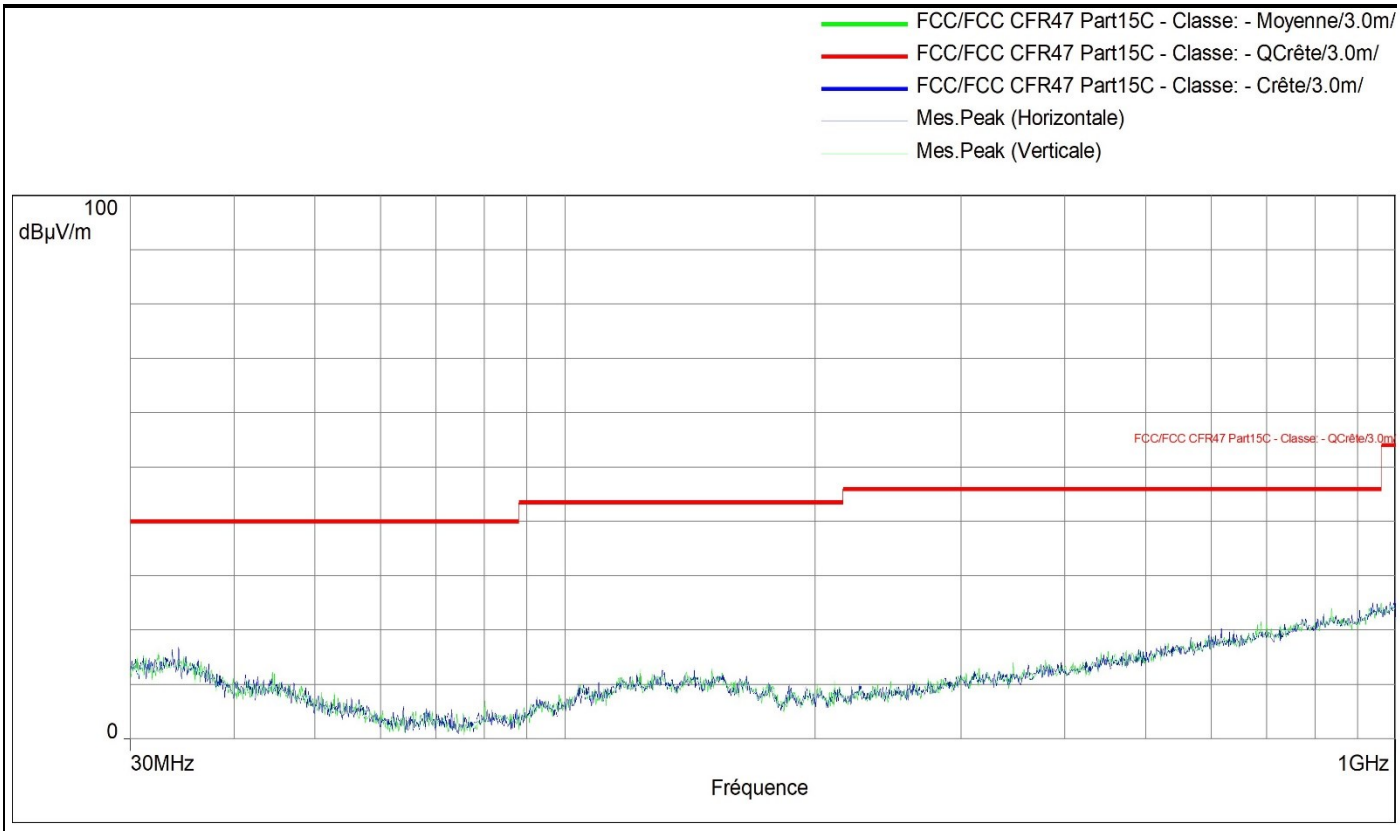
| RADIATED EMISSIONS | | | |
|---|---|---|---|
| **Graph name:** | Emr#2 | **Test configuration:** | |
| **Limit:** | FCC CFR47 Part15C | (H+V) - Worst case presented - TX mode - Axis Z | |
| **Class:** | | | |
| **Frequency range: [30MHz - 1GHz]** | | | |
| **Antenna polarization:** | | **RBW :** | 100kHz |
| **Azimuth:** | 0° - 360° | **VBW :** | 300kHz |



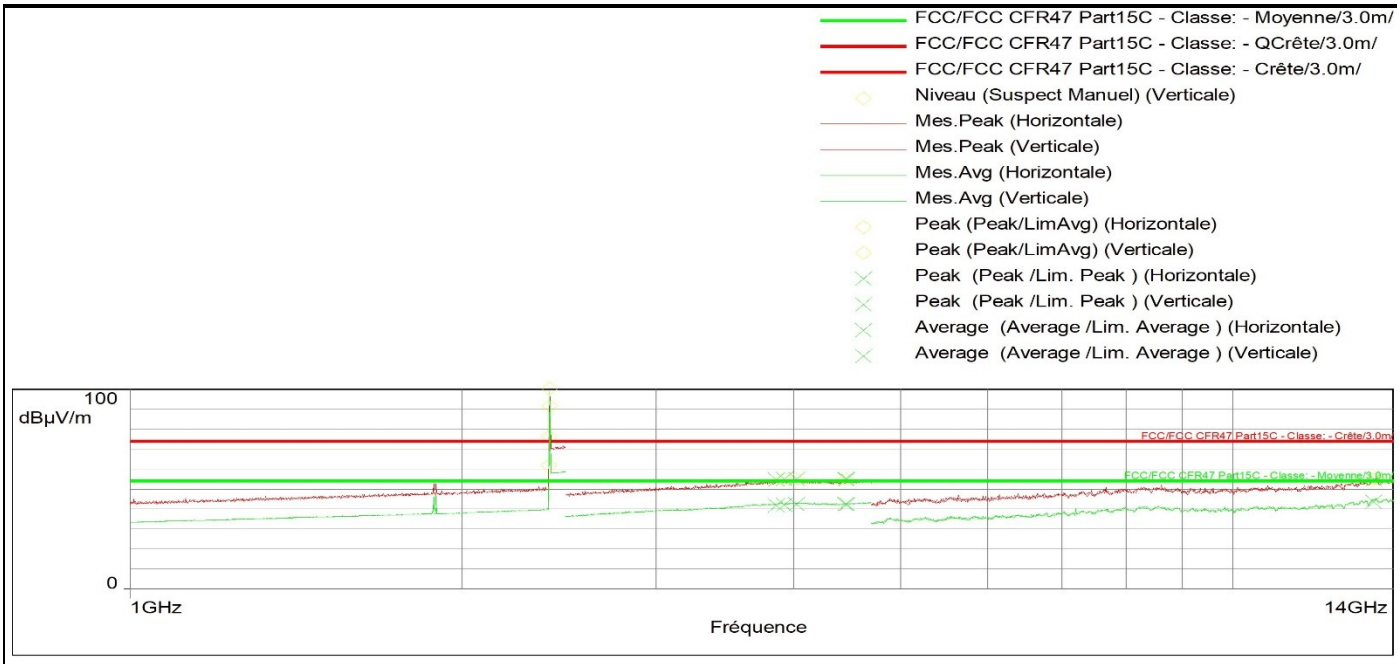

***Spurious emissions***

*No significative frequency observed*

**Results in the frequency band [1-25] GHz:**

| CMIN |
|---|

| RADIATED EMISSIONS | | | |
|---|---|---|---|
| **Graph name:** | Emr#3 | **Test configuration:** | |
| **Limit:** | FCC CFR47 Part15C | (H+V) - CMin - TX mode - Axis XY | |
| **Class:** | | | |
| **Frequency range: [1GHz - 14GHz]** | | | |
| **Antenna polarization:** | | **RBW :** | 1MHz |
| **Azimuth:** | 0° - 360° | **VBW :** | 3MHz |

