N66(40M)_DFT-s-OFDM_BPSK_Outer_Full_Low_CH
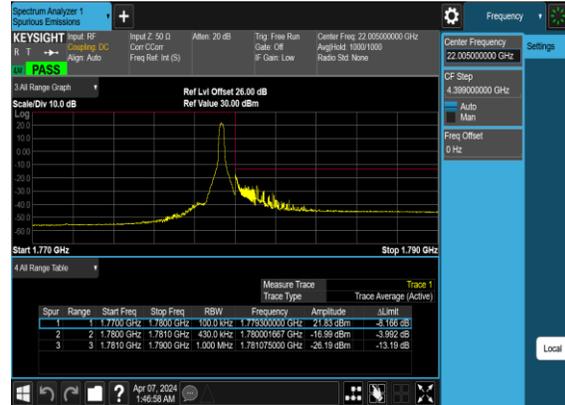
Spectrum Analyzer 1 — Spurious Emissions

KEYSIGHT R T Input: RF Coupling: DC Align: Auto Input Z: 50 Ω Corr CCorr Freq Ref: Int (S) Atten: 20 dB Trig: Free Run Gate: Off IF Gain: Low Center Freq: 22.005000000 GHz AvgHold: 100/100 Radio Std: None

PASS

3 All Range Graph
Scale/Div 10.0 dB   Ref Lvl Offset 26.00 dB   Ref Value 30.00 dBm

Center Frequency: 22.005000000 GHz
CF Step: 4.399000000 GHz
Freq Offset: 0 Hz

Start 1.700 GHz   Stop 1.720 GHz

4 All Range Table
Measure Trace — Trace 1
Trace Type — Trace Average (Active)

Spur	Range	Start Freq	Stop Freq	RBW	Frequency	Amplitude	ΔLimit
1	1	1.7000 GHz	1.7090 GHz	1.000 MHz	1.708895000 GHz	-25.89 dBm	-12.89 dB
2	2	1.7090 GHz	1.7100 GHz	430.0 kHz	1.709988333 GHz	-25.80 dBm	-12.80 dB
3	3	1.7100 GHz	1.7200 GHz	100.0 kHz	1.716333333 GHz	-0.500 dBm	-30.50 dB

Apr 07, 2024 1:44:31 AM

N66(40M)_DFT-s-OFDM_QPSK_Outer_Full_Low_CH

Spectrum Analyzer 1 — Spurious Emissions

KEYSIGHT R T Input: RF Coupling: DC Align: Auto Input Z: 50 Ω Corr CCorr Freq Ref: Int (S) Atten: 20 dB Trig: Free Run Gate: Off IF Gain: Low Center Freq: 22.005000000 GHz AvgHold: 100/100 Radio Std: None

PASS

3 All Range Graph
Scale/Div 10.0 dB   Ref Lvl Offset 26.00 dB   Ref Value 30.00 dBm

Center Frequency: 22.005000000 GHz
CF Step: 4.399000000 GHz
Freq Offset: 0 Hz

Start 1.700 GHz   Stop 1.720 GHz

4 All Range Table
Measure Trace — Trace 1
Trace Type — Trace Average (Active)

Spur	Range	Start Freq	Stop Freq	RBW	Frequency	Amplitude	ΔLimit
1	1	1.7000 GHz	1.7090 GHz	1.000 MHz	1.708745000 GHz	-26.49 dBm	-13.49 dB
2	2	1.7090 GHz	1.7100 GHz	430.0 kHz	1.709965000 GHz	-28.05 dBm	-15.05 dB
3	3	1.7100 GHz	1.7200 GHz	100.0 kHz	1.719116667 GHz	-0.647 dBm	-30.65 dB

Apr 07, 2024 1:44:48 AM

N66(40M)_DFT-s-OFDM_BPSK_Edge_1RB_Right_High_CH

Spectrum Analyzer 1 — Spurious Emissions

KEYSIGHT R T Input: RF Coupling: DC Align: Auto Input Z: 50 Ω Corr CCorr Freq Ref: Int (S) Atten: 20 dB Trig: Free Run Gate: Off IF Gain: Low Center Freq: 22.005000000 GHz AvgHold: 1000/1000 Radio Std: None

PASS

3 All Range Graph
Scale/Div 10.0 dB   Ref Lvl Offset 26.00 dB   Ref Value 30.00 dBm

Center Frequency: 22.005000000 GHz
CF Step: 4.399000000 GHz
Freq Offset: 0 Hz

Start 1.770 GHz   Stop 1.790 GHz

4 All Range Table
Measure Trace — Trace 1
Trace Type — Trace Average (Active)

Spur	Range	Start Freq	Stop Freq	RBW	Frequency	Amplitude	ΔLimit
1	1	1.7700 GHz	1.7800 GHz	100.0 kHz	1.779350000 GHz	22.99 dBm	-7.011 dB
2	2	1.7800 GHz	1.7810 GHz	430.0 kHz	1.780011667 GHz	-15.65 dBm	-2.647 dB
3	3	1.7810 GHz	1.7900 GHz	1.000 MHz	1.781090000 GHz	-29.68 dBm	-16.68 dB

Apr 07, 2024 1:46:03 AM

N66(40M)_DFT-s-OFDM_QPSK_Edge_1RB_Right_High_CH

Spectrum Analyzer 1 — Spurious Emissions

KEYSIGHT R T Input: RF Coupling: DC Align: Auto Input Z: 50 Ω Corr CCorr Freq Ref: Int (S) Atten: 20 dB Trig: Free Run Gate: Off IF Gain: Low Center Freq: 22.005000000 GHz AvgHold: 100/100 Radio Std: None

PASS

3 All Range Graph
Scale/Div 10.0 dB   Ref Lvl Offset 26.00 dB   Ref Value 30.00 dBm

Center Frequency: 22.005000000 GHz
CF Step: 4.399000000 GHz
Freq Offset: 0 Hz

Start 1.770 GHz   Stop 1.790 GHz

4 All Range Table
Measure Trace — Trace 1
Trace Type — Trace Average (Active)

Spur	Range	Start Freq	Stop Freq	RBW	Frequency	Amplitude	ΔLimit
1	1	1.7700 GHz	1.7800 GHz	100.0 kHz	1.779300000 GHz	21.83 dBm	-8.166 dB
2	2	1.7800 GHz	1.7810 GHz	430.0 kHz	1.780016667 GHz	-16.99 dBm	-3.992 dB
3	3	1.7810 GHz	1.7900 GHz	1.000 MHz	1.781075000 GHz	-26.19 dBm	-13.19 dB

Apr 07, 2024 1:46:58 AM

N66(40M)_DFT-s-OFDM_BPSK_Outer_Full_High_CH

Spectrum Analyzer 1 — Spurious Emissions

KEYSIGHT R T Input: RF Coupling: DC Align: Auto Input Z: 50 Ω Corr CCorr Freq Ref: Int (S) Atten: 20 dB Trig: Free Run Gate: Off IF Gain: Low Center Freq: 22.005000000 GHz AvgHold: 100/100 Radio Std: None

PASS

3 All Range Graph
Scale/Div 10.0 dB   Ref Lvl Offset 26.00 dB   Ref Value 30.00 dBm

Center Frequency: 22.005000000 GHz
CF Step: 4.399000000 GHz
Freq Offset: 0 Hz

Start 1.770 GHz   Stop 1.790 GHz

4 All Range Table
Measure Trace — Trace 1
Trace Type — Trace Average (Active)

Spur	Range	Start Freq	Stop Freq	RBW	Frequency	Amplitude	ΔLimit
1	1	1.7700 GHz	1.7800 GHz	100.0 kHz	1.774733333 GHz	-0.199 dBm	-30.20 dB
2	2	1.7800 GHz	1.7810 GHz	430.0 kHz	1.780060000 GHz	-28.37 dBm	-15.37 dB
3	3	1.7810 GHz	1.7900 GHz	1.000 MHz	1.781465000 GHz	-28.74 dBm	-15.74 dB

Apr 07, 2024 1:47:15 AM

N66(40M)_DFT-s-OFDM_QPSK_Outer_Full_High_CH

Spectrum Analyzer 1 — Spurious Emissions

KEYSIGHT R T Input: RF Coupling: DC Align: Auto Input Z: 50 Ω Corr CCorr Freq Ref: Int (S) Atten: 20 dB Trig: Free Run Gate: Off IF Gain: Low Center Freq: 22.005000000 GHz AvgHold: 100/100 Radio Std: None

PASS

3 All Range Graph
Scale/Div 10.0 dB   Ref Lvl Offset 26.00 dB   Ref Value 30.00 dBm

Center Frequency: 22.005000000 GHz
CF Step: 4.399000000 GHz
Freq Offset: 0 Hz

Start 1.770 GHz   Stop 1.790 GHz

4 All Range Table
Measure Trace — Trace 1
Trace Type — Trace Average (Active)

Spur	Range	Start Freq	Stop Freq	RBW	Frequency	Amplitude	ΔLimit
1	1	1.7700 GHz	1.7800 GHz	100.0 kHz	1.774583333 GHz	-0.792 dBm	-30.79 dB
2	2	1.7800 GHz	1.7810 GHz	430.0 kHz	1.780046667 GHz	-28.29 dBm	-15.29 dB
3	3	1.7810 GHz	1.7900 GHz	1.000 MHz	1.781630000 GHz	-28.33 dBm	-15.33 dB

