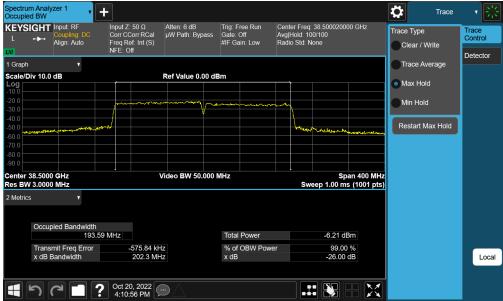


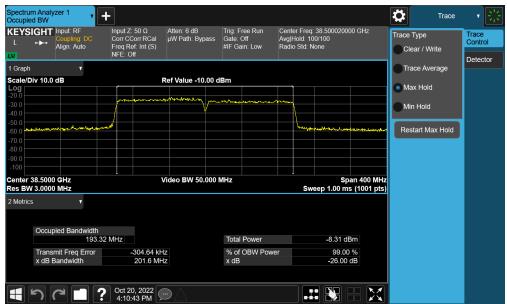
Plot 7-58. M patch Occupied Bandwidth Plot (100MHz-2CC – DFT-s-OFDM π/2 BPSK – Mid Channel)



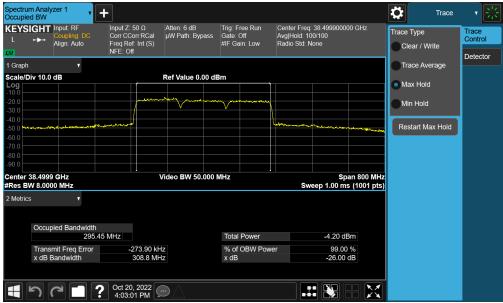
Plot 7-59. M patch Occupied Bandwidth Plot (100MHz-2CC - CP-OFDM 16QAM - Mid Channel)

FCC ID: A3LSMS911U	element	PART 30 MEASUREMENT REPORT (CERTIFICATION)	Approved by: Technical Manager	
Test Report S/N:	Test Dates:	EUT Type:	Page 49 of 201	
1M2209010096-08.A3L	10/18/2022 - 11/14/2022	Portable Handset	Page 49 01 20 1	





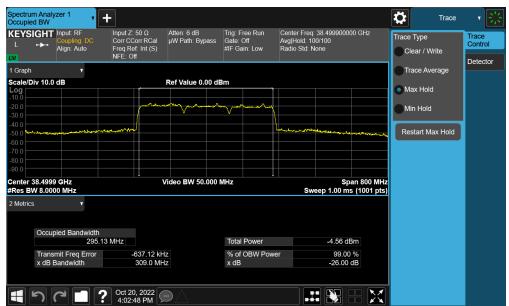
Plot 7-60. M patch Occupied Bandwidth Plot (100MHz-2CC - CP-OFDM 64QAM - Mid Channel)



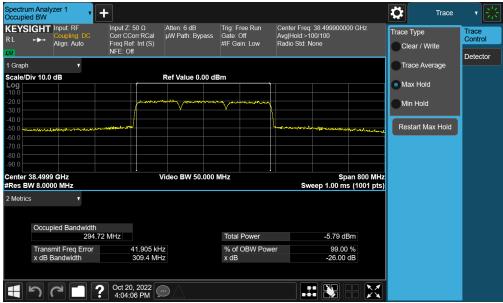
Plot 7-61. M patch Occupied Bandwidth Plot (100MHz-3CC - DFT-s-OFDM QPSK - Mid Channel)

FCC ID: A3LSMS911U	element	PART 30 MEASUREMENT REPORT (CERTIFICATION)	Approved by: Technical Manager		
Test Report S/N:	Test Dates:	EUT Type:	Page 50 of 201		
1M2209010096-08.A3L	10/18/2022 - 11/14/2022	Portable Handset	Fage 50 01 201		





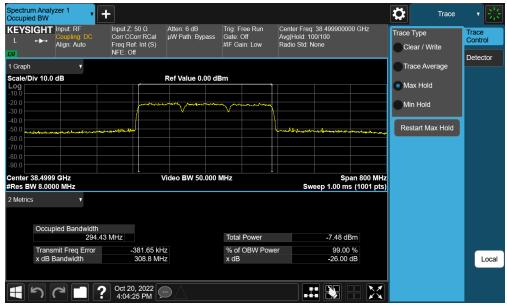
Plot 7-62. M patch Occupied Bandwidth Plot (100MHz-3CC – DFT-s-OFDM π/2 BPSK – Mid Channel)



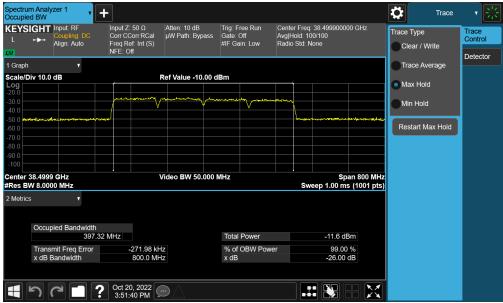
Plot 7-63. M patch Occupied Bandwidth Plot (100MHz-3CC - DFT-s-OFDM 16QAM - Mid Channel)

FCC ID: A3LSMS911U	element	PART 30 MEASUREMENT REPORT (CERTIFICATION)	Approved by: Technical Manager		
Test Report S/N:	Test Dates:	EUT Type:	Page 51 of 201		
1M2209010096-08.A3L	10/18/2022 - 11/14/2022	Portable Handset	Fage 51 01 201		





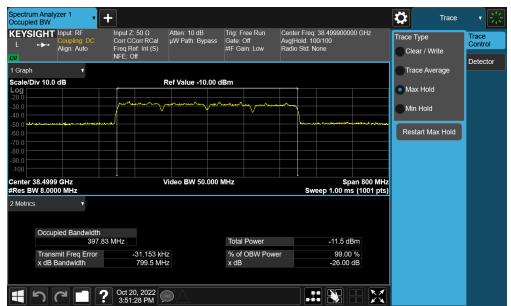
Plot 7-64. M patch Occupied Bandwidth Plot (100MHz-3CC - DFT-s-OFDM 64QAM - Mid Channel)



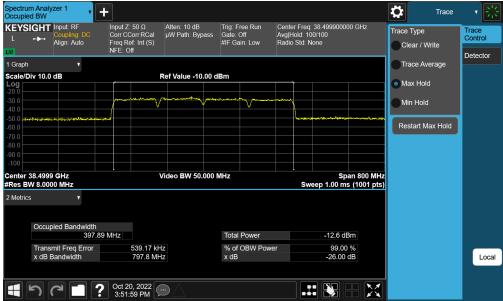
Plot 7-65. M patch Occupied Bandwidth Plot (100MHz-4CC - DFT-s-OFDM QPSK - Mid Channel)

FCC ID: A3LSMS911U	element	PART 30 MEASUREMENT REPORT (CERTIFICATION)	Approved by: Technical Manager		
Test Report S/N:	Test Dates:	EUT Type:	Page 52 of 201		
1M2209010096-08.A3L	10/18/2022 - 11/14/2022	Portable Handset	Page 52 01 201		





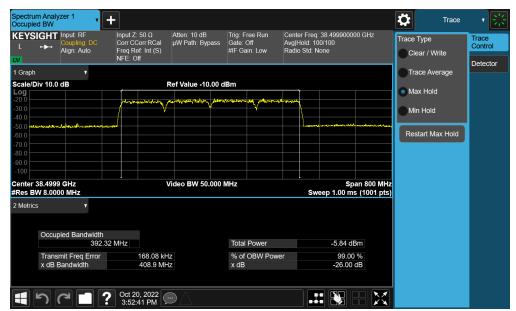
Plot 7-66. M patch Occupied Bandwidth Plot (100MHz-4CC – DFT-s-OFDM π/2 BPSK – Mid Channel)



Plot 7-67. M patch Occupied Bandwidth Plot (100MHz-4CC - DFT-s-OFDM 16QAM - Mid Channel)

FCC ID: A3LSMS911U	element	PART 30 MEASUREMENT REPORT (CERTIFICATION)	Approved by: Technical Manager		
Test Report S/N:	Test Dates:	EUT Type:	Page 53 of 201		
1M2209010096-08.A3L	10/18/2022 - 11/14/2022	Portable Handset	Fage 53 01 201		





Plot 7-68. M patch Occupied Bandwidth Plot (100MHz-4CC - DFT-s-OFDM 64QAM - Mid Channel)

FCC ID: A3LSMS911U	element	PART 30 MEASUREMENT REPORT (CERTIFICATION)	Approved by: Technical Manager		
Test Report S/N:	Test Dates:	EUT Type:	Page 54 of 201		
1M2209010096-08.A3L	10/18/2022 - 11/14/2022	Portable Handset	Fage 54 01 201		



### 7.3 Equivalent Isotropic Radiated Power

### **Test Overview**

Equivalent Isotropic Radiated Power (EIRP) measurements are performed using broadband horn antennas. 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.

The average power of the sum of all antenna elements is limited to a maximum EIRP of +43 dBm.

#### **Test Procedures Used**

ANSI C63.26-2015 – Section 5.2.4.4.1 KDB 842590 D01 – Section 4.2

### **Test Settings**

- 1. Radiated power measurements are performed using the signal analyzer's "channel power" measurement capability for signals with continuous operation.
- 2. RBW = 1 5% of the expected OBW
- 3. VBW  $\geq$  3 x RBW
- 4. Span = 2x to 3x the OBW
- 5. No. of sweep points  $\geq 2 \times \text{span} / \text{RBW}$
- 6. Sweep time = Auto
- 7. Detector = RMS
- 8. The integration bandwidth was roughly set equal to the measured OBW of the signal for signals with continuous operation.
- 9. Trace mode = trace averaging (RMS) over 100 sweeps
- 10. The trace was allowed to stabilize

FCC ID: A3LSMS911U	element	PART 30 MEASUREMENT REPORT (CERTIFICATION)	Approved by: Technical Manager	
Test Report S/N:	Test Dates:	EUT Type:	Page 55 of 201	
1M2209010096-08.A3L	10/18/2022 - 11/14/2022	Portable Handset	Fage 55 01 201	



#### **Test Notes**

- 1) The EUT was tested in three orthogonal planes and in all possible test configurations and positioning. The worst case emissions are reported with the EUT positioning, modulations, RB sizes and offsets, and channel bandwidth configurations shown in the tables below. Both H-Beam and V-Beam were investigated and the worst-case measurements were reported below.
- 2) Elements within the same antenna array are correlated to produce beamforming array gain. Antenna arrays cannot be correlated with another antenna array. During testing, only one antenna array was active.
- 3) EIRP measurements for all bands were taken at 1m test distance as was required for far-field conditions (see **Table 3-1**).
- 4) The average EIRP reported below is calculated per section 5.2.7 of ANSI C63.26-2015 which states: EIRP (dBm) = E (dBμV/m) + 20log(D) 104.8; where D is the measurement distance (in the far field region) in m. The field strength at the antenna terminals E is calculated as: E (dBμV/m) = Spectrum Analyzer Channel Power Level (dBm) + Antenna Factor (dB/m) + Cable Loss (dB) + 107.
- 5) All EIRP measurements were made with the appropriate offset levels loaded into the spectrum analyzer as determined from the measurement distance, antenna factor, cable loss, and the equations in Note 4 above.
- 6) Radiated power levels are investigated while the receive antenna was rotated through all angles to determine the worst case polarization/positioning.
- 7) This device supports transmission of H-polarized and V-polarized beams from the antenna array in both CP-OFDM and DFT-s-OFDM transmission schemes. SISO, 2Tx and MIMO operation is also supported for some configurations. As part of the testing, all modes are investigated fully on the channel showing the highest simulated EIRP using QPSK modulation. The configuration that shows the highest measured EIRP was then used to determine the EIRP for the low and high channels and for the additional modulations.
- 8) Several BeamID's are investigated based on the provided simulated data to determine the worst-case BeamID.
- 9) For each band and antenna array configuration tested, worst case EIRP plots are displayed for all total bandwidths tested (50MHz, 100MHz, 200MHz, 300MHz and 400MHz).

