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Test Report No.: W7L-P22020005RF01



VARIANT FCC TEST REPORT (PART 27)

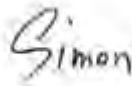
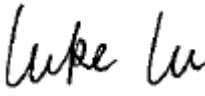
Applicant:	Continental Automotive Systems, Inc.
Address:	21440 W Lake Cook Rd., Deer Park, IL 60010, USA

Manufacturer or Supplier:	Continental Automotive Systems, Inc.
Address:	21440 W Lake Cook Rd., Deer Park, IL 60010, USA
Product:	FE5NA0020
Brand Name:	Continental
Model Name:	FE5NA0020
FCC ID:	LHJ-FE5NA0020
HW version	P4.1
SW version	MODEMSA515M_03.18.00
Registration No:	525120
Designation No:	CN1171
Date of tests:	Jun. 16, 2021 ~ Mar. 07, 2022

The tests have been carried out according to the requirements of the following standard:

- FCC Part 27, Subpart C, M ANSI/TIA/EIA-603-D
- FCC Part 2 ANSI/TIA/EIA-603-E ANSI C63.26-2015

CONCLUSION: The submitted sample was found to comply with the test requirement

Prepared by Simon Wang Engineer / Mobile Department	Approved by Luke Lu Manager / Mobile Department
	
Date: Mar. 07, 2022	Date: Mar. 07, 2022

This report is governed by, and incorporates by reference, CPS Conditions of Service as posted at the date of issuance of this report at <http://www.bureauveritas.com/home/about-us/our-business/cps/about-us/terms-conditions> and is intended for your exclusive use. Any copying or replication of this report to or for any other person or entity, or use of our name or trademark, is permitted only with our prior written permission. This report sets forth our findings solely with respect to the test samples identified herein. The results set forth in this report are not indicative or representative of the quality or characteristics of the lot from which a test sample was taken or any similar or identical product unless specifically and expressly noted. Our report includes all of the tests requested by you and the results thereof based upon the information that you provided to us. Measurement uncertainty is only provided upon request for accredited tests. You have 60 days from date of issuance of this report to notify us of any material error or omission caused by our negligence or if you require measurement uncertainty; provided, however, that such notice shall be in writing and shall specifically address the issue you wish to raise. A failure to raise such issue within the prescribed time shall constitute your unqualified acceptance of the completeness of this report, the tests conducted and the correctness of the report contents.

BV 7Layers Communications
Technology (Shenzhen) Co., Ltd

No.B102, Dazu Chuangxin Mansion, North of Beihuan
Avenue, North Area, Hi-Tech Industrial Park, Nanshan
District, Shenzhen, Guangdong, China

Tel: +86 755 8869 6566

Fax: +86 755 8869 6577

Email: customerservice.sw@bureauveritas.com



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1. 99% & 26dB Bandwidth

1.1 LTE 66B

1.1.1 Test Result

Band: 66B / Bandwidth: 5MHz+5MHz / NTN							
Modulation	RB Allocation		99% Occupied Bandwidth (MHz)			Limit (MHz)	Verdict
	Size	Offset	LCH	MCH	HCH		
QPSK	FULL	0	9.98	10.04	10.03	/	Pass
16QAM	FULL	0	9.99	10.02	10.05	/	Pass
64QAM	FULL	0	9.99	9.97	10.05	/	Pass
Band: 66B / Bandwidth: 5MHz+10MHz / NTN							
Modulation	RB Allocation		99% Occupied Bandwidth (MHz)			Limit (MHz)	Verdict
	Size	Offset	LCH	MCH	HCH		
QPSK	FULL	0	14.51	14.50	14.54	/	Pass
16QAM	FULL	0	14.53	14.52	14.52	/	Pass
64QAM	FULL	0	14.52	14.52	14.53	/	Pass
Band: 66B / Bandwidth: 5MHz+15MHz / NTN							
Modulation	RB Allocation		99% Occupied Bandwidth (MHz)			Limit (MHz)	Verdict
	Size	Offset	LCH	MCH	HCH		
QPSK	FULL	0	18.68	18.73	18.66	/	Pass
16QAM	FULL	0	18.72	18.73	18.61	/	Pass
64QAM	FULL	0	18.71	18.75	18.68	/	Pass
Band: 66B / Bandwidth: 10MHz+5MHz / NTN							
Modulation	RB Allocation		99% Occupied Bandwidth (MHz)			Limit (MHz)	Verdict
	Size	Offset	LCH	MCH	HCH		
QPSK	FULL	0	14.55	14.51	14.59	/	Pass
16QAM	FULL	0	14.53	14.53	14.59	/	Pass
64QAM	FULL	0	14.53	14.50	14.60	/	Pass
Band: 66B / Bandwidth: 10MHz+10MHz / NTN							
Modulation	RB Allocation		99% Occupied Bandwidth (MHz)			Limit (MHz)	Verdict
	Size	Offset	LCH	MCH	HCH		
QPSK	FULL	0	19.27	19.26	19.27	/	Pass
16QAM	FULL	0	19.27	19.28	19.26	/	Pass
64QAM	FULL	0	19.26	19.28	19.28	/	Pass
Band: 66B / Bandwidth: 15MHz+5MHz / NTN							
Modulation	RB Allocation		99% Occupied Bandwidth (MHz)			Limit (MHz)	Verdict
	Size	Offset	LCH	MCH	HCH		
QPSK	FULL	0	18.70	18.70	18.82	/	Pass
16QAM	FULL	0	18.74	18.69	18.78	/	Pass
64QAM	FULL	0	18.73	18.70	18.80	/	Pass

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Fax: +86 755 8869 6577

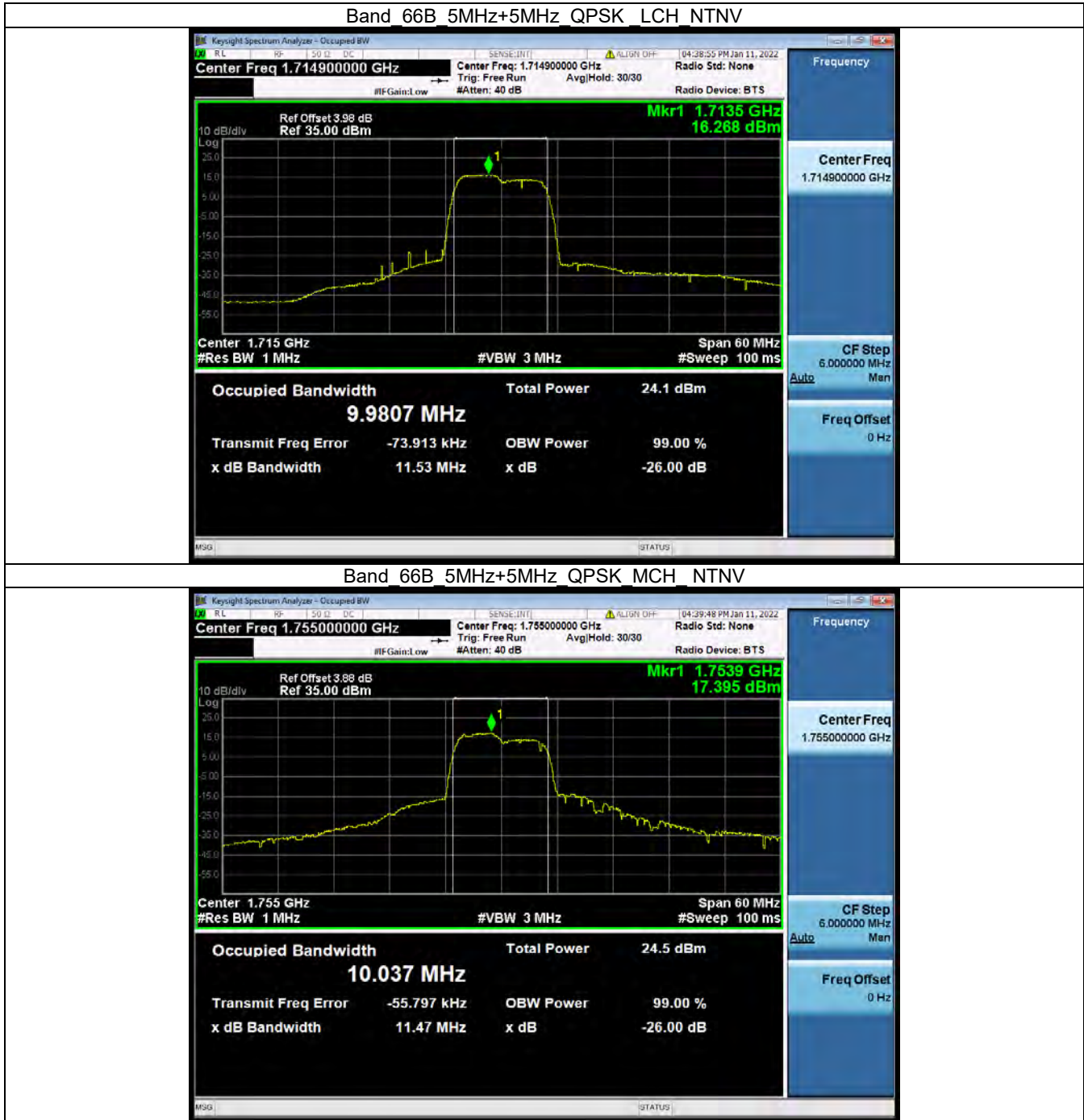
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Band: 66B / Bandwidth: 5MHz+5MHz / NTNV							
Modulation	RB Allocation		26dB Occupied Bandwidth (MHz)			Limit (MHz)	Verdict
	Size	Offset	LCH	MCH	HCH		
QPSK	FULL	0	11.53	11.47	11.51	/	Pass
16QAM	FULL	0	11.51	11.51	11.52	/	Pass
64QAM	FULL	0	11.54	11.52	11.55	/	Pass
Band: 66B / Bandwidth: 5MHz+10MHz / NTNV							
Modulation	RB Allocation		26dB Occupied Bandwidth (MHz)			Limit (MHz)	Verdict
	Size	Offset	LCH	MCH	HCH		
QPSK	FULL	0	16.11	16.06	16.10	/	Pass
16QAM	FULL	0	16.11	16.10	16.14	/	Pass
64QAM	FULL	0	16.10	16.13	16.10	/	Pass
Band: 66B / Bandwidth: 5MHz+15MHz / NTNV							
Modulation	RB Allocation		26dB Occupied Bandwidth (MHz)			Limit (MHz)	Verdict
	Size	Offset	LCH	MCH	HCH		
QPSK	FULL	0	20.36	20.38	20.36	/	Pass
16QAM	FULL	0	20.41	20.39	20.38	/	Pass
64QAM	FULL	0	20.42	20.38	20.37	/	Pass
Band: 66B / Bandwidth: 10MHz+5MHz / NTNV							
Modulation	RB Allocation		26dB Occupied Bandwidth (MHz)			Limit (MHz)	Verdict
	Size	Offset	LCH	MCH	HCH		
QPSK	FULL	0	16.29	16.23	16.23	/	Pass
16QAM	FULL	0	16.23	16.26	16.28	/	Pass
64QAM	FULL	0	16.26	16.24	16.28	/	Pass
Band: 66B / Bandwidth: 10MHz+10MHz / NTNV							
Modulation	RB Allocation		26dB Occupied Bandwidth (MHz)			Limit (MHz)	Verdict
	Size	Offset	LCH	MCH	HCH		
QPSK	FULL	0	21.15	21.10	21.16	/	Pass
16QAM	FULL	0	21.14	21.12	21.03	/	Pass
64QAM	FULL	0	21.12	21.14	21.16	/	Pass
Band: 66B / Bandwidth: 15MHz+5MHz / NTNV							
Modulation	RB Allocation		26dB Occupied Bandwidth (MHz)			Limit (MHz)	Verdict
	Size	Offset	LCH	MCH	HCH		
QPSK	FULL	0	20.54	20.42	20.57	/	Pass
16QAM	FULL	0	20.56	20.55	50.59	/	Pass
64QAM	FULL	0	20.54	20.51	20.56	/	Pass



1.1.2 Test Graph



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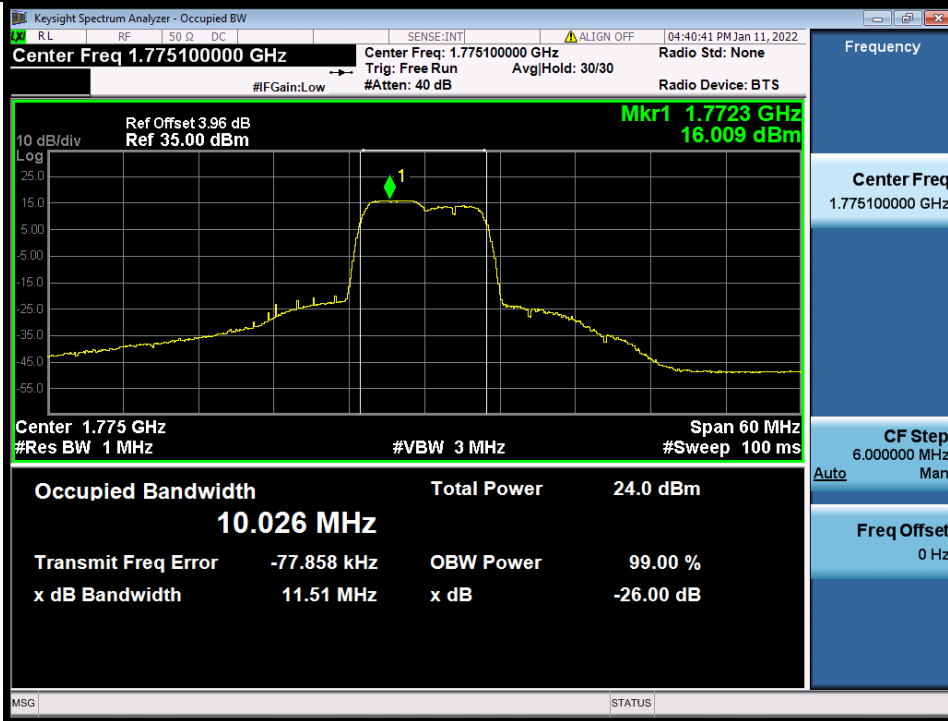
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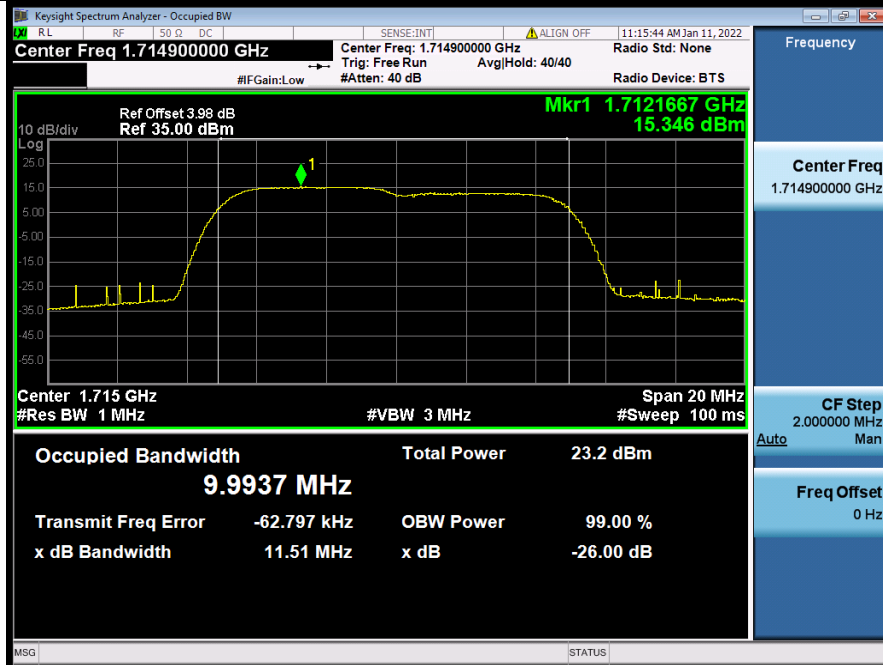
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Band 66B 5MHz+5MHz QPSK HCH NTN



Band 66B 5MHz+5MHz 16QAM LCH NTN



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No.B102, Dazu Chuangxin Mansion, North of Beihuan Avenue, North Area, Hi-Tech Industrial Park, Nanshan District, Shenzhen, Guangdong, China

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Fax: +86 755 8869 6577

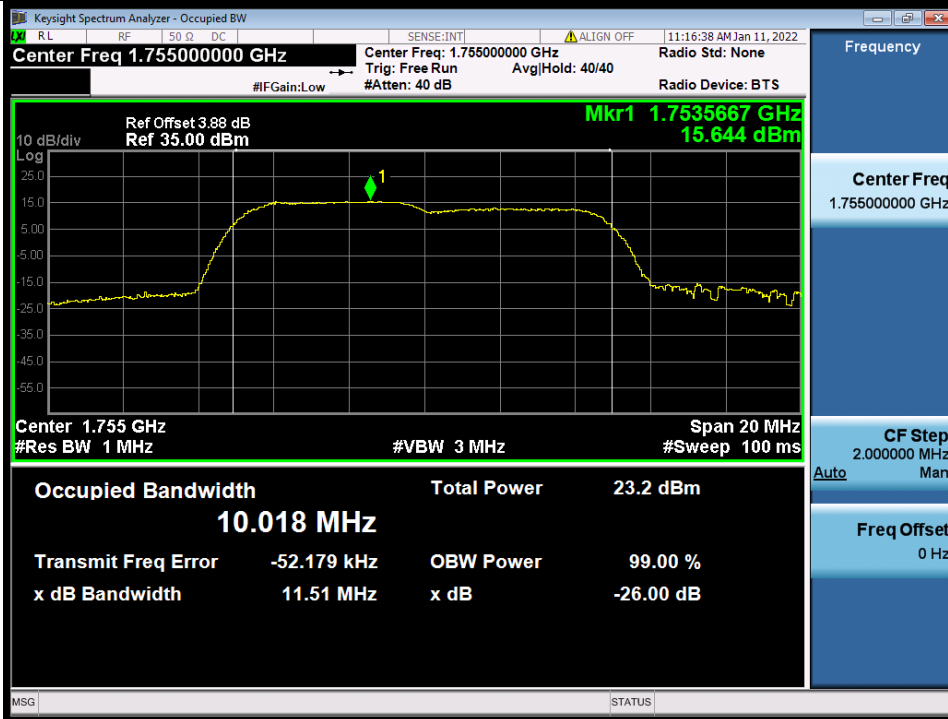
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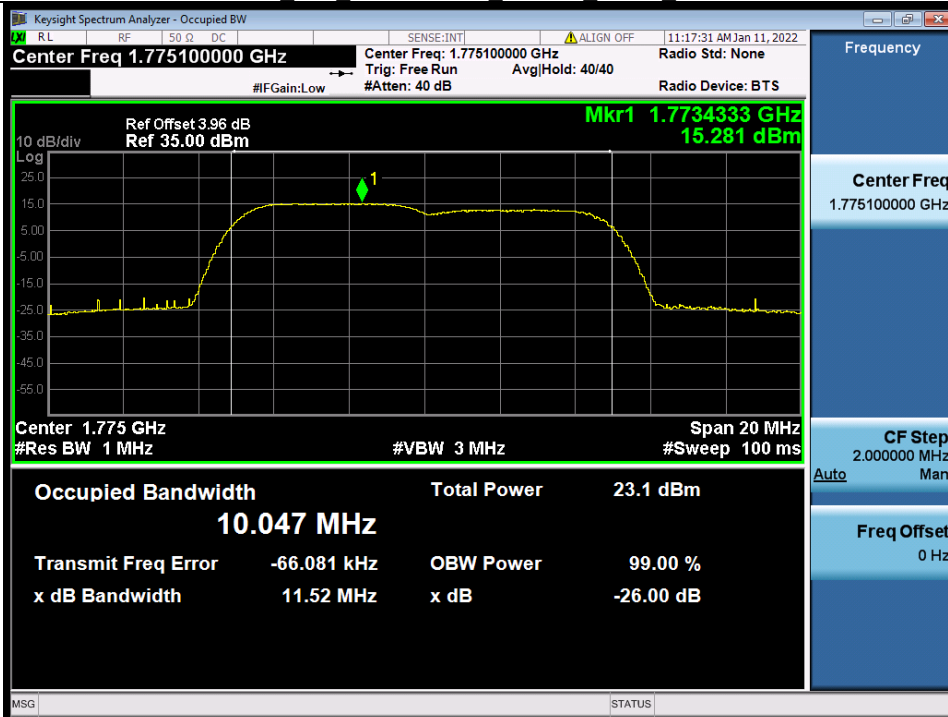
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Band 66B 5MHz+5MHz 16QAM MCH NTN



Band 66B 5MHz+5MHz 16QAM HCH NTN



Band 66B 5MHz+5MHz 64QAM LCH NTN

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No.B102, Dazu Chuangxin Mansion, North of Beihuan Avenue, North Area, Hi-Tech Industrial Park, Nanshan District, Shenzhen, Guangdong, China

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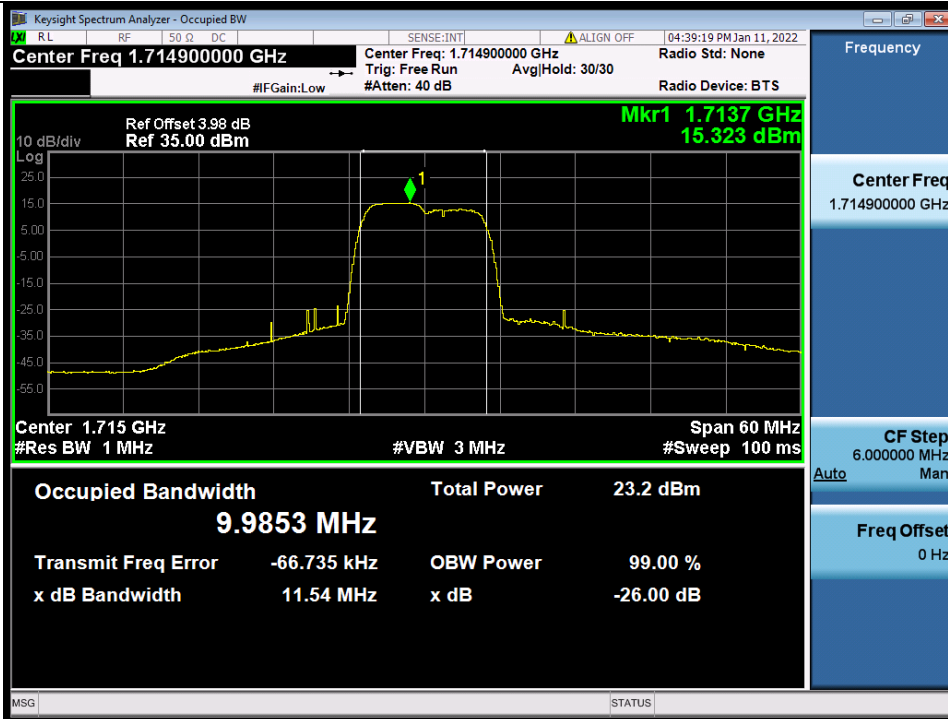
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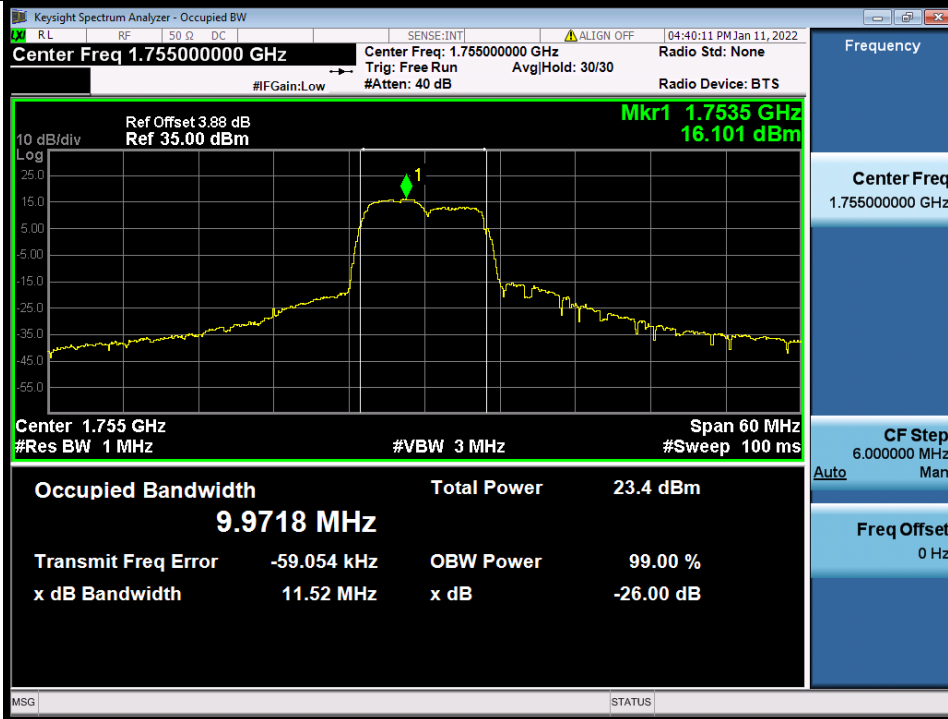


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Band 66B 5MHz+5MHz 64QAM MCH NTNV



Band 66B 5MHz+5MHz 64QAM HCH NTNV

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Avenue, North Area, Hi-Tech Industrial Park, Nanshan
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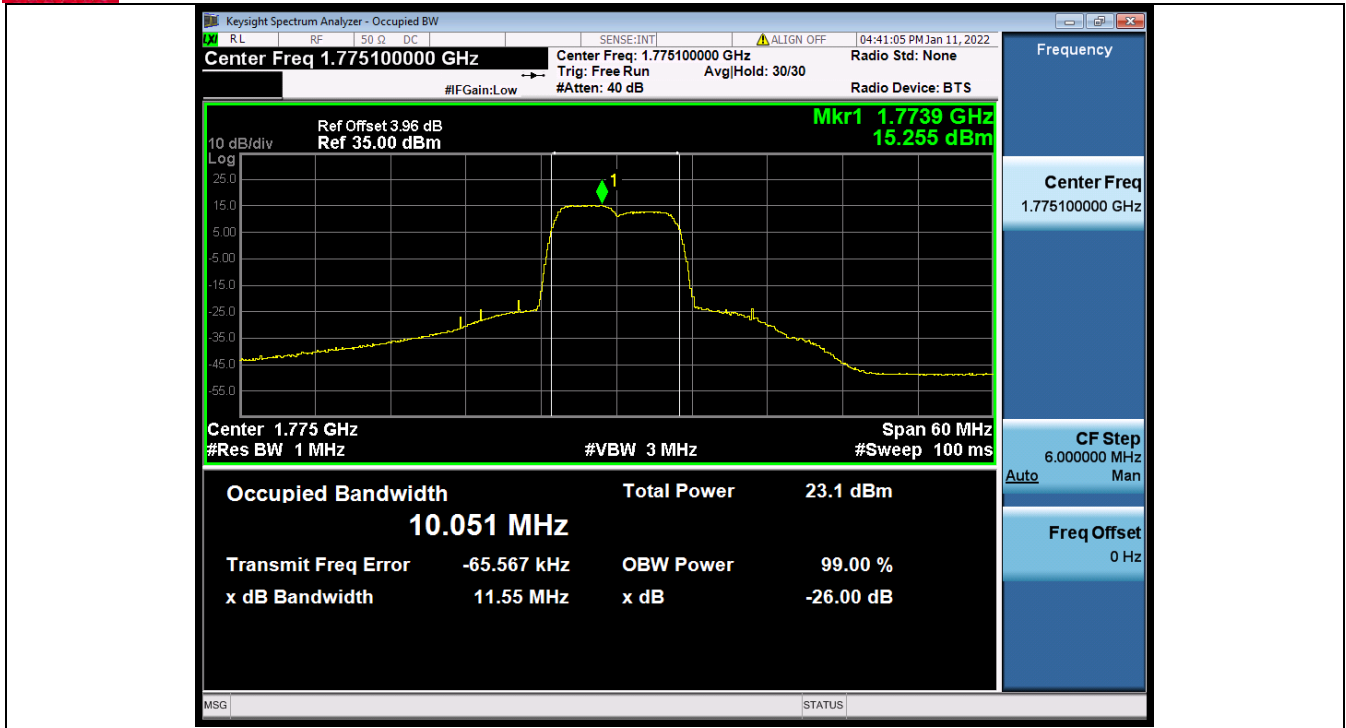
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Avenue, North Area, Hi-Tech Industrial Park, Nanshan
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Band 66B 5MHz+10MHz QPSK LCH NTN



