



# TEST REPORT

**APPLICANT** : Horizon Powered USA Inc.

**PRODUCT NAME** : 5G/LTE CBRS USB-C Dongle

**MODEL NAME** : DG505G

**BRAND NAME** : Horizon

**FCC ID** : 2BE94DG505G

**STANDARD(S)** : 47 CFR Part 2  
47 CFR Part 22  
47 CFR Part 27  
47 CFR Part 96

**RECEIPT DATE** : 2024-04-07

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<b>Change History</b>		
<b>Version</b>	<b>Date</b>	<b>Reason for change</b>
1.0	2024-07-02	First edition



# 1. Technical Information

**Note:** Provide by applicant.

## 1.1. Applicant and Manufacturer Information

<b>Applicant:</b>	Horizon Powered USA Inc.
<b>Applicant Address:</b>	8350 NW 52nd Terrace, Suite 301 Miami, Florida 33166 United States
<b>Manufacturer:</b>	Horizon Powered USA Inc.
<b>Manufacturer Address:</b>	8350 NW 52nd Terrace, Suite 301 Miami, Florida 33166 United States

## 1.2. Equipment Under Test (EUT) Description

<b>Product Name:</b>	5G/LTE CBRS USB-C Dongle		
<b>Sample No.:</b>	10#		
<b>Hardware Version:</b>	E		
<b>Software Version:</b>	DG505G.V2.00_420406D		
<b>Modulation Type:</b>	DFT-s-OFDM	PI/2 BPSK, QPSK, 16QAM, 64QAM, 256QAM	
	CP-OFDM	QPSK, 16QAM, 64QAM, 256QAM	
<b>SA Band:</b>	n41, n48, n77, n78		
<b>Subcarrier spacing:</b>	15kHz	n41, n48, n77, n78	
	30kHz	n41, n48, n77, n78	
<b>Power Class:</b>	PC2:	n41, n77, n78	
	PC3:	n48	
	n41	Tx:	2496MHz-2690MHz
		Rx:	2496MHz-2690MHz
	n48	Tx:	3550 MHz-3700 MHz
		Rx:	3550 MHz-3700 MHz
	n77: (enabling bands)	Tx:	3450MHz-3550MHz
		Rx:	3450MHz-3550MHz
		Tx:	3700MHz-3980MHz
		Rx:	3700MHz-3980MHz
n78: (enabling bands)	Tx:	3450MHz-3550MHz	
	Rx:	3450MHz-3550MHz	
	Tx:	3700MHz-3800MHz	



	Rx: 3700MHz-3800MHz	
	n41	SCS 15KHz 10MHz, 15MHz, 20MHz, 30MHz, 40MHz, 50MHz
		SCS 30KHz 10MHz, 15MHz, 20MHz, 30MHz, 40MHz, 50MHz, 60MHz, 80MHz, 90MHz, 100MHz
	n48	SCS 15KHz 5MHz, 10MHz, 15MHz, 20MHz, 40MHz, 50MHz
		SCS 30KHz 10MHz, 15MHz, 20MHz, 40MHz, 50MHz, 60MHz, 80MHz, 90MHz, 100MHz
	n77	SCS 15KHz 10MHz, 15MHz, 20MHz, 40MHz, 50MHz
		SCS 30KHz 10MHz, 15MHz, 20MHz, 40MHz, 50MHz, 60MHz, 70MHz, 80MHz, 90MHz, 100MHz
	n78	SCS 15KHz 10MHz, 15MHz, 20MHz, 40MHz, 50MHz
SCS 30KHz 10MHz, 15MHz, 20MHz, 40MHz, 50MHz, 60MHz, 70MHz, 80MHz, 90MHz, 100MHz		
<b>Antenna Type:</b>	PIFA Antenna	
	n41	3.13dBi
	n48	0.95dBi
	n77	6.14dBi
	n78	6.14dBi

**Note 1:** For a more detailed description, please refer to Specification or User’s Manual supplied by the applicant and/or manufacturer.

### 1.3. Maximum ERP/EIRP and Emission Designator

$EIRP \text{ (dBm)} = \text{Conducted Output Power (dBm)} + \text{Antenna Gain (dBi)}$

$ERP \text{ (dBm)} = EIPR \text{ (dBm)} - 2.15$

n41(SCS 15K)						
Bandwidth (MHz)	Modulation	Conducted Average (dBm)	EIRP Average (dBm)	EIRP Average (W)	99% BW (MHz)	Emission Designator
10	PI/2 BPSK	/	/	/	/	/
	QPSK	26.31	29.44	0.879	/	/
	16QAM	/	/	/	/	/
	64QAM	/	/	/	/	/
	256QAM	/	/	/	/	/
	CP-QPSK	/	/	/	/	/



15	PI/2 BPSK	/	/	/	/	/
	QPSK	26.34	29.47	0.885	/	/
	16QAM	/	/	/	/	/
	64QAM	/	/	/	/	/
	256QAM	/	/	/	/	/
	CP-QPSK	/	/	/	/	/
20	PI/2 BPSK	/	/	/	/	/
	QPSK	26.31	29.44	0.879	/	/
	16QAM	/	/	/	/	/
	64QAM	/	/	/	/	/
	256QAM	/	/	/	/	/
	CP-QPSK	/	/	/	/	/
30	PI/2 BPSK	/	/	/	/	/
	QPSK	25.96	29.09	0.811	/	/
	16QAM	/	/	/	/	/
	64QAM	/	/	/	/	/
	256QAM	/	/	/	/	/
	CP-QPSK	/	/	/	/	/
40	PI/2 BPSK	/	/	/	/	/
	QPSK	25.82	28.95	0.785	/	/
	16QAM	/	/	/	/	/
	64QAM	/	/	/	/	/
	256QAM	/	/	/	/	/
	CP-QPSK	/	/	/	/	/
50	PI/2 BPSK	26.27	29.40	0.871	/	/
	QPSK	26.42	29.55	0.902	/	/
	16QAM	25.15	28.28	0.673	/	/
	64QAM	23.65	26.78	0.476	/	/
	256QAM	21.77	24.90	0.309	/	/
	CP-QPSK	25.63	28.76	0.752	/	/

n41(SCS 30K)						
Bandwidth (MHz)	Modulation	Conducted Average (dBm)	EIRP Average (dBm)	EIRP Average (W)	99% BW (MHz)	Emission Designator
10	PI/2 BPSK	/	/	/	8.6087	8M61G7D
	QPSK	27.12	30.25	1.059	8.5796	8M58G7D



	16QAM	/	/	/	8.5871	8M59W7D
	64QAM	/	/	/	8.6096	8M61W7D
	256QAM	/	/	/	8.5772	8M58W7D
	CP-QPSK	/	/	/	8.5773	8M58G7D
15	PI/2 BPSK	/	/	/	12.849	12M9G7D
	QPSK	27.21	30.34	1.081	12.873	12M9G7D
	16QAM	/	/	/	12.882	12M9W7D
	64QAM	/	/	/	12.876	12M9W7D
	256QAM	/	/	/	12.833	12M8W7D
	CP-QPSK	/	/	/	12.869	12M9G7D
20	PI/2 BPSK	/	/	/	17.825	17M8G7D
	QPSK	27.28	30.41	1.099	17.824	17M8G7D
	16QAM	/	/	/	17.837	17M8W7D
	64QAM	/	/	/	17.826	17M8W7D
	256QAM	/	/	/	17.819	17M8W7D
	CP-QPSK	/	/	/	17.838	17M8G7D
30	PI/2 BPSK	/	/	/	26.791	26M8G7D
	QPSK	27.24	30.37	1.089	26.793	26M8G7D
	16QAM	/	/	/	26.788	26M8W7D
	64QAM	/	/	/	26.807	26M8W7D
	256QAM	/	/	/	26.799	26M8W7D
	CP-QPSK	/	/	/	26.778	26M8G7D
40	PI/2 BPSK	/	/	/	35.714	35M7G7D
	QPSK	27.33	30.46	1.112	35.732	35M7G7D
	16QAM	/	/	/	35.73	35M7W7D
	64QAM	/	/	/	35.721	35M7W7D
	256QAM	/	/	/	35.746	35M8W7D
	CP-QPSK	/	/	/	35.724	35M7G7D
50	PI/2 BPSK	/	/	/	45.696	45M7G7D
	QPSK	27.38	30.51	1.125	45.712	45M7G7D
	16QAM	/	/	/	45.741	45M7W7D
	64QAM	/	/	/	45.769	45M8W7D
	256QAM	/	/	/	45.693	45M7W7D
	CP-QPSK	/	/	/	45.643	45M6G7D
60	PI/2 BPSK	/	/	/	57.788	57M8G7D
	QPSK	26.88	30.01	1.002	57.938	57M9G7D
	16QAM	/	/	/	57.824	57M8W7D



	64QAM	/	/	/	57.831	57M8W7D
	256QAM	/	/	/	57.883	57M9W7D
	CP-QPSK	/	/	/	57.825	57M8G7D
80	PI/2 BPSK	/	/	/	77.113	77M1G7D
	QPSK	26.91	30.04	1.009	77.077	77M1G7D
	16QAM	/	/	/	76.975	77M0W7D
	64QAM	/	/	/	77.212	77M2W7D
	256QAM	/	/	/	77.087	77M1W7D
	CP-QPSK	/	/	/	77.101	77M1G7D
90	PI/2 BPSK	/	/	/	86.864	86M9G7D
	QPSK	26.75	29.88	0.973	86.693	86M7G7D
	16QAM	/	/	/	86.642	86M6W7D
	64QAM	/	/	/	86.755	86M8W7D
	256QAM	/	/	/	86.793	86M8W7D
	CP-QPSK	/	/	/	86.808	86M8G7D
100	PI/2 BPSK	27.05	30.18	1.042	96.376	96M4G7D
	QPSK	27.38	30.51	1.125	96.274	96M3G7D
	16QAM	25.89	29.02	0.798	96.199	96M2W7D
	64QAM	24.31	27.44	0.555	96.223	96M2W7D
	256QAM	22.22	25.35	0.343	96.221	96M2W7D
	CP-QPSK	26.17	29.30	0.851	96.281	96M3G7D

n48(SCS 15K)						
Bandwidth (MHz)	Modulation	Conducted Average (dBm)	EIRP Average (dBm)	EIRP Average (W)	99% BW (MHz)	Emission Designator
5	PI/2 BPSK	/	/	/	/	/
	QPSK	20.56	21.51	0.142	/	/
	16QAM	/	/	/	/	/
	64QAM	/	/	/	/	/
	256QAM	/	/	/	/	/
	CP-QPSK	/	/	/	/	/
10	PI/2 BPSK	/	/	/	/	/
	QPSK	20.64	21.59	0.144	/	/
	16QAM	/	/	/	/	/
	64QAM	/	/	/	/	/
	256QAM	/	/	/	/	/



	CP-QPSK	/	/	/	/	/
15	PI/2 BPSK	/	/	/	/	/
	QPSK	20.61	21.56	0.143	/	/
	16QAM	/	/	/	/	/
	64QAM	/	/	/	/	/
	256QAM	/	/	/	/	/
	CP-QPSK	/	/	/	/	/
20	PI/2 BPSK	/	/	/	/	/
	QPSK	20.66	21.61	0.145	/	/
	16QAM	/	/	/	/	/
	64QAM	/	/	/	/	/
	256QAM	/	/	/	/	/
	CP-QPSK	/	/	/	/	/
40	PI/2 BPSK	/	/	/	/	/
	QPSK	20.56	21.51	0.142	/	/
	16QAM	/	/	/	/	/
	64QAM	/	/	/	/	/
	256QAM	/	/	/	/	/
	CP-QPSK	/	/	/	/	/
50	PI/2 BPSK	20.97	21.92	0.156	/	/
	QPSK	21.07	22.02	0.159	/	/
	16QAM	20.30	21.25	0.133	/	/
	64QAM	18.51	19.46	0.088	/	/
	256QAM	16.24	17.19	0.052	/	/
	CP-QPSK	20.41	21.36	0.137	/	/

n48(SCS 30K)						
Bandwidth (MHz)	Modulation	Conducted Average (dBm)	EIRP Average (dBm)	EIRP Average (W)	99% BW (MHz)	Emission Designator
10	PI/2 BPSK	/	/	/	8.5796	8M58G7D
	QPSK	21.27	22.22	0.167	8.5848	8M58G7D
	16QAM	/	/	/	8.5763	8M58W7D
	64QAM	/	/	/	8.5893	8M59W7D
	256QAM	/	/	/	8.574	8M57W7D
	CP-QPSK	/	/	/	8.589	8M59G7D
15	PI/2 BPSK	/	/	/	12.821	12M8G7D





	QPSK	21.25	22.20	0.166	12.861	12M9G7D
	16QAM	/	/	/	12.894	12M9W7D
	64QAM	/	/	/	12.878	12M9W7D
	256QAM	/	/	/	12.862	12M9W7D
	CP-QPSK	/	/	/	12.866	12M9G7D
20	PI/2 BPSK	/	/	/	17.804	17M8G7D
	QPSK	21.22	22.17	0.165	17.83	17M8G7D
	16QAM	/	/	/	17.797	17M8W7D
	64QAM	/	/	/	17.842	17M8W7D
	256QAM	/	/	/	17.832	17M8W7D
	CP-QPSK	/	/	/	17.865	17M9G7D
40	PI/2 BPSK	/	/	/	35.775	35M8G7D
	QPSK	21.04	21.99	0.158	35.718	35M7G7D
	16QAM	/	/	/	35.767	35M8W7D
	64QAM	/	/	/	35.758	35M8W7D
	256QAM	/	/	/	35.757	35M8W7D
	CP-QPSK	/	/	/	35.663	35M7G7D
50	PI/2 BPSK	/	/	/	45.779	45M8G7D
	QPSK	21.33	22.28	0.169	45.735	45M7G7D
	16QAM	/	/	/	45.709	45M7W7D
	64QAM	/	/	/	45.715	45M7W7D
	256QAM	/	/	/	45.764	45M8W7D
	CP-QPSK	/	/	/	45.711	45M7G7D
60	PI/2 BPSK	/	/	/	57.836	57M8G7D
	QPSK	21.12	22.07	0.161	57.849	57M9G7D
	16QAM	/	/	/	57.799	57M8W7D
	64QAM	/	/	/	57.825	57M8W7D
	256QAM	/	/	/	57.824	57M8W7D
	CP-QPSK	/	/	/	57.813	57M8G7D
80	PI/2 BPSK	/	/	/	76.995	77M0G7D
	QPSK	20.96	21.91	0.155	77.12	77M1G7D
	16QAM	/	/	/	77.06	77M1W7D
	64QAM	/	/	/	77.085	77M1W7D
	256QAM	/	/	/	76.982	77M0W7D
	CP-QPSK	/	/	/	77.093	77M1G7D
90	PI/2 BPSK	/	/	/	86.699	86M7G7D
	QPSK	20.76	21.71	0.148	86.587	86M6G7D



	16QAM	/	/	/	86.611	86M6W7D
	64QAM	/	/	/	86.732	86M7W7D
	256QAM	/	/	/	86.704	86M7W7D
	CP-QPSK	/	/	/	86.606	86M6G7D
100	PI/2 BPSK	21.59	22.54	0.179	96.154	96M2G7D
	QPSK	21.61	22.56	0.180	96.129	96M1G7D
	16QAM	20.50	21.45	0.140	96.116	96M1W7D
	64QAM	18.47	19.42	0.087	96.189	96M2W7D
	256QAM	16.28	17.23	0.053	96.112	96M1W7D
	CP-QPSK	20.38	21.33	0.136	96.114	96M1G7D

n77(3450-3550MHz)( SCS 15K)						
Bandwidth (MHz)	Modulation	Conducted Average (dBm)	EIRP Average (dBm)	EIRP Average (W)	99% BW (MHz)	Emission Designator
10	PI/2 BPSK	/	/	/	/	/
	QPSK	23.31	29.45	0.881	/	/
	16QAM	/	/	/	/	/
	64QAM	/	/	/	/	/
	256QAM	/	/	/	/	/
	CP-QPSK	/	/	/	/	/
15	PI/2 BPSK	/	/	/	/	/
	QPSK	23.31	29.45	0.881	/	/
	16QAM	/	/	/	/	/
	64QAM	/	/	/	/	/
	256QAM	/	/	/	/	/
	CP-QPSK	/	/	/	/	/
20	PI/2 BPSK	/	/	/	/	/
	QPSK	23.24	29.38	0.867	/	/
	16QAM	/	/	/	/	/
	64QAM	/	/	/	/	/
	256QAM	/	/	/	/	/
	CP-QPSK	/	/	/	/	/
40	PI/2 BPSK	/	/	/	/	/



	QPSK	23.44	29.58	0.908	/	/
	16QAM	/	/	/	/	/
	64QAM	/	/	/	/	/
	256QAM	/	/	/	/	/
	CP-QPSK	/	/	/	/	/
50	PI/2 BPSK	23.28	29.42	0.875	/	/
	QPSK	23.62	29.76	0.946	/	/
	16QAM	22.33	28.47	0.703	/	/
	64QAM	20.84	26.98	0.499	/	/
	256QAM	19.00	25.14	0.327	/	/
	CP-QPSK	22.75	28.89	0.774	/	/

n77(3450-3550MHz) (SCS 30K)						
Bandwidth (MHz)	Modulation	Conducted Average (dBm)	EIRP Average (dBm)	EIRP Average (W)	99% BW (MHz)	Emission Designator
10	PI/2 BPSK	/	/	/	8.5774	8M58G7D
	QPSK	23.17	29.31	0.853	8.5856	8M59G7D
	16QAM	/	/	/	8.5777	8M58W7D
	64QAM	/	/	/	8.5948	8M59W7D
	256QAM	/	/	/	8.587	8M59W7D
	CP-QPSK	/	/	/	8.588	8M59G7D
15	PI/2 BPSK	/	/	/	12.905	12M9G7D
	QPSK	23.32	29.46	0.883	12.879	12M9G7D
	16QAM	/	/	/	12.892	12M9W7D
	64QAM	/	/	/	12.862	12M9W7D
	256QAM	/	/	/	12.857	12M9W7D
	CP-QPSK	/	/	/	12.874	12M9G7D
20	PI/2 BPSK	/	/	/	17.855	17M9G7D
	QPSK	23.26	29.40	0.871	17.814	17M8G7D
	16QAM	/	/	/	17.818	17M8W7D
	64QAM	/	/	/	17.82	17M8W7D
	256QAM	/	/	/	17.818	17M8W7D
	CP-QPSK	/	/	/	17.877	17M9G7D
40	PI/2 BPSK	/	/	/	35.732	35M7G7D



	QPSK	22.97	29.11	0.815	35.725	35M7G7D
	16QAM	/	/	/	35.794	35M8W7D
	64QAM	/	/	/	35.726	35M7W7D
	256QAM	/	/	/	35.718	35M7W7D
	CP-QPSK	/	/	/	35.763	35M8G7D
50	PI/2 BPSK	/	/	/	45.664	45M7G7D
	QPSK	23.24	29.38	0.867	45.806	45M8G7D
	16QAM	/	/	/	45.697	45M7W7D
	64QAM	/	/	/	45.72	45M7W7D
	256QAM	/	/	/	45.675	45M7W7D
	CP-QPSK	/	/	/	45.806	45M8G7D
60	PI/2 BPSK	/	/	/	57.815	57M8G7D
	QPSK	23.07	29.21	0.834	57.852	57M9G7D
	16QAM	/	/	/	57.767	57M8W7D
	64QAM	/	/	/	57.779	57M8W7D
	256QAM	/	/	/	57.752	57M8W7D
	CP-QPSK	/	/	/	57.732	57M7G7D
70	PI/2 BPSK	/	/	/	64.301	64M3G7D
	QPSK	23.01	29.15	0.822	64.266	64M3G7D
	16QAM	/	/	/	64.273	64M3W7D
	64QAM	/	/	/	64.292	64M3W7D
	256QAM				64.222	64M2W7D
	CP-QPSK	/	/	/	64.335	64M3G7D
80	PI/2 BPSK	/	/	/	77.132	77M1G7D
	QPSK	22.90	29.04	0.802	76.999	77M0G7D
	16QAM	/	/	/	77.068	77M1W7D
	64QAM	/	/	/	77.108	77M1W7D
	256QAM	/	/	/	76.944	76M9W7D
	CP-QPSK	/	/	/	77.019	77M0G7D
90	PI/2 BPSK	/	/	/	86.586	86M6G7D
	QPSK	22.71	28.85	0.767	86.677	86M7G7D
	16QAM	/	/	/	86.507	86M5W7D
	64QAM	/	/	/	86.519	86M5W7D
	256QAM	/	/	/	86.659	86M7W7D
	CP-QPSK	/	/	/	86.598	86M6G7D
100	PI/2 BPSK	23.35	29.49	0.889	95.985	96M0G7D
	QPSK	23.65	29.79	0.953	95.947	96M0G7D



	16QAM	21.57	27.71	0.590	96.135	96M1W7D
	64QAM	20.11	26.25	0.422	96.065	96M1W7D
	256QAM	18.45	24.59	0.288	95.919	95M9W7D
	CP-QPSK	22.11	28.25	0.668	96.033	96M0G7D

n77(3700-3980MHz) (SCS 15K)						
Bandwidth (MHz)	Modulation	Conducted Average (dBm)	EIRP Average (dBm)	EIRP Average (W)	99% BW (MHz)	Emission Designator
10	PI/2 BPSK	/	/	/	/	/
	QPSK	23.64	29.78	0.951	/	/
	16QAM	/	/	/	/	/
	64QAM	/	/	/	/	/
	256QAM	/	/	/		
	CP-QPSK	/	/	/	/	/
15	PI/2 BPSK	/	/	/	/	/
	QPSK	23.54	29.68	0.929	/	/
	16QAM	/	/	/	/	/
	64QAM	/	/	/	/	/
	256QAM	/	/	/		
	CP-QPSK	/	/	/	/	/
20	PI/2 BPSK	/	/	/	/	/
	QPSK	23.46	29.60	0.912	/	/
	16QAM	/	/	/	/	/
	64QAM	/	/	/	/	/
	256QAM	/	/	/		
	CP-QPSK	/	/	/	/	/
40	PI/2 BPSK	/	/	/	/	/
	QPSK	22.90	29.04	0.802	/	/



