Measurement Data: $\quad$ Reading listed by margin. Test Distance: 3 Meters

| \# Freq <br> MHz | Rdng $\mathrm{dB} \mu \mathrm{~V}$ | $\begin{aligned} & \hline \mathrm{T} 1 \\ & \mathrm{~T} 5 \\ & \mathrm{~T} 9 \\ & \mathrm{~dB} \\ & \hline \end{aligned}$ | $\begin{aligned} & \mathrm{T} 2 \\ & \mathrm{~T} 6 \\ & \mathrm{~dB} \end{aligned}$ | $\begin{aligned} & \mathrm{T} 3 \\ & \text { T7 } \\ & \\ & \mathrm{dB} \\ & \hline \end{aligned}$ | $\begin{aligned} & \mathrm{T} 4 \\ & \mathrm{~T} 8 \\ & \mathrm{~dB} \\ & \hline \end{aligned}$ | Dist <br> Table | Corr $\mathrm{dB} \mu \mathrm{~V} / \mathrm{m}$ | Spec $\mathrm{dB} \mu \mathrm{~V} / \mathrm{m}$ | Margin $\mathrm{dB}$ | Polar <br> Ant |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{aligned} & 12748.047 \mathrm{M} \\ & \text { Ave } \end{aligned}$ | 55.2 | $\begin{array}{r} +0.0 \\ +3.4 \\ +29.7 \\ \hline \end{array}$ | $\begin{array}{r} +0.0 \\ -38.5 \end{array}$ | $\begin{aligned} & +0.0 \\ & +0.5 \end{aligned}$ | $\begin{aligned} & +0.0 \\ & +0.2 \end{aligned}$ | +0.0 | 50.5 | 54.0 | -3.5 | Vert |
| $\wedge 2748.047 \mathrm{M}$ | 62.2 | $\begin{array}{r} +0.0 \\ +3.4 \\ +29.7 \\ \hline \end{array}$ | $\begin{array}{r} +0.0 \\ -38.5 \end{array}$ | $\begin{aligned} & +0.0 \\ & +0.5 \end{aligned}$ | $\begin{aligned} & +0.0 \\ & +0.2 \end{aligned}$ | +0.0 | 57.5 | 54.0 | +3.5 | Vert |
| $\begin{aligned} & 32723.857 \mathrm{M} \\ & \text { Ave } \end{aligned}$ | 55.1 | $\begin{array}{r} +0.0 \\ +3.4 \\ +29.6 \\ \hline \end{array}$ | $\begin{array}{r} +0.0 \\ -38.5 \end{array}$ | $\begin{aligned} & +0.0 \\ & +0.5 \end{aligned}$ | $\begin{aligned} & +0.0 \\ & +0.2 \end{aligned}$ | +0.0 | 50.3 | 54.0 | -3.7 | Vert |
| $\wedge 2723.857 \mathrm{M}$ | 62.1 | $\begin{array}{r} +0.0 \\ +3.4 \\ +29.6 \\ \hline \end{array}$ | $\begin{array}{r} +0.0 \\ -38.5 \end{array}$ | $\begin{aligned} & +0.0 \\ & +0.5 \end{aligned}$ | $\begin{aligned} & +0.0 \\ & +0.2 \end{aligned}$ | +0.0 | 57.3 | 54.0 | +3.3 | Vert |
| $5 \quad 109.173 \mathrm{M}$ | 20.9 | $\begin{aligned} & \hline+0.0 \\ & +0.0 \\ & +0.0 \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline+1.8 \\ & +0.0 \end{aligned}$ | $\begin{aligned} & +5.9 \\ & +0.0 \end{aligned}$ | $\begin{array}{r} +10.6 \\ +0.0 \end{array}$ | +0.0 | 39.2 | 43.5 | -4.3 | Vert |
| $6 \quad 111.123 \mathrm{M}$ | 20.0 | $\begin{aligned} & \hline+0.0 \\ & +0.0 \\ & +0.0 \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline+1.9 \\ & +0.0 \end{aligned}$ | $\begin{aligned} & +5.9 \\ & +0.0 \end{aligned}$ | $\begin{array}{r} +10.7 \\ +0.0 \end{array}$ | +0.0 | 38.5 | 43.5 | $-5.0$ | Vert |
| 7 7263.477M | 43.0 | $\begin{array}{r} +0.0 \\ +6.1 \\ +36.0 \\ \hline \end{array}$ | $\begin{array}{r} +0.0 \\ -37.2 \end{array}$ | $\begin{aligned} & +0.0 \\ & +0.8 \end{aligned}$ | $\begin{aligned} & +0.0 \\ & +0.2 \end{aligned}$ | +0.0 | 48.9 | 54.0 | -5.1 | Vert |
| 8 7391.383M | 42.5 | $\begin{array}{r} +0.0 \\ +6.1 \\ +36.3 \end{array}$ | $\begin{array}{r} +0.0 \\ -37.3 \end{array}$ | $\begin{aligned} & +0.0 \\ & +0.8 \end{aligned}$ | $\begin{aligned} & +0.0 \\ & +0.2 \end{aligned}$ | +0.0 | 48.6 | 54.0 | -5.4 | Vert |
| $\begin{aligned} & 92771.353 \mathrm{M} \\ & \text { Ave } \end{aligned}$ | 52.7 | $\begin{array}{r} +0.0 \\ +3.5 \\ +29.7 \\ \hline \end{array}$ | $\begin{array}{r} +0.0 \\ -38.5 \end{array}$ | $\begin{aligned} & +0.0 \\ & +0.5 \end{aligned}$ | $\begin{aligned} & +0.0 \\ & +0.2 \end{aligned}$ | +0.0 | 48.1 | 54.0 | $-5.9$ | Vert |
| $\wedge 2771.353 \mathrm{M}$ | 59.7 | $\begin{array}{r} +0.0 \\ +3.5 \\ +29.7 \\ \hline \end{array}$ | $\begin{array}{r} +0.0 \\ -38.5 \end{array}$ | $\begin{aligned} & +0.0 \\ & +0.5 \end{aligned}$ | $\begin{aligned} & +0.0 \\ & +0.2 \end{aligned}$ | +0.0 | 55.1 | 54.0 | +1.1 | Vert |
| $11 \quad 7328.590 \mathrm{M}$ | 41.8 | $\begin{array}{r} +0.0 \\ +6.1 \\ +36.2 \end{array}$ | $\begin{array}{r} +0.0 \\ -37.3 \end{array}$ | $\begin{aligned} & +0.0 \\ & +0.8 \end{aligned}$ | $\begin{aligned} & +0.0 \\ & +0.2 \end{aligned}$ | +0.0 | 47.8 | 54.0 | -6.2 | Vert |
| $12 \quad 113.423 \mathrm{M}$ | 18.2 | $\begin{aligned} & +0.0 \\ & +0.0 \\ & +0.0 \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline+1.9 \\ & +0.0 \end{aligned}$ | $\begin{aligned} & +5.9 \\ & +0.0 \end{aligned}$ | $\begin{array}{r} +10.8 \\ +0.0 \end{array}$ | +0.0 | 36.8 | 43.5 | -6.7 | Vert |
| 13 2747.727M | 51.1 | $\begin{array}{r} +0.0 \\ +3.4 \\ +29.7 \\ \hline \end{array}$ | $\begin{array}{r} +0.0 \\ -38.5 \end{array}$ | $\begin{aligned} & +0.0 \\ & +0.5 \end{aligned}$ | $\begin{aligned} & +0.0 \\ & +0.2 \end{aligned}$ | +0.0 | 46.4 | 54.0 | -7.6 | Horiz |
| 14 2771.687M | 50.9 | $\begin{array}{r} +0.0 \\ +3.5 \\ +29.7 \end{array}$ | $\begin{array}{r} +0.0 \\ -38.5 \end{array}$ | $\begin{aligned} & +0.0 \\ & +0.5 \end{aligned}$ | $\begin{aligned} & +0.0 \\ & +0.2 \end{aligned}$ | +0.0 | 46.3 | 54.0 | -7.7 | Horiz |
| $15 \quad 2723.950 \mathrm{M}$ | 50.9 | $\begin{array}{r} +0.0 \\ +3.4 \\ +29.6 \end{array}$ | $\begin{gathered} +0.0 \\ -38.5 \end{gathered}$ | $\begin{aligned} & +0.0 \\ & +0.5 \end{aligned}$ | $\begin{aligned} & +0.0 \\ & +0.2 \end{aligned}$ | +0.0 | 46.1 | 54.0 | $-7.9$ | Horiz |


| 16 | 4539.690M | 45.3 | $\begin{array}{r} +0.0 \\ +4.5 \\ +32.6 \end{array}$ | $\begin{array}{r} +0.0 \\ -37.4 \end{array}$ | $\begin{aligned} & +0.0 \\ & +0.7 \end{aligned}$ | $\begin{aligned} & \hline+0.0 \\ & +0.2 \end{aligned}$ | +0.0 | 45.9 | 54.0 | -8.1 | Vert |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 17 | 278.220M | 15.9 | $\begin{aligned} & +0.0 \\ & +0.0 \\ & +0.0 \\ & \hline \end{aligned}$ | $\begin{aligned} & +3.1 \\ & +0.0 \end{aligned}$ | $\begin{aligned} & +5.9 \\ & +0.0 \end{aligned}$ | $\begin{array}{r} \hline+12.9 \\ +0.0 \end{array}$ | +0.0 | 37.8 | 46.0 | -8.2 | Vert |
| 18 | 4619.720M | 45.0 | $\begin{array}{r} +0.0 \\ +4.5 \\ +32.7 \end{array}$ | $\begin{array}{r} +0.0 \\ -37.4 \end{array}$ | $\begin{aligned} & +0.0 \\ & +0.7 \end{aligned}$ | $\begin{aligned} & \hline+0.0 \\ & +0.2 \end{aligned}$ | $+0.0$ | 45.7 | 54.0 | -8.3 | Vert |
| 19 | 4579.967 M | 44.0 | $\begin{array}{r} +0.0 \\ +4.5 \\ +32.6 \\ \hline \end{array}$ | $\begin{array}{r} +0.0 \\ -37.4 \end{array}$ | $\begin{aligned} & +0.0 \\ & +0.7 \end{aligned}$ | $\begin{aligned} & +0.0 \\ & +0.2 \end{aligned}$ | +0.0 | 44.6 | 54.0 | -9.4 | Vert |
| 20 | 270.000M | 14.6 | $\begin{aligned} & +0.0 \\ & +0.0 \\ & +0.0 \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline+3.0 \\ & +0.0 \end{aligned}$ | $\begin{aligned} & +5.9 \\ & +0.0 \end{aligned}$ | $\begin{array}{r} \hline+12.7 \\ +0.0 \end{array}$ | +0.0 | 36.2 | 46.0 | -9.8 | Horiz |
| 21 | 75.423M | 20.9 | $\begin{aligned} & +0.0 \\ & +0.0 \\ & +0.0 \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline+1.6 \\ & +0.0 \end{aligned}$ | $\begin{aligned} & +5.9 \\ & +0.0 \end{aligned}$ | $\begin{aligned} & \hline+7.0 \\ & +0.0 \end{aligned}$ | $+0.0$ | 35.4 | 105.5 | -70.1 | Vert |
| 22 | 60.323 M | 20.7 | $\begin{aligned} & +0.0 \\ & +0.0 \\ & +0.0 \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline+1.4 \\ & +0.0 \end{aligned}$ | $\begin{aligned} & +5.9 \\ & +0.0 \end{aligned}$ | $\begin{aligned} & \hline+6.2 \\ & +0.0 \end{aligned}$ | $+0.0$ | 34.2 | 105.5 | -71.3 | Vert |
| 23 | 214.323 M | 15.0 | $\begin{aligned} & \hline+0.0 \\ & +0.0 \\ & +0.0 \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline+2.7 \\ & +0.0 \end{aligned}$ | $\begin{aligned} & +5.9 \\ & +0.0 \end{aligned}$ | $\begin{array}{r} \hline+10.0 \\ +0.0 \end{array}$ | +0.0 | 33.6 | 105.5 | -71.9 | Vert |
| 24 | 61.023 M | 19.3 | $\begin{aligned} & \hline+0.0 \\ & +0.0 \\ & +0.0 \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline+1.4 \\ & +0.0 \end{aligned}$ | $\begin{aligned} & +5.9 \\ & +0.0 \end{aligned}$ | $\begin{aligned} & \hline+6.2 \\ & +0.0 \end{aligned}$ | +0.0 | 32.8 | 105.5 | -72.7 | Vert |
| 25 | 195.000M | 13.4 | $\begin{aligned} & \hline+0.0 \\ & +0.0 \\ & +0.0 \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline+2.6 \\ & +0.0 \end{aligned}$ | $\begin{aligned} & +5.9 \\ & +0.0 \end{aligned}$ | $\begin{aligned} & \hline+8.9 \\ & +0.0 \end{aligned}$ | +0.0 | 30.8 | 105.5 | -74.7 | Horiz |
| 26 | 183.000M | 12.8 | $\begin{aligned} & \hline+0.0 \\ & +0.0 \\ & +0.0 \\ & \hline \end{aligned}$ | $\begin{aligned} & +2.4 \\ & +0.0 \end{aligned}$ | $\begin{aligned} & +5.9 \\ & +0.0 \end{aligned}$ | $\begin{aligned} & +9.1 \\ & +0.0 \end{aligned}$ | +0.0 | 30.2 | 105.5 | -75.3 | Horiz |

Test Location: CKC Laboratories • 100 North Olinda Place • Brea CA 92823•714 993-6112
Customer: Itron, Inc.
Specification:
15.247(d) / 15.209 Radiated Spurious Emissions

Work Order \#: 103955 Date: 6/25/2020
Test Type: Maximized Emissions
Time: 09:50:27
Tested By:
Don Nguyen
Sequence\#: 5
Software:
EMITest 5.03.12

## Equipment Tested:

| Device | Manufacturer | Model \# |
| :--- | :--- | :--- |
| Configuration 7 |  | S/N |

## Support Equipment:

| Device | Manufacturer | Model \# |
| :--- | :--- | :--- |
| Configuration 7 |  | S/N |

Test Conditions / Notes:
The EUT is placed on Styrofoam platform and connected to DC power supply. USB port is connected to a touchscreen tablet. The computer is sending command to the EUT using software MC3 SuperRaptor
Test ver.4.0.3.5.