Band 66B 5MHz+10MHz QPSK MCH NTN



Band 66B 5MHz+10MHz QPSK HCH NTN

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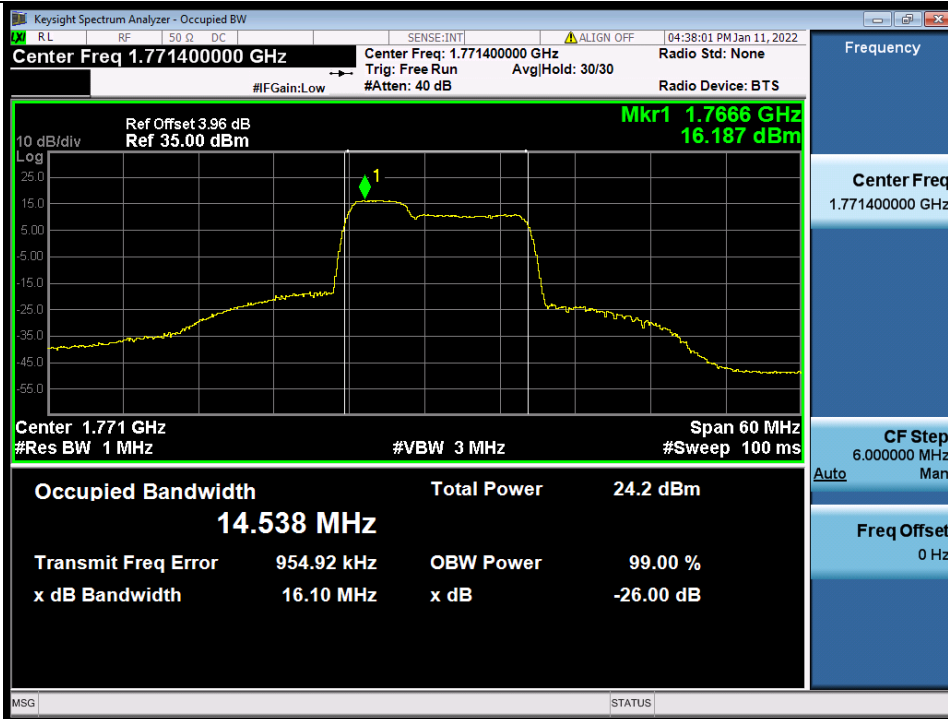
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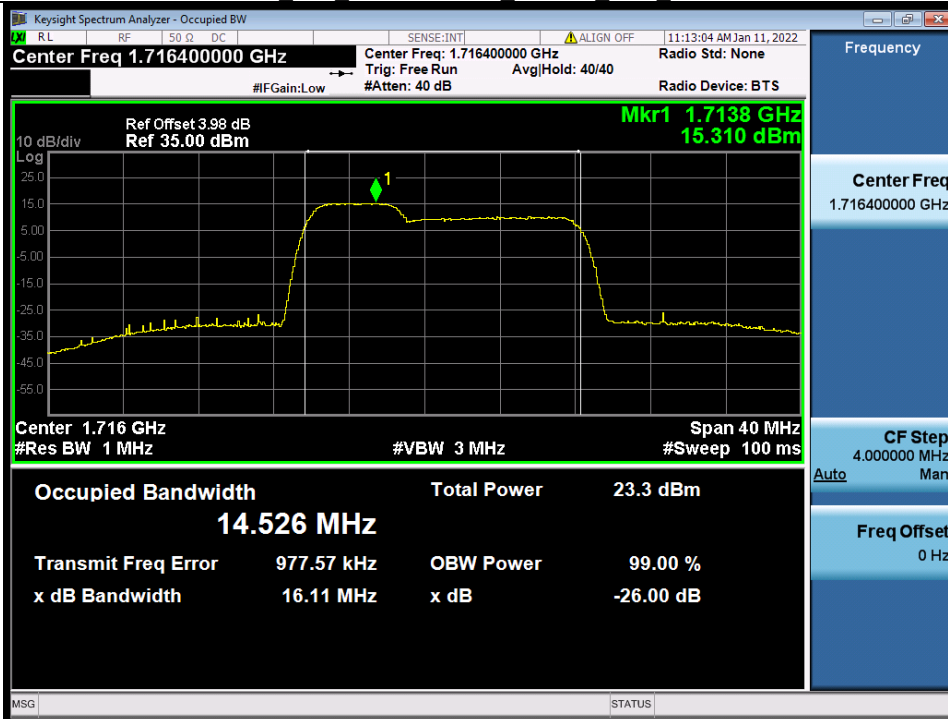


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Band 66B 5MHz+10MHz 16QAM LCH NTN



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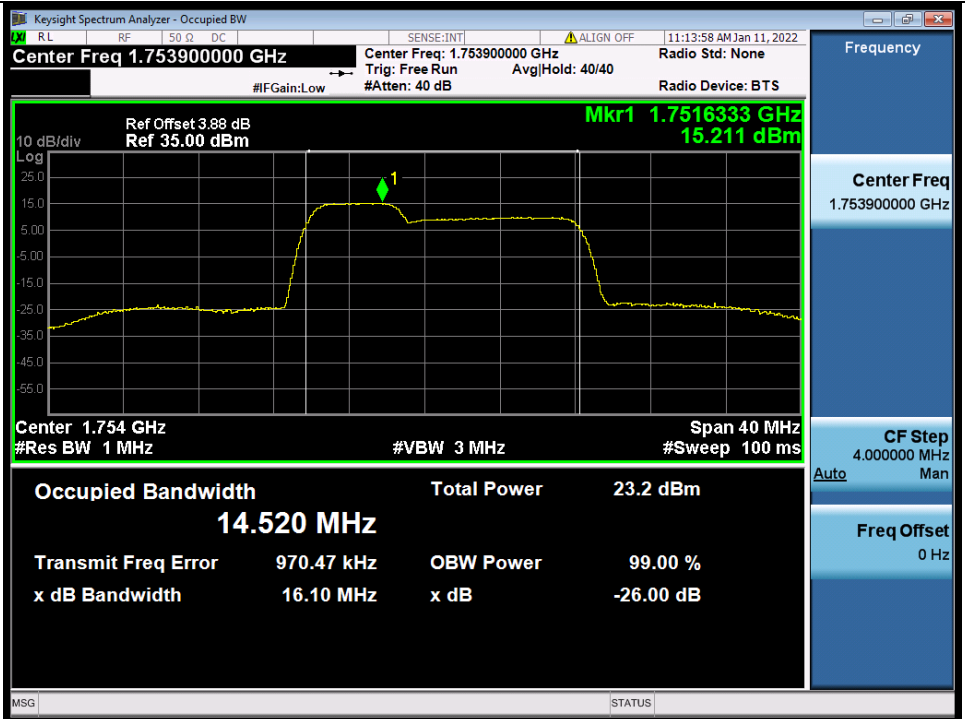
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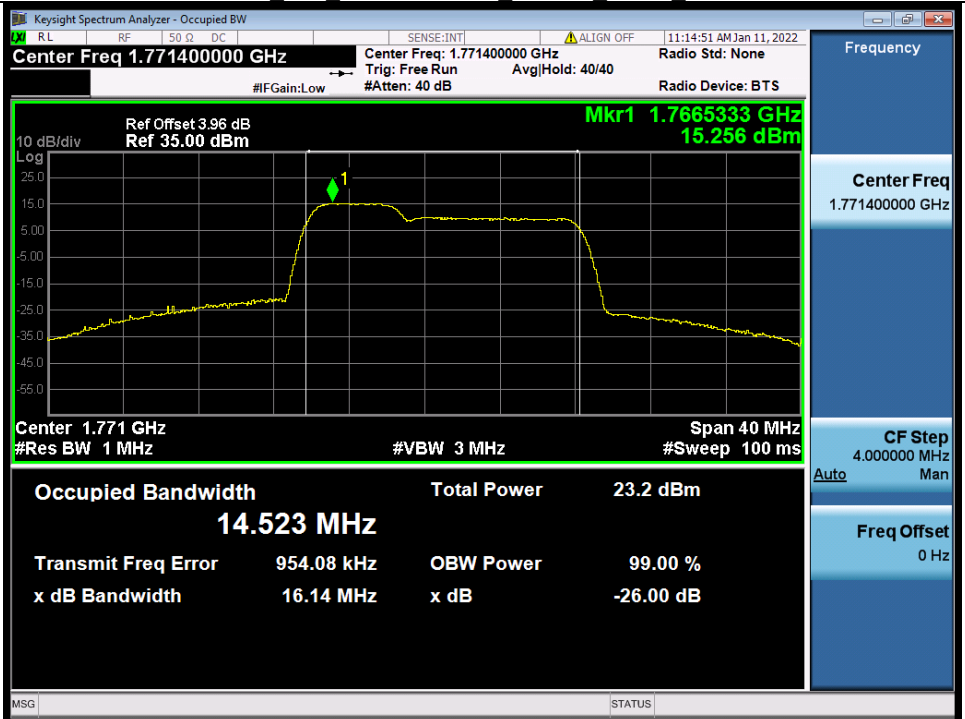
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Band 66B 5MHz+10MHz 16QAM HCH NTN



Band 66B 5MHz+10MHz 64QAM LCH NTN

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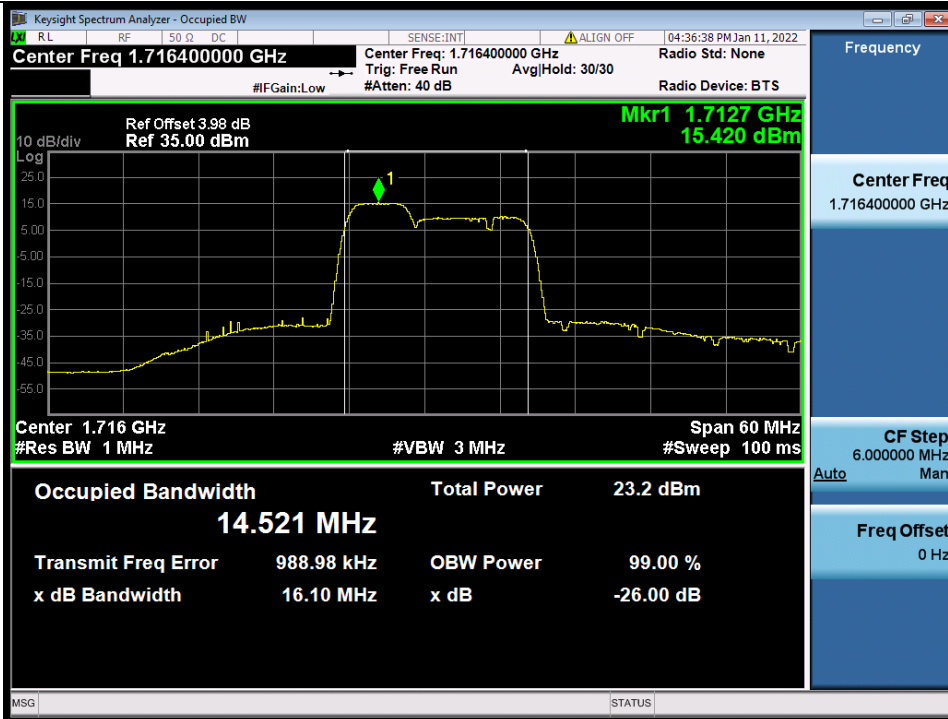
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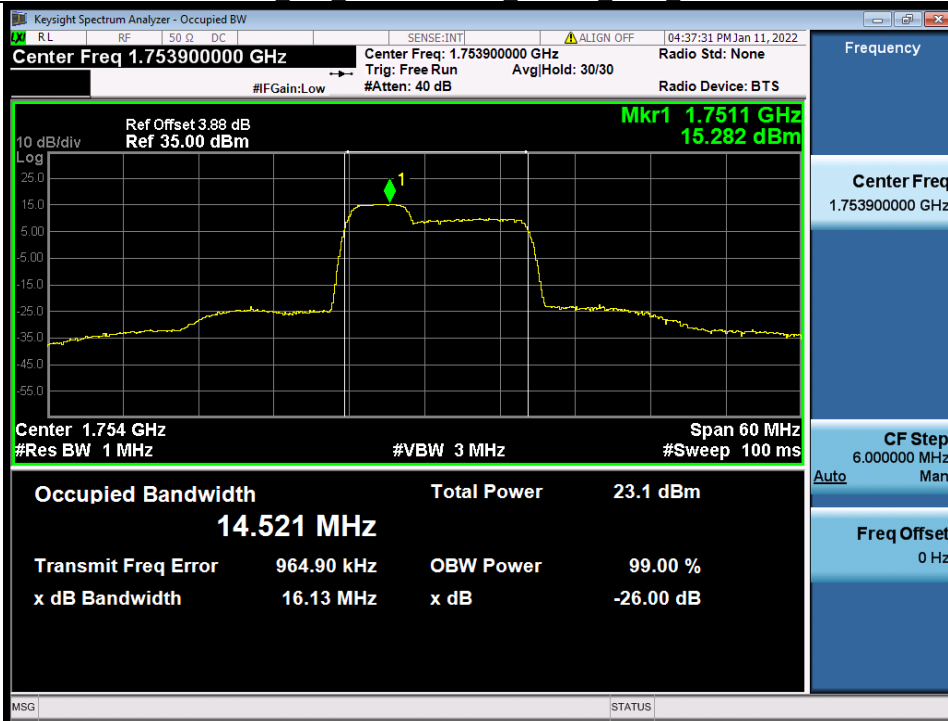


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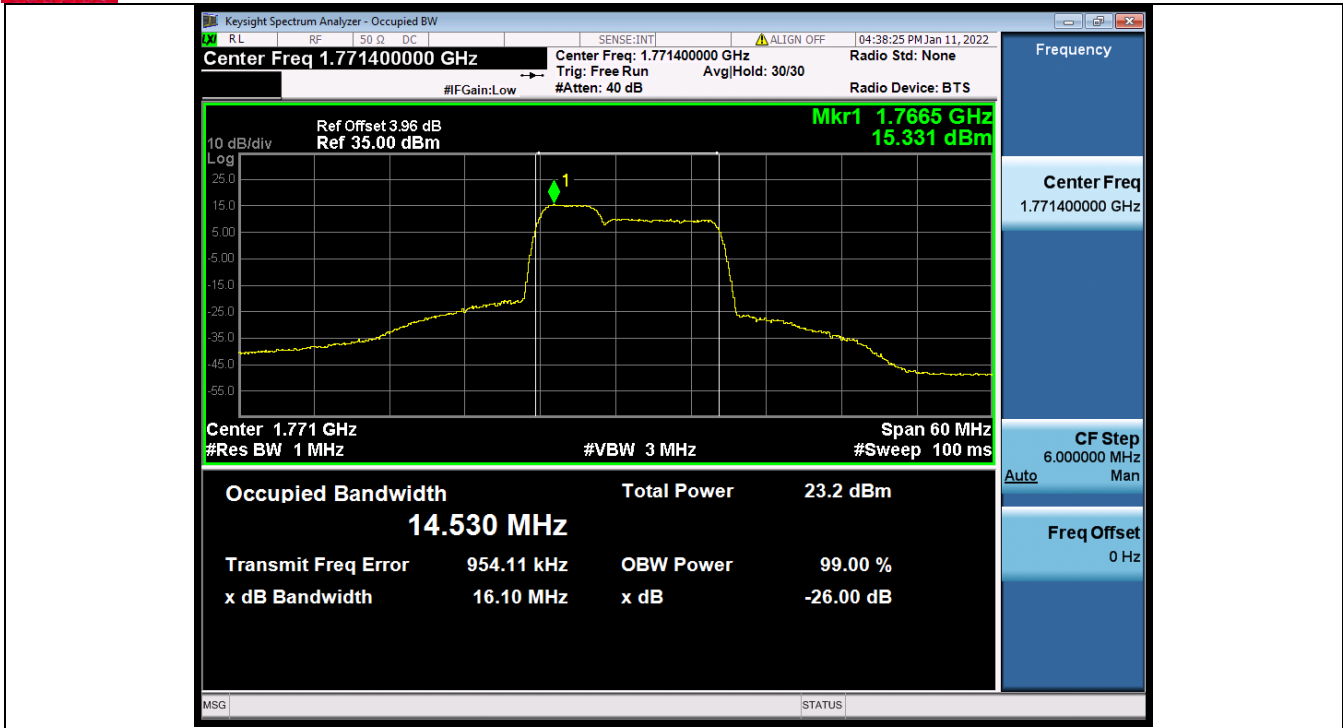
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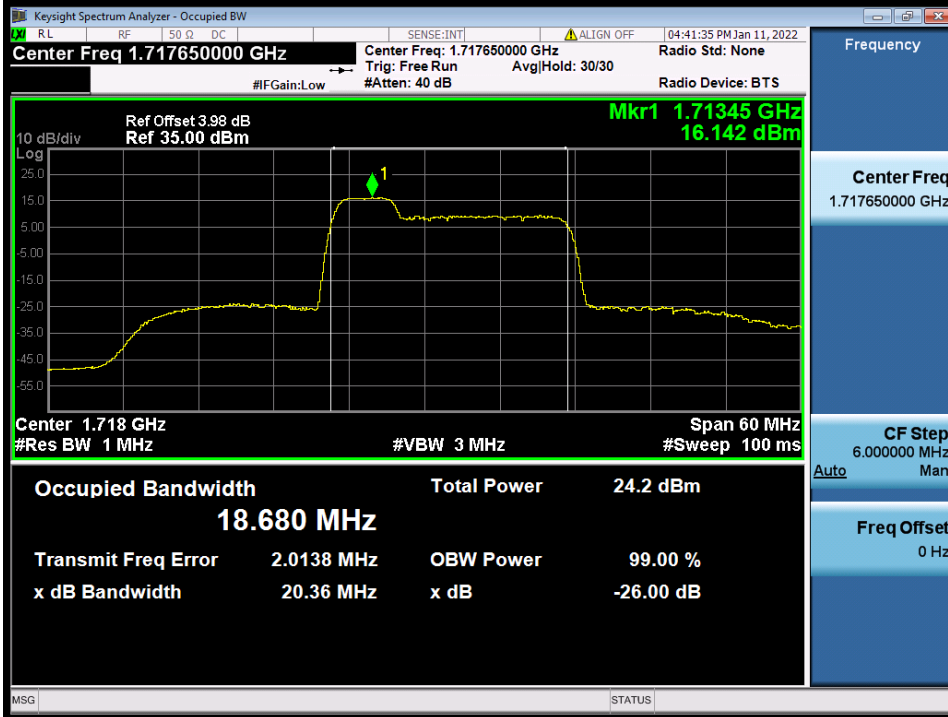
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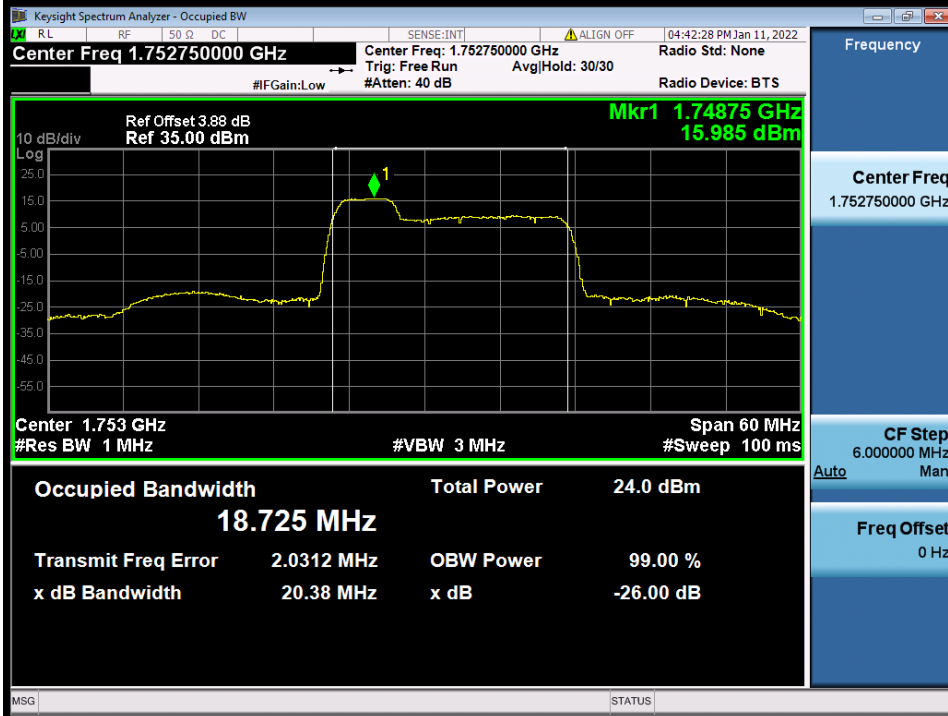
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Band 66B 5MHz+15MHz QPSK MCH NTN



Band 66B 5MHz+15MHz QPSK HCH NTN

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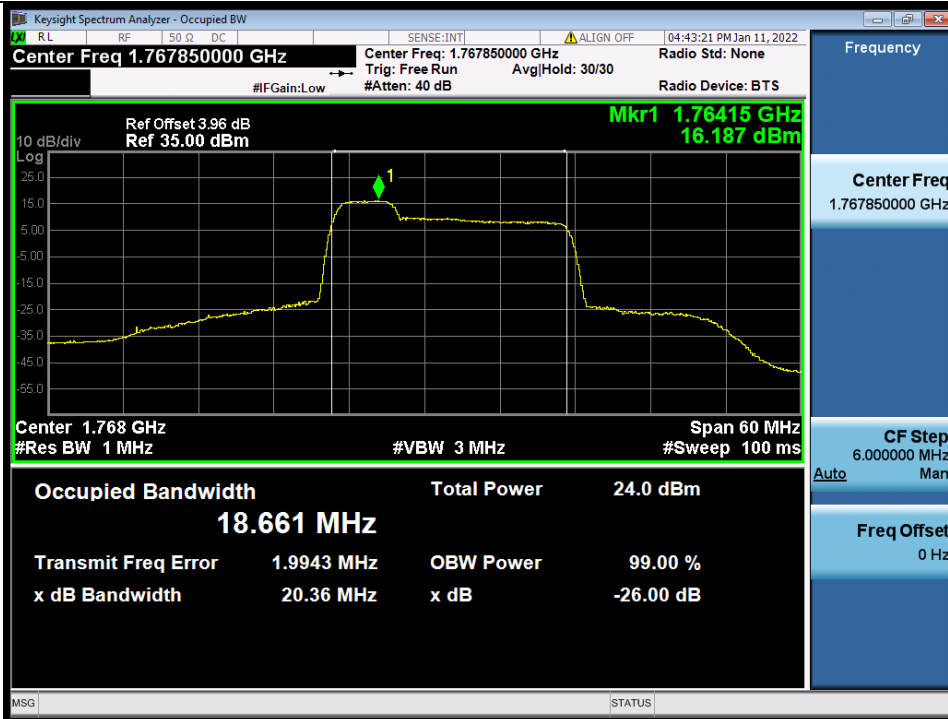
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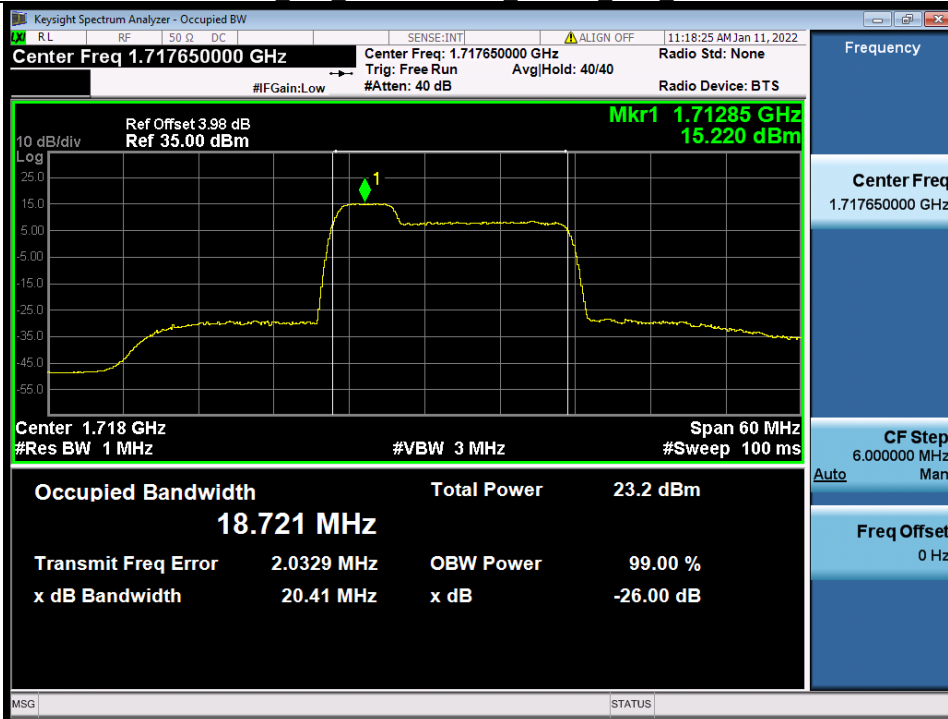


