FCC RF Test Report

APPLICANT	: OnePlus Technology (Shenzhen) Co., Ltd
EQUIPMENT	: Smart Phone
BRAND NAME	: ONEPLUS
MODEL NAME	: IN2017
FCC ID	: 2ABZ2-EE103
STANDARD	: 47 CFR Part 2, 27M, 27N
CLASSIFICATION	: PCS Licensed Transmitter Held to Ear (PCE)

The product was received on Jan. 13, 2020 and completely tested on Jun. 15, 2020. We, Sporton International (ShenZhen) Inc., would like to declare that the tested sample has been evaluated in accordance with the procedures given in ANSI C63.26-2015 and shown compliance with the applicable technical standards.

The test results in this report apply exclusively to the tested model / sample. Without written approval of Sporton International (ShenZhen) Inc., the test report shall not be reproduced except in full.

Reviewed by: Derreck Chen / Supervisor

Approved by: Eric Shih / Manager

ACCREDITED Cert #5145.01

Sporton International (ShenZhen) Inc.

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People's Republic of China

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APPENDIX A. TEST RESULTS OF CONDUCTED TEST

APPENDIX B. TEST RESULTS OF RADIATED TEST

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REVISION HISTORY

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
FG9N2025-08	Rev. 01	Initial issue of report	Jun. 23, 2020

SUMMARY OF TEST RESULT

Report Section	FCC Rule	Description	Limit	Result	Remark
3.4	§2.1046	Conducted Output Power	Reporting Only	PASS	-
	§27.50(c)(10)	Effective Radiated Power (5G NR n71)	ERP < 3 Watt		
	§27.50(h)(2)	Equivalent Isotropic Radiated Power (5G NR n41)	EIRP < 2Watt		
3.5	§24.232(d)	Peak-to-Average Ratio	<13 dB	PASS	-
3.6	§2.1049	Occupied Bandwidth	Reporting Only	PASS	-
3.7	§27.53(g)	Conducted Band Edge Measurement (5G NR n71)	< 43+10log10(P[Watts])	PASS	-
	§27.53(m)(4)	Conducted Band Edge Measurement (5G NR n41)	§27.53(m)(4)		
3.8	§27.53(g)	Conducted Spurious Emission (5G NR n71)	< 43+10log10(P[Watts])	PASS	-
	§2.1051 §27.53(m)(4)	Conducted Spurious Emission (5G NR n41)	< 55+10log$_{10}$(P[Watts])		
3.9	§2.1055 §22.355	Frequency Stability Temperature & Voltage	< 2.5 ppm for Part 22	PASS	-
	§2.1055 §24.235 §27.54		Within Authorized Band		
4.4	§27.53(g)	Radiated Spurious Emission (5G NR n71)	< 43+10log$_{10}$(P[Watts])	PASS	Under limit 24.36 dB at 10683.960 MHz
	§2.1053 §27.53(m)(4)	Radiated Spurious Emission (5G NR n41)	< 55+10log$_{10}$(P[Watts])		

Declaration of Conformity:

The test results with all measurement uncertainty excluded are presented in accordance with the regulation limits or requirements declared by manufacturers.

Comments and Explanations:

The declared of product specification for EUT presented in the report are provided by the manufacturer, and the manufacturer takes all the responsibilities for the accuracy of product specification.

1 General Description

1.1 Applicant

OnePlus Technology (Shenzhen) Co., Ltd
18C02, 18C03, 18C04 and 18C05, Shum Yip Terra Building, Binhe Avenue North, Futian District, Shenzhen

1.2 Manufacturer

OnePlus Technology (Shenzhen) Co., Ltd
18C02, 18C03, 18C04 and 18C05, Shum Yip Terra Building, Binhe Avenue North, Futian District, Shenzhen

1.3 Product Feature of Equipment Under Test

Product Feature	
Equipment	Smart Phone
Brand Name	ONEPLUS
Model Name	IN2017
FCC ID	2ABZ2-EE103
EUT supports Radios application	CDMA/GSM/WCDMA/LTE/5G NR WLAN 2.4GHz 802.11b/g/n (HT20) WLAN 2.4GHz 802.11ax (HE20/HE40) WLAN 5GHz 802.11a/n/ac (HT20/HT40/VHT20/VHT40/VHT80) WLAN 5GHz 802.11ax (HE20/HE40/HE80) Bluetooth BR / EDR / LE GNSS/NFC
IMEI Code	Conducted : NA Radiation : NA
HW Version	15
SW Version	10.5.IN55CB
EUT Stage	Production Unit

Remark:

1. 5G NR n41/n71 supports SA mode.
2. This is a variant report for IN2017. The new SA mode 5G NR n41/n71 is opened by the software. Based on the similarity between current and previous project. 5G NR n41/n71 for full test, the others refer to original test report (Sporton Report Number FG9N2025-01C).

1.4 Product Specification of Equipment Under Test

Standards-related Product Specification	
Tx Frequency	5G NR n41: 2506 MHz ~ 2680 MHz 5G NR n71: 665.5 MHz ~ 695.5MHz
Rx Frequency	5G NR n41: 2506 MHz ~ 2680 MHz 5G NR n71: 619.5 MHz ~ 649.5MHz
Bandwidth	n71: 5MHz / 10MHz / 15MHz / 20MHz n41: 20MHz / 40MHz / 50MHz / 60MHz / 80MHz / 90MHz / 100MHz
SCS	n41: 30kHz n71: 15kHz
Maximum Output Power to Antenna	SA_n41 : 24.48 dBm Top Antenna: SA_n71 : 23.39 dBm Bottom Antenna: SA_n71 : 23.42 dBm
Antenna Gain	n41 / n71 : -2.00 dBi
Type of Modulation	CP-OFDM: QPSK / 16QAM / 64QAM / 256QAM DFT-s-OFDM: QPSK / 16QAM / 64QAM / 256QAM

1.5 Modification of EUT

No modifications are made to the EUT during all test items.

1.6 Maximum ERP/EIRP Power, Frequency Tolerance, and Emission Designator

5G NR n41 (SA-n41)		QPSK	
BW (MHz)	Frequency Range (MHz)	Emission Designator (99%OBW)	Maximum EIRP(W)
20	2506.02 ~ 2679.99	17M8G7D	0.1770
60	2526.00 ~ 2659.98	58M1G7D	0.1762
100	2546.01 ~ 2640.00	96M3G7D	0.1758
Frequency Tolerance (ppm)		0.0023	

5G NR n71 (SA-n71)		QPSK	
BW (MHz)	Frequency Range (MHz)	Emission Designator (99%OBW)	Maximum EIRP(W)
5	665.5 ~ 695.5	4M48G7D	0.0845
10	668.0 ~ 693.0	9M05G7D	0.0839
20	673.0 ~ 688.0	17M9G7D	0.0836
Frequency Tolerance (ppm)		0.0023	

1.7 Testing Location

<FCC>-SZ

Sporton International (Shenzhen) Inc. is accredited to ISO/IEC 17025:2017 by American Association for Laboratory Accreditation with Certificate Number 5145.01.

Test Firm	Sporton International (Shenzhen) Inc.		
Test Site Location	1/F, 2/F, Bldg 5, Shiling Industrial Zone, Xinwei Village, Xili, Nanshan, Shenzhen, 518055 People's Republic of China TEL: +86-755-86379589 FAX: +86-755-86379595		
Test Site No.	**Sporton Site No.**	**FCC Designation No.**	**FCC Test Firm Registration No.**
	TH01-SZ	CN1256	421272

Test Firm	Sporton International (Shenzhen) Inc.		
Test Site Location	No. 3 Bldg the third floor of south, Shahe River west, Fengzeyuan Warehouse, Nanshan Shenzhen, 518055 People's Republic of China TEL: +86-755-33202398		
Test Site No.	**Sporton Site No.**	**FCC Designation No.**	**FCC Test Firm Registration No.**
	03CH02-SZ	CN1256	421272

1.8 Test Software

Item	Site	Manufacture	Name	Version
1.	03CH02-SZ	AUDIX	E3	6.2009-8-24a

1.9 Applicable Standards

According to the specifications of the manufacturer, the EUT must comply with the requirements of the following standards:

- 47 CFR Part 2, 27M, 27N
- ANSI C63.26-2015
- FCC KDB 971168 D01 Power Meas License Digital Systems v03r01
- FCC KDB 412172 D01 Determining ERP and EIRP v01r01

Remark:

All test items were verified and recorded according to the standards and without any deviation during the test.

2 Test Configuration of Equipment Under Test

2.1 Test Mode

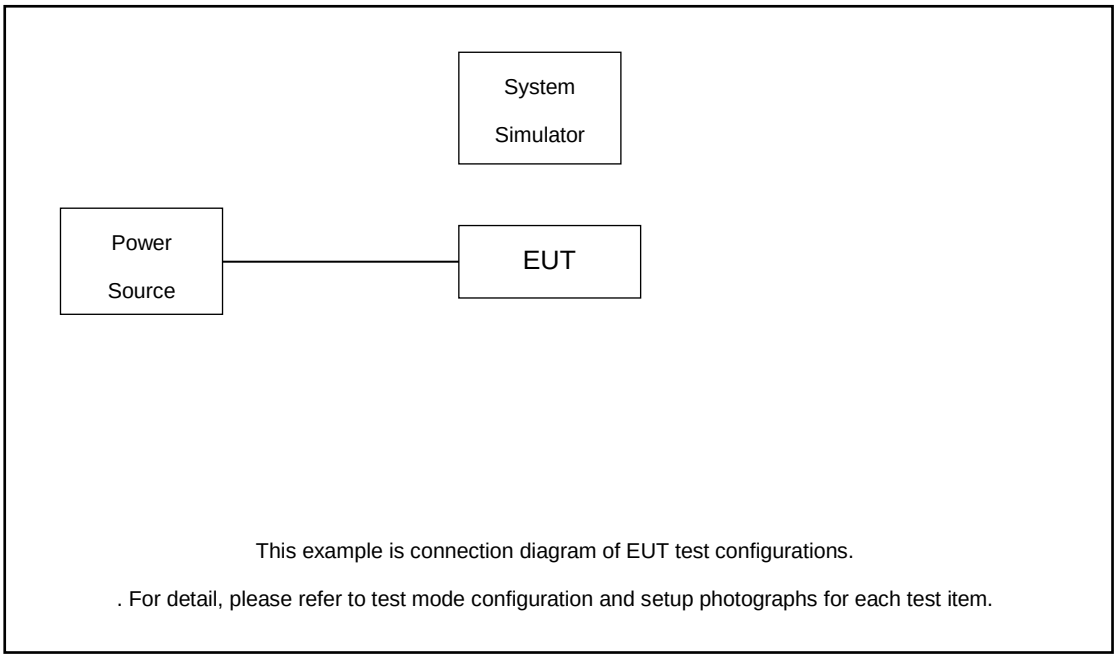
Antenna port conducted and radiated test items are performed according to KDB 971168 D01 Power Meas License Digital Systems v03r01 with maximum output power.

For radiated measurement, pre-scanned in three orthogonal panels, X, Y, Z. The worst cases (Y plane) were recorded in this report.

The device is investigated from 30MHz to 10 times of fundamental signal for radiated spurious emission test under different RB size/offset and modulations in exploratory test. Subsequently, only the worst case emissions are reported.

	X Plane	Y Plane	Z Plane
Orthogonal Planes of EUT			

2.2 Connection Diagram of Test System



This example is connection diagram of EUT test configurations.

. For detail, please refer to test mode configuration and setup photographs for each test item.

2.3 Support Unit used in test configuration and system

Item	Equipment	Trade Name	Model No.	FCC ID	Data Cable	Power Cord
1.	DC Power Supply	GW	GPS-3030D	N/A	N/A	Unshielded, 1.8 m
2.	LTE Base Station	Anritsu	MT8821C	N/A	N/A	Unshielded, 1.8 m
3.	NR Base Station	Anritsu	MT8000A	N/A	N/A	Unshielded, 1.8 m
4.	Fixture	INTEL	NGFF Card Carrier	N/A	N/A	N/A

2.4 Measurement Results Explanation Example

For all conducted test items:

The offset level is set in the spectrum analyzer to compensate the RF cable loss and attenuator factor between EUT conducted output port and spectrum analyzer. With the offset compensation, the spectrum analyzer reading level is exactly the EUT RF output level.

The spectrum analyzer offset is derived from RF cable loss and attenuator factor.

Offset = RF cable loss + attenuator factor.

Following shows an offset computation example with cable loss 2.60 dB and 10dB attenuator.

Example :

Offset(dB) = RF cable loss(dB) + attenuator factor(dB).

= 2.60 + 10 = 12.60 (dB)

2.5 Frequency List of Low/Middle/High Channels

5G NR n41 Channel and Frequency List		
NR Bandwidth (MHz)	**Channel**	**NR Frequncy (MHz)**
100	Low	2546.01
	Mid.	2592.99
	High	2640
60	Low	2526
	Mid.	2592.99
	High	2659.98
20	Low	2506.02
	Mid.	2592.99
	High	2679.99

5G NR n71 Channel and Frequency List		
NR Bandwidth (MHz)	**Channel**	**NR Frequncy (MHz)**
20	Low	673
	Mid.	680.5
	High	688
10	Low	668
	Mid.	680.5
	High	693
5	Low	665.5
	Mid.	680.5
	High	695.5

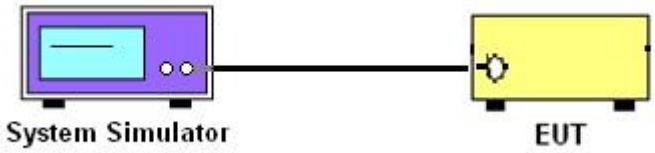
3 Conducted Test Items

3.1 Measuring Instruments

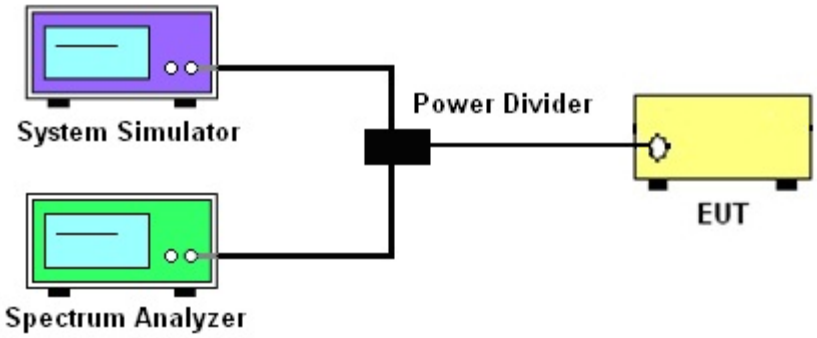
See list of measuring instruments of this test report.

3.2 Test Setup

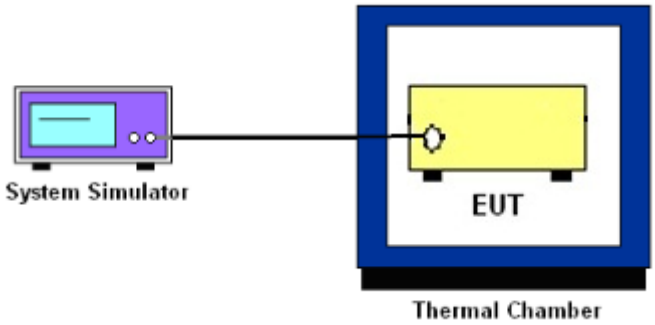
3.2.1 Conducted Output Power



3.2.2 Peak-to-Average Ratio, Occupied Bandwidth ,Conducted Band-Edge and Conducted Spurious Emission



3.2.3 Frequency Stability



3.3 Test Result of Conducted Test

Please refer to Appendix A.

3.4 Conducted Output Power and ERP/EIRP

3.4.1 Description of the Conducted Output Power Measurement and ERP/EIRP Measurement

A system simulator was used to establish communication with the EUT. Its parameters were set to force the EUT transmitting at maximum output power. The measured power in the radio frequency on the transmitter output terminals shall be reported.