	16QAM	/	/	/	/	/
	64QAM	/	/	/	/	/
	256QAM	/	/	/		
	CP-QPSK	/	/	/	/	/
50	PI/2 BPSK	23.73	29.87	0.971	/	/
	QPSK	23.76	29.90	0.977	/	/
	16QAM	22.25	28.39	0.690	/	/
	64QAM	20.67	26.81	0.480	/	/
	256QAM	18.81	24.95	0.313	/	/
	CP-QPSK	22.71	28.85	0.767	/	/

n77(3700-3980MHz) (SCS 30K)						
Bandwidth (MHz)	Modulation	Conducted Average (dBm)	EIRP Average (dBm)	EIRP Average (W)	99% BW (MHz)	Emission Designator
10	PI/2 BPSK	/	/	/	8.5876	8M59G7D
	QPSK	23.57	29.71	0.935	8.5928	8M59G7D
	16QAM	/	/	/	8.6016	8M60W7D
	64QAM	/	/	/	8.5821	8M58W7D
	256QAM	/	/	/	8.5598	8M56W7D
	CP-QPSK	/	/	/	8.6031	8M60G7D
15	PI/2 BPSK	/	/	/	12.847	12M9G7D
	QPSK	23.65	29.79	0.953	12.857	12M9G7D
	16QAM	/	/	/	12.842	12M8W7D
	64QAM	/	/	/	12.856	12M9W7D
	256QAM	/	/	/	12.857	12M9W7D
	CP-QPSK	/	/	/	12.881	12M9G7D
20	PI/2 BPSK	/	/	/	17.832	17M8G7D
	QPSK	23.48	29.62	0.916	17.818	17M8G7D
	16QAM	/	/	/	17.833	17M8W7D
	64QAM	/	/	/	17.785	17M8W7D
	256QAM	/	/	/	17.826	17M8W7D
	CP-QPSK	/	/	/	17.885	17M9G7D
40	PI/2 BPSK	/	/	/	35.747	35M8G7D
	QPSK	23.07	29.21	0.834	35.792	35M8G7D



	16QAM	/	/	/	35.746	35M8W7D
	64QAM	/	/	/	35.752	35M8W7D
	256QAM	/	/	/	35.752	35M8W7D
	CP-QPSK	/	/	/	35.722	35M7G7D
50	PI/2 BPSK	/	/	/	45.768	45M8G7D
	QPSK	23.27	29.41	0.873	45.883	45M9G7D
	16QAM	/	/	/	45.731	45M7W7D
	64QAM	/	/	/	45.758	45M8W7D
	256QAM	/	/	/	45.656	45M7W7D
	CP-QPSK	/	/	/	45.67	45M7G7D
60	PI/2 BPSK	/	/	/	57.809	57M8G7D
	QPSK	23.19	29.33	0.857	57.873	57M9G7D
	16QAM	/	/	/	57.835	57M8W7D
	64QAM	/	/	/	57.836	57M8W7D
	256QAM	/	/	/	57.817	57M8W7D
	CP-QPSK	/	/	/	57.742	57M7G7D
70	PI/2 BPSK	/	/	/	64.31	64M3G7D
	QPSK	23.39	29.53	0.897	64.318	64M3G7D
	16QAM	/	/	/	64.289	64M3W7D
	64QAM	/	/	/	64.272	64M3W7D
	256QAM	/	/	/	64.381	64M4W7D
	CP-QPSK	/	/	/	64.383	64M4G7D
80	PI/2 BPSK	/	/	/	77.09	77M1G7D
	QPSK	23.58	29.72	0.938	77.163	77M2G7D
	16QAM	/	/	/	76.96	77M0W7D
	64QAM	/	/	/	77.057	77M1W7D
	256QAM	/	/	/	77.136	77M1W7D
	CP-QPSK	/	/	/	77.033	77M0G7D
90	PI/2 BPSK	/	/	/	86.544	86M5G7D
	QPSK	23.37	29.51	0.893	86.82	86M8G7D
	16QAM	/	/	/	86.558	86M6W7D
	64QAM	/	/	/	86.551	86M6W7D
	256QAM	/	/	/	86.654	86M7W7D
	CP-QPSK	/	/	/	86.725	86M7G7D
100	PI/2 BPSK	23.66	29.80	0.955	96.431	96M4G7D
	QPSK	23.79	29.93	0.984	96.254	96M3G7D
	16QAM	21.71	27.85	0.610	96.222	96M2W7D



	64QAM	20.11	26.25	0.422	96.148	96M2W7D
	256QAM	18.35	24.49	0.281	96.187	96M2W7D
	CP-QPSK	22.13	28.27	0.671	96.205	96M2G7D

n78(3450-3550MHz) (SCS 15K)						
Bandwidth (MHz)	Modulation	Conducted Average (dBm)	EIRP Average (dBm)	EIRP Average (W)	99% BW (MHz)	Emission Designator
10	PI/2 BPSK	/	/	/	/	/
	QPSK	23.31	29.45	0.881	/	/
	16QAM	/	/	/	/	/
	64QAM	/	/	/	/	/
	256QAM	/	/	/	/	/
	CP-QPSK	/	/	/	/	/
15	PI/2 BPSK	/	/	/	/	/
	QPSK	23.50	29.64	0.920	/	/
	16QAM	/	/	/	/	/
	64QAM	/	/	/	/	/
	256QAM	/	/	/	/	/
	CP-QPSK	/	/	/	/	/
20	PI/2 BPSK	/	/	/	/	/
	QPSK	23.54	29.68	0.929	/	/
	16QAM	/	/	/	/	/
	64QAM	/	/	/	/	/
	256QAM	/	/	/	/	/
	CP-QPSK	/	/	/	/	/
40	PI/2 BPSK	/	/	/	/	/
	QPSK	23.02	29.16	0.824	/	/
	16QAM	/	/	/	/	/
	64QAM	/	/	/	/	/
	256QAM	/	/	/	/	/
	CP-QPSK	/	/	/	/	/
50	PI/2 BPSK	23.31	29.45	0.881	/	/
	QPSK	23.40	29.54	0.899	/	/
	16QAM	22.25	28.39	0.690	/	/
	64QAM	20.77	26.91	0.491	/	/





	256QAM	19.14	25.28	0.337	/	/
	CP-QPSK	22.73	28.87	0.771	/	/

n78(3450-3550MHz) (SCS 30K)						
Bandwidth (MHz)	Modulation	Conducted Average (dBm)	EIRP Average (dBm)	EIRP Average (W)	99% BW (MHz)	Emission Designator
10	PI/2 BPSK	/	/	/	/	/
	QPSK	23.30	29.44	0.879	/	/
	16QAM	/	/	/	/	/
	64QAM	/	/	/	/	/
	256QAM	/	/	/	/	/
	CP-QPSK	/	/	/	/	/
15	PI/2 BPSK	/	/	/	/	/
	QPSK	23.53	29.67	0.927	/	/
	16QAM	/	/	/	/	/
	64QAM	/	/	/	/	/
	256QAM	/	/	/	/	/
	CP-QPSK	/	/	/	/	/
20	PI/2 BPSK	/	/	/	/	/
	QPSK	23.44	29.58	0.908	/	/
	16QAM	/	/	/	/	/
	64QAM	/	/	/	/	/
	256QAM	/	/	/	/	/
	CP-QPSK	/	/	/	/	/
40	PI/2 BPSK	/	/	/	/	/
	QPSK	23.12	29.26	0.843	/	/
	16QAM	/	/	/	/	/
	64QAM	/	/	/	/	/
	256QAM	/	/	/	/	/
	CP-QPSK	/	/	/	/	/
50	PI/2 BPSK	/	/	/	/	/
	QPSK	23.33	29.47	0.885	/	/
	16QAM	/	/	/	/	/
	64QAM	/	/	/	/	/
	256QAM	/	/	/	/	/
	CP-QPSK	/	/	/	/	/



60	PI/2 BPSK	/	/	/	/	/
	QPSK	23.06	29.20	0.832	/	/
	16QAM	/	/	/	/	/
	64QAM	/	/	/	/	/
	256QAM	/	/	/	/	/
	CP-QPSK	/	/	/	/	/
70	PI/2 BPSK	/	/	/	/	/
	QPSK	23.21	29.35	0.861	/	/
	16QAM	/	/	/	/	/
	64QAM	/	/	/	/	/
	256QAM	/	/	/	/	/
	CP-QPSK	/	/	/	/	/
80	PI/2 BPSK	/	/	/	/	/
	QPSK	23.08	29.22	0.836	/	/
	16QAM	/	/	/	/	/
	64QAM	/	/	/	/	/
	256QAM	/	/	/	/	/
	CP-QPSK	/	/	/	/	/
90	PI/2 BPSK	/	/	/	/	/
	QPSK	22.88	29.02	0.798	/	/
	16QAM	/	/	/	/	/
	64QAM	/	/	/	/	/
	256QAM	/	/	/	/	/
	CP-QPSK	/	/	/	/	/
100	PI/2 BPSK	23.15	29.29	0.849	/	/
	QPSK	23.54	29.68	0.929	/	/
	16QAM	21.86	28.00	0.631	/	/
	64QAM	20.18	26.32	0.429	/	/
	256QAM	18.51	24.65	0.292	/	/
	CP-QPSK	22.19	28.33	0.681	/	/

n78(3700-3800MHz) (SCS 15K)						
Bandwidth (MHz)	Modulation	Conducted Average (dBm)	EIRP Average (dBm)	EIRP Average (W)	99% BW (MHz)	Emission Designator
10	PI/2 BPSK	/	/	/	/	/



	QPSK	23.42	29.56	0.904	/	/
	16QAM	/	/	/	/	/
	64QAM	/	/	/	/	/
	256QAM	/	/	/	/	/
	CP-QPSK	/	/	/	/	/
15	PI/2 BPSK	/	/	/	/	/
	QPSK	23.39	29.53	0.897	/	/
	16QAM	/	/	/	/	/
	64QAM	/	/	/	/	/
	256QAM	/	/	/	/	/
20	CP-QPSK	/	/	/	/	/
	PI/2 BPSK	/	/	/	/	/
	QPSK	23.44	29.58	0.908	/	/
	16QAM	/	/	/	/	/
	64QAM	/	/	/	/	/
40	256QAM	/	/	/	/	/
	CP-QPSK	/	/	/	/	/
	PI/2 BPSK	/	/	/	/	/
	QPSK	23.15	29.29	0.849	/	/
	16QAM	/	/	/	/	/
50	64QAM	/	/	/	/	/
	256QAM	/	/	/	/	/
	CP-QPSK	/	/	/	/	/
	PI/2 BPSK	23.68	29.82	0.959	/	/
	QPSK	23.72	29.86	0.968	/	/
	16QAM	22.85	28.99	0.793	/	/
	64QAM	20.90	27.04	0.506	/	/
	256QAM	19.17	25.31	0.340	/	/
	CP-QPSK	23.19	29.33	0.857	/	/

n78(3700-3800MHz) (SCS 30K)						
Bandwidth (MHz)	Modulation	Conducted Average (dBm)	EIRP Average (dBm)	EIRP Average (W)	99% BW (MHz)	Emission Designator
10	PI/2 BPSK	/	/	/	/	/
	QPSK	23.50	29.64	0.920	/	/



	16QAM	/	/	/	/	/
	64QAM	/	/	/	/	/
	256QAM	/	/	/	/	/
	CP-QPSK	/	/	/	/	/
15	PI/2 BPSK	/	/	/	/	/
	QPSK	23.48	29.62	0.916	/	/
	16QAM	/	/	/	/	/
	64QAM	/	/	/	/	/
	256QAM	/	/	/	/	/
	CP-QPSK	/	/	/	/	/
20	PI/2 BPSK	/	/	/	/	/
	QPSK	23.43	29.57	0.906	/	/
	16QAM	/	/	/	/	/
	64QAM	/	/	/	/	/
	256QAM	/	/	/	/	/
	CP-QPSK	/	/	/	/	/
40	PI/2 BPSK	/	/	/	/	/
	QPSK	23.17	29.31	0.853	/	/
	16QAM	/	/	/	/	/
	64QAM	/	/	/	/	/
	256QAM	/	/	/	/	/
	CP-QPSK	/	/	/	/	/
50	PI/2 BPSK	/	/	/	/	/
	QPSK	23.42	29.56	0.904	/	/
	16QAM	/	/	/	/	/
	64QAM	/	/	/	/	/
	256QAM	/	/	/	/	/
	CP-QPSK	/	/	/	/	/
60	PI/2 BPSK	/	/	/	/	/
	QPSK	23.18	29.32	0.855	/	/
	16QAM	/	/	/	/	/
	64QAM	/	/	/	/	/
	256QAM	/	/	/	/	/
	CP-QPSK	/	/	/	/	/
70	PI/2 BPSK	/	/	/	/	/
	QPSK	23.39	29.53	0.897	/	/
	16QAM	/	/	/	/	/



	64QAM	/	/	/	/	/
	256QAM	/	/	/	/	/
	CP-QPSK	/	/	/	/	/
80	PI/2 BPSK	/	/	/	/	/
	QPSK	23.16	29.30	0.851	/	/
	16QAM	/	/	/	/	/
	64QAM	/	/	/	/	/
	256QAM	/	/	/	/	/
	CP-QPSK	/	/	/	/	/
90	PI/2 BPSK	/	/	/	/	/
	QPSK	22.78	28.92	0.780	/	/
	16QAM	/	/	/	/	/
	64QAM	/	/	/	/	/
	256QAM	/	/	/	/	/
	CP-QPSK	/	/	/	/	/
100	PI/2 BPSK	23.50	29.64	0.920	/	/
	QPSK	23.73	29.87	0.971	/	/
	16QAM	21.61	27.75	0.596	/	/
	64QAM	19.84	25.98	0.396	/	/
	256QAM	18.26	24.40	0.275	/	/
	CP-QPSK	22.04	28.18	0.658	/	/



## 1.4. Test Standards and Results

The objective of the report is to perform testing according to Part 2, Part 27 and Part96 for the EUT FCC ID Certification:

No	Identity	Document Title
1	47 CFR Part 2	Frequency Allocations and Radio Treaty Matters; General Rules and Regulations
4	47 CFR Part 27	Miscellaneous Wireless Communications Services
6	47 CFR Part 96	CITIZENS BROADBAND RADIO SERVICE

Remark: For the verdict, the “N/A” denotes “not applicable”, the “N/T” denotes “not tested”.

n41			
Item	FCC Rule No.	Requirements	Result
Effective (Isotropic) Radiated Power Output Data	§2.1046, §27.50(h)(2)	EIRP ≤2W	PASS
Peak-Average Ratio	N/A	N/A	N/A
Bandwidth	§2.1049	OBW: No limit EBW: No limit	PASS
Band Edges Compliance	§2.1051, §27.53(m)(4)	Refer to section 2.6	PASS
Spurious Emission at Antenna Terminals	§2.1051, §27.53(m)(4)	≤ -25 dBm/1MHz	PASS
Field Strength of Spurious Radiation	§2.1053, §27.53(m)(4)	≤ -25 dBm/1MHz	PASS
Frequency Stability	§2.1055, §27.54	No limit	N/A

Remark: For the verdict, the “N/A” denotes “not applicable”, the “N/T” denotes “not tested”.

n48			
Item	FCC Rule No.	Requirements	Result
Effective (Isotropic) Radiated Power Output Data	§2.1046, §96.41(b)	Refer to section 2.1	PASS
Peak-Average Ratio	§96.39(g)	≤ 13 dB	PASS



Bandwidth	§2.1049	OBW: No limit EBW: No limit	PASS
Band Edges Compliance	§2.1051, §96.41(e)	Refer to section 2.6	PASS
Spurious Emission at Antenna Terminals	§2.1051, §96.41(e)	≤ -40 dBm/1MHz	PASS
Field Strength of Spurious Radiation	§2.1053, §96.41(e)	≤ -40 dBm/1MHz	PASS
Frequency Stability	§2.1055, §27.54	No limit	N/A

Remark: For the verdict, the “N/A” denotes “not applicable”, the “N/T” denotes “not tested”.

n77(3450~3550MHz) & n78(3450~3550MHz)			
Item	FCC Rule No.	Requirements	Result
Effective (Isotropic) Radiated Power Output Data	§2.1046, §27.50(K)(3)	EIRP ≤ 1W	PASS
Peak-Average Ratio	§27.50(K)(4)	≤ 13 dB	PASS
Bandwidth	§2.1049	OBW: No limit. EBW: No limit.	PASS
Band Edges Compliance	§2.1051, §27.53(l)(2)	Refer to section 2.6	PASS
Spurious Emission at Antenna Terminals	§2.1051, §27.53(l)(2)	≤ -13 dBm/1MHz	PASS
Field Strength of Spurious Radiation	§2.1053, §27.53(l)(2)	≤ -13 dBm/1MHz.	PASS
Frequency Stability	§2.1055, §27.54	No limit	N/A

Remark: For the verdict, the “N/A” denotes “not applicable”, the “N/T” denotes “not tested”.

n77(3700~3980MHz) & n78(3700~3800MHz)			
Item	FCC Rule No.	Requirements	Result
Effective (Isotropic) Radiated Power Output Data	§2.1046, §27.50(j)(3)	EIRP ≤ 1W	PASS
Peak-Average Ratio	§27.50(j)(4)	≤ 13 dB	PASS



Bandwidth	§2.1049	OBW: No limit. EBW: No limit.	PASS
Band Edges Compliance	§2.1051, §27.53(n)(2)	Refer to section 2.6	PASS
Spurious Emission at Antenna Terminals	§2.1051, §27.53(n)(2)	≤ -13 dBm/1MHz	PASS
Field Strength of Spurious Radiation	§2.1053, §27.53(m)(4)	≤ -13 dBm/1MHz.	PASS
Frequency Stability	§2.1055, §27.54	No limit	N/A

Remark: For the verdict, the "N/A" denotes "not applicable", the "N/T" denotes "not tested".





Test detailed items/section required by FCC rules and results are as below:

Test Item	Test Engineer	Result	Method Determination /Remark
Transmitter Conducted Output Power and ERP/EIRP	Gan Jing	PASS	Nodeviation
Occupied Bandwidth	Gan Jing	PASS	Nodeviation
Frequency Stability	Gan Jing	PASS	Nodeviation
Peak to Average Radio	Gan Jing	PASS	Nodeviation
Conducted Spurious Emissions	Gan Jing	PASS	Nodeviation
Band Edge	Gan Jing	PASS	Nodeviation
Radiated Spurious Emissions	Gao Jianrou	PASS	Nodeviation

**Note 1:** The tests were performed according to the method of measurements prescribed in KDB971168 D01 v03 and ANSI/TIA-603-E-2016.

**Note 2:** Additions to, deviation, or exclusions from the method shall be judged in the "method determination" column of add, deviate or exclude from the specific method shall be explained in the "Remark" of the above table.

**Note 3:** The declared of product specification for EUT presented in the report are provided by manufacturer and the test laboratory is not responsible for the accuracy of the information.

**Note 4:** When the test result is a critical value, we will use the measurement uncertainty give the judgment result based on the 95% confidence intervals.

**Note 5:** There is no test for SA n78 due to the band is completely covered by SA n77 and its power level setting also less than SA n77.

**Note 6:** In the same NR frequency band, The measured power in SA mode is higher than that in NSA mode, SA mode is selected to test all test cases.

**Note 7:** In the same NR band, because the measurement power of 30kHz Subcarrier spacing is higher than 15kHz, 30kHz Subcarrier spacing is selected to test all test cases.

## 1.5. Environmental Conditions

During the measurement, the environmental conditions were within the listed ranges:

Temperature (°C):	15 - 35
Relative Humidity (%):	30 -60

## 2. Summary Test Results and Description

### 2.1. Transmitter Conducted Output Power

#### 2.1.1. Requirement

According to FCC section 2.1046(a), for transmitters other than single sideband, independent sideband and controlled carrier radiotelephone, power output shall be measured at the RF output terminals when the transmitter is adjusted in accordance with the tune-up procedure to give the values of current and voltage on the circuit elements specified in FCC section 2.1033(c)(8).

According to FCC section 27.50 (h)(2) for n41, mobile and other user stations. Mobile stations are limited to 2 watts E.I.R.P. All user stations are limited to 2 watts transmitter output power.

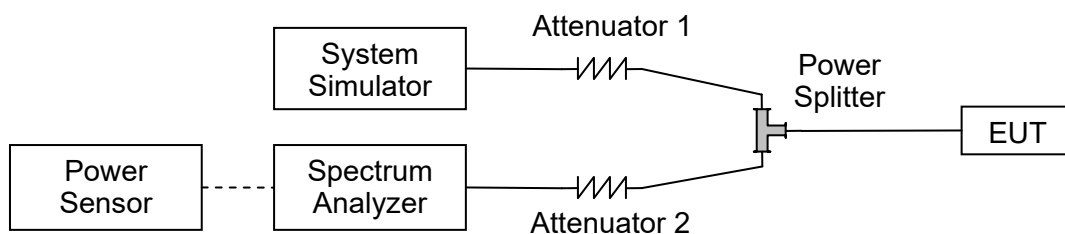
According to FCC section 96.41(b) for n48, the maximum effective isotropic radiated power (EIRP) and maximum Power Spectral Density (PSD) of any CBSD and End User Device must comply with the limits shown in the table as below. Paragraph

Device	Maximum EIRP (dBm/10 megahertz)	Maximum PSD (dBm/MHz)
End User Device	23	n/a
Category A CBSD	30	20
Category B CBSD <sup>1</sup>	47	37

According to FCC section 27.50(j)(3) for n77(3700-3980MHz), n78(3700-3800MHz), mobile and portable stations are limited to 1 Watt EIRP. Mobile and portable stations operating in these bands must employ a means for limiting power to the minimum necessary for successful communications.

According to FCC section 27.50(k)(3) for n77, n78(3450-3550MHz), Mobile devices are limited to 1Watt (30 dBm) EIRP. Mobile devices operating in these bands must employ a means for limiting power to the minimum necessary for successful communications.

#### 2.1.2. Test Description





The EUT is coupled to the Spectrum Analyzer (SA) and the System Simulator (SS) with Attenuators through the Power Splitter; the RF load attached to the EUT antenna terminal is 50Ohm; the path loss as the factor is calibrated to correct the reading. The EUT is commanded by the SS to operate at the maximum output power. A call is established between the EUT and the SS.

### **2.1.3. Test procedure**

KDB 971168 D01v03 Section 5.2 and ANSI/TIA-603-E-2016.



