



FCC ID: HFS-GW02
Report No.: T200821W04-RP1



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FCC 47 CFR PART 27 SUBPART L, F

TEST REPORT

For

QTAX56

Model No.: QTAX56

Issued to

Quanta Computer Inc.

No.188, Wenhua 2nd Rd., Guishan Dist., Taoyuan City 33377, Taiwan

Issued by

Compliance Certification Services Inc.

Wugu Laboratory

No.11, Wugong 6th Rd., Wugu Dist.,

New Taipei City, Taiwan. (R.O.C.)

Issued Date: October 15, 2020

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only.

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Revision History

Rev.	Issue Date	Revisions	Effect Page	Revised By
00	September 29, 2020	Initial Issue	ALL	Allison Chen
01	October 15, 2020	See the following note Rev.(01)	P.8, P.14, P.60-68, P.134	Allison Chen

Rev.(01)

1. Modify test summary in section 4.
2. Modify test limit and test data to meet 27.53(c)(4) in section 8.5.
3. Added remark in section 8.7.

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1. TEST RESULT CERTIFICATION

Applicant: Quanta Computer Inc.
No.188, Wenhua 2nd Rd., Guishan Dist., Taoyuan City
33377, Taiwan

Manufacturer: Quanta Computer Inc.
No.188, Wenhua 2nd Rd., Guishan Dist., Taoyuan City
33377, Taiwan

Equipment Under Test: QTAX56

Model No.: QTAX56

Date of Test: September 11 ~ October 14, 2020

APPLICABLE STANDARDS	
Standard	TEST RESULT
FCC Part 27, Subpart C, L, FCC Part 2	No non-compliance noted
Statements of Conformity	
Determination of compliance is based on the results of the compliance measurement, not taking into account measurement instrumentation uncertainty.	

The above equipment has been tested by Compliance Certification Services Inc., and found compliance with the requirements set forth in the technical standards mentioned above. The results of testing in this report apply only to the product/system, which was tested. Other similar equipment will not necessarily produce the same results due to production tolerance and measurement uncertainties.

Approved by:

Kevin Tsai
Deputy Manager



2. EUT DESCRIPTION

Product	QTAX56	
Model No.	QTAX56	
Model Discrepancy	N/A	
Received Date	August 21, 2020	
Power Supply	1. Powered from adapter Model No.: CYSM06-050120-UL Supplier: JIANGSU CHENYANG ELECTRON CO., LTD I/P: 100-240Vac, 50/60Hz, 0.2A O/P: 5Vdc, 1.2A 2. Powered from battery. (Lithium Polymer) Model No.: P0963, Supplier: EVE Rating: 3.85V / 495mAh / 1.91Wh	
Modulation Technology	LTE Band 13	QPSK, 16QAM
	LTE Band 4	QPSK, 16QAM
Frequency Range	LTE Band 13 Channel Bandwidth: 5MHz	779.5MHz ~ 784.5MHz
	LTE Band 13 Channel Bandwidth: 10MHz	782 MHz – 782 MHz
	LTE Band 4 Channel Bandwidth: 1.4MHz	1710.7MHz ~1754.2MHz
	LTE Band 4 Channel Bandwidth: 3MHz	1711.5MHz ~ 1753.4MHz
	LTE Band 4 Channel Bandwidth: 5MHz	1712.5MHz ~1752.5MHz
	LTE Band 4 Channel Bandwidth: 10MHz	1715.0MHz ~1750.0MHz
	LTE Band 4 Channel Bandwidth: 15MHz	1717.5MHz ~ 1747.5MHz
	LTE Band 4 Channel Bandwidth: 20MHz	1720MHz ~1745MHz
Antenna Specification	PIFA Antenna LTE Band 4 Antenna gain: -4.04dBi LTE Band 13 Antenna gain: -10.65 dBi	
HW Version	X56_D2B	
SW Version	QTAX56_30A11	

Note: 1. The above EUT information was declared by manufacturer and for more detailed features description, please refer to the manufacturer's specifications or User's Manual.

3. TEST METHODOLOGY

3.1 DESCRIPTION OF TEST TYPE

The EUT had been tested under operating condition.

Software used to control the EUT for staying in continuous transmitting mode was programmed.

LTE Band 13: 777 MHz ~ 787 MHz

Three channels had been tested for each channel bandwidth.

Channel	5MHz		10MHz	
	Channel	Frequency(MHz)	Channel	Frequency(MHz)
Low CH	23205	779.5	-	-
Middle CH	23230	782.0	23230	782.0
High CH	23255	784.5	-	-

LTE Band 4: 1710MHz ~ 1755MHz

Three channels had been tested for each channel bandwidth.

Channel Bandwidth	1.4MHz		3MHz		5MHz	
	Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
Low CH	19957	1710.7	19965	1711.5	19975	1712.5
Middle CH	20175	1732.5	20175	1732.5	20175	1732.5
High CH	20393	1754.2	20384	1753.4	20375	1752.5
Channel Bandwidth	10MHz		15MHz		20MHz	
	Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
Low CH	20000	1715.0	20025	1717.5	20050	1720.00
Middle CH	20175	1732.5	20175	1732.5	20175	1732.50
High CH	20350	1750.0	20325	1747.5	20300	1745.00

3.2 THE WORST MODE OF MEASUREMENT

Radiated Emission Measurement Above 1G	
Test Condition	Radiated Emission Above 1G
Power supply Mode	Mode 1: EUT power by Adapter.
Worst Mode	☒ Mode 1 ☐ Mode 2 ☐ Mode 3 ☐ Mode 4
Worst Position	☐ Placed in fixed position. ☐ Placed in fixed position at X-Plane (E2-Plane) ☐ Placed in fixed position at Y-Plane (E1-Plane) ☒ Placed in fixed position at Z-Plane (H-Plane)

Radiated Emission Measurement Below 1G	
Test Condition	Radiated Emission Below 1G
Power supply Mode	Mode 1: EUT power by Adapter. Mode 2: EUT power by Battery.
Worst Mode	☒ Mode 1 ☐ Mode 2 ☐ Mode 3 ☐ Mode 4

Remark:

1. The worst mode was record in this test report.
2. EUT pre-scanned in three axis ,X,Y, Z and two polarity, for radiated measurement. The worst case(Z-Plane) were recorded in this report



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4. TEST SUMMARY

FCC Standard Section	Report Section	Test Item	Result
-	2	Antenna Requirement	Pass
27.50(d), 27.50(b)	8.1	ERP and EIRP Measurement	Pass
2.1055, 27.54	8.2	Frequency Stability v.s. temperature measurement	Pass
2.1049	8.3	Occupied Bandwidth Measurement	Pass
27.50(d)	8.4	Peak to Average Ratio	Pass
27.53(c), 27.53(h)	8.5	Conducted Band Edge	Pass
27.53(c), 27.53(h)	8.6	Conducted Spurious Emission	Pass
27.53(c), 27.53(h)	8.7	Spurious Radiation Measurement	Pass

5. INSTRUMENT CALIBRATION

5.1 FACILITIES AND TEST LOCATION

All measurement facilities used to collect the measurement data are located at No.11, Wugong 6th Rd., Wugu Dist., New Taipei City, Taiwan. (R.O.C.)

Test site	Test Engineer	Remark
Radiation	Jerry Chang	-
RF Conducted	Jane Wang	-

Remark: The sites are constructed in conformance with the requirements of ANSI C63.7, ANSI C63.4 and CISPR Publication 22.

5.2 MEASUREMENT EQUIPMENT USED

Equipment Used for Emissions Measurement

Remark: Each piece of equipment is scheduled for calibration once a year.

Test Date: September 11 ~ 14, 2020

RF Conducted Test Site					
Equipment	Manufacturer	Model	S/N	Cal Date	Cal Due
Coaxial Cable	Woken	WC12	CC001	06/29/2020	06/28/2021
Radio Communication Analyzer	Anritsu	MT-8820C	6201240043	07/17/2020	07/16/2021
Signal Analyzer	R&S	FSV 40	101073	09/25/2019	09/24/2020
Software	N/A				

Test Date: October 14, 2020

RF Conducted Test Site					
Equipment	Manufacturer	Model	S/N	Cal Date	Cal Due
Coaxial Cable	Woken	WC12	CC001	06/29/2020	06/28/2021
Radio Communication Analyzer	Anritsu	MT-8820C	6201240043	07/17/2020	07/16/2021
Signal Analyzer	R&S	FSV 40	101073	09/17/2020	09/16/2021
Software	N/A				



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3M 966 Chamber Test Site					
Equipment	Manufacturer	Model	S/N	Cal Date	Cal Due
Band Reject Filters	MICRO TRONICS	BRM 50702	120	02/25/2020	02/24/2021
Bilog Antenna	Sunol Sciences	JB3	A030105	07/24/2020	07/23/2021
Coaxial Cable	HUBER SUHNER	SUCOFLEX 104PEA	20995	02/25/2020	02/24/2021
Coaxial Cable	EMCI	EMC105	190914+25111	09/20/2019	09/19/2020
Digital Thermo-Hygro Meter	WISEWIND	1206	D07	01/15/2020	01/14/2021
double Ridged Guide Horn Antenna	ETC	MCTD 1209	DRH13M02003	10/04/2019	10/03/2020
Loop Ant	COM-POWER	AL-130	121051	03/27/2020	03/26/2021
Pre-Amplifier	EMEC	EM330	060609	02/25/2020	02/24/2021
Pre-Amplifier	HP	8449B	3008A00965	02/25/2020	02/24/2021
PSA Series Spectrum Analyzer	Agilent	E4446A	MY46180323	07/24/2020	07/23/2021
Antenna Tower	CCS	CC-A-1F	N/A	N.C.R	N.C.R
Controller	CCS	CC-C-1F	N/A	N.C.R	N.C.R
Turn Table	CCS	CC-T-1F	N/A	N.C.R	N.C.R
Wideband Radio Communication Tester	R&S	CMW 500	116875	07/19/2020	07/18/2021
Software	e3 6.11-20180413				

5.3 MEASUREMENT UNCERTAINTY

PARAMETER	UNCERTAINTY
AC Powerline Conducted Emission	+/- 1.2575
Emission bandwidth, 20dB bandwidth	+/- 0.0014
RF output power, conducted	+/- 1.14
Power density, conducted	+/- 1.40
3M Semi Anechoic Chamber / 30M~200M	+/- 4.12
3M Semi Anechoic Chamber / 200M~1000M	+/- 4.68
3M Semi Anechoic Chamber / 1G~8G	+/- 5.18
3M Semi Anechoic Chamber / 8G~18G	+/- 5.47
3M Semi Anechoic Chamber / 18G~26G	+/- 3.81
3M Semi Anechoic Chamber / 26G~40G	+/- 3.87

Remark: This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.

6. FACILITIES AND ACCREDITATIONS

6.1 FACILITIES

All measurement facilities used to collect the measurement data are located at

☐ No.199, Chunghsen Road, Hsintien City, Taipei Hsien, Taiwan, R.O.C.

Tel: 886-2-2217-0894 / Fax: 886-2-2217-1029

☒ No.11, Wugong 6th Rd., Wugu Dist., New Taipei City, Taiwan. (R.O.C.)

Tel: 886-2-2299-9720 / Fax: 886-2-2299-9721

The sites are constructed in conformance with the requirements of ANSI C63.7, ANSI C63.10: 2013 and CISPR Publication 22.

6.2 EQUIPMENT

Radiated emissions are measured with one or more of the following types of linearly polarized antennas: tuned dipole, biconical, log periodic, bi-log, and/or ridged waveguide, horn. Spectrum analyzers with pre-selectors and quasi-peak detectors are used to perform radiated measurements.

Conducted emissions are measured with Line Impedance Stabilization Networks and EMI Test Receivers.

Calibrated wideband preamplifiers, coaxial cables, and coaxial attenuators are also used for making measurements.

All receiving equipment conforms to CISPR Publication 16-1, "Radio Interference Measuring Apparatus and Measurement Methods."

6.3 LABORATORY ACCREDITATIONS AND LISTING

The test facilities used to perform radiated and conducted emissions tests are accredited by American Association for Laboratory Accreditation Program for the specific scope accreditation under Lab Code: 0824-01 to perform Electromagnetic Interference tests according to FCC Part 15 and CISPR 22 requirements. In addition, the test facilities are listed with Industry Canada, Certification and Engineering Bureau, ISED#: 2324G.

7. SETUP OF EQUIPMENT UNDER TEST

7.1 SETUP CONFIGURATION OF EUT

See test photographs attached in Appendix I for the actual connections between EUT and support equipment.

7.2 SUPPORT EQUIPMENT

No.	Equipment	Brand	Model	Series No.	FCC ID	IC ID
1	NB(J)	TOSHIBA	PT345T-00L002	N/A	PD97260H	1000M-7260H
2	DC Power Supplies	GW Instek	SPS-3610	GPE880163	N/A	N/A

Remark:

1. All the equipment/cables were placed in the worst-case configuration to maximize the emission during the test.
2. Grounding was established in accordance with the manufacturer's requirements and conditions for the intended use.



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8. TEST PROCEDURE AND RESULT

8.1 ERP & EIRP MEASUREMENT

LIMIT

According to FCC §2.1046

FCC 27.50 (d) (4): Fixed, mobile, and portable (handheld) stations operating in the 1710-1755MHz band and mobile and portable stations operating in the 1695-1710MHz and 1755-1780MHz bands are limited to 1 watt EIRP.

FCC 27.50 (b) (10): Portable stations (hand-held devices) transmitting in the 746-757 MHz, 776-788 MHz, and 805-806 MHz bands are limited to 3 watts ERP.

TEST PROCEDURES

CONDUCTED POWER MEASUREMENT:

1. The transmitter output power was connected to the call box.
2. Set EUT at maximum output power via call box.
3. Set Call box at lowest, middle and highest channels for each band and modulation.

TEST RESULTS

No non-compliance noted.

Temperature: 24°C

Humidity: 50% RH

Tested by: Jane Wang

Test Date: September 14, 2020

TEST RESULTS

LTE Band 4

Band	BW (MHz)	Channel	Frequency (MHz)	Mode	UL RB Allocation	UL RB Start	MPR	Average power(dBm)	EIRP Power (dBm)
Band 4	1.4M	19957	1710.7	QPSK	1	0	0	22.65	18.61
					1	2	0	22.29	18.25
					1	5	0	21.94	17.90
					3	0	1	21.57	17.53
					3	1	1	21.17	17.13
					3	2	1	21.14	17.10
					6	0	1	21.01	16.97
				16QAM	1	0	1	21.22	17.18
					1	2	1	20.42	16.38
					1	5	1	21.19	17.15
					3	0	2	20.27	16.23
					3	1	2	20.26	16.22
					3	2	2	20.11	16.07
					6	0	2	19.69	15.65
		20175	1732.5	QPSK	1	0	0	22.52	18.48
					1	2	0	22.17	18.13
					1	5	0	22.00	17.96
					3	0	1	21.45	17.41
					3	1	1	21.15	17.11
					3	2	1	21.20	17.16
					6	0	1	21.08	17.04
				16QAM	1	0	1	21.33	17.29
					1	2	1	21.22	17.18
					1	5	1	21.19	17.15
					3	0	2	20.22	16.18
					3	1	2	20.13	16.09
					3	2	2	20.19	16.15
					6	0	2	20.26	16.22
		20392	1754.2	QPSK	1	0	0	22.43	18.39
					1	2	0	22.37	18.33
					1	5	0	22.31	18.27
					3	0	1	21.62	17.58
					3	1	1	21.17	17.13
					3	2	1	21.23	17.19
					6	0	1	20.93	16.89
				16QAM	1	0	1	20.63	16.59
					1	2	1	21.25	17.21
					1	5	1	21.32	17.28
					3	0	2	20.27	16.23
					3	1	2	20.23	16.19
					3	2	2	20.13	16.09
					6	0	2	20.31	16.27

Band	BW (MHz)	Channel	Frequency (MHz)	Mode	UL RB Allocation	UL RB Start	MPR	Average power(dBm)	EIRP Power (dBm)
Band 4	3M	19965	1711.5	QPSK	1	0	0	22.66	18.62
					1	7	0	22.30	18.26
					1	14	0	21.95	17.91
					8	0	1	21.58	17.54
					8	4	1	21.18	17.14
					8	7	1	21.15	17.11
					15	0	1	21.02	16.98
				16QAM	1	0	1	21.23	17.19
					1	7	1	20.43	16.39
					1	14	1	21.20	17.16
					8	0	2	20.28	16.24
					8	4	2	20.27	16.23
					8	7	2	20.12	16.08
					15	0	2	19.70	15.66
		20175	1732.5	QPSK	1	0	0	22.53	18.49
					1	7	0	22.18	18.14
					1	14	0	22.01	17.97
					8	0	1	21.46	17.42
					8	4	1	21.16	17.12
					8	7	1	21.21	17.17
					15	0	1	21.09	17.05
				16QAM	1	0	1	21.34	17.30
					1	7	1	21.23	17.19
					1	14	1	21.20	17.16
					8	0	2	20.23	16.19
					8	4	2	20.14	16.10
					8	7	2	20.20	16.16
					15	0	2	20.27	16.23
		20384	1753.4	QPSK	1	0	0	22.44	18.40
					1	7	0	22.38	18.34
					1	14	0	22.32	18.28
					8	0	1	21.63	17.59
					8	4	1	21.18	17.14
					8	7	1	21.24	17.20
					15	0	1	20.94	16.90
				16QAM	1	0	1	20.64	16.60
					1	7	1	21.26	17.22
					1	14	1	21.33	17.29
					8	0	2	20.28	16.24
					8	4	2	20.24	16.20
					8	7	2	20.14	16.10
					15	0	2	20.32	16.28

Band	BW (MHz)	Channel	Frequency (MHz)	Mode	UL RB Allocation	UL RB Start	MPR	Average power(dBm)	EIRP Power (dBm)
Band 4	5M	19975	1712.5	QPSK	1	0	0	22.68	18.64
					1	12	0	22.32	18.28
					1	24	0	21.97	17.93
					12	0	1	21.60	17.56
					12	6	1	21.20	17.16
					12	11	1	21.17	17.13
					25	0	1	21.04	17.00
				16QAM	1	0	1	21.25	17.21
					1	12	1	20.45	16.41
					1	24	1	21.22	17.18
					12	0	2	20.30	16.26
					12	6	2	20.29	16.25
					12	11	2	20.14	16.10
					25	0	2	19.72	15.68
		20175	1732.5	QPSK	1	0	0	22.54	18.50
					1	12	0	22.19	18.15
					1	24	0	22.02	17.98
					12	0	1	21.47	17.43
					12	6	1	21.17	17.13
					12	11	1	21.22	17.18
					25	0	1	21.10	17.06
				16QAM	1	0	1	21.35	17.31
					1	12	1	21.24	17.20
					1	24	1	21.21	17.17
					12	0	2	20.24	16.20
					12	6	2	20.15	16.11
					12	11	2	20.21	16.17
					25	0	2	20.28	16.24
		20375	1752.5	QPSK	1	0	0	22.45	18.41
					1	12	0	22.39	18.35
					1	24	0	22.33	18.29
					12	0	1	21.64	17.60
					12	6	1	21.19	17.15
					12	11	1	21.25	17.21
					25	0	1	20.95	16.91
				16QAM	1	0	1	20.65	16.61
					1	12	1	21.27	17.23
					1	24	1	21.34	17.30
					12	0	2	20.29	16.25
					12	6	2	20.25	16.21
					12	11	2	20.15	16.11
					25	0	2	20.33	16.29