The ERP of mobile transmitters must not exceed 3 Watts for 5G NR n71.

The EIRP of mobile transmitters must not exceed 2 Watts for 5G NR n41.

According to KDB 412172 D01 Power Approach,

EIRP = $P_T + G_T – L_C$, ERP = EIRP -2.15, where

P_T = transmitter output power in dBm

G_T = gain of the transmitting antenna in dBi

L_C = signal attenuation in the connecting cable between the transmitter and antenna in dB

3.4.2 Test Procedures

1. The testing follows ANSI C63.26 Section 5.2
2. The transmitter output port was connected to the system simulator.
3. Set EUT at maximum power through the system simulator.
4. Select lowest, middle, and highest channels for each band and different modulation.
5. Measure and record the power level from the system simulator.

3.5 Peak-to-Average Ratio

3.5.1 Description of the PAR Measurement

Power Complementary Cumulative Distribution Function (CCDF) curves provide a means for characterizing the power peaks of a digitally modulated signal on a statistical basis. A CCDF curve depicts the probability of the peak signal amplitude exceeding the average power level. Most contemporary measurement instrumentation include the capability to produce CCDF curves for an input signal provided that the instrument's resolution bandwidth can be set wide enough to accommodate the entire input signal bandwidth. In measuring transmissions in this band using an average power technique, the peak-to-average ratio (PAR) of the transmission may not exceed 13 dB.

3.5.2 Test Procedures

1. The testing follows ANSI C63.26 Section 5.2.3.4 (CCDF).
2. The EUT was connected to spectrum and system simulator via a power divider.
3. Set the CCDF (Complementary Cumulative Distribution Function) option in spectrum analyzer.
4. The highest RF powers were measured and recorded the maximum PAPR level associated with a probability of 0.1 %.
5. Record the deviation as Peak to Average Ratio.

3.6 Occupied Bandwidth

3.6.1 Description of Occupied Bandwidth Measurement

The occupied bandwidth is the width of a frequency band such that, below the lower and above the upper frequency limits, the mean powers emitted are each equal to a specified percentage 0.5% of the total mean transmitted power.

The 26 dB emission bandwidth is defined as the frequency range between two points, one above and one below the carrier frequency, at which the spectral density of the emission is attenuated 26 dB below the maximum in-band spectral density of the modulated signal. Spectral density (power per unit bandwidth) is to be measured with a detector of resolution bandwidth equal to approximately 1.0% of the emission bandwidth.

3.6.2 Test Procedures

1. The testing follows ANSI C63.26 Section 5.4
2. The EUT was connected to spectrum analyzer and system simulator via a power divider.
3. The spectrum analyzer center frequency is set to the nominal EUT channel center frequency. The span range for the spectrum analyzer shall be between two and five times the anticipated OBW.
4. The nominal resolution bandwidth (RBW) shall be in the range of 1 to 5 % of the anticipated OBW, and the VBW shall be at least 3 times the RBW.
5. Set the detection mode to peak, and the trace mode to max hold.
6. Determine the reference value: Set the EUT to transmit a modulated signal. Allow the trace to stabilize. Set the spectrum analyzer marker to the highest level of the displayed trace. (this is the reference value)
7. Determine the “-26 dB down amplitude” as equal to (Reference Value – X).
8. Place two markers, one at the lowest and the other at the highest frequency of the envelope of the spectral display such that each marker is at or slightly below the “–X dB down amplitude” determined in step 6. If a marker is below this “-X dB down amplitude” value it shall be placed as close as possible to this value. The OBW is the positive frequency difference between the two markers.
9. Use the 99 % power bandwidth function of the spectrum analyzer and report the measured bandwidth.

3.7 Conducted Band Edge

3.7.1 Description of Conducted Band Edge Measurement

27.53 (g)

For operations in the 600MHz band and 698 -746 MHz band, the FCC limit is 43 + 10log10(P[Watts]) dB below the transmitter power P(Watts) in a 100 kHz bandwidth. However, in the 100 kilohertz bands immediately outside and adjacent to a licensee's frequency block, a resolution bandwidth of at least 30 kHz may be employed.

27.53(m)(4)

For mobile digital stations, the attenuation factor shall be not less than 40 + 10 log (P) dB on all frequencies between the channel edge and 5 megahertz from the channel edge, 43 + 10 log (P) dB on all frequencies between 5 megahertz and X megahertz from the channel edge, and 55 + 10 log (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 that 43 + 10 log (P) dB on all frequencies between 2490.5 MHz and 2496 MHz and 55 + 10 log (P) dB at or below 2490.5 MHz. Mobile Satellite Service licensees operating on frequencies below 2495 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.

3.7.2 Test Procedures

1. The testing follows ANSI C63.26 section 5.7
2. The EUT was connected to spectrum analyzer and system simulator via a power divider.
3. The band edges of low and high channels for the highest RF powers were measured.
4. Set RBW >= 1% EBW in the 1MHz band immediately outside and adjacent to the band edge.
5. Beyond the 1 MHz band from the band edge, RBW=1MHz was used.
6. Set spectrum analyzer with RMS detector.
7. The RF fundamental frequency should be excluded against the limit line in the operating frequency band.
8. Checked that all the results comply with the emission limit line.
   Example:
   The limit line is derived from 43 + 10log(P)dB below the transmitter power P(Watts)
   = P(W)- [43 + 10log(P)] (dB)
   = [30 + 10log(P)] (dBm) - [43 + 10log(P)] (dB) = -13dBm.
9. For 5G NR n41, the other 40 dB, and 55 dB have additionally applied same calculation above.

3.8 Conducted Spurious Emission

3.8.1 Description of Conducted Spurious Emission Measurement

The power of any emission outside of the authorized operating frequency ranges must be lower than the transmitter power (P) by a factor of at least 43 + 10 log (P) dB.

For 5G NR n41:

The power of any emission outside of the authorized operating frequency ranges must be lower than the transmitter power (P) by a factor of at least 55 + 10 log (P) dB.

It is measured by means of a calibrated spectrum analyzer and scanned from 30 MHz up to a frequency including its 10^{th} harmonic.

3.8.2 Test Procedures

1. The testing follows ANSI C63.26 section 5.7
2. The EUT was connected to spectrum analyzer and system simulator via a power divider.
3. The RF output of EUT was connected to the spectrum analyzer by RF cable and attenuator. The path loss was compensated to the results for each measurement.
4. The middle channel for the highest RF power within the transmitting frequency was measured.
5. The conducted spurious emission for the whole frequency range was taken.
6. Make the measurement with the spectrum analyzer's RBW = 1MHz, VBW = 3MHz.
7. Set spectrum analyzer with RMS detector.
8. Taking the record of maximum spurious emission.
9. The RF fundamental frequency should be excluded against the limit line in the operating frequency band.
10. The limit line is derived from 43 + 10log(P)dB below the transmitter power P(Watts)
    = P(W)- [43 + 10log(P)] (dB)
    = [30 + 10log(P)] (dBm) - [43 + 10log(P)] (dB)
    = -13dBm.
11. For 5G NR n41
    The limit line is derived from 55 + 10log(P)dB below the transmitter power P(Watts)
    = P(W)- [55+ 10log(P)] (dB)
    = [30+ 10log(P)] (dBm) - [55+ 10log(P)] (dB)
    = -25dBm.

3.9 Frequency Stability

3.9.1 Description of Frequency Stability Measurement

The frequency stability shall be measured by variation of ambient temperature and variation of primary supply voltage to ensure that the fundamental emission stays within the authorized frequency block. The frequency stability of the transmitter shall be maintained within ±0.00025% (±2.5ppm) of the center frequency.

3.9.2 Test Procedures for Temperature Variation

1. The testing follows ANSI C63.26 section 5.6.4
2. The EUT was set up in the thermal chamber and connected with the system simulator.
3. With power OFF, the temperature was decreased to -30°C and the EUT was stabilized before testing. Power was applied and the maximum change in frequency was recorded within one minute.
4. With power OFF, the temperature was raised in 10°C step up to 50°C. The EUT was stabilized at each step for at least half an hour. Power was applied and the maximum frequency change was recorded within one minute.

3.9.3 Test Procedures for Voltage Variation

1. The testing follows ANSI C63.26 section 5.6.5
2. The EUT was placed in a temperature chamber at 20±5°C and connected with the system simulator.
3. The power supply voltage to the EUT was varied from 85% to 115% of the nominal value for other than hand carried battery equipment.
4. For hand carried, battery powered equipment, reduce the primary ac or dc supply voltage to the battery operating end point, which shall be specified by the manufacturer.
5. The variation in frequency was measured for the worst case.

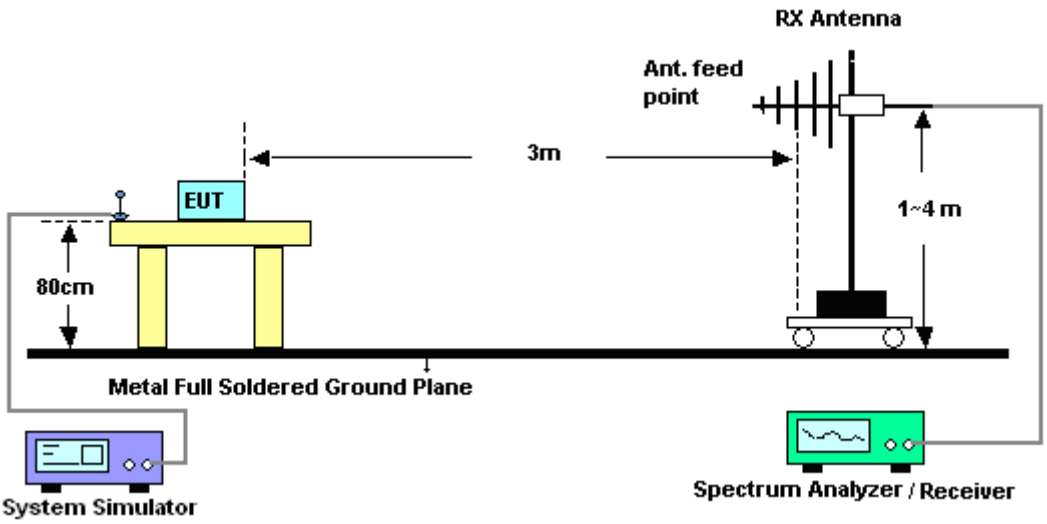
4 Radiated Test Items

4.1 Measuring Instruments

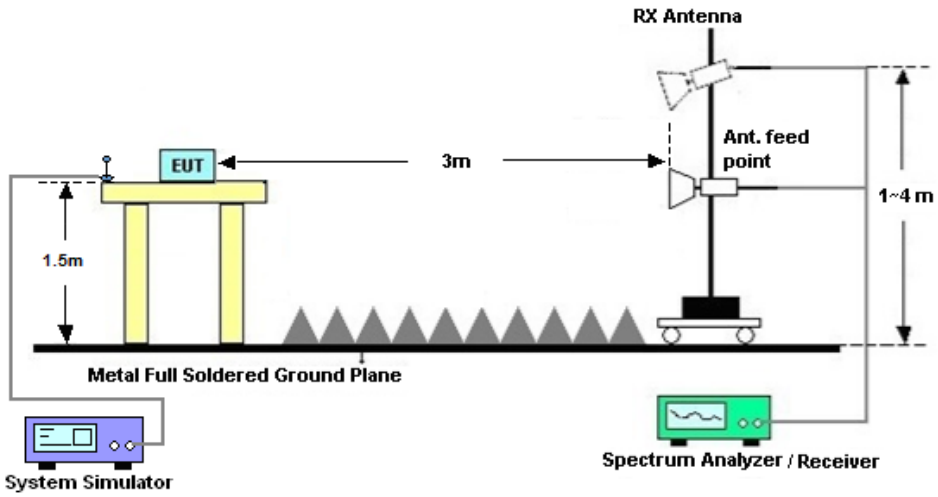
See list of measuring instruments of this test report.

4.2 Test Setup

4.2.1 For radiated test from 30MHz to 1GHz



4.2.2 For radiated test above 1GHz



4.3 Test Result of Radiated Test

Please refer to Appendix B.

4.4 Radiated Spurious Emission

4.4.1 Description of Radiated Spurious Emission

The radiated spurious emission was measured by substitution method according to ANSI C63.26. The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitter power (P) by a factor of at least 43 + 10 log (P) dB.

For 5G NR n41

The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitter power (P) by a factor of at least 55 + 10 log (P) dB.

The spectrum is scanned from 30 MHz up to a frequency including its 10th harmonic.

4.4.2 Test Procedures

1. The testing follows ANSI C63.26 Section 5.5
2. The EUT was placed on a turntable with 0.8 meter height for frequency below 1GHz and 1.5 meter height for frequency above 1GHz respectively above ground.
3. The EUT was set 3 meters from the receiving antenna mounted on the antenna tower.
4. The table was rotated 360 degrees to determine the position of the highest spurious emission.
5. The height of the receiving antenna is varied between 1m to 4m to search the maximum spurious emission for both horizontal and vertical polarizations.
6. During the measurement, the system simulator parameters were set to force the EUT transmitting at maximum output power.
7. Make the measurement with the spectrum analyzer's RBW = 1MHz, VBW = 3MHz, taking the record of maximum spurious emission.
8. A horn antenna was substituted in place of the EUT and was driven by a signal generator.
9. Tune the output power of signal generator to the same emission level with EUT maximum spurious emission.
10. EIRP (dBm) = S.G. Power – Tx Cable Loss + Tx Antenna Gain
11. ERP (dBm) = EIRP - 2.15
12. The RF fundamental frequency should be excluded against the limit line in the operating frequency band.
    The limit line is derived from 43 + 10log(P)dB below the transmitter power P(Watts)
    = P(W)- [43 + 10log(P)] (dB)
    = [30 + 10log(P)] (dBm) - [43 + 10log(P)] (dB)
    = -13dBm.
13. For 5G NR n41:
    The limit line is derived from 55 + 10log(P)dB below the transmitter power P(Watts)The limit line is derived from 55 + 10log(P)dB below the transmitter power P(Watts)

5 List of Measuring Equipment

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
Spectrum Analyzer	R&S	FSV40	101078	10Hz~40GHz	Apr. 16, 2010	Jun. 08, 2020~ Jun. 15, 2020	Apr. 15, 2021	Conducted (TH01-SZ)
DC Power Supply	GWINSTEK	AnritsuGPS-3030D	EM882636	Max 30V	Apr. 16, 2010	Jun. 08, 2020~ Jun. 15, 2020	Apr. 15, 2021	Conducted (TH01-SZ)
Thermal Chamber	Ten Billion Hongzhangroup	LP-150U	H2014081803	-40~+150°C	Dec. 26, 2019	Jun. 08, 2020~ Jun. 15, 2020	Dec. 25, 2020	Conducted (TH01-SZ)
EXA Spectrum Analyzer	KEYSIGHT	N9010A	MY55150213	10Hz~44GHz	Apr. 17, 2020	Jun. 14, 2020	Apr. 16, 2021	Radiation (03CH02-SZ)
Bilog Antenna	TeseQ	CBL6112D	35407	30MHz-2GHz	Jul. 19, 2019	Jun. 14, 2020	Jul. 18, 2020	Radiation (03CH02-SZ)
Double Ridge Horn Antenna	ETS-Lindgren	3117	00119436	1GHz~18GHz	Aug. 27, 2019	Jun. 14, 2020	Aug. 26, 2020	Radiation (03CH02-SZ)
HF Amplifier	MITEQ	TTA1840-35-HG	1871923	18GHz~40GHz	Jul. 22. 2019	Jun. 14, 2020	Jul. 21. 2020	Radiation (03CH02-SZ)
SHF-EHF Horn	com-power	AH-840	101071	18Ghz-40GHz	Apr. 17, 2020	Jun. 14, 2020	Apr. 16, 2021	Radiation (03CH02-SZ)
LF Amplifier	Burgeon	BPA-530	102211	0.01~3000Mhz	Oct. 18,2019	Jun. 14, 2020	Oct. 17,2020	Radiation (03CH02-SZ)
HF Amplifier	KEYSIGHT	83017A	MY53270105	0.5GHz~26.5Ghz	Oct. 18,2019	Jun. 14, 2020	Oct. 17,2020	Radiation (03CH02-SZ)
AC Power Source	Chroma	61601	616010002470	N/A	NCR	Jun. 14, 2020	NCR	Radiation (03CH02-SZ)
Turn Table	Chaintek	T-200	N/A	0~360 degree	NCR	Jun. 14, 2020	NCR	Radiation (03CH02-SZ)
Antenna Mast	Chaintek	MBS-400	N/A	1 m~4 m	NCR	Jun. 14, 2020	NCR	Radiation (03CH02-SZ)

NCR: No Calibration Required.