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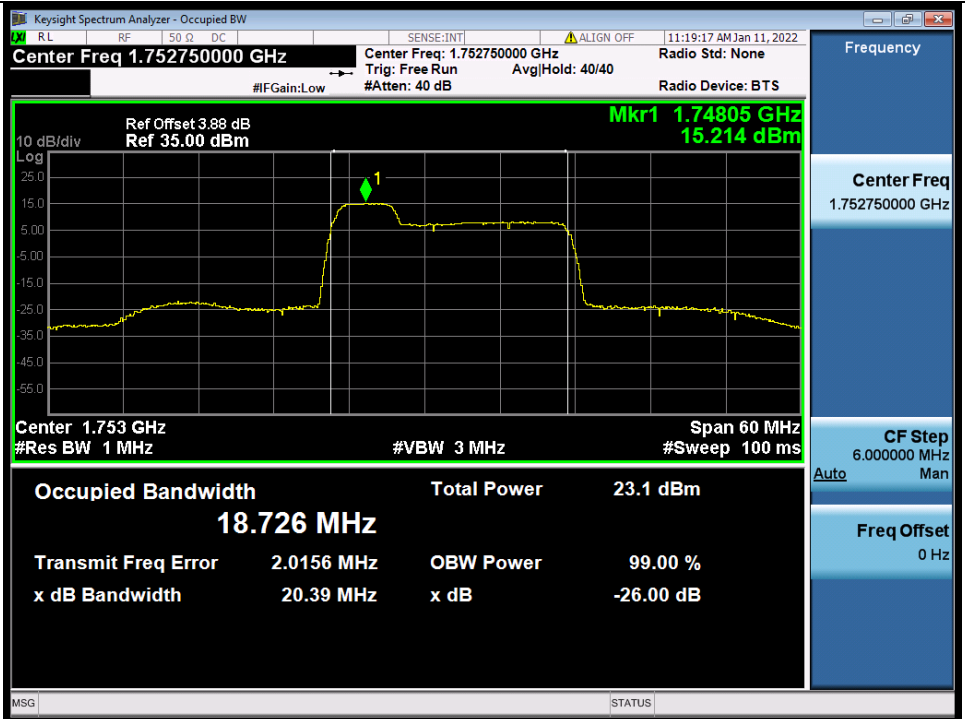
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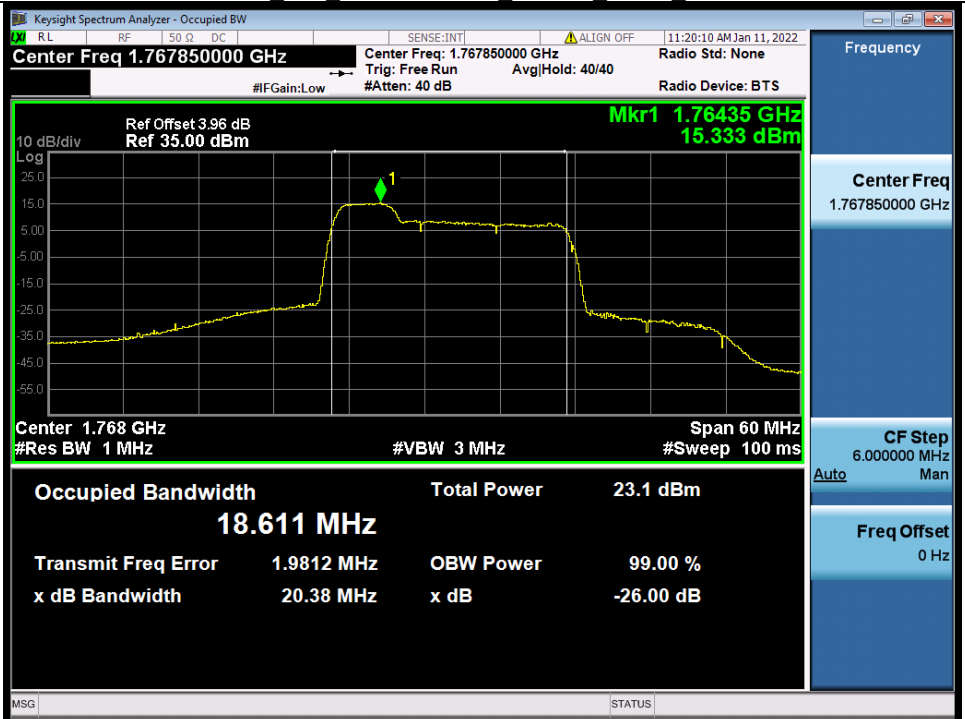
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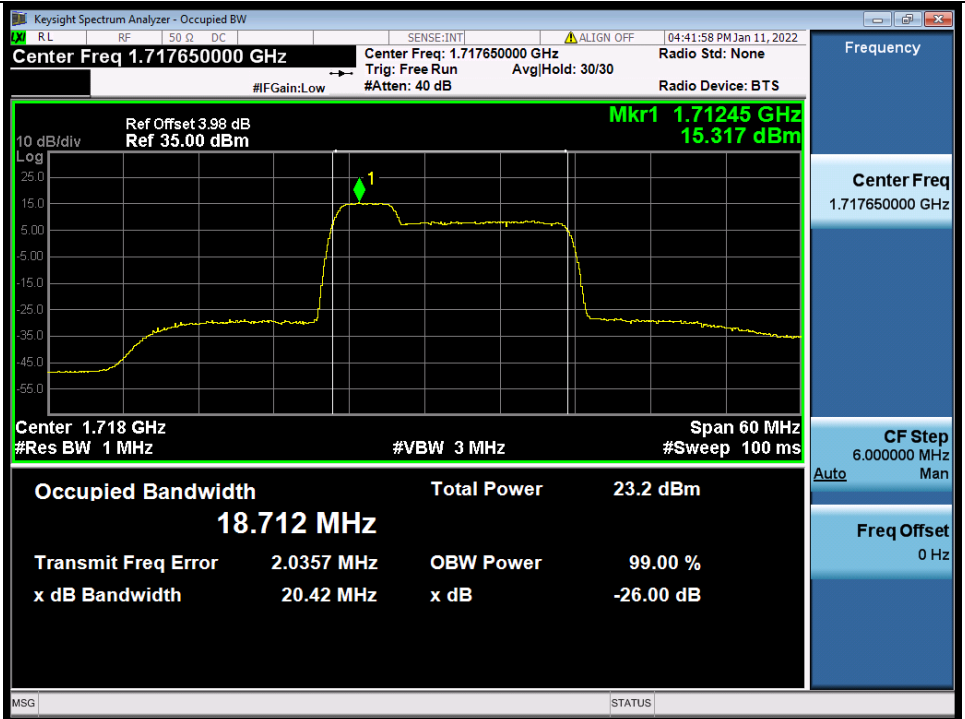
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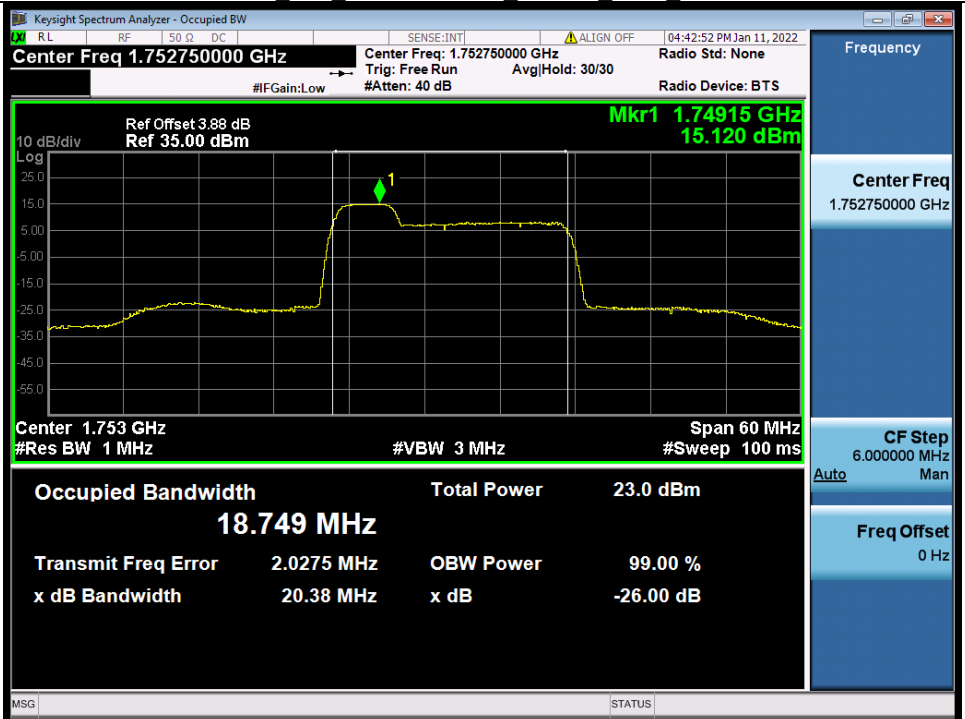
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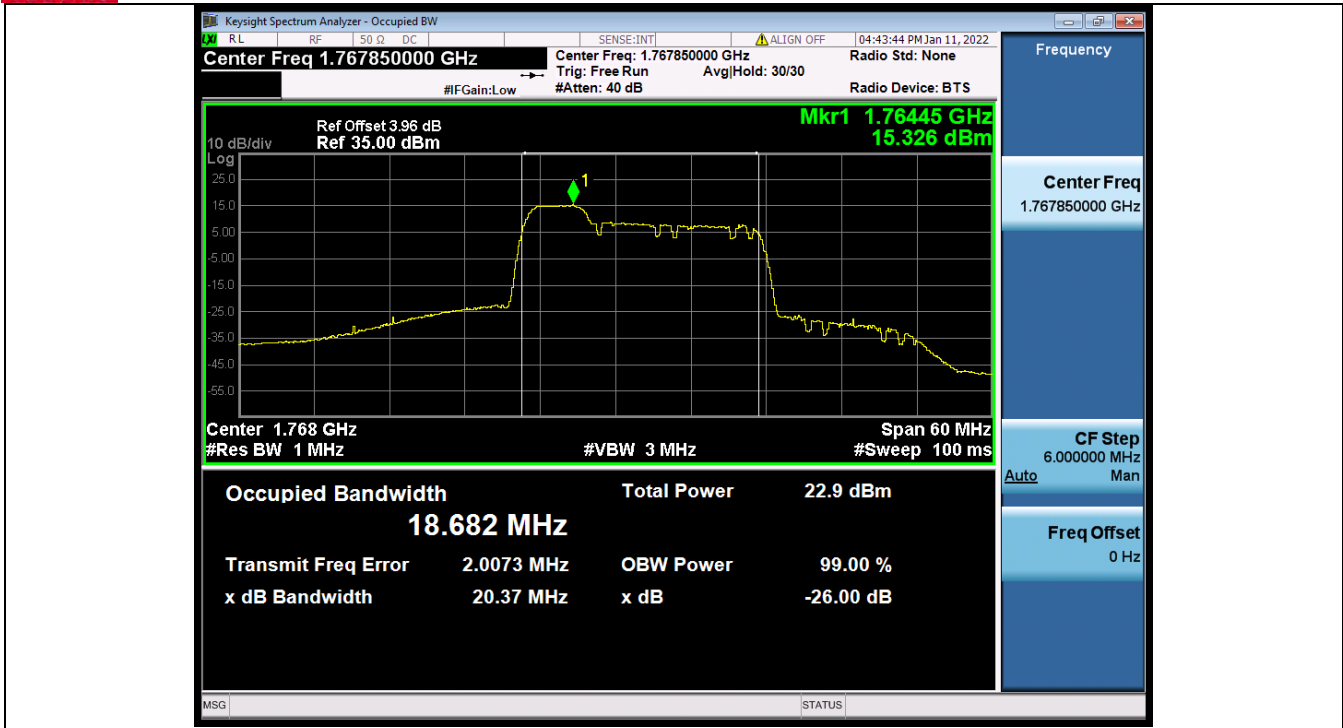
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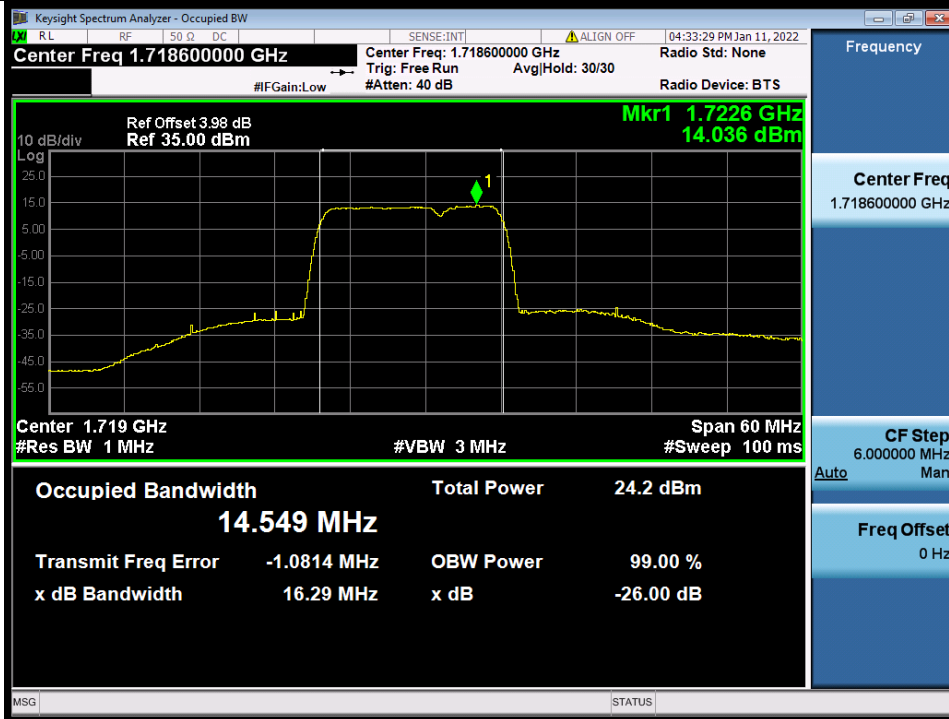
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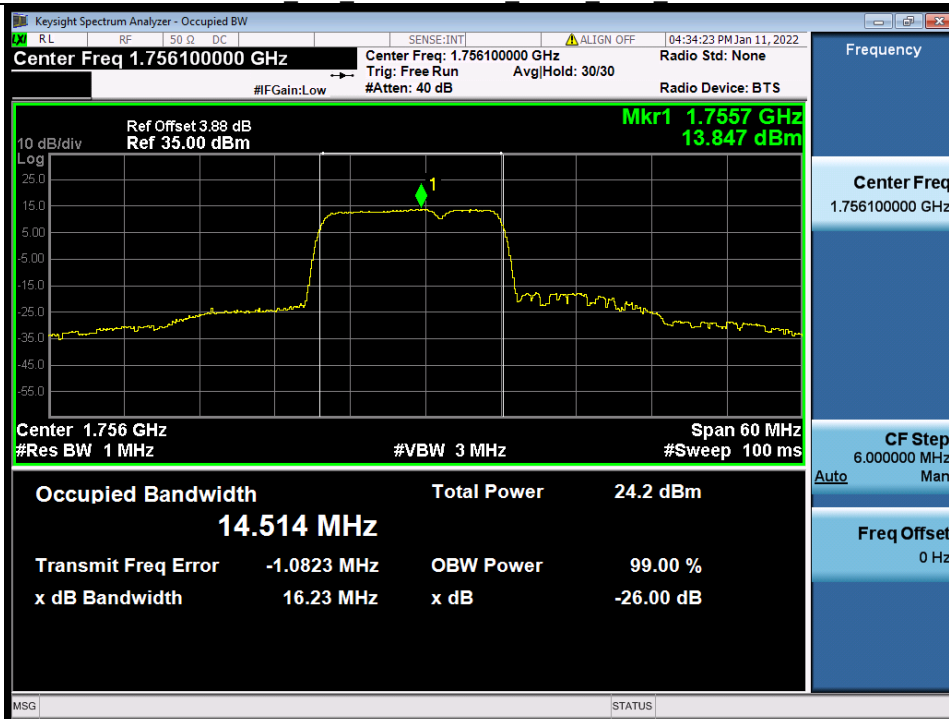
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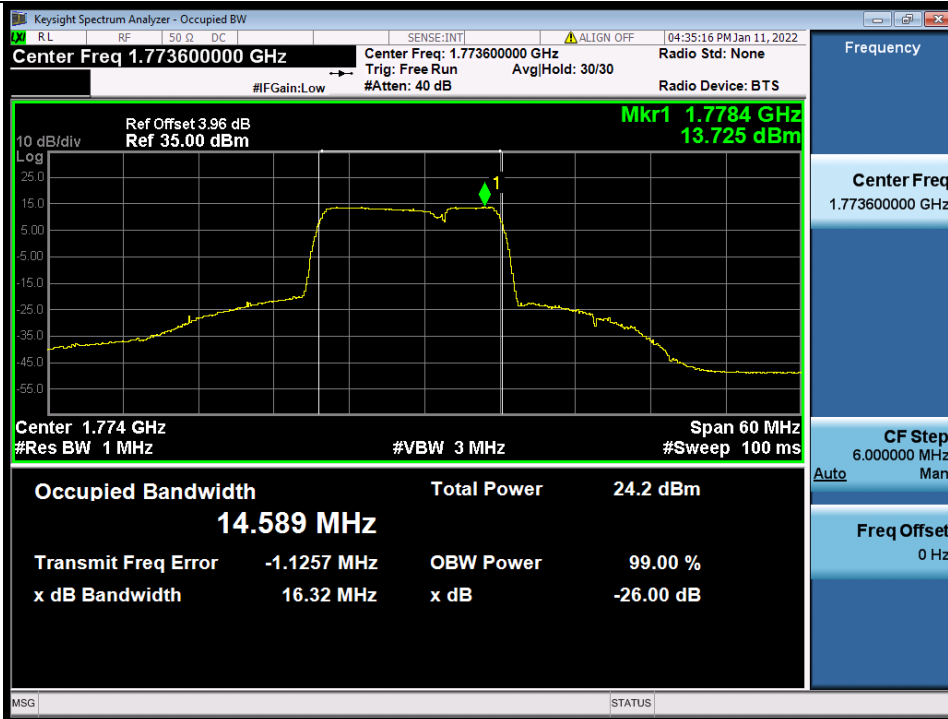
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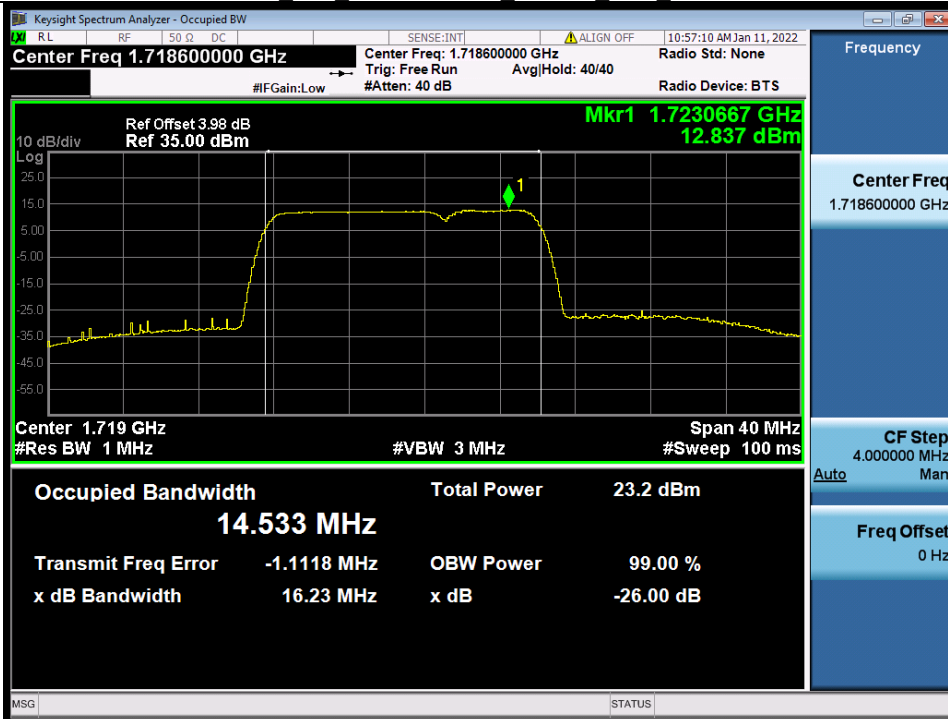


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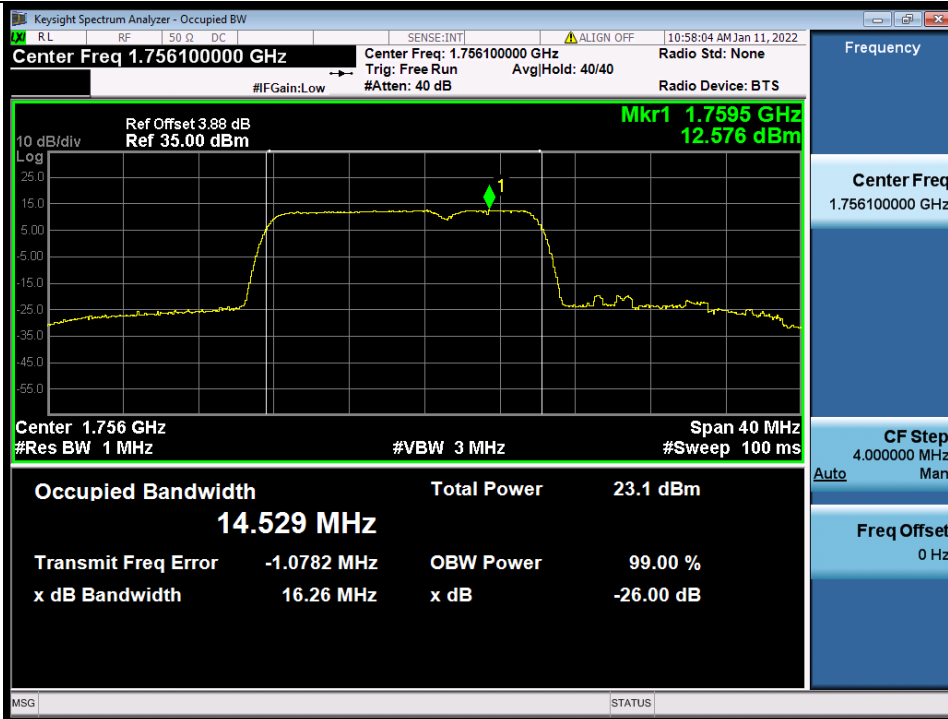
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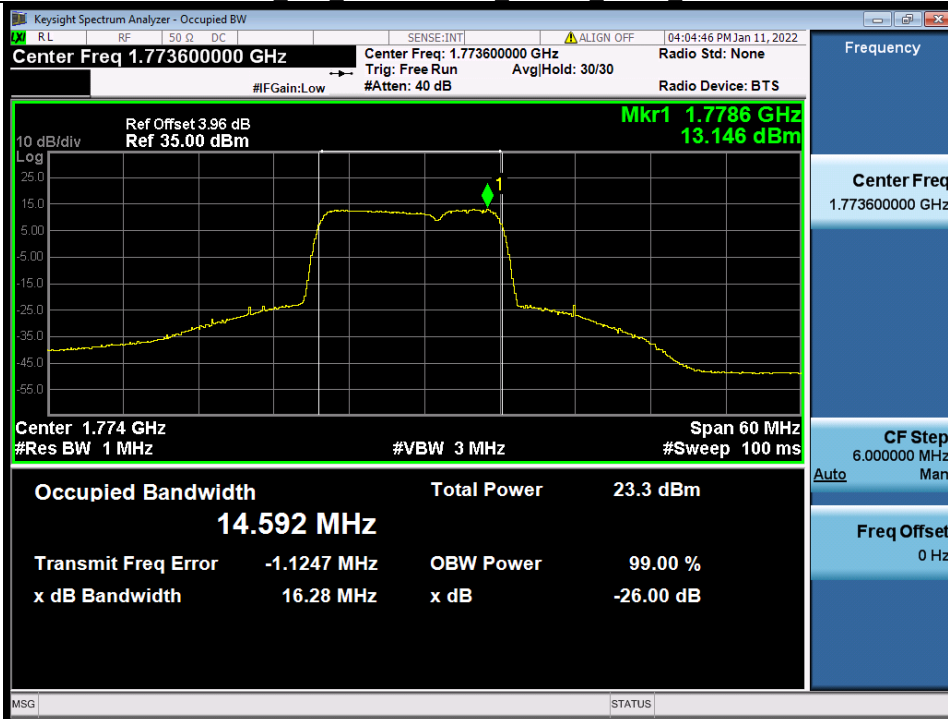


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Band 66B 10MHz+5MHz 16QAM HCH NTN



Band 66B 10MHz+5MHz 64QAM LCH NTN

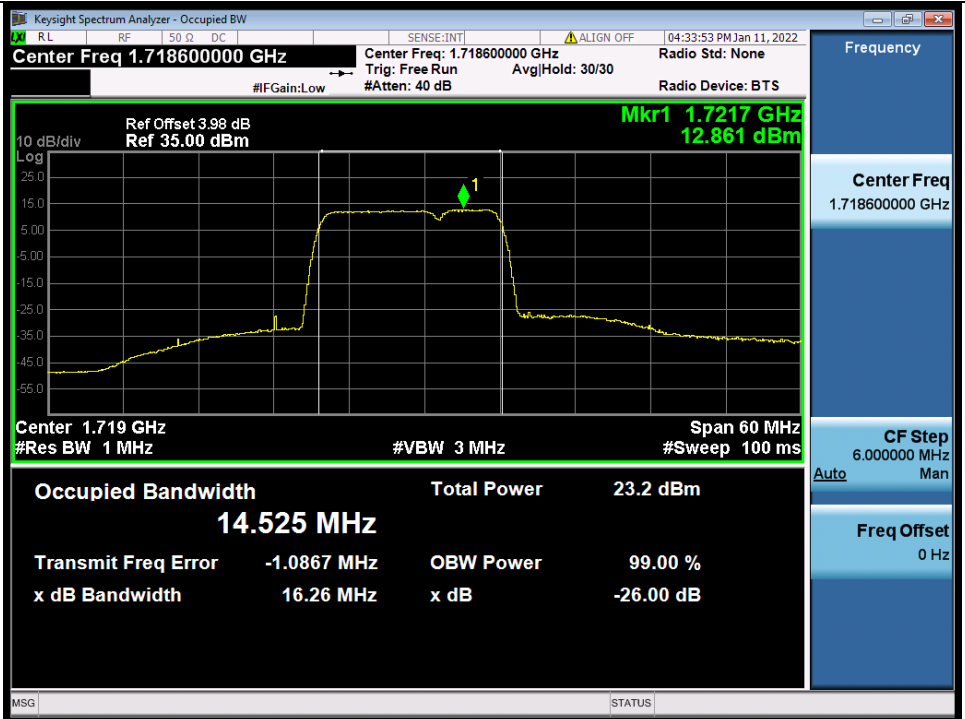
BV 7Layers Communications
Technology (Shenzhen) Co., Ltd

No.B102, Dazu Chuangxin Mansion, North of Beihuan
Avenue, North Area, Hi-Tech Industrial Park, Nanshan
District, Shenzhen, Guangdong, China

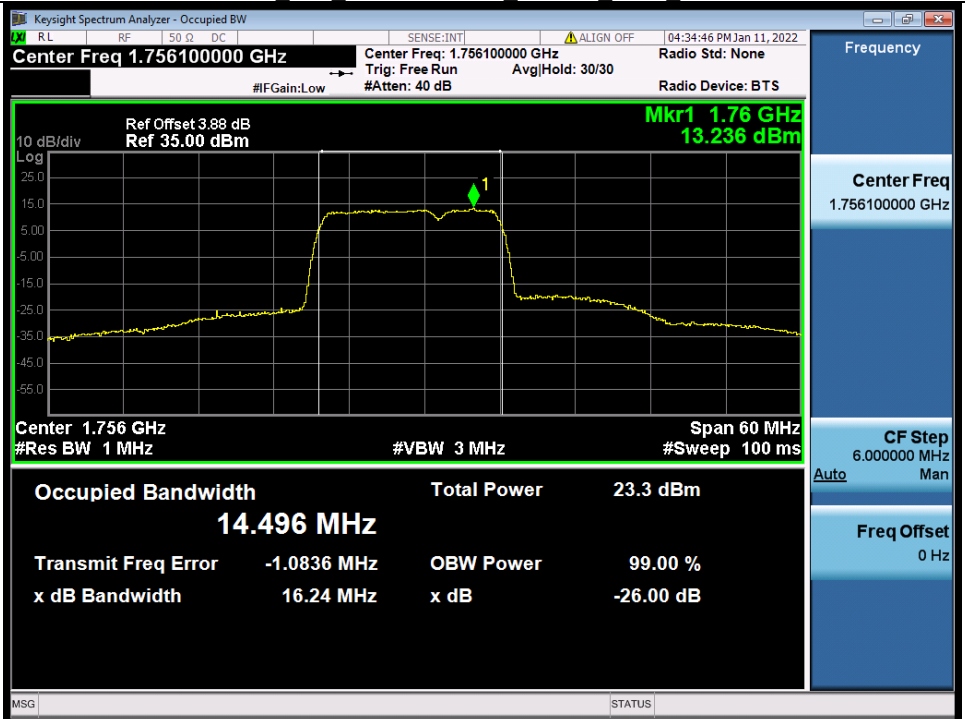
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Band 66B 10MHz+5MHz 64QAM MCH NTN



Band 66B 10MHz+5MHz 64QAM HCH NTN

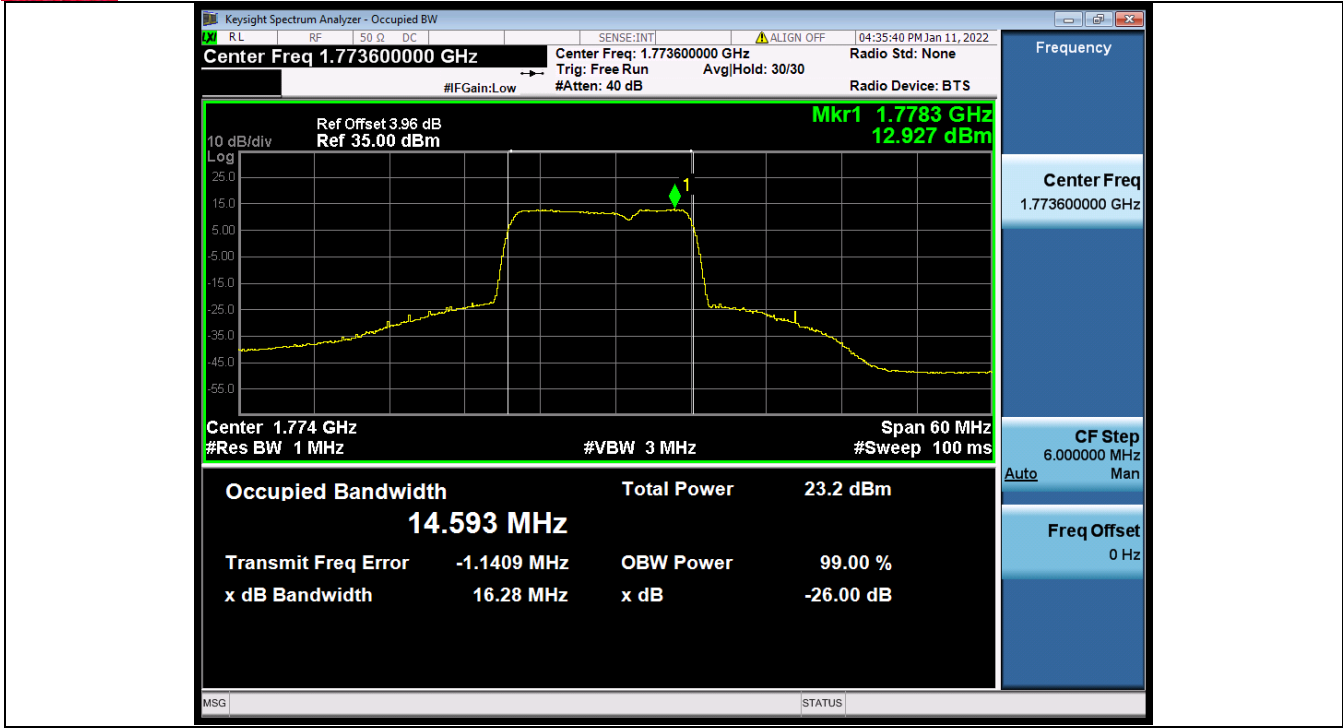
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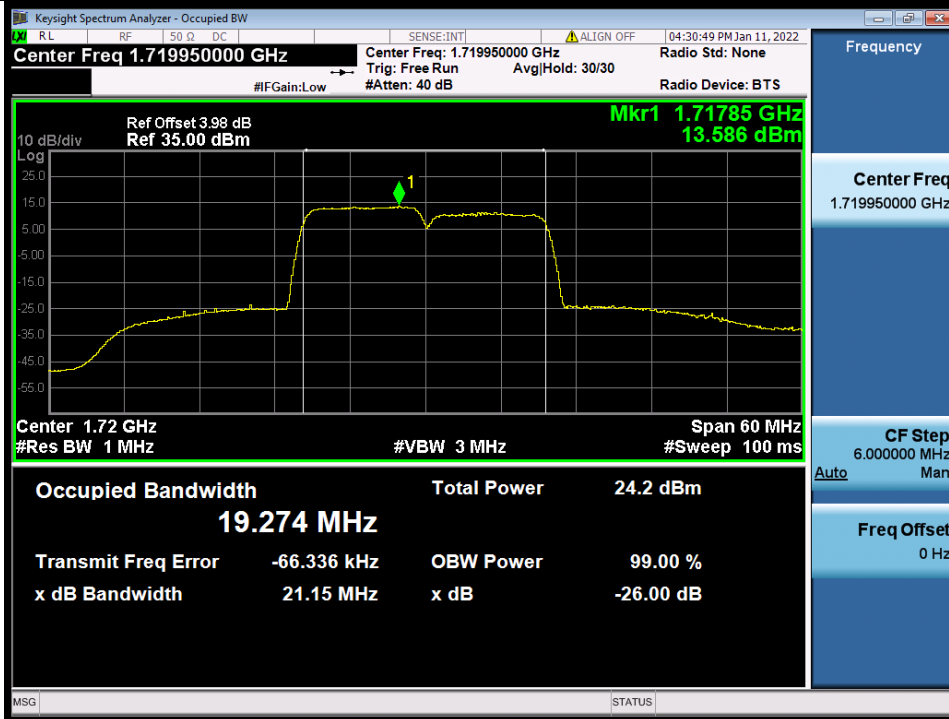
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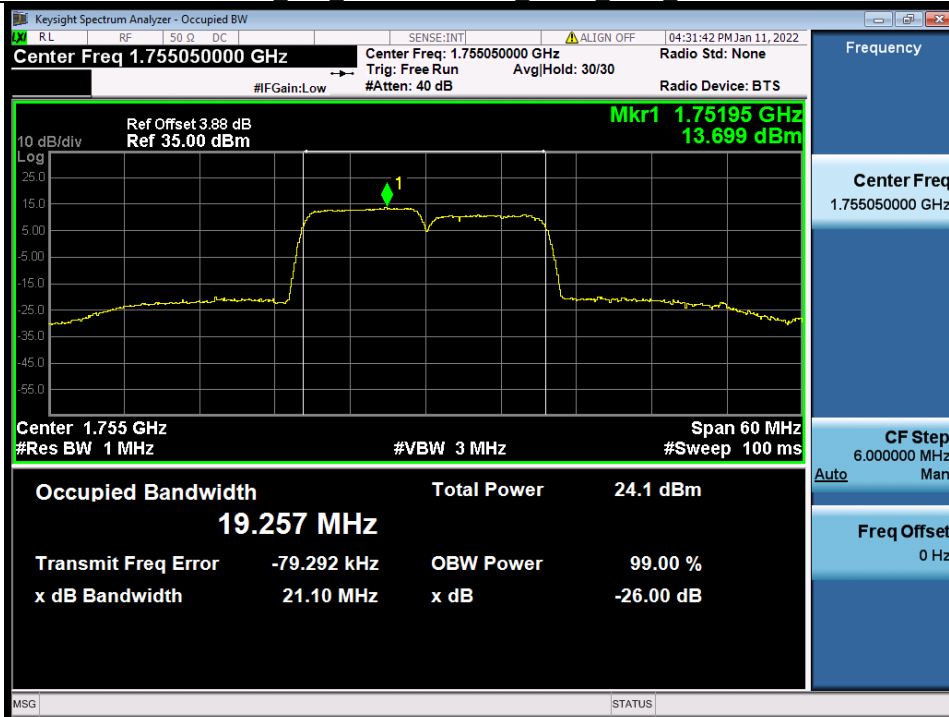
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Band 66B 10MHz+10MHz QPSK LCH NTN