Band	BW (MHz)	Channel	Frequency (MHz)	Mode	UL RB Allocation	UL RB Start	MPR	Average power(dBm)	EIRP Power (dBm)
Band 4	10M	20000	1715.0	QPSK	1	0	0	22.69	18.65
					1	24	0	22.33	18.29
					1	49	0	21.98	17.94
					25	0	1	21.61	17.57
					25	12	1	21.21	17.17
					25	24	1	21.18	17.14
					50	0	1	21.05	17.01
				16QAM	1	0	1	21.26	17.22
					1	24	1	20.46	16.42
					1	49	1	21.23	17.19
					25	0	2	20.31	16.27
					25	12	2	20.30	16.26
					25	24	2	20.15	16.11
					50	0	2	19.73	15.69
		20175	1732.5	QPSK	1	0	0	22.56	18.52
					1	24	0	22.21	18.17
					1	49	0	22.04	18.00
					25	0	1	21.49	17.45
					25	12	1	21.19	17.15
					25	24	1	21.24	17.20
					50	0	1	21.12	17.08
				16QAM	1	0	1	21.37	17.33
					1	24	1	21.26	17.22
					1	49	1	21.23	17.19
					25	0	2	20.26	16.22
					25	12	2	20.17	16.13
					25	24	2	20.23	16.19
					50	0	2	20.30	16.26
		20350	1750.0	QPSK	1	0	0	22.48	18.44
					1	24	0	22.42	18.38
					1	49	0	22.36	18.32
					25	0	1	21.67	17.63
					25	12	1	21.22	17.18
					25	24	1	21.28	17.24
					50	0	1	20.98	16.94
				16QAM	1	0	1	20.68	16.64
					1	24	1	21.30	17.26
					1	49	1	21.37	17.33
					25	0	2	20.32	16.28
					25	12	2	20.28	16.24
					25	24	2	20.18	16.14
					50	0	2	20.36	16.32

Band	BW (MHz)	Channel	Frequency (MHz)	Mode	UL RB Allocation	UL RB Start	MPR	Average power(dBm)	EIRP Power (dBm)
Band 4	15M	20025	1717.5	QPSK	1	0	0	22.72	18.68
					1	37	0	22.36	18.32
					1	74	0	22.01	17.97
					36	0	1	21.64	17.60
					36	18	1	21.24	17.20
					36	35	1	21.21	17.17
					75	0	1	21.08	17.04
				16QAM	1	0	1	21.29	17.25
					1	37	1	20.49	16.45
					1	74	1	21.26	17.22
					36	0	2	20.34	16.30
					36	18	2	20.33	16.29
					36	35	2	20.18	16.14
					75	0	2	19.76	15.72
		20175	1732.5	QPSK	1	0	0	22.58	18.54
					1	37	0	22.23	18.19
					1	74	0	22.06	18.02
					36	0	1	21.51	17.47
					36	18	1	21.21	17.17
					36	35	1	21.26	17.22
					75	0	1	21.14	17.10
				16QAM	1	0	1	21.39	17.35
					1	37	1	21.28	17.24
					1	74	1	21.25	17.21
					36	0	2	20.28	16.24
					36	18	2	20.19	16.15
					36	35	2	20.25	16.21
					75	0	2	20.32	16.28
	15M	20325	1747.5	QPSK	1	0	0	22.50	18.46
					1	37	0	22.44	18.40
					1	74	0	22.38	18.34
					36	0	1	21.69	17.65
					36	18	1	21.24	17.20
					36	35	1	21.30	17.26
					75	0	1	21.00	16.96
				16QAM	1	0	1	20.70	16.66
					1	37	1	21.32	17.28
					1	74	1	21.39	17.35
					36	0	2	20.34	16.30
					36	18	2	20.30	16.26
					36	35	2	20.20	16.16
					75	0	2	20.38	16.34



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Band	BW (MHz)	Channel	Frequency (MHz)	Mode	UL RB Allocation	UL RB Start	MPR	Average power(dBm)	EIRP Power (dBm)
Band 4	20M	20050	1720.0	QPSK	1	0	0	22.80	18.76
					1	49	0	22.44	18.40
					1	99	0	22.09	18.05
					50	0	1	21.72	17.68
					50	24	1	21.32	17.28
					50	49	1	21.29	17.25
					100	0	1	21.16	17.12
				16QAM	1	0	1	21.37	17.33
					1	49	1	20.57	16.53
					1	99	1	21.34	17.30
					50	0	2	20.42	16.38
					50	24	2	20.41	16.37
					50	49	2	20.26	16.22
					100	0	2	19.84	15.80
		20175	1732.5	QPSK	1	0	0	22.64	18.60
					1	49	0	22.29	18.25
					1	99	0	22.12	18.08
					50	0	1	21.57	17.53
					50	24	1	21.27	17.23
					50	49	1	21.32	17.28
					100	0	1	21.20	17.16
				16QAM	1	0	1	21.45	17.41
					1	49	1	21.34	17.30
					1	99	1	21.31	17.27
					50	0	2	20.34	16.30
					50	24	2	20.25	16.21
					50	49	2	20.31	16.27
					100	0	2	20.38	16.34
		20300	1745.0	QPSK	1	0	0	22.55	18.51
					1	49	0	22.49	18.45
					1	99	0	22.43	18.39
					50	0	1	21.74	17.70
					50	24	1	21.29	17.25
					50	49	1	21.35	17.31
					100	0	1	21.05	17.01
				16QAM	1	0	1	20.75	16.71
					1	49	1	21.37	17.33
					1	99	1	21.44	17.40
					50	0	2	20.39	16.35
					50	24	2	20.35	16.31
					50	49	2	20.25	16.21
					100	0	2	20.43	16.39

LTE Band 13

Band	BW (MHz)	Channel	Frequency (MHz)	Mode	UL RB Allocation	UL RB Start	MPR	Average power(dBm)	ERP Power (dBm)
Band 13	5M	23205	779.5	QPSK	1	0	0	22.54	9.74
					1	12	0	22.05	9.25
					1	24	0	21.82	9.02
					12	0	1	21.70	8.90
					12	6	1	21.04	8.24
					12	11	1	20.89	8.09
					25	0	1	21.22	8.42
				16QAM	1	0	1	21.81	9.01
					1	12	1	21.36	8.56
					1	24	1	20.81	8.01
					12	0	2	20.55	7.75
					12	6	2	20.18	7.38
					12	11	2	20.02	7.22
					25	0	2	19.96	7.16
		23230	782.0	QPSK	1	0	0	22.03	9.23
					1	12	0	22.52	9.72
					1	24	0	21.80	9.00
					12	0	1	21.68	8.88
					12	6	1	21.02	8.22
					12	11	1	20.87	8.07
					25	0	1	21.20	8.40
				16QAM	1	0	1	21.79	8.99
					1	12	1	21.34	8.54
					1	24	1	20.79	7.99
					12	0	2	20.53	7.73
					12	6	2	20.16	7.36
					12	11	2	20.00	7.20
					25	0	2	19.94	7.14
		23255	784.5	QPSK	1	0	0	22.58	9.78
					1	12	0	22.09	9.29
					1	24	0	21.86	9.06
					12	0	1	21.74	8.94
					12	6	1	21.08	8.28
					12	11	1	20.93	8.13
					25	0	1	21.26	8.46
				16QAM	1	0	1	21.85	9.05
					1	12	1	21.40	8.60
					1	24	1	20.85	8.05
					12	0	2	20.59	7.79
					12	6	2	20.22	7.42
					12	11	2	20.06	7.26
					25	0	2	20.00	7.20



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Band	BW (MHz)	Channel	Frequency (MHz)	Mode	UL RB Allocation	UL RB Start	MPR	Average power(dBm)	ERP Power (dBm)
Band 13	10M	23230	782.0	QPSK	1	0	0	22.60	9.80
					1	24	0	22.11	9.31
					1	49	0	21.88	9.08
					25	0	1	21.76	8.96
					25	12	1	21.10	8.30
					25	24	1	20.95	8.15
					50	0	1	21.28	8.48
				16QAM	1	0	1	21.87	9.07
					1	24	1	21.42	8.62
					1	49	1	20.87	8.07
					25	0	2	20.61	7.81
					25	12	2	20.24	7.44
					25	24	2	20.08	7.28
					50	0	2	20.02	7.22

8.2 FREQUENCY STABILITY MEASUREMENT

LIMIT

According to the FCC part 27.54 shall be tested the frequency stability. The rule is defined that "The frequency stability shall be sufficient to ensure that the fundamental emissions stay within the authorized bands of operation."

TEST PROCEDURE

Use Anritsu 8820 with frequency Error measurement capability.

Temp = -10°C to +50°C

Voltage= 85% to 115% of the nominal value.

The Worst case: DC 3.8V

NOTE: The frequency error was recorded frequency error from the communication simulator.



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TEST RESULTS

Temperature: 24°C **Humidity:** 50% RH
Tested by: Jane Wang **Test Date:** September 11, 2020

FREQUENCY STABILITY V.S. TEMPERATURE MEASUREMENT: LTE Band 13

Reference Frequency: LTE Band 13 Max Bandwidth QPSK, 782MHz				
Limit: ± 2.5 ppm = 1955 Hz				
Power Supply	Environment	Frequency Error	Frequency Error	Limit (ppm)
Vdc	Temperature (°C)	(Hz)	(ppm)	(ppm)
3.8	50	0.02	0.000026	+/- 2.5
3.8	40	0.01	0.000013	
3.8	30	0.00	0.000000	
3.8	20	0.00	0.000000	
3.8	10	0.02	0.000026	
3.8	0	-0.01	-0.000013	
3.8	-10	0.01	0.000013	

Reference Frequency: LTE Band 13 Max Bandwidth 16QAM, 782MHz				
Limit: ± 2.5 ppm = 1955 Hz				
Power Supply	Environment	Frequency Error	Frequency Error	Limit (ppm)
Vdc	Temperature (°C)	(Hz)	(ppm)	(ppm)
3.8	50	0.01	0.000013	+/- 2.5
3.8	40	0.01	0.000013	
3.8	30	0.02	0.000026	
3.8	20	0.00	0.000000	
3.8	10	0.03	0.000038	
3.8	0	0.02	0.000026	
3.8	-10	0.01	0.000013	

LTE Band 4

Reference Frequency: LTE Band 4 Max Bandwidth QPSK, 1732.5 MHz				
Limit: ± 2.5 ppm = 4331.25 Hz				
Power Supply	Environment	Frequency Error	Frequency Error	Limit (ppm)
Vdc	Temperature (°C)	(Hz)	(ppm)	(ppm)
3.8	50	0.01	0.000006	+/- 2.5
3.8	40	0.01	0.000006	
3.8	30	0.00	0.000000	
3.8	20	0.00	0.000000	
3.8	10	0.01	0.000006	
3.8	0	-0.01	-0.000006	
3.8	-10	-0.01	-0.000006	

Reference Frequency: LTE Band 4 Max Bandwidth 16QAM, 1732.5 MHz				
Limit: ± 2.5 ppm = 4331.25 Hz				
Power Supply	Environment	Frequency Error	Frequency Error	Limit (ppm)
Vdc	Temperature (°C)	(Hz)	(ppm)	(ppm)
3.8	50	-0.01	-0.000006	+/- 2.5
3.8	40	0.01	0.000006	
3.8	30	0.01	0.000006	
3.8	20	0.00	0.000000	
3.8	10	-0.01	-0.000006	
3.8	0	0.01	0.000006	
3.8	-10	-0.02	-0.000012	



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**FREQUENCY STABILITY V.S. VOLTAGE MEASUREMENT:
LTE Band 13**

Reference Frequency: LTE Band 13 Max Bandwidth QPSK, 782MHz				
Limit: ± 2.5 ppm = 1955 Hz				
Power Supply	Environment	Frequency Error	Frequency Error	Limit (ppm)
Vdc	Temperature (°C)	(Hz)	(ppm)	(ppm)
3.23	20	-0.01	-0.000013	+/- 2.5
3.8	20	0.00	0.000000	
4.37	20	0.01	0.000018	

Reference Frequency: LTE Band 13 Max Bandwidth 16QAM, 782MHz				
Limit: ± 2.5 ppm = 1955 Hz				
Power Supply	Environment	Frequency Error	Frequency Error	Limit (ppm)
Vdc	Temperature (°C)	(Hz)	(ppm)	(ppm)
3.23	20	0.01	0.000013	+/- 2.5
3.8	20	0.00	0.000000	
4.37	20	0.01	0.000013	



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LTE Band 4

Reference Frequency: LTE Band 4 Max Bandwidth QPSK, 1732.5 MHz				
Limit: ± 2.5 ppm = 4331.25 Hz				
Power Supply	Environment	Frequency Error	Frequency Error	Limit (ppm)
Vdc	Temperature (°C)	(Hz)	(ppm)	(ppm)
3.23	20	0.00	0.000000	+/- 2.5
3.8	20	0.00	0.000000	
4.37	20	-0.01	-0.000006	

Reference Frequency: LTE Band 4 Max Bandwidth 16QAM, 1732.5 MHz				
Limit: ± 2.5 ppm = 4331.25 Hz				
Power Supply	Environment	Frequency Error	Frequency Error	Limit (ppm)
Vdc	Temperature (°C)	(Hz)	(ppm)	(ppm)
3.23	20	-0.01	-0.000006	+/- 2.5
3.8	20	0.00	0.000000	
4.37	20	-0.01	-0.000006	

8.3 OCCUPIED BANDWIDTH MEASUREMENT

LIMITS

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 power of a given emission.

TEST PROCEDURES

KDB 971168 D01 Power Meas License Digital Systems – Section 4.2

1. The occupied bandwidth was measured with the spectrum analyzer at the lowest, middle and highest channels in each band and different modulation. The 99% and -26dB bandwidth was measured and recorded.
2. RBW = 1-5% of the expected OBW
3. VBW $\geq 3 \times$ RBW
4. Detector = Peak
5. Trace mode = max. hold



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TEST RESULTS

Temperature: 24°C **Humidity:** 50% RH
Tested by: Jane Wang

LTE Band 13

Band	BW (MHz)	Channel	Frequency (MHz)	Mode	OBW(99%)(MHz)	26 dB Bandwidth(MHz)
13	5	Middle	752.0	QPSK	4.4717	4.819
		Middle	752.0	16QAM	4.4573	4.863
	10	Middle	752.0	QPSK	8.9146	9.624
		Middle	752.0	16QAM	8.9146	9.595

LTE Band 4

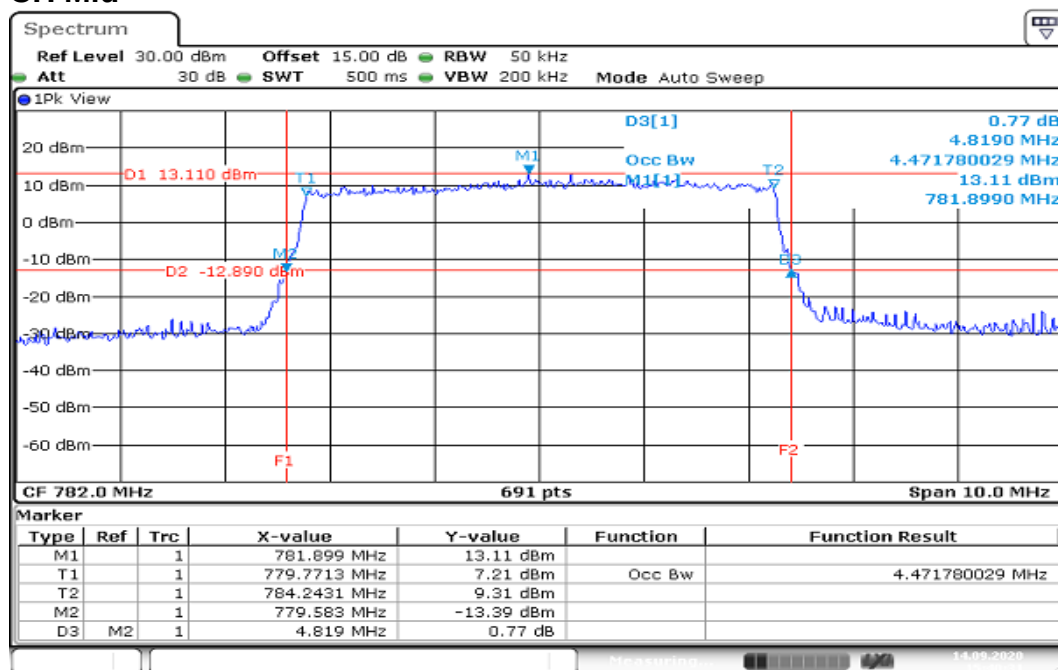
Band	BW (MHz)	Channel	Frequency (MHz)	Mode	OBW(99%)(MHz)	26 dB Bandwidth(MHz)
4	1.4	Middle	1732.5	QPSK	1.0984	1.3285
		Middle	1732.5	16QAM	1.0940	1.3242
	3	Middle	1732.5	QPSK	2.6830	2.9566
		Middle	1732.5	16QAM	2.6830	2.9653
	5	Middle	1732.5	QPSK	4.4862	4.919
		Middle	1732.5	16QAM	4.4717	4.904
	10	Middle	1732.5	QPSK	8.9146	9.738
		Middle	1732.5	16QAM	8.9146	9.738
	15	Middle	1732.5	QPSK	13.3719	14.644
		Middle	1732.5	16QAM	13.3719	14.557
	20	Middle	1732.5	QPSK	18.0607	19.883
		Middle	1732.5	16QAM	18.0028	19.767