**2.1.4. Conducted Output Power**

n41(SCS 15K)						
BW [MHz]	Modulation	RB num	RB start	Low Channel	Middle Channel	High Channel
Channel				504201	518601	532998
Frequency (MHz)				2521.01	2593.01	2664.99
50	DFT-s-OFDM PI/2 BPSK	1	1	26.10	26.04	26.06
50		1	135	26.11	26.17	26.10
50		1	268	26.03	26.04	26.14
50		135	1	26.03	26.27	25.93
50		135	67	26.13	26.27	26.10
50		135	135	26.16	26.07	26.06
50		270	0	26.13	26.27	25.96
50	DFT-s-OFDM QPSK	1	1	26.24	26.42	26.40
50		1	135	26.16	26.24	26.18
50		1	268	26.07	26.07	26.20
50		135	1	26.26	26.30	26.24
50		135	67	26.19	26.25	26.12
50		135	135	26.17	26.13	26.10
50		270	0	26.16	26.10	25.96
50	DFT-s-OFDM 16QAM	1	1	25.15	24.72	25.07
50	DFT-s-OFDM 64QAM	1	1	23.49	23.65	23.60
50	DFT-s-OFDM 256QAM	1	1	21.66	21.35	21.77
50	CP-OFDM QPSK	1	1	25.56	25.63	25.51
50	CP-OFDM 16QAM	1	1	24.07	24.00	24.01
50	CP-OFDM 64QAM	1	1	22.58	22.68	22.67
50	CP-OFDM 256QAM	1	1	19.83	19.62	19.75
Channel				503202	518601	534000
Frequency (MHz)				2516.01	2593.01	2670
40	DFT-s-OFDM QPSK	1	1	25.82	25.78	25.72
Channel				502200	518601	534999
Frequency (MHz)				2511	2593.01	2674.99
30	DFT-s-OFDM QPSK	1	1	25.94	25.96	25.79
Channel				501201	518601	535998
Frequency (MHz)				2506.01	2593.01	2679.99
20	DFT-s-OFDM QPSK	1	1	26.28	26.25	26.31
Channel				500700	518601	536499
Frequency (MHz)				2503.5	2593.01	2682.49
15	DFT-s-OFDM QPSK	1	1	26.34	26.19	26.14



Channel				500202	518601	537000
Frequency (MHz)				2501.01	2593.01	2685
10	DFT-s-OFDM QPSK	1	1	26.31	26.29	26.12

n41(SCS 30K)						
BW [MHz]	Modulation	RB num	RB start	Low Channel	Middle Channel	High Channel
Channel				509202	518598	528000
Frequency (MHz)				2546.01	2592.99	2640
100	DFT-s-OFDM PI/2 BPSK	1	1	26.55	26.65	26.68
100		1	136	26.69	26.87	26.72
100		1	271	26.69	26.79	26.73
100		135	1	26.67	27.03	26.73
100		135	67	26.76	27.03	26.86
100		135	136	26.77	26.89	26.81
100		270	0	26.73	27.05	26.71
100		DFT-s-OFDM QPSK	1	1	27.24	27.38
100	1		136	26.74	26.94	27.01
100	1		271	26.70	26.80	26.97
100	135		1	27.01	27.09	26.95
100	135		67	26.78	27.04	26.90
100	135		136	26.82	26.94	26.85
100	270		0	26.73	27.07	26.75
100	DFT-s-OFDM 16QAM		1	1	25.57	25.87
100	DFT-s-OFDM 64QAM	1	1	24.18	24.25	24.31
100	DFT-s-OFDM 256QAM	1	1	22.16	22.19	22.22
100	CP-OFDM QPSK	1	1	26.01	26.17	26.16
100	CP-OFDM 16QAM	1	1	24.67	24.79	24.82
100	CP-OFDM 64QAM	1	1	23.08	23.17	23.24
100	CP-OFDM 256QAM	1	1	20.30	20.41	20.51
Channel				508200	518598	528996
Frequency (MHz)				2541	2592.99	2644.98
90	DFT-s-OFDM QPSK	1	1	26.75	26.50	26.51
Channel				507204	518598	529998
Frequency (MHz)				2536.02	2592.99	2649.99
80	DFT-s-OFDM QPSK	1	1	26.91	26.72	26.71
Channel				505200	518598	531996
Frequency (MHz)				2526	2592.99	2659.98
60	DFT-s-OFDM QPSK	1	1	26.88	26.80	26.88
Channel				504204	518598	532998
Frequency (MHz)				2521.02	2592.99	2664.99
50	DFT-s-OFDM QPSK	1	1	27.24	27.38	27.36



Channel				503202	518598	534000
Frequency (MHz)				2516.01	2592.99	2670
40	DFT-s-OFDM QPSK	1	1	27.12	27.33	27.30
Channel				501204	518598	535998
Frequency (MHz)				2506.02	2592.99	2679.99
30	DFT-s-OFDM QPSK	1	1	27.01	27.24	27.11
Channel				501204	518598	535998
Frequency (MHz)				2506.02	2592.99	2679.99
20	DFT-s-OFDM QPSK	1	1	27.17	27.28	27.26
Channel				500700	518598	536496
Frequency (MHz)				2503.5	2592.99	2682.48
15	DFT-s-OFDM QPSK	1	1	27.14	27.05	27.21
Channel				500202	518598	537000
Frequency (MHz)				2501.01	2592.99	2685
10	DFT-s-OFDM QPSK	1	1	27.08	27.12	26.87

n48 (SCS 15K)						
BW [MHz]	Modulation	RB num	RB start	Low Channel	Middle Channel	High Channel
Channel				638334	641666	645000
Frequency (MHz)				3575.01	3624.99	3675
50	DFT-s-OFDM PI/2 BPSK	1	1	20.49	20.93	20.56
50		1	53	20.68	20.90	20.57
50		1	104	20.97	20.71	20.34
50		50	1	20.65	20.82	20.59
50		50	25	20.69	20.84	20.58
50		50	50	20.76	20.89	20.41
50		100	0	20.63	20.78	20.52
50	DFT-s-OFDM QPSK	1	1	20.47	21.07	20.63
50		1	53	20.69	20.86	20.67
50		1	104	20.96	20.73	20.33
50		50	1	20.87	20.93	20.86
50		50	25	20.69	20.85	20.65
50		50	50	20.76	20.93	20.44
50		100	0	20.68	20.78	20.52
50	DFT-s-OFDM 16QAM	1	1	19.87	20.30	20.19
50	DFT-s-OFDM 64QAM	1	1	18.11	18.51	18.39
50	DFT-s-OFDM 256QAM	1	1	15.89	16.24	16.18
50	CP-OFDM QPSK	1	1	20.00	20.41	20.28
50	CP-OFDM 16QAM	1	1	18.43	18.81	18.62
50	CP-OFDM 64QAM	1	1	17.07	17.46	17.00
50	CP-OFDM 256QAM	1	1	13.80	14.27	14.24



Channel				638000	641666	645332
Frequency (MHz)				3570	3624.99	3679.98
40	DFT-s-OFDM QPSK	1	1	20.25	20.56	20.18
Channel				637334	641666	646000
Frequency (MHz)				3560.01	3624.99	3690
20	DFT-s-OFDM QPSK	1	1	20.58	20.66	20.52
Channel				637168	641666	646166
Frequency (MHz)				3557.52	3624.99	3692.49
15	DFT-s-OFDM QPSK	1	1	20.57	20.61	20.43
Channel				637000	641666	646332
Frequency (MHz)				3555	3624.99	3694.98
10	DFT-s-OFDM QPSK	1	1	20.57	20.64	20.45
Channel		1	1	636834	641667	646500
Frequency (MHz)		1	1	3552.51	3625.01	3697.5
5	DFT-s-OFDM QPSK	1	1	20.48	20.56	20.51

n48 (SCS 30K)						
BW [MHz]	Modulation	RB num	RB start	Low Channel	Middle Channel	High Channel
Channel				640000	641666	643332
Frequency (MHz)				3600	3624.99	3649.98
100	DFT-s-OFDM PI/2 BPSK	1	1	20.68	20.72	20.94
100		1	53	21.57	21.17	21.29
100		1	104	20.57	20.46	20.36
100		50	1	21.19	21.47	21.01
100		50	25	21.59	21.19	21.32
100		50	50	21.00	21.14	21.02
100		100	0	21.50	21.04	21.16
100		DFT-s-OFDM QPSK	1	1	21.44	21.61
100	1		53	21.56	21.21	21.34
100	1		104	21.33	21.13	21.30
100	50		1	21.39	21.53	21.35
100	50		25	21.33	21.24	21.36
100	50		50	21.02	21.18	21.04
100	100		0	21.50	21.07	21.18
100	DFT-s-OFDM 16QAM		1	1	20.26	20.09
100	DFT-s-OFDM 64QAM	1	1	18.17	18.16	18.47
100	DFT-s-OFDM 256QAM	1	1	15.96	16.17	16.28
100	CP-OFDM QPSK	1	1	20.08	20.22	20.38
100	CP-OFDM 16QAM	1	1	18.64	18.72	18.94
100	CP-OFDM 64QAM	1	1	17.06	17.08	17.33
100	CP-OFDM 256QAM	1	1	14.02	14.20	14.37



Channel				639668	641666	643666
Frequency (MHz)				3595.02	3624.99	3654.99
90	DFT-s-OFDM QPSK	1	1	20.76	20.74	20.55
Channel				639334	641666	644000
Frequency (MHz)				3590.01	3624.99	3660
80	DFT-s-OFDM QPSK	1	1	20.92	20.96	20.59
Channel				638668	641666	644666
Frequency (MHz)				3580.02	3624.99	3669.99
60	DFT-s-OFDM QPSK	1	1	20.87	21.12	21.01
Channel				638334	641666	645000
Frequency (MHz)				3575.01	3624.99	3675
50	DFT-s-OFDM QPSK	1	1	21.08	21.33	20.99
Channel				638000	641666	645332
Frequency (MHz)				3570	3624.99	3679.98
40	DFT-s-OFDM QPSK	1	1	20.81	21.04	20.75
Channel				637334	641666	646000
Frequency (MHz)				3560.01	3624.99	3690
20	DFT-s-OFDM QPSK	1	1	21.22	21.10	21.04
Channel				637168	641666	646166
Frequency (MHz)				3557.52	3624.99	3692.49
15	DFT-s-OFDM QPSK	1	1	21.25	21.10	21.03
Channel				637000	641666	646332
Frequency (MHz)				3555	3624.99	3694.98
10	DFT-s-OFDM QPSK	1	1	21.27	21.16	21.07

n77(3450-3550MHz)(SCS 15K)						
BW [MHz]	Modulation	RB num	RB start	Low Channel	Middle Channel	High Channel
Channel				631668	633334	635000
Frequency (MHz)				3475.02	3500.01	3525
50	DFT-s-OFDM PI/2 BPSK	1	1	23.28	23.08	22.95
50		1	135	23.20	23.13	22.89
50		1	268	22.96	22.69	23.09
50		135	1	23.22	23.06	22.86
50		135	67	23.22	23.16	22.89
50		135	135	23.12	22.95	22.95
50		270	0	23.18	23.11	22.84
50		DFT-s-OFDM QPSK	1	1	23.42	23.62
50	1		135	23.24	23.16	22.85
50	1		268	22.98	22.71	23.10
50	135		1	23.27	23.07	22.88
50	135		67	23.25	23.19	22.92
50	135		135	23.16	22.98	22.96





50		270	0	23.19	23.14	22.87
50	DFT-s-OFDM 16QAM	1	1	22.33	22.00	21.89
50	DFT-s-OFDM 64QAM	1	1	20.84	20.61	20.50
50	DFT-s-OFDM 256QAM	1	1	19.00	18.78	18.67
50	CP-OFDM QPSK	1	1	22.75	22.52	22.41
50	CP-OFDM 16QAM	1	1	21.30	21.05	20.90
50	CP-OFDM 64QAM	1	1	20.19	19.96	19.81
50	CP-OFDM 256QAM	1	1	16.99	16.76	16.65
Channel				631334	633334	635332
Frequency (MHz)				3470.01	3500.01	3529.98
40	DFT-s-OFDM QPSK	1	1	23.44	23.36	23.41
Channel				630668	633334	636000
Frequency (MHz)				3460.02	3500.01	3540
20	DFT-s-OFDM QPSK	1	1	23.24	22.91	22.58
Channel				630500	633334	636166
Frequency (MHz)				3457.5	3500.01	3542.49
15	DFT-s-OFDM QPSK	1	1	23.31	22.94	22.64
Channel				630334	633334	636332
Frequency (MHz)				3455.01	3500.01	3544.98
10	DFT-s-OFDM QPSK	1	1	23.31	22.97	22.78

n77(3450-3550MHz)(SCS 30K)						
BW [MHz]	Modulation	RB num	RB start	Low Channel	Middle Channel	High Channel
Channel				/	633334	/
Frequency (MHz)				/	3500.01	/
100	DFT-s-OFDM PI/2 BPSK	1	1	/	23.35	/
100		1	136	/	23.01	/
100		1	271	/	22.40	/
100		135	1	/	23.28	/
100		135	67	/	23.04	/
100		135	136	/	22.67	/
100		270	0	/	22.89	/
100	DFT-s-OFDM QPSK	1	1	/	23.65	/
100		1	136	/	23.16	/
100		1	271	/	22.42	/
100		135	1	/	23.45	/
100		135	67	/	23.21	/
100		135	136	/	23.09	/
100		270	0	/	22.93	/
100	DFT-s-OFDM 16QAM	1	1	/	21.57	/
100	DFT-s-OFDM 64QAM	1	1	/	20.11	/



100	DFT-s-OFDM 256QAM	1	1	/	18.45	/
100	CP-OFDM QPSK	1	1	/	22.11	/
100	CP-OFDM 16QAM	1	1	/	20.63	/
100	CP-OFDM 64QAM	1	1	/	19.54	/
100	CP-OFDM 256QAM	1	1	/	16.33	/
Channel				633000	633334	633666
Frequency (MHz)				3495	3500.01	3504.99
90	DFT-s-OFDM QPSK	1	1	22.71	22.63	22.59
Channel				632668	633334	634000
Frequency (MHz)				3490.02	3500.01	3510
80	DFT-s-OFDM QPSK	1	1	22.90	22.80	22.67
Channel				632334	633334	634332
Frequency (MHz)				3485.01	3500.01	3514.98
70	DFT-s-OFDM QPSK	1	1	23.01	22.87	22.71
Channel				632000	633334	634666
Frequency (MHz)				3480	3500.01	3519.99
60	DFT-s-OFDM QPSK	1	1	23.07	22.87	22.75
Channel				631668	633334	635000
Frequency (MHz)				3475.02	3500.01	3525
50	DFT-s-OFDM QPSK	1	1	23.24	23.02	22.90
Channel				631334	633334	635332
Frequency (MHz)				3470.01	3500.01	3529.98
40	DFT-s-OFDM QPSK	1	1	22.97	22.66	22.42
Channel				630668	633334	636000
Frequency (MHz)				3460.02	3500.01	3540
20	DFT-s-OFDM QPSK	1	1	23.26	22.89	22.57
Channel				630500	633334	636166
Frequency (MHz)				3457.5	3500.01	3542.49
15	DFT-s-OFDM QPSK	1	1	23.32	22.96	22.70
Channel				630334	633334	636332
Frequency (MHz)				3455.01	3500.01	3544.98
10	DFT-s-OFDM QPSK	1	1	23.17	22.99	22.82

n77(3700-3980MHz) (SCS 15K)						
BW [MHz]	Modulation	RB num	RB start	Low Channel	Middle Channel	High Channel
Channel				648334	656000	663666
Frequency (MHz)				3725.01	3840	3954.99
50	DFT-s-OFDM PI/2 BPSK	1	1	23.16	23.22	23.15
50		1	135	23.70	23.64	23.45
50		1	268	23.37	23.40	23.40
50		135	1	23.52	23.42	23.39



50		135	67	23.73	23.70	23.49
50		135	135	23.59	23.52	23.46
50		270	0	23.69	23.68	23.50
50	DFT-s-OFDM QPSK	1	1	23.18	23.76	23.17
50		1	135	23.74	23.68	23.47
50		1	268	23.42	23.36	23.36
50		135	1	23.54	23.65	23.41
50		135	67	23.21	23.55	23.55
50		135	135	23.60	23.55	23.48
50		270	0	23.70	23.70	23.49
50		DFT-s-OFDM 16QAM	1	1	22.04	22.09
50	DFT-s-OFDM 64QAM	1	1	20.67	20.66	20.51
50	DFT-s-OFDM 256QAM	1	1	18.71	18.81	18.50
50	CP-OFDM QPSK	1	1	22.62	22.71	22.62
50	CP-OFDM 16QAM	1	1	21.08	21.29	21.32
50	CP-OFDM 64QAM	1	1	19.90	20.11	19.83
50	CP-OFDM 256QAM	1	1	16.79	16.85	16.48
Channel				648000	656000	664000
Frequency (MHz)				3720	3840	3960
40	DFT-s-OFDM QPSK	1	1	22.79	22.87	22.90
Channel				647334	656000	664666
Frequency (MHz)				3710.01	3840	3969.99
20	DFT-s-OFDM QPSK	1	1	23.06	23.30	23.46
Channel				647168	656000	664832
Frequency (MHz)				3707.52	3840	3972.48
15	DFT-s-OFDM QPSK	1	1	23.08	23.32	23.54
Channel				647000	656000	665000
Frequency (MHz)				3705	3840	3975
10	DFT-s-OFDM QPSK	1	1	23.13	23.43	23.64



n77(3700-3980MHz)(SCS 30K)						
BW [MHz]	Modulation	RB num	RB start	Low Channel	Middle Channel	High Channel
Channel				650000	656000	662000
Frequency (MHz)				3750	3840	3930
100	DFT-s-OFDM PI/2 BPSK	1	1	22.46	22.58	22.22
100		1	136	23.46	23.66	22.94
100		1	271	22.73	22.77	22.63
100		135	1	23.45	23.24	23.36
100		135	67	23.43	23.66	23.49
100		135	136	23.15	23.21	23.59
100		270	0	23.25	23.51	23.42
100	DFT-s-OFDM QPSK	1	1	23.52	23.79	23.59
100		1	136	22.44	22.62	22.26
100		1	271	22.73	22.81	22.67
100		135	1	23.45	23.73	23.52
100		135	67	23.26	23.36	23.22
100		135	136	23.17	23.16	23.64
100		270	0	23.29	23.57	23.47
100	DFT-s-OFDM 16QAM	1	1	21.45	21.71	21.28
100	DFT-s-OFDM 64QAM	1	1	19.95	20.11	20.08
100	DFT-s-OFDM 256QAM	1	1	18.35	18.35	17.81
100	CP-OFDM QPSK	1	1	21.88	22.13	21.68
100	CP-OFDM 16QAM	1	1	20.45	20.49	20.27
100	CP-OFDM 64QAM	1	1	19.23	19.49	19.13
100	CP-OFDM 256QAM	1	1	16.30	16.26	15.78
Channel				649666	656000	662332
Frequency (MHz)				3744.99	3840	3934.98
90	DFT-s-OFDM QPSK	1	1	23.36	23.37	23.36
Channel				649334	656000	662666
Frequency (MHz)				3740.01	3840	3939.99
80	DFT-s-OFDM QPSK	1	1	23.35	23.15	23.58
Channel				649000	656000	663000
Frequency (MHz)				3735	3840	3945
70	DFT-s-OFDM QPSK	1	1	22.90	23.10	23.39
Channel				648668	656000	663332
Frequency (MHz)				3730.02	3840	3949.98
60	DFT-s-OFDM QPSK	1	1	23.19	23.07	22.91
Channel				648334	656000	663666
Frequency (MHz)				3725.01	3840	3954.99
50	DFT-s-OFDM QPSK	1	1	23.15	23.27	23.20
Channel				648000	656000	664000



Frequency (MHz)				3720	3840	3960
40	DFT-s-OFDM QPSK	1	1	22.85	23.01	23.07
Channel				647334	656000	664666
Frequency (MHz)				3710.01	3840	3969.99
20	DFT-s-OFDM QPSK	1	1	23.11	23.34	23.48
Channel				647168	656000	664832
Frequency (MHz)				3707.52	3840	3972.48
15	DFT-s-OFDM QPSK	1	1	23.17	23.43	23.65
Channel				647000	656000	665000
Frequency (MHz)				3705	3840	3975
10	DFT-s-OFDM QPSK	1	1	23.23	23.54	23.57

n78(3450-3550MHz) (SCS 15K)						
BW [MHz]	Modulation	RB num	RB start	Low Channel	Middle Channel	High Channel
Channel				631668	633334	635000
Frequency (MHz)				3475.02	3500.01	3525
50	DFT-s-OFDM PI/2 BPSK	1	1	23.31	23.04	22.89
50		1	135	23.19	23.10	22.78
50		1	268	22.97	22.65	22.99
50		135	1	23.26	23.06	22.83
50		135	67	23.28	23.15	22.85
50		135	135	23.18	22.93	22.88
50		270	0	23.15	23.08	22.79
50	DFT-s-OFDM QPSK	1	1	23.33	23.40	23.33
50		1	135	23.23	23.14	22.82
50		1	268	23.04	22.73	23.02
50		135	1	23.31	23.05	22.86
50		135	67	23.27	23.16	22.81
50		135	135	23.18	22.98	22.89
50		270	0	23.17	23.06	22.84
50	DFT-s-OFDM 16QAM	1	1	22.25	22.01	21.87
50	DFT-s-OFDM 64QAM	1	1	20.77	20.45	20.38
50	DFT-s-OFDM 256QAM	1	1	19.14	18.76	18.78
50	CP-OFDM QPSK	1	1	22.73	22.49	22.36
50	CP-OFDM 16QAM	1	1	21.50	21.24	21.12
50	CP-OFDM 64QAM	1	1	20.03	19.70	19.63
50	CP-OFDM 256QAM	1	1	16.93	16.64	16.53
Channel				631334	633334	635332
Frequency (MHz)				3470.01	3500.01	3529.98
40	DFT-s-OFDM QPSK	1	1	23.02	22.71	22.54
Channel				630668	633334	636000



