Element Materials Technology
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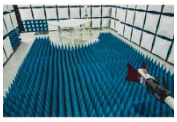

PART 27 MEASUREMENT REPORT

Applicant Name:
Apple Inc.
One Apple Park Way
Cupertino, CA 95014
United States

Date of Testing:
12/20/2023 - 3/20/2024
Test Report Issue Date:
4/2/2024
Test Site/Location:
Element Materials Technology, Morgan Hill, CA, USA
Test Report Serial No.:
1C2311270068-11.BCG

FCC ID:	**BCGA2837**
Applicant Name:	**Apple Inc.**

Application Type:	Certification
Model:	A2837, A3006
EUT Type:	Tablet Device
FCC Classification:	PCS Licensed Transmitter (PCB)
FCC Rule Part:	27
Test Procedure(s):	ANSI C63.26-2015, TIA-603-E-2016, KDB 971168 D01 v03r01

This equipment has been shown to be capable of compliance with the applicable technical standards as indicated in the measurement report and was tested in accordance with the measurement procedures specified in §2.947. Test results reported herein relate only to the item(s) tested.

I attest to the accuracy of data. All measurements reported herein were performed by me or were made under my supervision and are correct to the best of my knowledge and belief. I assume full responsibility for the completeness of these measurements and vouch for the qualifications of all persons taking them.

RJ Ortanez
Executive Vice President

Prepared by: WKR0000006193

Reviewed by: WKR0000005805

ACCREDITED
CERT #2041.02

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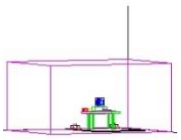
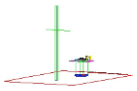


PART 27 MEASUREMENT REPORT



Mode	Bandwidth	Modulation	Tx Frequency Range [MHz]	OBW [MHz]	PAR at 0.1% [dB]	EIRP		Emission Designator
						Max. Power [W]	Max. Power [dBm]	
NR Band n77 (PC2) (3450 - 3550MHz)	10 MHz	π/2 BPSK	3455.0 - 3545.0	8.6023	4.15	0.451	26.54	8M60G7W
		QPSK	3455.0 - 3545.0	8.9539	5.71	0.456	26.59	8M95G7W
		16QAM	3455.0 - 3545.0	8.9590	6.38	0.364	25.61	8M96D7W
		64QAM	3455.0 - 3545.0	8.9789	6.55	0.267	24.26	8M98D7W
		256QAM	3455.0 - 3545.0	8.9336	6.88	0.159	22.00	8M93D7W
	15 MHz	π/2 BPSK	3457.5 - 3542.5	12.8811	4.10	0.467	26.70	12M9G7W
		QPSK	3457.5 - 3542.5	13.6435	5.48	0.468	26.70	13M6G7W
		16QAM	3457.5 - 3542.5	13.5775	6.26	0.385	25.85	13M6D7W
		64QAM	3457.5 - 3542.5	13.5869	6.53	0.271	24.33	13M6D7W
		256QAM	3457.5 - 3542.5	13.5907	6.59	0.170	22.29	13M6D7W
	20 MHz	π/2 BPSK	3460.0 - 3540.0	18.0138	4.02	0.468	26.70	18M0G7W
		QPSK	3460.0 - 3540.0	18.3494	5.44	0.465	26.68	18M3G7W
		16QAM	3460.0 - 3540.0	18.2531	7.40	0.385	25.85	18M3D7W
		64QAM	3460.0 - 3540.0	18.2956	6.58	0.272	24.34	18M3D7W
		256QAM	3460.0 - 3540.0	18.2643	6.70	0.167	22.22	18M3D7W
	30MHz	π/2 BPSK	3465.0 - 3535.0	26.8206	4.15	0.468	26.70	26M8G7W
		QPSK	3465.0 - 3535.0	27.8605	5.49	0.463	26.66	27M9G7W
		16QAM	3465.0 - 3535.0	27.9299	6.33	0.390	25.91	27M9D7W
		64QAM	3465.0 - 3535.0	27.9052	6.67	0.270	24.32	27M9D7W
		256QAM	3465.0 - 3535.0	27.9009	6.72	0.166	22.21	27M9D7W
	40 MHz	π/2 BPSK	3470.0 - 3530.0	35.8331	4.07	0.462	26.65	35M8G7W
		QPSK	3470.0 - 3530.0	37.9495	5.49	0.468	26.70	37M9G7W
		16QAM	3470.0 - 3530.0	37.9044	6.33	0.374	25.73	37M9D7W
		64QAM	3470.0 - 3530.0	37.9595	6.46	0.278	24.43	38M0D7W
		256QAM	3470.0 - 3530.0	37.9483	6.52	0.168	22.26	37M9D7W
	50 MHz	π/2 BPSK	3475.0 - 3525.0	45.6985	3.86	0.450	26.53	45M7G7W
		QPSK	3475.0 - 3525.0	47.5580	5.32	0.452	26.55	47M6G7W
		16QAM	3475.0 - 3525.0	47.4720	6.11	0.366	25.63	47M5D7W
		64QAM	3475.0 - 3525.0	47.5557	6.52	0.275	24.40	47M6D7W
		256QAM	3475.0 - 3525.0	47.5938	6.43	0.157	21.96	47M6D7W
	60 MHz	π/2 BPSK	3480.0 - 3520.0	57.9633	3.97	0.455	26.58	58M0G7W
		QPSK	3480.0 - 3520.0	57.9783	5.31	0.455	26.58	58M0G7W
		16QAM	3480.0 - 3520.0	57.9078	6.25	0.377	25.77	57M9D7W
		64QAM	3480.0 - 3520.0	57.9606	6.58	0.266	24.25	58M0D7W
		256QAM	3480.0 - 3520.0	57.8778	6.69	0.162	22.09	57M9D7W
	70 MHz	π/2 BPSK	3485.0 - 3515.0	64.4519	4.37	0.448	26.51	64M5G7W
		QPSK	3485.0 - 3515.0	67.6801	5.61	0.446	26.49	67M7G7W
		16QAM	3485.0 - 3515.0	67.7231	6.35	0.364	25.62	67M7D7W
		64QAM	3485.0 - 3515.0	67.7611	6.60	0.258	24.12	67M8D7W
		256QAM	3485.0 - 3515.0	67.6196	6.60	0.159	22.03	67M6D7W
	80 MHz	π/2 BPSK	3490.0 - 3510.0	77.3657	4.01	0.449	26.52	77M4G7W
		QPSK	3490.0 - 3510.0	77.5310	5.34	0.445	26.48	77M5G7W
		16QAM	3490.0 - 3510.0	77.5004	6.19	0.354	25.49	77M5D7W
		64QAM	3490.0 - 3510.0	77.5886	6.50	0.266	24.25	77M6D7W
		256QAM	3490.0 - 3510.0	77.6906	6.75	0.162	22.11	77M7D7W
	90 MHz	π/2 BPSK	3495.0 - 3505.0	87.2007	3.93	0.446	26.50	87M2G7W
		QPSK	3495.0 - 3505.0	87.7304	5.39	0.449	26.52	87M7G7W
		16QAM	3495.0 - 3505.0	87.6737	6.23	0.369	25.67	87M7D7W
		64QAM	3495.0 - 3505.0	87.6467	6.56	0.259	24.14	87M6D7W
		256QAM	3495.0 - 3505.0	87.5994	6.61	0.162	22.11	87M6D7W
	100 MHz	π/2 BPSK	3500	96.3999	4.11	0.446	26.50	96M4G7W
		QPSK	3500	97.5545	5.44	0.459	26.62	97M6G7W
		16QAM	3500	97.4888	6.31	0.380	25.80	97M5D7W
		64QAM	3500	97.6374	6.54	0.270	24.32	97M6D7W
		256QAM	3500	97.3653	6.63	0.159	22.01	97M4D7W

EUT Overview

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Mode	Bandwidth	Modulation	Tx Frequency Range [MHz]	OBW [MHz]	PAR at 0.1% [dB]	EIRP		Emission Designator
						Max. Power [W]	Max. Power [dBm]	
NR Band n77 (PC3) (3450 - 3550MHz)	10 MHz	π/2 BPSK	3455.0 - 3545.0	8.6023	4.15	0.291	24.64	8M60G7W
		QPSK	3455.0 - 3545.0	8.9539	5.71	0.295	24.70	8M95G7W
		16QAM	3455.0 - 3545.0	8.9590	6.38	0.244	23.87	8M96D7W
		64QAM	3455.0 - 3545.0	8.9789	6.55	0.169	22.28	8M98D7W
		256QAM	3455.0 - 3545.0	8.9336	6.88	0.104	20.17	8M93D7W
	15 MHz	π/2 BPSK	3457.5 - 3542.5	12.8811	4.10	0.309	24.90	12M9G7W
		QPSK	3457.5 - 3542.5	13.6435	5.48	0.309	24.90	13M6G7W
		16QAM	3457.5 - 3542.5	13.5775	6.26	0.265	24.23	13M6D7W
		64QAM	3457.5 - 3542.5	13.5869	6.53	0.183	22.61	13M6D7W
		256QAM	3457.5 - 3542.5	13.5907	6.59	0.109	20.37	13M6D7W
	20 MHz	π/2 BPSK	3460.0 - 3540.0	18.0138	4.02	0.307	24.88	18M0G7W
		QPSK	3460.0 - 3540.0	18.3494	5.44	0.309	24.89	18M3G7W
		16QAM	3460.0 - 3540.0	18.2531	7.40	0.252	24.01	18M3D7W
		64QAM	3460.0 - 3540.0	18.2956	6.58	0.179	22.53	18M3D7W
		256QAM	3460.0 - 3540.0	18.2643	6.70	0.111	20.45	18M3D7W
	30MHz	π/2 BPSK	3465.0 - 3535.0	26.8206	4.15	0.308	24.89	26M8G7W
		QPSK	3465.0 - 3535.0	27.8605	5.49	0.309	24.90	27M9G7W
		16QAM	3465.0 - 3535.0	27.9299	6.33	0.250	23.97	27M9D7W
		64QAM	3465.0 - 3535.0	27.9052	6.67	0.179	22.53	27M9D7W
		256QAM	3465.0 - 3535.0	27.9009	6.72	0.115	20.62	27M9D7W
	40 MHz	π/2 BPSK	3470.0 - 3530.0	35.8331	4.07	0.308	24.89	35M8G7W
		QPSK	3470.0 - 3530.0	37.9495	5.49	0.309	24.90	37M9G7W
		16QAM	3470.0 - 3530.0	37.9044	6.33	0.264	24.21	37M9D7W
		64QAM	3470.0 - 3530.0	37.9595	6.46	0.178	22.49	38M0D7W
		256QAM	3470.0 - 3530.0	37.9483	6.52	0.111	20.47	37M9D7W
	50 MHz	π/2 BPSK	3475.0 - 3525.0	45.6985	3.86	0.292	24.65	45M7G7W
		QPSK	3475.0 - 3525.0	47.5580	5.32	0.299	24.75	47M6G7W
		16QAM	3475.0 - 3525.0	47.4720	6.11	0.238	23.77	47M5D7W
		64QAM	3475.0 - 3525.0	47.5557	6.52	0.177	22.48	47M6D7W
		256QAM	3475.0 - 3525.0	47.5938	6.43	0.105	20.23	47M6D7W
	60 MHz	π/2 BPSK	3480.0 - 3520.0	57.9633	3.97	0.297	24.73	58M0G7W
		QPSK	3480.0 - 3520.0	57.9783	5.31	0.303	24.82	58M0G7W
		16QAM	3480.0 - 3520.0	57.9078	6.25	0.241	23.81	57M9D7W
		64QAM	3480.0 - 3520.0	57.9606	6.58	0.175	22.44	58M0D7W
		256QAM	3480.0 - 3520.0	57.8778	6.69	0.104	20.17	57M9D7W
	70 MHz	π/2 BPSK	3485.0 - 3515.0	64.4519	4.37	0.297	24.72	64M5G7W
		QPSK	3485.0 - 3515.0	67.6801	5.61	0.304	24.82	67M7G7W
		16QAM	3485.0 - 3515.0	67.7231	6.35	0.239	23.79	67M7D7W
		64QAM	3485.0 - 3515.0	67.7611	6.60	0.173	22.38	67M8D7W
		256QAM	3485.0 - 3515.0	67.6196	6.60	0.105	20.21	67M6D7W
	80 MHz	π/2 BPSK	3490.0 - 3510.0	77.3657	4.01	0.291	24.64	77M4G7W
		QPSK	3490.0 - 3510.0	77.5310	5.34	0.295	24.69	77M5G7W
		16QAM	3490.0 - 3510.0	77.5004	6.19	0.246	23.90	77M5D7W
		64QAM	3490.0 - 3510.0	77.5886	6.50	0.170	22.29	77M6D7W
		256QAM	3490.0 - 3510.0	77.6906	6.75	0.109	20.36	77M7D7W
	90 MHz	π/2 BPSK	3495.0 - 3505.0	87.2007	3.93	0.292	24.66	87M2G7W
		QPSK	3495.0 - 3505.0	87.7304	5.39	0.293	24.67	87M7G7W
		16QAM	3495.0 - 3505.0	87.6737	6.23	0.239	23.78	87M7D7W
		64QAM	3495.0 - 3505.0	87.6467	6.56	0.179	22.53	87M6D7W
		256QAM	3495.0 - 3505.0	87.5994	6.61	0.108	20.34	87M6D7W
	100 MHz	π/2 BPSK	3500	96.3999	4.11	0.305	24.84	96M4G7W
		QPSK	3500	97.5545	5.44	0.305	24.84	97M6G7W
		16QAM	3500	97.4888	6.31	0.243	23.86	97M5D7W
		64QAM	3500	97.6374	6.54	0.187	22.72	97M6D7W
		256QAM	3500	97.3653	6.63	0.109	20.36	97M4D7W

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Mode	Bandwidth	Modulation	Tx Frequency Range [MHz]	OBW [MHz]	PAR at 0.1% [dB]	EIRP		Emission Designator
						Max. Power [W]	Max. Power [dBm]	
NR Band n77 (PC2) (3700 - 3980MHz)	10 MHz	π/2 BPSK	3705.0 - 3975.0	8.6129	4.10	0.614	27.88	8M61G7W
		QPSK	3705.0 - 3975.0	8.9539	5.47	0.583	27.66	8M95G7W
		16QAM	3705.0 - 3975.0	8.9590	6.19	0.488	26.89	8M96D7W
		64QAM	3705.0 - 3975.0	8.9789	6.51	0.338	25.29	8M98D7W
		256QAM	3705.0 - 3975.0	8.9336	6.35	0.206	23.15	8M93D7W
	15 MHz	π/2 BPSK	3707.5 - 3972.5	12.9214	4.05	0.611	27.86	12M9G7W
		QPSK	3707.5 - 3972.5	13.6435	5.30	0.616	27.89	13M6G7W
		16QAM	3707.5 - 3972.5	13.5775	6.14	0.529	27.23	13M6D7W
		64QAM	3707.5 - 3972.5	13.5869	6.45	0.362	25.58	13M6D7W
		256QAM	3707.5 - 3972.5	13.5907	6.63	0.223	23.49	13M6D7W
	20 MHz	π/2 BPSK	3710.0 - 3970.0	17.8721	4.01	0.616	27.89	17M9G7W
		QPSK	3710.0 - 3970.0	18.3494	5.22	0.616	27.90	18M3G7W
		16QAM	3710.0 - 3970.0	18.2531	6.02	0.500	26.99	18M3D7W
		64QAM	3710.0 - 3970.0	18.2956	6.57	0.361	25.58	18M3D7W
		256QAM	3710.0 - 3970.0	18.2643	6.41	0.219	23.40	18M3D7W
	30MHz	π/2 BPSK	3715.0 - 3965.0	26.8819	4.24	0.613	27.87	26M9G7W
		QPSK	3715.0 - 3965.0	27.8605	5.15	0.611	27.86	27M9G7W
		16QAM	3715.0 - 3965.0	27.9299	6.13	0.479	26.80	27M9D7W
		64QAM	3715.0 - 3965.0	27.9052	6.42	0.352	25.47	27M9D7W
		256QAM	3715.0 - 3965.0	27.9009	6.41	0.220	23.42	27M9D7W
	40 MHz	π/2 BPSK	3720.0 - 3960.0	35.8346	4.10	0.595	27.74	35M8G7W
		QPSK	3720.0 - 3960.0	37.9495	5.13	0.606	27.83	37M9G7W
		16QAM	3720.0 - 3960.0	37.9044	6.11	0.487	26.87	37M9D7W
		64QAM	3720.0 - 3960.0	37.9595	6.37	0.344	25.37	38M0D7W
		256QAM	3720.0 - 3960.0	37.9483	6.34	0.211	23.24	37M9D7W
	50 MHz	π/2 BPSK	3725.0 - 3955.0	45.7680	3.82	0.609	27.85	45M8G7W
		QPSK	3725.0 - 3955.0	47.5580	5.29	0.613	27.87	47M6G7W
		16QAM	3725.0 - 3955.0	47.4720	6.04	0.496	26.95	47M5D7W
		64QAM	3725.0 - 3955.0	47.5557	6.45	0.356	25.52	47M6D7W
		256QAM	3725.0 - 3955.0	47.5938	6.49	0.229	23.59	47M6D7W
	60 MHz	π/2 BPSK	3730.0 - 3950.0	57.9287	3.94	0.594	27.74	57M9G7W
		QPSK	3730.0 - 3950.0	57.9783	5.25	0.609	27.84	58M0G7W
		16QAM	3730.0 - 3950.0	57.9078	6.24	0.497	26.97	57M9D7W
		64QAM	3730.0 - 3950.0	57.9606	6.56	0.336	25.26	58M0D7W
		256QAM	3730.0 - 3950.0	57.8778	6.64	0.213	23.29	57M9D7W
	70 MHz	π/2 BPSK	3735.0 - 3945.0	64.5894	4.33	0.604	27.81	64M6G7W
		QPSK	3735.0 - 3945.0	67.6801	5.57	0.602	27.80	67M7G7W
		16QAM	3735.0 - 3945.0	67.7231	6.40	0.487	26.87	67M7D7W
		64QAM	3735.0 - 3945.0	67.7611	6.59	0.340	25.32	67M8D7W
		256QAM	3735.0 - 3945.0	67.6196	6.60	0.216	23.33	67M6D7W
	80 MHz	π/2 BPSK	3740.0 - 3940.0	77.2297	3.98	0.631	28.00	77M2G7W
		QPSK	3740.0 - 3940.0	77.5310	5.31	0.623	27.94	77M5G7W
		16QAM	3740.0 - 3940.0	77.5004	6.15	0.463	26.65	77M5D7W
		64QAM	3740.0 - 3940.0	77.5886	6.58	0.333	25.22	77M6D7W
		256QAM	3740.0 - 3940.0	77.6906	6.56	0.205	23.12	77M7D7W
	90 MHz	π/2 BPSK	3745.0 - 3935.0	86.9457	3.95	0.610	27.85	86M9G7W
		QPSK	3745.0 - 3935.0	87.7304	5.36	0.593	27.73	87M7G7W
		16QAM	3745.0 - 3935.0	87.6737	6.20	0.479	26.80	87M7D7W
		64QAM	3745.0 - 3935.0	87.6467	6.50	0.319	25.03	87M6D7W
		256QAM	3745.0 - 3935.0	87.5994	6.53	0.203	23.08	87M6D7W
	100 MHz	π/2 BPSK	3750.0 - 3930.0	96.5818	4.03	0.606	27.82	96M6G7W
		QPSK	3750.0 - 3930.0	97.5545	5.37	0.590	27.71	97M6G7W
		16QAM	3750.0 - 3930.0	97.4888	6.30	0.488	26.89	97M5D7W
		64QAM	3750.0 - 3930.0	97.6374	6.50	0.344	25.37	97M6D7W
		256QAM	3750.0 - 3930.0	97.3653	6.58	0.206	23.15	97M4D7W

EUT Overview

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Mode	Bandwidth	Modulation	Tx Frequency Range [MHz]	OBW [MHz]	PAR at 0.1% [dB]	EIRP		Emission Designator
						Max. Power [W]	Max. Power [dBm]	
NR Band n77 (PC3) (3700 - 3980MHz)	10 MHz	π/2 BPSK	3705.0 - 3975.0	8.6129	4.10	0.401	26.03	8M61G7W
		QPSK	3705.0 - 3975.0	8.9539	5.47	0.410	26.13	8M95G7W
		16QAM	3705.0 - 3975.0	8.9590	6.19	0.348	25.42	8M96D7W
		64QAM	3705.0 - 3975.0	8.9789	6.51	0.240	23.80	8M98D7W
		256QAM	3705.0 - 3975.0	8.9336	6.35	0.146	21.63	8M93D7W
	15 MHz	π/2 BPSK	3707.5 - 3972.5	12.9214	4.05	0.402	26.04	12M9G7W
		QPSK	3707.5 - 3972.5	13.6435	5.30	0.412	26.15	13M6G7W
		16QAM	3707.5 - 3972.5	13.5775	6.14	0.331	25.19	13M6D7W
		64QAM	3707.5 - 3972.5	13.5869	6.45	0.226	23.55	13M6D7W
		256QAM	3707.5 - 3972.5	13.5907	6.63	0.145	21.60	13M6D7W
	20 MHz	π/2 BPSK	3710.0 - 3970.0	17.8721	4.01	0.406	26.09	17M9G7W
		QPSK	3710.0 - 3970.0	18.3494	5.22	0.409	26.12	18M3G7W
		16QAM	3710.0 - 3970.0	18.2531	6.02	0.335	25.25	18M3D7W
		64QAM	3710.0 - 3970.0	18.2956	6.57	0.234	23.70	18M3D7W
		256QAM	3710.0 - 3970.0	18.2643	6.41	0.144	21.59	18M3D7W
	30MHz	π/2 BPSK	3715.0 - 3965.0	26.8819	4.24	0.378	25.78	26M9G7W
		QPSK	3715.0 - 3965.0	27.8605	5.15	0.392	25.93	27M9G7W
		16QAM	3715.0 - 3965.0	27.9299	6.13	0.297	24.72	27M9D7W
		64QAM	3715.0 - 3965.0	27.9052	6.42	0.212	23.27	27M9D7W
		256QAM	3715.0 - 3965.0	27.9009	6.41	0.133	21.23	27M9D7W
	40 MHz	π/2 BPSK	3720.0 - 3960.0	35.8346	4.10	0.394	25.96	35M8G7W
		QPSK	3720.0 - 3960.0	37.9495	5.13	0.393	25.94	37M9G7W
		16QAM	3720.0 - 3960.0	37.9044	6.11	0.311	24.92	37M9D7W
		64QAM	3720.0 - 3960.0	37.9595	6.37	0.208	23.19	38M0D7W
		256QAM	3720.0 - 3960.0	37.9483	6.34	0.136	21.34	37M9D7W
	50 MHz	π/2 BPSK	3725.0 - 3955.0	45.7680	3.82	0.388	25.89	45M8G7W
		QPSK	3725.0 - 3955.0	47.5580	5.29	0.385	25.85	47M6G7W
		16QAM	3725.0 - 3955.0	47.4720	6.04	0.321	25.06	47M5D7W
		64QAM	3725.0 - 3955.0	47.5557	6.45	0.239	23.79	47M6D7W
		256QAM	3725.0 - 3955.0	47.5938	6.49	0.146	21.65	47M6D7W
	60 MHz	π/2 BPSK	3730.0 - 3950.0	57.9287	3.94	0.397	25.99	57M9G7W
		QPSK	3730.0 - 3950.0	57.9783	5.25	0.406	26.08	58M0G7W
		16QAM	3730.0 - 3950.0	57.9078	6.24	0.360	25.56	57M9D7W
		64QAM	3730.0 - 3950.0	57.9606	6.56	0.238	23.76	58M0D7W
		256QAM	3730.0 - 3950.0	57.8778	6.64	0.149	21.74	57M9D7W
	70 MHz	π/2 BPSK	3735.0 - 3945.0	64.5894	4.33	0.409	26.12	64M6G7W
		QPSK	3735.0 - 3945.0	67.6801	5.57	0.407	26.09	67M7G7W
		16QAM	3735.0 - 3945.0	67.7231	6.40	0.335	25.25	67M7D7W
		64QAM	3735.0 - 3945.0	67.7611	6.59	0.233	23.67	67M8D7W
		256QAM	3735.0 - 3945.0	67.6196	6.60	0.144	21.60	67M6D7W
	80 MHz	π/2 BPSK	3740.0 - 3940.0	77.2297	3.98	0.395	25.97	77M2G7W
		QPSK	3740.0 - 3940.0	77.5310	5.31	0.394	25.95	77M5G7W
		16QAM	3740.0 - 3940.0	77.5004	6.15	0.319	25.04	77M5D7W
		64QAM	3740.0 - 3940.0	77.5886	6.58	0.226	23.53	77M6D7W
		256QAM	3740.0 - 3940.0	77.6906	6.56	0.138	21.41	77M7D7W
	90 MHz	π/2 BPSK	3745.0 - 3935.0	86.9457	3.95	0.390	25.91	86M9G7W
		QPSK	3745.0 - 3935.0	87.7304	5.36	0.402	26.04	87M7G7W
		16QAM	3745.0 - 3935.0	87.6737	6.20	0.333	25.23	87M7D7W
		64QAM	3745.0 - 3935.0	87.6467	6.50	0.233	23.68	87M6D7W
		256QAM	3745.0 - 3935.0	87.5994	6.53	0.138	21.40	87M6D7W
	100 MHz	π/2 BPSK	3750.0 - 3930.0	96.5818	4.03	0.404	26.06	96M6G7W
		QPSK	3750.0 - 3930.0	97.5545	5.37	0.412	26.15	97M6G7W
		16QAM	3750.0 - 3930.0	97.4888	6.30	0.327	25.14	97M5D7W
		64QAM	3750.0 - 3930.0	97.6374	6.50	0.226	23.53	97M6D7W
		256QAM	3750.0 - 3930.0	97.3653	6.58	0.142	21.53	97M4D7W

EUT Overview

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1.0 INTRODUCTION

1.1 Scope

Measurement and determination of electromagnetic emissions (EMC) of radio frequency devices including intentional and/or unintentional radiators for compliance with the technical rules and regulations of the Federal Communications Commission and the Innovation, Science and Economic Development Canada.

1.2 Element Materials Technology Test Location

These measurement tests were conducted at the Element Materials Technology facility located at 18855 Adams Court, Morgan Hill, CA 95037. The measurement facility is compliant with the test site requirements specified in ANSI C63.4-2014 and KDB 414788 D01 v01r01.

1.3 Test Facility / Accreditations

Measurements were performed at Element Materials Technology

- Element Materials Technology is an ISO 17025-2017 accredited test facility under the American Association for Laboratory Accreditation (A2LA) with Certificate number 2041.02 for Specific Absorption Rate (SAR), Hearing Aid Compatibility (HAC) testing, where applicable, and Electromagnetic Compatibility (EMC) testing for FCC and Innovation, Science, and Economic Development Canada rules.

- Element Materials Technology TCB is a Telecommunication Certification Body (TCB) accredited to ISO/IEC 17065-2012 by A2LA (Certificate number 2041.03) in all scopes of FCC Rules and ISED Standards (RSS).

- Element Materials Technology facility is a registered (22831) test laboratory with the site description on file with ISED.

- Element Washington DC LLC is a Recognized U.S. Certification Assessment Body (CAB # US0110) for ISED Canada as designated by NIST under the U.S. and Canada Mutual Agreements (MRAs).

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2.0 PRODUCT INFORMATION

2.1 Equipment Description

The Equipment Under Test (EUT) is the **Apple Tablet Device FCC ID:BCGA2837**. The test data contained in this report pertains only to the emissions due to the EUT's licensed transmitters that operate under the provisions of Part 27.

Test Device Serial No.: N69MCQ1J4G, Q1VQ22L4XG, TNXC0D217D, DLXGYG000190000662, DLXGYP00000000065Z

2.2 Device Capabilities

This device contains the following capabilities:

850/1700/1900 WCDMA/HSPA, Multi-band LTE, 5G NR (FR1), 802.11b/g/n/ax WLAN, 802.11a/n/ac/ax UNII, 802.11a/ax WIFI 6E, 802.15.4, Bluetooth (1x, EDR, LE1M, LE2M, HDR4, HDR8), NB UNII (1x, HDR4, HDR8), WPT

This device supports BT Beamforming

This device supports simultaneous transmission operations, which allows for multiple transmitters to transmit simultaneously on the same antenna. The table below shows all configurations possible.

Antenna	Simultaneous Tx Config	Wifi 2GHz	Bluetooth	Thread	Wifi 5GHz	Wifi 6GHz	NB UNII	LTE/FR1 NR	
		802.11 b/g/n/ax	BDR, EDR, HDR4/8, LE1/2M	802.15.4	802.11 a/n/ac/ax	802.11 a/ax	BDR, HDR4/8	MB/HB	UHB
2a	Config 1	✗	✓	✗	✓	✗	✗	✗	✗
2a	Config 2	✗	✓	✗	✗	✓	✗	✗	✗
2a	Config 3	✓	✗	✗	✗	✗	✓	✗	✗
2a	Config 4	✗	✗	✓	✓	✗	✗	✗	✗
2a	Config 5	✗	✗	✓	✗	✓	✗	✗	✗
4a	Config 6	✗	✓	✗	✓	✗	✗	✗	✗
4a	Config 7	✗	✓	✗	✗	✓	✗	✗	✗
4a	Config 8	✓	✗	✗	✗	✗	✓	✗	✗
4a	Config 9	✗	✗	✓	✓	✗	✗	✗	✗
4a	Config 10	✗	✗	✓	✗	✓	✗	✗	✗

Table 2-1. Simultaneous Transmission Configurations

✓ = Support; × = Not Support

Note:

All the above simultaneous transmission configurations have been tested and the worst case configuration was found to be Config 1 and reported in RF Bluetooth and RF UNII OFDM test reports.