### **Sample Calculation**

The offset level loaded into the spectrum analyzer allows for a direct conversion of the raw channel power level measured by the analyzer into an EIRP. This offset level is frequency dependent and is calculated as follows:

Offset Level [dB] = Antenna Factor [dB/m] + Cable Loss [dB] + 20 Log(Distance [m]) + 107 - 104.8.

For example, to measure an EIRP at a frequency of 24400MHz with an antenna factor of 40.40dB/m, a cable loss of 7.68dB, and a measurement distance of 1 meter, an offset level of:

Offset Level = 40.40dB/m + 7.68dB + 20 Log(1 meter) + 107 - 104.8 = 50.28 dB

shall be loaded into the spectrum analyzer.

FCC ID: A3LSMS911U	element	element PART 30 MEASUREMENT REPORT (CERTIFICATION)			
Test Report S/N:	Test Dates:	EUT Type:	Page 56 of 201		
1M2209010096-08.A3L	10/18/2022 - 11/14/2022	Portable Handset	Page 56 01 20 1		



# Band n258-R1 Beam ID Configurations

Mode	Channel	Beam Polarization	Beam ID	Beam ID Pair		
	Low	Н	165	•		
	LOW	V	36	-		
SISO	Mid	Н	165	-		
3130	IVIIG	V	36	-		
	Lliab	Н	165	-		
	High	V	36	-		
	Low	2Tx/MIMO	155	27		
MIMO	Mid	2Tx/MIMO	155	27		
	High	2Tx/MIMO	155	27		

Table 7-6. M Patch Worst Case Beam ID

Mode	Channel	Channel Beam Polarization Beam ID			
	Low	Н	158	-	
	Low	V	39	-	
SISO	Mid	Н	158	-	
3130	IVIIG	V	39	-	
	Lliab	Н	158	-	
	High	V	39	-	
	Low	2Tx/MIMO	159	31	
MIMO	Mid	2Tx/MIMO	159	31	
	High	2Tx/MIMO	159	31	

Table 7-7. N Patch Worst Case Beam ID

FCC ID: A3LSMS911U	element	element PART 30 MEASUREMENT REPORT (CERTIFICATION)			
Test Report S/N:	Test Dates:	EUT Type:	Page 57 of 201		
1M2209010096-08.A3L	10/18/2022 - 11/14/2022	Portable Handset	Page 57 of 201		



# Band n258-R1

Bandwidth [MHz]	CCs Active	Channel	Frequency [MHz]	Transmission Scheme	Modulation	Beam ID	Beam Pol.	Ant. Div.	Ant. Pol. [H/V]	Positioner Roll [degrees]	Turntable Azimuth [degrees]	RB Size/Offset	EIRP [dBm]
50	1	Low	24275.04	DFT-s-OFDM	π/2 BPSK	155 + 27	H + V	2Tx	Н	75	258	1 / 16	28.41
		Mid	24350.04	DFT-s-OFDM	QPSK	155 + 27	H + V	2Tx	Н	77	267	1 / 16	29.01
				DFT-s-OFDM	QPSK	165	Н	SISO	V	55	266	1 / 16	28.59
				DFT-s-OFDM	QPSK	36	V	SISO	Н	84	255	1 / 19	27.82
				CP-OFDM	QPSK	155 + 27	H + V	MIMO	Н	77	267	1 / 16	25.78
				CP-OFDM	QPSK	165	Н	SISO	V	55	266	1 / 16	25.54
				CP-OFDM	QPSK	36	V	SISO	Н	84	255	1 / 19	24.72
				DFT-s-OFDM	π/2 BPSK	155 + 27	H + V	2Tx	Н	77	267	1 / 16	28.92
				DFT-s-OFDM	16QAM	155 + 27	H + V	2Tx	Н	77	267	1 / 16	26.72
				DFT-s-OFDM	64QAM	155 + 27	H + V	2Tx	Н	77	267	1 / 16	23.66
		High	24424.92	DFT-s-OFDM	π/2 BPSK	155 + 27	H + V	2Tx	Н	72	256	1 / 16	28.64

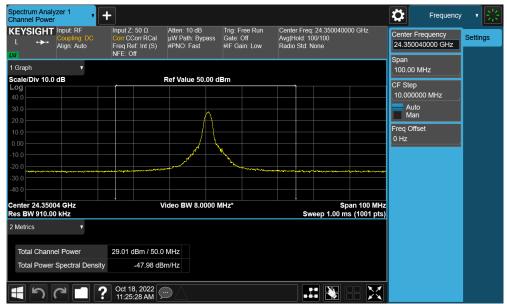
Table 7-8. M patch EIRP Data (Band n258-R1 - 50MHz)

Bandwidth [MHz]	CCs Active	Channel	Frequency [MHz]	Transmission Scheme	Modulation	Beam ID	Beam Pol.	Ant. Div.	Ant. Pol. [H/V]	Positioner Roll [degrees]	Turntable Azimuth [degrees]	RB Size/Offset	EIRP [dBm]
100	1	Low	24300.00	DFT-s-OFDM	QPSK	155 + 27	H + V	2Tx	Н	72	263	1 / 42	29.17
				DFT-s-OFDM	QPSK	165	H	SISO	V	54	268	1 / 42	28.03
				DFT-s-OFDM	QPSK	36	V	SISO	Н	82	256	1 / 42	27.30
				CP-OFDM	QPSK	155 + 27	H + V	MIMO	Н	72	263	1 / 42	26.03
				CP-OFDM	QPSK	165	Н	SISO	V	54	268	1 / 42	24.87
				CP-OFDM	QPSK	36	V	SISO	Н	82	256	1 / 33	24.27
				DFT-s-OFDM	π/2 BPSK	155 + 27	H + V	2Tx	Н	72	263	1 / 42	29.25
				DFT-s-OFDM	16QAM	155 + 27	H + V	2Tx	Н	72	263	1 / 42	26.97
				DFT-s-OFDM	64QAM	155 + 27	H + V	2Tx	Н	72	263	1 / 42	24.01
		Mid	24350.04	DFT-s-OFDM	QPSK	155 + 27	H + V	2Tx	Н	73	263	1 / 23	28.90
		High	24399.96	DFT-s-OFDM	QPSK	155 + 27	H + V	2Tx	Н	72	255	1 / 33	28.57
100+100	2	Mid	24349.98	DFT-s-OFDM	QPSK	155 + 27	H + V	2Tx	Н	73	268	64 / 0	23.65
				DFT-s-OFDM	π/2 BPSK	155 + 27	H + V	2Tx	Н	73	268	64 / 0	23.70
				DFT-s-OFDM	16QAM	155 + 27	H + V	2Tx	Н	73	268	1 / 42	22.21
				DFT-s-OFDM	64QAM	155 + 27	H + V	2Tx	Н	73	268	1 / 42	21.06

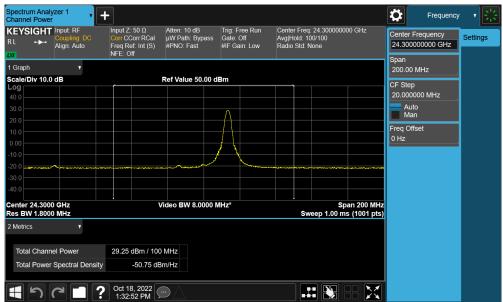
Table 7-9. M patch EIRP Data (Band n258-R1 - 100MHz)

FCC ID: A3LSMS911U	element	PART 30 MEASUREMENT REPORT (CERTIFICATION)	Approved by: Technical Manager
Test Report S/N:	Test Dates:	EUT Type:	Page 58 of 201
1M2209010096-08.A3L	10/18/2022 - 11/14/2022	Portable Handset	Fage 56 01 20 1





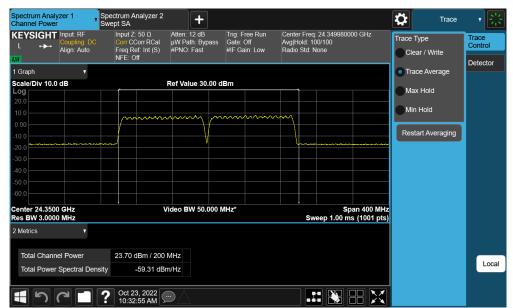
Plot 7-69. M patch EIRP Plot (Band n258-R1 - 50MHz-1CC Mid Channel DFT-s-OFDM QPSK)



Plot 7-70. M patch EIRP Plot (Band n258-R1 - 100MHz-1CC Low Channel DFT-s-OFDM π/2 BPSK)

FCC ID: A3LSMS911U	element	PART 30 MEASUREMENT REPORT (CERTIFICATION)	Approved by: Technical Manager
Test Report S/N:	Test Dates:	EUT Type:	Page 59 of 201
1M2209010096-08.A3L	10/18/2022 - 11/14/2022	Portable Handset	Fage 59 01 201





Plot 7-71. M patch EIRP Plot (Band n258-R1 - 100MHz-2CC Mid Channel DFT-s-OFDM π/2 BPSK)

FCC ID: A3LSMS911U	element	PART 30 MEASUREMENT REPORT (CERTIFICATION)	Approved by: Technical Manager	
Test Report S/N:	Test Dates:	EUT Type:	Page 60 of 201	
1M2209010096-08.A3L	10/18/2022 - 11/14/2022	Portable Handset	Page 60 01 201	



