

Plot 7-505. Peak To Average Power Ratio Plot (B5_10M(DSS)_1C_2T_QPSK - Low Channel, Port 0)


Plot 7-507. Peak To Average Power Ratio Plot (B5_10M(DSS)_1C_2T_64QAM - Low Channel, Port 0)


Plot 7-509. Peak To Average Power Ratio Plot (B5_10M(DSS)_1C_2T_QPSK - Middle Channel, Port 0)


Plot 7-506. Peak To Average Power Ratio Plot
(B5_10M(DSS)_1C_2T _16QAM - Low Channel, Port 0)


Plot 7-508. Peak To Average Power Ratio Plot (B5_10M(DSS)_1C_2T_256QAM - Low Channel, Port 0)


Plot 7-510. Peak To Average Power Ratio Plot (B5_10M(DSS)_1C_2T_16QAM- Middle Channel, Port 0)



Plot 7-511. Peak To Average Power Ratio Plot
(B5_10M(DSS)_1C_2T_64QAM -Middle Channel, Port 0)


Plot 7-513. Peak To Average Power Ratio Plot (B5_10M(DSS)_1C_2T_QPSK - High Channel, Port 0)


Plot 7-515. Peak To Average Power Ratio Plot
(B5_10M(DSS)_1C_2T_64QAM - High Channel, Port 1)


Plot 7-512. Peak To Average Power Ratio Plot (B5_10M(DSS)_1C_2T_256QAM-Middle Channel,Port 0)


Plot 7-514. Peak To Average Power Ratio Plot (B5_10M(DSS)_1C_2T_16QAM - High Channel, Port 1)


Plot 7-516. Peak To Average Power Ratio Plot (B5_10M(DSS)_1C_2T_256QAM -High Channel, Port 0)


| $\begin{aligned} & \text { DSS } \\ & \text { Ratio } \end{aligned}$ | Channel | Port | PAPR (dB) |  |  |  | Limit <br> (dB) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | QPSK | 16QAM | 64QAM | 256QAM |  |
| $\begin{gathered} \text { LTE } 5 \text { : } \\ \text { NR } 5 \end{gathered}$ |  | 0 | 8.38 | 8.49 | 8.37 | 8.48 | $<13$ |
|  | Low | 1 | 8.42 | 8.47 | 8.41 | 8.45 | $<13$ |
|  | Low | 2 | 8.07 | 8.07 | 8.09 | 8.06 | <13 |
|  |  | 3 | 8.08 | 8.08 | 8.07 | 8.10 | $<13$ |
|  |  | 0 | 8.40 | 8.46 | 8.39 | 8.41 | $<13$ |
|  | Middle | 1 | 8.36 | 8.45 | 8.39 | 8.43 | < 13 |
|  | Middle | 2 | 8.10 | 8.09 | 8.10 | 8.08 | $<13$ |
|  |  | 3 | 8.05 | 8.05 | 8.04 | 8.12 | $<13$ |
|  |  | 0 | 8.39 | 8.46 | 8.39 | 8.50 | <13 |
|  | gh | 1 | 8.44 | 8.41 | 8.41 | 8.47 | < 13 |
|  | High | 2 | 8.10 | 8.07 | 8.09 | 8.11 | $<13$ |
|  |  | 3 | 8.11 | 8.03 | 8.09 | 8.14 | $<13$ |

Table 7-115. Peak To Average Power Ratio Summary Data (B5_10M(DSS)+5M_2C_4T)

| FCC ID: A3LRF4440D-13A | (F)PCTEST* | MEASUREMENT REPORT (CERTIFICATION) | SnMSUNT | Approved by: <br> Technical Manager |
| :---: | :---: | :---: | :---: | :---: |
| Test Report S/N: 8K21070501R2-R1 | Test Dates: 07/09/2021-08/25/2021 | EUT Type: <br> RRU (RF4440d) |  | Page 167 of 367 |



Plot 7-517. Peak To Average Power Ratio Plot (B5_10M(DSS)+5M_2C _QPSK - Low Channel, Port 1)


Plot 7-519. Peak To Average Power Ratio Plot (B5_10M(DSS)+5M_2C _64QAM - Low Channel, Port 1)


