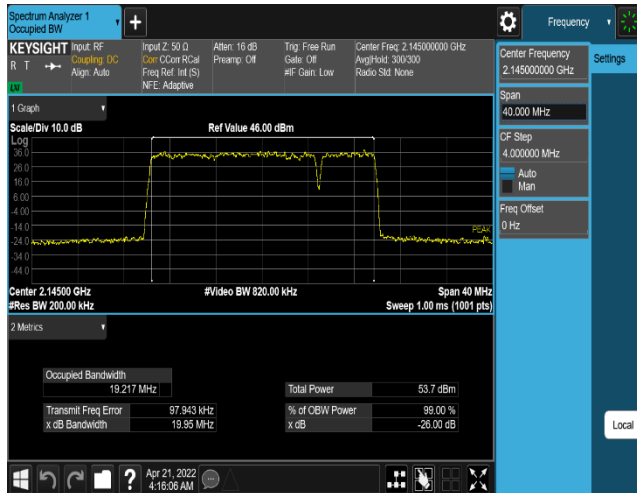
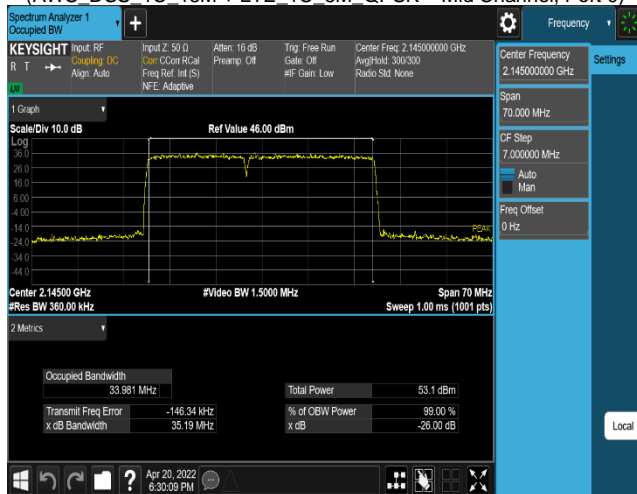


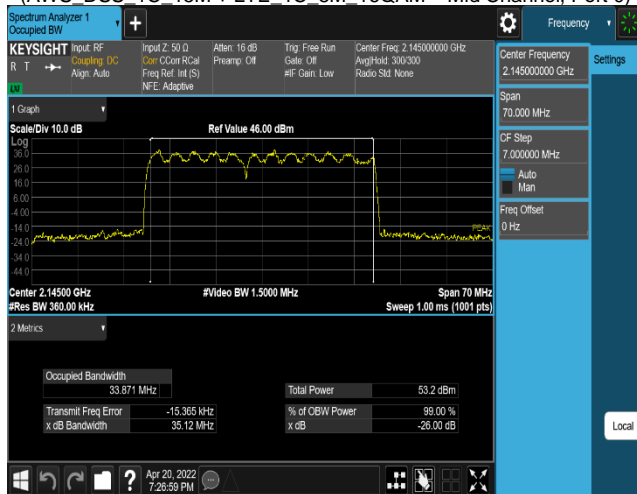
Plot 8-51. Occupied Bandwidth Plot  
(AWS\_DSS\_1C\_15M + LTE\_1C\_5M\_QPSK – Mid Channel, Port 0)



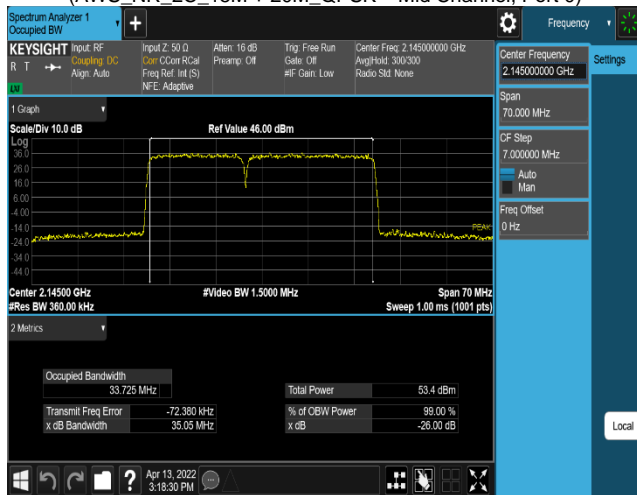
Plot 8-52. Occupied Bandwidth Plot  
(AWS\_DSS\_1C\_15M + LTE\_1C\_5M\_16QAM – Mid Channel, Port 0)



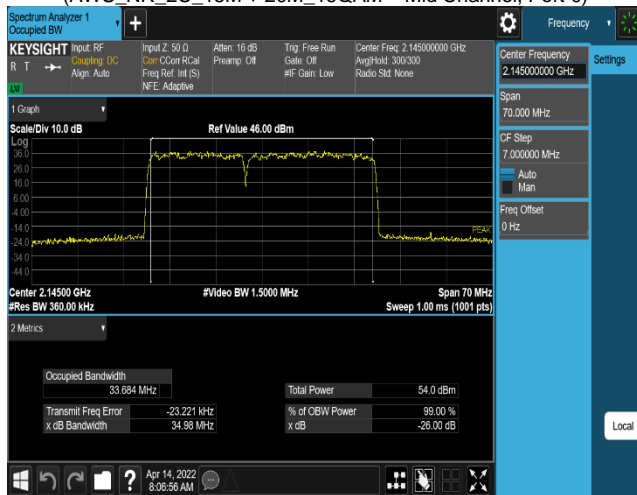
Plot 8-53. Occupied Bandwidth Plot  
(AWS\_NR\_2C\_15M + 20M\_QPSK – Mid Channel, Port 0)



Plot 8-55. Occupied Bandwidth Plot  
(AWS\_NR\_2C\_15M + 20M\_16QAM – Mid Channel, Port 0)

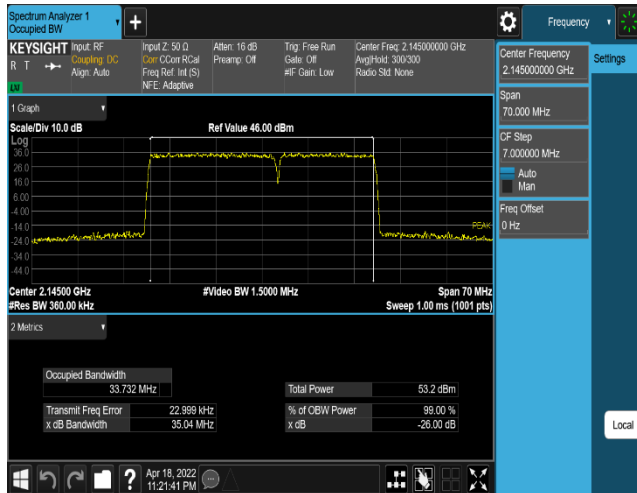


Plot 8-54. Occupied Bandwidth Plot  
(AWS\_DSS\_2C\_15M + 20M\_QPSK – Mid Channel, Port 0)

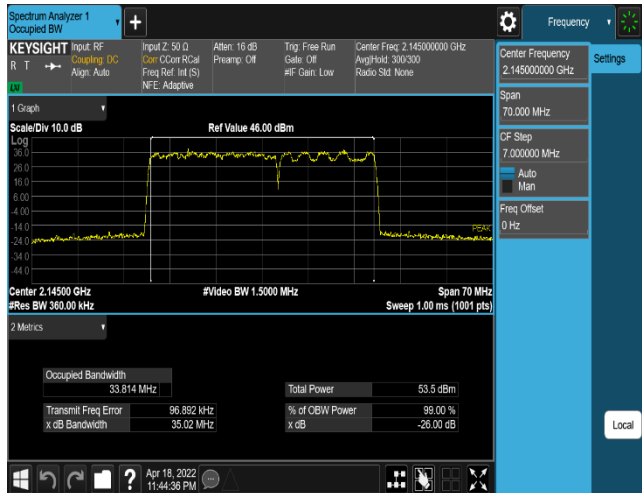


Plot 8-56. Occupied Bandwidth Plot  
(AWS\_DSS\_2C\_15M + 20M\_16QAM – Mid Channel, Port 0)

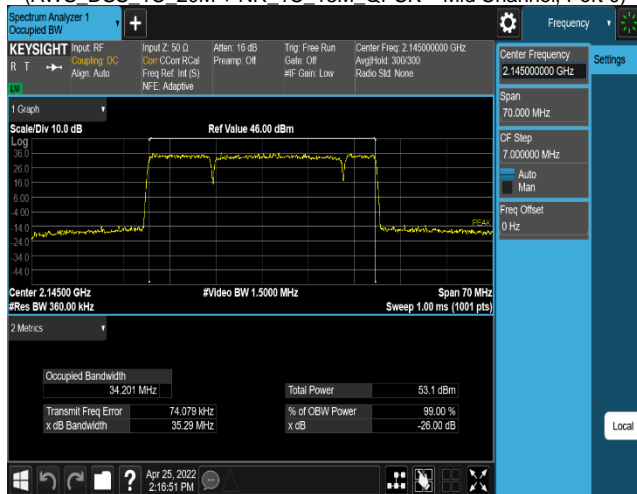
FCC ID: A3LRF4402D-D1A		<b>MEASUREMENT REPORT</b> (Class II Permissive Change)		<b>Approved by:</b> Technical Manager
Test Report S/N: 8K22032101-00-R1.A3L	Test Dates: 03/25/2022 - 05/03/2022	EUT Type: RRU(RF4402d)		Page 39 of 225



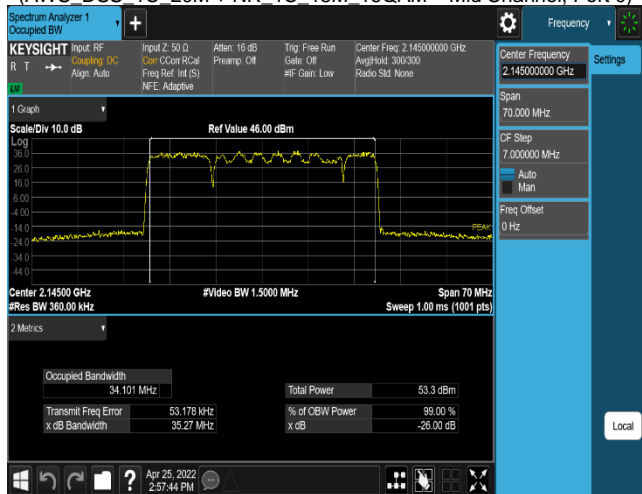
Plot 8-57. Occupied Bandwidth Plot  
(AWS\_DSS\_1C\_20M + NR\_1C\_15M\_QPSK – Mid Channel, Port 0)



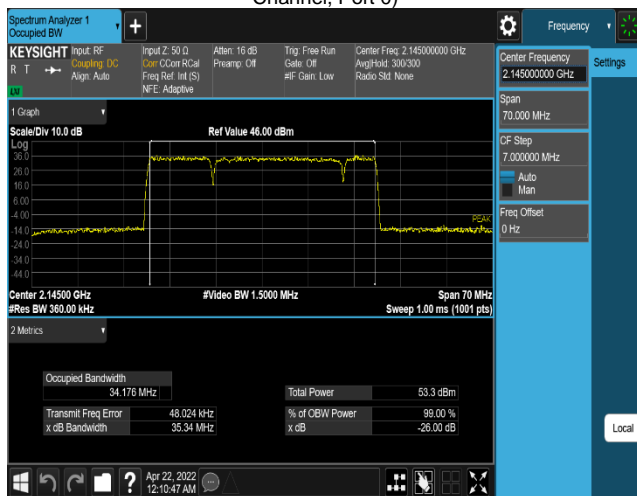
Plot 8-58. Occupied Bandwidth Plot  
(AWS\_DSS\_1C\_20M + NR\_1C\_15M\_16QAM – Mid Channel, Port 0)



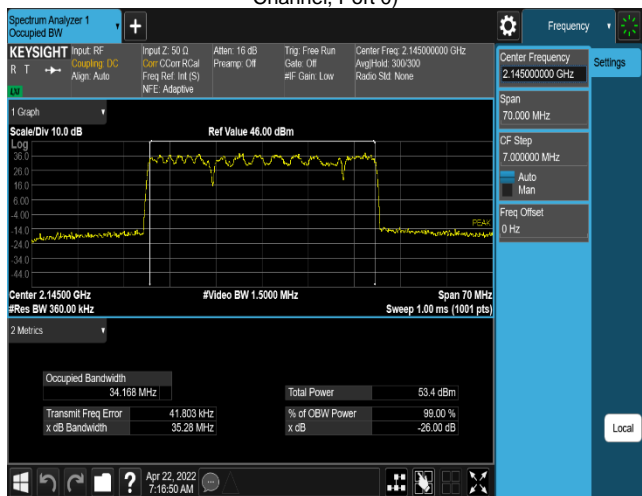
Plot 8-59. Occupied Bandwidth Plot  
(AWS\_DSS\_1C\_10M + NR\_1C\_20M + LTE\_1C\_5M\_QPSK – Mid Channel, Port 0)



Plot 8-61. Occupied Bandwidth Plot  
(AWS\_DSS\_1C\_10M + NR\_1C\_20M + LTE\_1C\_5M\_16QAM – Mid Channel, Port 0)

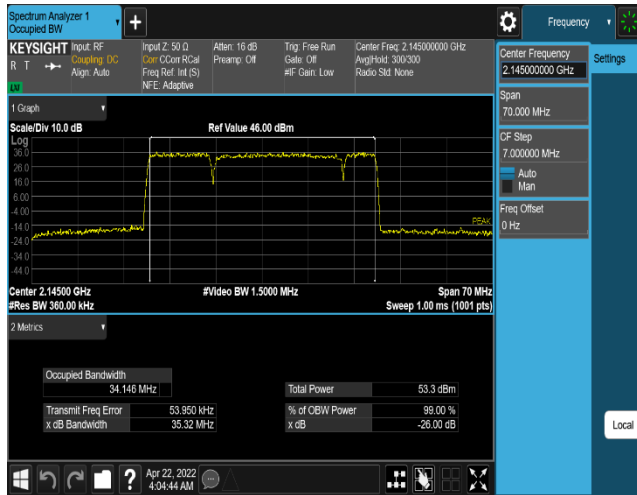


Plot 8-60. Occupied Bandwidth Plot  
(AWS\_NR\_2C\_10M + 20M + LTE\_1C\_5M\_QPSK – Mid Channel, Port 0)



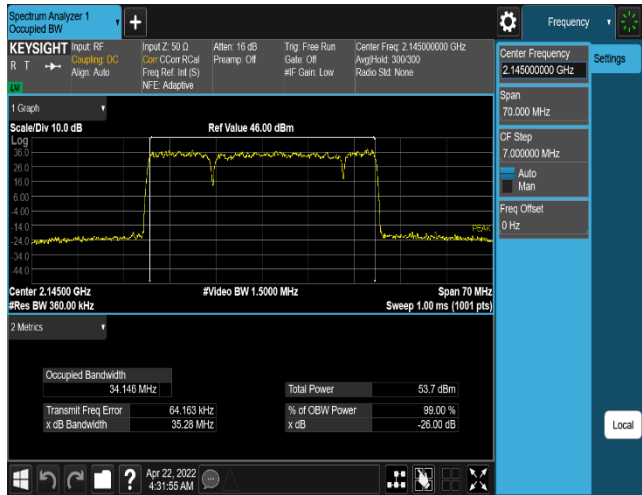
Plot 8-62. Occupied Bandwidth Plot  
(AWS\_NR\_2C\_10M + 20M + LTE\_1C\_5M\_16QAM – Mid Channel, Port 0)

FCC ID: A3LRF4402D-D1A		<b>MEASUREMENT REPORT</b> (Class II Permissive Change)		<b>Approved by:</b> Technical Manager
Test Report S/N: 8K22032101-00-R1.A3L	Test Dates: 03/25/2022 - 05/03/2022	EUT Type: RRU(RF4402d)		Page 40 of 225



Plot 8-63. Occupied Bandwidth Plot

(AWS\_DSS\_2C\_10M + 20M + LTE\_1C\_5M\_QPSK – Mid Channel, Port 0)



Plot 8-64. Occupied Bandwidth Plot

(AWS\_DSS\_2C\_10M + 20M + LTE\_1C\_5M\_16QAM – Mid Channel, Port 0)

FCC ID: A3LRF4402D-1A		<b>MEASUREMENT REPORT</b> (Class II Permissive Change)		<b>Approved by:</b> Technical Manager
<b>Test Report S/N:</b> 8K22032101-00-R1.A3L	<b>Test Dates:</b> 03/25/2022 - 05/03/2022	<b>EUT Type:</b> RRU(RF4402d)		Page 41 of 225

## 8.3 Equivalent Isotropic Radiated Power (Power Spectral Density)

### Test Overview

A transmitter port of EUT is connected to the input of a signal analyzer. All measurements are performed as RMS average measurements while the EUT is operating at its maximum duty cycle, at maximum power, and at the appropriate frequencies.