Bandwidth [MHz]	CCs Active	Channel	Frequency [MHz]	Transmission Scheme	Modulation	Beam ID	Beam Pol.	Ant. Div.	Ant. Pol. [H/V]	Positioner Roll [degrees]	Turntable Azimuth [degrees]	RB Size/Offset	EIRP [dBm]
50	1	Low	24275.04	DFT-s-OFDM	π/2 BPSK	159 + 31	H + V	2Tx	Н	323	216	1 / 19	28.94
		Mid	24350.04	DFT-s-OFDM	QPSK	159 + 31	H + V	2Tx	Н	324	213	1 / 19	28.66
		High	24424.92	DFT-s-OFDM	QPSK	159 + 31	H + V	2Tx	Н	324	218	1 / 19	28.95
				DFT-s-OFDM	QPSK	158	Н	SISO	Н	355	280	1 / 19	24.20
				DFT-s-OFDM	QPSK	39	V	SISO	Н	88	221	1 / 12	26.56
				CP-OFDM	QPSK	159 + 31	H + V	MIMO	Н	324	218	1 / 19	26.14
				CP-OFDM	QPSK	158	Н	SISO	Н	355	280	1 / 16	21.09
				CP-OFDM	QPSK	39	V	SISO	Н	88	221	1 / 12	24.12
				DFT-s-OFDM	π/2 BPSK	159 + 31	H + V	2Tx	Н	324	218	1 / 19	29.07
				DFT-s-OFDM	16QAM	159 + 31	H + V	2Tx	Н	324	218	1 / 19	26.83
				DFT-s-OFDM	64QAM	159 + 31	H + V	2Tx	Н	324	218	1 / 19	24.19

Table 7-10. N patch EIRP Data (Band n258-R1 - 50MHz)

Bandwidth [MHz]	CCs Active	Channel	Frequency [MHz]	Transmission Scheme	Modulation	Beam ID	Beam Pol.	Ant. Div.	Ant. Pol. [H/V]	Positioner Roll [degrees]	Turntable Azimuth [degrees]	RB Size/Offset	EIRP [dBm]
100	1	Low	24300.00	DFT-s-OFDM	π/2 BPSK	159 + 31	H + V	2Tx	Н	322	217	1 / 32	29.17
		Mid	24350.04	DFT-s-OFDM	π/2 BPSK	159 + 31	H + V	2Tx	Н	316	216	1 / 40	29.28
		High	24399.96	DFT-s-OFDM	QPSK	159 + 31	H + V	2Tx	Н	322	217	1 / 32	29.48
				DFT-s-OFDM	QPSK	158	Н	SISO	Н	10	279	1 / 40	24.20
				DFT-s-OFDM	QPSK	39	V	SISO	Н	88	220	1 / 25	26.30
				CP-OFDM	QPSK	159 + 31	H + V	MIMO	Н	322	217	1 / 40	26.47
				CP-OFDM	QPSK	158	Н	SISO	Н	10	279	1 / 40	21.10
				CP-OFDM	QPSK	39	V	SISO	Н	88	220	1 / 40	23.39
				DFT-s-OFDM	π/2 BPSK	159 + 31	H + V	2Tx	Н	322	217	1 / 40	29.47
				DFT-s-OFDM	16QAM	159 + 31	H + V	2Tx	Н	322	217	1 / 40	27.40
				DFT-s-OFDM	64QAM	159 + 31	H + V	2Tx	Н	322	217	1 / 32	24.34
100+100	2	Mid	24349.98	DFT-s-OFDM	QPSK	159 + 31	H + V	2Tx	Н	316	216	64 / 0	22.17
				DFT-s-OFDM	π/2 BPSK	159 + 31	H + V	2Tx	Н	316	216	64 / 0	22.79
				DFT-s-OFDM	16QAM	159 + 31	H + V	2Tx	Н	316	216	1 / 25	21.01
				DFT-s-OFDM	64QAM	159 + 31	H + V	2Tx	Н	316	216	1 / 25	19.81

Table 7-11. N patch EIRP Data (Band n258-R1 - 100MHz)

FCC ID: A3LSMS911U	element	PART 30 MEASUREMENT REPORT (CERTIFICATION)	Approved by: Technical Manager
Test Report S/N:	Test Dates:	EUT Type:	Page 61 of 201
1M2209010096-08.A3L	10/18/2022 - 11/14/2022	Portable Handset	Page 61 01 201





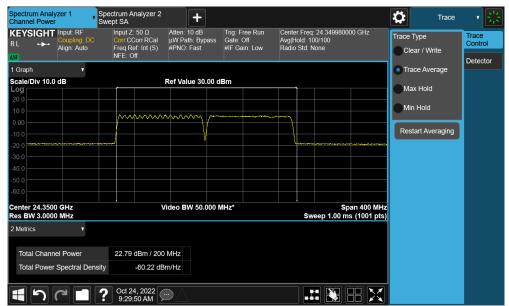
Plot 7-72. N patch EIRP Plot (Band n258-R1 - 50MHz-1CC High Channel DFT-s-OFDM π/2 BPSK)



Plot 7-73. N patch EIRP Plot (Band n258-R1 - 100MHz-1CC High Channel DFT-s-OFDM QPSK)

FCC ID: A3LSMS911U	element	PART 30 MEASUREMENT REPORT (CERTIFICATION)	Approved by: Technical Manager
Test Report S/N:	Test Dates:	EUT Type:	Page 62 of 201
1M2209010096-08.A3L	10/18/2022 - 11/14/2022	Portable Handset	Fage 62 01 20 1





Plot 7-74. N patch EIRP Plot (Band n258-R1 - 100MHz-2CC Mid Channel DFT-s-OFDM π/2 BPSK)

FCC ID: A3LSMS911U	element	PART 30 MEASUREMENT REPORT (CERTIFICATION)	Approved by: Technical Manager
Test Report S/N:	Test Dates:	EUT Type:	Page 63 of 201
1M2209010096-08.A3L	10/18/2022 - 11/14/2022	Portable Handset	Page 63 01 201



# Band n258-R2 Beam ID Configurations

Mode	Channel	Beam Polarization	Beam ID	Beam ID Pair
	Low	Н	165	-
	LOW	V	36	-
SISO	Mid	Н	165	-
3130	IVIIG	V	36	-
	Lliada	Н	165	-
	High	V	36	-
MIMO	Low	2Tx/MIMO	155	27
	Mid	2Tx/MIMO	155	27
	High	2Tx/MIMO	155	27

Table 7-12. M Patch Worst Case Beam ID

Mode	Channel	Beam Polarization	Beam ID	Beam ID Pair	
	Low	Н	158	-	
	Low	V	39	-	
SISO	Mid	Н	158	-	
3130	IVIIG	V	39	-	
	l limb	Н	158	-	
	High	V	39	-	
	Low	2Tx/MIMO	159	31	
MIMO	Mid	2Tx/MIMO	159	31	
	High	2Tx/MIMO	159	31	

Table 7-13. N Patch Worst Case Beam ID

FCC ID: A3LSMS911U	element	PART 30 MEASUREMENT REPORT (CERTIFICATION)	Approved by: Technical Manager
Test Report S/N:	Test Dates:	EUT Type:	Page 64 of 201
1M2209010096-08.A3L	10/18/2022 - 11/14/2022	Portable Handset	Page 64 01 20 1



# **Band n258-R2**

Bandwidth [MHz]	CCs Active	Channel	Frequency [MHz]	Transmission Scheme	Modulation	Beam ID	Beam Pol.	Ant. Div.	Ant. Pol. [H/V]	Positioner Roll [degrees]	Turntable Azimuth [degrees]	RB Size/Offset	EIRP [dBm]
50	1	Low	24775.08	DFT-s-OFDM	QPSK	155 + 27	H + V	2Tx	Н	74	256	1 / 16	29.24
		Mid	24999.96	DFT-s-OFDM	QPSK	155 + 27	H + V	2Tx	Н	71	268	1 / 16	29.26
		High	25224.96	DFT-s-OFDM	QPSK	155 + 27	H + V	2Tx	Н	75	266	1 / 16	30.33
				DFT-s-OFDM	QPSK	165	Н	SISO	V	54	267	1 / 19	28.92
				DFT-s-OFDM	QPSK	36	V	SISO	Н	84	265	1 / 19	29.38
				CP-OFDM	QPSK	155 + 27	H + V	MIMO	Н	75	266	1 / 16	27.24
				CP-OFDM	QPSK	165	Н	SISO	V	54	267	1 / 16	27.52
				CP-OFDM	QPSK	36	V	SISO	Н	84	265	1 / 16	26.39
				DFT-s-OFDM	π/2 BPSK	155 + 27	H + V	2Tx	Н	75	266	1 / 16	30.26
				DFT-s-OFDM	16QAM	155 + 27	H + V	2Tx	Н	75	266	1 / 16	28.47
				DFT-s-OFDM	64QAM	155 + 27	H + V	2Tx	Н	75	266	1 / 16	25.24

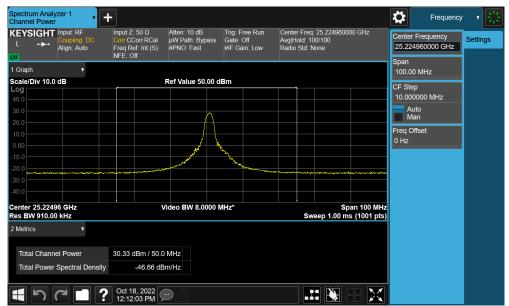
Table 7-14. M patch EIRP Data (Band n258-R2 - 50MHz)

Bandwidth [MHz]	CCs Active	Channel	Frequency [MHz]	Transmission Scheme	Modulation	Beam ID	Beam Pol.	Ant. Div.	Ant. Pol. [H/V]	Positioner Roll [degrees]	Turntable Azimuth [degrees]	RB Size/Offset	EIRP [dBm]
100	1	Low	24800.04	DFT-s-OFDM	π/2 BPSK	155 + 27	H + V	2Tx	Н	73	255	1 / 33	29.21
		Mid	24999.96	DFT-s-OFDM	π/2 BPSK	155 + 27	H + V	2Tx	Н	73	268	1 / 33	29.86
		High	25200.00	DFT-s-OFDM	QPSK	155 + 27	H + V	2Tx	Н	73	257	1 / 33	30.07
				DFT-s-OFDM	QPSK	165	H	SISO	V	53	267	1 / 42	29.96
				DFT-s-OFDM	QPSK	36	V	SISO	H	85	267	1 / 42	29.85
				CP-OFDM	QPSK	155 + 27	H + V	MIMO	Н	73	257	1 / 23	28.61
				CP-OFDM	QPSK	165	H	SISO	V	53	267	1 / 42	26.77
				CP-OFDM	QPSK	36	V	SISO	Н	85	267	1 / 33	26.74
				DFT-s-OFDM	π/2 BPSK	155 + 27	H + V	2Tx	Н	73	257	1 / 33	30.26
				DFT-s-OFDM	16QAM	155 + 27	H + V	2Tx	Н	73	257	1 / 42	29.91
				DFT-s-OFDM	64QAM	155 + 27	H + V	2Tx	Н	73	257	1 / 42	27.79
100+100	2	High	25150.02	DFT-s-OFDM	QPSK	155 + 27	H + V	2Tx	H	68	262	64 / 0	24.18
				DFT-s-OFDM	π/2 BPSK	155 + 27	H + V	2Tx	Н	68	262	64 / 0	24.25
				DFT-s-OFDM	16QAM	155 + 27	H + V	2Tx	Н	68	262	1 / 42	23.15
				DFT-s-OFDM	64QAM	155 + 27	H + V	2Tx	Н	68	262	1 / 42	21.71
100+100+100	3	High	25100.04	DFT-s-OFDM	QPSK	155 + 27	H + V	2Tx	Н	66	267	64 / 0	24.50
				DFT-s-OFDM	π/2 BPSK	155 + 27	H + V	2Tx	Н	66	267	64 / 0	24.48
				DFT-s-OFDM	16QAM	155 + 27	H + V	2Tx	Н	66	267	64 / 0	22.41
				DFT-s-OFDM	64QAM	155 + 27	H + V	2Tx	Н	66	267	64 / 0	20.42