Frequency (MHz)				3460.02	3500.01	3540
20	DFT-s-OFDM QPSK	1	1	23.54	23.06	22.73
Channel				630500	633334	636166
Frequency (MHz)				3457.5	3500.01	3542.49
15	DFT-s-OFDM QPSK	1	1	23.50	23.13	22.87
Channel				630334	633334	636332
Frequency (MHz)				3455.01	3500.01	3544.98
10	DFT-s-OFDM QPSK	1	1	23.31	23.23	22.93

n78(3450-3550MHz) (SCS 30K)						
BW [MHz]	Modulation	RB num	RB start	Low Channel	Middle Channel	High Channel
Channel				/	633334	/
Frequency (MHz)				/	3500.01	/
100	DFT-s-OFDM PI/2 BPSK	1	1	/	22.69	/
100		1	136	/	23.15	/
100		1	271	/	22.49	/
100		135	1	/	23.12	/
100		135	67	/	22.96	/
100		135	136	/	22.69	/
100		270	0	/	22.95	/
100		DFT-s-OFDM QPSK	1	1	/	23.54
100	1		136	/	23.15	/
100	1		271	/	23.06	/
100	135		1	/	23.17	/
100	135		67	/	23.03	/
100	135		136	/	22.77	/
100	270		0	/	23.01	/
100	DFT-s-OFDM 16QAM	1	1	/	21.86	/
100	DFT-s-OFDM 64QAM	1	1	/	20.18	/
100	DFT-s-OFDM 256QAM	1	1	/	18.51	/
100	CP-OFDM QPSK	1	1	/	22.19	/
100	CP-OFDM 16QAM	1	1	/	20.81	/
100	CP-OFDM 64QAM	1	1	/	19.61	/
100	CP-OFDM 256QAM	1	1	/	16.37	/
Channel				633000	633334	633666
Frequency (MHz)				3495	3500.01	3504.99
90	DFT-s-OFDM QPSK	1	1	22.88	22.74	22.65
Channel				632668	633334	634000
Frequency (MHz)				3490.02	3500.01	3510
80	DFT-s-OFDM QPSK	1	1	23.08	22.93	22.80
Channel				632334	633334	634332



Frequency (MHz)				3485.01	3500.01	3514.98
70	DFT-s-OFDM QPSK	1	1	23.21	23.00	22.85
Channel				632000	633334	634666
Frequency (MHz)				3480	3500.01	3519.99
60	DFT-s-OFDM QPSK	1	1	23.06	22.89	22.79
Channel				631668	633334	635000
Frequency (MHz)				3475.02	3500.01	3525
50	DFT-s-OFDM QPSK	1	1	23.33	23.01	22.89
Channel				631334	633334	635332
Frequency (MHz)				3470.01	3500.01	3529.98
40	DFT-s-OFDM QPSK	1	1	23.12	22.79	22.50
Channel				630668	633334	636000
Frequency (MHz)				3460.02	3500.01	3540
20	DFT-s-OFDM QPSK	1	1	23.44	23.06	22.73
Channel				630500	633334	636166
Frequency (MHz)				3457.5	3500.01	3542.49
15	DFT-s-OFDM QPSK	1	1	23.53	23.20	22.83
Channel				630334	633334	636332
Frequency (MHz)				3455.01	3500.01	3544.98
10	DFT-s-OFDM QPSK	1	1	23.30	23.12	23.00

n78(3700-3800MHz) (SCS 15K)						
BW [MHz]	Modulation	RB num	RB start	Low Channel	Middle Channel	High Channel
Channel				648334	650000	651666
Frequency (MHz)				3725.01	3750	3774.99
50	DFT-s-OFDM PI/2 BPSK	1	1	23.06	23.44	23.22
50		1	135	23.62	23.38	23.28
50		1	268	23.25	23.13	23.27
50		135	1	23.42	23.50	23.32
50		135	67	23.68	23.45	23.33
50		135	135	23.49	23.30	23.29
50		270	0	23.63	23.39	23.29
50		DFT-s-OFDM QPSK	1	1	23.59	23.72
50	1		135	23.15	23.43	23.31
50	1		268	23.30	23.20	23.30
50	135		1	23.54	23.70	23.52
50	135		67	23.37	23.51	23.38
50	135		135	23.58	23.33	23.31
50	270		0	23.62	23.44	23.30
50	DFT-s-OFDM 16QAM		1	1	22.17	22.85
50	DFT-s-OFDM 64QAM	1	1	20.44	20.90	20.59



50	DFT-s-OFDM 256QAM	1	1	18.78	19.17	18.90
50	CP-OFDM QPSK	1	1	22.45	22.77	23.19
50	CP-OFDM 16QAM	1	1	21.33	21.32	21.11
50	CP-OFDM 64QAM	1	1	19.59	20.17	19.98
50	CP-OFDM 256QAM	1	1	16.66	17.12	16.86
Channel				648000	650000	652000
Frequency (MHz)				3720	3750	3780
40	DFT-s-OFDM QPSK	1	1	22.81	23.15	22.83
Channel				647334	650000	652666
Frequency (MHz)				3710.01	3750	3789.99
20	DFT-s-OFDM QPSK	1	1	23.22	23.44	23.22
Channel				647168	650000	652832
Frequency (MHz)				3707.52	3750	3792.48
15	DFT-s-OFDM QPSK	1	1	23.24	23.39	23.22
Channel				647000	650000	653000
Frequency (MHz)				3705	3750	3795
10	DFT-s-OFDM QPSK	1	1	23.22	23.42	23.28

n78(3700-3800MHz)(SCS 30K)						
BW [MHz]	Modulation	RB num	RB start	Low Channel	Middle Channel	High Channel
Channel				/	650000	/
Frequency (MHz)				/	3750	/
100	DFT-s-OFDM PI/2 BPSK	1	1	/	22.50	/
100		1	136	/	23.50	/
100		1	271	/	22.75	/
100		135	1	/	23.50	/
100		135	67	/	23.50	/
100		135	136	/	23.20	/
100		270	0	/	23.32	/
100	DFT-s-OFDM QPSK	1	1	/	23.73	/
100		1	136	/	23.48	/
100		1	271	/	22.75	/
100		135	1	/	23.59	/
100		135	67	/	23.52	/
100		135	136	/	23.24	/
100		270	0	/	23.33	/
100	DFT-s-OFDM 16QAM	1	1	/	21.61	/
100	DFT-s-OFDM 64QAM	1	1	/	19.84	/
100	DFT-s-OFDM 256QAM	1	1	/	18.26	/
100	CP-OFDM QPSK	1	1	/	22.04	/





100	CP-OFDM 16QAM	1	1	/	20.54	/
100	CP-OFDM 64QAM	1	1	/	19.45	/
100	CP-OFDM 256QAM	1	1	/	16.16	/
Channel				649668	650000	650332
Frequency (MHz)				3745.02	3750	3754.98
90	DFT-s-OFDM QPSK	1	1	22.63	22.68	22.78
Channel				649334	650000	650666
Frequency (MHz)				3740.01	3750	3759.99
80	DFT-s-OFDM QPSK	1	1	22.91	23.01	23.16
Channel				649000	650000	651000
Frequency (MHz)				3735	3750	3765
70	DFT-s-OFDM QPSK	1	1	23.01	23.25	23.39
Channel				648668	650000	651332
Frequency (MHz)				3730.02	3750	3769.98
60	DFT-s-OFDM QPSK	1	1	22.86	23.15	23.18
Channel				648334	650000	651666
Frequency (MHz)				3725.01	3750	3774.99
50	DFT-s-OFDM QPSK	1	1	23.05	23.42	23.19
Channel				648000	650000	652000
Frequency (MHz)				3720	3750	3780
40	DFT-s-OFDM QPSK	1	1	22.80	23.17	22.96
Channel				647334	650000	652666
Frequency (MHz)				3710.01	3750	3789.99
20	DFT-s-OFDM QPSK	1	1	23.20	23.43	23.21
Channel				647168	650000	652832
Frequency (MHz)				3707.52	3750	3792.48
15	DFT-s-OFDM QPSK	1	1	23.32	23.48	23.32
Channel				647000	650000	653000
Frequency (MHz)				3705	3750	3795
10	DFT-s-OFDM QPSK	1	1	23.31	23.50	23.41

**Effective Radiated Power and Effective Isotropic Radiated Power:**

n41(SCS 15K)									
BW [MHz]	Modulation	RB Size	RB Off set	Low Channel /dBm	Low Channel /Watt	Middle Channel /dBm	Middle Channel /Watt	High Channel /dBm	High Channel /Watt
Channel				504201	504201	518601	518601	532998	532998
Frequency (MHz)				2521.01	2521.01	2593.01	2593.01	2664.99	2664.99
50	DFT-s-OFDM PI/2 BPSK	1	1	29.23	0.838	29.17	0.826	29.19	0.830
50		1	135	29.24	0.839	29.30	0.851	29.23	0.838
50		1	268	29.16	0.824	29.17	0.826	29.27	0.845
50		135	1	29.16	0.824	29.40	0.871	29.06	0.805



50		13 5	67	29.26	0.843	29.40	0.871	29.23	0.838
50		13 5	135	29.29	0.849	29.20	0.832	29.19	0.830
50		27 0	0	29.26	0.843	29.40	0.871	29.09	0.811
50	DFT-s-OFDM QPSK	1	1	29.37	0.865	29.55	0.902	29.53	0.897
50		1	135	29.29	0.849	29.37	0.865	29.31	0.853
50		1	268	29.20	0.832	29.20	0.832	29.33	0.857
50		13 5	1	29.39	0.869	29.43	0.877	29.37	0.865
50		13 5	67	29.32	0.855	29.38	0.867	29.25	0.841
50		13 5	135	29.30	0.851	29.26	0.843	29.23	0.838
50		27 0	0	29.29	0.849	29.23	0.838	29.09	0.811
50		DFT-s-OFDM 16QAM	1	1	28.28	0.673	27.85	0.610	28.20
50	DFT-s-OFDM 64QAM	1	1	26.62	0.459	26.78	0.476	26.73	0.471
50	DFT-s-OFDM 256QAM	1	1	24.79	0.301	24.48	0.281	24.90	0.309
50	CP-OFDM QPSK	1	1	28.69	0.740	28.76	0.752	28.64	0.731
50	CP-OFDM 16QAM	1	1	27.20	0.525	27.13	0.516	27.14	0.518
50	CP-OFDM 64QAM	1	1	25.71	0.372	25.81	0.381	25.80	0.380
50	CP-OFDM 256QAM	1	1	22.96	0.198	22.75	0.188	22.88	0.194
Channel				503202	503202	518601	518601	534000	534000
Frequency (MHz)				2516.01	2516.01	2593.01	2593.01	2670.00	2670.00
40	DFT-s-OFDM QPSK	1	1	28.95	0.785	28.91	0.778	28.85	0.767
Channel				502200	502200	518601	518601	534999	534999
Frequency (MHz)				2511.00	2511.00	2593.01	2593.01	2674.99	2674.99
30	DFT-s-OFDM QPSK	1	1	29.07	0.807	29.09	0.811	28.92	0.780
Channel				501201	501201	518601	518601	535998	535998
Frequency (MHz)				2506.01	2506.01	2593.01	2593.01	2679.99	2679.99
20	DFT-s-OFDM QPSK	1	1	29.41	0.873	29.38	0.867	29.44	0.879
Channel				500700	500700	518601	518601	536499	536499
Frequency (MHz)				2503.50	2503.50	2593.01	2593.01	2682.49	2682.49
15	DFT-s-OFDM QPSK	1	1	29.47	0.885	29.32	0.855	29.27	0.845
Channel				500202	500202	518601	518601	537000	537000



Frequency (MHz)				2501.01	2501.01	2593.01	2593.01	2685.00	2685.00
10	DFT-s-OFDM QPSK	1	1	29.44	0.879	29.42	0.875	29.25	0.841

n41(SCS 30K)									
BW [MHz]	Modulation	RB Size	RB Offset	Low Channel /dBm	Low Channel /Watt	Middle Channel /dBm	Middle Channel /Watt	High Channel /dBm	High Channel /Watt
Channel				509202	509202	518598	518598	528000	528000
Frequency (MHz)				2546.01	2546.01	2592.99	2592.99	2640.00	2640.00
100	DFT-s-OFDM PI/2 BPSK	1	1	29.68	0.929	29.78	0.951	29.81	0.957
100		1	136	29.82	0.959	30.00	1.000	29.85	0.966
100		1	271	29.82	0.959	29.92	0.982	29.86	0.968
100		135	1	29.80	0.955	30.16	1.038	29.86	0.968
100		135	67	29.89	0.975	30.16	1.038	29.99	0.998
100		135	136	29.90	0.977	30.02	1.005	29.94	0.986
100		270	0	29.86	0.968	30.18	1.042	29.84	0.964
100	DFT-s-OFDM QPSK	1	1	30.37	1.089	30.51	1.125	30.49	1.119
100		1	136	29.87	0.971	30.07	1.016	30.14	1.033
100		1	271	29.83	0.962	29.93	0.984	30.10	1.023
100		135	1	30.14	1.033	30.22	1.052	30.08	1.019
100		135	67	29.91	0.979	30.17	1.041	30.03	1.007
100		135	136	29.95	0.989	30.07	1.016	29.98	0.995
100		270	0	29.86	0.968	30.20	1.047	29.88	0.973
100	DFT-s-OFDM 16QAM	1	1	28.70	0.741	29.00	0.794	29.02	0.798
100	DFT-s-OFDM 64QAM	1	1	27.31	0.538	27.38	0.547	27.44	0.555
100	DFT-s-OFDM 256QAM	1	1	25.29	0.338	25.32	0.340	25.35	0.343
100	CP-OFDM QPSK	1	1	29.14	0.820	29.30	0.851	29.29	0.849



100	CP-OFDM 16QAM	1	1	27.80	0.603	27.92	0.619	27.95	0.624
100	CP-OFDM 64QAM	1	1	26.21	0.418	26.30	0.427	26.37	0.434
100	CP-OFDM 256QAM	1	1	23.43	0.220	23.54	0.226	23.64	0.231
Channel				508200	508200	518598	508200	508200	518598
Frequency (MHz)				2541.00	2541.00	2592.99	2541.00	2541.00	2592.99
90	DFT-s-OFDM QPSK	1	1	29.88	0.973	29.63	0.918	29.64	0.920
Channel				507204	507204	518598	507204	507204	518598
Frequency (MHz)				2536.02	2536.02	2592.99	2536.02	2536.02	2592.99
80	DFT-s-OFDM QPSK	1	1	30.04	1.009	29.85	0.966	29.84	0.964
Channel				505200	505200	518598	505200	505200	518598
Frequency (MHz)				2526.00	2526.00	2592.99	2526.00	2526.00	2592.99
60	DFT-s-OFDM QPSK	1	1	30.01	1.002	29.93	0.984	30.01	1.002
Channel				504204	504204	518598	504204	504204	518598
Frequency (MHz)				2521.02	2521.02	2592.99	2521.02	2521.02	2592.99
50	DFT-s-OFDM QPSK	1	1	30.37	1.089	30.51	1.125	30.49	1.119
Channel				503202	503202	518598	504204	504204	518598
Frequency (MHz)				2516.01	2516.01	2592.99	2521.02	2521.02	2592.99
40	DFT-s-OFDM QPSK	1	1	30.25	1.059	30.46	1.112	30.43	1.104
Channel				501204	501204	518598	504204	504204	518598
Frequency (MHz)				2506.02	2506.02	2592.99	2521.02	2521.02	2592.99
30	DFT-s-OFDM QPSK	1	1	30.14	1.033	30.37	1.089	30.24	1.057
Channel				501204	501204	518598	504204	504204	518598
Frequency (MHz)				2506.02	2506.02	2592.99	2521.02	2521.02	2592.99
20	DFT-s-OFDM QPSK	1	1	30.30	1.072	30.41	1.099	30.39	1.094
Channel				500700	500700	518598	504204	504204	518598
Frequency (MHz)				2503.50	2503.50	2592.99	2521.02	2521.02	2592.99
15	DFT-s-OFDM QPSK	1	1	30.27	1.064	30.18	1.042	30.34	1.081
Channel				500202	500202	518598	500202	500202	518598
Frequency (MHz)				2501.01	2501.01	2592.99	2501.01	2501.01	2592.99
10	DFT-s-OFDM QPSK	1	1	30.21	1.050	30.25	1.059	30.00	1.000



n48 (SCS 15K)									
BW [MHz]	Modulation	RB Size	RB Offset	Low Channel /dBm	Low Channel /Watt	Middle Channel /dBm	Middle Channel /Watt	High Channel /dBm	High Channel /Watt
Channel				638334	638334	641666	641666	645000	645000
Frequency (MHz)				3575.01	3575.01	3624.99	3624.99	3675.00	3675.00
50	DFT-s-OFDM PI/2 BPSK	1	1	21.44	0.139	21.88	0.154	21.51	0.142
50		1	53	21.63	0.146	21.85	0.153	21.52	0.142
50		1	104	21.92	0.156	21.66	0.147	21.29	0.135
50		50	1	21.60	0.145	21.77	0.150	21.54	0.143
50		50	25	21.64	0.146	21.79	0.151	21.53	0.142
50		50	50	21.71	0.148	21.84	0.153	21.36	0.137
50		100	0	21.58	0.144	21.73	0.149	21.47	0.140
50	DFT-s-OFDM QPSK	1	1	21.42	0.139	22.02	0.159	21.58	0.144
50		1	53	21.64	0.146	21.81	0.152	21.62	0.145
50		1	104	21.91	0.155	21.68	0.147	21.28	0.134
50		50	1	21.82	0.152	21.88	0.154	21.81	0.152
50		50	25	21.64	0.146	21.80	0.151	21.60	0.145
50		50	50	21.71	0.148	21.88	0.154	21.39	0.138
50		100	0	21.63	0.146	21.73	0.149	21.47	0.140
50	DFT-s-OFDM 16QAM	1	1	20.82	0.121	21.25	0.133	21.14	0.130
50	DFT-s-OFDM 64QAM	1	1	19.06	0.081	19.46	0.088	19.34	0.086
50	DFT-s-OFDM 256QAM	1	1	16.84	0.048	17.19	0.052	17.13	0.052
50	CP-OFDM QPSK	1	1	20.95	0.124	21.36	0.137	21.23	0.133
50	CP-OFDM 16QAM	1	1	19.38	0.087	19.76	0.095	19.57	0.091
50	CP-OFDM 64QAM	1	1	18.02	0.063	18.41	0.069	17.95	0.062
50	CP-OFDM 256QAM	1	1	14.75	0.030	15.22	0.033	15.19	0.033
Channel				638000	638000	641666	638000	638000	641666
Frequency (MHz)				3570.00	3570.00	3624.99	3570.00	3570.00	3624.99
40	DFT-s-OFDM QPSK	1	1	21.20	0.132	21.51	0.142	21.13	0.130
Channel				637334	637334	641666	637334	637334	641666
Frequency (MHz)				3560.01	3560.01	3624.99	3560.01	3560.01	3624.99
20	DFT-s-OFDM QPSK	1	1	21.53	0.142	21.61	0.145	21.47	0.140
Channel				637168	637168	641666	637168	637168	641666



Frequency (MHz)				3557.52	3557.52	3624.99	3557.52	3557.52	3624.99
15	DFT-s-OFDM QPSK	1	1	21.52	0.142	21.56	0.143	21.38	0.137
Channel				637000	637000	641666	637000	637000	641666
Frequency (MHz)				3555.00	3555.00	3624.99	3555.00	3555.00	3624.99
10	DFT-s-OFDM QPSK	1	1	21.52	0.142	21.59	0.144	21.40	0.138
Channel				636834	636834	641667	641667	646500	646500
Frequency (MHz)				3552.51	3552.51	3625.01	3625.01	3697.50	3697.50
5	DFT-s-OFDM QPSK	1	1	21.43	0.139	21.51	0.142	21.46	0.140

n48 (SCS 30K)									
BW [MHz]	Modulation	RB Size	RB Offset	Low Channel /dBm	Low Channel /Watt	Middle Channel /dBm	Middle Channel /Watt	High Channel /dBm	High Channel /Watt
Channel				640000	640000	641666	641666	643332	643332
Frequency (MHz)				3600.00	3600.00	3624.99	3624.99	3649.98	3649.98
100	DFT-s-OFDM PI/2 BPSK	1	1	21.63	0.146	21.67	0.147	21.89	0.155
100		1	53	22.52	0.179	22.12	0.163	22.24	0.167
100		1	104	21.52	0.142	21.41	0.138	21.31	0.135
100		50	1	22.14	0.164	22.42	0.175	21.96	0.157
100		50	25	22.54	0.179	22.14	0.164	22.27	0.169
100		50	50	21.95	0.157	22.09	0.162	21.97	0.157
100		100	0	22.45	0.176	21.99	0.158	22.11	0.163
100	DFT-s-OFDM QPSK	1	1	22.39	0.173	22.56	0.180	22.52	0.179
100		1	53	22.51	0.178	22.16	0.164	22.29	0.169
100		1	104	22.28	0.169	22.08	0.161	22.25	0.168
100		50	1	22.34	0.171	22.48	0.177	22.30	0.170
100		50	25	22.28	0.169	22.19	0.166	22.31	0.170
100		50	50	21.97	0.157	22.13	0.163	21.99	0.158
100		100	0	22.45	0.176	22.02	0.159	22.13	0.163