Plot 7-521. Peak To Average Power Ratio Plot
(B5_10M(DSS)+5M_2C _QPSK - Middle Channel, Port 0)


Plot 7-518. Peak To Average Power Ratio Plot (B5_10M(DSS)+5M_2C _16QAM - Low Channel, Port 0)


Plot 7-520. Peak To Average Power Ratio Plot (B5_10M(DSS)+5M_2C _256QAM - Low Channel,Port 0)


Plot 7-522. Peak To Average Power Ratio Plot
(B5_10M(DSS)+5M_2C _16QAM-Middle Channel, Port 0)

$\qquad$ 07/09/2021-08/25/2021 $\quad$ RRU (RF4440d)


Plot 7-523. Peak To Average Power Ratio Plot (B5_10M(DSS)+5M_2C _64QAM - Middle Channel, Port 0)


Plot 7-525. Peak To Average Power Ratio Plot (B5_10M(DSS)+5M_2C _QPSK - High Channel, Port 1)


Plot 7-527. Peak To Average Power Ratio Plot (B5_10M(DSS)+5M_2C _64QAM - High Channel, Port 1)


Plot 7-524. Peak To Average Power Ratio Plot (B5_10M(DSS)+5M_2C _256QAM - Middle Channel, Port 1)


Plot 7-526. Peak To Average Power Ratio Plot (B5_10M(DSS)+5M_2C _16QAM - High Channel, Port 0)


Plot 7-528. Peak To Average Power Ratio Plot
(B5_10M(DSS)+5M_2C _256QAM - High Channel, Port 0)

$\qquad$ 07/09/2021-08/25/2021 RRU (RF4440d)

| DSS <br> Ratio | Channel | Port | PAPR (dB) |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |

Table 7-116. Peak To Average Power Ratio Summary Data (B5_10M(DSS)+5M_2C_2T)

| FCC ID: A3LRF4440D-13A | F1PCTEST | MEASUREMENT REPORT (CERTIFICATION) | SMMSUN: | Approved by: <br> Technical Manager |
| :---: | :---: | :---: | :---: | :---: |
| Test Report S/N: 8K21070501R2-R1 | Test Dates: 07/09/2021-08/25/2021 | EUT Type: <br> RRU (RF4440d) |  | Page 170 of 367 |



Plot 7-529. Peak To Average Power Ratio Plot (B5_10M(DSS)_1C_2T_QPSK - Low Channel, Port 0)


Plot 7-531. Peak To Average Power Ratio Plot (B5_10M(DSS)_1C_2T_64QAM - Low Channel, Port 0)


Plot 7-533. Peak To Average Power Ratio Plot
(B5_10M(DSS)_1C_2T_QPSK - Middle Channel, Port 1)


Plot 7-530. Peak To Average Power Ratio Plot (B5_10M(DSS)_1C_2T _16QAM - Low Channel, Port 0)


Plot 7-532. Peak To Average Power Ratio Plot (B5_10M(DSS)_1C_2T_256QAM - Low Channel, Port 0)


Plot 7-534. Peak To Average Power Ratio Plot (B5_10M(DSS)_1C_2T_16QAM- Middle Channel, Port 0)



Plot 7－535．Peak To Average Power Ratio Plot （B5＿10M（DSS）＿1C＿2T＿64QAM－Middle Channel，Port 0）


Plot 7－537．Peak To Average Power Ratio Plot （B5＿10M（DSS）＿1C＿2T＿QPSK－High Channel，Port 1）


Plot 7－539．Peak To Average Power Ratio Plot
（B5＿10M（DSS）＿1C＿2T＿64QAM－High Channel，Port 1）


Plot 7－536．Peak To Average Power Ratio Plot （B5＿10M（DSS）＿1C＿2T＿256QAM－Middle Channel，Port 0）


Plot 7－538．Peak To Average Power Ratio Plot （B5＿10M（DSS）＿1C＿2T＿16QAM－High Channel，Port 0）


Plot 7－540．Peak To Average Power Ratio Plot
（B5＿10M（DSS）＿1C＿2T＿256QAM－High Channel，Port 1）