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LTE Band 13

CHANNEL BANDWIDTH: 5MHz / QPSK

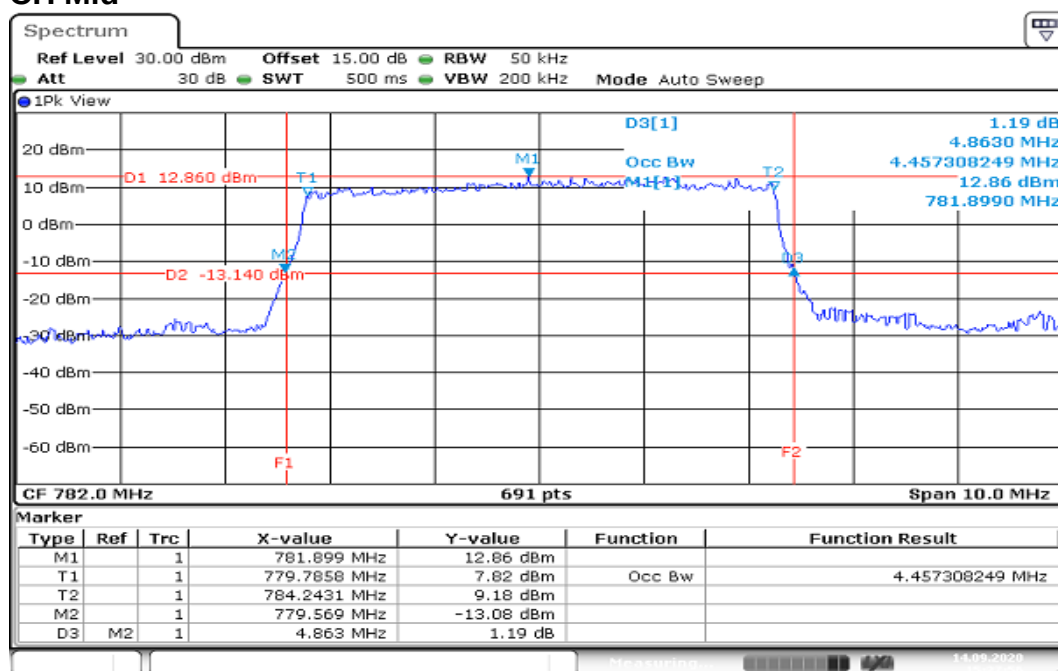
CH Mid



Date: 14.SEP.2020 15:40:31

CHANNEL BANDWIDTH: 5MHz / 16QAM

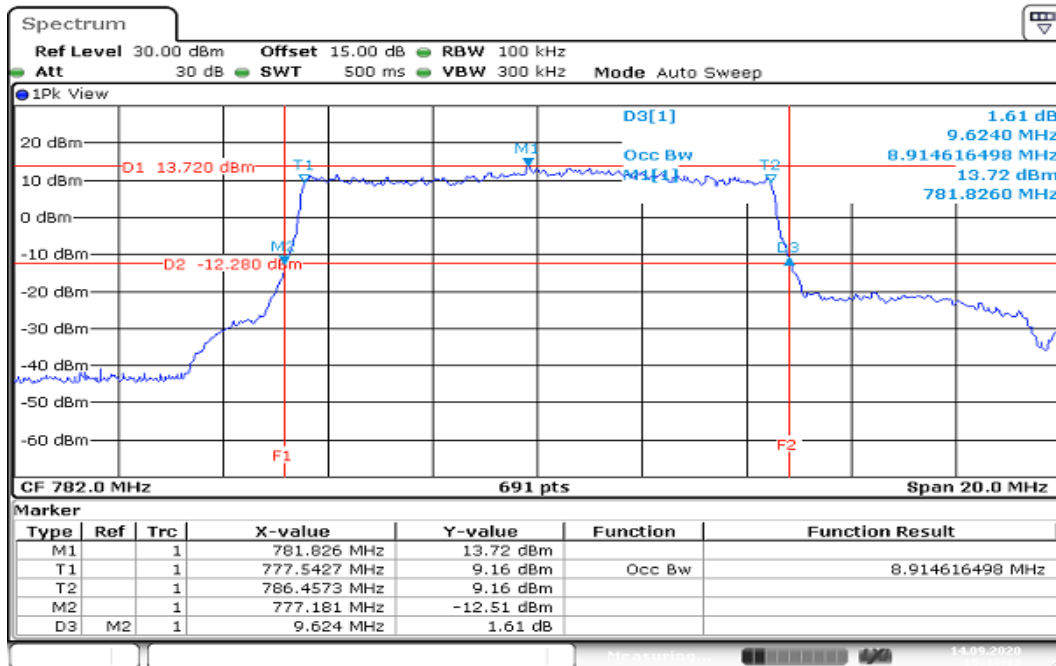
CH Mid



Date: 14.SEP.2020 15:37:56

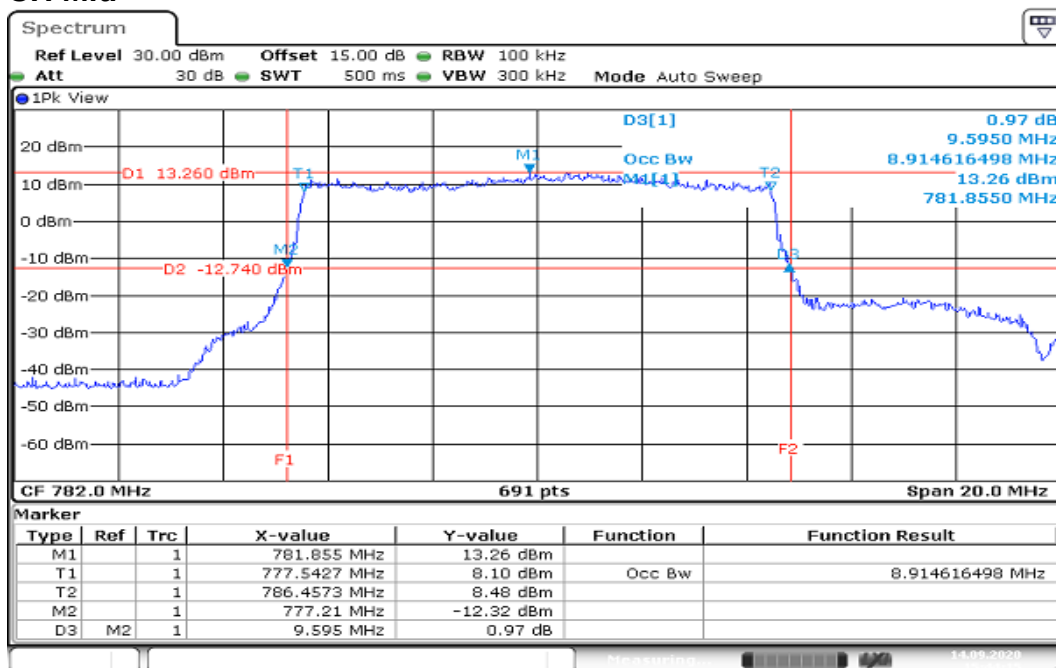
Report No.: T200821W04-RP1

CHANNEL BANDWIDTH: 10MHz / QPSK CH Mid



Date: 14.SEP.2020 15:43:12

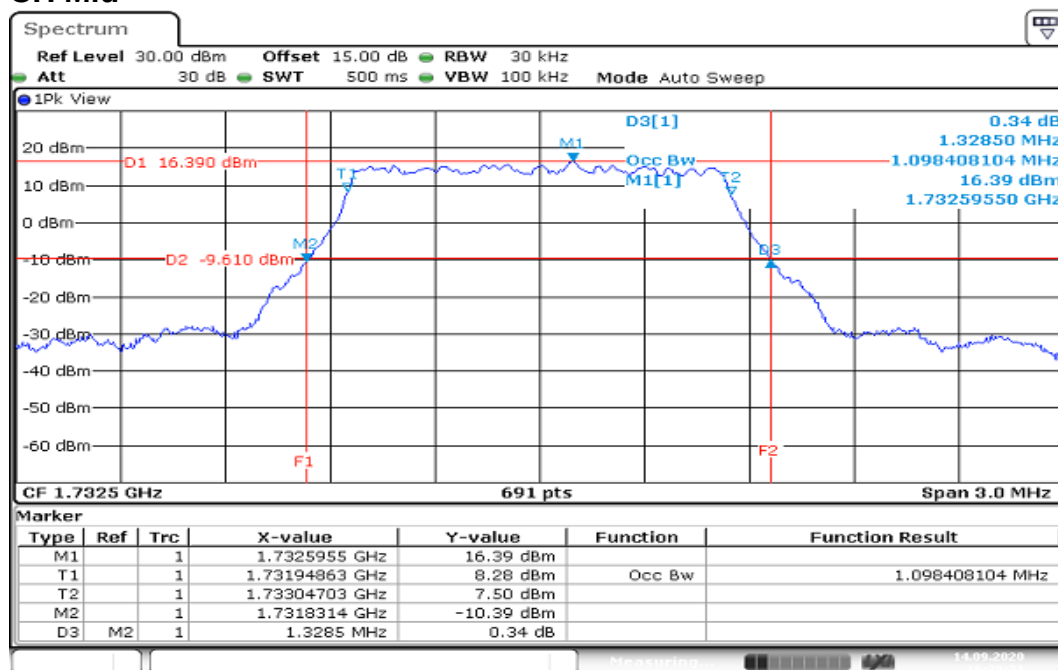
CHANNEL BANDWIDTH: 10MHz / 16QAM CH Mid



Date: 14.SEP.2020 15:44:15

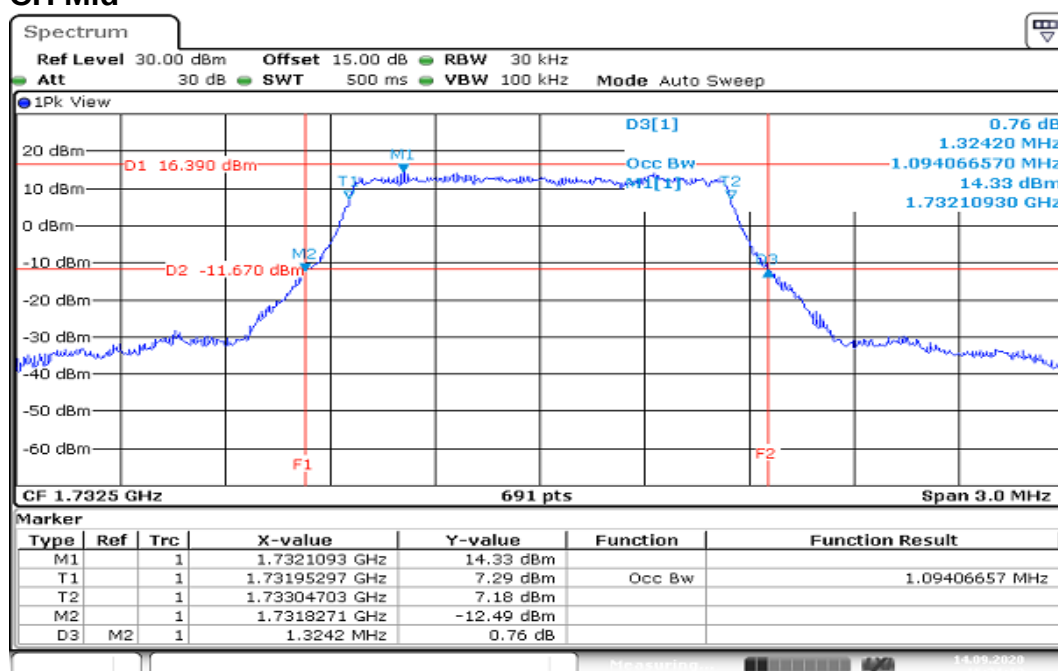
Report No.: T200821W04-RP1

LTE Band 4 CHANNEL BANDWIDTH: 1.4MHz / QPSK CH Mid



Date: 14.SEP.2020 16:29:31

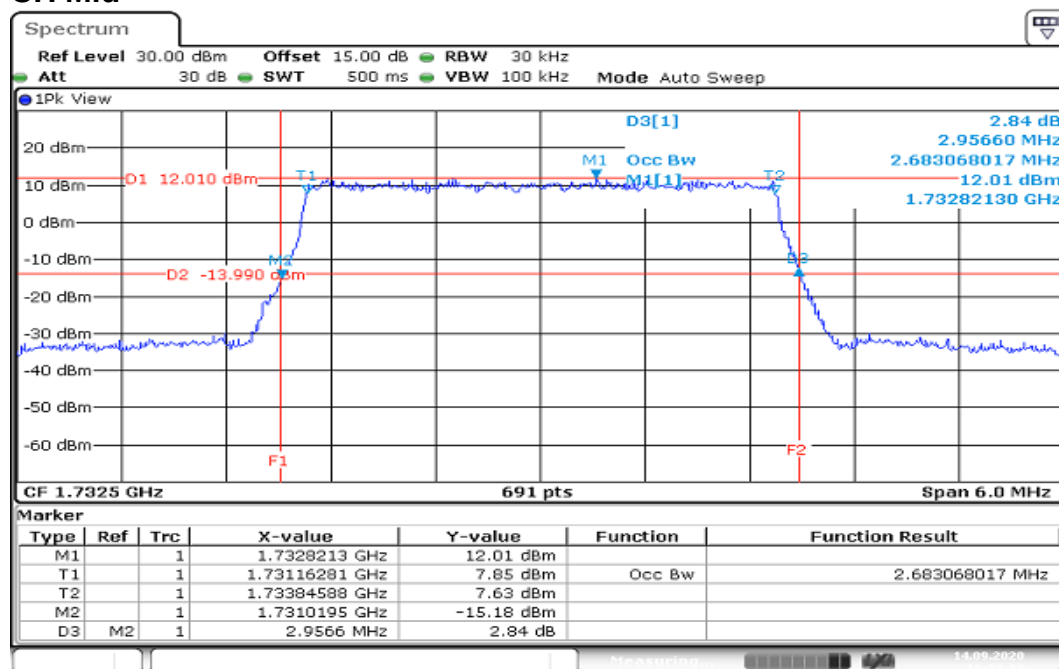
CHANNEL BANDWIDTH: 1.4MHz / 16QAM CH Mid



