

TEST REPORT

of

FCC Part 2 Subpart J, Part 27 Subpart C

FCC ID: BEJTN1T23NR

Equipment Under Test : Telematics
Model Name : TN1T23NR
Variant Model Name(s) : Refer to the page 4
Applicant : LG Electronics USA
Manufacturer : LG Electronics Inc.
Date of Receipt : 2022.11.04
Date of Test(s) : 2022.11.04 ~ 2023.01.30
Date of Issue : 2023.01.31

In the configuration tested, the EUT complied with the standards specified above. This test report does not assure KOLAS accreditation.

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- 2) The SGS Korea is not responsible for the sampling, the results of this test report apply to the sample as received.
- 3) This test report cannot be reproduced, except in full, without prior written permission of the Company.
- 4) The data marked ※ in this report was provided by the customer and may affect the validity of the test results.

We are responsible for all the information of this test report except for the data(※) provided by the customer.

Tested by:



Teo Kim

Technical
Manager:



Jinhyoung Cho

SGS Korea Co., Ltd. Gunpo Laboratory



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1. General Information

1.1. Testing Laboratory

SGS Korea Co., Ltd. (Gunpo Laboratory)
 - 10-2, LS-ro 182beon-gil, Gunpo-si, Gyeonggi-do, Korea, 15807
 - 4, LS-ro 182beon-gil, Gunpo-si, Gyeonggi-do, Korea, 15807
 - Designation number: KR0150

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1.2. Details of Applicant

FCC Applicant : LG Electronics USA
 FCC Address : 111 Sylvan Avenue, North Building, Englewood Cliffs, New Jersey, United States, 07632
 Contact Person : Cho, Hee-jae
 Phone No. : +1 201 470 2696

1.3. Details of Manufacturer

Company : LG Electronics Inc.
 Address : 10, Magokjungang 10-ro, Gangseo-gu, Seoul, Korea, 07796

1.4. Description of EUT

Kind of Product		Telematics
Model Name		TN1T23NR
Variant Model Name		TN1T23NE
Serial Number		351121620119490
Power Supply		DC 12.5 V
Rated Power		NR Band 41: 23 dB m
Frequency Range	SIM 1	NR Band 41: 2 496 MHz ~ 2 690 MHz
	SIM 2	NR Band 41: 2 496 MHz ~ 2 690 MHz
Modulation Technique		BPSK, QPSK, 16QAM, 64QAM, 256QAM
Antenna Type	SIM 1	External Antenna
	SIM 2	External Antenna
Antenna Gain	SIM 1	2 496 MHz ~ 2 690 MHz: 6.6 dB i
	SIM 2	2 496 MHz ~ 2 690 MHz: 5 dB i
H/W Version		Rev.D1
S/W Version		v004.144.010

1.5. Test Equipment List

Equipment	Manufacturer	Model	S/N	Cal. Date	Cal. Interval	Cal. Due
Signal Generator	R&S	SMA100B	106887	Oct. 13, 2022	Annual	Oct. 13, 2023
Signal Generator	R&S	SMBV100A	255834	May 25, 2022	Annual	May 25, 2023
Spectrum Analyzer	R&S	FSV30	103210	Dec. 07, 2022	Annual	Dec. 07, 2023
Spectrum Analyzer	Agilent	N9020A	MY53421758	Aug. 26, 2022	Annual	Aug. 26, 2023
Spectrum Analyzer	Agilent	N9030A	US51350132	Nov. 16, 2022	Annual	Nov. 16, 2023
Communication test station	Anritsu	MT8000A	6261949671	Oct. 12, 2022	Annual	Oct. 12, 2023
Communication Analyzer	Anritsu	MT8821C	6262192291	Oct. 11, 2022	Annual	Oct. 11, 2023
Power Meter	Anritsu	ML2495A	1223004	Nov. 29, 2022	Annual	Nov. 29, 2023
Power Sensor	Anritsu	MA2411B	1207272	May 27, 2022	Annual	May 27, 2023
Temperature Chamber	ESPEC CORP.	SH-662	93000533	Jun. 02, 2022	Annual	Jun. 02, 2023
Low Pass Filter	Mini-Circuits	NLP-1200+	V 8979400903-2	Feb. 10, 2022	Annual	Feb. 10, 2023
High Pass Filter	Wainwright Instrument GmbH	WHKX3.0/18G-6SS	21	Jun. 09, 2022	Annual	Jun. 09, 2023
High Pass Filter	Wainwright Instrument GmbH	WHNX7.5/26.5G-6SS	11	Oct. 24, 2022	Annual	Oct. 24, 2023
BRIDGE COUPLER	MARKI MICROWAVE INC	CBR16-0012	1542	May 06, 2022	Annual	May 06, 2023
Directional Coupler	KRYTAR	152613	122660	Jul. 06, 2022	Annual	Jul. 06, 2023
Power Splitter	Weinschel	1534	499	May 31, 2022	Annual	May 31, 2023
DC Power Supply	Agilent	U8002A	MY49030063	Jan. 25, 2022	Annual	Jan. 25, 2023
Preamplifier	H.P.	8447F	2944A03909	Aug. 04, 2022	Annual	Aug. 04, 2023
Preamplifier	R&S	SCU 18	10117	Jun. 13, 2022	Annual	Jun. 13, 2023
Preamplifier	TESTEK	TK-PA1840H	130016	Jan. 11, 2023	Annual	Jan. 11, 2024
Test Receiver	R&S	ESCI 7	100911	Feb. 23, 2022	Annual	Feb. 23, 2023
Loop Antenna	Schwarzbeck Mess-Elektronik	FMZB 1519	1519-039	Aug. 23, 2021	Biennial	Aug. 23, 2023
Bilog Antenna	Schwarzbeck Mess-Elektronik	VULB9163	01126	Feb. 07, 2022	Annual	Feb. 07, 2023
Horn Antenna	R&S	HF906	100326	Feb. 18, 2022	Annual	Feb. 18, 2023
Horn Antenna	Schwarzbeck Mess-Elektronik	BBHA 9170	9170-540	Nov. 30, 2022	Annual	Nov. 30, 2023
Antenna Master	Innco systems GmbH	MA4640-XP-ET	MA4640/536/383 30516/L	N.C.R.	N/A	N.C.R.
Turn Table	Innco systems GmbH	DS 1200S	N/A	N.C.R.	N/A	N.C.R.
Controller	Innco systems GmbH	CONTROLLER CO3000-4P	CO3000/963/383 30516/L	N.C.R.	N/A	N.C.R.
Anechoic Chamber	SY Corporation	L x W x H (9.6 m x 6.4 m x 6.6 m)	N/A	N.C.R.	N/A	N.C.R.
Coaxial Cable	RFONE	MWX221-NMSNMS (4 m)	J1023142	Oct. 04, 2022	Semi-Annual	Apr. 04, 2023
Coaxial Cable	Qualwave Inc.	QA500-18-NN-10 (10 m)	22200114	Oct. 04, 2022	Semi-Annual	Apr. 04, 2023
Coaxial Cable	RADIALL	TESTPRO 3	182287	Aug. 18, 2022	Semi-Annual	Feb. 18, 2023
Coaxial Cable	RADIALL	TESTPRO 3	182288	Aug. 18, 2022	Semi-Annual	Feb. 18, 2023
Coaxial Cable	RADIALL	TESTPRO 3	182291	Aug. 18, 2022	Semi-Annual	Feb. 18, 2023

Note;

- 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.

1.6. Summary of Test Results

The EUT has been tested according to the following specifications:

APPLIED STANDARD: FCC Part 2 and 27		
Section(s)	Test Item	Result
§2.1046 §27.50(h)(2)	E.R.P. / E.I.R.P.	Complied
§27.53(m)(4)	Radiated Spurious Emissions	Complied
§2.1046	Conducted Output Power	Complied
§2.1049	Occupied Bandwidth	Complied
§27.50(d)(5)	Peak-Average Ratio	Complied
§27.53(m)(4)	Spurious Emission at Antenna Terminal	Complied
§27.53(m)(4)	Band Edge	Complied
§2.1055 §27.54	Frequency Stability	Complied

1.7. Sample Calculation for Offset

Where relevant, the following sample calculation is provided:

1.7.1. Conducted Test

Offset value (dB) = Directional Coupler (dB) + Cable loss (dB)

1.7.2. Radiation test

- E.I.R.P. (dB m) = Measured level (dB μ V) + Antenna factor (dB/m) + Cable loss (dB) + 20 Log D - 104.8;
 where D is the measurement distance in meters.
- E.R.P. (dB m) = E.I.R.P. (dB m) - 2.15 (dB)

1.8. Manufacturer Declaration

EUT has two (SIM1 and SIM2) ports, all testing were performed both SIM1, SIM2.
 SIM2 is support only SA mode.

- NSA Band Information

NR Band	SCS (kHz)	Bandwidth (MHz)	Waveform	Modulation	ENDC LTE Band
n41	30	20, 30, 40, 50, 60, 80, 90, 100	DFTS OFDM, CP OFDM	BPSK, QPSK, 16QAM, 64QAM 256QAM	5, 26

1.9. Worst Case Configuration and Mode

The worst-case is based on the conducted output power measurement investigation results. All testing was performed using BPSK, QPSK, 16QAM, 64QAM and 256QAM modulations. If both SA and NSA were supported, SA was tested as worst case and NSA was tested only spurious radiated emission for worst conducted output power combination. However, the spurious radiated emission and spurious at antenna terminal were only performed on bandwidth and RB offset (with RB size 1) with the highest conducted power.

The peak to average ratio were tested only 256QAM modulation as worst case.

The radiation test of the EUT was investigated in three orthogonal orientations X, Y, and Z, and the worst case data is reported.

1.10. Measurement Configuration

SIM1

Test Items	Test Channel			Bandwidth (MHz)										Modulation DFTS-OFDM					Modulation CP-OFDM				RB #					
	Low	Mid	High	5	10	15	20	30	40	50	60	80	90	100	BPSK	QPSK	16QAM	64QAM	256QAM	QPSK	16QAM	64QAM	256QAM	1	Half	Full		
Conducted Output Power	V	V	V				V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	
Frequency Stability	-	V	-				V	-	-	-	-	-	-	-	-	V	-	-	-	-	-	-	-	-	-	-	V	
Occupied Bandwidth	V	V	V				V	V	V	V	V	V	V	V	V	V	V	-	-	V	V	-	-	-	-	-	-	V
Peak-to-Average Ratio	V	V	V				V	V	V	V	V	V	V	V	-	-	-	-	V	-	-	-	V	-	-	-	V	
Band edge	V	-	V				V	V	V	V	V	V	V	V	-	V	V	-	-	V	V	-	-	V	-	-	V	
Spurious at antenna terminal	V	V	V	Worst case																								
Radiated Spurious Emissions	V	V	V	Worst case																								

ENDC

Test Items	Test Channel			Bandwidth (MHz)										Modulation DFTS-OFDM					Modulation CP-OFDM				RB #				
	Low	Mid	High	5	10	15	20	30	40	50	60	80	90	100	BPSK	QPSK	16QAM	64QAM	256QAM	QPSK	16QAM	64QAM	256QAM	1	Half	Full	
Conducted Output Power	V	V	V				V	V	V	V	V	V	V	V	V	V	-	-	-	-	-	-	-	-	-	-	V
Spurious Radiated Emission	V	V	V	Worst case																							

SIM2

Test Items	Test Channel			Bandwidth (MHz)										Modulation DFTS-OFDM					Modulation CP-OFDM				RB #					
	Low	Mid	High	5	10	15	20	30	40	50	60	80	90	100	BPSK	QPSK	16QAM	64QAM	256QAM	QPSK	16QAM	64QAM	256QAM	1	Half	Full		
Conducted Output Power	V	V	V				V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	
Frequency Stability	-	V	-				V	-	-	-	-	-	-	-	-	V	-	-	-	-	-	-	-	-	-	-	V	
Occupied Bandwidth	V	V	V				V	V	V	V	V	V	V	V	V	V	V	-	-	V	V	-	-	-	-	-	-	V
Peak-to-Average Ratio	V	V	V				V	V	V	V	V	V	V	V	-	-	-	-	V	-	-	-	V	-	-	-	V	
Band edge	V	-	V				V	V	V	V	V	V	V	V	-	V	V	-	-	V	V	-	-	V	-	-	V	
Spurious at antenna terminal	V	V	V	Worst case																								
Radiated Spurious Emissions	V	V	V	Worst case																								

Note;

- All measurement was performed with 1RB or Full RB or both, we chosen RB condition for each test items as worst case.

Radiated Emission Test

SIM 1

NR Band	SCS (kHz)	Bandwidth (MHz)	Modulation	Resource Block Allocation
				RBs allocated
n41	30	20	DFTS OFDM - QPSK	1

ENDC

NR Band	SCS (kHz)	Bandwidth (MHz)	Modulation	Resource Block Allocation
				RBs allocated
5A-n41	30	5-20	DFTS OFDM - BPSK	1

SIM 2

NR Band	SCS (kHz)	Bandwidth (MHz)	Modulation	Resource Block Allocation
				RBs allocated
n41	30	20	DFTS OFDM - QPSK	1

1.11. Measurement Uncertainty

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the apparatus:

Parameter	Uncertainty	
RF Output Power	0.32 dB	
Occupied Bandwidth	3.90 kHz	
Conducted Spurious Emissions	0.61 dB	
Peak to Average Ratio	0.60 dB	
Frequency Stability	5.97 kHz	
Radiated Emission, 9 kHz to 30 MHz	H	3.40 dB
	V	3.40 dB
Radiated Emission, below 1 GHz	H	4.50 dB
	V	5.10 dB
Radiated Emission, above 1 GHz	H	3.70 dB
	V	3.90 dB

All measurement uncertainty values are shown with a coverage factor of $k=2$ to indicate a 95 % level of confidence.

1.12. Test Report Revision

Revision	Report Number	Date of Issue	Description
0	F690501-RF-RTL003754	2023.01.31	Initial

1.13. Emission Designator and Max Power

SIM 1

NR Band	Band width (MHz)	Modulation		Low Freq. (MHz)	Upper Freq. (MHz)	Conducted Average (dB m)	Ant. Gain (dB i)	E.I.R.P. Average (dB m)	E.I.R.P. Average (W)	Emission Designator
n41	20	DFTS-OFDM	BPSK	2 506.02	2 679.99	22.13	6.6	28.73	0.746	17M9G7D
			QPSK			22.40		29.00	0.794	17M9G7D
			16QAM			21.03		27.63	0.579	17M9D7D
		CP-OFDM	QPSK			20.55		27.15	0.519	18M3G7D
			16QAM			20.11		26.71	0.469	18M3D7D
			30			DFTS-OFDM		BPSK	2 511	2 674.98
	QPSK	22.38		28.98	0.791			26M9G7D		
	16QAM	21.37		27.97	0.627			26M8D7D		
	CP-OFDM	QPSK		20.80	27.40	0.550		28M0G7D		
		16QAM		20.31	26.91	0.491		28M0D7D		
		40		DFTS-OFDM	BPSK	2 516.01		2 670		
	QPSK		22.33		28.93				0.782	35M7G7D
	16QAM		21.24		27.84				0.608	35M7D7D
	CP-OFDM		QPSK	20.84	27.44				0.555	37M7G7D
			16QAM	20.29	26.89				0.489	37M9D7D
			50	DFTS-OFDM	BPSK				2 521.02	2 664.99
	QPSK	22.18			28.78	0.755		45M7G7D		
	16QAM	21.15			27.75	0.596		47M5D7D		
	CP-OFDM	QPSK		20.71	27.31	0.538		47M5G7D		
		16QAM		20.10	26.70	0.468		47M5D7D		
		60		DFTS-OFDM	BPSK	2 526		2 659.98		
	QPSK		22.02		28.62				0.728	58M0G7D
	16QAM		20.94		27.54				0.568	58M0D7D
	CP-OFDM		QPSK	20.60	27.20				0.525	58M0G7D
			16QAM	19.99	26.59				0.456	58M0D7D
			80	DFTS-OFDM	BPSK				2 536.02	2 649.99
	QPSK	22.17			28.77	0.753		76M9G7D		
	16QAM	21.18			27.78	0.600		76M9D7D		
	CP-OFDM	QPSK		20.53	27.13	0.516		77M3G7D		
		16QAM		20.06	26.66	0.463		77M3D7D		
		90		DFTS-OFDM	BPSK	2 541		2 644.98		
	QPSK		22.17		28.77				0.753	86M5G7D
	16QAM		21.09		27.69				0.587	86M7D7D
	CP-OFDM		QPSK	20.67	27.27				0.533	87M5G7D
			16QAM	20.18	26.78				0.476	87M5D7D
			100	DFTS-OFDM	BPSK				2 546.01	2 640
	QPSK	22.19			28.79	0.757		96M1G7D		
	16QAM	20.97			27.57	0.571		96M4D7D		
	CP-OFDM	QPSK		20.51	27.11	0.514		97M3G7D		
		16QAM		19.95	26.55	0.452		97M5D7D		

SIM 2

NR Band	Band width (MHz)	Modulation		Low Freq. (MHz)	Upper Freq. (MHz)	Conducted Average (dB m)	Ant. Gain (dB i)	E.I.R.P. Average (dB m)	E.I.R.P. Average (W)	Emission Designator
n41	20	DFTS-OFDM	BPSK	2 506.02	2 679.99	23.09	5	28.09	0.644	17M9G7D
			QPSK			23.46		28.46	0.701	17M9G7D
			16QAM			21.97		26.97	0.498	17M9D7D
		CP-OFDM	QPSK			21.33		26.33	0.430	18M3G7D
			16QAM			20.99		25.99	0.397	18M3D7D
			30			DFTS-OFDM		BPSK	2 511	2 674.98
	QPSK	23.36		28.36	0.685			27M0G7D		
	16QAM	22.18		27.18	0.522			26M8D7D		
	CP-OFDM	QPSK		21.58	26.58	0.455		28M0G7D		
		16QAM		21.13	26.13	0.410		28M0D7D		
		40		DFTS-OFDM	BPSK	2 516.01		2 670		
	QPSK		22.74		27.74				0.594	35M7G7D
	16QAM		21.60		26.60				0.457	35M7D7D
	CP-OFDM		QPSK	21.13	26.13				0.410	37M7G7D
			16QAM	20.64	25.64				0.366	37M7D7D
			50	DFTS-OFDM	BPSK				2 521.02	2 664.99
	QPSK	22.73			27.73	0.593		45M7G7D		
	16QAM	21.74			26.74	0.472		45M7D7D		
	CP-OFDM	QPSK		21.18	26.18	0.415		47M5G7D		
		16QAM		20.68	25.68	0.370		47M5D7D		
		60		DFTS-OFDM	BPSK	2 526		2 659.98		
	QPSK		23.00		28.00				0.631	58M0G7D
	16QAM		21.75		26.75				0.473	58M0D7D
	CP-OFDM		QPSK	21.35	26.35				0.432	58M0G7D
			16QAM	20.91	25.91				0.390	58M0D7D
			80	DFTS-OFDM	BPSK				2 536.02	2 649.99
	QPSK	23.44			28.44	0.698		76M9G7D		
	16QAM	22.43			27.43	0.553		76M9D7D		
	CP-OFDM	QPSK		21.83	26.83	0.482		77M3G7D		
		16QAM		21.30	26.30	0.427		77M3D7D		
		90		DFTS-OFDM	BPSK	2 541		2 644.98		
	QPSK		23.42		28.42				0.695	86M5G7D
	16QAM		22.29		27.29				0.536	86M7D7D
	CP-OFDM		QPSK	21.70	26.70				0.468	87M5G7D
			16QAM	21.24	26.24				0.421	87M5D7D
			100	DFTS-OFDM	BPSK				2 546.01	2 640
	QPSK	23.25			28.25	0.668		96M1G7D		
	16QAM	22.07			27.07	0.509		96M4D7D		
	CP-OFDM	QPSK		21.56	26.56	0.453		97M5G7D		
		16QAM		21.10	26.10	0.407		97M5D7D		

1.14. Information of Variant Model

Model Name		Differences Hardware Part	Description
Basic Model	TN1T23NR	Reference	Fully mounted on hardware.
Variant Model	TN1T23NE	Remove Band 21 related parts	Not support LTE Band 21
		Remove QPM5679AQ, QDM5679AQ	Not support 5G NR n79

- Supported Cellular Band

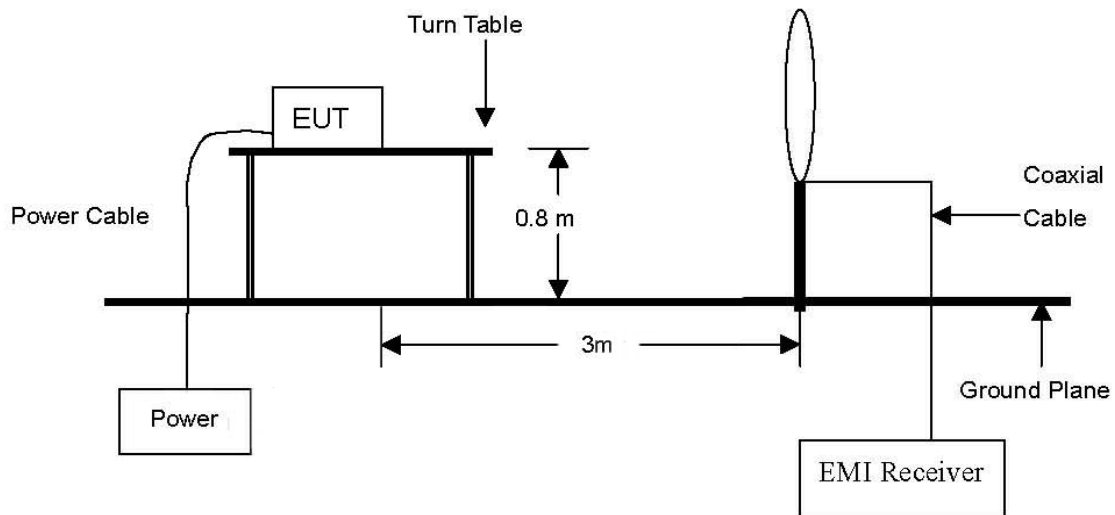
MODEL	Mode	SIM 1	SIM 2
TN1T23NR	GSM	GSM850, PCS1900	GSM850, PCS1900
	WCDMA	B2, B4, B5	N/A
	LTE	B2, B4, B5, B7, B12(B17), B26, B41	B2, B4, B5, B7, B26, B41
	5G Sub6_SA	n41	n41
	5G Sub6_NSA	n41	N/A
TN1T23NE	GSM	N/A	N/A
	WCDMA	B2, B4, B5	N/A
	LTE	B2, B4, B5, B7, B12(B17)	B7
	5G Sub6_SA	N/A	N/A
	5G Sub6_NSA	N/A	N/A

*Operating bands are different by software.