Specific 2.4GHz Wi-Fi antenna that can only transmit simultaneously with 2.4GHz Bluetooth antenna is listed in the SAR test report. For BT (2.4GHz) in connected mode and Wi-Fi (2.4GHz) - Wi-Fi max power will not exceed minimum of (13.5dBm, SAR max cap, Reg max cap) power. For BT (2.4GHz) in disconnected mode and Wi-Fi (2.4GHz) - BT will be using iPA only and Wi-Fi max power will not exceed minimum of (SAR max cap, Reg max cap) power. Bluetooth can simultaneously transmit with IEEE 802.11a/n/ac/ax 5/6 GHz on separate antenna.

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2.3 Antenna Description

The following antenna gains provided by manufacturer were used for testing.

Band	Antenna Gain [dBi]			
	Antenna 3	Antenna 1	Antenna 4b	Antenna 2b
NR Band n77 (Sub 1)	-0.8	-0.4	-2.1	-2.0
NR Band n77 (Sub 2)	0.5	0.6	-1.1	-2.8

Table 2-2. Highest Antenna Gain

2.4 Test Support Equipment

1	Apple MacBook Pro	Model:	A2141	S/N:	C02H604EQ05D
	w/AC/DC Adapter	Model:	A2166	S/N:	C4H042705ZNPM0WA6
2	Apple USB-C Cable	Model:	Spartan	S/N:	GXK1336018XKTR024
3	USB-C Cable	Model:	A246C	S/N:	DWH80115BK826GV19
	w/ AC Adapter	Model:	A2305	S/N:	C4H95160004PF4F4V
4	DC Power Supply	Model:	KPS3010D	S/N:	N/A
5	Apple Pencil	Model:	A2538	S/N:	KJ26TCFXJW

Table 2-3. Test Support Equipment

2.5 Test Configuration

The EUT was tested per the guidance of ANSI C63.26 2015, TIA-603-E-2016 and KDB 971168 D01 v03r01. See Section 7.0 of this test report for a description of the radiated and antenna port conducted emissions tests.

For emissions from 1GHz – 18GHz, low, mid, and high channels were tested with highest power and worst case configuration. The emissions below 1GHz and above 18GHz were tested with the highest transmitting power and the worst case channel.

The EUT was manipulated through three orthogonal planes of X-orientation (flatbed), Y-orientation (landscape), and Z-orientation (portrait) during the testing. Only the worst case emissions were reported in this test report.

2.6 Software and Firmware

The test was conducted with firmware version 21E8197 installed on the EUT.

2.7 EMI Suppression Device(s)/Modifications

No EMI suppression device(s) were added and no modifications were made during testing.

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3.0 DESCRIPTION OF TESTS

3.1 Evaluation Procedure

The measurement procedures described in the documents titled “American National Standard for Compliance Testing of Transmitters Used in Licensed Radio Services” (ANSI C63.26-2015 and TIA-603-E-2016) and “Procedures for Compliance Measurement of the Fundamental Emission Power of Licensed Wideband (> 1 MHz) Digital Transmission Systems” (KDB 971168 D01 v03r01) were used in the measurement of the EUT.

Deviation from Measurement Procedure……..……...None

3.2 Radiated Spurious Emissions

The radiated test facilities consisted of an indoor 3 meter semi-anechoic chamber used for final measurements and exploratory measurements, when necessary. The measurement area is contained within the semi-anechoic chamber which is shielded from any ambient interference. The test site inside the chamber is a 6m x 5.2m elliptical, obstruction-free area in accordance with Figure 5.7 of Clause 5 in ANSI C63.4-2014. Absorbers are arranged on the floor between the turn table and the antenna mast in such a way so as to maximize the reduction of reflections for measurements above 1GHz. For measurements below 1GHz, the absorbers are removed. A raised turntable is used for radiated measurement. The turn table is a continuously rotatable, remote-controlled, metallic turntable and 2 meters (6.56 ft.) in diameter. The turn table is flush with the raised floor of the chamber in order to maintain its function as a ground plane. An 80cm tall test table made of Styrodur is placed on top of the turn table. A Styrodur pedestal is placed on top of the test table to bring the total table height to 1.5m.

The equipment under test was transmitting while connected to its integral antenna and is placed on a turntable 3 meters from the receive antenna. The receive antenna height is adjusted between 1 and 4 meter height, the turntable is rotated through 360 degrees, and the EUT is manipulated through all orthogonal planes representative of its typical use to achieve the highest reading on the receive spectrum analyzer.

For radiated spurious emissions measurements and calculations, conversion method is used per the formulas in KDB 971168 Section 5.8.4. Field Strength (EIRP) is calculated using the following formulas:

$$E_{[dB\mu V/m]} = \text{Measured amplitude level}_{[dBm]} + 107 + \text{Cable Loss}_{[dB]} + \text{Antenna Factor}_{[dB/m]}$$

And

$$EIRP_{[dBm]} = E_{[dB\mu V/m]} + 20\log D - 104.8;\ \text{where D is the measurement distance in meters.}$$

All radiated measurements are performed in a chamber that meets the site requirements per ANSI C63.4-2014.

Per KDB 414788 D01 v01r01, radiated emission test sites other than open-field test sites (e.g., shielded anechoic chambers), may be employed for emission measurements below 30MHz if characterized so that the measurements correspond to those obtained at an open-field test site. To determine test site equivalency, a reference sample transmitting at 149kHz was measured on an open field test site (asphalt with no ground plane) and then measured in the 3m semi-anechoic chamber. A calibrated 60cm loop antenna was used while the reference device was rotated through the X, Y and Z axis in order to capture the worst case level. A maximum deviation of 2.77dB at 149kHz was measured when comparing the 3 meter semi-anechoic chamber to the open field site.

Radiated spurious emission levels are investigated with the receive antenna horizontally and vertically polarized per ANSI C63.26-2015 and TIA-603-E-2016.

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4.0 MEASUREMENT UNCERTAINTY

The measurement uncertainties shown below were calculated in accordance with the requirements of ANSI C63.23-2012. All measurement uncertainty values are shown with a coverage factor of k = 2 to indicate a 95% level of confidence. The measurement uncertainty shown below meets or exceeds the U_{CISPR} measurement uncertainty values specified in CISPR 16-4-2 and, thus, can be compared directly to specified limits to determine compliance.

Contribution	Expanded Uncertainty (±dB)
Conducted Bench Top Measurements	2.07
Radiated Disturbance (<30MHz)	4.12
Radiated Disturbance (30MHz-1GHz)	4.85
Radiated Disturbance (1-18GHz)	5.08
Radiated Disturbance (>18GHz)	4.59

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5.0 TEST EQUIPMENT CALIBRATION DATA

Test Equipment Calibration is traceable to the National Institute of Standards and Technology (NIST). Measurements antennas used during testing were calibrated in accordance to the requirements of ANSI C63.5-2017.

Manufacturer	Model	Description	Cal Date	Cal Interval	Cal Due	Serial Number
Agilent Technologies	N9030A	3Hz-44GHz PXA Signal Analyzer	6/21/2023	Annual	6/21/2024	MY49430244
ESPEC	SU-241	Tabletop Temperature Chamber	11/17/2023	Annual	11/17/2024	92009574
ETS-Lindgren	3117	Double Ridged Guide Antenna (1-18 GHz)	3/30/2023	Annual	3/30/2024	00218555
Keysight Technology	N9040B	UXA Signal Analyzer	11/5/2023	Annual	11/5/2024	MY57213068
Rohde & Schwarz	TS-PR18	Pre-Amplifier (1GHz - 18GHz)	8/31/2023	Annual	8/31/2024	100052
Rohde & Schwarz	FSV40	Signal Analyzer (10Hz-40GHz)	5/11/2023	Annual	5/11/2024	101619
Rohde & Schwarz	ESW44	EMI Test Receiver	6/6/2023	Annual	6/6/2024	101668
Rohde & Schwarz	TS-PR8	Pre-Amplifier (30MHz - 8GHz)	6/22/2023	Annual	6/22/2024	102356
Rohde & Schwarz	CMW500	Wideband Radio Communication Tester	11/30/2023	Annual	11/30/2024	161616
Rohde & Schwarz	CMW500	Wideband Radio Communication Tester	12/27/2023	Annual	12/27/2024	164715
Rohde & Schwarz	TS-PR1840	Pre-Amplifier (18GHz - 40GHz)	6/2/2023	Annual	6/2/2024	100050
Rohde & Schwarz	HFH2-Z2	Loop Antenna	5/1/2023	Annual	5/1/2024	100519
Rohde & Schwarz	FSW43	Signal Analyzer (2Hz-43.5GHz)	7/13/2023	Annual	7/13/2024	101261
Schwarzbeck	VULB 9162	Bilog Antenna (30MHz - 6GHz)	4/17/2023	Annual	4/17/2024	00304

Table 5-1. Test Equipment

Notes:

For equipment listed above that has a calibration date or calibration due date that falls within the test date range, care was taken to ensure that this equipment was used after the calibration date and before the calibration due date.

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6.0 SAMPLE CALCULATIONS

Emission Designator

π/2 BPSK / QPSK Modulation

Emission Designator = 8M62G7W
BW = 8.62 MHz
G = Phase Modulation
7 = Quantized/Digital Info
W = Combination of Any

QAM Modulation

Emission Designator = 8M45D7W
BW = 8.45 MHz
D = Amplitude/Angle Modulated
7 = Quantized/Digital Info
W = Combination of Any

Spurious Radiated Emission

Example: Spurious emission at 3700.40 MHz

The receive spectrum analyzer reading at 3 meters with the EUT on the turntable was –81.0 dBm. The gain of the substituted antenna is 8.1 dBi. The signal generator connected to the substituted antenna terminals is adjusted to produce a reading of –81.0 dBm on the spectrum analyzer. The loss of the cable between the signal generator and the terminals of the substituted antenna is 2.0 dB at 3700.40 MHz. So 6.1 dB is added to the signal generator reading of –30.9 dBm yielding –24.80 dBm. The fundamental EIRP was 25.50 dBm so this harmonic was 25.50 dBm – (-24.80) = 50.3 dBc.

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7.0 TEST RESULTS

7.1 Summary

Company Name: Apple Inc.

FCC ID: BCGA2837

FCC Classification: PCS Licensed Transmitter (PCB)

Mode(s): NR

Test Condition	Test Description	FCC Part Section(s)	Test Limit	Test Result	Reference
CONDUCTED	Occupied Bandwidth	2.1049	N/A	N/A	Section 7.2
	Conducted Band Edge / Spurious Emissions (NR Band n77 - 3450-3550MHz)	2.1051, 27.53(n)(2)	-13 dBm at Band Edge and for all out-of-band emissions	PASS	Sections 7.3, 7.4
	Conducted Band Edge / Spurious Emissions (NR Band n77 - 3700-3980MHz)	2.1051, 27.53(l)(2)		PASS	Sections 7.3, 7.4
	Peak-Average Ratio (NR Band n77 - 3450-3550MHz)	27.50(k)(4)	< 13 dB	PASS	Sections 7.5
	Peak-Average Ratio (NR Band n77 - 3700-3980MHz)	27.50(j)(4)		PASS	Sections 7.5
	Transmitter Conducted Output Power	2.1046	N/A	N/A	See RF Exposure Report
	Equivalent Isotropic Radiated Power (NR Band n77 - 3450-3550MHz)	27.50(k)(3)	< 1 Watts max. EIRP	PASS	Section 7.6
	Equivalent Isotropic Radiated Power (NR Band n77 - 3700-3980MHz)	27.50(j)(3)		PASS	Section 7.6
	Frequency Stability	2.1055, 27.54	Fundamental emissions stay within authorized frequency block	PASS	Section 7.8
RADIATED	Radiated Spurious Emissions (NR Band n77 - 3450-3550MHz)	2.1051, 27.53(n)(2)	-13 dBm for all out-of-band emissions	PASS	Section 7.7
	Radiated Spurious Emissions (NR Band n77 - 3700-3980MHz)	2.1051, 27.53(l)(2)		PASS	Section 7.7

Table 7-1. Summary of Test Results

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Notes:

1. All modes of operation and data rates were investigated. The test results shown in the following sections represent the worst case emissions.

2. The analyzer plots were all taken with a correction table loaded into the analyzer. The correction table was used to account for the losses of the cables, directional couplers, and attenuators used as part of the system to maintain a link between the call box and the EUT at all frequencies of interest.

3. All antenna port conducted emissions testing was performed on a test bench with the antenna port of the EUT connected to the spectrum analyzer through calibrated cables, attenuators, and couplers.

4. All conducted emissions measurements are performed with automated test software to capture the corresponding plots necessary to show compliance. The measurement software utilized was Element EMC Software Tool EMC Software Tool v1.1.

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7.2 Occupied Bandwidth

§2.1049

Test Overview

The occupied bandwidth, that 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 shall be measured. All modes of operation were investigated and the worst case configuration results are reported in this section. All ports were tested and only the worst case data were reported.

Test Procedure Used

KDB 971168 D01 v03r01 – Section 4.2

Test Settings

1. The signal analyzer's automatic bandwidth measurement capability was used to perform the 99% occupied bandwidth and the 26dB bandwidth. The bandwidth measurement was not influenced by any intermediate power nulls in the fundamental emission.
2. RBW = 1 – 5% of the expected OBW
3. VBW ≥ 3 x RBW
4. Detector = Peak
5. Trace mode = max hold
6. Sweep = auto couple
7. The trace was allowed to stabilize
8. If necessary, steps 2 – 7 were repeated after changing the RBW such that it would be within 1 – 5% of the 99% occupied bandwidth observed in Step 7

Test Setup

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

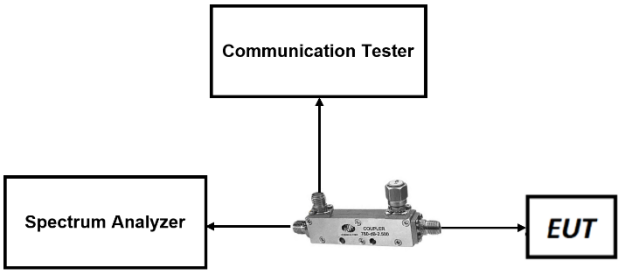

Figure 7-1. Test Instrument & Measurement Setup

Test Notes

None.

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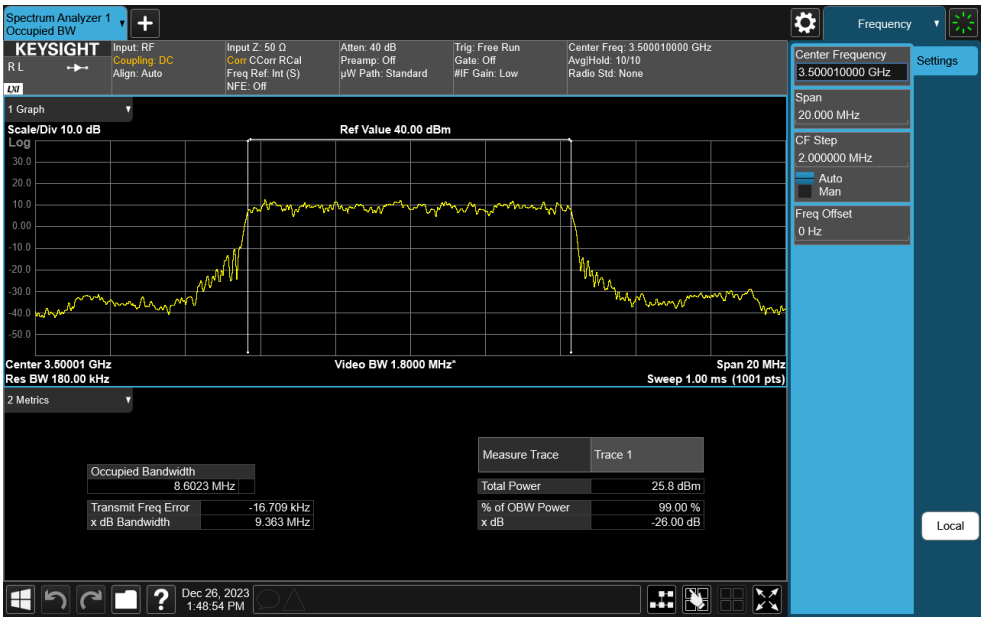
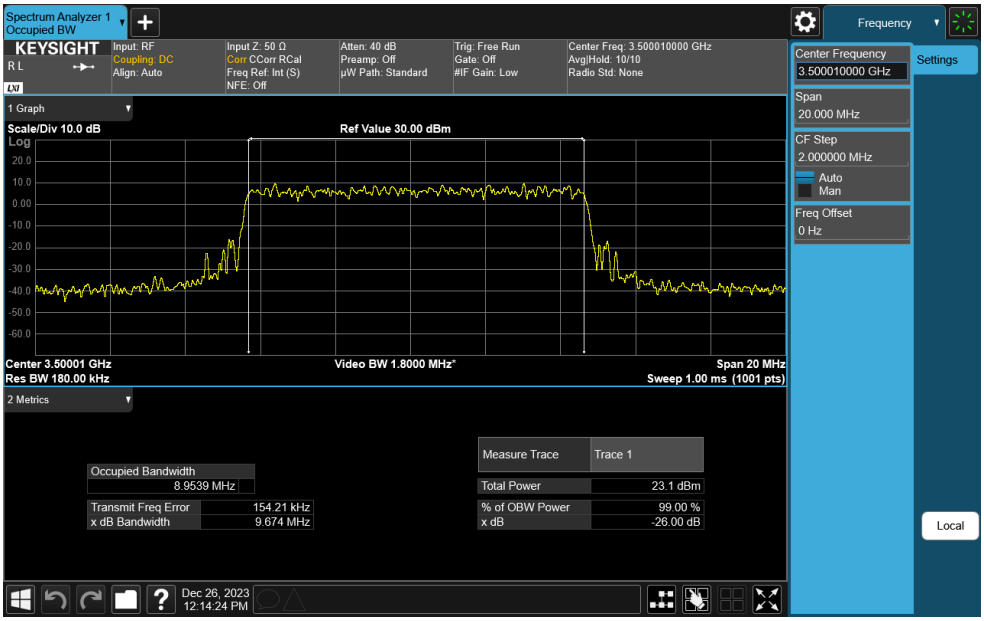
NR Band n77 DoD-Band



Plot 7-1. Occupied Bandwidth Plot (NR Band n77 DoD-Band - 10MHz DFT-s-OFDM π/2 BPSK - Full RB)



Plot 7-2. Occupied Bandwidth Plot (NR Band n77 DoD-Band - 10MHz CP-OFDM QPSK - Full RB)

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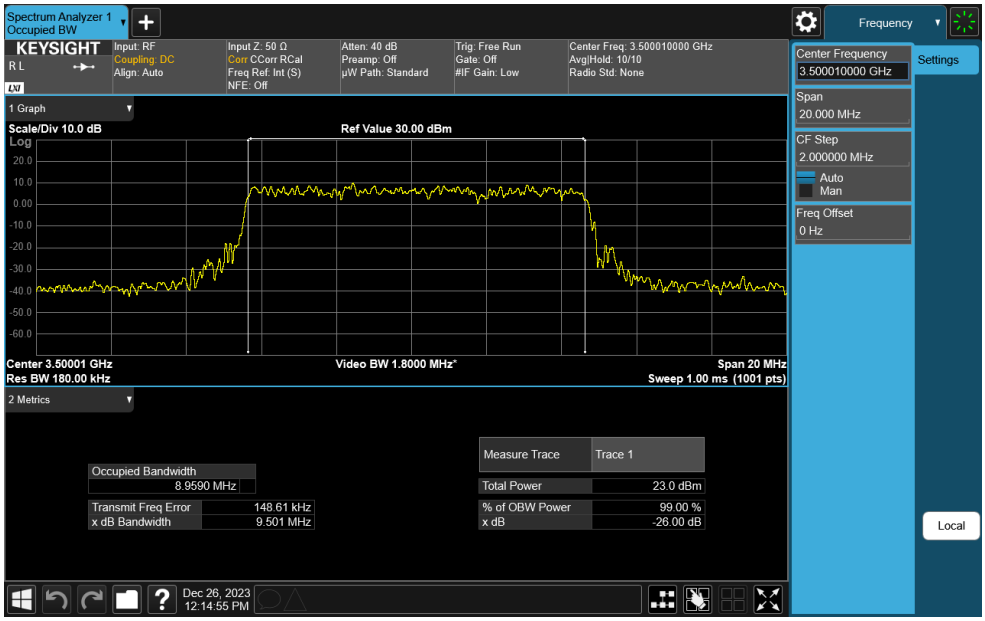
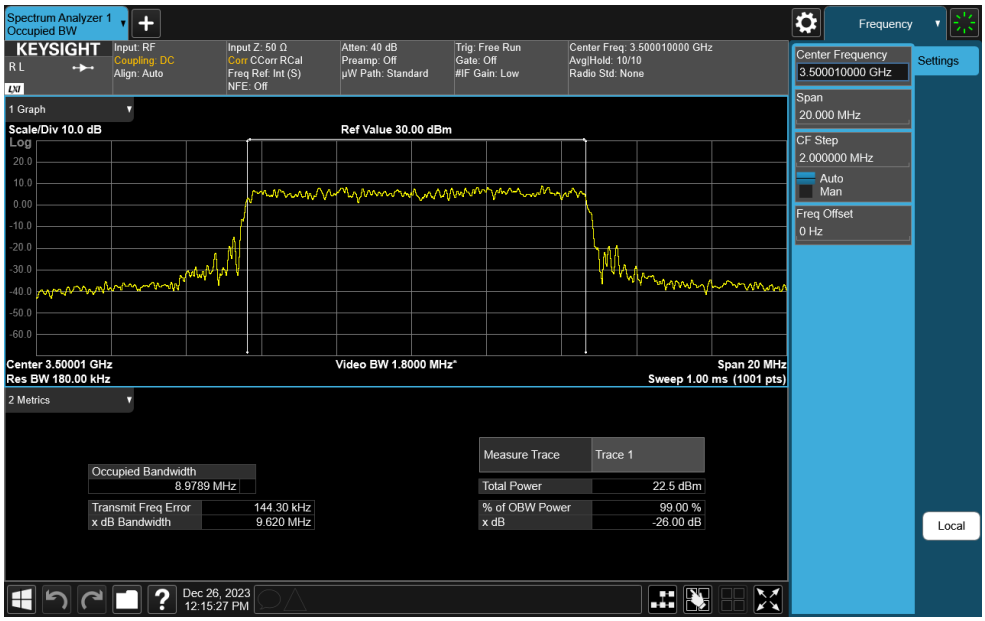


Plot 7-3. Occupied Bandwidth Plot (NR Band n77 DoD-Band - 10MHz CP-OFDM 16-QAM - Full RB)



Plot 7-4. Occupied Bandwidth Plot (NR Band n77 DoD-Band - 10MHz CP-OFDM 64-QAM - Full RB)

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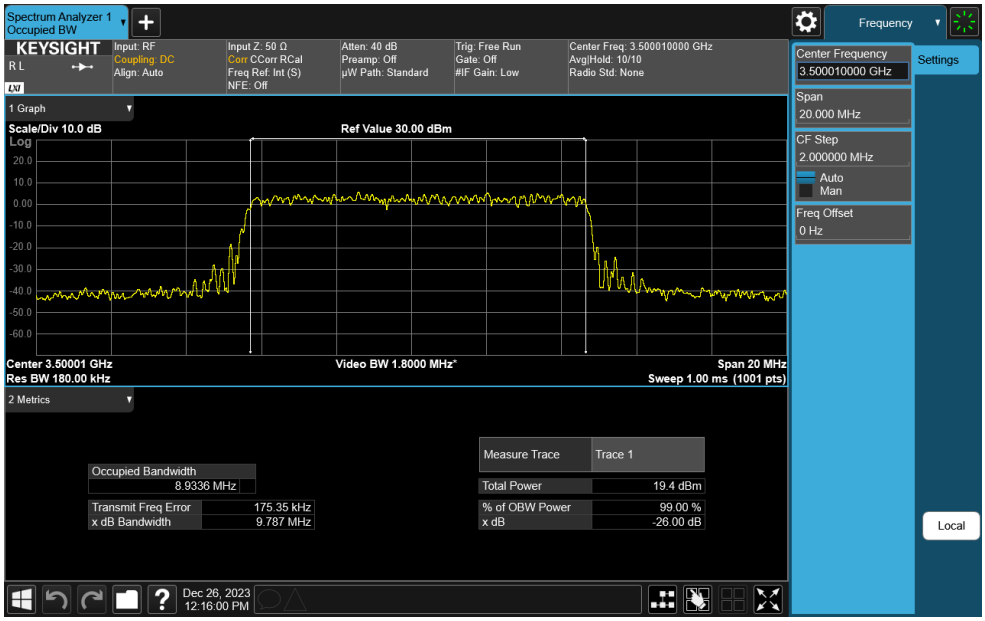
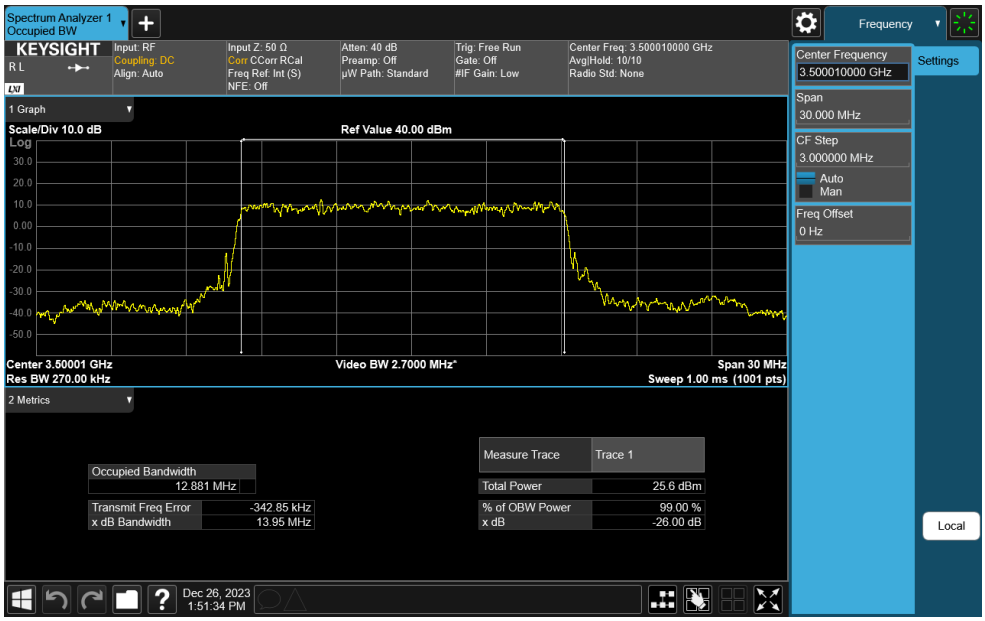


Plot 7-5. Occupied Bandwidth Plot (NR Band n77 DoD-Band - 10MHz CP-OFDM 256-QAM - Full RB)



Plot 7-6. Occupied Bandwidth Plot (NR Band n77 DoD-Band - 15MHz DFT-s-OFDM π/2 BPSK - Full RB)

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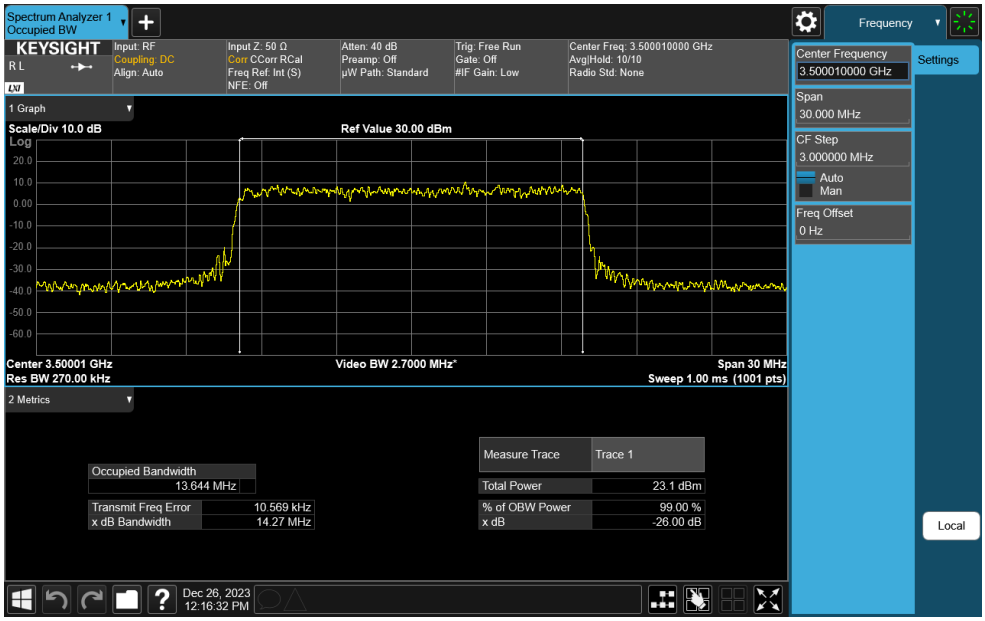
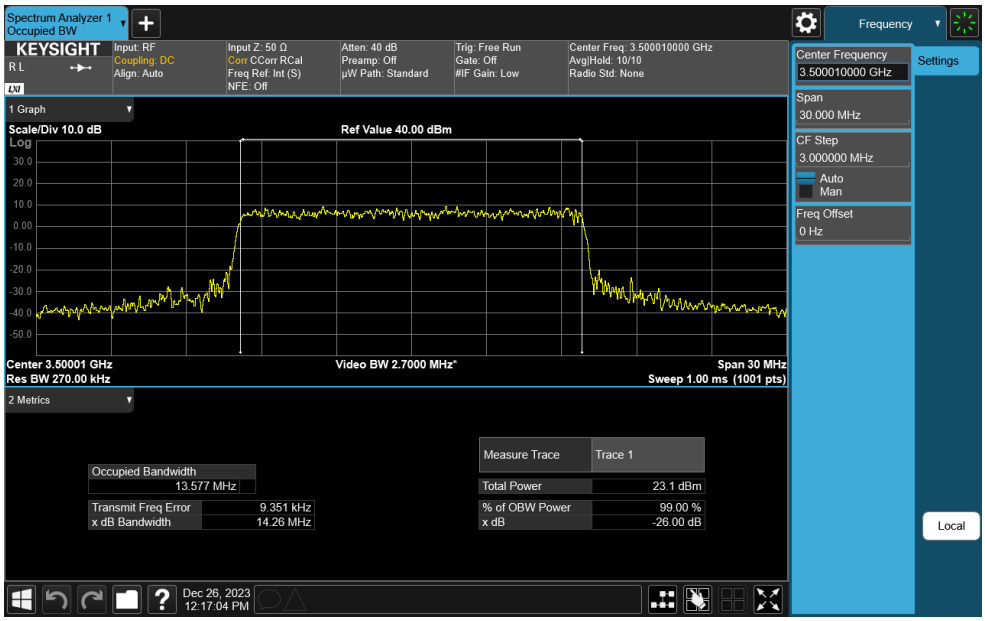