Apr 07, 2024 1:47:32 AM

FR1 N66(Ant.0) - Other PA

LTE Band: 2(Ant.5), LTE BW: 10M, LTE ARFCN: Mid

Frequency Stability

NR Band	SCS (kHz)	Bandwidth (MHz)	Arfcn	Freq (MHz)	Modulation	RB	Deviation (ppm)	Verdict	Environment
66	15	20	349000	1745.0	DFT-s-OFDM QPSK	100@0	0.00147	**PASS**	NV
66	15	20	349000	1745.0	DFT-s-OFDM QPSK	100@0	0.00365	**PASS**	LV
66	15	20	349000	1745.0	DFT-s-OFDM QPSK	100@0	0.00461	**PASS**	HV
66	15	20	349000	1745.0	DFT-s-OFDM QPSK	100@0	0.00321	**PASS**	-30℃
66	15	20	349000	1745.0	DFT-s-OFDM QPSK	100@0	-0.00314	**PASS**	-20℃
66	15	20	349000	1745.0	DFT-s-OFDM QPSK	100@0	0.00125	**PASS**	-10℃
66	15	20	349000	1745.0	DFT-s-OFDM QPSK	100@0	0.00329	**PASS**	0℃
66	15	20	349000	1745.0	DFT-s-OFDM QPSK	100@0	-0.00426	**PASS**	10℃
66	15	20	349000	1745.0	DFT-s-OFDM QPSK	100@0	-0.00410	**PASS**	20℃
66	15	20	349000	1745.0	DFT-s-OFDM QPSK	100@0	0.00440	**PASS**	30℃
66	15	20	349000	1745.0	DFT-s-OFDM QPSK	100@0	0.00426	**PASS**	40℃
66	15	20	349000	1745.0	DFT-s-OFDM QPSK	100@0	0.00512	**PASS**	50℃

Peak to Average Ratio

NR Band	SCS (kHz)	Bandwidth (MHz)	Arfcn	Freq (MHz)	Modulation	RB	Result (dB)	Limit (dB)	Verdict
66	15	5	349000	1745.0	DFT-s-OFDM PI/2 BPSK	25@0	4.1	13	**PASS**
66	15	5	349000	1745.0	DFT-s-OFDM PI/2 BPSK	1@0	3.84	13	**PASS**
66	15	5	349000	1745.0	DFT-s-OFDM QPSK	25@0	5.54	13	**PASS**
66	15	5	349000	1745.0	DFT-s-OFDM QPSK	1@0	5.17	13	**PASS**

B2_N66(5M)_DFT-s-OFDM_PI_2-BPSK_Outer_Full_Mid_CH

B2_N66(5M)_DFT-s-OFDM_PI_2-BPSK_Edge_1RB_Left_Mid_CH

B2_N66(5M)_DFT-s-OFDM_QPSK_Outer_Full_Mid_CH

B2_N66(5M)_DFT-s-OFDM_QPSK_Edge_1RB_Left_Mid_CH

Occupied Bandwidth

NR Band	SCS (kHz)	Bandwidth (MHz)	Arfcn	Freq (MHz)	Modulation	RB	OBW (MHz)	26dB BW (MHz)
66	15	5	349000	1745.0	CP-OFDM QPSK	25@0	4.4807	5.161
66	15	5	349000	1745.0	CP-OFDM 16 QAM	25@0	4.4667	5.021
66	15	5	349000	1745.0	CP-OFDM 64 QAM	25@0	4.4818	5.125
66	15	5	349000	1745.0	CP-OFDM 256 QAM	25@0	4.4739	5.067
66	15	10	349000	1745.0	CP-OFDM QPSK	52@0	9.2908	9.979
66	15	10	349000	1745.0	CP-OFDM 16 QAM	52@0	9.2715	9.964
66	15	10	349000	1745.0	CP-OFDM 64 QAM	52@0	9.2588	9.927
66	15	10	349000	1745.0	CP-OFDM 256 QAM	52@0	9.2802	10.0
66	15	15	349000	1745.0	CP-OFDM QPSK	79@0	14.089	14.87
66	15	15	349000	1745.0	CP-OFDM 16 QAM	79@0	14.133	14.98
66	15	15	349000	1745.0	CP-OFDM 64 QAM	79@0	14.121	14.85
66	15	15	349000	1745.0	CP-OFDM 256 QAM	79@0	14.093	14.93
66	15	20	349000	1745.0	CP-OFDM QPSK	106@0	18.907	19.81
66	15	20	349000	1745.0	CP-OFDM 16 QAM	106@0	18.946	19.81
66	15	20	349000	1745.0	CP-OFDM 64 QAM	106@0	18.912	19.66
66	15	20	349000	1745.0	CP-OFDM 256 QAM	106@0	18.974	19.92
66	15	25	349000	1745.0	CP-OFDM QPSK	133@0	23.761	24.77
66	15	25	349000	1745.0	CP-OFDM 16 QAM	133@0	23.776	24.69
66	15	25	349000	1745.0	CP-OFDM 64 QAM	133@0	23.788	24.81
66	15	25	349000	1745.0	CP-OFDM 256 QAM	133@0	23.771	24.73
66	15	30	349000	1745.0	CP-OFDM QPSK	160@0	28.552	29.69
66	15	30	349000	1745.0	CP-OFDM 16 QAM	160@0	28.56	29.5
66	15	30	349000	1745.0	CP-OFDM 64 QAM	160@0	28.522	29.63
66	15	30	349000	1745.0	CP-OFDM 256 QAM	160@0	28.51	29.54
66	15	40	349000	1745.0	CP-OFDM QPSK	216@0	38.603	39.87
66	15	40	349000	1745.0	CP-OFDM 16 QAM	216@0	38.564	39.92

| 66	15	40	349000	1745.0	CP-OFDM 64 QAM	216@0	38.547	39.87
66	15	40	349000	1745.0	CP-OFDM 256 QAM	216@0	38.567	39.88
66	15	35	349000	1745.0	CP-OFDM QPSK	188@0	33.606	34.77
66	15	35	349000	1745.0	CP-OFDM 16 QAM	188@0	33.583	34.73
66	15	35	349000	1745.0	CP-OFDM 64 QAM	188@0	33.579	34.71
66	15	35	349000	1745.0	CP-OFDM 256 QAM	188@0	33.528	34.78

B2_N66(5M)_CP-OFDM_QPSK_Outer_Full_Mid_CH

B2_N66(5M)_CP-OFDM_16 QAM_Outer_Full_Mid_CH

B2_N66(5M)_CP-OFDM_64 QAM_Outer_Full_Mid_CH

B2_N66(5M)_CP-OFDM_256 QAM_Outer_Full_Mid_CH

B2_N66(10M)_CP-OFDM_QPSK_Outer_Full_Mid_CH

B2_N66(10M)_CP-OFDM_16 QAM_Outer_Full_Mid_CH
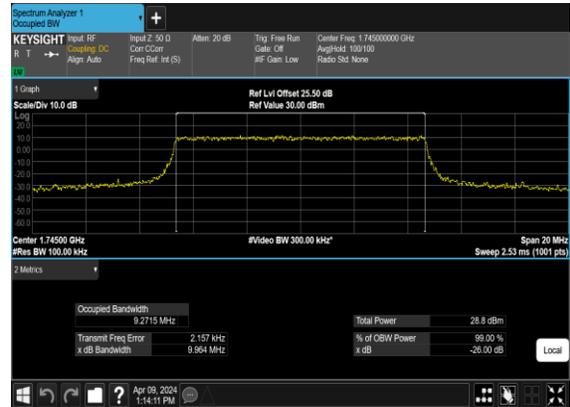
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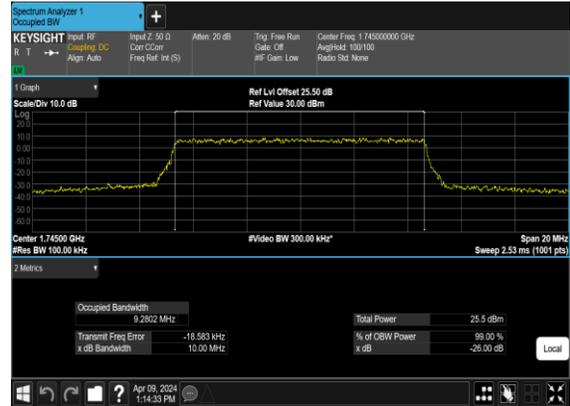
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B2_N66(15M)_CP-OFDM_16 QAM_Outer_Full_Mid_CH
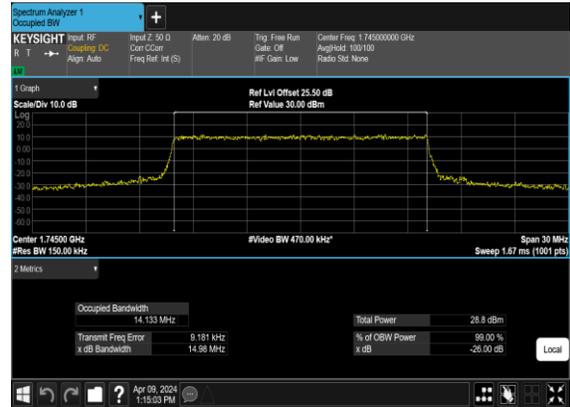
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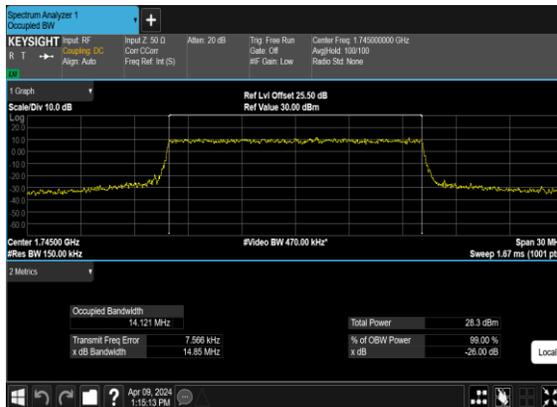
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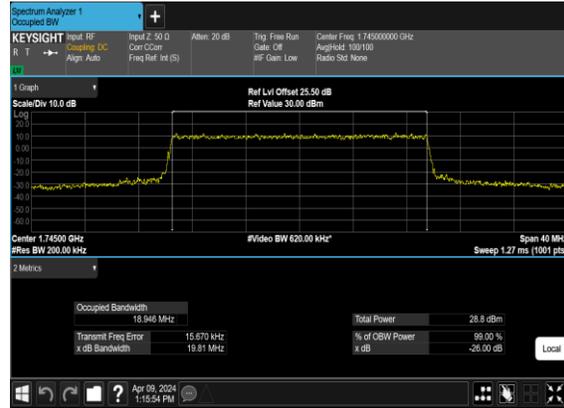
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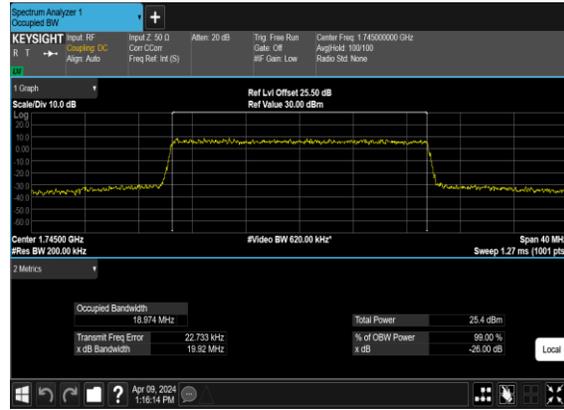
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B2_N66(25M)_CP-OFDM_16 QAM_Outer_Full_Mid_CH
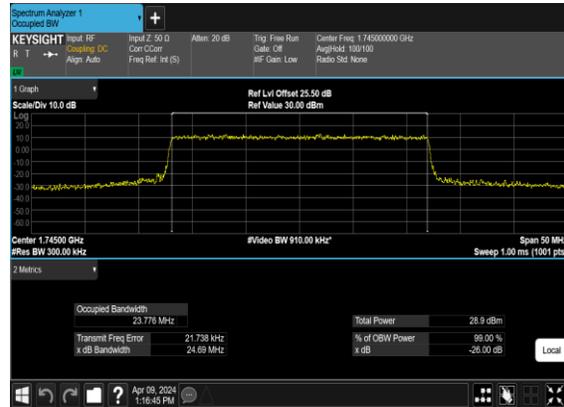
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B2_N66(25M)_CP-OFDM_256 QAM_Outer_Full_Mid_CH