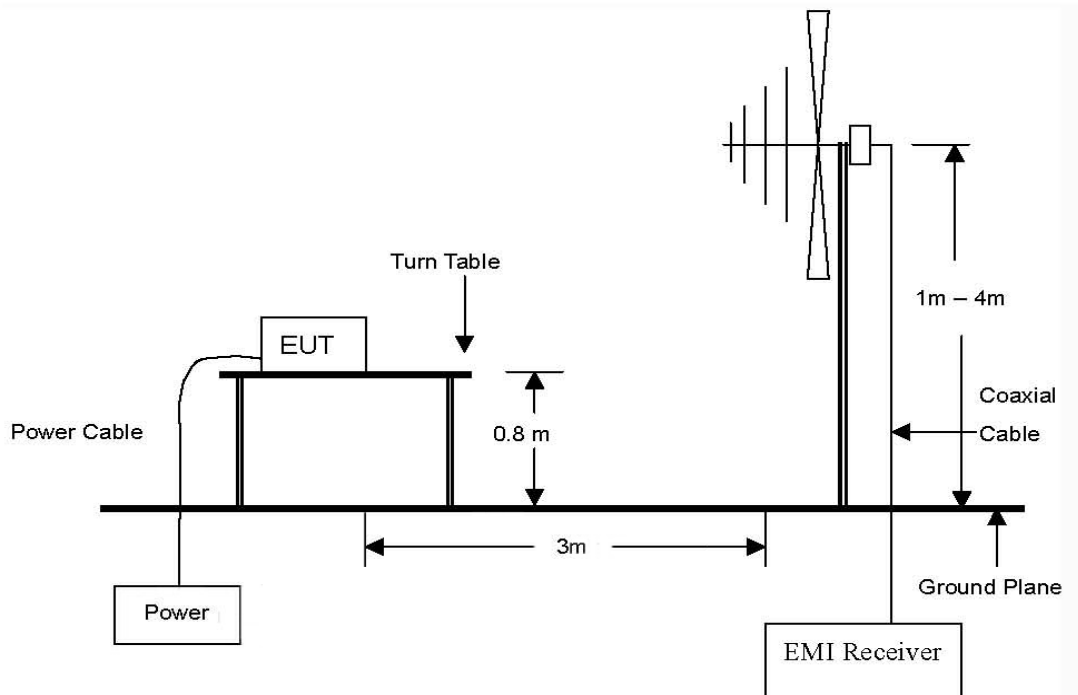
2. E.R.P. / E.I.R.P. & Radiated Spurious Emissions

2.1. Test setup

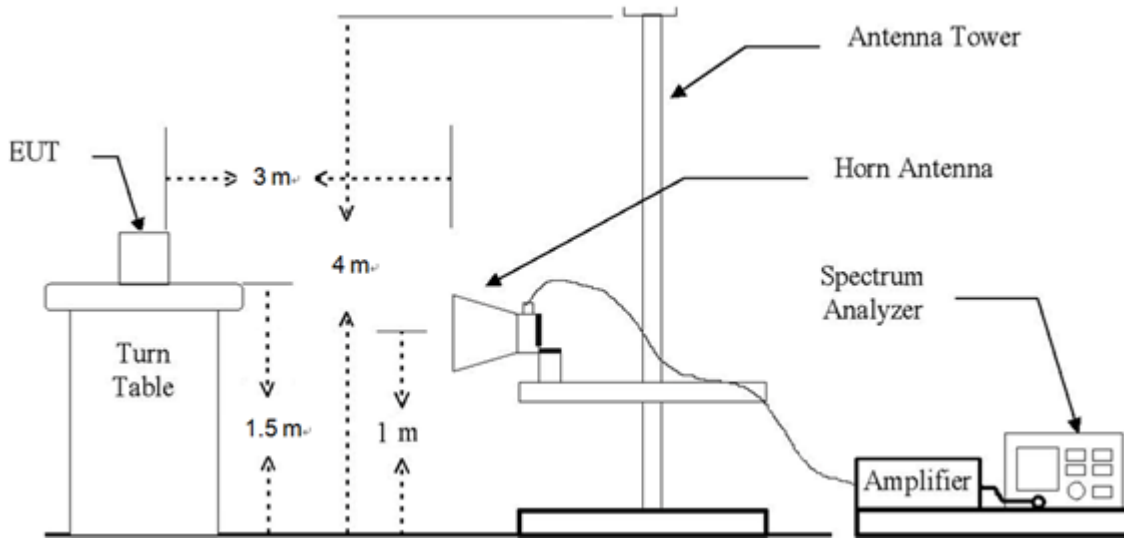
The diagram below shows the test setup that is utilized to make the measurements for emission from 9 kHz to 30 MHz.



The diagram below shows the test setup that is utilized to make the measurements for emission from 30 MHz to 1 GHz Emissions.



The diagram below shows the test setup that is utilized to make the measurements for emission from 1 GHz to 27 GHz Emissions.



2.2. Limit

2.2.1. Limit of E.R.P. / E.I.R.P.

- §27.50(h)(2), mobile and other user stations. Mobile stations are limited to 2.0 watts EIRP. All user stations are limited to 2.0 watts transmitter output power.

2.2.2. Limit of Spurious Radiated Emission

- §27.53(m)(4), for mobile digital stations, the attenuation factor shall be not less than $40 + 10 \log_{10} (P)$ dB on all frequencies between the channel edge and 5 megahertz from the channel edge, $43 + 10 \log_{10} (P)$ dB on all frequencies between 5 megahertz and X megahertz from the channel edge, and $55 + 10 \log_{10} (P)$ dB on all frequencies more than X megahertz from the channel edge, where X is the greater of 6 megahertz or the actual emission bandwidth as defined in paragraph (m)(6) of this section. In addition, the attenuation factor shall not be less than $43 + 10 \log_{10} (P)$ dB on all frequencies between 2 490.5 MHz and 2 496 MHz and $55 + 10 \log_{10} (P)$ dB at or below 2 490.5 MHz. Mobile Satellite Service licensees operating on frequencies below 2 495 MHz may also submit a documented interference complaint against BRS licensees operating on channel BRS Channel 1 on the same terms and conditions as adjacent channel BRS or EBS licensees.

2.3. Test Procedure: Based on ANSI/TIA 603E: 2016 and ANSI C63.26-2015 and KDB 971168 D01 Power Meas License Digital Systems v03r01.

1. On a test site, the EUT shall be placed at 0.8 m or 1.5 m height on a turn table, and in the position close to normal use as declared by the applicant.
2. The test antenna shall be oriented initially for vertical polarization located 3 m from EUT to correspond to the fundamental frequency of the transmitter.
3. The output of the test antenna shall be connected to the measuring receiver and the peak detector is used for the measurement.
4. Radiated spurious emissions measurement method was set as follows:
RBW = 100 kHz for emissions below 1 GHz and 1 MHz for emissions above 1 GHz, VBW $\geq 3 \times$ RBW,
Detector = RMS, trace mode = max hold, per the guidelines of KDB 971168 D01 Power Meas License Digital Systems v03r01.
5. The transmitter shall be switched on, the measuring receiver shall be tuned to the frequency of the transmitter under test.
6. The test antenna shall be raised and lowered through the specified range of height until the maximum signal level is detected by the measuring receiver.
7. The transmitter shall be rotated through 360° in the horizontal plane, until the maximum signal level is detected by the measuring receiver.
8. The test antenna shall be raised and lowered again through the specified range of height until the maximum signal level is detected by the measuring receiver.
9. The maximum signal level detected by the measuring receiver shall be noted.
10. In necessary, the input attenuator setting on the measuring receiver shall be adjusted in order to increase the sensitivity of the measuring receiver.
11. The test antenna shall be raised and lowered through the specified range of height to ensure that the maximum signal is received.
12. The measurement shall be repeated with the test antenna orientated for horizontal polarization.

2.4. Test Results

Ambient temperature : (23 ± 1) °C
 Relative humidity : 47 % R.H.

2.4.1. E.R.P. / E.I.R.P.

SIM 1

Band	Frequency (MHz)	Maximum Conducted Power (dB m)	Maximum Conducted Power (W)	Antenna Gain (dB i)	Maximum E.I.R.P. (dB m)	Maximum E.I.R.P. (W)	Maximum E.R.P. (dB m)	Maximum E.R.P. (W)	Output Power Limit
n41	2 496 ~ 2 690	22.40	0.174	6.6	29.00	0.794			2 W E.I.R.P.

SIM 2

Band	Frequency (MHz)	Maximum Conducted Power (dB m)	Maximum Conducted Power (W)	Antenna Gain (dB i)	Maximum E.I.R.P. (dB m)	Maximum E.I.R.P. (W)	Maximum E.R.P. (dB m)	Maximum E.R.P. (W)	Output Power Limit
n41	2 496 ~ 2 690	23.46	0.222	5	28.46	0.701			2 W E.I.R.P.

Remark;

1. E.I.R.P. (dB m) = Maximum Conducted Power (dB m) + Antenna Gain (dB i)
2. E.R.P. (dB m) = E.I.R.P. (dB m) - 2.15 (dB); where E.R.P. and E.I.R.P. are expressed in consistent units.

2.4.2. Spurious Radiated Emission

SIM 1

NR Band 41 (20 MHz - DFTS-OFDM QPSK)

Frequency (MHz)	Measured Level (dB μ V)	Ant. Pol.	AF (dB/m)	AMP+CL (dB)	E (dB μ V/m)	CF (dB)	E.I.R.P. (dB m)	Limit (dB m)	Margin (dB)
Low Channel (2 506.02 MHz)									
Below 1 000.00	Not detected	-	-	-	-	-	-	-	-
Above 1 000.00	Not detected	-	-	-	-	-	-	-	-
Middle Channel (2 592.99 MHz)									
Below 1 000.00	Not detected	-	-	-	-	-	-	-	-
Above 1 000.00	Not detected	-	-	-	-	-	-	-	-
High Channel (2 679.99 MHz)									
Below 1 000.00	Not detected	-	-	-	-	-	-	-	-
Above 1 000.00	Not detected	-	-	-	-	-	-	-	-

ENDC

5A-n41A (20 MHz - DFTS-OFDM BPSK)

Frequency (MHz)	Measured Level (dB μ V)	Ant. Pol.	AF (dB/m)	AMP+CL (dB)	E (dB μ V/m)	CF (dB)	E.I.R.P. (dB m)	Limit (dB m)	Margin (dB)
Low Channel (2 506.02 MHz)									
Below 1 000.00	Not detected	-	-	-	-	-	-	-	-
Above 1 000.00	Not detected	-	-	-	-	-	-	-	-
Middle Channel (2 592.99 MHz)									
Below 1 000.00	Not detected	-	-	-	-	-	-	-	-
Above 1 000.00	Not detected	-	-	-	-	-	-	-	-
High Channel (2 679.99 MHz)									
Below 1 000.00	Not detected	-	-	-	-	-	-	-	-
Above 1 000.00	Not detected	-	-	-	-	-	-	-	-

SIM 2

NR Band 41 (20 MHz - DFTS-OFDM QPSK)

Frequency (MHz)	Measured Level (dB μ V)	Ant. Pol.	AF (dB/m)	AMP+CL (dB)	E (dB μ V/m)	CF (dB)	E.I.R.P. (dB m)	Limit (dB m)	Margin (dB)
Low Channel (2 506.02 MHz)									
Below 1 000.00	Not detected	-	-	-	-	-	-	-	-
Above 1 000.00	Not detected	-	-	-	-	-	-	-	-
Middle Channel (2 592.99 MHz)									
Below 1 000.00	Not detected	-	-	-	-	-	-	-	-
Above 1 000.00	Not detected	-	-	-	-	-	-	-	-
High Channel (2 679.99 MHz)									
Below 1 000.00	Not detected	-	-	-	-	-	-	-	-
Above 1 000.00	Not detected	-	-	-	-	-	-	-	-

Remark;

1. AF = Antenna Factor, CL = Cable Loss, CF = Conversion Factor.
2. E (dB μ V/m) = Measured Level (dB μ V) + Antenna Factor (dB/m) + AMP (dB) + Cable Loss (dB).
3. E.I.R.P. (dB m) = E (dB μ V/m) + CF (dB).
4. E.R.P. (dB m) = E (dB μ V/m) + CF (dB) - 2.15 (dB); where E.R.P. and E.I.R.P. are expressed in consistent units.
5. CF (dB) = 20 log D - 104.8; where D is the measurement distance in meters, According to ANSI C63.26-2015 5.2.7 and KDB 971168 D01 v03r01 5.8.4
6. The frequency spectrum is examined from 9 kHz to the 10th harmonic of the fundamental frequency of the transmitter. No other spurious and harmonic emissions were reported greater than listed emissions above table.

3. Conducted Output Power

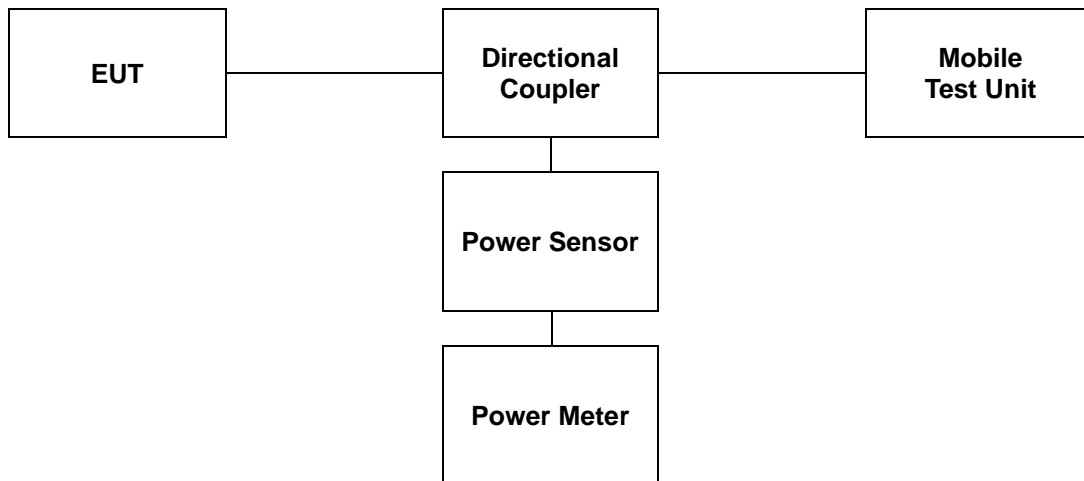
3.1. Limit

CFR 47, Section FCC §2.1046.

3.2. Test Procedure

Output power shall be measured at the RF output terminals for all configurations.

1. The RF output of the transmitter was connected to the input of the mobile test unit in order to establish communication with the EUT.
2. The EUT was set up for the max. output power with pseudo random data modulation by using mobile test unit parameters.
3. The measurement performed using a wideband RF power meter.
4. This EUT was tested under all configurations and the highest power was investigated and reported.



3.3. Test Result

Ambient temperature : (23 ± 1) °C
 Relative humidity : 47 % R.H.

