channel, 2480 MHz                                                             |   | 30 MHz - 12.5 GHz               | 9299.91             |
| BLE/GFSK 2 Mbps High Channel, 2480 MHz                                                             |   | 12.5 GHz - 25 GHz               | 24775.67            |

# SPURIOUS CONDUCTED EMISSIONS

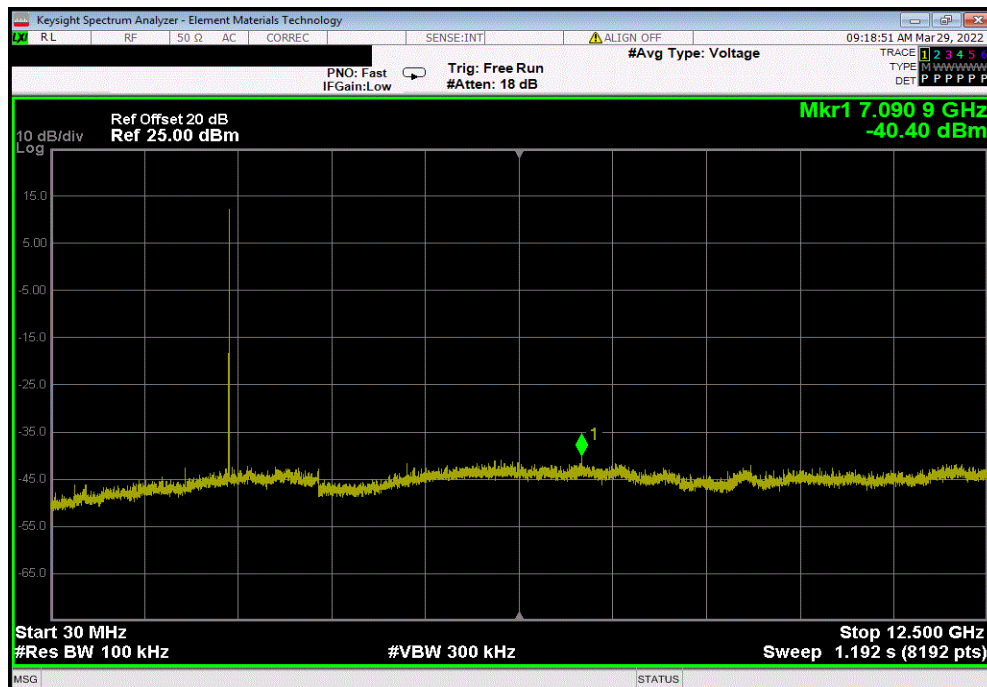


TbTtx 2021.12.14.1 XMt 2022.02.07.0

| BLE/GFSK 125 kbps Low Channel, 2402 MHz |                     |                 |               |        |  |  |
|-----------------------------------------|---------------------|-----------------|---------------|--------|--|--|
| Frequency Range                         | Measured Freq (MHz) | Max Value (dBc) | Limit ≤ (dBc) | Result |  |  |
| Fundamental                             | 2402.02             | N/A             | N/A           | N/A    |  |  |



| BLE/GFSK 125 kbps Low Channel, 2402 MHz |                     |                 |               |        |  |  |
|-----------------------------------------|---------------------|-----------------|---------------|--------|--|--|
| Frequency Range                         | Measured Freq (MHz) | Max Value (dBc) | Limit ≤ (dBc) | Result |  |  |
| 30 MHz - 12.5 GHz                       | 7090.9              | -56.62          | -20           | Pass   |  |  |

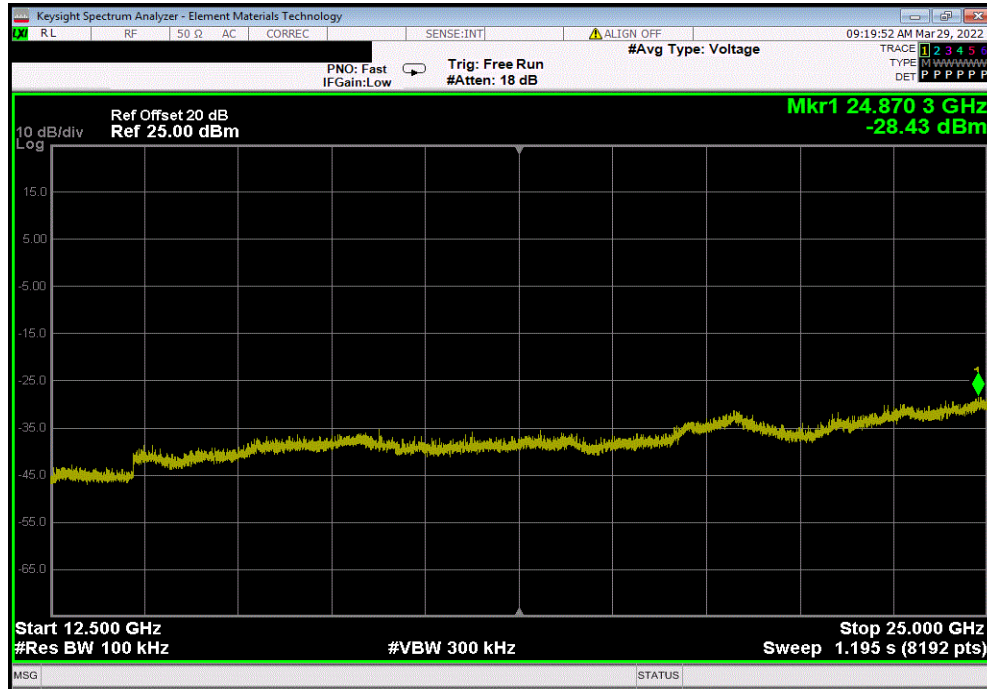


# SPURIOUS CONDUCTED EMISSIONS

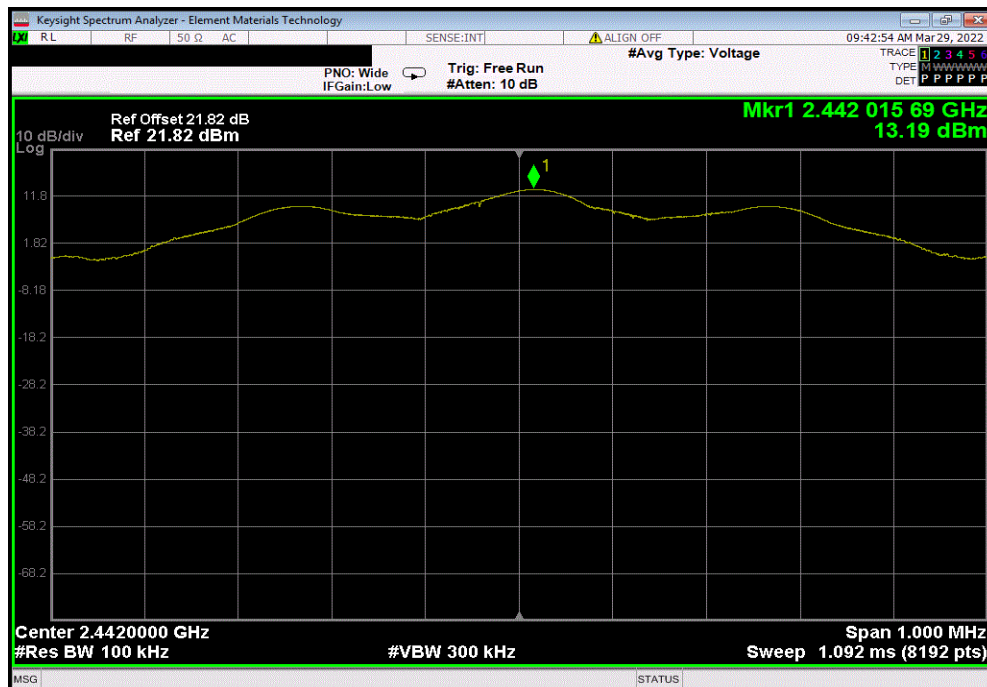


TbTtx 2021.12.14.1 XMt 2022.02.07.0

| BLE/GFSK 125 kbps Low Channel, 2402 MHz |                     |                 |               |        |  |
|-----------------------------------------|---------------------|-----------------|---------------|--------|--|
| Frequency Range                         | Measured Freq (MHz) | Max Value (dBc) | Limit ≤ (dBc) | Result |  |
| 12.5 GHz - 25 GHz                       | 24870.28            | -44.65          | -20           | Pass   |  |



| BLE/GFSK 125 kbps Mid Channel, 2442 MHz |                     |                 |               |        |  |
|-----------------------------------------|---------------------|-----------------|---------------|--------|--|
| Frequency Range                         | Measured Freq (MHz) | Max Value (dBc) | Limit ≤ (dBc) | Result |  |
| Fundamental                             | 2442.02             | N/A             | N/A           | N/A    |  |

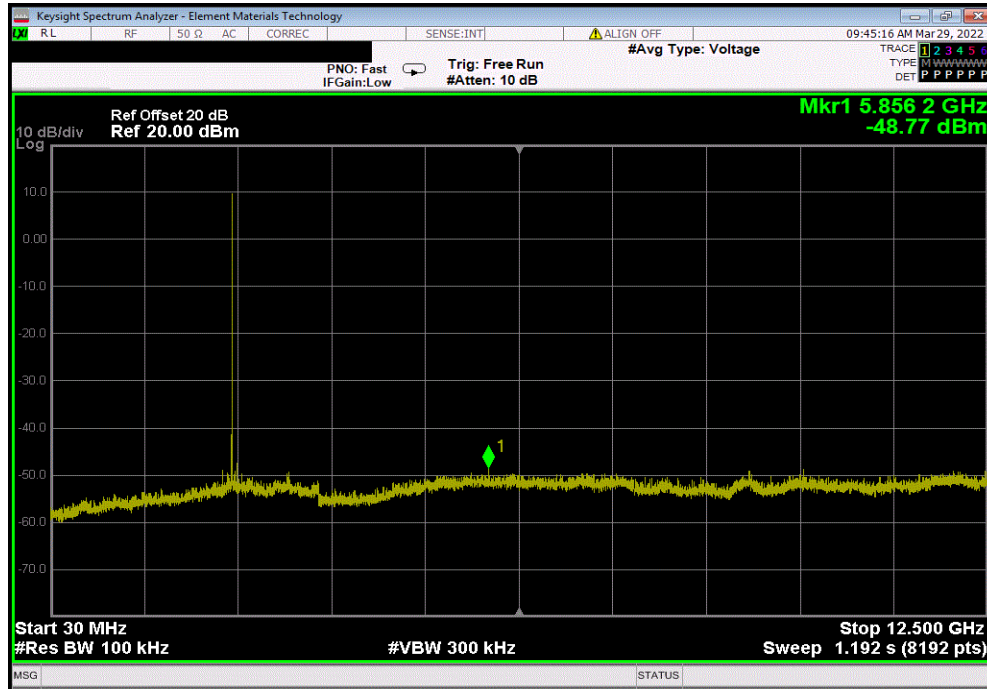


# SPURIOUS CONDUCTED EMISSIONS

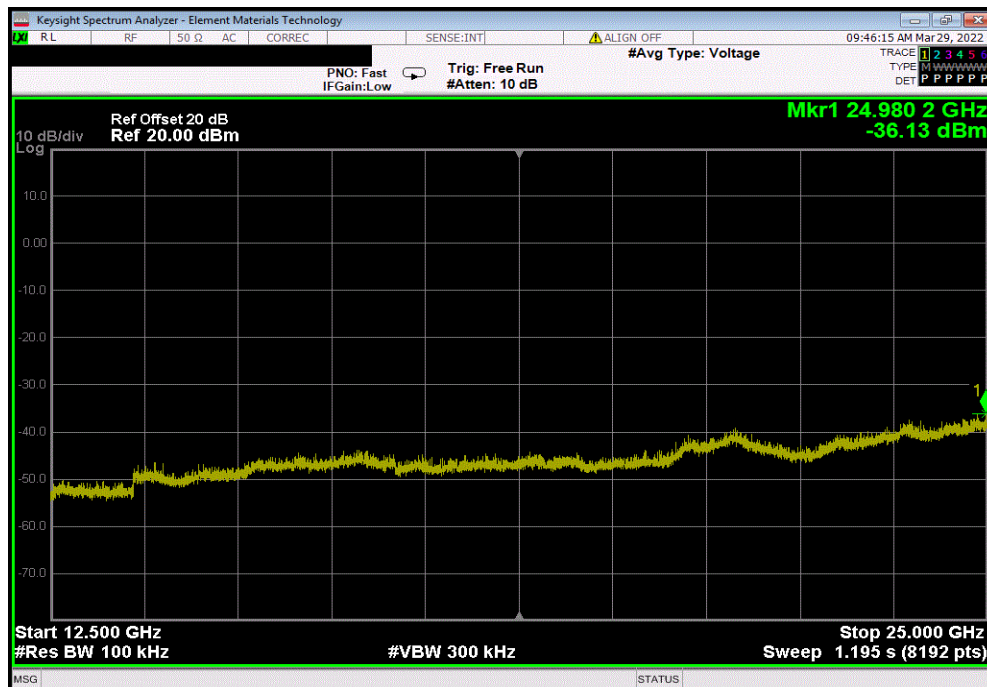


TbTtx 2021.12.14.1 XMt 2022.02.07.0

| BLE/GFSK 125 kbps Mid Channel, 2442 MHz |                     |                 |               |        |  |
|-----------------------------------------|---------------------|-----------------|---------------|--------|--|
| Frequency Range                         | Measured Freq (MHz) | Max Value (dBc) | Limit ≤ (dBc) | Result |  |
| 30 MHz - 12.5 GHz                       | 5856.23             | -61.96          | -20           | Pass   |  |



| BLE/GFSK 125 kbps Mid Channel, 2442 MHz |                     |                 |               |        |  |
|-----------------------------------------|---------------------|-----------------|---------------|--------|--|
| Frequency Range                         | Measured Freq (MHz) | Max Value (dBc) | Limit ≤ (dBc) | Result |  |
| 12.5 GHz - 25 GHz                       | 24980.16            | -49.32          | -20           | Pass   |  |