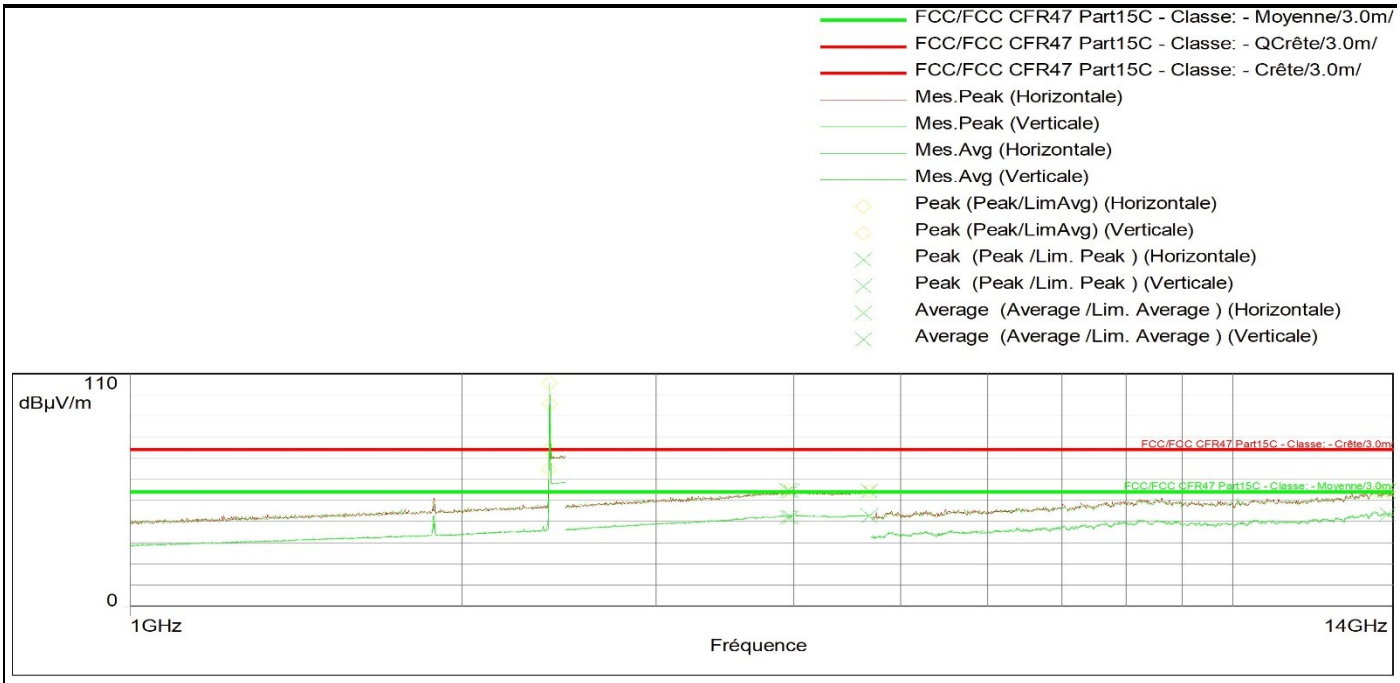



***Spurious emissions***

| Frequency (MHz) | Average (dBµV/m) | Lim.Average (dBµV/m) | Average-Lim.Average (dB) | Commentaire | Polarization | Correction (dB) |
|---|---|---|---|---|---|---|
| 4022.194 | 42.5 | 54.0 | -11.5 | Horizontal | Horizontal | 38.5 |
| 4465.051 | 42.3 | 54.0 | -11.7 | Horizontal | Horizontal | 38.3 |
| 3853.297 | 41.8 | 54.0 | -12.2 | Vertical | Vertical | 38.0 |
| 3923.338 | 42.1 | 54.0 | -11.9 | Vertical | Vertical | 38.3 |
| 4457.515 | 42.2 | 54.0 | -11.8 | Vertical | Vertical | 38.3 |
| 13419.472 | 43.5 | 54.0 | -10.5 | Vertical | Vertical | -12.9 |

| Frequency (MHz) | Peak (dBµV/m) | Lim.Peak (dBµV/m) | Peak-Lim.Peak (dB) | Commentaire | Polarization | Correction (dB) |
|---|---|---|---|---|---|---|
| 4022.194 | 55.1 | 74.0 | -18.9 | Horizontal | Horizontal | 38.5 |
| 4465.051 | 54.8 | 74.0 | -19.2 | Horizontal | Horizontal | 38.3 |
| 3853.297 | 54.8 | 74.0 | -19.2 | Vertical | Vertical | 38.0 |
| 3923.338 | 54.9 | 74.0 | -19.1 | Vertical | Vertical | 38.3 |
| 4457.515 | 55.1 | 74.0 | -18.9 | Vertical | Vertical | 38.3 |
| 13419.472 | 54.7 | 74.0 | -19.3 | Vertical | Vertical | -12.9 |

| RADIATED EMISSIONS | | | |
|---|---|---|---|
| **Graph name:** | Emr#4 | **Test configuration:** | |
| **Limit:** | FCC CFR47 Part15C | (H+V) - CMin - TX mode - Axis Z | |
| **Class:** | | | |
| **Frequency range: [1GHz - 14GHz]** | | | |
| **Antenna polarization:** | | **RBW :** | 1MHz |
| **Azimuth:** | 0° - 360° | **VBW :** | 3MHz |