SIM 1

NR Band 41										
BW (MHz)	SCS (kHz)	Modulation	RB Size	RB Offset	Conducted Output Power					
					501204 (2 506.02 MHz)		518598 (2 592.99 MHz)		535998 (2 679.99 MHz)	
					(dB m)	(W)	(dB m)	(W)	(dB m)	(W)
20	30	DFT-S-OFDM BPSK	1	1	22.13	0.163	21.80	0.151	21.50	0.141
			1	26	22.11	0.163	21.71	0.148	21.59	0.144
			1	49	22.06	0.161	21.87	0.154	21.59	0.144
			25	0	21.26	0.134	20.74	0.119	20.61	0.115
			25	13	22.03	0.160	21.85	0.153	21.44	0.139
			25	26	21.26	0.134	20.94	0.124	20.48	0.112
			50	0	20.98	0.125	20.67	0.117	20.48	0.112
		DFT-S-OFDM QPSK	1	1	22.40	0.174	21.86	0.153	21.50	0.141
			1	26	22.08	0.161	21.84	0.153	21.56	0.143
			1	49	21.22	0.132	20.91	0.123	20.48	0.112
			25	0	22.06	0.161	21.78	0.151	21.42	0.139
			25	13	21.16	0.131	20.74	0.119	20.53	0.113
			25	26	21.16	0.131	20.67	0.117	20.57	0.114
			50	0	21.16	0.131	20.89	0.123	20.50	0.112
		DFT-S-OFDM 16QAM	1	1	21.03	0.127	20.82	0.121	20.44	0.111
		DFT-S-OFDM 64QAM	1	1	19.62	0.092	19.25	0.084	19.00	0.079
		DFT-S-OFDM 256QAM	1	1	17.65	0.058	17.56	0.057	17.85	0.061
		CP-OFDM QPSK	1	1	20.55	0.114	20.22	0.105	20.10	0.102
		CP-OFDM 16QAM	1	1	20.11	0.103	19.75	0.094	19.50	0.089
		CP-OFDM 64QAM	1	1	18.63	0.073	18.35	0.068	17.96	0.063
CP-OFDM 256QAM	1	1	16.32	0.043	16.86	0.049	16.46	0.044		

NR Band 41										
BW (MHz)	SCS (kHz)	Modulation	RB Size	RB Offset	Conducted Output Power					
					502200 (2 511.00 MHz)		518598 (2 592.99 MHz)		534996 (2 674.98 MHz)	
					(dB m)	(W)	(dB m)	(W)	(dB m)	(W)
30	30	DFT-S-OFDM BPSK	1	1	22.34	0.171	21.90	0.155	21.74	0.149
			1	39	22.37	0.173	21.97	0.157	21.73	0.149
			1	76	22.28	0.169	21.95	0.157	21.65	0.146
			36	0	21.31	0.135	20.96	0.125	20.62	0.115
			36	21	22.13	0.163	21.95	0.157	21.79	0.151
			36	42	21.21	0.132	21.01	0.126	20.76	0.119
			75	0	21.49	0.141	20.90	0.123	20.74	0.119
		DFT-S-OFDM QPSK	1	1	22.31	0.170	21.89	0.155	21.71	0.148
			1	39	22.38	0.173	21.94	0.156	21.71	0.148
			1	76	21.41	0.138	21.01	0.126	20.59	0.115
			36	0	22.27	0.169	21.98	0.158	21.69	0.148
			36	21	21.44	0.139	20.80	0.120	20.62	0.115
			36	42	21.28	0.134	20.78	0.120	20.71	0.118
		DFT-S-OFDM 16QAM	75	0	21.32	0.136	21.03	0.127	20.65	0.116
			1	1	21.37	0.137	20.80	0.120	20.82	0.121
			1	1	19.77	0.095	19.31	0.085	19.18	0.083
			1	1	17.88	0.061	17.95	0.062	18.10	0.065
			1	1	20.80	0.120	20.32	0.108	20.32	0.108
			1	1	20.31	0.107	19.93	0.098	19.81	0.096
			1	1	18.88	0.077	18.47	0.070	18.27	0.067
1	1		16.45	0.044	16.56	0.045	16.63	0.046		
1	1		19.77	0.095	19.31	0.085	19.18	0.083		
1	1		17.88	0.061	17.95	0.062	18.10	0.065		

NR Band 41										
BW (MHz)	SCS (kHz)	Modulation	RB Size	RB Offset	Conducted Output Power					
					503202 (2 516.01 MHz)		518598 (2 592.99 MHz)		534000 (2 670.00 MHz)	
					(dB m)	(W)	(dB m)	(W)	(dB m)	(W)
40	30	DFT-S-OFDM BPSK	1	1	22.24	0.167	21.93	0.156	21.75	0.150
			1	53	22.25	0.168	22.01	0.159	21.85	0.153
			1	104	22.25	0.168	21.90	0.155	21.74	0.149
			50	0	21.21	0.132	20.89	0.123	20.63	0.116
			50	28	22.20	0.166	21.87	0.154	21.82	0.152
			50	56	21.20	0.132	20.96	0.125	20.87	0.122
			100	0	21.38	0.137	20.92	0.124	20.86	0.122
		DFT-S-OFDM QPSK	1	1	22.33	0.171	21.98	0.158	21.79	0.151
			1	53	22.22	0.167	21.95	0.157	21.83	0.152
			1	104	21.10	0.129	20.99	0.126	20.62	0.115
			50	0	22.27	0.169	22.01	0.159	21.65	0.146
			50	28	21.26	0.134	20.97	0.125	20.86	0.122
			50	56	21.22	0.132	20.98	0.125	20.68	0.117
			100	0	21.27	0.134	21.00	0.126	20.67	0.117
		DFT-S-OFDM 16QAM	1	1	21.24	0.133	20.88	0.122	20.83	0.121
		DFT-S-OFDM 64QAM	1	1	19.67	0.093	19.37	0.086	19.31	0.085
		DFT-S-OFDM 256QAM	1	1	18.05	0.064	17.98	0.063	17.85	0.061
		CP-OFDM QPSK	1	1	20.84	0.121	20.34	0.108	20.16	0.104
		CP-OFDM 16QAM	1	1	20.29	0.107	19.95	0.099	19.78	0.095
		CP-OFDM 64QAM	1	1	18.84	0.077	18.53	0.071	18.35	0.068
CP-OFDM 256QAM	1	1	17.11	0.051	16.98	0.050	16.95	0.050		

NR Band 41										
BW (MHz)	SCS (kHz)	Modulation	RB Size	RB Offset	Conducted Output Power					
					504204 (2 521.02 MHz)		518598 (2 592.99 MHz)		532998 (2 664.99 MHz)	
					(dB m)	(W)	(dB m)	(W)	(dB m)	(W)
50	30	DFT-S-OFDM BPSK	1	1	22.15	0.164	21.97	0.157	21.76	0.150
			1	67	22.13	0.163	22.00	0.158	21.80	0.151
			1	131	22.18	0.165	21.99	0.158	21.77	0.150
			64	0	21.25	0.133	21.09	0.129	20.79	0.120
			64	35	22.14	0.164	21.89	0.155	21.86	0.153
			64	69	21.23	0.133	20.96	0.125	20.68	0.117
			128	0	21.15	0.130	21.07	0.128	20.68	0.117
		DFT-S-OFDM QPSK	1	1	22.07	0.161	21.96	0.157	21.71	0.148
			1	67	22.18	0.165	21.87	0.154	21.70	0.148
			1	131	21.01	0.126	20.92	0.124	20.86	0.122
			64	0	22.12	0.163	21.92	0.156	21.78	0.151
			64	35	21.29	0.135	20.97	0.125	20.86	0.122
			64	69	21.16	0.131	21.03	0.127	20.75	0.119
			128	0	21.14	0.130	21.11	0.129	20.89	0.123
		DFT-S-OFDM 16QAM	1	1	21.15	0.130	21.00	0.126	20.86	0.122
		DFT-S-OFDM 64QAM	1	1	19.60	0.091	19.47	0.089	19.33	0.086
		DFT-S-OFDM 256QAM	1	1	17.66	0.058	17.56	0.057	18.01	0.063
		CP-OFDM QPSK	1	1	20.71	0.118	20.49	0.112	20.36	0.109
		CP-OFDM 16QAM	1	1	20.10	0.102	20.00	0.100	19.81	0.096
		CP-OFDM 64QAM	1	1	18.66	0.073	18.51	0.071	18.29	0.067
		CP-OFDM 256QAM	1	1	17.01	0.050	16.98	0.050	16.80	0.048

NR Band 41										
BW (MHz)	SCS (kHz)	Modulation	RB Size	RB Offset	Conducted Output Power					
					505200 (2 526.00 MHz)		518598 (2 592.99 MHz)		531996 (2 659.98 MHz)	
					(dB m)	(W)	(dB m)	(W)	(dB m)	(W)
60	30	DFT-S-OFDM BPSK	1	1	22.03	0.160	21.89	0.155	21.72	0.149
			1	81	22.01	0.159	21.91	0.155	21.64	0.146
			1	160	21.93	0.156	21.84	0.153	21.73	0.149
			81	0	21.05	0.127	20.95	0.124	20.87	0.122
			81	41	22.01	0.159	21.92	0.156	21.81	0.152
			81	81	20.89	0.123	21.00	0.126	20.76	0.119
			162	0	21.12	0.129	20.79	0.120	20.80	0.120
		DFT-S-OFDM QPSK	1	1	21.91	0.155	21.99	0.158	21.71	0.148
			1	81	22.02	0.159	21.91	0.155	21.80	0.151
			1	160	20.89	0.123	20.76	0.119	20.72	0.118
			81	0	21.95	0.157	21.83	0.152	21.78	0.151
			81	41	20.95	0.124	20.88	0.122	20.60	0.115
			81	81	21.14	0.130	20.84	0.121	20.81	0.121
			162	0	20.97	0.125	20.83	0.121	20.60	0.115
		DFT-S-OFDM 16QAM	1	1	20.94	0.124	20.94	0.124	20.81	0.121
		DFT-S-OFDM 64QAM	1	1	19.46	0.088	19.44	0.088	19.18	0.083
		DFT-S-OFDM 256QAM	1	1	17.54	0.057	17.64	0.058	17.74	0.059
		CP-OFDM QPSK	1	1	20.60	0.115	20.39	0.109	20.14	0.103
		CP-OFDM 16QAM	1	1	19.99	0.100	19.94	0.099	19.78	0.095
		CP-OFDM 64QAM	1	1	18.61	0.073	18.30	0.068	18.22	0.066
CP-OFDM 256QAM	1	1	16.64	0.046	16.73	0.047	16.85	0.048		

NR Band 41										
BW (MHz)	SCS (kHz)	Modulation	RB Size	RB Offset	Conducted Output Power					
					507204 (2 536.02 MHz)		518598 (2 592.99 MHz)		529998 (2 649.99 MHz)	
					(dB m)	(W)	(dB m)	(W)	(dB m)	(W)
80	30	DFT-S-OFDM BPSK	1	1	22.11	0.163	21.89	0.155	21.92	0.156
			1	109	22.20	0.166	21.93	0.156	21.88	0.154
			1	215	22.08	0.161	21.95	0.157	22.00	0.158
			108	0	21.09	0.129	20.82	0.121	20.84	0.121
			108	55	22.10	0.162	21.79	0.151	21.91	0.155
			108	109	21.24	0.133	20.80	0.120	20.90	0.123
			216	0	21.14	0.130	20.84	0.121	21.03	0.127
		DFT-S-OFDM QPSK	1	1	22.10	0.162	21.90	0.155	21.99	0.158
			1	109	22.17	0.165	21.82	0.152	21.84	0.153
			1	215	21.08	0.128	21.01	0.126	20.98	0.125
			108	0	22.03	0.160	21.85	0.153	21.97	0.157
			108	55	21.12	0.129	21.02	0.126	20.88	0.122
			108	109	21.08	0.128	20.96	0.125	20.93	0.124
			216	0	20.98	0.125	21.02	0.126	20.87	0.122
		DFT-S-OFDM 16QAM	1	1	21.18	0.131	20.85	0.122	20.84	0.121
		DFT-S-OFDM 64QAM	1	1	19.52	0.090	19.49	0.089	19.51	0.089
		DFT-S-OFDM 256QAM	1	1	17.66	0.058	17.59	0.057	17.26	0.053
		CP-OFDM QPSK	1	1	20.53	0.113	20.34	0.108	20.32	0.108
		CP-OFDM 16QAM	1	1	20.06	0.101	19.89	0.097	19.98	0.100
		CP-OFDM 64QAM	1	1	18.71	0.074	18.30	0.068	18.35	0.068
		CP-OFDM 256QAM	1	1	16.69	0.047	16.81	0.048	16.73	0.047

NR Band 41										
BW (MHz)	SCS (kHz)	Modulation	RB Size	RB Offset	Conducted Output Power					
					508200 (2 541.00 MHz)		518598 (2 592.99 MHz)		528996 (2 644.98 MHz)	
					(dB m)	(W)	(dB m)	(W)	(dB m)	(W)
90	30	DFT-S-OFDM BPSK	1	1	22.18	0.165	21.87	0.154	21.86	0.153
			1	123	21.98	0.158	21.97	0.157	21.96	0.157
			1	243	22.02	0.159	21.88	0.154	21.95	0.157
			120	0	21.14	0.130	20.95	0.124	20.72	0.118
			120	63	22.38	0.173	21.80	0.151	21.71	0.148
			120	125	21.24	0.133	21.01	0.126	20.91	0.123
			243	0	21.33	0.136	21.01	0.126	20.75	0.119
		DFT-S-OFDM QPSK	1	1	22.03	0.160	21.80	0.151	21.76	0.150
			1	123	22.02	0.159	21.90	0.155	22.06	0.161
			1	243	22.17	0.165	21.68	0.147	21.89	0.155
			120	0	22.17	0.165	21.96	0.157	21.82	0.152
			120	63	21.99	0.158	22.05	0.160	21.66	0.147
			120	125	21.29	0.135	20.76	0.119	20.98	0.125
		243	0	21.22	0.132	20.88	0.122	20.97	0.125	
		DFT-S-OFDM 16QAM	1	1	21.09	0.129	20.96	0.125	20.90	0.123
		DFT-S-OFDM 64QAM	1	1	19.67	0.093	19.34	0.086	19.26	0.084
		DFT-S-OFDM 256QAM	1	1	17.45	0.056	17.75	0.060	17.53	0.057
		CP-OFDM QPSK	1	1	20.67	0.117	20.28	0.107	20.39	0.109
		CP-OFDM 16QAM	1	1	20.18	0.104	19.87	0.097	19.87	0.097
		CP-OFDM 64QAM	1	1	18.71	0.074	18.38	0.069	18.45	0.070
CP-OFDM 256QAM	1	1	16.56	0.045	16.36	0.043	16.23	0.042		

NR Band 41										
BW (MHz)	SCS (kHz)	Modulation	RB Size	RB Offset	Conducted Output Power					
					509202 (2 546.01 MHz)		518598 (2 592.99 MHz)		528000 (2 640.00 MHz)	
					(dB m)	(W)	(dB m)	(W)	(dB m)	(W)
100	30	DFT-S-OFDM BPSK	1	1	21.99	0.158	21.91	0.155	21.89	0.155
			1	137	21.80	0.151	22.07	0.161	21.73	0.149
			1	271	21.79	0.151	21.81	0.152	21.75	0.150
			135	0	20.92	0.124	20.82	0.121	20.99	0.126
			135	69	22.19	0.166	21.79	0.151	21.72	0.149
			135	138	21.10	0.129	20.79	0.120	20.87	0.122
			270	0	21.05	0.127	20.89	0.123	20.98	0.125
		DFT-S-OFDM QPSK	1	1	22.04	0.160	21.72	0.149	21.81	0.152
			1	137	22.10	0.162	21.87	0.154	21.69	0.148
			1	271	22.12	0.163	22.04	0.160	22.01	0.159
			135	0	21.96	0.157	22.00	0.158	21.86	0.153
			135	69	22.19	0.166	22.04	0.160	21.73	0.149
			135	138	21.11	0.129	20.88	0.122	20.91	0.123
			270	0	21.09	0.129	20.77	0.119	20.84	0.121
		DFT-S-OFDM 16QAM	1	1	20.89	0.123	20.93	0.124	20.97	0.125
		DFT-S-OFDM 64QAM	1	1	19.44	0.088	19.51	0.089	19.38	0.087
		DFT-S-OFDM 256QAM	1	1	17.25	0.053	17.43	0.055	17.50	0.056
		CP-OFDM QPSK	1	1	20.47	0.111	20.51	0.112	20.41	0.110
		CP-OFDM 16QAM	1	1	19.91	0.098	19.82	0.096	19.95	0.099
		CP-OFDM 64QAM	1	1	18.43	0.070	18.39	0.069	18.44	0.070
		CP-OFDM 256QAM	1	1	16.59	0.046	16.44	0.044	16.26	0.042

ENDC

5A-n41A										
BW (MHz)	SCS (kHz)	Modulation	RB Size	RB Offset	Conducted Output Power					
					501204 (2 506.02 MHz)		518598 (2 592.99 MHz)		535998 (2 679.99 MHz)	
					(dB m)	(W)	(dB m)	(W)	(dB m)	(W)
20	30	DFT-S-OFDM BPSK	1	1	22.58	0.181	22.07	0.161	21.89	0.155
			1	26	21.95	0.157	22.17	0.165	22.03	0.160
			1	49	22.15	0.164	22.10	0.162	21.84	0.153
		DFT-S-OFDM QPSK	1	1	22.20	0.166	21.98	0.158	22.09	0.162
			1	26	22.20	0.166	22.27	0.169	22.09	0.162
			1	49	22.14	0.164	21.91	0.155	21.69	0.148
5A-n41A										
BW (MHz)	SCS (kHz)	Modulation	RB Size	RB Offset	Conducted Output Power					
					502200 (2 511.00 MHz)		518598 (2 592.99 MHz)		534996 (2 674.98 MHz)	
					(dB m)	(W)	(dB m)	(W)	(dB m)	(W)
30	30	DFT-S-OFDM BPSK	1	1	22.16	0.164	21.99	0.158	21.75	0.150
			1	39	22.05	0.160	21.88	0.154	21.69	0.148
			1	76	22.25	0.168	21.89	0.155	21.66	0.147
		DFT-S-OFDM QPSK	1	1	22.26	0.168	22.00	0.158	21.56	0.143
			1	39	22.05	0.160	22.06	0.161	21.55	0.143
			1	76	22.23	0.167	21.81	0.152	21.92	0.156
5A-n41A										
BW (MHz)	SCS (kHz)	Modulation	RB Size	RB Offset	Conducted Output Power					
					503202 (2 516.01 MHz)		518598 (2 592.99 MHz)		534000 (2 670.00 MHz)	
					(dB m)	(W)	(dB m)	(W)	(dB m)	(W)
40	30	DFT-S-OFDM BPSK	1	1	22.16	0.164	21.87	0.154	21.61	0.145
			1	53	22.35	0.172	22.16	0.164	22.33	0.171
			1	104	21.96	0.157	22.09	0.162	22.07	0.161
		DFT-S-OFDM QPSK	1	1	21.97	0.157	22.03	0.160	22.09	0.162
			1	53	22.07	0.161	22.03	0.160	22.18	0.165
			1	104	22.14	0.164	22.02	0.159	22.11	0.163
5A-n41A										
BW (MHz)	SCS (kHz)	Modulation	RB Size	RB Offset	Conducted Output Power					
					504204 (2 521.02 MHz)		518598 (2 592.99 MHz)		532998 (2 664.99 MHz)	
					(dB m)	(W)	(dB m)	(W)	(dB m)	(W)
50	30	DFT-S-OFDM BPSK	1	1	22.23	0.167	22.01	0.159	21.74	0.149
			1	67	22.39	0.173	22.40	0.174	22.23	0.167
			1	131	22.29	0.169	22.23	0.167	22.25	0.168
		DFT-S-OFDM QPSK	1	1	22.04	0.160	22.19	0.166	22.43	0.175
			1	67	22.24	0.167	22.12	0.163	22.38	0.173
			1	131	22.10	0.162	22.31	0.170	22.04	0.160
5A-n41A										
BW (MHz)	SCS (kHz)	Modulation	RB Size	RB Offset	Conducted Output Power					
					505200 (2 526.00 MHz)		518598 (2 592.99 MHz)		531996 (2 659.98 MHz)	
					(dB m)	(W)	(dB m)	(W)	(dB m)	(W)
60	30	DFT-S-OFDM BPSK	1	1	22.37	0.173	22.26	0.168	21.95	0.157
			1	81	22.48	0.177	22.47	0.177	22.32	0.171
			1	160	22.46	0.176	22.19	0.166	22.29	0.169
		DFT-S-OFDM QPSK	1	1	22.45	0.176	22.38	0.173	22.30	0.170
			1	81	22.28	0.169	22.40	0.174	22.53	0.179
			1	160	22.27	0.169	22.49	0.177	22.38	0.173

5A-n41A										
BW (MHz)	SCS (kHz)	Modulation	RB Size	RB Offset	Conducted Output Power					
					507204 (2 536.02 MHz)		518598 (2 592.99 MHz)		529998 (2 649.99 MHz)	
					(dB m)	(W)	(dB m)	(W)	(dB m)	(W)
80	30	DFT-S-OFDM BPSK	1	1	22.19	0.166	21.95	0.157	21.88	0.154
			1	109	22.06	0.161	22.36	0.172	22.20	0.166
			1	215	22.31	0.170	22.13	0.163	22.25	0.168
		DFT-S-OFDM QPSK	1	1	22.36	0.172	22.33	0.171	22.23	0.167
			1	109	22.26	0.168	22.15	0.164	22.05	0.160
			1	215	22.27	0.169	22.19	0.166	22.17	0.165
5A-n41A										
BW (MHz)	SCS (kHz)	Modulation	RB Size	RB Offset	Conducted Output Power					
					508200 (2 541.00 MHz)		518598 (2 592.99 MHz)		528996 (2 644.98 MHz)	
					(dB m)	(W)	(dB m)	(W)	(dB m)	(W)
90	30	DFT-S-OFDM BPSK	1	1	22.10	0.162	22.24	0.167	21.85	0.153
			1	123	22.24	0.167	22.21	0.166	22.29	0.169
			1	243	22.26	0.168	22.20	0.166	21.90	0.155
		DFT-S-OFDM QPSK	1	1	21.96	0.157	22.26	0.168	21.99	0.158
			1	123	21.97	0.157	22.19	0.166	22.18	0.165
			1	243	21.97	0.157	21.92	0.156	21.95	0.157
5A-n41A										
BW (MHz)	SCS (kHz)	Modulation	RB Size	RB Offset	Conducted Output Power					
					509202 (2 546.01 MHz)		518598 (2 592.99 MHz)		528000 (2 640.00 MHz)	
					(dB m)	(W)	(dB m)	(W)	(dB m)	(W)
100	30	DFT-S-OFDM BPSK	1	1	22.38	0.173	22.55	0.180	22.32	0.171
			1	137	22.22	0.167	22.53	0.179	22.18	0.165
			1	271	22.44	0.175	22.23	0.167	22.25	0.168
		DFT-S-OFDM QPSK	1	1	22.38	0.173	22.52	0.179	22.46	0.176
			1	137	22.33	0.171	22.51	0.178	22.57	0.181
			1	271	22.37	0.173	22.41	0.174	22.38	0.173