B2_N66(30M)_CP-OFDM_QPSK_Outer_Full_Mid_CH

B2_N66(30M)_CP-OFDM_16 QAM_Outer_Full_Mid_CH

B2_N66(30M)_CP-OFDM_64 QAM_Outer_Full_Mid_CH
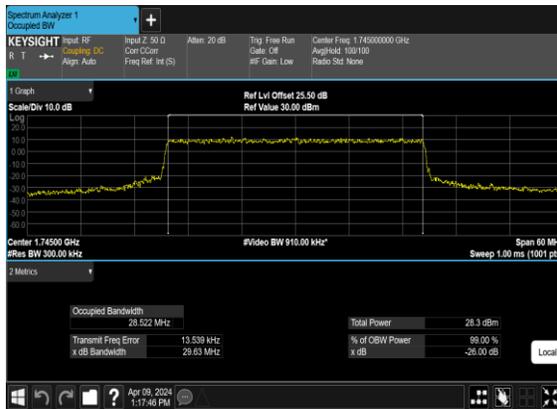
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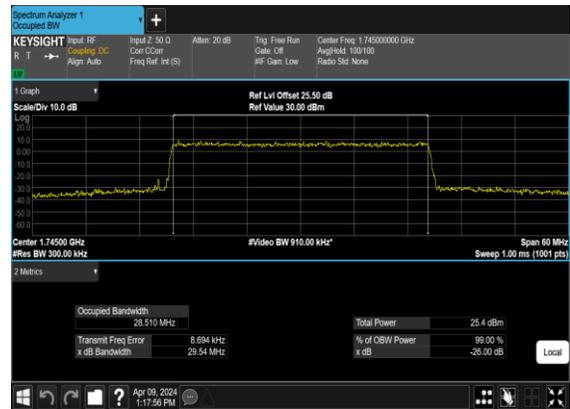
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B2_N66(40M)_CP-OFDM_16 QAM_Outer_Full_Mid_CH

B2_N66(40M)_CP-OFDM_64 QAM_Outer_Full_Mid_CH

B2_N66(40M)_CP-OFDM_256 QAM_Outer_Full_Mid_CH

B2_N66(35M)_CP-OFDM_QPSK_Outer_Full_Mid_CH
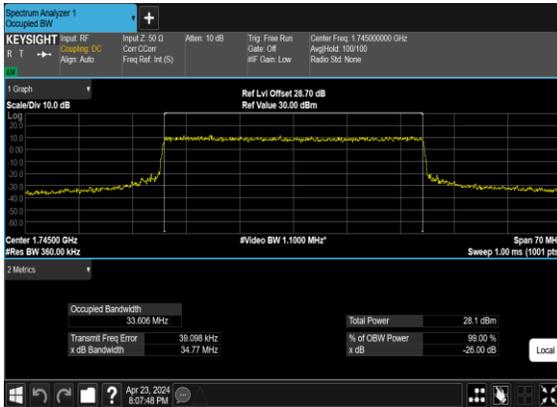
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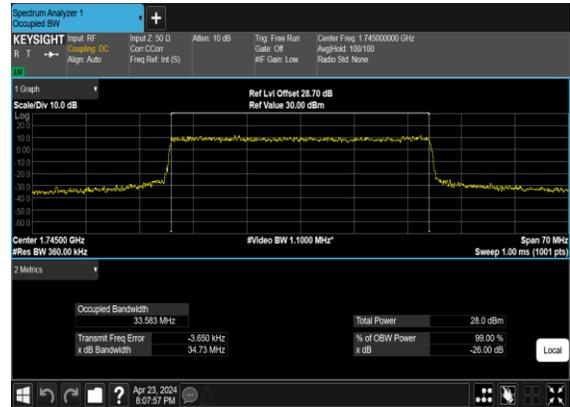
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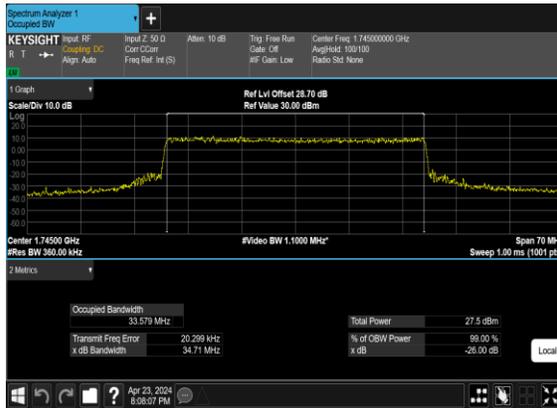
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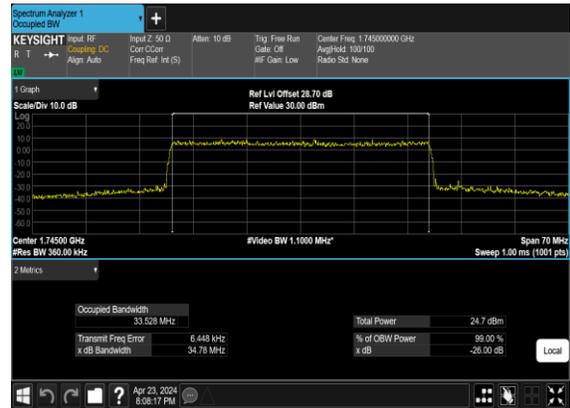
Conducted Spurious Emissions

NR Band	SCS (kHz)	Bandwidth (MHz)	Arfcn	Freq (MHz)	Modulation	RB	Result	Verdict
66	15	5	342500	1712.5	DFT-s-OFDM BPSK	1@0	see graph	---
66	15	5	342500	1712.5	DFT-s-OFDM BPSK	1@0	see graph	**PASS**
66	15	5	342500	1712.5	DFT-s-OFDM QPSK	1@0	see graph	---
66	15	5	342500	1712.5	DFT-s-OFDM QPSK	1@0	see graph	**PASS**
66	15	5	349000	1745.0	DFT-s-OFDM BPSK	1@0	see graph	---
66	15	5	349000	1745.0	DFT-s-OFDM BPSK	1@0	see graph	**PASS**
66	15	5	349000	1745.0	DFT-s-OFDM QPSK	1@0	see graph	---
66	15	5	349000	1745.0	DFT-s-OFDM QPSK	1@0	see graph	**PASS**
66	15	5	355500	1777.5	DFT-s-OFDM BPSK	1@0	see graph	---
66	15	5	355500	1777.5	DFT-s-OFDM BPSK	1@0	see graph	**PASS**
66	15	5	355500	1777.5	DFT-s-OFDM QPSK	1@0	see graph	---
66	15	5	355500	1777.5	DFT-s-OFDM QPSK	1@0	see graph	**PASS**
66	15	20	344000	1720.0	DFT-s-OFDM BPSK	1@0	see graph	---
66	15	20	344000	1720.0	DFT-s-OFDM BPSK	1@0	see graph	**PASS**
66	15	20	344000	1720.0	DFT-s-OFDM QPSK	1@0	see graph	---
66	15	20	344000	1720.0	DFT-s-OFDM QPSK	1@0	see graph	**PASS**
66	15	20	349000	1745.0	DFT-s-OFDM BPSK	1@0	see graph	---
66	15	20	349000	1745.0	DFT-s-OFDM BPSK	1@0	see graph	**PASS**
66	15	20	349000	1745.0	DFT-s-OFDM QPSK	1@0	see graph	---
66	15	20	349000	1745.0	DFT-s-OFDM QPSK	1@0	see graph	**PASS**
66	15	20	354000	1770.0	DFT-s-OFDM BPSK	1@0	see graph	---
66	15	20	354000	1770.0	DFT-s-OFDM BPSK	1@0	see graph	**PASS**
66	15	20	354000	1770.0	DFT-s-OFDM QPSK	1@0	see graph	---

66	15	20	354000	1770.0	DFT-s-OFDM QPSK	1@0	see graph	**PASS**
66	15	40	346000	1730.0	DFT-s-OFDM BPSK	1@0	see graph	**---**
66	15	40	346000	1730.0	DFT-s-OFDM BPSK	1@0	see graph	**PASS**
66	15	40	346000	1730.0	DFT-s-OFDM QPSK	1@0	see graph	**---**
66	15	40	346000	1730.0	DFT-s-OFDM QPSK	1@0	see graph	**PASS**
66	15	40	349000	1745.0	DFT-s-OFDM BPSK	1@0	see graph	**---**
66	15	40	349000	1745.0	DFT-s-OFDM BPSK	1@0	see graph	**PASS**
66	15	40	349000	1745.0	DFT-s-OFDM QPSK	1@0	see graph	**---**
66	15	40	349000	1745.0	DFT-s-OFDM QPSK	1@0	see graph	**PASS**
66	15	40	352000	1760.0	DFT-s-OFDM BPSK	1@0	see graph	**---**
66	15	40	352000	1760.0	DFT-s-OFDM BPSK	1@0	see graph	**PASS**
66	15	40	352000	1760.0	DFT-s-OFDM QPSK	1@0	see graph	**---**
66	15	40	352000	1760.0	DFT-s-OFDM QPSK	1@0	see graph	**PASS**