Date: 14.SEP.2020 16:31:12

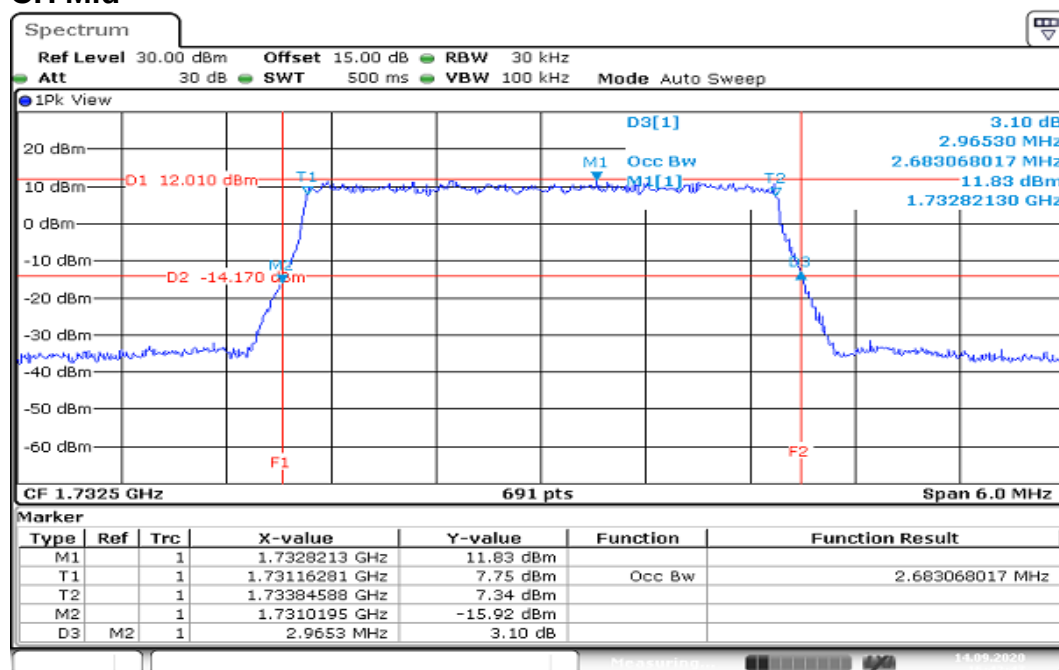
Report No.: T200821W04-RP1

CHANNEL BANDWIDTH: 3MHz / QPSK CH Mid



Date: 14.SEP.2020 16:33:12

CHANNEL BANDWIDTH: 3MHz / 16QAM CH Mid

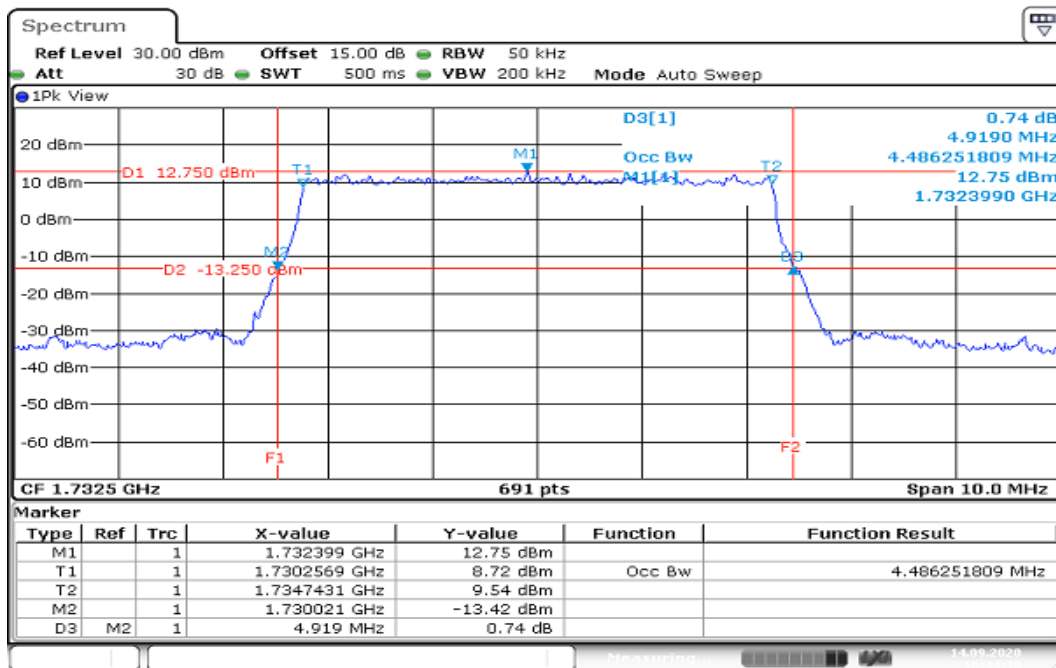


Date: 14.SEP.2020 16:42:47

Report No.: T200821W04-RP1

CHANNEL BANDWIDTH: 5MHz / QPSK

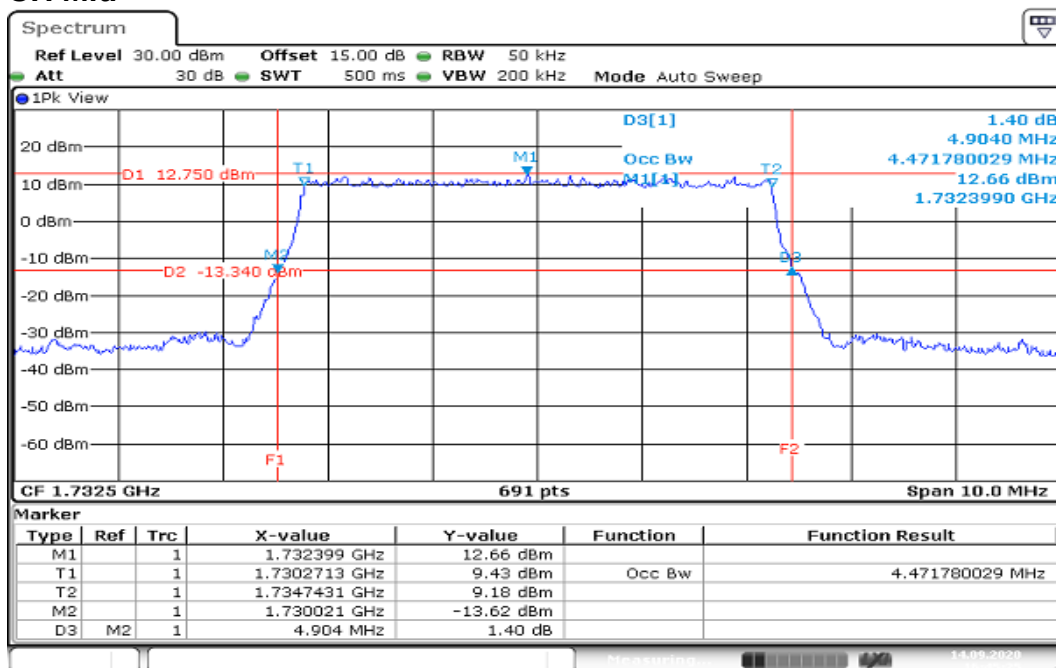
CH Mid



Date: 14.SEP.2020 16:44:30

CHANNEL BANDWIDTH: 5MHz / 16QAM

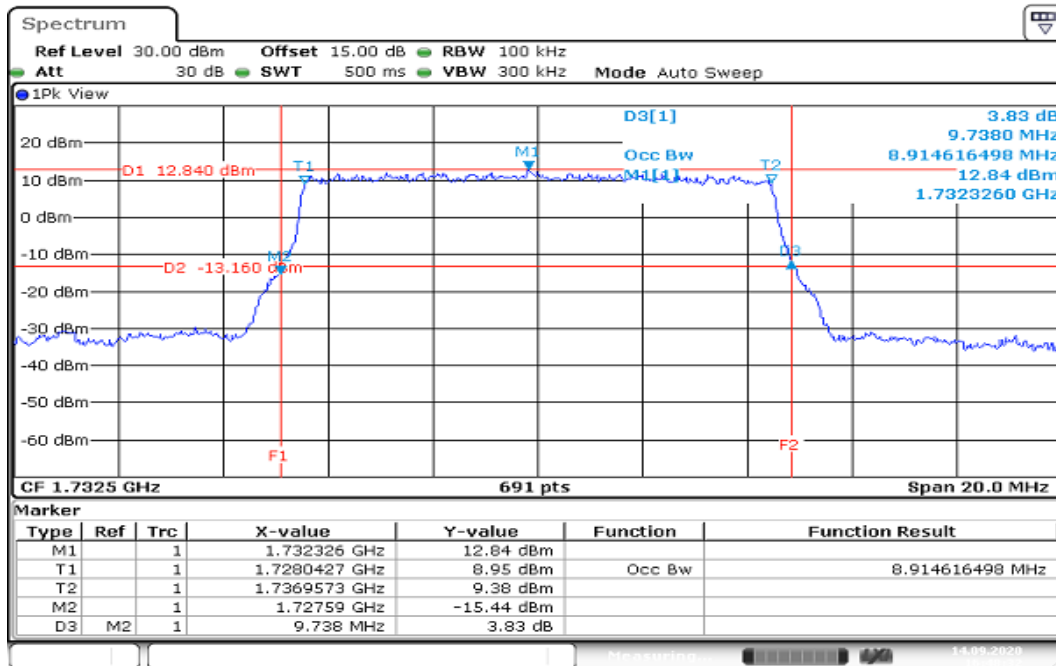
CH Mid



Date: 14.SEP.2020 16:45:25

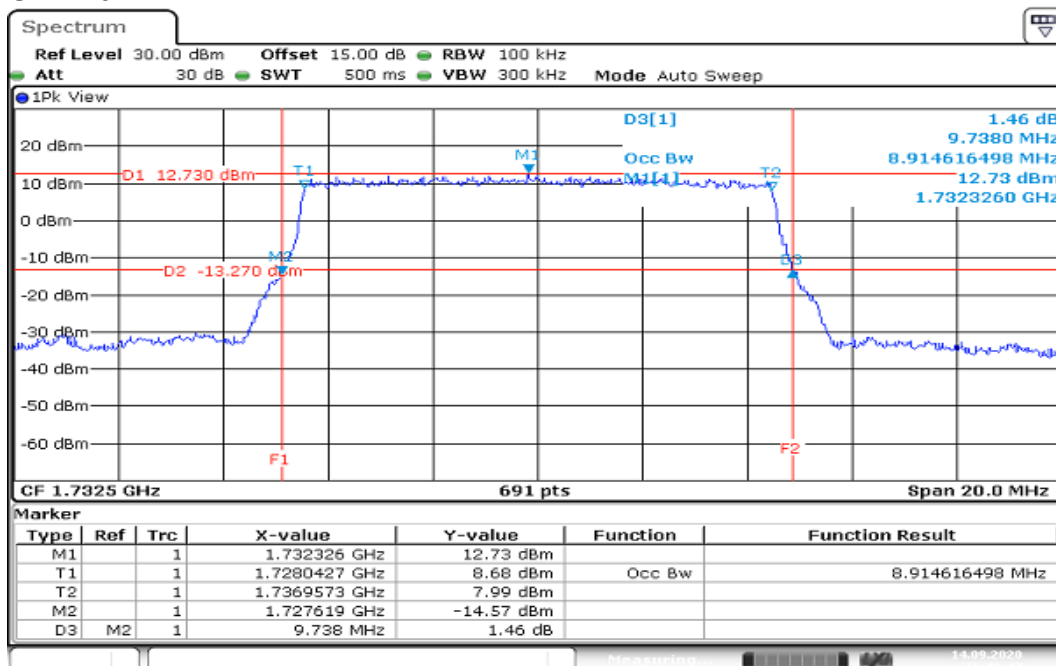
Report No.: T200821W04-RP1

CHANNEL BANDWIDTH: 10MHz / QPSK CH Mid



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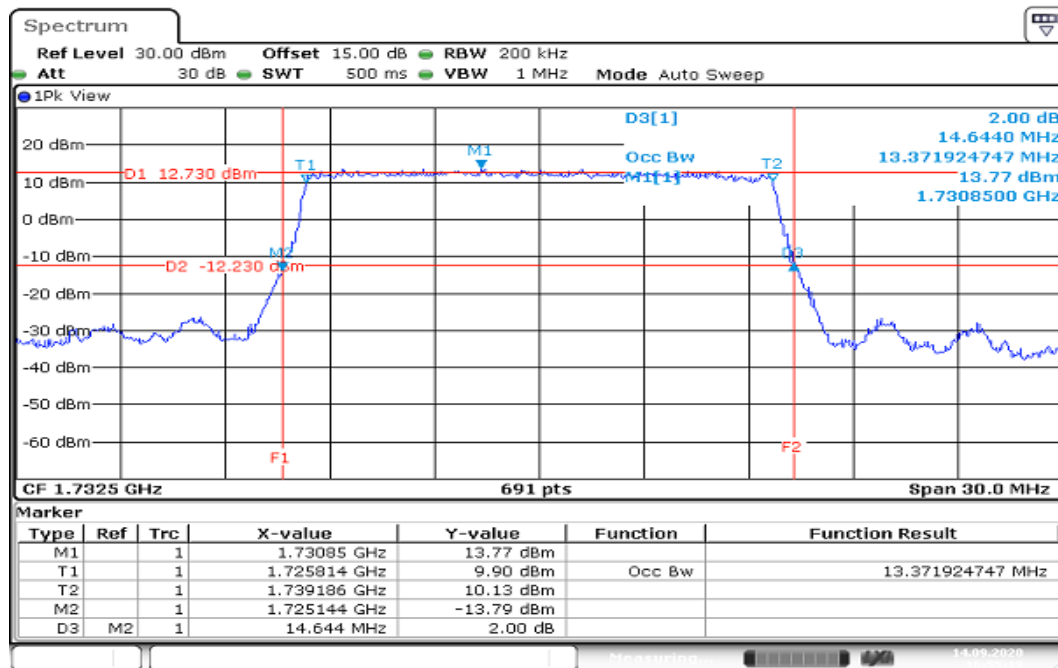
CHANNEL BANDWIDTH: 10MHz / 16QAM CH Mid



Date: 14.SEP.2020 16:49:47

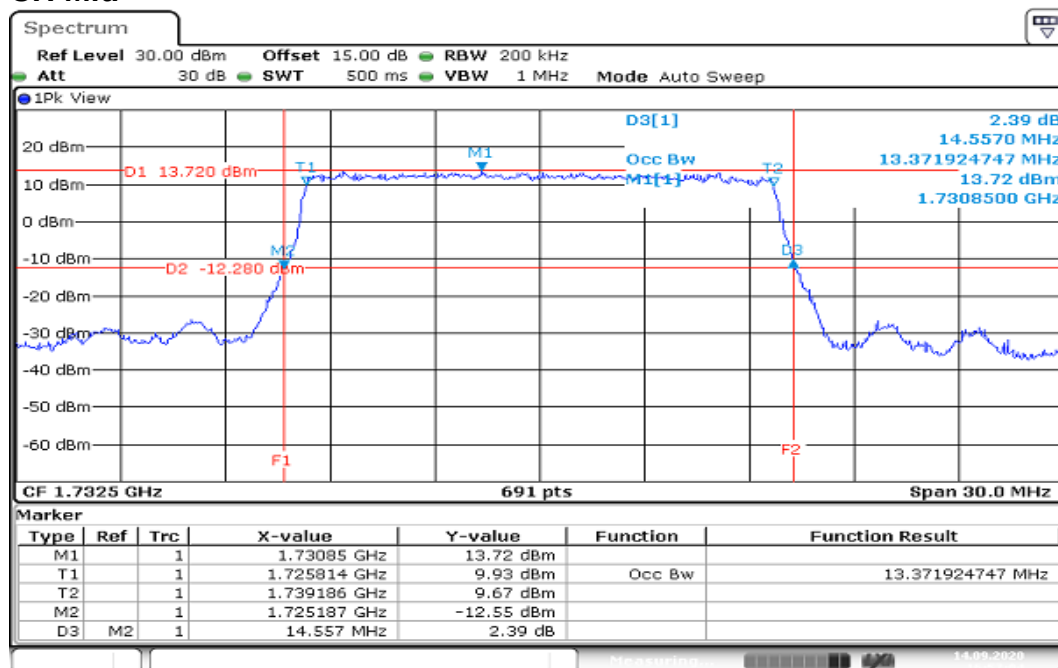
Report No.: T200821W04-RP1

CHANNEL BANDWIDTH: 15MHz / QPSK CH Mid



Date: 14.SEP.2020 16:55:18

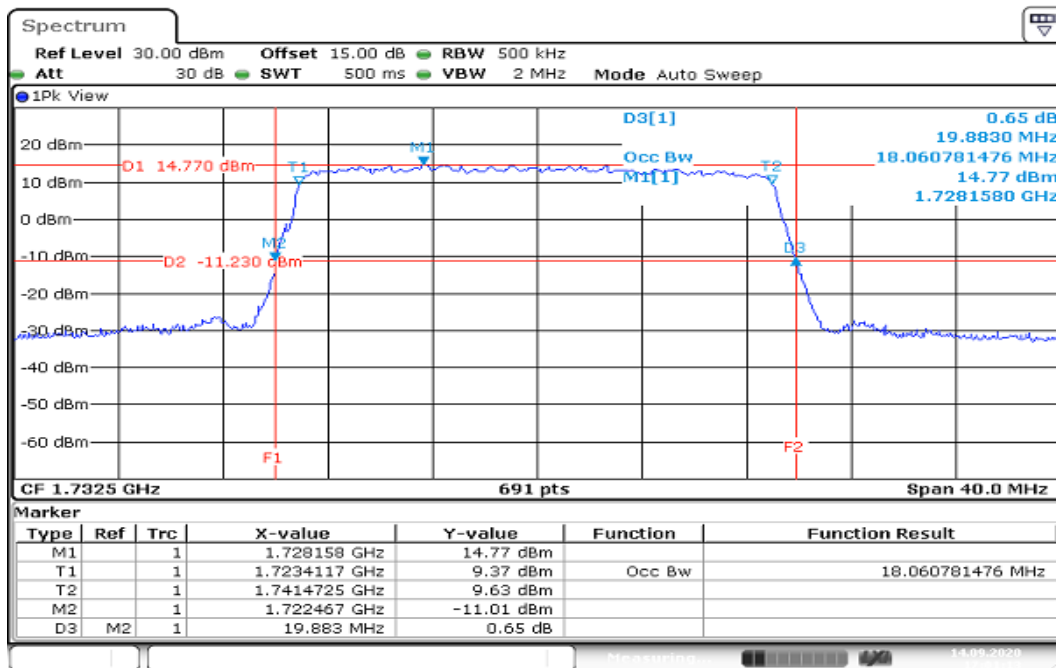
CHANNEL BANDWIDTH: 15MHz / 16QAM CH Mid



Date: 14.SEP.2020 16:57:04

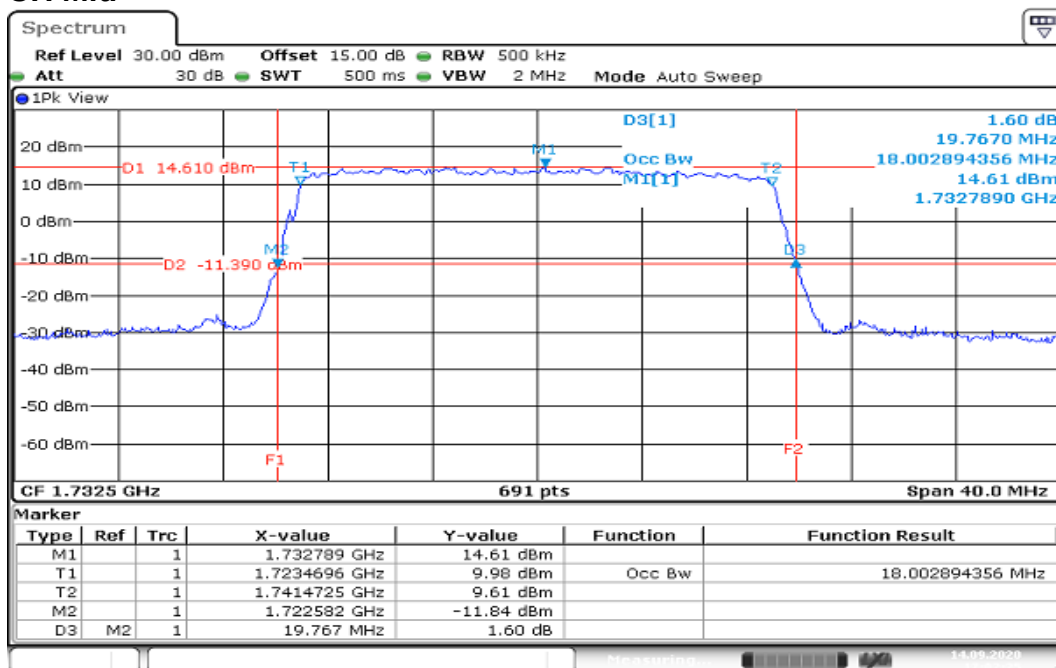
Report No.: T200821W04-RP1

CHANNEL BANDWIDTH: 20MHz / QPSK CH Mid



Date: 14.SEP.2020 17:01:13

CHANNEL BANDWIDTH: 20MHz / 16QAM CH Mid



Date: 14.SEP.2020 17:02:35

8.4 PEAK TO AVERAGE POWER RATIO

LIMIT

In measuring transmissions in this band using an average power technique, peak-to-average power ratio (PAPR) of the transmission may not exceed 13 dB.

TEST PROCEDURES

1. According to KDB 971168D01.
2. The EUT was connect to spectrum analyzer and call box.
3. Set the CCDF function in spectrum analyzer.
4. The highest RF output power were measured and recorded the maximum PAPR level associated with a probability of 0.1%.
5. Record the Peak to Average Power Ratio.



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TEST RESULTS

Temperature: 24°C

Humidity: 50% RH

Tested by: Jane Wang

LTE Band 13

CHANNEL BANDWIDTH: 5MHz / QPSK / 1RB

Channel	FREQUENCY (MHz)	PEAK TO AVERAGE RATIO (dB)
23230	782.00	3.86

CHANNEL BANDWIDTH: 10MHz / QPSK / 1RB

Channel	FREQUENCY (MHz)	PEAK TO AVERAGE RATIO (dB)
23230	782.00	2.64

CHANNEL BANDWIDTH: 5MHz / QPSK / Full RB

Channel	FREQUENCY (MHz)	PEAK TO AVERAGE RATIO (dB)
23230	782.00	4.67

CHANNEL BANDWIDTH: 10MHz / QPSK / Full RB

Channel	FREQUENCY (MHz)	PEAK TO AVERAGE RATIO (dB)
23230	782.00	4.78

CHANNEL BANDWIDTH: 5MHz / 16QAM / 1RB

Channel	FREQUENCY (MHz)	PEAK TO AVERAGE RATIO (dB)
23230	782.00	3.83

CHANNEL BANDWIDTH: 10MHz / 16QAM / 1RB

Channel	FREQUENCY (MHz)	PEAK TO AVERAGE RATIO (dB)
23230	782.00	2.64

CHANNEL BANDWIDTH: 5MHz / 16QAM / Full RB

Channel	FREQUENCY (MHz)	PEAK TO AVERAGE RATIO (dB)
23230	782.00	4.72

CHANNEL BANDWIDTH: 10MHz / 16QAM / Full RB

Channel	FREQUENCY (MHz)	PEAK TO AVERAGE RATIO (dB)
23230	782.00	4.90

Note: We selected worst case to performed test in middle channel, the results can be meet other channel.

LTE Band 4

CHANNEL BANDWIDTH: 1.4MHz / QPSK / 1RB

Channel	FREQUENCY (MHz)	PEAK TO AVERAGE RATIO (dB)
20175	1732.50	2.87

CHANNEL BANDWIDTH: 3MHz / QPSK / 1RB

Channel	FREQUENCY (MHz)	PEAK TO AVERAGE RATIO (dB)
20175	1732.50	3.01

CHANNEL BANDWIDTH: 5MHz / QPSK / 1RB

Channel	FREQUENCY (MHz)	PEAK TO AVERAGE RATIO (dB)
20175	1732.50	2.96

CHANNEL BANDWIDTH: 10MHz / QPSK / 1RB

Channel	FREQUENCY (MHz)	PEAK TO AVERAGE RATIO (dB)
20175	1732.50	2.96

CHANNEL BANDWIDTH: 15MHz / QPSK / 1RB

Channel	FREQUENCY (MHz)	PEAK TO AVERAGE RATIO (dB)
20175	1732.50	2.90

CHANNEL BANDWIDTH: 20MHz / QPSK / 1RB

Channel	FREQUENCY (MHz)	PEAK TO AVERAGE RATIO (dB)
20175	1732.50	2.87

Note: We selected worst case to performed test in middle channel, the results can be meet other channel.

CHANNEL BANDWIDTH: 1.4MHz / QPSK / Full RB

Channel	FREQUENCY (MHz)	PEAK TO AVERAGE RATIO (dB)
20175	1732.50	3.91

CHANNEL BANDWIDTH: 3MHz / QPSK / Full RB

Channel	FREQUENCY (MHz)	PEAK TO AVERAGE RATIO (dB)
20175	1732.50	3.94

CHANNEL BANDWIDTH: 5MHz / QPSK / Full RB

Channel	FREQUENCY (MHz)	PEAK TO AVERAGE RATIO (dB)
20175	1732.50	3.88

CHANNEL BANDWIDTH: 10MHz / QPSK / Full RB

Channel	FREQUENCY (MHz)	PEAK TO AVERAGE RATIO (dB)
20175	1732.50	4.00

CHANNEL BANDWIDTH: 15MHz / QPSK / Full RB

Channel	FREQUENCY (MHz)	PEAK TO AVERAGE RATIO (dB)
20175	1732.50	3.94

CHANNEL BANDWIDTH: 20MHz / QPSK / Full RB

Channel	FREQUENCY (MHz)	PEAK TO AVERAGE RATIO (dB)
20175	1732.50	4.00

Note: We selected worst case to performed test in middle channel, the results can be meet other channel.