The EUT is set to continuously transmit.
Operating frequency: $908 \mathrm{MHz}, 916 \mathrm{MHz}, 924 \mathrm{MHz}$
Frequency of measurement: $9 \mathrm{kHz}-9.28 \mathrm{GHz}$
9 kHz to 150 kHz RBW $=0.2 \mathrm{kHz}, \mathrm{VBW}=0.6 \mathrm{kHz}$.
150 kHz to 30 MHz RBW $=9 \mathrm{kHz}$, VBW $=27 \mathrm{kHz}$.
$30-1000 \mathrm{MHz}, \mathrm{RBW}=120 \mathrm{kHz}, \mathrm{VBW}=360 \mathrm{kHz}$
$1000-9280 \mathrm{MHz}, \mathrm{RBW}=1 \mathrm{MHz}, \mathrm{VBW}=3 \mathrm{MHz}$
$R B W=100 \mathrm{kHz}, \mathrm{VBW}=300 \mathrm{kHz}(-20 \mathrm{~dB}$ limit $)$
Duty cycle correction is $20 \log (.0445 / .1)=-7.0 \mathrm{~dB}$

## Itron, Inc. WO\#: 103955 Sequence\#: 5 Date: 6/25/2020

15.247(d) / 15.209 Radiated Spurious Emissions Test Distance: 3 Meters Horiz


| $\times$ |
| :--- |
| $\times$ |

Readings
QP Readings
Ambient
1-15.247(d) / 15.209 Radiated Spurious Emissions

O Peak Readings

* Average Readings

Software Version: 5.03.19

Test Equipment:

| ID | Asset \# | Description | Model | Cal Date | Cal Due Date |
| :--- | :--- | :--- | :--- | :--- | :--- |
|  | AN00314 | Loop Antenna | 6502 | $4 / 13 / 2020$ | $4 / 13 / 2022$ |
| T1 | ANP05198 | Cable-Amplitude +15C to +45C (dB) | 8268 | $12 / 4 / 2018$ | $12 / 4 / 2020$ |
| T2 | ANP05281 | Attenuator | 1B | $4 / 7 / 2020$ | $4 / 7 / 2022$ |
| T3 | AN01993 | Biconilog Antenna | CBL6111C | $6 / 11 / 2019$ | $6 / 11 / 2021$ |
|  | AN00309 | Preamp | $8447 D$ | $12 / 24 / 2019$ | $12 / 24 / 2021$ |
|  | ANP05050 | Cable | RG223/U | $12 / 24 / 2018$ | $12 / 24 / 2020$ |
| T4 | AN02869 | Spectrum Analyzer | E4440A | $7 / 25 / 2019$ | $7 / 25 / 2020$ |
| T5 | AN00786 | Preamp | $83017 A$ | $5 / 20 / 2020$ | $5 / 20 / 2022$ |
| T6 | AN00849 | Horn Antenna | 3115 | $3 / 17 / 2020$ | $3 / 17 / 2022$ |
| T7 | ANP06360 | Cable | L1-PNMNM-48 | $8 / 8 / 2019$ | $8 / 8 / 2021$ |
| T8 | ANP07243 | Cable | 32022-29094K-29094K- | $5 / 29 / 2020$ | $5 / 29 / 2022$ |
|  |  |  | $24 T C$ |  |  |
| T9 | AN03169 | High Pass Filter | HM1155-11SS | $5 / 8 / 2019$ | $5 / 8 / 2021$ |

Measurement Data: $\quad$ Reading listed by margin. Test Distance: 3 Meters

| \# | Freq $\mathrm{MHz}$ | Rdng $\mathrm{dB} \mu \mathrm{~V}$ | $\begin{aligned} & \mathrm{T} 1 \\ & \mathrm{~T} 5 \\ & \mathrm{~T} 9 \\ & \mathrm{~dB} \end{aligned}$ | $\begin{aligned} & \mathrm{T} 2 \\ & \mathrm{~T} 6 \\ & \\ & \mathrm{~dB} \end{aligned}$ | $\begin{aligned} & \text { T3 } \\ & \text { T7 } \\ & \text { dB } \end{aligned}$ | $\begin{gathered} \mathrm{T} 4 \\ \mathrm{~T} 8 \\ \mathrm{~dB} \end{gathered}$ | Dist <br> Table | Corr $\mathrm{dB} \mu \mathrm{~V} / \mathrm{m}$ | Spec $\mathrm{dB} \mu \mathrm{~V} / \mathrm{m}$ | Margin $\mathrm{dB}$ | Polar <br> Ant |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 74.500M | 21.6 | $\begin{aligned} & +1.5 \\ & +0.0 \\ & +0.0 \\ & \hline \end{aligned}$ | $\begin{aligned} & +5.9 \\ & +0.0 \end{aligned}$ | $\begin{aligned} & +6.9 \\ & +0.0 \end{aligned}$ | $\begin{aligned} & +0.0 \\ & +0.0 \end{aligned}$ | +0.0 | 35.9 | 40.0 | -4.1 | Vert |
| 2 | 74.800M | 21.0 | $\begin{aligned} & +1.5 \\ & +0.0 \\ & +0.0 \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline+5.9 \\ & +0.0 \end{aligned}$ | $\begin{aligned} & \hline+6.9 \\ & +0.0 \end{aligned}$ | $\begin{aligned} & +0.0 \\ & +0.0 \end{aligned}$ | +0.0 | 35.3 | 40.0 | -4.7 | Vert |
| 3 | 74.350M | 20.8 | $\begin{aligned} & \hline+1.5 \\ & +0.0 \\ & +0.0 \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline+5.9 \\ & +0.0 \end{aligned}$ | $\begin{aligned} & \hline+6.9 \\ & +0.0 \end{aligned}$ | $\begin{aligned} & +0.0 \\ & +0.0 \end{aligned}$ | +0.0 | 35.1 | 40.0 | -4.9 | Horiz |
| 4 | 2724.000 M | 53.5 | $\begin{array}{r} +0.0 \\ -38.5 \\ +0.2 \\ \hline \end{array}$ | $\begin{array}{r} +0.0 \\ +29.6 \end{array}$ | $\begin{aligned} & \hline+0.0 \\ & +3.4 \end{aligned}$ | $\begin{aligned} & +0.0 \\ & +0.5 \end{aligned}$ | +0.0 | 48.7 | 54.0 | -5.3 | Vert |
| 5 | 2772.000 M | 52.6 | $\begin{array}{r} +0.0 \\ -38.5 \\ +0.2 \\ \hline \end{array}$ | $\begin{array}{r} +0.0 \\ +29.7 \end{array}$ | $\begin{aligned} & +0.0 \\ & +3.5 \end{aligned}$ | $\begin{aligned} & +0.0 \\ & +0.5 \end{aligned}$ | +0.0 | 48.0 | 54.0 | -6.0 | Vert |
| 6 | 7264.000M | 42.1 | $\begin{array}{r} +0.0 \\ -37.2 \\ +0.2 \\ \hline \end{array}$ | $\begin{array}{r} +0.0 \\ +36.0 \end{array}$ | $\begin{aligned} & +0.0 \\ & +6.1 \end{aligned}$ | $\begin{aligned} & +0.0 \\ & +0.8 \end{aligned}$ | +0.0 | 48.0 | 54.0 | -6.0 | Horiz |
| 7 | 74.050M | 18.8 | $\begin{aligned} & \hline+1.5 \\ & +0.0 \\ & +0.0 \\ & \hline \end{aligned}$ | $\begin{aligned} & +5.9 \\ & +0.0 \end{aligned}$ | $\begin{aligned} & +6.9 \\ & +0.0 \end{aligned}$ | $\begin{aligned} & +0.0 \\ & +0.0 \end{aligned}$ | +0.0 | 33.1 | 40.0 | -6.9 | Horiz |
| 8 | 7264.000M | 41.1 | $\begin{array}{r} +0.0 \\ -37.2 \\ +0.2 \end{array}$ | $\begin{array}{r} +0.0 \\ +36.0 \end{array}$ | $\begin{aligned} & +0.0 \\ & +6.1 \end{aligned}$ | $\begin{aligned} & +0.0 \\ & +0.8 \end{aligned}$ | +0.0 | 47.0 | 54.0 | -7.0 | Vert |
| 9 | 109.100M | 18.1 | $\begin{aligned} & \hline+1.8 \\ & +0.0 \\ & +0.0 \\ & \hline \end{aligned}$ | $\begin{aligned} & +5.9 \\ & +0.0 \end{aligned}$ | $\begin{array}{r} +10.6 \\ +0.0 \end{array}$ | $\begin{aligned} & +0.0 \\ & +0.0 \end{aligned}$ | +0.0 | 36.4 | 43.5 | -7.1 | Vert |
| 10 | 111.400M | 17.8 | $\begin{aligned} & +1.9 \\ & +0.0 \\ & +0.0 \\ & \hline \end{aligned}$ | $\begin{aligned} & +5.9 \\ & +0.0 \end{aligned}$ | $\begin{array}{r} \hline+10.7 \\ +0.0 \end{array}$ | $\begin{aligned} & +0.0 \\ & +0.0 \end{aligned}$ | +0.0 | 36.3 | 43.5 | -7.2 | Vert |
| 11 | 4540.000M | 46.0 | $\begin{array}{r} +0.0 \\ -37.4 \\ +0.2 \\ \hline \end{array}$ | $\begin{array}{r} +0.0 \\ +32.6 \end{array}$ | $\begin{aligned} & +0.0 \\ & +4.5 \end{aligned}$ | $\begin{aligned} & +0.0 \\ & +0.7 \end{aligned}$ | +0.0 | 46.6 | 54.0 | -7.4 | Vert |
| 12 | 244.800M | 17.5 | $\begin{aligned} & +2.9 \\ & +0.0 \\ & +0.0 \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline+5.9 \\ & +0.0 \end{aligned}$ | $\begin{array}{r} \hline+12.0 \\ +0.0 \end{array}$ | $\begin{aligned} & +0.0 \\ & +0.0 \end{aligned}$ | $+0.0$ | 38.3 | 46.0 | -7.7 | Horiz |
| 13 | 4580.000M | 45.4 | $\begin{array}{r} +0.0 \\ -37.4 \\ +0.2 \\ \hline \end{array}$ | $\begin{array}{r} +0.0 \\ +32.6 \end{array}$ | $\begin{aligned} & +0.0 \\ & +4.5 \end{aligned}$ | $\begin{aligned} & +0.0 \\ & +0.7 \end{aligned}$ | +0.0 | 46.0 | 54.0 | -8.0 | Horiz |
|  | $2748.000 \mathrm{M}$ <br> Ave | 50.2 | $\begin{array}{r} +0.0 \\ -38.5 \\ +0.2 \\ \hline \end{array}$ | $\begin{array}{r} +0.0 \\ +29.7 \end{array}$ | $\begin{aligned} & +0.0 \\ & +3.4 \end{aligned}$ | $\begin{aligned} & +0.0 \\ & +0.5 \end{aligned}$ | +0.0 | 45.5 | 54.0 | -8.5 | Vert |
| $\wedge$ | 2748.000 M | 57.2 | $\begin{array}{r} +0.0 \\ -38.5 \\ +0.2 \end{array}$ | $\begin{array}{r} +0.0 \\ +29.7 \end{array}$ | $\begin{aligned} & +0.0 \\ & +3.4 \end{aligned}$ | $\begin{aligned} & +0.0 \\ & +0.5 \end{aligned}$ | $+0.0$ | 52.5 | 54.0 | -1.5 | Vert |


| 16 | 111.200M | 15.5 | $\begin{aligned} & \hline+1.9 \\ & +0.0 \\ & +0.0 \end{aligned}$ | $\begin{aligned} & +5.9 \\ & +0.0 \end{aligned}$ | $\begin{array}{r} \hline+10.7 \\ +0.0 \end{array}$ | $\begin{aligned} & +0.0 \\ & +0.0 \end{aligned}$ | +0.0 | 34.0 | 43.5 | -9.5 | Horiz |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 17 | 4540.000M | 43.7 | $\begin{array}{r} +0.0 \\ \hline-37.4 \\ +0.2 \end{array}$ | $\begin{array}{r} +0.0 \\ +32.6 \end{array}$ | $\begin{aligned} & +0.0 \\ & +4.5 \end{aligned}$ | $\begin{aligned} & +0.0 \\ & +0.7 \end{aligned}$ | +0.0 | 44.3 | 54.0 | -9.7 | Horiz |
| 18 | 112.600 M | 14.8 | $\begin{aligned} & +1.9 \\ & +0.0 \\ & +0.0 \\ & \hline \end{aligned}$ | $\begin{aligned} & +5.9 \\ & +0.0 \end{aligned}$ | $\begin{array}{r} \hline+10.8 \\ +0.0 \end{array}$ | $\begin{aligned} & +0.0 \\ & +0.0 \end{aligned}$ | +0.0 | 33.4 | 43.5 | -10.1 | Horiz |
| 19 | 2748.000M | 48.1 | $\begin{array}{r} +0.0 \\ -38.5 \\ +0.2 \end{array}$ | $\begin{array}{r} +0.0 \\ +29.7 \end{array}$ | $\begin{aligned} & \hline+0.0 \\ & +3.4 \end{aligned}$ | $\begin{aligned} & +0.0 \\ & +0.5 \end{aligned}$ | $+0.0$ | 43.4 | 54.0 | -10.6 | Horiz |
| 20 | 109.900M | 14.5 | $\begin{aligned} & +1.9 \\ & +0.0 \\ & +0.0 \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline+5.9 \\ & +0.0 \end{aligned}$ | $\begin{array}{r} \hline+10.6 \\ +0.0 \end{array}$ | $\begin{aligned} & +0.0 \\ & +0.0 \end{aligned}$ | +0.0 | 32.9 | 43.5 | -10.6 | Horiz |
| 21 | 2772.000 M | 47.1 | $\begin{array}{r} +0.0 \\ -38.5 \\ +0.2 \\ \hline \end{array}$ | $\begin{array}{r} +0.0 \\ +29.7 \end{array}$ | $\begin{aligned} & \hline+0.0 \\ & +3.5 \end{aligned}$ | $\begin{aligned} & +0.0 \\ & +0.5 \end{aligned}$ | +0.0 | 42.5 | 54.0 | -11.5 | Horiz |
| 22 | 2724.000M | 46.4 | $\begin{array}{r} +0.0 \\ -38.5 \\ +0.2 \\ \hline \end{array}$ | $\begin{array}{r} +0.0 \\ +29.6 \end{array}$ | $\begin{aligned} & \hline+0.0 \\ & +3.4 \end{aligned}$ | $\begin{aligned} & +0.0 \\ & +0.5 \end{aligned}$ | +0.0 | 41.6 | 54.0 | -12.4 | Horiz |
| 23 | 6468.000M | 52.6 | $\begin{array}{r} +0.0 \\ -37.2 \\ +0.2 \end{array}$ | $\begin{array}{r} +0.0 \\ +34.4 \end{array}$ | $\begin{aligned} & +0.0 \\ & +5.8 \end{aligned}$ | $\begin{aligned} & +0.0 \\ & +0.8 \end{aligned}$ | $+0.0$ | 56.6 | 106.3 | -49.7 | Horiz |
| 24 | 6412.000M | 47.6 | $\begin{array}{r} +0.0 \\ -37.1 \\ +0.2 \\ \hline \end{array}$ | $\begin{array}{r} +0.0 \\ +34.4 \end{array}$ | $\begin{aligned} & +0.0 \\ & +5.8 \end{aligned}$ | $\begin{aligned} & +0.0 \\ & +0.8 \end{aligned}$ | +0.0 | 51.7 | 106.3 | -54.6 | Horiz |
| 25 | 6412.000M | 43.3 | $\begin{array}{r} +0.0 \\ -37.1 \\ +0.2 \\ \hline \end{array}$ | $\begin{array}{r} +0.0 \\ +34.4 \end{array}$ | $\begin{aligned} & +0.0 \\ & +5.8 \end{aligned}$ | $\begin{aligned} & +0.0 \\ & +0.8 \end{aligned}$ | $+0.0$ | 47.4 | 106.3 | -58.9 | Vert |
| 26 | 75.400 M | 24.3 | $\begin{aligned} & \hline+1.6 \\ & +0.0 \\ & +0.0 \\ & \hline \end{aligned}$ | $\begin{aligned} & +5.9 \\ & +0.0 \end{aligned}$ | $\begin{aligned} & +7.0 \\ & +0.0 \end{aligned}$ | $\begin{aligned} & +0.0 \\ & +0.0 \end{aligned}$ | $+0.0$ | 38.8 | 106.3 | -67.5 | Vert |
| 27 | 75.300M | 21.5 | $\begin{aligned} & \hline+1.6 \\ & +0.0 \\ & +0.0 \\ & \hline \end{aligned}$ | $\begin{aligned} & +5.9 \\ & +0.0 \end{aligned}$ | $\begin{aligned} & \hline+7.0 \\ & +0.0 \end{aligned}$ | $\begin{aligned} & +0.0 \\ & +0.0 \end{aligned}$ | $+0.0$ | 36.0 | 106.3 | -70.3 | Horiz |
| 28 | 200.000 M | 18.0 | $\begin{aligned} & \hline+2.6 \\ & +0.0 \\ & +0.0 \\ & \hline \end{aligned}$ | $\begin{aligned} & +5.9 \\ & +0.0 \end{aligned}$ | $\begin{aligned} & +8.9 \\ & +0.0 \end{aligned}$ | $\begin{aligned} & +0.0 \\ & +0.0 \end{aligned}$ | $+0.0$ | 35.4 | 106.3 | -70.9 | Horiz |
| 29 | 231.100M | 15.3 | $\begin{aligned} & \hline+2.8 \\ & +0.0 \\ & +0.0 \\ & \hline \end{aligned}$ | $\begin{aligned} & +5.9 \\ & +0.0 \end{aligned}$ | $\begin{array}{r} \hline+11.1 \\ +0.0 \end{array}$ | $\begin{aligned} & \hline+0.0 \\ & +0.0 \end{aligned}$ | $+0.0$ | 35.1 | 106.3 | -71.2 | Horiz |
| 30 | 223.500 M | 15.4 | $\begin{aligned} & +2.7 \\ & +0.0 \\ & +0.0 \end{aligned}$ | $\begin{aligned} & +5.9 \\ & +0.0 \end{aligned}$ | $\begin{array}{r} \hline+10.6 \\ +0.0 \end{array}$ | $\begin{aligned} & +0.0 \\ & +0.0 \end{aligned}$ | $+0.0$ | 34.6 | 106.3 | -71.7 | Vert |
| 31 | 57.100 M | 19.1 | $\begin{aligned} & \hline+1.3 \\ & +0.0 \\ & +0.0 \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline+5.9 \\ & +0.0 \end{aligned}$ | $\begin{aligned} & \hline+7.0 \\ & +0.0 \end{aligned}$ | $\begin{aligned} & +0.0 \\ & +0.0 \end{aligned}$ |  | 33.3 | 106.3 | -73.0 | Vert |
| 32 | 160.400M | 13.6 | $\begin{aligned} & \hline+2.3 \\ & +0.0 \\ & +0.0 \\ & \hline \end{aligned}$ | $\begin{aligned} & +5.9 \\ & +0.0 \end{aligned}$ | $\begin{array}{r} \hline+10.6 \\ +0.0 \end{array}$ | $\begin{aligned} & +0.0 \\ & +0.0 \end{aligned}$ | $+0.0$ | 32.4 | 106.3 | -73.9 | Vert |