$\qquad$ 07／09／2021－08／25／2021 RRU（RF4440d）

| DSS <br> Ratio | Channel | Port | PAPR (dB) |  |  |  | Limit <br> (dB) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | QPSK | 16QAM | 64QAM | 256QAM |  |
| $\begin{gathered} \text { LTE } 5 \text { : } \\ \text { NR } 5 \end{gathered}$ |  | 0 | 8.39 | 8.43 | 8.33 | 8.59 | < 13 |
|  | Low | 1 | 8.41 | 8.37 | 8.39 | 8.59 | $<13$ |
|  | Low | 2 | 8.04 | 8.06 | 8.01 | 8.17 | <13 |
|  |  | 3 | 8.01 | 8.05 | 8.06 | 8.13 | $<13$ |
|  |  | 0 | 8.39 | 8.40 | 8.41 | 8.42 | $<13$ |
|  | Middle | 1 | 8.45 | 8.38 | 8.39 | 8.47 | $<13$ |
|  | Middle | 2 | 8.02 | 8.04 | 8.06 | 8.06 | $<13$ |
|  |  | 3 | 8.04 | 8.03 | 8.00 | 8.02 | $<13$ |
|  |  | 0 | 8.41 | 8.41 | 8.36 | 8.41 | < 13 |
|  | High | 1 | 8.41 | 8.39 | 8.35 | 8.37 | < 13 |
|  | High | 2 | 8.05 | 8.05 | 8.07 | 8.07 | $<13$ |
|  |  | 3 | 8.04 | 8.04 | 8.05 | 8.08 | $<13$ |

Table 7-117. Peak To Average Power Ratio Summary Data (B5_10M(DSS)+10M_2C_4T)

| FCC ID: A3LRF4440D-13A | (F)PCTEST* | MEASUREMENT REPORT (CERTIFICATION) | SnMSUNT | Approved by: <br> Technical Manager |
| :---: | :---: | :---: | :---: | :---: |
| Test Report S/N: 8K21070501R2-R1 | Test Dates: 07/09/2021-08/25/2021 | EUT Type: <br> RRU (RF4440d) |  | Page 173 of 367 |



Plot 7-541. Peak To Average Power Ratio Plot
(B5_10M(DSS)+10M_2C_QPSK - Low Channel, Port 1)


Plot 7-543. Peak To Average Power Ratio Plot
(B5_10M(DSS)+10M_2C_64QAM - Low Channel, Port 1)


Plot 7-545. Peak To Average Power Ratio Plot
(B5_10M(DSS)+10M_2C_QPSK - Middle Channel, Port 1)


Plot 7-542. Peak To Average Power Ratio Plot (B5_10M(DSS)+10M_2C_16QAM - Low Channel, Port 0)


Plot 7-544. Peak To Average Power Ratio Plot (B5_10M(DSS)+10M_2C_256QAM-Low Channel, Port 0)


Plot 7-546. Peak To Average Power Ratio Plot
(B5_10M(DSS)+10M_2C_16QAM - Middle Channel, Port 0)

$\qquad$ 07/09/2021-08/25/2021 RRU (RF4440d)


Plot 7-547. Peak To Average Power Ratio Plot (B5_10M(DSS)+10M_2C_64QAM - Middle Channel, Port 0)


Plot 7-549. Peak To Average Power Ratio Plot (B5_10M(DSS)+10M_2C_QPSK - High Channel, Port 0)


Plot 7-551. Peak To Average Power Ratio Plot
(B5_10M(DSS)+10M_2C_64QAM - High Channel, Port 0)


Plot 7-548. Peak To Average Power Ratio Plot
(B5_10M(DSS)+10M_2C_256QAM - Middle Channel, Port 1)


Plot 7-550. Peak To Average Power Ratio Plot (B5_10M(DSS)+10M_2C_16QAM - High Channel, Port 0)


Plot 7-552. Peak To Average Power Ratio Plot (B5_10M(DSS)+10M_2C_256QAM - High Channel, Port 0)