6 Uncertainty of Evaluation

The measurement uncertainties shown below were calculated in accordance with the requirements of ANSI 63.26-2015. All the measurement uncertainty value were shown with a coverage K=2 to indicate 95% level of confidence. The measurement data show herein meets or exceeds the CISPR measurement uncertainty values specified in CISPR 16-4-2 and can be compared directly to specified limit to determine compliance.

Uncertainty of Radiated Emission Measurement (30 MHz ~ 1000 MHz)

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	**2.5dB**

Uncertainty of Radiated Emission Measurement (1 GHz ~ 18 GHz)

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	**3.3dB**

Uncertainty of Radiated Emission Measurement (18 GHz ~ 40 GHz)

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	**3.7dB**

Appendix A. Test Results of Conducted Test

Conducted Output Power(Average power and EIRP)

SA_n41						
Combination 100MHz						
NR Channel	NR Freq.	Modulation	NR		NR	EIRP (W)
			RB Size	RB offset	Measured Power (dBm)	
509202	2546.01	QPSK DFT-s-OFDM	1	1	23.39	0.1377
			1	271	23.2	0.1318
			135	67	24.14	0.1637
518598	2592.99	QPSK DFT-s-OFDM	1	1	24.3	0.1698
			1	271	24.33	0.1710
			135	67	24.45	0.1758
528000	2640	QPSK DFT-s-OFDM	1	1	24.35	0.1718
			1	271	22.92	0.1236
			135	67	24.42	0.1746

SA_n41						
Combination 60MHz						
NR Channel	NR Freq.	Modulation	NR		NR	EIRP (W)
			RB Size	RB offset	Measured Power (dBm)	
505200	2526	QPSK DFT-s-OFDM	1	1	24.07	0.1611
			1	160	23.9	0.1549
			81	40	23.87	0.1538
518598	2592.99	QPSK DFT-s-OFDM	1	1	24.04	0.1600
			1	160	24.46	0.1762
			81	40	24.19	0.1656
531996	2659.98	QPSK DFT-s-OFDM	1	1	24.25	0.1679
			1	160	23.54	0.1426
			81	40	23.98	0.1578

SA_n41						
Combination 20MHz						
NR Channel	NR Freq.	Modulation	NR		NR	EIRP (W)
			RB Size	RB offset	Measured Power (dBm)	
501204	2506.02	QPSK DFT-s-OFDM	1	1	24.25	0.1679
			1	49	24.16	0.1644
			25	12	24.23	0.1671
518598	2592.99	QPSK DFT-s-OFDM	1	1	24.39	0.1734
			1	49	24.48	0.1770
			25	12	24.41	0.1742
535998	2679.99	QPSK DFT-s-OFDM	1	1	24.06	0.1607
			1	49	23.55	0.1429
			25	12	23.84	0.1528

SA_n71 (ANT2)						
Combination 20MHz						
NR Channel	NR Freq.	Modulation	NR		NR	EIRP (W)
			RB Size	RB offset	Measured Power (dBm)	
134600	673	QPSK DFT-s-OFDM	1	1	23.27	0.0817
			1	104	23.08	0.0782
			50	25	23.36	0.0834
136100	680.5	QPSK DFT-s-OFDM	1	1	23.17	0.0798
			1	104	22.9	0.0750
			50	25	23.37	0.0836
137600	688	QPSK DFT-s-OFDM	1	1	23.23	0.0809
			1	104	22.86	0.0743
			50	25	23.22	0.0807

SA_n71 (ANT1)						
Combination 20MHz						
NR Channel	NR Freq.	Modulation	NR		NR	EIRP (W)
			RB Size	RB offset	Measured Power (dBm)	
134600	673	QPSK DFT-s-OFDM	1	1	23.25	0.0813
			1	104	23.33	0.0828
			50	25	23.32	0.0826
136100	680.5	QPSK DFT-s-OFDM	1	1	23.32	0.0826
			1	104	23.26	0.0815
			50	25	23.34	0.0830
137600	688	QPSK DFT-s-OFDM	1	1	23.34	0.0830
			1	104	23.19	0.0802
			50	25	23.33	0.0828

SA_n71 (ANT2)						
Combination 10MHz						
NR Channel	NR Freq.	Modulation	NR		NR	EIRP (W)
			RB Size	RB offset	Measured Power (dBm)	
133600	668	QPSK DFT-s-OFDM	1	1	23.31	0.0824
			1	50	23.05	0.0776
			25	12	23.36	0.0834
136100	680.5	QPSK DFT-s-OFDM	1	1	23.04	0.0774
			1	50	23.04	0.0774
			25	12	23.22	0.0807
138600	693	QPSK DFT-s-OFDM	1	1	22.99	0.0766
			1	50	22.9	0.0750
			25	12	23.14	0.0793

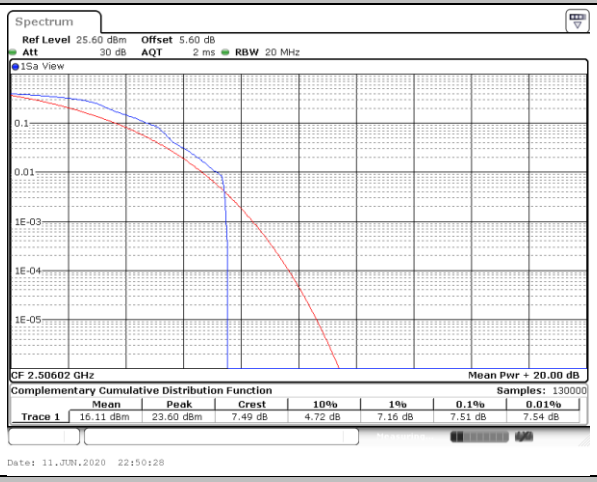
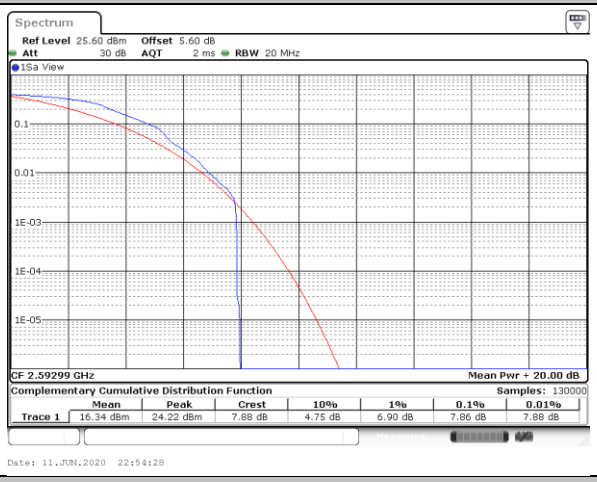
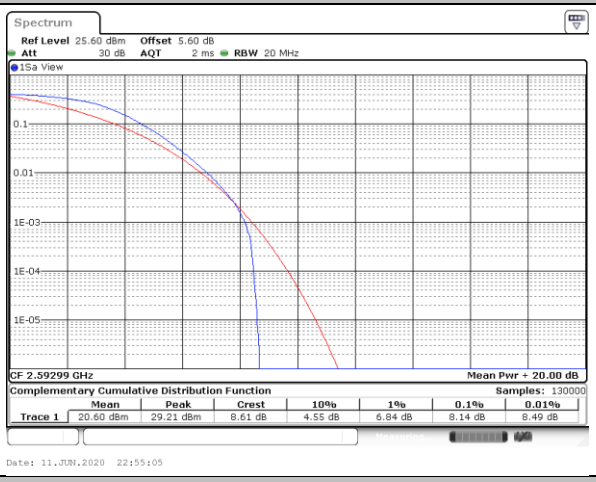
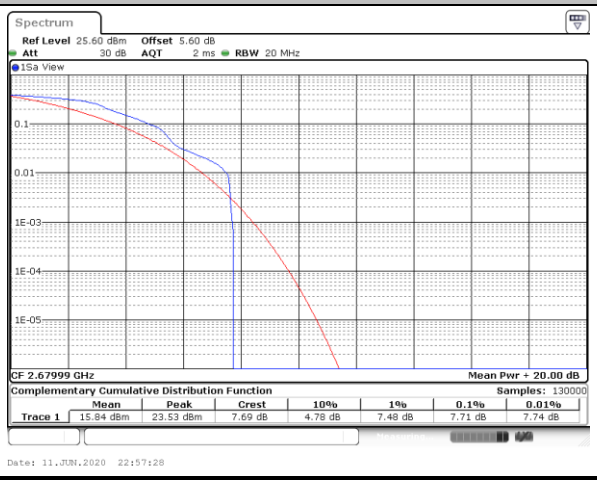
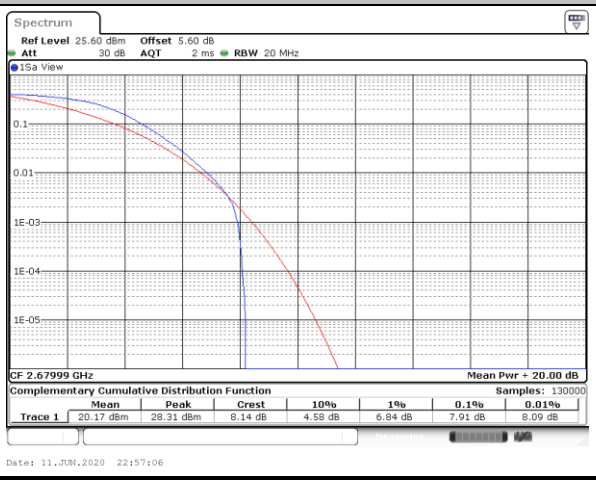
SA_n71 (ANT1)						
Combination 10MHz						
NR Channel	NR Freq.	Modulation	NR		NR	EIRP (W)
			RB Size	RB offset	Measured Power (dBm)	
133600	668	QPSK DFT-s-OFDM	1	1	23.36	0.0834
			1	50	23.29	0.0820
			25	12	23.38	0.0838
136100	680.5	QPSK DFT-s-OFDM	1	1	23.39	0.0839
			1	50	23.29	0.0820
			25	12	23.37	0.0836
138600	693	QPSK DFT-s-OFDM	1	1	23.36	0.0834
			1	50	23.21	0.0805
			25	12	23.38	0.0838

SA_n71 (ANT2)						
Combination 5MHz						
NR Channel	NR Freq.	Modulation	NR		NR	EIRP (W)
			RB Size	RB offset	Measured Power (dBm)	
133100	665.5	QPSK DFT-s-OFDM	1	1	23.28	0.0818
			1	23	23.09	0.0783
			12	6	23.42	0.0845
136100	680.5	QPSK DFT-s-OFDM	1	1	23.08	0.0782
			1	23	23	0.0767
			12	6	23.16	0.0796
139100	695.5	QPSK DFT-s-OFDM	1	1	23.08	0.0782
			1	23	22.82	0.0736
			12	6	23.06	0.0778

SA_n71 (ANT1)						
Combination 5MHz						
NR Channel	NR Freq.	Modulation	NR		NR	EIRP (W)
			RB Size	RB offset	Measured Power (dBm)	
133100	665.5	QPSK DFT-s-OFDM	1	1	23.38	0.0838
			1	23	23.23	0.0809
			12	6	23.39	0.0839
136100	680.5	QPSK DFT-s-OFDM	1	1	23.33	0.0828
			1	23	23.25	0.0813
			12	6	23.35	0.0832
139100	695.5	QPSK DFT-s-OFDM	1	1	23.34	0.0830
			1	23	23.15	0.0794
			12	6	23.39	0.0839

Peak-to-Average Ratio

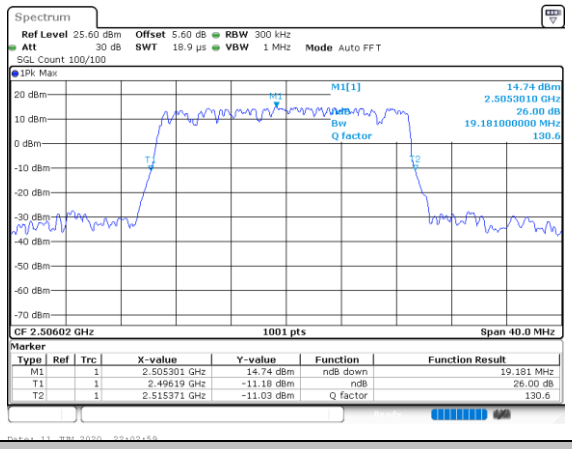
Mode	NR N41 / 20MHz				
Mod.	QPSK				Limit: 13dB
RB Size	1RB	Full RB			Result
Lowest CH	7.51	8.29			PASS
Middle CH	7.86	8.14			
Highest CH	7.71	7.91			

N41 / NR 20MHz / QPSK	
Lowest Channel / 1RB	**Lowest Channel / Full RB**
	
Middle Channel / 1RB	**Middle Channel / Full RB**
	
Highest Channel / 1RB	**Highest Channel / Full RB**
	

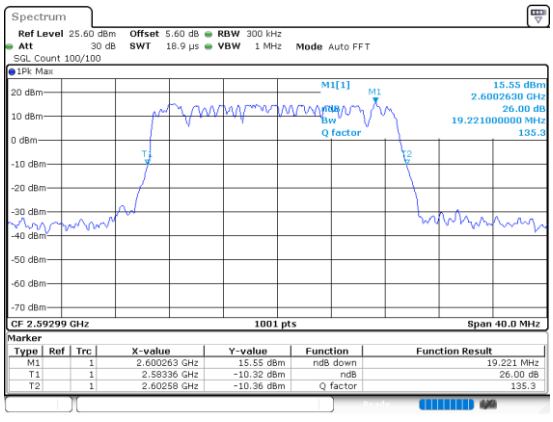
26dB Bandwidth

Mode	NR N41 : 26dB BW(MHz)									
BW	20MHz	60MHz	100 MHz							
Mod.	QPSK	QPSK	QPSK							
Lowest CH	19.181	60.30	99.30							
Middle CH	19.221	60.54	99.50							
Highest CH	18.581	60.42	99.30							