Plot 7-7. Occupied Bandwidth Plot (NR Band n77 DoD-Band - 15MHz CP-OFDM QPSK - Full RB)



Plot 7-8. Occupied Bandwidth Plot (NR Band n77 DoD-Band - 15MHz CP-OFDM 16-QAM - Full RB)

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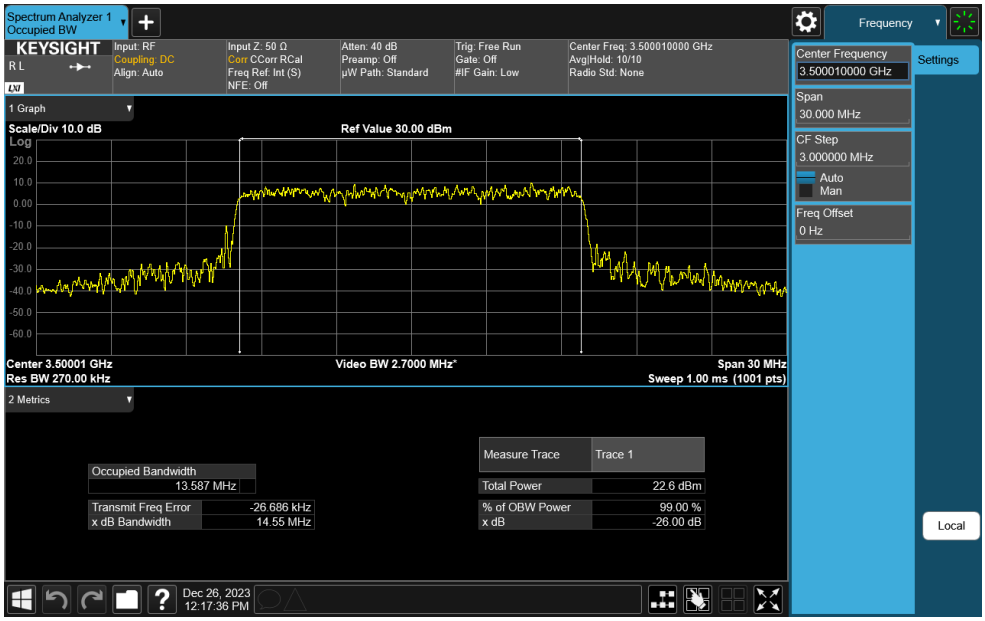
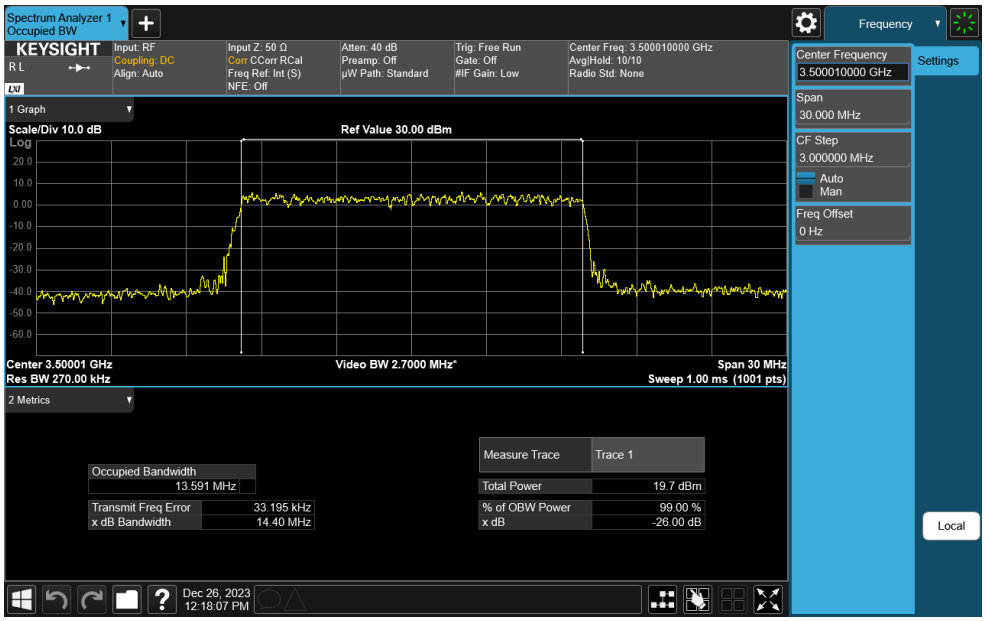


Plot 7-9. Occupied Bandwidth Plot (NR Band n77 DoD-Band - 15MHz CP-OFDM 64-QAM - Full RB)



Plot 7-10. Occupied Bandwidth Plot (NR Band n77 DoD-Band - 15MHz CP-OFDM 256-QAM - Full RB)

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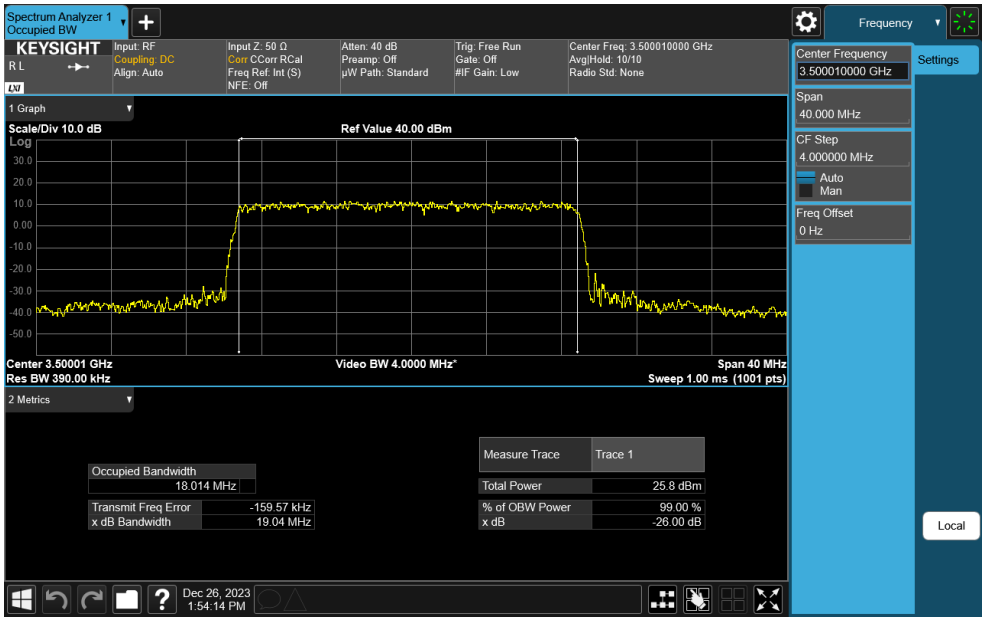
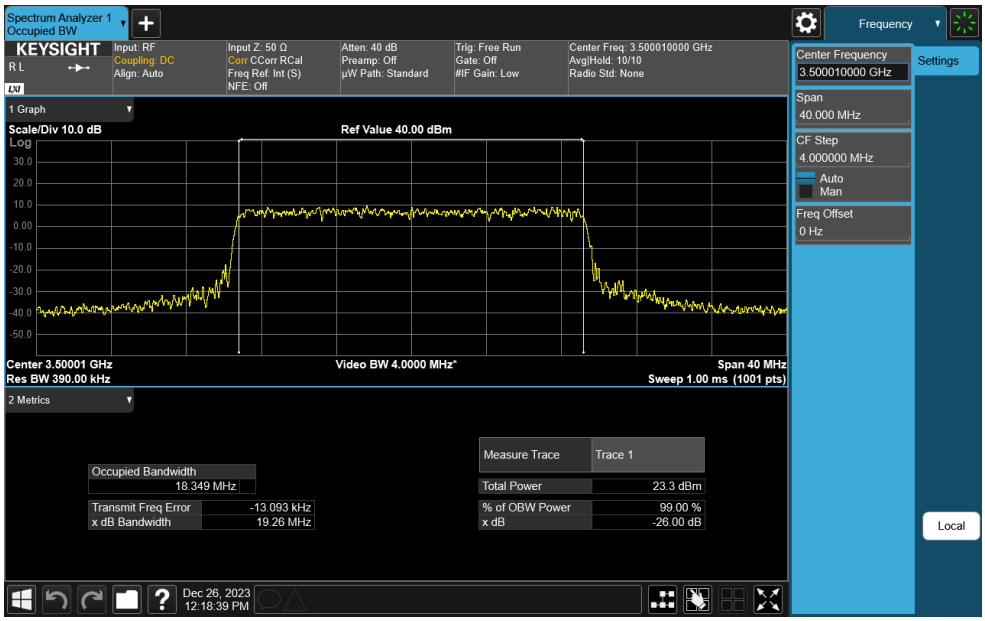


Plot 7-11. Occupied Bandwidth Plot (NR Band n77 DoD-Band - 20MHz DFT-s-OFDM π/2 BPSK - Full RB)



Plot 7-12. Occupied Bandwidth Plot (NR Band n77 DoD-Band - 20MHz CP-OFDM QPSK - Full RB)

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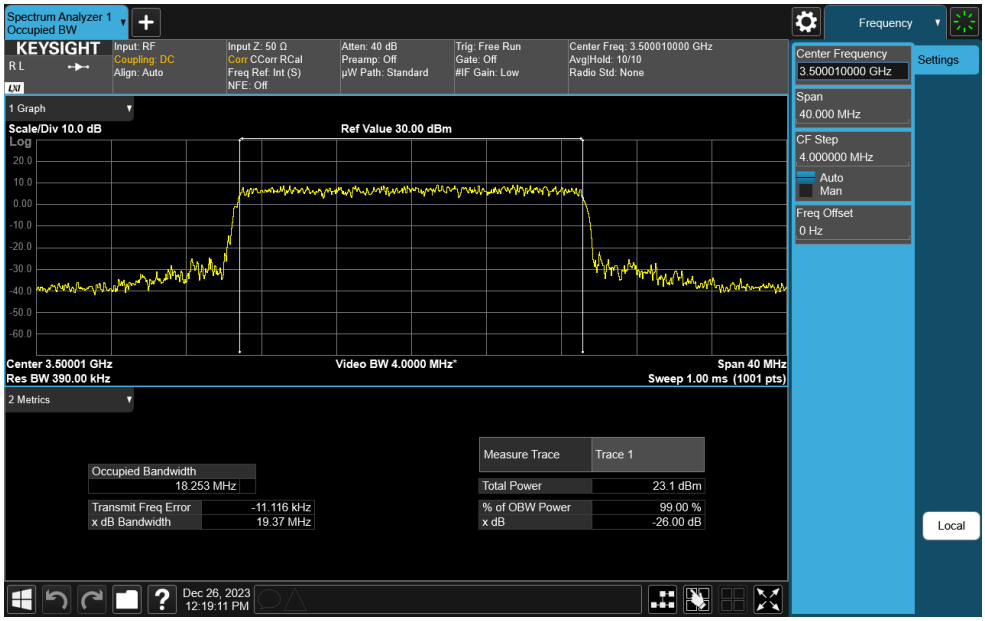
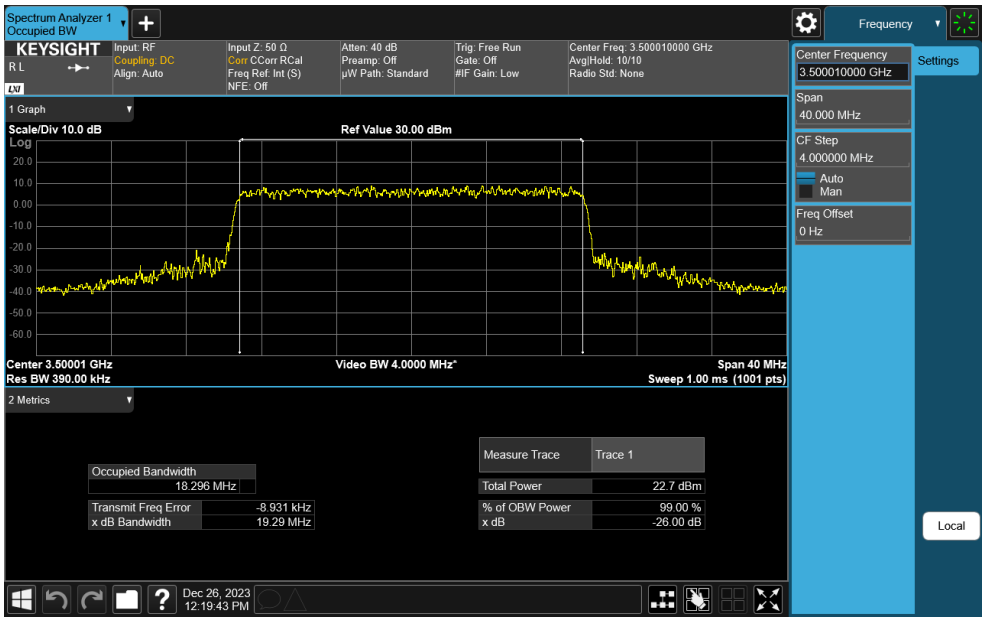


Plot 7-13. Occupied Bandwidth Plot (NR Band n77 DoD-Band - 20MHz CP-OFDM 16-QAM - Full RB)



Plot 7-14. Occupied Bandwidth Plot (NR Band n77 DoD-Band - 20MHz CP-OFDM 64-QAM - Full RB)

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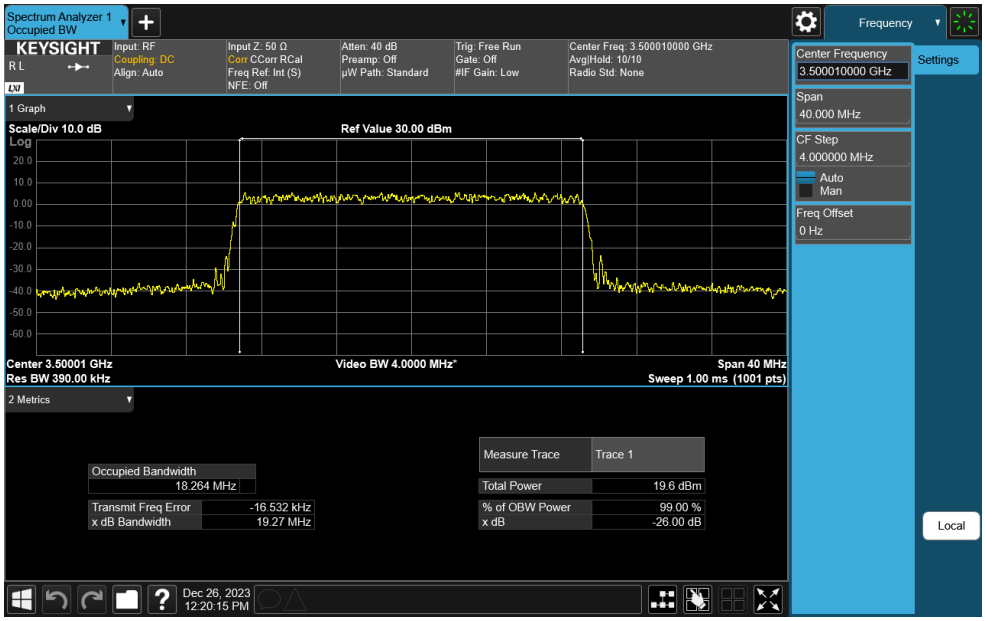
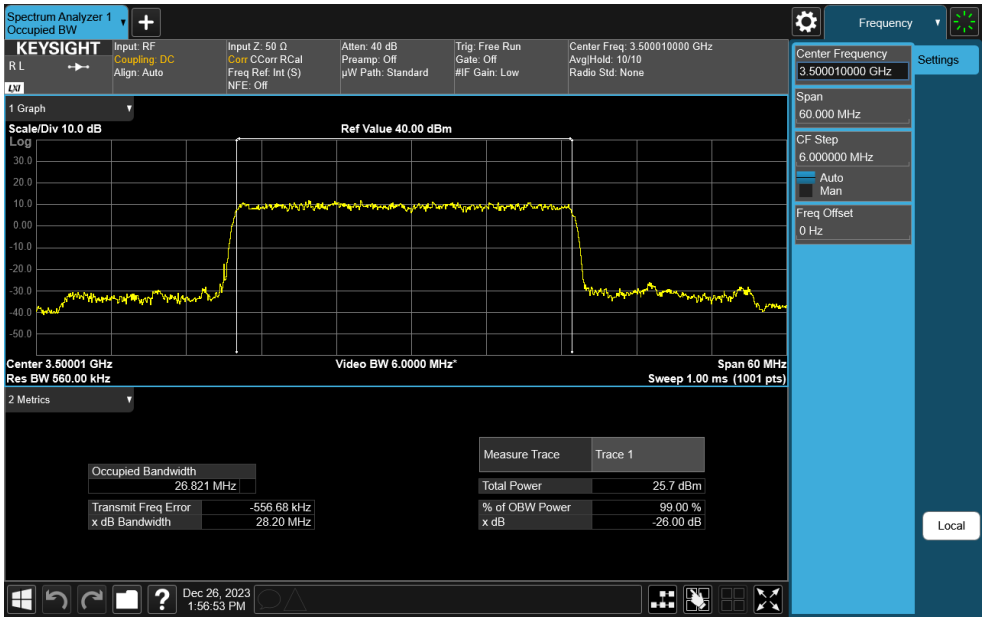


Plot 7-15. Occupied Bandwidth Plot (NR Band n77 DoD-Band - 20MHz CP-OFDM 256-QAM - Full RB)



Plot 7-16. Occupied Bandwidth Plot (NR Band n77 DoD-Band - 30MHz DFT-s-OFDM π/2 BPSK - Full RB)

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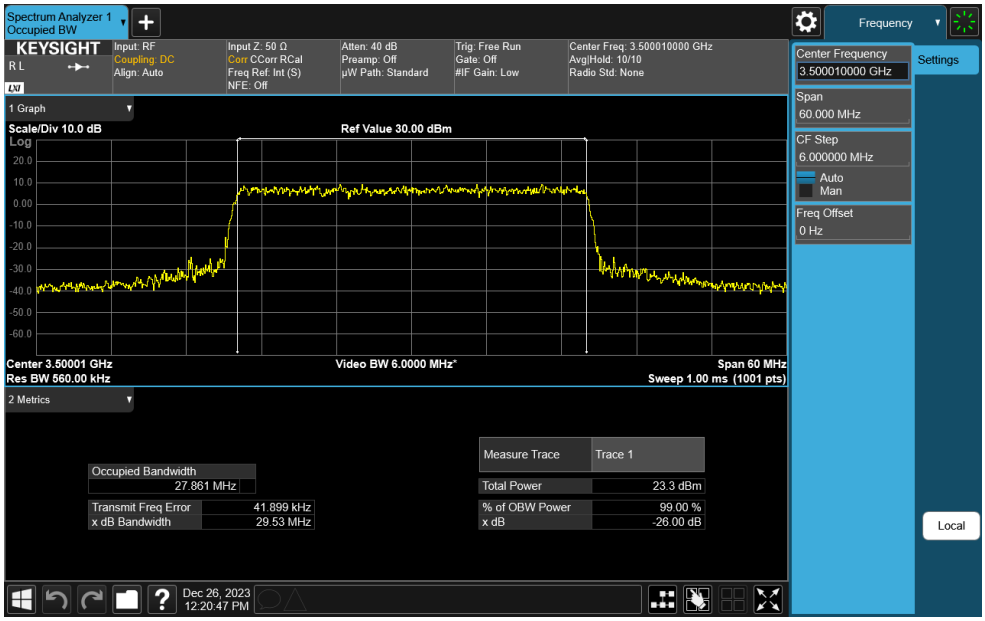
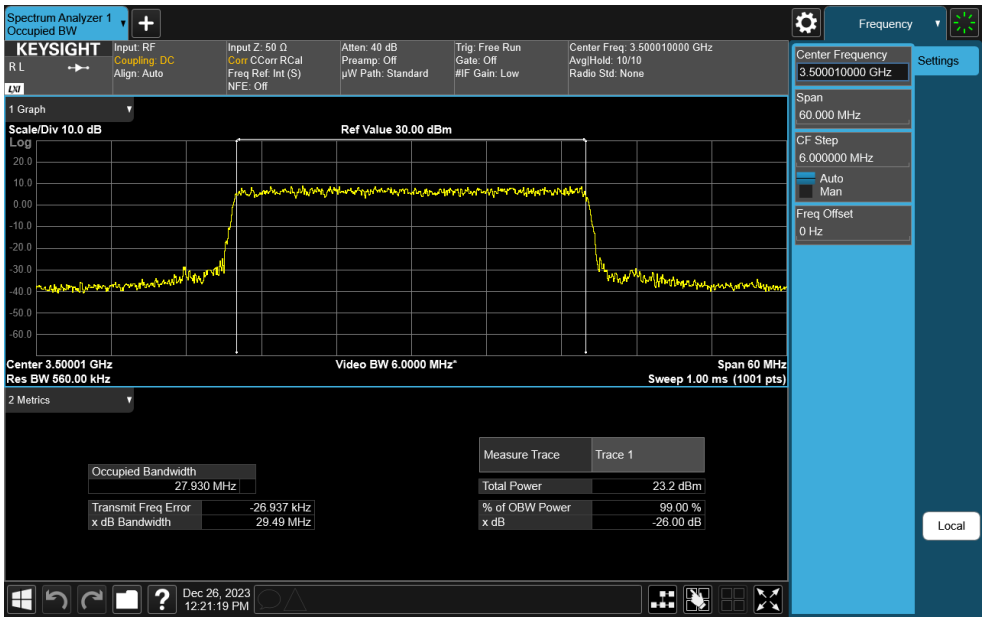


Plot 7-17. Occupied Bandwidth Plot (NR Band n77 DoD-Band - 30MHz CP-OFDM QPSK - Full RB)



Plot 7-18. Occupied Bandwidth Plot (NR Band n77 DoD-Band - 30MHz CP-OFDM 16-QAM - Full RB)

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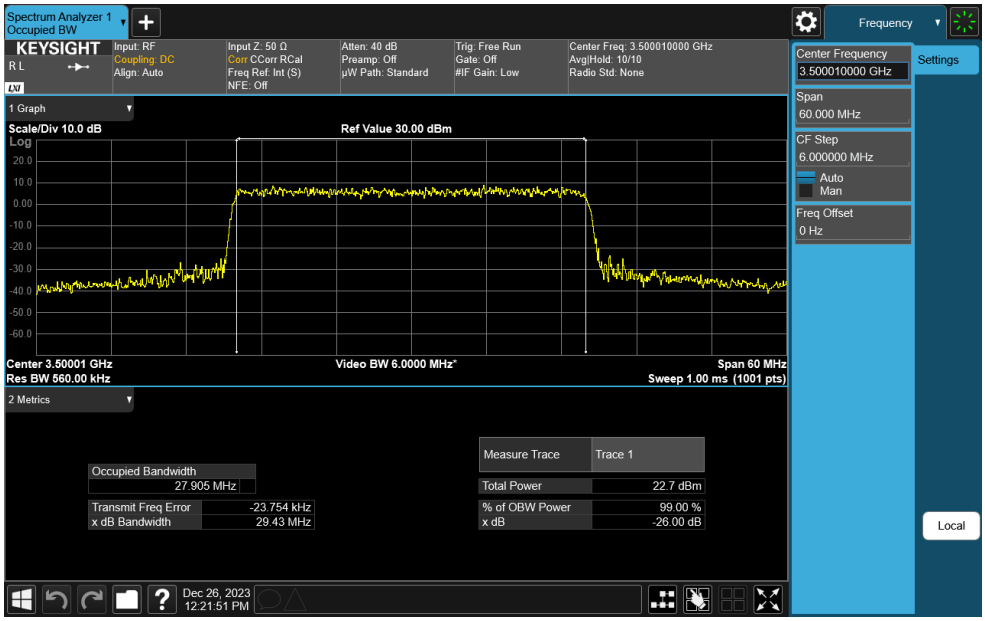
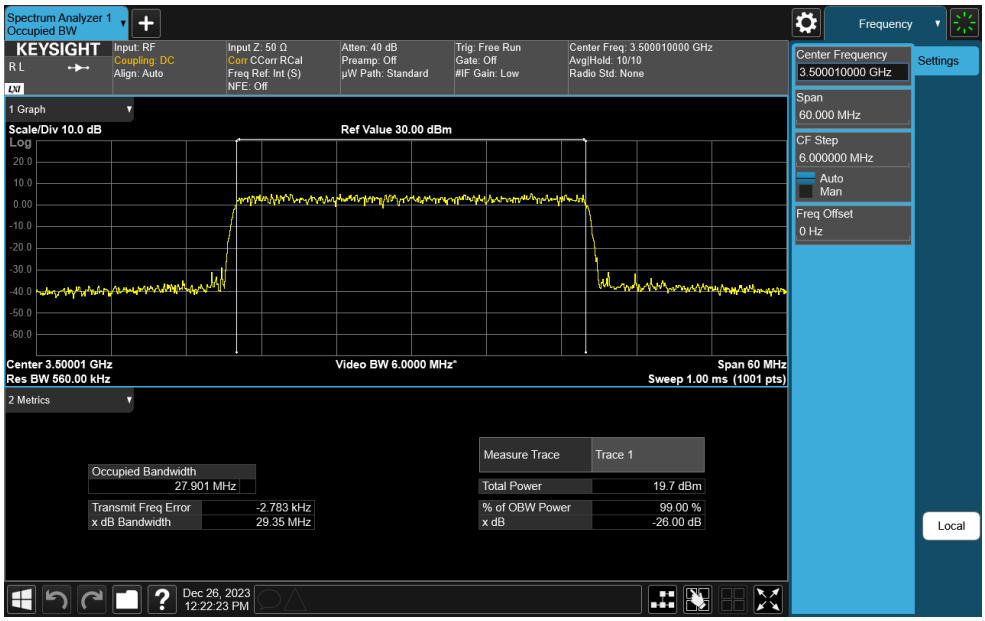


Plot 7-19. Occupied Bandwidth Plot (NR Band n77 DoD-Band - 30MHz CP-OFDM 64-QAM - Full RB)



Plot 7-20. Occupied Bandwidth Plot (NR Band n77 DoD-Band - 30MHz CP-OFDM 256-QAM - Full RB)

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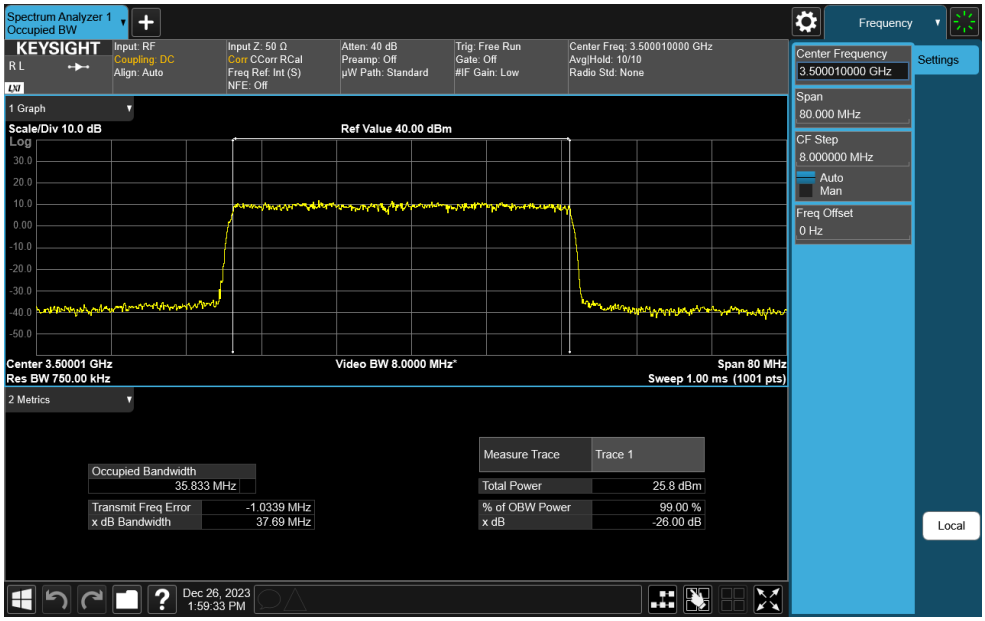
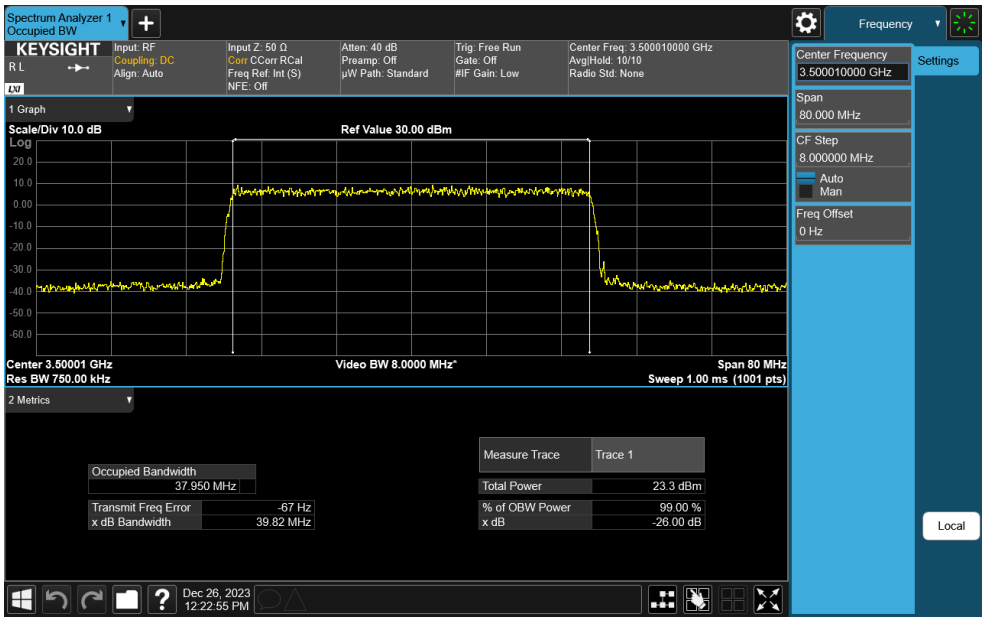