26A-n41A										
BW (MHz)	SCS (kHz)	Modulation	RB Size	RB Offset	Conducted Output Power					
					501204 (2 506.02 MHz)		518598 (2 592.99 MHz)		535998 (2 679.99 MHz)	
					(dB m)	(W)	(dB m)	(W)	(dB m)	(W)
20	30	DFT-S-OFDM BPSK	1	1	22.57	0.181	22.09	0.162	22.08	0.161
			1	26	22.28	0.169	22.11	0.163	22.48	0.177
			1	49	22.15	0.164	22.34	0.171	22.36	0.172
		DFT-S-OFDM QPSK	1	1	22.37	0.173	22.11	0.163	22.50	0.178
			1	26	22.43	0.175	22.05	0.160	22.18	0.165
			1	49	22.10	0.162	22.17	0.165	22.41	0.174
26A-n41A										
BW (MHz)	SCS (kHz)	Modulation	RB Size	RB Offset	Conducted Output Power					
					502200 (2 511.00 MHz)		518598 (2 592.99 MHz)		534996 (2 674.98 MHz)	
					(dB m)	(W)	(dB m)	(W)	(dB m)	(W)
30	30	DFT-S-OFDM BPSK	1	1	22.34	0.171	22.10	0.162	21.79	0.151
			1	39	22.45	0.176	22.27	0.169	22.44	0.175
			1	76	22.52	0.179	22.32	0.171	22.53	0.179
		DFT-S-OFDM QPSK	1	1	22.46	0.176	22.39	0.173	22.29	0.169
			1	39	22.15	0.164	22.27	0.169	22.15	0.164
			1	76	22.31	0.170	22.27	0.169	22.30	0.170
26A-n41A										
BW (MHz)	SCS (kHz)	Modulation	RB Size	RB Offset	Conducted Output Power					
					503202 (2 516.01 MHz)		518598 (2 592.99 MHz)		534000 (2 670.00 MHz)	
					(dB m)	(W)	(dB m)	(W)	(dB m)	(W)
40	30	DFT-S-OFDM BPSK	1	1	22.19	0.166	21.98	0.158	21.85	0.153
			1	53	22.17	0.165	22.07	0.161	22.35	0.172
			1	104	22.11	0.163	22.05	0.160	22.05	0.160
		DFT-S-OFDM QPSK	1	1	22.34	0.171	22.14	0.164	22.38	0.173
			1	53	21.99	0.158	22.12	0.163	22.17	0.165
			1	104	22.03	0.160	22.07	0.161	22.28	0.169
26A-n41A										
BW (MHz)	SCS (kHz)	Modulation	RB Size	RB Offset	Conducted Output Power					
					504204 (2 521.02 MHz)		518598 (2 592.99 MHz)		532998 (2 664.99 MHz)	
					(dB m)	(W)	(dB m)	(W)	(dB m)	(W)
50	30	DFT-S-OFDM BPSK	1	1	22.22	0.167	21.73	0.149	21.81	0.152
			1	67	22.30	0.170	22.38	0.173	22.42	0.175
			1	131	22.20	0.166	22.37	0.173	22.21	0.166
		DFT-S-OFDM QPSK	1	1	22.38	0.173	22.41	0.174	22.32	0.171
			1	67	22.41	0.174	22.30	0.170	22.21	0.166
			1	131	22.15	0.164	22.18	0.165	22.39	0.173
26A-n41A										
BW (MHz)	SCS (kHz)	Modulation	RB Size	RB Offset	Conducted Output Power					
					505200 (2 526.00 MHz)		518598 (2 592.99 MHz)		531996 (2 659.98 MHz)	
					(dB m)	(W)	(dB m)	(W)	(dB m)	(W)
60	30	DFT-S-OFDM BPSK	1	1	22.39	0.173	22.12	0.163	22.18	0.165
			1	81	22.19	0.166	22.38	0.173	22.49	0.177
			1	160	22.23	0.167	22.49	0.177	22.44	0.175
		DFT-S-OFDM QPSK	1	1	22.19	0.166	22.28	0.169	22.31	0.170
			1	81	22.45	0.176	22.56	0.180	22.41	0.174
			1	160	22.39	0.173	22.31	0.170	22.33	0.171

26A-n41A										
BW (MHz)	SCS (kHz)	Modulation	RB Size	RB Offset	Conducted Output Power					
					507204 (2 536.02 MHz)		518598 (2 592.99 MHz)		529998 (2 649.99 MHz)	
					(dB m)	(W)	(dB m)	(W)	(dB m)	(W)
80	30	DFT-S-OFDM BPSK	1	1	22.09	0.162	21.89	0.155	21.64	0.146
			1	109	22.19	0.166	22.16	0.164	22.20	0.166
			1	215	21.99	0.158	22.14	0.164	22.01	0.159
		DFT-S-OFDM QPSK	1	1	21.93	0.156	22.09	0.162	22.27	0.169
			1	109	22.20	0.166	22.07	0.161	22.21	0.166
			1	215	22.29	0.169	22.15	0.164	22.12	0.163
26A-n41A										
BW (MHz)	SCS (kHz)	Modulation	RB Size	RB Offset	Conducted Output Power					
					508200 (2 541.00 MHz)		518598 (2 592.99 MHz)		528996 (2 644.98 MHz)	
					(dB m)	(W)	(dB m)	(W)	(dB m)	(W)
90	30	DFT-S-OFDM BPSK	1	1	22.11	0.163	22.11	0.163	21.91	0.155
			1	123	22.30	0.170	22.31	0.170	21.92	0.156
			1	243	22.07	0.161	21.93	0.156	22.29	0.169
		DFT-S-OFDM QPSK	1	1	22.17	0.165	21.99	0.158	22.19	0.166
			1	123	22.24	0.167	21.91	0.155	22.09	0.162
			1	243	21.98	0.158	21.94	0.156	21.94	0.156
26A-n41A										
BW (MHz)	SCS (kHz)	Modulation	RB Size	RB Offset	Conducted Output Power					
					509202 (2 546.01 MHz)		518598 (2 592.99 MHz)		528000 (2 640.00 MHz)	
					(dB m)	(W)	(dB m)	(W)	(dB m)	(W)
100	30	DFT-S-OFDM BPSK	1	1	22.11	0.163	22.27	0.169	21.98	0.158
			1	137	22.11	0.163	22.05	0.160	22.20	0.166
			1	271	22.17	0.165	21.91	0.155	22.02	0.159
		DFT-S-OFDM QPSK	1	1	22.15	0.164	22.04	0.160	21.98	0.158
			1	137	22.06	0.161	22.12	0.163	22.25	0.168
			1	271	22.03	0.160	22.01	0.159	22.20	0.166

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NR Band 41										
BW (MHz)	SCS (kHz)	Modulation	RB Size	RB Offset	Conducted Output Power					
					501204 (2 506.02 MHz)		518598 (2 592.99 MHz)		535998 (2 679.99 MHz)	
					(dB m)	(W)	(dB m)	(W)	(dB m)	(W)
20	30	DFT-S-OFDM BPSK	1	1	22.25	0.168	22.93	0.196	22.30	0.170
			1	26	22.44	0.175	22.76	0.189	22.43	0.175
			1	49	22.14	0.164	22.90	0.195	22.49	0.177
			25	0	21.27	0.134	21.98	0.158	21.24	0.133
			25	13	22.30	0.170	23.09	0.204	22.35	0.172
			25	26	21.18	0.131	21.90	0.155	21.24	0.133
		50	0	21.23	0.133	21.98	0.158	21.36	0.137	
		DFT-S-OFDM QPSK	1	1	23.46	0.222	22.87	0.194	22.50	0.178
			1	26	22.16	0.164	23.11	0.205	22.10	0.162
			1	49	22.23	0.167	22.90	0.195	22.41	0.174
			25	0	22.34	0.171	23.00	0.200	22.23	0.167
			25	13	22.39	0.173	22.84	0.192	22.38	0.173
			25	26	21.17	0.131	22.05	0.160	21.24	0.133
		50	0	21.30	0.135	21.93	0.156	21.41	0.138	
		DFT-S-OFDM 16QAM	1	1	21.18	0.131	21.97	0.157	21.20	0.132
		DFT-S-OFDM 64QAM	1	1	19.84	0.096	20.40	0.110	19.83	0.096
		DFT-S-OFDM 256QAM	1	1	17.56	0.057	18.12	0.065	17.44	0.055
		CP-OFDM QPSK	1	1	20.81	0.121	21.33	0.136	20.74	0.119
		CP-OFDM 16QAM	1	1	20.25	0.106	20.99	0.126	20.21	0.105
		CP-OFDM 64QAM	1	1	18.84	0.077	19.43	0.088	18.83	0.076
CP-OFDM 256QAM	1	1	16.43	0.044	17.01	0.050	16.45	0.044		

NR Band 41										
BW (MHz)	SCS (kHz)	Modulation	RB Size	RB Offset	Conducted Output Power					
					502200 (2 511.00 MHz)		518598 (2 592.99 MHz)		534996 (2 674.98 MHz)	
					(dB m)	(W)	(dB m)	(W)	(dB m)	(W)
30	30	DFT-S-OFDM BPSK	1	1	22.75	0.188	22.36	0.172	23.17	0.207
			1	39	22.71	0.187	22.16	0.164	23.28	0.213
			1	76	22.79	0.190	22.51	0.178	23.35	0.216
			36	0	21.77	0.150	21.44	0.139	22.20	0.166
			36	21	22.55	0.180	22.28	0.169	23.20	0.209
			36	42	21.67	0.147	21.51	0.142	22.22	0.167
			75	0	21.67	0.147	21.43	0.139	22.07	0.161
		DFT-S-OFDM QPSK	1	1	22.61	0.182	22.43	0.175	23.18	0.208
			1	39	22.55	0.180	22.22	0.167	23.36	0.217
			1	76	22.77	0.189	22.37	0.173	23.25	0.211
			36	0	22.76	0.189	22.42	0.175	23.22	0.210
			36	21	22.79	0.190	22.31	0.170	23.09	0.204
			36	42	21.75	0.150	21.51	0.142	22.11	0.163
			75	0	21.70	0.148	21.21	0.132	22.16	0.164
		DFT-S-OFDM 16QAM	1	1	21.73	0.149	21.38	0.137	22.18	0.165
		DFT-S-OFDM 64QAM	1	1	20.28	0.107	19.76	0.095	20.69	0.117
		DFT-S-OFDM 256QAM	1	1	18.32	0.068	17.86	0.061	18.12	0.065
		CP-OFDM QPSK	1	1	21.34	0.136	20.91	0.123	21.58	0.144
		CP-OFDM 16QAM	1	1	20.82	0.121	20.42	0.110	21.13	0.130
		CP-OFDM 64QAM	1	1	19.22	0.084	18.96	0.079	19.59	0.091
CP-OFDM 256QAM	1	1	16.32	0.043	16.12	0.041	16.59	0.046		

NR Band 41										
BW (MHz)	SCS (kHz)	Modulation	RB Size	RB Offset	Conducted Output Power					
					503202 (2 516.01 MHz)		518598 (2 592.99 MHz)		534000 (2 670.00 MHz)	
					(dB m)	(W)	(dB m)	(W)	(dB m)	(W)
40	30	DFT-S-OFDM BPSK	1	1	22.67	0.185	22.27	0.169	22.18	0.165
			1	53	22.78	0.190	22.30	0.170	22.04	0.160
			1	104	22.59	0.182	22.35	0.172	22.20	0.166
			50	0	21.62	0.145	21.40	0.138	21.27	0.134
			50	28	22.78	0.190	22.46	0.176	22.05	0.160
			50	56	21.82	0.152	21.40	0.138	21.20	0.132
			100	0	21.53	0.142	21.27	0.134	21.30	0.135
		DFT-S-OFDM QPSK	1	1	22.73	0.187	22.26	0.168	22.08	0.161
			1	53	22.49	0.177	22.24	0.167	22.24	0.167
			1	104	22.74	0.188	22.39	0.173	22.11	0.163
			50	0	22.57	0.181	22.30	0.170	22.14	0.164
			50	28	22.73	0.187	22.18	0.165	22.18	0.165
			50	56	21.65	0.146	21.13	0.130	21.08	0.128
			100	0	21.53	0.142	21.29	0.135	21.04	0.127
		DFT-S-OFDM 16QAM	1	1	21.60	0.145	21.20	0.132	21.08	0.128
		DFT-S-OFDM 64QAM	1	1	20.26	0.106	19.87	0.097	19.75	0.094
		DFT-S-OFDM 256QAM	1	1	18.13	0.065	17.98	0.063	17.86	0.061
		CP-OFDM QPSK	1	1	21.13	0.130	20.83	0.121	20.59	0.115
CP-OFDM 16QAM	1	1	20.64	0.116	20.24	0.106	20.16	0.104		
CP-OFDM 64QAM	1	1	19.19	0.083	18.81	0.076	18.76	0.075		
CP-OFDM 256QAM	1	1	17.01	0.050	16.85	0.048	16.53	0.045		

NR Band 41										
BW (MHz)	SCS (kHz)	Modulation	RB Size	RB Offset	Conducted Output Power					
					504204 (2 521.02 MHz)		518598 (2 592.99 MHz)		532998 (2 664.99 MHz)	
					(dB m)	(W)	(dB m)	(W)	(dB m)	(W)
50	30	DFT-S-OFDM BPSK	1	1	22.65	0.184	21.95	0.157	21.96	0.157
			1	67	<u>22.75</u>	<u>0.188</u>	22.04	0.160	22.10	0.162
			1	131	22.49	0.177	22.00	0.158	22.06	0.161
			64	0	21.59	0.144	20.95	0.124	20.83	0.121
			64	35	22.48	0.177	21.87	0.154	22.07	0.161
			64	69	21.77	0.150	20.99	0.126	21.01	0.126
			128	0	21.71	0.148	20.84	0.121	21.11	0.129
		DFT-S-OFDM QPSK	1	1	22.47	0.177	21.84	0.153	22.07	0.161
			1	67	<u>22.73</u>	<u>0.187</u>	22.14	0.164	21.80	0.151
			1	131	22.73	0.187	21.79	0.151	22.00	0.158
			64	0	22.63	0.183	21.96	0.157	21.86	0.153
			64	35	22.58	0.181	21.97	0.157	21.80	0.151
			64	69	21.63	0.146	21.05	0.127	21.05	0.127
			128	0	21.76	0.150	20.90	0.123	20.88	0.122
		DFT-S-OFDM 16QAM	1	1	<u>21.74</u>	<u>0.149</u>	20.88	0.122	20.95	0.124
		DFT-S-OFDM 64QAM	1	1	20.19	0.104	19.50	0.089	19.49	0.089
		DFT-S-OFDM 256QAM	1	1	18.01	0.063	17.43	0.055	17.54	0.057
		CP-OFDM QPSK	1	1	<u>21.18</u>	<u>0.131</u>	20.40	0.110	20.55	0.114
		CP-OFDM 16QAM	1	1	<u>20.68</u>	<u>0.117</u>	19.99	0.100	20.02	0.100
		CP-OFDM 64QAM	1	1	19.20	0.083	18.35	0.068	18.50	0.071
		CP-OFDM 256QAM	1	1	17.11	0.051	16.25	0.042	16.15	0.041

NR Band 41											
BW (MHz)	SCS (kHz)	Modulation	RB Size	RB Offset	Conducted Output Power						
					505200 (2 526.00 MHz)		518598 (2 592.99 MHz)		531996 (2 659.98 MHz)		
					(dB m)	(W)	(dB m)	(W)	(dB m)	(W)	
Z	30	DFT-S-OFDM BPSK	1	1	22.66	0.185	22.57	0.181	22.82	0.191	
			1	81	22.78	0.190	22.65	0.184	22.66	0.185	
			1	160	22.50	0.178	22.40	0.174	22.77	0.189	
			81	0	21.76	0.150	21.58	0.144	21.89	0.155	
			81	41	22.81	0.191	22.72	0.187	22.65	0.184	
			81	81	21.53	0.142	21.58	0.144	21.72	0.149	
			162	0	21.59	0.144	21.50	0.141	21.91	0.155	
		DFT-S-OFDM QPSK	1	1	22.71	0.187	22.66	0.185	22.69	0.186	
			1	81	22.49	0.177	22.56	0.180	23.00	0.200	
			1	160	22.47	0.177	22.51	0.178	22.88	0.194	
			81	0	22.66	0.185	22.55	0.180	22.74	0.188	
			81	41	22.79	0.190	22.40	0.174	22.99	0.199	
			81	81	21.58	0.144	21.65	0.146	21.88	0.154	
		DFT-S-OFDM 16QAM	162	0	21.80	0.151	21.57	0.144	21.81	0.152	
			DFT-S-OFDM 64QAM	1	1	21.70	0.148	21.58	0.144	21.75	0.150
			DFT-S-OFDM 64QAM	1	1	20.19	0.104	20.08	0.102	20.39	0.109
			DFT-S-OFDM 256QAM	1	1	18.11	0.065	18.02	0.063	18.32	0.068
			CP-OFDM QPSK	1	1	21.23	0.133	20.97	0.125	21.35	0.136
			CP-OFDM 16QAM	1	1	20.70	0.117	20.53	0.113	20.91	0.123
			CP-OFDM 64QAM	1	1	19.09	0.081	19.04	0.080	19.36	0.086
CP-OFDM 256QAM	1		1	16.85	0.048	16.78	0.048	16.76	0.047		

NR Band 41										
BW (MHz)	SCS (kHz)	Modulation	RB Size	RB Offset	Conducted Output Power					
					507204 (2 536.02 MHz)		518598 (2 592.99 MHz)		529998 (2 649.99 MHz)	
					(dB m)	(W)	(dB m)	(W)	(dB m)	(W)
80	30	DFT-S-OFDM BPSK	1	1	22.70	0.186	23.35	0.216	22.56	0.180
			1	109	22.50	0.178	23.28	0.213	22.47	0.177
			1	215	22.54	0.179	23.39	0.218	22.61	0.182
			108	0	21.85	0.153	22.36	0.172	21.55	0.143
			108	55	22.80	0.191	23.22	0.210	22.61	0.182
			108	109	21.80	0.151	22.33	0.171	21.68	0.147
			216	0	21.68	0.147	22.28	0.169	21.69	0.148
		DFT-S-OFDM QPSK	1	1	22.89	0.195	23.44	0.221	22.67	0.185
			1	109	22.51	0.178	23.30	0.214	22.45	0.176
			1	215	22.83	0.192	23.18	0.208	22.58	0.181
			108	0	22.79	0.190	23.26	0.212	22.46	0.176
			108	55	22.79	0.190	23.41	0.219	22.46	0.176
			108	109	21.78	0.151	22.23	0.167	21.54	0.143
			216	0	21.76	0.150	22.47	0.177	21.55	0.143
		DFT-S-OFDM 16QAM	1	1	21.80	0.151	22.43	0.175	21.55	0.143
		DFT-S-OFDM 64QAM	1	1	20.20	0.105	20.77	0.119	20.04	0.101
		DFT-S-OFDM 256QAM	1	1	18.05	0.064	18.21	0.066	18.11	0.065
		CP-OFDM QPSK	1	1	21.29	0.135	21.83	0.152	21.09	0.129
		CP-OFDM 16QAM	1	1	20.80	0.120	21.30	0.135	20.47	0.111
		CP-OFDM 64QAM	1	1	19.21	0.083	19.91	0.098	19.05	0.080
		CP-OFDM 256QAM	1	1	16.88	0.049	17.23	0.053	17.01	0.050