B2_N66(5M)_DFT-s-OFDM_BPSK_Edge_1RB_Left_Low_CH

B2_N66(5M)_DFT-s-OFDM_QPSK_Edge_1RB_Left_Low_CH
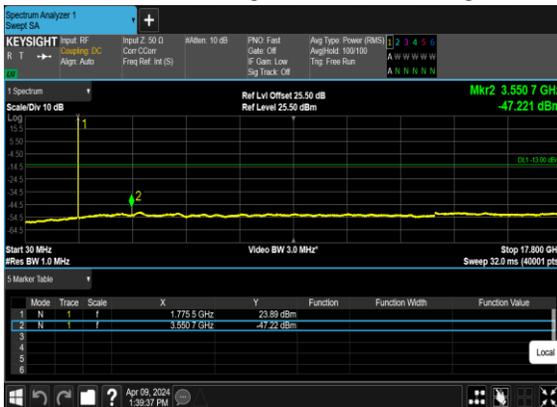

B2_N66(5M)_DFT-s-OFDM_BPSK_Edge_1RB_Left_Mid_CH
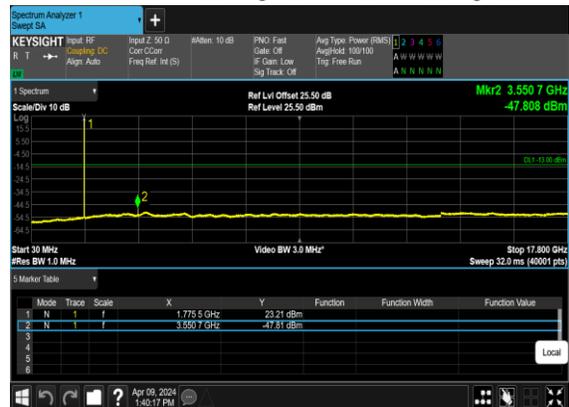

B2_N66(5M)_DFT-s-OFDM_QPSK_Edge_1RB_Left_Mid_CH

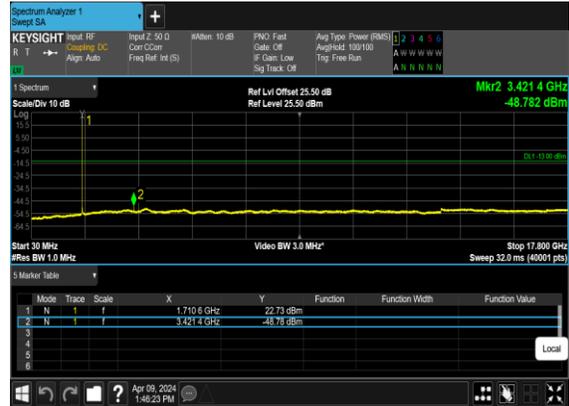## B2_N66(5M)_DFT-s-OFDM_BPSK_Edge_1RB_Left_High_CH

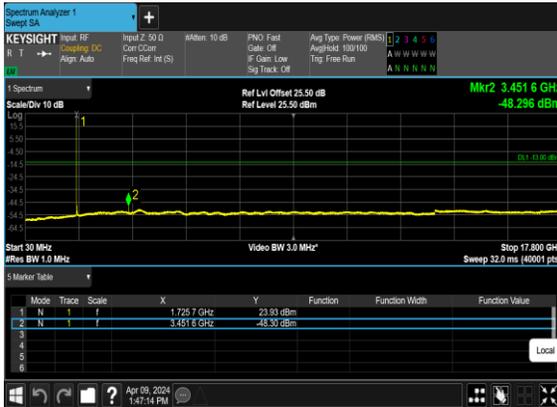## B2_N66(5M)_DFT-s-OFDM_QPSK_Edge_1RB_Left_High_CH
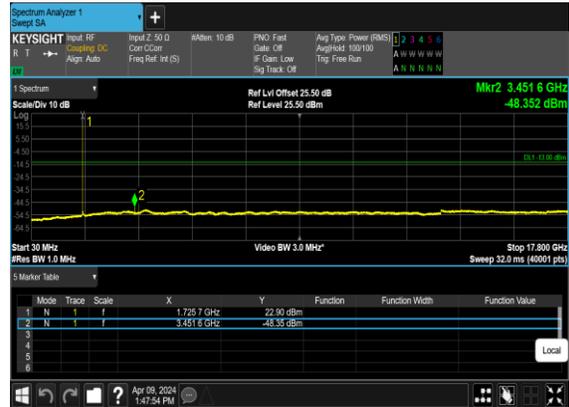
B2_N66(20M)_DFT-s-OFDM_BPSK_Edge_1RB_Left_Low_CH

B2_N66(20M)_DFT-s-OFDM_QPSK_Edge_1RB_Left_Low_CH

B2_N66(20M)_DFT-s-OFDM_BPSK_Edge_1RB_Left_Mid_CH

B2_N66(20M)_DFT-s-OFDM_QPSK_Edge_1RB_Left_Mid_CH

B2_N66(20M)_DFT-s-OFDM_BPSK_Edge_1RB_Left_High_CH

B2_N66(20M)_DFT-s-OFDM_QPSK_Edge_1RB_Left_High_CH

B2_N66(40M)_DFT-s-OFDM_BPSK_Edge_1RB_Left_Low_CH

B2_N66(40M)_DFT-s-OFDM_QPSK_Edge_1RB_Left_Low_CH
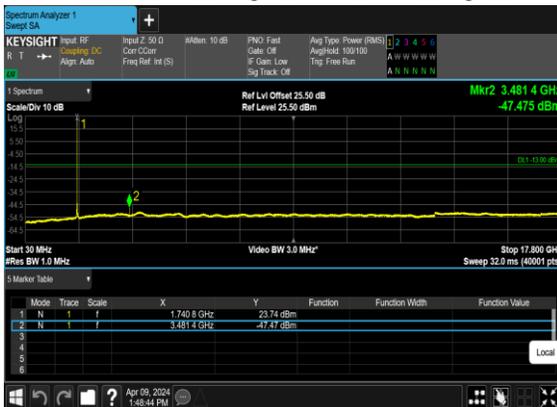

B2_N66(40M)_DFT-s-OFDM_BPSK_Edge_1RB_Left_Mid_CH
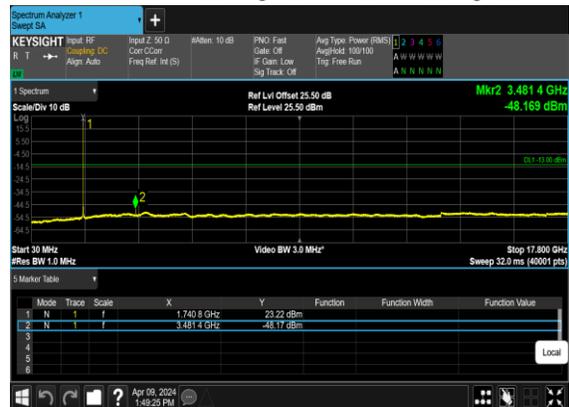

B2_N66(40M)_DFT-s-OFDM_QPSK_Edge_1RB_Left_Mid_CH

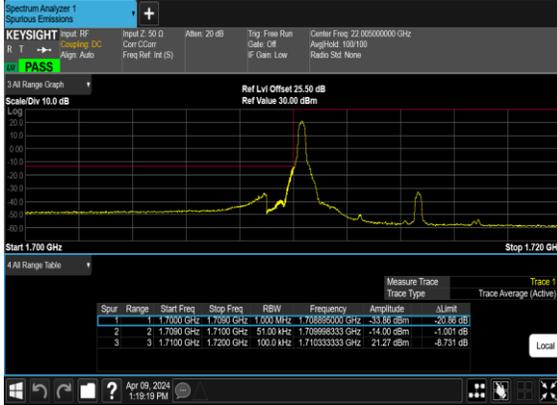## B2_N66(40M)_DFT-s-OFDM_BPSK_Edge_1RB_Left_High_CH