Plot 7-21. Occupied Bandwidth Plot (NR Band n77 DoD-Band - 40MHz DFT-s-OFDM π/2 BPSK - Full RB)



Plot 7-22. Occupied Bandwidth Plot (NR Band n77 DoD-Band - 40MHz CP-OFDM QPSK - Full RB)

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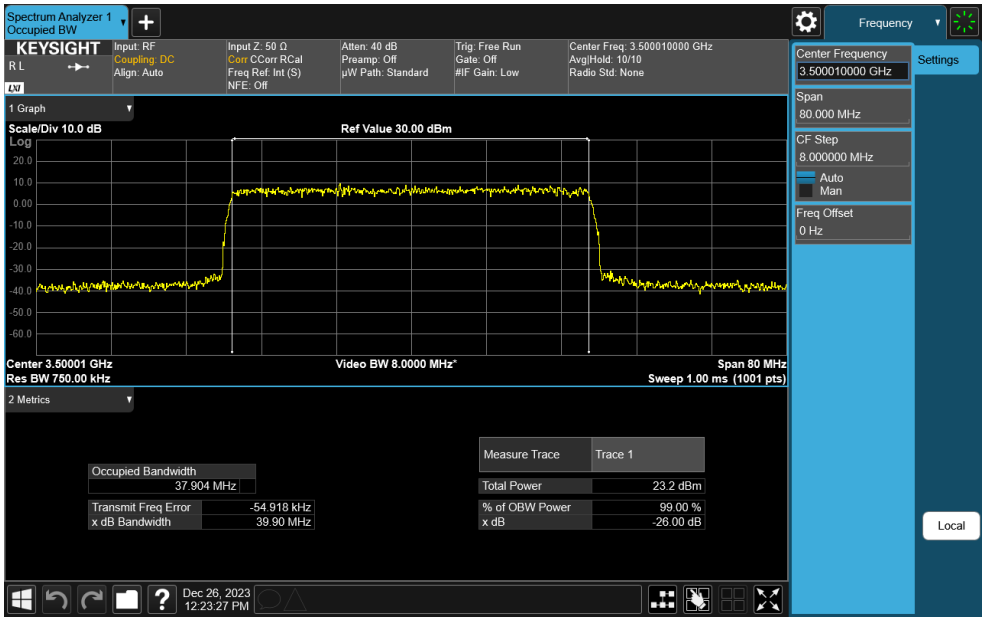
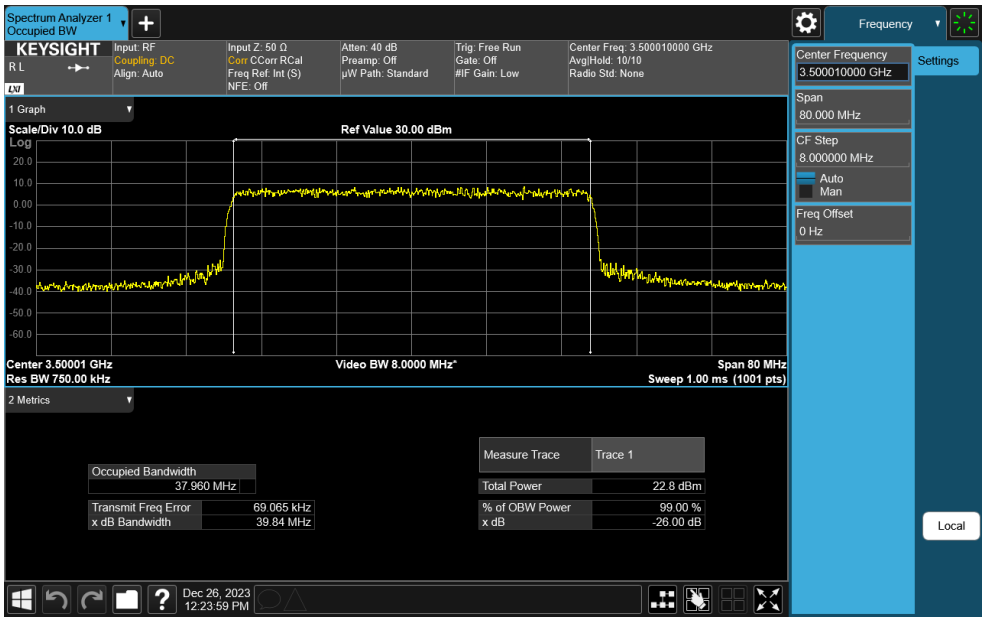


Plot 7-23. Occupied Bandwidth Plot (NR Band n77 DoD-Band - 40MHz CP-OFDM 16-QAM - Full RB)



Plot 7-24. Occupied Bandwidth Plot (NR Band n77 DoD-Band - 40MHz CP-OFDM 64-QAM - Full RB)

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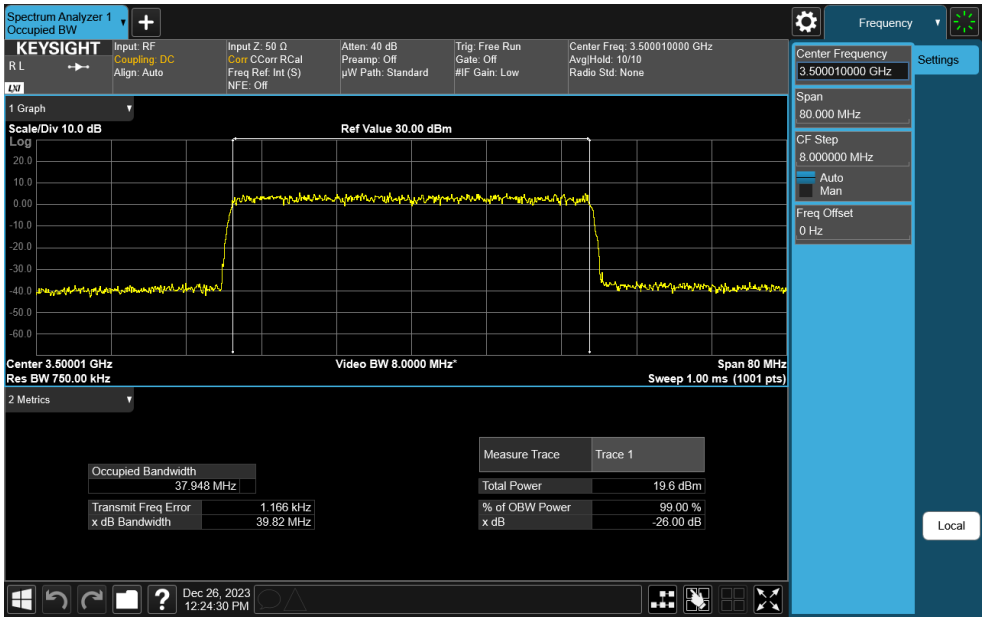
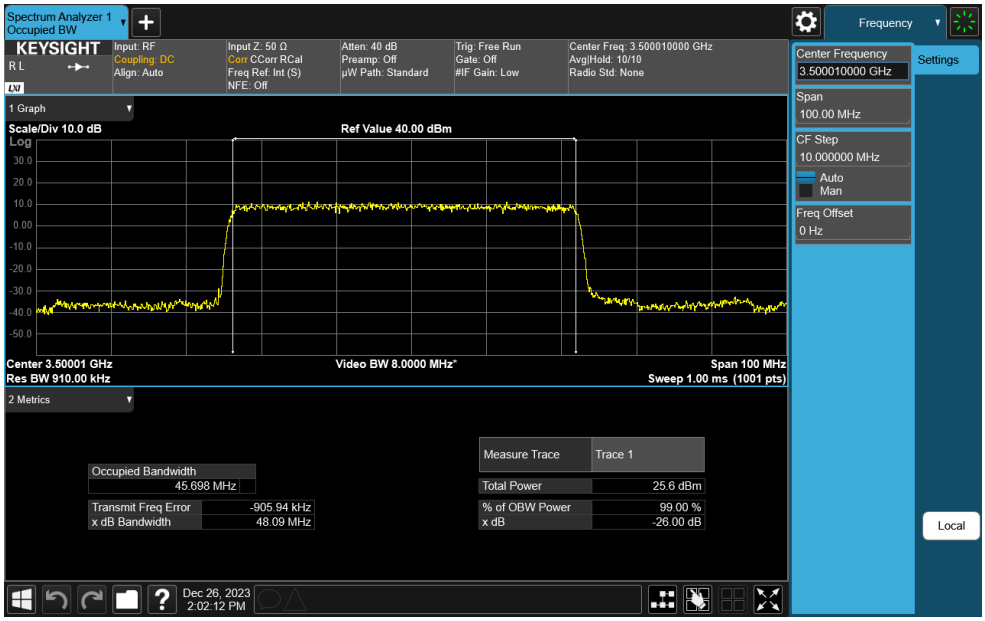


Plot 7-25. Occupied Bandwidth Plot (NR Band n77 DoD-Band - 40MHz CP-OFDM 256-QAM - Full RB)



Plot 7-26. Occupied Bandwidth Plot (NR Band n77 DoD-Band - 50MHz DFT-s-OFDM π/2 BPSK - Full RB)

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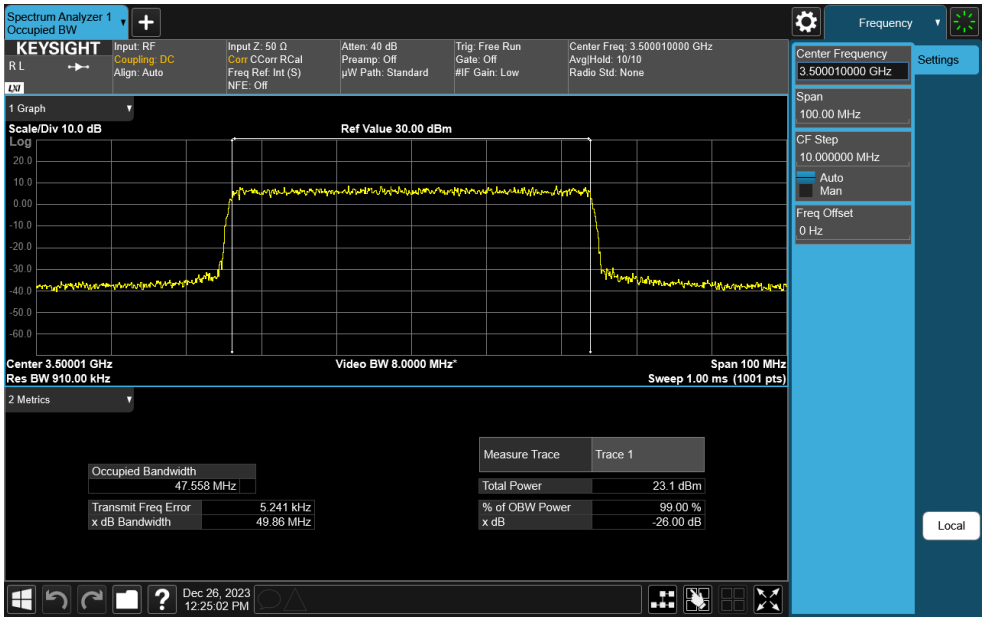
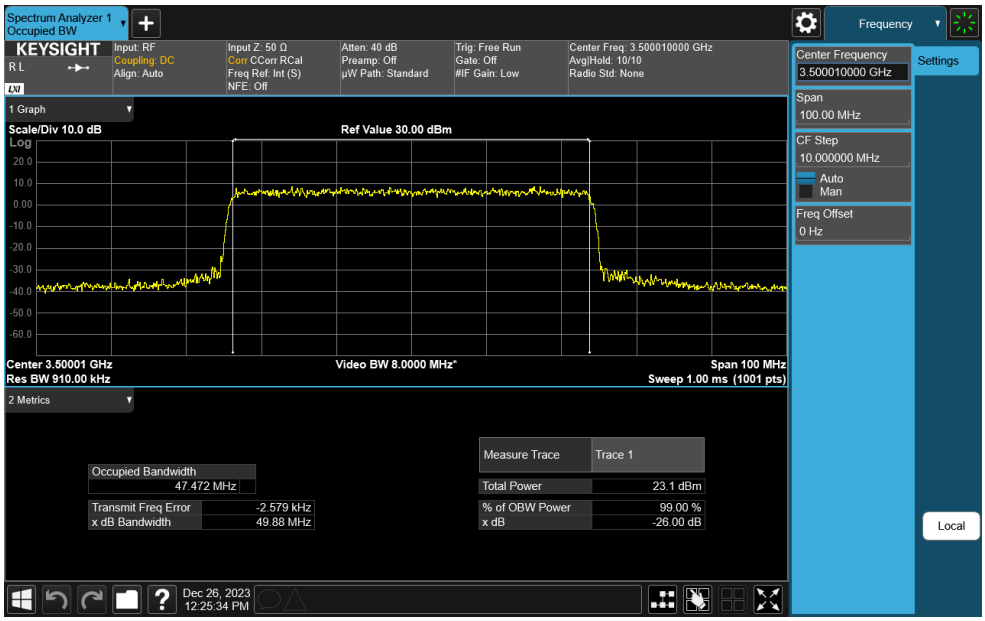


Plot 7-27. Occupied Bandwidth Plot (NR Band n77 DoD-Band - 50MHz CP-OFDM QPSK - Full RB)



Plot 7-28. Occupied Bandwidth Plot (NR Band n77 DoD-Band - 50MHz CP-OFDM 16-QAM - Full RB)

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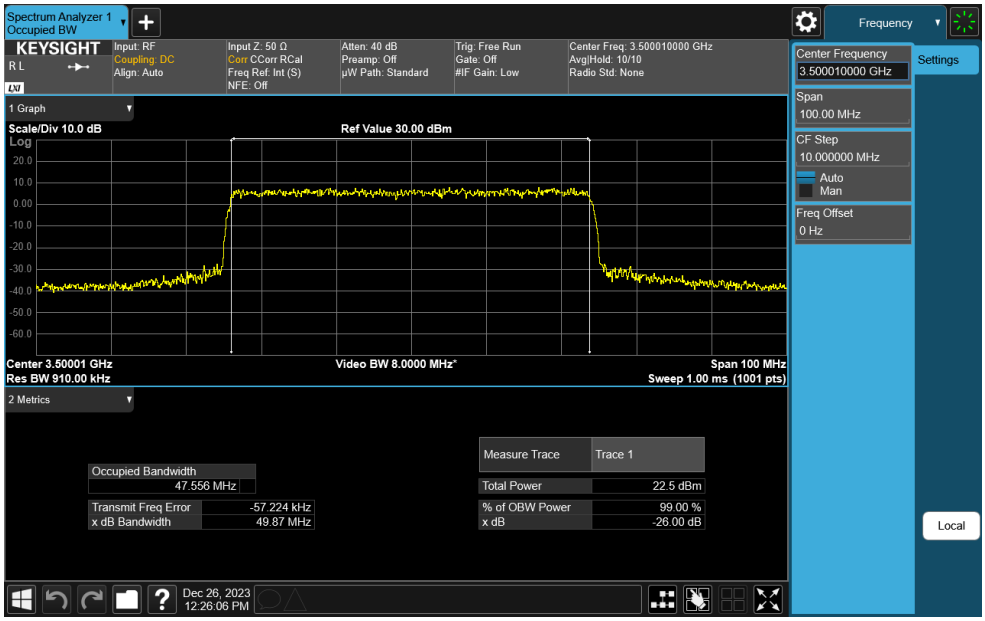
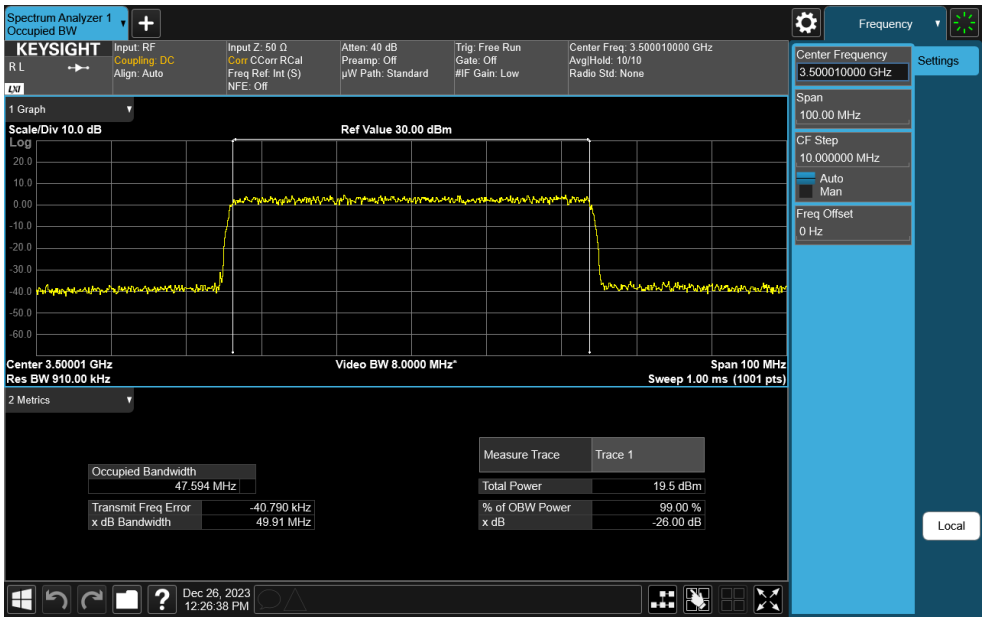


Plot 7-29. Occupied Bandwidth Plot (NR Band n77 DoD-Band - 50MHz CP-OFDM 64-QAM - Full RB)



Plot 7-30. Occupied Bandwidth Plot (NR Band n77 DoD-Band - 50MHz CP-OFDM 256-QAM - Full RB)

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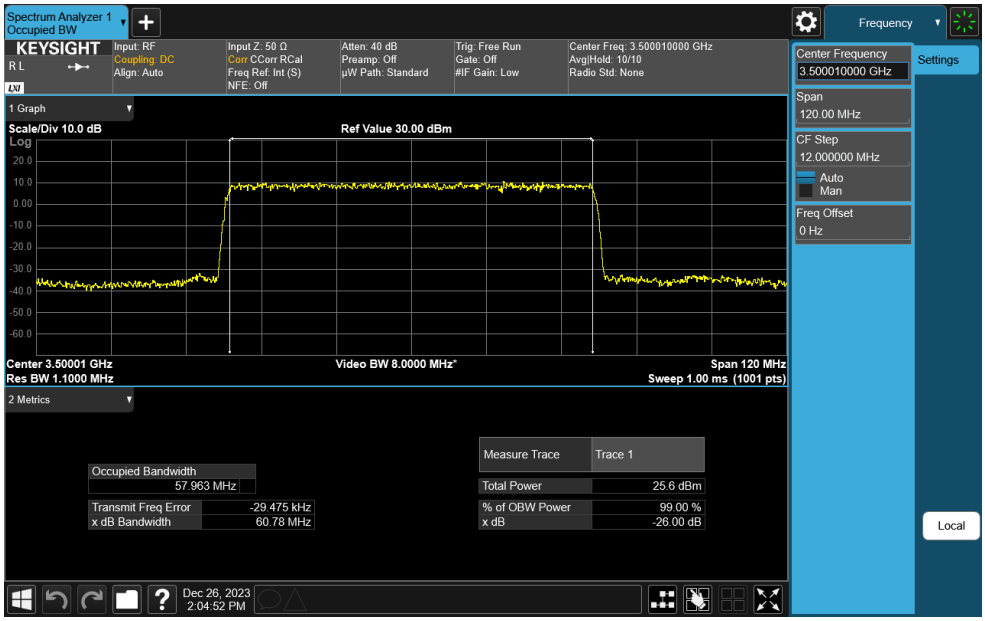
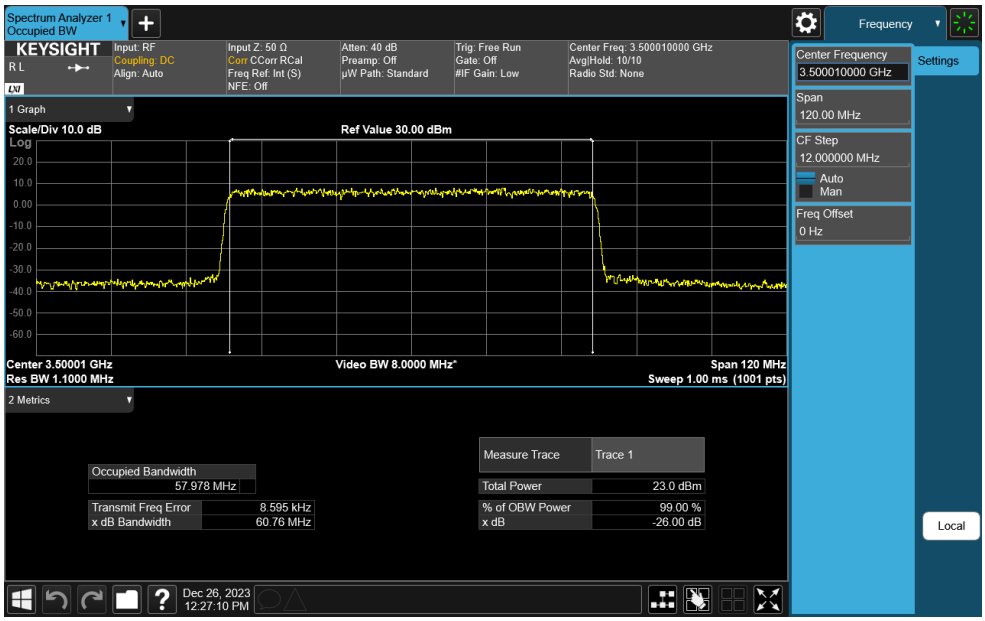


Plot 7-31. Occupied Bandwidth Plot (NR Band n77 DoD-Band - 60MHz DFT-s-OFDM π/2 BPSK - Full RB)



Plot 7-32. Occupied Bandwidth Plot (NR Band n77 DoD-Band - 60MHz CP-OFDM QPSK - Full RB)

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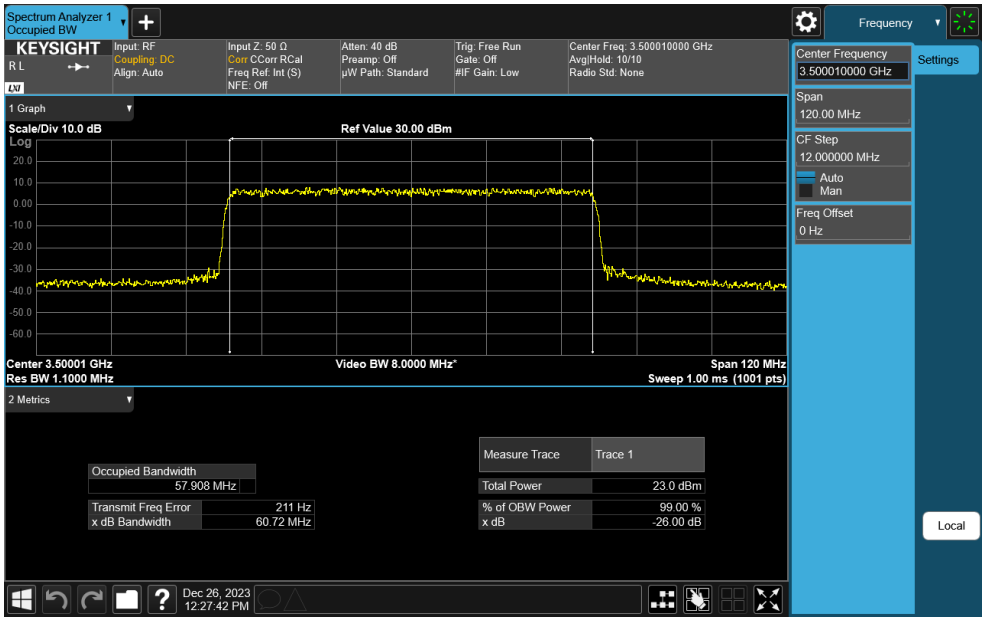
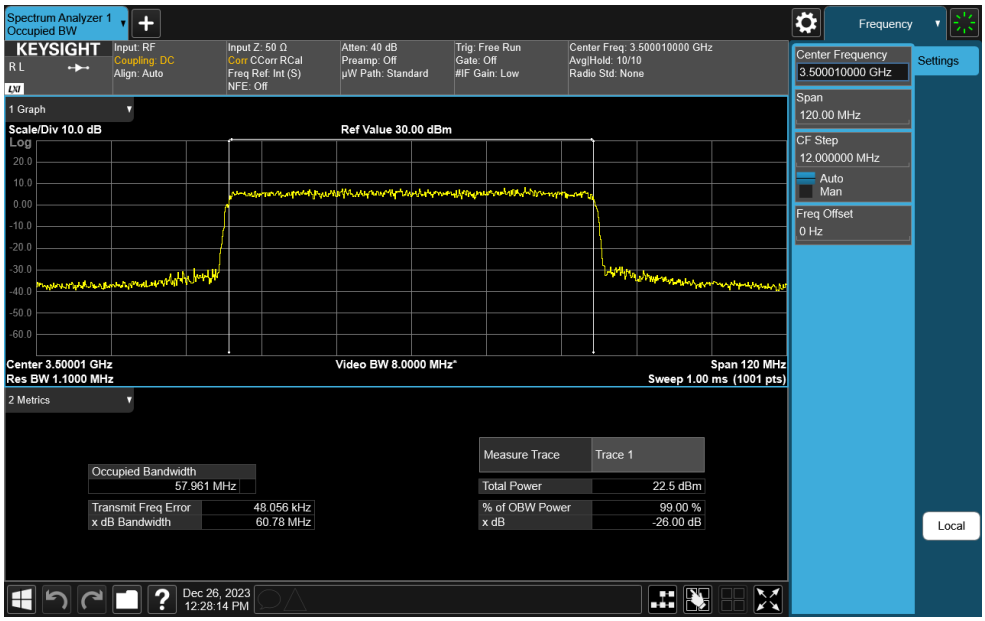


Plot 7-33. Occupied Bandwidth Plot (NR Band n77 DoD-Band - 60MHz CP-OFDM 16-QAM - Full RB)



Plot 7-34. Occupied Bandwidth Plot (NR Band n77 DoD-Band - 60MHz CP-OFDM 64-QAM - Full RB)