NR Band 41										
BW (MHz)	SCS (kHz)	Modulation	RB Size	RB Offset	Conducted Output Power					
					508200 (2 541.00 MHz)		518598 (2 592.99 MHz)		528996 (2 644.98 MHz)	
					(dB m)	(W)	(dB m)	(W)	(dB m)	(W)
90	30	DFT-S-OFDM BPSK	1	1	22.27	0.169	22.64	0.184	23.25	0.211
			1	123	22.35	0.172	22.73	0.187	23.32	0.215
			1	243	22.08	0.161	22.59	0.182	23.45	0.221
			120	0	21.27	0.134	21.66	0.147	22.11	0.163
			120	63	22.24	0.167	22.77	0.189	23.17	0.207
			120	125	21.35	0.136	21.78	0.151	22.21	0.166
			243	0	21.17	0.131	21.60	0.145	22.11	0.163
		DFT-S-OFDM QPSK	1	1	22.14	0.164	22.82	0.191	23.42	0.220
			1	123	22.43	0.175	22.70	0.186	23.21	0.209
			1	243	22.29	0.169	22.50	0.178	23.09	0.204
			120	0	22.17	0.165	22.57	0.181	23.22	0.210
			120	63	22.09	0.162	22.64	0.184	23.23	0.210
			120	125	21.32	0.136	21.55	0.143	22.30	0.170
			243	0	21.33	0.136	21.67	0.147	22.20	0.166
		DFT-S-OFDM 16QAM	1	1	21.29	0.135	21.63	0.146	22.29	0.169
		DFT-S-OFDM 64QAM	1	1	19.67	0.093	20.14	0.103	20.73	0.118
		DFT-S-OFDM 256QAM	1	1	17.36	0.054	18.01	0.063	18.36	0.069
		CP-OFDM QPSK	1	1	20.82	0.121	21.21	0.132	21.70	0.148
		CP-OFDM 16QAM	1	1	20.17	0.104	20.56	0.114	21.24	0.133
		CP-OFDM 64QAM	1	1	18.74	0.075	19.20	0.083	19.68	0.093
CP-OFDM 256QAM	1	1	16.63	0.046	17.21	0.053	17.55	0.057		

NR Band 41										
BW (MHz)	SCS (kHz)	Modulation	RB Size	RB Offset	Conducted Output Power					
					509202 (2 546.01 MHz)		518598 (2 592.99 MHz)		528000 (2 640.00 MHz)	
					(dB m)	(W)	(dB m)	(W)	(dB m)	(W)
100	30	DFT-S-OFDM BPSK	1	1	22.75	0.188	22.15	0.164	<u>23.09</u>	<u>0.204</u>
			1	137	22.67	0.185	22.30	0.170	22.89	0.195
			1	271	22.69	0.186	21.95	0.157	23.06	0.202
			135	0	21.78	0.151	21.04	0.127	22.14	0.164
			135	69	22.77	0.189	22.05	0.160	22.95	0.197
			135	138	21.76	0.150	21.24	0.133	22.01	0.159
			270	0	21.63	0.146	21.07	0.128	22.03	0.160
		DFT-S-OFDM QPSK	1	1	22.68	0.185	22.24	0.167	23.10	0.204
			1	137	22.66	0.185	22.11	0.163	23.03	0.201
			1	271	22.68	0.185	22.04	0.160	<u>23.25</u>	<u>0.211</u>
			135	0	22.78	0.190	22.25	0.168	23.00	0.200
			135	69	22.74	0.188	22.30	0.170	22.91	0.195
			135	138	21.68	0.147	21.21	0.132	22.13	0.163
			270	0	21.65	0.146	21.14	0.130	22.04	0.160
		DFT-S-OFDM 16QAM	1	1	21.79	0.151	21.12	0.129	<u>22.07</u>	<u>0.161</u>
		DFT-S-OFDM 64QAM	1	1	20.25	0.106	19.75	0.094	20.62	0.115
		DFT-S-OFDM 256QAM	1	1	18.10	0.065	17.21	0.053	18.24	0.067
		CP-OFDM QPSK	1	1	21.33	0.136	20.64	0.116	<u>21.56</u>	<u>0.143</u>
		CP-OFDM 16QAM	1	1	20.81	0.121	20.09	0.102	<u>21.10</u>	<u>0.129</u>
		CP-OFDM 64QAM	1	1	19.28	0.085	18.70	0.074	19.52	0.090
		CP-OFDM 256QAM	1	1	17.11	0.051	16.53	0.045	17.43	0.055

4. Occupied Bandwidth

4.1. Limit

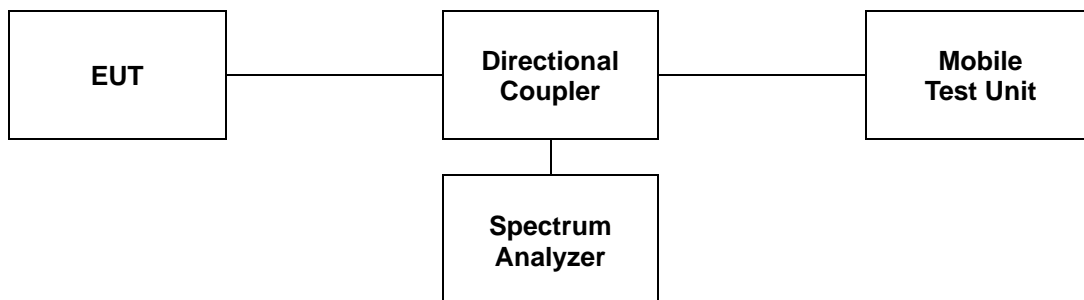
CFR 47, Section FCC §2.1049.

4.2. Test Procedure

The test follows section 5.4.4 of ANSI C63.26-2015.

- a. The spectrum analyzer center frequency is set to the nominal EUT channel center frequency. The frequency span for the spectrum analyzer shall be set wide enough to capture all modulation products including the emission skirts (typically a span of $1.5 \times \text{OBW}$ is sufficient).
- b. The nominal IF filter 3 dB bandwidth (RBW) shall be in the range of 1 % to 5 % of the anticipated OBW, and the VBW shall be set $\geq 3 \times \text{RBW}$.
- c. Set the reference level of the instrument as required to prevent the signal amplitude from exceeding the maximum spectrum analyzer input mixer level for linear operation. See guidance provided in 4.2.3.
- d. Set the detection mode to peak, and the trace mode to max-hold.
- e. If the instrument does not have a 99 % OBW function, recover the trace data points and sum directly in linear power terms. Place the recovered amplitude data points, beginning at the lowest frequency, in a running sum until 0.5 % of the total is reached. Record that frequency as the lower OBW frequency. Repeat the process until 99.5 % of the total is reached and record that frequency as the upper OBW frequency. The 99 % power OBW can be determined by computing the difference between these two frequencies.
- f. The OBW shall be reported and plot(s) of the measuring instrument display shall be provided with the test report. The frequency and amplitude axis and scale shall be clearly labeled. Tabular data can be reported in addition to the plot(s).

For the 99 % emission bandwidth, the trace data points are recovered and directly summed in linear power level terms. The recovered amplitude data points, beginning at the lowest frequency, are placed in a running sum until 0.5 % of the total is reached, and that frequency recorded. The process is repeated for the highest frequency data points (starting at the highest frequency, at the right side of the span, and going down in frequency). This frequency is then recorded. The difference between the two recorded frequencies is the occupied bandwidth (or the 99 % emission bandwidth).



4.3 Test Results

Ambient temperature : (23 ± 1) °C
 Relative humidity : 47 % R.H.

SIM 1

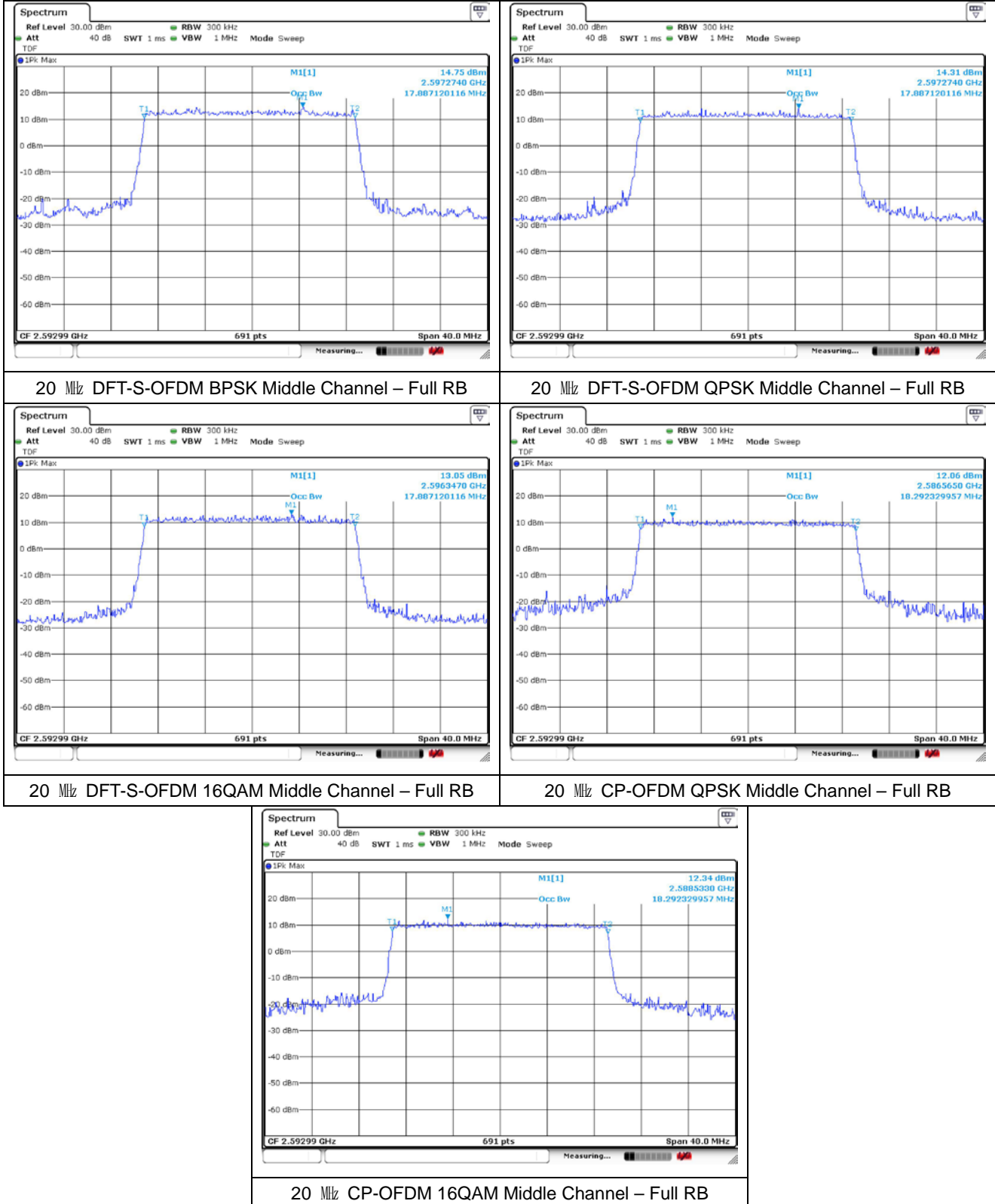
Band	SCS (kHz)	BW (MHz)	Frequency (MHz)	Occupied Bandwidth (MHz)				
				DFT-S-OFDM BPSK	DFT-S-OFDM QPSK	DFT-S-OFDM 16QAM	CP-OFDM QPSK	CP-OFDM 16QAM
41	30	20	2 592.99	17.887	17.887	17.887	18.292	18.292
		30		26.831	26.918	26.831	27.959	27.959
		40		35.658	35.658	35.658	37.742	37.858
		50		45.731	45.731	47.467	47.467	47.467
		60		58.003	58.003	58.003	58.003	58.003
		80		77.106	76.874	76.874	77.337	77.337
		90		86.744	86.483	86.744	87.525	87.525
		100		96.093	96.093	96.382	97.250	97.540

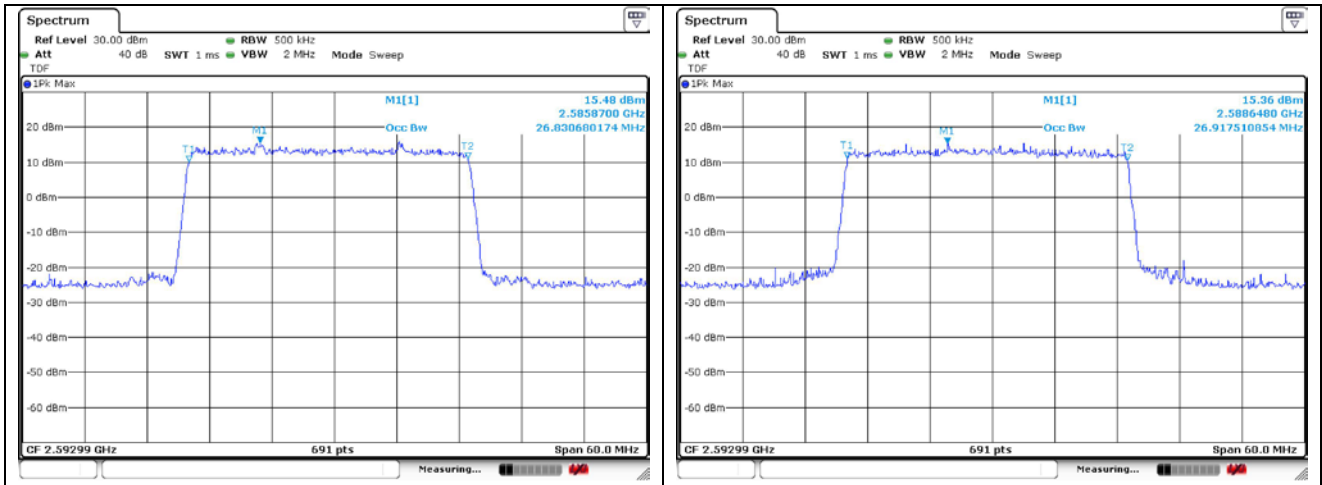
SIM 2

Band	SCS (kHz)	BW (MHz)	Frequency (MHz)	Occupied Bandwidth (MHz)				
				DFT-S-OFDM BPSK	DFT-S-OFDM QPSK	DFT-S-OFDM 16QAM	CP-OFDM QPSK	CP-OFDM 16QAM
41	30	20	2 592.99	17.945	17.945	17.945	18.292	18.292
		30		26.831	27.004	26.831	27.959	27.959
		40		35.774	35.658	35.658	37.742	37.742
		50		45.731	45.731	45.731	47.467	47.467
		60		58.003	58.003	58.003	58.003	58.003
		80		76.874	76.874	76.874	77.337	77.337
		90		86.744	86.483	86.744	87.525	87.525
		100		96.382	96.093	96.382	97.540	97.540

- Test plots

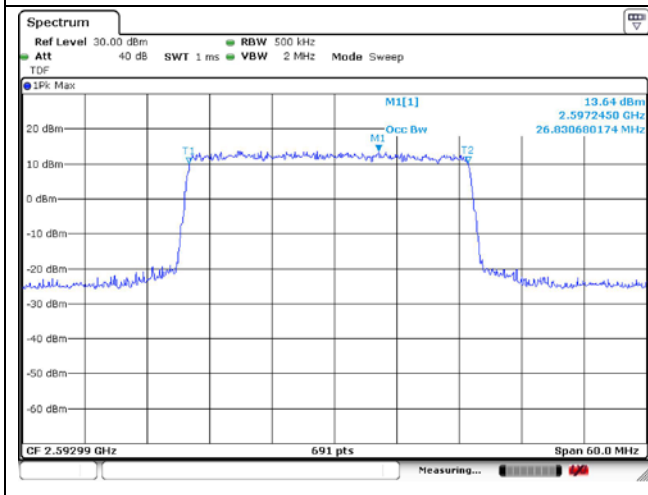
SIM 1



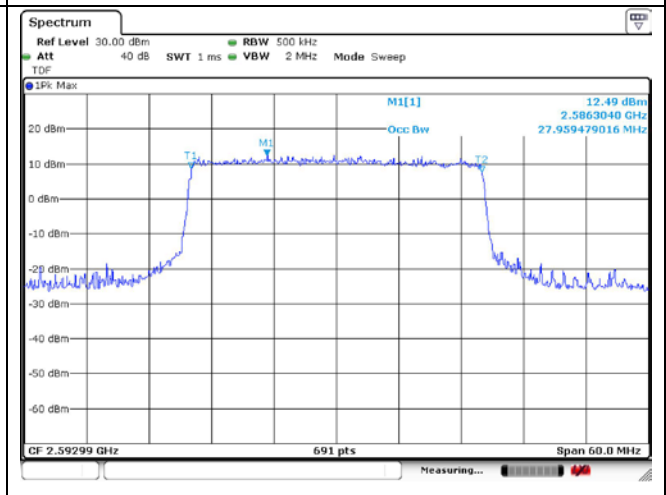


30 MHz DFT-S-OFDM BPSK Middle Channel – Full RB

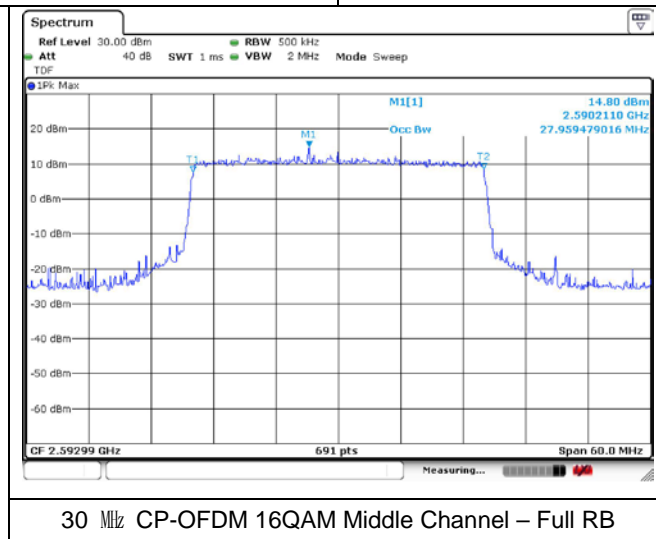
30 MHz DFT-S-OFDM QPSK Middle Channel – Full RB



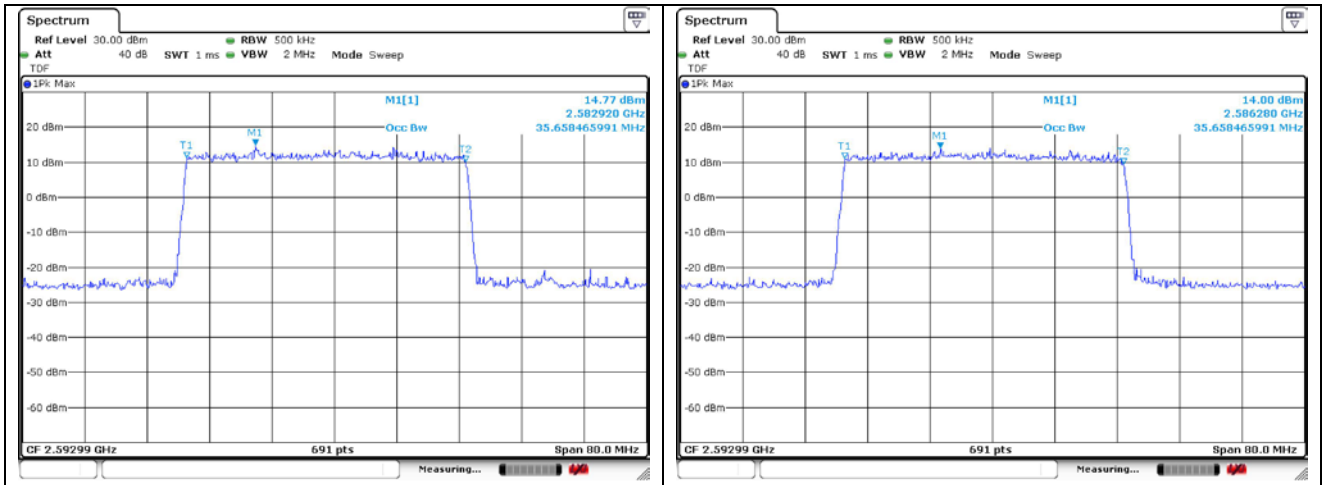
30 MHz DFT-S-OFDM 16QAM Middle Channel – Full RB