CHANNEL BANDWIDTH: 1.4MHz / 16QAM / 1RB

Channel	FREQUENCY (MHz)	PEAK TO AVERAGE RATIO (dB)
20175	1732.50	3.68

CHANNEL BANDWIDTH: 3MHz / 16QAM / 1RB

Channel	FREQUENCY (MHz)	PEAK TO AVERAGE RATIO (dB)
20175	1732.50	3.80

CHANNEL BANDWIDTH: 5MHz / 16QAM / 1RB

Channel	FREQUENCY (MHz)	PEAK TO AVERAGE RATIO (dB)
20175	1732.50	3.83

CHANNEL BANDWIDTH: 10MHz / 16QAM / 1RB

Channel	FREQUENCY (MHz)	PEAK TO AVERAGE RATIO (dB)
20175	1732.50	3.86

CHANNEL BANDWIDTH: 15MHz / 16QAM / 1RB

Channel	FREQUENCY (MHz)	PEAK TO AVERAGE RATIO (dB)
20175	1732.50	3.51

CHANNEL BANDWIDTH: 20MHz / 16QAM / 1RB

Channel	FREQUENCY (MHz)	PEAK TO AVERAGE RATIO (dB)
20175	1732.50	3.71

Note: We selected worst case to performed test in middle channel, the results can be meet other channel.

CHANNEL BANDWIDTH: 1.4MHz / 16QAM / Full RB

Channel	FREQUENCY (MHz)	PEAK TO AVERAGE RATIO (dB)
20175	1732.50	4.70

CHANNEL BANDWIDTH: 3MHz / 16QAM / Full RB

Channel	FREQUENCY (MHz)	PEAK TO AVERAGE RATIO (dB)
20175	1732.50	4.81

CHANNEL BANDWIDTH: 5MHz / 16QAM / Full RB

Channel	FREQUENCY (MHz)	PEAK TO AVERAGE RATIO (dB)
20175	1732.50	4.75

CHANNEL BANDWIDTH: 10MHz / 16QAM / Full RB

Channel	FREQUENCY (MHz)	PEAK TO AVERAGE RATIO (dB)
20175	1732.50	4.03

CHANNEL BANDWIDTH: 15MHz / 16QAM / Full RB

Channel	FREQUENCY (MHz)	PEAK TO AVERAGE RATIO (dB)
20175	1732.50	3.94

CHANNEL BANDWIDTH: 20MHz / 16QAM / Full RB

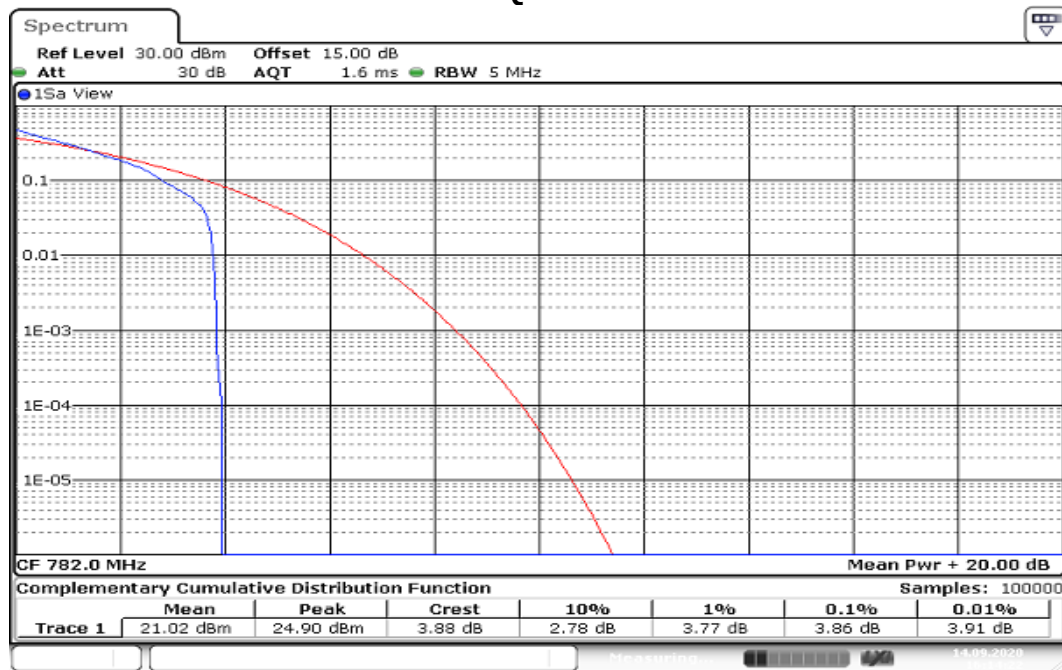
Channel	FREQUENCY (MHz)	PEAK TO AVERAGE RATIO (dB)
20175	1732.50	3.97

Note: We selected worst case to performed test in middle channel, the results can be meet other channel.