$\qquad$ 07/09/2021-08/25/2021 RRU (RF4440d)

| $\begin{aligned} & \text { DSS } \\ & \text { Ratio } \end{aligned}$ | Channel | Port | PAPR (dB) |  |  |  | $\begin{aligned} & \text { Limit } \\ & \text { (dB) } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | QPSK | 16QAM | 64QAM | 256QAM |  |
| $\begin{gathered} \text { LTE } 5 \text { : } \\ \text { NR } 5 \end{gathered}$ | Low | 0 | 8.08 | 8.08 | 8.05 | 8.08 | < 13 |
|  |  | 1 | 8.08 | 8.08 | 8.07 | 8.08 | $<13$ |
|  | Middle | 0 | 8.04 | 8.05 | 8.04 | 8.05 | $<13$ |
|  |  | 1 | 8.02 | 8.02 | 8.03 | 8.05 | $<13$ |
|  | High | 0 | 8.05 | 8.03 | 8.05 | 8.09 | $<13$ |
|  |  | 1 | 8.05 | 8.04 | 8.06 | 8.06 | <13 |

Table 7-118. Peak To Average Power Ratio Summary Data (B5_10M(DSS)+10M_2C_2T)

| FCC ID: A3LRF4440D-13A | F) PCTEST | MEASUREMENT REPORT (CERTIFICATION) | Snmsune | Approved by: <br> Technical Manager |
| :---: | :---: | :---: | :---: | :---: |
| Test Report S/N: 8K21070501R2-R1 | Test Dates: 07/09/2021-08/25/2021 | EUT Type: RRU (RF4440d) |  | Page 176 of 367 |



Plot 7-553. Peak To Average Power Ratio Plot (B5_10M(DSS)+10M_2C_2T_QPSK-Low Channel, Port 0)


Plot 7-555. Peak To Average Power Ratio Plot (B5_10M(DSS)+10M_2C_2T_64QAM - Low Channel, Port 1)


Plot 7-557. Peak To Average Power Ratio Plot (B5_10M(DSS)+10M_2C_2T_QPSK - Middle Channel, Port 0)


Plot 7-554. Peak To Average Power Ratio Plot
(B5_10M(DSS)+10M_2C_2T_16QAM - Low Channel, Port 0)


Plot 7-556. Peak To Average Power Ratio Plot (B5_10M(DSS)+10M_2C_2T_256QAM-Low Channel, Port 0)


Plot 7-558. Peak To Average Power Ratio Plot
(B5_10M(DSS)+10M_2C_2T_16QAM - Middle Channel, Port 0)

$\qquad$ 07/09/2021-08/25/2021 RRU (RF4440d)


Plot 7-559. Peak To Average Power Ratio Plot (B5_10M(DSS)+10M_2C_2T_64QAM - Middle Channel, Port 0)


Plot 7-561. Peak To Average Power Ratio Plot (B5_10M(DSS)+10M_2C_2T_QPSK - High Channel, Port 0)


Plot 7-563. Peak To Average Power Ratio Plot (B5_10M(DSS)+10M_2C_2T_64QAM - High Channel, Port 1)


Plot 7-560. Peak To Average Power Ratio Plot
(B5_10M(DSS)+10M_2C_2T_256QAM - Middle Channel, Port 0)


Plot 7-562. Peak To Average Power Ratio Plot (B5_10M(DSS)+10M_2C_2T_16QAM - High Channel, Port 1)


Plot 7-564. Peak To Average Power Ratio Plot
(B5_10M(DSS)+10M_2C_2T_256QAM - High Channel, Port 0)

$\qquad$ 07/09/2021-08/25/2021 $\quad$ RRU (RF4440d)

## (f)PCTEST

| DSS <br> Ratio | Channel | Port | PAPR (dB) |  |  |  | Limit (dB) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | QPSK | 16QAM | 64QAM | 256QAM |  |
| $\begin{gathered} \text { LTE } 5 \text { : } \\ \text { NR } 5 \end{gathered}$ | Low | 0 | 8.44 | 8.37 | 8.40 | 8.44 | $<13$ |
|  |  | 1 | 8.37 | 8.42 | 8.39 | 8.48 | < 13 |
|  |  | 2 | 8.03 | 8.06 | 8.10 | 8.07 | < 13 |
|  |  | 3 | 8.05 | 8.03 | 8.07 | 8.09 | $<13$ |

Table 7-119. Peak To Average Power Ratio Summary Data (B5_10M(DSS)+10M+5M_3C_4T)