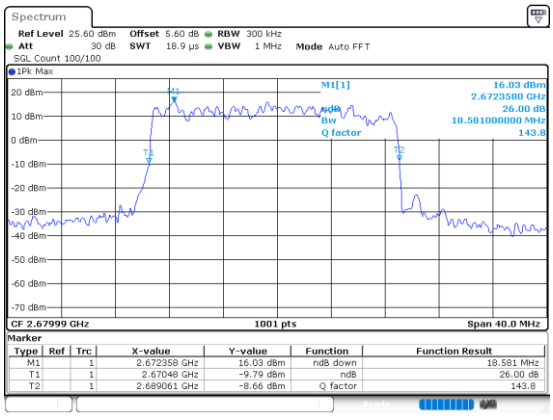
NR N41
Lowest Channel / 20MHz / QPSK



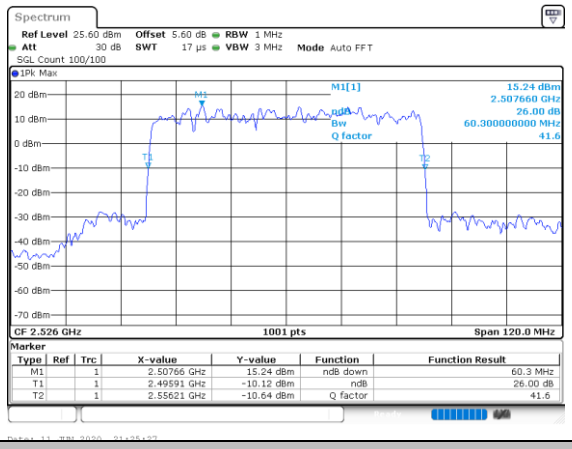
Middle Channel / 20MHz / QPSK



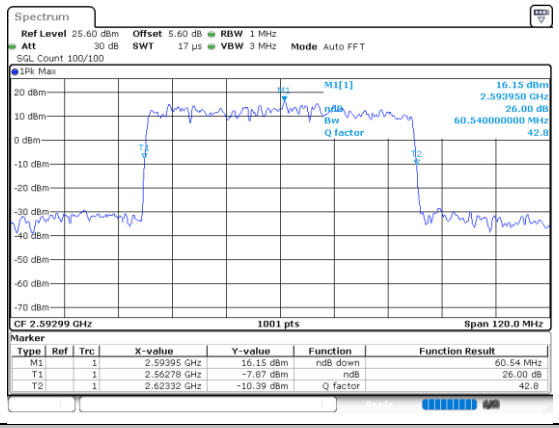
Highest Channel / 20MHz / QPSK



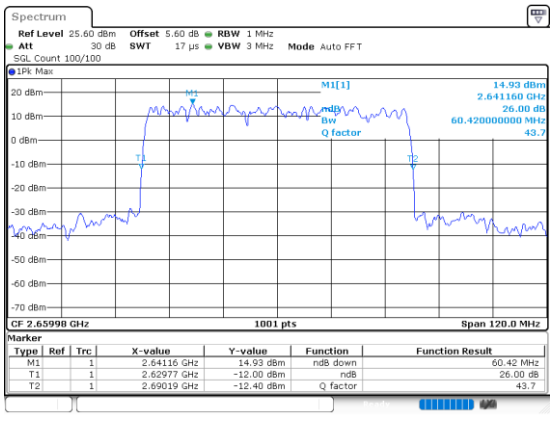
NR N41
Lowest Channel / 60MHz / QPSK



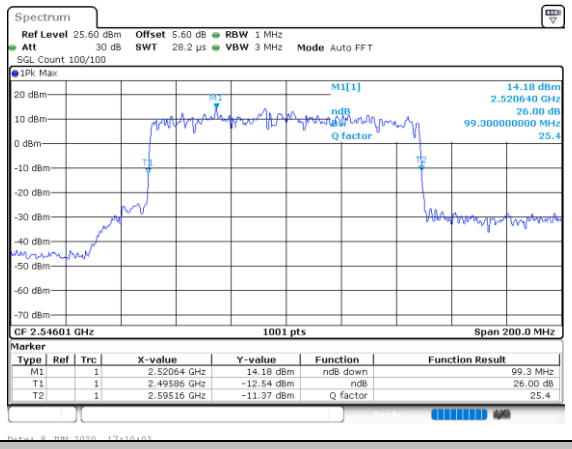
Middle Channel / 60MHz / QPSK



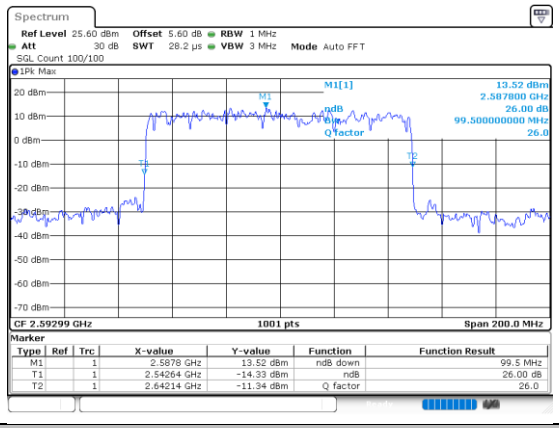
Highest Channel / 60MHz / QPSK



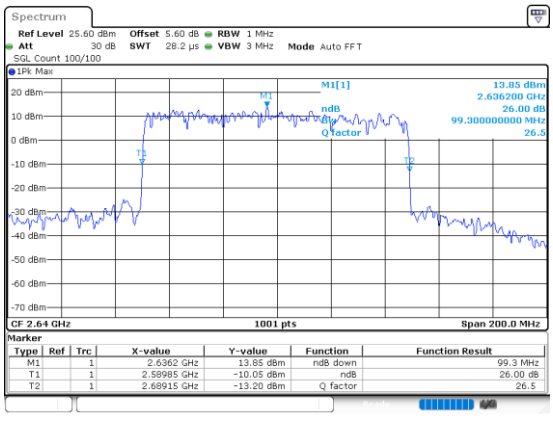
NR N41
Lowest Channel / 100MHz / QPSK



Middle Channel / 100MHz / QPSK



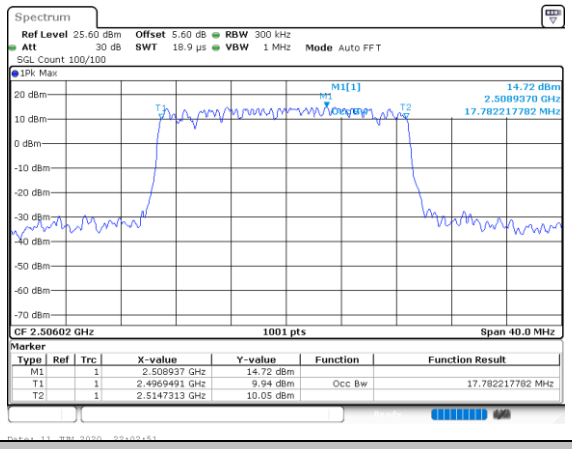
Highest Channel / 100MHz / QPSK



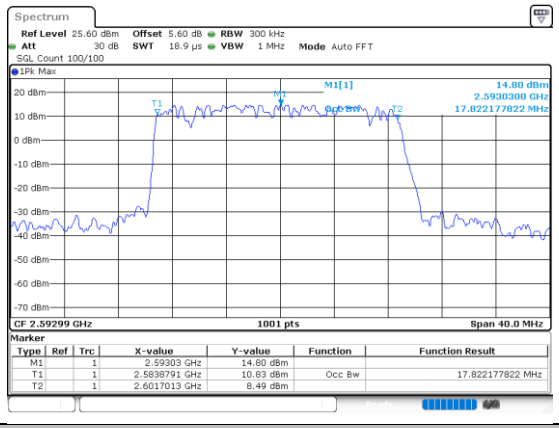
Occupied Bandwidth

Mode	NR N41 : OB BW(MHz)									
BW	20MHz	60MHz	100 MHz							
Mod.	QPSK	QPSK	QPSK							
Lowest CH	17.782	57.662	96.304							
Middle CH	17.822	58.022	96.104							
Highest CH	17.822	58.142	95.704							

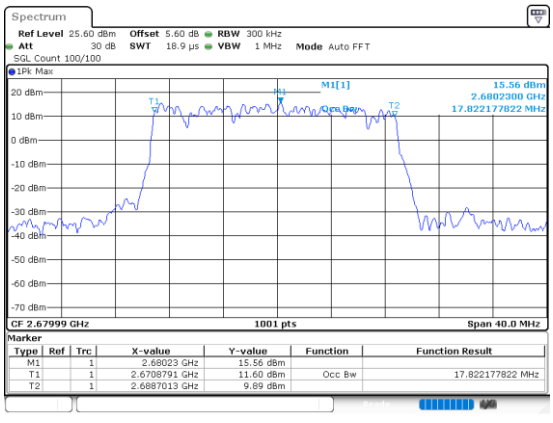
NR N41
Lowest Channel / 20MHz / QPSK



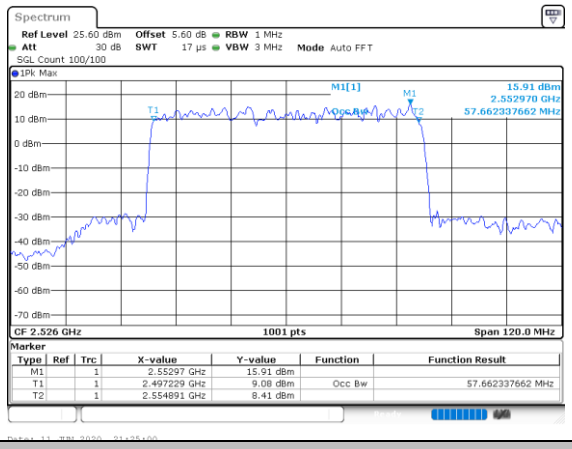
Middle Channel / 20MHz / QPSK



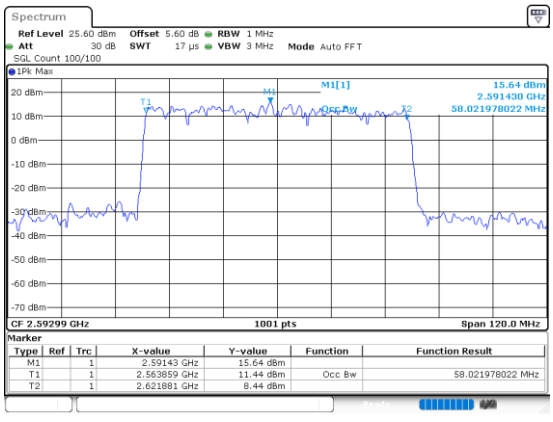
Highest Channel / 20MHz / QPSK



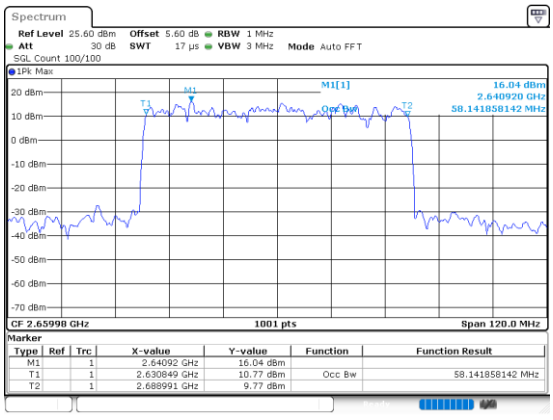
NR N41
Lowest Channel / 60MHz / QPSK



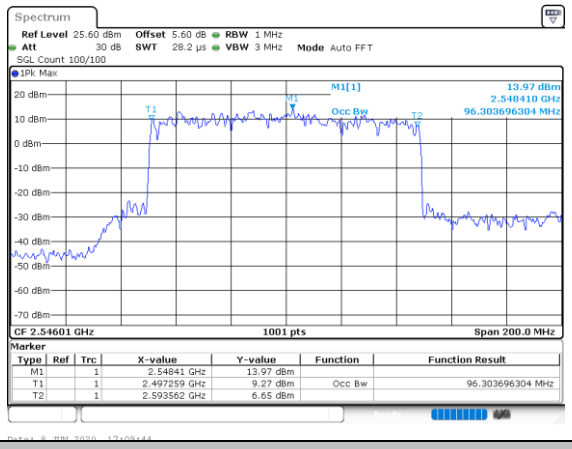
Middle Channel / 60MHz / QPSK



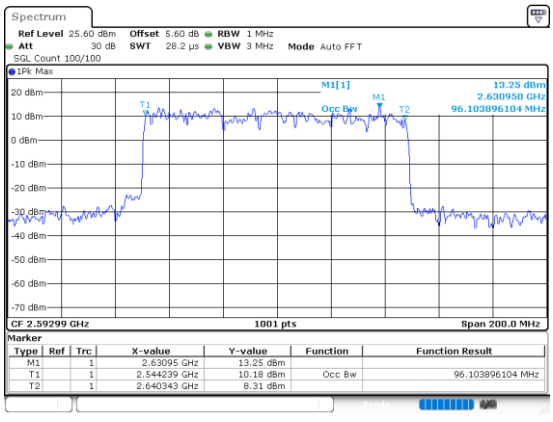
Highest Channel / 60MHz / QPSK



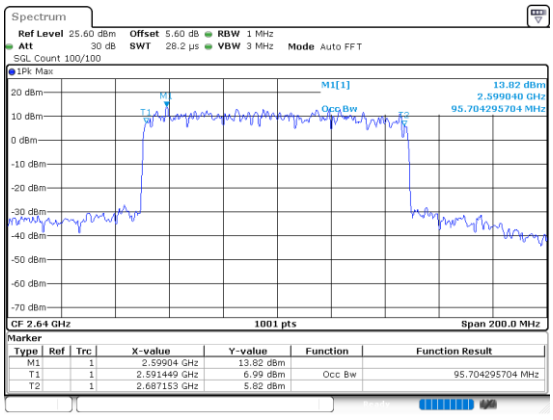
NR N41
Lowest Channel / 100MHz / QPSK



Middle Channel / 100MHz / QPSK



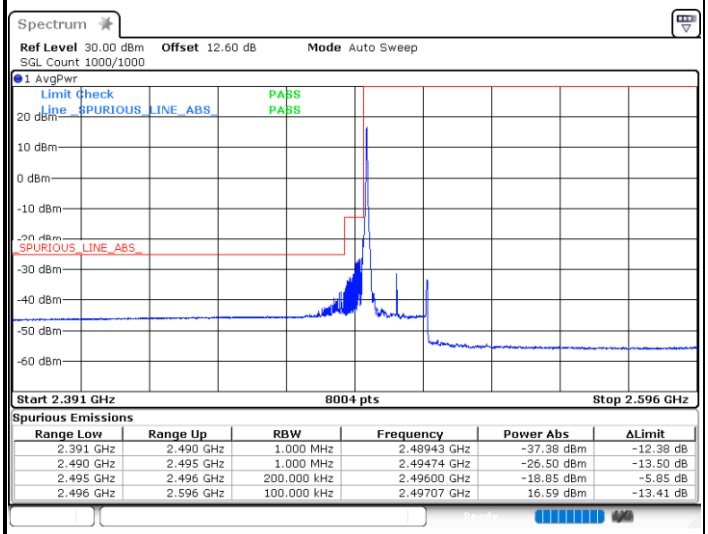
Highest Channel / 100MHz / QPSK



Conducted Band Edge

NR N41 / 20MHz / QPSK

Lowest Band Edge / 1RB0



Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.391 GHz	2.490 GHz	1.000 MHz	2.48943 GHz	-37.38 dBm	-12.38 dB
2.490 GHz	2.495 GHz	1.000 MHz	2.49474 GHz	-26.50 dBm	-13.50 dB
2.495 GHz	2.496 GHz	200.000 kHz	2.49600 GHz	-18.85 dBm	-5.85 dB
2.496 GHz	2.596 GHz	100.000 kHz	2.49707 GHz	16.59 dBm	-13.41 dB

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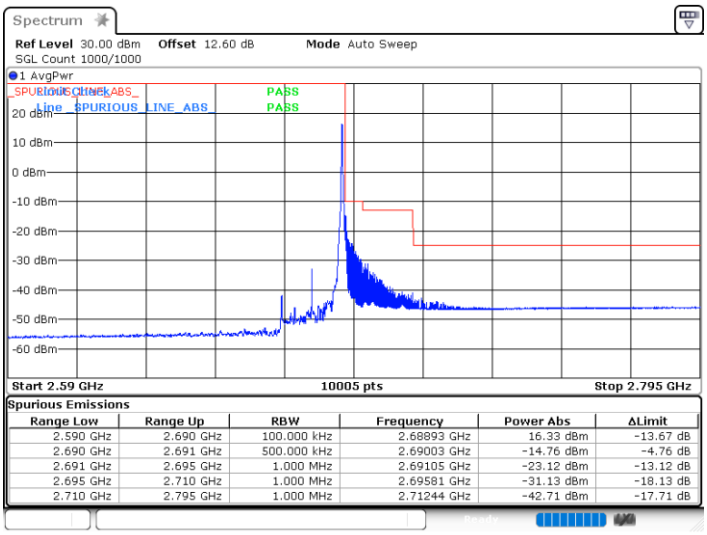
Highest Band Edge / 1RB50



Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.590 GHz	2.690 GHz	100.000 kHz	2.68893 GHz	16.33 dBm	-13.67 dB
2.690 GHz	2.691 GHz	500.000 kHz	2.69003 GHz	-14.76 dBm	-4.76 dB
2.691 GHz	2.695 GHz	1.000 MHz	2.69105 GHz	-23.12 dBm	-13.12 dB
2.695 GHz	2.710 GHz	1.000 MHz	2.69581 GHz	-31.13 dBm	-18.13 dB
2.710 GHz	2.795 GHz	1.000 MHz	2.71244 GHz	-42.71 dBm	-17.71 dB

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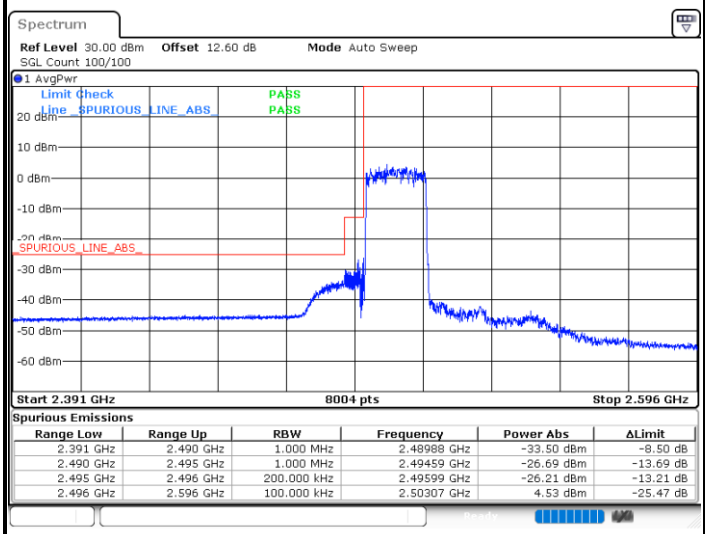
Lowest Band Edge / 50RB0



Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.391 GHz	2.490 GHz	1.000 MHz	2.48988 GHz	-33.50 dBm	-8.50 dB
2.490 GHz	2.495 GHz	1.000 MHz	2.49459 GHz	-26.69 dBm	-13.69 dB
2.495 GHz	2.496 GHz	200.000 kHz	2.49599 GHz	-26.21 dBm	-13.21 dB
2.496 GHz	2.596 GHz	100.000 kHz	2.50307 GHz	4.53 dBm	-25.47 dB

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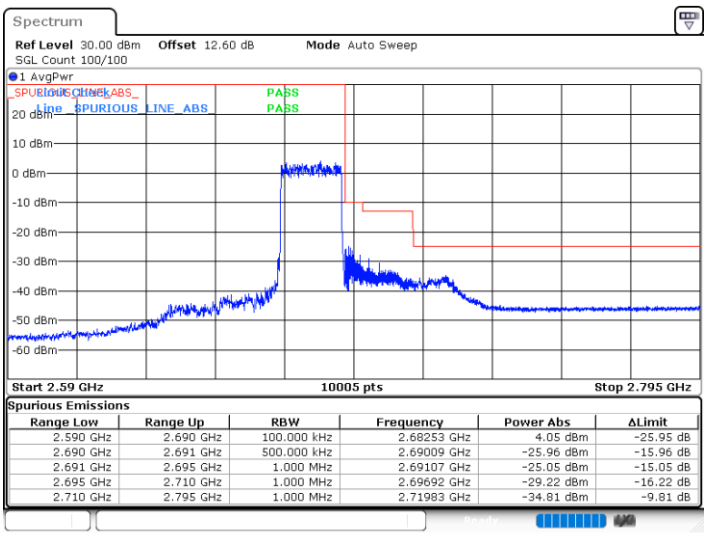
Highest Band Edge / 50RB0



Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.590 GHz	2.690 GHz	100.000 kHz	2.68253 GHz	4.05 dBm	-25.95 dB
2.690 GHz	2.691 GHz	500.000 kHz	2.69009 GHz	-25.96 dBm	-15.96 dB
2.691 GHz	2.695 GHz	1.000 MHz	2.69107 GHz	-25.05 dBm	-15.05 dB
2.695 GHz	2.710 GHz	1.000 MHz	2.69692 GHz	-29.22 dBm	-16.22 dB
2.710 GHz	2.795 GHz	1.000 MHz	2.71983 GHz	-34.81 dBm	-9.81 dB

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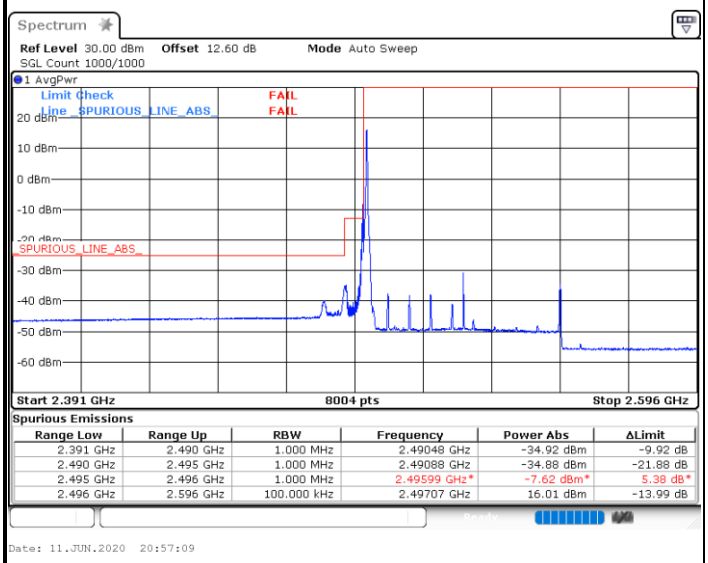
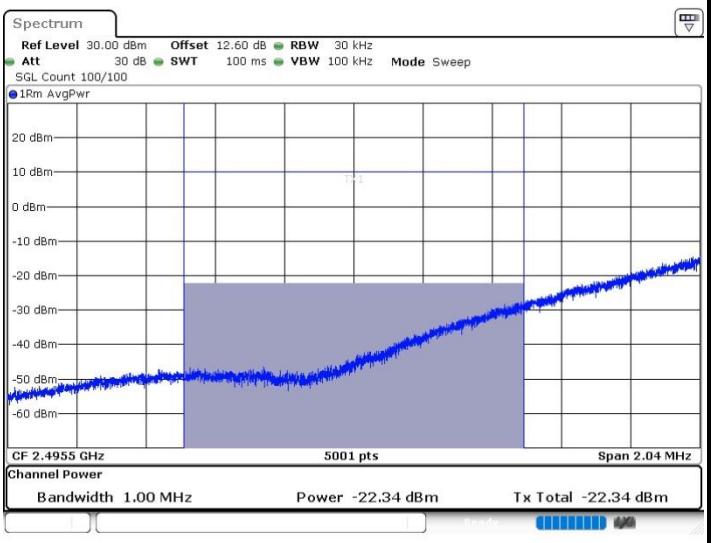
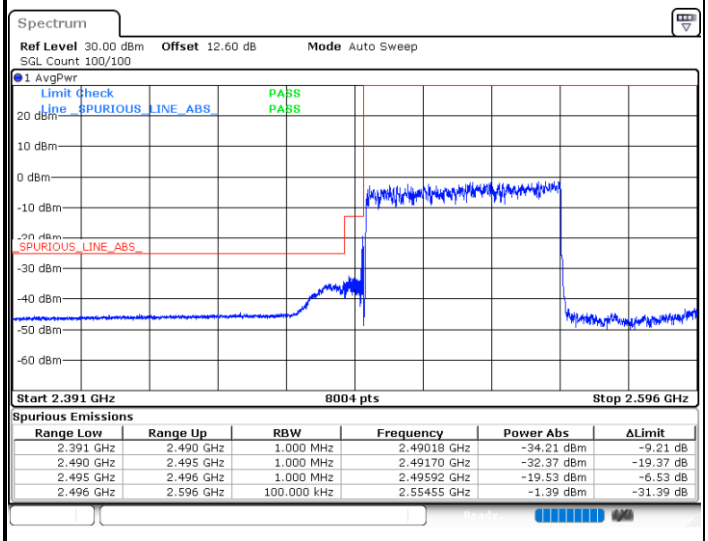
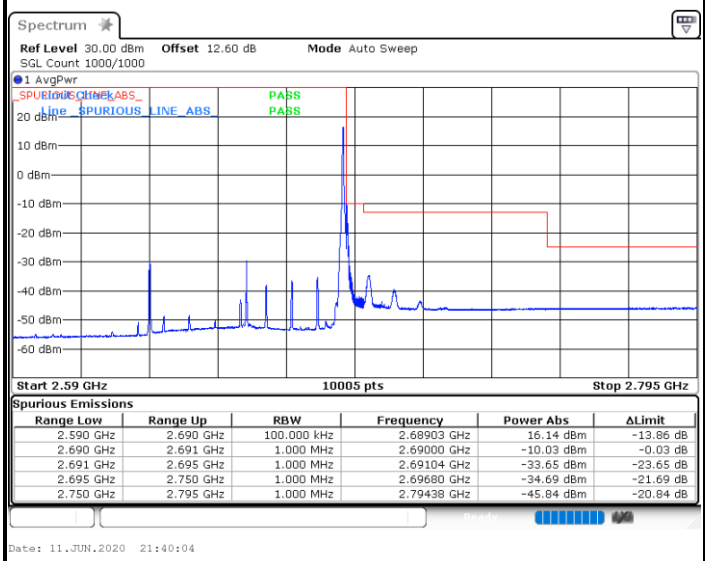
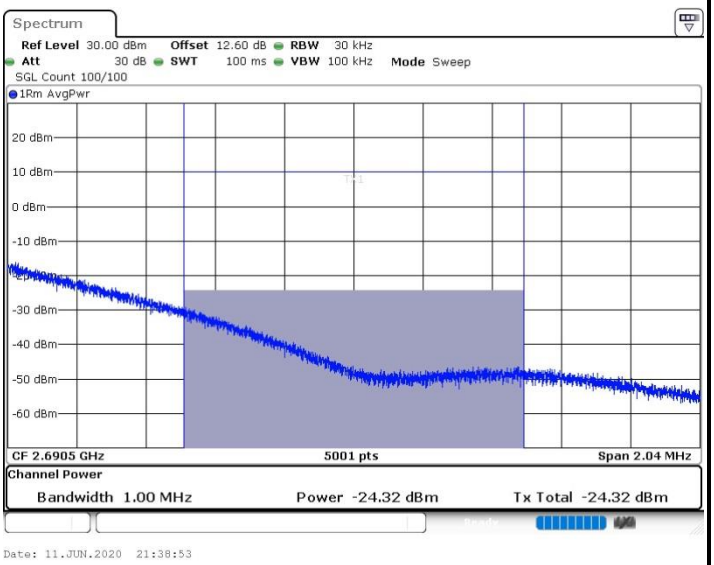
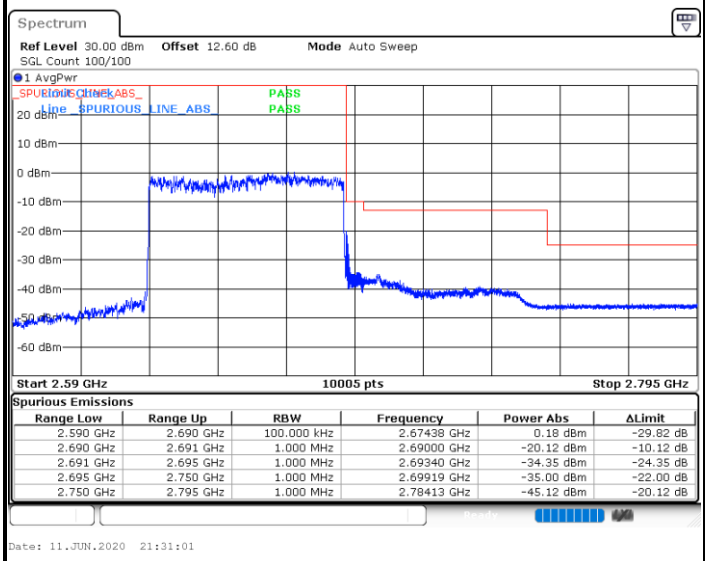
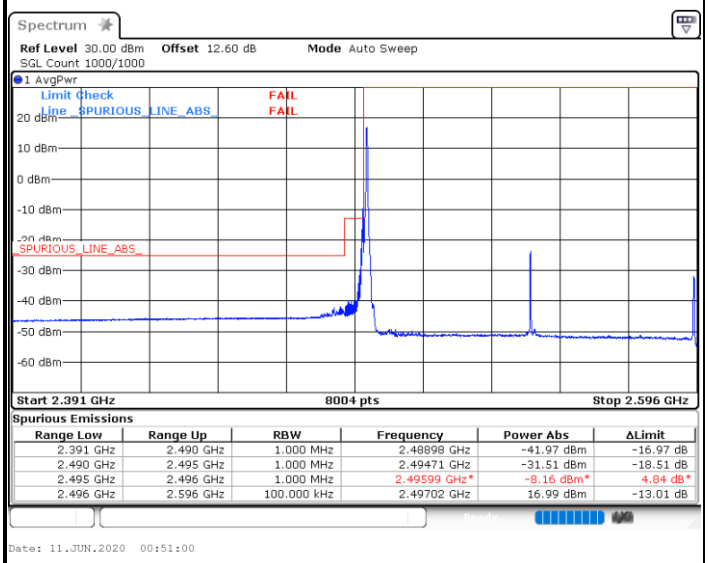
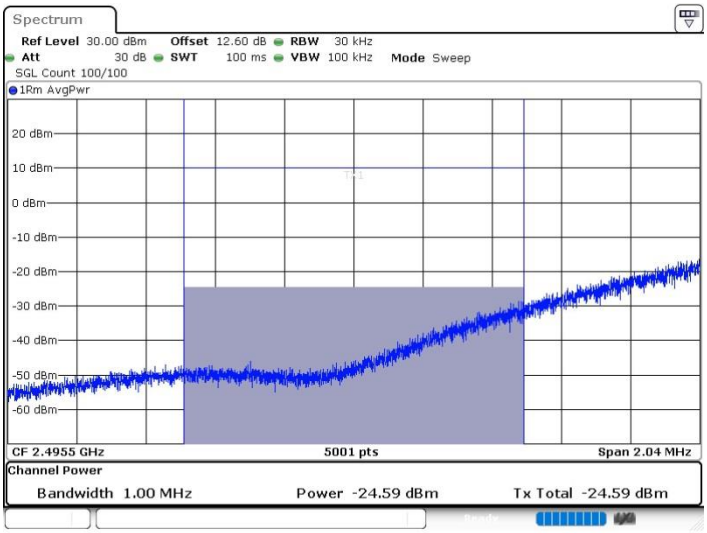
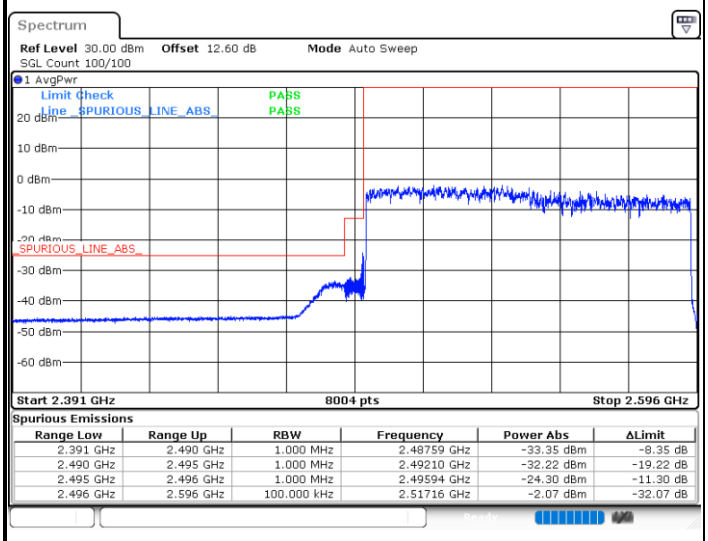
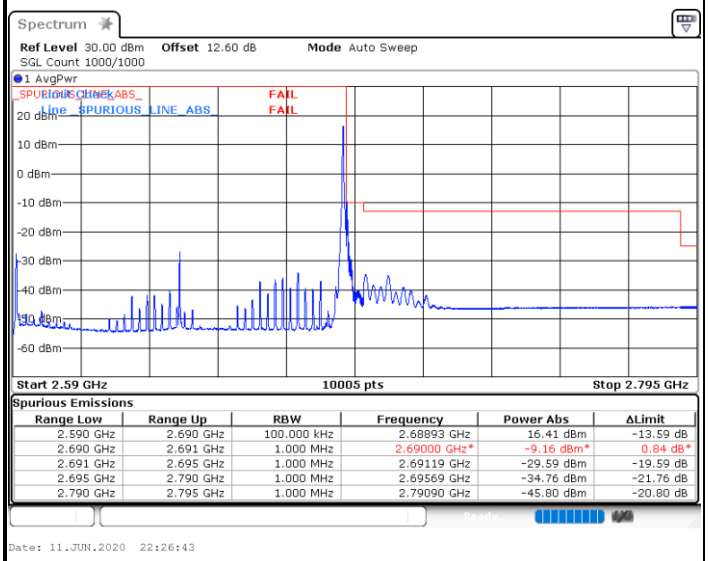
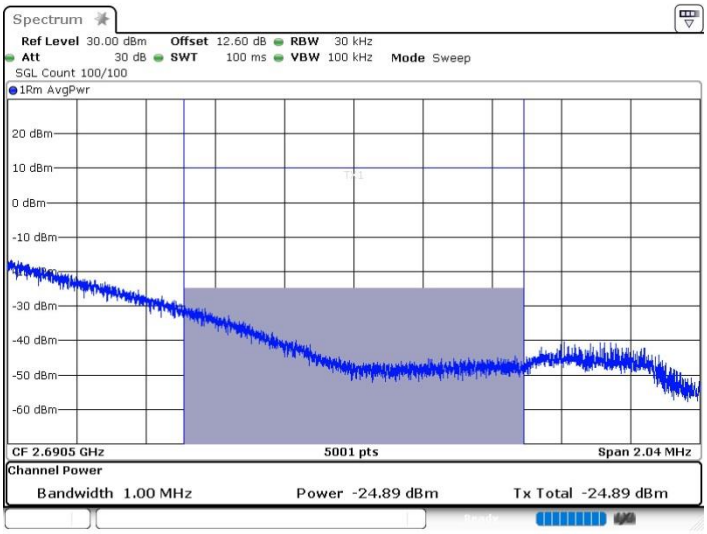
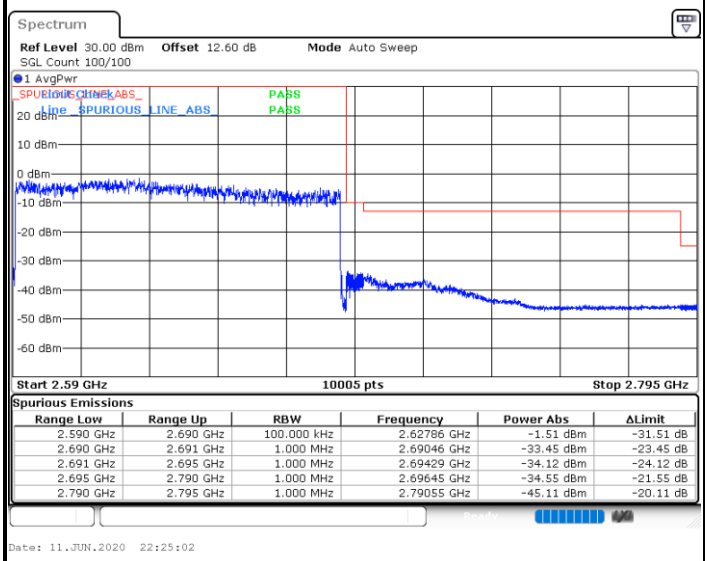
NR N41 / 60MHz / QPSK	
Lowest Band Edge / 1RB0	**Channel Power < -13dBm Pass**
	