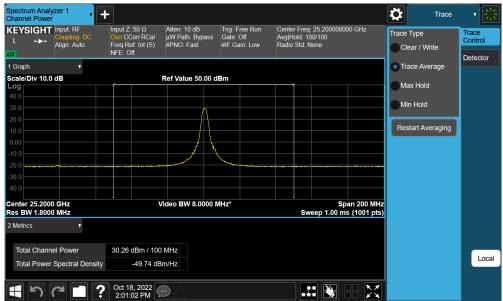
Table 7-15. M patch EIRP Data (Band n258-R2 - 100MHz)

FCC ID: A3LSMS911U	element	Approved by: Technical Manager	
Test Report S/N:	Test Dates:	EUT Type:	Page 65 of 201
1M2209010096-08.A3L	10/18/2022 - 11/14/2022	Portable Handset	Page 65 01 20 1





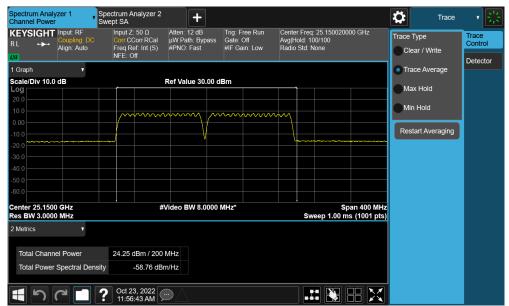
Plot 7-75. M patch EIRP Plot (Band n258-R2 - 50MHz-1CC High Channel DFT-s-OFDM QPSK)



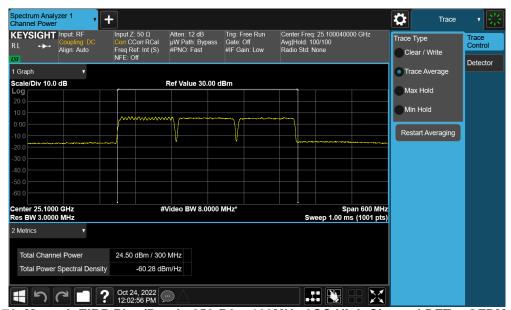
Plot 7-76. M patch EIRP Plot (Band n258-R2 - 100MHz-1CC High Channel DFT-s-OFDM π/2 BPSK)

FCC ID: A3LSMS911U	element	PART 30 MEASUREMENT REPORT (CERTIFICATION)	Approved by: Technical Manager
Test Report S/N:	Test Dates:	EUT Type:	Page 66 of 201
1M2209010096-08.A3L	10/18/2022 - 11/14/2022	Portable Handset	Page 66 01 201





Plot 7-77. M patch EIRP Plot (Band n258-R2 - 100MHz-2CC High Channel DFT-s-OFDM π/2 BPSK)



Plot 7-78. M patch EIRP Plot (Band n258-R2 - 100MHz-3CC High Channel DFT-s-OFDM QPSK)

FCC ID: A3LSMS911U	element	PART 30 MEASUREMENT REPORT (CERTIFICATION)	Approved by: Technical Manager
Test Report S/N:	Test Dates:	EUT Type:	Page 67 of 201
1M2209010096-08.A3L	10/18/2022 - 11/14/2022	Portable Handset	Page 67 of 201



Bandwidth [MHz]	CCs Active	Channel	Frequency [MHz]	Transmission Scheme	Modulation	Beam ID	Beam Pol.	Ant. Div.	Ant. Pol. [H/V]	Positioner Roll [degrees]	Turntable Azimuth [degrees]	RB Size/Offset	EIRP [dBm]
50	1	Low	24775.08	DFT-s-OFDM	π/2 BPSK	159 + 31	H + V	2Tx	Н	312	217	1 / 15	30.27
		Mid	24999.96	DFT-s-OFDM	π/2 BPSK	159 + 31	H + V	2Tx	Н	287	236	1 / 19	30.57
		High	25224.96	DFT-s-OFDM	QPSK	159 + 31	H + V	2Tx	Н	311	221	1 / 19	31.17
				DFT-s-OFDM	QPSK	158	Н	SISO	Н	0	283	1 / 12	26.42
				DFT-s-OFDM	QPSK	39	V	SISO	Н	88	227	1 / 15	28.62
				CP-OFDM	QPSK	159 + 31	H + V	MIMO	Н	311	221	1 / 19	27.91
				CP-OFDM	QPSK	158	Н	SISO	Н	0	283	1 / 15	23.89
				CP-OFDM	QPSK	39	V	SISO	Н	88	227	1 / 12	25.48
				DFT-s-OFDM	π/2 BPSK	159 + 31	H + V	2Tx	Н	311	221	1 / 19	31.15
				DFT-s-OFDM	16QAM	159 + 31	H + V	2Tx	Н	311	221	1 / 19	29.03
				DFT-s-OFDM	64QAM	159 + 31	H + V	2Tx	Н	311	221	1 / 15	25.77

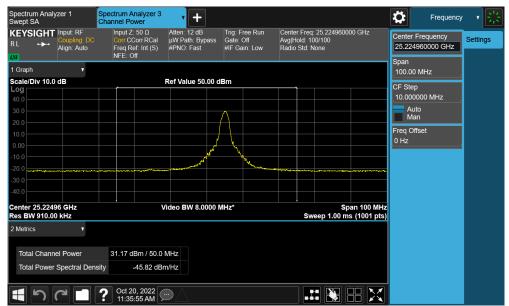
Table 7-16. N patch EIRP Data (Band n258-R2 - 50MHz)

Bandwidth [MHz]	CCs Active	Channel	Frequency [MHz]	Transmission Scheme	Modulation	Beam ID	Beam Pol.	Ant. Div.	Ant. Pol. [H/V]	Positioner Roll [degrees]	Turntable Azimuth [degrees]	RB Size/Offset	EIRP [dBm]
100	1	Low	24800.04	DFT-s-OFDM	π/2 BPSK	159 + 31	H + V	2Tx	Н	310	216	1 / 32	30.01
		Mid	24999.96	DFT-s-OFDM	QPSK	159 + 31	H + V	2Tx	Н	310	219	1 / 40	30.95
				DFT-s-OFDM	QPSK	158	Н	SISO	Н	353	84	1 / 32	25.58
				DFT-s-OFDM	QPSK	39	V	SISO	Н	90	227	1 / 40	27.91
				CP-OFDM	QPSK	159 + 31	H + V	MIMO	Н	310	219	1 / 40	27.74
				CP-OFDM	QPSK	158	Н	SISO	Н	353	84	1 / 32	24.54
				CP-OFDM	QPSK	39	V	SISO	Н	90	227	1 / 32	24.87
				DFT-s-OFDM	π/2 BPSK	159 + 31	H + V	2Tx	Н	310	219	1 / 40	30.88
				DFT-s-OFDM	16QAM	159 + 31	H + V	2Tx	Н	310	219	1 / 40	29.17
				DFT-s-OFDM	64QAM	159 + 31	H + V	2Tx	Н	310	219	1 / 40	25.27
		High	25200.00	DFT-s-OFDM	π/2 BPSK	159 + 31	H + V	2Tx	Н	309	218	1 / 32	30.64
100+100	2	Mid	25000.02	DFT-s-OFDM	QPSK	159 + 31	H + V	2Tx	Н	317	211	64 / 0	24.76
				DFT-s-OFDM	π/2 BPSK	159 + 31	H + V	2Tx	Н	317	211	64 / 0	24.73
				DFT-s-OFDM	16QAM	159 + 31	H + V	2Tx	Н	317	211	64 / 0	22.73
				DFT-s-OFDM	64QAM	159 + 31	H + V	2Tx	Н	317	211	64 / 0	20.53
100+100+100	3	Mid	24999.96	DFT-s-OFDM	QPSK	159 + 31	H + V	2Tx	Н	316	209	64 / 0	25.17
				DFT-s-OFDM	π/2 BPSK	159 + 31	H + V	2Tx	Н	317	211	64 / 0	25.14
				DFT-s-OFDM	16QAM	159 + 31	H + V	2Tx	Н	317	211	64 / 0	23.15
				DFT-s-OFDM	64QAM	159 + 31	H+V	2Tx	Н	317	211	64 / 0	21.03

Table 7-17. N patch EIRP Data (Band n258-R2 - 100MHz)

FCC ID: A3LSMS911U	element	PART 30 MEASUREMENT REPORT (CERTIFICATION)	Approved by: Technical Manager
Test Report S/N:	Test Dates:	EUT Type:	Page 68 of 201
1M2209010096-08.A3L	10/18/2022 - 11/14/2022	Portable Handset	rage 60 01 20 1





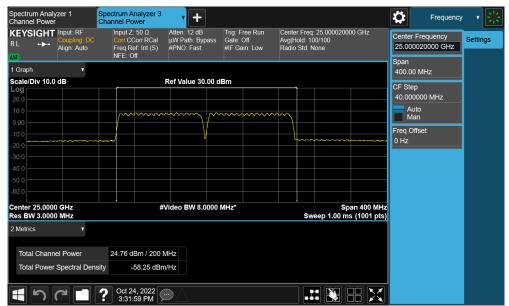
Plot 7-79. N patch EIRP Plot (Band n258-R2 - 50MHz-1CC High Channel DFT-s-OFDM QPSK)



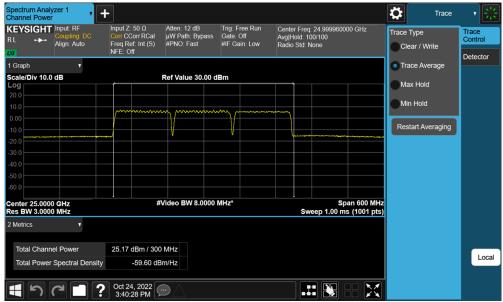
Plot 7-80. N patch EIRP Plot (Band n258-R2 - 100MHz-1CC Mid Channel DFT-s-OFDM QPSK)