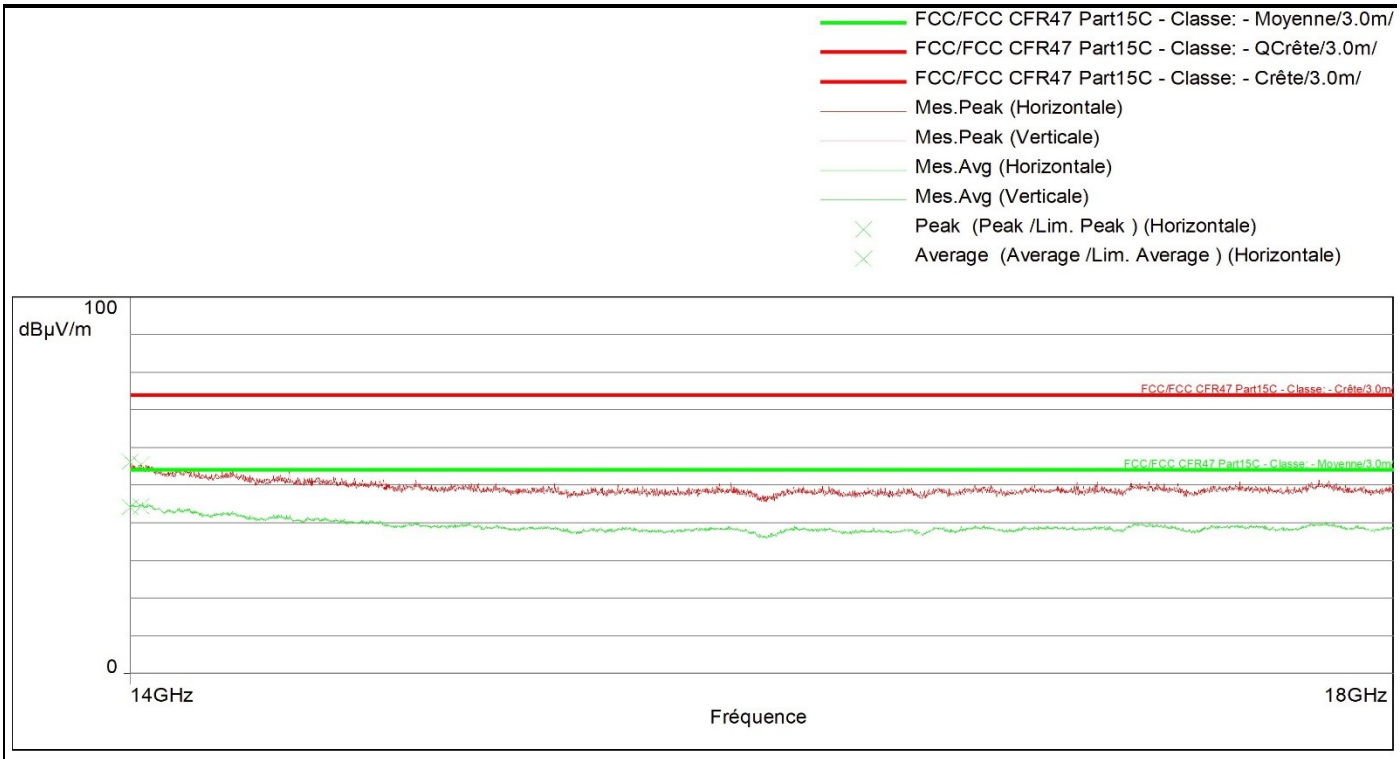



***Spurious emissions***

| Frequency (MHz) | Average (dBµV/m) | Lim.Average (dBµV/m) | Average-Lim.Average (dB) | Commentaire | Polarization | Correction (dB) |
|---|---|---|---|---|---|---|
| 3972.101 | 42.2 | 54.0 | -11.8 | Horizontal | Horizontal | 38.4 |
| 4679.165 | 42.7 | 54.0 | -11.3 | Horizontal | Horizontal | 38.6 |
| 3948.163 | 42.2 | 54.0 | -11.8 | Vertical | Vertical | 38.4 |
| 13803.602 | 43.6 | 54.0 | -10.4 | Vertical | Vertical | -13.1 |

| Frequency (MHz) | Peak (dBµV/m) | Lim.Peak (dBµV/m) | Peak-Lim.Peak (dB) | Commentaire | Polarization | Correction (dB) |
|---|---|---|---|---|---|---|
| 3972.101 | 54.4 | 74.0 | -19.6 | Horizontal | Horizontal | 38.4 |
| 4679.165 | 54.6 | 74.0 | -19.4 | Horizontal | Horizontal | 38.6 |
| 3948.163 | 54.7 | 74.0 | -19.3 | Vertical | Vertical | 38.4 |
| 13803.602 | 54.5 | 74.0 | -19.5 | Vertical | Vertical | -13.1 |

| RADIATED EMISSIONS | | | |
|---|---|---|---|
| **Graph name:** | Emr#9 | **Test configuration:** | |
| **Limit:** | FCC CFR47 Part15C | (H+V) - CMin - TX mode - Axis XY | |
| **Class:** | | | |
| **Frequency range: [14GHz - 18GHz]** | | | |
| **Antenna polarization:** | | **RBW :** | 1MHz |
| **Azimuth:** | 0° - 360° | **VBW :** | 3MHz |