0		0							
100	DFT-s-OFDM 16QAM	1	1	21.21	0.132	21.04	0.127	21.45	0.140
100	DFT-s-OFDM 64QAM	1	1	19.12	0.082	19.11	0.081	19.42	0.087
100	DFT-s-OFDM 256QAM	1	1	16.91	0.049	17.12	0.052	17.23	0.053
100	CP-OFDM QPSK	1	1	21.03	0.127	21.17	0.131	21.33	0.136
100	CP-OFDM 16QAM	1	1	19.59	0.091	19.67	0.093	19.89	0.097
100	CP-OFDM 64QAM	1	1	18.01	0.063	18.03	0.064	18.28	0.067
100	CP-OFDM 256QAM	1	1	14.97	0.031	15.15	0.033	15.32	0.034
Channel				639668	639668	641666	639668	639668	641666
Frequency (MHz)				3595.02	3595.02	3624.99	3595.02	3595.02	3624.99
90	DFT-s-OFDM QPSK	1	1	21.71	0.148	21.69	0.148	21.50	0.141
Channel				639334	639334	641666	639334	639334	641666
Frequency (MHz)				3590.01	3590.01	3624.99	3590.01	3590.01	3624.99
80	DFT-s-OFDM QPSK	1	1	21.87	0.154	21.91	0.155	21.54	0.143
Channel				638668	638668	641666	638668	638668	641666
Frequency (MHz)				3580.02	3580.02	3624.99	3580.02	3580.02	3624.99
60	DFT-s-OFDM QPSK	1	1	21.82	0.152	22.07	0.161	21.96	0.157
Channel				638334	638334	641666	638334	638334	641666
Frequency (MHz)				3575.01	3575.01	3624.99	3575.01	3575.01	3624.99
50	DFT-s-OFDM QPSK	1	1	22.03	0.160	22.28	0.169	21.94	0.156
Channel				638000	638000	641666	638000	638000	641666
Frequency (MHz)				3570.00	3570.00	3624.99	3570.00	3570.00	3624.99
40	DFT-s-OFDM QPSK	1	1	21.76	0.150	21.99	0.158	21.70	0.148
Channel				637334	637334	641666	637334	637334	641666
Frequency (MHz)				3560.01	3560.01	3624.99	3560.01	3560.01	3624.99
20	DFT-s-OFDM QPSK	1	1	22.17	0.165	22.05	0.160	21.99	0.158
Channel				637168	637168	641666	637168	637168	641666
Frequency (MHz)				3557.52	3557.52	3624.99	3557.52	3557.52	3624.99
15	DFT-s-OFDM QPSK	1	1	22.20	0.166	22.05	0.160	21.98	0.158
Channel				637000	637000	641666	637000	637000	641666
Frequency (MHz)				3555.00	3555.00	3624.99	3555.00	3555.00	3624.99
10	DFT-s-OFDM QPSK	1	1	22.22	0.167	22.11	0.163	22.02	0.159





n77(3450-3550MHz) (SCS 15K)									
BW [MHz]	Modulation	RB Size	RB Offset	Low Channel /dBm	Low Channel /Watt	Middle Channel /dBm	Middle Channel /Watt	High Channel /dBm	High Channel /Watt
Channel				631668	631668	633334	633334	635000	635000
Frequency (MHz)				3475.02	3475.02	3500.01	3500.01	3525.00	3525.00
50	DFT-s-OFDM PI/2 BPSK	1	1	29.42	0.875	29.22	0.836	29.09	0.811
50		1	135	29.34	0.859	29.27	0.845	29.03	0.800
50		1	268	29.10	0.813	28.83	0.764	29.23	0.838
50		135	1	29.36	0.863	29.20	0.832	29.00	0.794
50		135	67	29.36	0.863	29.30	0.851	29.03	0.800
50		135	135	29.26	0.843	29.09	0.811	29.09	0.811
50		270	0	29.32	0.855	29.25	0.841	28.98	0.791
50	DFT-s-OFDM QPSK	1	1	29.56	0.904	29.76	0.946	29.73	0.940
50		1	135	29.38	0.867	29.30	0.851	28.99	0.793
50		1	268	29.12	0.817	28.85	0.767	29.24	0.839
50		135	1	29.41	0.873	29.21	0.834	29.02	0.798
50		135	67	29.39	0.869	29.33	0.857	29.06	0.805
50		135	135	29.30	0.851	29.12	0.817	29.10	0.813
50		270	0	29.33	0.857	29.28	0.847	29.01	0.796
50	DFT-s-OFDM 16QAM	1	1	28.47	0.703	28.14	0.652	28.03	0.635
50	DFT-s-OFDM 64QAM	1	1	26.98	0.499	26.75	0.473	26.64	0.461
50	DFT-s-OFDM 256QAM	1	1	25.14	0.327	24.92	0.310	24.81	0.303
50	CP-OFDM QPSK	1	1	28.89	0.774	28.66	0.735	28.55	0.716
50	CP-OFDM 16QAM	1	1	27.44	0.555	27.19	0.524	27.04	0.506
50	CP-OFDM 64QAM	1	1	26.33	0.430	26.10	0.407	25.95	0.394
50	CP-OFDM 256QAM	1	1	23.13	0.206	22.90	0.195	22.79	0.190
Channel				631334	631334	633334	631334	631334	633334





Frequency (MHz)				3470.01	3470.01	3500.01	3470.01	3470.01	3500.01
40	DFT-s-OFDM QPSK	1	1	29.58	0.908	29.50	0.891	29.55	0.902
Channel				630668	630668	633334	630668	630668	633334
Frequency (MHz)				3460.02	3460.02	3500.01	3460.02	3460.02	3500.01
20	DFT-s-OFDM QPSK	1	1	29.38	0.867	29.05	0.804	28.72	0.745
Channel				630500	630500	633334	630500	630500	633334
Frequency (MHz)				3457.50	3457.50	3500.01	3457.50	3457.50	3500.01
15	DFT-s-OFDM QPSK	1	1	29.45	0.881	29.08	0.809	28.78	0.755
Channel				630334	630334	633334	630334	630334	633334
Frequency (MHz)				3455.01	3455.01	3500.01	3455.01	3455.01	3500.01
10	DFT-s-OFDM QPSK	1	1	29.45	0.881	29.11	0.815	28.92	0.780

n77(3450-3550MHz) (SCS 30K)									
BW [MHz]	Modulation	R B Size	RB Off set	Low Channel /dBm	Low Channel /Watt	Middle Channel /dBm	Middle Channel /Watt	High Channel /dBm	High Channel /Watt
Channel				/	/	633334	633334	/	/
Frequency (MHz)				/	/	3500.01	3500.01	/	/
100	DFT-s-OFDM PI/2 BPSK	1	1	/	/	29.49	0.889	/	/
100		1	136	/	/	29.15	0.822	/	/
100		1	271	/	/	28.54	0.714	/	/
100		135	1	/	/	29.42	0.875	/	/
100		135	67	/	/	29.18	0.828	/	/
100		135	136	/	/	28.81	0.760	/	/
100		270	0	/	/	29.03	0.800	/	/
100	DFT-s-OFDM QPSK	1	1	/	/	29.79	0.953	/	/
100		1	136	/	/	29.30	0.851	/	/
100		1	271	/	/	28.56	0.718	/	/
100		135	1	/	/	29.59	0.910	/	/
100		13	67	/	/	29.35	0.861	/	/



0		5							
10		13	136	/	/	29.23	0.838	/	/
0		5							
10		27	0	/	/	29.07	0.807	/	/
0		0							
10	DFT-s-OFDM 16QAM	1	1	/	/	27.71	0.590	/	/
10	DFT-s-OFDM 64QAM	1	1	/	/	26.25	0.422	/	/
10	DFT-s-OFDM 256QAM	1	1	/	/	24.59	0.288	/	/
10	CP-OFDM QPSK	1	1	/	/	28.25	0.668	/	/
10	CP-OFDM 16QAM	1	1	/	/	26.77	0.475	/	/
10	CP-OFDM 64QAM	1	1	/	/	25.68	0.370	/	/
10	CP-OFDM 256QAM	1	1	/	/	22.47	0.177	/	/
Channel				633000	633000	633334	633000	633000	633334
Frequency (MHz)				3495.00	3495.00	3500.01	3495.00	3495.00	3500.01
90	DFT-s-OFDM QPSK	1	1	28.85	0.767	28.77	0.753	28.73	0.746
Channel				632668	632668	633334	632668	632668	633334
Frequency (MHz)				3490.02	3490.02	3500.01	3490.02	3490.02	3500.01
80	DFT-s-OFDM QPSK	1	1	29.04	0.802	28.94	0.783	28.81	0.760
Channel				632334	632334	633334	632334	632334	633334
Frequency (MHz)				3485.01	3485.01	3500.01	3485.01	3485.01	3500.01
70	DFT-s-OFDM QPSK	1	1	29.15	0.822	29.01	0.796	28.85	0.767
Channel				632000	632000	633334	632000	632000	633334
Frequency (MHz)				3480.00	3480.00	3500.01	3480.00	3480.00	3500.01
60	DFT-s-OFDM QPSK	1	1	29.21	0.834	29.01	0.796	28.89	0.774
Channel				631668	631668	633334	631668	631668	633334
Frequency (MHz)				3475.02	3475.02	3500.01	3475.02	3475.02	3500.01
50	DFT-s-OFDM QPSK	1	1	29.38	0.867	29.16	0.824	29.04	0.802
Channel				631334	631334	633334	631334	631334	633334
Frequency (MHz)				3470.01	3470.01	3500.01	3470.01	3470.01	3500.01
40	DFT-s-OFDM QPSK	1	1	29.11	0.815	28.80	0.759	28.56	0.718
Channel				630668	630668	633334	630668	630668	633334
Frequency (MHz)				3460.02	3460.02	3500.01	3460.02	3460.02	3500.01
20	DFT-s-OFDM QPSK	1	1	29.40	0.871	29.03	0.800	28.71	0.743



Channel				630500	630500	633334	630500	630500	633334
Frequency (MHz)				3457.50	3457.50	3500.01	3457.50	3457.50	3500.01
15	DFT-s-OFDM QPSK	1	1	29.46	0.883	29.10	0.813	28.84	0.766
Channel				630334	630334	633334	630334	630334	633334
Frequency (MHz)				3455.01	3455.01	3500.01	3455.01	3455.01	3500.01
10	DFT-s-OFDM QPSK	1	1	29.31	0.853	29.13	0.818	28.96	0.787

n77(3700-3980MHz) (SCS 15K)									
BW [MHz]	Modulation	RB Size	RB Offset	Low Channel /dBm	Low Channel /Watt	Middle Channel /dBm	Middle Channel /Watt	High Channel /dBm	High Channel /Watt
Channel				648334	648334	656000	656000	663666	663666
Frequency (MHz)				3725.01	3725.01	3840.00	3840.00	3954.99	3954.99
50	DFT-s-OFDM PI/2 BPSK	1	1	29.30	0.851	29.36	0.863	29.29	0.849
50		1	135	29.84	0.964	29.78	0.951	29.59	0.910
50		1	268	29.51	0.893	29.54	0.899	29.54	0.899
50		135	1	29.66	0.925	29.56	0.904	29.53	0.897
50		135	67	29.87	0.971	29.84	0.964	29.63	0.918
50		135	135	29.73	0.940	29.66	0.925	29.60	0.912
50		270	0	29.83	0.962	29.82	0.959	29.64	0.920
50	DFT-s-OFDM QPSK	1	1	29.32	0.855	29.90	0.977	29.31	0.853
50		1	135	29.88	0.973	29.82	0.959	29.61	0.914
50		1	268	29.56	0.904	29.50	0.891	29.50	0.891
50		135	1	29.68	0.929	29.79	0.953	29.55	0.902
50		135	67	29.35	0.861	29.69	0.931	29.69	0.931
50		135	135	29.74	0.942	29.69	0.931	29.62	0.916
50		270	0	29.84	0.964	29.84	0.964	29.63	0.918
50	DFT-s-OFDM 16QAM	1	1	28.18	0.658	28.23	0.665	28.39	0.690
50	DFT-s-OFDM 64QAM	1	1	26.81	0.480	26.80	0.479	26.65	0.462
50	DFT-s-OFDM 256QAM	1	1	24.85	0.305	24.95	0.313	24.64	0.291
50	CP-OFDM QPSK	1	1	28.76	0.752	28.85	0.767	28.76	0.752
50	CP-OFDM	1	1	27.22	0.527	27.43	0.553	27.46	0.557



	16QAM								
50	CP-OFDM 64QAM	1	1	26.04	0.402	26.25	0.422	25.97	0.395
50	CP-OFDM 256QAM	1	1	22.93	0.196	22.99	0.199	22.62	0.183
Channel				648000	648000	656000	648000	648000	656000
Frequency (MHz)				3720.00	3720.00	3840.00	3720.00	3720.00	3840.00
40	DFT-s-OFDM QPSK	1	1	28.93	0.782	29.01	0.796	29.04	0.802
Channel				647334	647334	656000	647334	647334	656000
Frequency (MHz)				3710.01	3710.01	3840.00	3710.01	3710.01	3840.00
20	DFT-s-OFDM QPSK	1	1	29.20	0.832	29.44	0.879	29.60	0.912
Channel				647168	647168	656000	647168	647168	656000
Frequency (MHz)				3707.52	3707.52	3840.00	3707.52	3707.52	3840.00
15	DFT-s-OFDM QPSK	1	1	29.22	0.836	29.46	0.883	29.68	0.929
Channel				647000	647000	656000	647000	647000	656000
Frequency (MHz)				3705.00	3705.00	3840.00	3705.00	3705.00	3840.00
10	DFT-s-OFDM QPSK	1	1	29.27	0.845	29.57	0.906	29.78	0.951

n77(3700-3980MHz) (SCS 30K)									
BW [MHz]	Modulation	RB Size	RB Off set	Low Channel /dBm	Low Channel /Watt	Middle Channel /dBm	Middle Channel /Watt	High Channel /dBm	High Channel /Watt
Channel				650000	650000	656000	656000	662000	662000
Frequency (MHz)				3750.00	3750.00	3840.00	3840.00	3930.00	3930.00
100	DFT-s-OFDM PI/2 BPSK	1	1	28.60	0.724	28.72	0.745	28.36	0.685
100		1	136	29.60	0.912	29.80	0.955	29.08	0.809
100		1	271	28.87	0.771	28.91	0.778	28.77	0.753
100		135	1	29.59	0.910	29.38	0.867	29.50	0.891
100		135	67	29.57	0.906	29.80	0.955	29.63	0.918
100		135	136	29.29	0.849	29.35	0.861	29.73	0.940
100		270	0	29.39	0.869	29.65	0.923	29.56	0.904
100	DFT-s-OFDM QPSK	1	1	29.66	0.925	29.93	0.984	29.73	0.940
100		1	136	28.58	0.721	28.76	0.752	28.40	0.692



0									
10		1	271	28.87	0.771	28.95	0.785	28.81	0.760
0		13	1	29.59	0.910	29.87	0.971	29.66	0.925
10		5	67	29.40	0.871	29.50	0.891	29.36	0.863
10		13	136	29.31	0.853	29.30	0.851	29.78	0.951
10		5	0	29.43	0.877	29.71	0.935	29.61	0.914
0		27							
0	DFT-s-OFDM 16QAM	1	1	27.59	0.574	27.85	0.610	27.42	0.552
10	DFT-s-OFDM 64QAM	1	1	26.09	0.406	26.25	0.422	26.22	0.419
10	DFT-s-OFDM 256QAM	1	1	24.49	0.281	24.49	0.281	23.95	0.248
10	CP-OFDM QPSK	1	1	28.02	0.634	28.27	0.671	27.82	0.605
10	CP-OFDM 16QAM	1	1	26.59	0.456	26.63	0.460	26.41	0.438
10	CP-OFDM 64QAM	1	1	25.37	0.344	25.63	0.366	25.27	0.337
10	CP-OFDM 256QAM	1	1	22.44	0.175	22.40	0.174	21.92	0.156
Channel				649666	649666	656000	649666	649666	656000
Frequency (MHz)				3744.99	3744.99	3840.00	3744.99	3744.99	3840.00
90	DFT-s-OFDM QPSK	1	1	29.50	0.891	29.51	0.893	29.50	0.891
Channel				649334	649334	656000	649334	649334	656000
Frequency (MHz)				3740.01	3740.01	3840.00	3740.01	3740.01	3840.00
80	DFT-s-OFDM QPSK	1	1	29.49	0.889	29.29	0.849	29.72	0.938
Channel				649000	649000	656000	649000	649000	656000
Frequency (MHz)				3735.00	3735.00	3840.00	3735.00	3735.00	3840.00
70	DFT-s-OFDM QPSK	1	1	29.04	0.802	29.24	0.839	29.53	0.897
Channel				648668	648668	656000	648668	648668	656000
Frequency (MHz)				3730.02	3730.02	3840.00	3730.02	3730.02	3840.00
60	DFT-s-OFDM QPSK	1	1	29.33	0.857	29.21	0.834	29.05	0.804
Channel				648334	648334	656000	648334	648334	656000
Frequency (MHz)				3725.01	3725.01	3840.00	3725.01	3725.01	3840.00
50	DFT-s-OFDM QPSK	1	1	29.29	0.849	29.41	0.873	29.34	0.859
Channel				648000	648000	656000	648000	648000	656000
Frequency (MHz)				3720.00	3720.00	3840.00	3720.00	3720.00	3840.00
40	DFT-s-OFDM	1	1	28.99	0.793	29.15	0.822	29.21	0.834



	QPSK								
Channel				647334	647334	656000	647334	647334	656000
Frequency (MHz)				3710.01	3710.01	3840.00	3710.01	3710.01	3840.00
20	DFT-s-OFDM QPSK	1	1	29.25	0.841	29.48	0.887	29.62	0.916
Channel				647168	647168	656000	647168	647168	656000
Frequency (MHz)				3707.52	3707.52	3840.00	3707.52	3707.52	3840.00
15	DFT-s-OFDM QPSK	1	1	29.31	0.853	29.57	0.906	29.79	0.953
Channel				647000	647000	656000	647000	647000	656000
Frequency (MHz)				3705.00	3705.00	3840.00	3705.00	3705.00	3840.00
10	DFT-s-OFDM QPSK	1	1	29.37	0.865	29.68	0.929	29.71	0.935

n78(3450-3550MHz)(SCS 15K)									
BW [MHz]	Modulation	RB Size	RB Offset	Low Channel /dBm	Low Channel /Watt	Middle Channel /dBm	Middle Channel /Watt	High Channel /dBm	High Channel /Watt
Channel				631668	631668	633334	633334	635000	635000
Frequency (MHz)				3475.02	3475.02	3500.01	3500.01	3525.00	3525.00
50	DFT-s-OFDM PI/2 BPSK	1	1	29.45	0.881	29.18	0.828	29.03	0.800
50		1	135	29.33	0.857	29.24	0.839	28.92	0.780
50		1	268	29.11	0.815	28.79	0.757	29.13	0.818
50		135	1	29.40	0.871	29.20	0.832	28.97	0.789
50		135	67	29.42	0.875	29.29	0.849	28.99	0.793
50		135	135	29.32	0.855	29.07	0.807	29.02	0.798
50		270	0	29.29	0.849	29.22	0.836	28.93	0.782
50	DFT-s-OFDM QPSK	1	1	29.47	0.885	29.54	0.899	29.47	0.885
50		1	135	29.37	0.865	29.28	0.847	28.96	0.787
50		1	268	29.18	0.828	28.87	0.771	29.16	0.824
50		135	1	29.45	0.881	29.19	0.830	29.00	0.794
50		135	67	29.41	0.873	29.30	0.851	28.95	0.785
50		135	135	29.32	0.855	29.12	0.817	29.03	0.800
50		270	0	29.31	0.853	29.20	0.832	28.98	0.791
50	DFT-s-OFDM	1	1	28.39	0.690	28.15	0.653	28.01	0.632



	16QAM								
50	DFT-s-OFDM 64QAM	1	1	26.91	0.491	26.59	0.456	26.52	0.449
50	DFT-s-OFDM 256QAM	1	1	25.28	0.337	24.90	0.309	24.92	0.310
50	CP-OFDM QPSK	1	1	28.87	0.771	28.63	0.729	28.50	0.708
50	CP-OFDM 16QAM	1	1	27.64	0.581	27.38	0.547	27.26	0.532
50	CP-OFDM 64QAM	1	1	26.17	0.414	25.84	0.384	25.77	0.378
50	CP-OFDM 256QAM	1	1	23.07	0.203	22.78	0.190	22.67	0.185
Channel				631334	631334	633334	631334	631334	633334
Frequency (MHz)				3470.01	3470.01	3500.01	3470.01	3470.01	3500.01
40	DFT-s-OFDM QPSK	1	1	29.16	0.824	28.85	0.767	28.68	0.738
Channel				630668	630668	633334	630668	630668	633334
Frequency (MHz)				3460.02	3460.02	3500.01	3460.02	3460.02	3500.01
20	DFT-s-OFDM QPSK	1	1	29.68	0.929	29.20	0.832	28.87	0.771
Channel				630500	630500	633334	630500	630500	633334
Frequency (MHz)				3457.50	3457.50	3500.01	3457.50	3457.50	3500.01
15	DFT-s-OFDM QPSK	1	1	29.64	0.920	29.27	0.845	29.01	0.796
Channel				630334	630334	633334	630334	630334	633334
Frequency (MHz)				3455.01	3455.01	3500.01	3455.01	3455.01	3500.01
10	DFT-s-OFDM QPSK	1	1	29.45	0.881	29.37	0.865	29.07	0.807

n78(3450-3550MHz) (SCS 30K)									
BW [MHz]	Modulation	RB Size	RB Offset	Low Channel /dBm	Low Channel /Watt	Middle Channel /dBm	Middle Channel /Watt	High Channel /dBm	High Channel /Watt
Channel				/	/	633334	633334	/	/
Frequency (MHz)				/	/	3500.01	3500.01	/	/
100	DFT-s-OFDM PI/2 BPSK	1	1	/	/	28.83	0.764	/	/
100		1	136	/	/	29.29	0.849	/	/
100		1	271	/	/	28.63	0.729	/	/
100		135	1	/	/	29.26	0.843	/	/
100		13	67	/	/	29.10	0.813	/	/



0		5							
10		13	136	/	/	28.83	0.764	/	/
0		5							
10		27	0	/	/	29.09	0.811	/	/
0		0							
10	DFT-s-OFDM QPSK	1	1	/	/	29.68	0.929	/	/
10		1	136	/	/	29.29	0.849	/	/
0		1	271	/	/	29.20	0.832	/	/
10		13	1	/	/	29.31	0.853	/	/
0		5	67	/	/	29.17	0.826	/	/
10		13	136	/	/	28.91	0.778	/	/
0		5	0	/	/	29.15	0.822	/	/
10		27	0	/	/	29.15	0.822	/	/
0		0							
10	DFT-s-OFDM 16QAM	1	1	/	/	28.00	0.631	/	/
10	DFT-s-OFDM 64QAM	1	1	/	/	26.32	0.429	/	/
10	DFT-s-OFDM 256QAM	1	1	/	/	24.65	0.292	/	/
10	CP-OFDM QPSK	1	1	/	/	28.33	0.681	/	/
10	CP-OFDM 16QAM	1	1	/	/	26.95	0.495	/	/
10	CP-OFDM 64QAM	1	1	/	/	25.75	0.376	/	/
10	CP-OFDM 256QAM	1	1	/	/	22.51	0.178	/	/
Channel				633000	633000	633334	633000	633000	633334
Frequency (MHz)				3495.00	3495.00	3500.01	3495.00	3495.00	3500.01
90	DFT-s-OFDM QPSK	1	1	29.02	0.798	28.88	0.773	28.79	0.757
Channel				632668	632668	633334	632668	632668	633334
Frequency (MHz)				3490.02	3490.02	3500.01	3490.02	3490.02	3500.01
80	DFT-s-OFDM QPSK	1	1	29.22	0.836	29.07	0.807	28.94	0.783
Channel				632334	632334	633334	632334	632334	633334
Frequency (MHz)				3485.01	3485.01	3500.01	3485.01	3485.01	3500.01
70	DFT-s-OFDM QPSK	1	1	29.35	0.861	29.14	0.820	28.99	0.793
Channel				632000	632000	633334	632000	632000	633334
Frequency (MHz)				3480.00	3480.00	3500.01	3480.00	3480.00	3500.01
60	DFT-s-OFDM	1	1	29.20	0.832	29.03	0.800	28.93	0.782