30 MHz CP-OFDM QPSK Middle Channel – Full RB

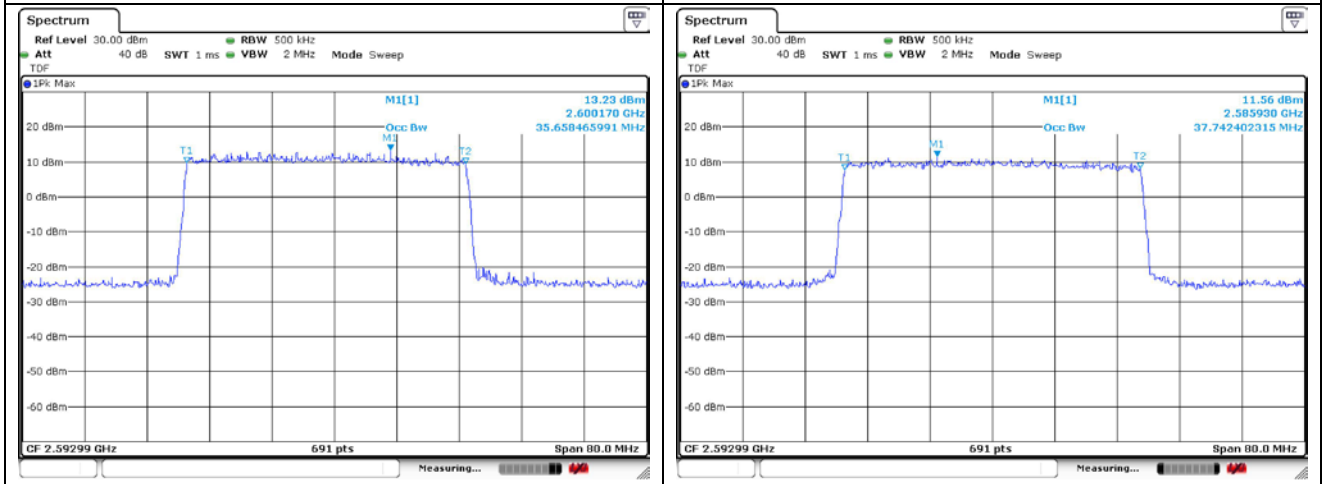


30 MHz CP-OFDM 16QAM Middle Channel – Full RB



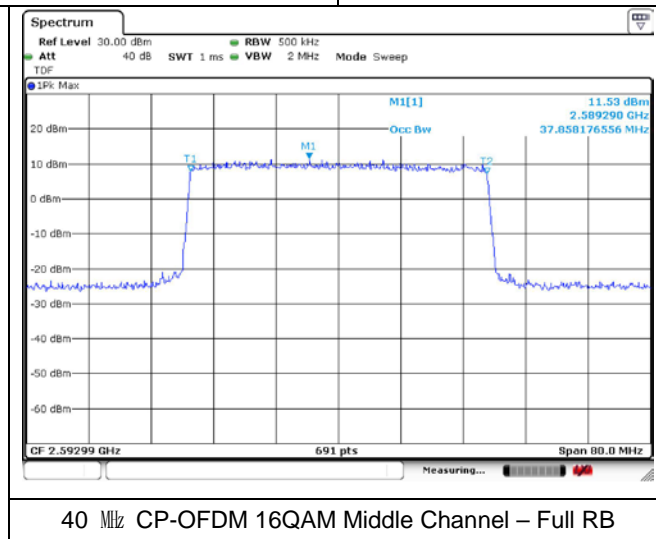
40 MHz DFT-S-OFDM BPSK Middle Channel – Full RB

40 MHz DFT-S-OFDM QPSK Middle Channel – Full RB

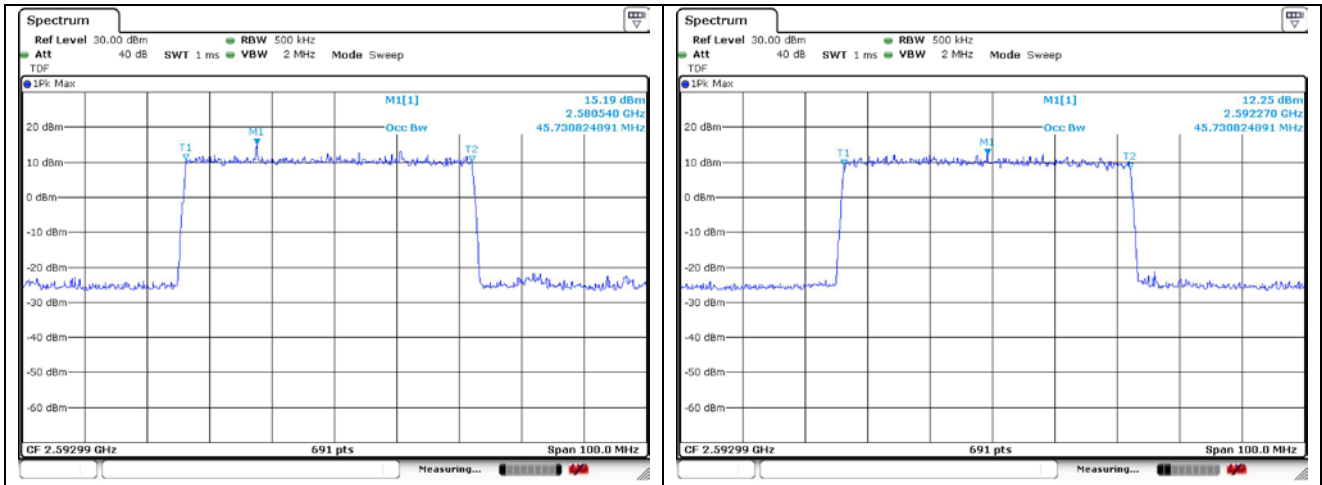


40 MHz DFT-S-OFDM 16QAM Middle Channel – Full RB

40 MHz CP-OFDM QPSK Middle Channel – Full RB

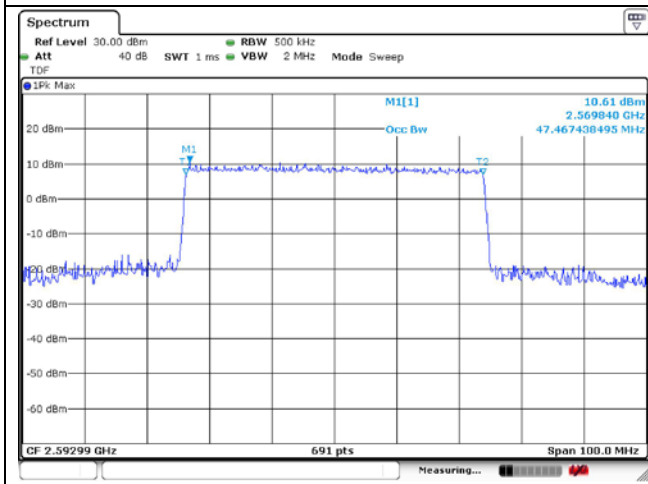


40 MHz CP-OFDM 16QAM Middle Channel – Full RB

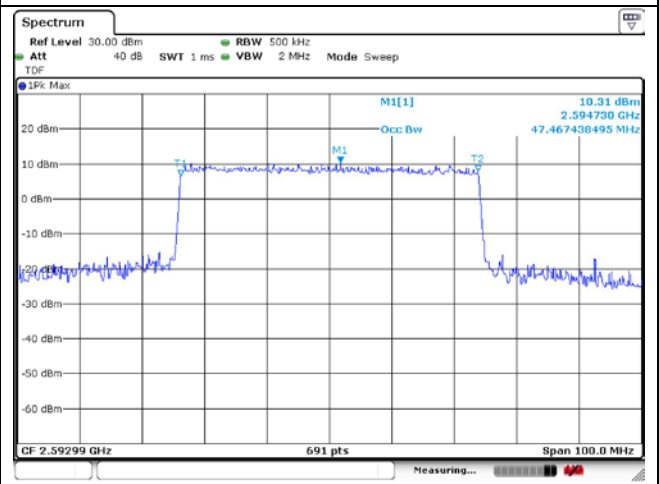


50 MHz DFT-S-OFDM BPSK Middle Channel – Full RB

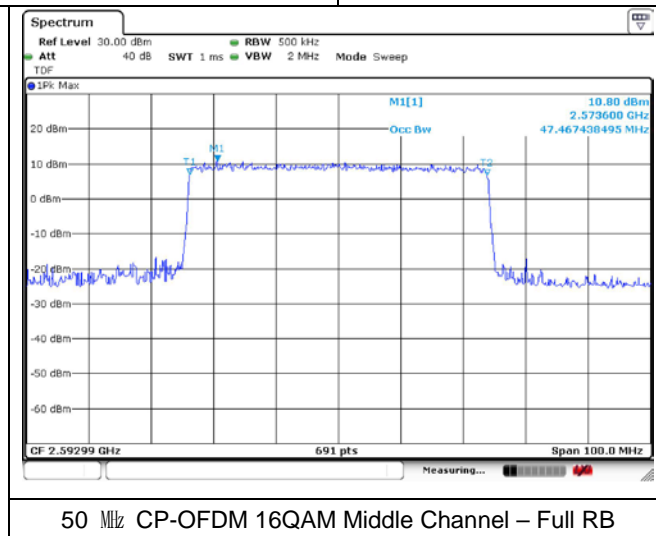
50 MHz DFT-S-OFDM QPSK Middle Channel – Full RB



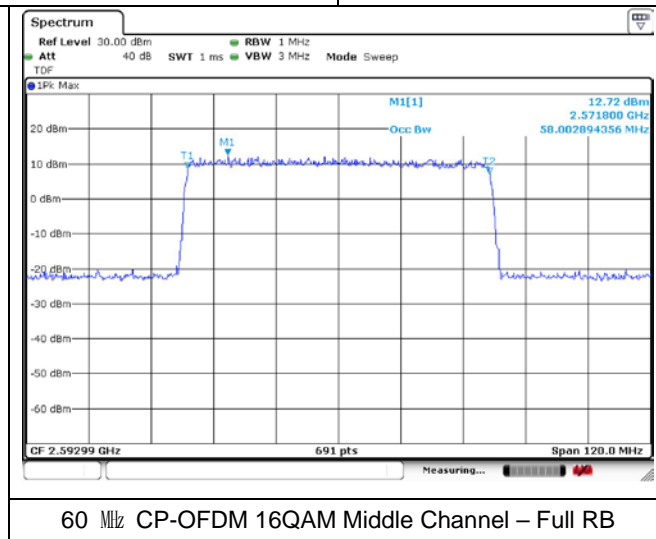
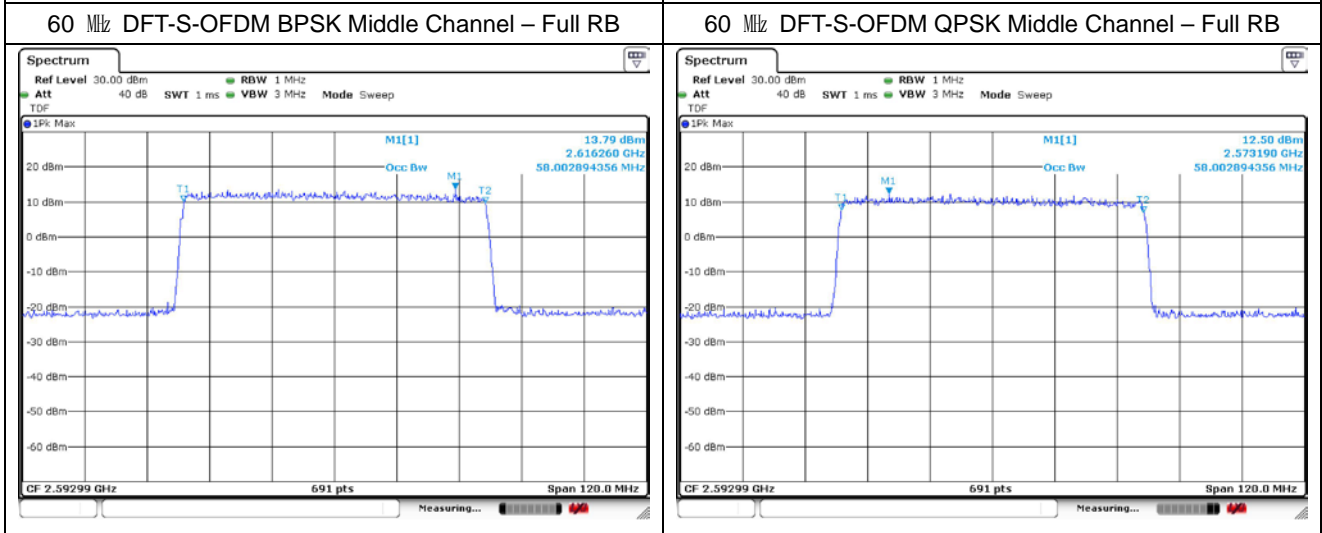
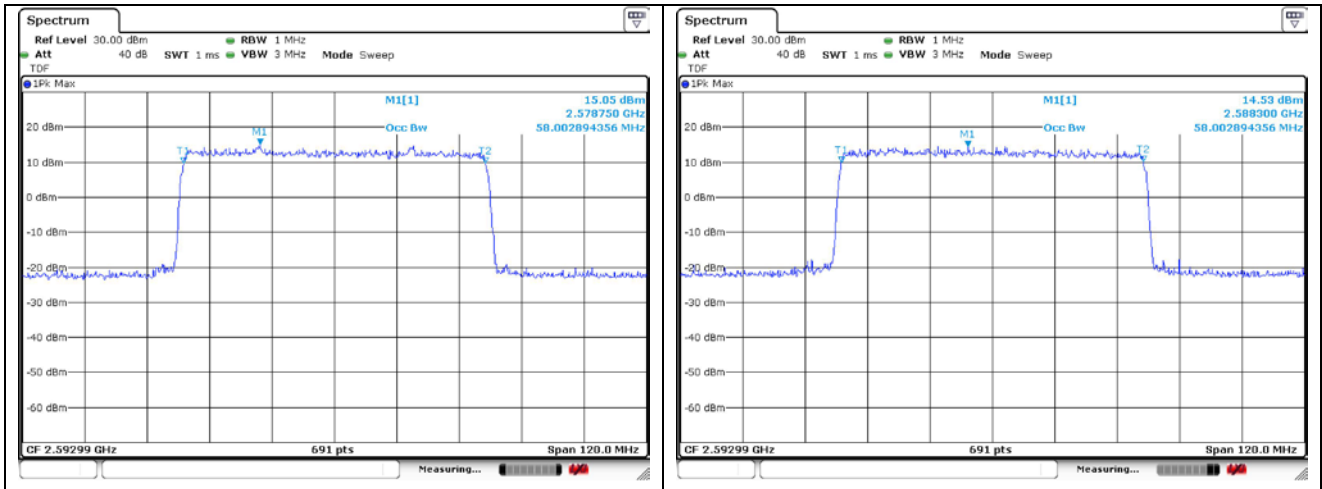
50 MHz DFT-S-OFDM 16QAM Middle Channel – Full RB

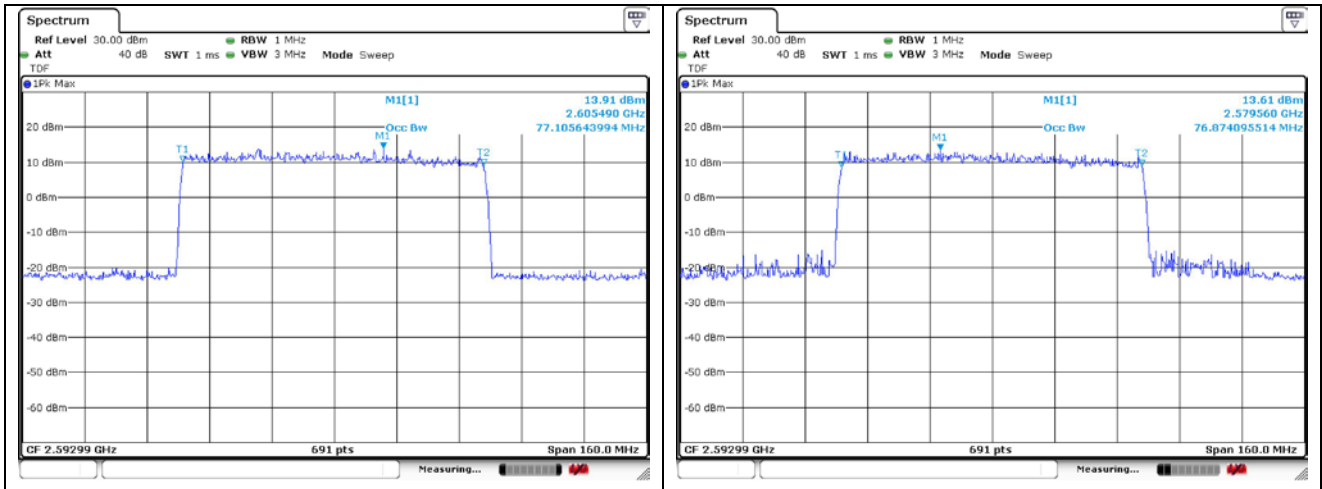


50 MHz CP-OFDM QPSK Middle Channel – Full RB



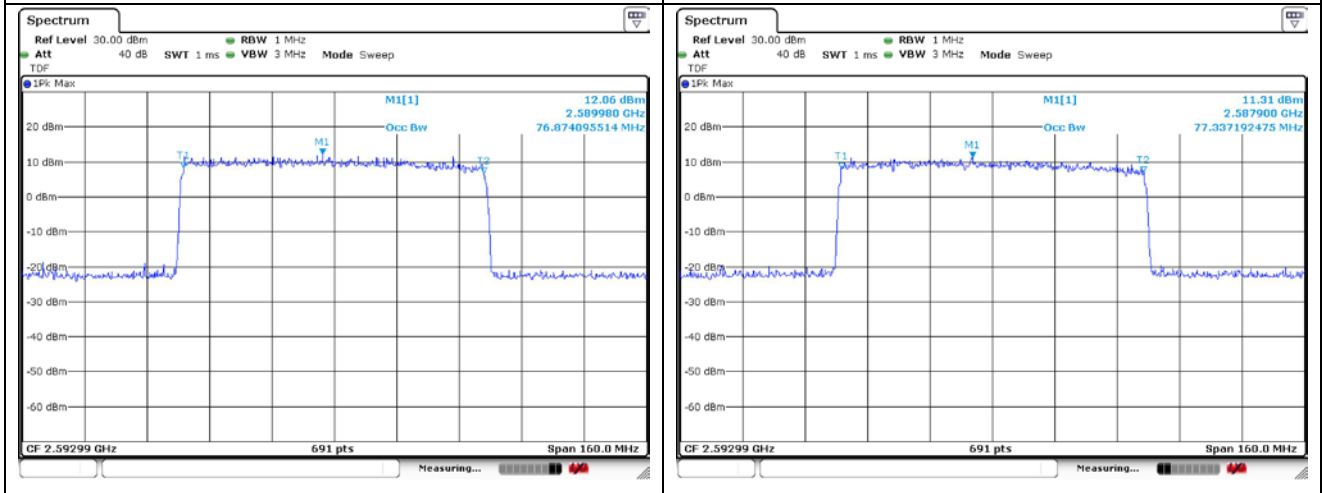
50 MHz CP-OFDM 16QAM Middle Channel – Full RB





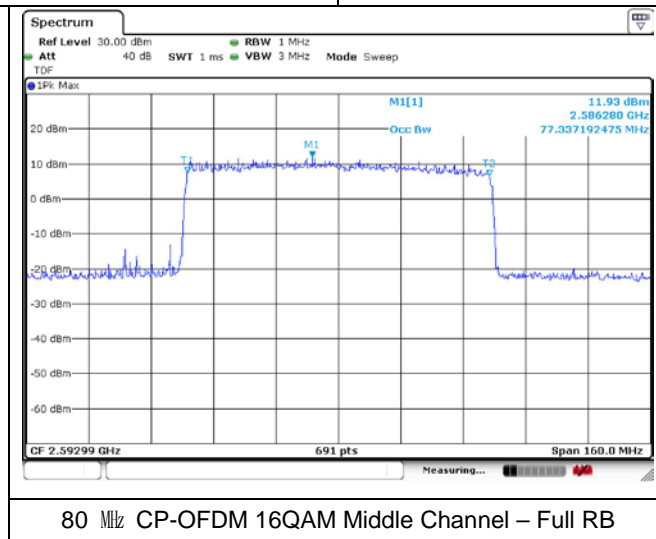
80 MHz DFT-S-OFDM BPSK Middle Channel – Full RB