B2_N66(40M)_DFT-s-OFDM_QPSK_Edge_1RB_Left_High_CH

Conducted Band Edge

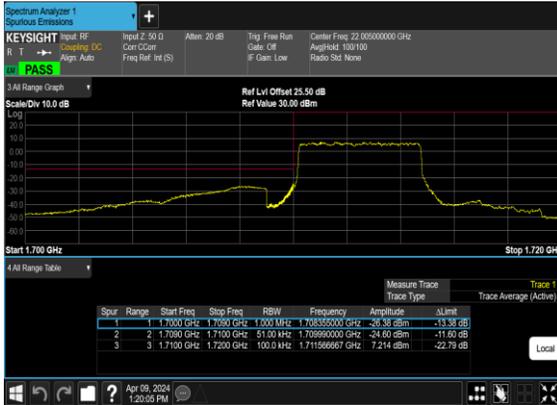| NR Band	SCS (kHz)	Bandwidth (MHz)	Arfcn	Freq (MHz)	Modulation	RB	Result	Verdict
66	15	5	342500	1712.5	DFT-s-OFDM BPSK	1@0	see graph	**PASS**
66	15	5	342500	1712.5	DFT-s-OFDM QPSK	1@0	see graph	**PASS**
66	15	5	342500	1712.5	DFT-s-OFDM BPSK	25@0	see graph	**PASS**
66	15	5	342500	1712.5	DFT-s-OFDM QPSK	25@0	see graph	**PASS**
66	15	5	355500	1777.5	DFT-s-OFDM BPSK	1@24	see graph	**PASS**
66	15	5	355500	1777.5	DFT-s-OFDM QPSK	1@24	see graph	**PASS**
66	15	5	355500	1777.5	DFT-s-OFDM BPSK	25@0	see graph	**PASS**
66	15	5	355500	1777.5	DFT-s-OFDM QPSK	25@0	see graph	**PASS**
66	15	20	344000	1720.0	DFT-s-OFDM BPSK	1@0	see graph	**PASS**
66	15	20	344000	1720.0	DFT-s-OFDM QPSK	1@0	see graph	**PASS**
66	15	20	344000	1720.0	DFT-s-OFDM BPSK	100@0	see graph	**PASS**
66	15	20	344000	1720.0	DFT-s-OFDM QPSK	100@0	see graph	**PASS**
66	15	20	354000	1770.0	DFT-s-OFDM BPSK	1@105	see graph	**PASS**
66	15	20	354000	1770.0	DFT-s-OFDM QPSK	1@105	see graph	**PASS**
66	15	20	354000	1770.0	DFT-s-OFDM BPSK	100@0	see graph	**PASS**
66	15	20	354000	1770.0	DFT-s-OFDM QPSK	100@0	see graph	**PASS**
66	15	40	346000	1730.0	DFT-s-OFDM BPSK	1@0	see graph	**PASS**
66	15	40	346000	1730.0	DFT-s-OFDM QPSK	1@0	see graph	**PASS**
66	15	40	346000	1730.0	DFT-s-OFDM BPSK	216@0	see graph	**PASS**
66	15	40	346000	1730.0	DFT-s-OFDM QPSK	216@0	see graph	**PASS**
66	15	40	352000	1760.0	DFT-s-OFDM BPSK	1@215	see graph	**PASS**
66	15	40	352000	1760.0	DFT-s-OFDM QPSK	1@215	see graph	**PASS**
66	15	40	352000	1760.0	DFT-s-OFDM BPSK	216@0	see graph	**PASS**
66	15	40	352000	1760.0	DFT-s-OFDM QPSK	216@0	see graph	**PASS**

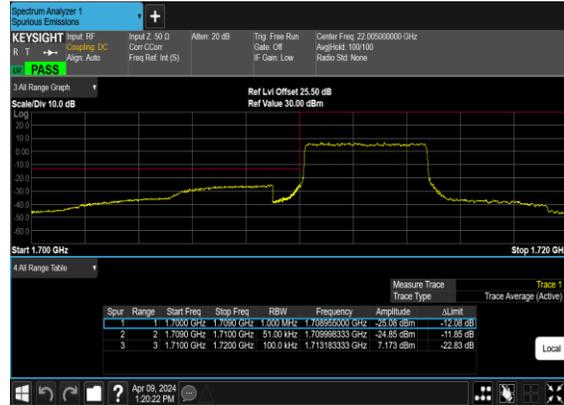## B2_N66(5M)_DFT-s-OFDM_BPSK_Edge_1RB_Left_Low_CH

B2_N66(5M)_DFT-s-OFDM_QPSK_Edge_1RB_Left_Low_CH

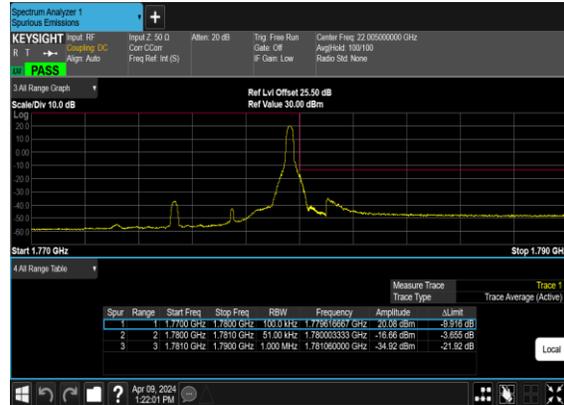## B2_N66(5M)_DFT-s-OFDM_BPSK_Outer_Full_Low_CH

B2_N66(5M)_DFT-s-OFDM_QPSK_Outer_Full_Low_CH

B2_N66(5M)_DFT-s-OFDM_BPSK_Edge_1RB_Right_High_CH

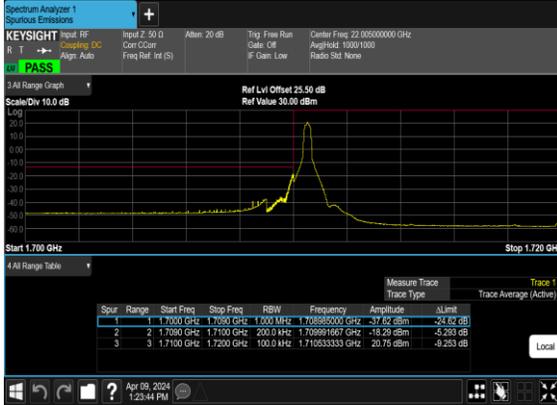## B2_N66(5M)_DFT-s-OFDM_QPSK_Edge_1RB_Right_High_CH

B2_N66(5M)_DFT-s-OFDM_BPSK_Outer_Full_High_CH

Spectrum Analyzer 1 — Spurious Emissions
KEYSIGHT
PASS
Ref Lvl Offset 25.50 dB
Ref Value 30.00 dBm
Scale/Div 10.0 dB
Start 1.770 GHz Stop 1.790 GHz

Spur	Range	Start Freq	Stop Freq	RBW	Frequency	Amplitude	ΔLimit
1	1	1.7700 GHz	1.7800 GHz	100.0 kHz	1.776116667 GHz	7.427 dBm	-22.57 dB
2	2	1.7800 GHz	1.7810 GHz	51.00 kHz	1.780000000 GHz	-22.56 dBm	-9.562 dB
3	3	1.7810 GHz	1.7900 GHz	1.000 MHz	1.781000000 GHz	-30.12 dB	-17.12 dB

B2_N66(5M)_DFT-s-OFDM_QPSK_Outer_Full_High_CH

Spectrum Analyzer 1 — Spurious Emissions
KEYSIGHT
PASS
Ref Lvl Offset 25.50 dB
Ref Value 30.00 dBm
Scale/Div 10.0 dB
Start 1.770 GHz Stop 1.790 GHz

Spur	Range	Start Freq	Stop Freq	RBW	Frequency	Amplitude	ΔLimit
1	1	1.7700 GHz	1.7800 GHz	100.0 kHz	1.776666667 GHz	6.986 dBm	-23.01 dB
2	2	1.7800 GHz	1.7810 GHz	51.00 kHz	1.780001667 GHz	-25.23 dBm	-12.23 dB
3	3	1.7810 GHz	1.7900 GHz	1.000 MHz	1.781000000 GHz	-28.46 dB	-15.45 dB

B2_N66(20M)_DFT-s-OFDM_BPSK_Edge_1RB_Left_Low_CH

Spectrum Analyzer 1 — Spurious Emissions
KEYSIGHT
PASS
Ref Lvl Offset 25.50 dB
Ref Value 30.00 dBm
Scale/Div 10.0 dB
Start 1.700 GHz Stop 1.720 GHz

Spur	Range	Start Freq	Stop Freq	RBW	Frequency	Amplitude	ΔLimit
1	1	1.7000 GHz	1.7090 GHz	1.000 MHz	1.708985000 GHz	-37.62 dBm	-24.82 dB
2	2	1.7090 GHz	1.7100 GHz	200.0 kHz	1.709991667 GHz	-18.29 dBm	-5.293 dB
3	3	1.7100 GHz	1.7200 GHz	100.0 kHz	1.710533333 GHz	20.75 dBm	-0.253 dB

B2_N66(20M)_DFT-s-OFDM_QPSK_Edge_1RB_Left_Low_CH

Spectrum Analyzer 1 — Spurious Emissions
KEYSIGHT
PASS
Ref Lvl Offset 25.50 dB
Ref Value 30.00 dBm
Scale/Div 10.0 dB
Start 1.700 GHz Stop 1.720 GHz

Spur	Range	Start Freq	Stop Freq	RBW	Frequency	Amplitude	ΔLimit
1	1	1.7000 GHz	1.7090 GHz	1.000 MHz	1.708940000 GHz	-35.48 dBm	-22.48 dB
2	2	1.7090 GHz	1.7100 GHz	200.0 kHz	1.709981667 GHz	-17.19 dBm	-4.195 dB
3	3	1.7100 GHz	1.7200 GHz	100.0 kHz	1.710500000 GHz	20.21 dBm	-9.788 dB

B2_N66(20M)_DFT-s-OFDM_BPSK_Outer_Full_Low_CH

Spectrum Analyzer 1 — Spurious Emissions
KEYSIGHT
PASS
Ref Lvl Offset 25.50 dB
Ref Value 30.00 dBm
Scale/Div 10.0 dB
Start 1.700 GHz Stop 1.720 GHz

Spur	Range	Start Freq	Stop Freq	RBW	Frequency	Amplitude	ΔLimit
1	1	1.7000 GHz	1.7090 GHz	1.000 MHz	1.708835000 GHz	-30.28 dBm	-17.28 dB
2	2	1.7090 GHz	1.7100 GHz	200.0 kHz	1.709975000 GHz	-27.79 dBm	-14.79 dB
3	3	1.7100 GHz	1.7200 GHz	100.0 kHz	1.714233333 GHz	1.542 dBm	-28.46 dB

B2_N66(20M)_DFT-s-OFDM_QPSK_Outer_Full_Low_CH

Spectrum Analyzer 1 — Spurious Emissions
KEYSIGHT
PASS
Ref Lvl Offset 25.50 dB
Ref Value 30.00 dBm
Scale/Div 10.0 dB
Start 1.700 GHz Stop 1.720 GHz

Spur	Range	Start Freq	Stop Freq	RBW	Frequency	Amplitude	ΔLimit
1	1	1.7000 GHz	1.7090 GHz	1.000 MHz	1.708700000 GHz	-28.99 dBm	-15.99 dB
2	2	1.7090 GHz	1.7100 GHz	200.0 kHz	1.709981667 GHz	-30.02 dBm	-17.02 dB
3	3	1.7100 GHz	1.7200 GHz	100.0 kHz	1.719600000 GHz	0.890 dBm	-29.11 dB