	QPSK								
Channel				631668	631668	633334	631668	631668	633334
Frequency (MHz)				3475.02	3475.02	3500.01	3475.02	3475.02	3500.01
50	DFT-s-OFDM QPSK	1	1	29.47	0.885	29.15	0.822	29.03	0.800
Channel				631334	631334	633334	631334	631334	633334
Frequency (MHz)				3470.01	3470.01	3500.01	3470.01	3470.01	3500.01
40	DFT-s-OFDM QPSK	1	1	29.26	0.843	28.93	0.782	28.64	0.731
Channel				630668	630668	633334	630668	630668	633334
Frequency (MHz)				3460.02	3460.02	3500.01	3460.02	3460.02	3500.01
20	DFT-s-OFDM QPSK	1	1	29.58	0.908	29.20	0.832	28.87	0.771
Channel				630500	630500	633334	630500	630500	633334
Frequency (MHz)				3457.50	3457.50	3500.01	3457.50	3457.50	3500.01
15	DFT-s-OFDM QPSK	1	1	29.67	0.927	29.34	0.859	28.97	0.789
Channel				630334	630334	633334	630334	630334	633334
Frequency (MHz)				3455.01	3455.01	3500.01	3455.01	3455.01	3500.01
10	DFT-s-OFDM QPSK	1	1	29.44	0.879	29.26	0.843	29.14	0.820

n78(3700-3800MHz)(SCS 15K)									
BW [MHz]	Modulation	RB Size	RB Off set	Low Channel /dBm	Low Channel /Watt	Middle Channel /dBm	Middle Channel /Watt	High Channel /dBm	High Channel /Watt
Channel				648334	648334	650000	650000	651666	651666
Frequency (MHz)				3725.01	3725.01	3750.00	3750.00	3774.99	3774.99
50	DFT-s-OFDM PI/2 BPSK	1	1	29.20	0.832	29.58	0.908	29.36	0.863
50		1	135	29.76	0.946	29.52	0.895	29.42	0.875
50		1	268	29.39	0.869	29.27	0.845	29.41	0.873
50		135	1	29.56	0.904	29.64	0.920	29.46	0.883
50		135	67	29.82	0.959	29.59	0.910	29.47	0.885
50		135	135	29.63	0.918	29.44	0.879	29.43	0.877
50		270	0	29.77	0.948	29.53	0.897	29.43	0.877
50	DFT-s-OFDM QPSK	1	1	29.73	0.940	29.86	0.968	29.77	0.948
50		1	135	29.29	0.849	29.57	0.906	29.45	0.881
50		1	268	29.44	0.879	29.34	0.859	29.44	0.879
50		135	1	29.68	0.929	29.84	0.964	29.66	0.925
50		135	67	29.51	0.893	29.65	0.923	29.52	0.895



		5							
50		135	135	29.72	0.938	29.47	0.885	29.45	0.881
50		270	0	29.76	0.946	29.58	0.908	29.44	0.879
50	DFT-s-OFDM 16QAM	1	1	28.31	0.678	28.99	0.793	28.63	0.729
50	DFT-s-OFDM 64QAM	1	1	26.58	0.455	27.04	0.506	26.73	0.471
50	DFT-s-OFDM 256QAM	1	1	24.92	0.310	25.31	0.340	25.04	0.319
50	CP-OFDM QPSK	1	1	28.59	0.723	28.91	0.778	29.33	0.857
50	CP-OFDM 16QAM	1	1	27.47	0.558	27.46	0.557	27.25	0.531
50	CP-OFDM 64QAM	1	1	25.73	0.374	26.31	0.428	26.12	0.409
50	CP-OFDM 256QAM	1	1	22.80	0.191	23.26	0.212	23.00	0.200
Channel				648000	648000	650000	648000	648000	650000
Frequency (MHz)				3720.00	3720.00	3750.00	3720.00	3720.00	3750.00
40	DFT-s-OFDM QPSK	1	1	28.95	0.785	29.29	0.849	28.97	0.789
Channel				647334	647334	650000	647334	647334	650000
Frequency (MHz)				3710.01	3710.01	3750.00	3710.01	3710.01	3750.00
20	DFT-s-OFDM QPSK	1	1	29.36	0.863	29.58	0.908	29.36	0.863
Channel				647168	647168	650000	647168	647168	650000
Frequency (MHz)				3707.52	3707.52	3750.00	3707.52	3707.52	3750.00
15	DFT-s-OFDM QPSK	1	1	29.38	0.867	29.53	0.897	29.36	0.863
Channel				647000	647000	650000	647000	647000	650000
Frequency (MHz)				3705.00	3705.00	3750.00	3705.00	3705.00	3750.00
10	DFT-s-OFDM QPSK	1	1	29.36	0.863	29.56	0.904	29.42	0.875



n78(3700-3800MHz) (SCS 30K)									
BW [MHz]	Modulation	RB Size	RB Offset	Low Channel /dBm	Low Channel /Watt	Middle Channel /dBm	Middle Channel /Watt	High Channel /dBm	High Channel /Watt
Channel				/	/	650000	650000	/	/
Frequency (MHz)				/	/	3750.00	3750.00	/	/
100	DFT-s-OFDM PI/2 BPSK	1	1	/	/	28.64	0.731	/	/
100		1	136	/	/	29.64	0.920	/	/
100		1	271	/	/	28.89	0.774	/	/
100		135	1	/	/	29.64	0.920	/	/
100		135	67	/	/	29.64	0.920	/	/
100		135	136	/	/	29.34	0.859	/	/
100		270	0	/	/	29.46	0.883	/	/
100	DFT-s-OFDM QPSK	1	1	/	/	29.87	0.971	/	/
100		1	136	/	/	29.62	0.916	/	/
100		1	271	/	/	28.89	0.774	/	/
100		135	1	/	/	29.73	0.940	/	/
100		135	67	/	/	29.66	0.925	/	/
100		135	136	/	/	29.38	0.867	/	/
100		270	0	/	/	29.47	0.885	/	/
100	DFT-s-OFDM 16QAM	1	1	/	/	27.75	0.596	/	/
100	DFT-s-OFDM 64QAM	1	1	/	/	25.98	0.396	/	/
100	DFT-s-OFDM 256QAM	1	1	/	/	24.40	0.275	/	/
100	CP-OFDM QPSK	1	1	/	/	28.18	0.658	/	/
100	CP-OFDM 16QAM	1	1	/	/	26.68	0.466	/	/
100	CP-OFDM 64QAM	1	1	/	/	25.59	0.362	/	/
100	CP-OFDM	1	1	/	/	22.30	0.170	/	/



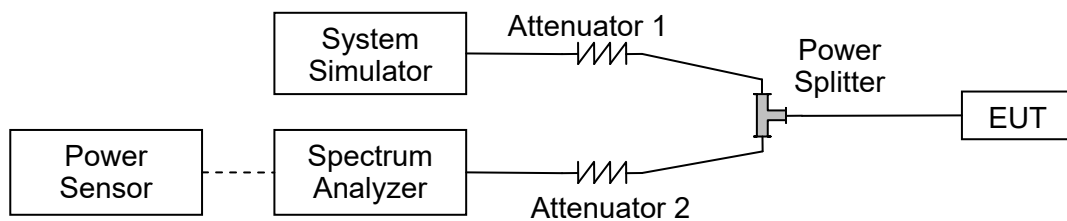
0	256QAM								
Channel				649668	649668	650000	649668	649668	650000
Frequency (MHz)				3745.02	3745.02	3750.00	3745.02	3745.02	3750.00
90	DFT-s-OFDM QPSK	1	1	28.77	0.753	28.82	0.762	28.92	0.780
Channel				649334	649334	650000	649334	649334	650000
Frequency (MHz)				3740.01	3740.01	3750.00	3740.01	3740.01	3750.00
80	DFT-s-OFDM QPSK	1	1	29.05	0.804	29.15	0.822	29.30	0.851
Channel				649000	649000	650000	649000	649000	650000
Frequency (MHz)				3735.00	3735.00	3750.00	3735.00	3735.00	3750.00
70	DFT-s-OFDM QPSK	1	1	29.15	0.822	29.39	0.869	29.53	0.897
Channel				648668	648668	650000	648668	648668	650000
Frequency (MHz)				3730.02	3730.02	3750.00	3730.02	3730.02	3750.00
60	DFT-s-OFDM QPSK	1	1	29.00	0.794	29.29	0.849	29.32	0.855
Channel				648334	648334	650000	648334	648334	650000
Frequency (MHz)				3725.01	3725.01	3750.00	3725.01	3725.01	3750.00
50	DFT-s-OFDM QPSK	1	1	29.19	0.830	29.56	0.904	29.33	0.857
Channel				648000	648000	650000	648000	648000	650000
Frequency (MHz)				3720.00	3720.00	3750.00	3720.00	3720.00	3750.00
40	DFT-s-OFDM QPSK	1	1	28.94	0.783	29.31	0.853	29.10	0.813
Channel				647334	647334	650000	647334	647334	650000
Frequency (MHz)				3710.01	3710.01	3750.00	3710.01	3710.01	3750.00
20	DFT-s-OFDM QPSK	1	1	29.34	0.859	29.57	0.906	29.35	0.861
Channel				647168	647168	650000	647168	647168	650000
Frequency (MHz)				3707.52	3707.52	3750.00	3707.52	3707.52	3750.00
15	DFT-s-OFDM QPSK	1	1	29.46	0.883	29.62	0.916	29.46	0.883
Channel				647000	647000	650000	647000	647000	650000
Frequency (MHz)				3705.00	3705.00	3750.00	3705.00	3705.00	3750.00
10	DFT-s-OFDM QPSK	1	1	29.45	0.881	29.64	0.920	29.55	0.902

## 2.2. Occupied Bandwidth

### 2.2.1. Requirement

According to FCC section 2.1049, the occupied bandwidth is the frequency bandwidth such that, below its lower and above its upper frequency limits, the mean powers radiated are each equal to 0.5 percent of the total mean power radiated by a given emission. Occupied bandwidth is also known as the 99% emission bandwidth.

### 2.2.2. Test Description



The EUT is coupled to the Spectrum Analyzer (SA) and the System Simulator (SS) with Attenuators through the Power Splitter; the RF load attached to the EUT antenna terminal is 50Ohm; the path loss as the factor is calibrated to correct the reading. The EUT is commanded by the SS to operate at the maximum output power. A call is established between the EUT and the SS.

### 2.2.3. Test procedure

KDB 971168 D01v03 Section 4.1 and ANSI/TIA-603-E-2016.

### 2.2.4. Test Result



Band	SCS (kHz)	BW (MHz)	ARFCN	Modulation	RB	OBW (MHz)	26dB BW (MHz)	Verdict
n41	30	10	500202	DFT-s-OFDM PI/2 BPSK	24/0	8.6087	9.367	PASS
n41	30	10	500202	DFT-s-OFDM QPSK	24/0	8.5740	9.332	PASS
n41	30	10	500202	DFT-s-OFDM 16QAM	24/0	8.5871	9.339	PASS
n41	30	10	500202	DFT-s-OFDM 64QAM	24/0	8.5829	9.297	PASS
n41	30	10	500202	DFT-s-OFDM 256QAM	24/0	8.5440	9.480	PASS
n41	30	10	500202	CP-OFDM QPSK	24/0	8.5676	9.366	PASS
n41	30	10	518598	DFT-s-OFDM PI/2 BPSK	24/0	8.5814	9.451	PASS
n41	30	10	518598	DFT-s-OFDM QPSK	24/0	8.5796	9.349	PASS
n41	30	10	518598	DFT-s-OFDM 16QAM	24/0	8.5676	9.316	PASS
n41	30	10	518598	DFT-s-OFDM 64QAM	24/0	8.5588	9.306	PASS
n41	30	10	518598	DFT-s-OFDM 256QAM	24/0	8.5772	9.317	PASS
n41	30	10	518598	CP-OFDM QPSK	24/0	8.5773	9.326	PASS
n41	30	10	537000	DFT-s-OFDM PI/2 BPSK	24/0	8.5940	9.504	PASS
n41	30	10	537000	DFT-s-OFDM QPSK	24/0	8.5627	9.218	PASS
n41	30	10	537000	DFT-s-OFDM 16QAM	24/0	8.5842	9.334	PASS
n41	30	10	537000	DFT-s-OFDM 64QAM	24/0	8.6096	9.322	PASS
n41	30	10	537000	DFT-s-OFDM 256QAM	24/0	8.5446	9.239	PASS
n41	30	10	537000	CP-OFDM QPSK	24/0	8.5663	9.443	PASS



n41	30	15	500700	DFT-s-OFDM PI/2 BPSK	36/0	12.845	14.017	PASS
n41	30	15	500700	DFT-s-OFDM QPSK	36/0	12.873	14.090	PASS
n41	30	15	500700	DFT-s-OFDM 16QAM	36/0	12.882	13.982	PASS
n41	30	15	500700	DFT-s-OFDM 64QAM	36/0	12.876	13.920	PASS
n41	30	15	500700	DFT-s-OFDM 256QAM	36/0	12.833	13.839	PASS
n41	30	15	500700	CP-OFDM QPSK	38/0	12.861	13.923	PASS
n41	30	15	518598	DFT-s-OFDM PI/2 BPSK	36/0	12.849	13.870	PASS
n41	30	15	518598	DFT-s-OFDM QPSK	36/0	12.841	13.876	PASS
n41	30	15	518598	DFT-s-OFDM 16QAM	36/0	12.874	13.821	PASS
n41	30	15	518598	DFT-s-OFDM 64QAM	36/0	12.876	13.916	PASS
n41	30	15	518598	DFT-s-OFDM 256QAM	36/0	12.827	13.813	PASS
n41	30	15	518598	CP-OFDM QPSK	38/0	12.864	14.027	PASS
n41	30	15	536496	DFT-s-OFDM PI/2 BPSK	36/0	12.827	13.803	PASS
n41	30	15	536496	DFT-s-OFDM QPSK	36/0	12.831	13.802	PASS
n41	30	15	536496	DFT-s-OFDM 16QAM	36/0	12.826	13.900	PASS
n41	30	15	536496	DFT-s-OFDM 64QAM	36/0	12.828	13.884	PASS
n41	30	15	536496	DFT-s-OFDM 256QAM	36/0	12.811	13.663	PASS
n41	30	15	536496	CP-OFDM QPSK	38/0	12.869	14.026	PASS
n41	30	20	501204	DFT-s-OFDM PI/2 BPSK	50/0	17.825	19.067	PASS
n41	30	20	501204	DFT-s-OFDM	50/0	17.810	19.083	PASS



				QPSK				
n41	30	20	501204	DFT-s-OFDM 16QAM	50/0	17.818	19.189	PASS
n41	30	20	501204	DFT-s-OFDM 64QAM	50/0	17.817	19.102	PASS
n41	30	20	501204	DFT-s-OFDM 256QAM	50/0	17.819	19.087	PASS
n41	30	20	501204	CP-OFDM QPSK	51/0	17.830	18.955	PASS
n41	30	20	518598	DFT-s-OFDM PI/2 BPSK	50/0	17.801	19.035	PASS
n41	30	20	518598	DFT-s-OFDM QPSK	50/0	17.824	19.010	PASS
n41	30	20	518598	DFT-s-OFDM 16QAM	50/0	17.837	18.998	PASS
n41	30	20	518598	DFT-s-OFDM 64QAM	50/0	17.826	18.912	PASS
n41	30	20	518598	DFT-s-OFDM 256QAM	50/0	17.811	19.179	PASS
n41	30	20	518598	CP-OFDM QPSK	51/0	17.838	19.091	PASS
n41	30	20	535998	DFT-s-OFDM PI/2 BPSK	50/0	17.814	18.861	PASS
n41	30	20	535998	DFT-s-OFDM QPSK	50/0	17.809	18.850	PASS
n41	30	20	535998	DFT-s-OFDM 16QAM	50/0	17.810	19.051	PASS
n41	30	20	535998	DFT-s-OFDM 64QAM	50/0	17.817	18.872	PASS
n41	30	20	535998	DFT-s-OFDM 256QAM	50/0	17.792	19.019	PASS
n41	30	20	535998	CP-OFDM QPSK	51/0	17.837	19.061	PASS
n41	30	30	502200	DFT-s-OFDM PI/2 BPSK	75/0	26.777	28.298	PASS
n41	30	30	502200	DFT-s-OFDM QPSK	75/0	26.793	28.527	PASS
n41	30	30	502200	DFT-s-OFDM 16QAM	75/0	26.788	28.608	PASS





n41	30	30	502200	DFT-s-OFDM 64QAM	75/0	26.782	28.591	PASS
n41	30	30	502200	DFT-s-OFDM 256QAM	75/0	26.793	28.297	PASS
n41	30	30	502200	CP-OFDM QPSK	78/0	26.735	28.964	PASS
n41	30	30	518598	DFT-s-OFDM PI/2 BPSK	75/0	26.791	28.355	PASS
n41	30	30	518598	DFT-s-OFDM QPSK	75/0	26.768	28.506	PASS
n41	30	30	518598	DFT-s-OFDM 16QAM	75/0	26.759	28.486	PASS
n41	30	30	518598	DFT-s-OFDM 64QAM	75/0	26.807	28.215	PASS
n41	30	30	518598	DFT-s-OFDM 256QAM	75/0	26.793	28.439	PASS
n41	30	30	518598	CP-OFDM QPSK	78/0	26.778	28.593	PASS
n41	30	30	534996	DFT-s-OFDM PI/2 BPSK	75/0	26.747	28.366	PASS
n41	30	30	534996	DFT-s-OFDM QPSK	75/0	26.756	28.357	PASS
n41	30	30	534996	DFT-s-OFDM 16QAM	75/0	26.758	28.378	PASS
n41	30	30	534996	DFT-s-OFDM 64QAM	75/0	26.731	28.386	PASS
n41	30	30	534996	DFT-s-OFDM 256QAM	75/0	26.799	28.467	PASS
n41	30	30	534996	CP-OFDM QPSK	78/0	26.731	28.308	PASS
n41	30	40	503202	DFT-s-OFDM PI/2 BPSK	100/0	35.714	37.529	PASS
n41	30	40	503202	DFT-s-OFDM QPSK	100/0	35.721	37.649	PASS
n41	30	40	503202	DFT-s-OFDM 16QAM	100/0	35.730	37.540	PASS
n41	30	40	503202	DFT-s-OFDM 64QAM	100/0	35.691	37.615	PASS
n41	30	40	503202	DFT-s-OFDM	100/0	35.746	37.583	PASS



				256QAM				
n41	30	40	503202	CP-OFDM QPSK	106/0	35.647	37.604	PASS
n41	30	40	518598	DFT-s-OFDM PI/2 BPSK	100/0	35.703	37.536	PASS
n41	30	40	518598	DFT-s-OFDM QPSK	100/0	35.732	37.904	PASS
n41	30	40	518598	DFT-s-OFDM 16QAM	100/0	35.704	37.388	PASS
n41	30	40	518598	DFT-s-OFDM 64QAM	100/0	35.721	37.483	PASS
n41	30	40	518598	DFT-s-OFDM 256QAM	100/0	35.664	37.343	PASS
n41	30	40	518598	CP-OFDM QPSK	106/0	35.724	37.665	PASS
n41	30	40	534000	DFT-s-OFDM PI/2 BPSK	100/0	35.680	37.421	PASS
n41	30	40	534000	DFT-s-OFDM QPSK	100/0	35.638	37.988	PASS
n41	30	40	534000	DFT-s-OFDM 16QAM	100/0	35.701	37.407	PASS
n41	30	40	534000	DFT-s-OFDM 64QAM	100/0	35.635	37.630	PASS
n41	30	40	534000	DFT-s-OFDM 256QAM	100/0	35.680	37.678	PASS
n41	30	40	534000	CP-OFDM QPSK	106/0	35.625	37.362	PASS
n41	30	50	504204	DFT-s-OFDM PI/2 BPSK	128/0	45.629	48.221	PASS
n41	30	50	504204	DFT-s-OFDM QPSK	128/0	45.657	48.083	PASS
n41	30	50	504204	DFT-s-OFDM 16QAM	128/0	45.741	47.949	PASS
n41	30	50	504204	DFT-s-OFDM 64QAM	128/0	45.716	48.030	PASS
n41	30	50	504204	DFT-s-OFDM 256QAM	128/0	45.693	48.056	PASS
n41	30	50	504204	CP-OFDM QPSK	133/0	45.643	48.116	PASS



n41	30	50	518598	DFT-s-OFDM PI/2 BPSK	128/0	45.696	47.944	PASS
n41	30	50	518598	DFT-s-OFDM QPSK	128/0	45.712	48.138	PASS
n41	30	50	518598	DFT-s-OFDM 16QAM	128/0	45.720	47.835	PASS
n41	30	50	518598	DFT-s-OFDM 64QAM	128/0	45.769	47.840	PASS
n41	30	50	518598	DFT-s-OFDM 256QAM	128/0	45.670	48.081	PASS
n41	30	50	518598	CP-OFDM QPSK	133/0	45.628	48.079	PASS
n41	30	50	532998	DFT-s-OFDM PI/2 BPSK	128/0	45.594	48.034	PASS
n41	30	50	532998	DFT-s-OFDM QPSK	128/0	45.560	47.827	PASS
n41	30	50	532998	DFT-s-OFDM 16QAM	128/0	45.619	48.033	PASS
n41	30	50	532998	DFT-s-OFDM 64QAM	128/0	45.718	47.918	PASS
n41	30	50	532998	DFT-s-OFDM 256QAM	128/0	45.571	47.923	PASS
n41	30	50	532998	CP-OFDM QPSK	133/0	45.606	48.164	PASS
n41	30	60	505200	DFT-s-OFDM PI/2 BPSK	162/0	57.788	60.040	PASS
n41	30	60	505200	DFT-s-OFDM QPSK	162/0	57.894	60.236	PASS
n41	30	60	505200	DFT-s-OFDM 16QAM	162/0	57.824	60.034	PASS
n41	30	60	505200	DFT-s-OFDM 64QAM	162/0	57.768	59.968	PASS
n41	30	60	505200	DFT-s-OFDM 256QAM	162/0	57.771	60.055	PASS
n41	30	60	505200	CP-OFDM QPSK	162/0	57.713	59.907	PASS
n41	30	60	518598	DFT-s-OFDM PI/2 BPSK	162/0	57.769	60.477	PASS
n41	30	60	518598	DFT-s-OFDM	162/0	57.938	60.155	PASS