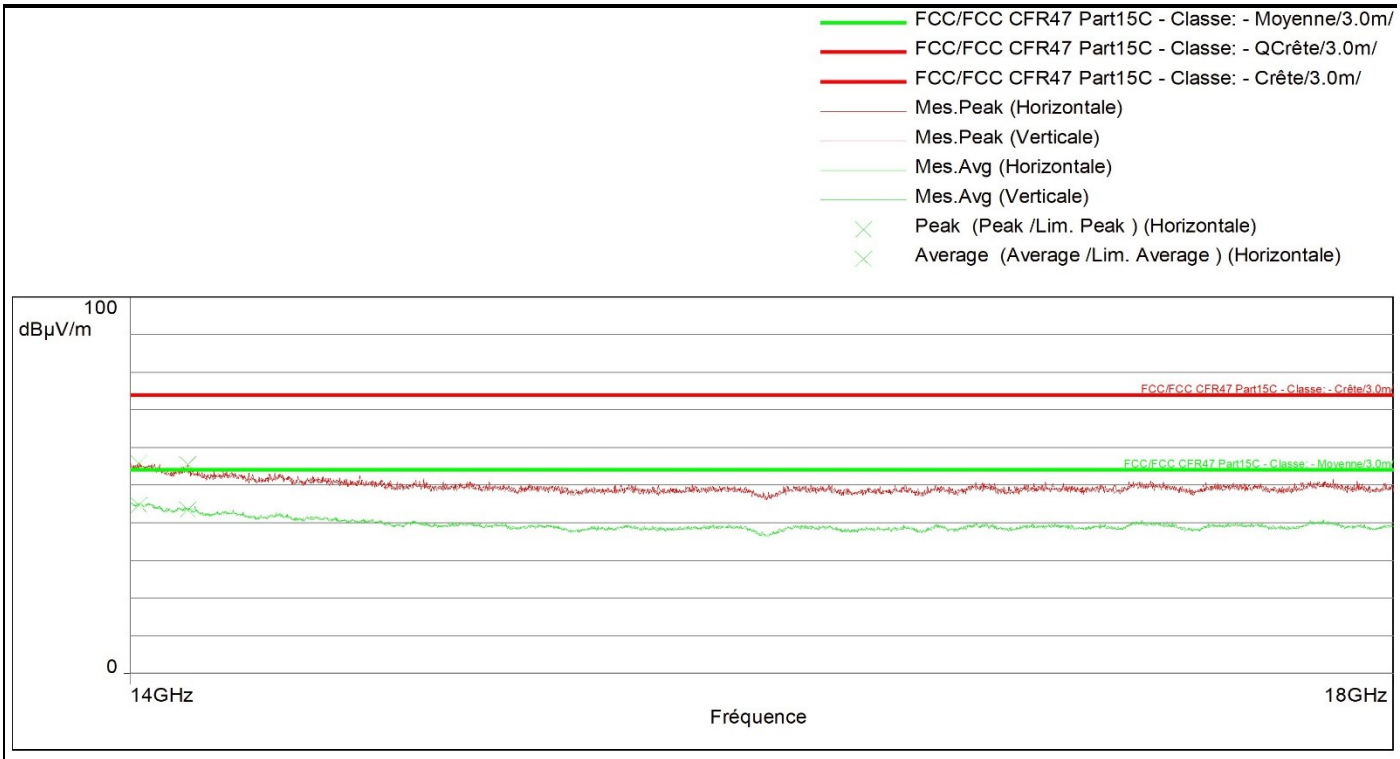



***Spurious emissions***

| Frequency (MHz) | Average (dBµV/m) | Lim.Average (dBµV/m) | Average-Lim.Average (dB) | Commentaire | Polarization | Correction (dB) |
|---|---|---|---|---|---|---|
| 14000.000 | 44.2 | 54.0 | -9.8 | Horizontal | Horizontal | 3.4 |
| 14031.000 | 44.4 | 54.0 | -9.6 | Horizontal | Horizontal | 3.4 |

| Frequency (MHz) | Peak (dBµV/m) | Lim.Peak (dBµV/m) | Peak-Lim.Peak (dB) | Commentaire | Polarization | Correction (dB) |
|---|---|---|---|---|---|---|
| 14000.000 | 56.3 | 74.0 | -17.7 | Horizontal | Horizontal | 3.4 |
| 14031.000 | 55.6 | 74.0 | -18.4 | Horizontal | Horizontal | 3.4 |

| RADIATED EMISSIONS | | | |
|---|---|---|---|
| **Graph name:** | Emr#10 | **Test configuration:** | |
| **Limit:** | FCC CFR47 Part15C | (H+V) - CMin - TX mode - Axis Z | |
| **Class:** | | | |
| **Frequency range: [14GHz - 18GHz]** | | | |
| **Antenna polarization:** | | **RBW :** | 1MHz |
| **Azimuth:** | 0° - 360° | **VBW :** | 3MHz |

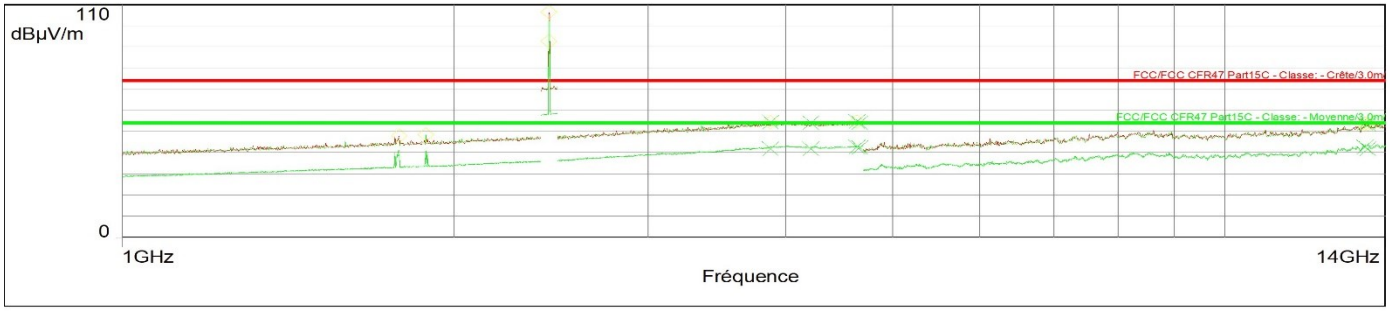



***Spurious emissions***

| Frequency (MHz) | Average (dBµV/m) | Lim.Average (dBµV/m) | Average-Lim.Average (dB) | Commentaire | Polarization | Correction (dB) |
|---|---|---|---|---|---|---|
| 14025.000 | 44.8 | 54.0 | -9.2 | Horizontal | Horizontal | 3.4 |
| 14161.000 | 43.4 | 54.0 | -10.6 | Horizontal | Horizontal | 2.3 |

| Frequency (MHz) | Peak (dBµV/m) | Lim.Peak (dBµV/m) | Peak-Lim.Peak (dB) | Commentaire | Polarization | Correction (dB) |
|---|---|---|---|---|---|---|
| 14025.000 | 55.9 | 74.0 | -18.1 | Horizontal | Horizontal | 3.4 |
| 14161.000 | 55.6 | 74.0 | -18.4 | Horizontal | Horizontal | 2.3 |

| CMID | | | |
|---|---|---|---|
| **RADIATED EMISSIONS** | | | |
| **Graph name:** | Emr#5 | **Test configuration:** | |
| **Limit:** | FCC CFR47 Part15C | (H+V) - CMid - TX mode - Axis XY | |
| **Class:** | | | |
| **Frequency range: [1GHz - 14GHz]** | | | |
| **Antenna polarization:** | | **RBW :** | 1MHz |
| **Azimuth:** | 0° - 360° | **VBW :** | 3MHz |