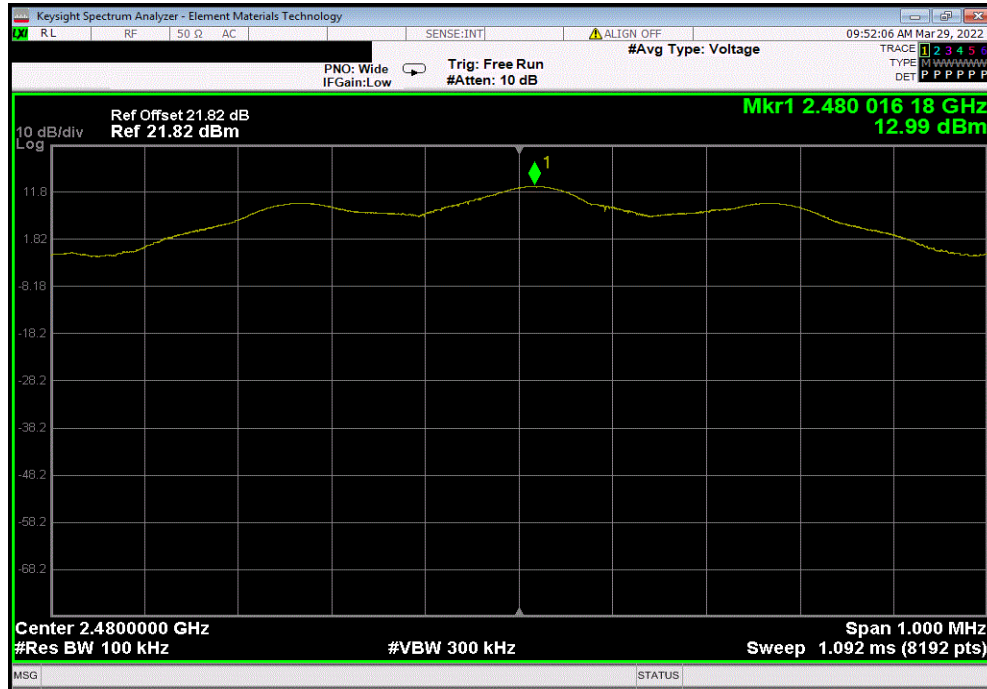


# SPURIOUS CONDUCTED EMISSIONS

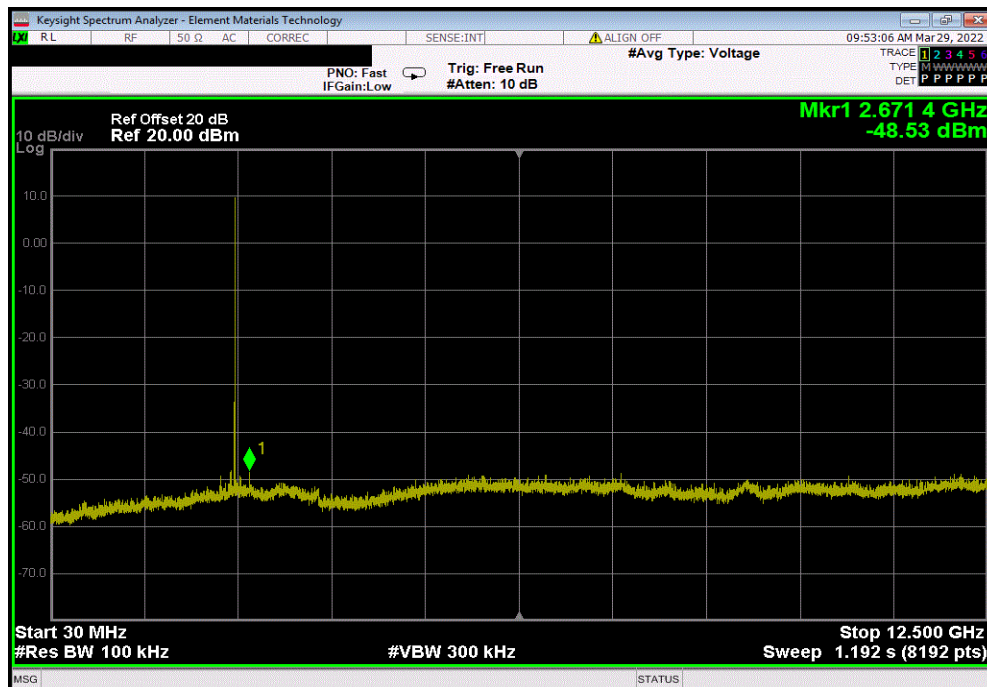


TbTx 2021.12.14.1 XMt 2022.02.07.0

| BLE/GFSK 125 kbps High Channel, 2480 MHz |                     |                 |               |        |  |
|------------------------------------------|---------------------|-----------------|---------------|--------|--|
| Frequency Range                          | Measured Freq (MHz) | Max Value (dBc) | Limit ≤ (dBc) | Result |  |
| Fundamental                              | 2480.02             | N/A             | N/A           | N/A    |  |



| BLE/GFSK 125 kbps High Channel, 2480 MHz |                     |                 |               |        |  |
|------------------------------------------|---------------------|-----------------|---------------|--------|--|
| Frequency Range                          | Measured Freq (MHz) | Max Value (dBc) | Limit ≤ (dBc) | Result |  |
| 30 MHz - 12.5 GHz                        | 2671.37             | -61.53          | -20           | Pass   |  |

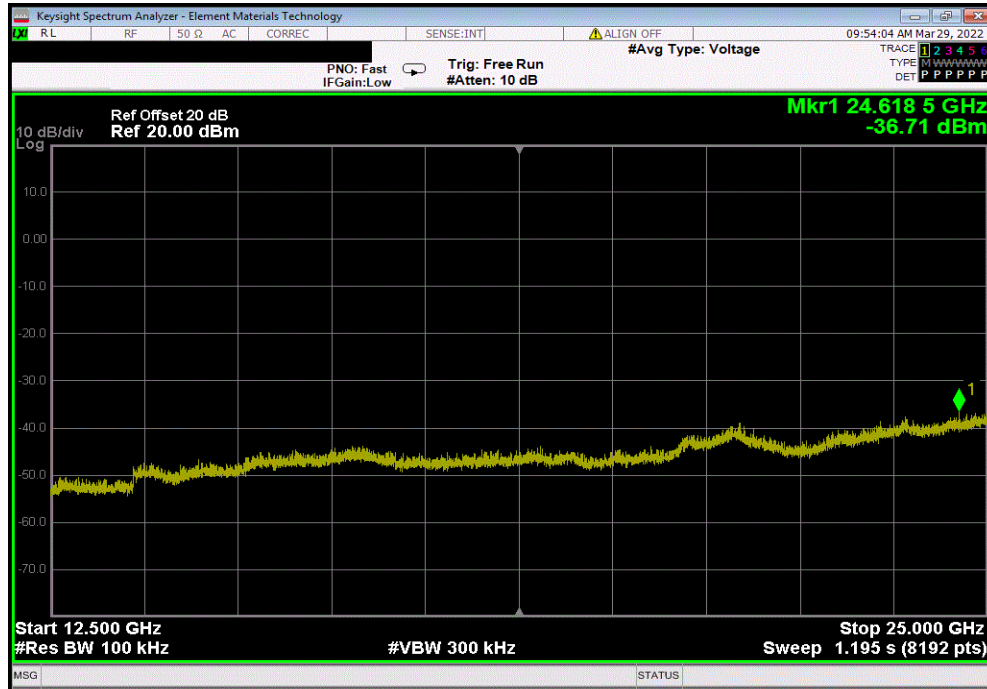


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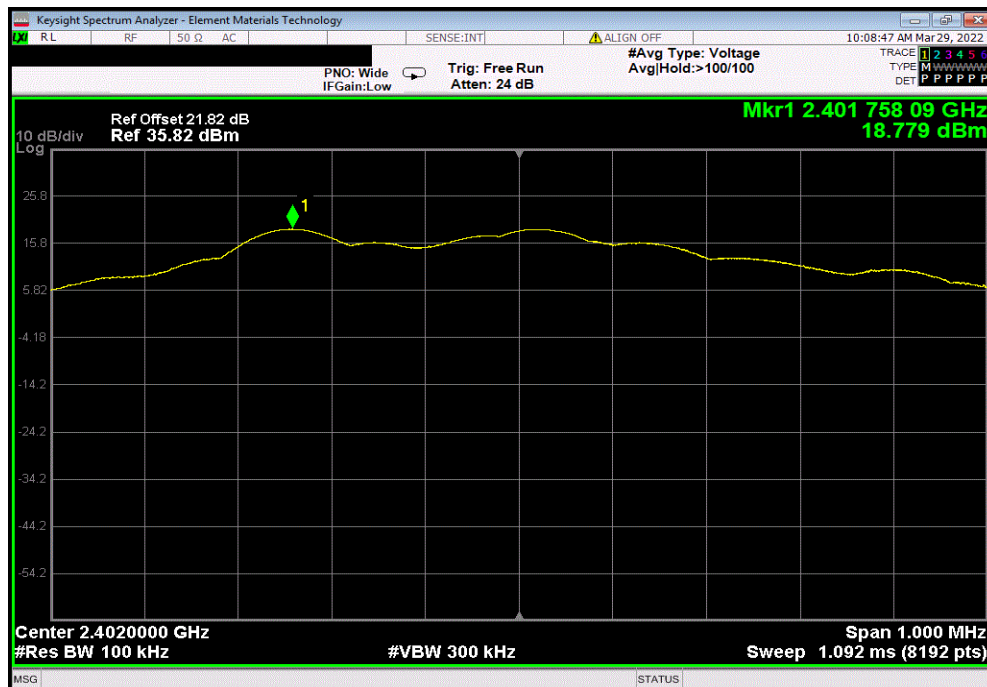


TbTtx 2021.12.14.1 XMt 2022.02.07.0

| BLE/GFSK 125 kbps High Channel, 2480 MHz |                     |                 |               |        |  |
|------------------------------------------|---------------------|-----------------|---------------|--------|--|
| Frequency Range                          | Measured Freq (MHz) | Max Value (dBc) | Limit ≤ (dBc) | Result |  |
| 12.5 GHz - 25 GHz                        | 24618.48            | -49.7           | -20           | Pass   |  |



| BLE/GFSK 1 Mbps Low Channel, 2402 MHz |                     |                 |               |        |  |
|---------------------------------------|---------------------|-----------------|---------------|--------|--|
| Frequency Range                       | Measured Freq (MHz) | Max Value (dBc) | Limit ≤ (dBc) | Result |  |
| Fundamental                           | 2401.76             | N/A             | N/A           | N/A    |  |

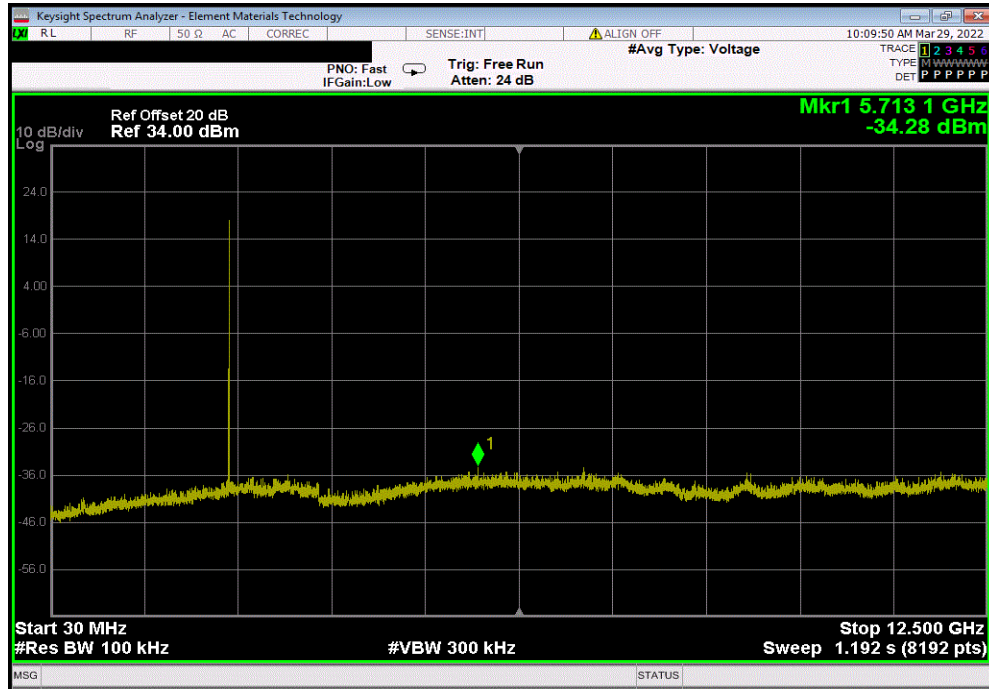


# SPURIOUS CONDUCTED EMISSIONS

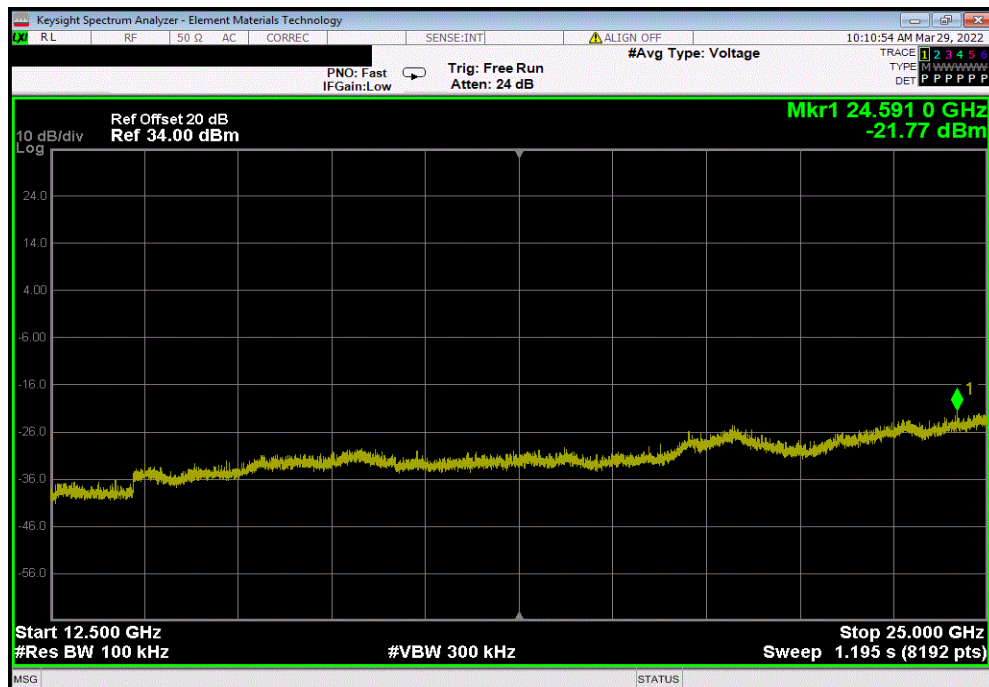


TbTtx 2021.12.14.1 XMt 2022.02.07.0

| BLE/GFSK 1 Mbps Low Channel, 2402 MHz |                     |                 |               |        |  |
|---------------------------------------|---------------------|-----------------|---------------|--------|--|
| Frequency Range                       | Measured Freq (MHz) | Max Value (dBc) | Limit ≤ (dBc) | Result |  |
| 30 MHz - 12.5 GHz                     | 5713.13             | -53.05          | -20           | Pass   |  |



| BLE/GFSK 1 Mbps Low Channel, 2402 MHz |                     |                 |               |        |  |
|---------------------------------------|---------------------|-----------------|---------------|--------|--|
| Frequency Range                       | Measured Freq (MHz) | Max Value (dBc) | Limit ≤ (dBc) | Result |  |
| 12.5 GHz - 25 GHz                     | 24591.01            | -40.54          | -20           | Pass   |  |