Test Location: CKC Laboratories • 100 North Olinda Place • Brea CA 92823• 714 993-6112
Customer: Itron, Inc.
Specification:
15.247(d) / 15.209 Radiated Spurious Emissions

Work Order \#: 103955 Date: 6/24/2020
Test Type: Maximized Emissions
Time: 13:43:08
Tested By:
Don Nguyen
Sequence\#: 4
Software:
EMITest 5.03.12

## Equipment Tested:

| Device | Manufacturer | Model \# |
| :--- | :--- | :--- |
| Configuration 8 |  | S/N |

## Support Equipment:

| Device | Manufacturer | Model \# |
| :--- | :--- | :--- |
| Configuration 8 |  | S/N |

Test Conditions / Notes:
The EUT is placed on Styrofoam platform and connected to DC power supply. USB port is connected to a touchscreen tablet. The computer is sending command to the EUT using software MC3 SuperRaptor
Test ver.4.0.3.5.

The EUT is set to continuously transmit.

Operating frequency: $908 \mathrm{MHz}, 916 \mathrm{MHz}, 924 \mathrm{MHz}$
Frequency of measurement: $9 \mathrm{kHz}-9.28 \mathrm{GHz}$
9 kHz to 150 kHz RBW $=0.2 \mathrm{kHz}, \mathrm{VBW}=0.6 \mathrm{kHz}$.
150 kHz to 30 MHz RBW $=9 \mathrm{kHz}, V B W=27 \mathrm{kHz}$.
$30-1000 \mathrm{MHz}, \mathrm{RBW}=120 \mathrm{kHz}, \mathrm{VBW}=360 \mathrm{kHz}$
$1000-9280 \mathrm{MHz}, \mathrm{RBW}=1 \mathrm{MHz}, \mathrm{VBW}=3 \mathrm{MHz}$
RBW $=100 \mathrm{kHz}, \mathrm{VBW}=300 \mathrm{kHz}(-20 \mathrm{~dB}$ limit $)$
Duty cycle correction is $20 \log (.0445 / .1)=-7.0 \mathrm{~dB}$
The worst case emission were verified with power supply on and off the table. No change in emission level was observed.

Itron, Inc. WO\#: 103955 Sequence\#: 4 Date: 6/24/2020
15.247(d) / 15.209 Radiated Spurious Emissions Test Distance: 3 Meters Horiz


- Readings
QP Readings
- Ambient

1-15.247(d) / 15.209 Radiated Spurious Emissions

O Peak Readings

* Average Readings

Software Version: 5.03.19

Test Equipment:

| ID | Asset \# | Description | Model | Cal Date | Cal Due Date |
| :--- | :--- | :--- | :--- | :--- | :--- |
|  | AN00314 | Loop Antenna | 6502 | $4 / 13 / 2020$ | $4 / 13 / 2022$ |
| T1 | AN02869 | Spectrum Analyzer | E4440A | $7 / 25 / 2019$ | $7 / 25 / 2020$ |
| T2 | ANP05198 | Cable-Amplitude +15C to +45C (dB) | 8268 | $12 / 4 / 2018$ | $12 / 4 / 2020$ |
| T3 | ANP05281 | Attenuator | 1B | $4 / 7 / 2020$ | $4 / 7 / 2022$ |
| T4 | AN01993 | Biconilog Antenna | CBL6111C | $6 / 11 / 2019$ | $6 / 11 / 2021$ |
| T5 | AN00309 | Preamp | $8447 D$ | $12 / 24 / 2019$ | $12 / 24 / 2021$ |
| T6 | ANP05050 | Cable | RG223/U | $12 / 24 / 2018$ | $12 / 24 / 2020$ |
| T7 | ANP06360 | Cable | L1-PNMNM-48 | $8 / 8 / 2019$ | $8 / 8 / 2021$ |
| T8 | AN00786 | Preamp | $83017 A$ | $5 / 20 / 2020$ | $5 / 20 / 2022$ |
| T9 | ANP07243 | Cable | $32022-29094 K-$ | $5 / 29 / 2020$ | $5 / 29 / 2022$ |
|  |  |  | $29094 K-24 T C$ |  |  |
| T10 | AN03169 | High Pass Filter | HM1155-11SS | $5 / 8 / 2019$ | $5 / 8 / 2021$ |
| T11 | AN00849 | Horn Antenna | 3115 | $3 / 17 / 2020$ | $3 / 17 / 2022$ |

Measurement Data: $\quad$ Reading listed by margin. Test Distance: 3 Meters

| \# Freq <br> MHz | Rdng $\mathrm{dB} \mu \mathrm{~V}$ | $\begin{aligned} & \mathrm{T} 1 \\ & \mathrm{~T} 5 \\ & \mathrm{~T} 9 \\ & \mathrm{~dB} \end{aligned}$ | $\begin{gathered} \text { T2 } \\ \text { T6 } \\ \text { T10 } \\ \text { dB } \end{gathered}$ | $\begin{gathered} \mathrm{T} 3 \\ \mathrm{~T} 7 \\ \mathrm{~T} 11 \\ \mathrm{~dB} \end{gathered}$ | T4 <br> T8 <br> dB | Dist <br> Table | Corr $\mathrm{dB} \mu \mathrm{~V} / \mathrm{m}$ | Spec $\mathrm{dB} \mu \mathrm{~V} / \mathrm{m}$ | Margin $\mathrm{dB}$ | Polar <br> Ant |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{aligned} & 1 \text { 9160.363M } \\ & \text { Ave } \end{aligned}$ | 41.6 | $\begin{aligned} & +0.0 \\ & +0.0 \\ & +0.9 \end{aligned}$ | $\begin{aligned} & +0.0 \\ & +0.0 \\ & +0.2 \end{aligned}$ | $\begin{array}{r} +0.0 \\ +6.9 \\ +37.9 \end{array}$ | $\begin{array}{r} \hline+0.0 \\ -36.6 \end{array}$ | +0.0 | 50.9 | 54.0 | -3.1 | Vert |
| $\wedge 9160.363 \mathrm{M}$ | 48.6 | $\begin{aligned} & +0.0 \\ & +0.0 \\ & +0.9 \end{aligned}$ | $\begin{aligned} & \hline+0.0 \\ & +0.0 \\ & +0.2 \\ & \hline \end{aligned}$ | $\begin{array}{r} +0.0 \\ +6.9 \\ +37.9 \end{array}$ | $\begin{array}{r} +0.0 \\ -36.6 \end{array}$ | +0.0 | 57.9 | 54.0 | +3.9 | Vert |
| $\begin{aligned} & 3 \text { 9080.453M } \\ & \text { Ave } \end{aligned}$ | 41.7 | $\begin{aligned} & +0.0 \\ & +0.0 \\ & +1.0 \end{aligned}$ | $\begin{aligned} & \hline+0.0 \\ & +0.0 \\ & +0.1 \\ & \hline \end{aligned}$ | $\begin{array}{r} +0.0 \\ +6.8 \\ +37.9 \end{array}$ | $\begin{array}{r} +0.0 \\ -36.7 \end{array}$ | +0.0 | 50.8 | 54.0 | -3.2 | Vert |
| $\wedge 9080.453 \mathrm{M}$ | 48.7 | $\begin{aligned} & +0.0 \\ & +0.0 \\ & +1.0 \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline+0.0 \\ & +0.0 \\ & +0.1 \\ & \hline \end{aligned}$ | $\begin{array}{r} +0.0 \\ +6.8 \\ +37.9 \\ \hline \end{array}$ | $\begin{array}{r} +0.0 \\ -36.7 \end{array}$ | +0.0 | 57.8 | 54.0 | +3.8 | Vert |
| 57389.723 M | 43.4 | $\begin{aligned} & +0.0 \\ & +0.0 \\ & +0.8 \end{aligned}$ | $\begin{aligned} & +0.0 \\ & +0.0 \\ & +0.2 \\ & \hline \end{aligned}$ | $\begin{array}{r} +0.0 \\ +6.1 \\ +36.3 \end{array}$ | $\begin{array}{r} +0.0 \\ -37.3 \end{array}$ | +0.0 | 49.5 | 54.0 | -4.5 | Horiz |
| 67327.223 M | 43.2 | $\begin{aligned} & +0.0 \\ & +0.0 \\ & +0.8 \end{aligned}$ | $\begin{aligned} & +0.0 \\ & +0.0 \\ & +0.2 \\ & \hline \end{aligned}$ | $\begin{array}{r} +0.0 \\ +6.1 \\ +36.2 \end{array}$ | $\begin{array}{r} +0.0 \\ -37.3 \end{array}$ | +0.0 | 49.2 | 54.0 | -4.8 | Horiz |
| 7 2724.027M | 53.3 | $\begin{aligned} & +0.0 \\ & +0.0 \\ & +0.5 \\ & \hline \end{aligned}$ | $\begin{aligned} & +0.0 \\ & +0.0 \\ & +0.2 \\ & \hline \end{aligned}$ | $\begin{array}{r} +0.0 \\ +3.4 \\ +29.6 \end{array}$ | $\begin{array}{r} +0.0 \\ -38.5 \end{array}$ | +0.0 | 48.5 | 54.0 | -5.5 | Horiz |
| 8 4618.657M | 47.5 | $\begin{aligned} & +0.0 \\ & +0.0 \\ & +0.7 \end{aligned}$ | $\begin{aligned} & +0.0 \\ & +0.0 \\ & +0.2 \\ & \hline \end{aligned}$ | $\begin{array}{r} +0.0 \\ +4.5 \\ +32.7 \\ \hline \end{array}$ | $\begin{array}{r} +0.0 \\ -37.4 \end{array}$ | +0.0 | 48.2 | 54.0 | -5.8 | Vert |
| 9 4618.983M | 47.5 | $\begin{aligned} & +0.0 \\ & +0.0 \\ & +0.7 \end{aligned}$ | $\begin{aligned} & +0.0 \\ & +0.0 \\ & +0.2 \\ & \hline \end{aligned}$ | $\begin{array}{r} +0.0 \\ +4.5 \\ +32.7 \end{array}$ | $\begin{array}{r} +0.0 \\ -37.4 \end{array}$ | +0.0 | 48.2 | 54.0 | -5.8 | Horiz |
| $10 \quad 2747.887 \mathrm{M}$ | 52.8 | $\begin{aligned} & +0.0 \\ & +0.0 \\ & +0.5 \end{aligned}$ | $\begin{aligned} & \hline+0.0 \\ & +0.0 \\ & +0.2 \\ & \hline \end{aligned}$ | $\begin{array}{r} +0.0 \\ +3.4 \\ +29.7 \end{array}$ | $\begin{array}{r} +0.0 \\ -38.5 \end{array}$ | +0.0 | 48.1 | 54.0 | -5.9 | Vert |
| 114540.337 M | 47.2 | $\begin{aligned} & +0.0 \\ & +0.0 \\ & +0.7 \end{aligned}$ | $\begin{aligned} & +0.0 \\ & +0.0 \\ & +0.2 \end{aligned}$ | $\begin{array}{r} +0.0 \\ +4.5 \\ +32.6 \end{array}$ | $\begin{array}{r} +0.0 \\ -37.4 \end{array}$ | +0.0 | 47.8 | 54.0 | -6.2 | Horiz |
| $12 \quad 2748.137 \mathrm{M}$ | 52.4 | $\begin{aligned} & +0.0 \\ & +0.0 \\ & +0.5 \end{aligned}$ | $\begin{aligned} & +0.0 \\ & +0.0 \\ & +0.2 \\ & \hline \end{aligned}$ | $\begin{array}{r} +0.0 \\ +3.4 \\ +29.7 \\ \hline \end{array}$ | $\begin{array}{r} +0.0 \\ -38.5 \end{array}$ | +0.0 | 47.7 | 54.0 | -6.3 | Horiz |
| 13 4539.923M | 47.1 | $\begin{aligned} & +0.0 \\ & +0.0 \\ & +0.7 \end{aligned}$ | $\begin{aligned} & \hline+0.0 \\ & +0.0 \\ & +0.2 \\ & \hline \end{aligned}$ | $\begin{array}{r} +0.0 \\ +4.5 \\ +32.6 \\ \hline \end{array}$ | $\begin{array}{r} +0.0 \\ -37.4 \end{array}$ | +0.0 | 47.7 | 54.0 | -6.3 | Vert |
| $\begin{aligned} & 147263.410 \mathrm{M} \\ & \text { Ave } \end{aligned}$ | 41.5 | $\begin{aligned} & +0.0 \\ & +0.0 \\ & +0.8 \end{aligned}$ | $\begin{aligned} & +0.0 \\ & +0.0 \\ & +0.2 \\ & \hline \end{aligned}$ | $\begin{array}{r} +0.0 \\ +6.1 \\ +36.0 \end{array}$ | $\begin{array}{r} +0.0 \\ -37.2 \end{array}$ | +0.0 | 47.4 | 54.0 | -6.6 | Vert |
| $\wedge 7263.410 \mathrm{M}$ | 48.5 | $\begin{aligned} & +0.0 \\ & +0.0 \\ & +0.8 \end{aligned}$ | $\begin{aligned} & \hline+0.0 \\ & +0.0 \\ & +0.2 \end{aligned}$ | $\begin{array}{r} +0.0 \\ +6.1 \\ +36.0 \end{array}$ | $\begin{gathered} +0.0 \\ -37.2 \end{gathered}$ | +0.0 | 54.4 | 54.0 | +0.4 | Vert |