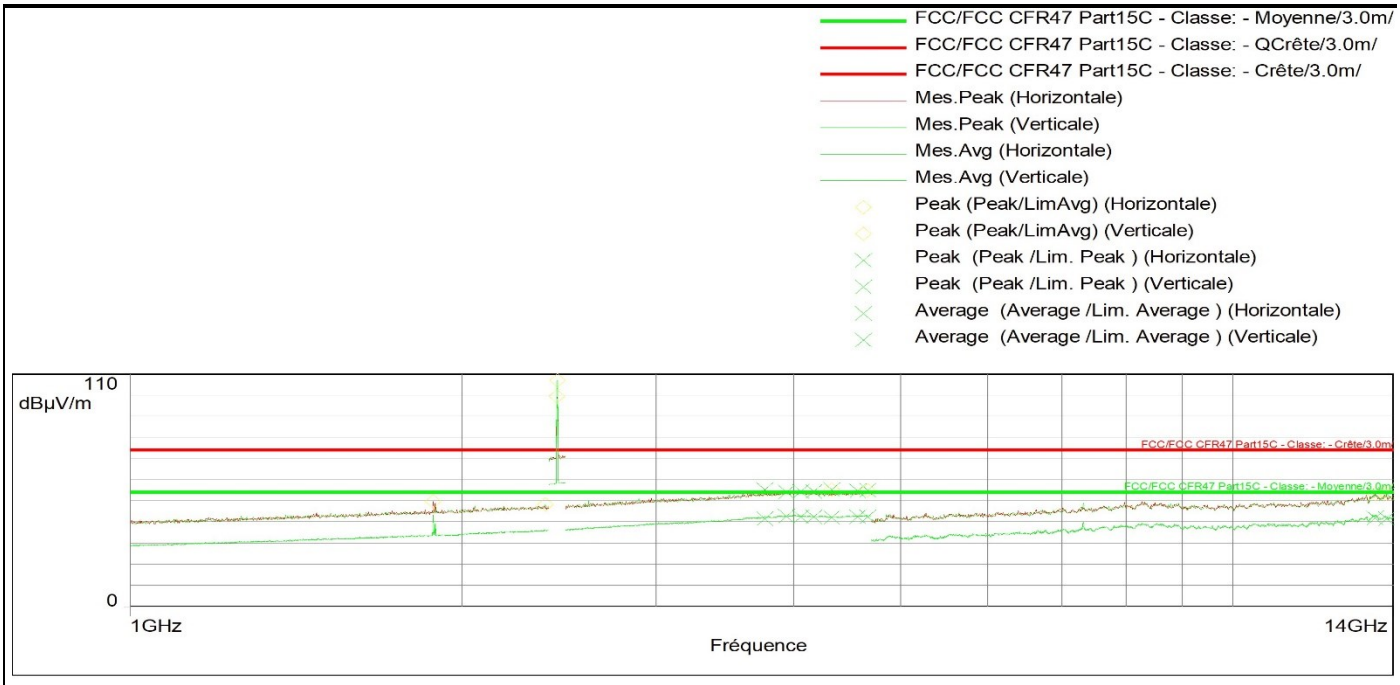



***Spurious emissions***

| Frequency (MHz) | Average (dBµV/m) | Lim.Average (dBµV/m) | Average-Lim.Average (dB) | Commentaire | Polarization | Correction (dB) |
|---|---|---|---|---|---|---|
| 4639.711 | 42.7 | 54.0 | -11.3 | Horizontal | Horizontal | 38.6 |
| 13400.410 | 42.7 | 54.0 | -11.3 | Horizontal | Horizontal | -13.2 |
| 3875.019 | 42.0 | 54.0 | -12.0 | Vertical | Vertical | 38.1 |
| 4213.700 | 42.0 | 54.0 | -12.0 | Vertical | Vertical | 38.4 |
| 4663.649 | 42.5 | 54.0 | -11.5 | Vertical | Vertical | 38.6 |
| 13484.745 | 41.9 | 54.0 | -12.1 | Vertical | Vertical | -12.3 |

| Frequency (MHz) | Peak (dBµV/m) | Lim.Peak (dBµV/m) | Peak-Lim.Peak (dB) | Commentaire | Polarization | Correction (dB) |
|---|---|---|---|---|---|---|
| 4639.711 | 54.8 | 74.0 | -19.2 | Horizontal | Horizontal | 38.6 |
| 13400.410 | 53.9 | 74.0 | -20.1 | Horizontal | Horizontal | -13.2 |
| 3875.019 | 54.5 | 74.0 | -19.5 | Vertical | Vertical | 38.1 |
| 4213.700 | 54.3 | 74.0 | -19.7 | Vertical | Vertical | 38.4 |
| 4663.649 | 54.1 | 74.0 | -19.9 | Vertical | Vertical | 38.6 |
| 13484.745 | 53.6 | 74.0 | -20.4 | Vertical | Vertical | -12.3 |

| RADIATED EMISSIONS | | | |
|---|---|---|---|
| **Graph name:** | Emr#6 | **Test configuration:** | |
| **Limit:** | FCC CFR47 Part15C | (H+V) - CMid - TX mode - Axis Z | |
| **Class:** | | | |
| **Frequency range: [1GHz - 14GHz]** | | | |
| **Antenna polarization:** | | **RBW :** | 1MHz |
| **Azimuth:** | 0° - 360° | **VBW :** | 3MHz |




***Spurious emissions***

| Frequency (MHz) | Average (dBµV/m) | Lim.Average (dBµV/m) | Average-Lim.Average (dB) | Commentaire | Polarization | Correction (dB) |
|---|---|---|---|---|---|---|
| 3762.864 | 41.7 | 54.0 | -12.3 | Horizontal | Horizontal | 37.8 |
| 4168.040 | 42.4 | 54.0 | -11.6 | Horizontal | Horizontal | 38.4 |
| 4330.731 | 42.1 | 54.0 | -11.9 | Horizontal | Horizontal | 38.3 |
| 13458.752 | 41.9 | 54.0 | -12.1 | Horizontal | Horizontal | -12.6 |
| 3940.627 | 42.7 | 54.0 | -11.3 | Vertical | Vertical | 38.3 |
| 4057.658 | 42.4 | 54.0 | -11.6 | Vertical | Vertical | 38.5 |
| 4567.453 | 42.6 | 54.0 | -11.4 | Vertical | Vertical | 38.4 |
| 4667.196 | 42.6 | 54.0 | -11.4 | Vertical | Vertical | 38.6 |
| 13789.161 | 41.6 | 54.0 | -12.4 | Vertical | Vertical | -13.2 |

| Frequency (MHz) | Peak (dBµV/m) | Lim.Peak (dBµV/m) | Peak-Lim.Peak (dB) | Commentaire | Polarization | Correction (dB) |
|---|---|---|---|---|---|---|
| 3762.864 | 55.2 | 74.0 | -18.8 | Horizontal | Horizontal | 37.8 |
| 4168.040 | 54.4 | 74.0 | -19.6 | Horizontal | Horizontal | 38.4 |
| 4330.731 | 55.2 | 74.0 | -18.8 | Horizontal | Horizontal | 38.3 |
| 13458.752 | 53.2 | 74.0 | -20.8 | Horizontal | Horizontal | -12.6 |
| 3940.627 | 54.0 | 74.0 | -20.0 | Vertical | Vertical | 38.3 |
| 4057.658 | 54.5 | 74.0 | -19.5 | Vertical | Vertical | 38.5 |
| 4567.453 | 54.7 | 74.0 | -19.3 | Vertical | Vertical | 38.4 |
| 4667.196 | 55.0 | 74.0 | -19.0 | Vertical | Vertical | 38.6 |
| 13789.161 | 53.2 | 74.0 | -20.8 | Vertical | Vertical | -13.2 |

| RADIATED EMISSIONS | | | |
|---|---|---|---|
| **Graph name:** | Emr#11 | **Test configuration:** | |
| **Limit:** | FCC CFR47 Part15C | (H+V) - CMid - TX mode - Axis XY | |
| **Class:** | | | |
| **Frequency range: [14GHz - 18GHz]** | | | |
| **Antenna polarization:** | | **RBW :** | 1MHz |
| **Azimuth:** | 0° - 360° | **VBW :** | 3MHz |