Report No.: T200821W04-RP1

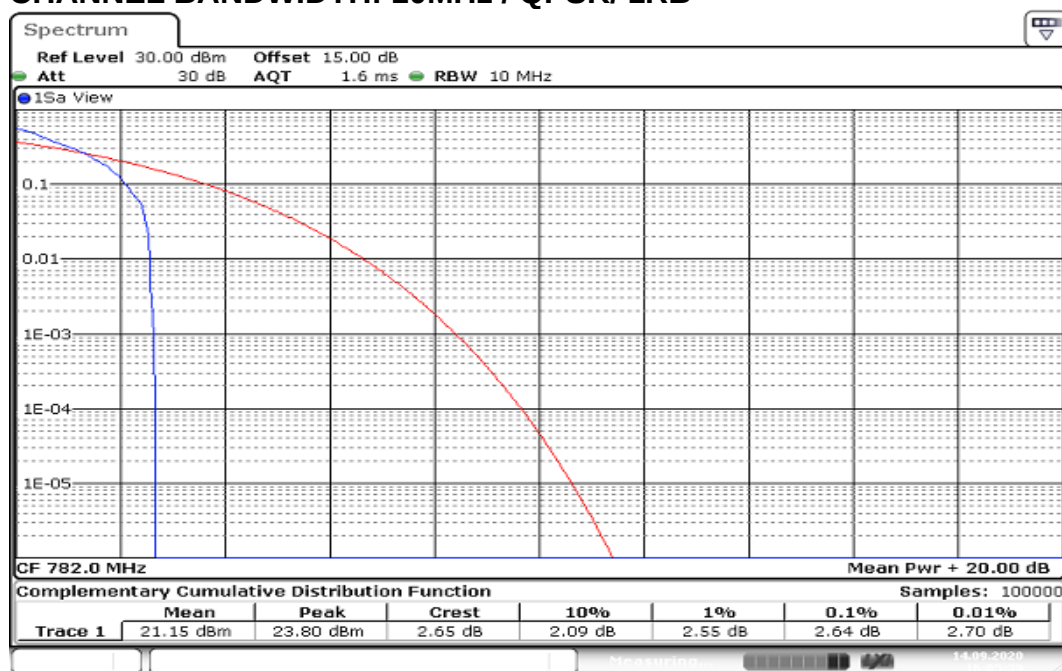
LTE Band 13

CHANNEL BANDWIDTH: 5MHz / QPSK/ 1RB



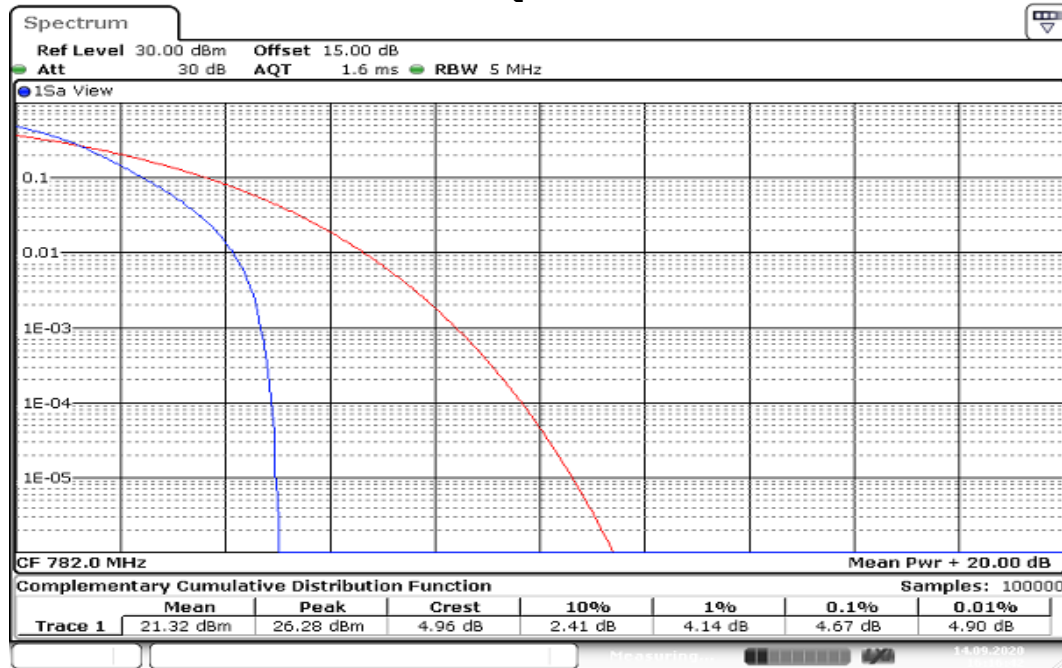
Date: 14.SEP.2020 16:14:22

CHANNEL BANDWIDTH: 10MHz / QPSK/ 1RB



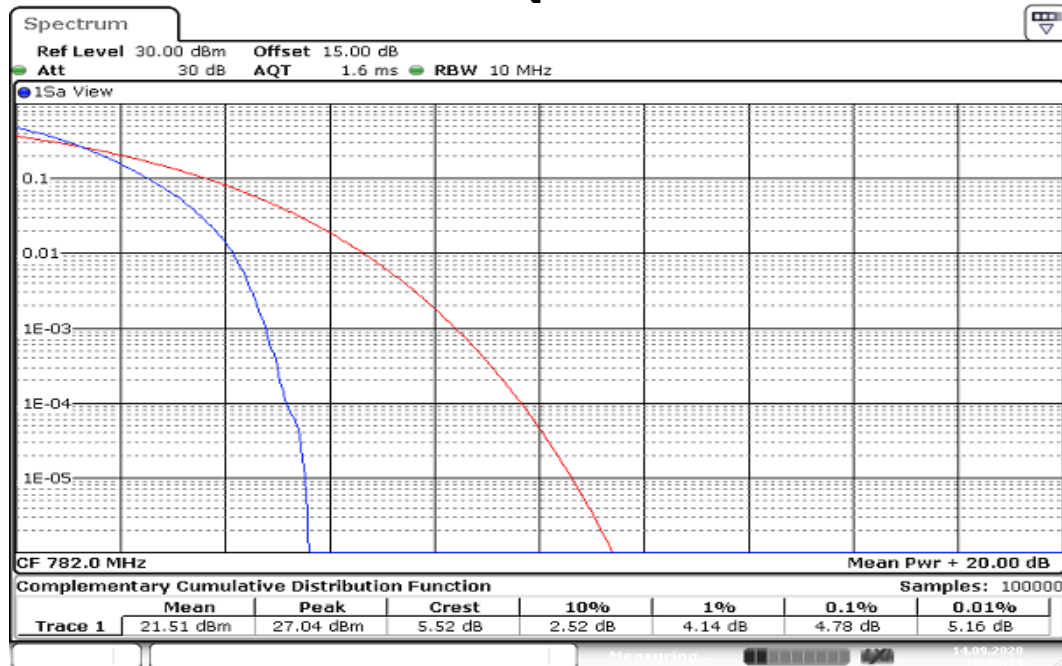
Date: 14.SEP.2020 16:05:39

CHANNEL BANDWIDTH: 5MHz / QPSK/ Full RB



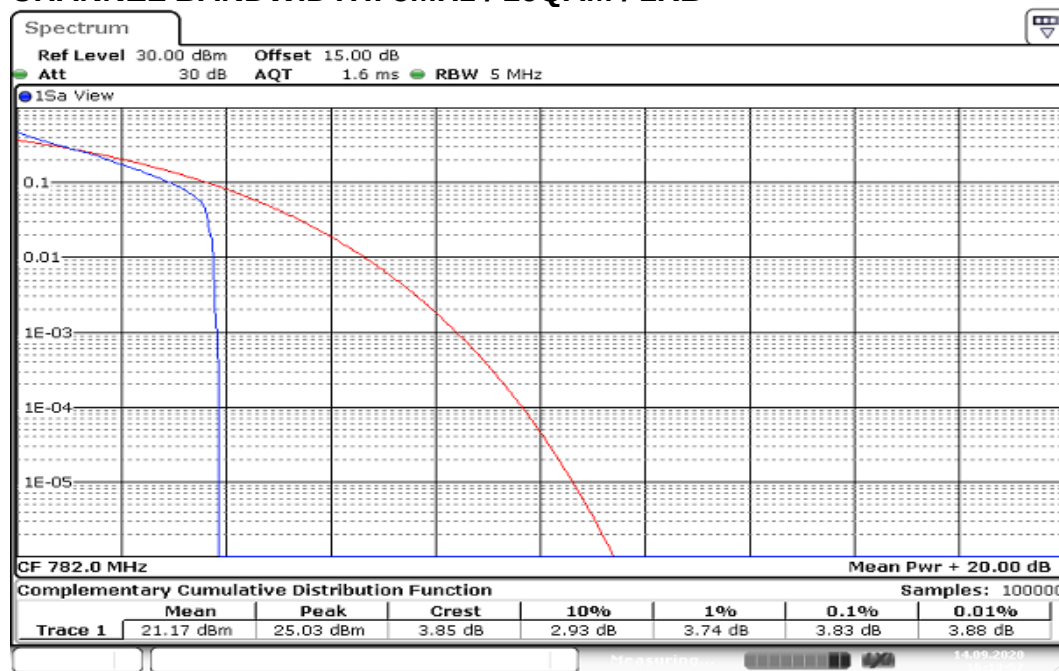
Date: 14.SEP.2020 16:16:42

CHANNEL BANDWIDTH: 10MHz / QPSK/ Full RB



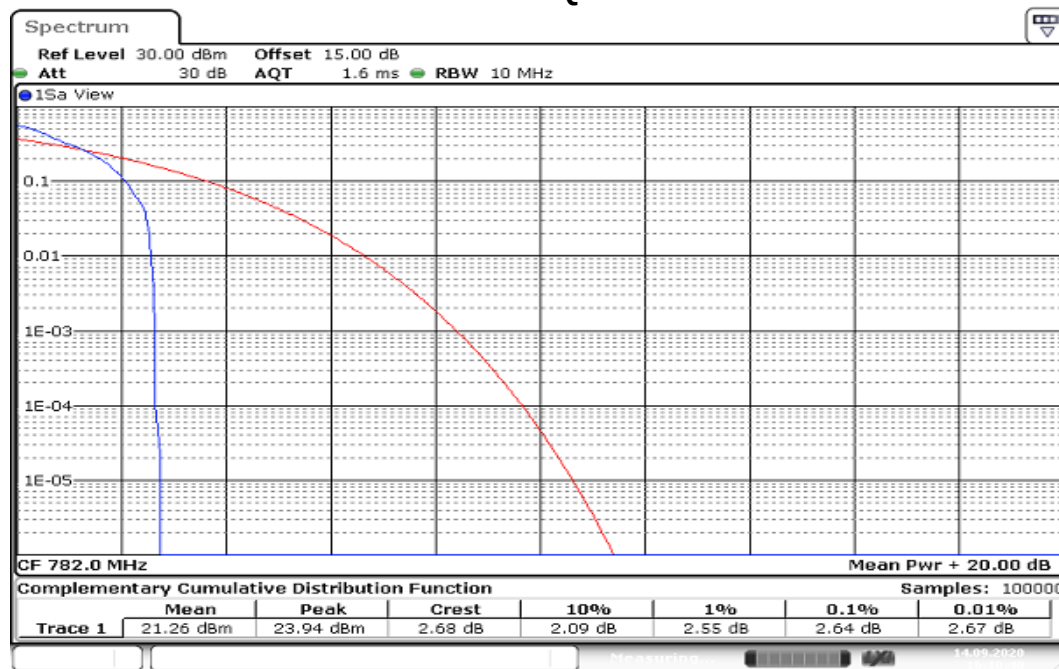
Date: 14.SEP.2020 16:06:14

CHANNEL BANDWIDTH: 5MHz / 16QAM / 1RB



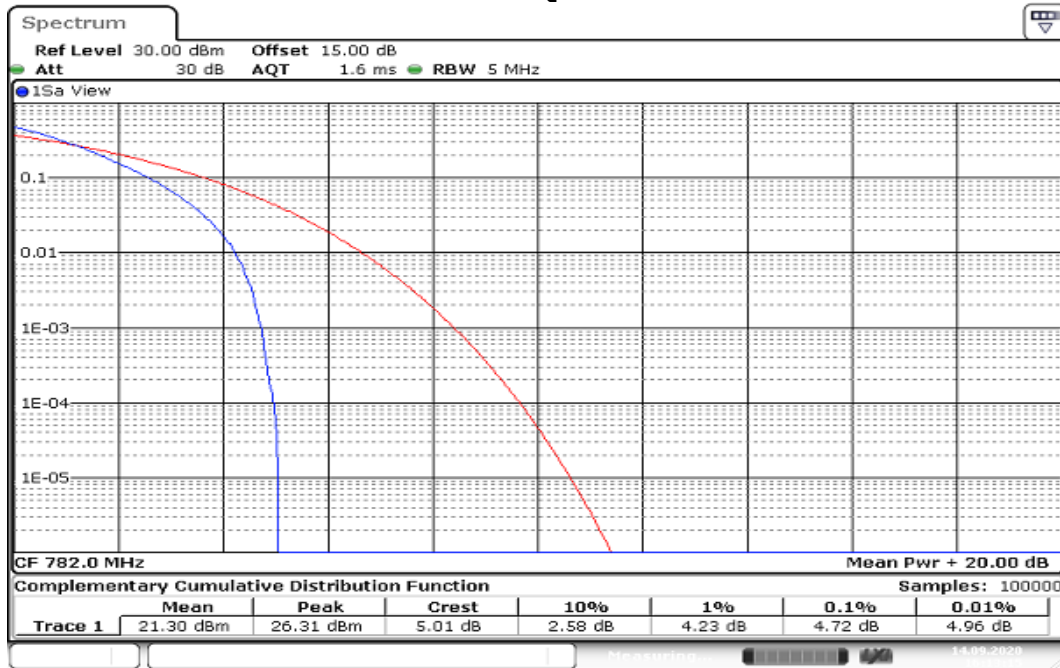
Date: 14.SEP.2020 16:13:57

CHANNEL BANDWIDTH: 10MHz / 16QAM / 1RB



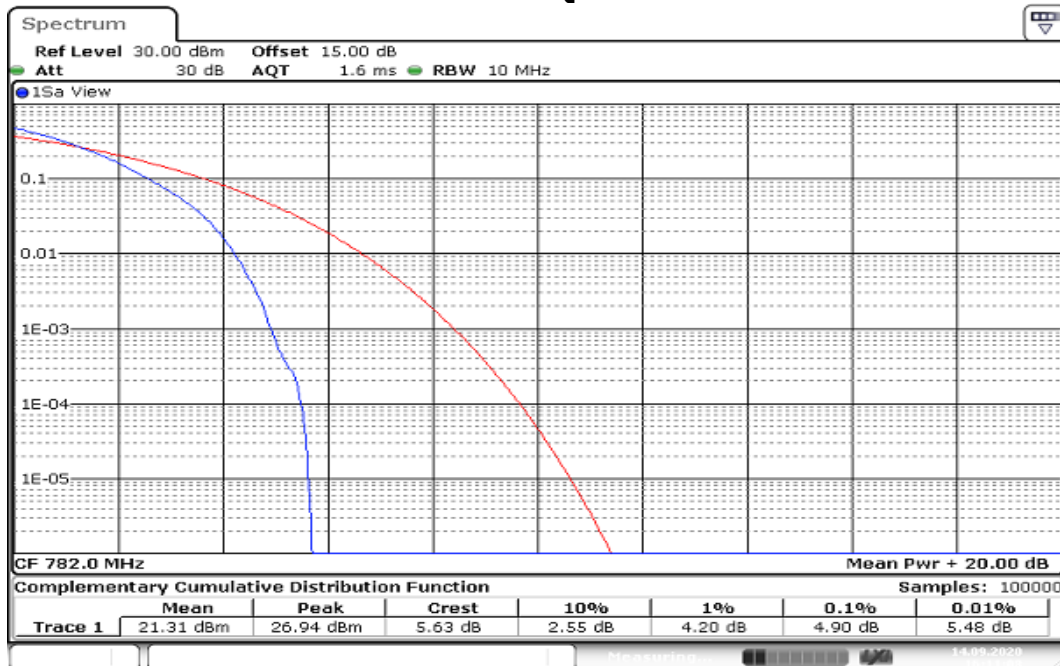
Date: 14.SEP.2020 16:10:40

CHANNEL BANDWIDTH: 5MHz / 16QAM / Full RB



Date: 14.SEP.2020 16:13:15

CHANNEL BANDWIDTH: 10MHz / 16QAM / Full RB