### Test Procedure Used

KDB 971168 D01 v03r01 – Section 5.2  
 KDB 662911 D01 v02r01 – Section E)1) In-Band Power Measurements  
 ANSI C63.26-2015 – Section 5.2.4

### Test Setting

The measurement was made using a direct connection between the RF output of the EUT and the spectrum analyzer. The spectrum analyzer settings were as follows:

1. Conducted average output power measurements are performed using the signal analyzer's "channel power mode" measurement capability for signals with continuous operation.
2. Set span to  $2 \times$  to  $3 \times$  the OBW.
3. Set RBW = 1 – 5% of the expected OBW
4. Set VBW  $\geq 3 \times$  RBW.
5. Set number of measurement points in sweep  $\geq 2 \times$  span / RBW.
6. Sweep time: auto-couple
7. Detector = power averaging (rms).
8. Set sweep trigger to "free run."
9. The integration bandwidth was set equal to transmission bandwidth i.e. 20MHz for 1CC and 40MHz for 2CC measurements.
10. Trace average at least 100 traces in power averaging (rms) mode if sweep is set to auto-couple. To accurately determine the average power over the on and off time of the transmitter, it can be necessary to increase the number of traces to be averaged above 100, or if using a manually configured sweep time, increase the sweep time.
11. Compute the power by integrating the spectrum across the OBW of the signal using the instrument's band or channel power measurement function, with the band/channel limits set equal to the OBW band edges.

### Test Setup

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

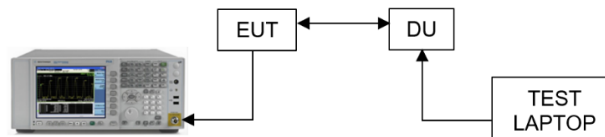




Figure 8-2. Test Instrument & Measurement Setup

### Limit



N/A

FCC ID: A3LRF4402D-D1A		MEASUREMENT REPORT (Class II Permissive Change)		Approved by: Technical Manager
Test Report S/N: 8K22032101-00-R1.A3L	Test Dates: 03/25/2022 - 05/03/2022	EUT Type: RRU(RF4402d)		Page 42 of 225

## Test Notes



1. The Conducted Output Power results shown below are measured based on worst case results from original test report and is within the expected measurement tolerances.
2. Consider the following factors for MIMO:  
The output power per each port is measured as dBm/MHz or dBm, the output powers are summed up in linear using the measure-and-sum technique defined in KDB 971168 D01 v03r01 - Section E) 2).
3. The output power per port (dBm/MHz or dBm) is converted to a linear value (mW). A summation of linear powers for all ports gives us the total MIMO Conducted Power (mW). We convert this back to logarithmic scale for further output power calculations.
4. All transmit signals from different antennas are completely uncorrelated with each other. So the maximum output power shall be calculated based on the aggregate power conducted across all antennas.
5. Sample Calculation:  
Let us assume the following numbers:
  - a) Total MIMO Conducted Power as 23103.78 milliWatts
  - b)

	Factors	Value	Unit
Summed MIMO Conducted Power (linear sum)		23103.78	mW/MHz
Summed MIMO Conducted Power (dBm)	$= 10 * \log (23103.78) =$	43.64	dBm/MHz

FCC ID: A3LRF4402D-D1A		<b>MEASUREMENT REPORT</b> (Class II Permissive Change)		<b>Approved by:</b> Technical Manager
<b>Test Report S/N:</b> 8K22032101-00-R1.A3L	<b>Test Dates:</b> 03/25/2022 - 05/03/2022	<b>EUT Type:</b> RRU(RF4402d)	Page 43 of 225	



Channel	Port	PSD Power (dBm/MHz)			
		QPSK	16QAM	64QAM	256QAM
Low	0	37.53	37.50	37.52	37.58
	1	37.77	37.45	37.60	37.68
	2	37.56	37.73	37.64	37.60
	3	37.61	37.68	37.73	37.60
Total MIMO PSD Power (mW)		23103.78	22980.73	23128.48	23091.41
Total MIMO PSD Power (dBm)		43.64	43.61	43.64	43.63
Channel	Port	QPSK	16QAM	64QAM	256QAM
Middle	0	37.67	<b>38.02</b>	37.76	37.63
	1	37.62	<b>37.93</b>	37.58	37.71
	2	37.61	<b>37.98</b>	37.81	37.67
	3	37.69	<b>38.10</b>	37.77	37.77
Total MIMO PSD Power (mW)		23272.79	<b>25282.85</b>	23715.19	23514.89
Total MIMO PSD Power (dBm)		43.67	<b>44.03</b>	43.75	43.71
Channel	Port	QPSK	16QAM	64QAM	256QAM
High	0	37.72	37.55	37.57	37.59
	1	37.63	37.74	37.70	37.67
	2	38.03	37.69	37.86	37.95
	3	37.82	37.53	37.75	37.72
Total MIMO PSD Power (mW)		24118.04	23161.99	23685.68	23735.37
Total MIMO PSD Power (dBm)		43.82	43.65	43.74	43.75

**Table 8-17. Peak Power Spectral Density Table (PCS\_NR\_1C\_5M)**

FCC ID: A3LRF4402D-D1A		<b>MEASUREMENT REPORT</b> (Class II Permissive Change)		<b>Approved by:</b> Technical Manager
<b>Test Report S/N:</b> 8K22032101-00-R1.A3L	<b>Test Dates:</b> 03/25/2022 - 05/03/2022	<b>EUT Type:</b> RRU(RF4402d)	Page 44 of 225	



Channel	Port	PSD Power (dBm/MHz)			
		QPSK	16QAM	64QAM	256QAM
Low	0	34.55	35.22	34.44	34.51
	1	34.59	35.35	34.46	34.53
	2	34.45	35.16	34.45	34.49
	3	34.54	35.27	34.45	34.61
Total MIMO PSD Power (mW)		11357.07	13394.95	11139.37	11368.05
Total MIMO PSD Power (dBm)		40.55	41.27	40.47	40.56
Channel	Port	QPSK	16QAM	64QAM	256QAM
Middle	0	34.51	35.42	34.70	34.68
	1	34.63	35.37	34.53	34.50
	2	34.63	35.45	34.52	34.57
	3	34.49	35.30	34.78	34.50
Total MIMO PSD Power (mW)		11448.09	13825.16	11622.52	11439.80
Total MIMO PSD Power (dBm)		40.59	41.41	40.65	40.58
Channel	Port	QPSK	16QAM	64QAM	256QAM
High	0	34.56	<b>35.62</b>	34.65	34.64
	1	34.36	<b>35.41</b>	34.44	34.50
	2	34.62	<b>35.39</b>	34.69	34.68
	3	34.69	<b>35.34</b>	34.71	34.78
Total MIMO PSD Power (mW)		11422.51	<b>14000.44</b>	11600.17	11675.55
Total MIMO PSD Power (dBm)		40.58	<b>41.46</b>	40.64	40.67

**Table 8-18. Peak Power Spectral Density Table (PCS\_NR\_1C\_10M)**

FCC ID: A3LRF4402D-D1A		<b>MEASUREMENT REPORT</b> (Class II Permissive Change)		<b>Approved by:</b> Technical Manager
<b>Test Report S/N:</b> 8K22032101-00-R1.A3L	<b>Test Dates:</b> 03/25/2022 - 05/03/2022	<b>EUT Type:</b> RRU(RF4402d)	Page 45 of 225	

Channel	Port	PSD Power (dBm/MHz)			
		QPSK	16QAM	64QAM	256QAM
Low	0	32.64	34.07	32.53	32.63
	1	32.55	34.17	32.73	32.94
	2	32.60	33.76	32.39	32.65
	3	32.61	34.05	32.69	32.52
Total MIMO PSD Power (mW)		7277.76	10083.64	7256.84	7422.79
Total MIMO PSD Power (dBm)		38.62	40.04	38.61	38.71
Channel	Port	QPSK	16QAM	64QAM	256QAM
Middle	0	32.69	34.37	32.81	32.61
	1	32.64	34.09	32.62	32.79
	2	32.61	34.09	32.83	32.59
	3	32.65	34.01	32.63	32.44
Total MIMO PSD Power (mW)		7357.73	10382.49	7488.02	7298.20
Total MIMO PSD Power (dBm)		38.67	40.16	38.74	38.63
Channel	Port	QPSK	16QAM	64QAM	256QAM
High	0	32.71	<b>34.27</b>	32.43	32.68
	1	32.63	<b>34.14</b>	32.53	32.54
	2	32.71	<b>34.48</b>	32.58	32.71
	3	32.80	<b>34.42</b>	32.48	32.68
Total MIMO PSD Power (mW)		7473.98	<b>10842.82</b>	7121.51	7368.19
Total MIMO PSD Power (dBm)		38.74	<b>40.35</b>	38.53	38.67



**Table 8-19. Peak Power Spectral Density Table (PCS\_NR\_1C\_15M)**

FCC ID: A3LRF4402D-D1A		<b>MEASUREMENT REPORT</b> (Class II Permissive Change)		<b>Approved by:</b> Technical Manager
<b>Test Report S/N:</b> 8K22032101-00-R1.A3L	<b>Test Dates:</b> 03/25/2022 - 05/03/2022	<b>EUT Type:</b> RRU(RF4402d)	Page 46 of 225	





Channel	Port	PSD Power (dBm/MHz)			
		QPSK	16QAM	64QAM	256QAM
Low	0	31.28	32.85	31.26	31.22
	1	31.39	33.11	31.37	31.41
	2	31.26	33.00	31.07	31.09
	3	31.26	32.77	31.29	31.34
Total MIMO PSD Power (mW)		5391.58	7861.15	5332.11	5350.67
Total MIMO PSD Power (dBm)		37.32	38.95	37.27	37.28
Channel	Port	QPSK	16QAM	64QAM	256QAM
Middle	0	31.33	32.85	31.55	31.51
	1	31.45	33.02	31.40	31.55
	2	31.39	32.97	31.24	31.43
	3	31.23	32.90	31.25	31.34
Total MIMO PSD Power (mW)		5459.97	7863.32	5471.38	5596.79
Total MIMO PSD Power (dBm)		37.37	38.96	37.38	37.48
Channel	Port	QPSK	16QAM	64QAM	256QAM
High	0	31.46	<b>33.02</b>	31.42	31.41
	1	31.34	<b>32.89</b>	31.20	31.21
	2	31.48	<b>33.14</b>	31.51	31.61
	3	31.47	<b>32.92</b>	31.39	31.45
Total MIMO PSD Power (mW)		5570.18	<b>7966.67</b>	5499.03	5551.29
Total MIMO PSD Power (dBm)		37.46	<b>39.01</b>	37.40	37.44

**Table 8-20. Peak Power Spectral Density Table (PCS\_NR\_1C\_20M)**



FCC ID: A3LRF4402D-D1A		<b>MEASUREMENT REPORT</b> (Class II Permissive Change)		<b>Approved by:</b> Technical Manager
<b>Test Report S/N:</b> 8K22032101-00-R1.A3L	<b>Test Dates:</b> 03/25/2022 - 05/03/2022	<b>EUT Type:</b> RRU(RF4402d)	Page 47 of 225	

Channel	DSS Ratio	Port	PSD Power (dBm/MHz)			
			QPSK	16QAM	64QAM	256QAM
Low	LTE: 9 NR: 1	0	32.43	33.58	32.44	32.45
		1	32.45	33.40	32.49	32.31
		2	32.29	33.29	32.35	32.28
		3	32.42	33.43	32.56	32.62
Total MIMO PSD (mW)			6949.19	8803.16	7048.67	6979.95
Total MIMO PSD (dBm)			38.42	39.45	38.48	38.44
Channel	Ratio	Port	QPSK	16QAM	64QAM	256QAM
Mid	LTE: 9 NR: 1	0	32.59	33.67	32.53	32.63
		1	32.44	33.19	32.78	32.54
		2	32.70	33.27	32.71	32.69
		3	32.53	33.33	32.48	32.42
Total MIMO PSD (mW)			7219.21	8684.22	7320.01	7226.49
Total MIMO PSD (dBm)			38.58	39.39	38.65	38.59
Channel	Ratio	Port	QPSK	16QAM	64QAM	256QAM
High	LTE: 9 NR: 1	0	32.64	33.15	32.54	32.61
		1	32.45	32.78	32.50	32.51
		2	32.69	33.04	32.78	32.70
		3	32.55	33.20	32.66	32.55
Total MIMO PSD (mW)			7248.19	8061.46	7313.07	7269.35
Total MIMO PSD (dBm)			38.60	39.06	38.64	38.61
Channel	Ratio	Port	QPSK	16QAM	64QAM	256QAM
Low	LTE: 5 NR: 5	0	32.62	33.42	32.64	32.41
		1	32.54	33.31	32.78	32.28
		2	32.52	33.37	32.39	32.34
		3	32.70	33.58	32.75	32.48
Total MIMO PSD (mW)			7271.41	8790.15	7348.25	6911.90
Total MIMO PSD (dBm)			38.62	39.44	38.66	38.40
Channel	Ratio	Port	QPSK	16QAM	64QAM	256QAM
Mid	LTE: 5 NR: 5	0	32.84	33.88	32.54	32.55
		1	32.61	33.52	32.52	32.67
		2	32.70	33.43	32.67	32.59
		3	32.55	33.36	32.48	32.50
Total MIMO PSD (mW)			7407.09	9061.15	7199.41	7244.02
Total MIMO PSD (dBm)			38.70	39.57	38.57	38.60
Channel	Ratio	Port	QPSK	16QAM	64QAM	256QAM
High	LTE: 5 NR: 5	0	32.60	33.77	32.63	32.55
		1	32.58	33.21	32.73	32.41
		2	32.63	33.73	32.80	32.69
		3	32.60	33.68	32.62	32.55
Total MIMO PSD (mW)			7286.39	9171.62	7442.58	7196.41
Total MIMO PSD (dBm)			38.63	39.62	38.72	38.57



FCC ID: A3LRF4402D-D1A		<b>MEASUREMENT REPORT</b> (Class II Permissive Change)		<b>Approved by:</b> Technical Manager
<b>Test Report S/N:</b> 8K22032101-00-R1.A3L	<b>Test Dates:</b> 03/25/2022 - 05/03/2022	<b>EUT Type:</b> RRU(RF4402d)	Page 48 of 225	

Channel	Ratio	Port	QPSK	16QAM	64QAM	256QAM
Low	LTE: 2 NR: 8	0	32.59	33.83	32.52	32.66
		1	32.64	33.67	32.49	32.31
		2	32.57	33.70	32.49	32.44
		3	32.61	33.56	32.36	32.62
Total MIMO PSD (mW)			7280.19	9359.96	7052.27	7131.58
Total MIMO PSD (dBm)			38.62	39.71	38.48	38.53
Channel	Ratio	Port	QPSK	16QAM	64QAM	256QAM
Mid	LTE: 2 NR: 8	0	32.67	33.79	32.52	32.64
		1	32.59	33.87	32.64	32.41
		2	32.50	33.79	32.59	32.66
		3	32.37	33.64	32.53	32.72
Total MIMO PSD (mW)			7167.99	9527.18	7227.88	7295.41
Total MIMO PSD (dBm)			38.55	39.79	38.59	38.63
Channel	Ratio	Port	QPSK	16QAM	64QAM	256QAM
High	LTE: 2 NR: 8	0	32.70	<b>34.11</b>	32.58	32.63
		1	32.43	<b>33.77</b>	32.50	32.22
		2	32.93	<b>33.77</b>	32.75	32.69
		3	32.70	<b>33.96</b>	32.60	32.75
Total MIMO PSD (mW)			7434.49	<b>9829.81</b>	7288.34	7243.18
Total MIMO PSD (dBm)			38.71	<b>39.93</b>	38.63	38.60