Lowest Band Edge / 162RB0	**Channel Power < -13dBm Pass**
	/

NR N41 / 60MHz / QPSK	
Highest Band Edge / 1RB161	**Channel Power < -10dBm Pass**
	
Highest Band Edge / 162RB0	**Channel Power < -13dBm Pass**
	/

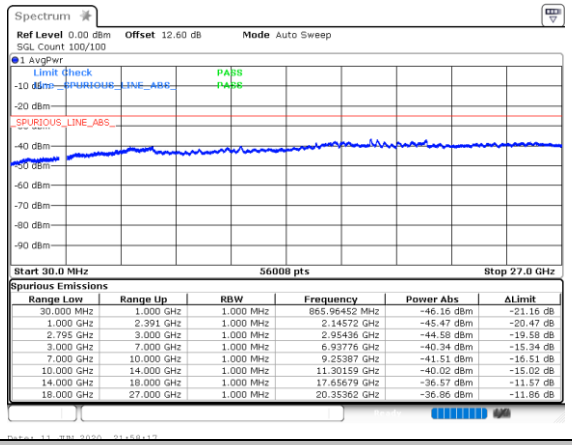
NR N41 / 100MHz / QPSK	
Lowest Band Edge / 1RB0	**Channel Power < -13dBm Pass**
	
Lowest Band Edge / 270RB0	**Channel Power < -13dBm Pass**
	/

NR N41 / 100MHz / QPSK	
Highest Band Edge / 1RB272	**Channel Power < -10dBm Pass**
	
Highest Band Edge / 270RB0	**Channel Power < -13dBm Pass**
	/

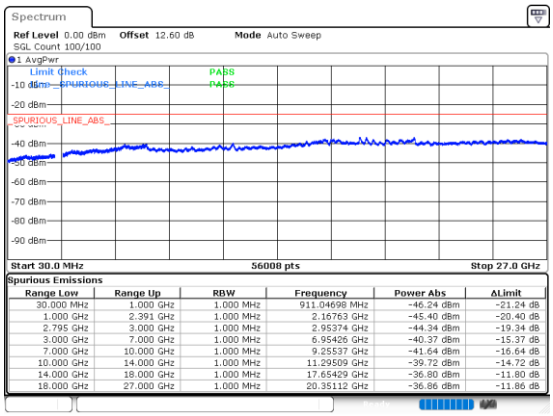
Conducted Spurious Emission

NR N41 / 20MHz

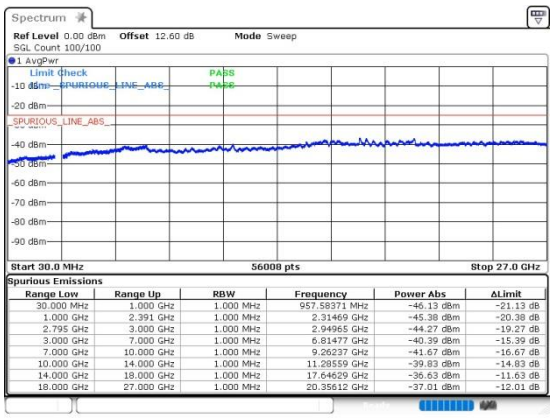
Lowest Channel / QPSK



Middle Channel / QPSK

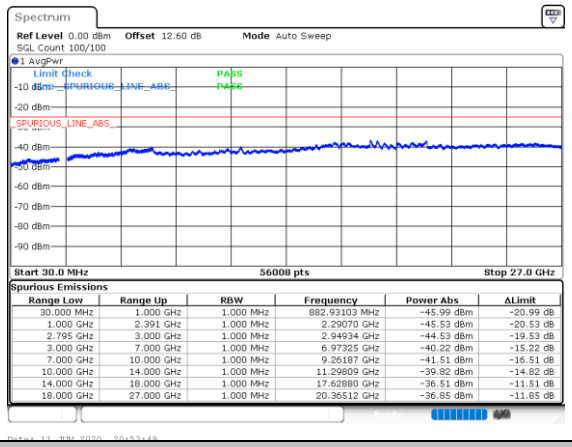


Highest Channel / QPSK



NR N41 / 60MHz

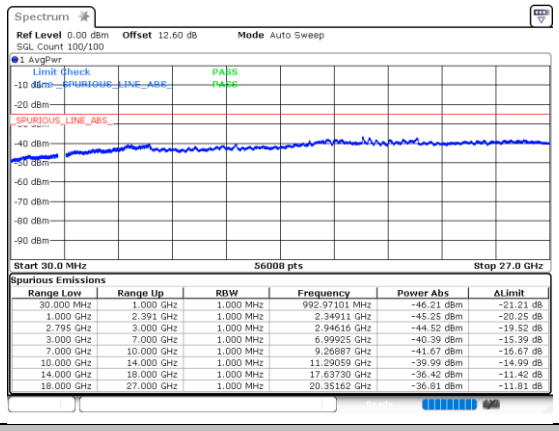
Lowest Channel / QPSK



Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	1.000 GHz	1.000 MHz	882.93103 MHz	-45.99 dBm	-20.99 dB
1.000 GHz	2.391 GHz	1.000 MHz	2.29070 GHz	-45.53 dBm	-20.53 dB
2.795 GHz	3.000 GHz	1.000 MHz	2.94934 GHz	-44.53 dBm	-19.53 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.97325 GHz	-40.22 dBm	-15.22 dB
7.000 GHz	10.000 GHz	1.000 MHz	9.26187 GHz	-41.51 dBm	-16.51 dB
10.000 GHz	14.000 GHz	1.000 MHz	11.29809 GHz	-39.82 dBm	-14.82 dB
14.000 GHz	18.000 GHz	1.000 MHz	17.62880 GHz	-36.51 dBm	-11.51 dB
18.000 GHz	27.000 GHz	1.000 MHz	20.36512 GHz	-36.85 dBm	-11.85 dB

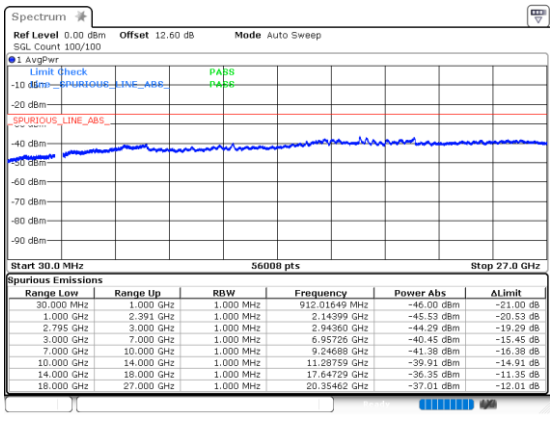
Middle Channel / QPSK



Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	1.000 GHz	1.000 MHz	992.97101 MHz	-46.21 dBm	-21.21 dB
1.000 GHz	2.391 GHz	1.000 MHz	2.34911 GHz	-45.25 dBm	-20.25 dB
2.795 GHz	3.000 GHz	1.000 MHz	2.94616 GHz	-44.52 dBm	-19.52 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.99925 GHz	-40.39 dBm	-15.39 dB
7.000 GHz	10.000 GHz	1.000 MHz	9.26887 GHz	-41.67 dBm	-16.67 dB
10.000 GHz	14.000 GHz	1.000 MHz	11.29059 GHz	-39.99 dBm	-14.99 dB
14.000 GHz	18.000 GHz	1.000 MHz	17.63730 GHz	-36.42 dBm	-11.42 dB
18.000 GHz	27.000 GHz	1.000 MHz	20.35162 GHz	-36.81 dBm	-11.81 dB

Highest Channel / QPSK

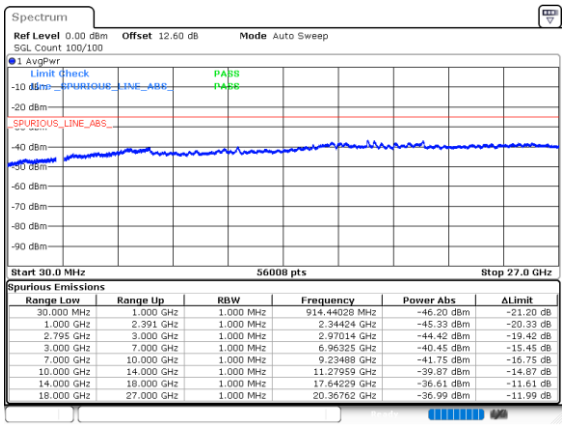


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	1.000 GHz	1.000 MHz	912.01649 MHz	-46.00 dBm	-21.00 dB
1.000 GHz	2.391 GHz	1.000 MHz	2.14399 GHz	-45.53 dBm	-20.53 dB
2.795 GHz	3.000 GHz	1.000 MHz	2.94360 GHz	-44.29 dBm	-19.29 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.95726 GHz	-40.45 dBm	-15.45 dB
7.000 GHz	10.000 GHz	1.000 MHz	9.24688 GHz	-41.38 dBm	-16.38 dB
10.000 GHz	14.000 GHz	1.000 MHz	11.28759 GHz	-39.91 dBm	-14.91 dB
14.000 GHz	18.000 GHz	1.000 MHz	17.64729 GHz	-36.35 dBm	-11.35 dB
18.000 GHz	27.000 GHz	1.000 MHz	20.35462 GHz	-37.01 dBm	-12.01 dB

NR N41 / 100MHz

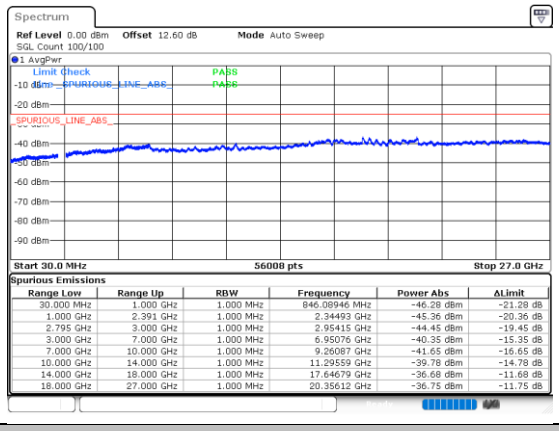
Lowest Channel / QPSK



Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	1.000 GHz	1.000 MHz	914.44028 MHz	-46.20 dBm	-21.20 dB
1.000 GHz	2.391 GHz	1.000 MHz	2.34424 GHz	-45.33 dBm	-20.33 dB
2.795 GHz	3.000 GHz	1.000 MHz	2.97014 GHz	-44.42 dBm	-19.42 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.96325 GHz	-40.45 dBm	-15.45 dB
7.000 GHz	10.000 GHz	1.000 MHz	9.23488 GHz	-41.75 dBm	-16.75 dB
10.000 GHz	14.000 GHz	1.000 MHz	11.27959 GHz	-39.87 dBm	-14.87 dB
14.000 GHz	18.000 GHz	1.000 MHz	17.64229 GHz	-36.61 dBm	-11.61 dB
18.000 GHz	27.000 GHz	1.000 MHz	20.36762 GHz	-36.99 dBm	-11.99 dB