***Spurious emissions***

| Frequency (MHz) | Average (dBµV/m) | Lim.Average (dBµV/m) | Average-Lim.Average (dB) | Commentaire | Polarization | Correction (dB) |
|---|---|---|---|---|---|---|
| 14001.500 | 44.8 | 54.0 | -9.2 | Vertical | Vertical | 3.4 |
| 14057.500 | 44.4 | 54.0 | -9.6 | Vertical | Vertical | 3.2 |

| Frequency (MHz) | Peak (dBµV/m) | Lim.Peak (dBµV/m) | Peak-Lim.Peak (dB) | Commentaire | Polarization | Correction (dB) |
|---|---|---|---|---|---|---|
| 14001.500 | 55.4 | 74.0 | -18.6 | Vertical | Vertical | 3.4 |
| 14057.500 | 56.1 | 74.0 | -17.9 | Vertical | Vertical | 3.2 |

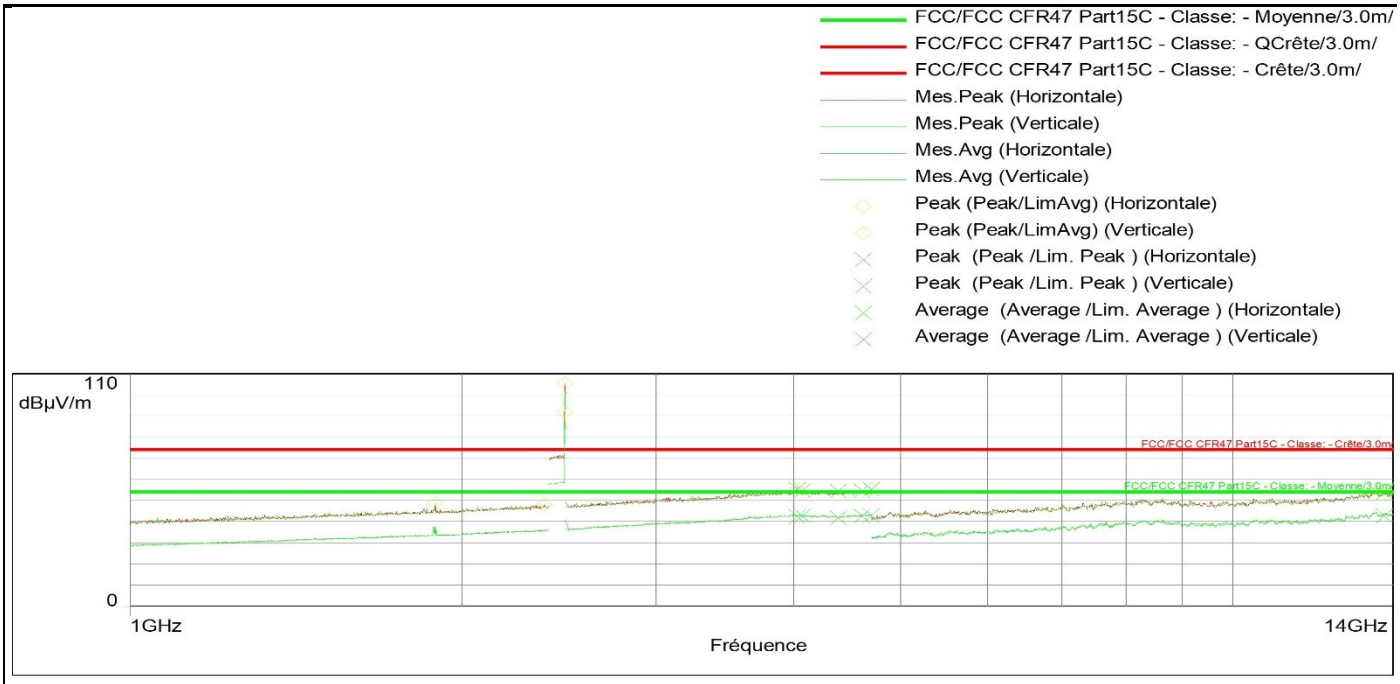
| RADIATED EMISSIONS | | | |
|---|---|---|---|
| **Graph name:** | Emr#12 | **Test configuration:** | |
| **Limit:** | FCC CFR47 Part15C | (H+V) - CMid - TX mode - Axis Z | |
| **Class:** | | | |
| **Frequency range: [14GHz - 18GHz]** | | | |
| **Antenna polarization:** | | **RBW :** | 1MHz |
| **Azimuth:** | 0° - 360° | **VBW :** | 3MHz |

***Spurious emissions***

| Frequency (MHz) | Average (dBµV/m) | Lim.Average (dBµV/m) | Average-Lim.Average (dB) | Commentaire | Polarization | Correction (dB) |
|---|---|---|---|---|---|---|
| 14002.000 | 44.1 | 54.0 | -9.9 | Vertical | Vertical | 3.4 |
| 14055.500 | 44.6 | 54.0 | -9.4 | Vertical | Vertical | 3.2 |

| Frequency (MHz) | Peak (dBµV/m) | Lim.Peak (dBµV/m) | Peak-Lim.Peak (dB) | Commentaire | Polarization | Correction (dB) |
|---|---|---|---|---|---|---|
| 14002.000 | 55.8 | 74.0 | -18.2 | Vertical | Vertical | 3.4 |
| 14055.500 | 55.6 | 74.0 | -18.4 | Vertical | Vertical | 3.2 |

| CMAX | | | |
|---|---|---|---|
| **RADIATED EMISSIONS** | | | |
| **Graph name:** | Emr#7 | **Test configuration:** | |
| **Limit:** | FCC CFR47 Part15C | (H+V) - CMax - TX mode - Axis XY | |
| **Class:** | | | |
| **Frequency range: [1GHz - 14GHz]** | | | |
| **Antenna polarization:** | | **RBW :** | 1MHz |
| **Azimuth:** | 0° - 360° | **VBW :** | 3MHz |