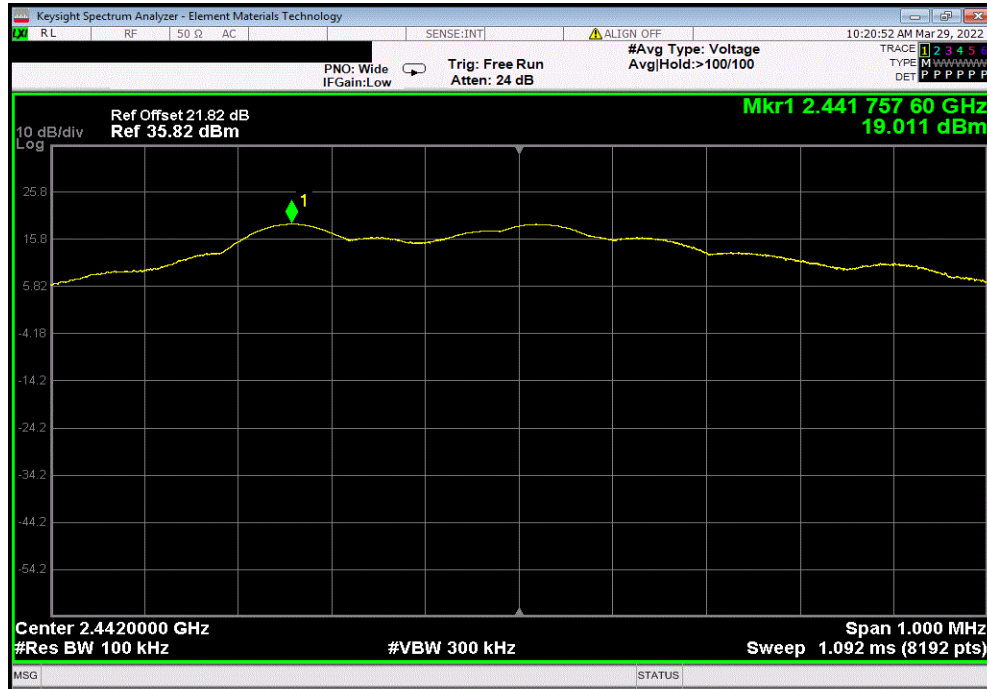


# SPURIOUS CONDUCTED EMISSIONS

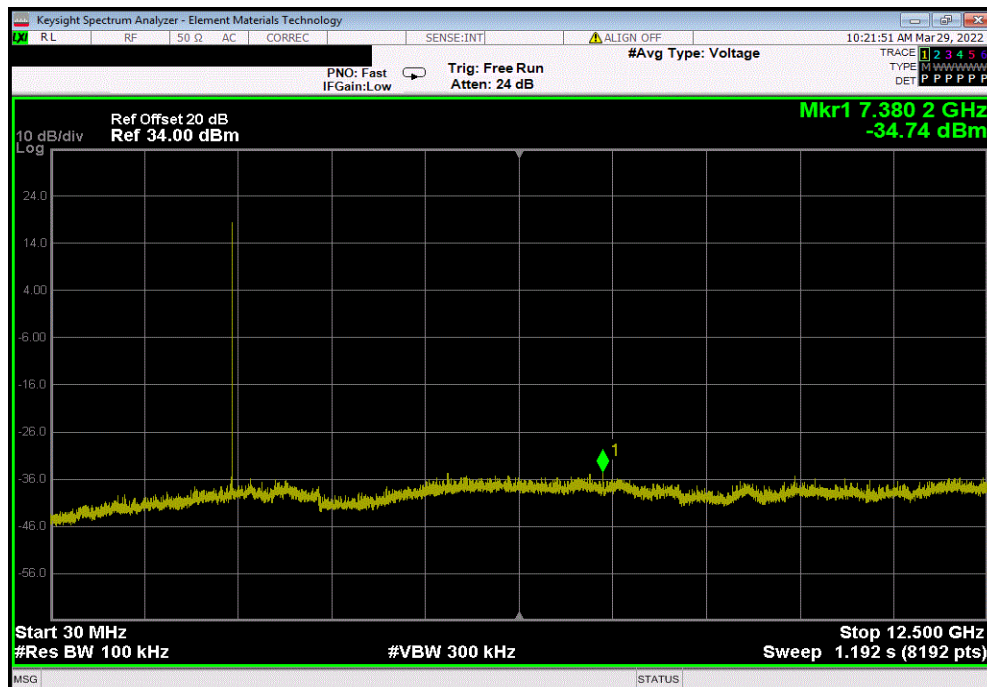


TbTx 2021.12.14.1 XMt 2022.02.07.0

| BLE/GFSK 1 Mbps Mid Channel, 2442 MHz |                     |                 |               |        |  |  |
|---------------------------------------|---------------------|-----------------|---------------|--------|--|--|
| Frequency Range                       | Measured Freq (MHz) | Max Value (dBc) | Limit ≤ (dBc) | Result |  |  |
| Fundamental                           | 2441.76             | N/A             | N/A           | N/A    |  |  |



| BLE/GFSK 1 Mbps Mid Channel, 2442 MHz |                     |                 |               |        |  |  |
|---------------------------------------|---------------------|-----------------|---------------|--------|--|--|
| Frequency Range                       | Measured Freq (MHz) | Max Value (dBc) | Limit ≤ (dBc) | Result |  |  |
| 30 MHz - 12.5 GHz                     | 7380.16             | -53.76          | -20           | Pass   |  |  |

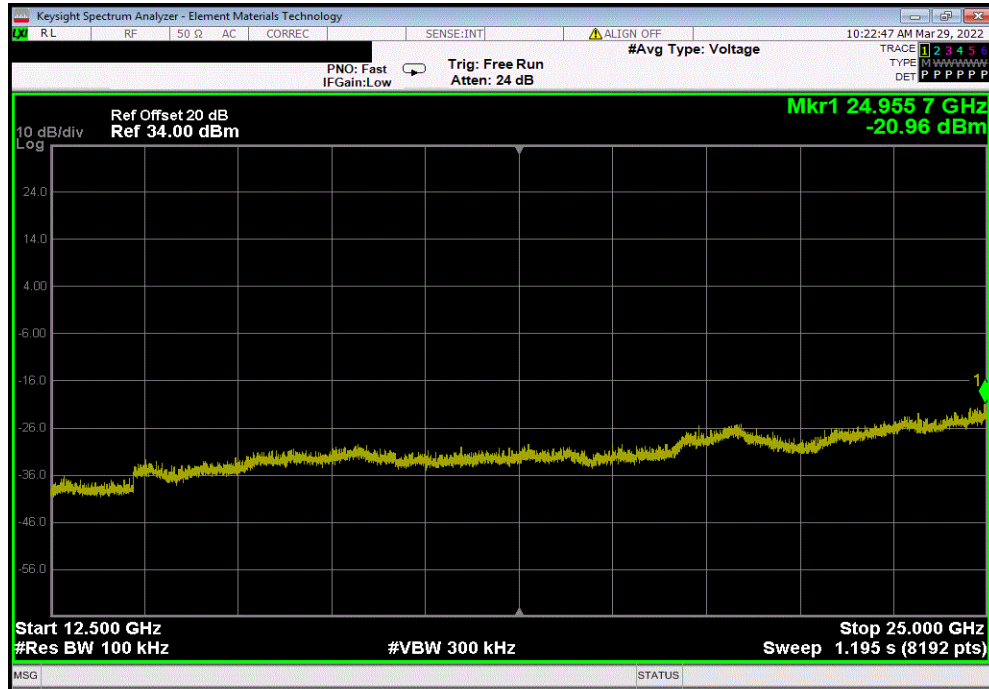


# SPURIOUS CONDUCTED EMISSIONS

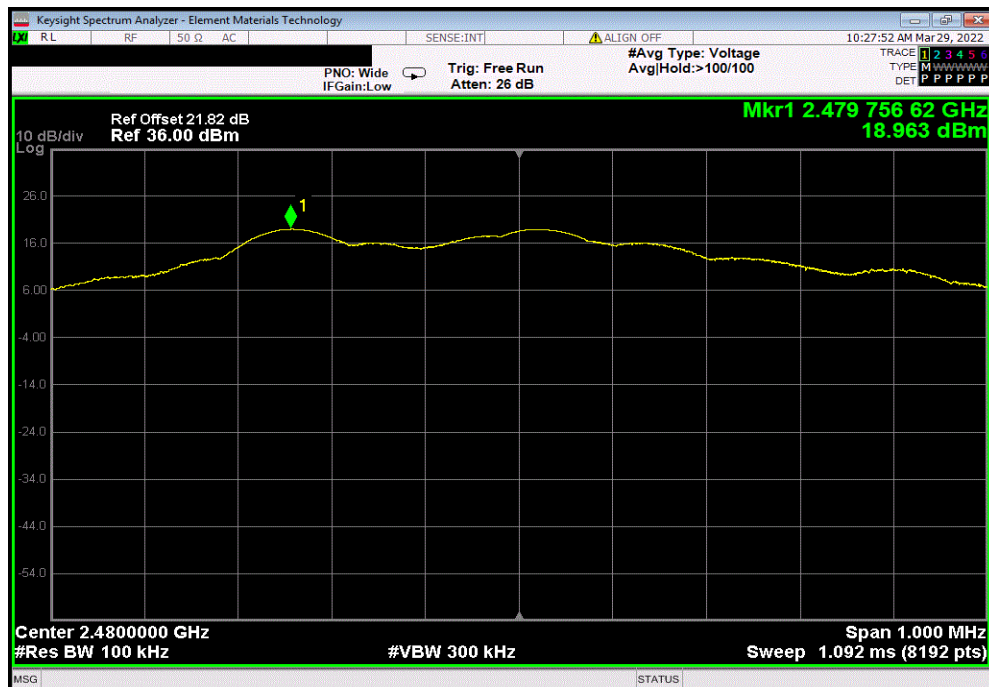


TbTtX 2021.12.14.1 XMt 2022.02.07.0

| BLE/GFSK 1 Mbps Mid Channel, 2442 MHz |                     |                 |               |        |  |
|---------------------------------------|---------------------|-----------------|---------------|--------|--|
| Frequency Range                       | Measured Freq (MHz) | Max Value (dBc) | Limit ≤ (dBc) | Result |  |
| 12.5 GHz - 25 GHz                     | 24955.74            | -39.98          | -20           | Pass   |  |



| BLE/GFSK 1 Mbps High Channel, 2480 MHz |                     |                 |               |        |  |
|----------------------------------------|---------------------|-----------------|---------------|--------|--|
| Frequency Range                        | Measured Freq (MHz) | Max Value (dBc) | Limit ≤ (dBc) | Result |  |
| Fundamental                            | 2479.76             | N/A             | N/A           | N/A    |  |