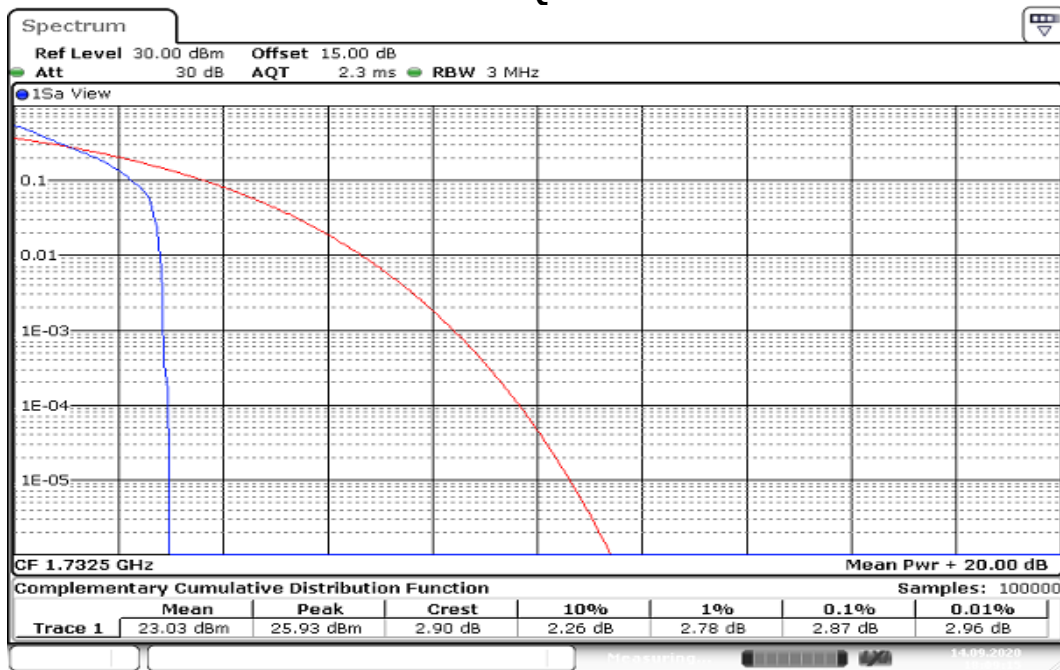


Date: 14.SEP.2020 16:11:08

Report No.: T200821W04-RP1

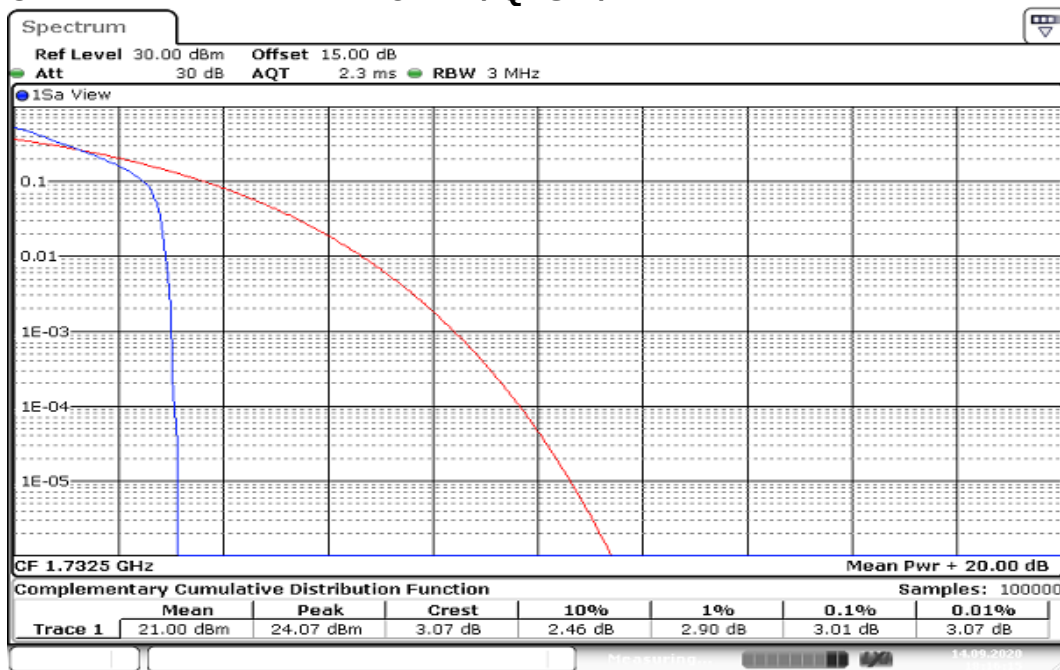
LTE Band 4

CHANNEL BANDWIDTH: 1.4MHz / QPSK/1RB



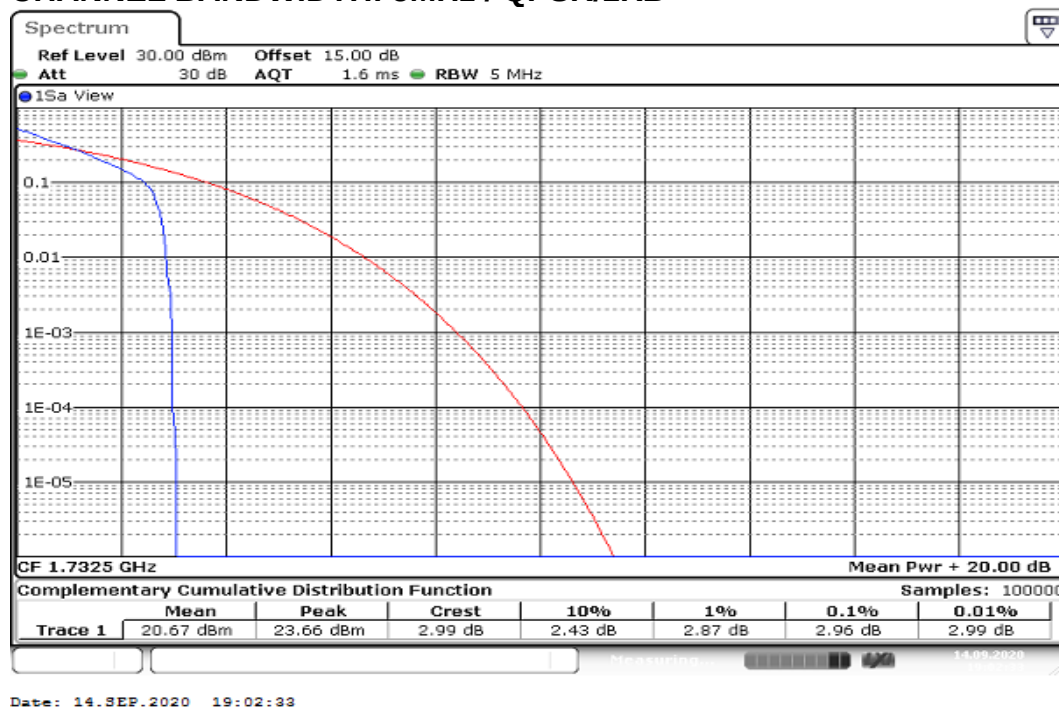
Date: 14.SEP.2020 18:09:15

CHANNEL BANDWIDTH: 3MHz / QPSK /1RB

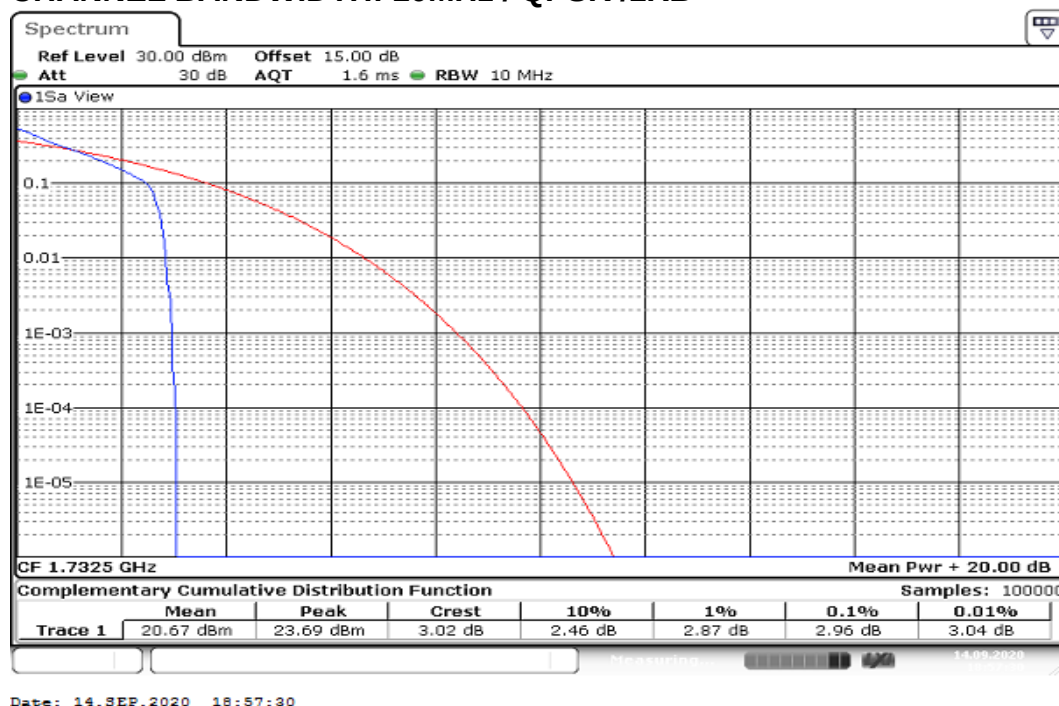


Date: 14.SEP.2020 18:16:15

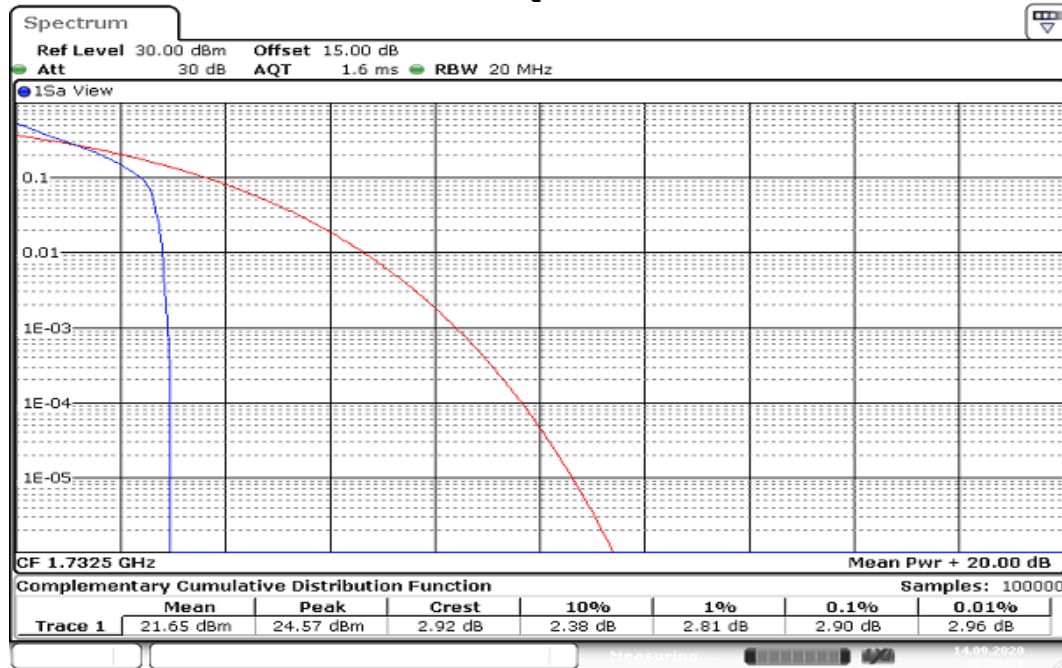
CHANNEL BANDWIDTH: 5MHz / QPSK/1RB



CHANNEL BANDWIDTH: 10MHz / QPSK /1RB

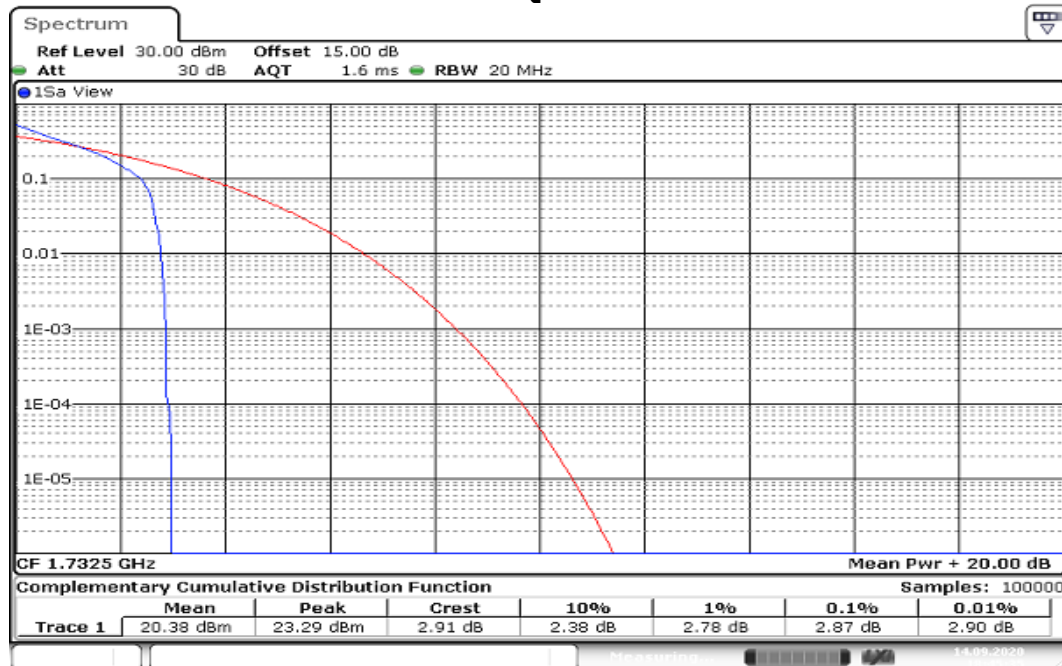


CHANNEL BANDWIDTH: 15MHz / QPSK/1RB



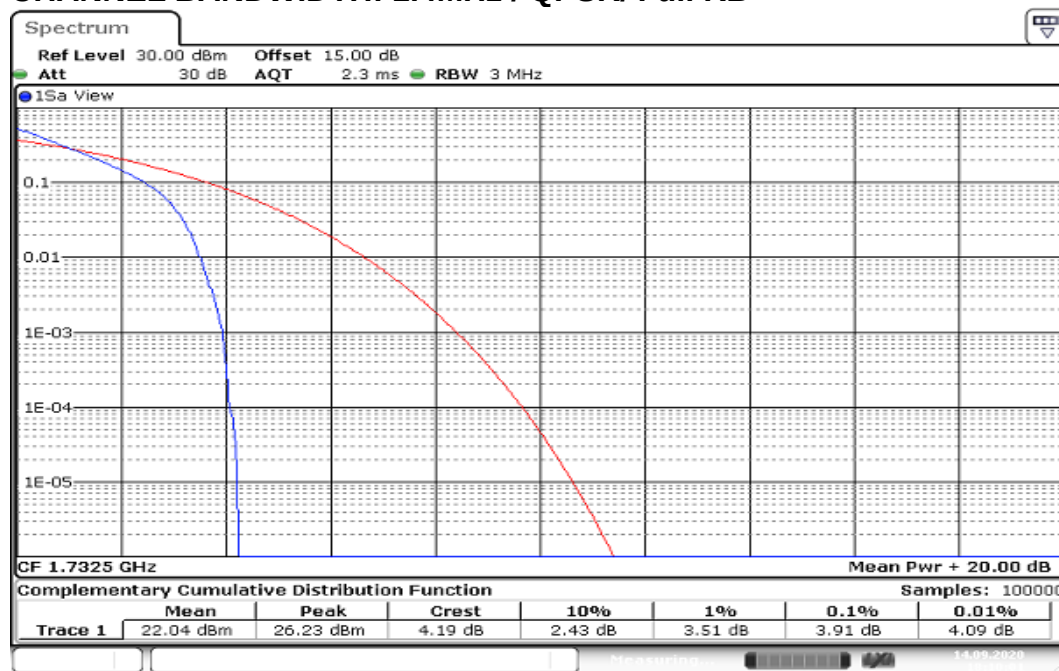
Date: 14.SEP.2020 18:50:51

CHANNEL BANDWIDTH: 20MHz / QPSK /1RB

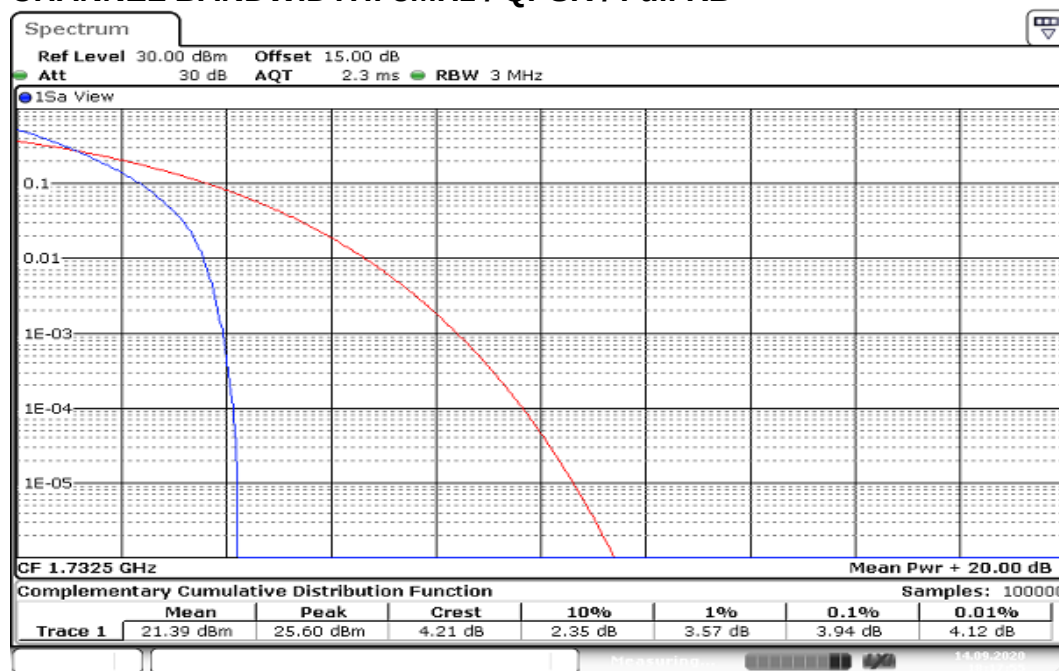


Date: 14.SEP.2020 18:45:36

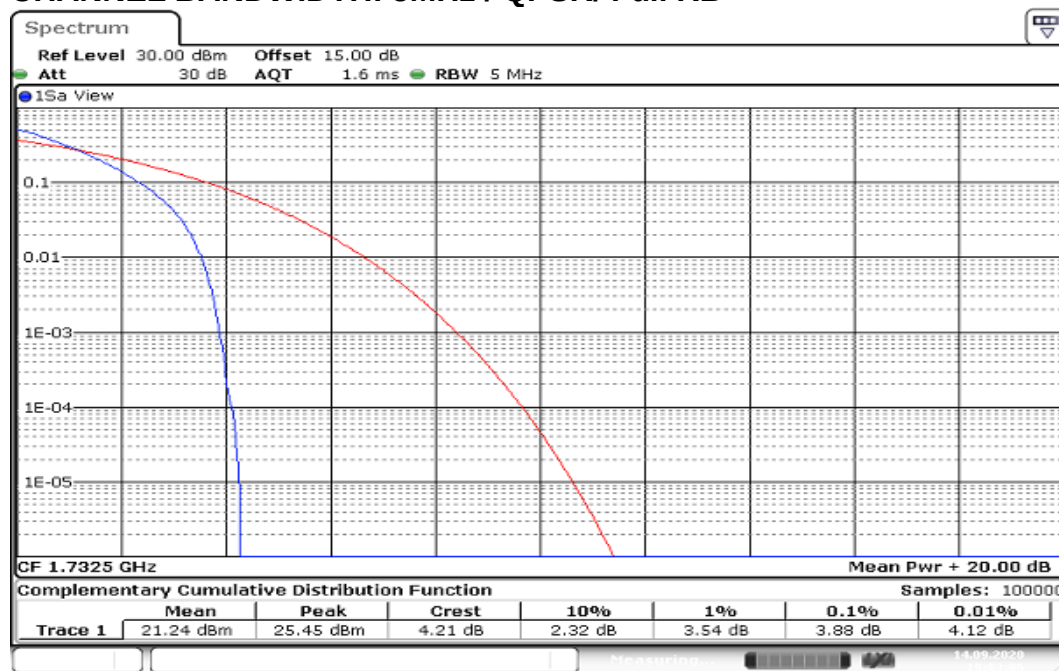
CHANNEL BANDWIDTH: 1.4MHz / QPSK/ Full RB