Band 66B 10MHz+10MHz QPSK MCH NTN



Band 66B 10MHz+10MHz QPSK HCH NTN

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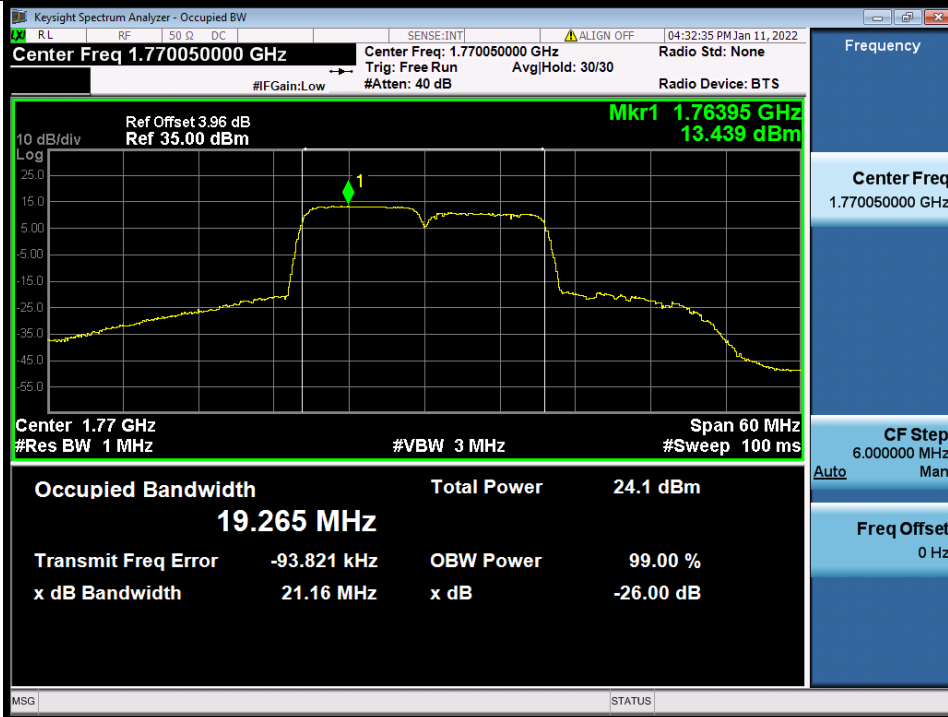
Fax: +86 755 8869 6577

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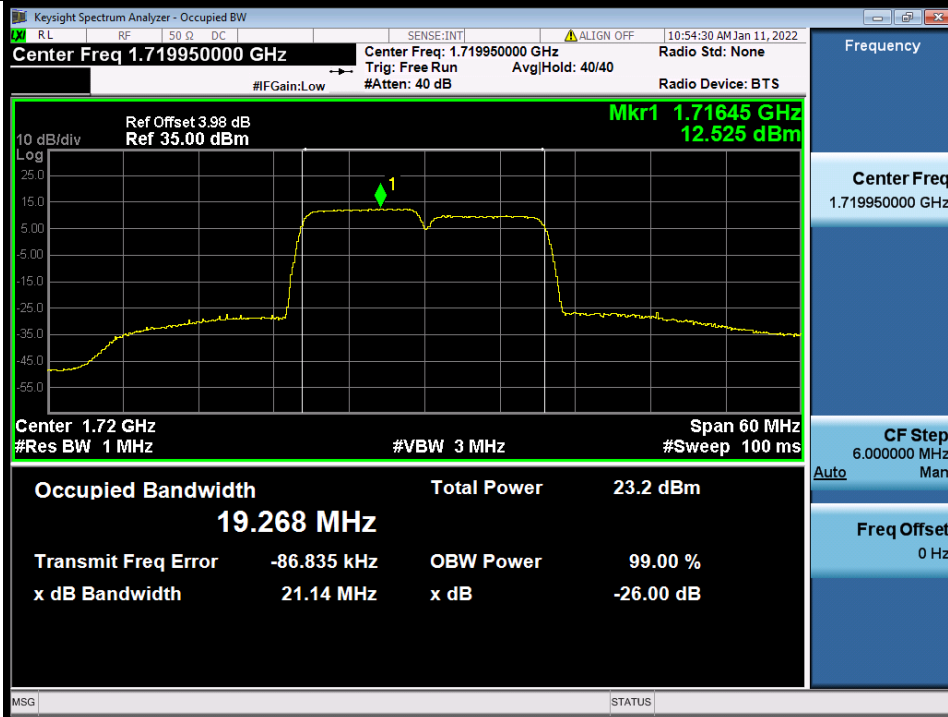


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Band 66B 10MHz+10MHz 16QAM LCH NTN



Band 66B 10MHz+10MHz 16QAM MCH NTN

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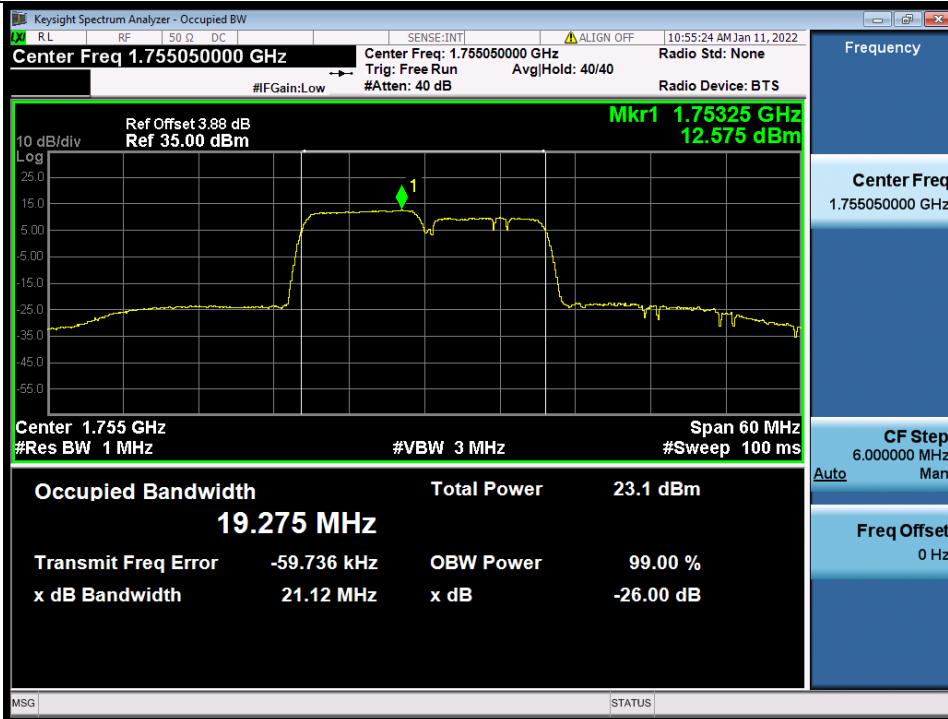
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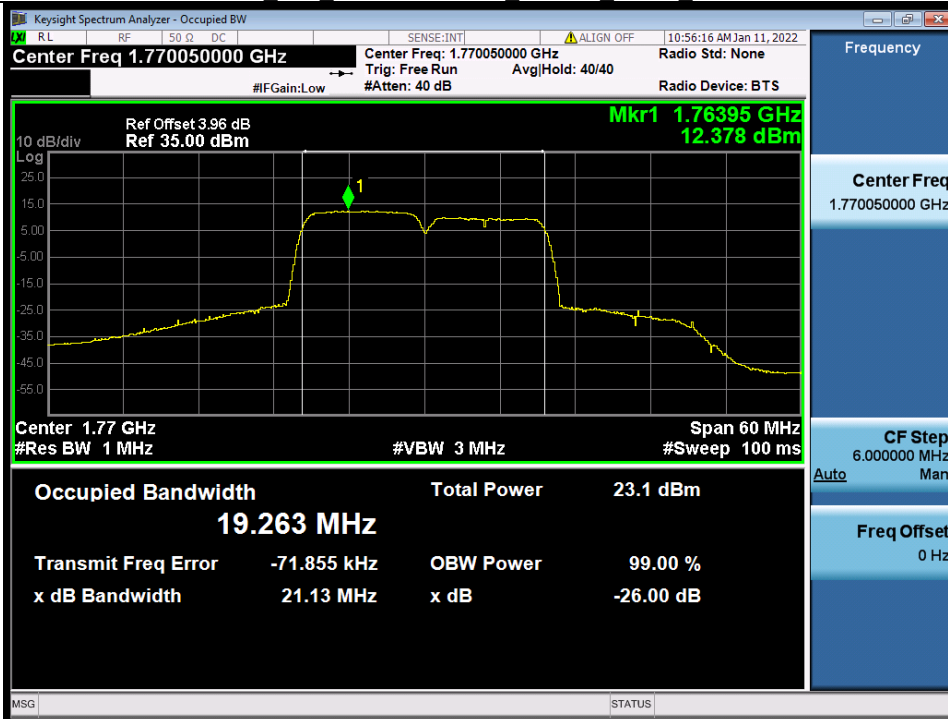


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Band 66B 10MHz+10MHz 16QAM HCH NTN



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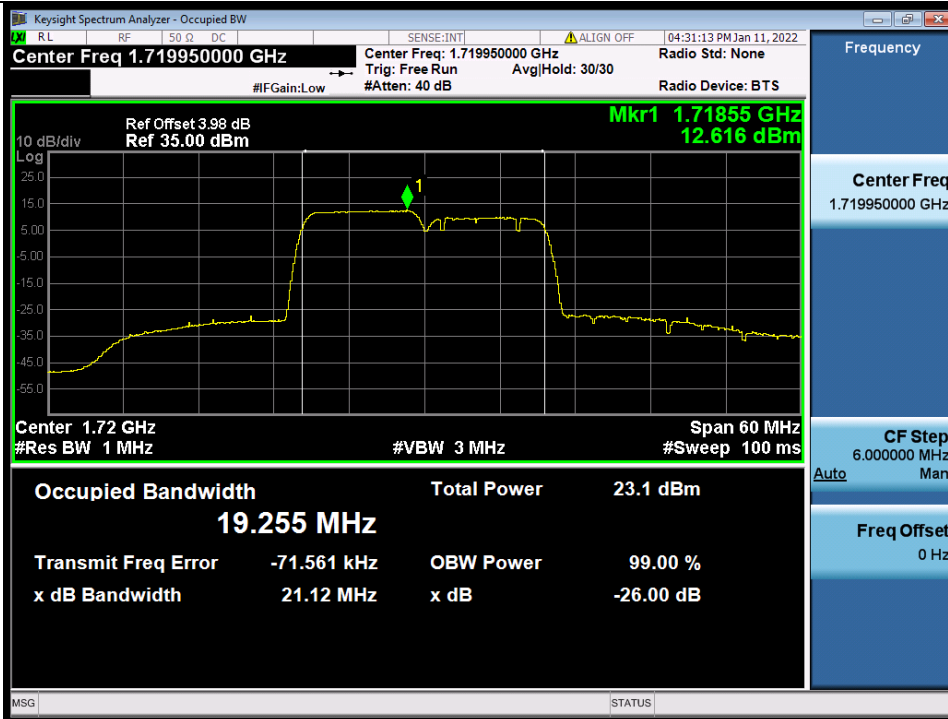
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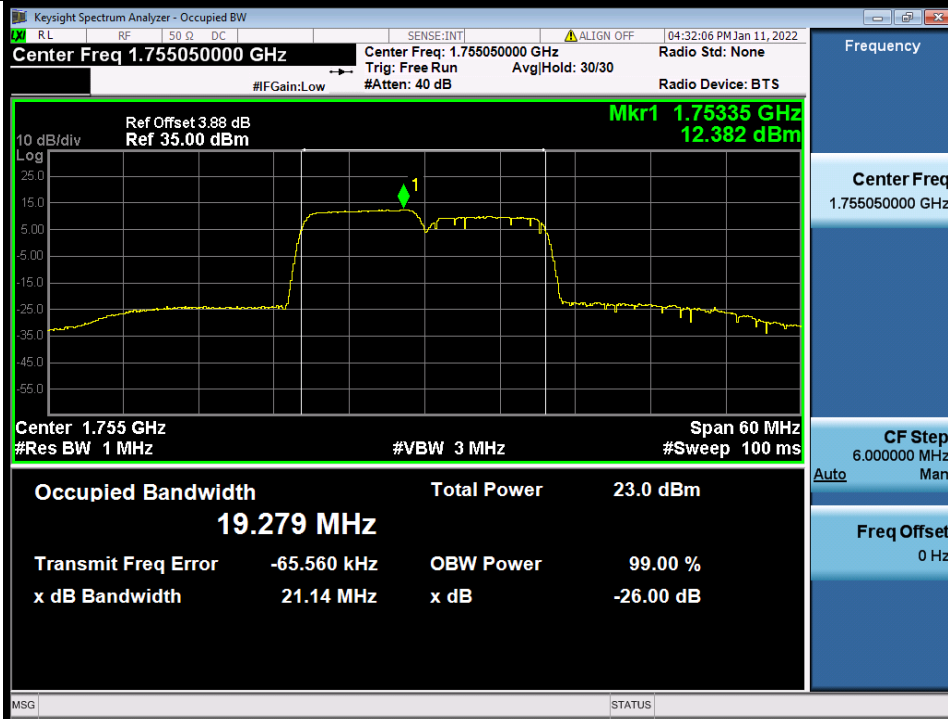


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Band 66B 10MHz+10MHz 64QAM MCH NTN



Band 66B 10MHz+10MHz 64QAM HCH NTN

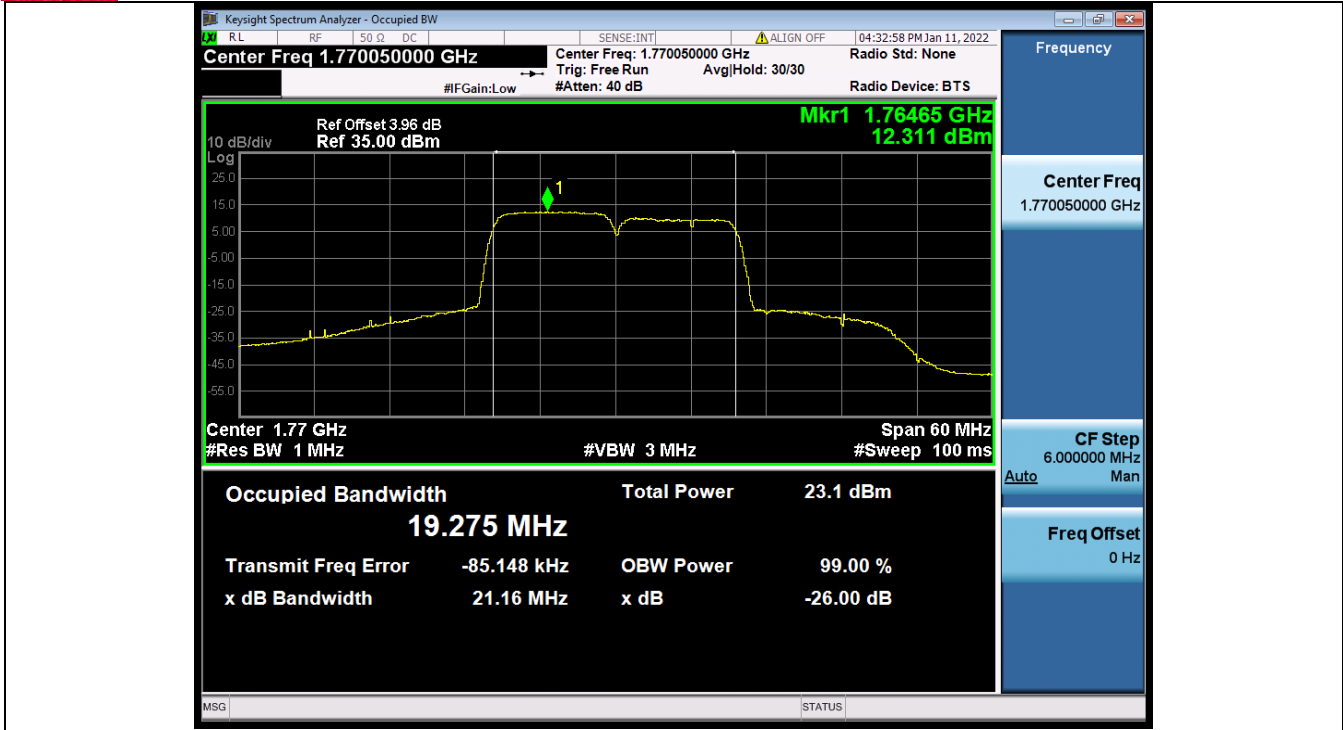
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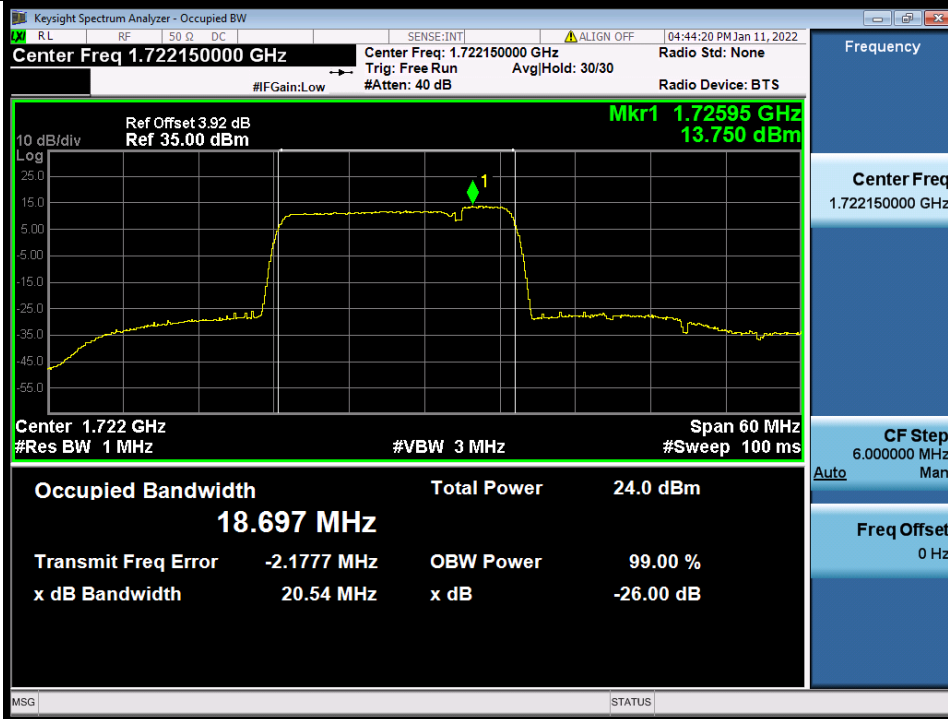
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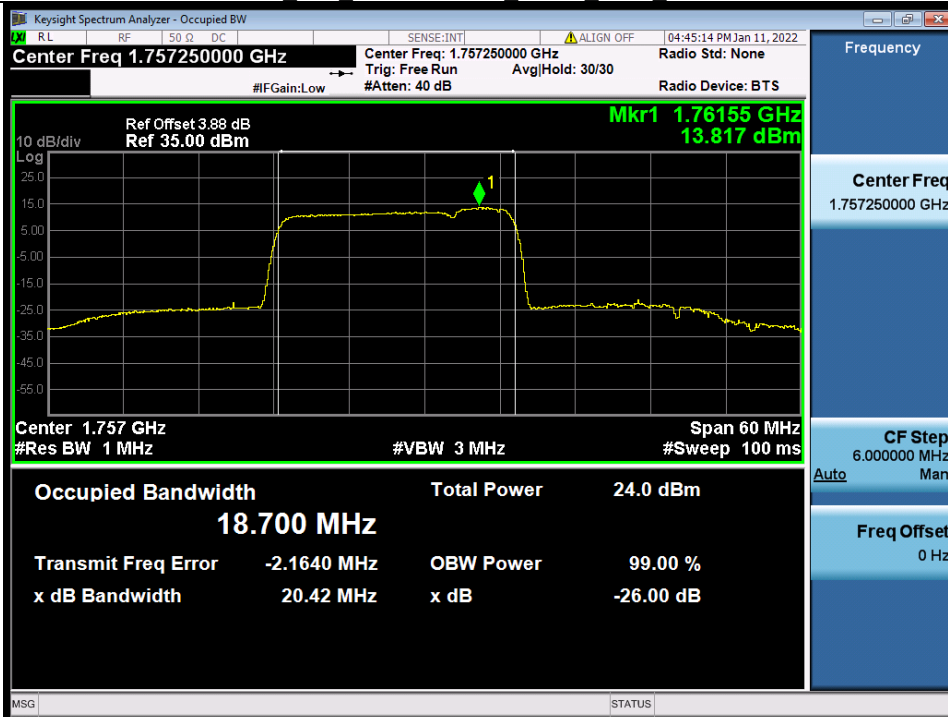
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Test Report No.: W7L-P22020005RF01

Band 66B 15MHz+5MHz QPSK LCH NTN



Band 66B 15MHz+5MHz QPSK MCH NTN



Band 66B 15MHz+5MHz QPSK HCH NTN

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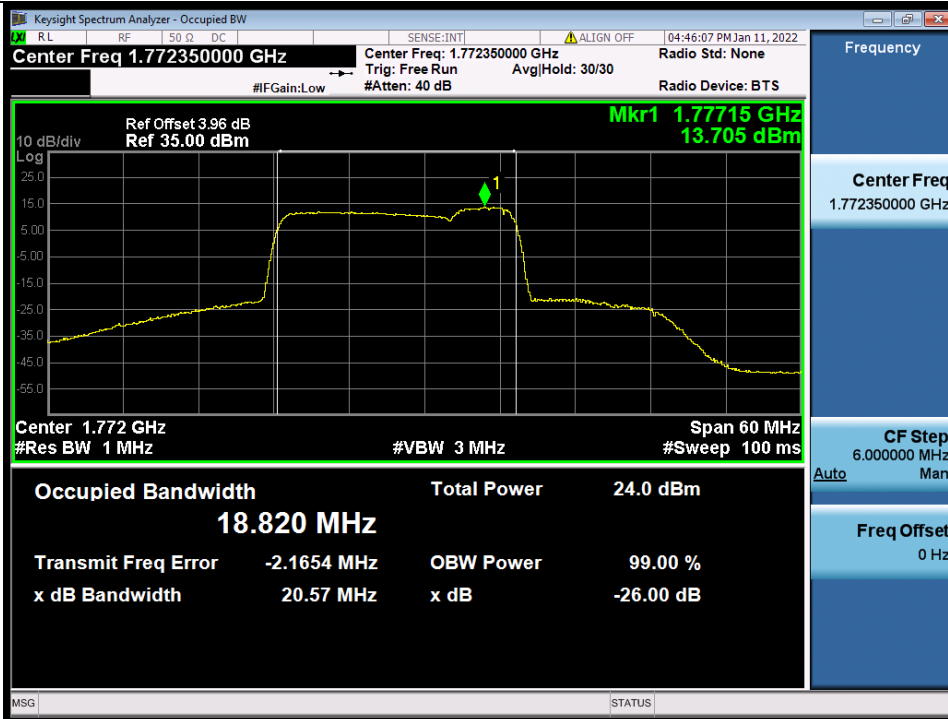
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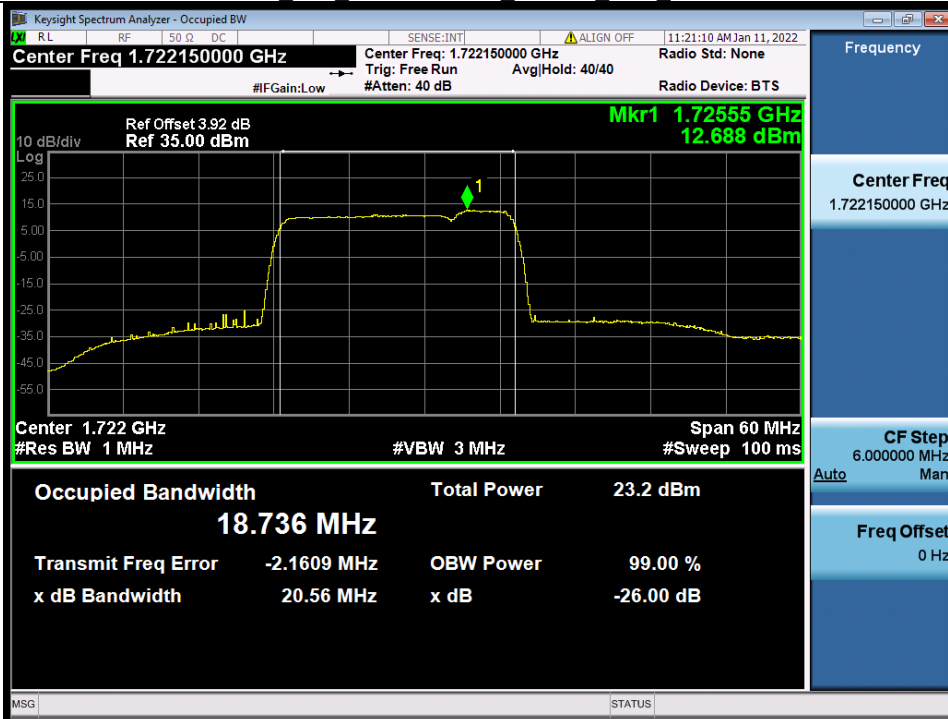


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Band 66B 15MHz+5MHz 16QAM LCH NTN



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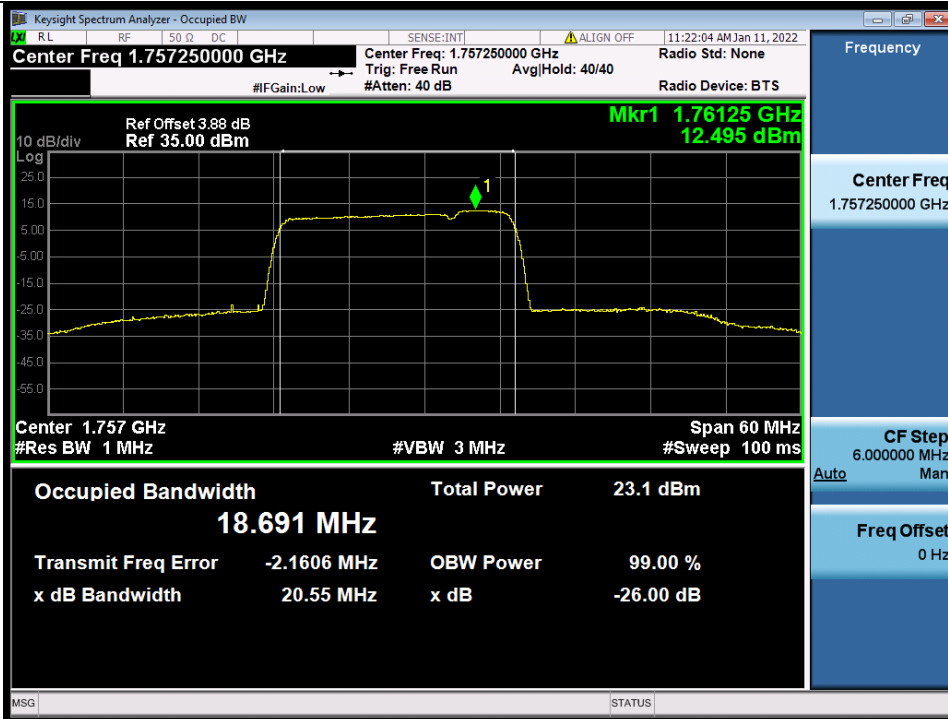
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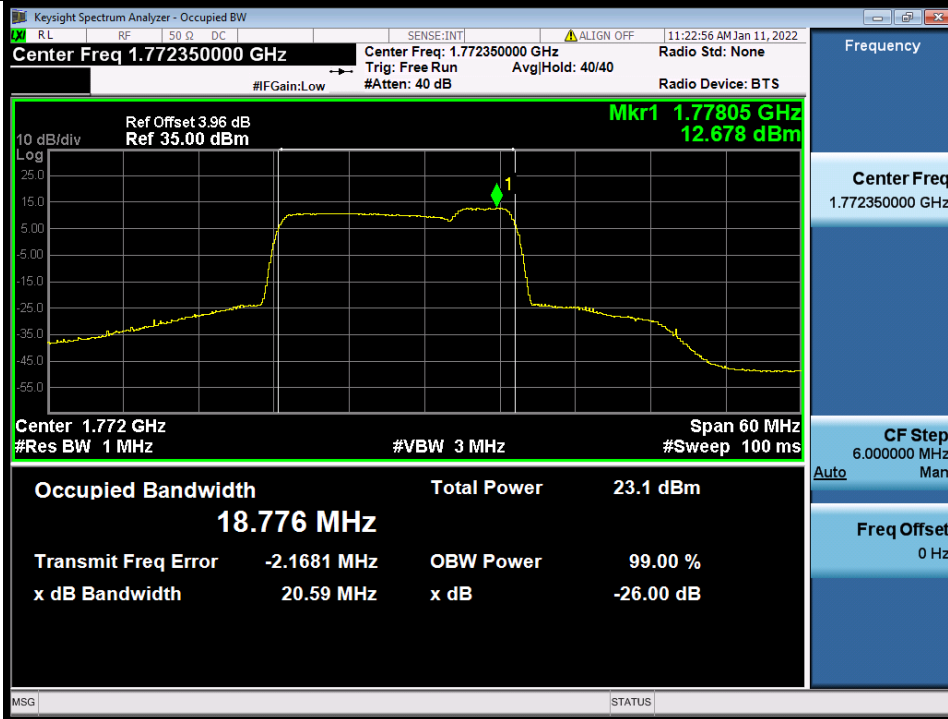