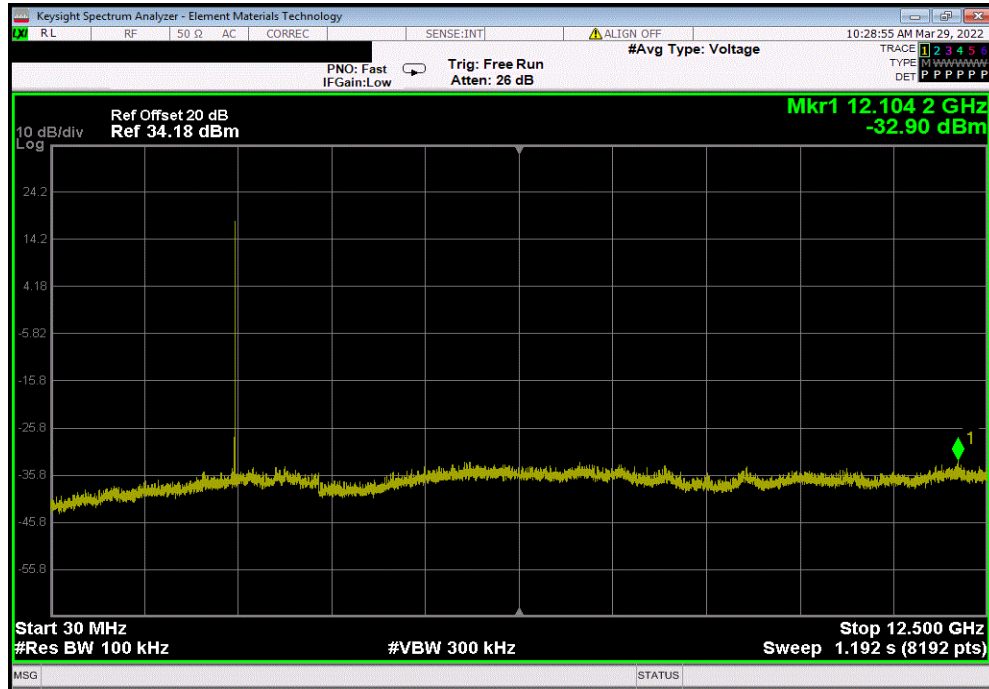


# SPURIOUS CONDUCTED EMISSIONS

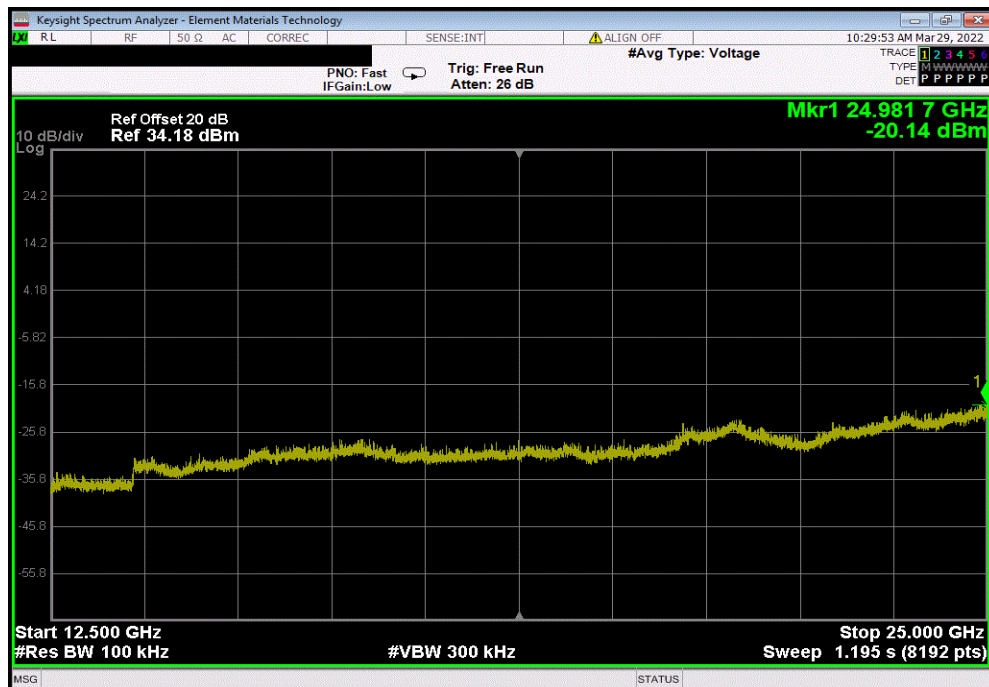


TbTtx 2021.12.14.1 XMt 2022.02.07.0

| BLE/GFSK 1 Mbps High Channel, 2480 MHz |                     |                 |               |        |  |
|----------------------------------------|---------------------|-----------------|---------------|--------|--|
| Frequency Range                        | Measured Freq (MHz) | Max Value (dBc) | Limit ≤ (dBc) | Result |  |
| 30 MHz - 12.5 GHz                      | 12104.18            | -51.79          | -20           | Pass   |  |



| BLE/GFSK 1 Mbps High Channel, 2480 MHz |                     |                 |               |        |  |
|----------------------------------------|---------------------|-----------------|---------------|--------|--|
| Frequency Range                        | Measured Freq (MHz) | Max Value (dBc) | Limit ≤ (dBc) | Result |  |
| 12.5 GHz - 25 GHz                      | 24981.69            | -39.03          | -20           | Pass   |  |

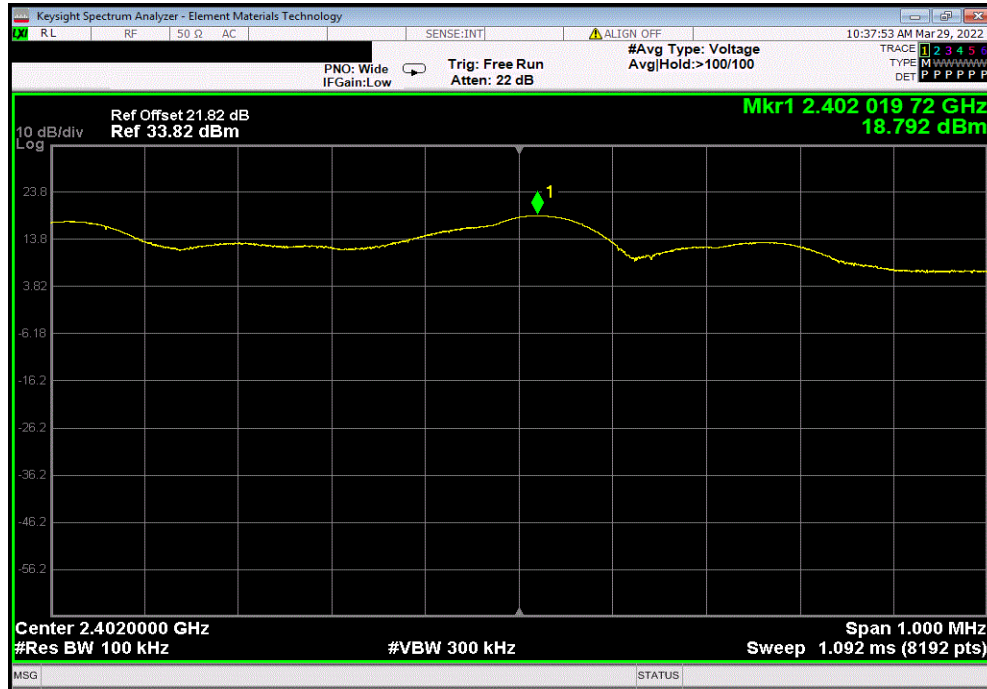


# SPURIOUS CONDUCTED EMISSIONS

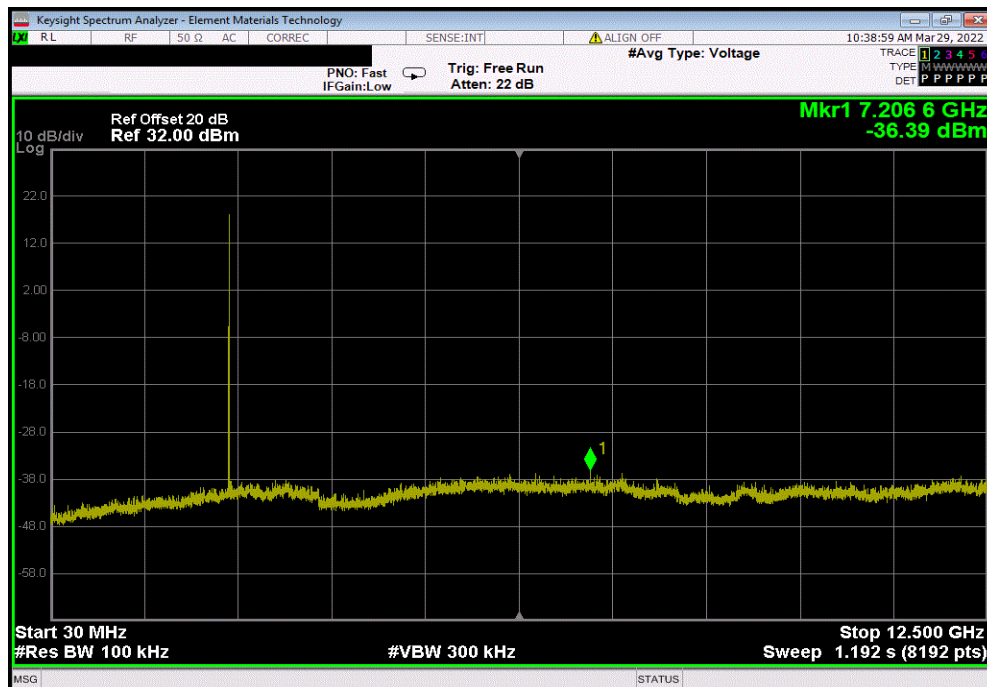


TbTx 2021.12.14.1 XMt 2022.02.07.0

| BLE/GFSK 2 Mbps Low Channel, 2402 MHz |                     |                 |               |        |  |  |
|---------------------------------------|---------------------|-----------------|---------------|--------|--|--|
| Frequency Range                       | Measured Freq (MHz) | Max Value (dBc) | Limit ≤ (dBc) | Result |  |  |
| Fundamental                           | 2402.02             | N/A             | N/A           | N/A    |  |  |



| BLE/GFSK 2 Mbps Low Channel, 2402 MHz |                     |                 |               |        |  |  |
|---------------------------------------|---------------------|-----------------|---------------|--------|--|--|
| Frequency Range                       | Measured Freq (MHz) | Max Value (dBc) | Limit ≤ (dBc) | Result |  |  |
| 30 MHz - 12.5 GHz                     | 7206.61             | -55.18          | -20           | Pass   |  |  |

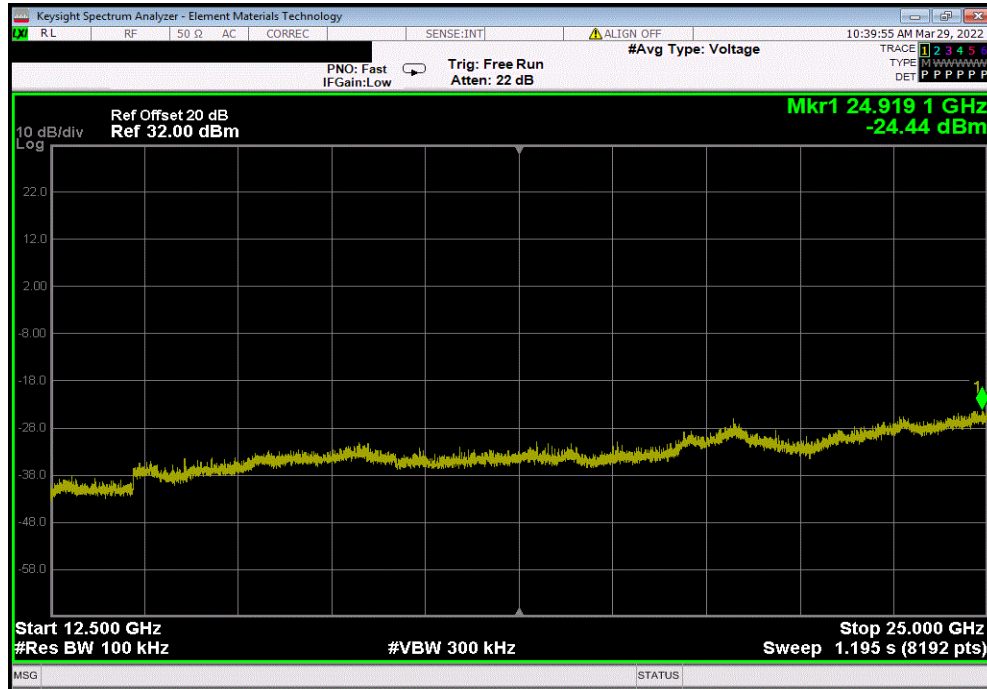


# SPURIOUS CONDUCTED EMISSIONS

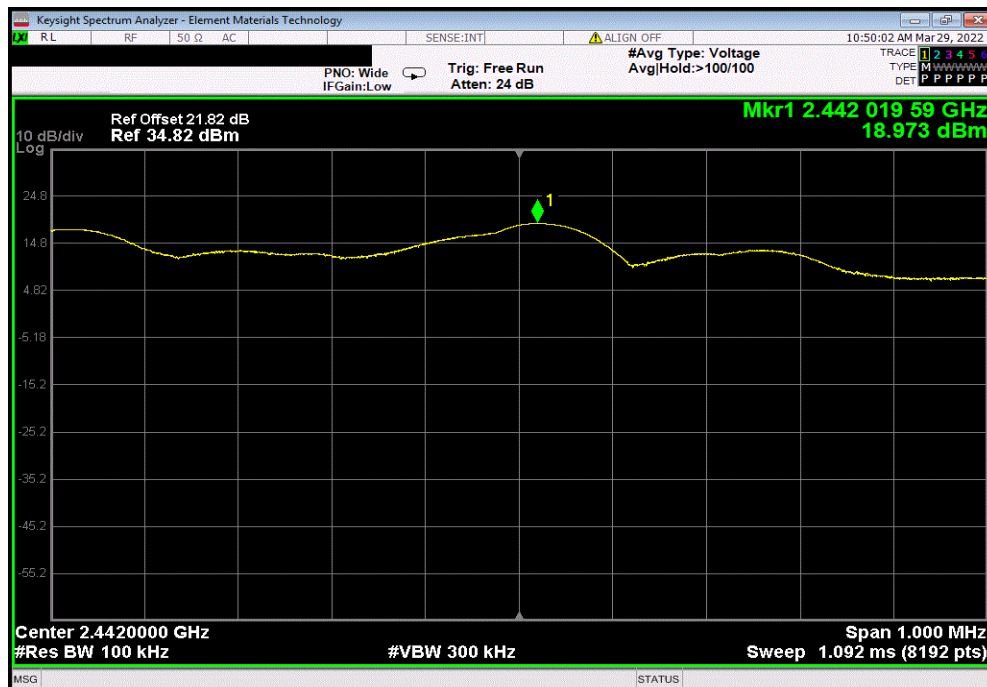


TbTtx 2021.12.14.1 XMt 2022.02.07.0

| BLE/GFSK 2 Mbps Low Channel, 2402 MHz |                     |                 |               |        |  |
|---------------------------------------|---------------------|-----------------|---------------|--------|--|
| Frequency Range                       | Measured Freq (MHz) | Max Value (dBc) | Limit ≤ (dBc) | Result |  |
| 12.5 GHz - 25 GHz                     | 24919.12            | -43.23          | -20           | Pass   |  |



| BLE/GFSK 2 Mbps Mid Channel, 2442 MHz |                     |                 |               |        |  |
|---------------------------------------|---------------------|-----------------|---------------|--------|--|
| Frequency Range                       | Measured Freq (MHz) | Max Value (dBc) | Limit ≤ (dBc) | Result |  |
| Fundamental                           | 2442.02             | N/A             | N/A           | N/A    |  |