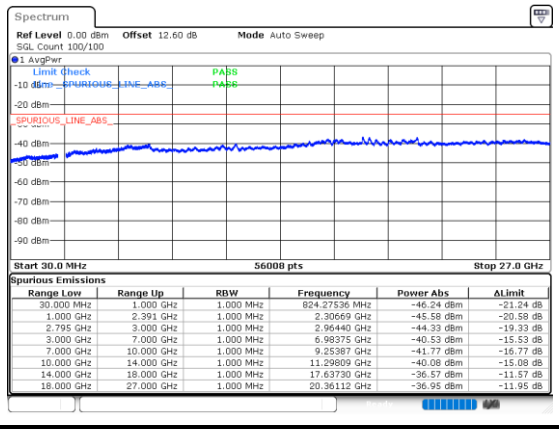
Middle Channel / QPSK



Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	1.000 GHz	1.000 MHz	846.08946 MHz	-46.28 dBm	-21.28 dB
1.000 GHz	2.391 GHz	1.000 MHz	2.34493 GHz	-45.36 dBm	-20.36 dB
2.795 GHz	3.000 GHz	1.000 MHz	2.95415 GHz	-44.45 dBm	-19.45 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.95076 GHz	-40.35 dBm	-15.35 dB
7.000 GHz	10.000 GHz	1.000 MHz	9.26087 GHz	-41.65 dBm	-16.65 dB
10.000 GHz	14.000 GHz	1.000 MHz	11.29559 GHz	-39.78 dBm	-14.78 dB
14.000 GHz	18.000 GHz	1.000 MHz	17.64679 GHz	-36.68 dBm	-11.68 dB
18.000 GHz	27.000 GHz	1.000 MHz	20.35612 GHz	-36.75 dBm	-11.75 dB

Highest Channel / QPSK



Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	1.000 GHz	1.000 MHz	824.27536 MHz	-46.24 dBm	-21.24 dB
1.000 GHz	2.391 GHz	1.000 MHz	2.30669 GHz	-45.58 dBm	-20.58 dB
2.795 GHz	3.000 GHz	1.000 MHz	2.96440 GHz	-44.33 dBm	-19.33 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.98375 GHz	-40.53 dBm	-15.53 dB
7.000 GHz	10.000 GHz	1.000 MHz	9.25387 GHz	-41.77 dBm	-16.77 dB
10.000 GHz	14.000 GHz	1.000 MHz	11.29809 GHz	-40.08 dBm	-15.08 dB
14.000 GHz	18.000 GHz	1.000 MHz	17.63730 GHz	-36.57 dBm	-11.57 dB
18.000 GHz	27.000 GHz	1.000 MHz	20.36112 GHz	-36.95 dBm	-11.95 dB

Frequency Stability

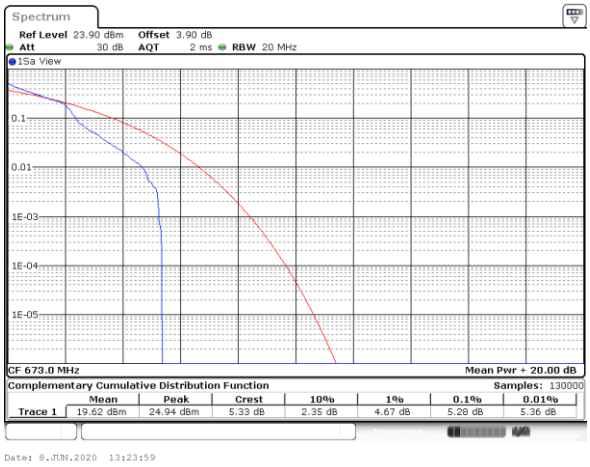
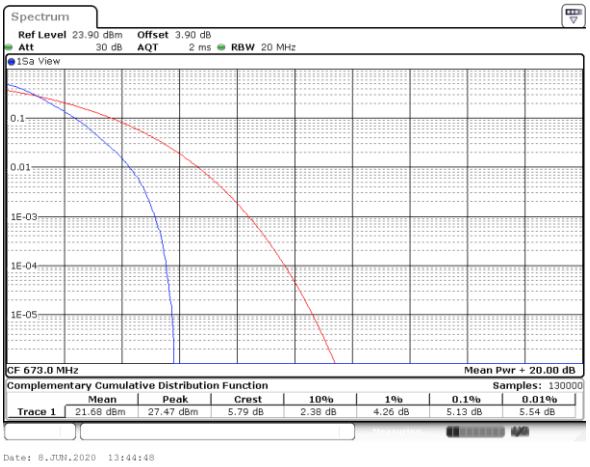
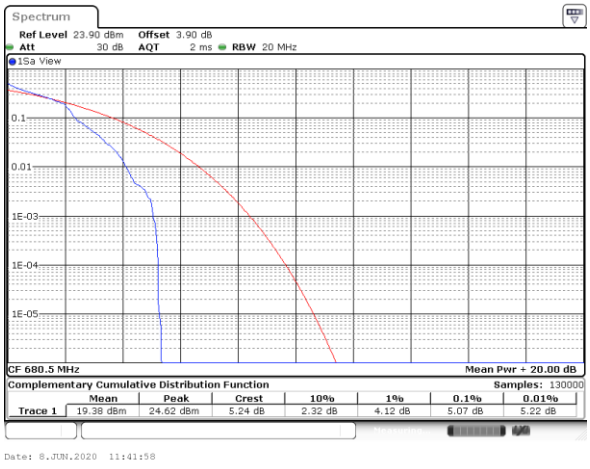
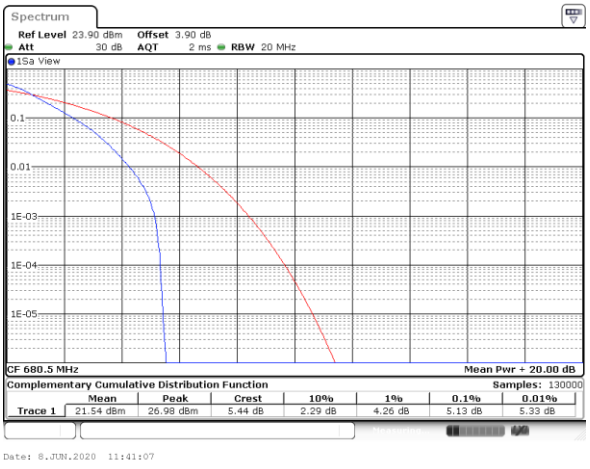
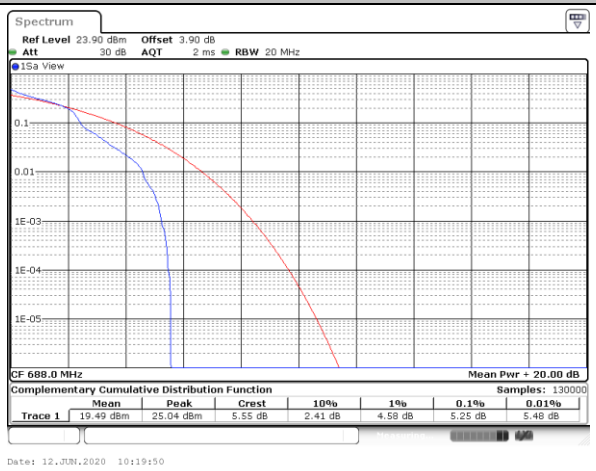
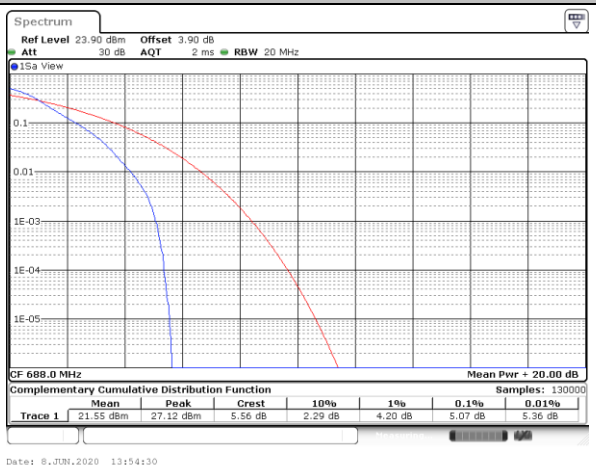
Test Conditions		N41 (QPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	NR 100MHz	Note 2.
		Deviation (ppm)	Result
50	Normal Voltage	0.0015	PASS
40	Normal Voltage	0.0011	
30	Normal Voltage	0.0008	
20(Ref.)	Normal Voltage	0.0012	
10	Normal Voltage	0.0006	
0	Normal Voltage	0.0016	
-10	Normal Voltage	0.0012	
-20	Normal Voltage	0.0018	
-30	Normal Voltage	0.0005	
20	Maximum Voltage	0.0023	
20	Normal Voltage	0.0005	
20	Battery End Point	0.0008	

Note:

1. Normal Voltage =3.87 V.；Battery End Point (BEP) =3.6 V.；Maximum Voltage =4.45 V.
2. Note: The frequency fundamental emissions stay within the authorized frequency block.

Peak-to-Average Ratio

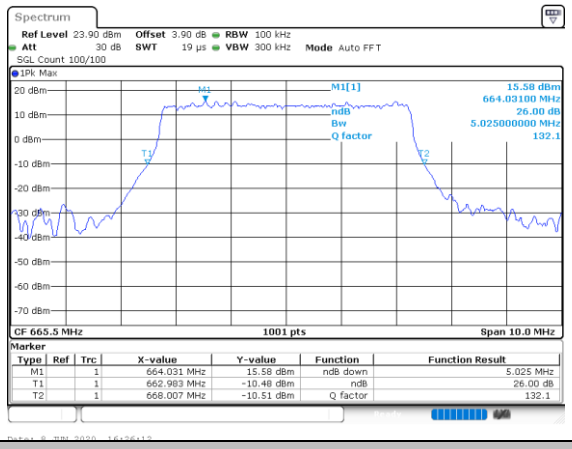
Mode	NR N71 / 20MHz				
Mod.	QPSK				Limit: 13dB
RB Size	1RB	Full RB			Result
Lowest CH	5.28	5.13			PASS
Middle CH	5.07	5.13			
Highest CH	5.25	5.07			

NR N71 / 20MHz / QPSK	
Lowest Channel / 1RB	**Lowest Channel / Full RB**
	
Middle Channel / 1RB	**Middle Channel / Full RB**
	
Highest Channel / 1RB	**Highest Channel / Full RB**
	

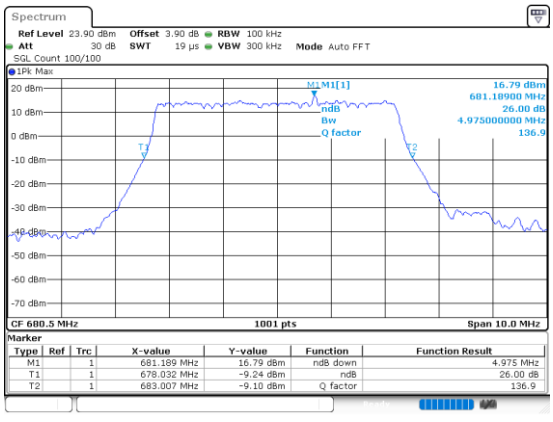
26dB Bandwidth

Mode	NR N71 : 26dB BW(MHz)								
BW	5MHz	10MHz	20MHz						
Mod.	QPSK	QPSK	QPSK						
Lowest CH	5.025	9.95	18.821						
Middle CH	4.975	9.93	18.821						
Highest CH	5.035	9.85	18.861						