				QPSK				
n41	30	60	518598	DFT-s-OFDM 16QAM	162/0	57.815	60.107	PASS
n41	30	60	518598	DFT-s-OFDM 64QAM	162/0	57.831	60.083	PASS
n41	30	60	518598	DFT-s-OFDM 256QAM	162/0	57.883	60.030	PASS
n41	30	60	518598	CP-OFDM QPSK	162/0	57.825	59.935	PASS
n41	30	60	531996	DFT-s-OFDM PI/2 BPSK	162/0	57.657	59.963	PASS
n41	30	60	531996	DFT-s-OFDM QPSK	162/0	57.861	60.127	PASS
n41	30	60	531996	DFT-s-OFDM 16QAM	162/0	57.713	60.112	PASS
n41	30	60	531996	DFT-s-OFDM 64QAM	162/0	57.606	59.779	PASS
n41	30	60	531996	DFT-s-OFDM 256QAM	162/0	57.679	60.202	PASS
n41	30	60	531996	CP-OFDM QPSK	162/0	57.653	60.094	PASS
n41	30	80	507204	DFT-s-OFDM PI/2 BPSK	216/0	76.935	79.900	PASS
n41	30	80	507204	DFT-s-OFDM QPSK	216/0	76.763	79.865	PASS
n41	30	80	507204	DFT-s-OFDM 16QAM	216/0	76.774	80.024	PASS
n41	30	80	507204	DFT-s-OFDM 64QAM	216/0	77.053	79.751	PASS
n41	30	80	507204	DFT-s-OFDM 256QAM	216/0	76.887	80.466	PASS
n41	30	80	507204	CP-OFDM QPSK	217/0	76.737	79.750	PASS
n41	30	80	518598	DFT-s-OFDM PI/2 BPSK	216/0	77.113	79.868	PASS
n41	30	80	518598	DFT-s-OFDM QPSK	216/0	77.077	79.918	PASS
n41	30	80	518598	DFT-s-OFDM 16QAM	216/0	76.975	80.050	PASS



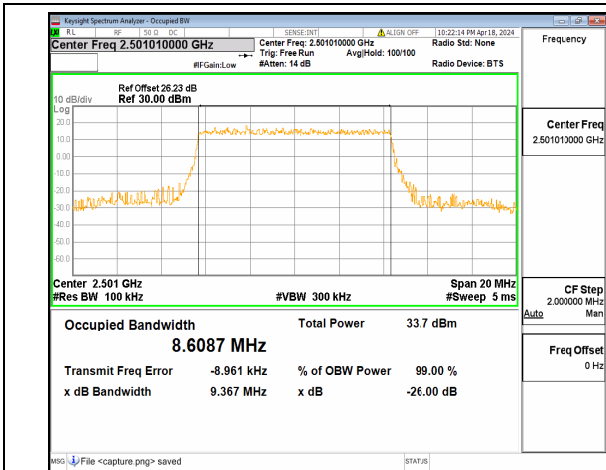
n41	30	80	518598	DFT-s-OFDM 64QAM	216/0	77.212	80.056	PASS
n41	30	80	518598	DFT-s-OFDM 256QAM	216/0	77.087	80.535	PASS
n41	30	80	518598	CP-OFDM QPSK	217/0	77.101	80.165	PASS
n41	30	80	529998	DFT-s-OFDM PI/2 BPSK	216/0	76.938	79.718	PASS
n41	30	80	529998	DFT-s-OFDM QPSK	216/0	76.896	79.995	PASS
n41	30	80	529998	DFT-s-OFDM 16QAM	216/0	76.753	79.868	PASS
n41	30	80	529998	DFT-s-OFDM 64QAM	216/0	76.867	79.781	PASS
n41	30	80	529998	DFT-s-OFDM 256QAM	216/0	76.998	79.891	PASS
n41	30	80	529998	CP-OFDM QPSK	217/0	76.908	79.848	PASS
n41	30	90	508200	DFT-s-OFDM PI/2 BPSK	243/0	86.208	89.718	PASS
n41	30	90	508200	DFT-s-OFDM QPSK	243/0	86.359	89.525	PASS
n41	30	90	508200	DFT-s-OFDM 16QAM	243/0	86.397	89.653	PASS
n41	30	90	508200	DFT-s-OFDM 64QAM	243/0	86.510	89.693	PASS
n41	30	90	508200	DFT-s-OFDM 256QAM	243/0	86.306	89.730	PASS
n41	30	90	508200	CP-OFDM QPSK	245/0	86.377	89.623	PASS
n41	30	90	518598	DFT-s-OFDM PI/2 BPSK	243/0	86.864	89.832	PASS
n41	30	90	518598	DFT-s-OFDM QPSK	243/0	86.693	89.684	PASS
n41	30	90	518598	DFT-s-OFDM 16QAM	243/0	86.642	89.691	PASS
n41	30	90	518598	DFT-s-OFDM 64QAM	243/0	86.755	89.794	PASS
n41	30	90	518598	DFT-s-OFDM	243/0	86.793	89.668	PASS



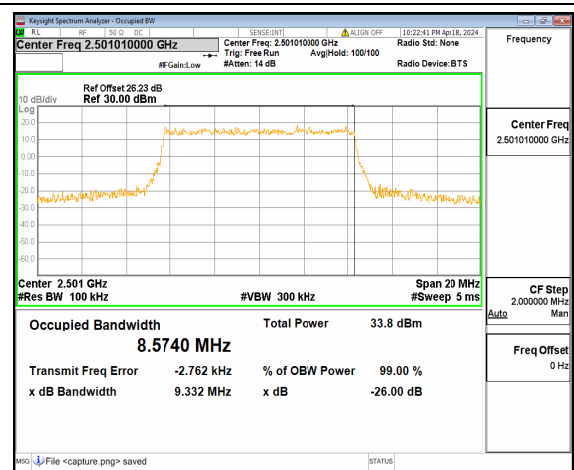
				256QAM				
n41	30	90	518598	CP-OFDM QPSK	245/0	86.808	89.598	PASS
n41	30	90	528996	DFT-s-OFDM PI/2 BPSK	243/0	86.483	89.814	PASS
n41	30	90	528996	DFT-s-OFDM QPSK	243/0	86.535	89.737	PASS
n41	30	90	528996	DFT-s-OFDM 16QAM	243/0	86.539	89.487	PASS
n41	30	90	528996	DFT-s-OFDM 64QAM	243/0	86.576	89.537	PASS
n41	30	90	528996	DFT-s-OFDM 256QAM	243/0	86.430	89.547	PASS
n41	30	90	528996	CP-OFDM QPSK	245/0	86.516	89.846	PASS
n41	30	100	509202	DFT-s-OFDM PI/2 BPSK	270/0	96.015	99.730	PASS
n41	30	100	509202	DFT-s-OFDM QPSK	270/0	95.867	99.490	PASS
n41	30	100	509202	DFT-s-OFDM 16QAM	270/0	95.790	99.476	PASS
n41	30	100	509202	DFT-s-OFDM 64QAM	270/0	95.791	99.451	PASS
n41	30	100	509202	DFT-s-OFDM 256QAM	270/0	95.790	99.391	PASS
n41	30	100	509202	CP-OFDM QPSK	273/0	95.720	99.691	PASS
n41	30	100	518598	DFT-s-OFDM PI/2 BPSK	270/0	96.376	99.676	PASS
n41	30	100	518598	DFT-s-OFDM QPSK	270/0	96.274	99.648	PASS
n41	30	100	518598	DFT-s-OFDM 16QAM	270/0	96.199	99.431	PASS
n41	30	100	518598	DFT-s-OFDM 64QAM	270/0	96.149	99.639	PASS
n41	30	100	518598	DFT-s-OFDM 256QAM	270/0	96.221	99.444	PASS
n41	30	100	518598	CP-OFDM QPSK	273/0	96.281	99.641	PASS



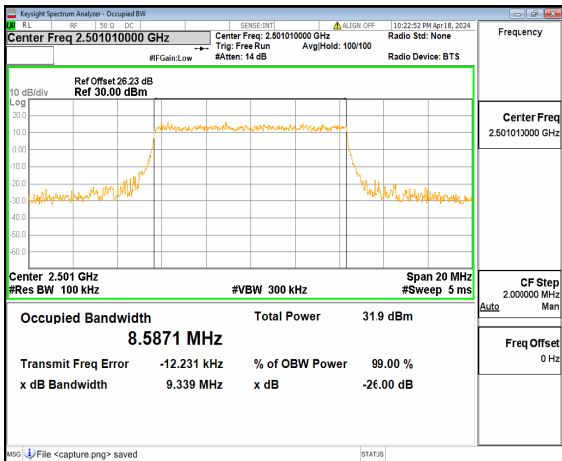
n41	30	100	528000	DFT-s-OFDM PI/2 BPSK	270/0	96.140	99.646	PASS
n41	30	100	528000	DFT-s-OFDM QPSK	270/0	96.180	99.602	PASS
n41	30	100	528000	DFT-s-OFDM 16QAM	270/0	96.100	99.546	PASS
n41	30	100	528000	DFT-s-OFDM 64QAM	270/0	96.223	99.574	PASS
n41	30	100	528000	DFT-s-OFDM 256QAM	270/0	96.154	99.529	PASS
n41	30	100	528000	CP-OFDM QPSK	273/0	96.262	99.533	PASS



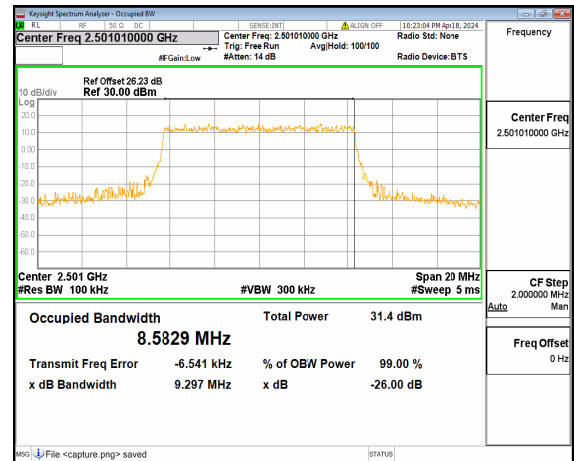
n41 10M DFT-s-OFDM BPSK Outer\_Full Low



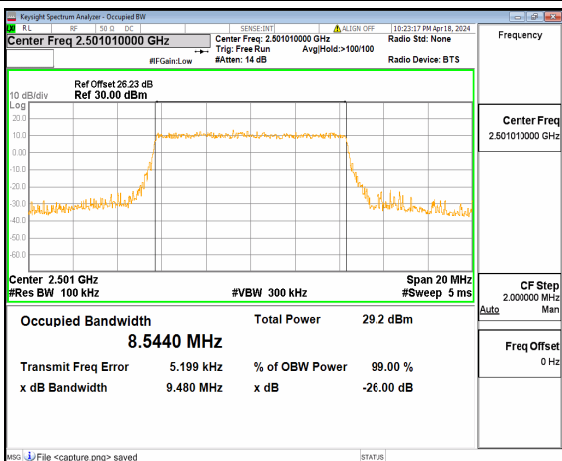
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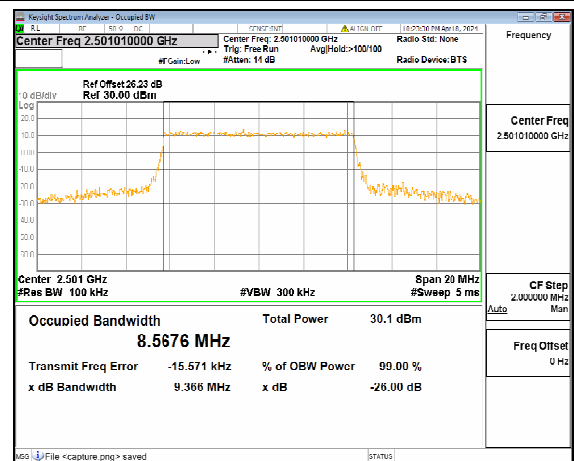
n41 10M DFT-s-OFDM 16QAM Outer\_Full Low