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Band 66B 15MHz+5MHz 16QAM HCH NTN



Band 66B 15MHz+5MHz 64QAM LCH NTN

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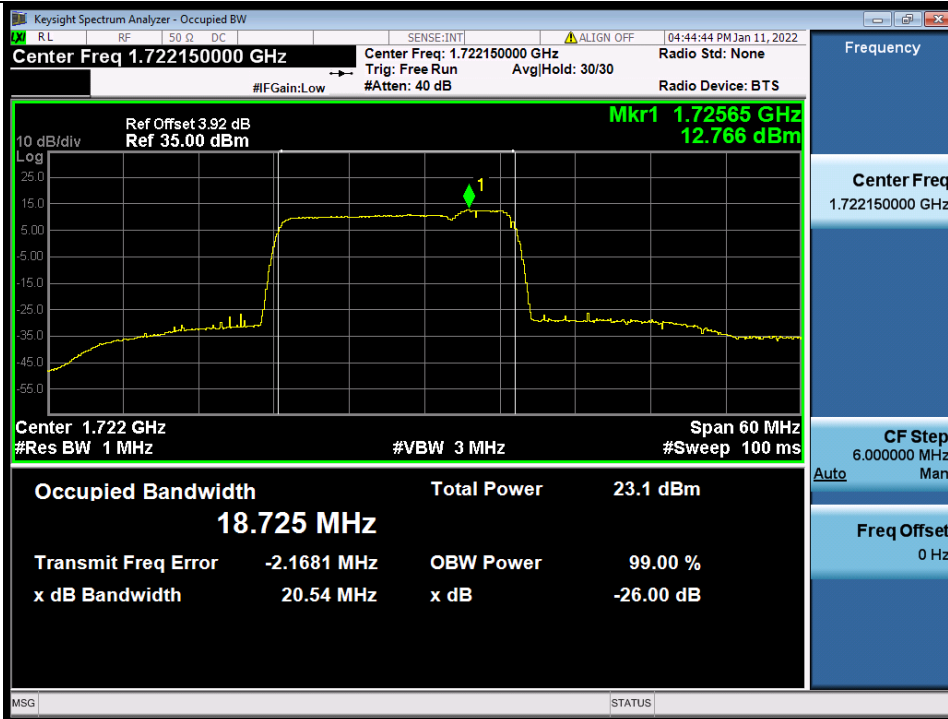
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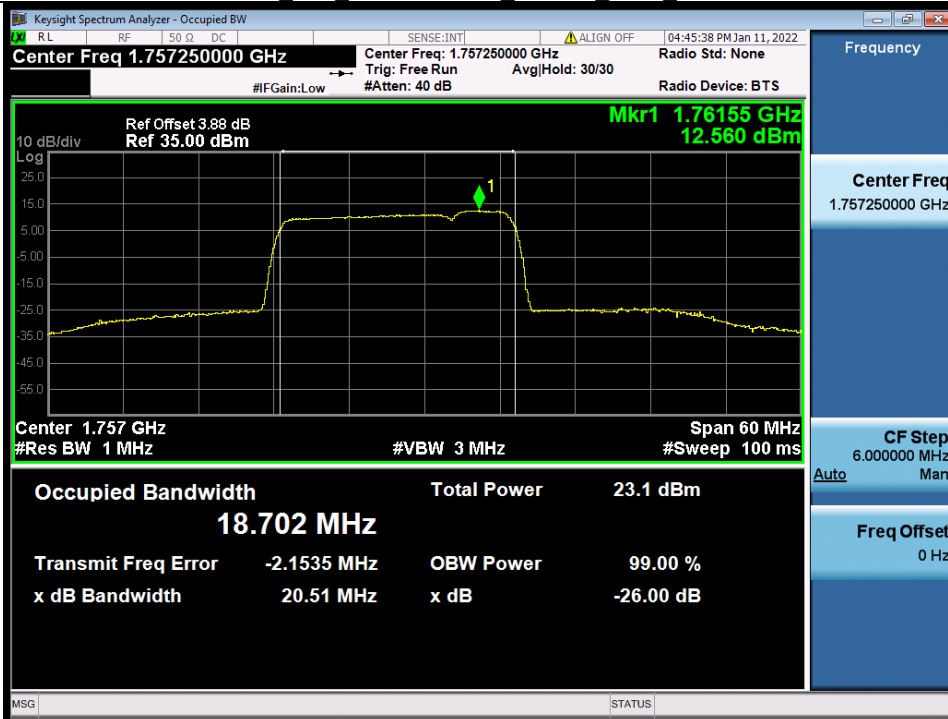


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Band 66B 15MHz+5MHz 64QAM MCH NTN



Band 66B 15MHz+5MHz 64QAM HCH NTN

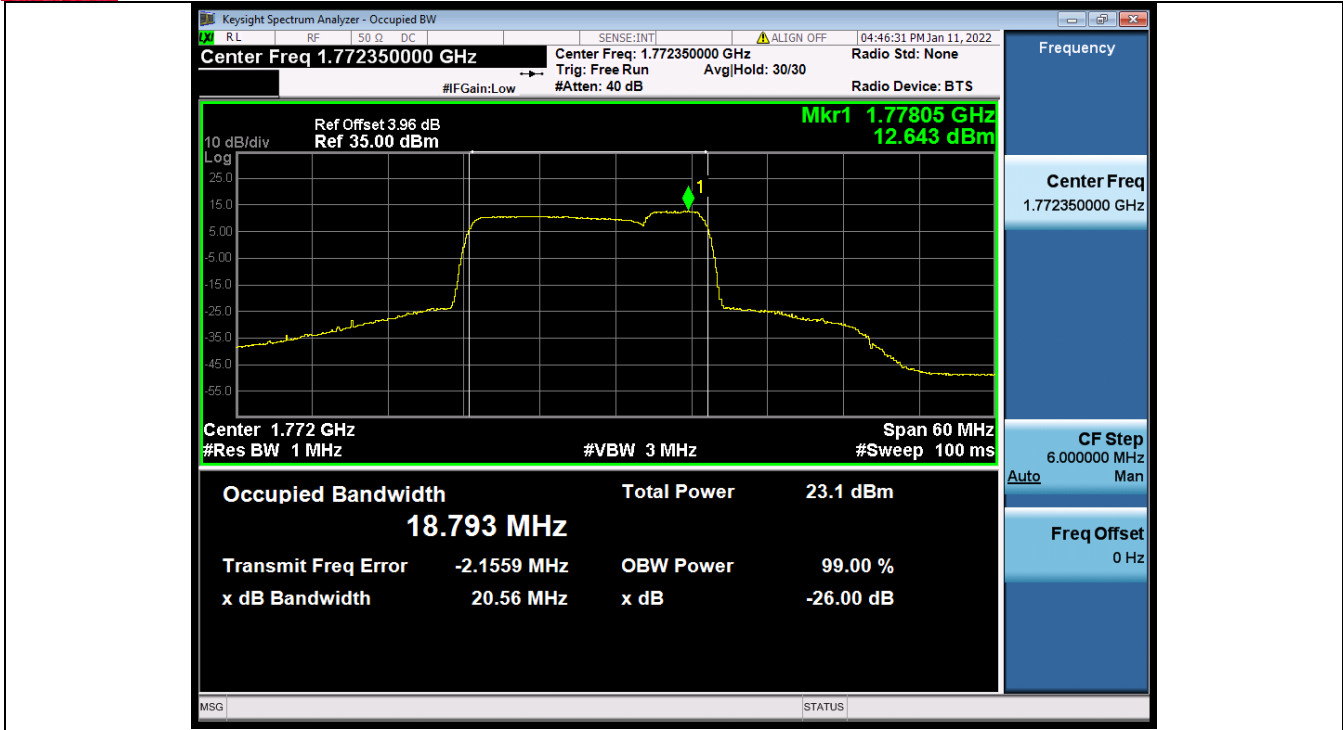
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Avenue, North Area, Hi-Tech Industrial Park, Nanshan
District, Shenzhen, Guangdong, China

Tel: +86 755 8869 6566

Fax: +86 755 8869 6577

Email: customerservice.sw@bureauveritas.com



1.2 LTE 7C

1.2.1 Test Result

Band: 7C / Bandwidth: 10MHz+20MHz / NTV							
Modulation	RB Allocation		99% Occupied Bandwidth (MHz)			Limit (MHz)	Verdict
	Size	Offset	LCH	MCH	HCH		
QPSK	FULL	0	27.98	27.94	27.99	/	Pass
16QAM	FULL	0	27.99	27.96	28.02	/	Pass
64QAM	FULL	0	27.98	27.95	28.03	/	Pass
Band: 7C / Bandwidth: 15MHz+10MHz / NTV							
Modulation	RB Allocation		99% Occupied Bandwidth (MHz)			Limit (MHz)	Verdict
	Size	Offset	LCH	MCH	HCH		
QPSK	FULL	0	23.49	23.47	23.49	/	Pass
16QAM	FULL	0	23.45	23.45	23.55	/	Pass
64QAM	FULL	0	23.46	23.47	23.54	/	Pass
Band: 7C / Bandwidth: 15MHz+15MHz / NTV							
Modulation	RB Allocation		99% Occupied Bandwidth (MHz)			Limit (MHz)	Verdict
	Size	Offset	LCH	MCH	HCH		
QPSK	FULL	0	28.58	28.52	28.61	/	Pass
16QAM	FULL	0	28.59	28.51	28.64	/	Pass
64QAM	FULL	0	28.59	28.55	28.60	/	Pass
Band: 7C / Bandwidth: 15MHz+20MHz / NTV							
Modulation	RB Allocation		99% Occupied Bandwidth (MHz)			Limit (MHz)	Verdict
	Size	Offset	LCH	MCH	HCH		
QPSK	FULL	0	32.74	32.71	32.77	/	Pass
16QAM	FULL	0	32.82	32.71	32.61	/	Pass
64QAM	FULL	0	32.85	32.72	32.78	/	Pass
Band: 7C / Bandwidth: 20MHz+10MHz / NTV							
Modulation	RB Allocation		99% Occupied Bandwidth (MHz)			Limit (MHz)	Verdict
	Size	Offset	LCH	MCH	HCH		
QPSK	FULL	0	28.05	28.01	28.10	/	Pass
16QAM	FULL	0	28.01	27.97	28.10	/	Pass
64QAM	FULL	0	28.04	28.03	28.10	/	Pass
Band: 7C / Bandwidth: 20MHz+15MHz / NTV							
Modulation	RB Allocation		99% Occupied Bandwidth (MHz)			Limit (MHz)	Verdict
	Size	Offset	LCH	MCH	HCH		
QPSK	FULL	0	32.89	32.76	32.83	/	Pass
16QAM	FULL	0	32.84	32.77	32.89	/	Pass
64QAM	FULL	0	32.85	32.81	32.90	/	Pass
Band: 7C / Bandwidth: 20MHz+20MHz / NTV							
Modulation	RB Allocation		99% Occupied Bandwidth (MHz)			Limit (MHz)	Verdict
	Size	Offset	LCH	MCH	HCH		
QPSK	FULL	0	37.69	37.58	37.68	/	Pass
16QAM	FULL	0	37.65	37.50	37.64	/	Pass
64QAM	FULL	0	37.66	37.59	37.66	/	Pass

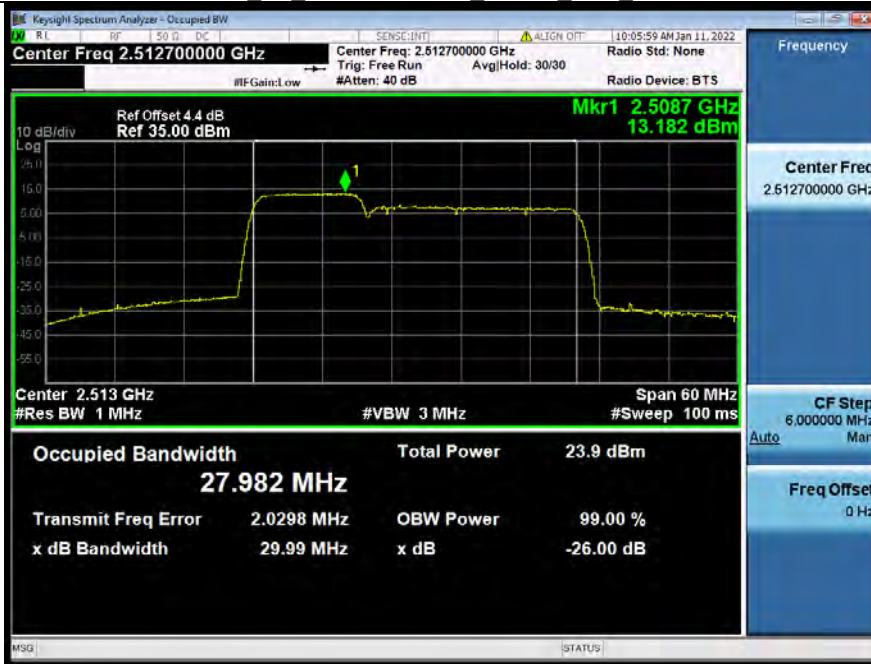


Band: 7C / Bandwidth: 10MHz+20MHz / NTV							
Modulation	RB Allocation		26dB Occupied Bandwidth (MHz)			Limit (MHz)	Verdict
	Size	Offset	LCH	MCH	HCH		
QPSK	FULL	0	29.99	30.00	30.04	/	Pass
16QAM	FULL	0	30.02	29.98	30.06	/	Pass
64QAM	FULL	0	30.02	30.00	30.05	/	Pass
Band: 7C / Bandwidth: 15MHz+10MHz / NTV							
Modulation	RB Allocation		26dB Occupied Bandwidth (MHz)			Limit (MHz)	Verdict
	Size	Offset	LCH	MCH	HCH		
QPSK	FULL	0	25.51	25.48	25.53	/	Pass
16QAM	FULL	0	25.49	25.48	25.54	/	Pass
64QAM	FULL	0	25.51	25.50	25.55	/	Pass
Band: 7C / Bandwidth: 15MHz+15MHz / NTV							
Modulation	RB Allocation		26dB Occupied Bandwidth (MHz)			Limit (MHz)	Verdict
	Size	Offset	LCH	MCH	HCH		
QPSK	FULL	0	30.72	30.69	30.74	/	Pass
16QAM	FULL	0	30.72	30.70	30.74	/	Pass
64QAM	FULL	0	30.73	30.71	30.72	/	Pass
Band: 7C / Bandwidth: 15MHz+20MHz / NTV							
Modulation	RB Allocation		26dB Occupied Bandwidth (MHz)			Limit (MHz)	Verdict
	Size	Offset	LCH	MCH	HCH		
QPSK	FULL	0	35.02	34.99	34.99	/	Pass
16QAM	FULL	0	35.03	35.00	34.99	/	Pass
64QAM	FULL	0	35.03	35.00	35.00	/	Pass
Band: 7C / Bandwidth: 20MHz+10MHz / NTV							
Modulation	RB Allocation		26dB Occupied Bandwidth (MHz)			Limit (MHz)	Verdict
	Size	Offset	LCH	MCH	HCH		
QPSK	FULL	0	30.02	30.14	30.21	/	Pass
16QAM	FULL	0	30.18	30.17	30.22	/	Pass
64QAM	FULL	0	30.19	30.12	30.21	/	Pass
Band: 7C / Bandwidth: 20MHz+15MHz / NTV							
Modulation	RB Allocation		26dB Occupied Bandwidth (MHz)			Limit (MHz)	Verdict
	Size	Offset	LCH	MCH	HCH		
QPSK	FULL	0	35.16	35.07	35.09	/	Pass
16QAM	FULL	0	35.13	35.06	35.17	/	Pass
64QAM	FULL	0	35.17	35.08	35.12	/	Pass
Band: 7C / Bandwidth: 20MHz+20MHz / NTV							
Modulation	RB Allocation		26dB Occupied Bandwidth (MHz)			Limit (MHz)	Verdict
	Size	Offset	LCH	MCH	HCH		
QPSK	FULL	0	40.06	39.98	40.01	/	Pass
16QAM	FULL	0	40.03	39.94	40.01	/	Pass
64QAM	FULL	0	39.98	39.94	40.05	/	Pass

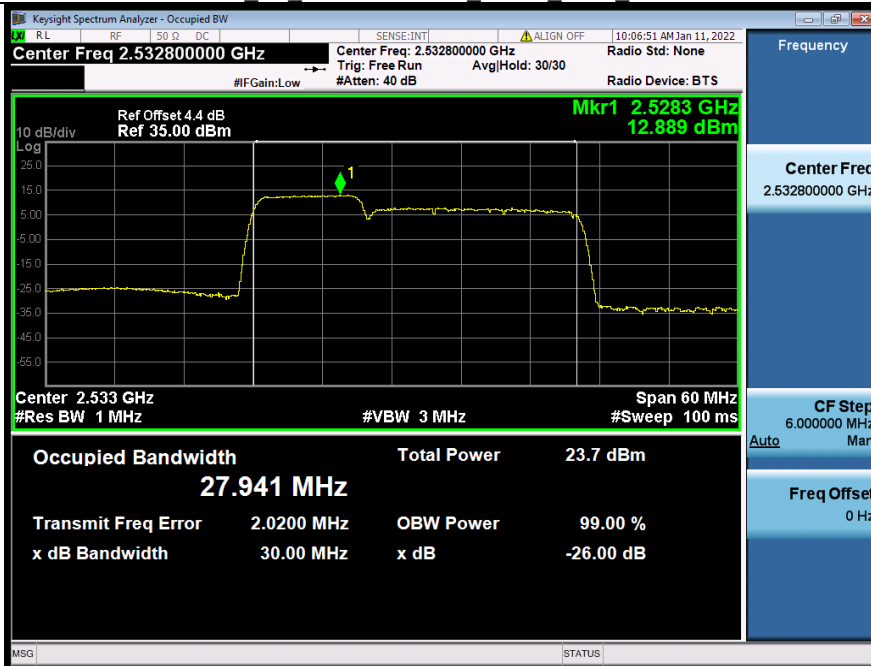


1.2.2 Test Graph

Band 7C 10MHz+20MHz QPSK LCH NTN



Band 7C 10MHz+20MHz QPSK MCH NTN



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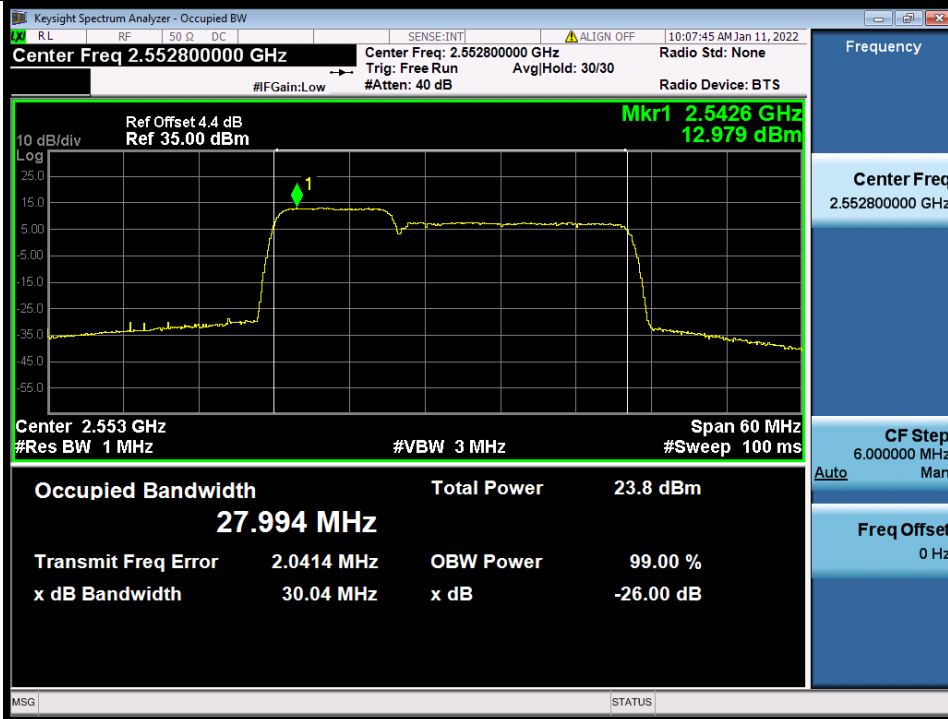
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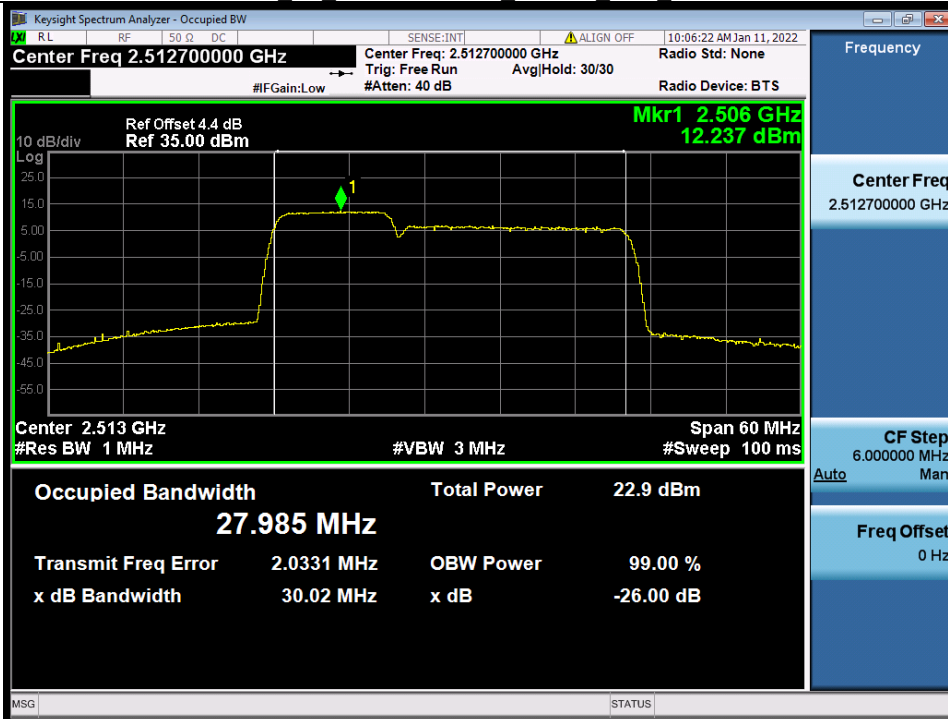
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Band 7C 10MHz+20MHz QPSK HCH NTN



Band 7C 10MHz+20MHz 16QAM LCH NTN



Band 7C 10MHz+20MHz 16QAM MCH NTN

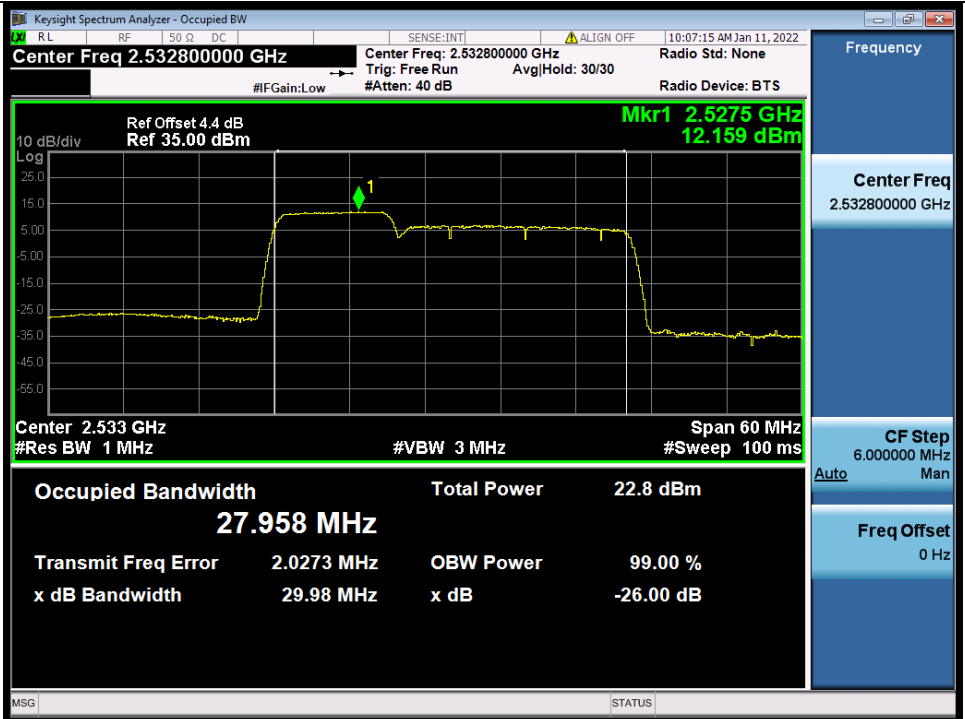
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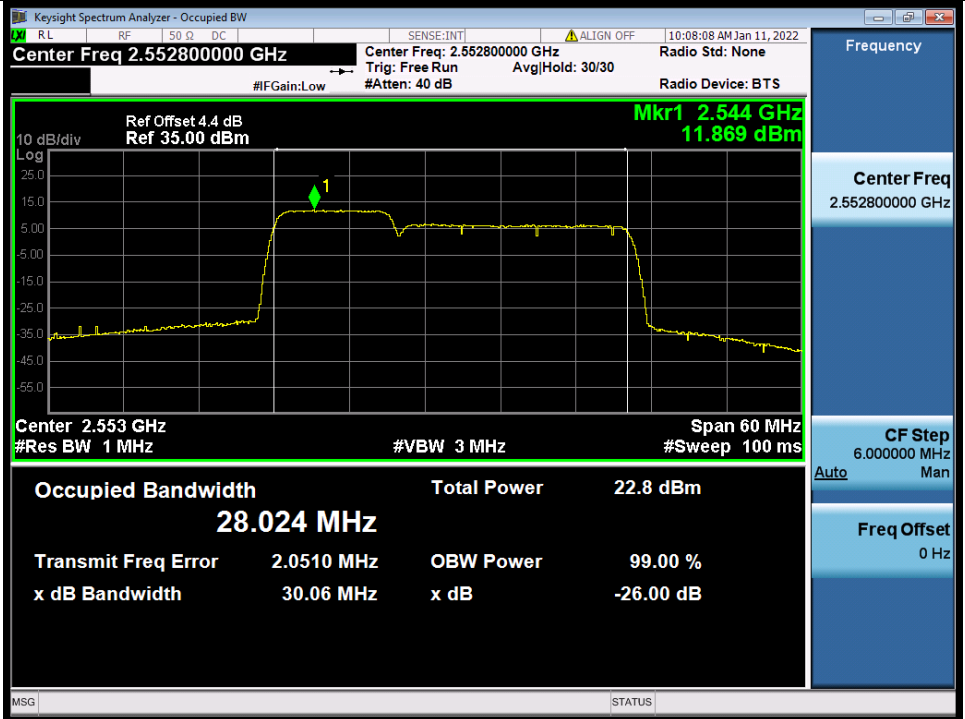
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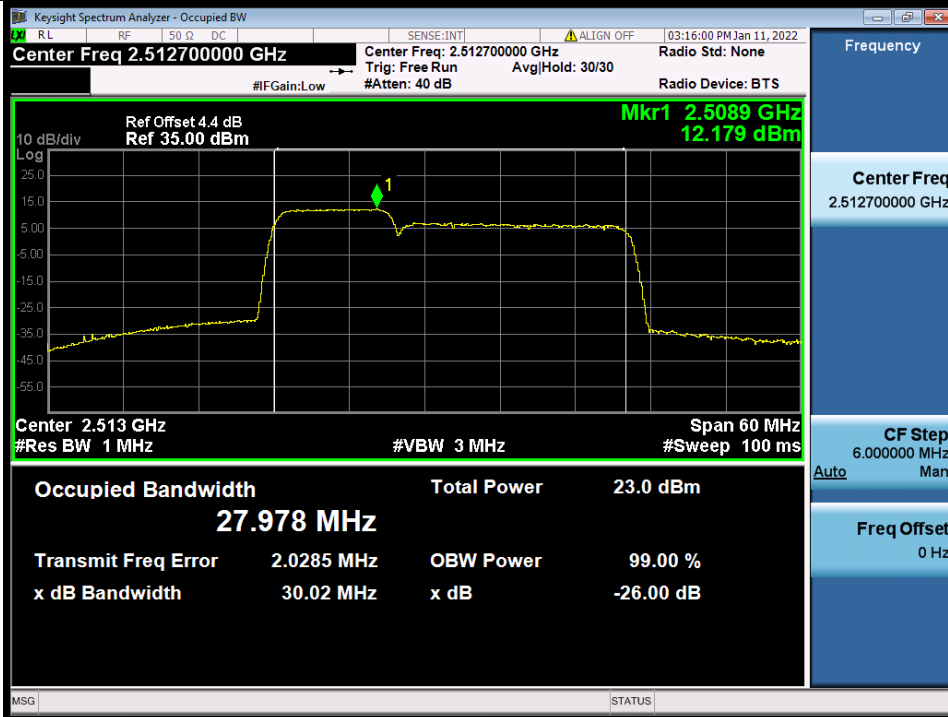
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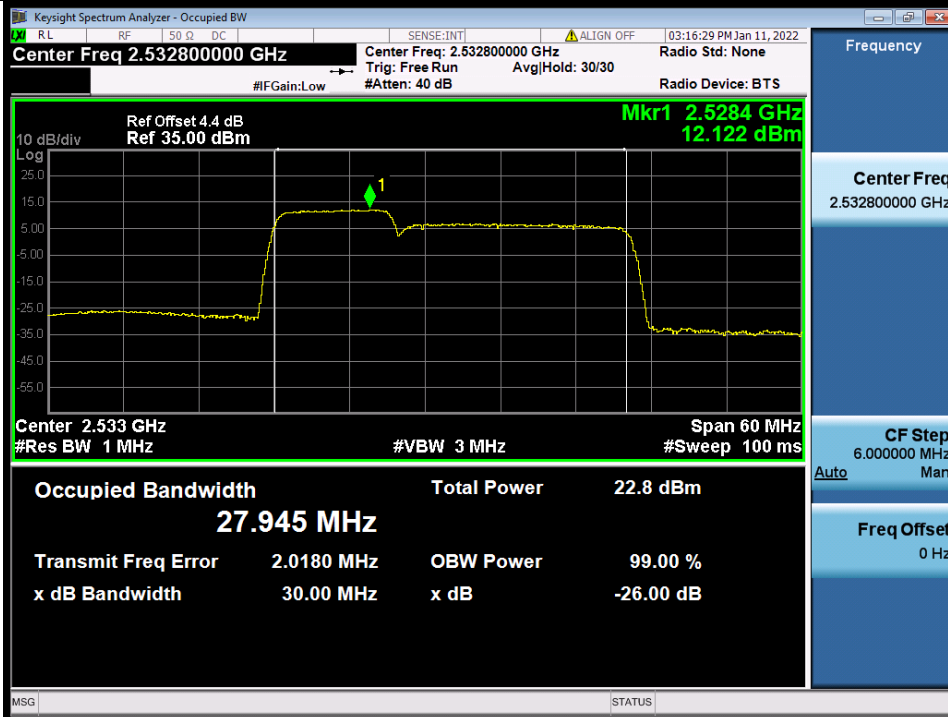