B2_N66(20M)_DFT-s-OFDM_BPSK_Edge_1RB_Right_High_CH

B2_N66(20M)_DFT-s-OFDM_QPSK_Edge_1RB_Right_High_CH

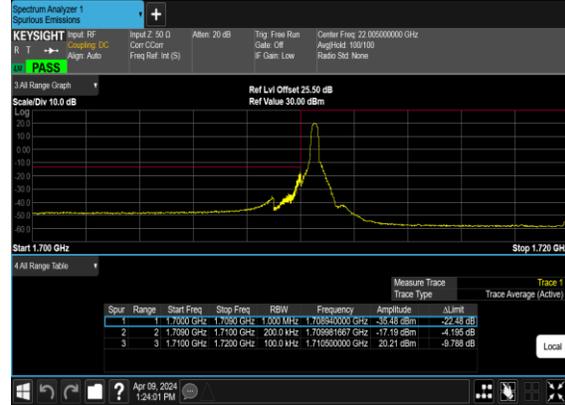## B2_N66(20M)_DFT-s-OFDM_BPSK_Outer_Full_High_CH

B2_N66(20M)_DFT-s-OFDM_QPSK_Outer_Full_High_CH

B2_N66(40M)_DFT-s-OFDM_BPSK_Edge_1RB_Left_Low_CH
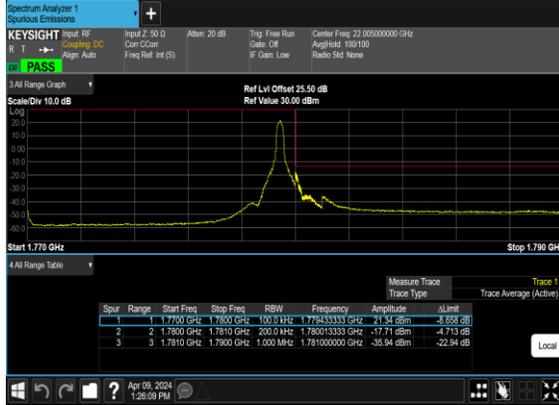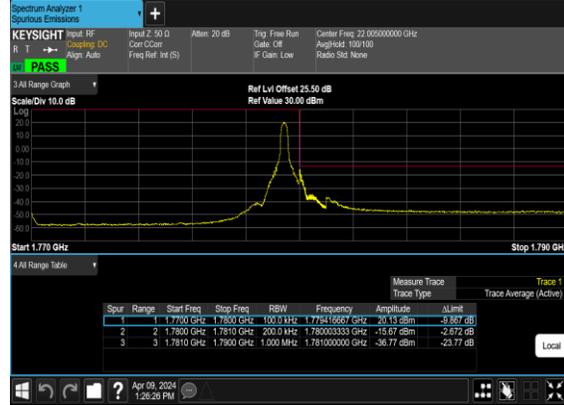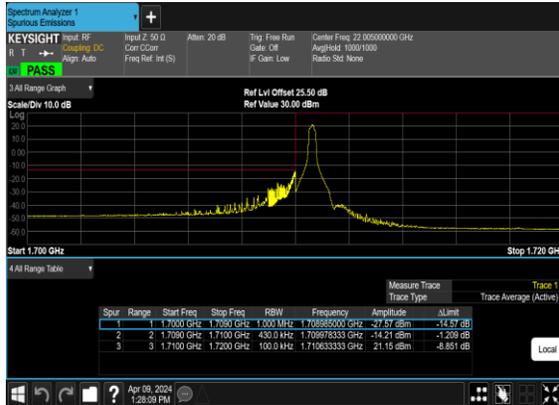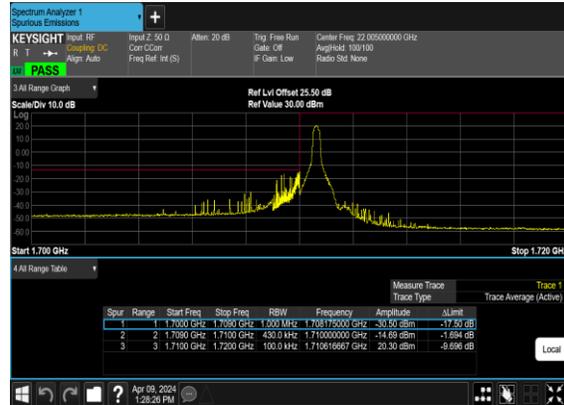

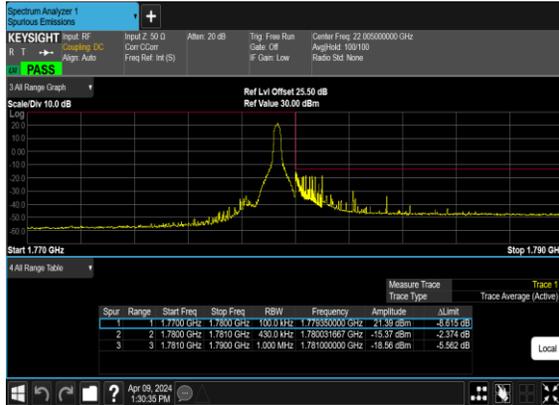## B2_N66(40M)_DFT-s-OFDM_QPSK_Edge_1RB_Left_Low_CH
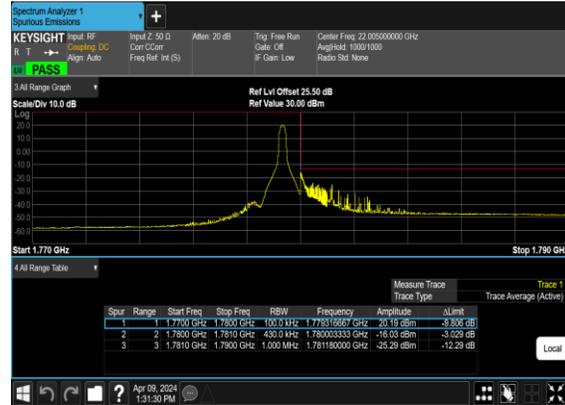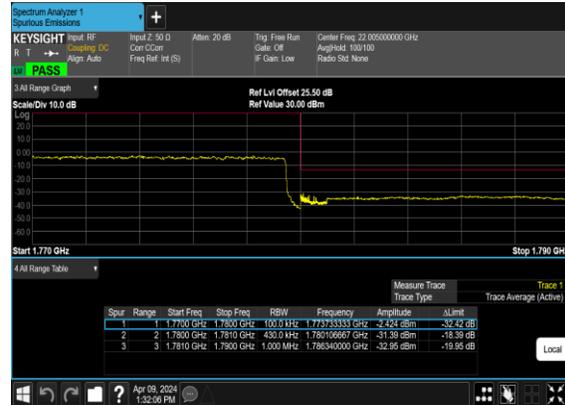
B2_N66(40M)_DFT-s-OFDM_BPSK_Outer_Full_Low_CH

Spur	Range	Start Freq	Stop Freq	RBW	Frequency	Amplitude	ΔLimit
1	1	1.7000 GHz	1.7090 GHz	1.000 kHz	1.708790000 GHz	-30.40 dBm	-17.40 dB
2	2	1.7090 GHz	1.7100 GHz	430.0 kHz	1.709826667 GHz	-29.10 dBm	-16.10 dB
3	3	1.7100 GHz	1.7200 GHz	100.0 kHz	1.714183333 GHz	-1.508 dB	-31.51 dB

B2_N66(40M)_DFT-s-OFDM_QPSK_Outer_Full_Low_CH

Spur	Range	Start Freq	Stop Freq	RBW	Frequency	Amplitude	ΔLimit
1	1	1.7000 GHz	1.7090 GHz	1.000 kHz	1.708475000 GHz	-32.34 dBm	-19.34 dB
2	2	1.7090 GHz	1.7100 GHz	430.0 kHz	1.709978333 GHz	-29.22 dBm	-16.22 dB
3	3	1.7100 GHz	1.7200 GHz	100.0 kHz	1.716200000 GHz	-2.489 dB	-32.49 dB

B2_N66(40M)_DFT-s-OFDM_BPSK_Edge_1RB_Right_High_CH

Spur	Range	Start Freq	Stop Freq	RBW	Frequency	Amplitude	ΔLimit
1	1	1.7700 GHz	1.7800 GHz	100.0 kHz	1.778350000 GHz	21.39 dBm	-8.615 dB
2	2	1.7800 GHz	1.7810 GHz	430.0 kHz	1.780031667 GHz	-15.37 dBm	-2.374 dB
3	3	1.7810 GHz	1.7900 GHz	1.000 MHz	1.781000000 GHz	-18.56 dBm	-5.562 dB

B2_N66(40M)_DFT-s-OFDM_QPSK_Edge_1RB_Right_High_CH

Spur	Range	Start Freq	Stop Freq	RBW	Frequency	Amplitude	ΔLimit
1	1	1.7700 GHz	1.7800 GHz	100.0 kHz	1.779316667 GHz	20.19 dBm	-9.806 dB
2	2	1.7800 GHz	1.7810 GHz	430.0 kHz	1.780003333 GHz	-16.03 dBm	-3.029 dB
3	3	1.7810 GHz	1.7900 GHz	1.000 MHz	1.781180000 GHz	-25.29 dBm	-12.29 dB

B2_N66(40M)_DFT-s-OFDM_BPSK_Outer_Full_High_CH

Spur	Range	Start Freq	Stop Freq	RBW	Frequency	Amplitude	ΔLimit
1	1	1.7700 GHz	1.7800 GHz	100.0 kHz	1.777105000 GHz	-1.765 dBm	-31.76 dB
2	2	1.7800 GHz	1.7810 GHz	430.0 kHz	1.780015000 GHz	-28.55 dBm	-15.55 dB
3	3	1.7810 GHz	1.7900 GHz	1.000 MHz	1.781330000 GHz	-31.08 dBm	-18.08 dB

B2_N66(40M)_DFT-s-OFDM_QPSK_Outer_Full_High_CH

Spur	Range	Start Freq	Stop Freq	RBW	Frequency	Amplitude	ΔLimit
1	1	1.7700 GHz	1.7800 GHz	100.0 kHz	1.777833333 GHz	-2.424 dBm	-32.42 dB
2	2	1.7800 GHz	1.7810 GHz	430.0 kHz	1.780106667 GHz	-31.39 dBm	-18.39 dB
3	3	1.7810 GHz	1.7900 GHz	1.000 MHz	1.786340000 GHz	-32.95 dBm	-19.95 dB