| $\begin{aligned} & 167390.223 \mathrm{M} \\ & \text { Ave } \end{aligned}$ | 41.1 | $\begin{aligned} & +0.0 \\ & +0.0 \\ & +0.8 \\ & \hline \end{aligned}$ | $\begin{aligned} & +0.0 \\ & +0.0 \\ & +0.2 \\ & \hline \end{aligned}$ | $\begin{array}{r} +0.0 \\ +6.1 \\ +36.3 \\ \hline \end{array}$ | $\begin{array}{r} +0.0 \\ -37.3 \end{array}$ | $+0.0$ | 47.2 | 54.0 | -6.8 | Vert |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\wedge 7390.223 \mathrm{M}$ | 48.1 | $\begin{aligned} & +0.0 \\ & +0.0 \\ & +0.8 \end{aligned}$ | $\begin{aligned} & +0.0 \\ & +0.0 \\ & +0.2 \end{aligned}$ | $\begin{array}{r} +0.0 \\ +6.1 \\ +36.3 \end{array}$ | $\begin{array}{r} +0.0 \\ -37.3 \end{array}$ | +0.0 | 54.2 | 54.0 | +0.2 | Vert |
| 18 2771.417M | 51.0 | $\begin{aligned} & +0.0 \\ & +0.0 \\ & +0.5 \\ & \hline \end{aligned}$ | $\begin{aligned} & +0.0 \\ & +0.0 \\ & +0.2 \\ & \hline \end{aligned}$ | $\begin{array}{r} +0.0 \\ +3.5 \\ +29.7 \end{array}$ | $\begin{gathered} +0.0 \\ -38.5 \end{gathered}$ | +0.0 | 46.4 | 54.0 | -7.6 | Horiz |
| $\begin{aligned} & 197328.097 \mathrm{M} \\ & \text { Ave } \end{aligned}$ | 39.4 | $\begin{aligned} & +0.0 \\ & +0.0 \\ & +0.8 \\ & \hline \end{aligned}$ | $\begin{aligned} & +0.0 \\ & +0.0 \\ & +0.2 \end{aligned}$ | $\begin{array}{r} +0.0 \\ +6.1 \\ +36.2 \end{array}$ | $\begin{gathered} +0.0 \\ -37.3 \end{gathered}$ | $+0.0$ | 45.4 | 54.0 | -8.6 | Vert |
| $\wedge 7328.097 \mathrm{M}$ | 46.4 | $\begin{aligned} & \hline+0.0 \\ & +0.0 \\ & +0.8 \\ & \hline \end{aligned}$ | $\begin{array}{r} +0.0 \\ +0.0 \\ +0.2 \\ \hline \end{array}$ | $\begin{array}{r} +0.0 \\ +6.1 \\ +36.2 \\ \hline \end{array}$ | $\begin{array}{r} +0.0 \\ -37.3 \end{array}$ | +0.0 | 52.4 | 54.0 | -1.6 | Vert |
| $\begin{aligned} & 217264.457 \mathrm{M} \\ & \text { Ave } \end{aligned}$ | 39.3 | $\begin{aligned} & +0.0 \\ & +0.0 \\ & +0.8 \\ & \hline \end{aligned}$ | $\begin{aligned} & +0.0 \\ & +0.0 \\ & +0.2 \\ & \hline \end{aligned}$ | $\begin{array}{r} +0.0 \\ +6.1 \\ +36.0 \\ \hline \end{array}$ | $\begin{gathered} +0.0 \\ -37.2 \end{gathered}$ | +0.0 | 45.2 | 54.0 | -8.8 | Horiz |
| $\wedge 7264.457 \mathrm{M}$ | 46.3 | $\begin{aligned} & \hline+0.0 \\ & +0.0 \\ & +0.8 \\ & \hline \end{aligned}$ | $\begin{aligned} & +0.0 \\ & +0.0 \\ & +0.2 \\ & \hline \end{aligned}$ | $\begin{array}{r} +0.0 \\ +6.1 \\ +36.0 \\ \hline \end{array}$ | $\begin{gathered} +0.0 \\ -37.2 \end{gathered}$ | +0.0 | 52.2 | 54.0 | -1.8 | Horiz |
| 23 4579.493M | 44.3 | $\begin{aligned} & +0.0 \\ & +0.0 \\ & +0.7 \end{aligned}$ | $\begin{aligned} & +0.0 \\ & +0.0 \\ & +0.2 \end{aligned}$ | $\begin{array}{r} +0.0 \\ +4.5 \\ +32.6 \\ \hline \end{array}$ | $\begin{array}{r} +0.0 \\ -37.4 \end{array}$ | $+0.0$ | 44.9 | 54.0 | -9.1 | Vert |
| $\begin{aligned} & 242771.070 \mathrm{M} \\ & \text { Ave } \end{aligned}$ | 48.3 | $\begin{aligned} & \hline+0.0 \\ & +0.0 \\ & +0.5 \\ & \hline \end{aligned}$ | $\begin{aligned} & +0.0 \\ & +0.0 \\ & +0.2 \\ & \hline \end{aligned}$ | $\begin{array}{r} +0.0 \\ +3.5 \\ +29.7 \\ \hline \end{array}$ | $\begin{gathered} +0.0 \\ -38.5 \end{gathered}$ | +0.0 | 43.7 | 54.0 | -10.3 | Vert |
| $\wedge 2771.070 \mathrm{M}$ | 55.3 | $\begin{aligned} & +0.0 \\ & +0.0 \\ & +0.5 \\ & \hline \end{aligned}$ | $\begin{aligned} & +0.0 \\ & +0.0 \\ & +0.2 \end{aligned}$ | $\begin{array}{r} +0.0 \\ +3.5 \\ +29.7 \end{array}$ | $\begin{array}{r} +0.0 \\ -38.5 \end{array}$ | +0.0 | 50.7 | 54.0 | -3.3 | Vert |
| $\begin{aligned} & 262723.807 \mathrm{M} \\ & \text { Ave } \end{aligned}$ | 48.1 | $\begin{aligned} & +0.0 \\ & +0.0 \\ & +0.5 \\ & \hline \end{aligned}$ | $\begin{aligned} & +0.0 \\ & +0.0 \\ & +0.2 \end{aligned}$ | $\begin{array}{r} +0.0 \\ +3.4 \\ +29.6 \end{array}$ | $\begin{array}{r} +0.0 \\ -38.5 \end{array}$ | +0.0 | 43.3 | 54.0 | -10.7 | Vert |
| $\wedge 2723.807 \mathrm{M}$ | 55.1 | $\begin{aligned} & +0.0 \\ & +0.0 \\ & +0.5 \\ & \hline \end{aligned}$ | $\begin{aligned} & +0.0 \\ & +0.0 \\ & +0.2 \\ & \hline \end{aligned}$ | $\begin{array}{r} +0.0 \\ +3.4 \\ +29.6 \end{array}$ | $\begin{gathered} +0.0 \\ -38.5 \end{gathered}$ | $+0.0$ | 50.3 | 54.0 | -3.7 | Vert |
| $28 \quad 171.700 \mathrm{M}$ | 36.5 | $\begin{array}{r} +0.0 \\ -28.0 \\ +0.0 \\ \hline \end{array}$ | $\begin{aligned} & +2.4 \\ & +0.2 \\ & +0.0 \\ & \hline \end{aligned}$ | $\begin{aligned} & +5.9 \\ & +0.0 \\ & +0.0 \\ & \hline \end{aligned}$ | $\begin{aligned} & +9.7 \\ & +0.0 \end{aligned}$ | +0.0 | 26.7 | 43.5 | -16.8 | Vert |
| $29 \quad 168.200 \mathrm{M}$ | 31.7 | $\begin{array}{r} +0.0 \\ -28.0 \\ +0.0 \\ \hline \end{array}$ | $\begin{aligned} & \hline+2.4 \\ & +0.2 \\ & +0.0 \\ & \hline \end{aligned}$ | $\begin{aligned} & +5.9 \\ & +0.0 \\ & +0.0 \\ & \hline \end{aligned}$ | $\begin{aligned} & +9.9 \\ & +0.0 \end{aligned}$ | +0.0 | 22.1 | 43.5 | -21.4 | Horiz |


| Test Location: | CKC Laboratories •100 North Olinda Place •Brea CA | 92823•714 993-6112 |  |
| :--- | :--- | :--- | :--- | :--- |
| Customer: | Itron, Inc. |  |  |
| Specification: | $\mathbf{1 5 . 2 4 7}(\mathbf{d})$ / 15.209 Radiated Spurious Emissions |  |  |
| Work Order \#: | $\mathbf{1 0 3 9 5 5}$ | Date: | 6/24/2020 |
| Test Type: | Maximized Emissions | Time: | 17:51:57 |
| Tested By: | Don Nguyen | Sequence\#: | 3 |
| Software: | EMITest 5.03.12 |  |  |

Equipment Tested:

| Device | Manufacturer | Model \# |
| :--- | :--- | :--- |
| Configuration 9 |  | S/N |

## Support Equipment:

| Device | Manufacturer | Model \# |
| :--- | :--- | :--- |
| Configuration 9 |  | S/N |

Test Conditions / Notes:
The EUT is placed on Styrofoam platform and connected to DC power supply. USB port is connected to a touchscreen tablet. The computer is sending command to the EUT using software MC3 SuperRaptor Test ver.4.0.3.5.

The EUT is set to continuously transmit.

Operating frequency: $908 \mathrm{MHz}, 916 \mathrm{MHz}, 924 \mathrm{MHz}$
Frequency of measurement: $9 \mathrm{kHz}-9.28 \mathrm{GHz}$
9 kHz to 150 kHz RBW $=0.2 \mathrm{kHz}, \mathrm{VBW}=0.6 \mathrm{kHz}$.
150 kHz to 30 MHz RBW $=9 \mathrm{kHz}$, VBW $=27 \mathrm{kHz}$.
$30-1000 \mathrm{MHz}, \mathrm{RBW}=120 \mathrm{kHz}, \mathrm{VBW}=360 \mathrm{kHz}$
$1000-9280 \mathrm{MHz}, \mathrm{RBW}=1 \mathrm{MHz}, \mathrm{VBW}=3 \mathrm{MHz}$
RBW $=100 \mathrm{kHz}, \mathrm{VBW}=300 \mathrm{kHz}(-20 \mathrm{~dB}$ limit $)$
Duty cycle correction is $20 \log (.0445 / .1)=-7.0 \mathrm{~dB}$

```
Itron, Inc. WO#: 103955 Sequence#: 3 Date: 6/24/2020 15.247(d) / 15.209 Radiated Spurious Emissions Test Distance: 3 Meters Vert
```




Readings
$\times$ QP Readings

- Ambient

1-15.247(d) / 15.209 Radiated Spurious Emissions

O Peak Readings

* Average Readings

Software Version: 5.03.19

Test Equipment:

| ID | Asset \# | Description | Model | Cal Date | Cal Due Date |
| :--- | :--- | :--- | :--- | :--- | :--- |
| T1 | AN02672 | Spectrum Analyzer | E4446A | $3 / 13 / 2019$ | $3 / 13 / 2021$ |
| T2 | ANP05198 | Cable-Amplitude +15C to +45C (dB) | 8268 | $12 / 4 / 2018$ | $12 / 4 / 2020$ |
| T3 | ANP05281 | Attenuator | 1B | $4 / 7 / 2020$ | $4 / 7 / 2022$ |
| T4 | AN01993 | Biconilog Antenna | CBL6111C | $6 / 11 / 2019$ | $6 / 11 / 2021$ |
|  | AN00309 | Preamp | $8447 D$ | $12 / 24 / 2019$ | $12 / 24 / 2021$ |
|  | ANP05050 | Cable | RG223/U | $12 / 24 / 2018$ | $12 / 24 / 2020$ |
| T5 | ANP06360 | Cable | L1-PNMNM-48 | $8 / 8 / 2019$ | $8 / 8 / 2021$ |
| T6 | AN00786 | Preamp | $83017 A$ | $5 / 20 / 2020$ | $5 / 20 / 2022$ |
| T7 | ANP07243 | Cable | $32022-29094 K-$ | $5 / 29 / 2020$ | $5 / 29 / 2022$ |
|  |  |  | $29094 K-24$ TC |  |  |
| T8 | AN03169 | High Pass Filter | HM1155-11SS | $5 / 8 / 2019$ | $5 / 8 / 2021$ |
| T9 | AN00849 | Horn Antenna | 3115 | $3 / 17 / 2020$ | $3 / 17 / 2022$ |