FCC ID: A3LSMS911U	element	PART 30 MEASUREMENT REPORT (CERTIFICATION)	Approved by: Technical Manager
Test Report S/N:	Test Dates:	EUT Type:	Page 69 of 201
1M2209010096-08.A3L	10/18/2022 - 11/14/2022	Portable Handset	Fage 69 01 201





Plot 7-81. N patch EIRP Plot (Band n258-R2 - 100MHz-2CC Mid Channel DFT-s-OFDM QPSK)



Plot 7-82. N patch EIRP Plot (Band n258-R2 - 100MHz-3CC Mid Channel DFT-s-OFDM QPSK)

FCC ID: A3LSMS911U	element	PART 30 MEASUREMENT REPORT (CERTIFICATION)	Approved by: Technical Manager
Test Report S/N:	Test Dates:	EUT Type:	Page 70 of 201
1M2209010096-08.A3L	10/18/2022 - 11/14/2022	Portable Handset	Fage 70 01 201



# **Band n261 Beam ID Configurations**

Mode	Channel	Beam Polarization	Beam ID	Beam ID Pair	
	Low	Н	164	-	
	Low	V	36	-	
SISO	Mid	Н	164	-	
3130	IVIIG	V	36	-	
	Lliah	Н	164	-	
	High	V	36	-	
	Low	2Tx/MIMO	164	36	
MIMO	Mid	2Tx/MIMO	164	36	
	High	2Tx/MIMO	164	36	

Table 7-18. M Patch Worst Case Beam ID

Mode	Channel	Beam Polarization	Beam ID	Beam ID Pair
	Low	Н	167	-
	LOW	V	31	-
SISO	Mid	Н	167	-
3130	IVIIG	V	31	-
	Lliab	Н	167	-
	High	V	31	-
	Low	2Tx/MIMO	167	39
MIMO	Mid	2Tx/MIMO	167	39
	High	2Tx/MIMO	167	39

Table 7-19. N Patch Worst Case Beam ID

FCC ID: A3LSMS911U	element	PART 30 MEASUREMENT REPORT (CERTIFICATION)	Approved by: Technical Manager
Test Report S/N:	Test Dates:	EUT Type:	Page 71 of 201
1M2209010096-08.A3L	10/18/2022 - 11/14/2022	Portable Handset	Page / For 201



## Band n261

Bandwidth [MHz]	CCs Active	Channel	Frequency [MHz]	Transmission Scheme	Modulation	Beam ID	Beam Pol.	Ant. Div.	Ant. Pol. [H/V]	Positioner Roll [degrees]	Turntable Azimuth [degrees]	RB Size/Offset	EIRP [dBm]
50	1	Low	27525.00	DFT-s-OFDM	π/2 BPSK	164 + 36	H + V	2Tx	V	86	279	1 / 19	32.10
		Mid	27924.96	DFT-s-OFDM	π/2 BPSK	164 + 36	H + V	2Tx	V	96	276	1 / 19	32.35
		High	28324.92	DFT-s-OFDM	QPSK	164 + 36	H + V	2Tx	V	96	275	1 / 19	32.66
			[	DFT-s-OFDM	QPSK	164	Н	SISO	Н	84	287	1 / 19	28.93
				DFT-s-OFDM	QPSK	36	V	SISO	Н	82	268	1 / 16	29.21
			[	CP-OFDM	QPSK	164 + 36	H + V	MIMO	V	96	275	1 / 12	30.13
			[	CP-OFDM	QPSK	164	Н	SISO	Н	84	287	1 / 12	25.79
				CP-OFDM	QPSK	36	V	SISO	Н	282	268	1 / 12	26.24
				DFT-s-OFDM	π/2 BPSK	164 + 36	H + V	2Tx	V	96	275	1 / 12	32.79
			[	DFT-s-OFDM	16QAM	164 + 36	H + V	2Tx	V	96	275	1 / 12	30.60
				DFT-s-OFDM	64QAM	164 + 36	H + V	2Tx	٧	96	275	1 / 12	27.51

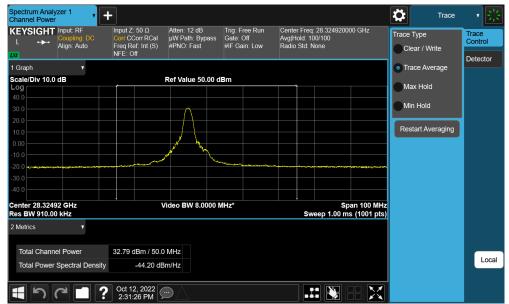
Table 7-20. M patch EIRP Data (Band n261 - 50MHz)

Bandwidth [MHz]	CCs Active	Channel	Frequency [MHz]	Transmission Scheme	Modulation	Beam ID	Beam Pol.	Ant. Div.	Ant. Pol. [H/V]	Positioner Roll [degrees]	Turntable Azimuth [degrees]	RB Size/Offset	EIRP [dBm]
100	1	Low	27550.08	DFT-s-OFDM	π/2 BPSK	164 + 36	H + V	2Tx	V	79	271	1 / 33	32.40
		Mid	27924.96	DFT-s-OFDM	QPSK	164 + 36	H + V	2Tx	V	81	271	1 / 33	32.37
		High	28299.96	DFT-s-OFDM	QPSK	164 + 36	H + V	2Tx	V	79	271	1 / 33	32.18
			[	DFT-s-OFDM	QPSK	164	Н	SISO	Н	81	271	1 / 42	28.56
				DFT-s-OFDM	QPSK	36	V	SISO	Н	84	267	1 / 23	29.28
			[	CP-OFDM	QPSK	164 + 36	H + V	MIMO	V	79	271	1 / 33	30.90
			[	CP-OFDM	QPSK	164	Н	SISO	Н	81	271	1 / 42	25.33
				CP-OFDM	QPSK	36	V	SISO	Н	84	267	1 / 33	26.24
				DFT-s-OFDM	π/2 BPSK	164 + 36	H + V	2Tx	V	79	271	1 / 33	32.43
				DFT-s-OFDM	16QAM	164 + 36	H + V	2Tx	V	79	271	1 / 33	31.90
				DFT-s-OFDM	64QAM	164 + 36	H + V	2Tx	V	79	271	1 / 33	29.19
100+100	Mid	Low	27600.06	DFT-s-OFDM	QPSK	164 + 36	H + V	2Tx	V	80	271	64 / 0	28.31
		Mid	27925.02	DFT-s-OFDM	QPSK	164 + 36	H + V	2Tx	V	78	257	64 / 0	28.44
		High	28249.98	DFT-s-OFDM	QPSK	164 + 36	H + V	2Tx	V	78	257	64 / 0	28.91
				DFT-s-OFDM	π/2 BPSK	164 + 36	H + V	2Tx	V	78	257	64 / 0	28.89
				DFT-s-OFDM	16QAM	164 + 36	H + V	2Tx	V	78	257	64 / 0	27.12
				DFT-s-OFDM	64QAM	164 + 36	H + V	2Tx	V	78	257	64 / 0	25.69
100+100+100	3	Low	27650.04	DFT-s-OFDM	QPSK	164 + 36	H + V	2Tx	V	81	272	64 / 0	28.24
		Mid	27924.96	DFT-s-OFDM	QPSK	164 + 36	H + V	2Tx	V	81	259	64 / 0	28.26
		High	28200.00	DFT-s-OFDM	QPSK	164 + 36	H + V	2Tx	V	82	272	64 / 0	29.23
				DFT-s-OFDM	π/2 BPSK	164 + 36	H + V	2Tx	V	82	272	64 / 0	29.19
				DFT-s-OFDM	16QAM	164 + 36	H + V	2Tx	V	82	272	64 / 0	27.20
				DFT-s-OFDM	64QAM	164 + 36	H+V	2Tx	V	82	272	64 / 0	25.14
100+100+100+100	4	Low	27700.02	DFT-s-OFDM	QPSK	164 + 36	H + V	2Tx	V	79	257	64 / 0	27.52
		Mid	27925.02	DFT-s-OFDM	QPSK	164 + 36	H + V	2Tx	V	79	258	64 / 0	27.54
		High	28150.02	DFT-s-OFDM	QPSK	164 + 36	H + V	2Tx	V	81	259	64 / 0	27.82
				DFT-s-OFDM	π/2 BPSK	164 + 36	H + V	2Tx	V	81	259	64 / 0	27.98
				DFT-s-OFDM	16QAM	164 + 36	H + V	2Tx	V	81	259	64 / 0	25.68
				DFT-s-OFDM	64QAM	164 + 36	H + V	2Tx	V	81	259	64 / 0	23.67

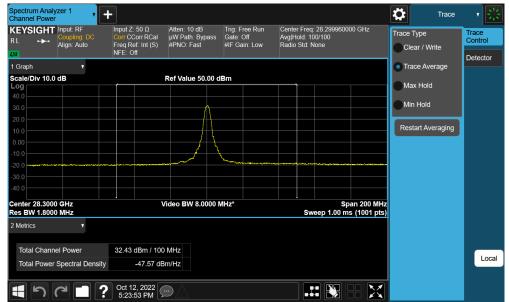
Table 7-21. M patch EIRP Data (Band n261 - 100MHz)

FCC ID: A3LSMS911U	element	PART 30 MEASUREMENT REPORT (CERTIFICATION)	Approved by: Technical Manager
Test Report S/N:	Test Dates:	EUT Type:	Page 72 of 201
1M2209010096-08.A3L	10/18/2022 - 11/14/2022	Portable Handset	Page 72 01 201





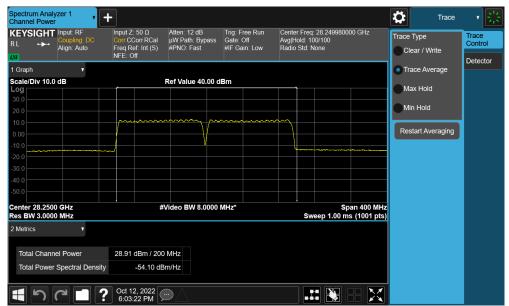
Plot 7-83. M patch EIRP Plot (Band n261 - 50MHz-1CC High Channel DFT-s-OFDM π/2 BPSK)



Plot 7-84. M patch EIRP Plot (Band n261 - 100MHz-1CC High Channel DFT-s-OFDM π/2 BPSK)

FCC ID: A3LSMS911U	element	PART 30 MEASUREMENT REPORT (CERTIFICATION)	Approved by: Technical Manager
Test Report S/N:	Test Dates:	EUT Type:	Page 73 of 201
1M2209010096-08.A3L	10/18/2022 - 11/14/2022	Portable Handset	Page 73 01 201