Plot 7-565. Peak To Average Power Ratio Plot (B5_10M(DSS)+10M+5M_3C_QPSK, Port 0)


Plot 7-567. Peak To Average Power Ratio Plot (B5_10M(DSS)+10M+5M_3C_64QAM, Port 0)


Plot 7-566. Peak To Average Power Ratio Plot (B5_10M(DSS)+10M+5M_3C_16QAM, Port 1)


Plot 7-568. Peak To Average Power Ratio Plot
(B5_10M(DSS)+10M+5M_3C_256QAM, Port 1)

| FCC ID: A3LRF4440D-13A | 豆 PCTEST | MEASUREMENT REPORT (CERTIFICATION) | SHMSUNE | Approved by: <br> Technical Manager |
| :---: | :---: | :---: | :---: | :---: |
| Test Report S/N: <br> 8K21070501R2-R1 | Test Dates: 07/09/2021-08/25/2021 | EUT Type: RRU (RF4440d) |  | Page 179 of 367 |

## (f)PCTEST

| DSS <br> Ratio | Channel | Port | PAPR (dB) |  |  |  | Limit <br> $(\mathrm{dB})$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | 0 | QPSK | 16QAM | 64 QAM |  |
|  |  | 1 | 8.03 | 8.03 | 8.06 | 8.05 | $<13$ |

Table 7-120. Peak To Average Power Ratio Summary Data (B5_10M(DSS)+10M+5M_3C_2T)


Plot 7-569. Peak To Average Power Ratio Plot (B5_10M(DSS)+10M+5M_3C_2T_QPSK, Port 1)


Plot 7-571. Peak To Average Power Ratio Plot (B5_10M(DSS)+10M+5M_3C_2T_64QAM, Port 0)


Plot 7-570. Peak To Average Power Ratio Plot (B5_10M(DSS)+10M+5M_3C_2T_16QAM, Port 1)


Plot 7-572. Peak To Average Power Ratio Plot (B5_10M(DSS)+10M+5M_3C_2T_256QAM, Port 1)

| FCC ID: A3LRF4440D-13A | (f)PCTEST | MEASUREMENT REPORT (CERTIFICATION) | shmsunf | Approved by: Technical Manager |
| :---: | :---: | :---: | :---: | :---: |
| Test Report S/N: 8K21070501R2-R1 | Test Dates: 07/09/2021-08/25/2021 | EUT Type: RRU (RF4440d) |  | Page 180 of 367 |

### 7.5 Band Edge Emissions at Antenna Terminal <br> §2.1051, §22.917, §27.53(c)

## Test Overview

All out of band emissions are measured with a spectrum analyzer connected to the antenna terminal of the EUT while the EUT is operating at its maximum duty cycle, at maximum power, and at the appropriate frequencies. All data rates were investigated to determine the worst case configuration. All modes of operation were investigated and the worst case configuration results are reported in this section.

## Test Procedure Used

KDB 971168 D01 v03r01 - Section 6
KDB 662911 D01 v02r01 - Section E)3) Out-of-Band and Spurious Emission Measurements
a) Absolute Emission Limits
iii) Measure and add $10 \log \left(N_{\text {ANT }}\right) d B$

ANSI C63.26-2015 - Section 5.7

## Test Setting

1. Start and stop frequency were set such that the band edge would be placed in the center of the plot
2. Span was set large enough so as to capture all out of band emissions near the band edge
3. RBW: Please see test notes below.
4. VBW $\geq 3 \times$ RBW
5. Detector $=$ RMS
6. Number of sweep points $\geq 2 \times$ Span/RBW
7. Trace mode = trace average
8. Sweep time = auto couple
9. The trace was allowed to stabilize

## Limit

The minimum permissible attenuation level of any spurious emission is $43+10 \log \left(\mathrm{P}_{\left[W_{a t t s]}\right]}\right)$, where P is the transmitter power in Watts.
The power of any emission outside of the authorized operating frequency range cannot exeed -13 dBm . The limit is adjusted to $-19 \mathrm{dBm}[-13 \mathrm{dBm}-10 \log (4)]$ per KDB $662911 \mathrm{D} 01 \mathrm{v} 02 \mathrm{r01}$ - section E)3) because the EUT operate as a 4 port MIMO transmitter.

| FCC ID: A3LRF4440D-13A | F\PCTEST | MEASUREMENT REPORT (CERTIFICATION) | shmsune | Approved by: <br> Technical Manager |
| :---: | :---: | :---: | :---: | :---: |
| Test Report S/N: 8K21070501R2-R1 | Test Dates: <br> 07/09/2021-08/25/2021 | EUT Type: <br> RRU (RF4440d) |  | Page 181 of 367 |

## Test Setup

The EUT and measurement equipment were set up as shown in the diagram below.