**Table 8-21. Peak Power Spectral Density Table (PCS\_DSS\_1C\_15M)**



FCC ID: A3LRF4402D-D1A		<b>MEASUREMENT REPORT (Class II Permissive Change)</b>		<b>Approved by:</b> Technical Manager
<b>Test Report S/N:</b> 8K22032101-00-R1.A3L	<b>Test Dates:</b> 03/25/2022 - 05/03/2022	<b>EUT Type:</b> RRU(RF4402d)	Page 49 of 225	

Channel	DSS Ratio	Port	PSD Power (dBm/MHz)			
			QPSK	16QAM	64QAM	256QAM
Low	LTE: 9 NR: 1	0	31.21	31.57	31.12	31.24
		1	31.37	31.59	31.24	31.25
		2	31.17	31.46	31.09	31.11
		3	31.37	31.53	31.29	31.29
Total MIMO PSD (mW)			5370.71	5696.27	5255.14	5302.25
Total MIMO PSD (dBm)			37.30	37.56	37.21	37.24
Channel	Ratio	Port	QPSK	16QAM	64QAM	256QAM
Mid	LTE: 9 NR: 1	0	31.22	31.93	31.37	31.53
		1	31.31	31.52	31.23	31.29
		2	31.24	31.59	31.31	31.32
		3	31.13	31.55	31.29	31.41
Total MIMO PSD (mW)			5306.21	5847.87	5393.42	5507.30
Total MIMO PSD (dBm)			37.25	37.67	37.32	37.41
Channel	Ratio	Port	QPSK	16QAM	64QAM	256QAM
High	LTE: 9 NR: 1	0	31.33	31.42	31.37	31.32
		1	31.22	31.38	31.24	31.26
		2	31.39	31.50	31.34	31.41
		3	31.67	31.58	31.40	31.40
Total MIMO PSD (mW)			5527.42	5609.82	5445.03	5455.39
Total MIMO PSD (dBm)			37.43	37.49	37.36	37.37
Channel	Ratio	Port	QPSK	16QAM	64QAM	256QAM
Low	LTE: 5 NR: 5	0	31.40	32.20	31.24	31.27
		1	30.94	31.90	31.39	31.23
		2	31.24	32.34	31.18	31.15
		3	31.40	32.28	31.26	31.40
Total MIMO PSD (mW)			5330.49	6612.92	5356.11	5349.68
Total MIMO PSD (dBm)			37.27	38.20	37.29	37.28
Channel	Ratio	Port	QPSK	16QAM	64QAM	256QAM
Mid	LTE: 5 NR: 5	0	31.32	32.22	31.29	31.36
		1	31.23	32.02	31.25	31.23
		2	31.29	32.06	31.16	31.45
		3	31.29	32.20	31.47	31.25
Total MIMO PSD (mW)			5373.97	6524.93	5389.26	5425.57
Total MIMO PSD (dBm)			37.30	38.15	37.32	37.34
Channel	Ratio	Port	QPSK	16QAM	64QAM	256QAM
High	LTE: 5 NR: 5	0	31.32	32.18	31.33	31.24
		1	31.13	32.00	31.39	31.21
		2	31.43	32.40	31.44	31.45
		3	31.34	32.12	31.42	31.37
Total MIMO PSD (mW)			5400.01	6602.75	5513.84	5416.15
Total MIMO PSD (dBm)			37.32	38.20	37.41	37.34

FCC ID: A3LRF4402D-D1A		<b>MEASUREMENT REPORT</b> (Class II Permissive Change)		<b>Approved by:</b> Technical Manager
<b>Test Report S/N:</b> 8K22032101-00-R1.A3L	<b>Test Dates:</b> 03/25/2022 - 05/03/2022	<b>EUT Type:</b> RRU(RF4402d)	Page 50 of 225	



Channel	Ratio	Port	QPSK	16QAM	64QAM	256QAM
Low	LTE: 2 NR: 8	0	31.32	32.65	31.43	31.41
		1	31.47	32.70	31.38	31.12
		2	31.07	32.60	31.18	31.41
		3	31.13	32.75	31.49	31.44
Total MIMO PSD (mW)			5335.09	7404.52	5484.22	5452.35
Total MIMO PSD (dBm)			37.27	38.69	37.39	37.37
Channel	Ratio	Port	QPSK	16QAM	64QAM	256QAM
Mid	LTE: 2 NR: 8	0	31.52	<b>32.87</b>	31.29	31.43
		1	31.37	<b>32.83</b>	31.19	31.31
		2	31.40	<b>32.67</b>	31.38	31.36
		3	31.36	<b>32.84</b>	31.38	31.31
Total MIMO PSD (mW)			5539.65	<b>7622.65</b>	5409.18	5462.46
Total MIMO PSD (dBm)			37.43	<b>38.82</b>	37.33	37.37
Channel	Ratio	Port	QPSK	16QAM	64QAM	256QAM
High	LTE: 2 NR: 8	0	31.40	32.63	31.31	31.20
		1	31.26	32.49	31.21	31.15
		2	31.48	32.63	31.47	31.42
		3	31.44	32.69	31.28	31.56
Total MIMO PSD (mW)			5513.27	7298.37	5419.61	5440.67
Total MIMO PSD (dBm)			37.41	38.63	37.34	37.36

**Table 8-22. Peak Power Spectral Density Table (PCS\_DSS\_1C\_20M)**

FCC ID: A3LRF4402D-D1A		<b>MEASUREMENT REPORT</b> (Class II Permissive Change)		<b>Approved by:</b> Technical Manager
<b>Test Report S/N:</b> 8K22032101-00-R1.A3L	<b>Test Dates:</b> 03/25/2022 - 05/03/2022	<b>EUT Type:</b> RRU(RF4402d)	Page 51 of 225	



Channel	Port	PSD Power (dBm/MHz)			
		QPSK	16QAM	64QAM	256QAM
Low	0	34.61	34.59	34.63	34.56
	1	34.52	34.59	34.50	34.48
	2	34.55	34.68	34.63	34.60
	3	34.65	34.98	34.67	34.69
Total MIMO PSD Power (mW)		11484.59	11836.70	11557.96	11494.19
Total MIMO PSD Power (dBm)		40.60	40.73	40.63	40.60
Channel	Port	QPSK	16QAM	64QAM	256QAM
Middle	0	34.57	34.89	34.53	34.60
	1	34.49	34.78	34.48	34.53
	2	34.73	34.76	34.84	34.69
	3	34.62	34.78	34.54	34.69
Total MIMO PSD Power (mW)		11541.01	12084.08	11536.40	11610.14
Total MIMO PSD Power (dBm)		40.62	40.82	40.62	40.65
Channel	Port	QPSK	16QAM	64QAM	256QAM
High	0	34.68	<b>34.79</b>	34.61	34.88
	1	34.40	<b>34.69</b>	34.53	34.66
	2	34.90	<b>35.01</b>	34.91	35.00
	3	34.63	<b>35.01</b>	34.72	34.86
Total MIMO PSD Power (mW)		11689.90	<b>12295.12</b>	11791.45	12219.64
Total MIMO PSD Power (dBm)		40.68	<b>40.90</b>	40.72	40.87

**Table 8-23. Peak Power Spectral Density Table (PCS\_NR\_2C\_5M + 5M)**

FCC ID: A3LRF4402D-D1A		<b>MEASUREMENT REPORT</b> (Class II Permissive Change)		<b>Approved by:</b> Technical Manager
<b>Test Report S/N:</b> 8K22032101-00-R1.A3L	<b>Test Dates:</b> 03/25/2022 - 05/03/2022	<b>EUT Type:</b> RRU(RF4402d)	Page 52 of 225	



Channel	Port	PSD Power (dBm/MHz)			
		QPSK	16QAM	64QAM	256QAM
Low	0	34.44	34.65	34.54	34.58
	1	34.53	34.77	34.40	34.59
	2	34.44	34.86	34.64	34.51
	3	34.48	34.85	34.49	34.57
Total MIMO PSD Power (mW)		11202.82	12024.56	11321.89	11430.59
Total MIMO PSD Power (dBm)		40.49	40.80	40.54	40.58
Channel	Port	QPSK	16QAM	64QAM	256QAM
Middle	0	34.52	34.71	34.54	34.64
	1	34.39	34.93	34.43	34.49
	2	34.70	34.87	34.58	34.64
	3	34.54	34.77	34.62	34.47
Total MIMO PSD Power (mW)		11369.73	12142.03	11375.42	11434.32
Total MIMO PSD Power (dBm)		40.56	40.84	40.56	40.58
Channel	Port	QPSK	16QAM	64QAM	256QAM
High	0	34.57	<b>34.99</b>	34.43	34.70
	1	34.45	<b>34.68</b>	34.54	34.48
	2	34.75	<b>34.85</b>	34.77	34.83
	3	34.53	<b>34.81</b>	34.58	34.69
Total MIMO PSD Power (mW)		11469.60	<b>12175.87</b>	11485.04	11737.10
Total MIMO PSD Power (dBm)		40.60	<b>40.85</b>	40.60	40.70

**Table 8-24. Peak Power Spectral Density Table (PCS\_NR\_1C\_5M + LTE\_1C\_5M)**

FCC ID: A3LRF4402D-D1A		<b>MEASUREMENT REPORT</b> (Class II Permissive Change)		<b>Approved by:</b> Technical Manager
<b>Test Report S/N:</b> 8K22032101-00-R1.A3L	<b>Test Dates:</b> 03/25/2022 - 05/03/2022	<b>EUT Type:</b> RRU(RF4402d)	Page 53 of 225	

Channel	Port	PSD Power (dBm/MHz)			
		QPSK	16QAM	64QAM	256QAM
Low	0	32.97	33.17	32.78	32.79
	1	32.83	32.84	32.68	32.64
	2	32.69	32.93	32.76	32.61
	3	32.86	33.23	32.70	32.88
Total MIMO PSD Power (mW)		7687.35	8063.23	7500.28	7503.76
Total MIMO PSD Power (dBm)		38.86	39.07	38.75	38.75
Channel	Port	QPSK	16QAM	64QAM	256QAM
Middle	0	32.85	33.03	32.70	32.88
	1	32.67	33.01	32.61	32.44
	2	32.70	33.11	32.84	32.88
	3	32.95	33.32	32.69	32.82
Total MIMO PSD Power (mW)		7612.71	8199.42	7462.17	7554.67
Total MIMO PSD Power (dBm)		38.82	39.14	38.73	38.78
Channel	Port	QPSK	16QAM	64QAM	256QAM
High	0	32.76	<b>33.19</b>	32.78	32.76
	1	32.63	<b>32.95</b>	32.66	32.76
	2	32.96	<b>33.35</b>	33.02	32.94
	3	32.63	<b>33.38</b>	32.83	32.85
Total MIMO PSD Power (mW)		7530.54	<b>8394.29</b>	7663.23	7667.87
Total MIMO PSD Power (dBm)		38.77	<b>39.24</b>	38.84	38.85



**Table 8-25. Peak Power Spectral Density Table (PCS\_DSS\_1C\_10M + NR\_1C\_5M)**

FCC ID: A3LRF4402D-D1A		<b>MEASUREMENT REPORT</b> (Class II Permissive Change)		<b>Approved by:</b> Technical Manager
<b>Test Report S/N:</b> 8K22032101-00-R1.A3L	<b>Test Dates:</b> 03/25/2022 - 05/03/2022	<b>EUT Type:</b> RRU(RF4402d)	Page 54 of 225	





Channel	Port	PSD Power (dBm/MHz)			
		QPSK	16QAM	64QAM	256QAM
Low	0	31.52	32.21	31.61	31.62
	1	31.38	32.09	31.46	31.33
	2	31.52	32.25	31.61	31.39
	3	31.52	32.15	31.48	31.51
Total MIMO PSD Power (mW)		5628.64	6602.02	5706.82	5600.61
Total MIMO PSD Power (dBm)		37.50	38.20	37.56	37.48
Channel	Port	QPSK	16QAM	64QAM	256QAM
Middle	0	31.68	32.12	31.59	31.56
	1	31.39	32.03	31.38	31.45
	2	31.48	32.06	31.61	31.67
	3	31.65	32.02	31.57	31.41
Total MIMO PSD Power (mW)		5717.01	6422.84	5702.35	5679.66
Total MIMO PSD Power (dBm)		37.57	38.08	37.56	37.54
Channel	Port	QPSK	16QAM	64QAM	256QAM
High	0	31.64	<b>32.22</b>	31.59	31.79
	1	31.46	<b>32.05</b>	31.51	31.52
	2	31.70	<b>32.23</b>	31.65	31.66
	3	31.59	<b>32.29</b>	31.65	31.69
Total MIMO PSD Power (mW)		5775.60	<b>6636.67</b>	5783.56	5866.67
Total MIMO PSD Power (dBm)		37.62	<b>38.22</b>	37.62	37.68

**Table 8-26. Peak Power Spectral Density Table (PCS\_DSS\_2C\_10M + 10M)**

FCC ID: A3LRF4402D-D1A		<b>MEASUREMENT REPORT</b> (Class II Permissive Change)		<b>Approved by:</b> Technical Manager
<b>Test Report S/N:</b> 8K22032101-00-R1.A3L	<b>Test Dates:</b> 03/25/2022 - 05/03/2022	<b>EUT Type:</b> RRU(RF4402d)	Page 55 of 225	



Channel	Port	PSD Power (dBm/MHz)			
		QPSK	16QAM	64QAM	256QAM
Low	0	31.41	32.02	31.62	31.58
	1	31.41	32.17	31.57	31.54
	2	31.40	32.00	31.61	31.36
	3	31.44	32.17	31.53	31.69
Total MIMO PSD Power (mW)		5539.72	6471.64	5762.02	5707.28
Total MIMO PSD Power (dBm)		37.43	38.11	37.61	37.56
Channel	Port	QPSK	16QAM	64QAM	256QAM
Middle	0	31.51	32.35	31.47	31.67
	1	31.47	32.12	31.52	31.63
	2	31.60	32.25	31.57	31.73
	3	31.56	31.92	31.46	31.54
Total MIMO PSD Power (mW)		5697.19	6579.42	5658.24	5839.06
Total MIMO PSD Power (dBm)		37.56	38.18	37.53	37.66
Channel	Port	QPSK	16QAM	64QAM	256QAM
High	0	31.53	<b>32.28</b>	31.65	31.80
	1	31.30	<b>32.11</b>	31.31	31.60
	2	31.57	<b>32.17</b>	31.81	31.72
	3	31.67	<b>32.37</b>	31.63	31.87
Total MIMO PSD Power (mW)		5677.63	<b>6691.15</b>	5786.03	5982.02
Total MIMO PSD Power (dBm)		37.54	<b>38.26</b>	37.62	37.77

**Table 8-27. Peak Power Spectral Density Table (PCS\_DSS\_1C\_15M + LTE\_1C\_5M)**

FCC ID: A3LRF4402D-D1A		<b>MEASUREMENT REPORT</b> (Class II Permissive Change)		<b>Approved by:</b> Technical Manager
<b>Test Report S/N:</b> 8K22032101-00-R1.A3L	<b>Test Dates:</b> 03/25/2022 - 05/03/2022	<b>EUT Type:</b> RRU(RF4402d)	Page 56 of 225	



Channel	Port	PSD Power (dBm/MHz)			
		QPSK	16QAM	64QAM	256QAM
Low	0	30.56	31.82	30.60	30.58
	1	30.33	31.80	30.63	30.54
	2	30.31	31.93	30.44	30.60
	3	30.61	31.81	30.54	30.57
Total MIMO PSD Power (mW)		4440.05	6107.21	4545.38	4563.17
Total MIMO PSD Power (dBm)		36.47	37.86	36.58	36.59
Channel	Port	QPSK	16QAM	64QAM	256QAM
Middle	0	30.60	31.87	30.60	30.54
	1	30.53	31.94	30.47	30.40
	2	30.69	32.07	30.72	30.68
	3	30.60	31.92	30.62	30.54
Total MIMO PSD Power (mW)		4599.58	6265.72	4595.45	4527.94
Total MIMO PSD Power (dBm)		36.63	37.97	36.62	36.56
Channel	Port	QPSK	16QAM	64QAM	256QAM
High	0	30.73	<b>32.23</b>	30.65	30.52
	1	30.56	<b>31.80</b>	30.33	30.62
	2	30.66	<b>32.09</b>	30.71	30.75
	3	30.83	<b>32.12</b>	30.48	30.69
Total MIMO PSD Power (mW)		4691.88	<b>6431.38</b>	4534.68	4639.51
Total MIMO PSD Power (dBm)		36.71	<b>38.08</b>	36.57	36.66