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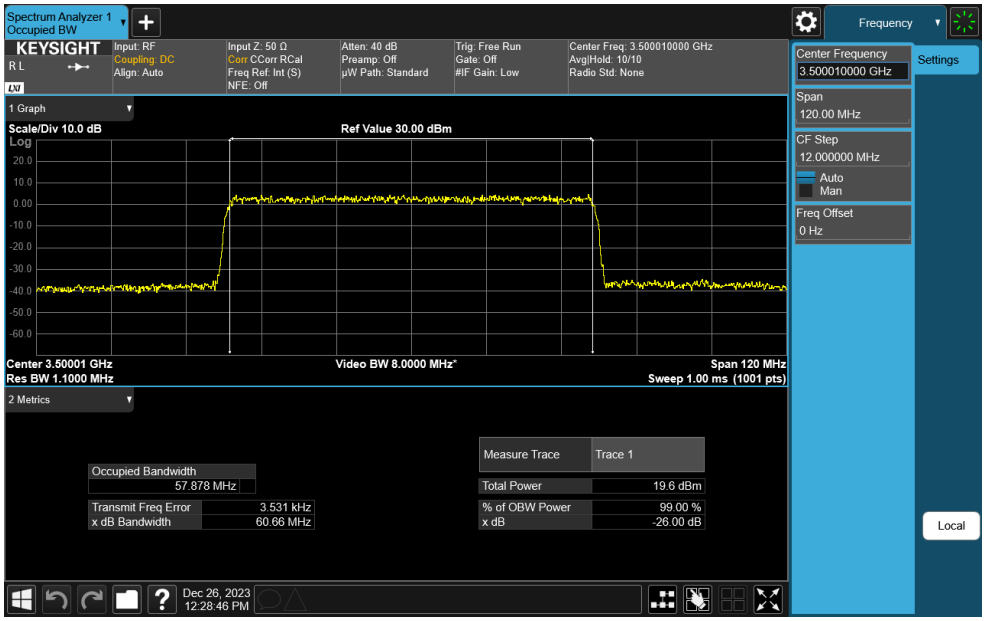
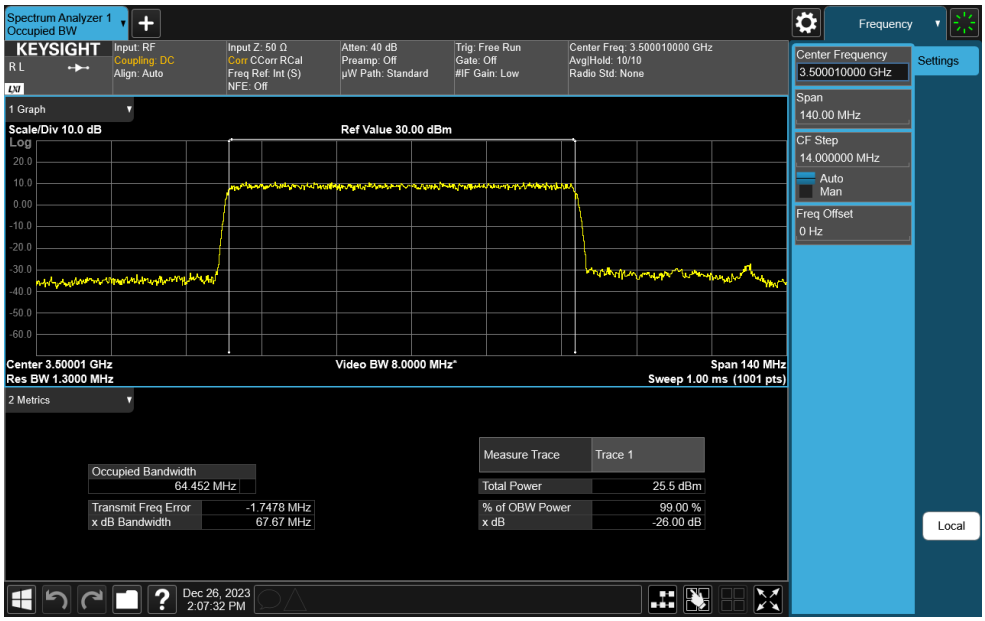


Plot 7-35. Occupied Bandwidth Plot (NR Band n77 DoD-Band - 60MHz CP-OFDM 256-QAM - Full RB)



Plot 7-36. Occupied Bandwidth Plot (NR Band n77 DoD-Band - 70MHz DFT-s-OFDM π/2 BPSK - Full RB)

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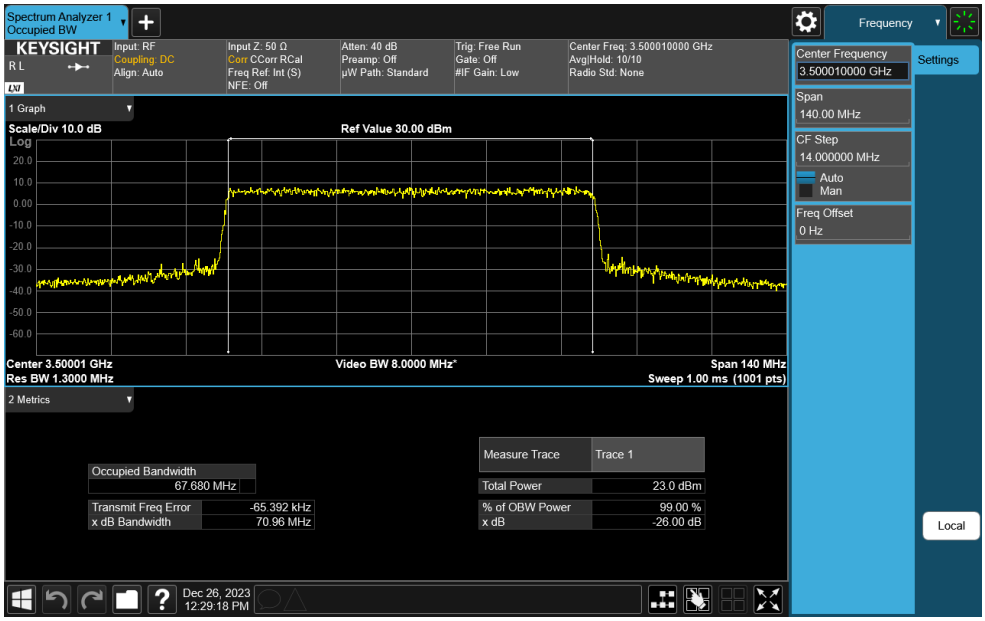
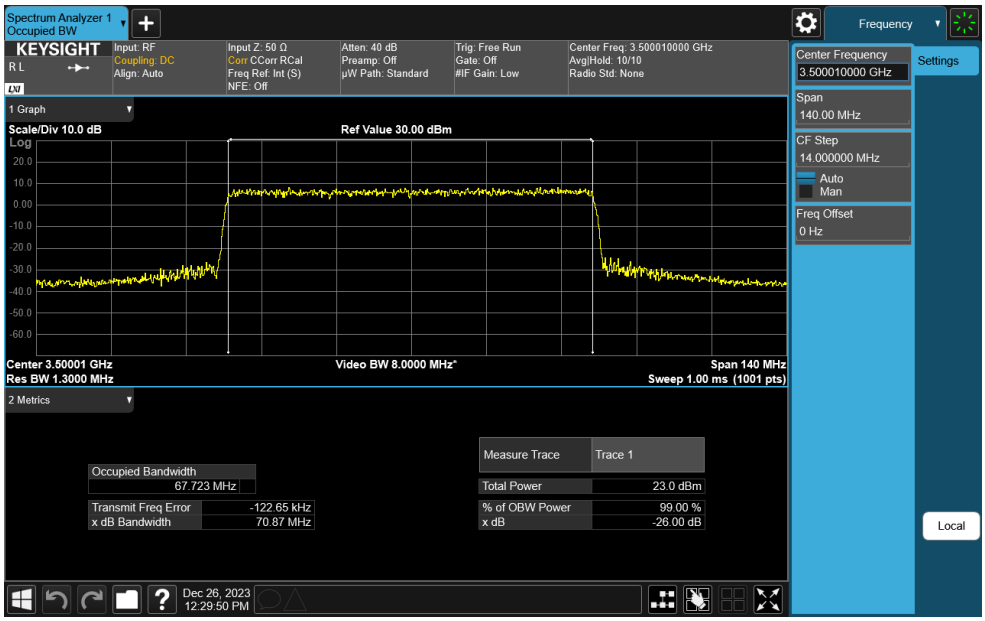


Plot 7-37. Occupied Bandwidth Plot (NR Band n77 DoD-Band - 70MHz CP-OFDM QPSK - Full RB)



Plot 7-38. Occupied Bandwidth Plot (NR Band n77 DoD-Band - 70MHz CP-OFDM 16-QAM - Full RB)

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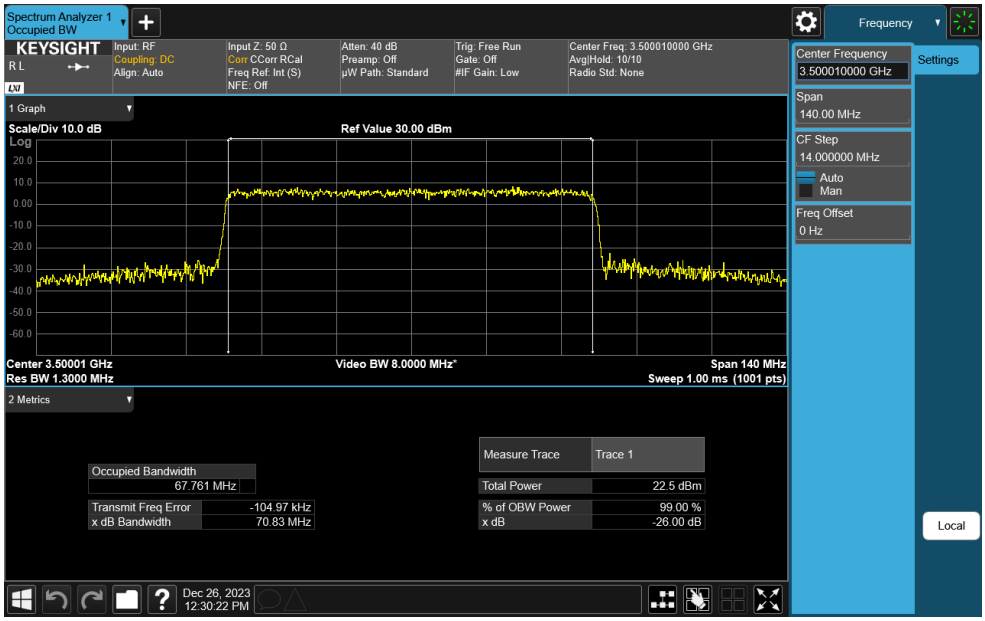
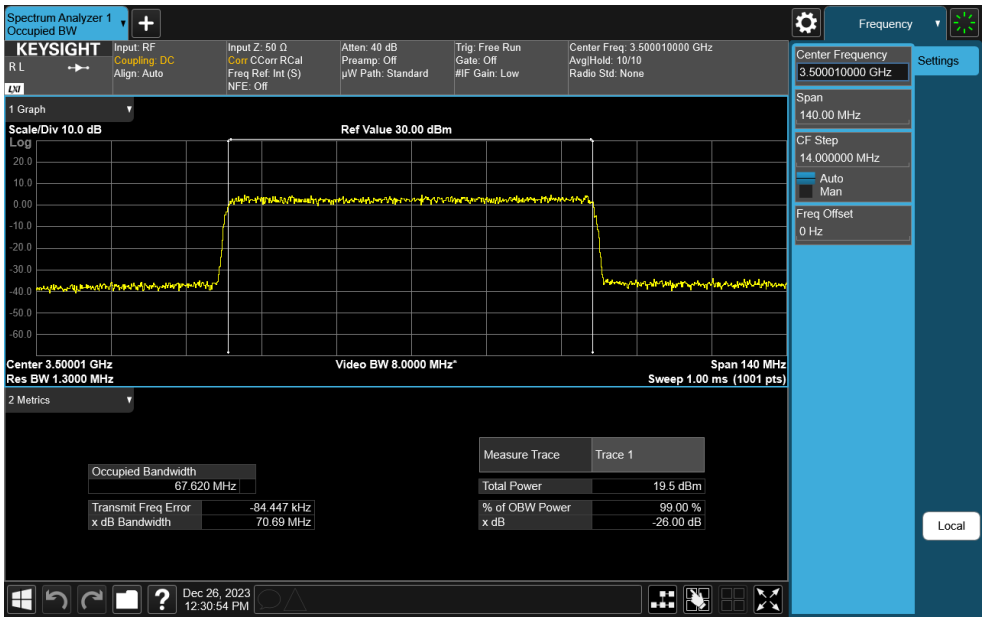


Plot 7-39. Occupied Bandwidth Plot (NR Band n77 DoD-Band - 70MHz CP-OFDM 64-QAM - Full RB)



Plot 7-40. Occupied Bandwidth Plot (NR Band n77 DoD-Band - 70MHz CP-OFDM 256-QAM - Full RB)

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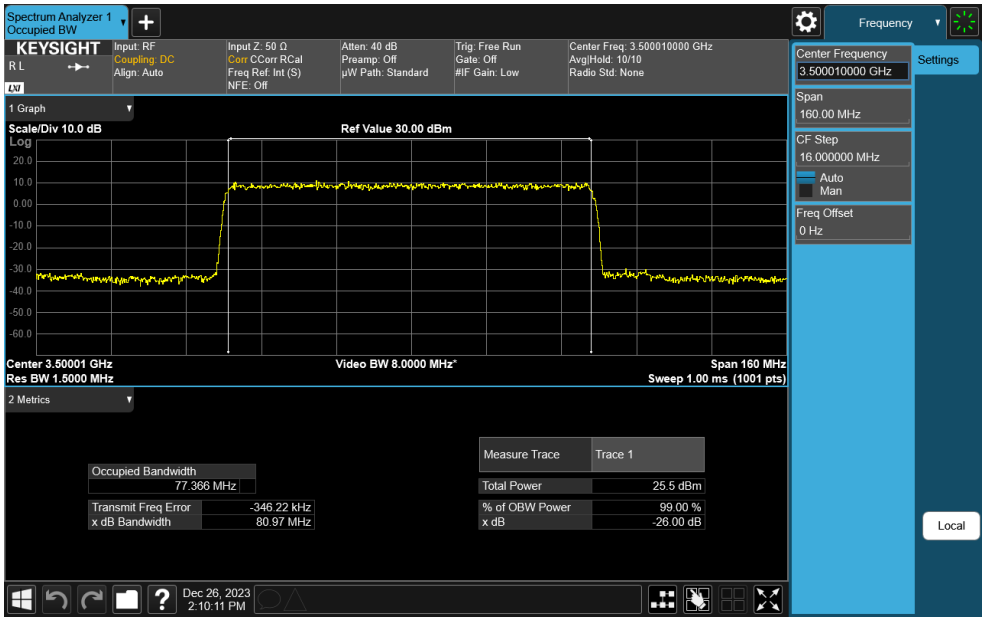
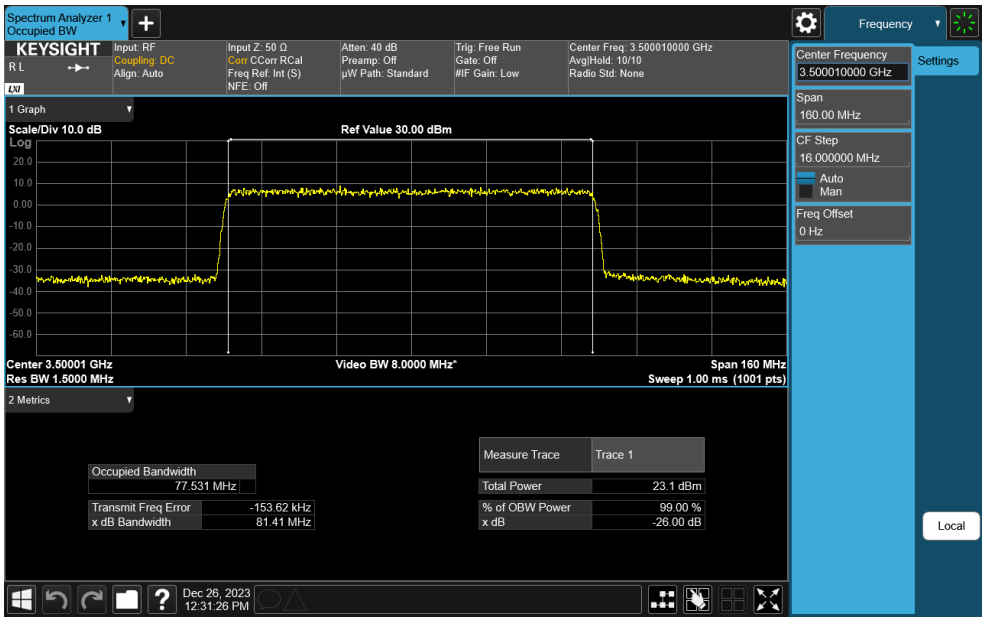


Plot 7-41. Occupied Bandwidth Plot (NR Band n77 DoD-Band - 80MHz DFT-s-OFDM π/2 BPSK - Full RB)



Plot 7-42. Occupied Bandwidth Plot (NR Band n77 DoD-Band - 80MHz CP-OFDM QPSK - Full RB)

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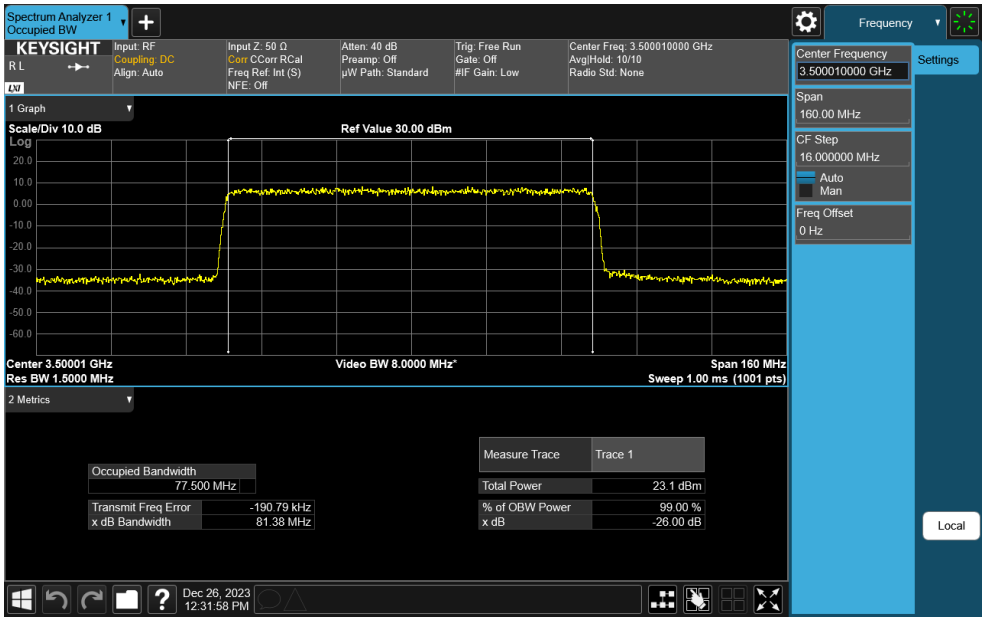
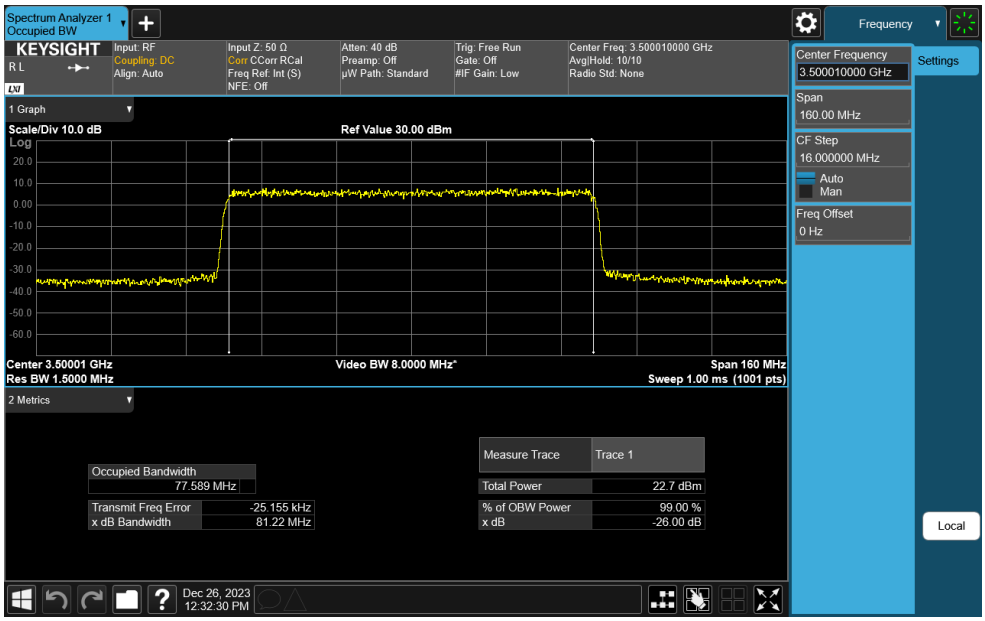


Plot 7-43. Occupied Bandwidth Plot (NR Band n77 DoD-Band - 80MHz CP-OFDM 16-QAM - Full RB)



Plot 7-44. Occupied Bandwidth Plot (NR Band n77 DoD-Band - 80MHz CP-OFDM 64-QAM - Full RB)

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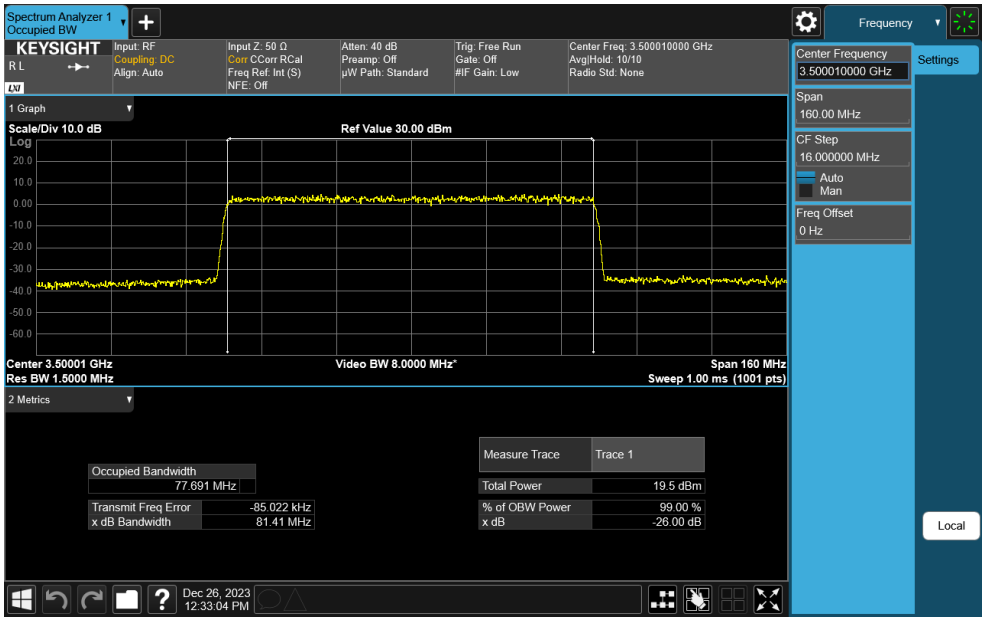
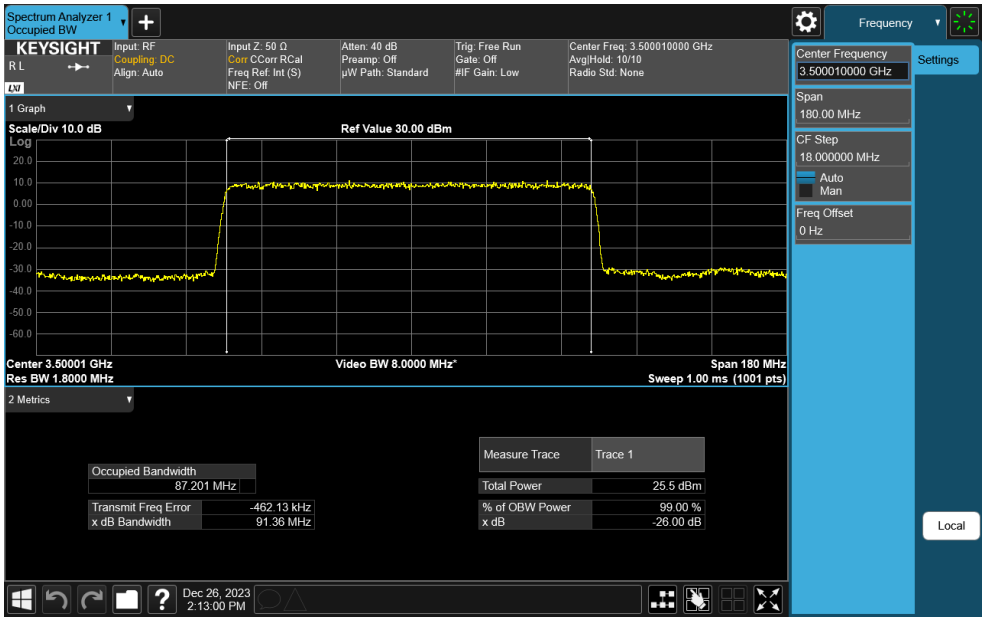


Plot 7-45. Occupied Bandwidth Plot (NR Band n77 DoD-Band - 80MHz CP-OFDM 256-QAM - Full RB)



Plot 7-46. Occupied Bandwidth Plot (NR Band n77 DoD-Band - 90MHz DFT-s-OFDM π/2 BPSK - Full RB)

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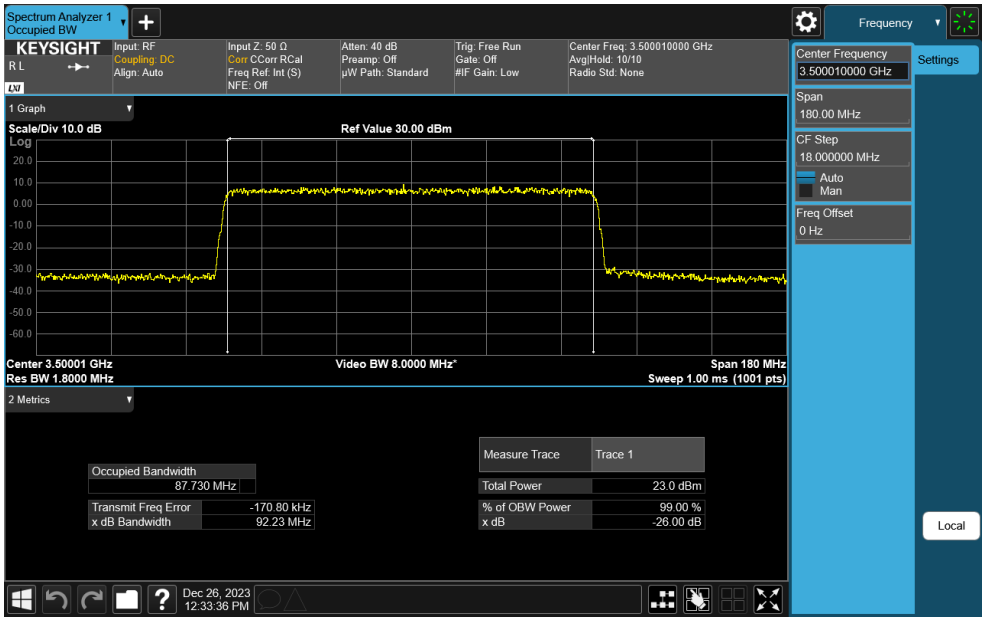
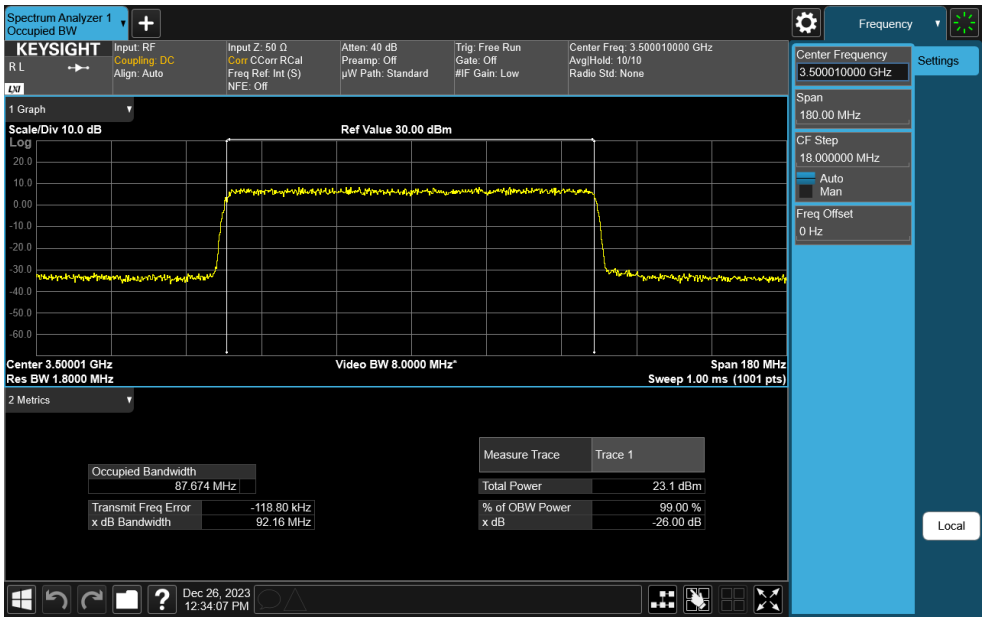


Plot 7-47. Occupied Bandwidth Plot (NR Band n77 DoD-Band - 90MHz CP-OFDM QPSK - Full RB)



Plot 7-48. Occupied Bandwidth Plot (NR Band n77 DoD-Band - 90MHz CP-OFDM 16-QAM - Full RB)