Measurement Data: $\quad$ Reading listed by margin. Test Distance: 3 Meters

| \# Freq <br> MHz | Rdng $\mathrm{dB} \mu \mathrm{~V}$ | $\begin{aligned} & \hline \mathrm{T} 1 \\ & \mathrm{~T} 5 \\ & \mathrm{~T} 9 \\ & \mathrm{~dB} \\ & \hline \end{aligned}$ | $\begin{aligned} & \mathrm{T} 2 \\ & \mathrm{~T} 6 \\ & \mathrm{~dB} \end{aligned}$ | $\begin{aligned} & \mathrm{T} 3 \\ & \text { T7 } \\ & \\ & \mathrm{dB} \\ & \hline \end{aligned}$ | $\begin{aligned} & \mathrm{T} 4 \\ & \mathrm{~T} 8 \\ & \mathrm{~dB} \end{aligned}$ | Dist <br> Table | Corr $\mathrm{dB} \mu \mathrm{~V} / \mathrm{m}$ | Spec $\mathrm{dB} \mu \mathrm{~V} / \mathrm{m}$ | Margin $\mathrm{dB}$ | Polar <br> Ant |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{aligned} & 12748.217 \mathrm{M} \\ & \text { Ave } \end{aligned}$ | 55.8 | $\begin{array}{r} +0.0 \\ +3.4 \\ +29.7 \\ \hline \end{array}$ | $\begin{array}{r} +0.0 \\ -38.5 \end{array}$ | $\begin{aligned} & +0.0 \\ & +0.5 \end{aligned}$ | $\begin{aligned} & \hline+0.0 \\ & +0.2 \end{aligned}$ | +0.0 | 51.1 | 54.0 | -2.9 | Vert |
| $\wedge 2748.217 \mathrm{M}$ | 62.8 | $\begin{array}{r} +0.0 \\ +3.4 \\ +29.7 \\ \hline \end{array}$ | $\begin{array}{r} +0.0 \\ -38.5 \end{array}$ | $\begin{aligned} & +0.0 \\ & +0.5 \end{aligned}$ | $\begin{aligned} & +0.0 \\ & +0.2 \end{aligned}$ | +0.0 | 58.1 | 54.0 | +4.1 | Vert |
| $\begin{aligned} & 32724.163 \mathrm{M} \\ & \text { Ave } \end{aligned}$ | 55.1 | $\begin{array}{r} +0.0 \\ +3.4 \\ +29.6 \\ \hline \end{array}$ | $\begin{array}{r} +0.0 \\ -38.5 \end{array}$ | $\begin{aligned} & +0.0 \\ & +0.5 \end{aligned}$ | $\begin{aligned} & \hline+0.0 \\ & +0.2 \end{aligned}$ | +0.0 | 50.3 | 54.0 | -3.7 | Vert |
| $\wedge 2724.163 \mathrm{M}$ | 62.1 | $\begin{array}{r} +0.0 \\ +3.4 \\ +29.6 \\ \hline \end{array}$ | $\begin{array}{r} +0.0 \\ -38.5 \end{array}$ | $\begin{aligned} & +0.0 \\ & +0.5 \end{aligned}$ | $\begin{aligned} & +0.0 \\ & +0.2 \end{aligned}$ | +0.0 | 57.3 | 54.0 | +3.3 | Vert |
| 5 7263.780M | 43.3 | $\begin{array}{r} +0.0 \\ +6.1 \\ +36.0 \end{array}$ | $\begin{array}{r} +0.0 \\ -37.2 \end{array}$ | $\begin{aligned} & +0.0 \\ & +0.8 \end{aligned}$ | $\begin{aligned} & +0.0 \\ & +0.2 \end{aligned}$ | +0.0 | 49.2 | 54.0 | -4.8 | Vert |
| $6 \quad 110.458 \mathrm{M}$ | 19.9 | $\begin{aligned} & \hline+0.0 \\ & +0.0 \\ & +0.0 \\ & \hline \end{aligned}$ | $\begin{aligned} & +1.9 \\ & +0.0 \end{aligned}$ | $\begin{aligned} & +5.9 \\ & +0.0 \end{aligned}$ | $\begin{array}{r} \hline+10.7 \\ +0.0 \end{array}$ | +0.0 | 38.4 | 43.5 | -5.1 | Vert |
| 7 7391.917M | 42.4 | $\begin{array}{r} +0.0 \\ +6.1 \\ +36.3 \\ \hline \end{array}$ | $\begin{array}{r} +0.0 \\ -37.3 \end{array}$ | $\begin{aligned} & +0.0 \\ & +0.8 \end{aligned}$ | $\begin{aligned} & +0.0 \\ & +0.2 \end{aligned}$ | +0.0 | 48.5 | 54.0 | -5.5 | Vert |
| 8 7327.807M | 42.3 | $\begin{array}{r} +0.0 \\ +6.1 \\ +36.2 \end{array}$ | $\begin{array}{r} +0.0 \\ -37.3 \end{array}$ | $\begin{aligned} & +0.0 \\ & +0.8 \end{aligned}$ | $\begin{aligned} & +0.0 \\ & +0.2 \end{aligned}$ | +0.0 | 48.3 | 54.0 | -5.7 | Vert |
| $\begin{aligned} & 92772.057 \mathrm{M} \\ & \text { Ave } \end{aligned}$ | 52.3 | $\begin{array}{r} +0.0 \\ +3.5 \\ +29.7 \\ \hline \end{array}$ | $\begin{array}{r} +0.0 \\ -38.5 \end{array}$ | $\begin{aligned} & +0.0 \\ & +0.5 \end{aligned}$ | $\begin{aligned} & +0.0 \\ & +0.2 \end{aligned}$ | +0.0 | 47.7 | 54.0 | -6.3 | Vert |
| $\wedge 2772.057 \mathrm{M}$ | 59.3 | $\begin{array}{r} +0.0 \\ +3.5 \\ +29.7 \\ \hline \end{array}$ | $\begin{array}{r} +0.0 \\ -38.5 \end{array}$ | $\begin{aligned} & +0.0 \\ & +0.5 \end{aligned}$ | $\begin{aligned} & +0.0 \\ & +0.2 \end{aligned}$ | +0.0 | 54.7 | 54.0 | +0.7 | Vert |
| $11 \quad 112.428 \mathrm{M}$ | 18.2 | $\begin{aligned} & +0.0 \\ & +0.0 \\ & +0.0 \\ & \hline \end{aligned}$ | $\begin{aligned} & +1.9 \\ & +0.0 \end{aligned}$ | $\begin{aligned} & +5.9 \\ & +0.0 \end{aligned}$ | $\begin{array}{r} \hline+10.8 \\ +0.0 \end{array}$ | +0.0 | 36.8 | 43.5 | -6.7 | Vert |
| $12 \quad 2748.257 \mathrm{M}$ | 51.7 | $\begin{array}{r} +0.0 \\ +3.4 \\ +29.7 \\ \hline \end{array}$ | $\begin{array}{r} +0.0 \\ -38.5 \end{array}$ | $\begin{aligned} & +0.0 \\ & +0.5 \end{aligned}$ | $\begin{aligned} & \hline+0.0 \\ & +0.2 \end{aligned}$ | +0.0 | 47.0 | 54.0 | $-7.0$ | Horiz |
| $13 \quad 109.171 \mathrm{M}$ | 18.1 | $\begin{aligned} & +0.0 \\ & +0.0 \\ & +0.0 \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline+1.8 \\ & +0.0 \end{aligned}$ | $\begin{aligned} & +5.9 \\ & +0.0 \end{aligned}$ | $\begin{array}{r} \hline+10.6 \\ +0.0 \end{array}$ | +0.0 | 36.4 | 43.5 | -7.1 | Vert |
| 14 2771.990M | 51.3 | $\begin{array}{r} +0.0 \\ +3.5 \\ +29.7 \\ \hline \end{array}$ | $\begin{array}{r} +0.0 \\ -38.5 \end{array}$ | $\begin{aligned} & +0.0 \\ & +0.5 \end{aligned}$ | $\begin{aligned} & +0.0 \\ & +0.2 \end{aligned}$ | +0.0 | 46.7 | 54.0 | -7.3 | Horiz |
| 15 2724.307M | 51.0 | $\begin{array}{r} +0.0 \\ +3.4 \\ +29.6 \end{array}$ | $\begin{array}{r} +0.0 \\ -38.5 \end{array}$ | $\begin{aligned} & +0.0 \\ & +0.5 \end{aligned}$ | $\begin{aligned} & +0.0 \\ & +0.2 \end{aligned}$ | $+0.0$ | 46.2 | 54.0 | $-7.8$ | Horiz |


| 16 | 115.041 M | 16.6 | $\begin{aligned} & \hline+0.0 \\ & +0.0 \\ & +0.0 \end{aligned}$ | $\begin{aligned} & \hline+1.9 \\ & +0.0 \end{aligned}$ | $\begin{aligned} & +5.9 \\ & +0.0 \end{aligned}$ | $\begin{array}{r} +10.9 \\ +0.0 \end{array}$ | +0.0 | 35.3 | 43.5 | -8.2 | Vert |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 17 | 4539.180M | 45.0 | $\begin{array}{r} +0.0 \\ +4.5 \\ +32.6 \\ \hline \end{array}$ | $\begin{array}{r} +0.0 \\ -37.4 \end{array}$ | $\begin{aligned} & +0.0 \\ & +0.7 \end{aligned}$ | $\begin{aligned} & +0.0 \\ & +0.2 \end{aligned}$ | +0.0 | 45.6 | 54.0 | -8.4 | Vert |
| 18 | 4619.950M | 44.8 | $\begin{array}{r} +0.0 \\ +4.5 \\ +32.7 \\ \hline \end{array}$ | $\begin{array}{r} +0.0 \\ -37.4 \end{array}$ | $\begin{aligned} & +0.0 \\ & +0.7 \end{aligned}$ | $\begin{aligned} & +0.0 \\ & +0.2 \end{aligned}$ | +0.0 | 45.5 | 54.0 | -8.5 | Vert |
| 19 | 4580.183M | 44.4 | $\begin{array}{r} +0.0 \\ +4.5 \\ +32.6 \\ \hline \end{array}$ | $\begin{array}{r} +0.0 \\ -37.4 \end{array}$ | $\begin{aligned} & +0.0 \\ & +0.7 \end{aligned}$ | $\begin{aligned} & +0.0 \\ & +0.2 \end{aligned}$ | +0.0 | 45.0 | 54.0 | -9.0 | Vert |
| 20 | 166.500M | 16.0 | $\begin{aligned} & +0.0 \\ & +0.0 \\ & +0.0 \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline+2.3 \\ & +0.0 \end{aligned}$ | $\begin{aligned} & +5.9 \\ & +0.0 \end{aligned}$ | $\begin{array}{r} +10.1 \\ +0.0 \end{array}$ | +0.0 | 34.3 | 43.5 | -9.2 | Horiz |
| 21 | 280.490M | 14.6 | $\begin{aligned} & \hline+0.0 \\ & +0.0 \\ & +0.0 \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline+3.1 \\ & +0.0 \end{aligned}$ | $\begin{aligned} & +5.9 \\ & +0.0 \end{aligned}$ | $\begin{array}{r} +12.9 \\ +0.0 \end{array}$ | +0.0 | 36.5 | 46.0 | -9.5 | Vert |
| 22 | 165.540M | 14.1 | $\begin{aligned} & \hline+0.0 \\ & +0.0 \\ & +0.0 \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline+2.3 \\ & +0.0 \end{aligned}$ | $\begin{aligned} & +5.9 \\ & +0.0 \end{aligned}$ | $\begin{array}{r} +10.1 \\ +0.0 \end{array}$ | +0.0 | 32.4 | 43.5 | -11.1 | Vert |
| 23 | 111.100 M | 13.6 | $\begin{aligned} & +0.0 \\ & +0.0 \\ & +0.0 \\ & \hline \end{aligned}$ | $\begin{aligned} & +1.9 \\ & +0.0 \end{aligned}$ | $\begin{aligned} & +5.9 \\ & +0.0 \end{aligned}$ | $\begin{array}{r} +10.7 \\ +0.0 \end{array}$ | $+0.0$ | 32.1 | 43.5 | -11.4 | Horiz |
| 24 | 304.490M | 16.9 | $\begin{aligned} & \hline+0.0 \\ & +0.0 \\ & +0.0 \\ & \hline \end{aligned}$ | $\begin{aligned} & +3.2 \\ & +0.0 \end{aligned}$ | $\begin{aligned} & +5.9 \\ & +0.0 \end{aligned}$ | $\begin{array}{r} \hline+13.4 \\ +0.0 \end{array}$ | +0.0 | 39.4 | 105.5 | -66.1 | Vert |
| 25 | 75.390 M | 22.8 | $\begin{aligned} & \hline+0.0 \\ & +0.0 \\ & +0.0 \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline+1.6 \\ & +0.0 \end{aligned}$ | $\begin{aligned} & +5.9 \\ & +0.0 \end{aligned}$ | $\begin{aligned} & \hline+7.0 \\ & +0.0 \end{aligned}$ | +0.0 | 37.3 | 105.5 | -68.2 | Vert |
| 26 | 60.015 M | 22.5 | $\begin{aligned} & +0.0 \\ & +0.0 \\ & +0.0 \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline+1.4 \\ & +0.0 \end{aligned}$ | $\begin{aligned} & +5.9 \\ & +0.0 \end{aligned}$ | $\begin{aligned} & +6.2 \\ & +0.0 \end{aligned}$ | +0.0 | 36.0 | 105.5 | -69.5 | Vert |
| 27 | 224.200M | 15.4 | $\begin{aligned} & \hline+0.0 \\ & +0.0 \\ & +0.0 \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline+2.8 \\ & +0.0 \end{aligned}$ | $\begin{aligned} & +5.9 \\ & +0.0 \end{aligned}$ | $\begin{array}{r} +10.6 \\ +0.0 \end{array}$ | $+0.0$ | 34.7 | 105.5 | -70.8 | Horiz |
| 28 | 74.790M | 20.3 | $\begin{aligned} & +0.0 \\ & +0.0 \\ & +0.0 \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline+1.5 \\ & +0.0 \end{aligned}$ | $\begin{aligned} & +5.9 \\ & +0.0 \end{aligned}$ | $\begin{aligned} & +6.9 \\ & +0.0 \end{aligned}$ | +0.0 | 34.6 | 105.5 | -70.9 | Vert |
| 29 | 75.790 M | 19.6 | $\begin{aligned} & \hline+0.0 \\ & +0.0 \\ & +0.0 \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline+1.6 \\ & +0.0 \end{aligned}$ | $\begin{aligned} & +5.9 \\ & +0.0 \end{aligned}$ | $\begin{aligned} & \hline+7.0 \\ & +0.0 \end{aligned}$ | +0.0 | 34.1 | 105.5 | -71.4 | Vert |
| 30 | 61.015 M | 18.7 | $\begin{aligned} & \hline+0.0 \\ & +0.0 \\ & +0.0 \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline+1.4 \\ & +0.0 \end{aligned}$ | $\begin{aligned} & +5.9 \\ & +0.0 \end{aligned}$ | $\begin{aligned} & \hline+6.2 \\ & +0.0 \end{aligned}$ | +0.0 | 32.2 | 105.5 | -73.3 | Vert |
| 31 | 196.700M | 14.8 | $\begin{aligned} & \hline+0.0 \\ & +0.0 \\ & +0.0 \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline+2.6 \\ & +0.0 \end{aligned}$ | $\begin{aligned} & +5.9 \\ & +0.0 \end{aligned}$ | $\begin{aligned} & +8.9 \\ & +0.0 \end{aligned}$ | +0.0 | 32.2 | 105.5 | -73.3 | Horiz |
| 32 | 59.340 M | 17.9 | $\begin{aligned} & \hline+0.0 \\ & +0.0 \\ & +0.0 \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline+1.4 \\ & +0.0 \end{aligned}$ | $\begin{aligned} & +5.9 \\ & +0.0 \end{aligned}$ | $\begin{aligned} & +6.4 \\ & +0.0 \end{aligned}$ | +0.0 | 31.6 | 105.5 | -73.9 | Vert |

LABORATORIES, INC.

Test Location: CKC Laboratories • 100 North Olinda Place • Bra CA 92823•714 993-6112
Customer: Iron, Inc.
Specification:
15.247(d) / 15.209 Radiated Spurious Emissions

Work Order \#:
Test Type:
Tested By:
103955 Date: 6/25/2020
Maximized Emissions
Time: 09:58:17
Don Nguyen
Sequence\#: 6
Software:
EMIT est 5.03.12

## Equipment Tested:

| Device | Manufacturer | Model \# |
| :--- | :--- | :--- |
| Configuration 10 |  | S/N |

Support Equipment:

| Device | Manufacturer | Model \# |
| :--- | :--- | :--- |
| Configuration 10 |  | S/N |

Test Conditions / Notes:
The EUT is placed on Styrofoam platform and connected to DC power supply. USB port is connected to a touchscreen tablet. The computer is sending command to the EUT using software MC3 SuperRaptor Test ver.4.0.3.5.