**Table 8-28. Peak Power Spectral Density Table (PCS\_NR\_2C\_10M + 15M)**

FCC ID: A3LRF4402D-D1A		<b>MEASUREMENT REPORT</b> (Class II Permissive Change)		<b>Approved by:</b> Technical Manager
<b>Test Report S/N:</b> 8K22032101-00-R1.A3L	<b>Test Dates:</b> 03/25/2022 - 05/03/2022	<b>EUT Type:</b> RRU(RF4402d)	Page 57 of 225	



Channel	Port	PSD Power (dBm/MHz)			
		QPSK	16QAM	64QAM	256QAM
Low	0	30.58	<b>31.59</b>	30.50	30.44
	1	30.35	<b>31.17</b>	30.54	30.48
	2	30.55	<b>31.24</b>	30.20	30.32
	3	30.47	<b>31.60</b>	30.48	30.39
Total MIMO PSD Power (mW)		4474.81	<b>5525.59</b>	4417.11	4392.60
Total MIMO PSD Power (dBm)		36.51	<b>37.42</b>	36.45	36.43
Channel	Port	QPSK	16QAM	64QAM	256QAM
Middle	0	30.56	31.14	30.48	30.48
	1	30.34	30.89	30.16	30.35
	2	30.65	31.15	30.33	30.52
	3	30.44	31.06	30.32	30.28
Total MIMO PSD Power (mW)		4489.24	5106.36	4308.27	4394.80
Total MIMO PSD Power (dBm)		36.52	37.08	36.34	36.43
Channel	Port	QPSK	16QAM	64QAM	256QAM
High	0	30.69	31.33	30.46	30.48
	1	30.61	31.17	30.42	30.35
	2	30.68	31.25	30.48	30.65
	3	30.47	31.38	30.71	30.33
Total MIMO PSD Power (mW)		4607.04	5376.97	4507.94	4440.42
Total MIMO PSD Power (dBm)		36.63	37.31	36.54	36.47

**Table 8-29. Peak Power Spectral Density Table (PCS\_DSS\_2C\_10M + 15M)**

FCC ID: A3LRF4402D-D1A		<b>MEASUREMENT REPORT</b> (Class II Permissive Change)		<b>Approved by:</b> Technical Manager
<b>Test Report S/N:</b> 8K22032101-00-R1.A3L	<b>Test Dates:</b> 03/25/2022 - 05/03/2022	<b>EUT Type:</b> RRU(RF4402d)	Page 58 of 225	



Channel	Port	PSD Power (dBm/MHz)			
		QPSK	16QAM	64QAM	256QAM
Low	0	30.43	30.97	30.60	30.48
	1	30.44	31.01	30.41	30.41
	2	30.88	31.01	30.67	30.51
	3	30.48	31.27	30.39	30.53
Total MIMO PSD Power (mW)		4550.67	5115.36	4506.35	4465.39
Total MIMO PSD Power (dBm)		36.58	37.09	36.54	36.50
Channel	Port	QPSK	16QAM	64QAM	256QAM
Middle	0	30.46	<b>31.19</b>	30.71	30.59
	1	30.53	<b>31.17</b>	30.34	30.45
	2	30.63	<b>31.16</b>	30.77	30.63
	3	30.50	<b>31.02</b>	30.66	30.73
Total MIMO PSD Power (mW)		4518.35	<b>5195.30</b>	4617.49	4592.21
Total MIMO PSD Power (dBm)		36.55	<b>37.16</b>	36.64	36.62
Channel	Port	QPSK	16QAM	64QAM	256QAM
High	0	30.68	31.08	30.79	30.55
	1	30.13	31.04	30.48	30.42
	2	30.57	31.39	30.65	30.61
	3	30.38	31.05	30.80	30.62
Total MIMO PSD Power (mW)		4429.68	5202.64	4681.10	4540.04
Total MIMO PSD Power (dBm)		36.46	37.16	36.70	36.57

**Table 8-30. Peak Power Spectral Density Table (PCS\_DSS\_1C\_20M + LTE\_1C\_5M)**

FCC ID: A3LRF4402D-D1A		<b>MEASUREMENT REPORT</b> (Class II Permissive Change)		<b>Approved by:</b> Technical Manager
<b>Test Report S/N:</b> 8K22032101-00-R1.A3L	<b>Test Dates:</b> 03/25/2022 - 05/03/2022	<b>EUT Type:</b> RRU(RF4402d)	Page 59 of 225	



Channel	Port	PSD Power (dBm/MHz)			
		QPSK	16QAM	64QAM	256QAM
Low	0	30.49	31.07	30.69	30.61
	1	30.45	31.39	30.42	30.56
	2	30.48	30.56	30.61	30.55
	3	30.53	31.28	30.52	30.51
Total MIMO PSD Power (mW)		4474.74	5137.22	4552.75	4547.54
Total MIMO PSD Power (dBm)		36.51	37.11	36.58	36.58
Channel	Port	QPSK	16QAM	64QAM	256QAM
Middle	0	30.64	31.23	30.77	30.76
	1	30.48	30.92	30.55	30.70
	2	30.61	31.01	30.73	30.66
	3	30.60	30.94	30.58	30.67
Total MIMO PSD Power (mW)		4574.32	5065.99	4653.58	4695.44
Total MIMO PSD Power (dBm)		36.60	37.05	36.68	36.72
Channel	Port	QPSK	16QAM	64QAM	256QAM
High	0	30.68	<b>31.28</b>	30.64	30.53
	1	30.33	<b>30.99</b>	30.48	30.43
	2	30.56	<b>31.09</b>	30.64	30.60
	3	30.29	<b>31.27</b>	30.51	30.51
Total MIMO PSD Power (mW)		4456.15	<b>5222.29</b>	4555.89	4506.11
Total MIMO PSD Power (dBm)		36.49	<b>37.18</b>	36.59	36.54

**Table 8-31. Peak Power Spectral Density Table (PCS\_DSS\_1C\_20M + NR\_1C\_5M)**

FCC ID: A3LRF4402D-D1A		<b>MEASUREMENT REPORT</b> (Class II Permissive Change)		<b>Approved by:</b> Technical Manager
<b>Test Report S/N:</b> 8K22032101-00-R1.A3L	<b>Test Dates:</b> 03/25/2022 - 05/03/2022	<b>EUT Type:</b> RRU(RF4402d)	Page 60 of 225	



Channel	Port	PSD Power (dBm/MHz)			
		QPSK	16QAM	64QAM	256QAM
Low	0	30.35	<b>31.85</b>	30.44	30.35
	1	30.31	<b>31.84</b>	30.39	30.35
	2	30.32	<b>31.85</b>	30.40	30.48
	3	30.29	<b>32.00</b>	30.30	30.30
Total MIMO PSD Power (mW)		4302.21	<b>6177.14</b>	4369.59	4354.47
Total MIMO PSD Power (dBm)		36.34	<b>37.91</b>	36.40	36.39
Channel	Port	QPSK	16QAM	64QAM	256QAM
Middle	0	30.44	31.85	30.65	30.41
	1	30.22	31.74	30.27	30.46
	2	30.54	31.94	30.48	30.50
	3	30.26	31.83	30.55	30.46
Total MIMO PSD Power (mW)		4354.46	6107.98	4479.30	4443.45
Total MIMO PSD Power (dBm)		36.39	37.86	36.51	36.48
Channel	Port	QPSK	16QAM	64QAM	256QAM
High	0	30.68	31.91	30.39	30.44
	1	30.50	31.69	30.43	30.56
	2	30.56	<b>32.03</b>	30.61	30.48
	3	30.40	31.86	30.38	30.32
Total MIMO PSD Power (mW)		4523.27	6156.12	4440.03	4436.27
Total MIMO PSD Power (dBm)		36.55	<b>37.89</b>	36.47	36.47

**Table 8-32. Peak Power Spectral Density Table (PCS\_NR\_1C\_20M + LTE\_1C\_5M)**

FCC ID: A3LRF4402D-D1A		<b>MEASUREMENT REPORT</b> (Class II Permissive Change)		<b>Approved by:</b> Technical Manager
<b>Test Report S/N:</b> 8K22032101-00-R1.A3L	<b>Test Dates:</b> 03/25/2022 - 05/03/2022	<b>EUT Type:</b> RRU(RF4402d)	Page 61 of 225	

Channel	Port	PSD Power (dBm/MHz)			
		QPSK	16QAM	64QAM	256QAM
Low	0	37.42	<b>37.55</b>	37.39	37.51
	1	37.59	<b>37.67</b>	37.48	37.51
	2	37.28	<b>37.44</b>	37.09	37.27
	3	37.25	<b>37.40</b>	37.11	37.20
Total MIMO PSD Power (mW)		21917.57	<b>22563.71</b>	21335.04	21854.45
Total MIMO PSD Power (dBm)		43.41	<b>43.53</b>	43.29	43.40
Channel	Port	QPSK	16QAM	64QAM	256QAM
Middle	0	37.14	37.48	37.25	37.16
	1	37.36	37.54	37.34	37.23
	2	36.58	36.92	36.63	36.69
	3	36.88	37.25	36.88	36.89
Total MIMO PSD Power (mW)		20029.98	21494.51	20197.73	20034.81
Total MIMO PSD Power (dBm)		43.02	43.32	43.05	43.02
Channel	Port	QPSK	16QAM	64QAM	256QAM
High	0	37.22	37.51	37.18	37.08
	1	37.53	37.73	37.59	37.39
	2	36.90	37.18	36.89	36.87
	3	37.26	37.46	37.23	37.20
Total MIMO PSD Power (mW)		21151.52	22359.02	21124.84	20694.96
Total MIMO PSD Power (dBm)		43.25	43.49	43.25	43.16



**Table 8-33. Peak Power Spectral Density Table (AWS\_NR\_1C\_5M)**

FCC ID: A3LRF4402D-D1A		<b>MEASUREMENT REPORT</b> (Class II Permissive Change)		<b>Approved by:</b> Technical Manager
<b>Test Report S/N:</b> 8K22032101-00-R1.A3L	<b>Test Dates:</b> 03/25/2022 - 05/03/2022	<b>EUT Type:</b> RRU(RF4402d)	Page 62 of 225	





Channel	Port	PSD Power (dBm/MHz)			
		QPSK	16QAM	64QAM	256QAM
Low	0	36.19	<b>37.24</b>	36.31	36.07
	1	36.38	<b>37.04</b>	36.19	36.20
	2	36.06	<b>37.02</b>	36.09	35.90
	3	36.15	<b>36.62</b>	35.99	35.91
Total MIMO PSD Power (mW)		16660.90	<b>19971.68</b>	16473.13	15997.27
Total MIMO PSD Power (dBm)		42.22	<b>43.00</b>	42.17	42.04
Channel	Port	QPSK	16QAM	64QAM	256QAM
Middle	0	36.11	36.95	36.07	36.17
	1	36.52	37.18	36.16	36.35
	2	35.81	36.45	35.69	35.67
	3	36.00	36.64	35.79	35.76
Total MIMO PSD Power (mW)		16369.21	19203.46	15676.29	15906.58
Total MIMO PSD Power (dBm)		42.14	42.83	41.95	42.02
Channel	Port	QPSK	16QAM	64QAM	256QAM
High	0	36.21	37.12	36.07	36.32
	1	36.34	37.32	36.26	36.24
	2	36.08	36.67	36.00	35.92
	3	36.20	36.79	36.07	36.16
Total MIMO PSD Power (mW)		16694.91	19968.04	16305.84	16529.72
Total MIMO PSD Power (dBm)		42.23	43.00	42.12	42.18

**Table 8-34. Peak Power Spectral Density Table (AWS\_NR\_1C\_10M)**

FCC ID: A3LRF4402D-D1A		<b>MEASUREMENT REPORT</b> (Class II Permissive Change)		<b>Approved by:</b> Technical Manager
<b>Test Report S/N:</b> 8K22032101-00-R1.A3L	<b>Test Dates:</b> 03/25/2022 - 05/03/2022	<b>EUT Type:</b> RRU(RF4402d)	Page 63 of 225	



Channel	Port	PSD Power (dBm/MHz)			
		QPSK	16QAM	64QAM	256QAM
Low	0	34.25	<b>35.83</b>	34.51	34.28
	1	34.38	<b>36.03</b>	34.42	34.40
	2	34.05	<b>35.63</b>	34.37	34.21
	3	34.09	<b>35.62</b>	34.30	34.26
Total MIMO PSD Power (mW)		10508.86	<b>15140.25</b>	11016.74	10732.81
Total MIMO PSD Power (dBm)		40.22	<b>41.80</b>	40.42	40.31
Channel	Port	QPSK	16QAM	64QAM	256QAM
Middle	0	34.26	35.69	34.38	33.34
	1	34.39	35.79	34.38	34.39
	2	33.86	35.10	33.85	33.88
	3	34.03	35.39	33.93	33.83
Total MIMO PSD Power (mW)		10373.43	14200.20	10378.09	9761.84
Total MIMO PSD Power (dBm)		40.16	41.52	40.16	39.90
Channel	Port	QPSK	16QAM	64QAM	256QAM
High	0	34.23	35.66	34.19	34.10
	1	34.46	35.84	34.30	34.48
	2	33.84	35.59	34.10	33.86
	3	34.27	35.59	34.22	34.12
Total MIMO PSD Power (mW)		10535.49	14757.29	10531.02	10392.82
Total MIMO PSD Power (dBm)		40.23	41.69	40.22	40.17

**Table 8-35. Peak Power Spectral Density Table (AWS\_NR\_1C\_15M)**



FCC ID: A3LRF4402D-D1A		<b>MEASUREMENT REPORT</b> (Class II Permissive Change)		<b>Approved by:</b> Technical Manager
<b>Test Report S/N:</b> 8K22032101-00-R1.A3L	<b>Test Dates:</b> 03/25/2022 - 05/03/2022	<b>EUT Type:</b> RRU(RF4402d)	Page 64 of 225	

Channel	Port	PSD Power (dBm/MHz)			
		QPSK	16QAM	64QAM	256QAM
Low	0	32.82	34.45	32.84	32.93
	1	32.82	34.48	32.82	32.80
	2	32.55	34.19	32.71	32.85
	3	32.77	34.27	32.97	32.74
Total MIMO PSD Power (mW)		7520.16	10882.55	7684.90	7672.98
Total MIMO PSD Power (dBm)		38.76	40.37	38.86	38.85
Channel	Port	QPSK	16QAM	64QAM	256QAM
Middle	0	32.81	34.44	32.90	32.90
	1	33.16	34.55	32.90	33.02
	2	32.67	34.15	32.42	31.67
	3	32.55	34.20	32.72	32.61
Total MIMO PSD Power (mW)		7627.81	10864.48	7518.24	7244.07
Total MIMO PSD Power (dBm)		38.82	40.36	38.76	38.60
Channel	Port	QPSK	16QAM	64QAM	256QAM
High	0	32.79	<b>34.76</b>	32.86	32.93
	1	32.93	<b>34.60</b>	32.95	33.04
	2	32.51	<b>34.26</b>	32.47	32.40
	3	32.62	<b>34.29</b>	32.71	32.64
Total MIMO PSD Power (mW)		7474.09	<b>11228.71</b>	7538.03	7553.94
Total MIMO PSD Power (dBm)		38.74	<b>40.50</b>	38.77	38.78

Table 8-36. Peak Power Spectral Density Table (AWS\_NR\_1C\_20M)



FCC ID: A3LRF4402D-D1A		MEASUREMENT REPORT (Class II Permissive Change)		Approved by: Technical Manager
Test Report S/N: 8K22032101-00-R1.A3L	Test Dates: 03/25/2022 - 05/03/2022	EUT Type: RRU(RF4402d)	Page 65 of 225	