80 MHz DFT-S-OFDM QPSK Middle Channel – Full RB

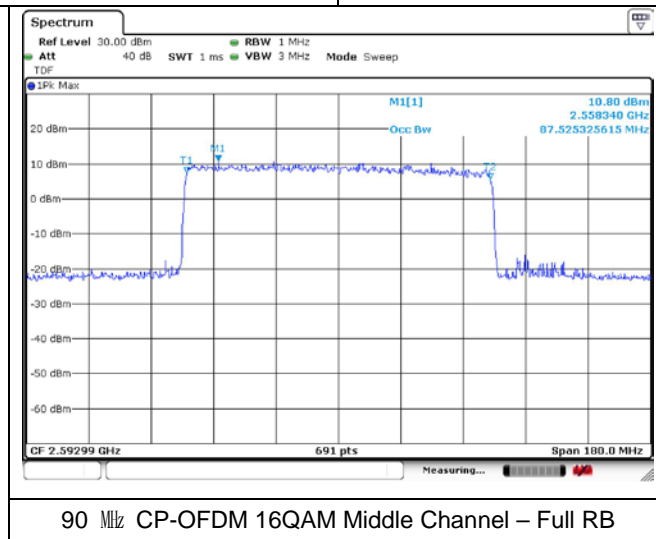
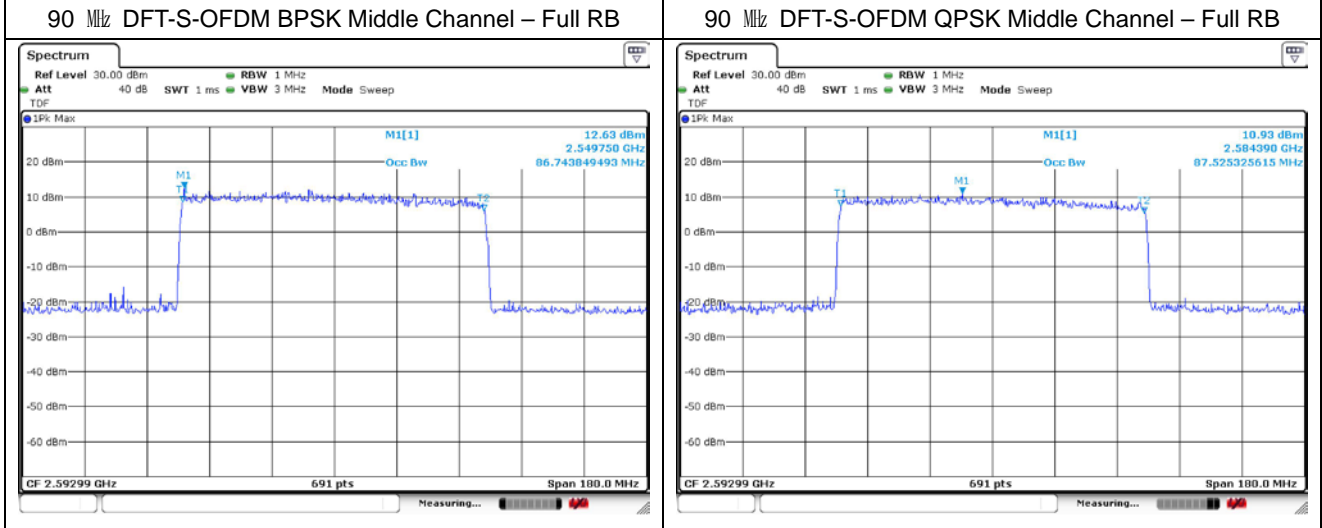
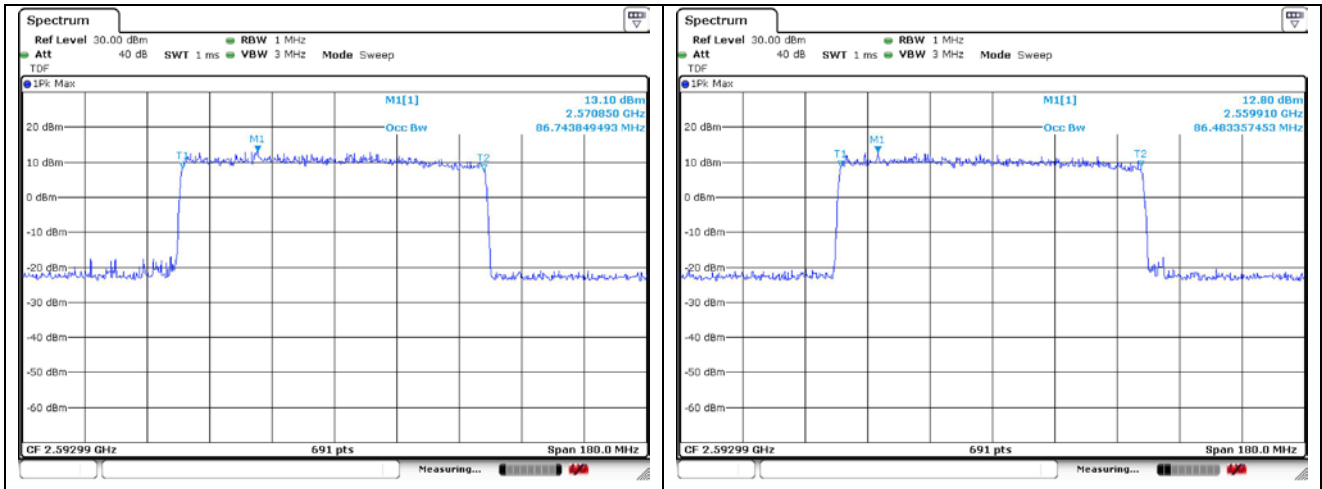


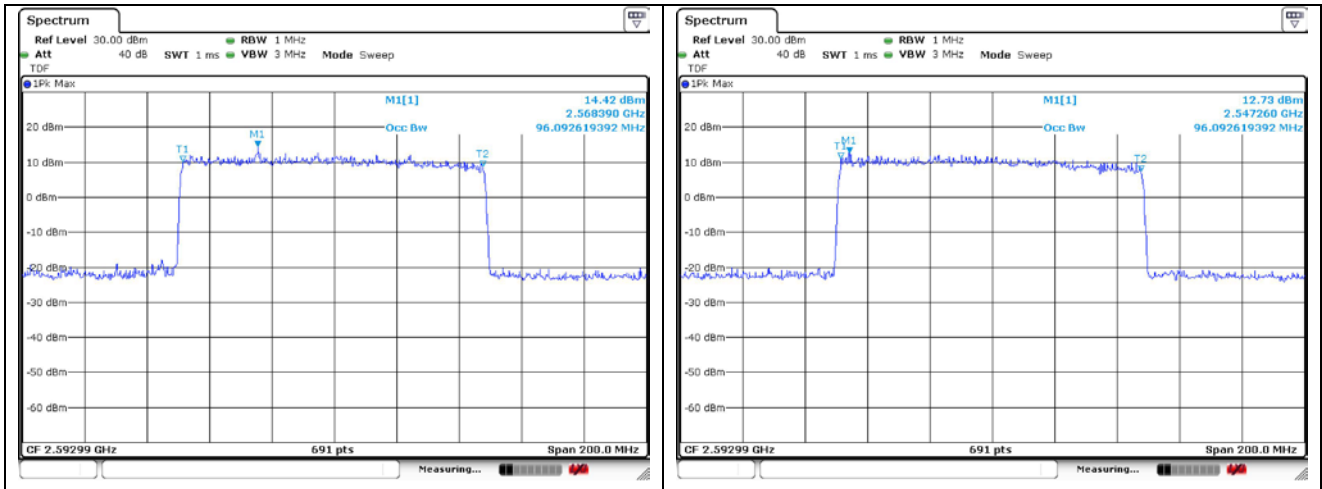
80 MHz DFT-S-OFDM 16QAM Middle Channel – Full RB

80 MHz CP-OFDM QPSK Middle Channel – Full RB



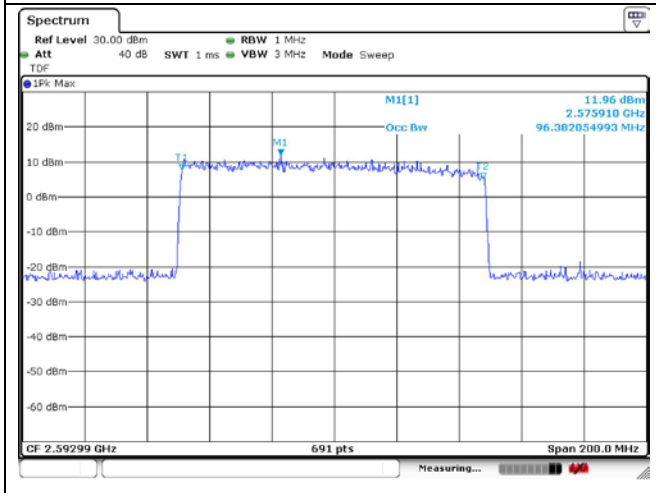
80 MHz CP-OFDM 16QAM Middle Channel – Full RB



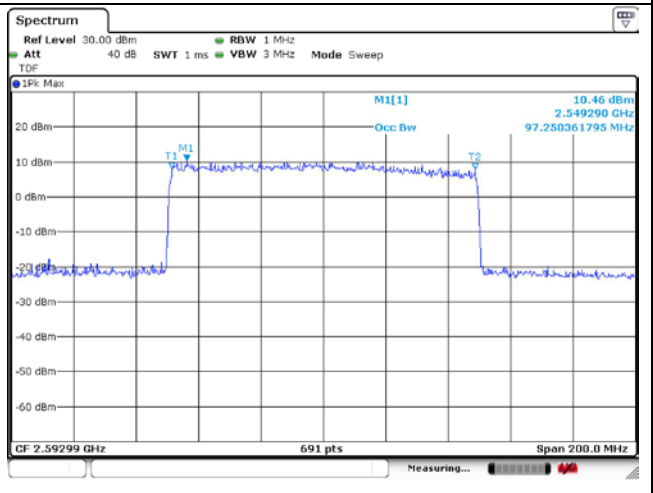


100 MHz DFT-S-OFDM BPSK Middle Channel – Full RB

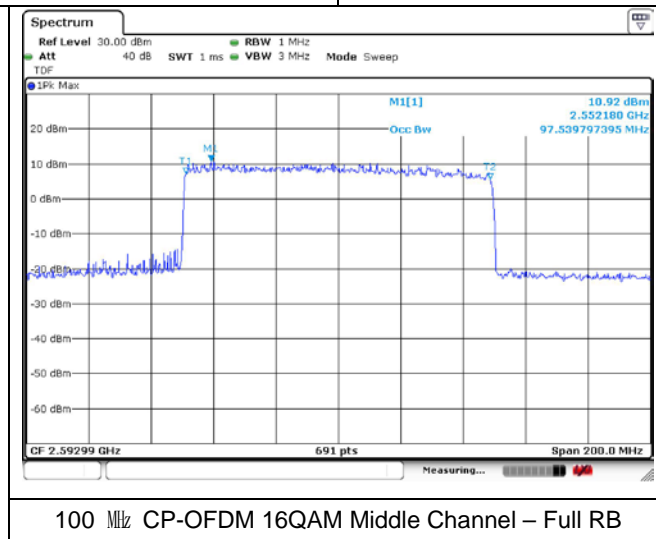
100 MHz DFT-S-OFDM QPSK Middle Channel – Full RB



100 MHz DFT-S-OFDM 16QAM Middle Channel – Full RB

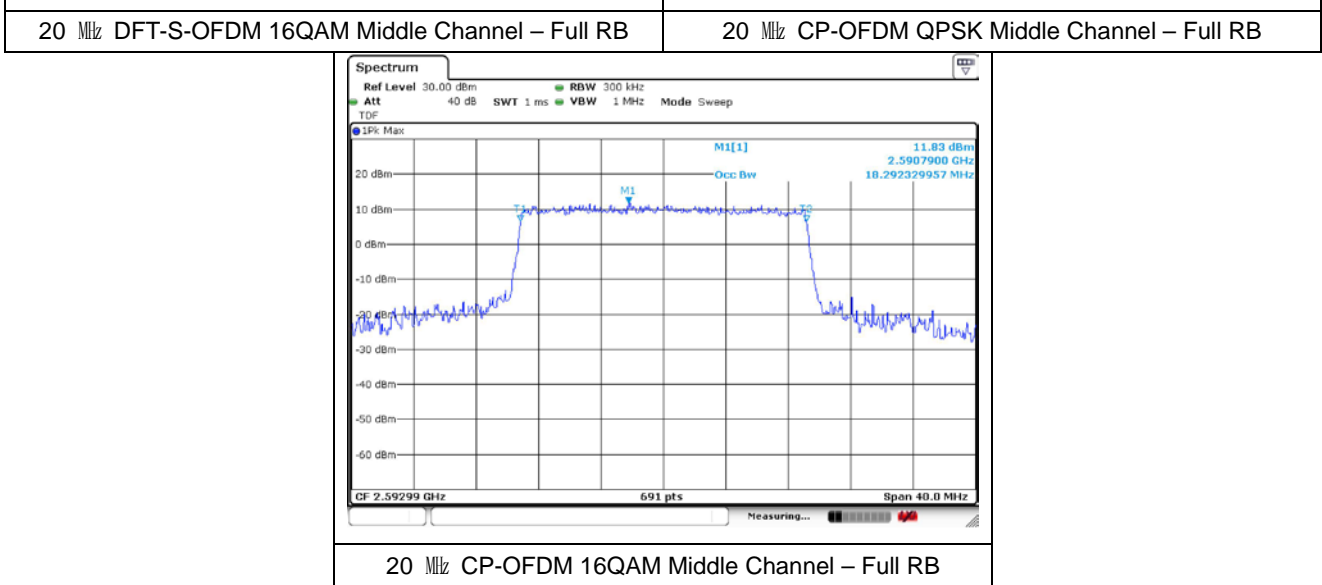
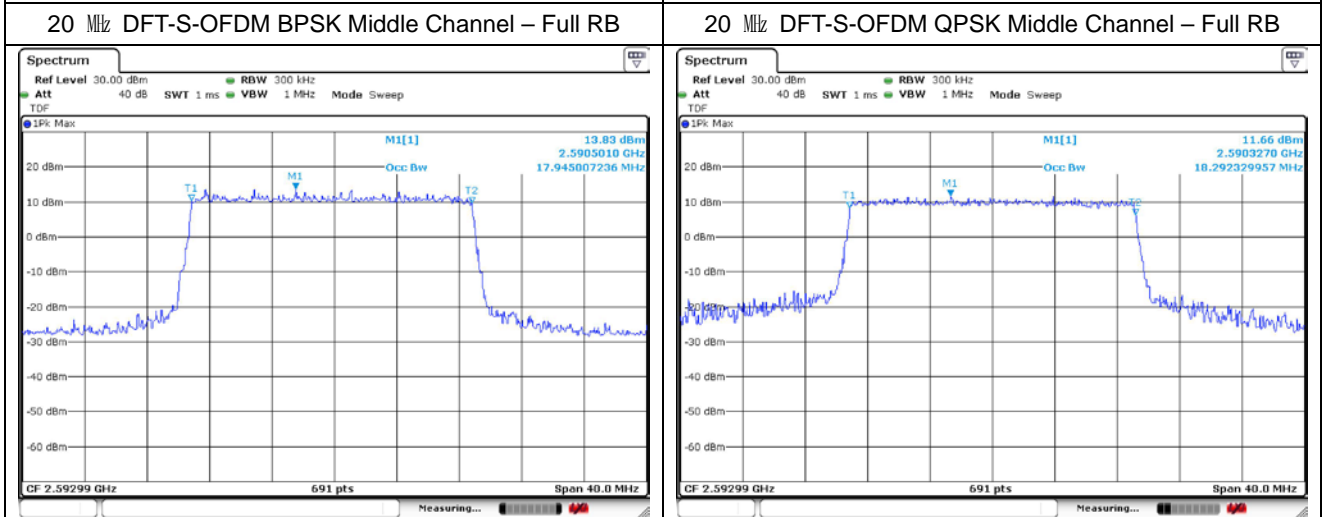
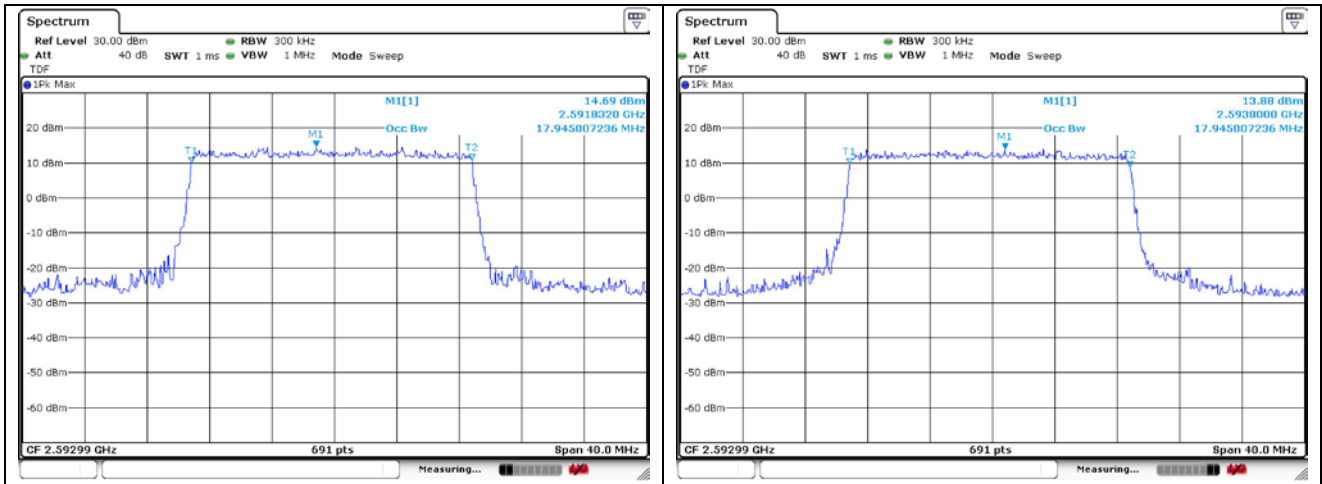


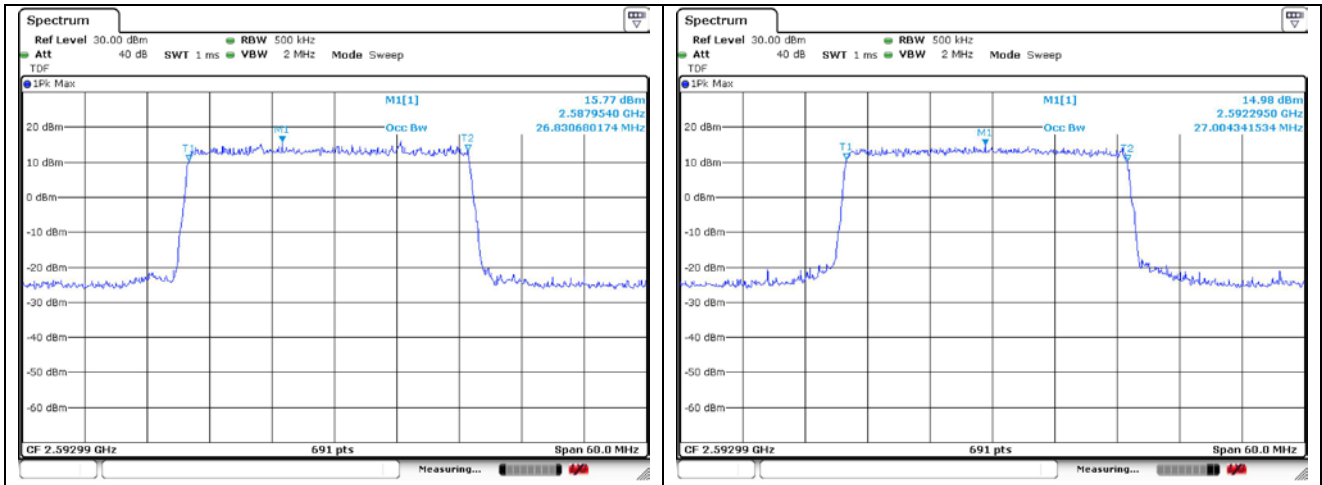
100 MHz CP-OFDM QPSK Middle Channel – Full RB