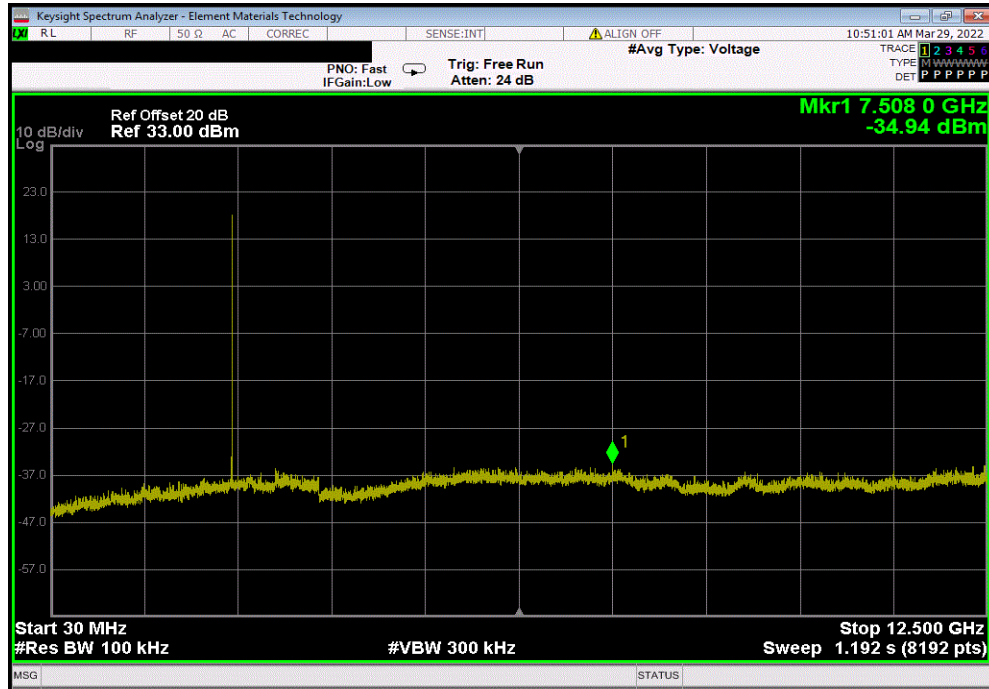


# SPURIOUS CONDUCTED EMISSIONS

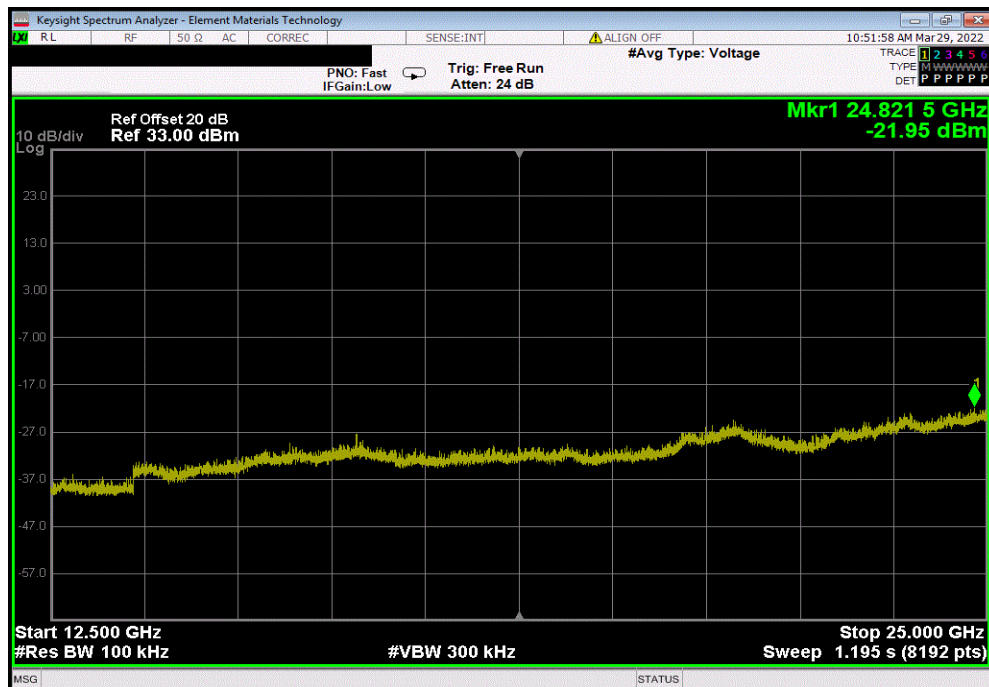


TbTtx 2021.12.14.1 XMt 2022.02.07.0

| BLE/GFSK 2 Mbps Mid Channel, 2442 MHz |                     |                 |               |        |  |
|---------------------------------------|---------------------|-----------------|---------------|--------|--|
| Frequency Range                       | Measured Freq (MHz) | Max Value (dBc) | Limit ≤ (dBc) | Result |  |
| 30 MHz - 12.5 GHz                     | 7508.04             | -53.93          | -20           | Pass   |  |



| BLE/GFSK 2 Mbps Mid Channel, 2442 MHz |                     |                 |               |        |  |
|---------------------------------------|---------------------|-----------------|---------------|--------|--|
| Frequency Range                       | Measured Freq (MHz) | Max Value (dBc) | Limit ≤ (dBc) | Result |  |
| 12.5 GHz - 25 GHz                     | 24821.45            | -40.94          | -20           | Pass   |  |

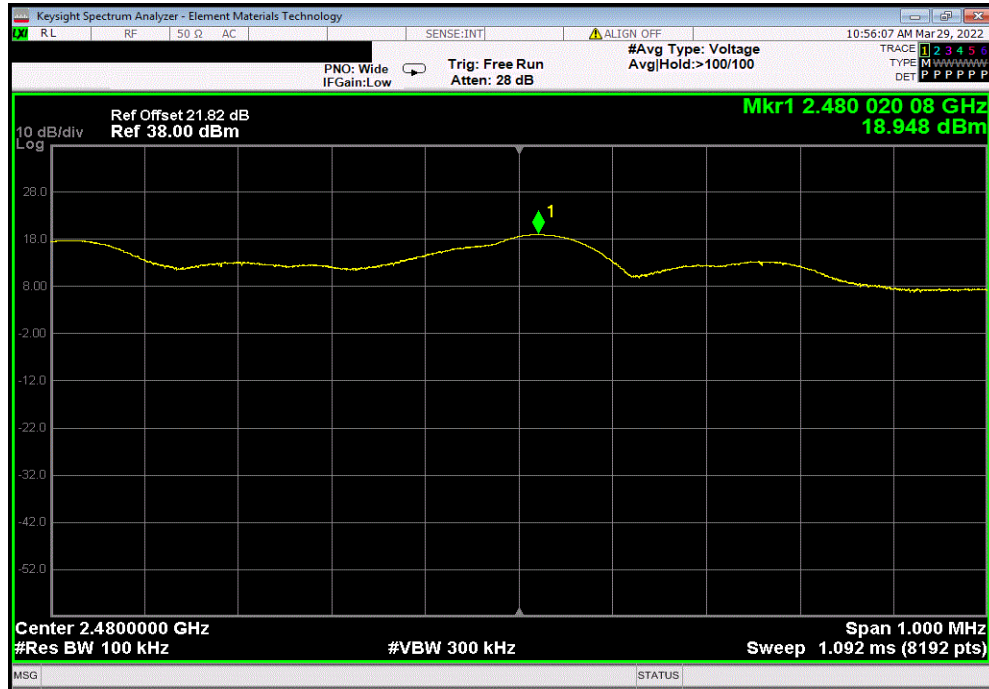


# SPURIOUS CONDUCTED EMISSIONS

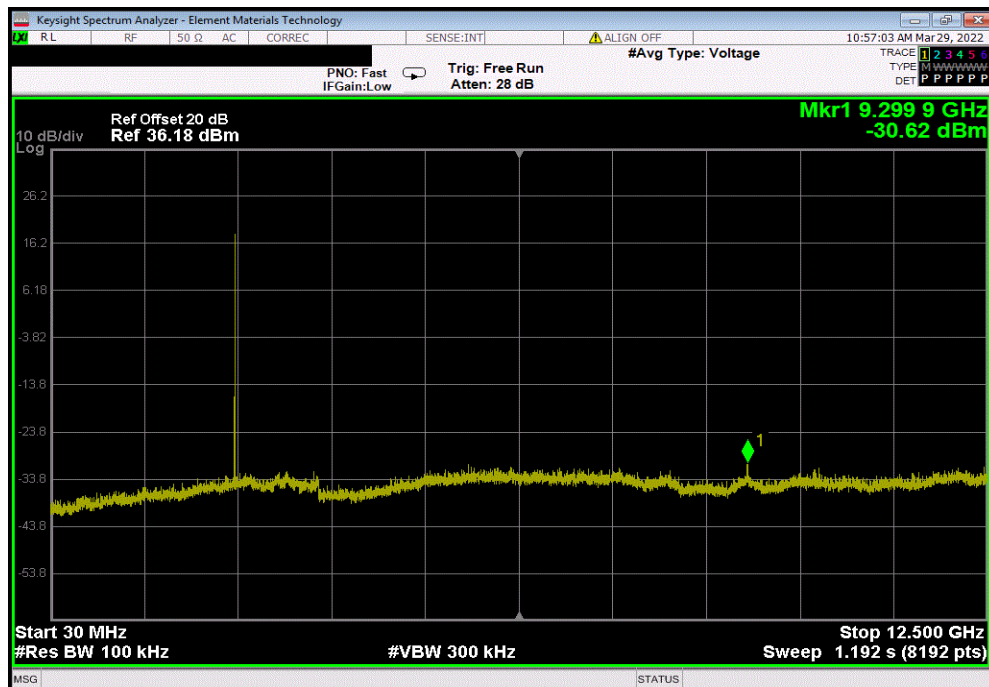


TbTtx 2021.12.14.1 XMt 2022.02.07.0

| BLE/GFSK 2 Mbps High Channel, 2480 MHz |                     |                 |               |        |  |
|----------------------------------------|---------------------|-----------------|---------------|--------|--|
| Frequency Range                        | Measured Freq (MHz) | Max Value (dBc) | Limit ≤ (dBc) | Result |  |
| Fundamental                            | 2480.02             | N/A             | N/A           | N/A    |  |



| BLE/GFSK 2 Mbps High Channel, 2480 MHz |                     |                 |               |        |  |
|----------------------------------------|---------------------|-----------------|---------------|--------|--|
| Frequency Range                        | Measured Freq (MHz) | Max Value (dBc) | Limit ≤ (dBc) | Result |  |
| 30 MHz - 12.5 GHz                      | 9299.91             | -49.5           | -20           | Pass   |  |

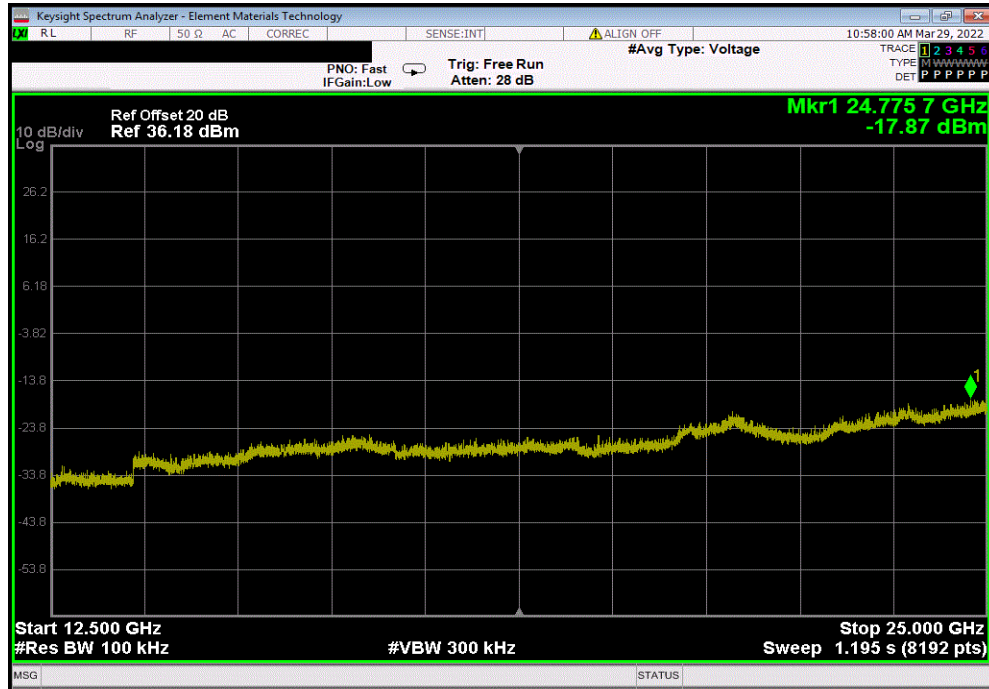


# SPURIOUS CONDUCTED EMISSIONS



TbTtx 2021.12.14.1 XMt 2022.02.07.0

| BLE/GFSK 2 Mbps High Channel, 2480 MHz |                     |                 |               |        |  |
|----------------------------------------|---------------------|-----------------|---------------|--------|--|
| Frequency Range                        | Measured Freq (MHz) | Max Value (dBc) | Limit ≤ (dBc) | Result |  |
| 12.5 GHz - 25 GHz                      | 24775.67            | -36.74          | -20           | Pass   |  |



# SPURIOUS RADIATED EMISSIONS

## TEST DESCRIPTION

The highest gain antenna of each type to be used with the EUT was tested. The EUT was configured for the required transmit frequencies and the modes as showed in the data sheets.

For each configuration, the spectrum was scanned throughout the specified range as part of the exploratory investigation of the emissions. These "pre-scans" are not included in the report. Final measurements on individual emissions were then made and included in this test report.

The individual emissions from the EUT were maximized by rotating the EUT on a turntable, adjusting the position of the EUT and EUT antenna in three orthogonal axis if required, and adjusting the measurement antenna height and polarization (per ANSI C63.10). A preamp and high pass filter (and notch filter) were used for this test in order to provide sufficient measurement sensitivity.

Measurements were made with the required detectors and annotated on the data for each individual point using the following annotation:

QP = Quasi-Peak Detector  
PK = Peak Detector  
AV = RMS Detector

Measurements were made to satisfy the specific requirements of the test specification for out of band emissions as well as the restricted band requirements.

If there are no detectable emissions above the noise floor, the data included may show noise floor measurements for reference only.