Channel	DSS Ratio	Port	PSD Power (dBm/MHz)			
			QPSK	16QAM	64QAM	256QAM
Low	LTE: 9 NR: 1	0	36.13	36.30	36.54	36.20
		1	36.21	36.49	36.35	36.14
		2	36.03	36.49	36.09	35.97
		3	35.90	36.19	36.12	35.71
Total MIMO PSD (mW)			16177.70	17342.22	16984.74	15958.97
Total MIMO PSD (dBm)			42.09	42.39	42.30	42.03
Channel	Ratio	Port	QPSK	16QAM	64QAM	256QAM
Mid	LTE: 9 NR: 1	0	36.06	36.45	36.10	36.03
		1	36.21	36.75	36.37	36.27
		2	35.50	35.97	35.79	35.81
		3	35.81	36.51	35.84	36.07
Total MIMO PSD (mW)			15573.86	17568.85	16032.54	16093.25
Total MIMO PSD (dBm)			41.92	42.45	42.05	42.07
Channel	Ratio	Port	QPSK	16QAM	64QAM	256QAM
High	LTE: 9 NR: 1	0	35.93	36.42	36.08	36.23
		1	36.72	36.56	36.44	36.50
		2	36.04	36.10	36.10	36.18
		3	36.26	36.61	36.11	36.33
Total MIMO PSD (mW)			16865.03	17563.63	16616.76	17100.30
Total MIMO PSD (dBm)			42.27	42.45	42.21	42.33
Channel	Ratio	Port	QPSK	16QAM	64QAM	256QAM
Low	LTE: 5 NR: 5	0	36.04	36.60	36.21	36.25
		1	36.32	36.76	36.26	36.20
		2	36.01	36.45	36.09	35.93
		3	36.01	36.54	35.98	35.99
Total MIMO PSD (mW)			16284.92	18241.27	16434.00	16270.23
Total MIMO PSD (dBm)			42.12	42.61	42.16	42.11
Channel	Ratio	Port	QPSK	16QAM	64QAM	256QAM
Mid	LTE: 5 NR: 5	0	36.00	36.66	36.13	35.91
		1	36.22	36.94	36.59	36.18
		2	35.66	36.41	35.96	35.53
		3	35.77	36.55	36.15	35.69
Total MIMO PSD (mW)			15624.16	18461.71	16732.21	15325.97
Total MIMO PSD (dBm)			41.94	42.66	42.24	41.85
Channel	Ratio	Port	QPSK	16QAM	64QAM	256QAM
High	LTE: 5 NR: 5	0	36.25	36.57	36.13	36.11
		1	36.36	37.16	36.45	36.06
		2	36.09	36.29	36.14	36.04
		3	36.36	36.77	36.27	36.26
Total MIMO PSD (mW)			16943.46	18736.82	16862.00	16370.91
Total MIMO PSD (dBm)			42.29	42.73	42.27	42.14



FCC ID: A3LRF4402D-D1A		<b>MEASUREMENT REPORT</b> (Class II Permissive Change)		Approved by: Technical Manager
Test Report S/N: 8K22032101-00-R1.A3L	Test Dates: 03/25/2022 - 05/03/2022	EUT Type: RRU(RF4402d)		Page 66 of 225

Channel	Ratio	Port	QPSK	16QAM	64QAM	256QAM
Low	LTE: 2 NR: 8	0	36.10	36.40	36.04	36.18
		1	36.32	36.83	36.09	36.18
		2	35.93	36.91	36.06	35.96
		3	36.04	36.72	35.80	36.04
Total MIMO PSD (mW)			16296.58	18801.31	15912.44	16259.89
Total MIMO PSD (dBm)			42.12	42.74	42.02	42.11
Channel	Ratio	Port	QPSK	16QAM	64QAM	256QAM
Mid	LTE: 2 NR: 8	0	36.09	<b>37.09</b>	35.81	36.03
		1	36.26	<b>37.21</b>	36.20	36.20
		2	35.53	<b>36.48</b>	35.52	35.74
		3	35.74	<b>36.74</b>	35.66	35.60
Total MIMO PSD (mW)			15608.14	<b>19535.71</b>	15213.71	15549.61
Total MIMO PSD (dBm)			41.93	<b>42.91</b>	41.82	41.92
Channel	Ratio	Port	QPSK	16QAM	64QAM	256QAM
High	LTE: 2 NR: 8	0	36.31	36.66	35.92	35.98
		1	36.46	37.24	36.22	36.34
		2	36.07	36.73	35.93	35.83
		3	36.23	36.77	36.03	36.06
Total MIMO PSD (mW)			16953.60	19395.48	16009.55	16137.60
Total MIMO PSD (dBm)			42.29	42.88	42.04	42.08

**Table 8-37. Peak Power Spectral Density Table (AWS\_DSS\_1C\_10M)**



FCC ID: A3LRF4402D-D1A		<b>MEASUREMENT REPORT</b> (Class II Permissive Change)		<b>Approved by:</b> Technical Manager
<b>Test Report S/N:</b> 8K22032101-00-R1.A3L	<b>Test Dates:</b> 03/25/2022 - 05/03/2022	<b>EUT Type:</b> RRU(RF4402d)	Page 67 of 225	

Channel	DSS Ratio	Port	PSD Power (dBm/MHz)			
			QPSK	16QAM	64QAM	256QAM
Low	LTE: 9 NR: 1	0	34.11	35.00	34.09	34.07
		1	34.10	35.39	34.24	34.23
		2	33.98	34.71	34.10	33.95
		3	34.08	35.07	34.18	33.90
Total MIMO PSD (mW)			10206.83	12791.68	10402.31	10142.04
Total MIMO PSD (dBm)			40.09	41.07	40.17	40.06
Channel	Ratio	Port	QPSK	16QAM	64QAM	256QAM
Mid	LTE: 9 NR: 1	0	34.10	35.03	34.18	33.90
		1	34.33	35.25	34.46	34.21
		2	33.90	34.57	33.83	33.59
		3	33.94	34.50	34.03	33.74
Total MIMO PSD (mW)			10210.48	12209.57	10359.00	9738.26
Total MIMO PSD (dBm)			40.09	40.87	40.15	39.88
Channel	Ratio	Port	QPSK	16QAM	64QAM	256QAM
High	LTE: 9 NR: 1	0	34.08	35.22	34.03	33.96
		1	34.40	35.23	34.14	34.18
		2	33.90	35.25	33.74	33.69
		3	34.34	35.29	34.07	34.10
Total MIMO PSD (mW)			10485.33	13389.59	10047.80	10015.75
Total MIMO PSD (dBm)			40.21	41.27	40.02	40.01
Channel	Ratio	Port	QPSK	16QAM	64QAM	256QAM
Low	LTE: 5 NR: 5	0	34.05	35.14	34.33	34.14
		1	34.07	35.46	34.23	34.19
		2	33.80	35.04	34.05	33.95
		3	33.98	35.23	34.16	33.96
Total MIMO PSD (mW)			9987.07	13309.33	10505.88	10185.76
Total MIMO PSD (dBm)			39.99	41.24	40.21	40.08
Channel	Ratio	Port	QPSK	16QAM	64QAM	256QAM
Mid	LTE: 5 NR: 5	0	34.42	35.08	34.08	33.97
		1	34.43	35.17	34.09	34.36
		2	33.88	34.65	33.59	33.52
		3	34.02	34.83	33.72	33.90
Total MIMO PSD (mW)			10510.60	12458.66	9755.24	9929.32
Total MIMO PSD (dBm)			40.22	40.95	39.89	39.97
Channel	Ratio	Port	QPSK	16QAM	64QAM	256QAM
High	LTE: 5 NR: 5	0	34.15	35.08	33.91	34.03
		1	34.39	35.27	34.12	34.40
		2	34.17	34.89	33.63	34.19
		3	34.41	35.32	33.83	34.03
Total MIMO PSD (mW)			10717.18	13070.43	9759.32	10439.99
Total MIMO PSD (dBm)			40.30	41.16	39.89	40.19



FCC ID: A3LRF4402D-D1A		<b>MEASUREMENT REPORT</b> (Class II Permissive Change)		<b>Approved by:</b> Technical Manager
<b>Test Report S/N:</b> 8K22032101-00-R1.A3L	<b>Test Dates:</b> 03/25/2022 - 05/03/2022	<b>EUT Type:</b> RRU(RF4402d)	Page 68 of 225	

Channel	Ratio	Port	QPSK	16QAM	64QAM	256QAM
Low	LTE: 2 NR: 8	0	34.31	<b>35.71</b>	33.86	34.17
		1	34.26	<b>35.48</b>	34.21	34.27
		2	34.06	<b>35.40</b>	34.03	33.91
		3	34.23	<b>35.41</b>	33.95	34.13
Total MIMO PSD (mW)			10555.16	<b>14199.47</b>	10071.67	10331.90
Total MIMO PSD (dBm)			40.23	<b>41.52</b>	40.03	40.14
Channel	Ratio	Port	QPSK	16QAM	64QAM	256QAM
Mid	LTE: 2 NR: 8	0	34.33	35.27	34.09	34.02
		1	34.50	35.73	34.23	34.52
		2	33.78	35.20	33.58	33.84
		3	33.94	35.51	33.80	33.90
Total MIMO PSD (mW)			10388.66	13973.47	9887.00	10230.19
Total MIMO PSD (dBm)			40.17	41.45	39.95	40.10
Channel	Ratio	Port	QPSK	16QAM	64QAM	256QAM
High	LTE: 2 NR: 8	0	34.10	35.27	33.98	33.98
		1	34.54	35.66	34.49	34.23
		2	33.96	35.12	33.92	33.90
		3	34.00	35.40	34.17	34.00
Total MIMO PSD (mW)			10415.61	13770.29	10388.48	10115.37
Total MIMO PSD (dBm)			40.18	41.39	40.17	40.05

**Table 8-38. Peak Power Spectral Density Table (AWS\_DSS\_1C\_15M)**

FCC ID: A3LRF4402D-D1A		<b>MEASUREMENT REPORT</b> (Class II Permissive Change)		<b>Approved by:</b> Technical Manager
<b>Test Report S/N:</b> 8K22032101-00-R1.A3L	<b>Test Dates:</b> 03/25/2022 - 05/03/2022	<b>EUT Type:</b> RRU(RF4402d)	Page 69 of 225	



Channel	DSS Ratio	Port	PSD Power (dBm/MHz)			
			QPSK	16QAM	64QAM	256QAM
Low	LTE: 9 NR: 1	0	32.73	33.21	33.03	32.92
		1	32.87	33.44	32.91	33.21
		2	32.86	32.87	32.62	32.79
		3	32.88	33.22	32.79	33.07
Total MIMO PSD (mW)			7683.33	8341.38	7691.86	7982.92
Total MIMO PSD (dBm)			38.86	39.21	38.86	39.02
Channel	Ratio	Port	QPSK	16QAM	64QAM	256QAM
Mid	LTE: 9 NR: 1	0	32.89	33.03	32.94	32.99
		1	33.24	33.62	33.08	33.09
		2	32.76	32.76	32.53	32.33
		3	32.89	32.99	32.76	32.73
Total MIMO PSD (mW)			7883.60	8190.17	7679.59	7612.89
Total MIMO PSD (dBm)			38.97	39.13	38.85	38.82
Channel	Ratio	Port	QPSK	16QAM	64QAM	256QAM
High	LTE: 9 NR: 1	0	32.71	32.99	32.94	32.74
		1	33.15	33.34	33.15	32.98
		2	32.54	32.74	32.68	32.67
		3	32.98	33.12	32.88	32.96
Total MIMO PSD (mW)			7709.98	8078.02	7824.10	7690.85
Total MIMO PSD (dBm)			38.87	39.07	38.93	38.86
Channel	Ratio	Port	QPSK	16QAM	64QAM	256QAM
Low	LTE: 5 NR: 5	0	33.06	33.96	32.96	33.11
		1	33.06	33.83	32.86	33.03
		2	32.88	33.57	32.80	32.75
		3	33.07	33.80	32.81	32.87
Total MIMO PSD (mW)			8013.66	9579.85	7723.80	7874.63
Total MIMO PSD (dBm)			39.04	39.81	38.88	38.96
Channel	Ratio	Port	QPSK	16QAM	64QAM	256QAM
Mid	LTE: 5 NR: 5	0	33.03	34.01	32.93	33.13
		1	33.22	34.10	32.96	33.28
		2	32.53	33.46	32.48	32.73
		3	32.77	33.89	32.61	32.93
Total MIMO PSD (mW)			7793.73	9752.84	7534.36	8019.95
Total MIMO PSD (dBm)			38.92	39.89	38.77	39.04
Channel	Ratio	Port	QPSK	16QAM	64QAM	256QAM
High	LTE: 5 NR: 5	0	32.89	33.91	32.83	32.65
		1	33.23	33.98	32.91	32.85
		2	32.47	33.37	32.48	32.49
		3	32.89	33.53	32.60	32.87
Total MIMO PSD (mW)			7760.52	9382.65	7463.64	7481.63
Total MIMO PSD (dBm)			38.90	39.72	38.73	38.74

FCC ID: A3LRF4402D-D1A		<b>MEASUREMENT REPORT</b> (Class II Permissive Change)		<b>Approved by:</b> Technical Manager
<b>Test Report S/N:</b> 8K22032101-00-R1.A3L	<b>Test Dates:</b> 03/25/2022 - 05/03/2022	<b>EUT Type:</b> RRU(RF4402d)	Page 70 of 225	





Channel	Ratio	Port	QPSK	16QAM	64QAM	256QAM
Low	LTE: 2 NR: 8	0	33.05	<b>34.30</b>	33.06	33.05
		1	33.08	<b>34.24</b>	33.04	33.03
		2	32.79	<b>34.05</b>	32.65	32.92
		3	32.67	<b>34.57</b>	32.89	33.06
Total MIMO PSD (mW)			7801.40	<b>10746.38</b>	7820.75	8002.88
Total MIMO PSD (dBm)			38.92	<b>40.31</b>	38.93	39.03
Channel	Ratio	Port	QPSK	16QAM	64QAM	256QAM
Mid	LTE: 2 NR: 8	0	32.88	34.27	32.86	33.06
		1	33.05	34.34	33.09	33.01
		2	32.39	33.87	32.38	32.47
		3	32.61	34.35	32.52	32.73
Total MIMO PSD (mW)			7518.90	10547.27	7486.26	7666.14
Total MIMO PSD (dBm)			38.76	40.23	38.74	38.85
Channel	Ratio	Port	QPSK	16QAM	64QAM	256QAM
High	LTE: 2 NR: 8	0	32.74	34.20	32.84	32.64
		1	33.32	34.39	33.03	33.01
		2	32.65	33.75	32.61	32.44
		3	32.86	34.03	32.74	32.69
Total MIMO PSD (mW)			7800.81	10276.78	7632.19	7449.67
Total MIMO PSD (dBm)			38.92	40.12	38.83	38.72

**Table 8-39. Peak Power Spectral Density Table (AWS\_DSS\_1C\_20M)**

FCC ID: A3LRF4402D-D1A		<b>MEASUREMENT REPORT</b> (Class II Permissive Change)		<b>Approved by:</b> Technical Manager
<b>Test Report S/N:</b> 8K22032101-00-R1.A3L	<b>Test Dates:</b> 03/25/2022 - 05/03/2022	<b>EUT Type:</b> RRU(RF4402d)	Page 71 of 225	



Channel	Port	PSD Power (dBm/MHz)			
		QPSK	<b>16QAM</b>	64QAM	256QAM
Low	0	36.54	<b>36.86</b>	36.43	36.50
	1	36.63	<b>36.83</b>	36.54	36.48
	2	36.58	<b>36.56</b>	36.20	36.36
	3	36.25	<b>36.72</b>	36.36	36.24
Total MIMO PSD Power (mW)		17871.00	<b>18898.11</b>	17401.50	17451.77
Total MIMO PSD Power (dBm)		42.52	<b>42.76</b>	42.41	42.42
Channel	Port	QPSK	16QAM	64QAM	256QAM
Middle	0	36.44	36.50	36.15	36.29
	1	36.47	36.74	36.33	36.32
	2	35.77	35.99	35.78	35.80
	3	36.16	36.35	36.13	36.07
Total MIMO PSD Power (mW)		16755.11	17473.22	16294.70	16391.52
Total MIMO PSD Power (dBm)		42.24	42.42	42.12	42.15
Channel	Port	QPSK	16QAM	64QAM	256QAM
High	0	36.26	36.51	36.45	36.37
	1	36.39	36.63	36.46	36.37
	2	35.99	36.23	36.08	35.90
	3	36.33	36.46	36.38	36.41
Total MIMO PSD Power (mW)		16839.50	17703.02	17241.85	16941.56
Total MIMO PSD Power (dBm)		42.26	42.48	42.37	42.29