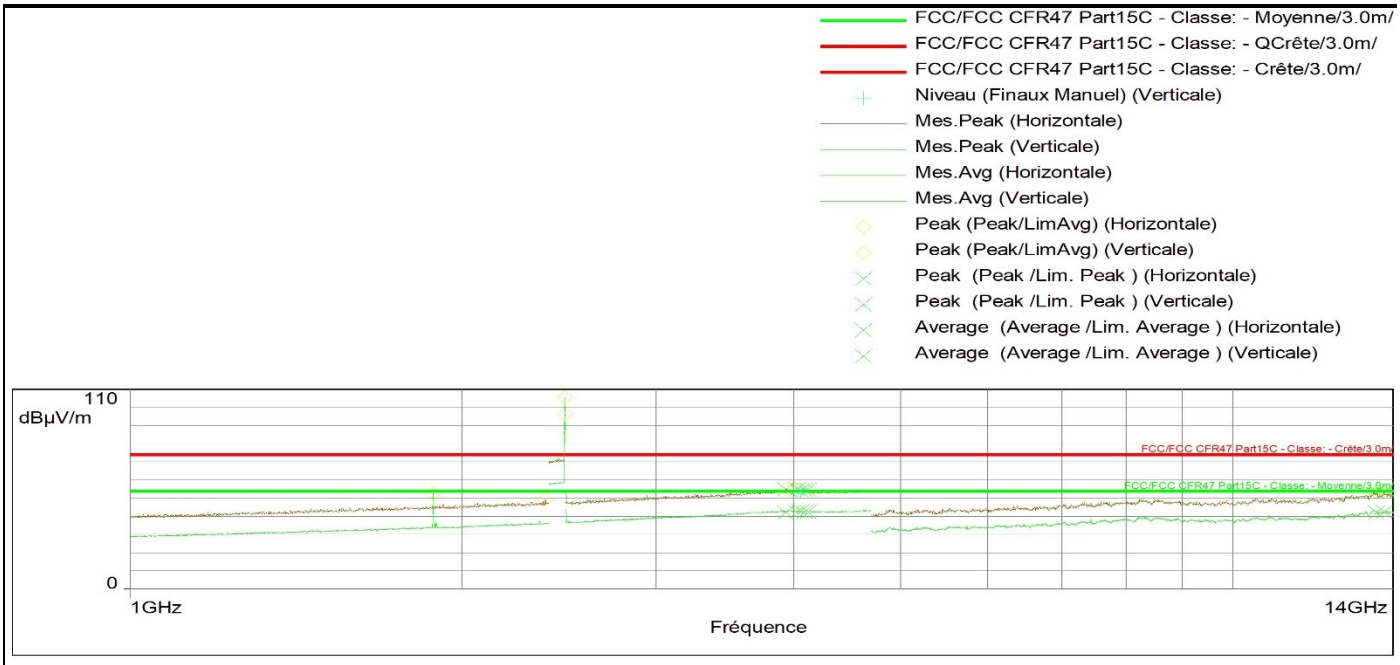



***Spurious emissions***

| Frequency (MHz) | Average (dBµV/m) | Lim.Average (dBµV/m) | Average-Lim.Average (dB) | Commentaire | Polarization | Correction (dB) |
|---|---|---|---|---|---|---|
| 4024.854 | 42.3 | 54.0 | -11.7 | Horizontal | Horizontal | 38.5 |
| 4613.556 | 42.6 | 54.0 | -11.4 | Horizontal | Horizontal | 38.5 |
| 4071.401 | 42.8 | 54.0 | -11.2 | Vertical | Vertical | 38.5 |
| 4390.133 | 41.8 | 54.0 | -12.2 | Vertical | Vertical | 38.3 |
| 4699.113 | 43.0 | 54.0 | -11.0 | Vertical | Vertical | 38.7 |
| 13737.752 | 42.8 | 54.0 | -11.2 | Vertical | Vertical | -13.4 |

| Frequency (MHz) | Peak (dBµV/m) | Lim.Peak (dBµV/m) | Peak-Lim.Peak (dB) | Commentaire | Polarization | Correction (dB) |
|---|---|---|---|---|---|---|
| 4024.854 | 55.4 | 74.0 | -18.6 | Horizontal | Horizontal | 38.5 |
| 4613.556 | 54.7 | 74.0 | -19.3 | Horizontal | Horizontal | 38.5 |
| 4071.401 | 54.7 | 74.0 | -19.3 | Vertical | Vertical | 38.5 |
| 4390.133 | 54.5 | 74.0 | -19.5 | Vertical | Vertical | 38.3 |
| 4699.113 | 55.4 | 74.0 | -18.6 | Vertical | Vertical | 38.7 |
| 13737.752 | 53.9 | 74.0 | -20.1 | Vertical | Vertical | -13.4 |

| RADIATED EMISSIONS | | | |
|---|---|---|---|
| **Graph name:** | Emr#8 | **Test configuration:** | |
| **Limit:** | FCC CFR47 Part15C | (H+V) - CMax - TX mode - Axis Z | |
| **Class:** | | | |
| **Frequency range: [1GHz - 14GHz]** | | | |
| **Antenna polarization:** | | **RBW :** | 1MHz |
| **Azimuth:** | 0° - 360° | **VBW :** | 3MHz |



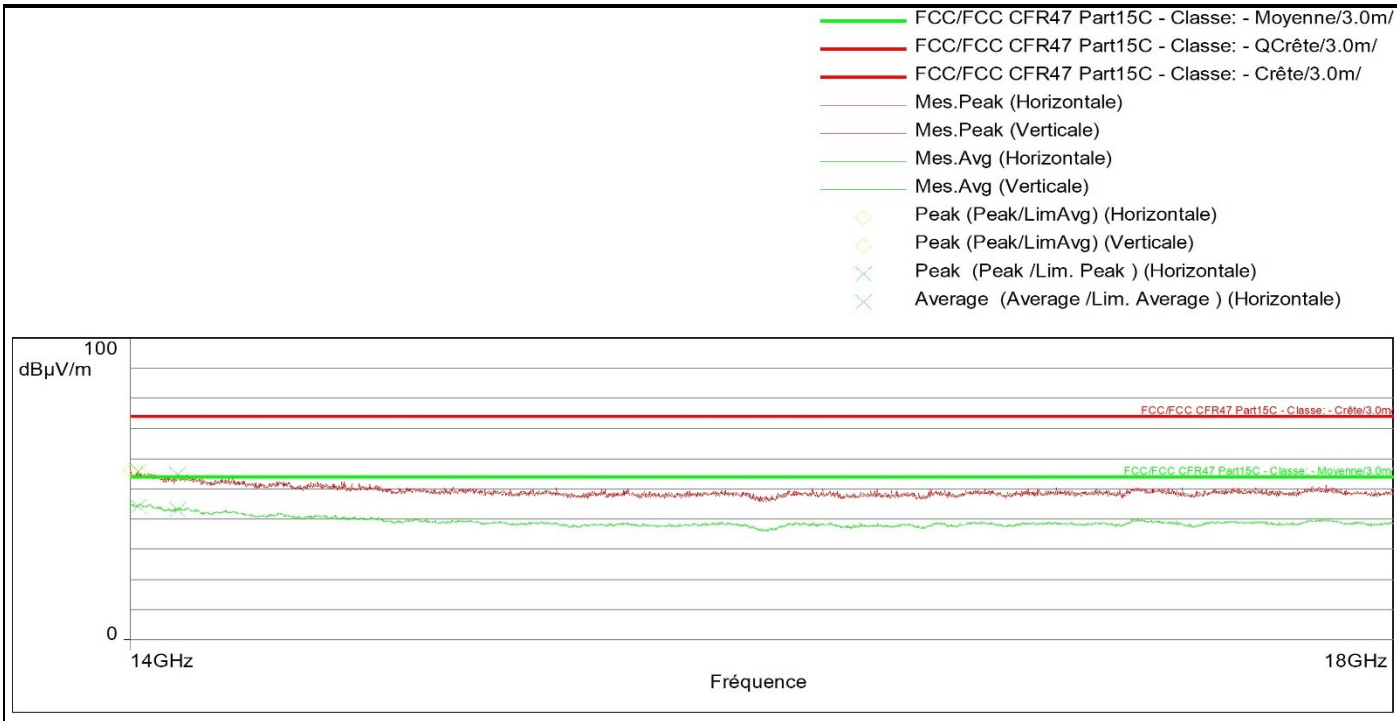

***Spurious emissions***

| Frequency (MHz) | Average (dBµV/m) | Lim.Average (dBµV/m) | Average-Lim.Average (dB) | Commentaire | Polarization | Correction (dB) |
|---|---|---|---|---|---|---|
| 13728.509 | 42.4 | 54.0 | -11.6 | Horizontal | Horizontal | -13.4 |
| 3931.761 | 41.9 | 54.0 | -12.1 | Vertical | Vertical | 38.3 |
| 4030.617 | 42.4 | 54.0 | -11.6 | Vertical | Vertical | 38.5 |
| 4057.658 | 42.8 | 54.0 | -11.2 | Vertical | Vertical | 38.5 |
| 4086.030 | 42.2 | 54.0 | -11.8 | Vertical | Vertical | 38.5 |
| 4117.947 | 42.2 | 54.0 | -11.8 | Vertical | Vertical | 38.4 |
| 13506.118 | 42.0 | 54.0 | -12.0 | Vertical | Vertical | -12.3 |