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Band 7C 10MHz+20MHz 64QAM MCH NTN



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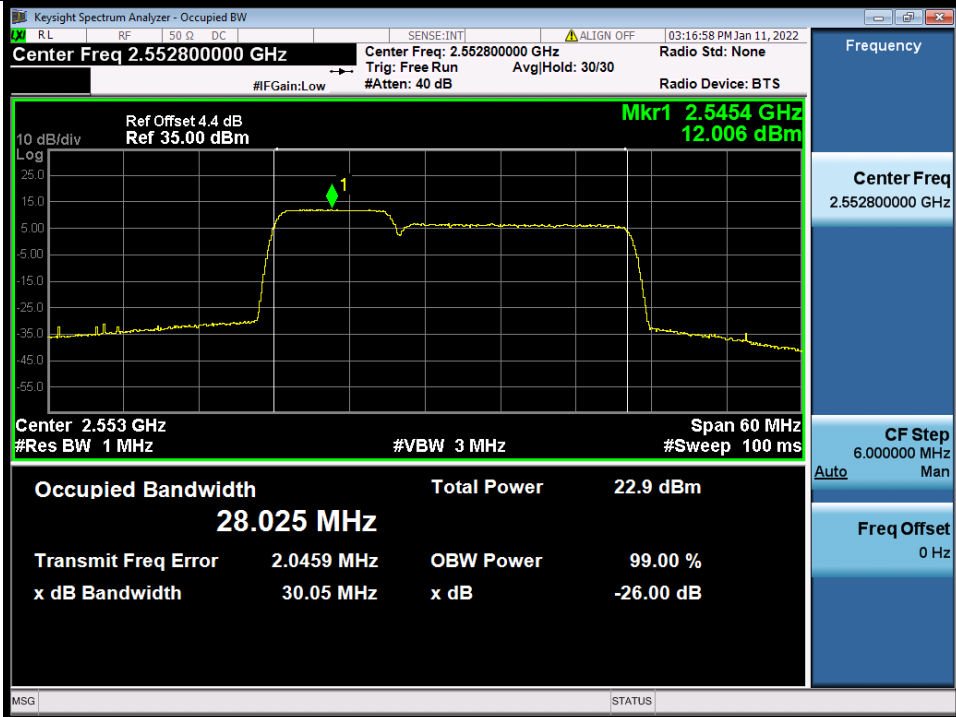
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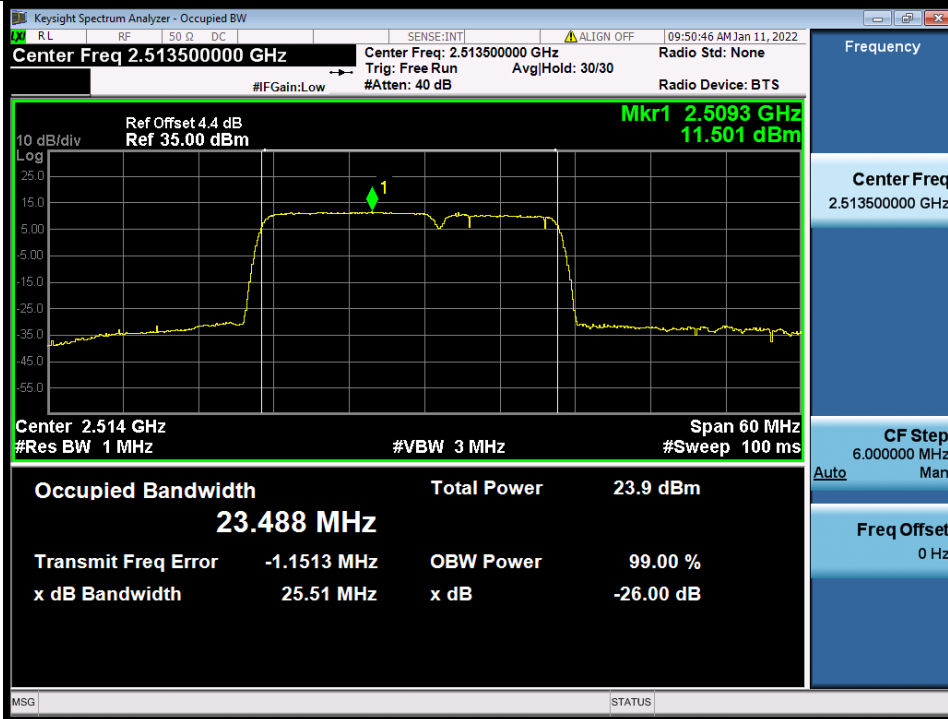
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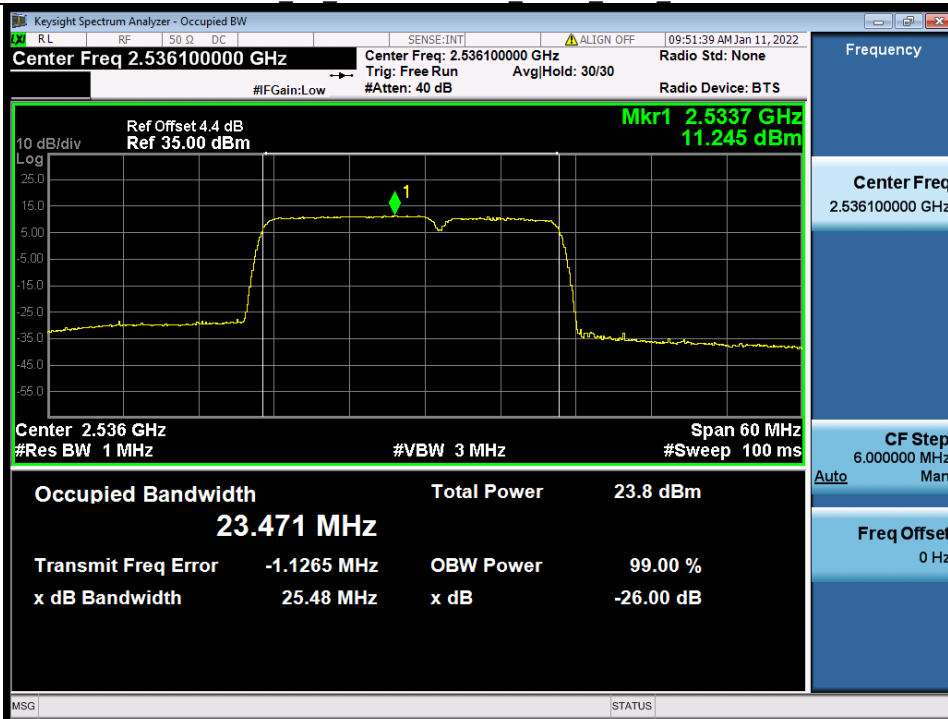
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Test Report No.: W7L-P22020005RF01

Band 7C 15MHz+10MHz QPSK LCH NTN



Band 7C 15MHz+10MHz QPSK MCH NTN



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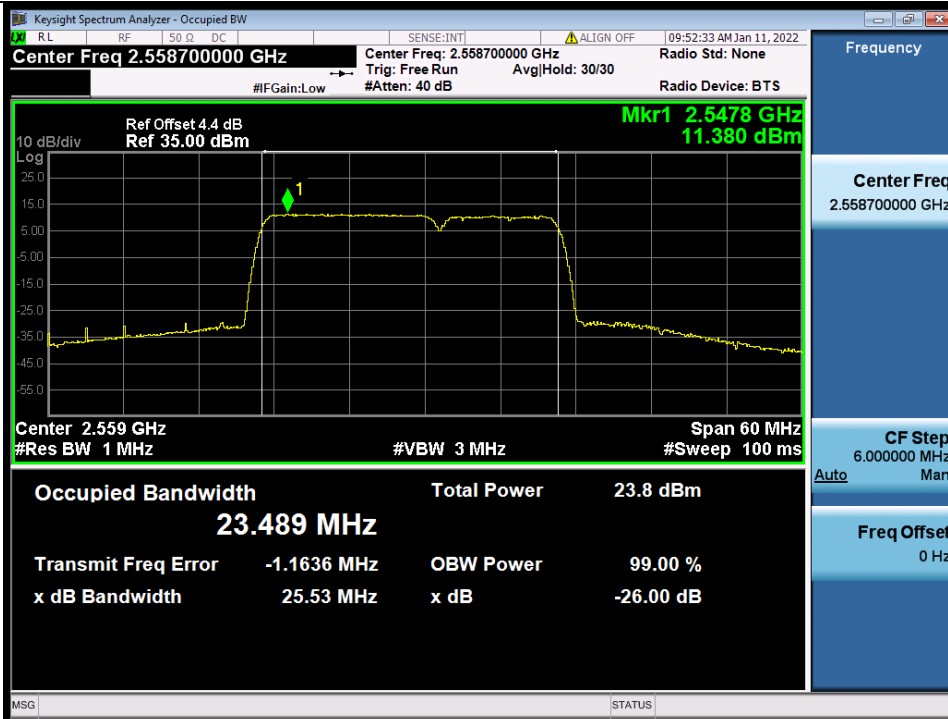
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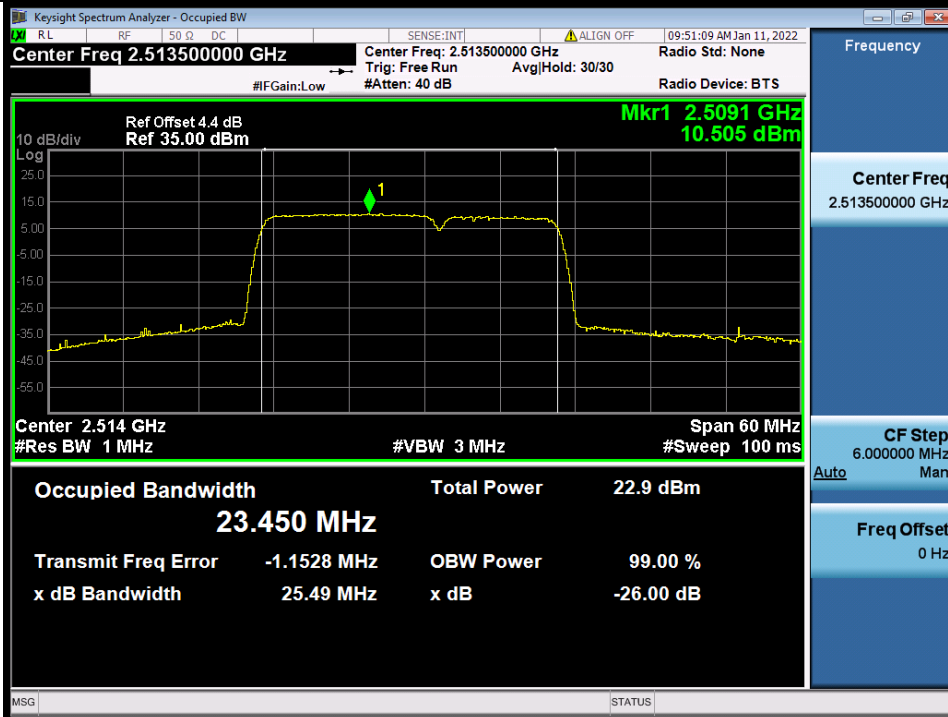


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Test Report No.: W7L-P22020005RF01



Band 7C 15MHz+10MHz 16QAM LCH NTN



Band 7C 15MHz+10MHz 16QAM MCH NTN

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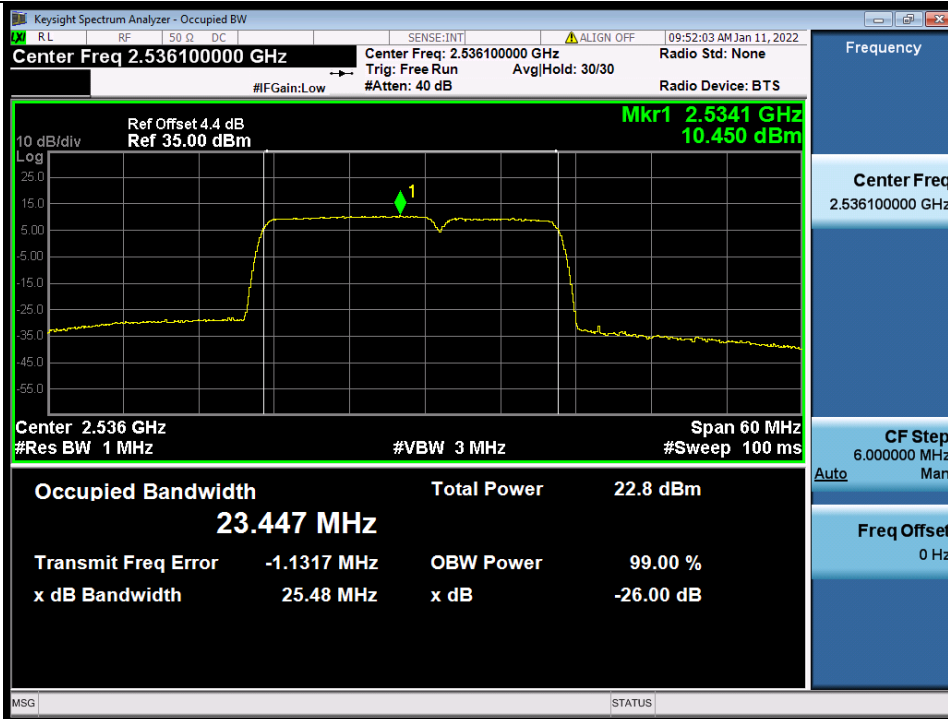
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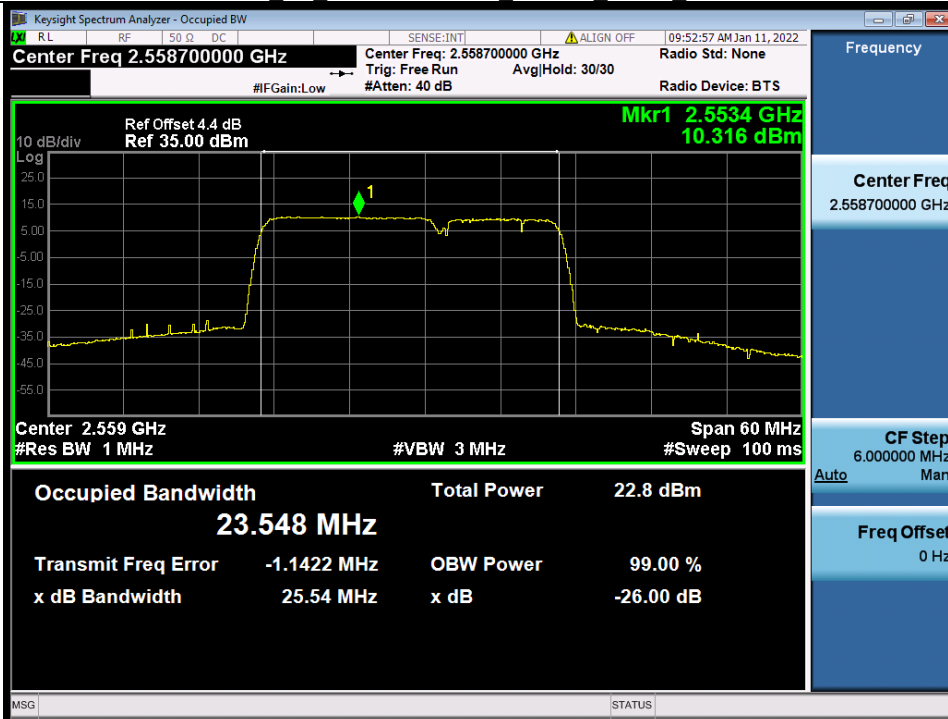


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Band 7C 15MHz+10MHz 16QAM HCH NTN



Band 7C 15MHz+10MHz 64QAM LCH NTN

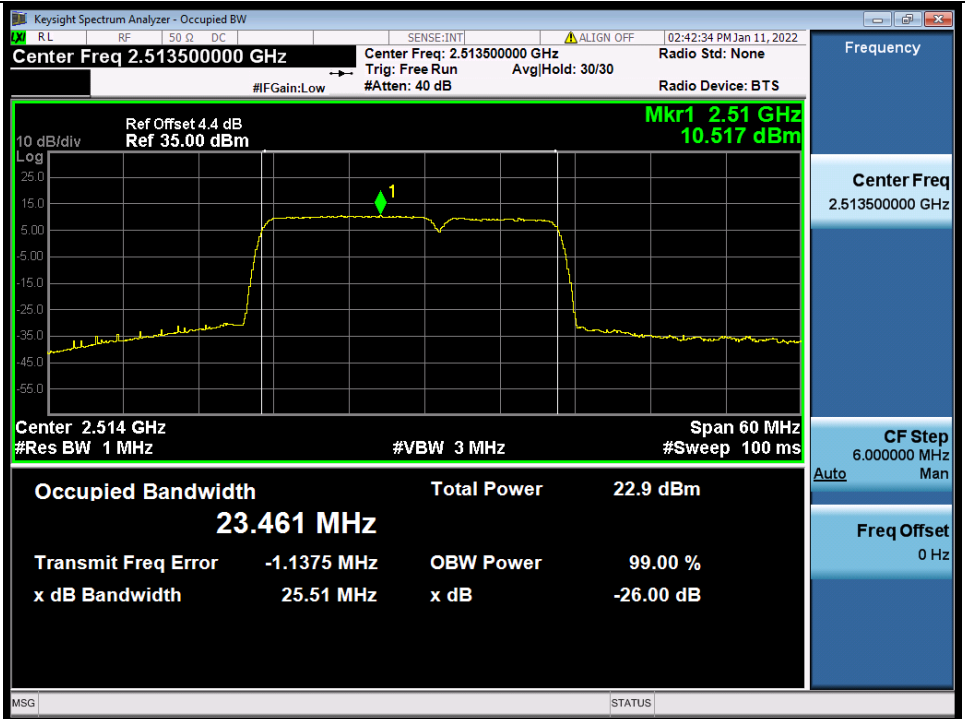
BV 7Layers Communications
Technology (Shenzhen) Co., Ltd

No.B102, Dazu Chuangxin Mansion, North of Beihuan
Avenue, North Area, Hi-Tech Industrial Park, Nanshan
District, Shenzhen, Guangdong, China

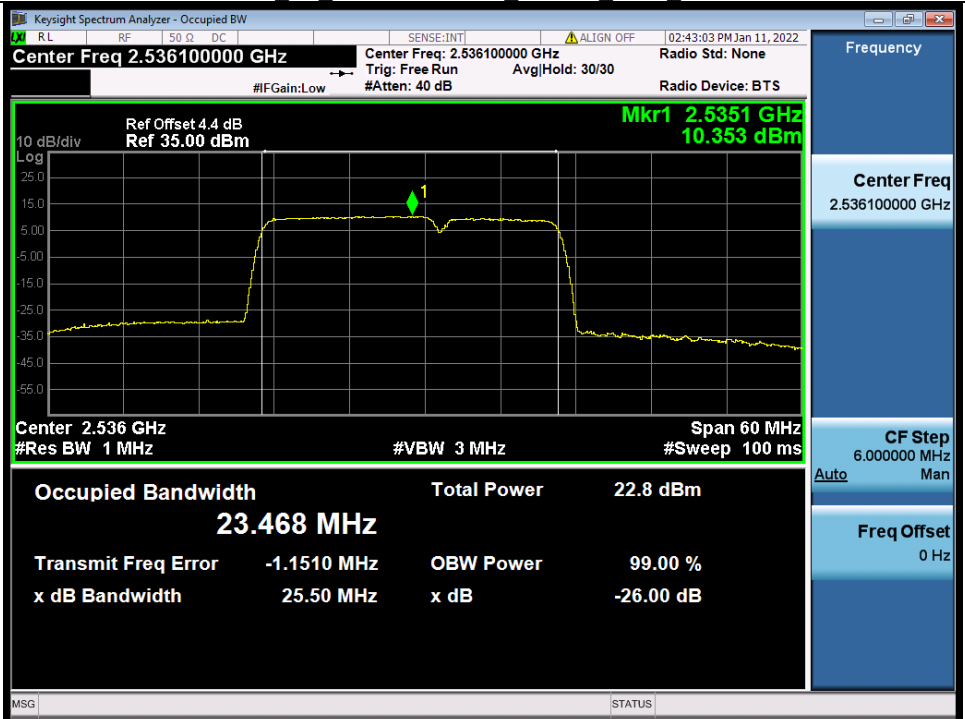
Tel: +86 755 8869 6566

Fax: +86 755 8869 6577

Email: customerservice.sw@bureauveritas.com



Band 7C 15MHz+10MHz 64QAM MCH NTN



Band 7C 15MHz+10MHz 64QAM HCH NTN

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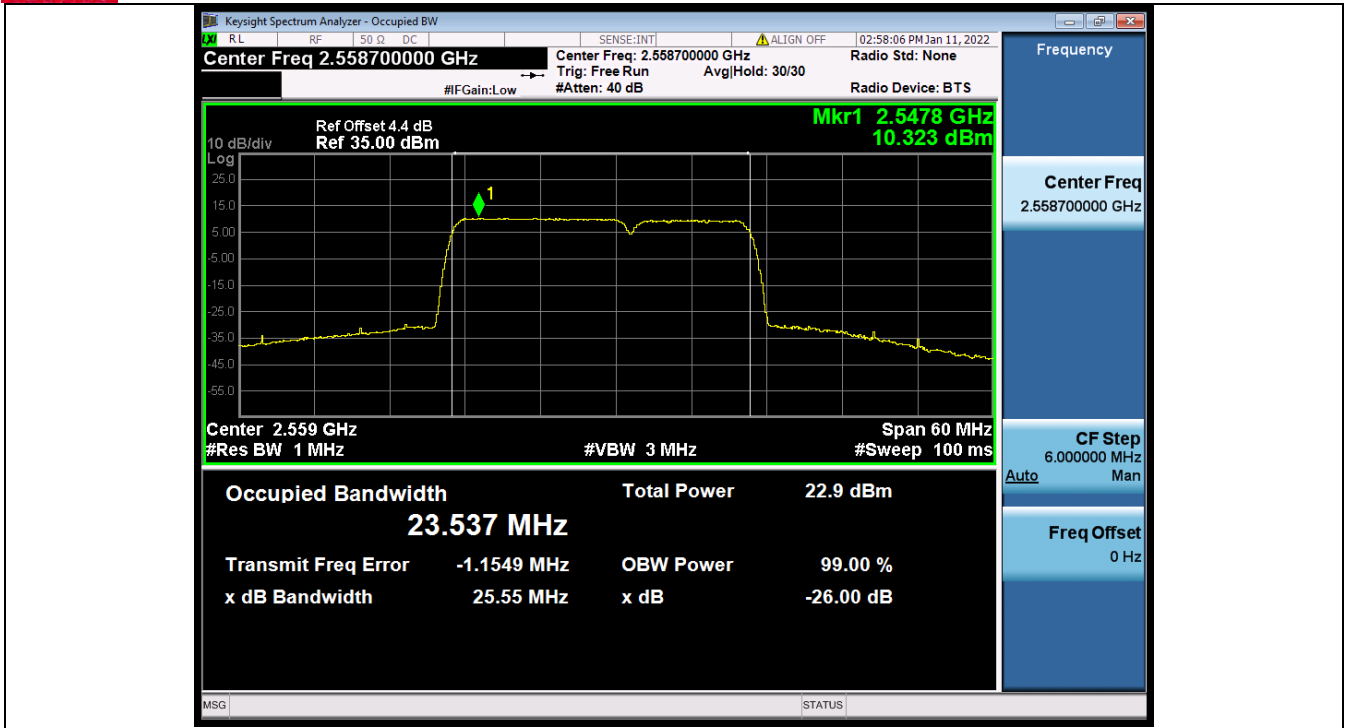
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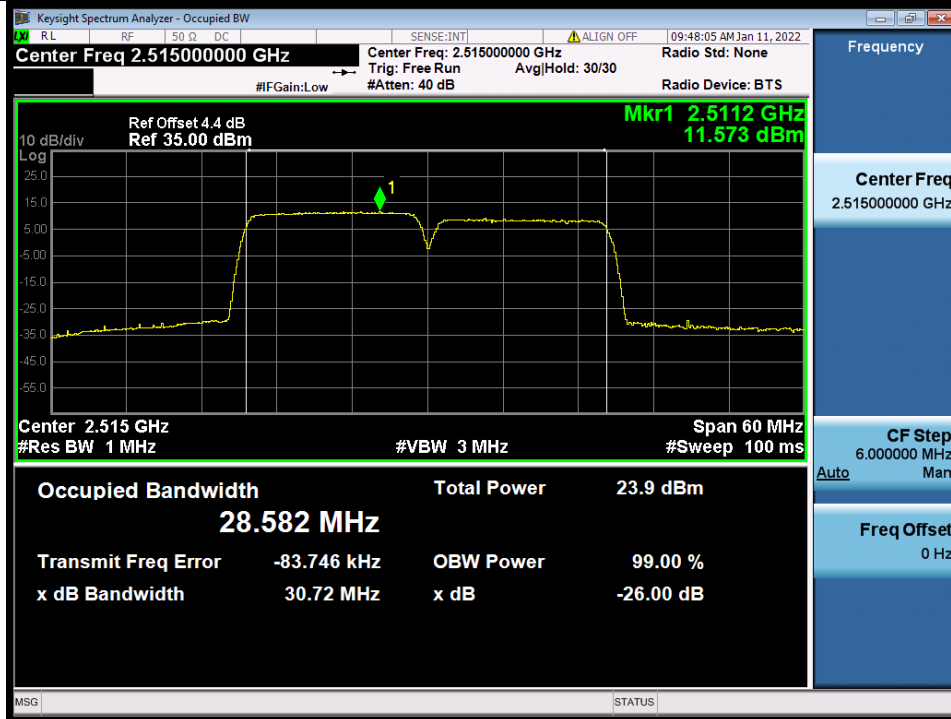
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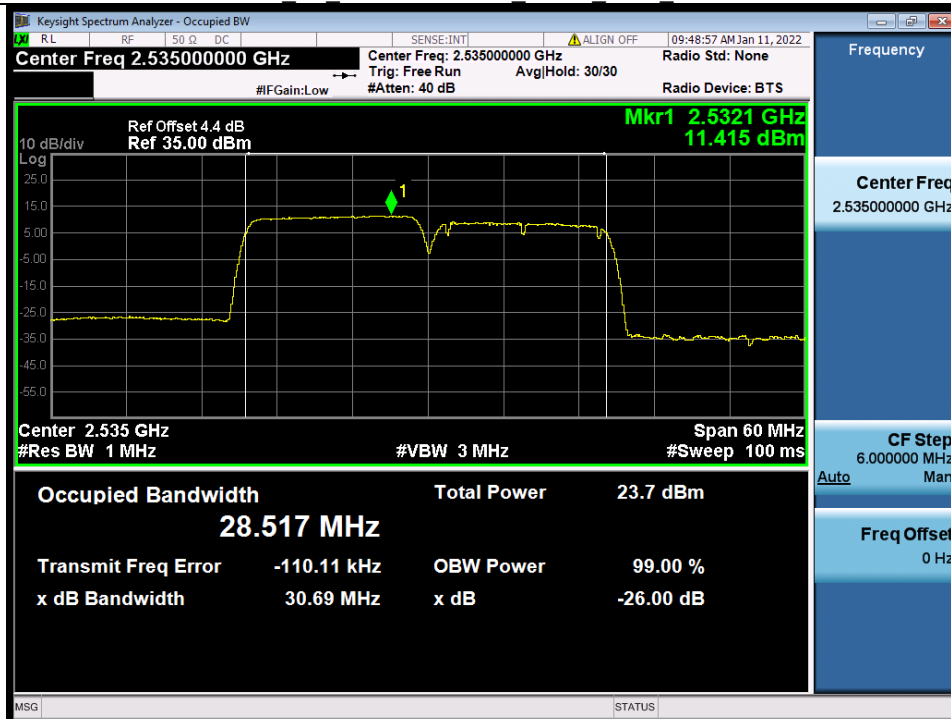
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Band 7C 15MHz+15MHz QPSK LCH NTN