CHANNEL BANDWIDTH: 3MHz / QPSK / Full RB

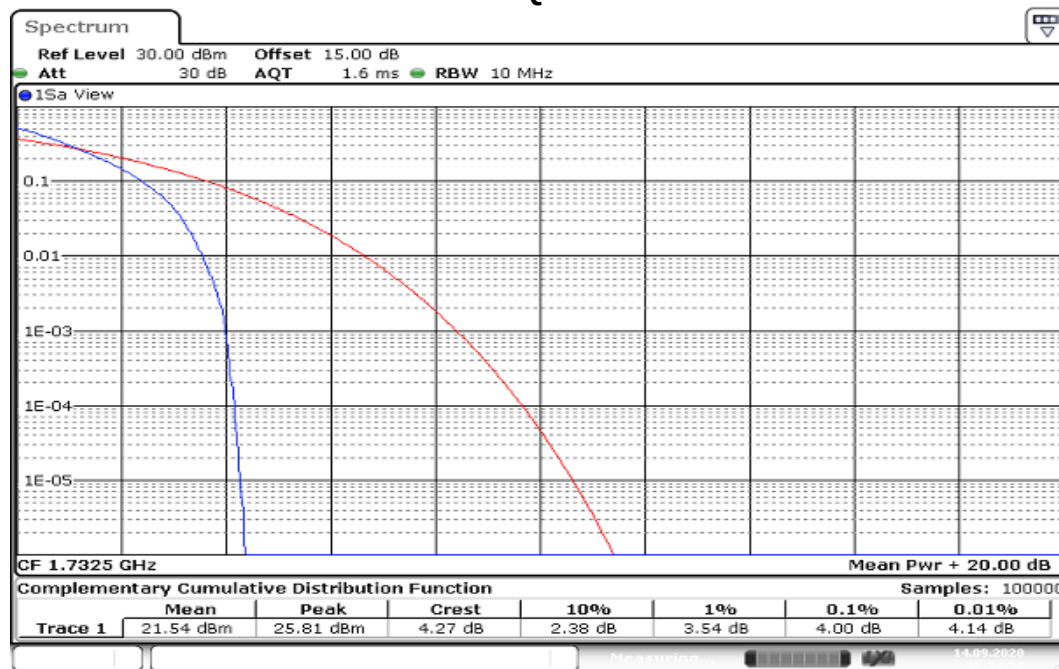


CHANNEL BANDWIDTH: 5MHz / QPSK/ Full RB



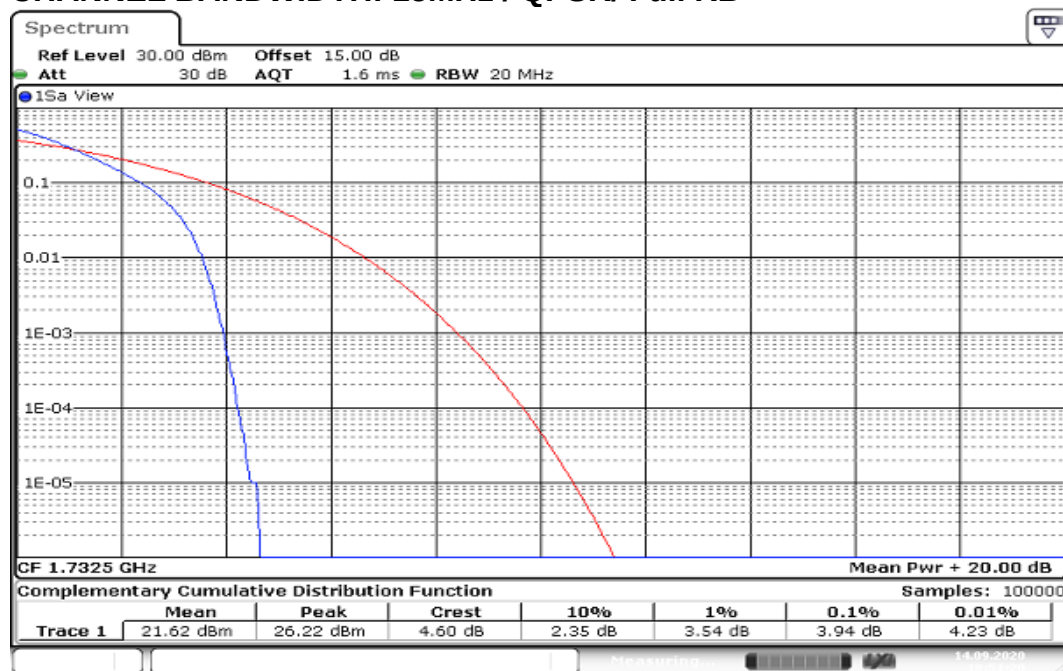
Date: 14.SEP.2020 19:03:06

CHANNEL BANDWIDTH: 10MHz / QPSK / Full RB



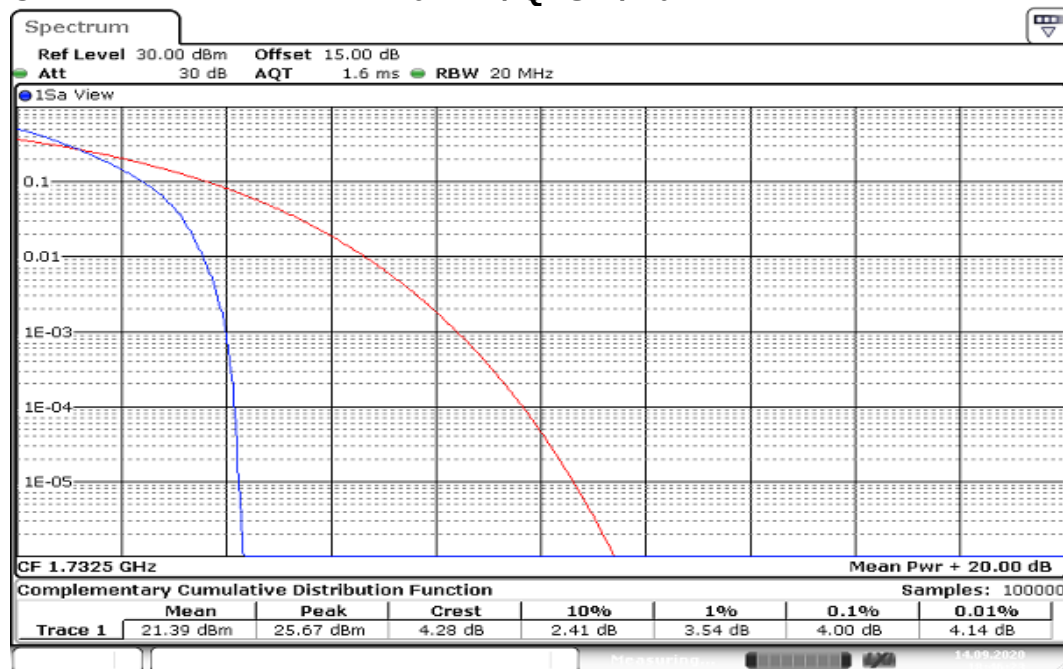
Date: 14.SEP.2020 18:52:57

CHANNEL BANDWIDTH: 15MHz / QPSK/ Full RB



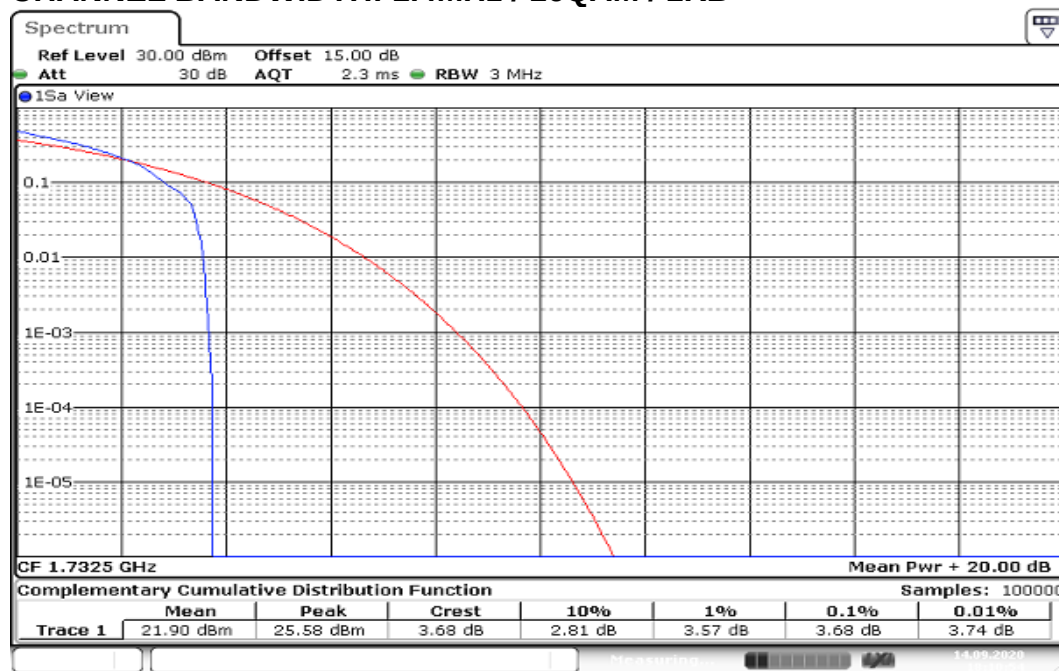
Date: 14.SEP.2020 18:51:20

CHANNEL BANDWIDTH: 20MHz / QPSK / Full RB



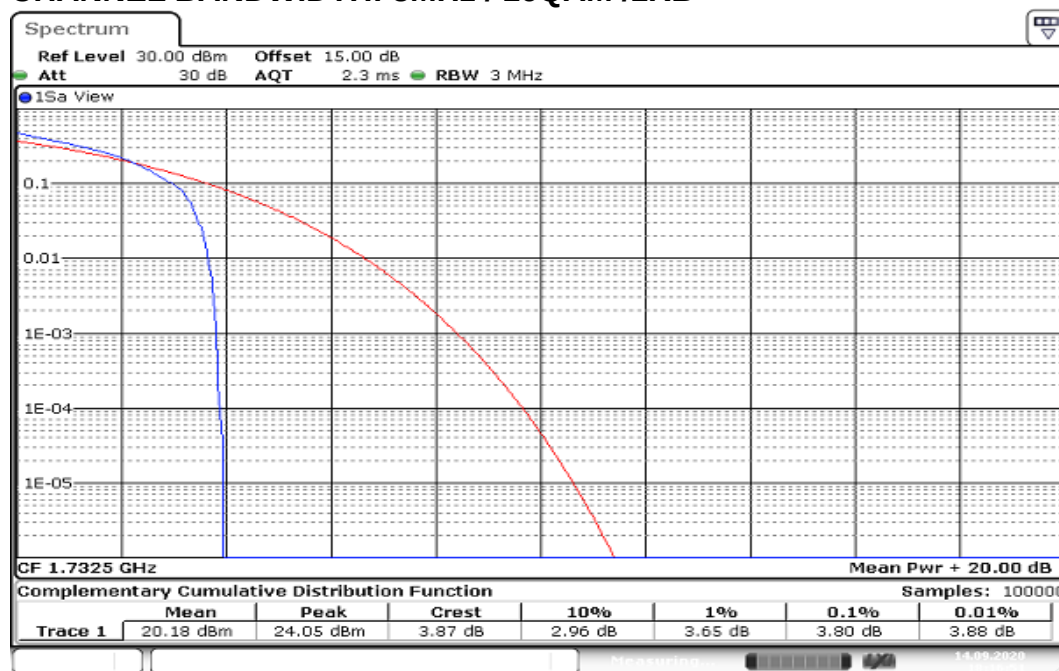
Date: 14.SEP.2020 18:46:23

CHANNEL BANDWIDTH: 1.4MHz / 16QAM / 1RB



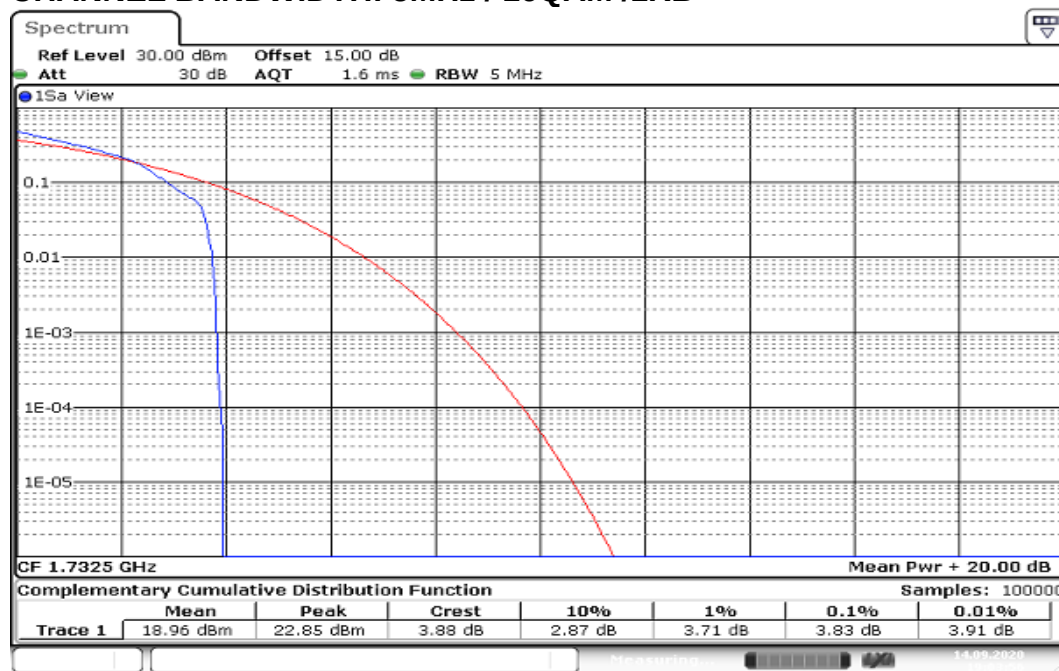
Date: 14.SEP.2020 18:10:54

CHANNEL BANDWIDTH: 3MHz / 16QAM /1RB



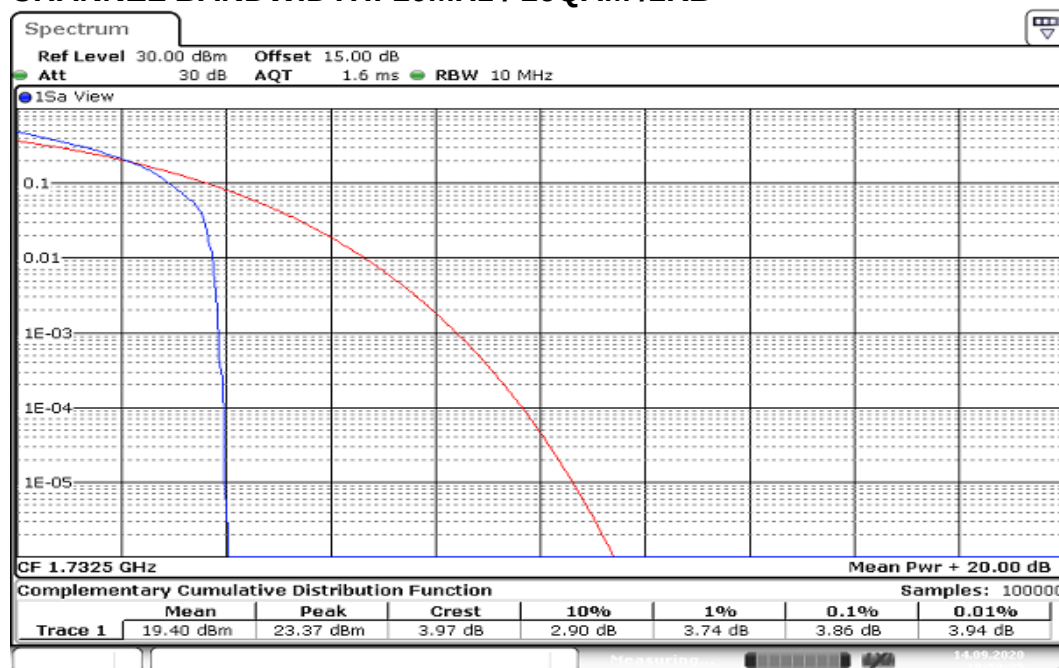
Date: 14.SEP.2020 18:16:51

CHANNEL BANDWIDTH: 5MHz / 16QAM /1RB



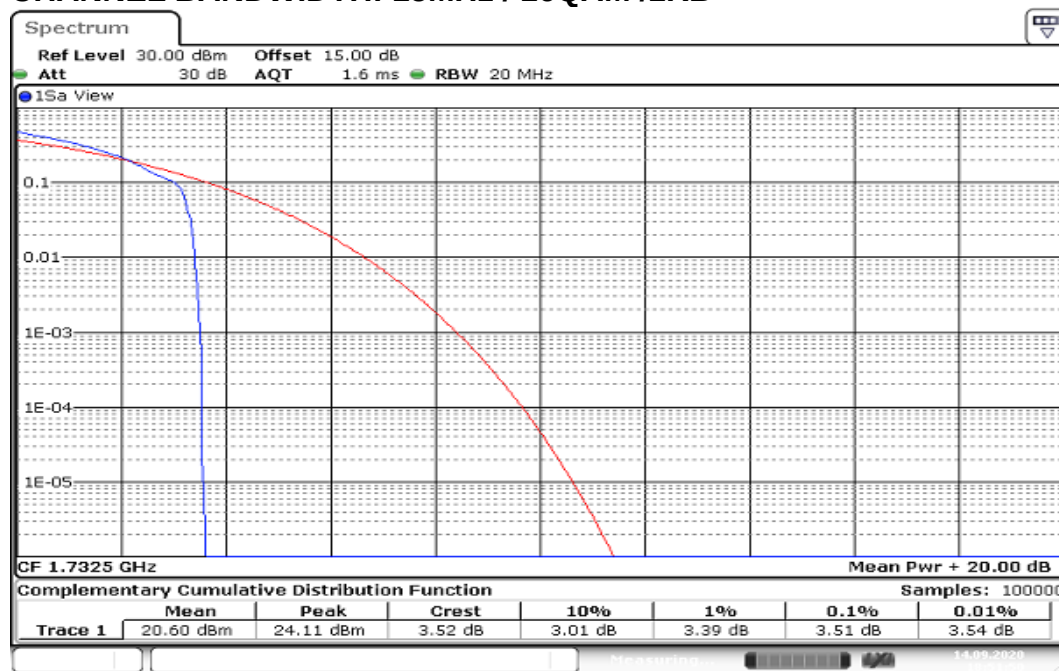
Date: 14.SEP.2020 19:03:56

CHANNEL BANDWIDTH: 10MHz / 16QAM /1RB



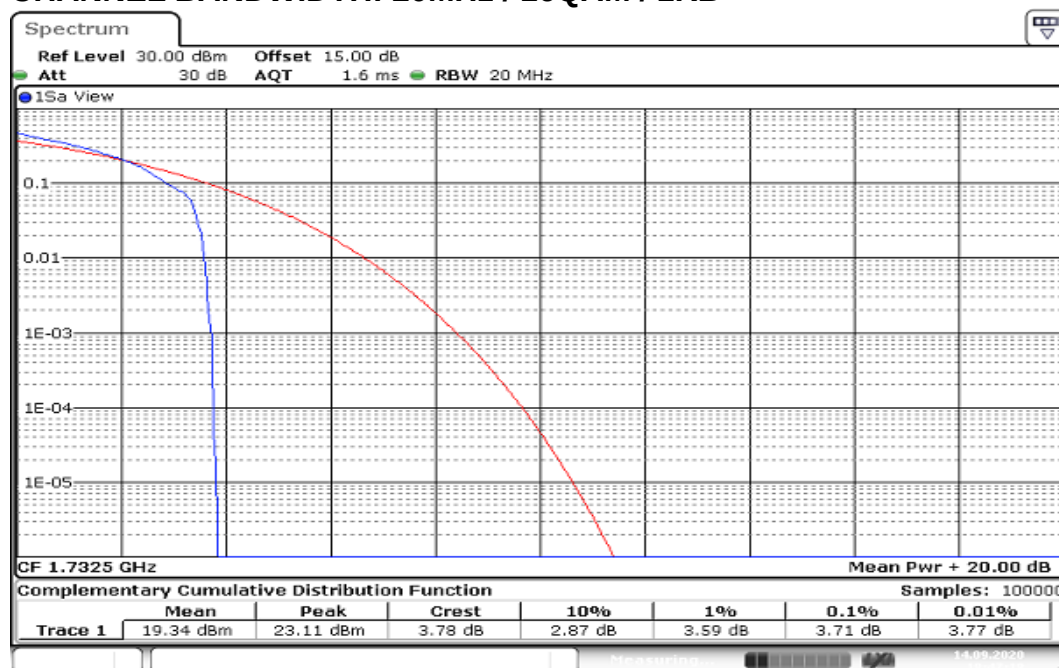
Date: 14.SEP.2020 18:58:35

CHANNEL BANDWIDTH: 15MHz / 16QAM / 1RB



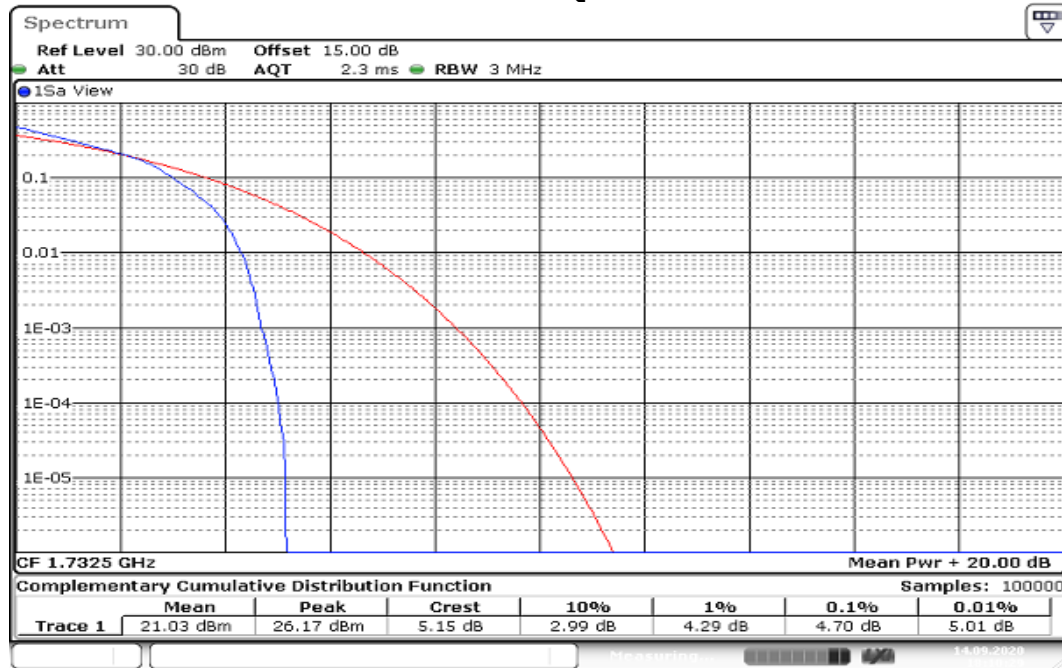
Date: 14.SEP.2020 18:51:50

CHANNEL BANDWIDTH: 20MHz / 16QAM / 1RB



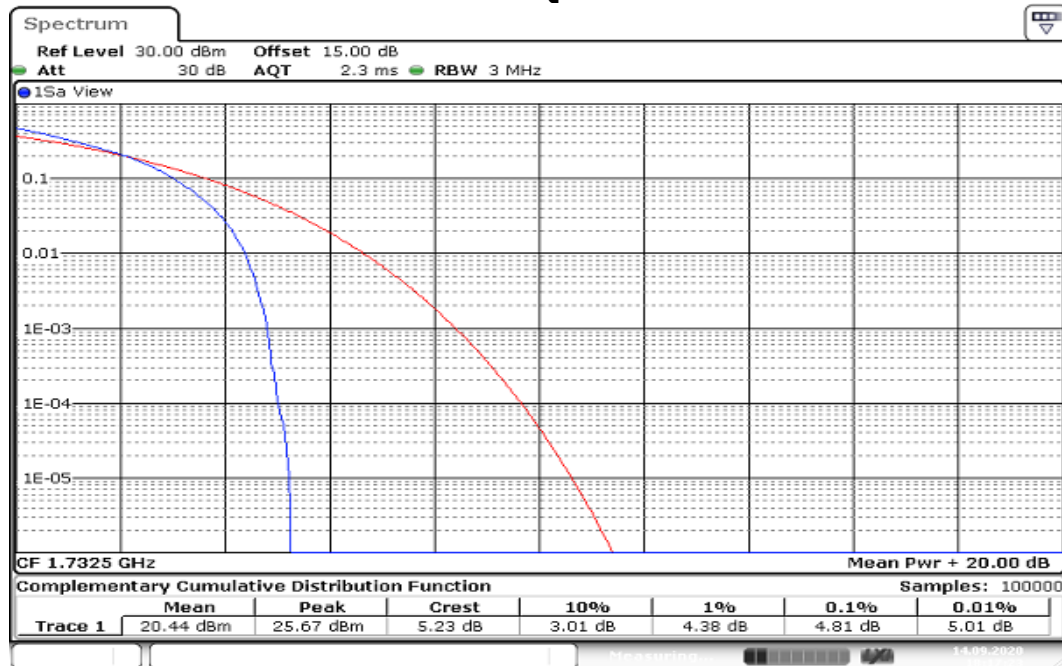
Date: 14.SEP.2020 18:47:18

CHANNEL BANDWIDTH: 1.4MHz / 16QAM / Full RB



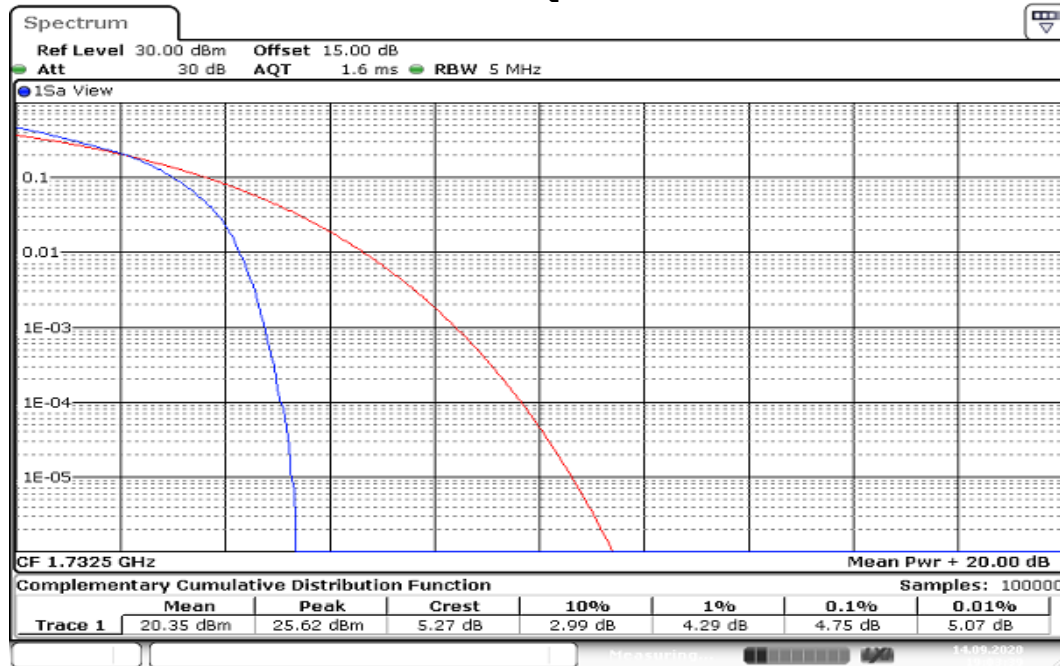
Date: 14.SEP.2020 18:10:29

CHANNEL BANDWIDTH: 3MHz / 16QAM / Full RB



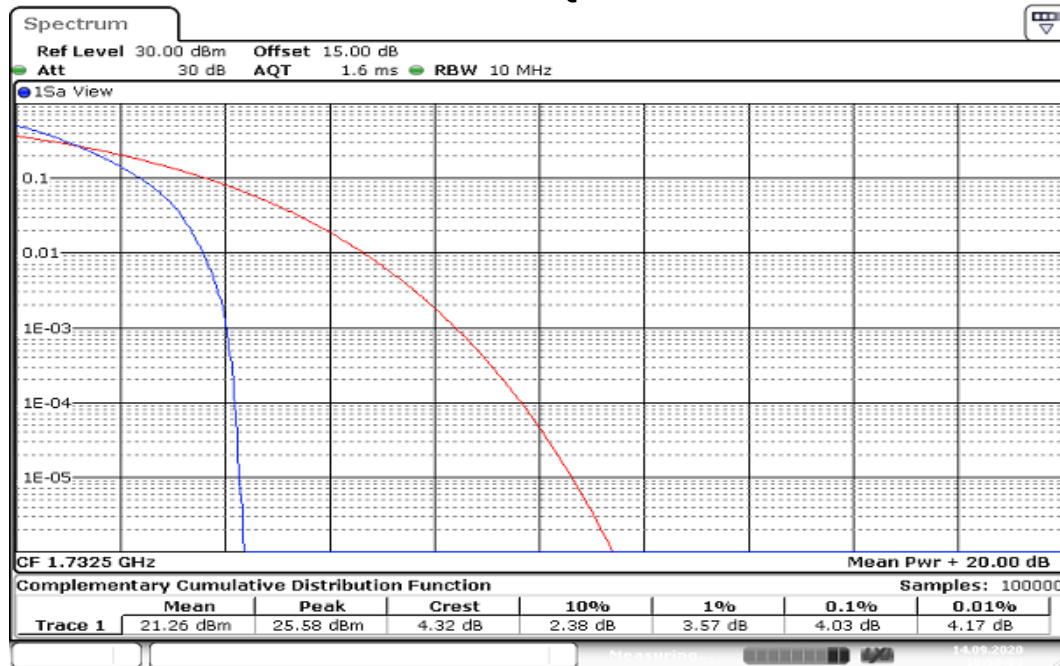
Date: 14.SEP.2020 18:17:23

CHANNEL BANDWIDTH: 5MHz / 16QAM / Full RB



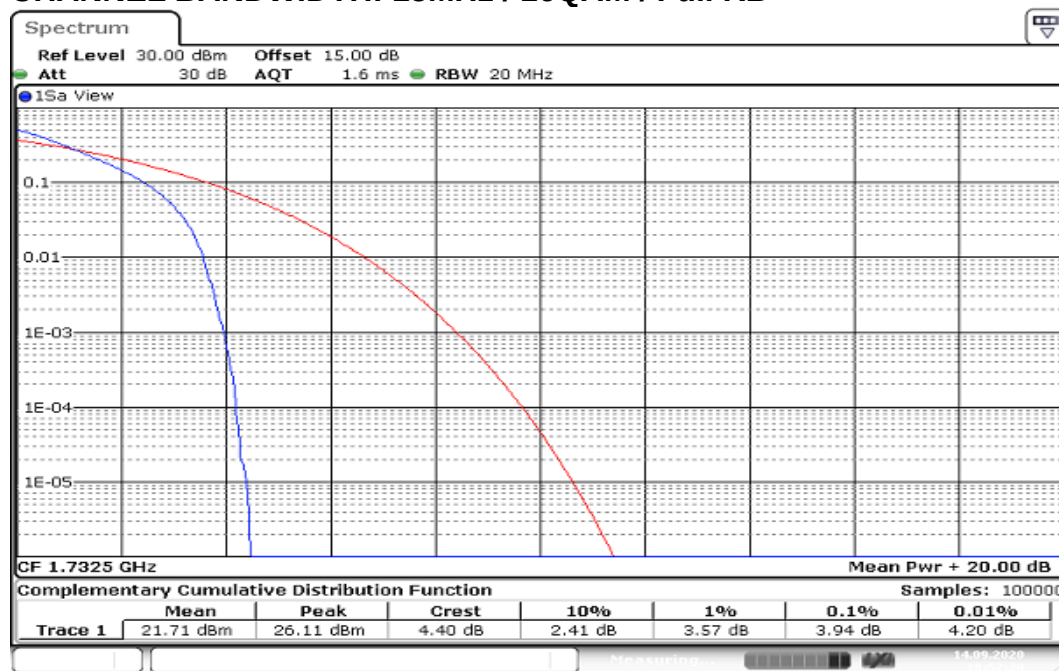
Date: 14.SEP.2020 19:03:39

CHANNEL BANDWIDTH: 10MHz / 16QAM / Full RB



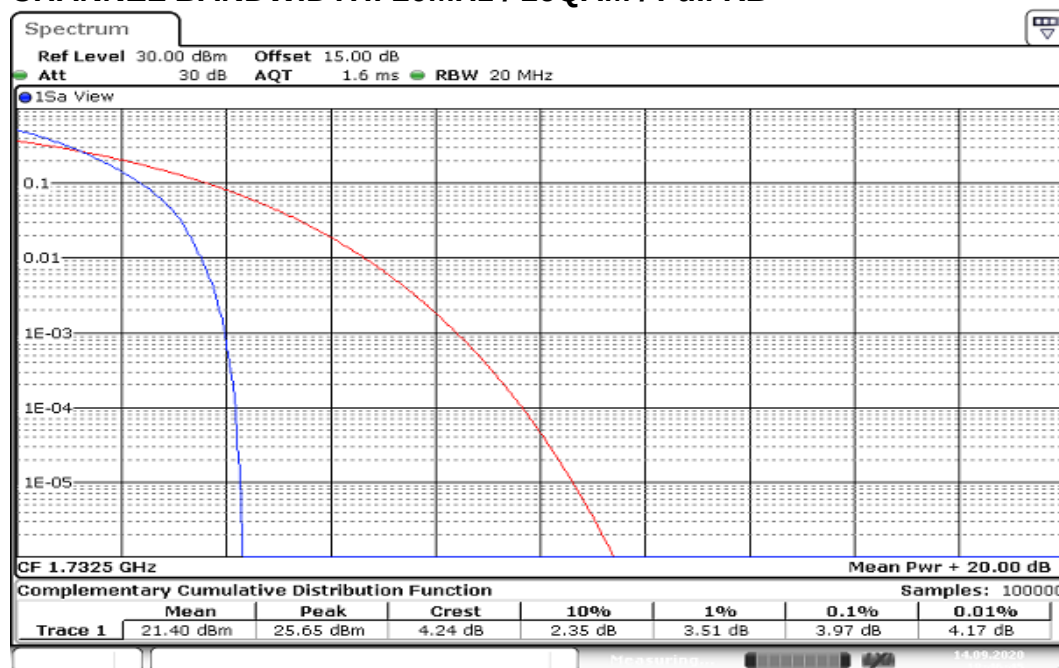
Date: 14.SEP.2020 18:58:03

CHANNEL BANDWIDTH: 15MHz / 16QAM / Full RB



Date: 14.SEP.2020 18:52:20

CHANNEL BANDWIDTH: 20MHz / 16QAM / Full RB



Date: 14.SEP.2020 18:46:46