**Table 8-40. Peak Power Spectral Density Table (AWS\_NR\_5M + 5M)**

FCC ID: A3LRF4402D-D1A		<b>MEASUREMENT REPORT</b> (Class II Permissive Change)		<b>Approved by:</b> Technical Manager
<b>Test Report S/N:</b> 8K22032101-00-R1.A3L	<b>Test Dates:</b> 03/25/2022 - 05/03/2022	<b>EUT Type:</b> RRU(RF4402d)	Page 72 of 225	



Channel	Port	PSD Power (dBm/MHz)			
		QPSK	16QAM	64QAM	256QAM
Low	0	36.46	36.24	36.36	36.32
	1	36.52	36.55	36.21	36.24
	2	36.30	36.48	36.06	36.10
	3	36.11	36.28	35.92	36.23
Total MIMO PSD Power (mW)		17257.58	17408.22	16442.08	16766.15
Total MIMO PSD Power (dBm)		42.37	42.41	42.16	42.24
Channel	Port	QPSK	16QAM	64QAM	256QAM
Middle	0	36.15	36.44	36.29	36.18
	1	36.60	36.64	36.39	36.67
	2	35.92	36.17	35.90	36.02
	3	36.29	36.43	36.21	36.21
Total MIMO PSD Power (mW)		16855.71	17547.92	16673.27	16966.45
Total MIMO PSD Power (dBm)		42.27	42.44	42.22	42.30
Channel	Port	QPSK	16QAM	64QAM	256QAM
High	0	36.21	<b>36.35</b>	36.20	36.18
	1	36.57	<b>36.77</b>	36.49	36.48
	2	36.10	<b>36.21</b>	35.82	36.04
	3	36.22	<b>36.54</b>	36.18	36.25
Total MIMO PSD Power (mW)		16970.35	<b>17762.22</b>	16590.89	16829.90
Total MIMO PSD Power (dBm)		42.30	<b>42.49</b>	42.20	42.26

**Table 8-41. Peak Power Spectral Density Table (AWS\_NR\_1C\_5M + LTE\_1C\_5M)**

FCC ID: A3LRF4402D-D1A		<b>MEASUREMENT REPORT</b> (Class II Permissive Change)		<b>Approved by:</b> Technical Manager
<b>Test Report S/N:</b> 8K22032101-00-R1.A3L	<b>Test Dates:</b> 03/25/2022 - 05/03/2022	<b>EUT Type:</b> RRU(RF4402d)	Page 73 of 225	



Channel	Port	PSD Power (dBm/MHz)			
		QPSK	16QAM	64QAM	256QAM
Low	0	34.69	34.86	34.59	34.69
	1	34.63	34.77	34.65	34.58
	2	34.33	34.69	34.41	34.45
	3	34.62	34.85	34.63	34.59
Total MIMO PSD Power (mW)		11452.05	12060.49	11451.57	11477.48
Total MIMO PSD Power (dBm)		40.59	40.81	40.59	40.60
Channel	Port	QPSK	16QAM	64QAM	256QAM
Middle	0	34.68	<b>34.86</b>	34.47	34.53
	1	34.89	<b>35.33</b>	34.78	34.59
	2	34.17	<b>34.58</b>	34.09	34.09
	3	34.61	<b>34.79</b>	34.55	34.37
Total MIMO PSD Power (mW)		11520.43	<b>12358.72</b>	11212.80	11019.65
Total MIMO PSD Power (dBm)		40.61	<b>40.92</b>	40.50	40.42
Channel	Port	QPSK	16QAM	64QAM	256QAM
High	0	34.51	34.84	34.28	34.36
	1	34.70	35.23	34.75	34.75
	2	34.23	34.74	34.22	34.32
	3	34.34	34.74	34.43	34.52
Total MIMO PSD Power (mW)		11136.55	12339.15	11072.08	11243.36
Total MIMO PSD Power (dBm)		40.47	40.91	40.44	40.51

**Table 8-42. Peak Power Spectral Density Table (AWS\_DSS\_1C\_10M + NR\_1C\_5M)**

FCC ID: A3LRF4402D-D1A		<b>MEASUREMENT REPORT</b> (Class II Permissive Change)		<b>Approved by:</b> Technical Manager
<b>Test Report S/N:</b> 8K22032101-00-R1.A3L	<b>Test Dates:</b> 03/25/2022 - 05/03/2022	<b>EUT Type:</b> RRU(RF4402d)	Page 74 of 225	



Channel	Port	PSD Power (dBm/MHz)			
		QPSK	16QAM	64QAM	256QAM
Low	0	33.45	<b>33.81</b>	33.32	33.45
	1	33.55	<b>34.09</b>	33.29	33.39
	2	33.20	<b>33.66</b>	33.15	33.34
	3	33.29	<b>33.95</b>	33.25	33.50
Total MIMO PSD Power (mW)		8697.07	<b>9774.92</b>	8464.16	8790.75
Total MIMO PSD Power (dBm)		39.39	<b>39.90</b>	39.28	39.44
Channel	Port	QPSK	16QAM	64QAM	256QAM
Middle	0	33.33	33.82	33.08	33.28
	1	33.45	33.77	33.29	33.51
	2	32.89	33.53	32.84	32.88
	3	33.11	33.49	33.14	33.10
Total MIMO PSD Power (mW)		8350.51	9281.76	8144.75	8350.28
Total MIMO PSD Power (dBm)		39.22	39.68	39.11	39.22
Channel	Port	QPSK	16QAM	64QAM	256QAM
High	0	33.09	33.41	33.00	33.01
	1	33.34	33.63	33.49	33.46
	2	33.00	33.38	33.36	33.23
	3	33.13	33.54	33.15	33.31
Total MIMO PSD Power (mW)		8245.52	8934.09	8461.10	8461.18
Total MIMO PSD Power (dBm)		39.16	39.51	39.27	39.27

**Table 8-43. Peak Power Spectral Density Table (AWS\_DSS\_2C\_10M + 10M)**

FCC ID: A3LRF4402D-D1A		<b>MEASUREMENT REPORT</b> (Class II Permissive Change)		<b>Approved by:</b> Technical Manager
<b>Test Report S/N:</b> 8K22032101-00-R1.A3L	<b>Test Dates:</b> 03/25/2022 - 05/03/2022	<b>EUT Type:</b> RRU(RF4402d)	Page 75 of 225	



Channel	Port	PSD Power (dBm/MHz)			
		QPSK	16QAM	64QAM	256QAM
Low	0	33.03	33.46	33.32	33.31
	1	33.50	33.54	33.41	33.50
	2	33.11	33.45	33.04	33.10
	3	33.33	33.45	33.16	33.17
Total MIMO PSD Power (mW)		8446.47	8905.84	8421.17	8496.64
Total MIMO PSD Power (dBm)		39.27	39.50	39.25	39.29
Channel	Port	QPSK	16QAM	64QAM	256QAM
Middle	0	33.22	<b>33.39</b>	33.06	33.23
	1	33.55	<b>33.79</b>	33.21	33.43
	2	32.95	<b>33.41</b>	32.79	32.87
	3	33.20	<b>33.49</b>	33.03	33.00
Total MIMO PSD Power (mW)		8421.55	<b>9002.96</b>	8025.42	8236.79
Total MIMO PSD Power (dBm)		39.25	<b>39.54</b>	39.04	39.16
Channel	Port	QPSK	16QAM	64QAM	256QAM
High	0	32.96	33.48	33.20	32.96
	1	33.38	33.68	33.42	33.27
	2	32.94	33.34	33.05	33.12
	3	32.99	33.54	33.39	33.10
Total MIMO PSD Power (mW)		8112.32	8975.44	8484.29	8190.31
Total MIMO PSD Power (dBm)		39.09	39.53	39.29	39.13

**Table 8-44. Peak Power Spectral Density Table (AWS\_DSS\_1C\_10M + NR\_1C\_5M + LTE\_1C\_5M)**

FCC ID: A3LRF4402D-D1A		<b>MEASUREMENT REPORT</b> (Class II Permissive Change)		<b>Approved by:</b> Technical Manager
<b>Test Report S/N:</b> 8K22032101-00-R1.A3L	<b>Test Dates:</b> 03/25/2022 - 05/03/2022	<b>EUT Type:</b> RRU(RF4402d)	Page 76 of 225	



Channel	Port	PSD Power (dBm/MHz)			
		QPSK	16QAM	64QAM	256QAM
Low	0	33.24	33.56	33.11	32.84
	1	33.55	33.51	32.99	33.29
	2	32.89	33.31	32.60	32.85
	3	33.11	33.34	32.84	32.81
Total MIMO PSD Power (mW)		8355.92	8818.36	7779.54	7895.91
Total MIMO PSD Power (dBm)		39.22	39.45	38.91	38.97
Channel	Port	QPSK	16QAM	64QAM	256QAM
Middle	0	33.02	33.59	32.72	32.96
	1	33.35	34.23	33.13	33.17
	2	32.67	33.46	32.59	32.63
	3	33.01	33.51	32.71	32.81
Total MIMO PSD Power (mW)		8016.86	9394.52	7608.43	7791.66
Total MIMO PSD Power (dBm)		39.04	39.73	38.81	38.92
Channel	Port	QPSK	16QAM	64QAM	256QAM
High	0	33.04	<b>33.70</b>	32.83	32.76
	1	33.06	<b>33.74</b>	33.23	33.14
	2	32.81	<b>33.65</b>	32.92	32.70
	3	32.93	<b>33.76</b>	32.99	32.87
Total MIMO PSD Power (mW)		7907.70	<b>9404.98</b>	7970.03	7742.35
Total MIMO PSD Power (dBm)		38.98	<b>39.73</b>	39.01	38.89

**Table 8-45. Peak Power Spectral Density Table (AWS\_DSS\_1C\_15M + LTE\_1C\_5M)**

FCC ID: A3LRF4402D-D1A		<b>MEASUREMENT REPORT</b> (Class II Permissive Change)		<b>Approved by:</b> Technical Manager
<b>Test Report S/N:</b> 8K22032101-00-R1.A3L	<b>Test Dates:</b> 03/25/2022 - 05/03/2022	<b>EUT Type:</b> RRU(RF4402d)	Page 77 of 225	

Channel	Port	PSD Power (dBm/MHz)			
		QPSK	16QAM	64QAM	256QAM
Low	0	30.53	31.93	30.53	30.45
	1	30.55	32.11	30.55	30.58
	2	30.15	31.82	30.48	30.24
	3	30.34	31.90	30.52	30.39
Total MIMO PSD Power (mW)		4379.86	6252.74	4509.40	4404.56
Total MIMO PSD Power (dBm)		36.41	37.96	36.54	36.44
Channel	Port	QPSK	<b>16QAM</b>	64QAM	256QAM
Middle	0	30.52	<b>31.92</b>	30.47	30.36
	1	30.65	<b>32.39</b>	30.55	30.63
	2	30.04	<b>31.54</b>	30.07	30.07
	3	30.65	<b>32.04</b>	30.42	30.53
Total MIMO PSD Power (mW)		4458.16	<b>6316.42</b>	4368.19	4388.11
Total MIMO PSD Power (dBm)		36.49	<b>38.00</b>	36.40	36.42
Channel	Port	QPSK	16QAM	64QAM	256QAM
High	0	30.12	31.66	30.34	30.06
	1	30.30	31.91	30.43	30.72
	2	29.95	31.70	30.12	30.06
	3	30.08	31.82	30.14	30.46
Total MIMO PSD Power (mW)		4106.68	6019.70	4246.55	4316.71
Total MIMO PSD Power (dBm)		36.13	37.80	36.28	36.35



**Table 8-46. Peak Power Spectral Density Table (AWS\_NR\_2C\_15M + 20M)**

FCC ID: A3LRF4402D-D1A		<b>MEASUREMENT REPORT</b> (Class II Permissive Change)		<b>Approved by:</b> Technical Manager
<b>Test Report S/N:</b> 8K22032101-00-R1.A3L	<b>Test Dates:</b> 03/25/2022 - 05/03/2022	<b>EUT Type:</b> RRU(RF4402d)	Page 78 of 225	





Channel	Port	PSD Power (dBm/MHz)			
		QPSK	16QAM	64QAM	256QAM
Low	0	30.47	31.53	30.69	30.63
	1	30.70	31.65	30.98	31.00
	2	30.35	31.24	30.54	30.34
	3	30.42	31.30	30.61	30.69
Total MIMO PSD Power (mW)		4473.89	5561.96	4706.39	4666.51
Total MIMO PSD Power (dBm)		36.51	37.45	36.73	36.69
Channel	Port	QPSK	<b>16QAM</b>	64QAM	256QAM
Middle	0	30.84	<b>31.52</b>	30.61	30.55
	1	30.84	<b>31.73</b>	30.82	30.69
	2	30.22	<b>31.28</b>	30.19	30.19
	3	30.71	<b>31.90</b>	30.71	30.49
Total MIMO PSD Power (mW)		4657.67	<b>5801.10</b>	4580.44	4471.38
Total MIMO PSD Power (dBm)		36.68	<b>37.64</b>	36.61	36.50
Channel	Port	QPSK	16QAM	64QAM	256QAM
High	0	30.50	31.00	30.51	30.42
	1	30.98	31.56	30.51	30.62
	2	30.27	31.01	30.03	30.27
	3	30.59	31.23	30.29	30.40
Total MIMO PSD Power (mW)		4581.14	5281.69	4325.70	4414.64
Total MIMO PSD Power (dBm)		36.61	37.23	36.36	36.45

**Table 8-47. Peak Power Spectral Density Table (AWS\_DSS\_2C\_15M + 20M)**

FCC ID: A3LRF4402D-D1A		<b>MEASUREMENT REPORT</b> (Class II Permissive Change)		<b>Approved by:</b> Technical Manager
<b>Test Report S/N:</b> 8K22032101-00-R1.A3L	<b>Test Dates:</b> 03/25/2022 - 05/03/2022	<b>EUT Type:</b> RRU(RF4402d)	Page 79 of 225	



Channel	Port	PSD Power (dBm/MHz)			
		QPSK	16QAM	64QAM	256QAM
Low	0	30.69	<b>31.99</b>	30.56	30.55
	1	31.07	<b>32.25</b>	30.69	30.69
	2	30.45	<b>31.63</b>	30.19	30.27
	3	30.59	<b>32.00</b>	30.54	30.62
Total MIMO PSD Power (mW)		4704.45	<b>6300.49</b>	4486.65	4520.89
Total MIMO PSD Power (dBm)		36.73	<b>37.99</b>	36.52	36.55
Channel	Port	QPSK	16QAM	64QAM	256QAM
Middle	0	30.59	31.91	30.50	30.62
	1	30.81	32.21	30.81	30.90
	2	30.19	31.60	30.25	30.29
	3	30.54	31.67	30.44	30.34
Total MIMO PSD Power (mW)		4527.32	6128.20	4490.35	4535.42
Total MIMO PSD Power (dBm)		36.56	37.87	36.52	36.57
Channel	Port	QPSK	16QAM	64QAM	256QAM
High	0	30.44	31.90	30.46	30.54
	1	30.86	32.25	30.81	30.76
	2	30.28	31.62	30.15	30.41
	3	30.42	31.98	30.50	30.45
Total MIMO PSD Power (mW)		4491.22	6254.58	4471.04	4530.28
Total MIMO PSD Power (dBm)		36.52	37.96	36.50	36.56

**Table 8-48. Peak Power Spectral Density Table (AWS\_DSS\_1C\_20M + NR\_1C\_15M)**

FCC ID: A3LRF4402D-D1A		<b>MEASUREMENT REPORT</b> (Class II Permissive Change)		<b>Approved by:</b> Technical Manager
<b>Test Report S/N:</b> 8K22032101-00-R1.A3L	<b>Test Dates:</b> 03/25/2022 - 05/03/2022	<b>EUT Type:</b> RRU(RF4402d)	Page 80 of 225	