Band 7C 15MHz+15MHz QPSK MCH NTN



Band 7C 15MHz+15MHz QPSK HCH NTN

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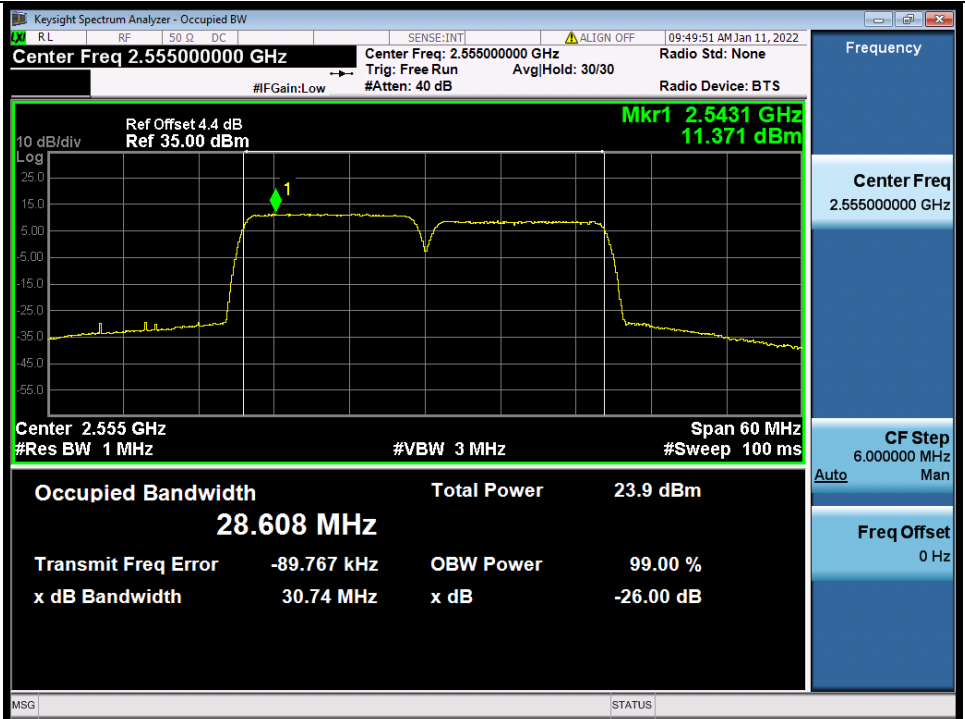
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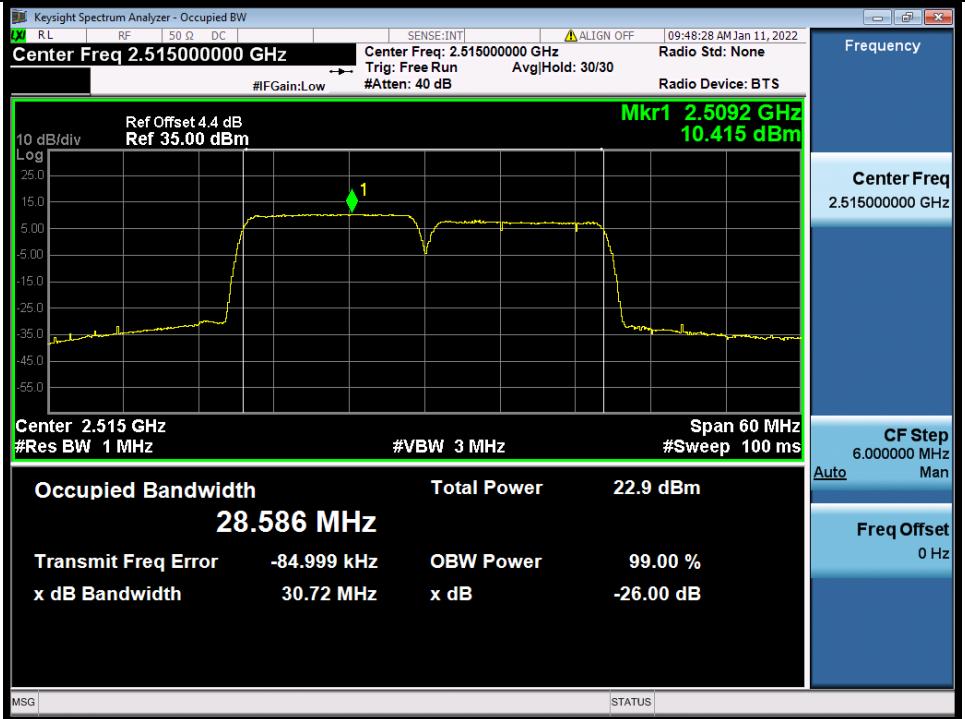


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Band 7C 15MHz+15MHz 16QAM LCH NTN



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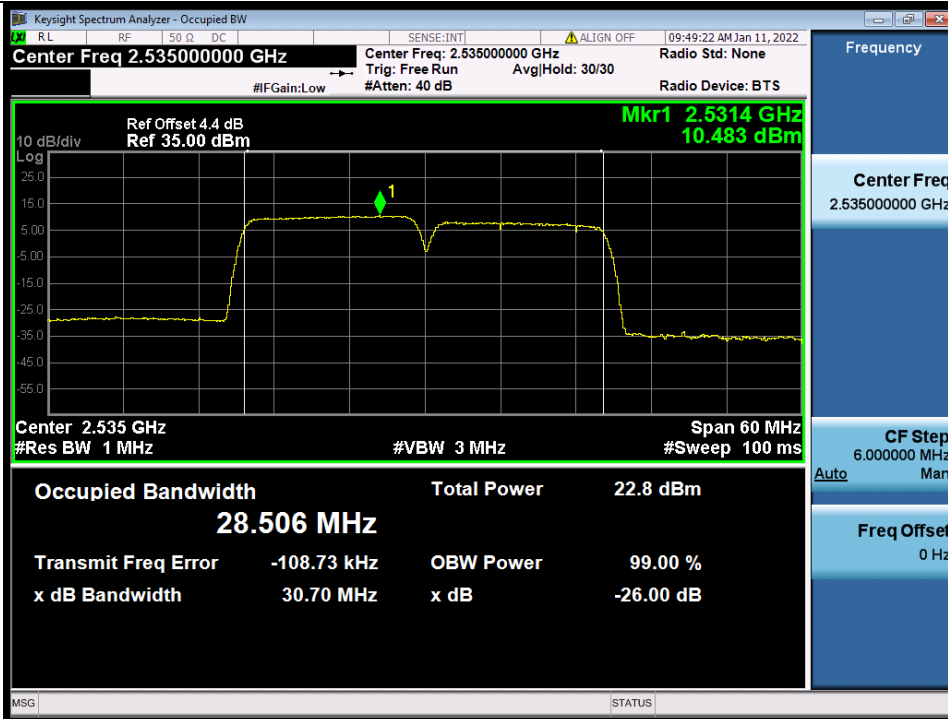
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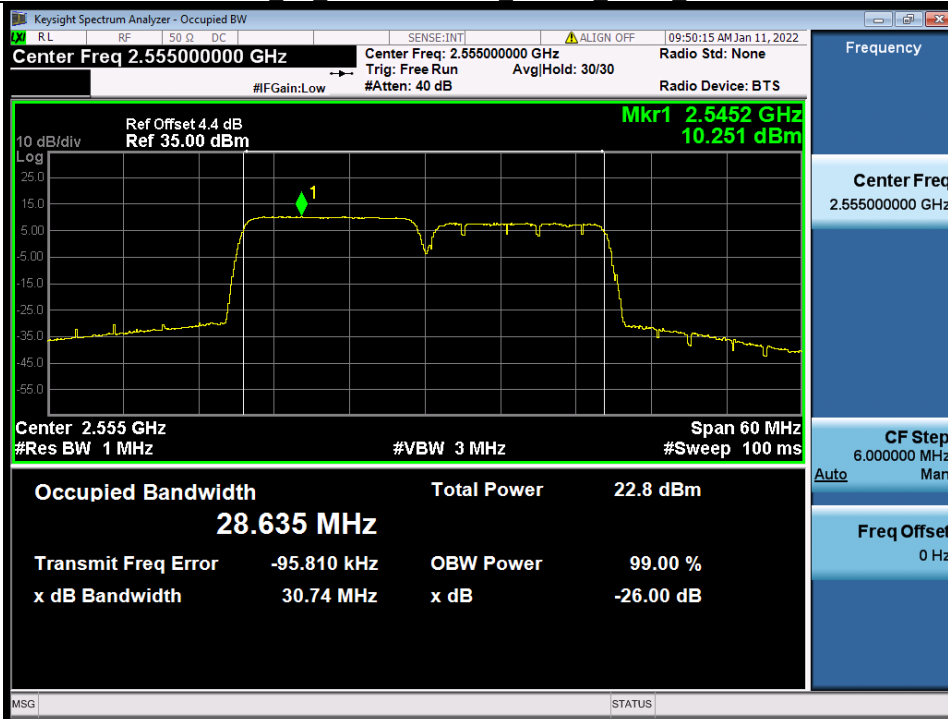


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Band 7C 15MHz+15MHz 16QAM HCH NTN



Band 7C 15MHz+15MHz 64QAM LCH NTN

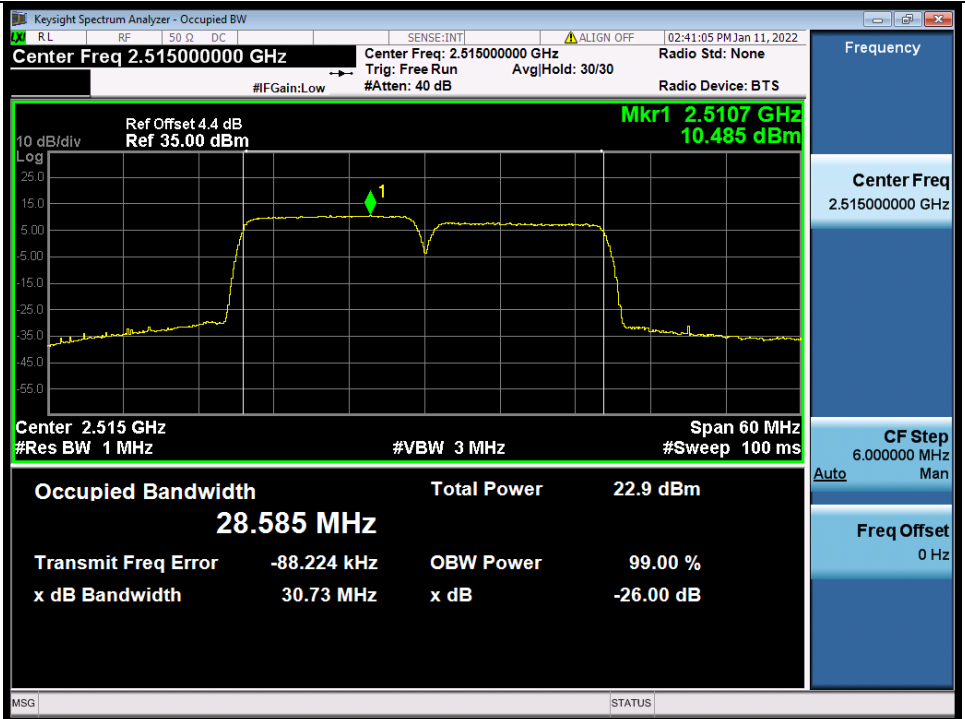
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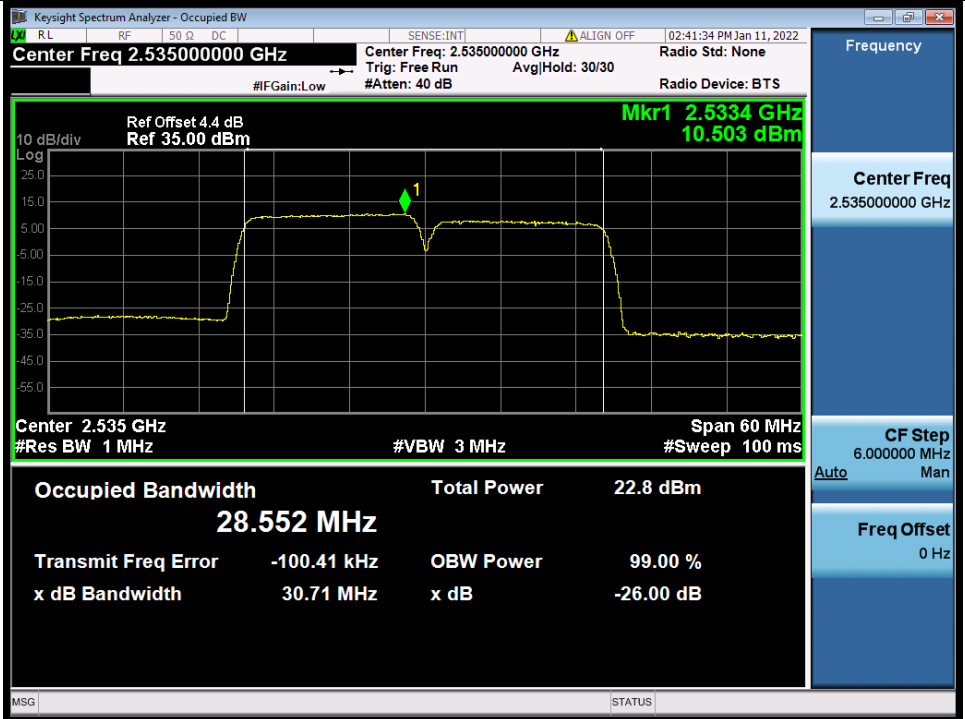
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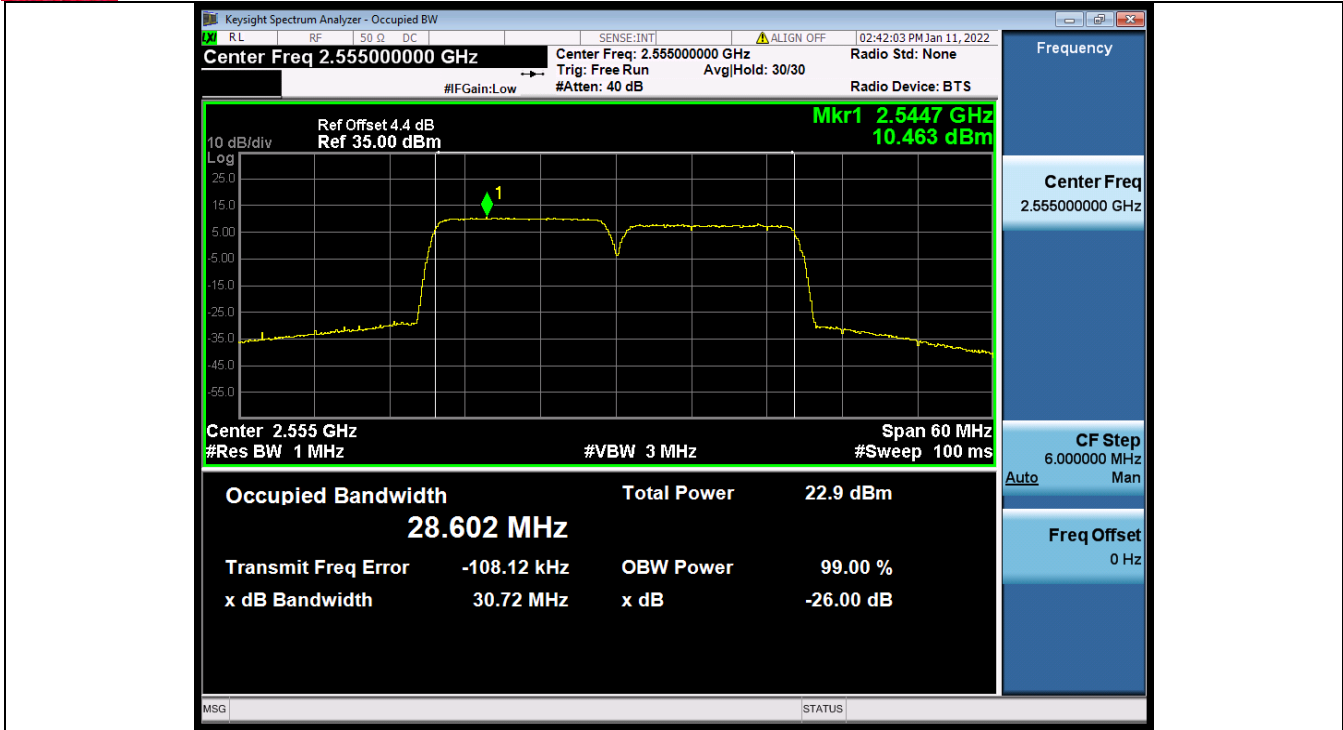
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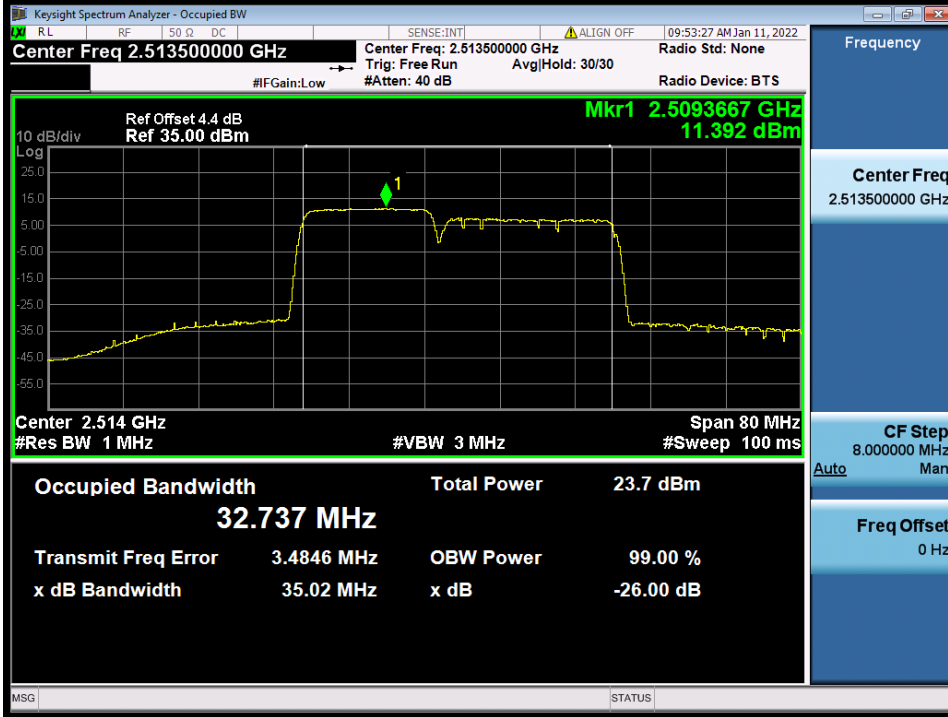
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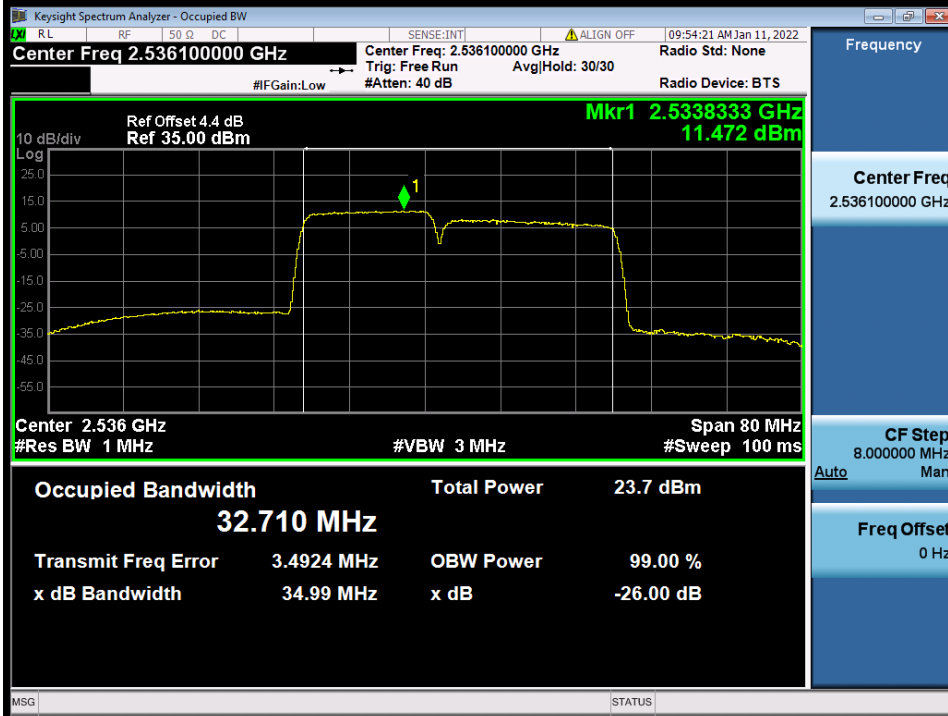
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Band 7C 15MHz+20MHz QPSK LCH NTN



Band 7C 15MHz+20MHz QPSK MCH NTN



Band 7C 15MHz+20MHz QPSK HCH NTN

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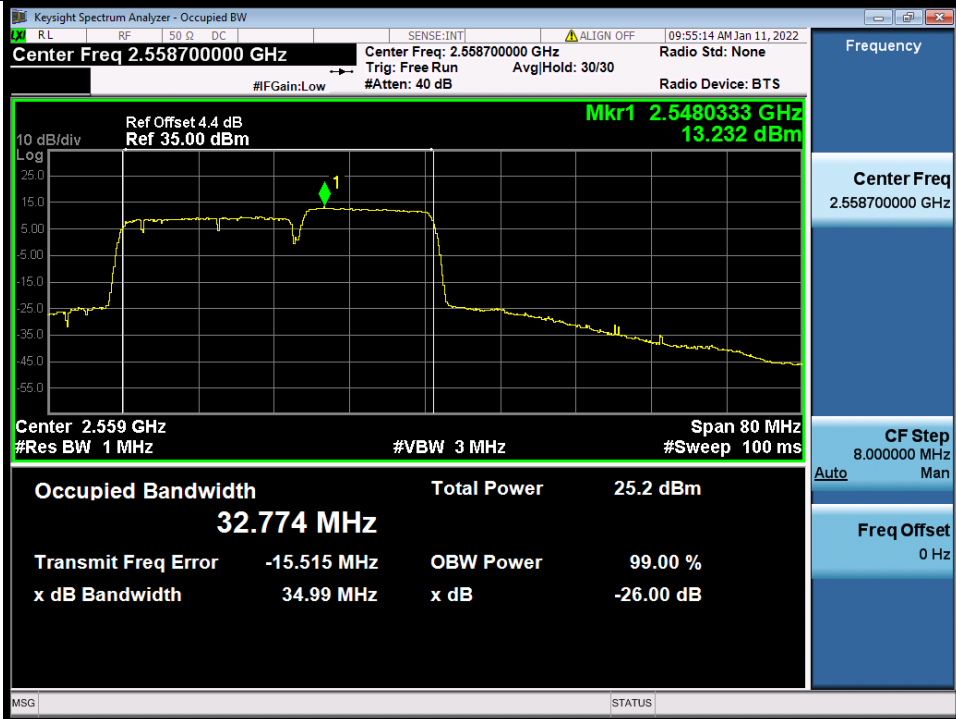
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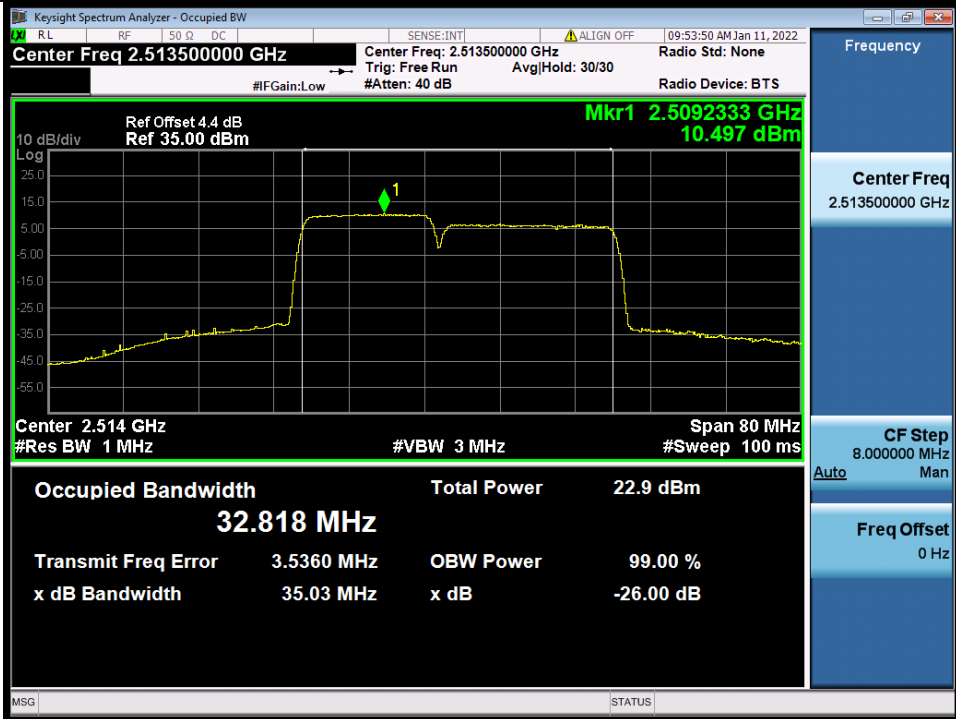


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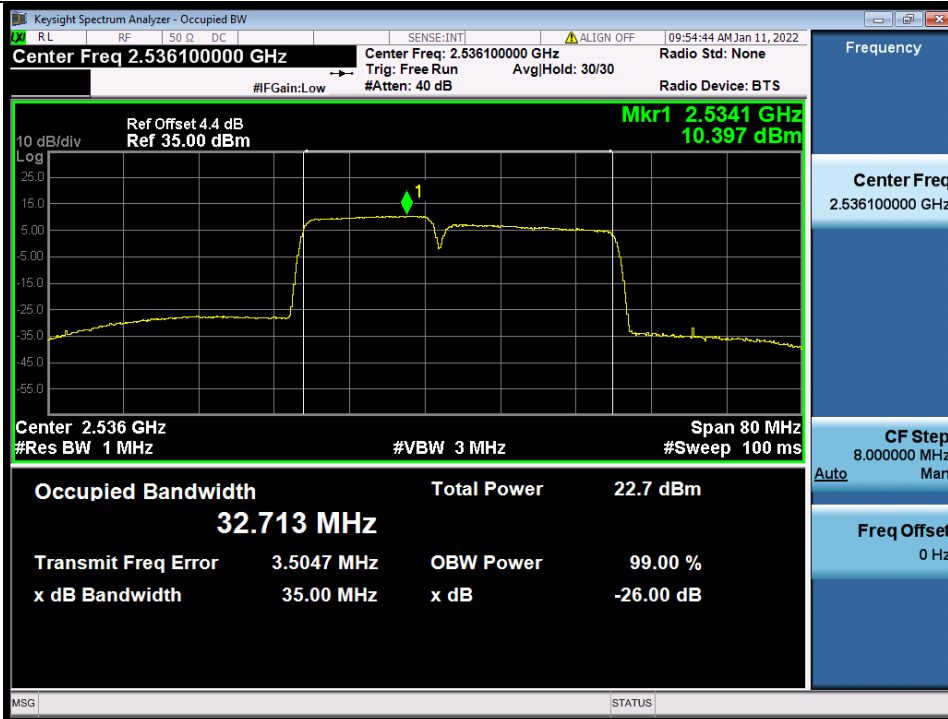
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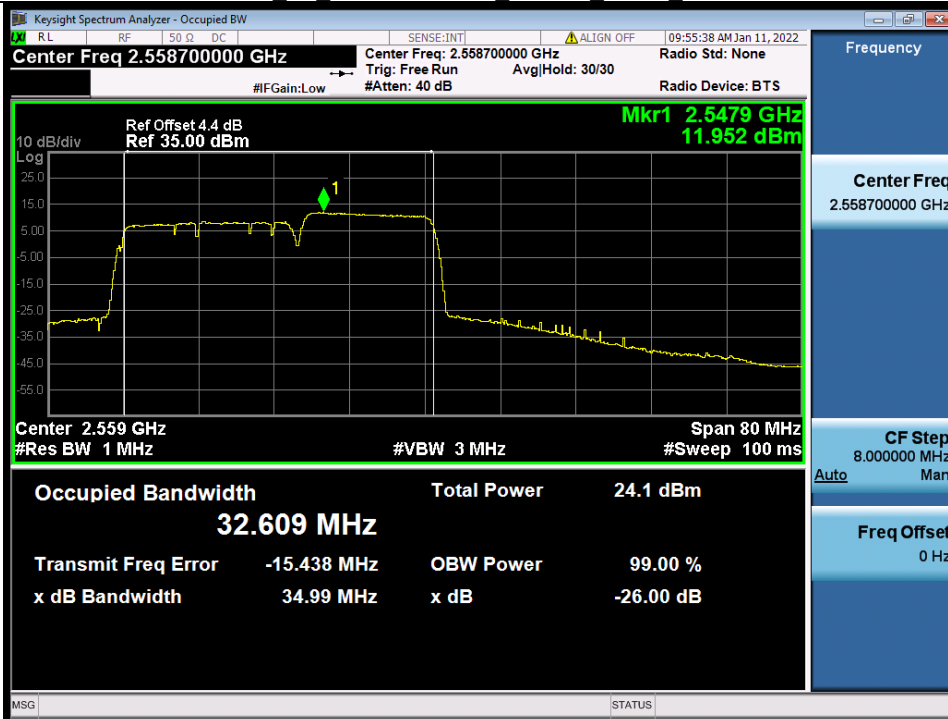