The EUT is set to continuously transmit.
Operating frequency: $908 \mathrm{MHz}, 916 \mathrm{MHz}, 924 \mathrm{MHz}$
Frequency of measurement: $9 \mathrm{kHz}-9.28 \mathrm{GHz}$
9 kHz to 150 kHz RBW $=0.2 \mathrm{kHz}, \mathrm{VBW}=0.6 \mathrm{kHz}$.
150 kHz to 30 MHz RBW $=9 \mathrm{kHz}, V B W=27 \mathrm{kHz}$.
$30-1000 \mathrm{MHz}, \mathrm{RBW}=120 \mathrm{kHz}, \mathrm{VBW}=360 \mathrm{kHz}$
$1000-9280 \mathrm{MHz}, \mathrm{RBW}=1 \mathrm{MHz}, \mathrm{VBW}=3 \mathrm{MHz}$
$R B W=100 \mathrm{kHz}, \mathrm{VBW}=300 \mathrm{kHz}(-20 \mathrm{~dB}$ limit $)$

```
Itron, Inc. WO#: 103955 Sequence#: 6 Date: 6/25/2020
15.247(d) / 15.209 Radiated Spurious Emissions Test Distance: 3 Meters Vert
```


—— Readings
$\times$ QP Readings

- Ambient
$1-15.247(\mathrm{~d}) / 15.209$ Radiated Spurious Emissions
O Peak Readings
* Average Readings
Software Version: 5.03.19

Test Equipment:

| ID | Asset \# | Description | Model | Cal Date | Cal Due Date |
| :--- | :--- | :--- | :--- | :--- | :--- |
|  | AN00314 | Loop Antenna | 6502 | $4 / 13 / 2020$ | $4 / 13 / 2022$ |
| T1 | ANP05198 | Cable-Amplitude +15C to +45C (dB) | 8268 | $12 / 4 / 2018$ | $12 / 4 / 2020$ |
| T2 | ANP05281 | Attenuator | $1 B$ | $4 / 7 / 2020$ | $4 / 7 / 2022$ |
| T3 | AN01993 | Biconilog Antenna | CBL6111C | $6 / 11 / 2019$ | $6 / 11 / 2021$ |
|  | AN00309 | Preamp | $8447 D$ | $12 / 24 / 2019$ | $12 / 24 / 2021$ |
| T4 | AN02672 | Spectrum Analyzer | E4446A | $3 / 13 / 2019$ | $3 / 13 / 2021$ |
| T5 | ANP05050 | Cable | RG223/U | $12 / 24 / 2018$ | $12 / 24 / 2020$ |
| T6 | AN00786 | Preamp | $83017 A$ | $5 / 20 / 2020$ | $5 / 20 / 2022$ |
| T7 | AN00849 | Horn Antenna | 3115 | $3 / 17 / 2020$ | $3 / 17 / 2022$ |
| T8 | ANP06360 | Cable | L1-PNMNM-48 | $8 / 8 / 2019$ | $8 / 8 / 2021$ |
| T9 | ANP07243 | Cable | $32022-29094 K-$ | $5 / 29 / 2020$ | $5 / 29 / 2022$ |
|  |  |  | $29094 K-24 T C$ |  |  |
| T10 | AN03169 | High Pass Filter | HM1155-11SS | $5 / 8 / 2019$ | $5 / 8 / 2021$ |

Measurement Data: $\quad$ Reading listed by margin. Test Distance: 3 Meters

| \# | Freq $\mathrm{MHz}$ | Rdng $\mathrm{dB} \mu \mathrm{~V}$ | $\begin{aligned} & \mathrm{T} 1 \\ & \mathrm{~T} 5 \\ & \mathrm{~T} 9 \\ & \mathrm{~dB} \end{aligned}$ | $\begin{gathered} \text { T2 } \\ \text { T6 } \\ \text { T10 } \\ \text { dB } \end{gathered}$ | $\begin{aligned} & \mathrm{T} 3 \\ & \mathrm{~T} 7 \\ & \\ & \mathrm{~dB} \end{aligned}$ | T4 <br> T8 <br> dB | Dist <br> Table | Corr $\mathrm{dB} \mu \mathrm{~V} / \mathrm{m}$ | Spec $\mathrm{dB} \mu \mathrm{~V} / \mathrm{m}$ | Margin $\mathrm{dB}$ | Polar <br> Ant |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 7264.000M | 43.8 | $\begin{aligned} & +0.0 \\ & +0.0 \\ & +0.8 \\ & \hline \end{aligned}$ | $\begin{array}{r} +0.0 \\ -37.2 \\ +0.2 \\ \hline \end{array}$ | $\begin{array}{r} +0.0 \\ +36.0 \end{array}$ | $\begin{aligned} & +0.0 \\ & +6.1 \end{aligned}$ | +0.0 | 49.7 | 54.0 | -4.3 | Horiz |
| 2 | 74.800M | 21.2 | $\begin{aligned} & +1.5 \\ & +0.0 \\ & +0.0 \\ & \hline \end{aligned}$ | $\begin{aligned} & +5.9 \\ & +0.0 \\ & +0.0 \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline+6.9 \\ & +0.0 \end{aligned}$ | $\begin{aligned} & \hline+0.0 \\ & +0.0 \end{aligned}$ | +0.0 | 35.5 | 40.0 | -4.5 | Vert |
| 3 | 74.800M | 21.0 | $\begin{aligned} & \hline+1.5 \\ & +0.0 \\ & +0.0 \\ & \hline \end{aligned}$ | $\begin{aligned} & +5.9 \\ & +0.0 \\ & +0.0 \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline+6.9 \\ & +0.0 \end{aligned}$ | $\begin{aligned} & \hline+0.0 \\ & +0.0 \end{aligned}$ | +0.0 | 35.3 | 40.0 | -4.7 | Vert |
| 4 | 74.300 M | 20.7 | $\begin{aligned} & \hline+1.5 \\ & +0.0 \\ & +0.0 \\ & \hline \end{aligned}$ | $\begin{aligned} & +5.9 \\ & +0.0 \\ & +0.0 \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline+6.9 \\ & +0.0 \end{aligned}$ | $\begin{aligned} & +0.0 \\ & +0.0 \end{aligned}$ | +0.0 | 35.0 | 40.0 | -5.0 | Horiz |
| 5 | 2724.000 M | 53.1 | $\begin{aligned} & \hline+0.0 \\ & +0.0 \\ & +0.5 \\ & \hline \end{aligned}$ | $\begin{array}{r} +0.0 \\ -38.5 \\ +0.2 \\ \hline \end{array}$ | $\begin{array}{r} +0.0 \\ +29.6 \end{array}$ | $\begin{aligned} & +0.0 \\ & +3.4 \end{aligned}$ | +0.0 | 48.3 | 54.0 | -5.7 | Vert |
| 6 | 7264.000M | 41.7 | $\begin{aligned} & +0.0 \\ & +0.0 \\ & +0.8 \\ & \hline \end{aligned}$ | $\begin{array}{r} +0.0 \\ -37.2 \\ +0.2 \\ \hline \end{array}$ | $\begin{array}{r} +0.0 \\ +36.0 \end{array}$ | $\begin{aligned} & +0.0 \\ & +6.1 \end{aligned}$ | +0.0 | 47.6 | 54.0 | -6.4 | Vert |
| 7 | 2772.000 M | 52.2 | $\begin{array}{r} +0.0 \\ +0.0 \\ +0.5 \\ \hline \end{array}$ | $\begin{array}{r} +0.0 \\ -38.5 \\ +0.2 \\ \hline \end{array}$ | $\begin{array}{r} +0.0 \\ +29.7 \end{array}$ | $\begin{aligned} & +0.0 \\ & +3.5 \end{aligned}$ | +0.0 | 47.6 | 54.0 | -6.4 | Vert |
| 8 | 74.000M | 19.0 | $\begin{aligned} & \hline+1.5 \\ & +0.0 \\ & +0.0 \\ & \hline \end{aligned}$ | $\begin{aligned} & +5.9 \\ & +0.0 \\ & +0.0 \\ & \hline \end{aligned}$ | $\begin{aligned} & +6.9 \\ & +0.0 \end{aligned}$ | $\begin{aligned} & +0.0 \\ & +0.0 \end{aligned}$ | +0.0 | 33.3 | 40.0 | -6.7 | Horiz |
| 9 | 4540.000M | 46.5 | $\begin{array}{r} +0.0 \\ +0.0 \\ +0.7 \\ \hline \end{array}$ | $\begin{array}{r} +0.0 \\ -37.4 \\ +0.2 \\ \hline \end{array}$ | $\begin{array}{r} +0.0 \\ +32.6 \end{array}$ | $\begin{aligned} & +0.0 \\ & +4.5 \end{aligned}$ | +0.0 | 47.1 | 54.0 | -6.9 | Vert |
| 10 | 111.500 M | 18.0 | $\begin{aligned} & +1.9 \\ & +0.0 \\ & +0.0 \\ & \hline \end{aligned}$ | $\begin{aligned} & +5.9 \\ & +0.0 \\ & +0.0 \\ & \hline \end{aligned}$ | $\begin{array}{r} \hline+10.7 \\ +0.0 \end{array}$ | $\begin{aligned} & +0.0 \\ & +0.0 \end{aligned}$ | +0.0 | 36.5 | 43.5 | -7.0 | Vert |
| 11 | 109.000 M | 18.0 | $\begin{aligned} & +1.8 \\ & +0.0 \\ & +0.0 \\ & \hline \end{aligned}$ | $\begin{aligned} & +5.9 \\ & +0.0 \\ & +0.0 \\ & \hline \end{aligned}$ | $\begin{array}{r} \hline+10.6 \\ +0.0 \end{array}$ | $\begin{aligned} & +0.0 \\ & +0.0 \end{aligned}$ | +0.0 | 36.3 | 43.5 | -7.2 | Vert |
| 12 | 244.900 M | 17.4 | $\begin{aligned} & +2.9 \\ & +0.0 \\ & +0.0 \\ & \hline \end{aligned}$ | $\begin{aligned} & +5.9 \\ & +0.0 \\ & +0.0 \\ & \hline \end{aligned}$ | $\begin{array}{r} \hline+12.0 \\ +0.0 \end{array}$ | $\begin{aligned} & +0.0 \\ & +0.0 \end{aligned}$ | $+0.0$ | 38.2 | 46.0 | -7.8 | Horiz |
| 13 | 4580.000M | 45.2 | $\begin{aligned} & \hline+0.0 \\ & +0.0 \\ & +0.7 \end{aligned}$ | $\begin{array}{r} +0.0 \\ -37.4 \\ +0.2 \end{array}$ | $\begin{array}{r} +0.0 \\ +32.6 \end{array}$ | $\begin{aligned} & +0.0 \\ & +4.5 \end{aligned}$ | +0.0 | 45.8 | 54.0 | -8.2 | Horiz |
|  | $\begin{aligned} & \text { 2748.000M } \\ & \text { Ave } \end{aligned}$ | 50.0 | $\begin{aligned} & +0.0 \\ & +0.0 \\ & +0.5 \\ & \hline \end{aligned}$ | $\begin{array}{r} +0.0 \\ -38.5 \\ +0.2 \\ \hline \end{array}$ | $\begin{array}{r} +0.0 \\ +29.7 \end{array}$ | $\begin{aligned} & +0.0 \\ & +3.4 \end{aligned}$ | +0.0 | 45.3 | 54.0 | -8.7 | Vert |
| $\wedge$ | 2748.000M | 57.0 | $\begin{aligned} & +0.0 \\ & +0.0 \\ & +0.5 \\ & \hline \end{aligned}$ | $\begin{array}{r} +0.0 \\ -38.5 \\ +0.2 \\ \hline \end{array}$ | $\begin{array}{r} +0.0 \\ +29.7 \end{array}$ | $\begin{aligned} & +0.0 \\ & +3.4 \end{aligned}$ | $+0.0$ | 52.3 | 54.0 | -1.7 | Vert |


| 16 | 4540.000M | 43.9 | $\begin{aligned} & +0.0 \\ & +0.0 \\ & +0.7 \end{aligned}$ | $\begin{array}{r} +0.0 \\ -37.4 \\ +0.2 \end{array}$ | $\begin{array}{r} +0.0 \\ +32.6 \end{array}$ | $\begin{aligned} & +0.0 \\ & +4.5 \end{aligned}$ | +0.0 | 44.5 | 54.0 | -9.5 | Horiz |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 17 | 111.100M | 15.4 | $\begin{aligned} & +1.9 \\ & +0.0 \\ & +0.0 \end{aligned}$ | $\begin{aligned} & +5.9 \\ & +0.0 \\ & +0.0 \end{aligned}$ | $\begin{array}{r} +10.7 \\ +0.0 \end{array}$ | $\begin{aligned} & +0.0 \\ & +0.0 \end{aligned}$ | +0.0 | 33.9 | 43.5 | -9.6 | Horiz |
| 18 | 2748.000M | 48.5 | $\begin{aligned} & +0.0 \\ & +0.0 \\ & +0.5 \end{aligned}$ | $\begin{array}{r} +0.0 \\ -38.5 \\ +0.2 \end{array}$ | $\begin{array}{r} +0.0 \\ +29.7 \end{array}$ | $\begin{aligned} & +0.0 \\ & +3.4 \end{aligned}$ | +0.0 | 43.8 | 54.0 | -10.2 | Horiz |
| 19 | 112.800M | 14.5 | $\begin{aligned} & +1.9 \\ & +0.0 \\ & +0.0 \end{aligned}$ | $\begin{aligned} & +5.9 \\ & +0.0 \\ & +0.0 \end{aligned}$ | $\begin{array}{r} \hline+10.8 \\ +0.0 \end{array}$ | $\begin{aligned} & \hline+0.0 \\ & +0.0 \end{aligned}$ | +0.0 | 33.1 | 43.5 | -10.4 | Horiz |
| 20 | 110.000M | 14.6 | $\begin{aligned} & +1.9 \\ & +0.0 \\ & +0.0 \end{aligned}$ | $\begin{array}{r} +5.9 \\ +0.0 \\ +0.0 \\ \hline \end{array}$ | $\begin{array}{r} +10.6 \\ +0.0 \end{array}$ | $\begin{aligned} & \hline+0.0 \\ & +0.0 \end{aligned}$ | +0.0 | 33.0 | 43.5 | -10.5 | Horiz |
| 21 | 2772.000M | 47.5 | $\begin{aligned} & +0.0 \\ & +0.0 \\ & +0.5 \\ & \hline \end{aligned}$ | $\begin{array}{r} +0.0 \\ -38.5 \\ +0.2 \\ \hline \end{array}$ | $\begin{array}{r} +0.0 \\ +29.7 \end{array}$ | $\begin{aligned} & \hline+0.0 \\ & +3.5 \end{aligned}$ | +0.0 | 42.9 | 54.0 | -11.1 | Horiz |
| 22 | 2724.000M | 46.1 | $\begin{aligned} & +0.0 \\ & +0.0 \\ & +0.5 \end{aligned}$ | $\begin{array}{r} +0.0 \\ -38.5 \\ +0.2 \end{array}$ | $\begin{array}{r} +0.0 \\ +29.6 \end{array}$ | $\begin{aligned} & \hline+0.0 \\ & +3.4 \end{aligned}$ | +0.0 | 41.3 | 54.0 | -12.7 | Horiz |
| 23 | 6468.000M | 52.2 | $\begin{aligned} & +0.0 \\ & +0.0 \\ & +0.8 \\ & +0.8 \\ & \hline \end{aligned}$ | $\begin{array}{r} +0.0 \\ -37.2 \\ +0.2 \\ \hline \end{array}$ | $\begin{array}{r} +0.0 \\ +34.4 \end{array}$ | $\begin{aligned} & \hline+0.0 \\ & +5.8 \end{aligned}$ | +0.0 | 56.2 | 106.3 | -50.1 | Horiz |
| 24 | 6412.000M | 47.9 | $\begin{aligned} & +0.0 \\ & +0.0 \\ & +0.8 \end{aligned}$ | $\begin{array}{r} +0.0 \\ -37.1 \\ +0.2 \\ \hline \end{array}$ | $\begin{array}{r} +0.0 \\ +34.4 \end{array}$ | $\begin{aligned} & +0.0 \\ & +5.8 \end{aligned}$ | +0.0 | 52.0 | 106.3 | -54.3 | Horiz |
| 25 | 6412.000M | 43.1 | $\begin{array}{r} +0.0 \\ +0.0 \\ +0.8 \\ \hline \end{array}$ | $\begin{array}{r} +0.0 \\ -37.1 \\ +0.2 \\ \hline \end{array}$ | $\begin{array}{r} +0.0 \\ +34.4 \end{array}$ | $\begin{aligned} & \hline+0.0 \\ & +5.8 \end{aligned}$ | +0.0 | 47.2 | 106.3 | -59.1 | Vert |