n41 10M DFT-s-OFDM 64QAM Outer\_Full Low

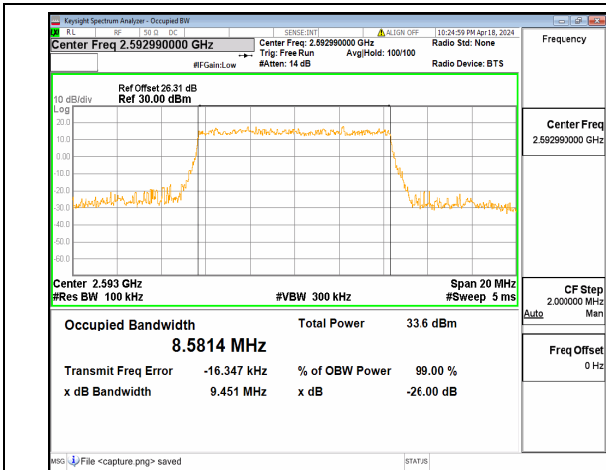


n41 10M DFT-s-OFDM 256QAM Outer\_Full Low

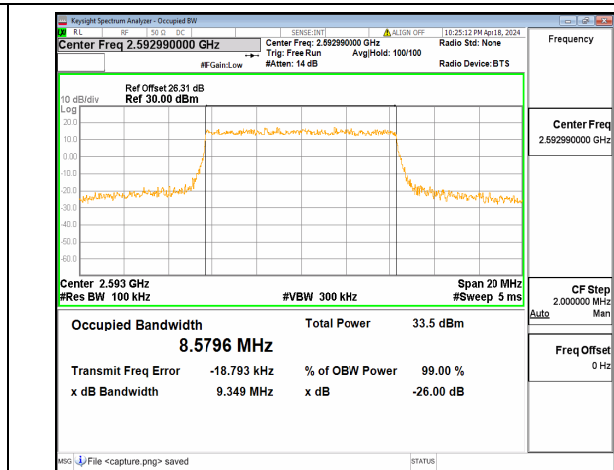


n41 10M CP-OFDM QPSK Outer\_Full Low

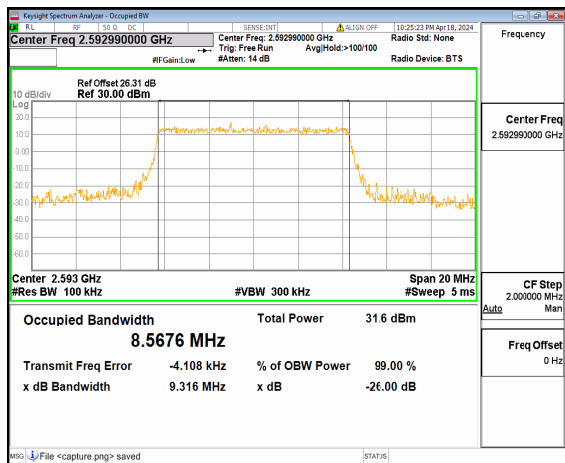




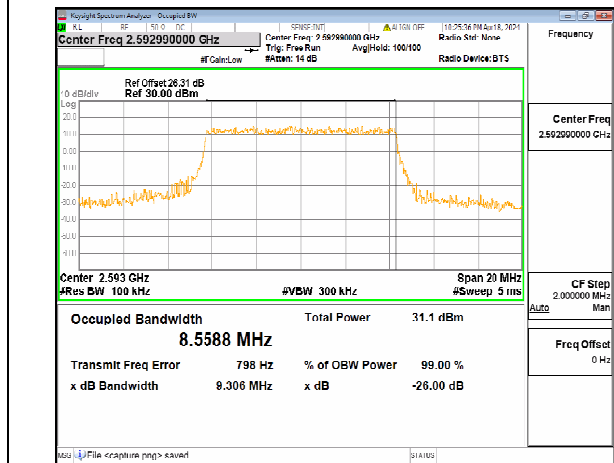
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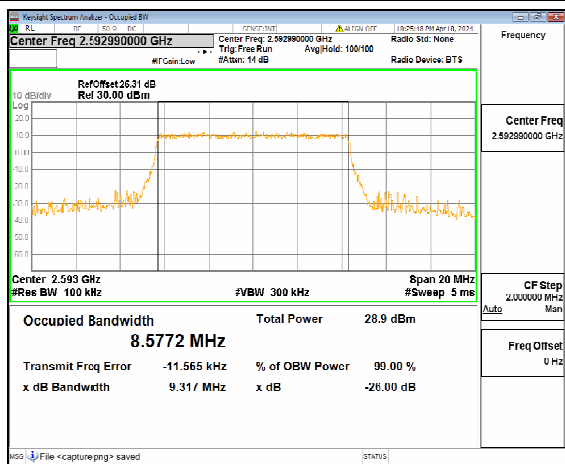
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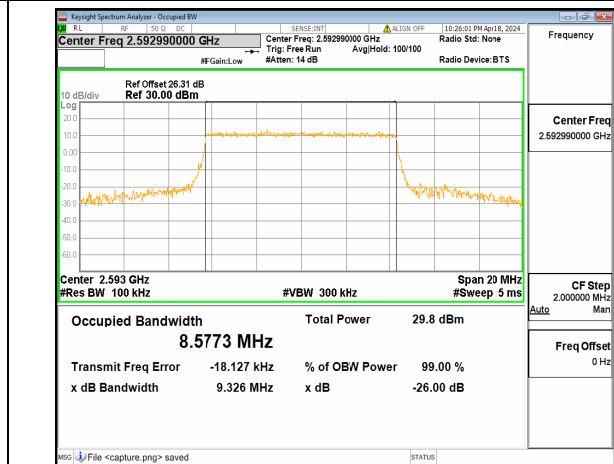
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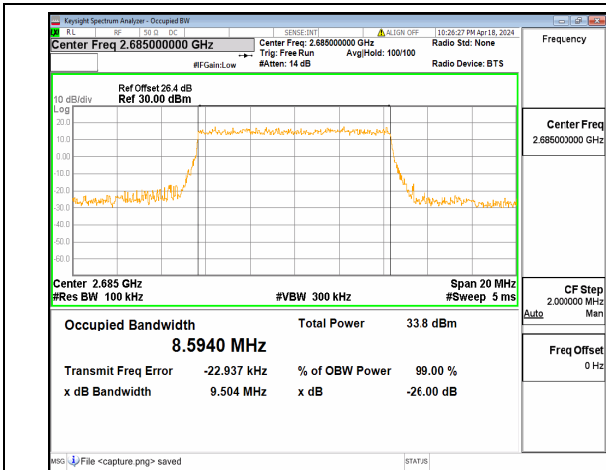
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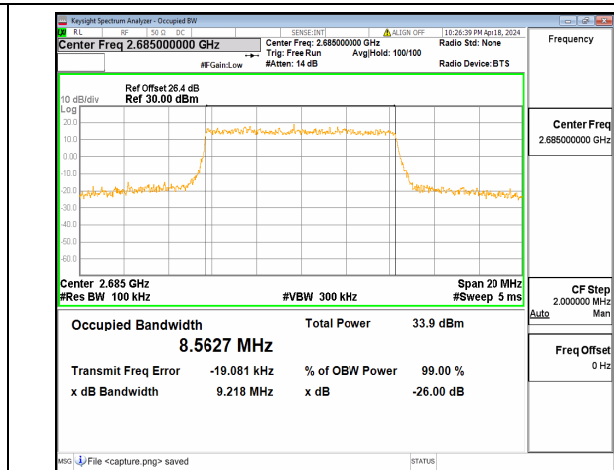
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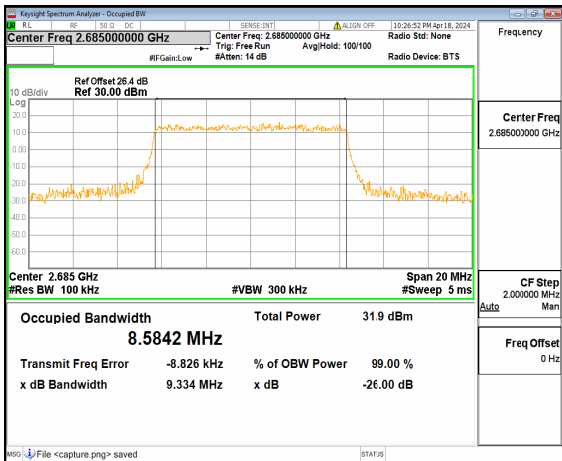
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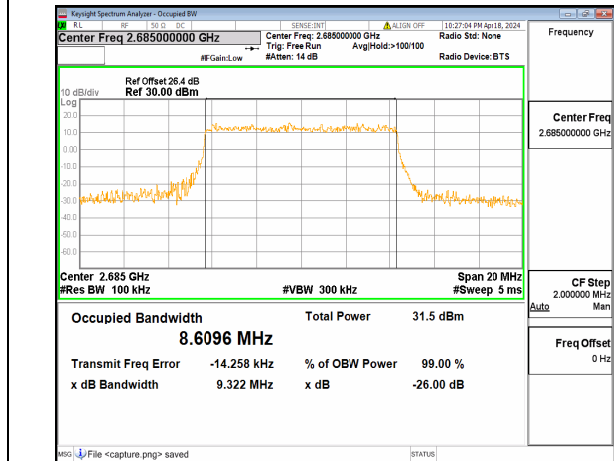
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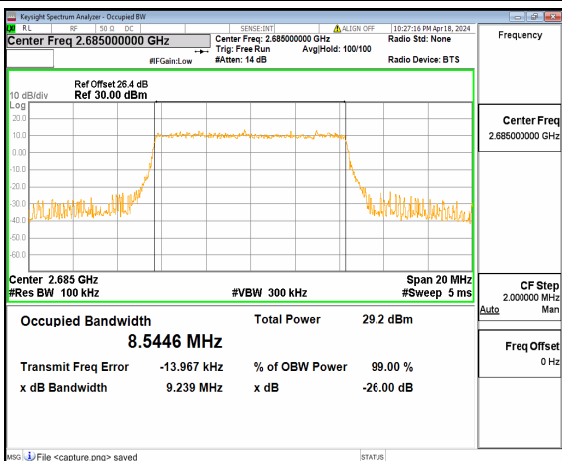
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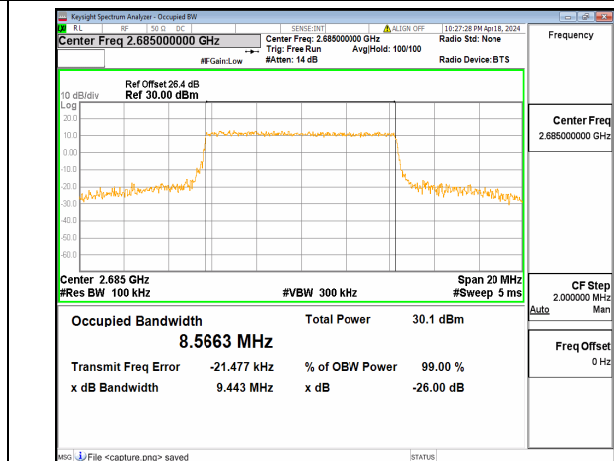
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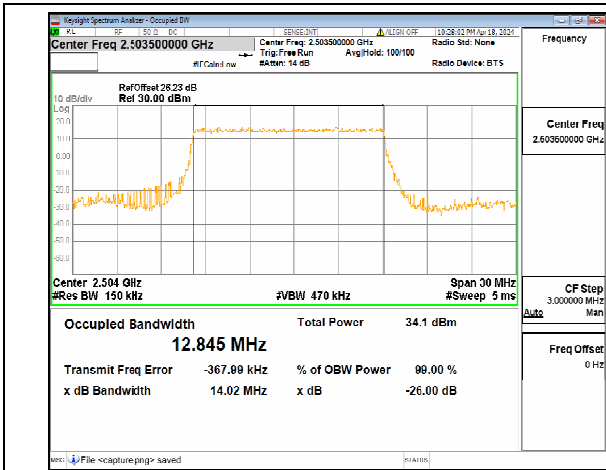
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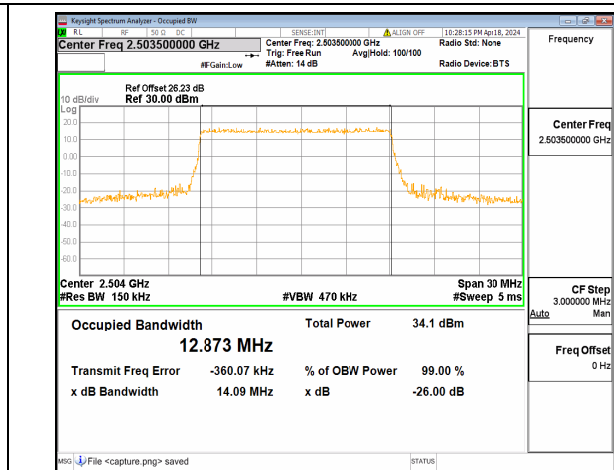
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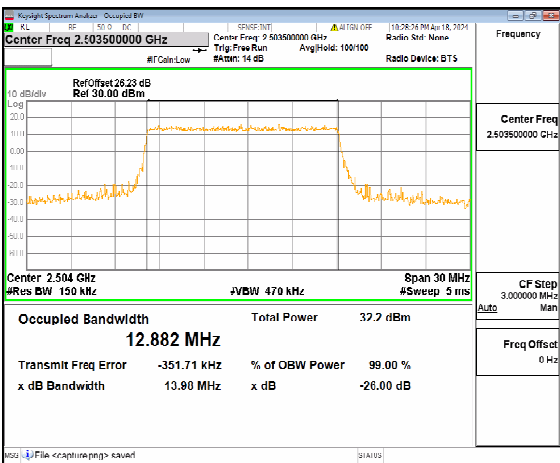
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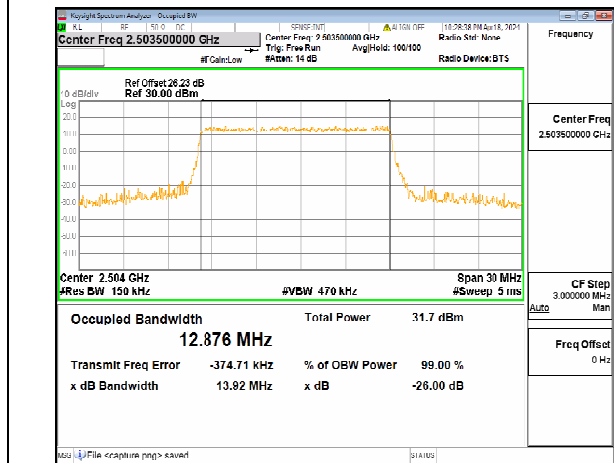
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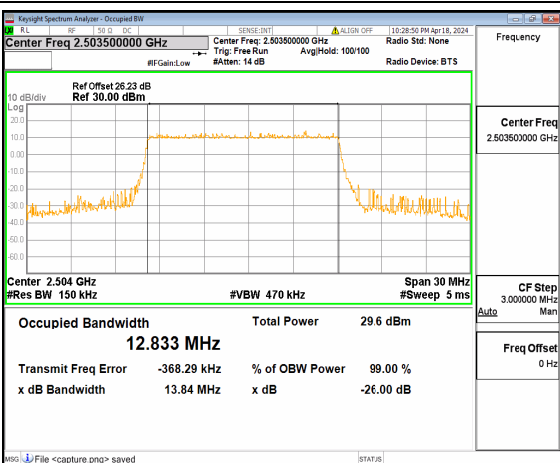
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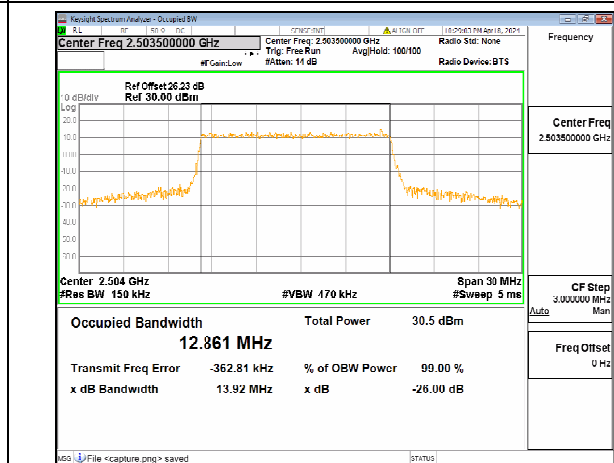
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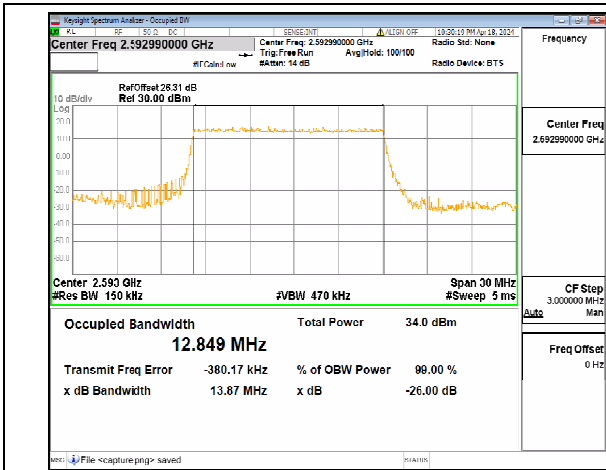
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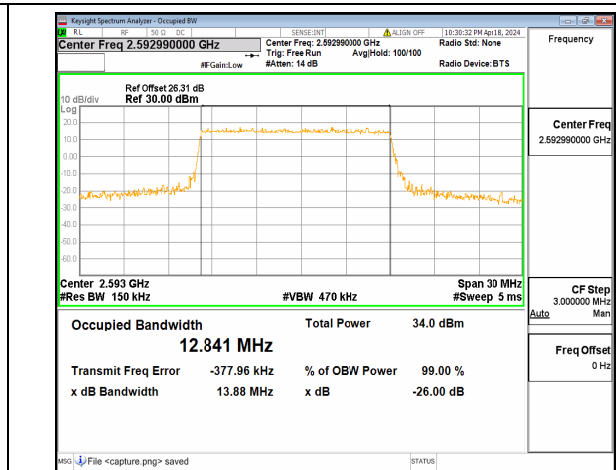
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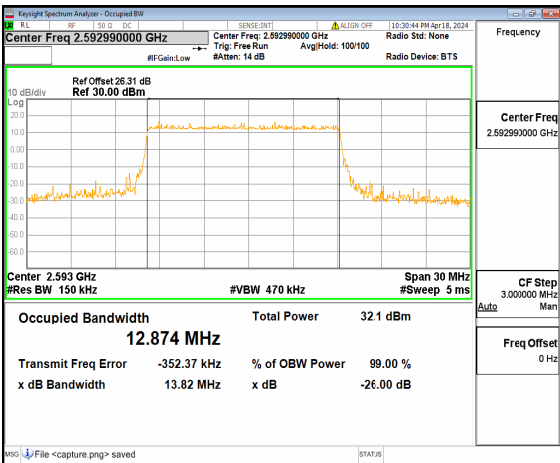
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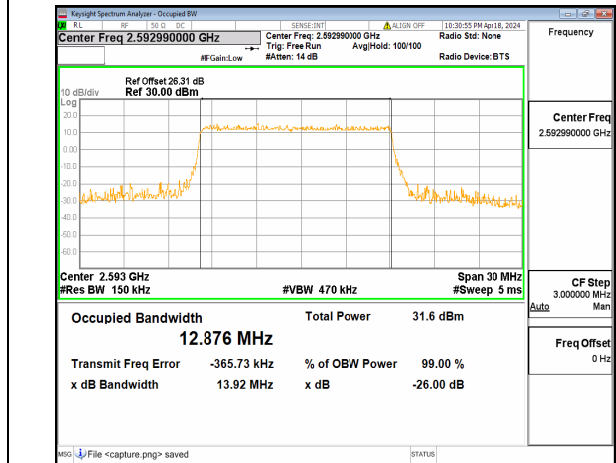
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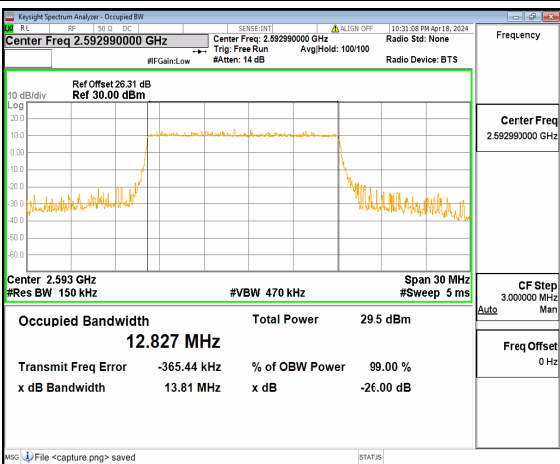
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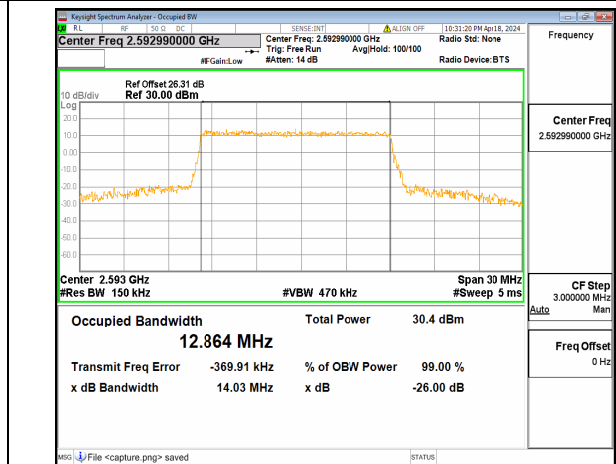
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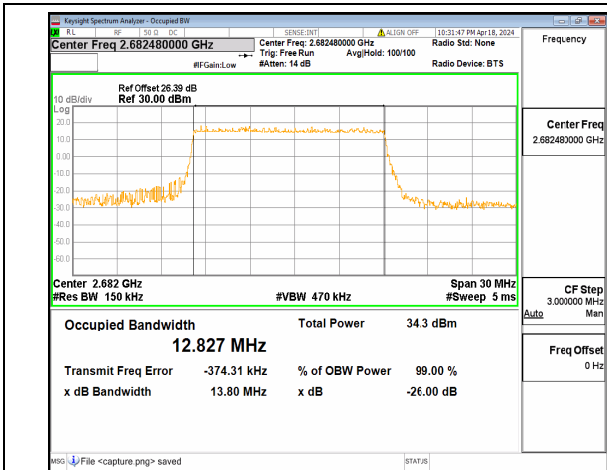
n41 15M DFT-s-OFDM 64QAM Outer\_Full Mid



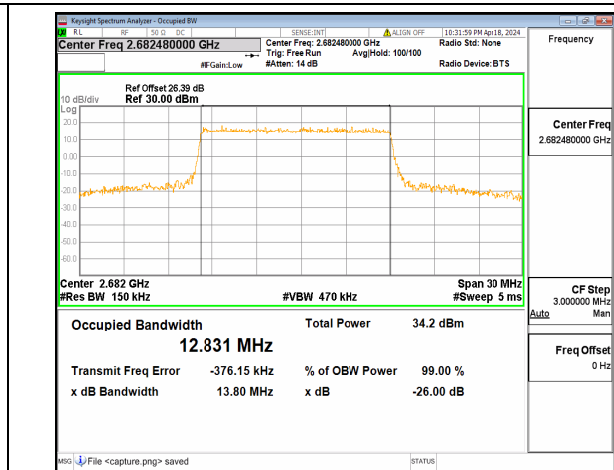
n41 15M DFT-s-OFDM 256QAM Outer\_Full Mid



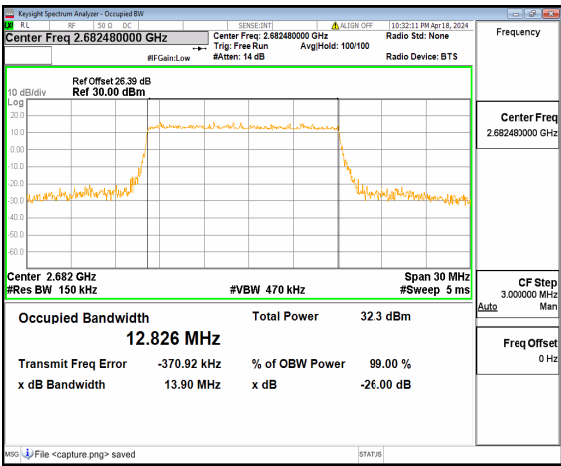
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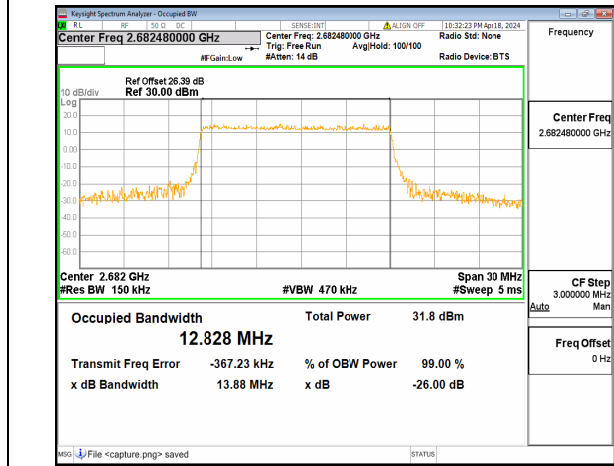
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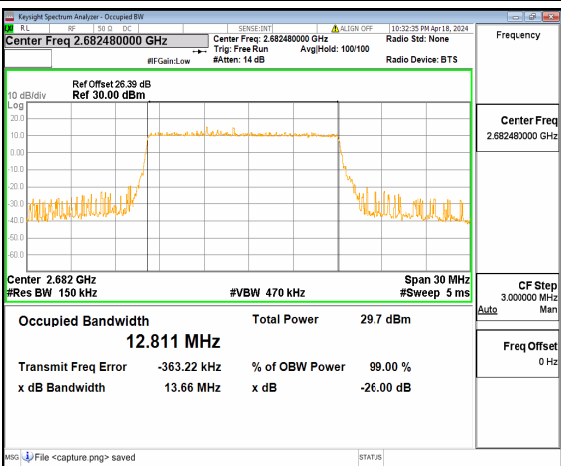
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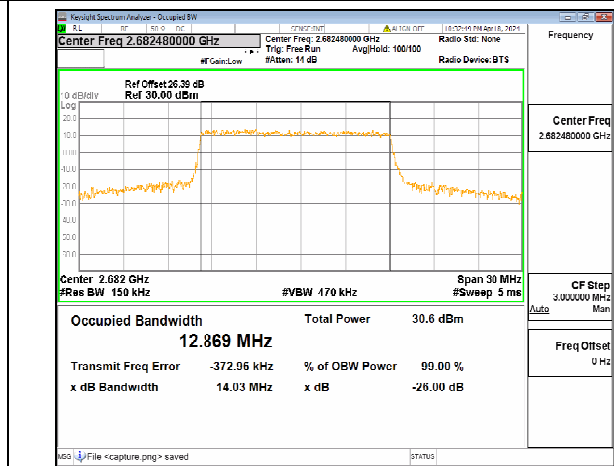
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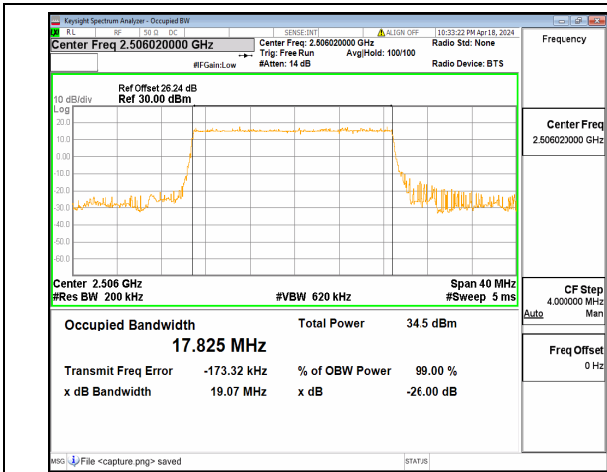
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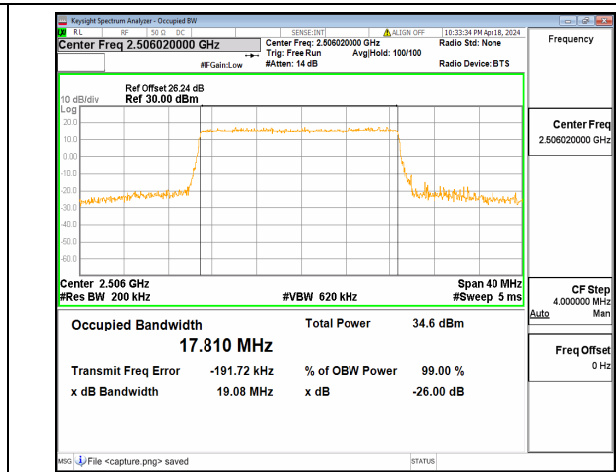
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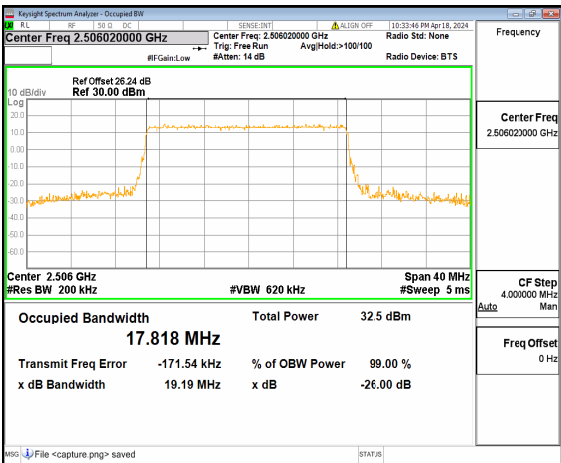
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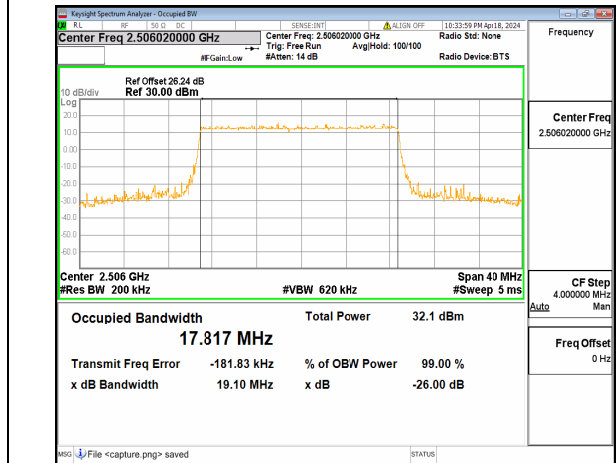
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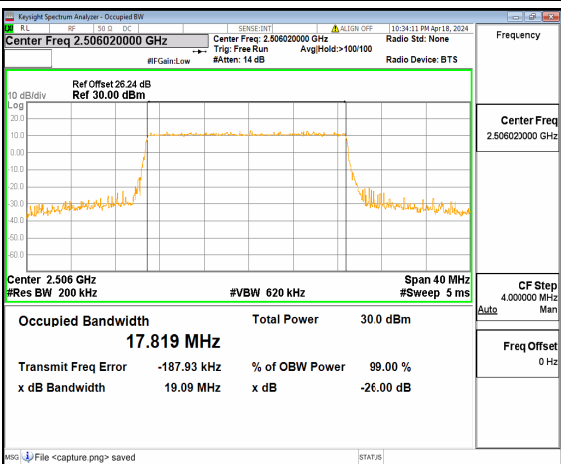
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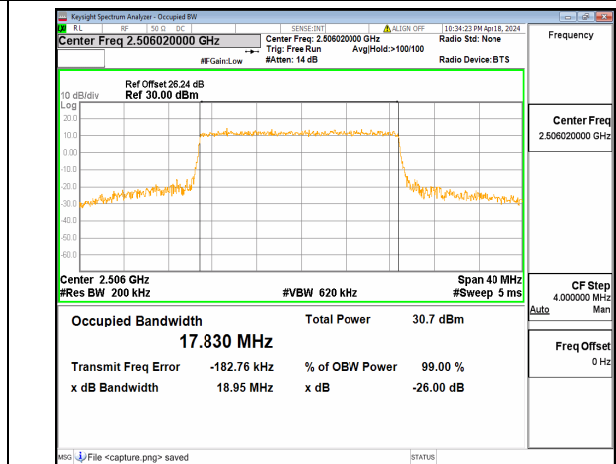
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n41 20M DFT-s-OFDM 64QAM Outer\_Full Low



n41 20M DFT-s-OFDM 256QAM Outer\_Full Low



n41 20M CP-OFDM QPSK Outer\_Full Low