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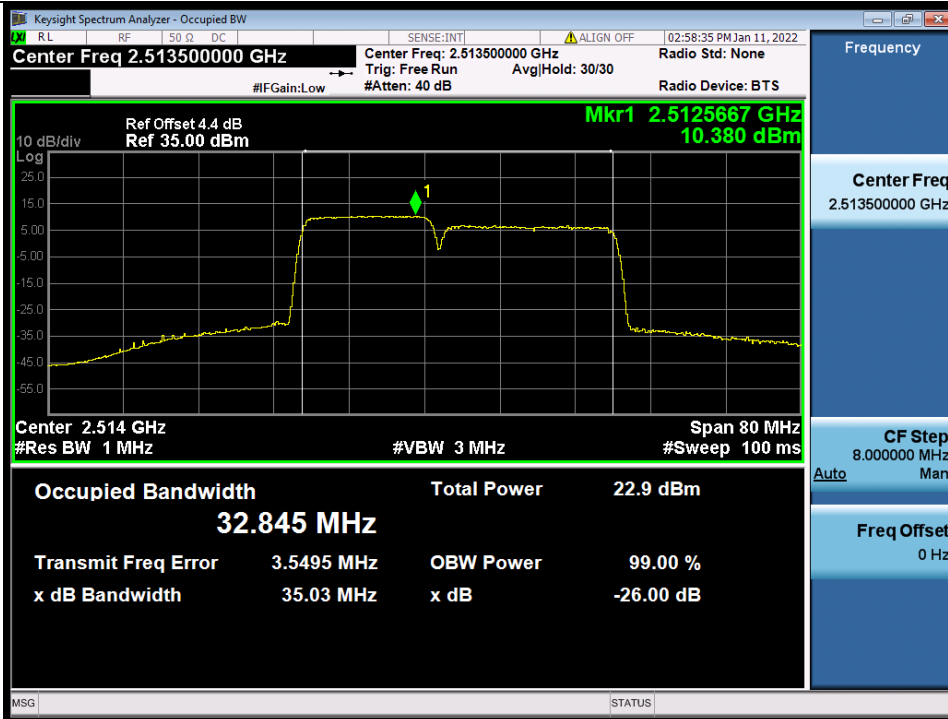
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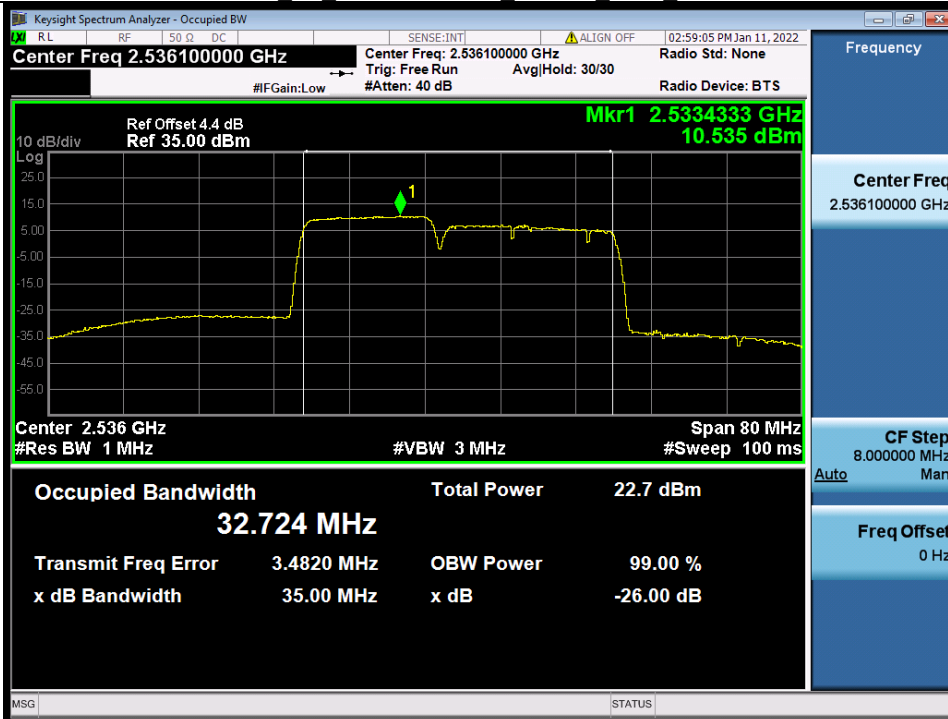


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Band 7C 15MHz+20MHz 64QAM MCH NTN



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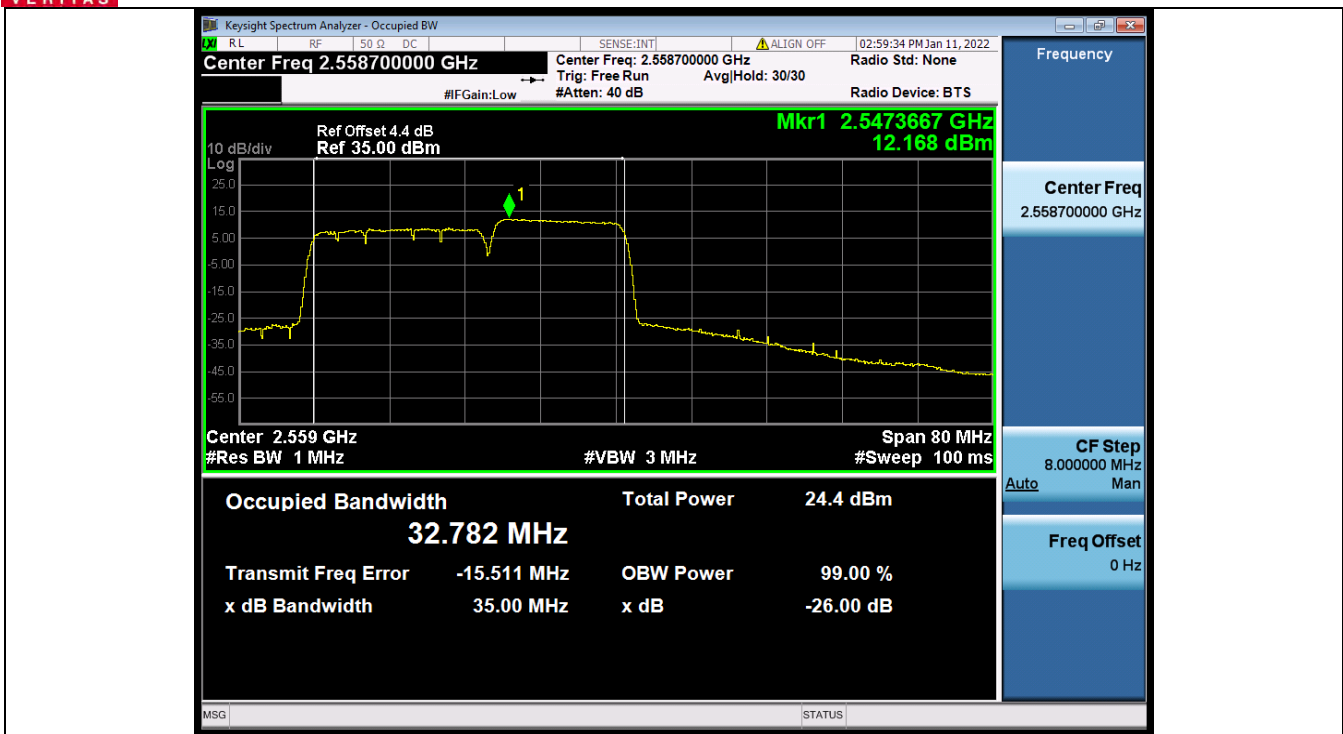
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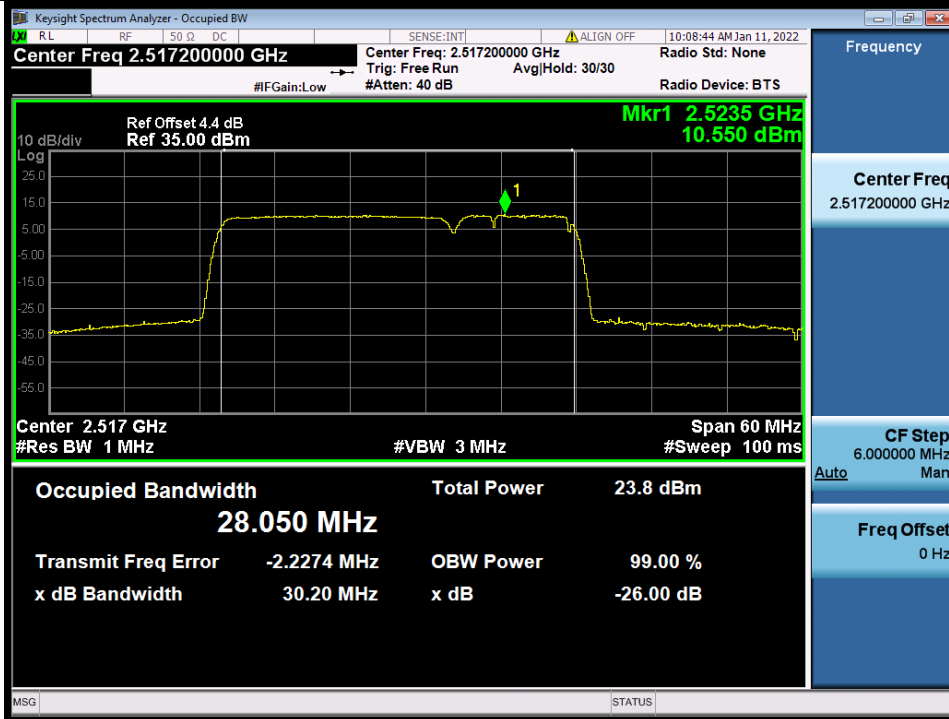
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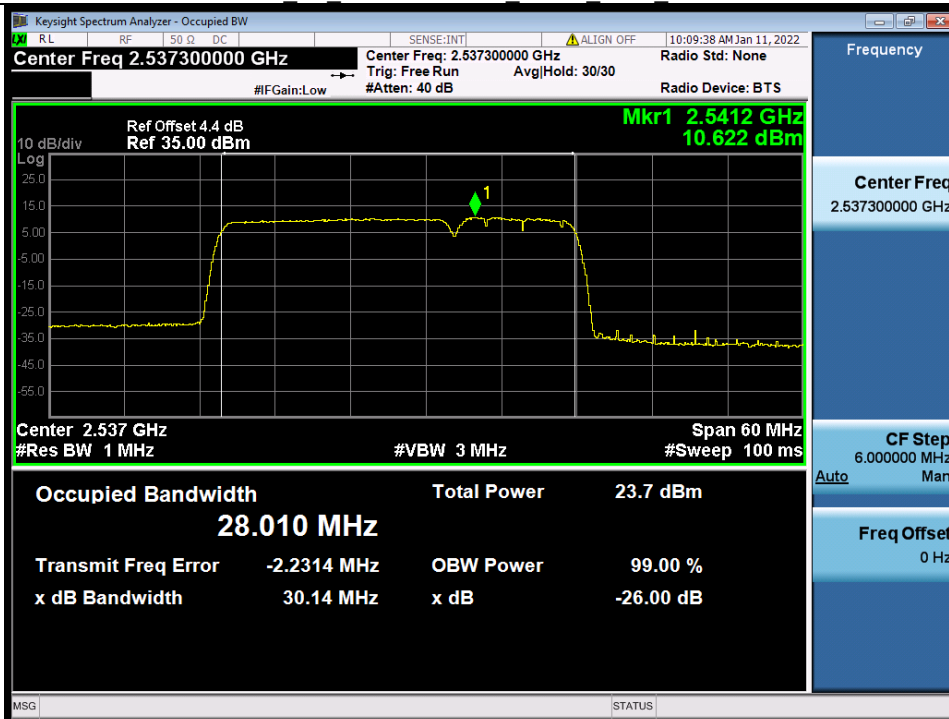
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Band 7C 20MHz+10MHz QPSK LCH NTN



Band 7C 20MHz+10MHz QPSK MCH NTN



Band 7C 20MHz+10MHz QPSK HCH NTN

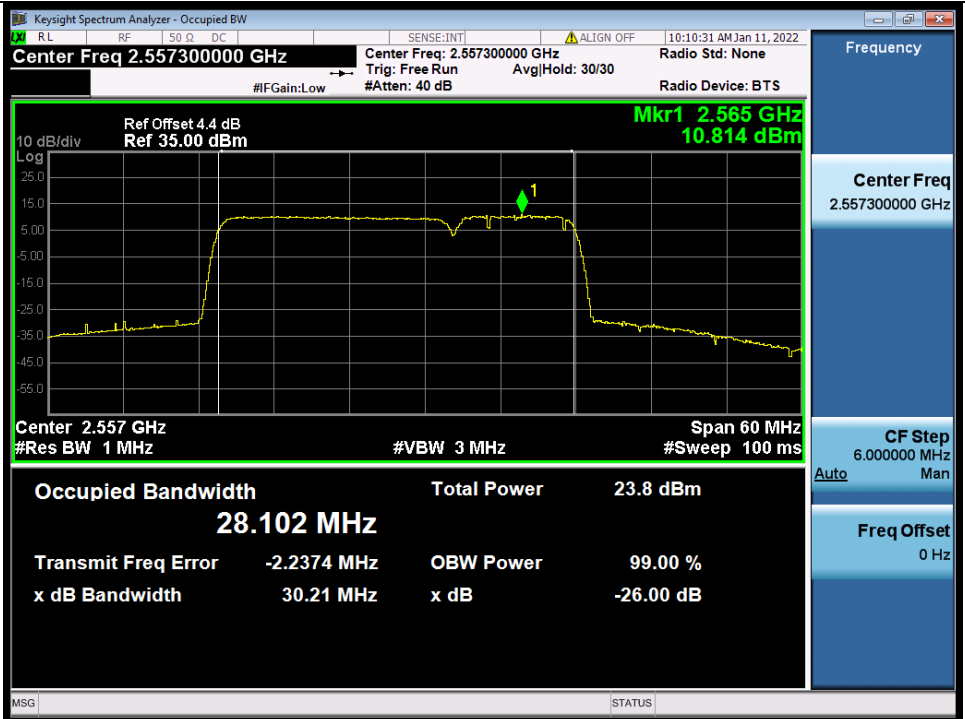
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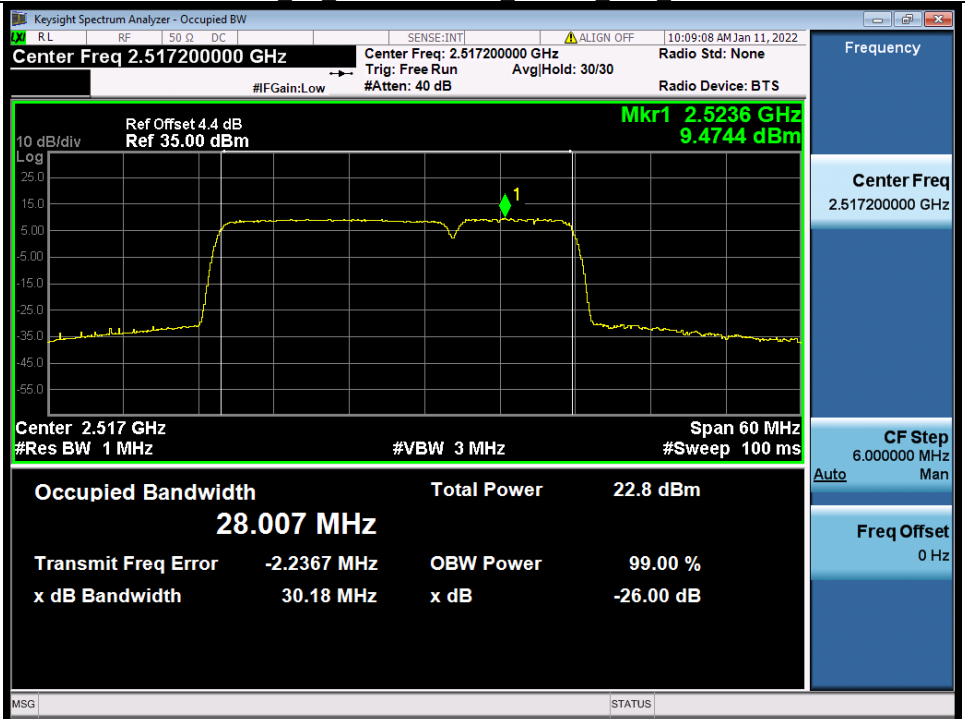
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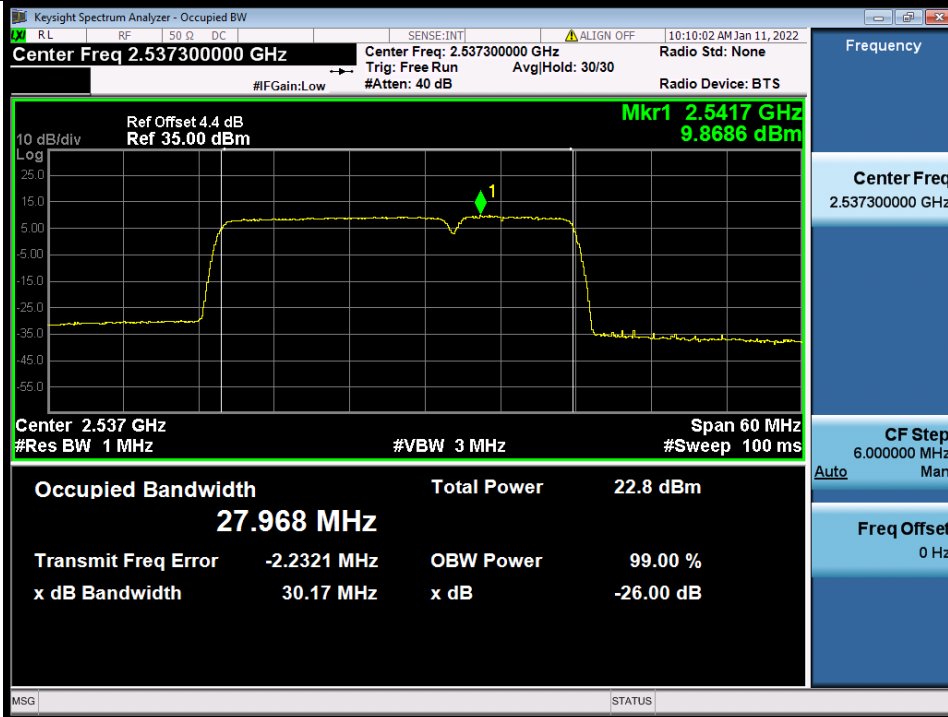
Fax: +86 755 8869 6577

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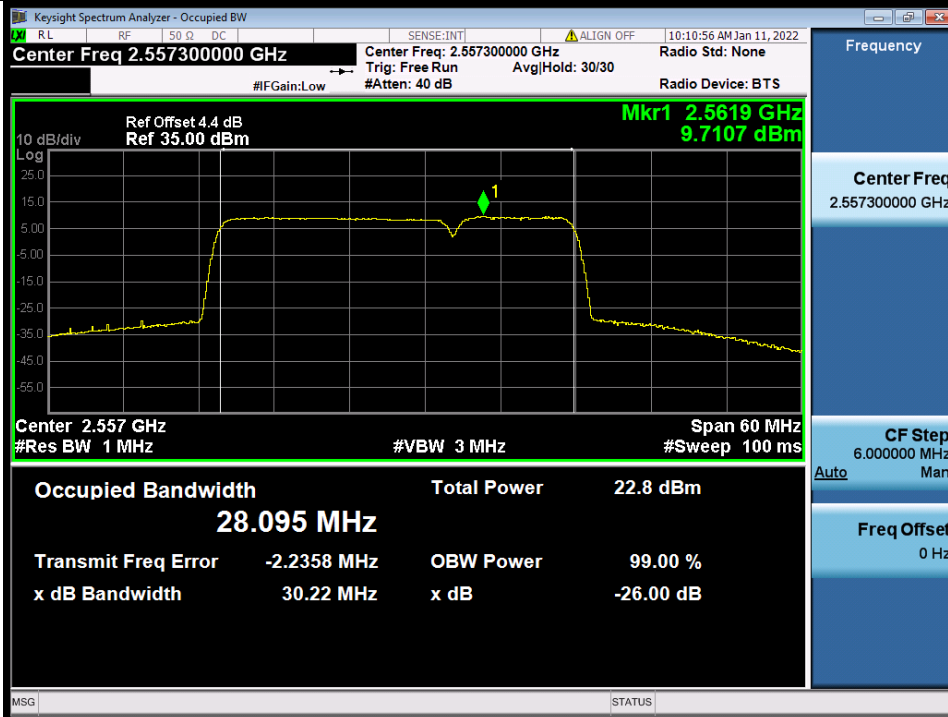


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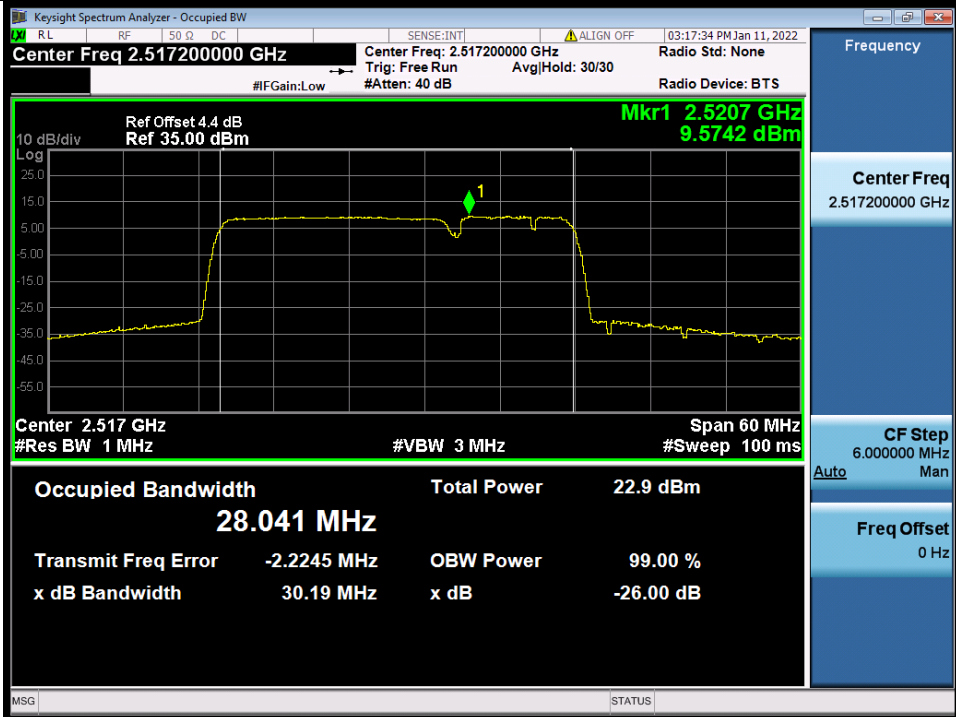
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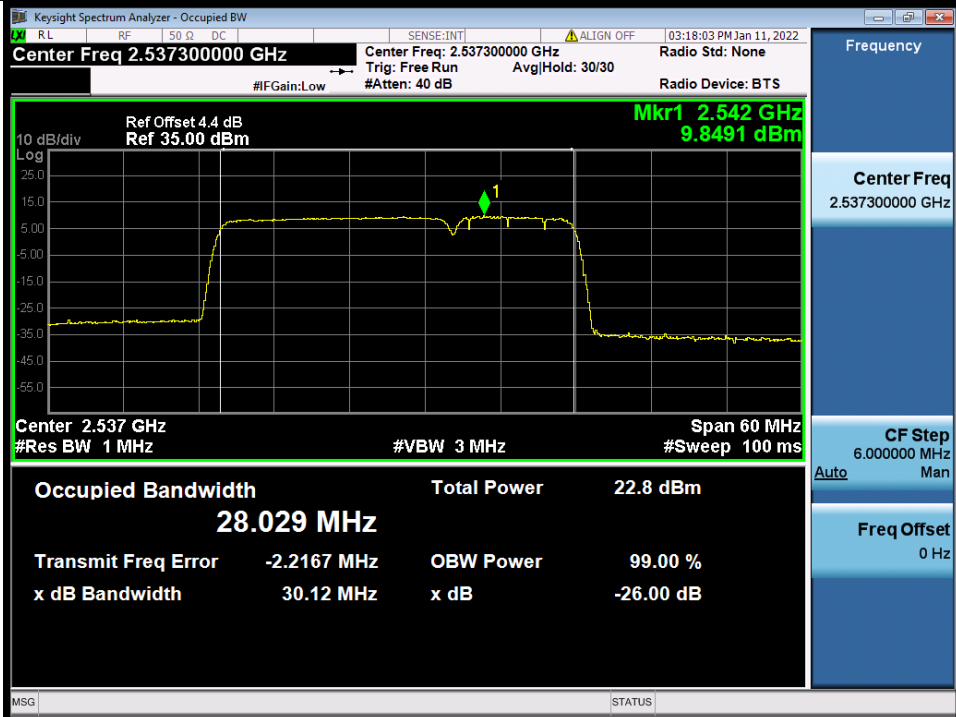


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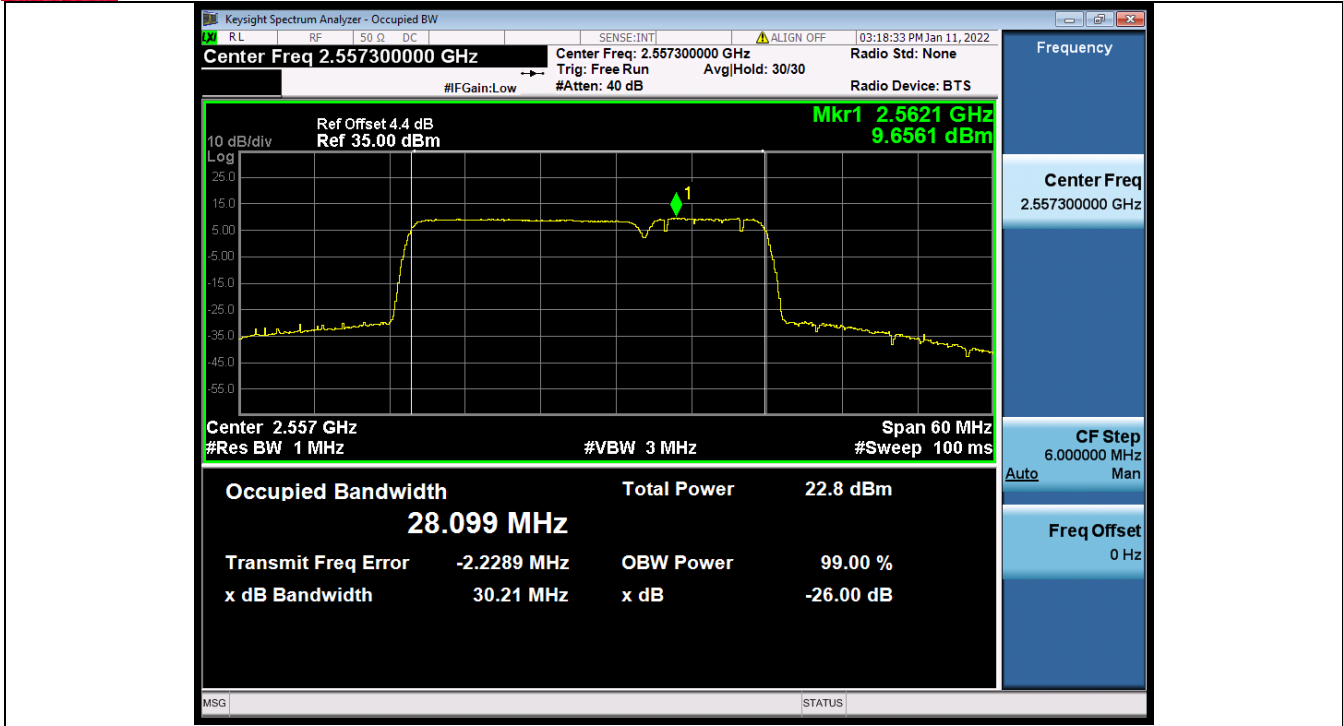
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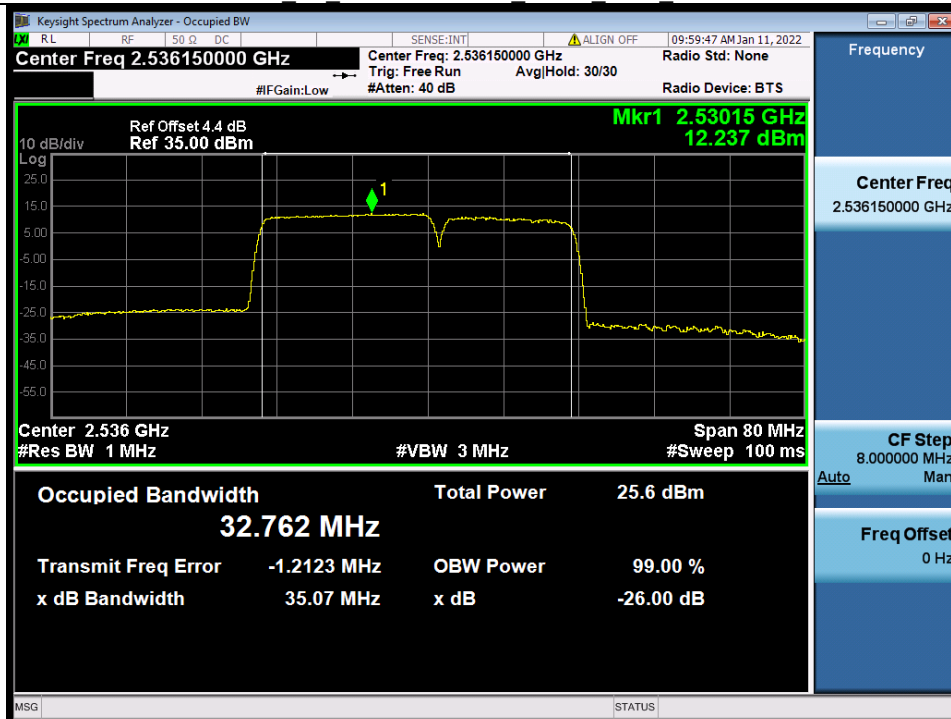
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