100 MHz CP-OFDM 16QAM Middle Channel – Full RB

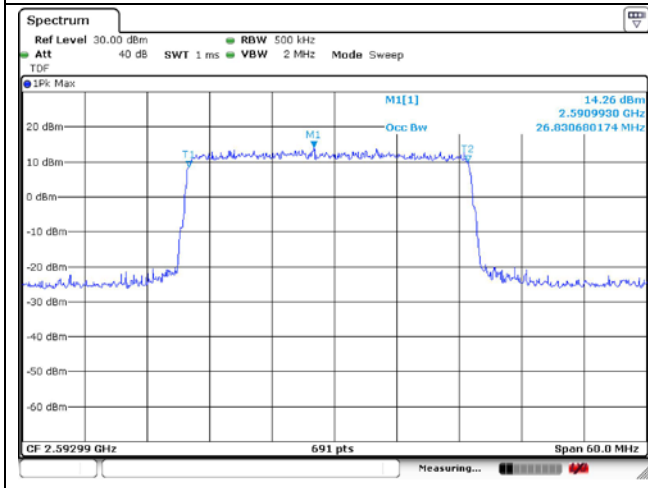
SIM 2



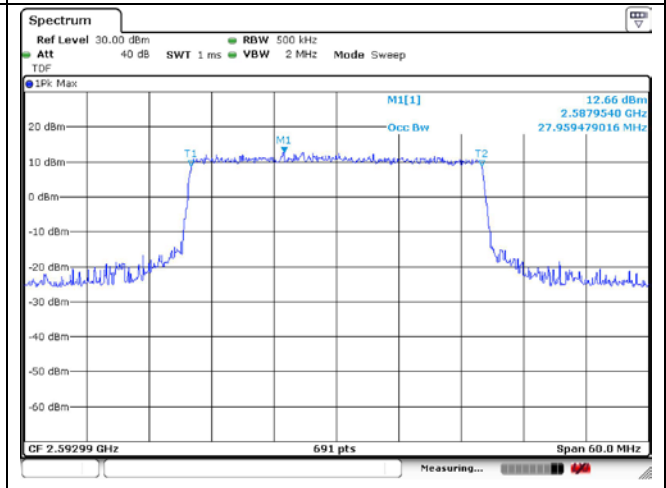


30 MHz DFT-S-OFDM BPSK Middle Channel – Full RB

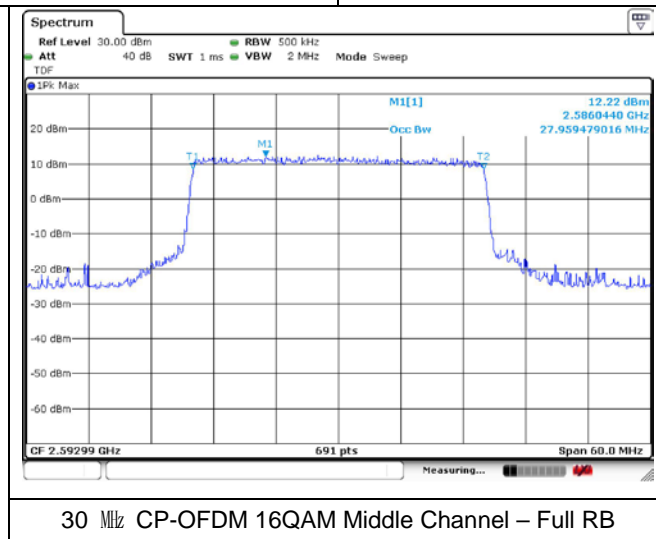
30 MHz DFT-S-OFDM QPSK Middle Channel – Full RB



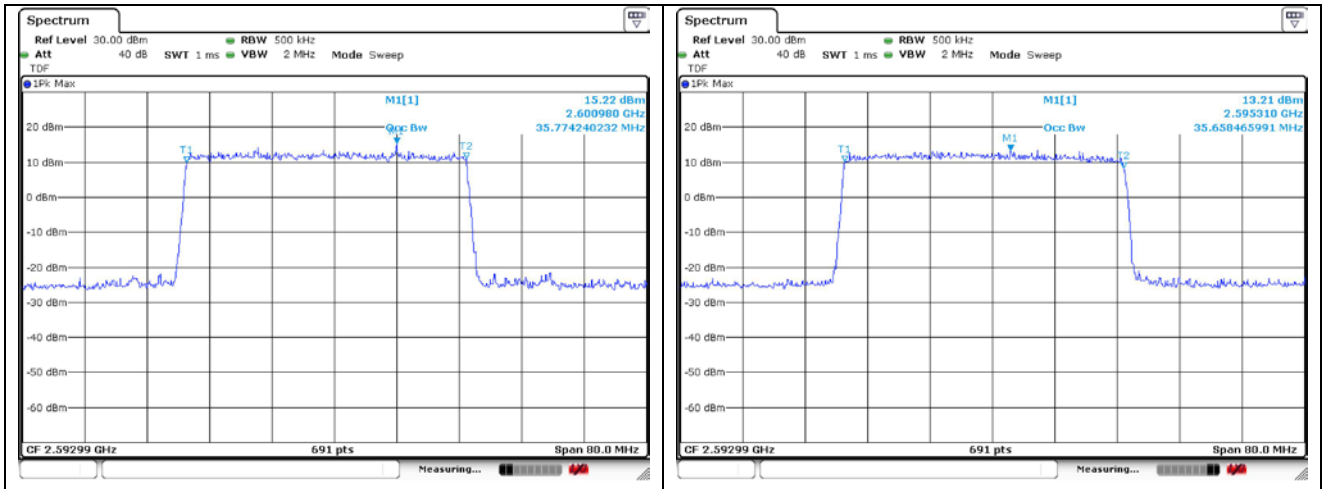
30 MHz DFT-S-OFDM 16QAM Middle Channel – Full RB



30 MHz CP-OFDM QPSK Middle Channel – Full RB

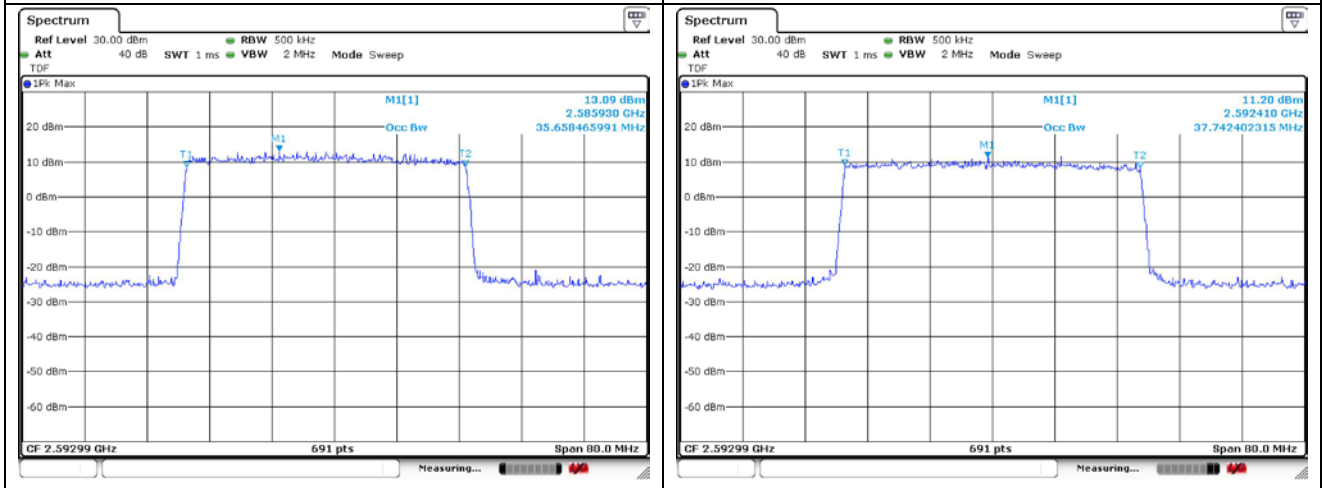


30 MHz CP-OFDM 16QAM Middle Channel – Full RB



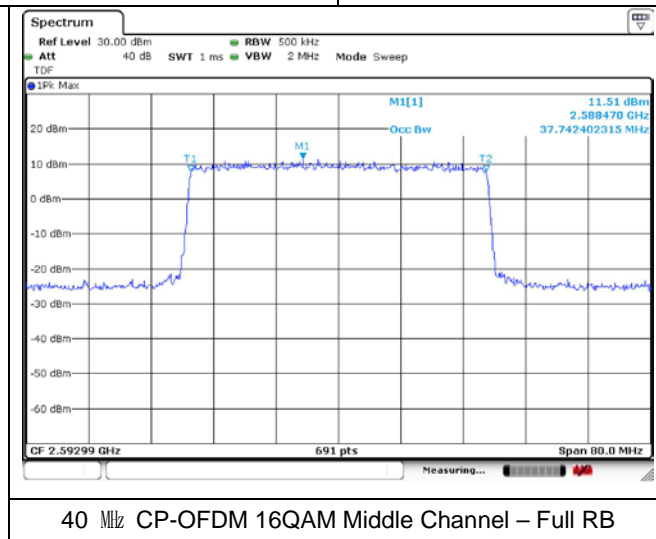
40 MHz DFT-S-OFDM BPSK Middle Channel – Full RB

40 MHz DFT-S-OFDM QPSK Middle Channel – Full RB

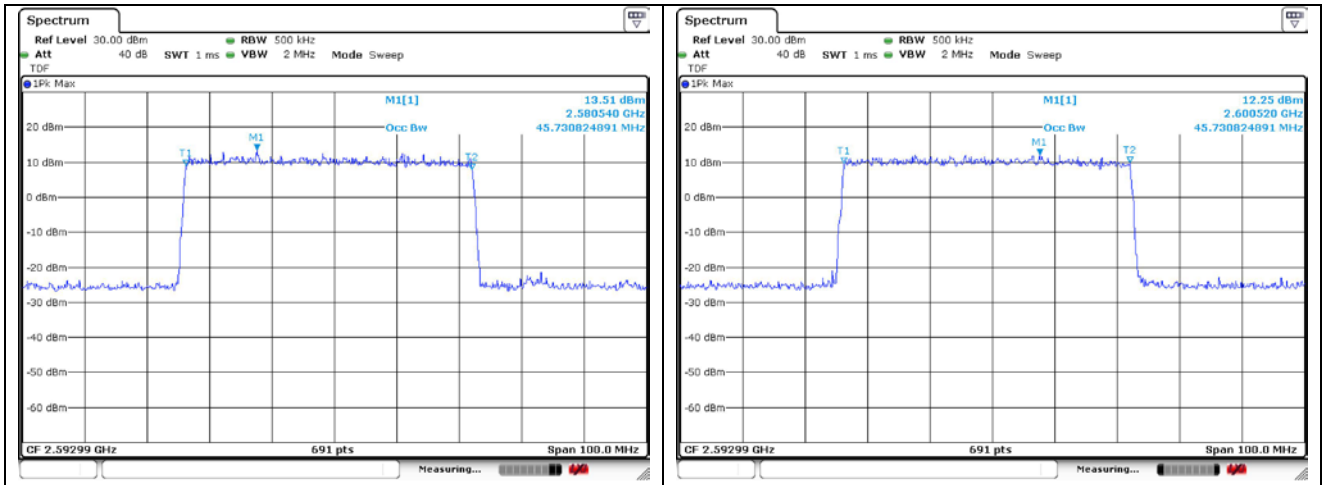


40 MHz DFT-S-OFDM 16QAM Middle Channel – Full RB

40 MHz CP-OFDM QPSK Middle Channel – Full RB

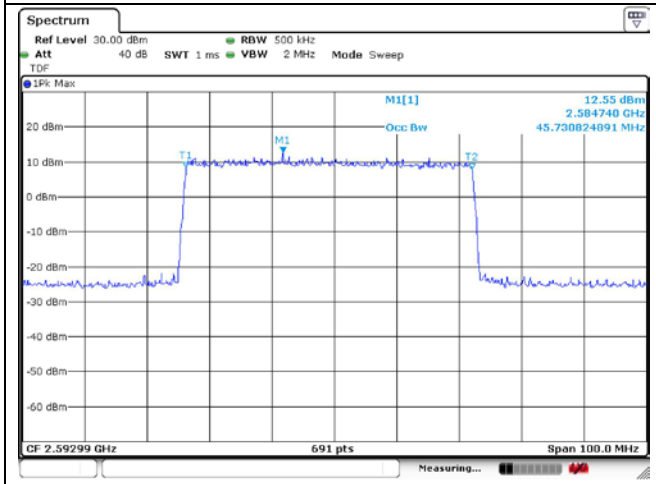


40 MHz CP-OFDM 16QAM Middle Channel – Full RB

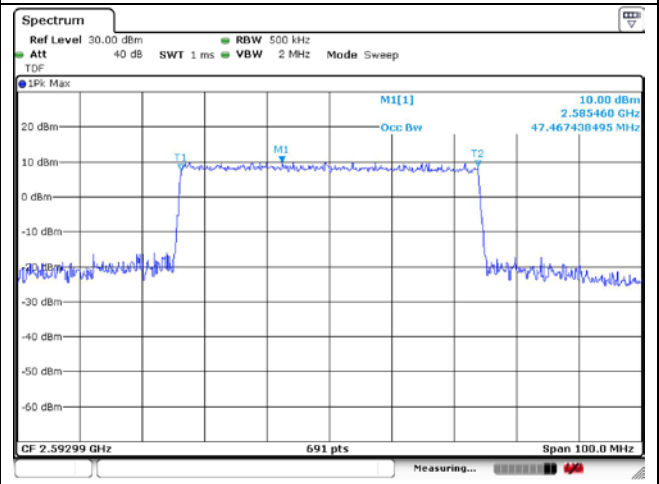


50 MHz DFT-S-OFDM BPSK Middle Channel – Full RB

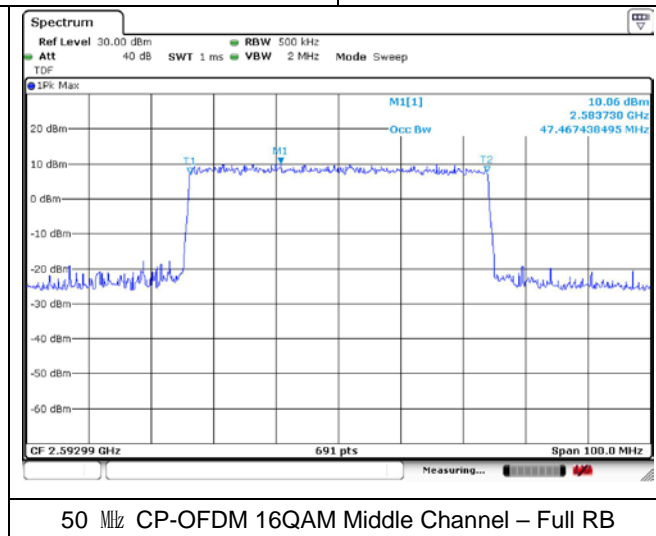
50 MHz DFT-S-OFDM QPSK Middle Channel – Full RB



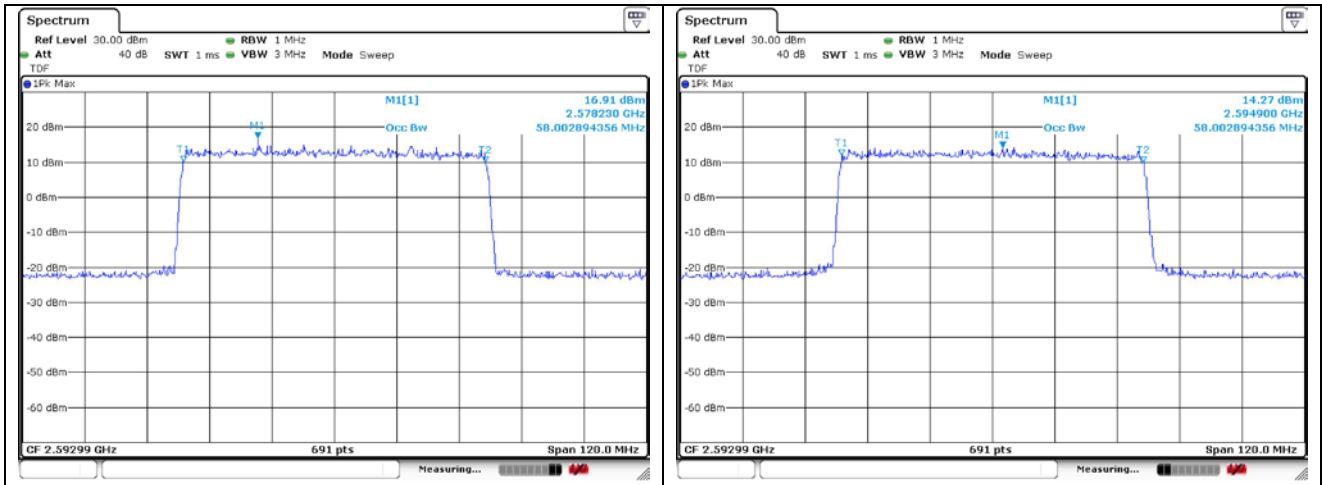
50 MHz DFT-S-OFDM 16QAM Middle Channel – Full RB



50 MHz CP-OFDM QPSK Middle Channel – Full RB

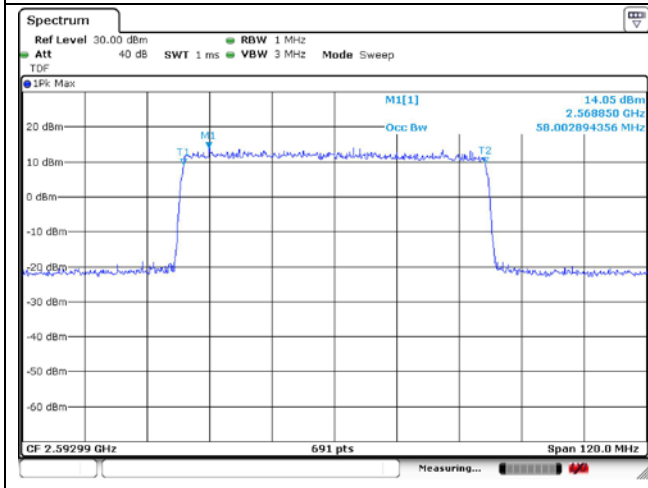


50 MHz CP-OFDM 16QAM Middle Channel – Full RB

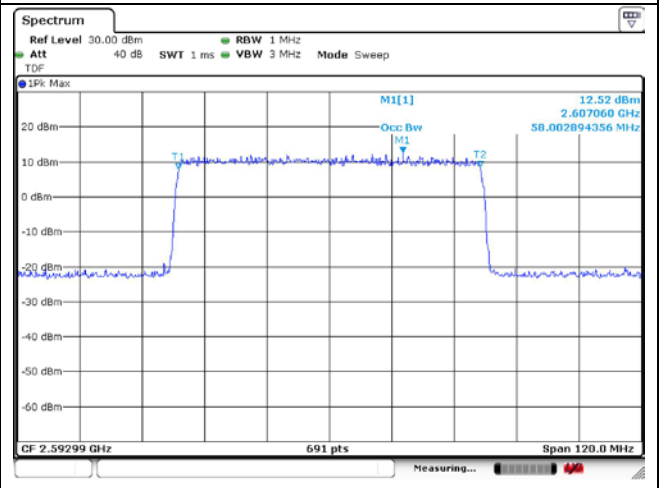


60 MHz DFT-S-OFDM BPSK Middle Channel – Full RB

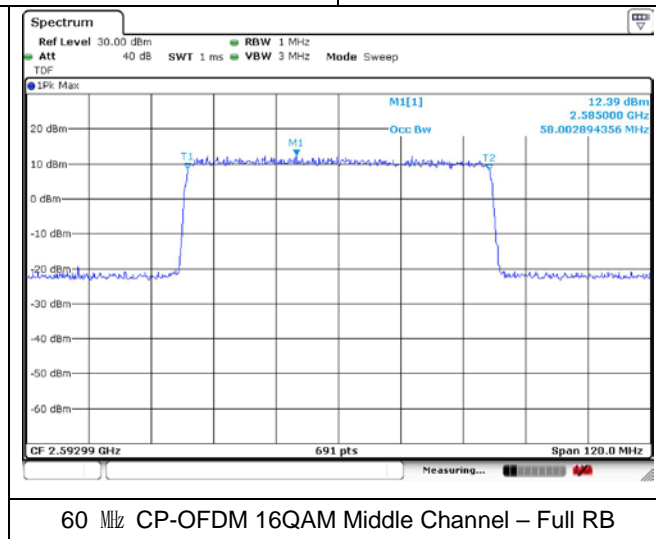
60 MHz DFT-S-OFDM QPSK Middle Channel – Full RB



60 MHz DFT-S-OFDM 16QAM Middle Channel – Full RB



60 MHz CP-OFDM QPSK Middle Channel – Full RB



60 MHz CP-OFDM 16QAM Middle Channel – Full RB