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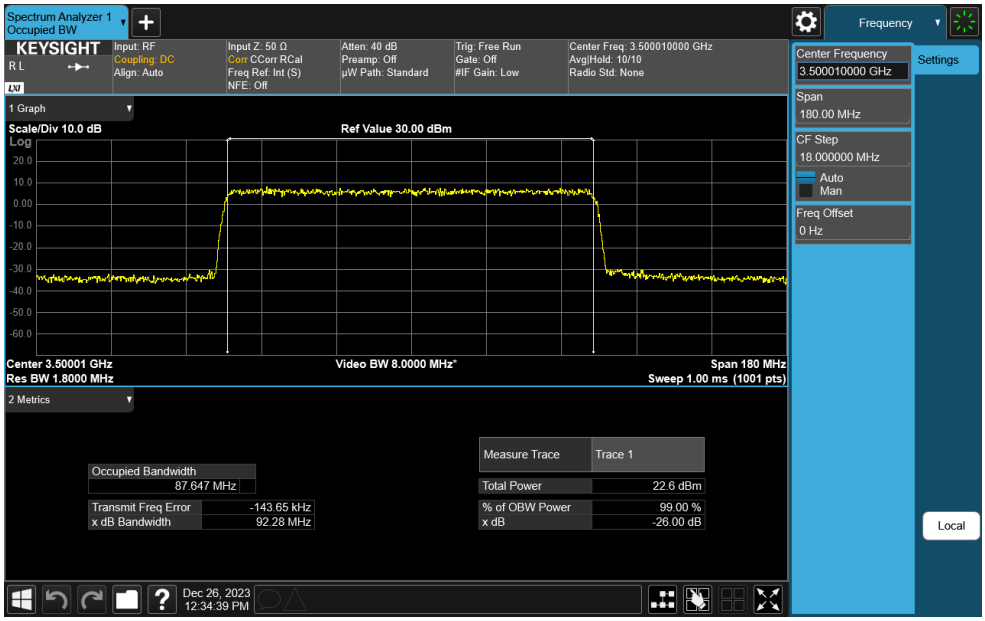
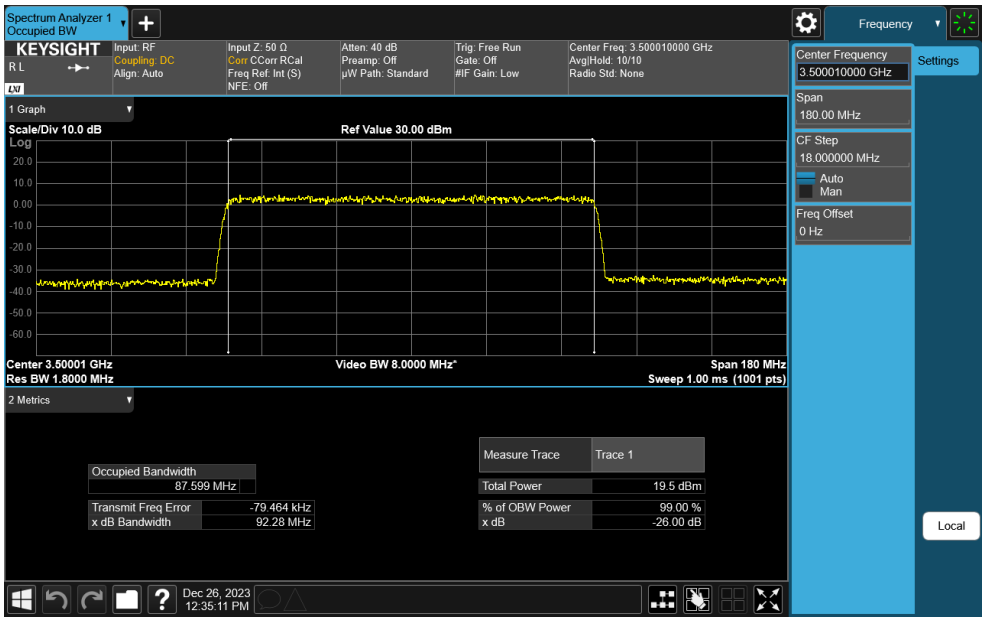


Plot 7-49. Occupied Bandwidth Plot (NR Band n77 DoD-Band - 90MHz CP-OFDM 64-QAM - Full RB)



Plot 7-50. Occupied Bandwidth Plot (NR Band n77 DoD-Band - 90MHz CP-OFDM 256-QAM - Full RB)

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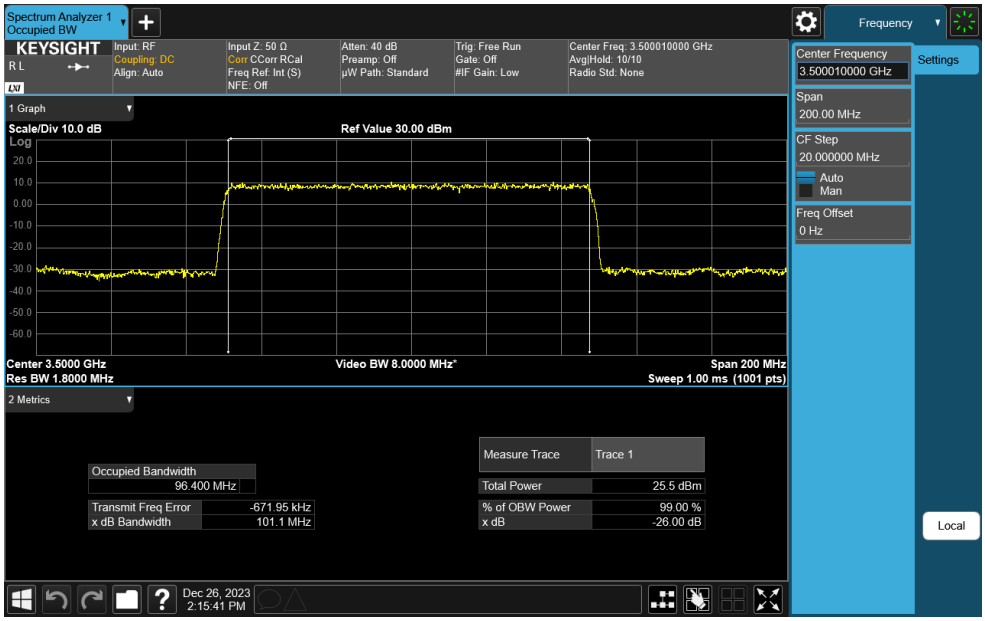
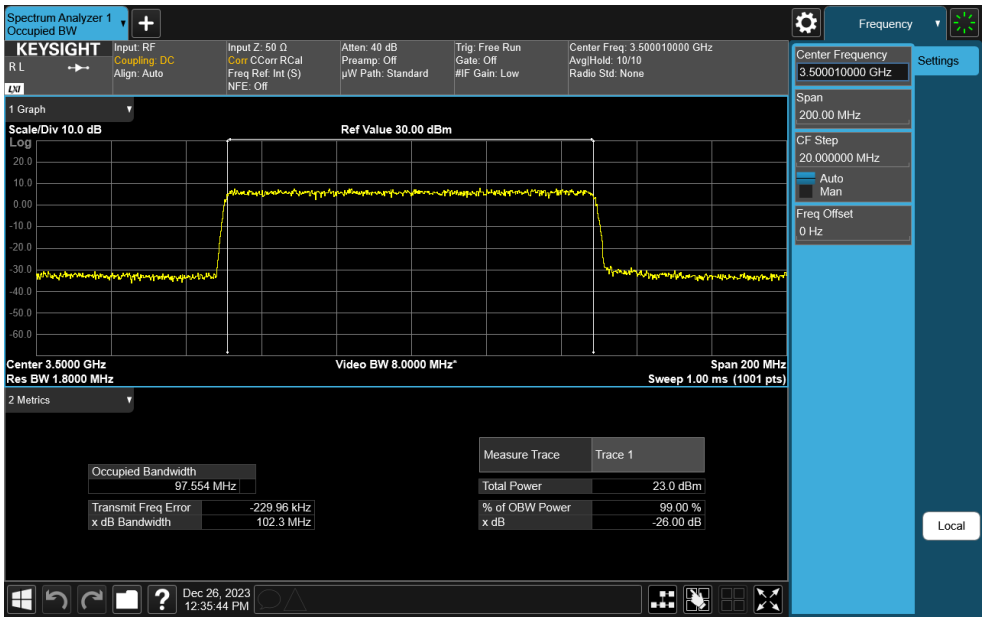


Plot 7-51. Occupied Bandwidth Plot (NR Band n77 DoD-Band - 100MHz DFT-s-OFDM π/2 BPSK - Full RB)



Plot 7-52. Occupied Bandwidth Plot (NR Band n77 DoD-Band - 100MHz CP-OFDM QPSK - Full RB)

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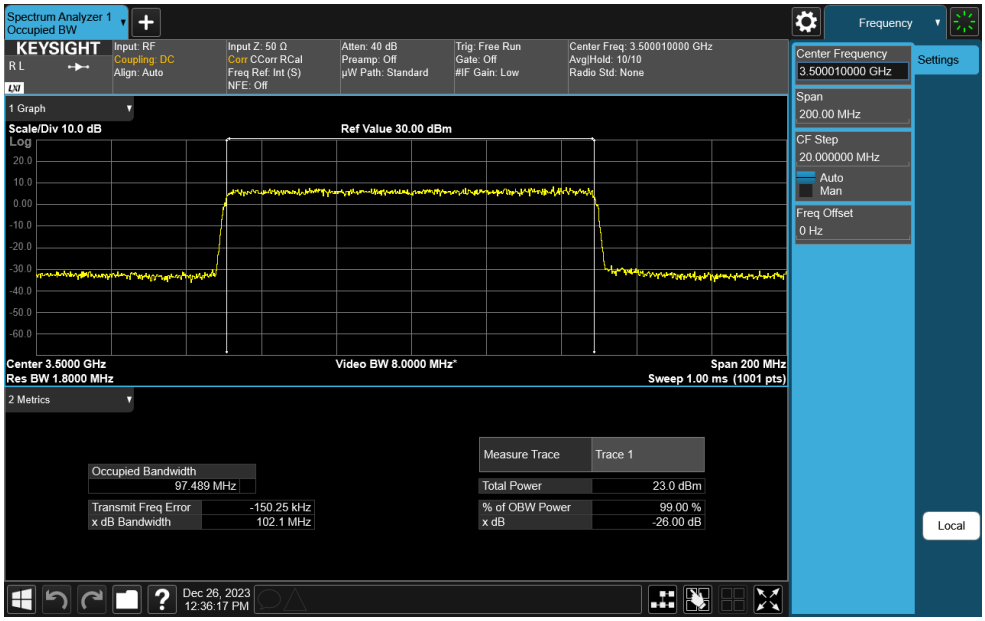
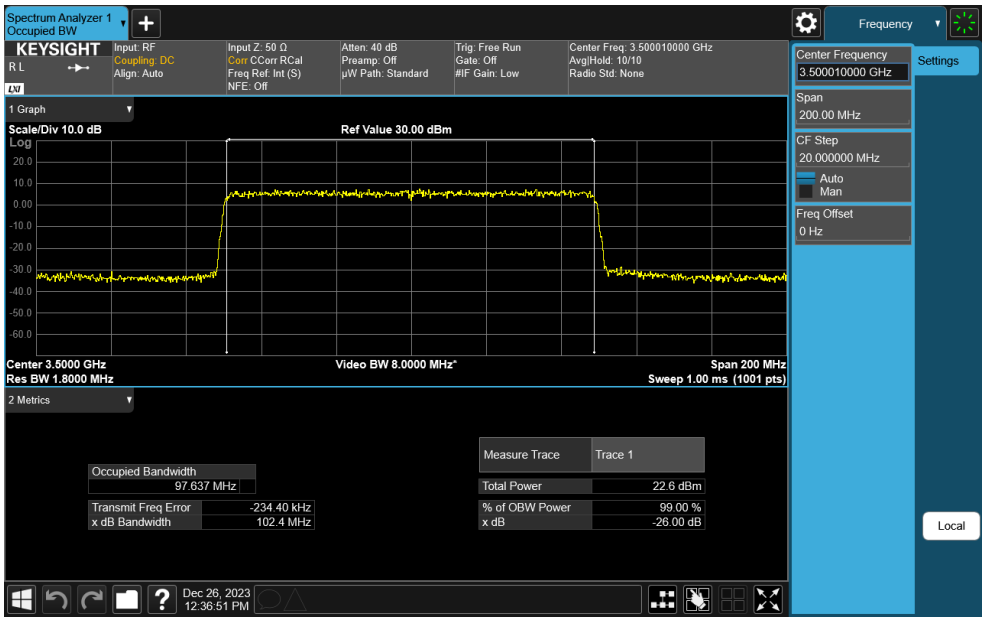


Plot 7-53. Occupied Bandwidth Plot (NR Band n77 DoD-Band - 100MHz CP-OFDM 16-QAM - Full RB)



Plot 7-54. Occupied Bandwidth Plot (NR Band n77 DoD-Band - 100MHz CP-OFDM 64-QAM - Full RB)

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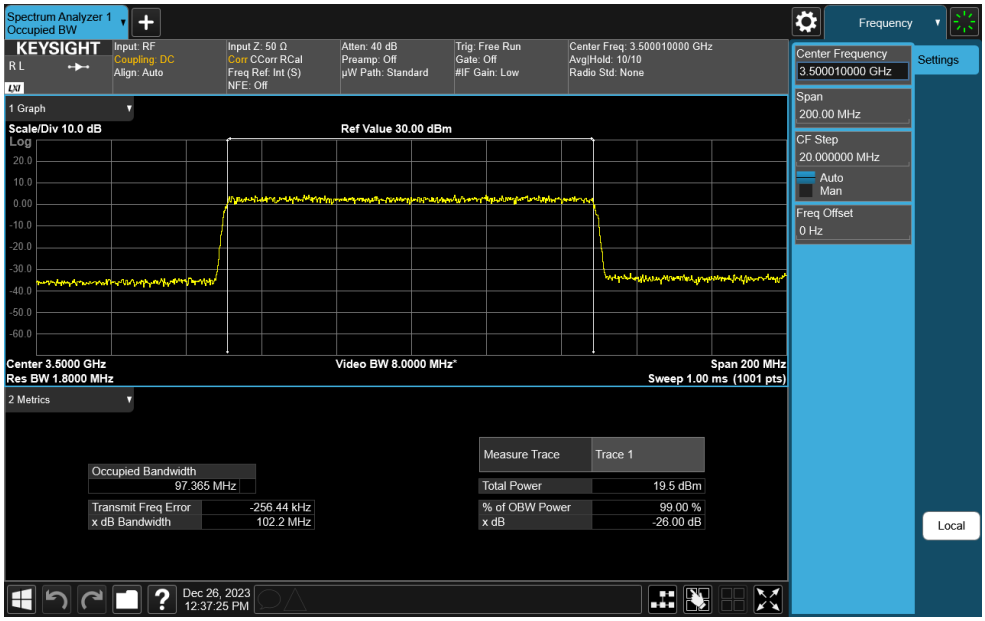

Plot 7-55. Occupied Bandwidth Plot (NR Band n77 DoD-Band - 100MHz CP-OFDM 256-QAM - Full RB)

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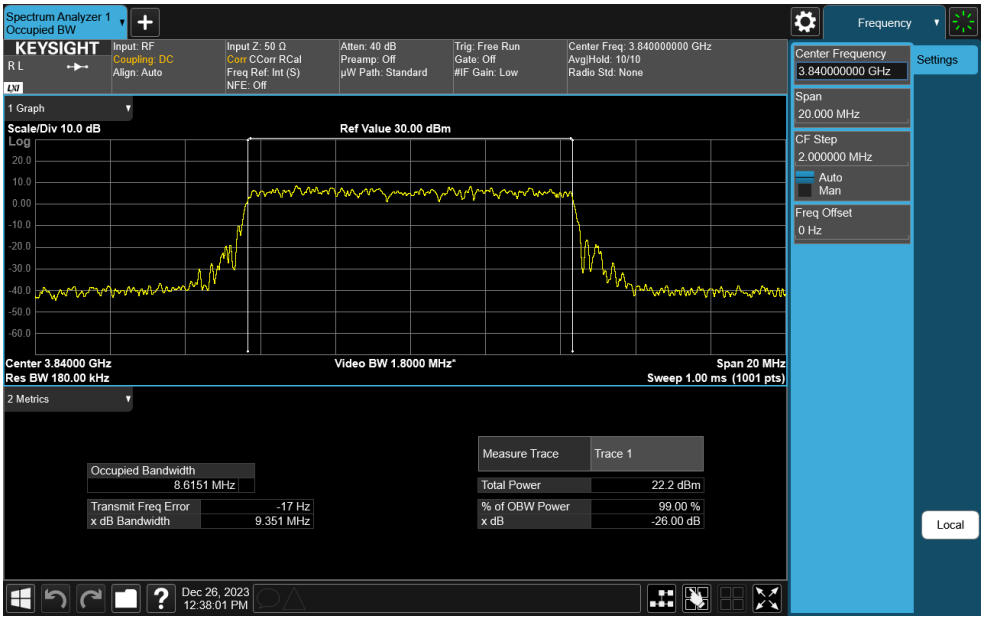
NR Band n77 C-Band

Plot 7-56. Occupied Bandwidth Plot (NR Band n77 C-Band - 10MHz DFT-s-OFDM π/2 BPSK - Full RB)



Plot 7-57. Occupied Bandwidth Plot (NR Band n77 C-Band - 10MHz CP-OFDM QPSK - Full RB)

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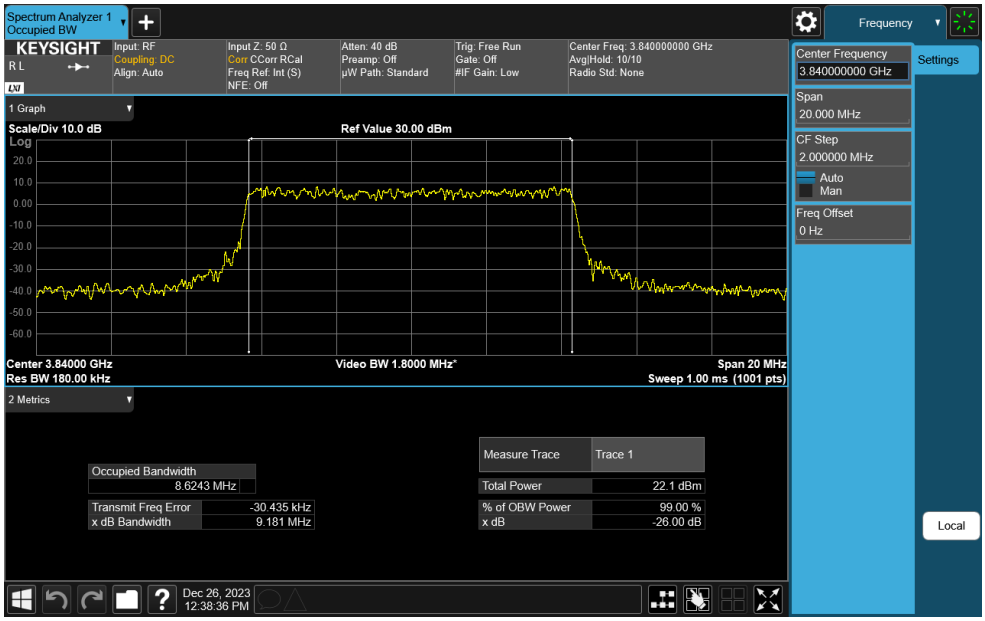
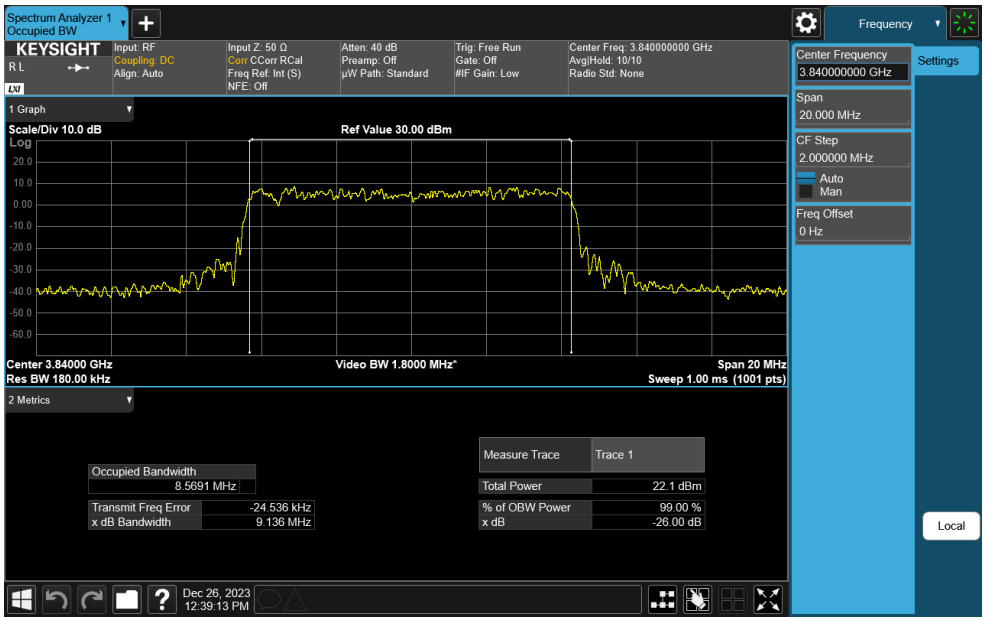


Plot 7-58. Occupied Bandwidth Plot (NR Band n77 C-Band - 10MHz CP-OFDM 16-QAM - Full RB)



Plot 7-59. Occupied Bandwidth Plot (NR Band n77 C-Band - 10MHz CP-OFDM 64-QAM - Full RB)

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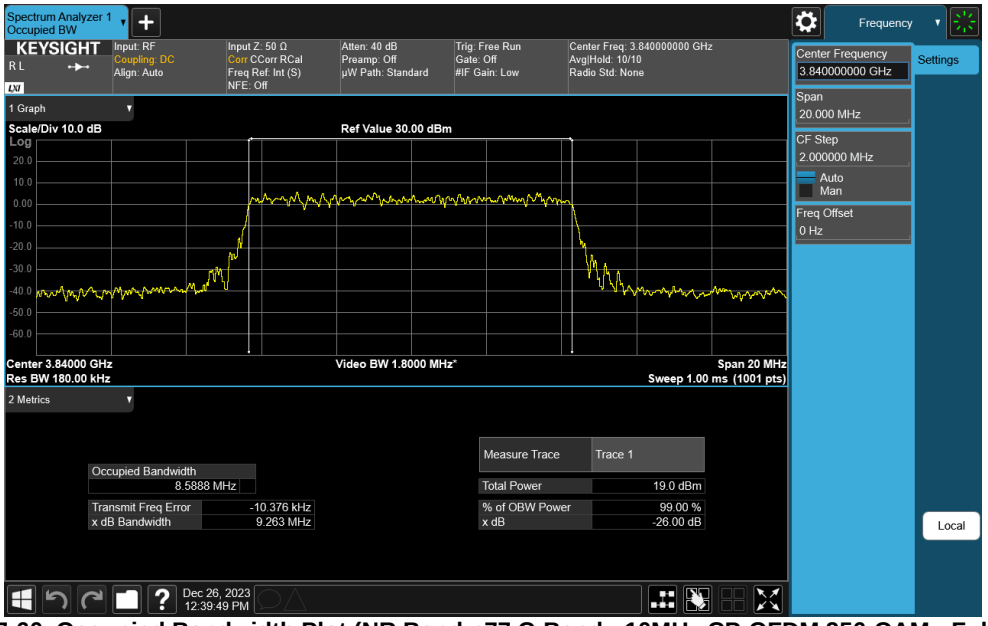
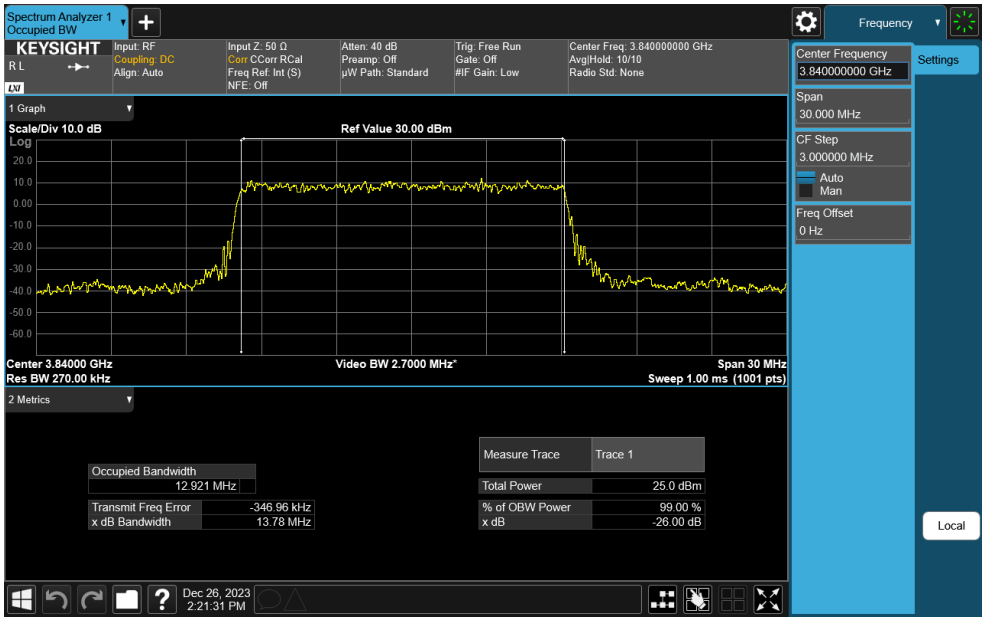


Plot 7-60. Occupied Bandwidth Plot (NR Band n77 C-Band - 10MHz CP-OFDM 256-QAM - Full RB)



Plot 7-61. Occupied Bandwidth Plot (NR Band n77 C-Band - 15MHz DFT-s-OFDM π/2 BPSK - Full RB)

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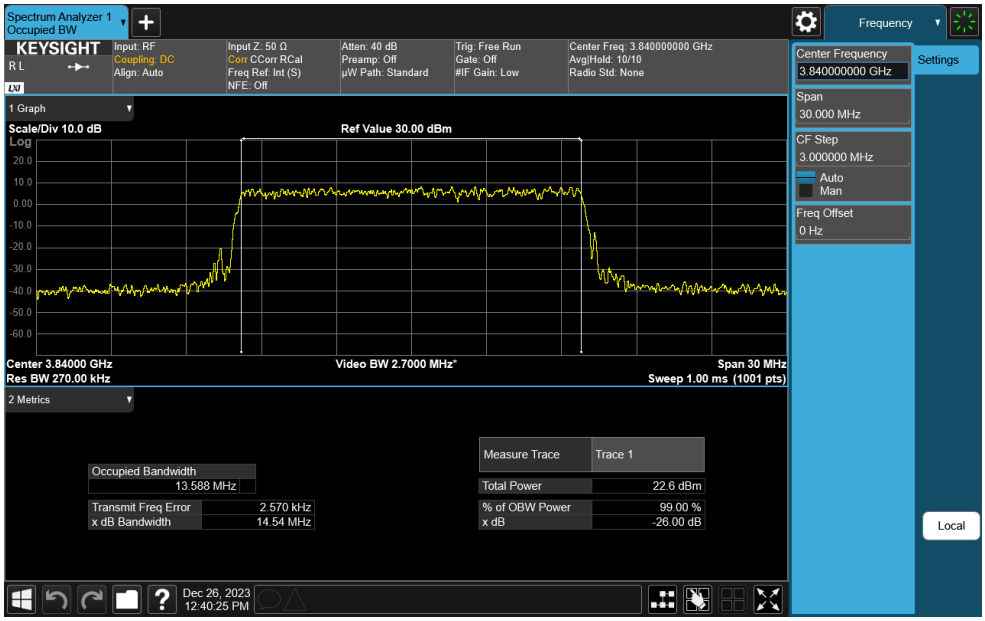
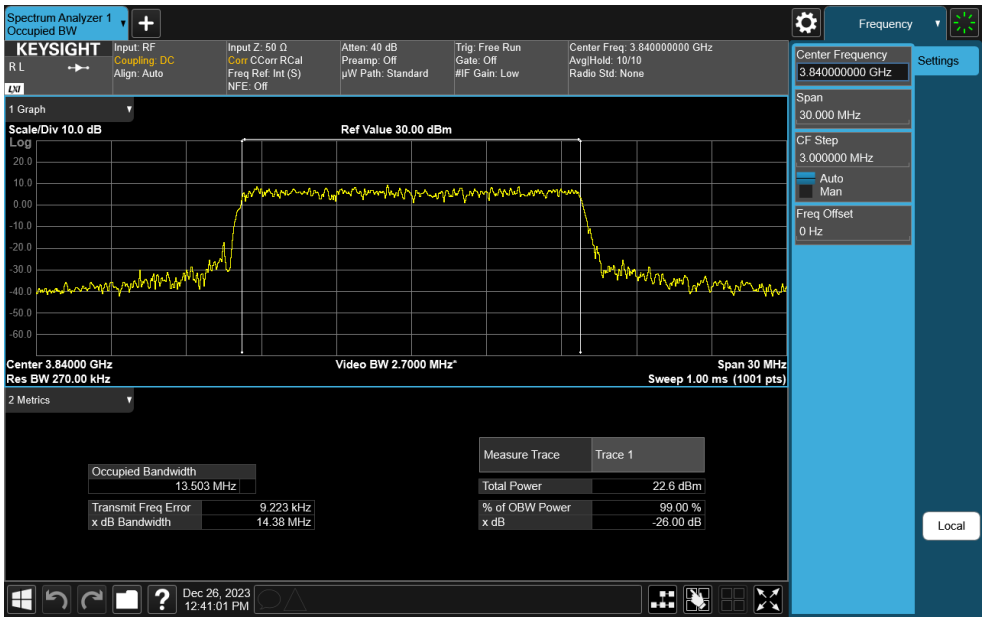


Plot 7-62. Occupied Bandwidth Plot (NR Band n77 C-Band - 15MHz CP-OFDM QPSK - Full RB)



Plot 7-63. Occupied Bandwidth Plot (NR Band n77 C-Band - 15MHz CP-OFDM 16-QAM - Full RB)