Figure 7-5. Test Instrument \& Measurement Setup

## Test Notes

1. Per §22.917, compliance with these rules is based on the use of measurement instrumentation employing a reference bandwidth as follows. In the spectrum below 1 GHz , instrumentation should employ a reference bandwidth of 100 kHz or greater. In the 1 megahertz bands immediately outside and adjacent to the licensee's frequency block, a resolution bandwidth of at least one percent of the emission bandwidth of the fundamental emission of the transmitter may be employed. The emission bandwidth is defined as the width of the signal between two points, one below the carrier center frequency and one above the carrier center frequency, outside of which all emissions are attenuated at least 26 dB below the transmitter power. In the spectrum above 1 GHz , instrumentation should employ a reference bandwidth of 1 MHz .
2. Per $\S 27.53(\mathrm{c})$, compliance with the these rules is based on the use of measurement instrumentation employing a resolution bandwidth of 100 kHz or greater. However, in the 100 kHz bands immediately outside and adjacent to the frequency block, a resolution bandwidth of at least 30 kHz may be employed.
3. All modes of operation were investigated. The port with highest level i.e. worst case port per each test range has been highlighted in the following emission tables.
4. The integration method was performed using the spectrum analyzer's channel power, or band power functions.
The spectrum analyzer marker was placed at one-half of the RBW away from the band edge.
The integration value was set to the a resolution bandwidth of at least one percent of the emission bandwidth of the fundamental emission of the transmitter

| FCC ID: A3LRF4440D-13A | F1PCTEST | MEASUREMENT REPORT (CERTIFICATION) | SMMSUN: | Approved by: <br> Technical Manager |
| :---: | :---: | :---: | :---: | :---: |
| Test Report S/N: <br> 8K21070501R2-R1 | Test Dates: 07/09/2021-08/25/2021 | EUT Type: RRU (RF4440d) |  | Page 182 of 367 |


| Channel | Port | Measured Range (MHz) | Max. Value (dBm) |  |  |  | Limit (dBm) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | QPSK | 16QAM | 64QAM | 256QAM |  |
| Low | 0 | 868 to 869 | -24.71 | -26.28 | -23.22 | -25.48 | -19.02 |
|  | 1 | 868 to 869 | -22.17 | -21.76 | -24.29 | -22.92 | -19.02 |
| High | 0 | 894 to 895 | -22.98 | -23.92 | -22.00 | -24.16 | -19.02 |
|  | 1 | 894 to 895 | -23.23 | -24.51 | -23.48 | -22.06 | -19.02 |

Table 7-121. Band Edge Emission Summary Data (B5_5M_1C_2T)

| Channel | Port | Measured <br> Range <br> $(\mathrm{MHz})$ | Limit |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | QPSK | 16QAM | 64QAM | 256QAM | (dBm) |
| Low | 0 | 868 to 869 | -25.50 | -25.00 | -26.17 | -24.84 | -19.02 |
|  | 1 | 868 to 869 | -26.69 | -25.09 | -25.33 | -24.65 | -19.02 |
| High | 0 | 894 to 895 | -24.20 | -24.27 | -24.21 | -24.92 | -19.02 |
|  | 1 | 894 to 895 | -23.92 | -24.67 | -24.02 | $\mathbf{- 2 3 . 4 0}$ | -19.02 |

Table 7-122. Band Edge Emission Summary Data (B5_10M_1C_2T)

| FCC ID: A3LRF4440D-13A | F\|PCTEST | MEASUREMENT REPORT (CERTIFICATION) | SMMSUNE | Approved by: <br> Technical Manager |
| :---: | :---: | :---: | :---: | :---: |
| Test Report S/N: 8K21070501R2-R1 | Test Dates: 07/09/2021-08/25/2021 | EUT Type: <br> RRU (RF4440d) |  | Page 183 of 367 |