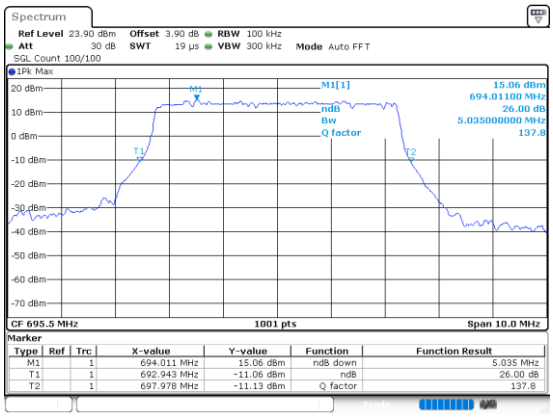
NR N71
Lowest Channel / 5MHz / QPSK



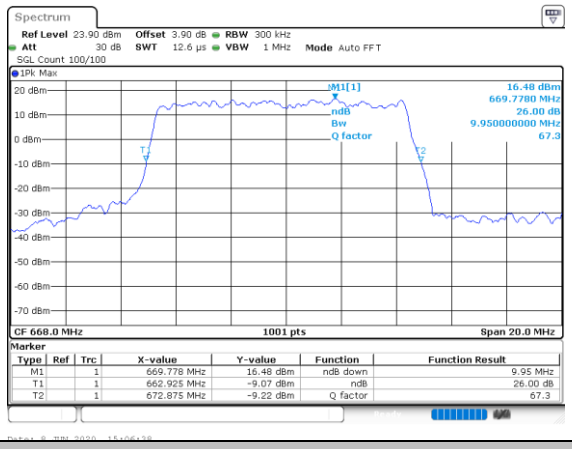
Middle Channel / 5MHz / QPSK



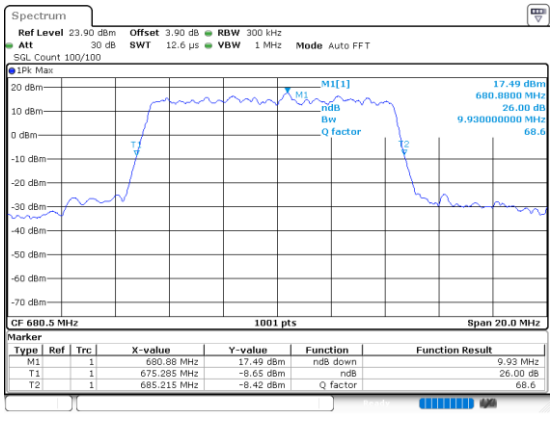
Highest Channel / 5MHz / QPSK



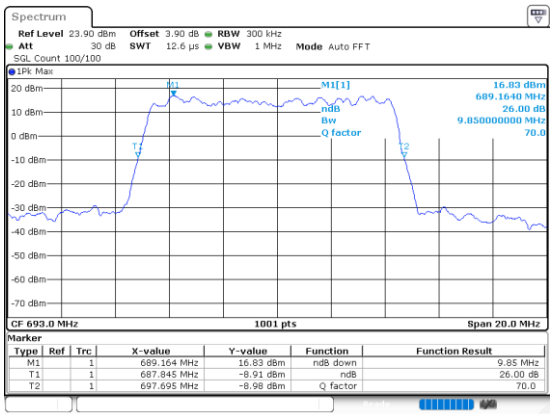
NR N71
Lowest Channel / 10MHz / QPSK



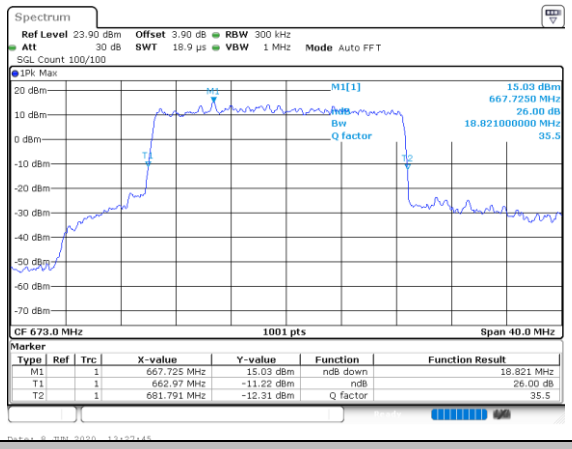
Middle Channel / 10MHz / QPSK



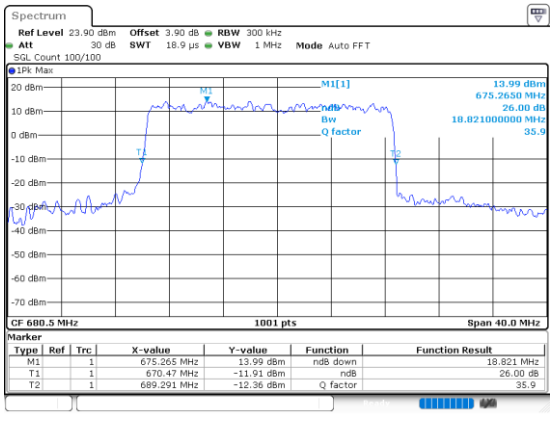
Highest Channel / 10MHz / QPSK



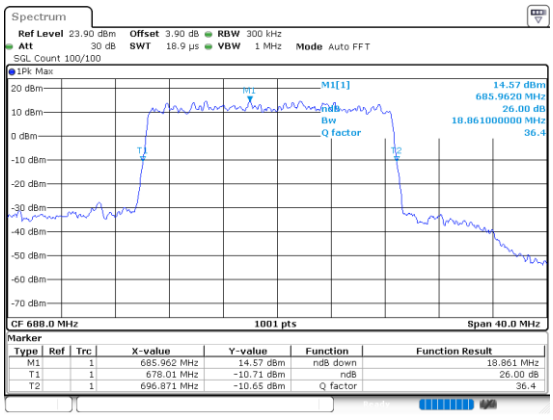
NR N71
Lowest Channel / 20MHz / QPSK



Middle Channel / 20MHz / QPSK



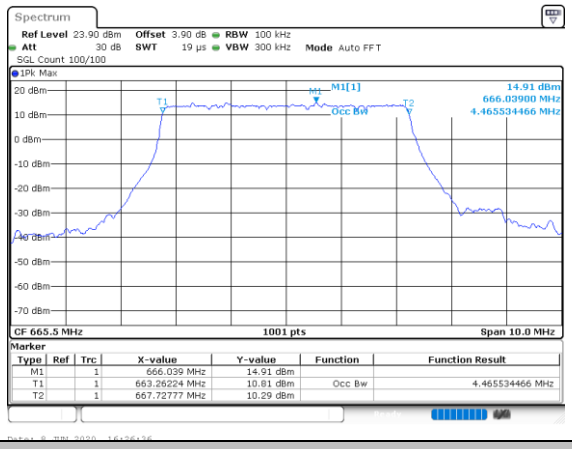
Highest Channel / 20MHz / QPSK



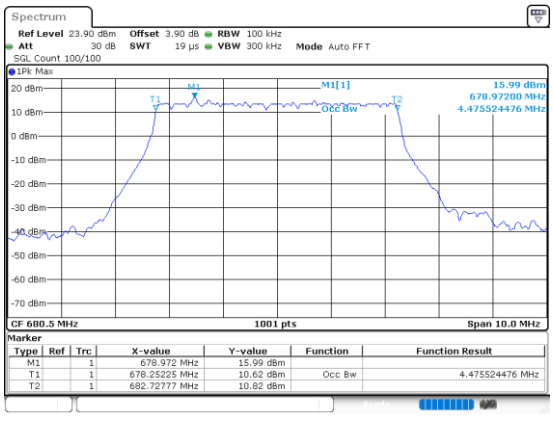
Occupied Bandwidth

Mode	NR N71 : OB BW(MHz)								
BW	5MHz	10MHz	20MHz						
Mod.	QPSK	QPSK	QPSK						
Lowest CH	4.466	9.051	17.902						
Middle CH	4.476	9.031	17.902						
Highest CH	4.476	9.031	17.902						

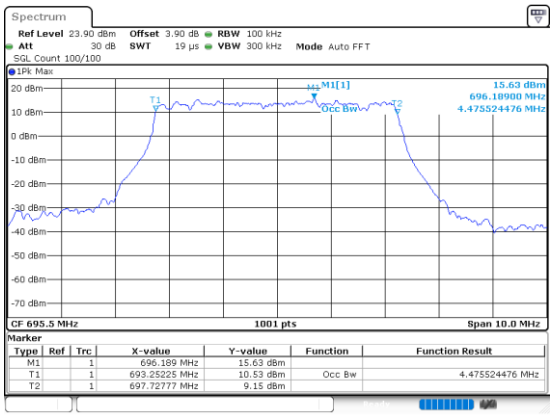
NR N71
Lowest Channel / 5MHz / QPSK



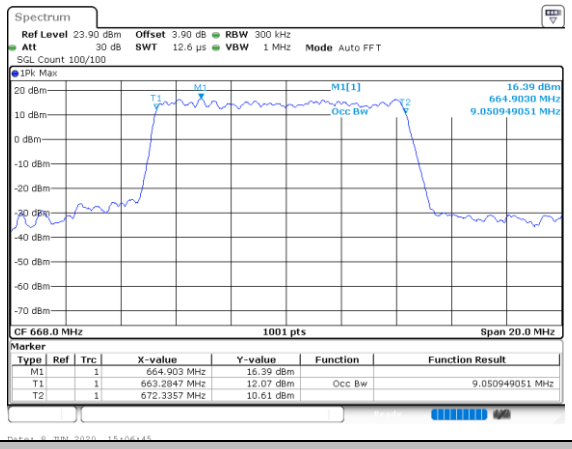
Middle Channel / 5MHz / QPSK



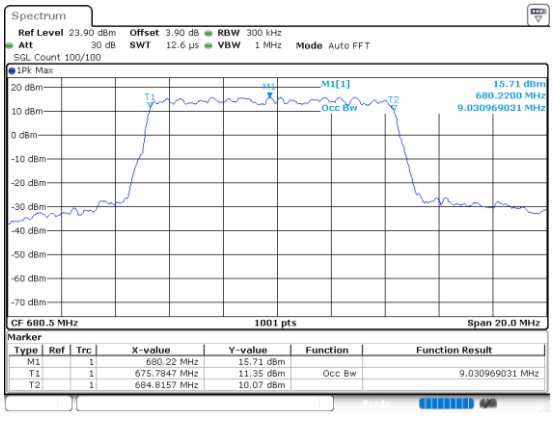
Highest Channel / 5MHz / QPSK



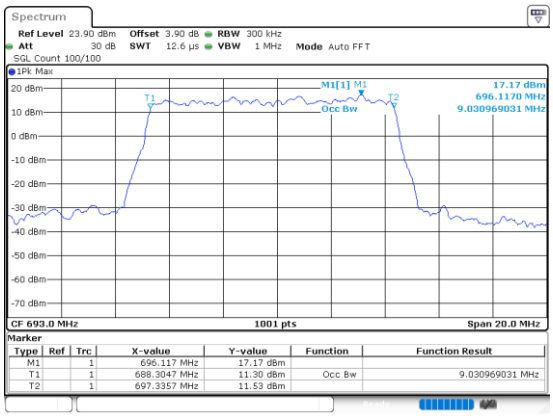
NR N71
Lowest Channel / 10MHz / QPSK



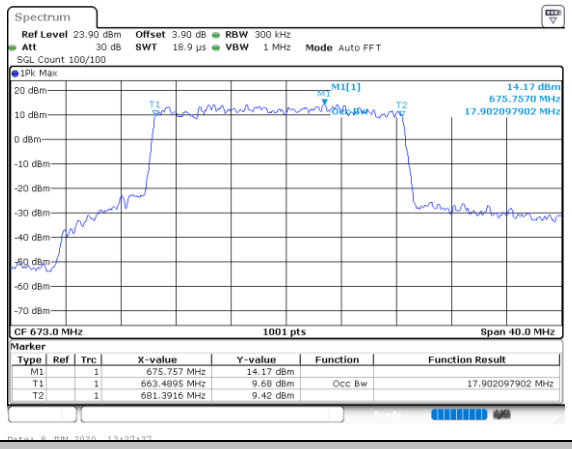
Middle Channel / 10MHz / QPSK



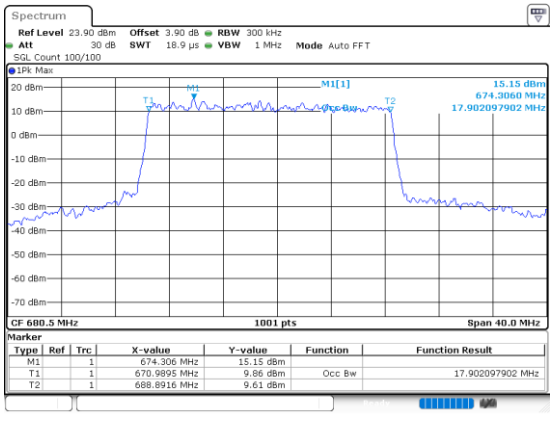
Highest Channel / 10MHz / QPSK



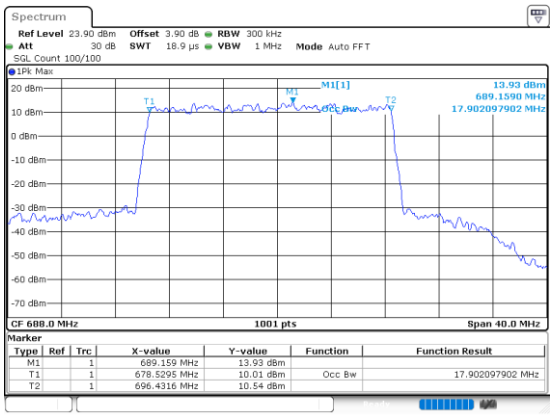
NR N71
Lowest Channel / 20MHz / QPSK



Middle Channel / 20MHz / QPSK



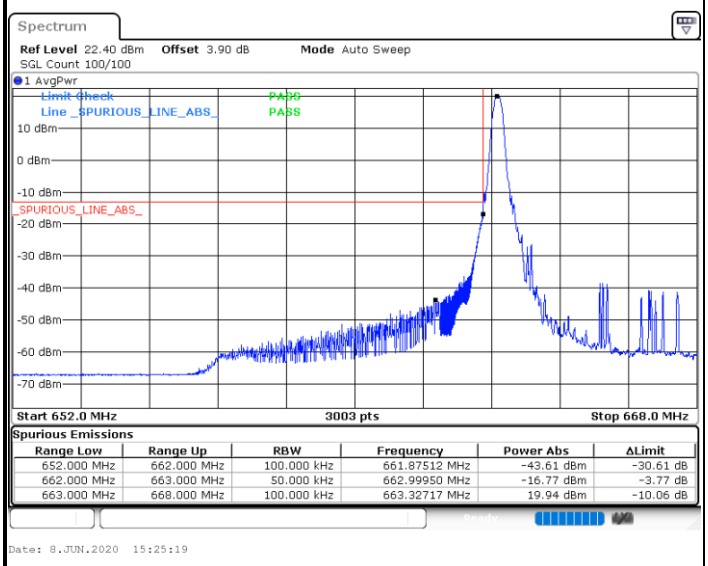
Highest Channel / 20MHz / QPSK



Conducted Band Edge

NR N71 / 5MHz / QPSK

Lowest Band Edge / 1RB0



Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
652.000 MHz	662.000 MHz	100.000 kHz	661.87512 MHz	-43.61 dBm	-30.61 dB
662.000 MHz	663.000 MHz	50.000 kHz	662.99950 MHz	-16.77 dBm	-3.77 dB
663.000 MHz	668.000 MHz	100.000 kHz	663.32717 MHz	19.94 dBm	-10.06 dB

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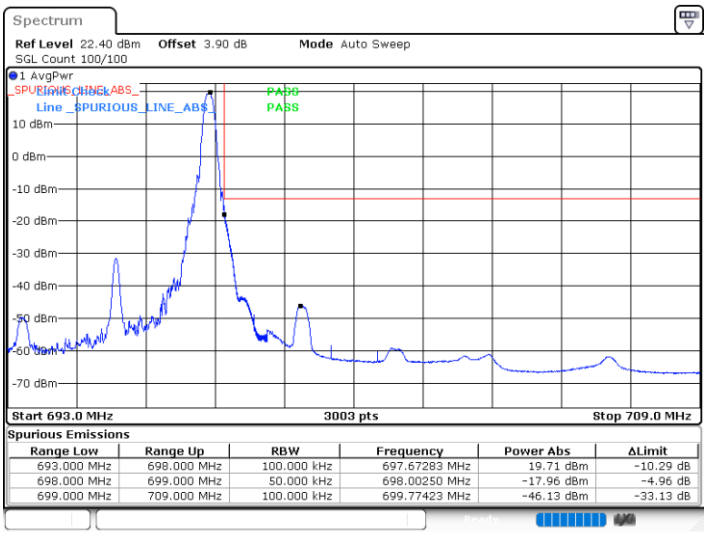
Highest Band Edge / 1RB24



Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
693.000 MHz	698.000 MHz	100.000 kHz	697.67283 MHz	19.71 dBm	-10.29 dB
698.000 MHz	699.000 MHz	50.000 kHz	698.00250 MHz	-17.96 dBm	-4.96 dB
699.000 MHz	709.000 MHz	100.000 kHz	699.77423 MHz	-46.13 dBm	-33.13 dB

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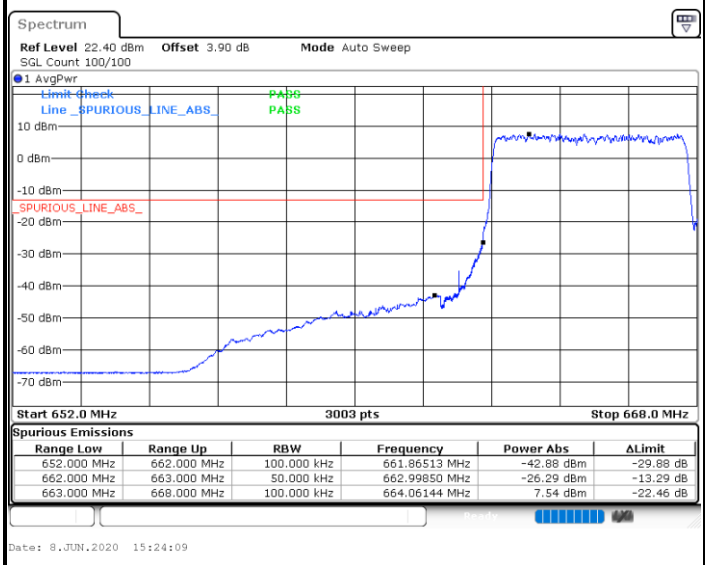
Lowest Band Edge / 25RB0



Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
652.000 MHz	662.000 MHz	100.000 kHz	661.86513 MHz	-42.88 dBm	-29.88 dB
662.000 MHz	663.000 MHz	50.000 kHz	662.99850 MHz	-26.29 dBm	-13.29 dB
663.000 MHz	668.000 MHz	100.000 kHz	664.06144 MHz	7.54 dBm	-22.46 dB

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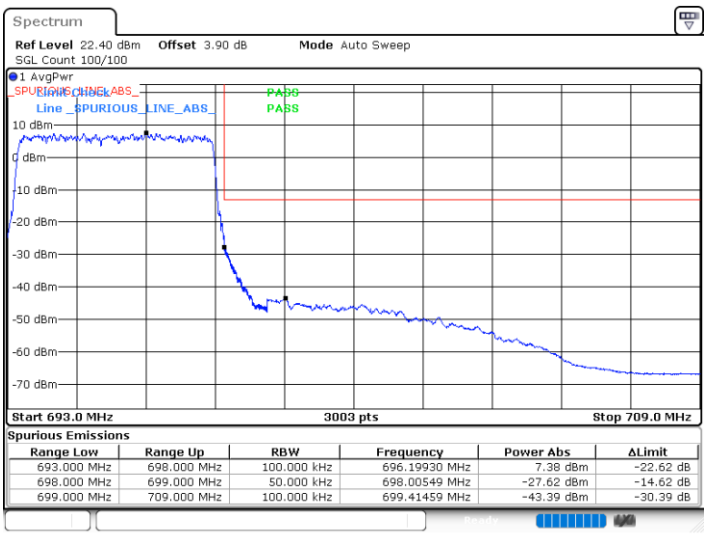
Highest Band Edge / 25RB0



Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
693.000 MHz	698.000 MHz	100.000 kHz	696.19930 MHz	7.38 dBm	-22.62 dB
698.000 MHz	699.000 MHz	50.000 kHz	698.00549 MHz	-27.62 dBm	-14.62 dB
699.000 MHz	709.000 MHz	100.000 kHz	699.41459 MHz	-43.39 dBm	-30.39 dB

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