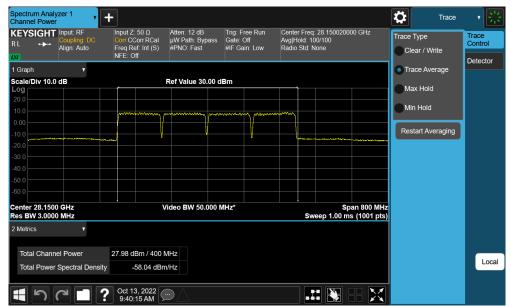
Plot 7-85. M patch EIRP Plot (Band n261 - 100MHz-2CC High Channel DFT-s-OFDM QPSK)



Plot 7-86. M patch EIRP Plot (Band n261 - 100MHz-3CC High Channel DFT-s-OFDM QPSK)

FCC ID: A3LSMS911U	element	PART 30 MEASUREMENT REPORT (CERTIFICATION)	Approved by: Technical Manager
Test Report S/N:	Test Dates:	EUT Type:	Page 74 of 201
1M2209010096-08.A3L	10/18/2022 - 11/14/2022	Portable Handset	Page 74 01 201





Plot 7-87. M patch EIRP Plot (Band n261 - 100MHz-4CC High Channel DFT-s-OFDM π/2 BPSK)

FCC ID: A3LSMS911U	element	PART 30 MEASUREMENT REPORT (CERTIFICATION)	Approved by: Technical Manager
Test Report S/N:	Test Dates:	EUT Type:	Page 75 of 201
1M2209010096-08.A3L	10/18/2022 - 11/14/2022	Portable Handset	Page 75 01 201



Bandwidth [MHz]	CCs Active	Channel	Frequency [MHz]	Transmission Scheme	Modulation	Beam ID	Beam Pol.	Ant. Div.	Ant. Pol. [H/V]	Positioner Roll [degrees]	Turntable Azimuth [degrees]	RB Size/Offset	EIRP [dBm]
50	1	Low	27525.00	DFT-s-OFDM	π/2 BPSK	167 + 39	H + V	2Tx	Н	10	282	1 / 16	29.87
		Mid	27924.96	DFT-s-OFDM	QPSK	167 + 39	H + V	2Tx	Н	14	268	1 / 12	31.63
		High	28324.92	DFT-s-OFDM	QPSK	167 + 39	H + V	2Tx	Н	18	273	1 / 19	32.07
				DFT-s-OFDM	QPSK	167	Н	SISO	V	8	268	1 / 19	30.29
				DFT-s-OFDM	QPSK	31	V	SISO	Н	24	278	1 / 19	31.56
				CP-OFDM	QPSK	167 + 39	H + V	MIMO	Н	18	273	1 / 19	28.60
				CP-OFDM	QPSK	167	Н	SISO	V	8	268	1 / 19	27.10
				CP-OFDM	QPSK	31	V	SISO	Н	24	278	1 / 19	28.45
				DFT-s-OFDM	π/2 BPSK	167 + 39	H + V	2Tx	Н	18	273	1 / 19	31.97
				DFT-s-OFDM	16QAM	167 + 39	H + V	2Tx	Н	18	273	1 / 19	30.21
				DFT-s-OFDM	64QAM	167 + 39	H+V	2Tx	Н	18	273	1 / 19	26.64

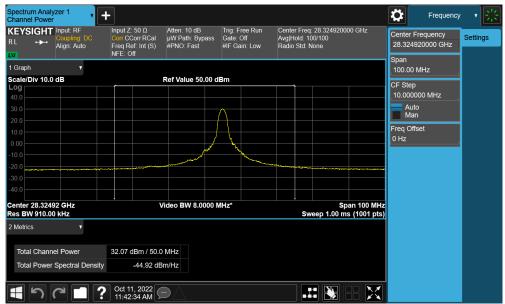
Table 7-22. N patch EIRP Data (Band n261 - 50MHz)

Bandwidth [MHz]	CCs Active	Channel	Frequency [MHz]	Transmission Scheme	Modulation	Beam ID	Beam Pol.	Ant. Div.	Ant. Pol. [H/V]	Positioner Roll [degrees]	Turntable Azimuth [degrees]	RB Size/Offset	EIRP [dBm]
100	1	Low	27550.08	DFT-s-OFDM	π/2 BPSK	167 + 39	H + V	2Tx	Н	16	279	1 / 33	31.51
	[	Mid	27924.96	DFT-s-OFDM	π/2 BPSK	167 + 39	H + V	2Tx	Н	9	270	1 / 33	29.49
		High	28299.96	DFT-s-OFDM	QPSK	167 + 39	H + V	2Tx	Н	10	247	1 / 33	31.65
			[	DFT-s-OFDM	QPSK	167	Н	SISO	V	14	265	1 / 42	28.91
					DFT-s-OFDM	QPSK	31	V	SISO	Н	359	273	1 / 42
			[	CP-OFDM	QPSK	167 + 39	H + V	MIMO	Н	10	247	1 / 33	28.53
			[	CP-OFDM	QPSK	167	Н	SISO	V	14	265	1 / 42	26.02
			[	CP-OFDM	QPSK	31	V	SISO	Н	359	273	1 / 42	27.40
				DFT-s-OFDM	π/2 BPSK	167 + 39	H+V	2Tx	Н	10	265	1 / 33	31.67
			[	DFT-s-OFDM	16QAM	167 + 39	H + V	2Tx	Н	10	265	1 / 33	29.48
				DFT-s-OFDM	64QAM	167 + 39	H + V	2Tx	Н	10	265	1 / 33	26.48
100+100	2 Low	Low	27600.06	DFT-s-OFDM	QPSK	167 + 39	H + V	2Tx	Н	16	279	64 / 0	26.77
	[	Mid High	27925.02	DFT-s-OFDM	QPSK	167 + 39	H + V	2Tx	Н	9	270	64 / 0	27.28
			28249.98	DFT-s-OFDM	QPSK	167 + 39	H + V	2Tx	Н	5	267	64 / 0	27.75
				DFT-s-OFDM	π/2 BPSK	167 + 39	H + V	2Tx	Н	5	267	64 / 0	27.61
				DFT-s-OFDM	16QAM	167 + 39	H + V	2Tx	Н	5	267	64 / 0	26.15
				DFT-s-OFDM	64QAM	167 + 39	H + V	2Tx	Н	5	267	64 / 0	23.29
100+100+100	3	Low	27650.04	DFT-s-OFDM	QPSK	167 + 39	H + V	2Tx	Н	0	280	64 / 0	26.23
		Mid	27924.96	DFT-s-OFDM	QPSK	167 + 39	H + V	2Tx	Н	23	270	64 / 0	26.69
		High	28200.00	DFT-s-OFDM	QPSK	167 + 39	H + V	2Tx	Н	17	268	64 / 0	27.07
				DFT-s-OFDM	π/2 BPSK	167 + 39	H + V	2Tx	Н	17	268	64 / 0	27.07
			1 [	DFT-s-OFDM	16QAM	167 + 39	H+V	2Tx	Н	17	268	64 / 0	24.99
			1 [	DFT-s-OFDM	64QAM	167 + 39	H+V	2Tx	Н	17	268	64 / 0	22.96
100+100+100+100	4	Low	27700.02	DFT-s-OFDM	QPSK	167 + 39	H + V	2Tx	Н	5	279	64 / 0	26.08
		Mid	27925.02	DFT-s-OFDM	QPSK	167 + 39	H + V	2Tx	Н	15	274	64 / 0	26.09
		High	28150.02	DFT-s-OFDM	QPSK	167 + 39	H + V	2Tx	Н	8	275	64 / 0	26.12
			1	DFT-s-OFDM	π/2 BPSK	167 + 39	H + V	2Tx	Н	8	275	64 / 0	26.08
				DFT-s-OFDM	16QAM	167 + 39	H+V	2Tx	Н	8	275	64 / 0	23.87
				DFT-s-OFDM	64QAM	167 + 39	H + V	2Tx	Н	8	275	64 / 0	21.81

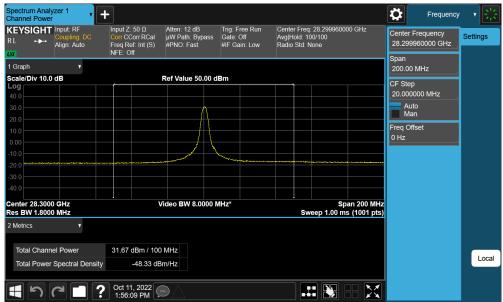
Table 7-23. N patch EIRP Data (Band n261 - 100MHz)

FCC ID: A3LSMS911U	element	PART 30 MEASUREMENT REPORT (CERTIFICATION)	Approved by: Technical Manager
Test Report S/N:	Test Dates:	EUT Type:	Page 76 of 201
1M2209010096-08.A3L	10/18/2022 - 11/14/2022	Portable Handset	Fage 76 01 20 1





Plot 7-88. N patch EIRP Plot (Band n261 - 50MHz-1CC High Channel DFT-s-OFDM QPSK)



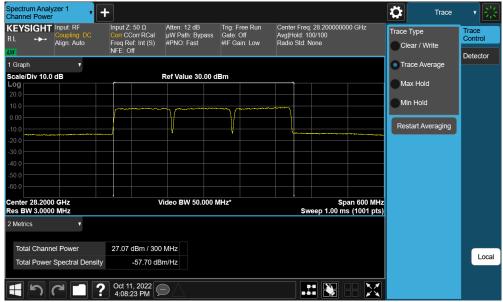
Plot 7-89. N patch EIRP Plot (Band n261 - 100MHz-1CC High Channel DFT-s-OFDM π/2 BPSK)

FCC ID: A3LSMS911U	element	PART 30 MEASUREMENT REPORT (CERTIFICATION)	Approved by: Technical Manager
Test Report S/N:	Test Dates:	EUT Type:	Page 77 of 201
1M2209010096-08.A3L	10/18/2022 - 11/14/2022	Portable Handset	Page 77 01 201





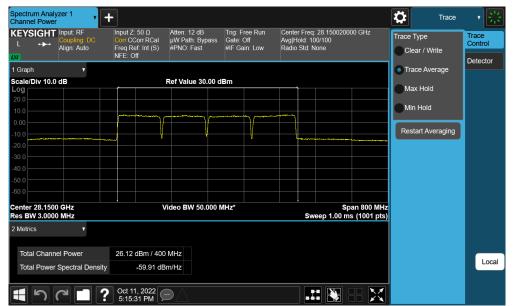
Plot 7-90. N patch EIRP Plot (Band n261 - 100MHz-2CC High Channel DFT-s-OFDM QPSK)



Plot 7-91. N patch EIRP Plot (Band n261 - 100MHz-3CC High Channel DFT-s-OFDM QPSK)