## (I)PCTEST



Plot 7-573. Band Edge Emission (868MHz to 869MHz) Plot
(B5_5M_1C_16QAM - Low Channel, Port 1)


Plot 7-575. Band Edge Emission ( 868 MHz to 869 MHz ) Plot (B5_10M_1C_256QAM - Low Channel, Port 1)


Plot 7-574. Band Edge Emission (894MHz to 895MHz) Plot (B5_5M_1C_64QAM - High Channel, Port 0)


Plot 7-576. Band Edge Emission (894MHz to 895MHz) Plot (B5_10M_1C_256QAM - High Channel, Port 1)

| FCC ID: A3LRF4440D-13A | F)PCTEST | MEASUREMENT REPORT (CERTIFICATION) | SnMSUN: | Approved by: <br> Technical Manager |
| :---: | :---: | :---: | :---: | :---: |
| Test Report S/N: 8K21070501R2-R1 | Test Dates: 07/09/2021-08/25/2021 | EUT Type: <br> RRU (RF4440d) |  | Page 184 of 367 |


| Channel | Port | Measured <br> Range <br> (MHz) | Max. Value (dBm) |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | QPSK | 16QAM | 64QAM | 256QAM | (dBm) |  |
| Low | 0 | 868 to 869 | -26.79 | -27.46 | -26.39 | -27.94 | -19.02 |
|  | 1 | 868 to 869 | -26.70 | -27.59 | -28.16 | -27.92 | -19.02 |
|  | 2 | 868 to 869 | -25.37 | -26.29 | -25.83 | -25.54 | -19.02 |
|  | 3 | 868 to 869 | -27.09 | -25.81 | -26.94 | -26.77 | -19.02 |
| High | 0 | 894 to 895 | -26.68 | -26.61 | -26.37 | -26.24 | -19.02 |
|  | 1 | 894 to 895 | -26.59 | -25.85 | -25.85 | -25.34 | -19.02 |
|  | 2 | 894 to 895 | -25.31 | -24.93 | -23.71 | -24.73 | -19.02 |
|  | 3 | 894 to 895 | -24.96 | -25.65 | -25.01 | -24.07 | -19.02 |

Table 7-123. Band Edge Emission Summary Data (B5_5M_1C_4T)

| Channel | Port | $\begin{gathered} \hline \text { Measured } \\ \text { Range } \\ (\mathrm{MHz}) \\ \hline \end{gathered}$ | Max. Value (dBm) |  |  |  | Limit (dBm) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | QPSK | 16QAM | 64QAM | 256QAM |  |
| Low | 0 | 868 to 869 | -26.05 | -27.56 | -27.02 | -26.16 | -19.02 |
|  | 1 | 868 to 869 | -27.02 | -27.34 | -27.52 | -25.47 | -19.02 |
|  | 2 | 868 to 869 | -26.15 | -26.20 | -27.06 | -25.97 | -19.02 |
|  | 3 | 868 to 869 | -26.66 | -27.06 | -27.55 | -27.43 | -19.02 |
| High | 0 | 894 to 895 | -24.99 | -25.22 | -24.19 | -25.33 | -19.02 |
|  | 1 | 894 to 895 | -26.25 | -25.55 | -25.92 | -26.01 | -19.02 |
|  | 2 | 894 to 895 | -26.41 | -26.09 | -26.03 | -25.77 | -19.02 |
|  | 3 | 894 to 895 | -23.84 | -24.38 | -24.71 | -24.27 | -19.02 |

Table 7-124. Band Edge Emission Summary Data (B5_10M_1C_4T)

| FCC ID: A3LRF4440D-13A | 局 PCTEST | MEASUREMENT REPORT (CERTIFICATION) | SnMSUNA | Approved by: <br> Technical Manager |
| :---: | :---: | :---: | :---: | :---: |
| Test Report S/N: 8K21070501R2-R1 | Test Dates: <br> 07/09/2021-08/25/2021 | EUT Type: <br> RRU (RF4440d) |  | Page 185 of 367 |