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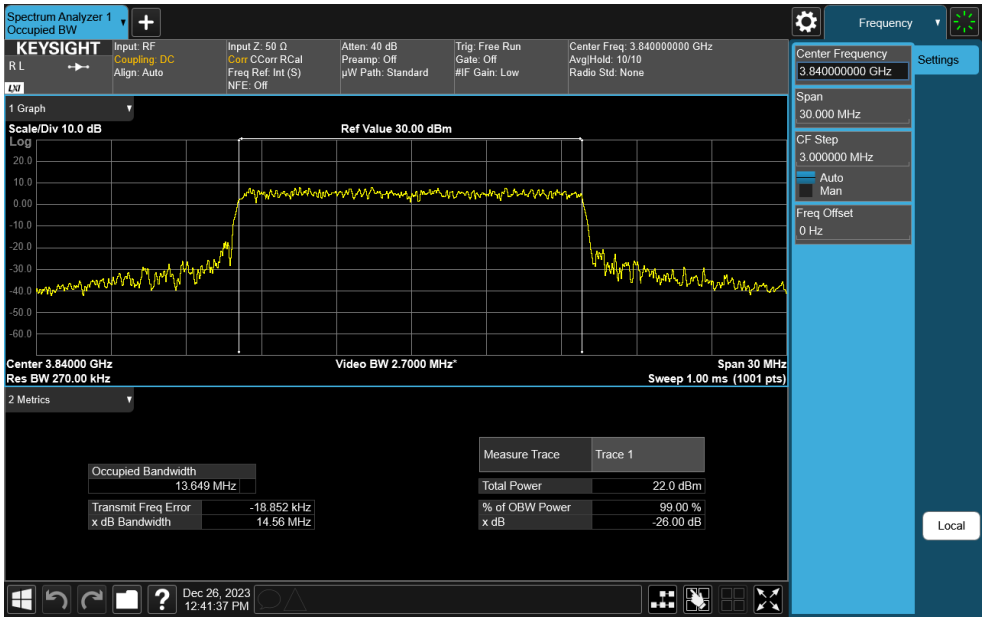
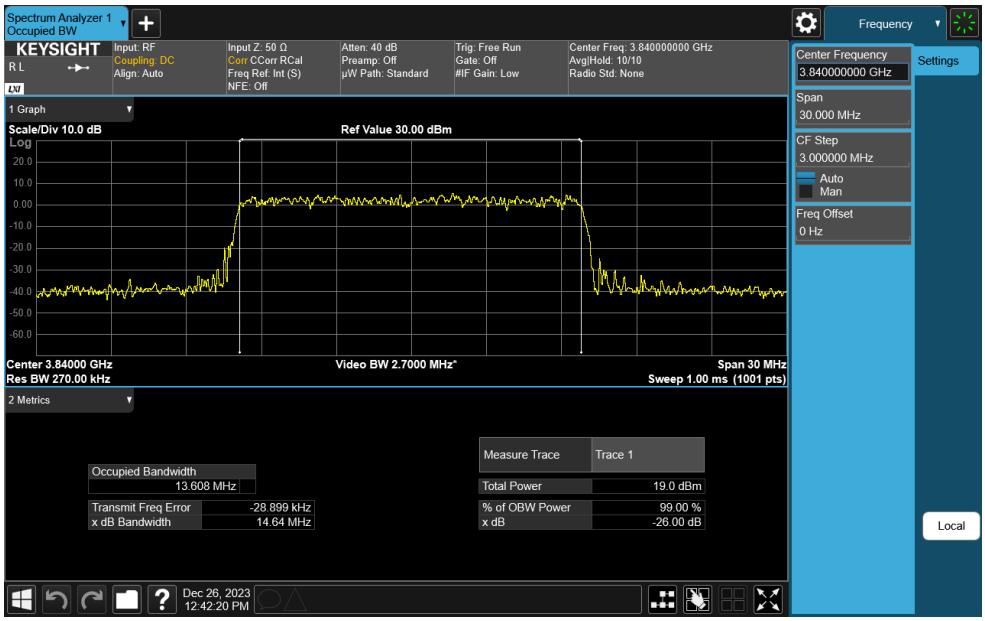


Plot 7-64. Occupied Bandwidth Plot (NR Band n77 C-Band - 15MHz CP-OFDM 64-QAM - Full RB)



Plot 7-65. Occupied Bandwidth Plot (NR Band n77 C-Band - 15MHz CP-OFDM 256-QAM - Full RB)

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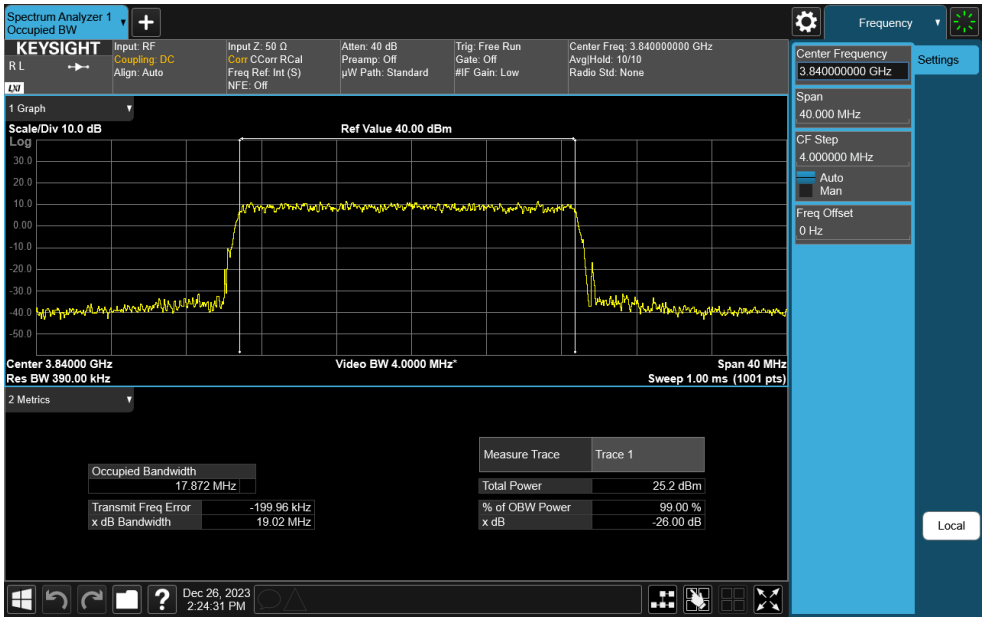
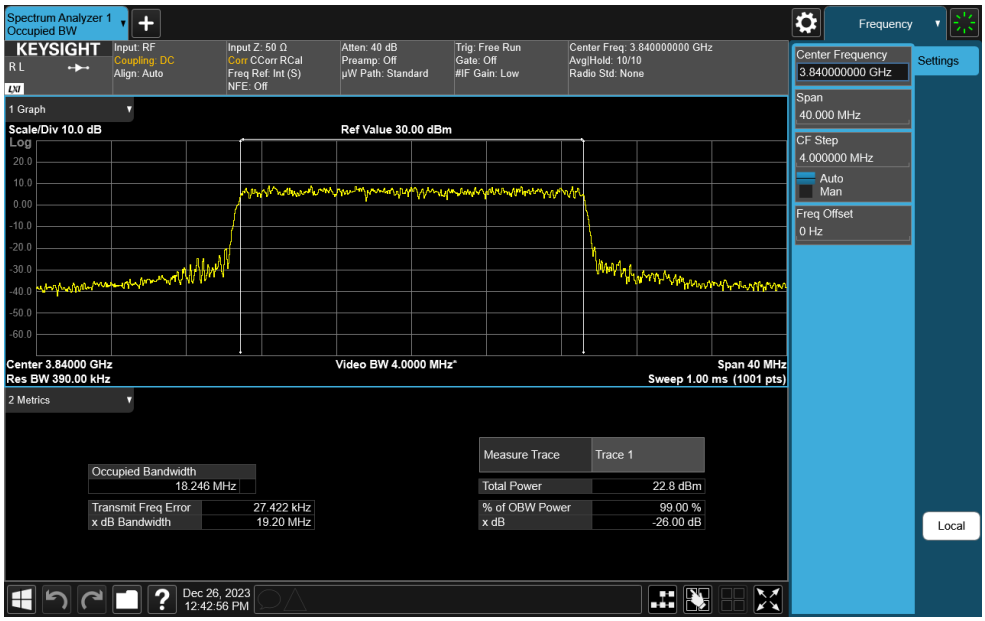


Plot 7-66. Occupied Bandwidth Plot (NR Band n77 C-Band - 20MHz DFT-s-OFDM π/2 BPSK - Full RB)



Plot 7-67. Occupied Bandwidth Plot (NR Band n77 C-Band - 20MHz CP-OFDM QPSK - Full RB)

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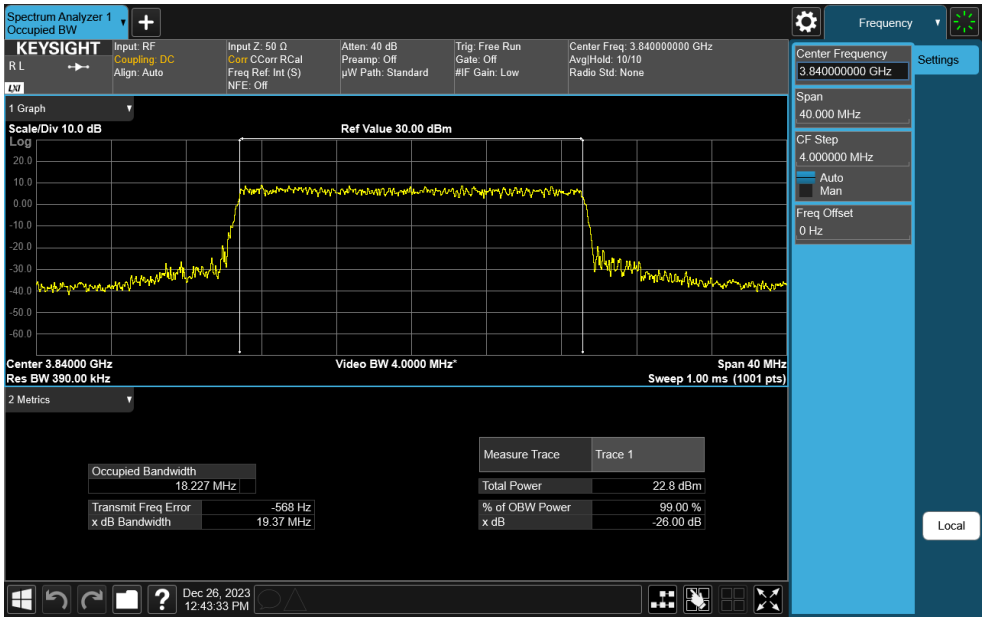
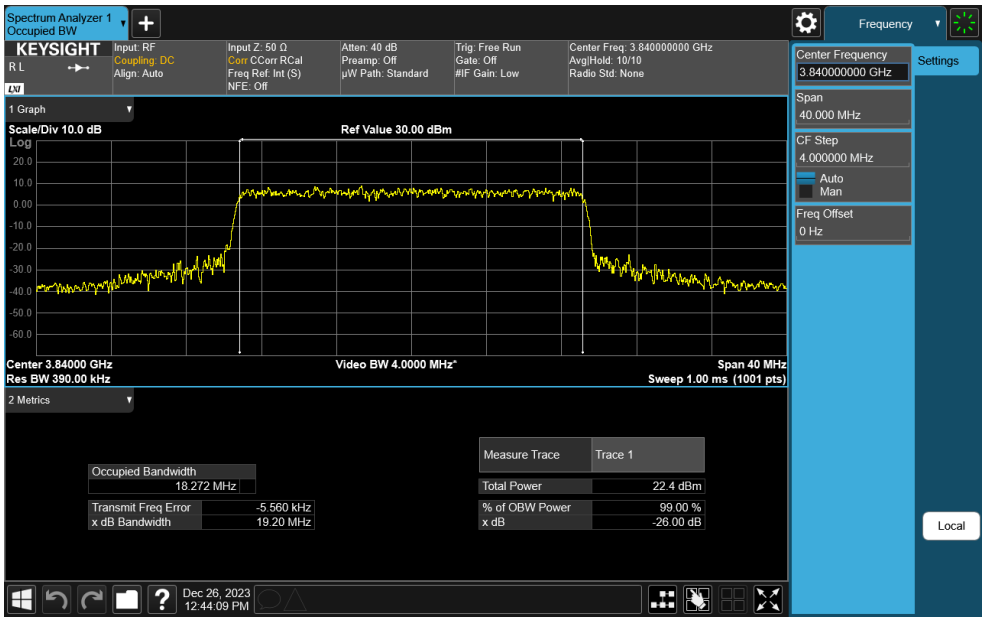


Plot 7-68. Occupied Bandwidth Plot (NR Band n77 C-Band - 20MHz CP-OFDM 16-QAM - Full RB)



Plot 7-69. Occupied Bandwidth Plot (NR Band n77 C-Band - 20MHz CP-OFDM 64-QAM - Full RB)

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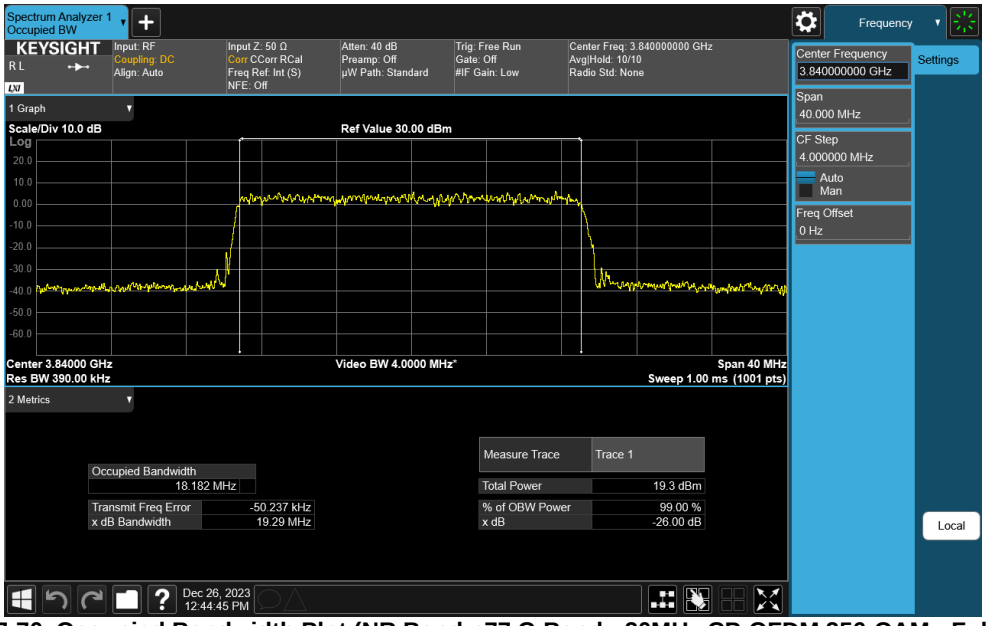
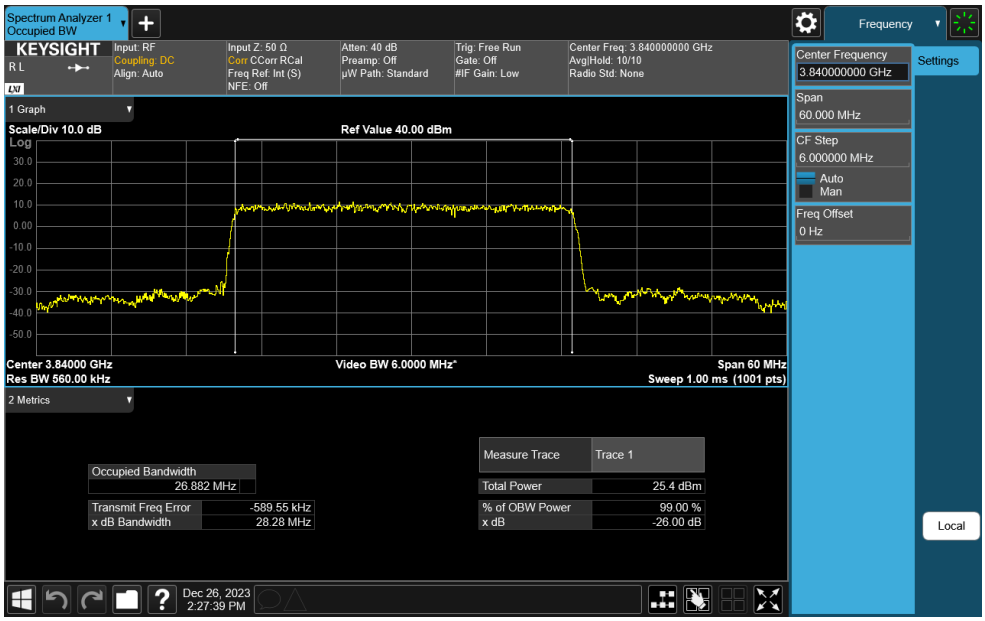


Plot 7-70. Occupied Bandwidth Plot (NR Band n77 C-Band - 20MHz CP-OFDM 256-QAM - Full RB)



Plot 7-71. Occupied Bandwidth Plot (NR Band n77 C-Band - 30MHz DFT-s-OFDM π/2 BPSK - Full RB)

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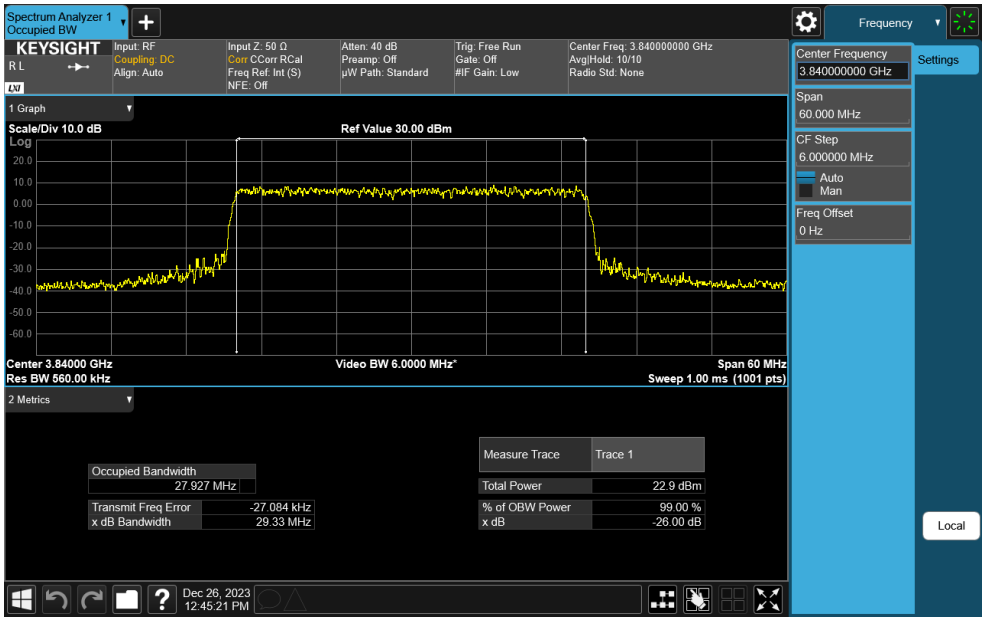
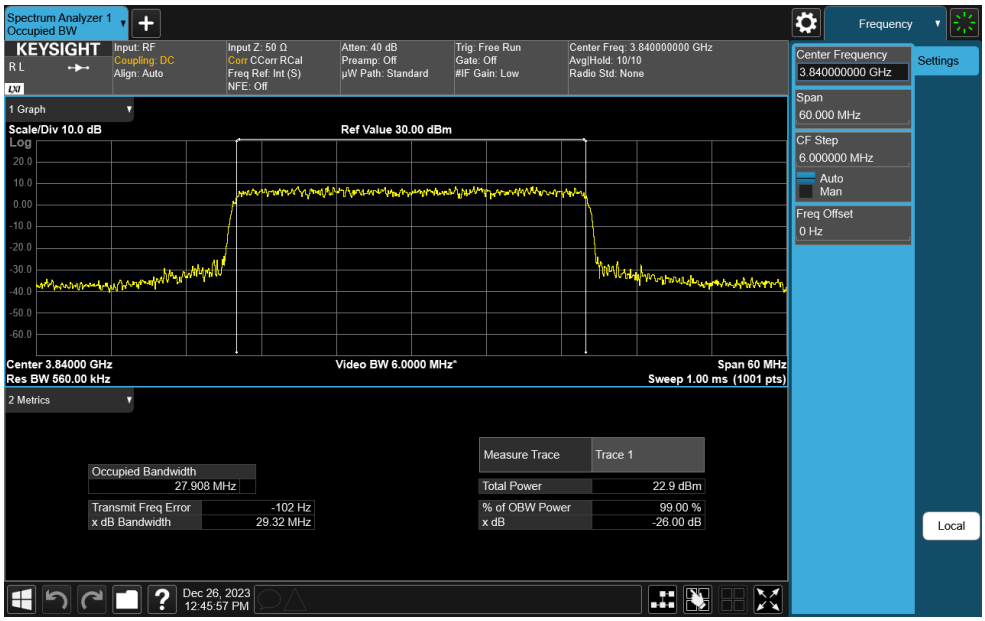


Plot 7-72. Occupied Bandwidth Plot (NR Band n77 C-Band - 30MHz CP-OFDM QPSK - Full RB)



Plot 7-73. Occupied Bandwidth Plot (NR Band n77 C-Band - 30MHz CP-OFDM 16-QAM - Full RB)

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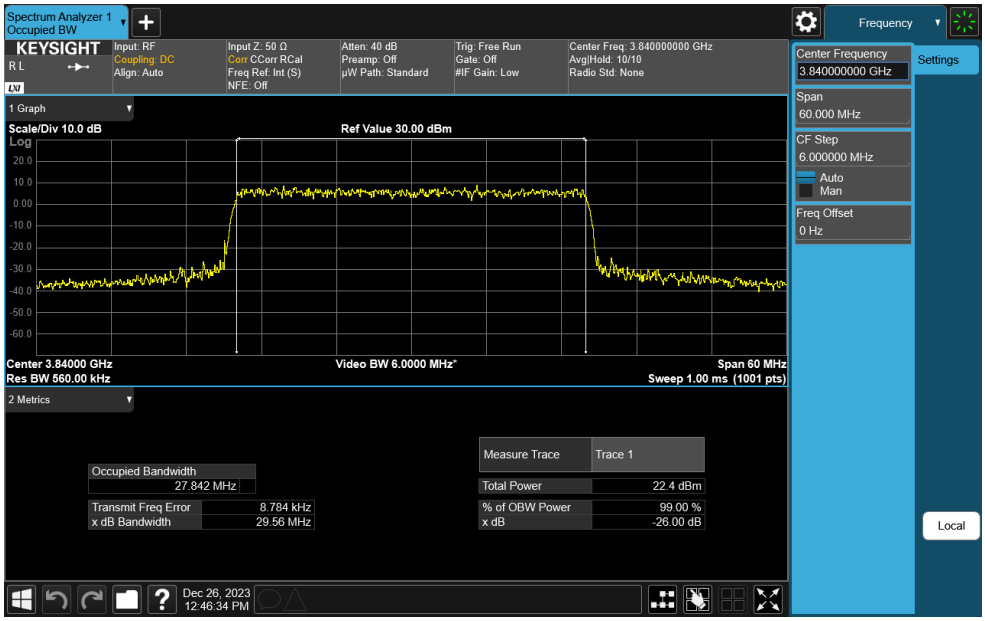
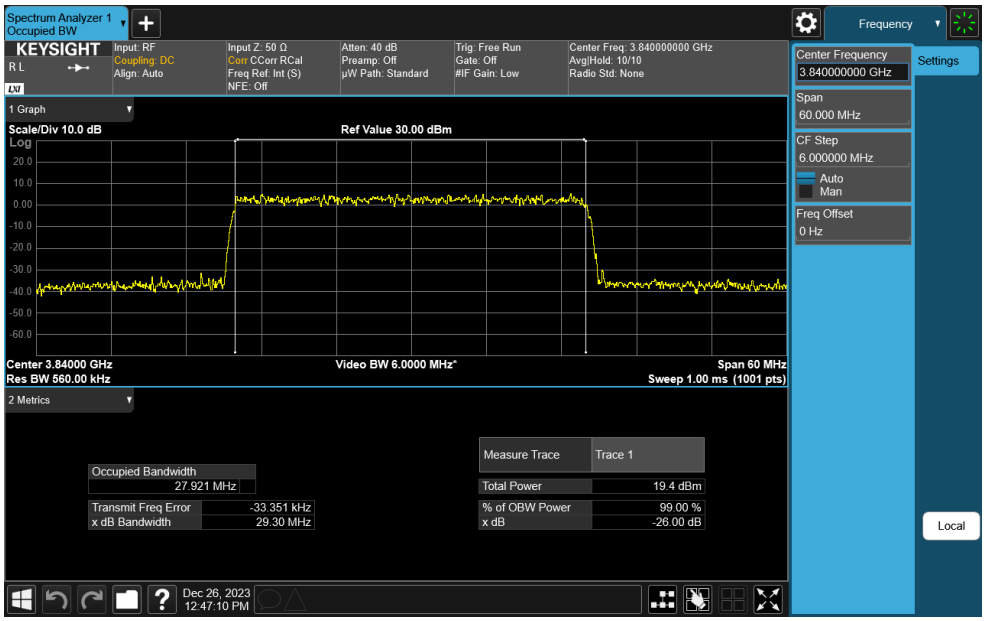


Plot 7-74. Occupied Bandwidth Plot (NR Band n77 C-Band - 30MHz CP-OFDM 64-QAM - Full RB)



Plot 7-75. Occupied Bandwidth Plot (NR Band n77 C-Band - 30MHz CP-OFDM 256-QAM - Full RB)

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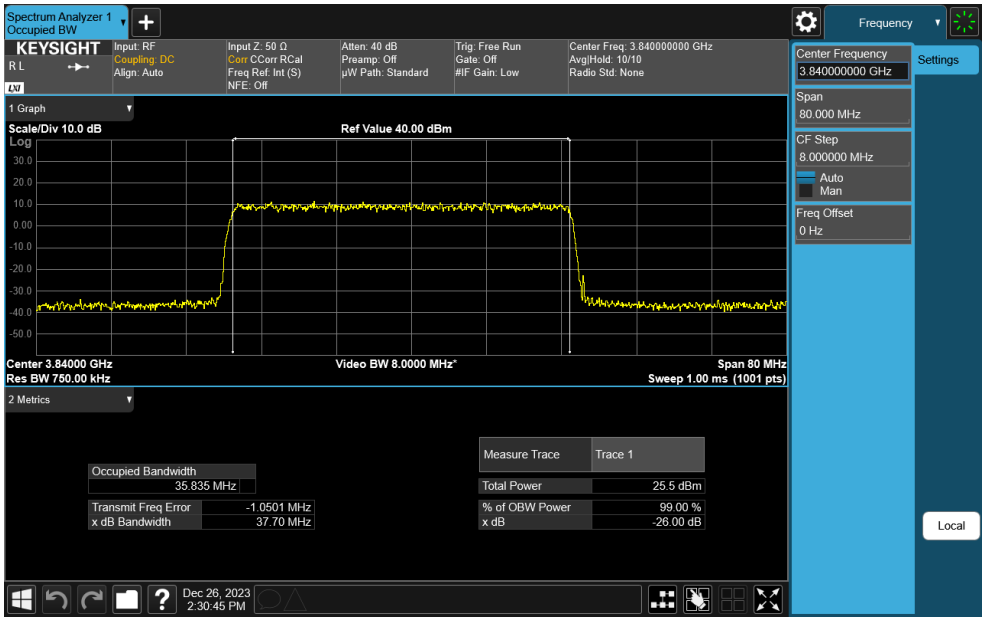
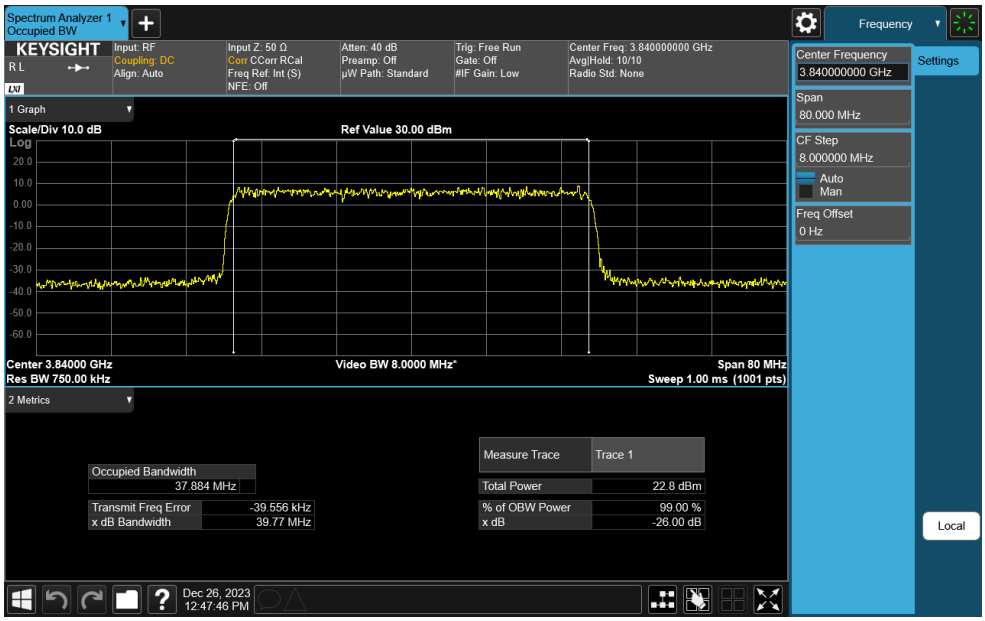


Plot 7-76. Occupied Bandwidth Plot (NR Band n77 C-Band - 40MHz DFT-s-OFDM π/2 BPSK - Full RB)



Plot 7-77. Occupied Bandwidth Plot (NR Band n77 C-Band - 40MHz CP-OFDM QPSK - Full RB)