FCC ID: A3LSMS911U	element	PART 30 MEASUREMENT REPORT (CERTIFICATION)	Approved by: Technical Manager
Test Report S/N:	Test Dates:	EUT Type:	Page 78 of 201
1M2209010096-08.A3L	10/18/2022 - 11/14/2022	Portable Handset	Fage 78 01 201





Plot 7-92. N patch EIRP Plot (Band n261 - 100MHz-4CC High Channel DFT-s-OFDM QPSK)

FCC ID: A3LSMS911U	element	PART 30 MEASUREMENT REPORT (CERTIFICATION)	Approved by: Technical Manager
Test Report S/N:	Test Dates:	EUT Type:	Page 79 of 201
1M2209010096-08.A3L	10/18/2022 - 11/14/2022	Portable Handset	Page 79 01 201



# **Band n260 Beam ID Configurations**

Mode	Channel	Beam Polarization	Beam ID	Beam ID Pair	
	Low	Н	154	-	
	LOW	V	37	-	
SISO	Mid	Н	154	-	
3130	IVIIG	V	37	-	
	Lliab	Н	154	-	
	High	V	37	-	
	Low	2Tx/MIMO	154	26	
MIMO	Mid	2Tx/MIMO	154	26	
	High	2Tx/MIMO	154	26	

Table 7-24. M Patch Worst Case Beam ID

Mode	Channel	Beam Polarization	Beam ID	Beam ID Pair	
	Low	Н	158	-	
	Low	V	39	-	
CICO	Mid	Н	158	-	
SISO	IVIIU	V	39	-	
	Lliab	Н	158	-	
	High	V	39	-	
	Low	2Tx/MIMO	158	30	
MIMO	Mid	2Tx/MIMO	167	39	
	High	2Tx/MIMO	158	30	

Table 7-25. N Patch Worst Case Beam ID

FCC ID: A3LSMS911U	element	PART 30 MEASUREMENT REPORT (CERTIFICATION)	Approved by: Technical Manager
Test Report S/N:	Test Dates:	EUT Type:	Page 80 of 201
1M2209010096-08.A3L	10/18/2022 - 11/14/2022	Portable Handset	Page 60 01 201



### Band n260

Bandwidth [MHz]	CCs Active	Channel	Frequency [MHz]	Transmission Scheme	Modulation	Beam ID	Beam Pol.	Ant. Div.	Ant. Pol. [H/V]	Positioner Roll [degrees]	Turntable Azimuth [degrees]	RB Size/Offset	EIRP [dBm]
50	1	Low	37025.04	DFT-s-OFDM	π/2 BPSK	154 + 26	H + V	2Tx	Н	289	266	1 / 12	27.49
		Mid	38499.96	DFT-s-OFDM	QPSK	154 + 26	H + V	2Tx	V	229	89	1 / 19	30.09
				DFT-s-OFDM	QPSK	154	Н	SISO	Н	88	251	1 / 19	29.59
				DFT-s-OFDM	QPSK	37	V	SISO	Н	294	239	1 / 19	29.28
				CP-OFDM	QPSK	154 + 26	H + V	MIMO	V	229	89	1 / 19	26.99
				CP-OFDM	QPSK	154	Н	SISO	Н	88	251	1 / 19	26.70
				CP-OFDM	QPSK	37	V	SISO	Н	294	239	1 / 12	26.37
				DFT-s-OFDM	π/2 BPSK	154 + 26	H + V	2Tx	V	229	89	1 / 12	30.24
				DFT-s-OFDM	16QAM	154 + 26	H + V	2Tx	V	229	89	1 / 12	27.99
				DFT-s-OFDM	64QAM	154 + 26	H + V	2Tx	V	229	89	1 / 19	25.37
		High	39975.00	DFT-s-OFDM	QPSK	154 + 26	H + V	2Tx	Н	287	279	1 / 16	29.21

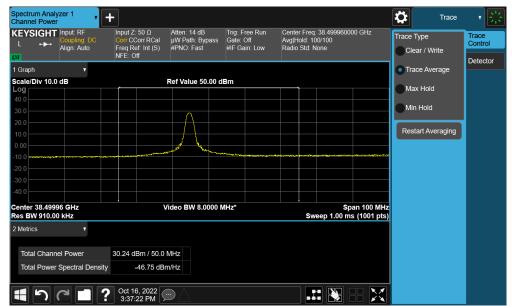
Table 7-26. M patch EIRP Data (Band n260 - 50MHz)

Bandwidth [MHz]	CCs Active	Channel	Frequency [MHz]	Transmission Scheme	Modulation	Beam ID	Beam Pol.	Ant. Div.	Ant. Pol. [H/V]	Positioner Roll [degrees]	Turntable Azimuth [degrees]	RB Size/Offset	EIRP [dBm]
100	1	Low	37050.00	DFT-s-OFDM	π/2 BPSK	154 + 26	H + V	2Tx	Н	302	276	1 / 33	29.39
		Mid	38499.96	DFT-s-OFDM	QPSK	154 + 26	H + V	2Tx	V	286	279	1 / 33	29.65
				DFT-s-OFDM	QPSK	154	Н	SISO	Н	82	232	1 / 33	29.05
				DFT-s-OFDM	QPSK	37	V	SISO	Н	294	239	1 / 42	29.22
				CP-OFDM	QPSK	154 + 26	H + V	MIMO	V	286	279	1 / 33	26.64
				CP-OFDM	QPSK	154	Н	SISO	Н	82	232	1 / 42	26.10
				CP-OFDM	QPSK	37	V	SISO	Н	294	239	1 / 33	26.06
				DFT-s-OFDM	π/2 BPSK	154 + 26	H + V	2Tx	V	286	279	1 / 33	29.71
				DFT-s-OFDM	16QAM	154 + 26	H + V	2Tx	V	286	279	1 / 33	27.56
				DFT-s-OFDM	64QAM	154 + 26	H + V	2Tx	V	286	279	1 / 33	24.47
		High	39949.92	DFT-s-OFDM	π/2 BPSK	154 + 26	H + V	2Tx	Н	282	280	1 / 33	28.22
100+100	2	Low	37099.98	DFT-s-OFDM	π/2 BPSK	154 + 26	H + V	2Tx	Н	300	272	64 / 0	23.08
		Mid	38500.02	DFT-s-OFDM	QPSK	154 + 26	H + V	2Tx	Н	281	281	64 / 0	25.62
				DFT-s-OFDM	π/2 BPSK	154 + 26	H + V	2Tx	Н	281	281	64 / 0	25.68
				DFT-s-OFDM	16QAM	154 + 26	H + V	2Tx	Н	281	281	64 / 0	24.14
				DFT-s-OFDM	64QAM	154 + 26	H + V	2Tx	Н	281	281	64 / 0	22.33
		High	39899.94	DFT-s-OFDM	π/2 BPSK	154 + 26	H + V	2Tx	Н	278	273	64 / 0	23.28
100+100+100	3	Low	37149.96	DFT-s-OFDM	QPSK	154 + 26	H + V	2Tx	Н	290	276	64 / 0	23.73
		Mid	38499.96	DFT-s-OFDM	QPSK	154 + 26	H + V	2Tx	Н	282	271	64 / 0	25.88
				DFT-s-OFDM	π/2 BPSK	154 + 26	H + V	2Tx	Н	282	271	64 / 0	25.88
				DFT-s-OFDM	16QAM	154 + 26	H + V	2Tx	Н	282	271	64 / 0	24.39
				DFT-s-OFDM	64QAM	154 + 26	H + V	2Tx	Н	282	271	64 / 0	22.56
		High	39849.96	DFT-s-OFDM	QPSK	154 + 26	H + V	2Tx	H	289	275	64 / 0	23.58
100+100+100+100	4	Low	37199.94	DFT-s-OFDM	π/2 BPSK	154 + 26	H + V	2Tx	Н	289	276	64 / 0	23.58
		Mid	38500.02	DFT-s-OFDM	QPSK	154 + 26	H + V	2Tx	Н	293	274	64 / 0	25.32
				DFT-s-OFDM	π/2 BPSK	154 + 26	H + V	2Tx	Н	293	274	64 / 0	25.30
				DFT-s-OFDM	16QAM	154 + 26	H + V	2Tx	Н	293	274	64 / 0	23.80
				DFT-s-OFDM	64QAM	154 + 26	H + V	2Tx	Н	293	274	64 / 0	22.05
		High	39799.98	DFT-s-OFDM	QPSK	154 + 26	H + V	2Tx	Н	280	257	64 / 0	25.27

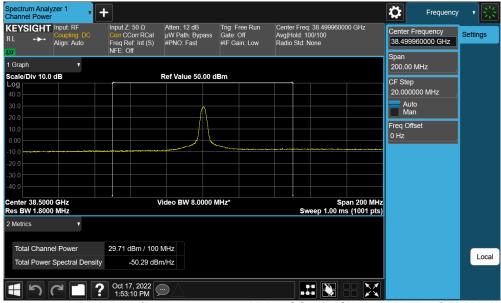
Table 7-27. M patch EIRP Data (Band n260 - 100MHz)

FCC ID: A3LSMS911U	element	PART 30 MEASUREMENT REPORT (CERTIFICATION)	Approved by: Technical Manager
Test Report S/N:	Test Dates:	EUT Type:	Page 81 of 201
1M2209010096-08.A3L	10/18/2022 - 11/14/2022	Portable Handset	Page 81 01 201





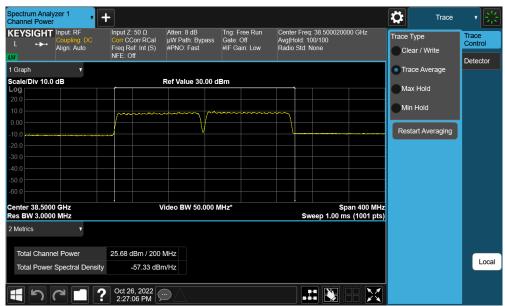
Plot 7-93. M patch EIRP Plot (Band n260 - 50MHz-1CC Mid Channel DFT-s-OFDM π/2 BPSK)



Plot 7-94. M patch EIRP Plot (Band n260 - 100MHz-1CC Mid Channel DFT-s-OFDM π/2 BPSK)

FCC ID: A3LSMS911U	element	PART 30 MEASUREMENT REPORT (CERTIFICATION)	Approved by: Technical Manager
Test Report S/N:	Test Dates:	EUT Type:	Page 82 of 201
1M2209010096-08.A3L	10/18/2022 - 11/14/2022	Portable Handset	Page 62 01 201





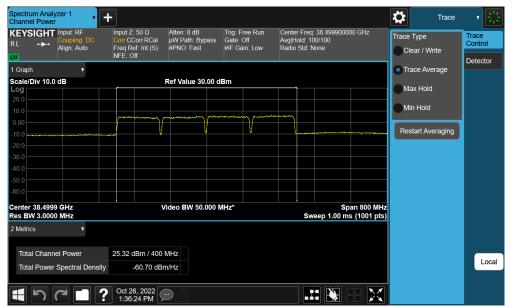
Plot 7-95. M patch EIRP Plot (Band n260 - 100MHz-2CC Mid Channel DFT-s-OFDM π/2 BPSK)