Average measurements were calculated by subtracting a Duty Cycle Correction Factor (DCCF) from the peak measurements per KDB 558074. The DCCF =  $20 \cdot \log(\text{Field DC})$

## TEST EQUIPMENT

| Description                  | Manufacturer       | Model                          | ID  | Last Cal.  | Cal. Due   |
|------------------------------|--------------------|--------------------------------|-----|------------|------------|
| Analyzer - Spectrum Analyzer | Agilent            | E4446A                         | AAQ | 2021-05-21 | 2022-05-21 |
| Antenna - Double Ridge       | ETS Lindgren       | 3115                           | AJQ | 2021-01-25 | 2023-01-25 |
| Cable                        | ESM Cable Corp.    | Double Ridge Guide Horn Cables | MNI | 2022-01-18 | 2023-01-18 |
| Amplifier - Pre-Amplifier    | Miteq              | AMF-3D-00100800-32-13P         | AVT | 2022-01-18 | 2023-01-18 |
| Antenna - Standard Gain      | ETS Lindgren       | 3160-07                        | AXP | NCR        | NCR        |
| Cable                        | ESM Cable Corp.    | Standard Gain Horn Cables      | MNJ | 2022-01-18 | 2023-01-18 |
| Amplifier - Pre-Amplifier    | Miteq              | AMF-6F-08001200-30-10P         | AVV | 2022-01-18 | 2023-01-18 |
| Antenna - Standard Gain      | ETS Lindgren       | 3160-08                        | AIQ | NCR        | NCR        |
| Amplifier - Pre-Amplifier    | Miteq              | AMF-6F-12001800-30-10P         | AVW | 2022-01-18 | 2023-01-18 |
| Cable                        | ESM Cable Corp.    | TTBJ141 KMKM-72                | MNP | 2021-09-09 | 2022-09-09 |
| Antenna - Standard Gain      | ETS Lindgren       | 3160-09                        | AHG | NCR        | NCR        |
| Amplifier - Pre-Amplifier    | Miteq              | JSD4-18002600-26-8P            | APU | 2021-09-09 | 2022-09-09 |
| Antenna - Biconilog          | ETS Lindgren       | 3142D                          | AXO | 2021-09-14 | 2023-09-14 |
| Cable                        | ESM Cable Corp.    | Bilog Cables                   | MNH | 2021-10-13 | 2022-10-13 |
| Amplifier - Pre-Amplifier    | Miteq              | AM-1616-1000                   | AVO | 2021-10-13 | 2022-10-13 |
| Filter - Low Pass            | Micro-Tronics      | LPM50004                       | LFK | 2021-09-09 | 2022-09-09 |
| Filter - High Pass           | Micro-Tronics      | HPM50111                       | LFN | 2021-09-09 | 2022-09-09 |
| Attenuator                   | Fairview Microwave | SA18E-20                       | TWZ | 2021-09-09 | 2022-09-09 |

# SPURIOUS RADIATED EMISSIONS

## MEASUREMENT UNCERTAINTY

| Description  |        |         |
|--------------|--------|---------|
| Expanded k=2 | 5.2 dB | -5.2 dB |

## FREQUENCY RANGE INVESTIGATED

|                     |
|---------------------|
| 30 MHz TO 26500 MHz |
|---------------------|

## POWER INVESTIGATED

|             |
|-------------|
| 110VAC/60Hz |
|-------------|

## CONFIGURATIONS INVESTIGATED

|            |
|------------|
| FITY0001-2 |
| FITY0001-5 |

## MODES INVESTIGATED

|                                                                                                  |
|--------------------------------------------------------------------------------------------------|
| Transmitting BLE Low, Mid, and High Chs (2402, 2442, and 2480 MHz), 1 Mbps, 2 Mbps, and 125kbps. |
|--------------------------------------------------------------------------------------------------|

# SPURIOUS RADIATED EMISSIONS

|                   |                              |                       |            |
|-------------------|------------------------------|-----------------------|------------|
| EUT:              | SLATESAFETY BAND V2          | Work Order:           | FITY0001   |
| Serial Number:    | 6563                         | Date:                 | 2022-04-01 |
| Customer:         | FireHUD Inc. DBA SlateSafety | Temperature:          | 24.1°C     |
| Attendees:        | Dustin Morris                | Relative Humidity:    | 24.1%      |
| Customer Project: |                              | Bar. Pressure (PMSL): | 1018 mb    |
| Tested By:        | Christopher Heintzelman      | Job Site:             | MN05       |
| Power:            | 110VAC/60Hz                  | Configuration:        | FITY0001-  |

## TEST SPECIFICATIONS

|                 |                  |
|-----------------|------------------|
| Specification:  | Method:          |
| FCC 15.247:2022 | ANSI C63.10:2013 |

## TEST PARAMETERS

|        |    |                    |   |                     |           |
|--------|----|--------------------|---|---------------------|-----------|
| Run #: | 14 | Test Distance (m): | 3 | Ant. Height(s) (m): | 1 to 4(m) |
|--------|----|--------------------|---|---------------------|-----------|

## COMMENTS

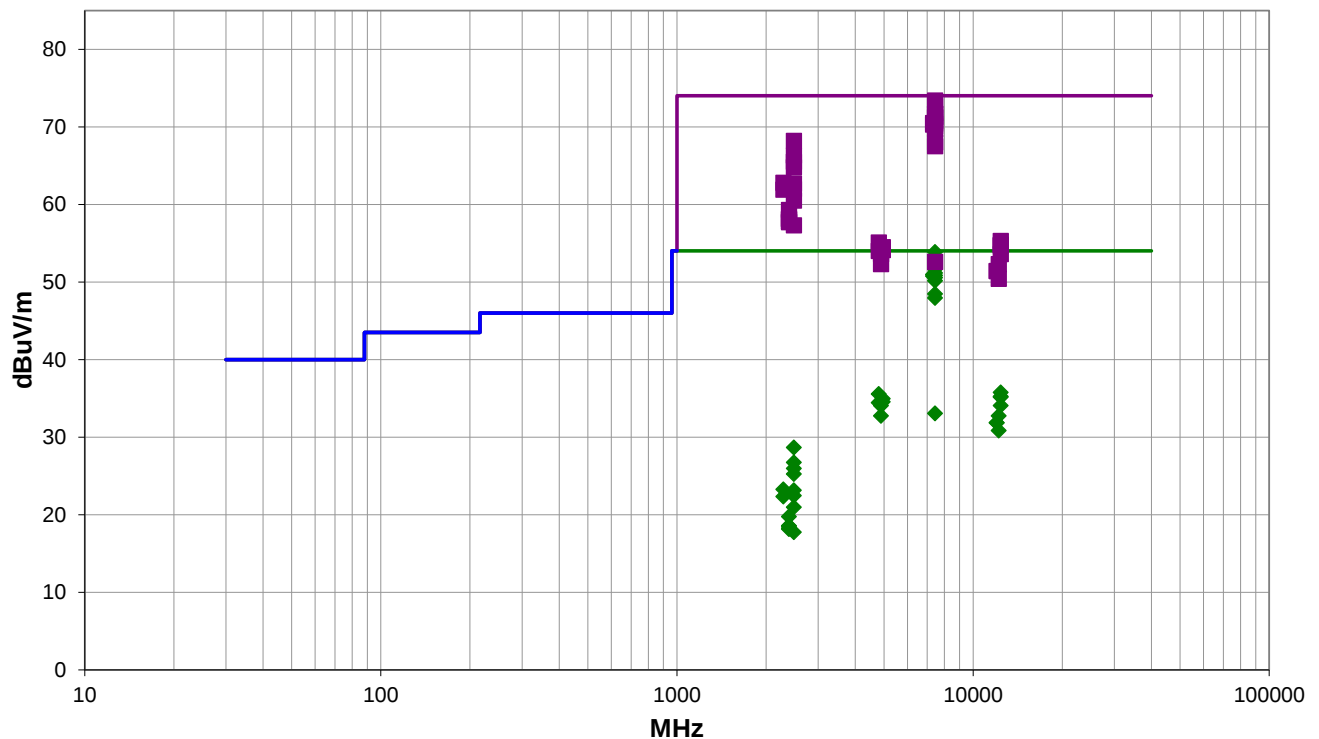
Power setting -4 for 1 and 2 Mbps, -12 for 125kbps. Test mode is 59% for 125kbps, 16.8% for 1 Mbps, and 10.8% for 2 Mbps. Ferrite 742 711 42 on programming connector. In the field, device will be limited to 10.52% duty cycle. Peak measurements were taken, average measurements were calculated by subtracting  $20 \cdot \log(\text{duty cycle})$  per KDB 558074.

## EUT OPERATING MODES

Transmitting BLE Low, Mid, and High Chs (2402, 2442, and 2480 MHz), 1 Mbps, 2 Mbps, and 125kbps.

## DEVIATIONS FROM TEST STANDARD

None



Run #: 14

■ PK ◆ AV ● QP

# SPURIOUS RADIATED EMISSIONS

## RESULTS - Run #14

| Freq (MHz) | Amplitude (dBuV) | Factor (dB/m) | Antenna Height (meters) | Azimuth (degrees) | Duty Cycle Correction Factor (meters) | External Attenuation (dB) | Polarity/Transducer Type | Detector | Distance Adjustment (dB) | Adjusted (dBuV/m) | Spec. Limit (dBuV/m) | Compared to Spec. (dB) | Comments                     |
|------------|------------------|---------------|-------------------------|-------------------|---------------------------------------|---------------------------|--------------------------|----------|--------------------------|-------------------|----------------------|------------------------|------------------------------|
| 7439.950   | 63.4             | 10.0          | 2.4                     | 258.9             | -19.6                                 | 0.0                       | Horz                     | AV       | 0.0                      | 53.8              | 54.0                 | -0.2                   | EUT Horz, High Ch, 2 Mbps    |
| 7439.950   | 63.4             | 10.0          | 2.4                     | 258.9             |                                       | 0.0                       | Horz                     | PK       | 0.0                      | 73.4              | 74.0                 | -0.6                   | EUT Horz, High Ch, 2 Mbps    |
| 7440.117   | 62.7             | 10.0          | 2.4                     | 274.0             | -19.6                                 | 0.0                       | Horz                     | AV       | 0.0                      | 53.1              | 54.0                 | -0.9                   | EUT Horz, High Ch, 1 Mbps    |
| 7440.117   | 62.7             | 10.0          | 2.4                     | 274.0             |                                       | 0.0                       | Horz                     | PK       | 0.0                      | 72.7              | 74.0                 | -1.3                   | EUT Horz, High Ch, 1 Mbps    |
| 7440.092   | 61.7             | 10.0          | 2.0                     | 304.0             | -19.6                                 | 0.0                       | Horz                     | AV       | 0.0                      | 52.1              | 54.0                 | -1.9                   | EUT Vert, High Ch, 1 Mbps    |
| 7440.083   | 61.7             | 10.0          | 2.1                     | 312.9             | -19.6                                 | 0.0                       | Horz                     | AV       | 0.0                      | 52.1              | 54.0                 | -1.9                   | EUT Vert, High Ch, 2 Mbps    |
| 7440.108   | 61.3             | 10.0          | 2.1                     | 311.9             | -19.6                                 | 0.0                       | Horz                     | AV       | 0.0                      | 51.7              | 54.0                 | -2.3                   | EUT On Side, High Ch, 1 Mbps |
| 7440.092   | 61.7             | 10.0          | 2.0                     | 304.0             |                                       | 0.0                       | Horz                     | PK       | 0.0                      | 71.7              | 74.0                 | -2.3                   | EUT Vert, High Ch, 1 Mbps    |
| 7440.083   | 61.7             | 10.0          | 2.1                     | 312.9             |                                       | 0.0                       | Horz                     | PK       | 0.0                      | 71.7              | 74.0                 | -2.3                   | EUT Vert, High Ch, 2 Mbps    |
| 7439.992   | 61.2             | 10.0          | 2.2                     | 282.9             | -19.6                                 | 0.0                       | Vert                     | AV       | 0.0                      | 51.6              | 54.0                 | -2.4                   | EUT On Side, High Ch, 1 Mbps |
| 7440.108   | 61.3             | 10.0          | 2.1                     | 311.9             |                                       | 0.0                       | Horz                     | PK       | 0.0                      | 71.3              | 74.0                 | -2.7                   | EUT On Side, High Ch, 1 Mbps |
| 7439.992   | 61.2             | 10.0          | 2.2                     | 282.9             |                                       | 0.0                       | Vert                     | PK       | 0.0                      | 71.2              | 74.0                 | -2.8                   | EUT On Side, High Ch, 1 Mbps |
| 7439.917   | 60.7             | 10.0          | 2.1                     | 256.0             | -19.6                                 | 0.0                       | Vert                     | AV       | 0.0                      | 51.1              | 54.0                 | -2.9                   | EUT On Side, High Ch, 2 Mbps |
| 7326.017   | 60.2             | 10.3          | 1.3                     | 250.9             | -19.6                                 | 0.0                       | Horz                     | AV       | 0.0                      | 50.9              | 54.0                 | -3.1                   | EUT Horz, Mid Ch, 1 Mbps     |
| 7440.042   | 60.4             | 10.0          | 3.0                     | 18.0              | -19.6                                 | 0.0                       | Vert                     | AV       | 0.0                      | 50.8              | 54.0                 | -3.2                   | EUT Horz, High Ch, 1 Mbps    |
| 7325.917   | 60.0             | 10.3          | 2.1                     | 256.0             | -19.6                                 | 0.0                       | Vert                     | AV       | 0.0                      | 50.7              | 54.0                 | -3.3                   | EUT On Side, Mid Ch, 1 Mbps  |
| 7439.917   | 60.7             | 10.0          | 2.1                     | 256.0             |                                       | 0.0                       | Vert                     | PK       | 0.0                      | 70.7              | 74.0                 | -3.3                   | EUT On Side, High Ch, 2 Mbps |
| 7440.075   | 60.1             | 10.0          | 3.1                     | 30.9              | -19.6                                 | 0.0                       | Vert                     | AV       | 0.0                      | 50.5              | 54.0                 | -3.5                   | EUT Horz, High Ch, 2 Mbps    |
| 7326.017   | 60.2             | 10.3          | 1.3                     | 250.9             |                                       | 0.0                       | Horz                     | PK       | 0.0                      | 70.5              | 74.0                 | -3.5                   | EUT Horz, Mid Ch, 1 Mbps     |
| 7440.042   | 60.4             | 10.0          | 3.0                     | 18.0              |                                       | 0.0                       | Vert                     | PK       | 0.0                      | 70.4              | 74.0                 | -3.6                   | EUT Horz, High Ch, 1 Mbps    |
| 7325.917   | 60.0             | 10.3          | 2.1                     | 256.0             |                                       | 0.0                       | Vert                     | PK       | 0.0                      | 70.3              | 74.0                 | -3.7                   | EUT On Side, Mid Ch, 1 Mbps  |
| 7440.050   | 59.7             | 10.0          | 2.0                     | 304.9             | -19.6                                 | 0.0                       | Horz                     | AV       | 0.0                      | 50.1              | 54.0                 | -3.9                   | EUT On Side, High Ch, 2 Mbps |
| 7440.075   | 60.1             | 10.0          | 3.1                     | 30.9              |                                       | 0.0                       | Vert                     | PK       | 0.0                      | 70.1              | 74.0                 | -3.9                   | EUT Horz, High Ch, 2 Mbps    |
| 7440.050   | 59.7             | 10.0          | 2.0                     | 304.9             |                                       | 0.0                       | Horz                     | PK       | 0.0                      | 69.7              | 74.0                 | -4.3                   | EUT On Side, High Ch, 2 Mbps |
| 7440.050   | 58.0             | 10.0          | 1.2                     | 196.9             | -19.6                                 | 0.0                       | Vert                     | AV       | 0.0                      | 48.4              | 54.0                 | -5.6                   | EUT Vert, High Ch, 1 Mbps    |
| 2483.500   | 52.0             | -3.8          | 1.0                     | 156.9             |                                       | 20.0                      | Horz                     | PK       | 0.0                      | 68.2              | 74.0                 | -5.8                   | EUT Horz, High Ch, 2 Mbps    |
| 7440.050   | 58.0             | 10.0          | 1.2                     | 196.9             |                                       | 0.0                       | Vert                     | PK       | 0.0                      | 68.0              | 74.0                 | -6.0                   | EUT Vert, High Ch, 1 Mbps    |
| 7440.042   | 57.5             | 10.0          | 2.0                     | 196.9             | -19.6                                 | 0.0                       | Vert                     | AV       | 0.0                      | 47.9              | 54.0                 | -6.1                   | EUT Vert, High Ch, 2 Mbps    |
| 7440.042   | 57.5             | 10.0          | 2.0                     | 196.9             |                                       | 0.0                       | Vert                     | PK       | 0.0                      | 67.5              | 74.0                 | -6.5                   | EUT Vert, High Ch, 2 Mbps    |
| 2483.658   | 50.1             | -3.8          | 1.1                     | 92.9              |                                       | 20.0                      | Vert                     | PK       | 0.0                      | 66.3              | 74.0                 | -7.7                   | EUT Vert, High Ch, 2 Mbps    |
| 2483.592   | 49.3             | -3.8          | 4.0                     | 157.9             |                                       | 20.0                      | Horz                     | PK       | 0.0                      | 65.5              | 74.0                 | -8.5                   | EUT Horz, High Ch, 1 Mbps    |
| 2483.550   | 48.6             | -3.8          | 1.1                     | 30.0              |                                       | 20.0                      | Horz                     | PK       | 0.0                      | 64.8              | 74.0                 | -9.2                   | EUT On Side, High Ch, 2 Mbps |
| 2288.200   | 45.7             | -2.9          | 2.6                     | 177.0             |                                       | 20.0                      | Horz                     | PK       | 0.0                      | 62.8              | 74.0                 | -11.2                  | EUT Horz, High Ch, 1 Mbps    |
| 2483.508   | 46.5             | -3.8          | 1.2                     | 236.9             |                                       | 20.0                      | Vert                     | PK       | 0.0                      | 62.7              | 74.0                 | -11.3                  | EUT On Side, High Ch, 2 Mbps |
| 2483.775   | 45.8             | -3.8          | 3.2                     | 150.9             |                                       | 20.0                      | Horz                     | PK       | 0.0                      | 62.0              | 74.0                 | -12.0                  | EUT Horz, High Ch, 125kbps   |
| 2287.983   | 44.8             | -2.9          | 1.1                     | 98.0              |                                       | 20.0                      | Horz                     | PK       | 0.0                      | 61.9              | 74.0                 | -12.1                  | EUT Horz, High Ch, 2 Mbps    |
| 2483.783   | 44.3             | -3.8          | 4.0                     | 299.0             |                                       | 20.0                      | Horz                     | PK       | 0.0                      | 60.5              | 74.0                 | -13.5                  | EUT Vert, High Ch, 2 Mbps    |
| 2388.350   | 42.8             | -3.5          | 1.5                     | 76.0              |                                       | 20.0                      | Horz                     | PK       | 0.0                      | 59.3              | 74.0                 | -14.7                  | EUT Horz, Low Ch, 2 Mbps     |
| 2389.042   | 41.6             | -3.5          | 1.5                     | 45.9              |                                       | 20.0                      | Horz                     | PK       | 0.0                      | 58.1              | 74.0                 | -15.9                  | EUT Horz, Low Ch, 1 Mbps     |
| 2389.500   | 41.6             | -3.5          | 1.5                     | 153.9             |                                       | 20.0                      | Vert                     | PK       | 0.0                      | 58.1              | 74.0                 | -15.9                  | EUT Vert, Low Ch, 2 Mbps     |