FR1 N66(Ant.0) - Other PA

LTE Band: 7(Ant.5), LTE BW: 10M, LTE ARFCN: Mid

Frequency Stability

NR Band	SCS (kHz)	Bandwidth (MHz)	Arfcn	Freq (MHz)	Modulation	RB	Deviation (ppm)	Verdict	Environment
66	15	20	349000	1745.0	DFT-s-OFDM QPSK	100@0	0.00123	PASS	NV
66	15	20	349000	1745.0	DFT-s-OFDM QPSK	100@0	0.00234	**PASS**	LV
66	15	20	349000	1745.0	DFT-s-OFDM QPSK	100@0	0.00462	**PASS**	HV
66	15	20	349000	1745.0	DFT-s-OFDM QPSK	100@0	0.00347	**PASS**	-30℃
66	15	20	349000	1745.0	DFT-s-OFDM QPSK	100@0	-0.00565	**PASS**	-20℃
66	15	20	349000	1745.0	DFT-s-OFDM QPSK	100@0	0.00145	**PASS**	-10℃
66	15	20	349000	1745.0	DFT-s-OFDM QPSK	100@0	0.00455	**PASS**	0℃
66	15	20	349000	1745.0	DFT-s-OFDM QPSK	100@0	-0.00466	**PASS**	10℃
66	15	20	349000	1745.0	DFT-s-OFDM QPSK	100@0	-0.00321	**PASS**	20℃
66	15	20	349000	1745.0	DFT-s-OFDM QPSK	100@0	0.00328	**PASS**	30℃
66	15	20	349000	1745.0	DFT-s-OFDM QPSK	100@0	0.00366	**PASS**	40℃
66	15	20	349000	1745.0	DFT-s-OFDM QPSK	100@0	0.00512	**PASS**	50℃

Peak to Average Ratio

NR Band	SCS (kHz)	Bandwidth (MHz)	Arfcn	Freq (MHz)	Modulation	RB	Result (dB)	Limit (dB)	Verdict
66	15	5	349000	1745.0	DFT-s-OFDM PI/2 BPSK	25@0	3.97	13	**PASS**
66	15	5	349000	1745.0	DFT-s-OFDM PI/2 BPSK	1@0	3.94	13	**PASS**
66	15	5	349000	1745.0	DFT-s-OFDM QPSK	25@0	5.48	13	**PASS**
66	15	5	349000	1745.0	DFT-s-OFDM QPSK	1@0	5.14	13	**PASS**

B7_N66(5M)_DFT-s-OFDM_PI_2-BPSK_Outer_Full_Mid_CH

Spectrum Analyzer 1
Power Stat CCDF
KEYSIGHT Input: RF   Input Z: 50 Ω   Atten: 20 dB   Trig: Free Run   Center Freq: 1.745000000 GHz
R T   Coupling: DC   Corr CCorr   #IF Gain: Low   Counts: 1.00 M/1.00 Mpt
         Align: Auto   Freq Ref: Int (S)   Radio Std: None

1 Metrics   2 Graph
                                   Gaussian
Average Power
            24.29 dBm
            50.05 % at 0 dB

10.0 %   1.90 dB
1.0 %   3.33 dB
0.1 %   3.97 dB
0.01 %   4.12 dB
0.001 %   4.18 dB
0.0001 %   4.21 dB

Peak   4.23 dB
            28.52 dBm

0.00 dB
Info BW 5.0000 MHz   Local

Apr 09, 2024
2:08:48 PM

B7_N66(5M)_DFT-s-OFDM_PI_2-BPSK_Edge_1RB_Left_Mid_CH

Spectrum Analyzer 1
Power Stat CCDF
KEYSIGHT Input: RF   Input Z: 50 Ω   Atten: 20 dB   Trig: Free Run   Center Freq: 1.745000000 GHz
R T   Coupling: DC   Corr CCorr   #IF Gain: Low   Counts: 1.00 M/1.00 Mpt
         Align: Auto   Freq Ref: Int (S)   Radio Std: None

1 Metrics   2 Graph
                                   Gaussian
Average Power
            24.27 dBm
            51.49 % at 0 dB

10.0 %   2.29 dB
1.0 %   3.27 dB
0.1 %   3.94 dB
0.01 %   4.05 dB
0.001 %   4.07 dB
0.0001 %   4.07 dB

Peak   4.07 dB
            28.34 dBm

0.00 dB
Info BW 5.0000 MHz   Local

Apr 09, 2024
2:09:14 PM

B7_N66(5M)_DFT-s-OFDM_QPSK_Outer_Full_Mid_CH

Spectrum Analyzer 1
Power Stat CCDF
KEYSIGHT Input: RF   Input Z: 50 Ω   Atten: 20 dB   Trig: Free Run   Center Freq: 1.745000000 GHz
R T   Coupling: DC   Corr CCorr   #IF Gain: Low   Counts: 1.00 M/1.00 Mpt
         Align: Auto   Freq Ref: Int (S)   Radio Std: None

1 Metrics   2 Graph
                                   Gaussian
Average Power
            23.82 dBm
            47.92 % at 0 dB

10.0 %   2.32 dB
1.0 %   4.35 dB
0.1 %   5.48 dB
0.01 %   5.78 dB
0.001 %   5.88 dB
0.0001 %   5.94 dB

Peak   5.96 dB
            29.78 dBm

0.00 dB
Info BW 5.0000 MHz   Local

Apr 09, 2024
2:09:40 PM

B7_N66(5M)_DFT-s-OFDM_QPSK_Edge_1RB_Left_Mid_CH

Spectrum Analyzer 1
Power Stat CCDF
KEYSIGHT Input: RF   Input Z: 50 Ω   Atten: 20 dB   Trig: Free Run   Center Freq: 1.745000000 GHz
R T   Coupling: DC   Corr CCorr   #IF Gain: Low   Counts: 1.00 M/1.00 Mpt
         Align: Auto   Freq Ref: Int (S)   Radio Std: None

1 Metrics   2 Graph
                                   Gaussian
Average Power
            23.82 dBm
            47.99 % at 0 dB

10.0 %   2.40 dB
1.0 %   4.38 dB
0.1 %   5.14 dB
0.01 %   5.28 dB
0.001 %   5.30 dB
0.0001 %   5.30 dB

Peak   5.30 dB
            29.12 dBm

0.00 dB
Info BW 5.0000 MHz   Local

Apr 09, 2024
2:10:05 PM

Occupied Bandwidth

NR Band	SCS (kHz)	Bandwidth (MHz)	Arfcn	Freq (MHz)	Modulation	RB	OBW (MHz)	26dB BW (MHz)
66	15	5	349000	1745.0	CP-OFDM QPSK	25@0	4.4786	5.107
66	15	5	349000	1745.0	CP-OFDM 16 QAM	25@0	4.4701	5.065
66	15	5	349000	1745.0	CP-OFDM 64 QAM	25@0	4.4845	5.105
66	15	5	349000	1745.0	CP-OFDM 256 QAM	25@0	4.477	5.068
66	15	10	349000	1745.0	CP-OFDM QPSK	52@0	9.2644	10.04
66	15	10	349000	1745.0	CP-OFDM 16 QAM	52@0	9.2595	9.936
66	15	10	349000	1745.0	CP-OFDM 64 QAM	52@0	9.2555	9.959
66	15	10	349000	1745.0	CP-OFDM 256 QAM	52@0	9.2685	9.976
66	15	15	349000	1745.0	CP-OFDM QPSK	79@0	14.091	14.84
66	15	15	349000	1745.0	CP-OFDM 16 QAM	79@0	14.066	15.02
66	15	15	349000	1745.0	CP-OFDM 64 QAM	79@0	14.103	14.8
66	15	15	349000	1745.0	CP-OFDM 256 QAM	79@0	14.111	14.95
66	15	20	349000	1745.0	CP-OFDM QPSK	106@0	18.928	19.92
66	15	20	349000	1745.0	CP-OFDM 16 QAM	106@0	18.946	19.85
66	15	20	349000	1745.0	CP-OFDM 64 QAM	106@0	18.93	19.82
66	15	20	349000	1745.0	CP-OFDM 256 QAM	106@0	18.941	19.96
66	15	25	349000	1745.0	CP-OFDM QPSK	133@0	23.763	24.78
66	15	25	349000	1745.0	CP-OFDM 16 QAM	133@0	23.767	24.87
66	15	25	349000	1745.0	CP-OFDM 64 QAM	133@0	23.75	24.78
66	15	25	349000	1745.0	CP-OFDM 256 QAM	133@0	23.788	24.63
66	15	30	349000	1745.0	CP-OFDM QPSK	160@0	28.503	29.69
66	15	30	349000	1745.0	CP-OFDM 16 QAM	160@0	28.619	29.51
66	15	30	349000	1745.0	CP-OFDM 64 QAM	160@0	28.533	29.65
66	15	30	349000	1745.0	CP-OFDM 256 QAM	160@0	28.619	29.56
66	15	40	349000	1745.0	CP-OFDM QPSK	216@0	38.596	40.0
66	15	40	349000	1745.0	CP-OFDM 16 QAM	216@0	38.555	39.89

| 66	15	40	349000	1745.0	CP-OFDM 64 QAM	216@0	38.525	40.01
66	15	40	349000	1745.0	CP-OFDM 256 QAM	216@0	38.55	40.1
66	15	35	349000	1745.0	CP-OFDM QPSK	188@0	33.55	34.79
66	15	35	349000	1745.0	CP-OFDM 16 QAM	188@0	33.574	34.74
66	15	35	349000	1745.0	CP-OFDM 64 QAM	188@0	33.583	34.87
66	15	35	349000	1745.0	CP-OFDM 256 QAM	188@0	33.578	34.75