| Frequency (MHz) | Peak (dBµV/m) | Lim.Peak (dBµV/m) | Peak-Lim.Peak (dB) | Commentaire | Polarization | Correction (dB) |
|---|---|---|---|---|---|---|
| 13728.509 | 53.4 | 74.0 | -20.6 | Horizontal | Horizontal | -13.4 |
| 3931.761 | 54.7 | 74.0 | -19.3 | Vertical | Vertical | 38.3 |
| 4030.617 | 55.0 | 74.0 | -19.0 | Vertical | Vertical | 38.5 |
| 4057.658 | 54.3 | 74.0 | -19.7 | Vertical | Vertical | 38.5 |
| 4086.030 | 54.6 | 74.0 | -19.4 | Vertical | Vertical | 38.5 |

| Frequency (MHz) | Peak (dBµV/m) | Lim.Peak (dBµV/m) | Peak-Lim.Peak (dB) | Commentaire | Polarization | Correction (dB) |
|---|---|---|---|---|---|---|
| 4117.947 | 54.7 | 74.0 | -19.3 | Vertical | Vertical | 38.4 |
| 13506.118 | 53.3 | 74.0 | -20.7 | Vertical | Vertical | -12.3 |

| RADIATED EMISSIONS | | | |
|---|---|---|---|
| **Graph name:** | Emr#13 | **Test configuration:** | |
| **Limit:** | FCC CFR47 Part15C | (H+V) - CMax - TX mode - Axis XY | |
| **Class:** | | | |
| **Frequency range: [14GHz - 18GHz]** | | | |
| **Antenna polarization:** | | **RBW :** | 1MHz |
| **Azimuth:** | 0° - 360° | **VBW :** | 3MHz |




***Spurious emissions***

| Frequency (MHz) | Average (dBµV/m) | Lim.Average (dBµV/m) | Average-Lim.Average (dB) | Commentaire | Polarization | Correction (dB) |
|---|---|---|---|---|---|---|
| 14022.500 | 44.2 | 54.0 | -9.8 | Horizontal | Horizontal | 3.4 |
| 14132.500 | 43.2 | 54.0 | -10.8 | Horizontal | Horizontal | 2.7 |

| Frequency (MHz) | Peak (dBµV/m) | Lim.Peak (dBµV/m) | Peak-Lim.Peak (dB) | Commentaire | Polarization | Correction (dB) |
|---|---|---|---|---|---|---|
| 14022.500 | 55.8 | 74.0 | -18.2 | Horizontal | Horizontal | 3.4 |
| 14132.500 | 54.9 | 74.0 | -19.1 | Horizontal | Horizontal | 2.7 |

| RADIATED EMISSIONS | | | |
|---|---|---|---|
| **Graph name:** | Emr#14 | **Test configuration:** | |
| **Limit:** | FCC CFR47 Part15C | (H+V) - CMax - TX mode - Axis Z | |
| **Class:** | | | |
| **Frequency range: [14GHz - 18GHz]** | | | |
| **Antenna polarization:** | | **RBW :** | 1MHz |
| **Azimuth:** | 0° - 360° | **VBW :** | 3MHz |

***Spurious emissions***

| Frequency (MHz) | Average (dBµV/m) | Lim.Average (dBµV/m) | Average-Lim.Average (dB) | Commentaire | Polarization | Correction (dB) |
|---|---|---|---|---|---|---|
| 14027.500 | 44.9 | 54.0 | -9.1 | Horizontal | Horizontal | 3.4 |
| 14052.500 | 44.1 | 54.0 | -9.9 | Horizontal | Horizontal | 3.3 |

| Frequency (MHz) | Peak (dBµV/m) | Lim.Peak (dBµV/m) | Peak-Lim.Peak (dB) | Commentaire | Polarization | Correction (dB) |
|---|---|---|---|---|---|---|
| 14027.500 | 55.8 | 74.0 | -18.2 | Horizontal | Horizontal | 3.4 |
| 14052.500 | 55.6 | 74.0 | -18.4 | Horizontal | Horizontal | 3.3 |

## 10.7. CONCLUSION

Unwanted Emission in restricted frequency bands measurement performed on the sample of the product **Physilog PHY-06**, SN: **002,004,009,010**, in configuration and description presented in this test report, show levels **compliant** to the 47 CFR PART 15.247 & RSS 247 ISSUE 2 limits.

## 11. UNCERTAINTIES CHART

| **Type de mesure / *Kind of measurement*** | **Incertitude élargie laboratoire / *Wide uncertainty laboratory* (k=2) ± x** | **Incertitude limite du CISPR / *CISPR uncertainty limit* ± y** |
|---|---|---|
| *Measurement of conducted disturbances in voltage on the power port* | 3.29dB | 3.4 dB |
| *Measurement of conducted disturbances in voltage on the telecommunication port.* | 3.26 dB | 5dB |
| *Measurement of discontinuous conducted disturbances in voltage* | 3.33 dB | 3.4 dB |
| *Measurement of conducted disturbances in current* | 2.67 dB | 2.9dB |
| *Spurious emission, radiated (Semi anechoic chamber & open test site)* | *5.60 dB* | *6 dB* |
| *Spurious emission, radiated (Full anechoic chamber above 1GHz)* | *±3.8 dB* | *±6 dB* |
| *Occupied Channel Bandwidth* | *±2.8 %* | *±5 %* |
| *RF power, conducted* | *±1.2 dB* | *±1.5 dB* |
| *Power Spectral Density, Conducted* | *±1.7 dB* | *±3 dB* |
| *Spurious emission, conducted* | *±2.3 dB* | *±3 dB* |
| *Temperature* | *±0.75 °C* | *±3 °C* |
| *Supply Voltages* | *±1.7 %* | *±3 %* |

Les valeurs d'incertitudes calculées du laboratoire étant inférieures aux valeurs d'incertitudes limites établies par la norme, la conformité de l'échantillon est établie directement par les niveaux limites applicables. / *The uncertainty values calculated by the laboratory are lower than limit uncertainty values defined by the standard. The conformity of the sample is directly established by the applicable limits values.*