# SPURIOUS RADIATED EMISSIONS

| Freq (MHz) | Amplitude (dBuV) | Factor (dB/m) | Antenna Height (meters) | Azimuth (degrees) | Duty Cycle Correction Factor (meters) | External Attenuation (dB) | Polarity/Transducer Type | Detector | Distance Adjustment (dB) | Adjusted (dBuV/m) | Spec. Limit (dBuV/m) | Compared to Spec. (dB) | Comments                     |
|------------|------------------|---------------|-------------------------|-------------------|---------------------------------------|---------------------------|--------------------------|----------|--------------------------|-------------------|----------------------|------------------------|------------------------------|
| 2388.808   | 41.3             | -3.5          | 1.5                     | 238.0             |                                       | 20.0                      | Horz                     | PK       | 0.0                      | 57.8              | 74.0                 | -16.2                  | EUT Horz, Low Ch, 125 kbps   |
| 2387.708   | 41.2             | -3.5          | 1.5                     | 145.9             |                                       | 20.0                      | Vert                     | PK       | 0.0                      | 57.7              | 74.0                 | -16.3                  | EUT Vert, Low Ch, 1 Mbps     |
| 2484.650   | 41.1             | -3.8          | 1.5                     | 347.9             |                                       | 20.0                      | Vert                     | PK       | 0.0                      | 57.3              | 74.0                 | -16.7                  | EUT Horz, High Ch, 2 Mbps    |
| 12401.400  | 51.4             | 3.9           | 1.8                     | 250.0             | -19.6                                 | 0.0                       | Vert                     | AV       | 0.0                      | 35.7              | 54.0                 | -18.3                  | EUT On Side, High Ch, 1 Mbps |
| 4803.400   | 52.3             | 2.8           | 2.5                     | 354.0             | -19.6                                 | 0.0                       | Vert                     | AV       | 0.0                      | 35.5              | 54.0                 | -18.5                  | EUT On Side, Low Ch, 1 Mbps  |
| 12401.400  | 51.4             | 3.9           | 1.8                     | 250.0             |                                       | 0.0                       | Vert                     | PK       | 0.0                      | 55.3              | 74.0                 | -18.7                  | EUT On Side, High Ch, 1 Mbps |
| 12400.090  | 50.9             | 3.9           | 1.0                     | 264.0             | -19.6                                 | 0.0                       | Horz                     | AV       | 0.0                      | 35.2              | 54.0                 | -18.8                  | EUT Horz, High Ch, 1 Mbps    |
| 12398.790  | 55.4             | -0.7          | 2.4                     | 264.0             | -19.6                                 | 0.0                       | Horz                     | AV       | 0.0                      | 35.1              | 54.0                 | -18.9                  | EUT Horz, High Ch, 1 Mbps    |
| 4803.400   | 52.3             | 2.8           | 2.5                     | 354.0             |                                       | 0.0                       | Vert                     | PK       | 0.0                      | 55.1              | 74.0                 | -18.9                  | EUT On Side, Low Ch, 1 Mbps  |
| 4959.450   | 51.4             | 3.1           | 3.9                     | 94.0              | -19.6                                 | 0.0                       | Horz                     | AV       | 0.0                      | 34.9              | 54.0                 | -19.1                  | EUT Horz, High Ch, 1 Mbps    |
| 12400.090  | 50.9             | 3.9           | 1.0                     | 264.0             |                                       | 0.0                       | Horz                     | PK       | 0.0                      | 54.8              | 74.0                 | -19.2                  | EUT Horz, High Ch, 1 Mbps    |
| 12398.790  | 55.4             | -0.7          | 2.4                     | 264.0             |                                       | 0.0                       | Horz                     | PK       | 0.0                      | 54.7              | 74.0                 | -19.3                  | EUT Horz, High Ch, 1 Mbps    |
| 4960.308   | 51.0             | 3.1           | 2.3                     | 33.0              | -19.6                                 | 0.0                       | Vert                     | AV       | 0.0                      | 34.5              | 54.0                 | -19.5                  | EUT On Side, High Ch, 1 Mbps |
| 4959.450   | 51.4             | 3.1           | 3.9                     | 94.0              |                                       | 0.0                       | Horz                     | PK       | 0.0                      | 54.5              | 74.0                 | -19.5                  | EUT Horz, High Ch, 1 Mbps    |
| 4803.650   | 51.2             | 2.8           | 2.4                     | 62.0              | -19.6                                 | 0.0                       | Horz                     | AV       | 0.0                      | 34.4              | 54.0                 | -19.6                  | EUT Horz, Low Ch, 1 Mbps     |
| 4960.308   | 51.0             | 3.1           | 2.3                     | 33.0              |                                       | 0.0                       | Vert                     | PK       | 0.0                      | 54.1              | 74.0                 | -19.9                  | EUT On Side, High Ch, 1 Mbps |
| 12398.830  | 54.3             | -0.7          | 1.8                     | 257.0             | -19.6                                 | 0.0                       | Vert                     | AV       | 0.0                      | 34.0              | 54.0                 | -20.0                  | EUT On Side, High Ch, 1 Mbps |
| 4883.450   | 50.7             | 2.9           | 1.5                     | 48.0              | -19.6                                 | 0.0                       | Vert                     | AV       | 0.0                      | 34.0              | 54.0                 | -20.0                  | EUT On Side, Mid Ch, 1 Mbps  |
| 4803.650   | 51.2             | 2.8           | 2.4                     | 62.0              |                                       | 0.0                       | Horz                     | PK       | 0.0                      | 54.0              | 74.0                 | -20.0                  | EUT Horz, Low Ch, 1 Mbps     |
| 12398.830  | 54.3             | -0.7          | 1.8                     | 257.0             |                                       | 0.0                       | Vert                     | PK       | 0.0                      | 53.6              | 74.0                 | -20.4                  | EUT On Side, High Ch, 1 Mbps |
| 4883.450   | 50.7             | 2.9           | 1.5                     | 48.0              |                                       | 0.0                       | Vert                     | PK       | 0.0                      | 53.6              | 74.0                 | -20.4                  | EUT On Side, Mid Ch, 1 Mbps  |
| 7439.125   | 42.6             | 10.0          | 1.3                     | 278.0             | -19.6                                 | 0.0                       | Horz                     | AV       | 0.0                      | 33.0              | 54.0                 | -21.0                  | EUT Horz, High Ch, 125kbps   |
| 4883.675   | 49.4             | 2.9           | 1.3                     | 347.0             | -19.6                                 | 0.0                       | Horz                     | AV       | 0.0                      | 32.7              | 54.0                 | -21.3                  | EUT Horz, Mid Ch, 1 Mbps     |
| 12208.910  | 53.6             | -1.3          | 2.4                     | 261.0             | -19.6                                 | 0.0                       | Horz                     | AV       | 0.0                      | 32.7              | 54.0                 | -21.3                  | EUT Horz, Mid Ch, 1 Mbps     |
| 7439.125   | 42.6             | 10.0          | 1.3                     | 278.0             |                                       | 0.0                       | Horz                     | PK       | 0.0                      | 52.6              | 74.0                 | -21.4                  | EUT Horz, High Ch, 125kbps   |
| 4883.675   | 49.4             | 2.9           | 1.3                     | 347.0             |                                       | 0.0                       | Horz                     | PK       | 0.0                      | 52.3              | 74.0                 | -21.7                  | EUT Horz, Mid Ch, 1 Mbps     |
| 12208.910  | 53.6             | -1.3          | 2.4                     | 261.0             |                                       | 0.0                       | Horz                     | PK       | 0.0                      | 52.3              | 74.0                 | -21.7                  | EUT Horz, Mid Ch, 1 Mbps     |
| 12008.900  | 52.7             | -1.3          | 2.5                     | 253.0             | -19.6                                 | 0.0                       | Horz                     | AV       | 0.0                      | 31.8              | 54.0                 | -22.2                  | EUT Horz, Low Ch, 1 Mbps     |
| 12011.380  | 52.7             | -1.3          | 2.6                     | 163.9             | -19.6                                 | 0.0                       | Vert                     | AV       | 0.0                      | 31.8              | 54.0                 | -22.2                  | EUT On Side, Low Ch, 1 Mbps  |
| 12008.900  | 52.7             | -1.3          | 2.5                     | 253.0             |                                       | 0.0                       | Horz                     | PK       | 0.0                      | 51.4              | 74.0                 | -22.6                  | EUT Horz, Low Ch, 1 Mbps     |
| 12011.380  | 52.7             | -1.3          | 2.6                     | 163.9             |                                       | 0.0                       | Vert                     | PK       | 0.0                      | 51.4              | 74.0                 | -22.6                  | EUT On Side, Low Ch, 1 Mbps  |
| 12208.810  | 51.7             | -1.3          | 1.8                     | 257.0             | -19.6                                 | 0.0                       | Vert                     | AV       | 0.0                      | 30.8              | 54.0                 | -23.2                  | EUT On Side, Mid Ch, 1 Mbps  |
| 12208.810  | 51.7             | -1.3          | 1.8                     | 257.0             |                                       | 0.0                       | Vert                     | PK       | 0.0                      | 50.4              | 74.0                 | -23.6                  | EUT On Side, Mid Ch, 1 Mbps  |
| 2483.500   | 52.0             | -3.8          | 1.0                     | 156.9             | -19.6                                 | 20.0                      | Horz                     | AV       | 0.0                      | 28.6              | 54.0                 | -25.4                  | EUT Horz, High Ch, 2 Mbps    |
| 2483.658   | 50.1             | -3.8          | 1.1                     | 92.9              | -19.6                                 | 20.0                      | Vert                     | AV       | 0.0                      | 26.7              | 54.0                 | -27.3                  | EUT Vert, High Ch, 2 Mbps    |
| 2483.592   | 49.3             | -3.8          | 4.0                     | 157.9             | -19.6                                 | 20.0                      | Horz                     | AV       | 0.0                      | 25.9              | 54.0                 | -28.1                  | EUT Horz, High Ch, 1 Mbps    |
| 2483.550   | 48.6             | -3.8          | 1.1                     | 30.0              | -19.6                                 | 20.0                      | Horz                     | AV       | 0.0                      | 25.2              | 54.0                 | -28.8                  | EUT On Side, High Ch, 2 Mbps |
| 2288.200   | 45.7             | -2.9          | 2.6                     | 177.0             | -19.6                                 | 20.0                      | Horz                     | AV       | 0.0                      | 23.2              | 54.0                 | -30.8                  | EUT Horz, High Ch, 1 Mbps    |
| 2483.508   | 46.5             | -3.8          | 1.2                     | 236.9             | -19.6                                 | 20.0                      | Vert                     | AV       | 0.0                      | 23.1              | 54.0                 | -30.9                  | EUT On Side, High Ch, 2 Mbps |
| 2483.775   | 45.8             | -3.8          | 3.2                     | 150.9             | -19.6                                 | 20.0                      | Horz                     | AV       | 0.0                      | 22.4              | 54.0                 | -31.6                  | EUT Horz, High Ch, 125kbps   |
| 2287.983   | 44.8             | -2.9          | 1.1                     | 98.0              | -19.6                                 | 20.0                      | Horz                     | AV       | 0.0                      | 22.3              | 54.0                 | -31.7                  | EUT Horz, High Ch, 2 Mbps    |