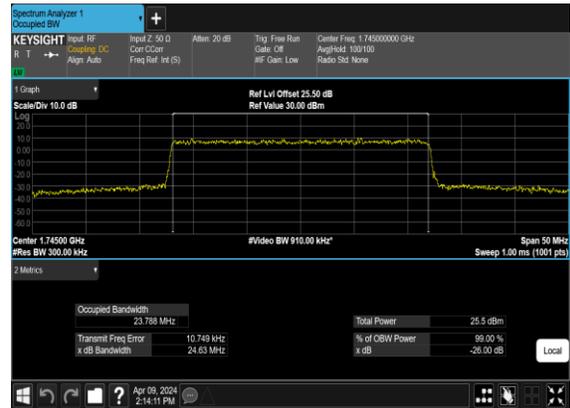## B7_N66(5M)_CP-OFDM_QPSK_Outer_Full_Mid_CH

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B7_N66(5M)_CP-OFDM_64 QAM_Outer_Full_Mid_CH

B7_N66(5M)_CP-OFDM_256 QAM_Outer_Full_Mid_CH

B7_N66(10M)_CP-OFDM_QPSK_Outer_Full_Mid_CH

B7_N66(10M)_CP-OFDM_16 QAM_Outer_Full_Mid_CH

B7_N66(10M)_CP-OFDM_64 QAM_Outer_Full_Mid_CH
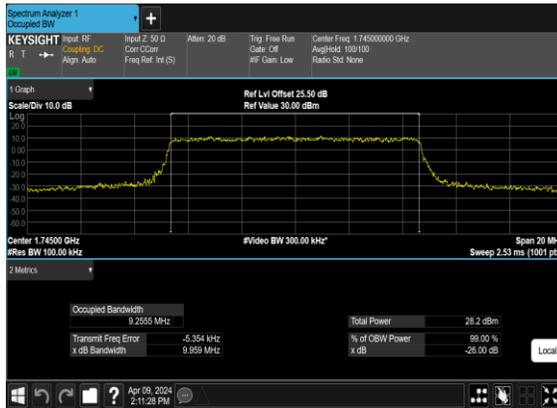
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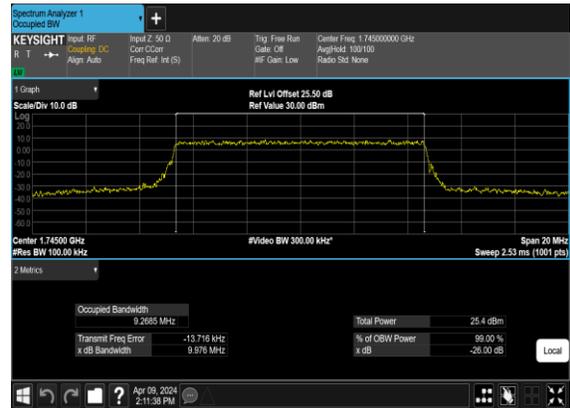
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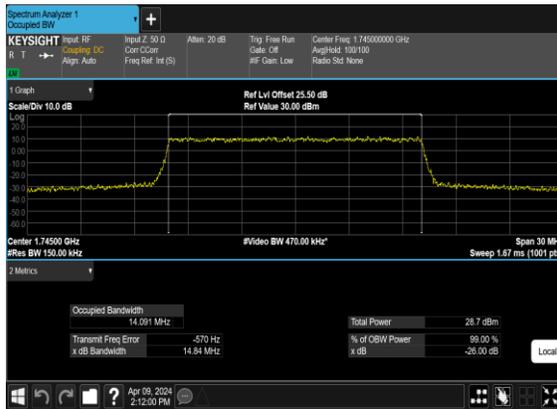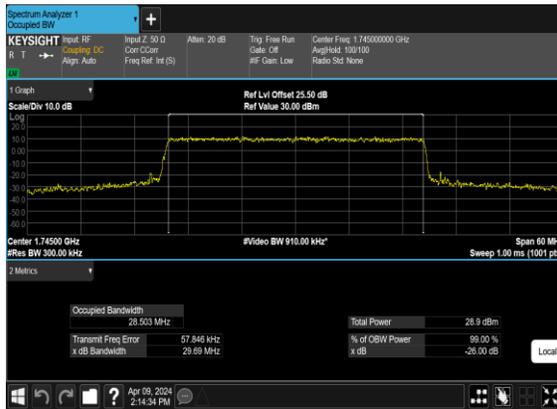

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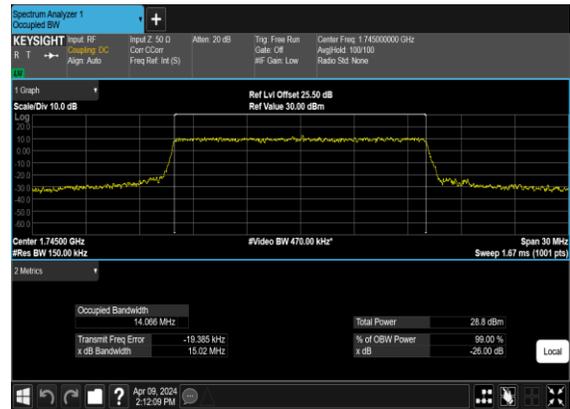
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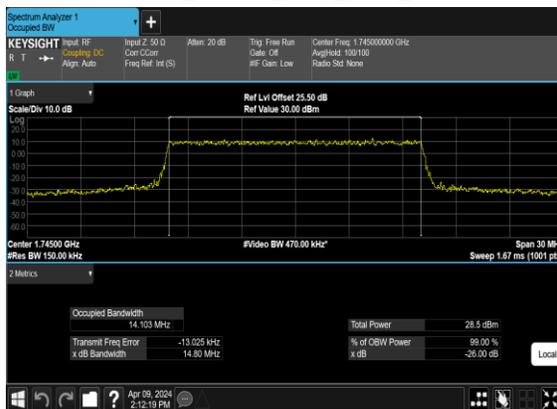
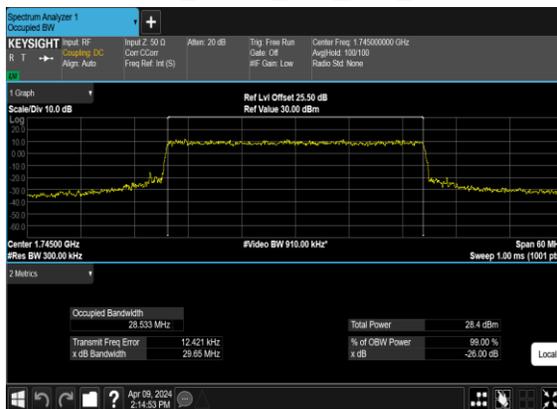## B7_N66(15M)_CP-OFDM_256 QAM_Outer_Full_Mid_CH
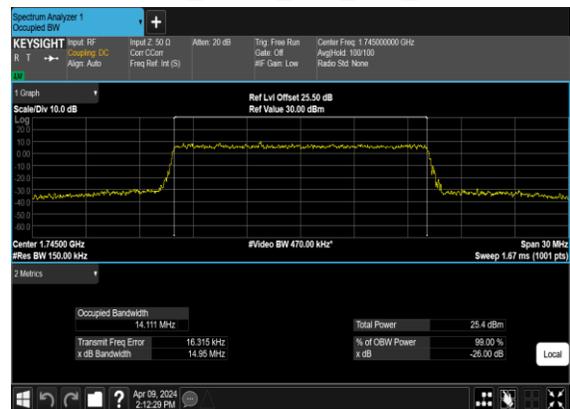
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B7_N66(20M)_CP-OFDM_16 QAM_Outer_Full_Mid_CH
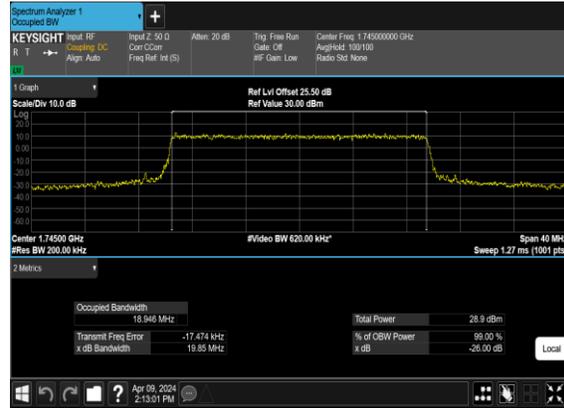
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B7_N66(20M)_CP-OFDM_256 QAM_Outer_Full_Mid_CH

B7_N66(25M)_CP-OFDM_QPSK_Outer_Full_Mid_CH

B7_N66(25M)_CP-OFDM_16 QAM_Outer_Full_Mid_CH
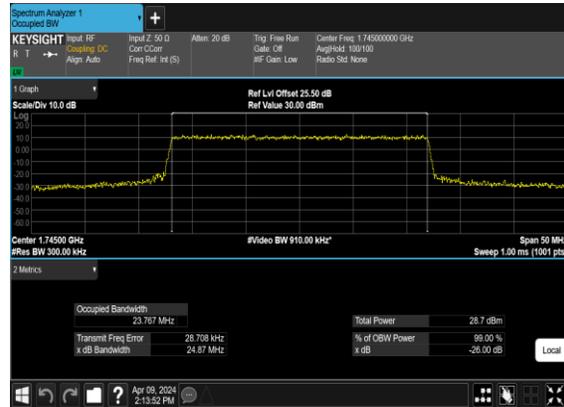
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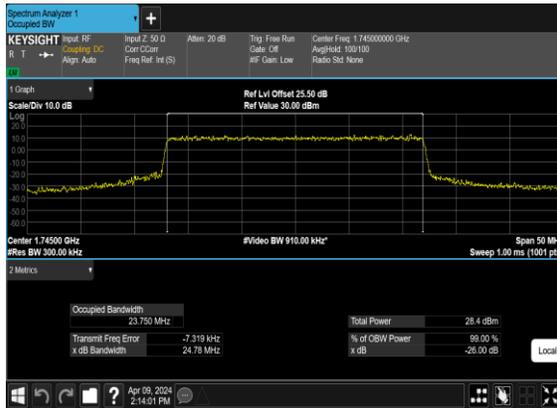
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B7_N66(30M)_CP-OFDM_QPSK_Outer_Full_Mid_CH

B7_N66(30M)_CP-OFDM_16 QAM_Outer_Full_Mid_CH

B7_N66(30M)_CP-OFDM_64 QAM_Outer_Full_Mid_CH

B7_N66(30M)_CP-OFDM_256 QAM_Outer_Full_Mid_CH