Channel	Port	PSD Power (dBm/MHz)			
		QPSK	16QAM	64QAM	256QAM
Low	0	30.55	<b>32.05</b>	30.64	30.86
	1	30.77	<b>32.56</b>	30.91	31.06
	2	30.49	<b>31.92</b>	30.61	30.80
	3	30.39	<b>31.84</b>	30.68	30.60
Total MIMO PSD Power (mW)		4538.75	<b>6486.97</b>	4713.31	4844.79
Total MIMO PSD Power (dBm)		36.57	<b>38.12</b>	36.73	36.85
Channel	Port	QPSK	16QAM	64QAM	256QAM
Middle	0	30.52	31.96	30.66	30.75
	1	30.87	32.10	31.04	30.83
	2	30.26	31.46	30.31	30.34
	3	30.58	31.95	30.68	30.53
Total MIMO PSD Power (mW)		4553.41	6158.88	4679.28	4608.39
Total MIMO PSD Power (dBm)		36.58	37.90	36.70	36.64
Channel	Port	QPSK	16QAM	64QAM	256QAM
High	0	30.79	32.13	30.69	30.49
	1	30.83	32.16	31.26	30.86
	2	30.51	31.60	30.62	30.62
	3	30.59	32.08	30.86	30.60
Total MIMO PSD Power (mW)		4680.68	6333.33	4881.16	4636.02
Total MIMO PSD Power (dBm)		36.70	38.02	36.89	36.66

**Table 8-49. Peak Power Spectral Density Table (AWS\_DSS\_1C\_10M + NR\_1C\_20M + LTE\_1C\_5M)**

FCC ID: A3LRF4402D-D1A		<b>MEASUREMENT REPORT</b> (Class II Permissive Change)		<b>Approved by:</b> Technical Manager
<b>Test Report S/N:</b> 8K22032101-00-R1.A3L	<b>Test Dates:</b> 03/25/2022 - 05/03/2022	<b>EUT Type:</b> RRU(RF4402d)	Page 81 of 225	



Channel	Port	PSD Power (dBm/MHz)			
		QPSK	16QAM	64QAM	256QAM
Low	0	30.77	32.07	30.64	30.64
	1	30.86	32.36	30.93	30.99
	2	30.71	31.78	30.61	30.57
	3	30.55	31.94	30.44	30.61
Total MIMO PSD Power (mW)		4725.28	6399.63	4653.16	4704.74
Total MIMO PSD Power (dBm)		36.74	38.06	36.68	36.73
Channel	Port	QPSK	16QAM	64QAM	256QAM
Middle	0	30.85	31.84	30.67	30.62
	1	31.09	32.31	31.15	30.91
	2	30.63	31.92	30.73	30.33
	3	30.91	32.27	30.92	30.66
Total MIMO PSD Power (mW)		4888.80	6469.55	4887.97	4627.75
Total MIMO PSD Power (dBm)		36.89	38.11	36.89	36.65
Channel	Port	QPSK	16QAM	64QAM	256QAM
High	0	30.67	<b>32.12</b>	30.60	30.90
	1	31.11	<b>32.35</b>	30.82	31.03
	2	30.59	<b>31.79</b>	30.41	30.61
	3	30.65	<b>32.16</b>	30.52	30.83
Total MIMO PSD Power (mW)		4764.09	<b>6501.48</b>	4584.29	4857.65
Total MIMO PSD Power (dBm)		36.78	<b>38.13</b>	36.61	36.86

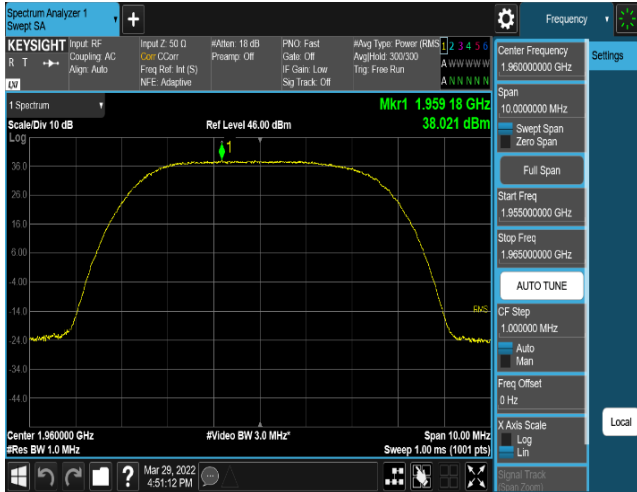
**Table 8-50. Peak Power Spectral Density Table (AWS\_NR\_2C\_10M + 20M + LTE\_1C\_5M)**

FCC ID: A3LRF4402D-D1A		<b>MEASUREMENT REPORT</b> (Class II Permissive Change)		<b>Approved by:</b> Technical Manager
<b>Test Report S/N:</b> 8K22032101-00-R1.A3L	<b>Test Dates:</b> 03/25/2022 - 05/03/2022	<b>EUT Type:</b> RRU(RF4402d)	Page 82 of 225	

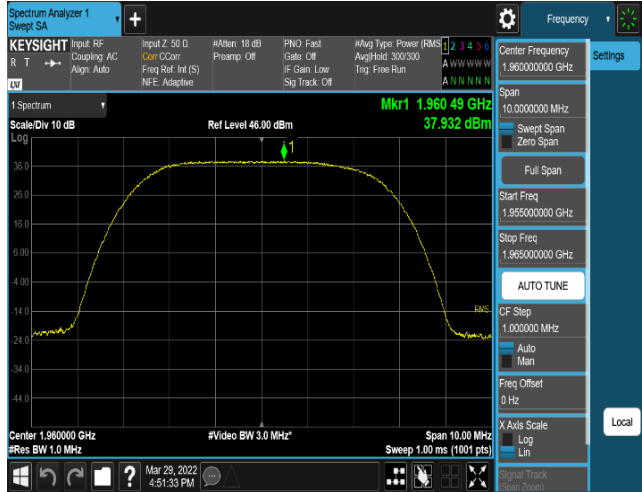
Channel	Port	PSD Power (dBm/MHz)			
		QPSK	16QAM	64QAM	256QAM
Low	0	30.50	31.12	30.64	30.82
	1	30.86	31.59	31.10	30.93
	2	30.42	30.82	30.55	30.59
	3	30.44	30.74	30.47	30.40
Total MIMO PSD Power (mW)		4549.12	5128.77	4697.00	4686.18
Total MIMO PSD Power (dBm)		36.58	37.10	36.72	36.71
Channel	Port	QPSK	16QAM	64QAM	256QAM
Middle	0	30.79	31.24	30.52	30.75
	1	30.91	31.44	30.89	30.61
	2	30.49	31.19	30.15	30.16
	3	30.53	31.04	30.59	30.40
Total MIMO PSD Power (mW)		4679.70	5307.05	4536.75	4471.06
Total MIMO PSD Power (dBm)		36.70	37.25	36.57	36.50
Channel	Port	QPSK	16QAM	64QAM	256QAM
High	0	30.54	<b>31.33</b>	30.73	30.60
	1	30.98	<b>31.51</b>	30.76	30.83
	2	30.58	<b>30.97</b>	30.34	30.33
	3	30.49	<b>31.33</b>	30.51	30.45
Total MIMO PSD Power (mW)		4646.99	<b>5385.19</b>	4579.38	4547.67
Total MIMO PSD Power (dBm)		36.67	<b>37.31</b>	36.61	36.58

**Table 8-51. Peak Power Spectral Density Table (AWS\_DSS\_2C\_10M + 20M + LTE\_1C\_5M)**

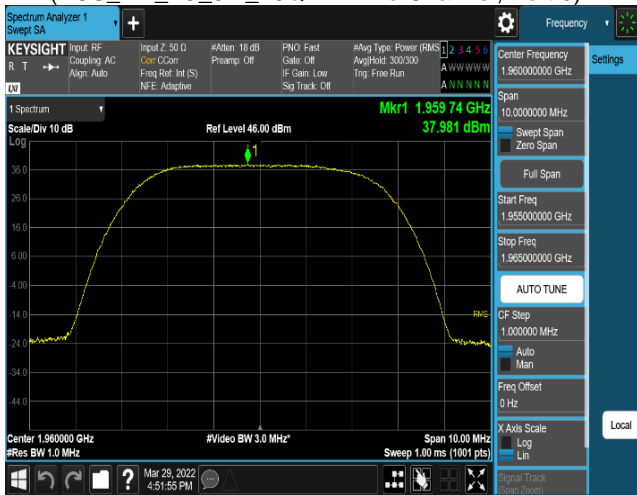
FCC ID: A3LRF4402D-D1A		<b>MEASUREMENT REPORT</b> (Class II Permissive Change)		<b>Approved by:</b> Technical Manager
<b>Test Report S/N:</b> 8K22032101-00-R1.A3L	<b>Test Dates:</b> 03/25/2022 - 05/03/2022	<b>EUT Type:</b> RRU(RF4402d)	Page 83 of 225	



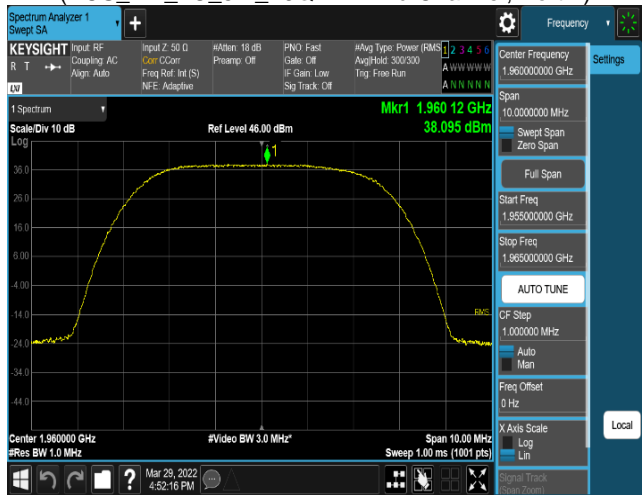
Plot 8-65. Power Spectral Density Plot  
(PCS\_NR\_1C\_5M\_16QAM - Mid Channel, Port 0)



Plot 8-66. Power Spectral Density Plot  
(PCS\_NR\_1C\_5M\_16QAM - Mid Channel, Port 1)



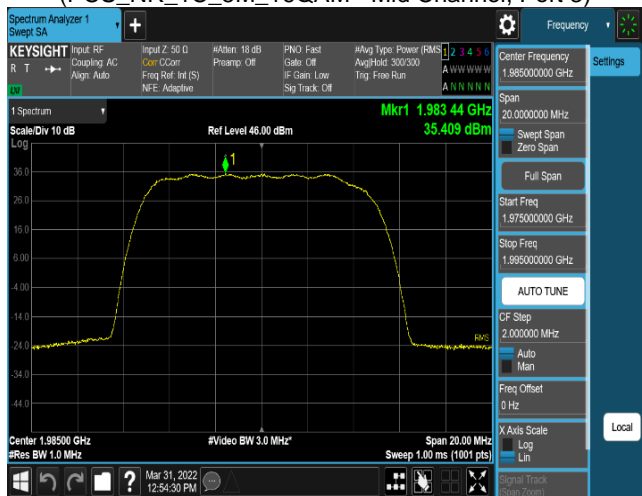
Plot 8-67. Power Spectral Density Plot  
(PCS\_NR\_1C\_5M\_16QAM - Mid Channel, Port 2)



Plot 8-68. Power Spectral Density Plot  
(PCS\_NR\_1C\_5M\_16QAM - Mid Channel, Port 3)



Plot 8-69. Power Spectral Density Plot  
(PCS\_NR\_1C\_10M\_16QAM - High Channel, Port 0)



Plot 8-70. Power Spectral Density Plot  
(PCS\_NR\_1C\_10M\_16QAM - High Channel, Port 1)

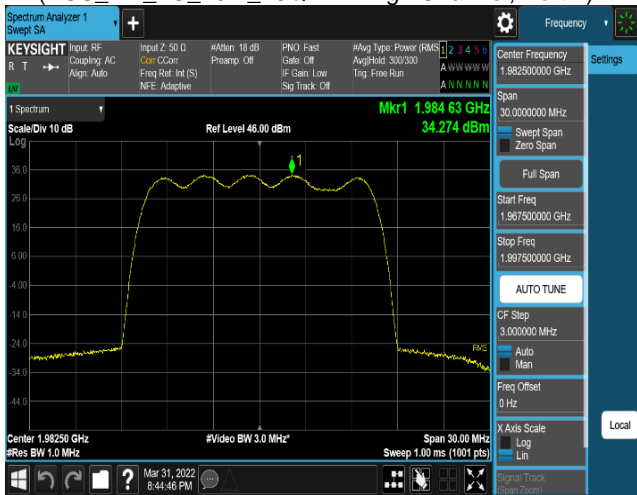
FCC ID: A3LRF4402D-D1A		<b>MEASUREMENT REPORT</b> (Class II Permissive Change)		<b>Approved by:</b> Technical Manager
<b>Test Report S/N:</b> 8K22032101-00-R1.A3L	<b>Test Dates:</b> 03/25/2022 - 05/03/2022	<b>EUT Type:</b> RRU(RF4402d)		Page 84 of 225



Plot 8-71. Power Spectral Density Plot  
(PCS\_NR\_1C\_10M\_16QAM - High Channel, Port 2)



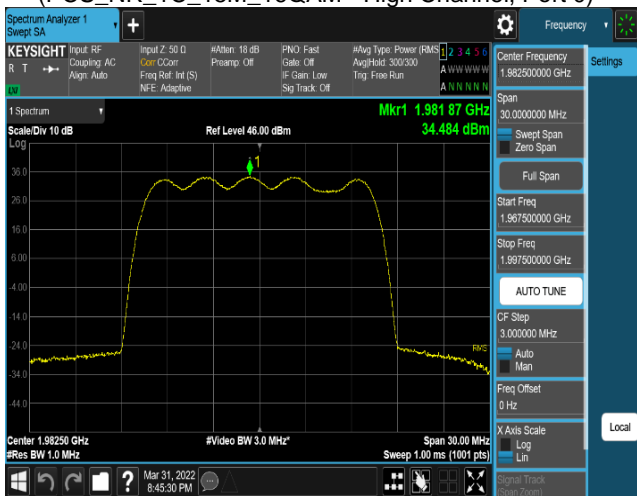
Plot 8-72. Power Spectral Density Plot  
(PCS\_NR\_1C\_10M\_16QAM - High Channel, Port 3)



Plot 8-73. Power Spectral Density Plot  
(PCS\_NR\_1C\_15M\_16QAM - High Channel, Port 0)





Plot 8-74. Power Spectral Density Plot  
(PCS\_NR\_1C\_15M\_16QAM - High Channel, Port 1)

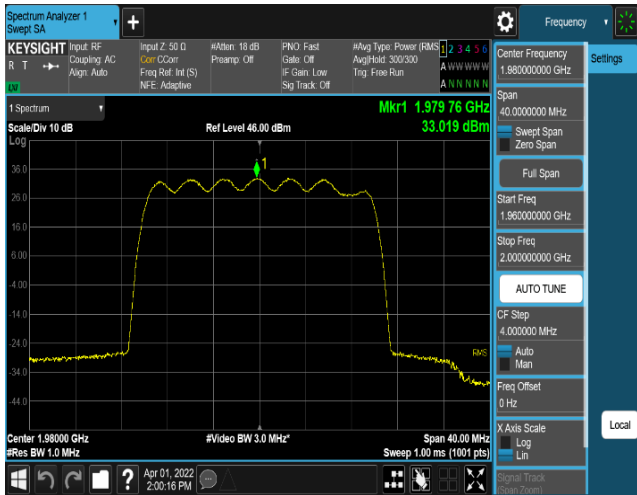


Plot 8-75. Power Spectral Density Plot  
(PCS\_NR\_1C\_15M\_16QAM - High Channel, Port 2)



Plot 8-76. Power Spectral Density Plot  
(PCS\_NR\_1C\_15M\_16QAM - High Channel, Port 3)