## Band Edge

| Band Edge Summary |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Operating Mode: Single Channel (Low and High) Configuration 5 (Internal Antenna) |  |  |  |  |  |
| Frequency (MHz) | Modulation | Ant. Type | Field Strength (dBuV/m @3m) | $\begin{gathered} \text { Limit } \\ \text { (dBuV/m @3m) } \end{gathered}$ | Results |
| 614 | FSK | Internal directional | 22.1 | <46 | Pass |
| 902 | FSK | Internal directional | 54.2 | <108.5 | Pass |
| 928 | FSK | Internal directional | 55.4 | <108.5 | Pass |
| 960 | FSK | Internal directional | 27.3 | <54 | Pass |

## Band Edge Summary

Operating Mode: Hopping
Configuration 5 (Internal Antenna)

| Frequency <br> $\mathbf{( M H z )}$ | Modulation | Ant. Type | Field Strength <br> $(\mathbf{d B u V} / \mathbf{m @ 3 m})$ | Limit <br> $(\mathbf{d B u V} / \mathbf{m}$ @3m) | Results |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 614 | FSK | Internal directional | 22.7 | $<46$ | Pass |
| 902 | FSK | Internal directional | 58.5 | $<108.5$ | Pass |
| 928 | FSK | Internal directional | 56.3 | $<108.5$ | Pass |
| 960 | FSK | Internal directional | 28.0 | $<54$ | Pass |

## Band Edge Summary

Operating Mode: Single Channel (Low and High)
Configuration 6 (3dBi Antenna)

| Frequency <br> $\mathbf{( M H z )}$ | Modulation | Ant. Type | Field Strength <br> $(\mathbf{d B u V} / \mathbf{m} @ \mathbf{3 m})$ | Limit <br> $(\mathbf{d B u V} / \mathbf{m} @ \mathbf{3 m})$ | Results |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 614 | FSK | External 3dBi Rubber Duck | 23.9 | $<46$ | Pass |
| 902 | FSK | External 3dBi Rubber Duck | 56.6 | $<105.5$ | Pass |
| 928 | FSK | External 3dBi Rubber Duck | 57.5 | $<105.5$ | Pass |
| 960 | FSK | External 3dBi Rubber Duck | 27.6 | $<54$ | Pass |

## Band Edge Summary

Operating Mode: Hopping
Configuration 6 (3dBi Antenna)

| Frequency <br> $(\mathbf{M H z})$ | Modulation | Ant. Type | Field Strength <br> $(\mathbf{d B u V} / \mathbf{m}$ @3m) | Limit <br> $(\mathbf{d B u V} / \mathbf{m}$ @3m) | Results |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 614 | FSK | External 3dBi Rubber Duck | 23.8 | $<46$ | Pass |
| 902 | FSK | External 3dBi Rubber Duck | 55.3 | $<105.5$ | Pass |
| 928 | FSK | External 3dBi Rubber Duck | 57.1 | $<105.5$ | Pass |
| 960 | FSK | External 3dBi Rubber Duck | 29.7 | $<54$ | Pass |

## Band Edge Summary

Operating Mode: Single Channel (Low and High)
Configuration 7 (5dBi Antenna)

| Frequency <br> $(\mathbf{M H z})$ | Modulation | Ant. Type | Field Strength <br> $(\mathbf{d B u V} / \mathbf{m}$ @Bm) | Limit <br> (dBuV/m @3m) | Results |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 614 | FSK | External 5dBi Monopole | 27.5 | $<46$ | Pass |
| 902 | FSK | External 5dBi Monopole | 56.4 | $<106.3$ | Pass |
| 928 | FSK | External 5dBi Monopole | 57.0 | $<106.3$ | Pass |
| 960 | FSK | External 5dBi Monopole | 27.7 | $<54$ | Pass |

## Band Edge Summary

Operating Mode: Hopping
Configuration 7 (5dBi Antenna)

| Frequency <br> $(\mathbf{M H z})$ | Modulation | Ant. Type | Field Strength <br> $(\mathbf{d B u V} / \mathbf{m}$ @ $\mathbf{m})$ | Limit <br> $(\mathbf{d B u V} / \mathbf{m} @ 3 m)$ | Results |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 614 | FSK | External 5dBi Monopole | 27.1 | $<46$ | Pass |
| 902 | FSK | External 5dBi Monopole | 55.0 | $<106.3$ | Pass |
| 928 | FSK | External 5dBi Monopole | 56.3 | $<106.3$ | Pass |
| 960 | FSK | External 5dBi Monopole | 28.0 | $<54$ | Pass |

## Band Edge Plots


























LABORATORIES, INC.

## Test Setup / Conditions / Data

Test Location:
Customer:
Specification:
Work Order \#:
Test Type:
Tested By:
Software:

CKC Laboratories •100 North Olinda Place • Brea CA 92823•714 993-6112
Itron, Inc.
15.247(d) / 15.209 Radiated Band Edge

103955
Radiated Scan
S. Yamamoto

EMITest 5.03.12

Date: 6/17/2020
Time: 16:52:27
Sequence\#: 3

Equipment Tested:

| Device | Manufacturer | Model \# |
| :--- | :--- | :--- |
| Configuration 5 |  | S/N |

## Support Equipment:

| Device | Manufacturer | Model \# |
| :--- | :--- | :--- |
| Configuration 5 |  | S/N |

## Test Equipment:

| ID | Asset \# | Description | Model | Calibration Date | Cal Due Date |
| :--- | :--- | :--- | :--- | :--- | :--- |
| T1 | AN02869 | Spectrum Analyzer | E4440A | $7 / 25 / 2019$ | $7 / 25 / 2020$ |
| T2 | ANP05198 | Cable-Amplitude <br> +15C to $+45 C ~(d B)$ | 8268 | $12 / 4 / 2018$ | $12 / 4 / 2020$ |
| T3 | ANP05281 | Attenuator | 1B | $4 / 7 / 2020$ | $4 / 7 / 2022$ |
| T4 | AN01993 | Biconilog Antenna | CBL6111C | $6 / 11 / 2019$ | $6 / 11 / 2021$ |
| T5 | AN00309 | Preamp | 8447D | $12 / 24 / 2019$ | $12 / 24 / 2021$ |
| T6 | ANP05050 | Cable | RG223/U | $12 / 24 / 2018$ | $12 / 24 / 2020$ |



Test Location: CKC Laboratories • 100 North Olinda Place • Brea CA 92823•714 993-6112
Customer:
Specification:
Work Order \#:
Test Type:
Tested By:
Software:
Itron, Inc.
15.247(d) / 15.209 Radiated Band Edge

103955
Radiated Scan
Date: 6/17/2020
Time: 14:30:03
S. Yamamoto

EMITest 5.03.12
Sequence\#: 2

Equipment Tested:

| Device | Manufacturer | Model \# |
| :--- | :--- | :--- |
| Configuration 6 |  | S/N |

## Support Equipment:

| Device | Manufacturer | Model \# |
| :--- | :--- | :--- |
| Configuration 6 |  | S/N |

## Test Equipment:

| ID | Asset \#/Serial \# | Description | Model | Calibration Date | Cal Due Date |
| :--- | :--- | :--- | :--- | :--- | :--- |
| T1 | AN02869 | Spectrum Analyzer | E4440A | $7 / 25 / 2019$ | $7 / 25 / 2020$ |
| T2 | ANP05198 | Cable-Amplitude <br> +15C to +45C (dB) | 8268 | $12 / 4 / 2018$ | $12 / 4 / 2020$ |
| T3 | ANP05281 | Attenuator | 1B | $4 / 7 / 2020$ | $4 / 7 / 2022$ |
| T4 | AN01993 | Biconilog Antenna | CBL6111C | $6 / 11 / 2019$ | $6 / 11 / 2021$ |
| T5 | AN00309 | Preamp | 8447D | $12 / 24 / 2019$ | $12 / 24 / 2021$ |
| T6 | ANP05050 | Cable | RG223/U | $12 / 24 / 2018$ | $12 / 24 / 2020$ |



Test Location: CKC Laboratories • 100 North Olinda Place • Brea CA 92823•714 993-6112
Customer:
Specification:
Work Order \#:
Test Type:
Tested By:
Software:
Itron, Inc.
15.247(d) / 15.209 Radiated Band Edge

103955
Radiated Scan
Date: 6/17/2020
Time: 12:13:34
Sequence\#: 1
S. Yamamoto

EMITest 5.03.12

Equipment Tested:

| Device | Manufacturer | Model \# |
| :--- | :--- | :--- |
| Configuration 7 |  | S/N |

Support Equipment:

| Device | Manufacturer | Model \# |
| :--- | :--- | :--- |
| Configuration 7 |  | S/N |

## Test Equipment:

| ID | Asset \#/Serial \# | Description | Model | Calibration Date | Cal Due Date |
| :--- | :--- | :--- | :--- | :--- | :--- |
| T1 | AN02869 | Spectrum Analyzer | E4440A | $7 / 25 / 2019$ | $7 / 25 / 2020$ |
| T2 | ANP05198 | Cable-Amplitude <br> +15C to +45C (dB) | 8268 | $12 / 4 / 2018$ | $12 / 4 / 2020$ |
| T3 | ANP05281 | Attenuator | 1B | $4 / 7 / 2020$ | $4 / 7 / 2022$ |
| T4 | AN01993 | Biconilog Antenna | CBL6111C | $6 / 11 / 2019$ | $6 / 11 / 2021$ |
| T5 | AN00309 | Preamp | 8447D | $12 / 24 / 2019$ | $12 / 24 / 2021$ |
| T6 | ANP05050 | Cable | RG223/U | $12 / 24 / 2018$ | $12 / 24 / 2020$ |

Measurement Data: $\quad$ Reading listed by margin. Test Distance: 3 Meters

| \# | Freq MHz | Rdng $\mathrm{dB} \mu \mathrm{V}$ | $\begin{aligned} & \text { T1 } \\ & \text { T5 } \\ & \text { dB } \end{aligned}$ | $\begin{aligned} & \mathrm{T} 2 \\ & \mathrm{~T} 6 \\ & \text { dB } \end{aligned}$ | T3 dB | T4 dB | Dist Table | $\begin{gathered} \text { Corr } \\ \mathrm{dB} \mu \mathrm{~V} / \mathrm{m} \\ \hline \end{gathered}$ | $\begin{gathered} \text { Spec } \\ \mathrm{dB} \mu \mathrm{~V} / \mathrm{m} \end{gathered}$ | Margin dB | Polar Ant |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 614.000M | 24.1 | +0.0 | +4.7 | +5.9 | +19.8 | +0.0 | 27.5 | 46.0 | -18.5 | Vert |
|  |  |  | -27.4 | +0.4 |  |  |  | Ext 5dBi, Low CH |  |  |  |
| 2 | 614.000M | 23.7 | +0.0 | +4.7 | +5.9 | +19.8 | +0.0 | 27.1 | 46.0 | -18.9 | Vert |
|  |  |  | -27.4 | +0.4 |  |  |  | Ext 5dBi, Low HOP |  |  |  |
| 3 | 960.000M | 18.3 | +0.0 | +6.1 | +6.0 | +24.4 | +0.0 | Ext 5dBi, High HOP |  |  | Vert |
|  |  |  | +0.0 | +0.0 |  |  |  |  |  |  |  |
| 4 | 960.000 M | 18.0 | +0.0 | +6.1 | +6.0 | +24.4 | +0.0 | 27.7 | 54.0 | -26.3 | Vert |
|  |  |  | +0.0 | +0.0 |  |  |  | Ext 5dBi, High CH |  |  |  |
| 5 | 928.000M | 21.1 | +0.0 | +6.0 | +6.0 | +23.9 | +0.0 | 57.0 | 106.3 | -49.3 | Vert |
|  |  |  | +0.0 | +0.0 |  |  |  | Ext 5dBi, High CH |  |  |  |
| 6 | 902.000M | 21.0 | +0.0 | +5.9 | +6.0 | +23.5 | +0.0 | 56.4 | 106.3 | -49.9 | Vert |
|  |  |  | +0.0 | +0.0 |  |  |  | Ext 5dBi, Low CH |  |  |  |
| 7 | 928.000 M | 20.4 | +0.0 | +6.0 | +6.0 | +23.9 | +0.0 | 56.3 | 106.3 | -50.0 | Vert |
|  |  |  | +0.0 | +0.0 |  |  |  | Ext 5dBi, High HOP |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |
| 8 | 902.000M | 19.6 | +0.0 | +5.9 | +6.0 | +23.5 | +0.0 | 55.0 | 106.3 | -51.3 | Vert |
|  |  |  | +0.0 | +0.0 |  |  |  | Ext 5dBi, Low HOP |  |  |  |

### 15.35(c) Duty Cycle Correction Factor

| Test Data Summary |  |  |  |
| :---: | :---: | :---: | :---: |
| Antenna | Operational Mode | Measured On Time <br> $(\mathrm{mS} /$ Pobs) | Calculated DCCF <br> (dB) |
| 1 | Normal hopping | 44.5 | -7 dB |

Observation Period, $\mathrm{P}_{\text {obs }}$ is the duration of the pulse train or maximum 100 mS
Measured results are calculated as follows:

$$
\text { On Time }=\left.\left(\sum_{\text {Bursts }} R F \text { Burst On Time }+\sum_{\text {Control }} \text { Control Signal On time }\right)\right|_{P_{\text {obs }}(\max 100 \mathrm{~ms})}
$$

Measured Values:

| Parameter | Value |
| :--- | :--- |
| Observation Period (Pobs): | 100 ms |
| Number of RF Bursts / Pobs:: | 1 |
| On time of RF Burst: | 44.5 ms |
| Number of Control or other signals / Pobs: | 0 |
| On time of Control or other Signals: | 0 |
| Total Measured On Time: | 44.5 ms |

Duty Cycle Correction Factor (DCCF) is calculated in accordance with ANSI C63.10:

$$
D C C F=20 \cdot \log \left(\frac{\text { On Time }}{P_{\text {obs }}}\right)
$$

Plot


Test Setup Photo(s)


X Axis, IMRC-INT


X Axis, IMRC-INT


Y Axis, IMRC-INT


Z Axis, IMRC-INT


Above 1GHz, IMRC-INT


X Axis, IMRC-EXT 3dBi


X Axis, IMRC-EXT 3dBi


Y Axis, IMRC-EXT 3dBi


Z Axis, IMRC-EXT 3dBi


Above 1GHz, IMRC-EXT 3dBi


IMRC-EXT 5dBi


IMRC-EXT 5dBi


X Axis, IMRC-EXT 5dBi

## CNC M M Thesting the Future



Y Axis, IMRC-EXT 5dBi


Z Axis, IMRC-EXT 5dBi


Above 1GHz, IMRC-EXT 5dBi

### 15.207 AC Conducted Emissions

## Test Setup / Conditions / Data

Test Location: CKC Laboratories Inc. • 110 N. Olinda Pl. • Brea, CA 92823 • 714-993-6112

Customer:
Specification: Work Order \#:
Test Type:
Tested By:
Software:

Itron, Inc.
15.207 AC Mains - Average

103955
Conducted Emissions
Don Nguyen
EMITest 5.03.12

Date: 6/12/2020
Time: 09:14:16
Sequence\#: 3
120 V 60 Hz

## Equipment Tested:

| Device | Manufacturer | Model \# |
| :--- | :--- | :--- |
| Configuration 3 |  | S/N |

Support Equipment:

| Device | Manufacturer | Model \# |
| :--- | :--- | :--- |
| Configuration 3 |  | S/N |

## Test Conditions / Notes:

The EUT is placed on test bench. USB port is connected to a touchscreen tablet. The EUT is connected to 5Vdc charger. The computer is sending command to the EUT using software MC3 SuperRaptor Test ver.4.0.3.5.
The EUT is set into transmitting mode.
Operating frequency: 908 MHz (worst case with highest power)
Frequency of measurement: $150 \mathrm{kHz}-30 \mathrm{MHz}$
RBW $=9 \mathrm{kHz}, \mathrm{VBW}=30 \mathrm{kHz}$
Site A
Temperature: $25^{\circ} \mathrm{C}$
Relative Humidity: 46\%
Test Method: ANSI C63.10:2013

Itron, Inc. WO\#: 103955 Sequence\#: 3 Date: 6/12/2020
15.207 AC Mains - Average Test Lead: 120 V 60 Hz L1-Line



Test Equipment:

| ID | Asset \# | Description | Model | Calibration Date | Cal Due Date |
| :--- | :--- | :--- | :--- | :--- | :--- |
| T1 | ANP07545 | Attenuator | SA18N10W-06 | $1 / 18 / 2019$ | $1 / 18 / 2021$ |
| T2 | ANP07338 | Cable | $2249-Y-240$ | $12 / 24 / 2019$ | $12 / 24 / 2021$ |
|  | AN02869 | Spectrum Analyzer | E4440A | $7 / 25 / 2019$ | $7 / 25 / 2020$ |
| T3 | AN02610 | High Pass Filter | HE9615-150K- <br>  |  | $10 / 22 / 2019$ |
|  |  |  | $10 / 22 / 2021$ |  |  |
| T4 | AN00847.1 | 50uH LISN-(L) Line 1 | $3816 / 2 N M$ | $3 / 10 / 2020$ | $3 / 10 / 2021$ |
|  | AN00847.1 | 50uH LISN-(N) Line 2 | $3816 / 2 N M$ | $3 / 10 / 2020$ | $3 / 10 / 2021$ |
| T5 | ANP06986 | Cable-Line L1(dB) | 90 cm -extcord | $3 / 31 / 2020$ | $3 / 31 / 2022$ |
|  | ANP06986 | Cable-Neutral L2(dB) | 90 cm -extcord | $3 / 31 / 2020$ | $3 / 31 / 2022$ |

Measurement Data: $\quad$ Reading listed by margin.
Test Lead: L1-Line


|  | $416.885 \mathrm{k}$ | 9.1 | $\begin{aligned} & \hline+5.8 \\ & +0.0 \end{aligned}$ | +0.0 | +0.2 | +0.0 | +0.0 | 15.1 | 47.5 | -32.4 | L1-Li |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\wedge$ | 416.884k | 41.1 | $\begin{array}{r} +5.8 \\ +0.0 \\ \hline \end{array}$ | +0.0 | +0.2 | +0.0 | +0.0 | 47.1 | 47.5 | -0.4 | L1-Li |
| 27 | 536.146k | 7.5 | $\begin{aligned} & +5.8 \\ & +0.0 \end{aligned}$ | +0.0 | +0.3 | +0.0 | +0.0 | 13.6 | 46.0 | -32.4 | L1-Li |
| $\wedge$ | 536.146k | 38.2 | $\begin{aligned} & +5.8 \\ & +0.0 \end{aligned}$ | +0.0 | +0.3 | +0.0 | +0.0 | 44.3 | 46.0 | -1.7 | L1-Li |
| 29 | $\begin{aligned} & \text { 530.329k } \\ & \text { Ave } \end{aligned}$ | 7.4 | $\begin{aligned} & +5.8 \\ & +0.0 \end{aligned}$ | +0.0 | +0.3 | +0.0 | +0.0 | 13.5 | 46.0 | -32.5 | L1-Li |
| $\wedge$ | 530.328k | 40.2 | $\begin{array}{r} +5.8 \\ +0.0 \\ \hline \end{array}$ | +0.0 | +0.3 | +0.0 | +0.0 | 46.3 | 46.0 | +0.3 | L1-Li |
| $31$ | $\begin{aligned} & 605.958 \mathrm{k} \\ & \text { Ave } \\ & \hline \end{aligned}$ | 7.2 | $\begin{array}{r} +5.8 \\ +0.0 \\ \hline \end{array}$ | +0.1 | +0.3 | +0.0 | +0.0 | 13.4 | 46.0 | -32.6 | L1-Li |
| $\wedge$ | 605.958k | 37.9 | $\begin{aligned} & +5.8 \\ & +0.0 \end{aligned}$ | +0.1 | +0.3 | +0.0 | +0.0 | 44.1 | 46.0 | -1.9 | L1-Li |
|  | $343.437 \mathrm{k}$ <br> Ave | 10.6 | $\begin{aligned} & +5.8 \\ & +0.0 \end{aligned}$ | +0.0 | +0.1 | +0.0 | +0.0 | 16.5 | 49.1 | -32.6 | L1-Li |
| $\wedge$ | 343.436k | 45.1 | $\begin{aligned} & \hline+5.8 \\ & +0.0 \\ & \hline \end{aligned}$ | +0.0 | +0.1 | +0.0 | +0.0 | 51.0 | 49.1 | +1.9 | L1-Li |
|  | $318.712 \mathrm{k}$ | 11.1 | $\begin{aligned} & +5.8 \\ & +0.0 \\ & \hline \end{aligned}$ | +0.0 | +0.1 | +0.0 | +0.0 | 17.0 | 49.7 | -32.7 | L1-Li |
| $\wedge$ | 318.711k | 43.5 | $\begin{aligned} & \hline+5.8 \\ & +0.0 \end{aligned}$ | +0.0 | +0.1 | +0.0 | +0.0 | 49.4 | 49.7 | -0.3 | L1-Li |
|  | $\begin{aligned} & \text { 368.162k } \\ & \text { Ave } \end{aligned}$ | 9.8 | $\begin{aligned} & +5.8 \\ & +0.0 \end{aligned}$ | +0.0 | +0.2 | +0.0 | +0.0 | 15.8 | 48.5 | -32.7 | L1-Li |
| $\wedge$ | 368.161k | 42.1 | $\begin{aligned} & \hline+5.8 \\ & +0.0 \end{aligned}$ | +0.0 | +0.2 | +0.0 | +0.0 | 48.1 | 48.5 | -0.4 | L1-Li |
|  | $\begin{aligned} & \begin{array}{c} 263.444 \mathrm{k} \\ \text { Ave } \end{array} \\ & \hline \end{aligned}$ | 12.3 | $\begin{aligned} & +5.8 \\ & +0.0 \end{aligned}$ | +0.0 | +0.1 | +0.0 | +0.0 | 18.2 | 51.3 | -33.1 | L1-Li |
| $\wedge$ | 263.444k | 46.9 | $\begin{aligned} & +5.8 \\ & +0.0 \end{aligned}$ | +0.0 | +0.1 | +0.0 | +0.0 | 52.8 | 51.3 | +1.5 | L1-Li |
|  | $\begin{aligned} & \text { 282.351k } \\ & \text { Ave } \end{aligned}$ | 11.7 | $\begin{aligned} & +5.8 \\ & +0.0 \\ & \hline \end{aligned}$ | +0.0 | +0.1 | +0.0 | +0.0 | 17.6 | 50.7 | -33.1 | L1-Li |
| $\wedge$ | 282.351k | 44.7 | $\begin{aligned} & +5.8 \\ & +0.0 \end{aligned}$ | +0.0 | +0.1 | +0.0 | +0.0 | 50.6 | 50.7 | -0.1 | L1-Li |
|  | $\begin{aligned} & \text { 270.716k } \\ & \text { Ave } \end{aligned}$ | 11.9 | $\begin{array}{r} +5.8 \\ +0.0 \\ +0 . \end{array}$ | +0.0 | +0.1 | +0.0 | +0.0 | 17.8 | 51.1 | -33.3 | L1-Li |
| $\wedge$ | 270.716k | 45.2 | $\begin{aligned} & +5.8 \\ & +0.0 \end{aligned}$ | +0.0 | +0.1 | +0.0 | +0.0 | 51.1 | 51.1 | +0.0 | L1-Li |
| 45 | $\begin{aligned} & \text { 238.719k } \\ & \text { Ave } \end{aligned}$ | 12.7 | $\begin{array}{r} +5.8 \\ +0.0 \\ +0 . \end{array}$ | +0.0 | +0.2 | +0.0 | +0.0 | 18.7 | 52.1 | -33.4 | L1-Li |
| $\wedge$ | 238.719 k | 46.8 | $\begin{array}{r} +5.8 \\ +0.0 \\ \hline \end{array}$ | +0.0 | +0.2 | +0.0 | $+0.0$ | 52.8 | 52.1 | +0.7 | L1-Li |


| $47$ | $183.451 \mathrm{k}$ <br> Ave | 14.7 | $\begin{aligned} & \hline+5.8 \\ & +0.0 \end{aligned}$ | $+0.0$ | +0.3 | +0.0 | +0.0 | 20.8 | 54.3 | -33.5 | L1-Li |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\wedge$ | 183.451k | 48.9 | $\begin{aligned} & +5.8 \\ & +0.0 \\ & \hline \end{aligned}$ | +0.0 | +0.3 | +0.0 | +0.0 | 55.0 | 54.3 | +0.7 | L1-Li |
| $\wedge$ | 179.088k | 48.8 | $\begin{aligned} & \hline+5.8 \\ & +0.0 \end{aligned}$ | +0.0 | +0.3 | +0.0 | +0.0 | 54.9 | 54.5 | +0.4 | L1-Li |
|  | $\begin{aligned} & 164.544 \mathrm{k} \\ & \text { +ve } \\ & \hline \end{aligned}$ | 15.4 | $\begin{array}{r} +5.8 \\ +0.0 \\ \hline \end{array}$ | +0.0 | +0.4 | +0.0 | +0.0 | 21.6 | 55.2 | -33.6 | L1-Li |
| $\wedge$ | 164.544 k | 48.9 | $\begin{aligned} & +5.8 \\ & +0.0 \\ & \hline \end{aligned}$ | $+0.0$ | +0.4 | +0.0 | $+0.0$ | 55.1 | 55.2 | -0.1 | L1-Li |
| 52 | $197.268 \mathrm{k}$ <br> Ave | 13.9 | $\begin{aligned} & +5.8 \\ & +0.0 \\ & \hline \end{aligned}$ | +0.0 | +0.2 | +0.0 | +0.0 | 19.9 | 53.7 | -33.8 | L1-Li |
| $\wedge$ | 197.268k | 48.4 | $\begin{aligned} & \hline+5.8 \\ & +0.0 \end{aligned}$ | +0.0 | +0.2 | +0.0 | +0.0 | 54.4 | 53.7 | +0.7 | L1-Li |

LABORATORIES, INC.

Test Location: CKC Laboratories Inc. • 110 N. Olinda Pl. • Brea, CA 92823 • 714-993-6112
Customer:
Specification:
Work Order \#:
Test Type:
Tested By:
Itron, Inc.
15.207 AC Mains - Average

103955
Conducted Emissions
Don Nguyen
Software:
EMIT est 5.03.12

Date: 6/12/2020
Time: 09:22:39
Sequence\#: 4
120 V 60 Hz

## Equipment Tested:

| Device | Manufacturer | Model \# |
| :--- | :--- | :--- |
| Configuration 3 |  | S/N |

## Support Equipment:

| Device | Manufacturer | Model \# |
| :--- | :--- | :--- |
| Configuration 3 |  | S/N |

## Test Conditions / Notes:

The EUT is placed on test bench. USB port is connected to a touchscreen tablet. The EUT is connected to 5Vdc charger. The computer is sending command to the EUT using software MC3 SuperRaptor Test ver.4.0.3.5.
The EUT is set into transmitting mode.
Operating frequency: 908 MHz (worst case with highest power)
Frequency of measurement: $150 \mathrm{kHz}-30 \mathrm{MHz}$
LBW $=9 \mathrm{kHz}, \mathrm{VBW}=30 \mathrm{kHz}$
Site A
Temperature: $25^{\circ} \mathrm{C}$
Relative Humidity: 46\%
Test Method: ANSI C63.10:2013

Itron, Inc. WO\#: 103955 Sequence\#: 4 Date: 6/12/2020
15.207 AC Mains - Average Test Lead: $120 \mathrm{~V} 60 \mathrm{~Hz} \mathrm{L2-Neutral}$



Test Equipment:

| ID | Asset \# | Description | Model | Calibration Date | Cal Due Date |
| :--- | :--- | :--- | :--- | :--- | :--- |
| T1 | ANP07545 | Attenuator | SA18N10W-06 | $1 / 18 / 2019$ | $1 / 18 / 2021$ |
| T2 | ANP07338 | Cable | $2249-Y-240$ | $12 / 24 / 2019$ | $12 / 24 / 2021$ |
|  | AN02869 | Spectrum Analyzer | E4440A | $7 / 25 / 2019$ | $7 / 25 / 2020$ |
| T3 | AN02610 | High Pass Filter | HE9615-150K- <br>  |  | $10 / 22 / 2019$ |
|  |  |  | $10 / 22 / 2021$ |  |  |
| T4 | AN00847.1 | AN00847 LISN-(L) Line 1 | $3816 / 2 N M$ | $3 / 10 / 2020$ | $3 / 10 / 2021$ |
|  | ANP06986 | 50uH LISN-(N) Line 2 | Cable-Line L1(dB) | 3816/2NM | $3 / 10 / 2020$ |
| T5 | ANP06986 | Cable-Neutral L2(dB) | 90 cm -extcord | $3 / 31 / 2020$ | $3 / 10 / 2021$ |

Measurement Data: $\quad$ Reading listed by margin.
Test Lead: L2-Neutral



LABORATORIES, INC.

Test Location: CKC Laboratories Inc. • 110 N. Olinda Pl. • Bra, CA 92823 • 714-993-6112
Customer:
Specification:
Work Order \#:
Test Type:
Tested By:
Itron, Inc.
15.207 AC Mains - Average

103955
Conducted Emissions
Date: $6 / 12 / 2020$
Time: 10:26:42 AM

Software:
Don Nguyen
EMITest 5.03.12
Sequence\#: 11
120 V 60 Hz

## Equipment Tested:

| Device | Manufacturer | Model \# |
| :--- | :--- | :--- |
| Configuration 4 |  | S/N |

Support Equipment:

| Device | Manufacturer | Model \# |
| :--- | :--- | :--- |
| Configuration 4 |  | S/N |

Test Conditions / Notes:
The EUT is placed on test bench. USB port is connected to a touchscreen tablet. The EUT is connected to 12Vdc charger. The computer is sending command to the EUT using software MC3 SuperRaptor Test ver.4.0.3.5.
The EUT is set into transmitting mode.
Operating frequency: 908 MHz (worst case)
Frequency of measurement: $150 \mathrm{kHz}-30 \mathrm{MHz}$
$\mathrm{RBW}=9 \mathrm{kHz}, \mathrm{VBW}=30 \mathrm{kHz}$
Site A
Temperature: $25^{\circ} \mathrm{C}$
Relative Humidity: $46 \%$
Test Method: ANSI C63.10:2013