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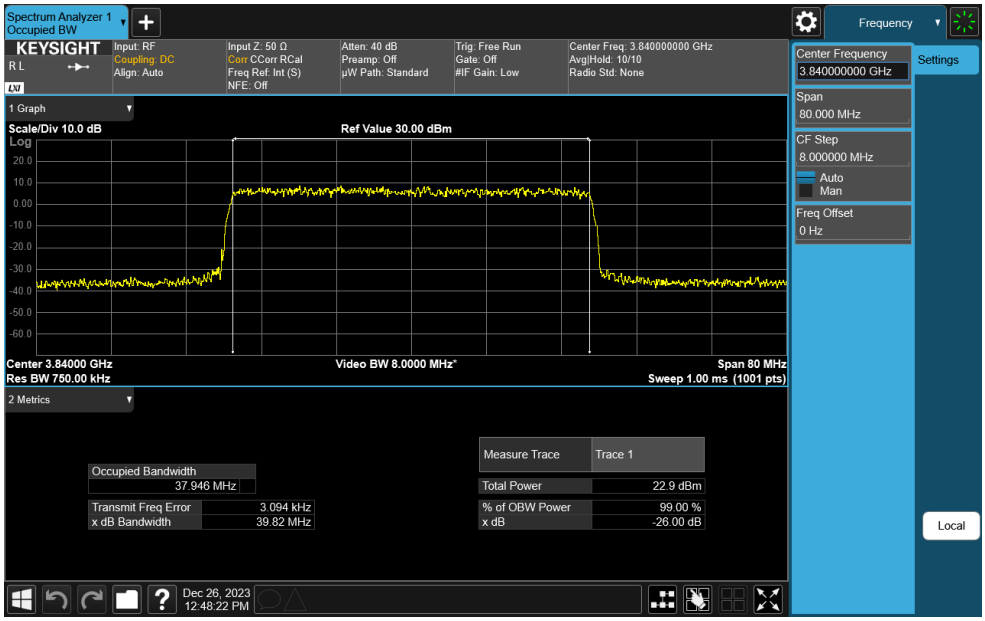
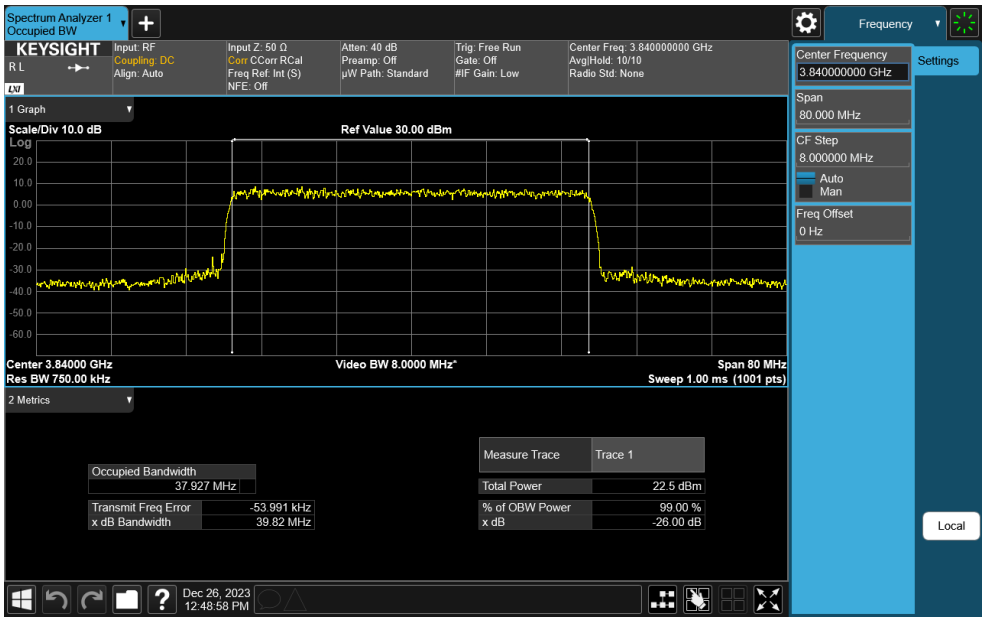


Plot 7-78. Occupied Bandwidth Plot (NR Band n77 C-Band - 40MHz CP-OFDM 16-QAM - Full RB)



Plot 7-79. Occupied Bandwidth Plot (NR Band n77 C-Band - 40MHz CP-OFDM 64-QAM - Full RB)

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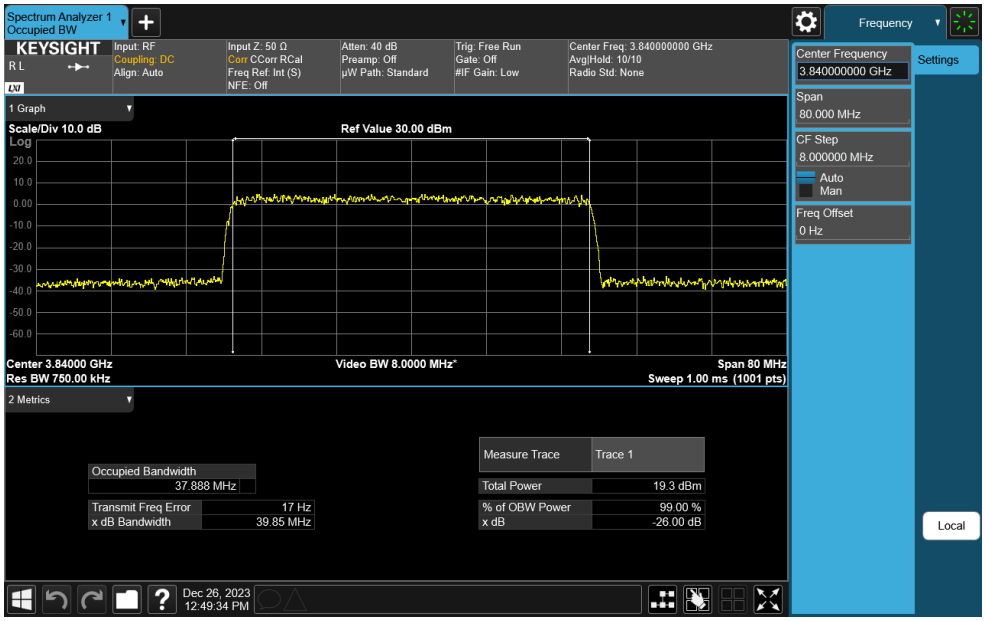
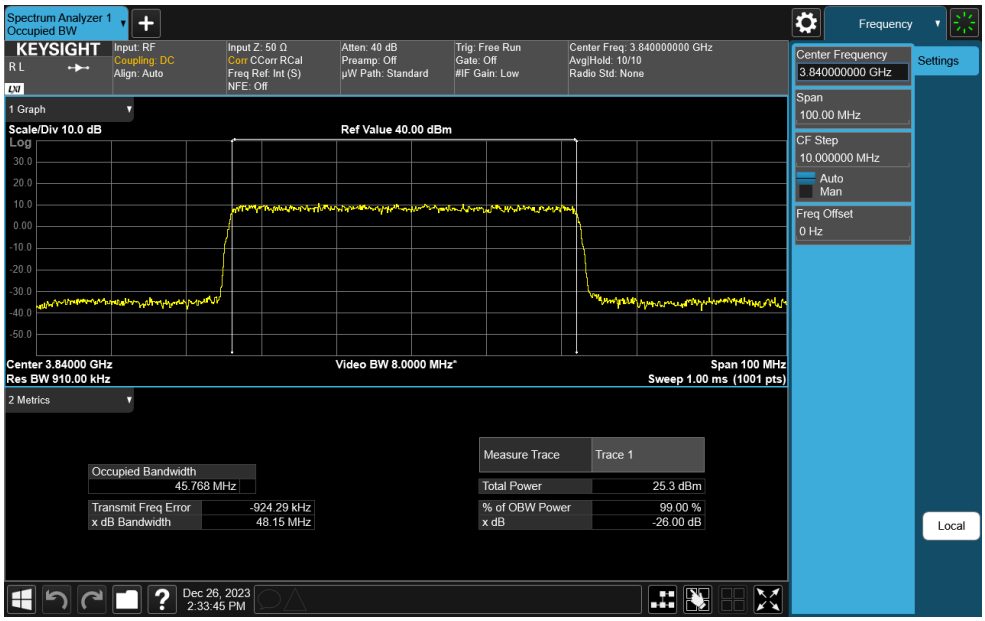


Plot 7-80. Occupied Bandwidth Plot (NR Band n77 C-Band - 40MHz CP-OFDM 256-QAM - Full RB)



Plot 7-81. Occupied Bandwidth Plot (NR Band n77 C-Band - 50MHz DFT-s-OFDM π/2 BPSK - Full RB)

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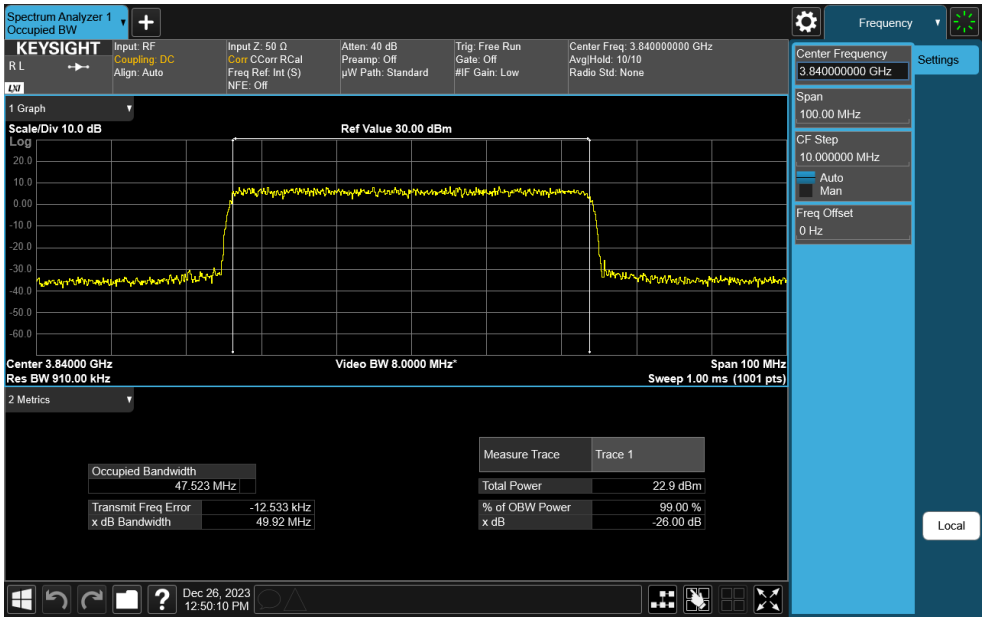
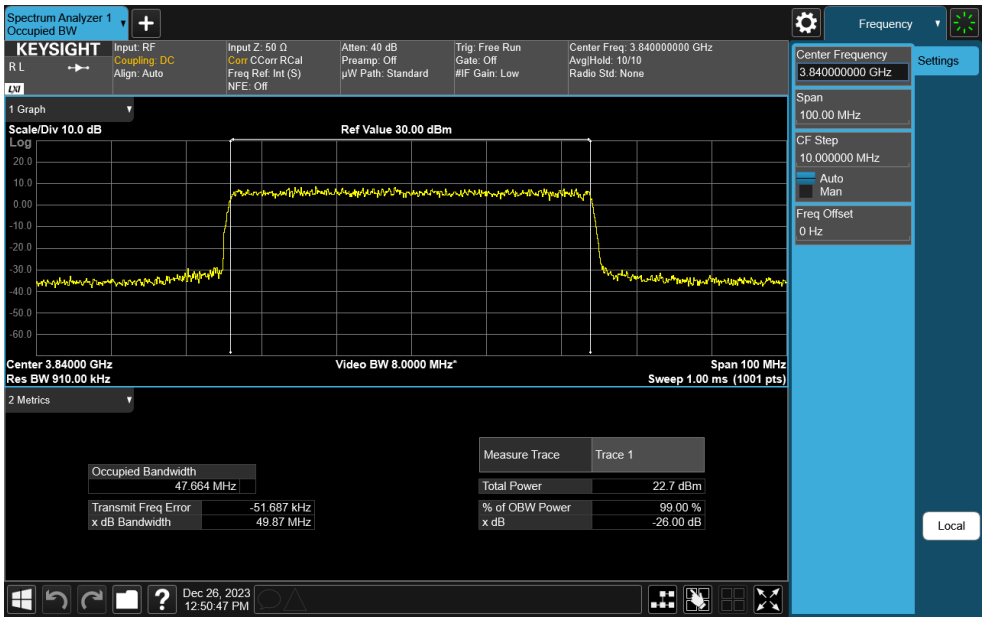


Plot 7-82. Occupied Bandwidth Plot (NR Band n77 C-Band - 50MHz CP-OFDM QPSK - Full RB)



Plot 7-83. Occupied Bandwidth Plot (NR Band n77 C-Band - 50MHz CP-OFDM 16-QAM - Full RB)

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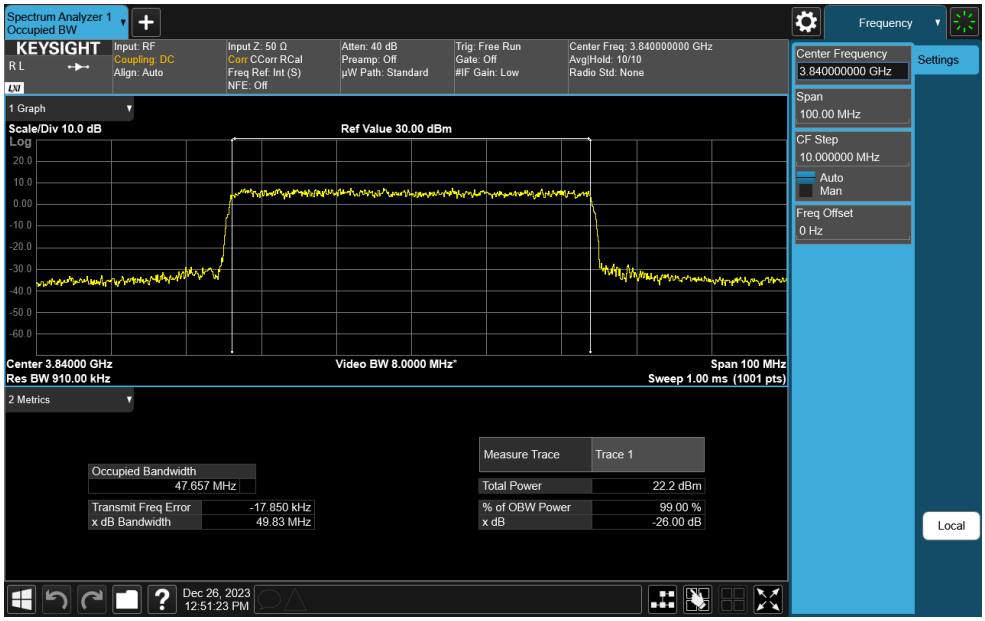
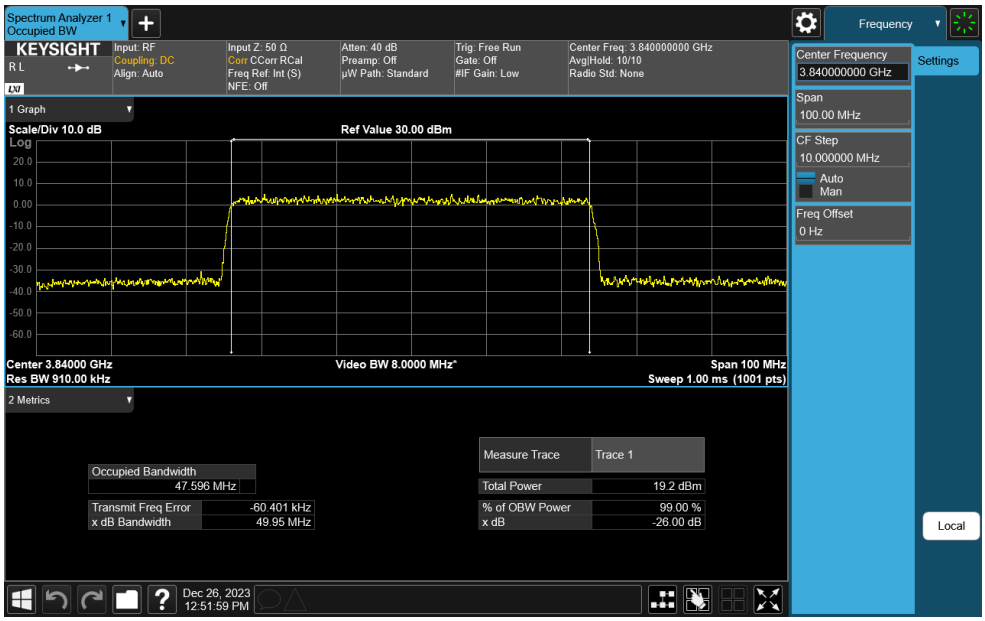


Plot 7-84. Occupied Bandwidth Plot (NR Band n77 C-Band - 50MHz CP-OFDM 64-QAM - Full RB)



Plot 7-85. Occupied Bandwidth Plot (NR Band n77 C-Band - 50MHz CP-OFDM 256-QAM - Full RB)

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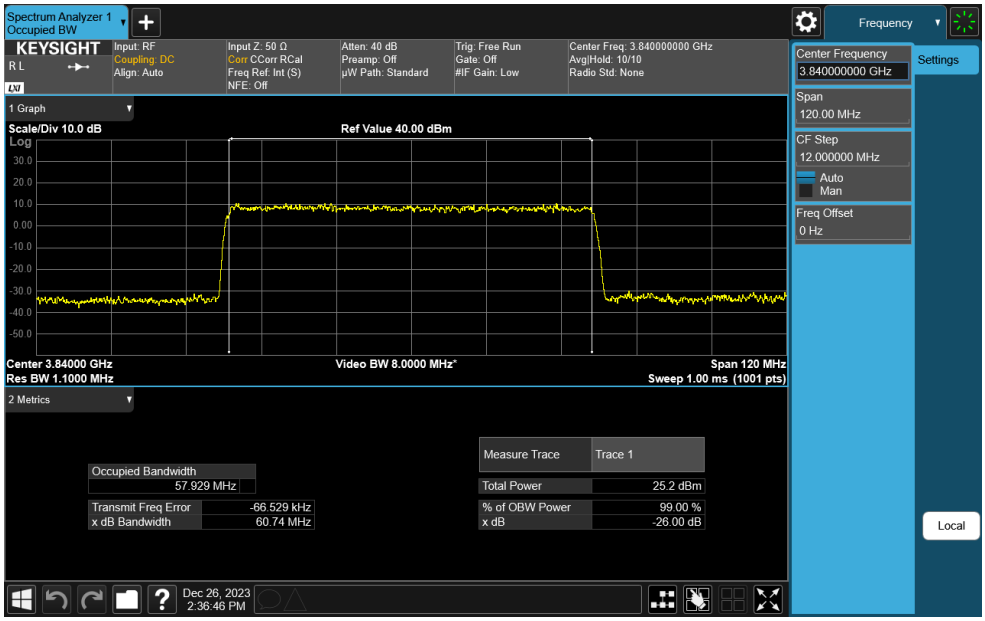
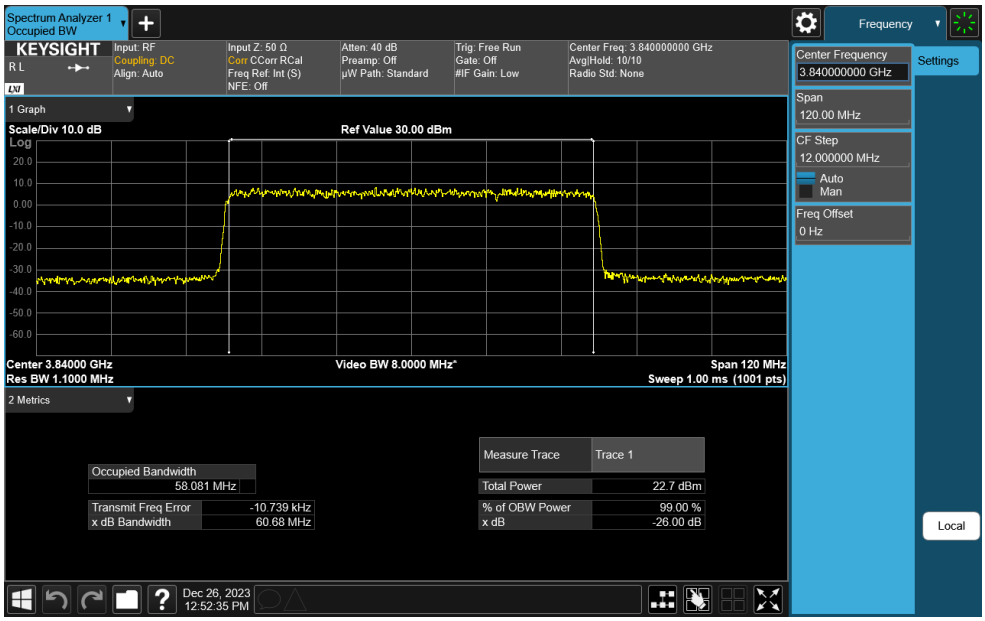


Plot 7-86. Occupied Bandwidth Plot (NR Band n77 C-Band - 60MHz DFT-s-OFDM π/2 BPSK - Full RB)



Plot 7-87. Occupied Bandwidth Plot (NR Band n77 C-Band - 60MHz CP-OFDM QPSK - Full RB)

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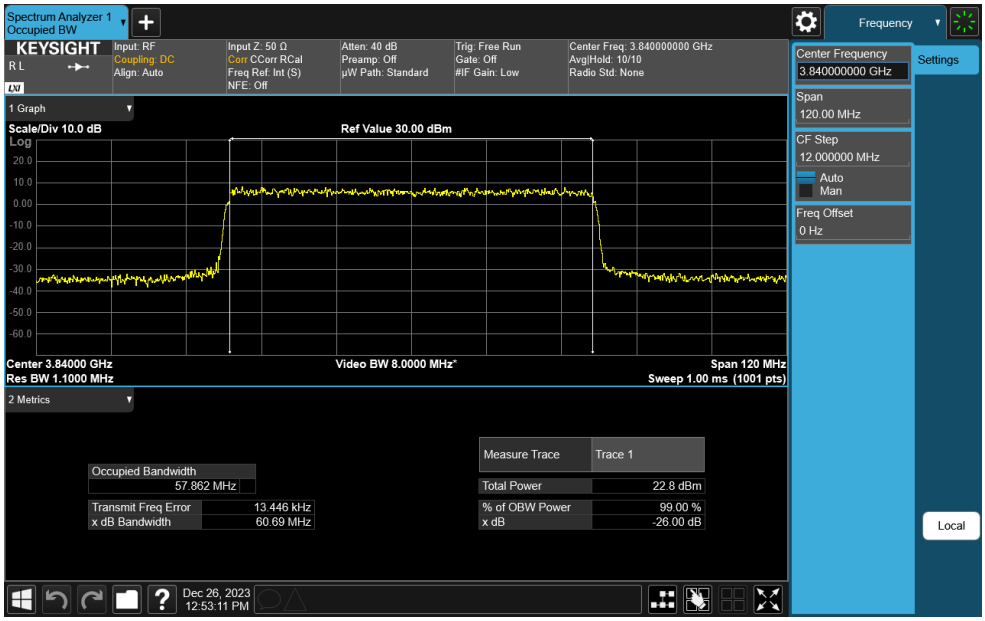
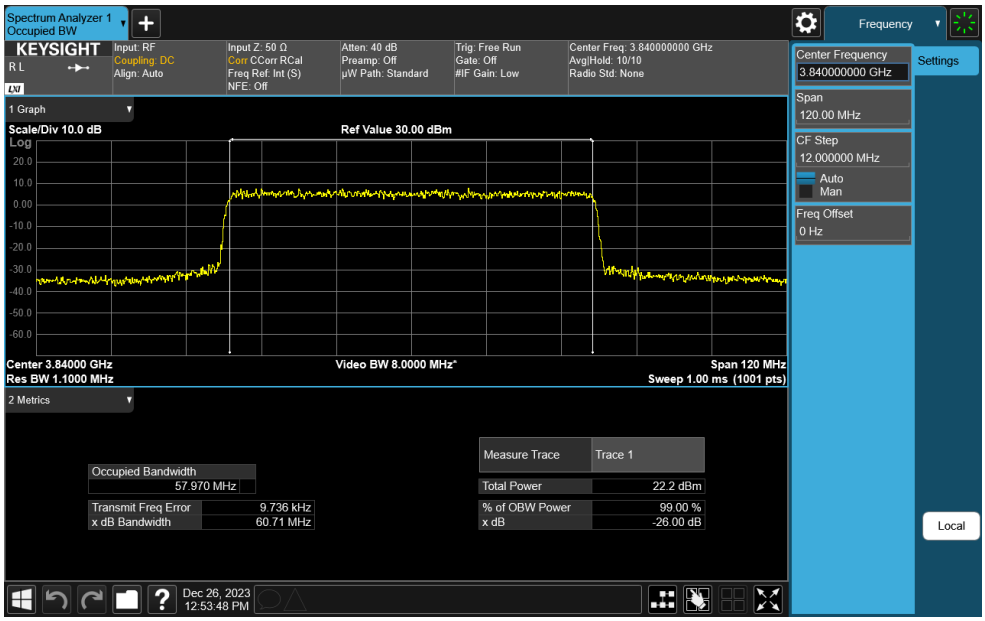


Plot 7-88. Occupied Bandwidth Plot (NR Band n77 C-Band - 60MHz CP-OFDM 16-QAM - Full RB)



Plot 7-89. Occupied Bandwidth Plot (NR Band n77 C-Band - 60MHz CP-OFDM 64-QAM - Full RB)

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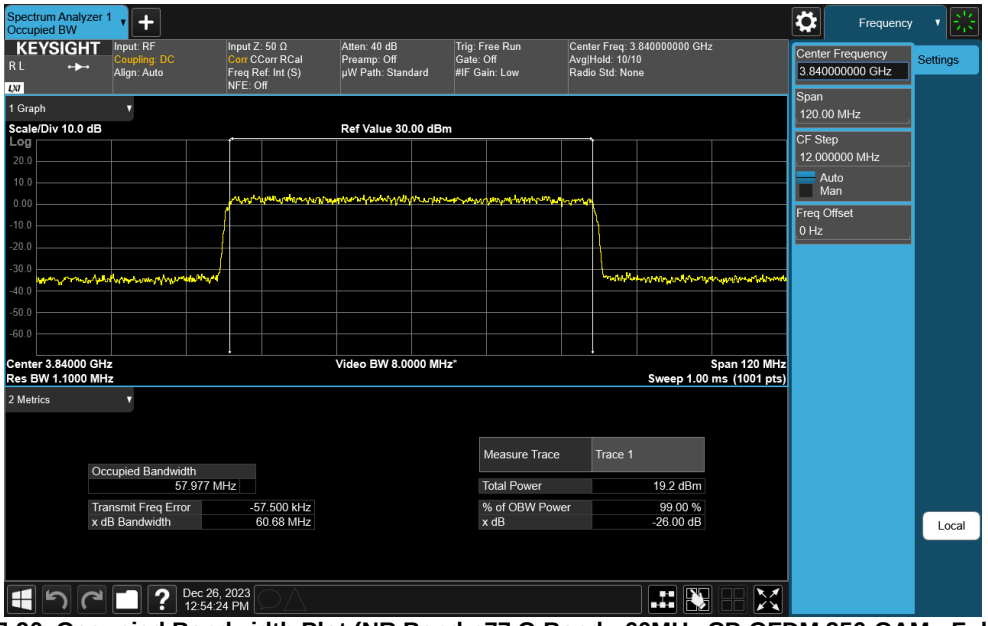
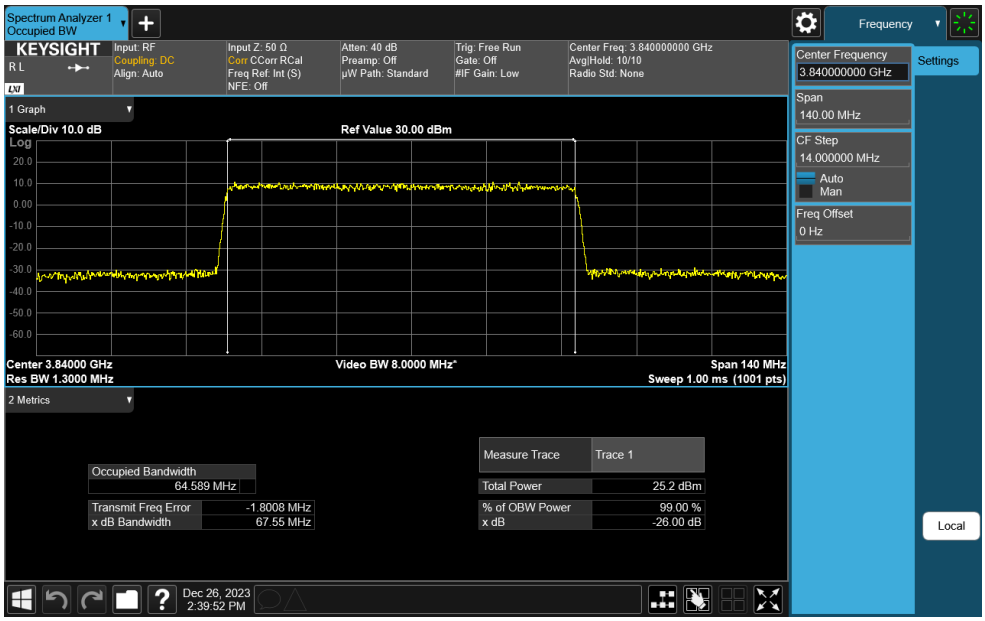


Plot 7-90. Occupied Bandwidth Plot (NR Band n77 C-Band - 60MHz CP-OFDM 256-QAM - Full RB)



Plot 7-91. Occupied Bandwidth Plot (NR Band n77 C-Band - 70MHz DFT-s-OFDM π/2 BPSK - Full RB)

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