# SPURIOUS RADIATED EMISSIONS

| Freq (MHz) | Amplitude (dBuV) | Factor (dB/m) | Antenna Height (meters) | Azimuth (degrees) | Duty Cycle Correction Factor (meters) | External Attenuation (dB) | Polarity/Transducer Type | Detector | Distance Adjustment (dB) | Adjusted (dBuV/m) | Spec. Limit (dBuV/m) | Compared to Spec. (dB) | Comments                   |
|------------|------------------|---------------|-------------------------|-------------------|---------------------------------------|---------------------------|--------------------------|----------|--------------------------|-------------------|----------------------|------------------------|----------------------------|
| 2483.783   | 44.3             | -3.8          | 4.0                     | 299.0             | -19.6                                 | 20.0                      | Horz                     | AV       | 0.0                      | 20.9              | 54.0                 | -33.1                  | EUT Vert, High Ch, 2 Mbps  |
| 2388.350   | 42.8             | -3.5          | 1.5                     | 76.0              | -19.6                                 | 20.0                      | Horz                     | AV       | 0.0                      | 19.7              | 54.0                 | -34.3                  | EUT Horz, Low Ch, 2 Mbps   |
| 2389.042   | 41.6             | -3.5          | 1.5                     | 45.9              | -19.6                                 | 20.0                      | Horz                     | AV       | 0.0                      | 18.5              | 54.0                 | -35.5                  | EUT Horz, Low Ch, 1 Mbps   |
| 2389.500   | 41.6             | -3.5          | 1.5                     | 153.9             | -19.6                                 | 20.0                      | Vert                     | AV       | 0.0                      | 18.5              | 54.0                 | -35.5                  | EUT Vert, Low Ch, 2 Mbps   |
| 2388.808   | 41.3             | -3.5          | 1.5                     | 238.0             | -19.6                                 | 20.0                      | Horz                     | AV       | 0.0                      | 18.2              | 54.0                 | -35.8                  | EUT Horz, Low Ch, 125 kbps |
| 2387.708   | 41.2             | -3.5          | 1.5                     | 145.9             | -19.6                                 | 20.0                      | Vert                     | AV       | 0.0                      | 18.1              | 54.0                 | -35.9                  | EUT Vert, Low Ch, 1 Mbps   |
| 2484.650   | 41.1             | -3.8          | 1.5                     | 347.9             | -19.6                                 | 20.0                      | Vert                     | AV       | 0.0                      | 17.7              | 54.0                 | -36.3                  | EUT Horz, High Ch, 2 Mbps  |

## CONCLUSION

Pass



Tested By

# SPURIOUS RADIATED EMISSIONS

|                   |                              |                       |            |
|-------------------|------------------------------|-----------------------|------------|
| EUT:              | SLATESAFETY BAND V2          | Work Order:           | FITY0001   |
| Serial Number:    | 6563                         | Date:                 | 2022-07-21 |
| Customer:         | FireHUD Inc. DBA SlateSafety | Temperature:          | 20.8°C     |
| Attendees:        | None                         | Relative Humidity:    | 53.5%      |
| Customer Project: | N/A                          | Bar. Pressure (PMSL): | 1013 mb    |
| Tested By:        | Chris Patterson              | Job Site:             | MN05       |
| Power:            | Battery                      | Configuration:        | FITY0001-5 |

## TEST SPECIFICATIONS

|                 |                  |
|-----------------|------------------|
| Specification:  | Method:          |
| FCC 15.247:2022 | ANSI C63.10:2013 |

## TEST PARAMETERS

|        |    |                    |   |                     |           |
|--------|----|--------------------|---|---------------------|-----------|
| Run #: | 55 | Test Distance (m): | 3 | Ant. Height(s) (m): | 1 to 4(m) |
|--------|----|--------------------|---|---------------------|-----------|

## COMMENTS

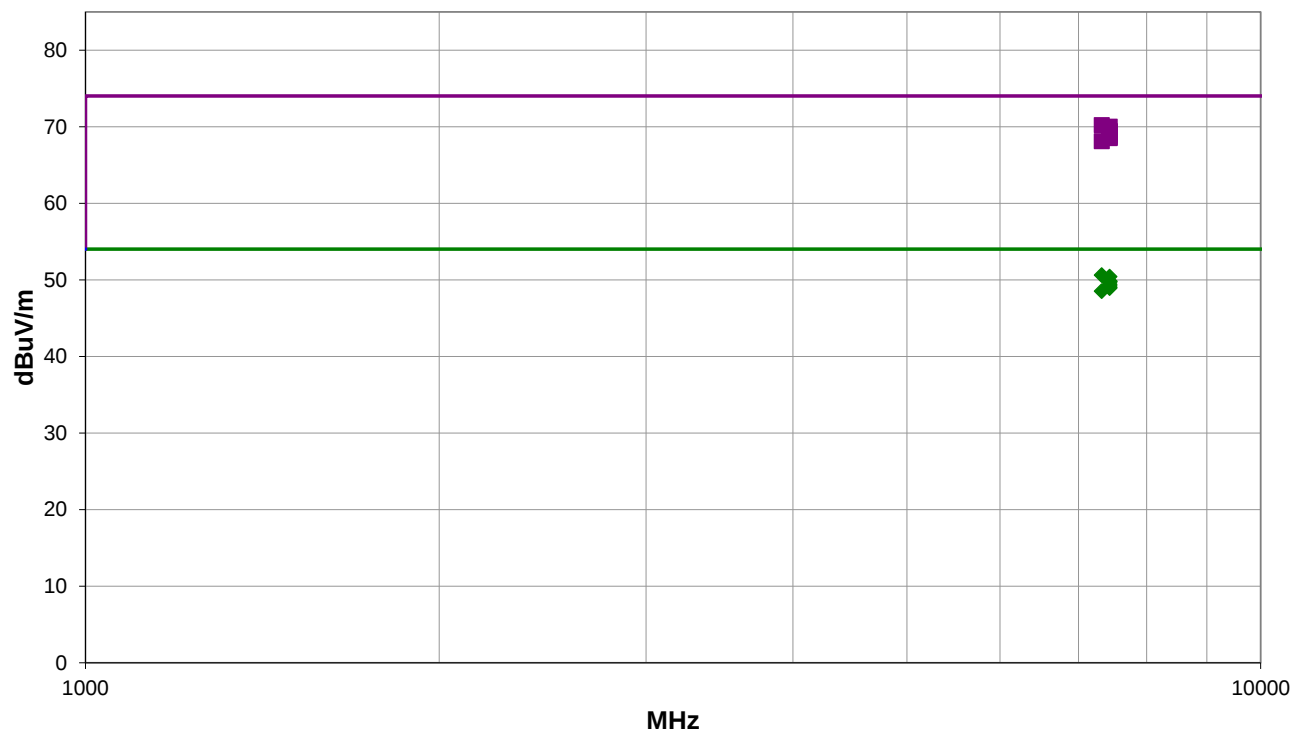
Battery mode spot checks. AC Charger and cable removed. Power setting -4 for 1 and 2 Mbps, -12 for 125kbps. Test mode is 59% for 125kbps, 16.8% for 1 Mbps, and 10.8% for 2 Mbps. Ferrite 742 711 42 on programming connector. In the field, device will be limited to 1.14% duty cycle. Peak measurements were taken, average measurements were calculated by subtracting  $20 \cdot \log(\text{duty cycle})$  per KDB 558074.

## EUT OPERATING MODES

Transmitting BLE Low, Mid, and High Chs (2402, 2442, and 2480 MHz), 1 Mbps, 2 Mbps, and 125kbps.

## DEVIATIONS FROM TEST STANDARD

None



Run #: 55

■ PK    ◆ AV    ● QP

# SPURIOUS RADIATED EMISSIONS

## RESULTS - Run #55

| Freq (MHz) | Amplitude (dBuV) | Factor (dB/m) | Antenna Height (meters) | Azimuth (degrees) | Test Distance (meters) | DCCF (dB) | Polarity/Transducer Type | Detector | Distance Adjustment (dB) | Adjusted (dBuV/m) | Spec. Limit (dBuV/m) | Compared to Spec. (dB) | Comments                     |
|------------|------------------|---------------|-------------------------|-------------------|------------------------|-----------|--------------------------|----------|--------------------------|-------------------|----------------------|------------------------|------------------------------|
| 7325.925   | 58.9             | 11.3          | 2.26                    | 350.0             | 3.0                    | -19.6     | Vert                     | AV       | 0.0                      | 50.6              | 54.0                 | -3.4                   | EUT On Side, Mid Ch, 1 Mbps  |
| 7440.017   | 58.2             | 11.8          | 3.21                    | 9.0               | 3.0                    | -19.6     | Vert                     | AV       | 0.0                      | 50.4              | 54.0                 | -3.6                   | EUT Horz, High Ch, 2 Mbps    |
| 7325.925   | 58.9             | 11.3          | 2.26                    | 350.0             | 3.0                    | 0.0       | Vert                     | PK       | 0.0                      | 70.2              | 74.0                 | -3.8                   | EUT On Side, Mid Ch, 1 Mbps  |
| 7440.017   | 58.2             | 11.8          | 3.21                    | 9.0               | 3.0                    | 0.0       | Vert                     | PK       | 0.0                      | 70.0              | 74.0                 | -4.0                   | EUT Horz, High Ch, 2 Mbps    |
| 7440.067   | 57.6             | 11.8          | 2.12                    | 204.9             | 3.0                    | -19.6     | Vert                     | AV       | 0.0                      | 49.8              | 54.0                 | -4.2                   | EUT On Side, High Ch, 2 Mbps |
| 7439.917   | 57.6             | 11.8          | 2.3                     | 103.9             | 3.0                    | -19.6     | Horz                     | AV       | 0.0                      | 49.8              | 54.0                 | -4.2                   | EUT Vert, High Ch, 1 Mbps    |
| 7440.200   | 57.5             | 11.8          | 2.24                    | 279.9             | 3.0                    | -19.6     | Horz                     | AV       | 0.0                      | 49.7              | 54.0                 | -4.3                   | EUT Vert, High Ch, 2 Mbps    |
| 7440.067   | 57.6             | 11.8          | 2.12                    | 204.9             | 3.0                    | 0.0       | Vert                     | PK       | 0.0                      | 69.4              | 74.0                 | -4.6                   | EUT On Side, High Ch, 2 Mbps |
| 7439.917   | 57.6             | 11.8          | 2.3                     | 103.9             | 3.0                    | 0.0       | Horz                     | PK       | 0.0                      | 69.4              | 74.0                 | -4.6                   | EUT Vert, High Ch, 1 Mbps    |
| 7439.967   | 57.2             | 11.8          | 2.19                    | 73.0              | 3.0                    | -19.6     | Vert                     | AV       | 0.0                      | 49.4              | 54.0                 | -4.6                   | EUT Vert, High Ch, 2 Mbps    |
| 7440.200   | 57.5             | 11.8          | 2.24                    | 279.9             | 3.0                    | 0.0       | Horz                     | PK       | 0.0                      | 69.3              | 74.0                 | -4.7                   | EUT Vert, High Ch, 2 Mbps    |
| 7439.983   | 57.0             | 11.8          | 1.12                    | 156.0             | 3.0                    | -19.6     | Horz                     | AV       | 0.0                      | 49.2              | 54.0                 | -4.8                   | EUT Horz, High Ch, 2 Mbps    |
| 7439.967   | 57.2             | 11.8          | 2.19                    | 73.0              | 3.0                    | 0.0       | Vert                     | PK       | 0.0                      | 69.0              | 74.0                 | -5.0                   | EUT Vert, High Ch, 2 Mbps    |
| 7440.108   | 56.8             | 11.8          | 3.59                    | 247.9             | 3.0                    | -19.6     | Vert                     | AV       | 0.0                      | 49.0              | 54.0                 | -5.0                   | EUT On Side, High Ch, 1 Mbps |
| 7439.883   | 56.7             | 11.8          | 3.75                    | 157.9             | 3.0                    | -19.6     | Horz                     | AV       | 0.0                      | 48.9              | 54.0                 | -5.1                   | EUT On Side, High Ch, 2 Mbps |
| 7439.983   | 57.0             | 11.8          | 1.12                    | 156.0             | 3.0                    | 0.0       | Horz                     | PK       | 0.0                      | 68.8              | 74.0                 | -5.2                   | EUT Horz, High Ch, 2 Mbps    |
| 7440.108   | 56.8             | 11.8          | 3.59                    | 247.9             | 3.0                    | 0.0       | Vert                     | PK       | 0.0                      | 68.6              | 74.0                 | -5.4                   | EUT On Side, High Ch, 1 Mbps |
| 7439.883   | 56.7             | 11.8          | 3.75                    | 157.9             | 3.0                    | 0.0       | Horz                     | PK       | 0.0                      | 68.5              | 74.0                 | -5.5                   | EUT On Side, High Ch, 2 Mbps |
| 7326.025   | 56.8             | 11.3          | 2.58                    | 250.9             | 3.0                    | -19.6     | Horz                     | AV       | 0.0                      | 48.5              | 54.0                 | -5.5                   | EUT Horz, Mid Ch, 1 Mbps     |
| 7326.025   | 56.8             | 11.3          | 2.58                    | 250.9             | 3.0                    | 0.0       | Horz                     | PK       | 0.0                      | 68.1              | 74.0                 | -5.9                   | EUT Horz, Mid Ch, 1 Mbps     |

## CONCLUSION

Pass



Tested By

End of Test Report