Plot 7-96. M patch EIRP Plot (Band n260 - 100MHz-3CC Mid Channel DFT-s-OFDM π/2 BPSK)

FCC ID: A3LSMS911U	element	PART 30 MEASUREMENT REPORT (CERTIFICATION)	Approved by: Technical Manager
Test Report S/N:	Test Dates:	EUT Type:	Page 83 of 201
1M2209010096-08.A3L	10/18/2022 - 11/14/2022	Portable Handset	Page 63 01 201





Plot 7-97. M patch EIRP Plot (Band n260 - 100MHz-4CC Mid Channel DFT-s-OFDM QPSK)

FCC ID: A3LSMS911U	element	PART 30 MEASUREMENT REPORT (CERTIFICATION)	Approved by: Technical Manager
Test Report S/N:	Test Dates:	EUT Type:	Page 84 of 201
1M2209010096-08.A3L	10/18/2022 - 11/14/2022	Portable Handset	Page 64 01 201



Bandwidth [MHz]	CCs Active	Channel	Frequency [MHz]	Transmission Scheme	Modulation	Beam ID	Beam Pol.	Ant. Div.	Ant. Pol. [H/V]	Positioner Roll [degrees]	Turntable Azimuth [degrees]	RB Size/Offset	EIRP [dBm]
50	1	Low	37025.04	DFT-s-OFDM	π/2 BPSK	158 + 30	H + V	2Tx	V	46	199	1 / 16	31.39
		Mid	38499.96	DFT-s-OFDM	QPSK	167 + 39	H + V	2Tx	Н	258	273	1 / 16	33.29
				DFT-s-OFDM	QPSK	158	Н	SISO	Н	69	218	1 / 16	30.19
				DFT-s-OFDM	QPSK	39	V	SISO	Н	352	94	1 / 16	32.27
				CP-OFDM	QPSK	167 + 39	H + V	MIMO	Н	258	273	1 / 16	30.03
				CP-OFDM	QPSK	158	Н	SISO	Н	69	218	1 / 13	28.32
				CP-OFDM	QPSK	39	V	SISO	Н	352	94	1 / 16	29.31
				DFT-s-OFDM	π/2 BPSK	167 + 39	H + V	2Tx	Н	258	273	1 / 16	33.16
				DFT-s-OFDM	16QAM	167 + 39	H + V	2Tx	Н	258	273	1 / 17	31.83
				DFT-s-OFDM	64QAM	167 + 39	H+V	2Tx	Н	258	273	1 / 17	29.15
		High	39975.00	DFT-s-OFDM	π/2 BPSK	158 + 30	H + V	2Tx	V	47	198	1 / 16	32.19

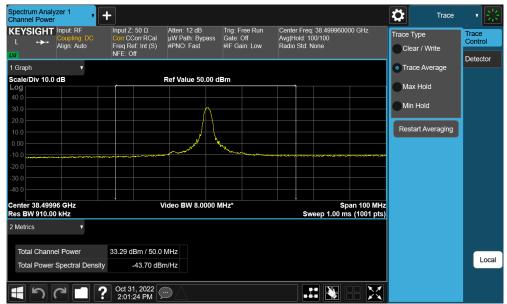
Table 7-28. N patch EIRP Data (Band n260 - 50MHz)

Bandwidth [MHz]	CCs Active	Channel	Frequency [MHz]	Transmission Scheme	Modulation	Beam ID	Beam Pol.	Ant. Div.	Ant. Pol. [H/V]	Positioner Roll [degrees]	Turntable Azimuth [degrees]	RB Size/Offset	EIRP [dBm]
100	1	Low	37050.00	DFT-s-OFDM	QPSK	158 + 30	H + V	2Tx	V	40	201	1 / 33	30.88
		Mid	38499.96	DFT-s-OFDM	QPSK	167 + 39	H + V	2Tx	Н	358	273	1 / 33	33.44
			[	DFT-s-OFDM	QPSK	158	Н	SISO	Н	70	215	1 / 33	30.30
				DFT-s-OFDM	QPSK	39	V	SISO	Н	352	94	1 / 33	32.35
			[	CP-OFDM	QPSK	167 + 39	H + V	MIMO	Н	358	273	1 / 23	30.42
			[	CP-OFDM	QPSK	158	Н	SISO	Н	70	215	1 / 42	27.20
				CP-OFDM	QPSK	39	V	SISO	Н	352	94	1 / 42	29.20
				DFT-s-OFDM	π/2 BPSK	167 + 39	H + V	2Tx	Н	358	273	1 / 33	33.61
				DFT-s-OFDM	16QAM	167 + 39	H + V	2Tx	Н	358	273	1 / 33	31.43
				DFT-s-OFDM	64QAM	167 + 39	H + V	2Tx	Н	358	273	1 / 33	28.31
		High	39949.92	DFT-s-OFDM	π/2 BPSK	158 + 30	H + V	2Tx	V	51	200	1 / 32	31.99
100+100	2	Low	37099.98	DFT-s-OFDM	π/2 BPSK	158 + 30	H + V	2Tx	V	39	201	64 / 0	23.77
		Mid	38500.02	DFT-s-OFDM	QPSK	167 + 39	H + V	2Tx	Н	6	275	64 / 0	28.40
				DFT-s-OFDM	π/2 BPSK	167 + 39	H + V	2Tx	Н	6	275	64 / 0	28.44
				DFT-s-OFDM	16QAM	167 + 39	H + V	2Tx	Н	6	275	64 / 0	26.93
				DFT-s-OFDM	64QAM	167 + 39	H + V	2Tx	Н	6	275	64 / 0	25.04
		High	39899.94	DFT-s-OFDM	π/2 BPSK	158 + 30	H + V	2Tx	V	50	200	64 / 0	24.65
100+100+100	3	Low	37149.96	DFT-s-OFDM	π/2 BPSK	158 + 30	H + V	2Tx	V	32	199	64 / 0	23.93
		Mid	38499.96	DFT-s-OFDM	QPSK	167 + 39	H + V	2Tx	Н	6	273	64 / 0	28.39
				DFT-s-OFDM	π/2 BPSK	167 + 39	H + V	2Tx	Н	6	273	64 / 0	28.38
			[	DFT-s-OFDM	16QAM	167 + 39	H + V	2Tx	Н	6	273	64 / 0	26.73
				DFT-s-OFDM	64QAM	167 + 39	H + V	2Tx	Н	6	273	64 / 0	24.91
		High	39849.96	DFT-s-OFDM	π/2 BPSK	158 + 30	H + V	2Tx	V	49	198	64 / 0	24.46
100+100+100+100	4	Low	37199.94	DFT-s-OFDM	π/2 BPSK	158 + 30	H + V	2Tx	V	46	201	64 / 0	23.49
		Mid	38500.02	DFT-s-OFDM	QPSK	167 + 39	H + V	2Tx	Н	5	273	64 / 0	28.15
			[	DFT-s-OFDM	π/2 BPSK	167 + 39	H + V	2Tx	Н	5	273	64 / 0	28.12
			[	DFT-s-OFDM	16QAM	167 + 39	H + V	2Tx	Н	5	273	64 / 0	26.58
				DFT-s-OFDM	64QAM	167 + 39	H + V	2Tx	Н	5	273	64 / 0	24.83
		High	39799.98	DFT-s-OFDM	π/2 BPSK	158 + 30	H + V	2Tx	V	47	200	64 / 0	24.45

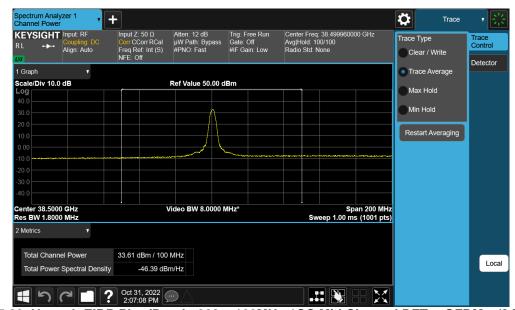
Table 7-29. N patch EIRP Data (Band n260 - 100MHz)

FCC ID: A3LSMS911U	element	PART 30 MEASUREMENT REPORT (CERTIFICATION)	Approved by: Technical Manager
Test Report S/N:	Test Dates:	EUT Type:	Page 85 of 201
1M2209010096-08.A3L	10/18/2022 - 11/14/2022	Portable Handset	Fage 65 01 20 1





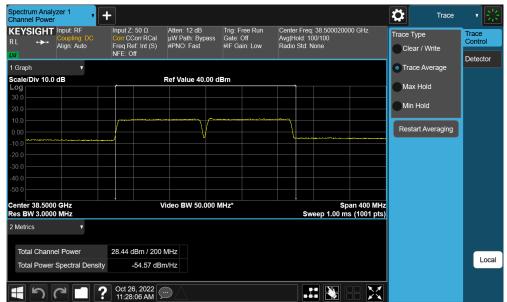
Plot 7-98. N patch EIRP Plot (Band n260 - 50MHz-1CC Mid Channel DFT-s-OFDM QPSK)



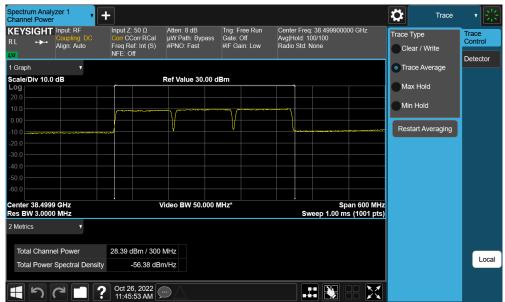
Plot 7-99. N patch EIRP Plot (Band n260 - 100MHz-1CC Mid Channel DFT-s-OFDM π/2 BPSK)

FCC ID: A3LSMS911U	element	PART 30 MEASUREMENT REPORT (CERTIFICATION)	Approved by: Technical Manager
Test Report S/N:	Test Dates:	EUT Type:	Page 86 of 201
1M2209010096-08.A3L	10/18/2022 - 11/14/2022	Portable Handset	Page 86 01 201





Plot 7-100. N patch EIRP Plot (Band n260 - 100MHz-2CC Mid Channel DFT-s-OFDM π/2 BPSK)



Plot 7-101. N patch EIRP Plot (Band n260 - 100MHz-3CC Mid Channel DFT-s-OFDM QPSK)

FCC ID: A3LSMS911U	element PART 30 MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N:	Test Dates:	EUT Type:	Page 87 of 201
1M2209010096-08.A3L	10/18/2022 - 11/14/2022	Portable Handset	Page 87 01 201