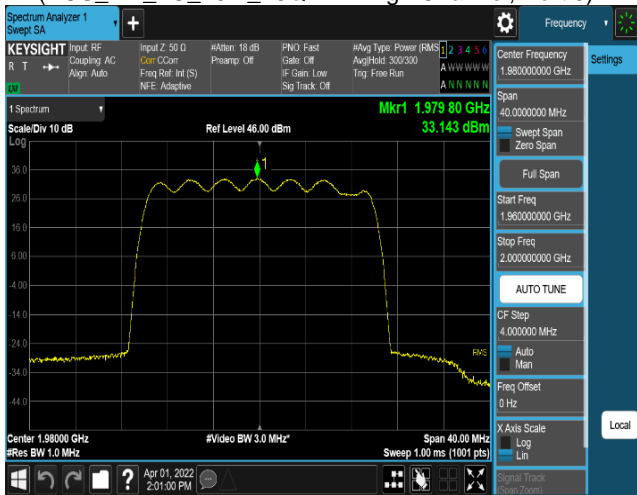
FCC ID: A3LRF4402D-D1A		<b>MEASUREMENT REPORT</b> (Class II Permissive Change)		<b>Approved by:</b> Technical Manager
<b>Test Report S/N:</b> 8K22032101-00-R1.A3L	<b>Test Dates:</b> 03/25/2022 - 05/03/2022	<b>EUT Type:</b> RRU(RF4402d)		Page 85 of 225



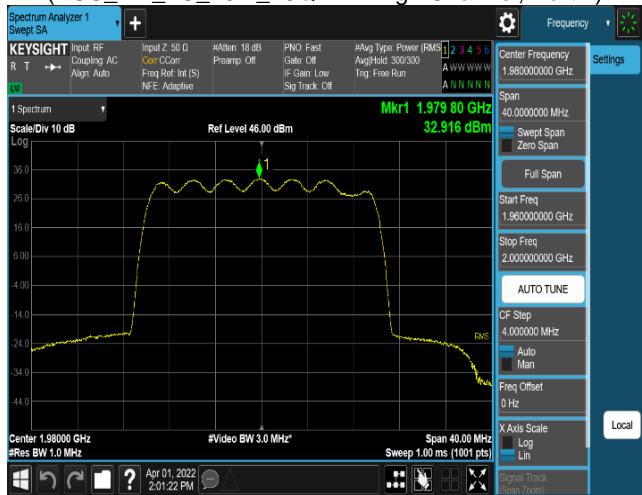
Plot 8-77. Power Spectral Density Plot  
(PCS\_NR\_1C\_20M\_16QAM - High Channel, Port 0)



Plot 8-78. Power Spectral Density Plot  
(PCS\_NR\_1C\_20M\_16QAM - High Channel, Port 1)



Plot 8-79. Power Spectral Density Plot  
(PCS\_NR\_1C\_20M\_16QAM - High Channel, Port 2)



Plot 8-80. Power Spectral Density Plot  
(PCS\_NR\_1C\_20M\_16QAM - High Channel, Port 3)



Plot 8-81. Power Spectral Density Plot  
(PCS\_DSS\_2:8\_1C\_15M\_16QAM - High Channel, Port 0)



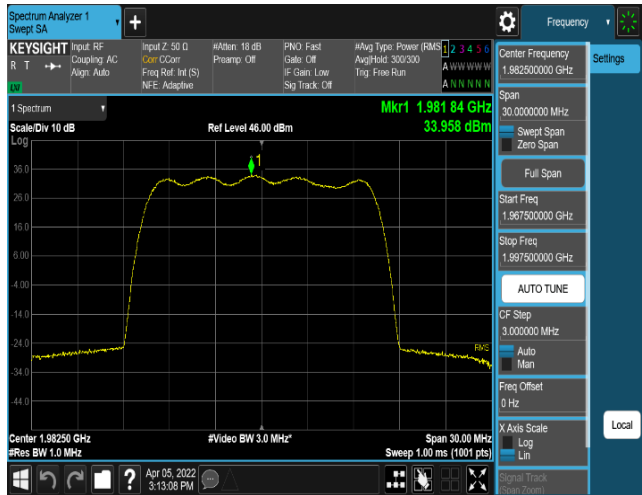
Plot 8-82. Power Spectral Density Plot  
(PCS\_DSS\_2:8\_1C\_15M\_16QAM - High Channel, Port 1)

FCC ID: A3LRF4402D-D1A		<b>MEASUREMENT REPORT</b> (Class II Permissive Change)		<b>Approved by:</b> Technical Manager
<b>Test Report S/N:</b> 8K22032101-00-R1.A3L	<b>Test Dates:</b> 03/25/2022 - 05/03/2022	<b>EUT Type:</b> RRU(RF4402d)		Page 86 of 225

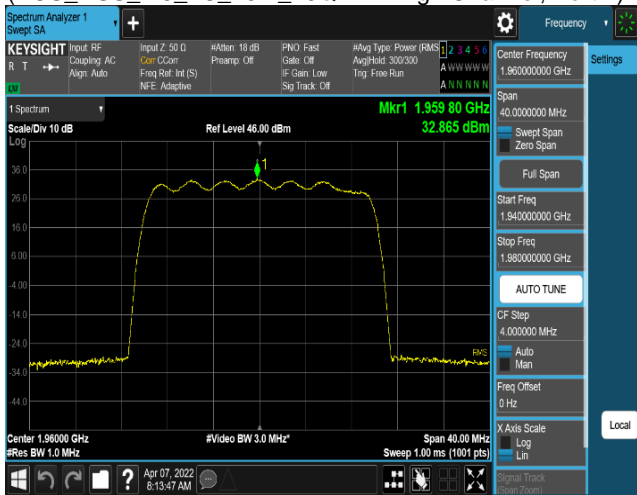




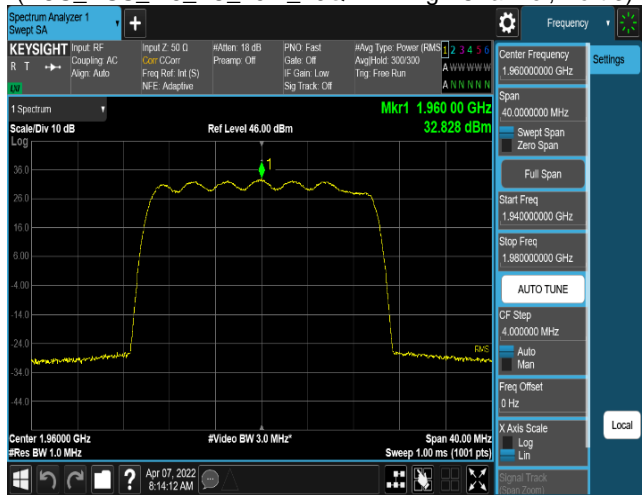
Plot 8-83. Power Spectral Density Plot  
(PCS\_DSS\_2:8\_1C\_15M\_16QAM - High Channel, Port 2)



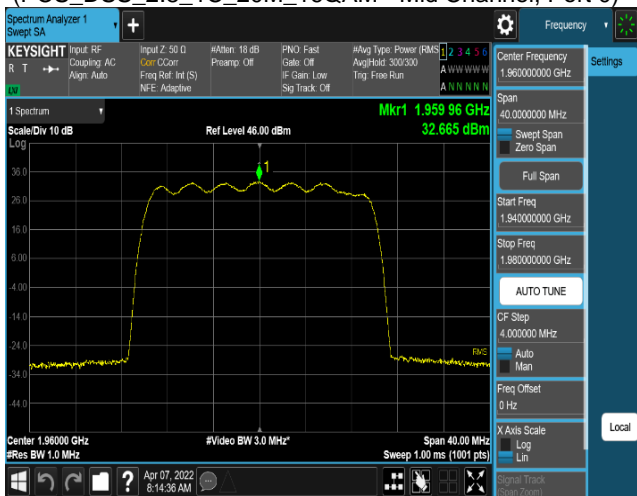
Plot 8-84. Power Spectral Density Plot  
(PCS\_DSS\_2:8\_1C\_15M\_16QAM - High Channel, Port 3)



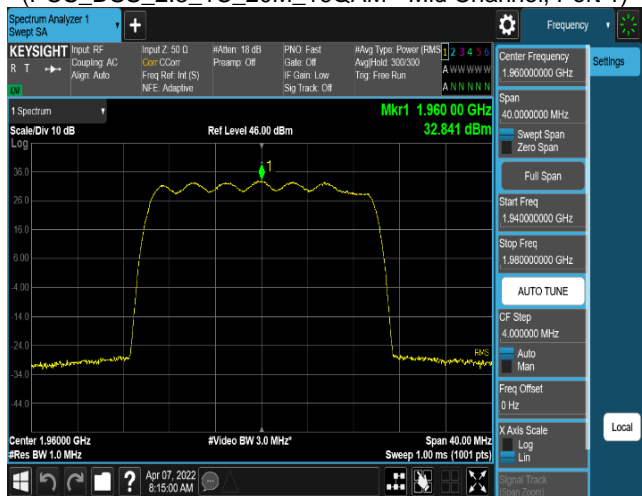
Plot 8-85. Power Spectral Density Plot  
(PCS\_DSS\_2:8\_1C\_20M\_16QAM - Mid Channel, Port 0)



Plot 8-86. Power Spectral Density Plot  
(PCS\_DSS\_2:8\_1C\_20M\_16QAM - Mid Channel, Port 1)

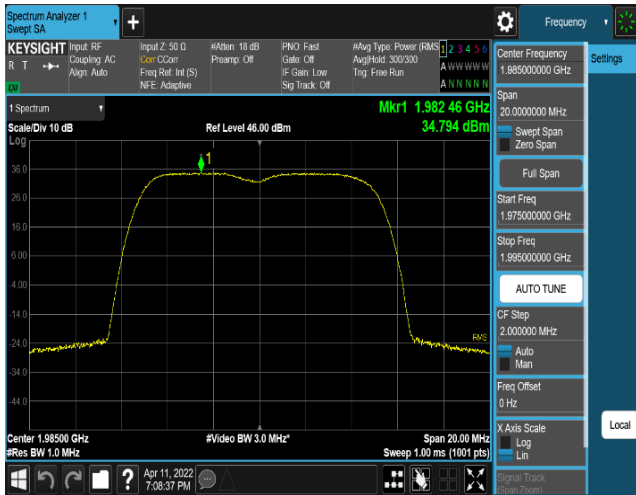


Plot 8-87. Power Spectral Density Plot  
(PCS\_DSS\_2:8\_1C\_20M\_16QAM - Mid Channel, Port 2)

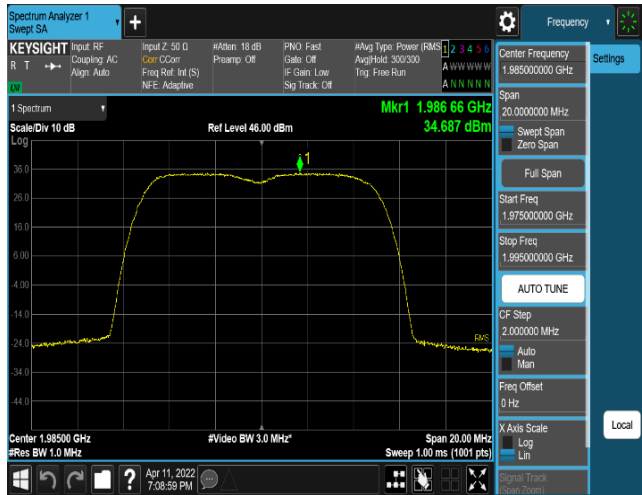


Plot 8-88. Power Spectral Density Plot  
(PCS\_DSS\_2:8\_1C\_20M\_16QAM - Mid Channel, Port 3)

FCC ID: A3LRF4402D-D1A		<b>MEASUREMENT REPORT</b> (Class II Permissive Change)		<b>Approved by:</b> Technical Manager
<b>Test Report S/N:</b> 8K22032101-00-R1.A3L	<b>Test Dates:</b> 03/25/2022 - 05/03/2022	<b>EUT Type:</b> RRU(RF4402d)		Page 87 of 225



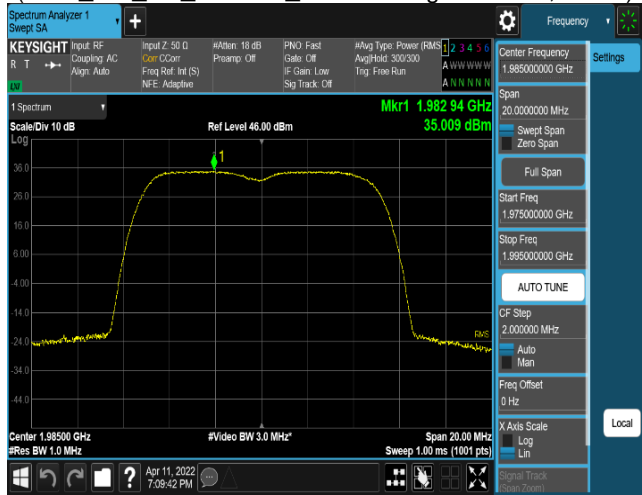
Plot 8-89. Power Spectral Density Plot (PCS\_NR\_2C\_5M+5M\_16QAM - High Channel, Port 0)



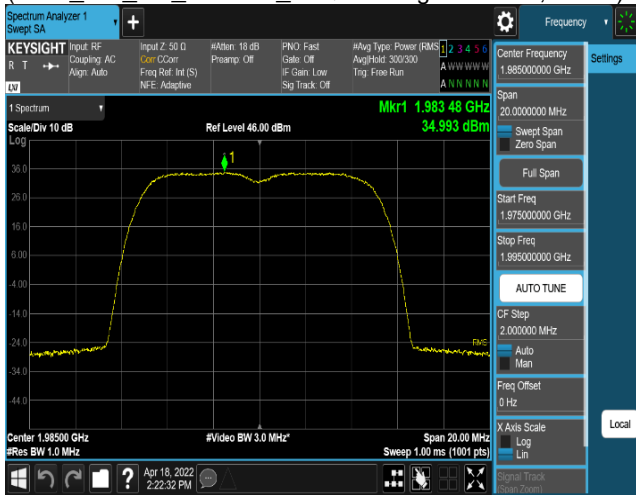
Plot 8-90. Power Spectral Density Plot (PCS\_NR\_2C\_5M+5M\_16QAM - High Channel, Port 1)



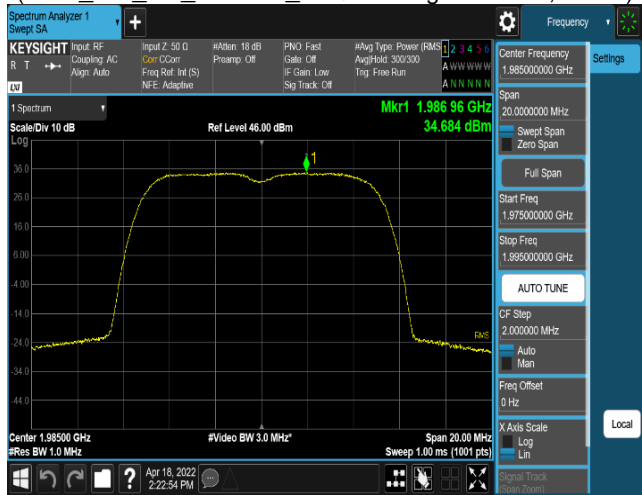
Plot 8-91. Power Spectral Density Plot (PCS\_NR\_2C\_5M+5M\_16QAM - High Channel, Port 2)



Plot 8-92. Power Spectral Density Plot (PCS\_NR\_2C\_5M+5M\_16QAM - High Channel, Port 3)



Plot 8-93. Power Spectral Density Plot (PCS\_NR\_1C\_5M+LTE\_1C\_5M\_16QAM - High Channel, Port 0)



Plot 8-94. Power Spectral Density Plot (PCS\_NR\_1C\_5M+LTE\_1C\_5M\_16QAM - High Channel, Port 1)

FCC ID: A3LRF4402D-D1A		<b>MEASUREMENT REPORT</b> (Class II Permissive Change)		<b>Approved by:</b> Technical Manager
<b>Test Report S/N:</b> 8K22032101-00-R1.A3L	<b>Test Dates:</b> 03/25/2022 - 05/03/2022	<b>EUT Type:</b> RRU(RF4402d)		Page 88 of 225