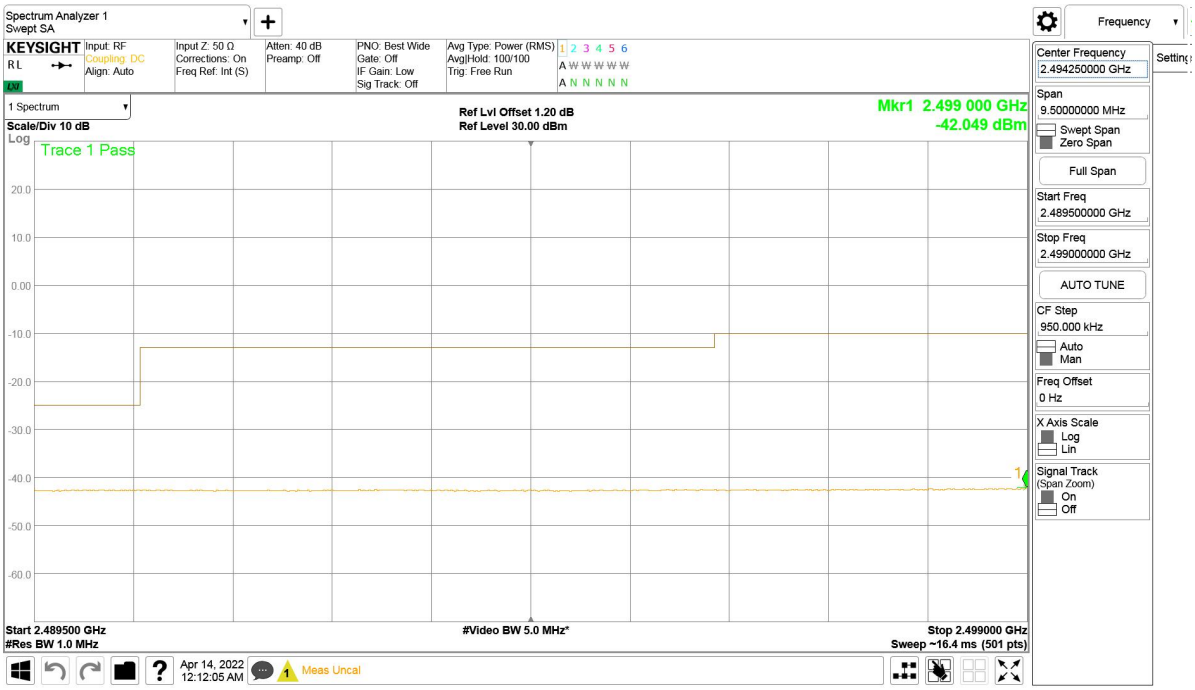
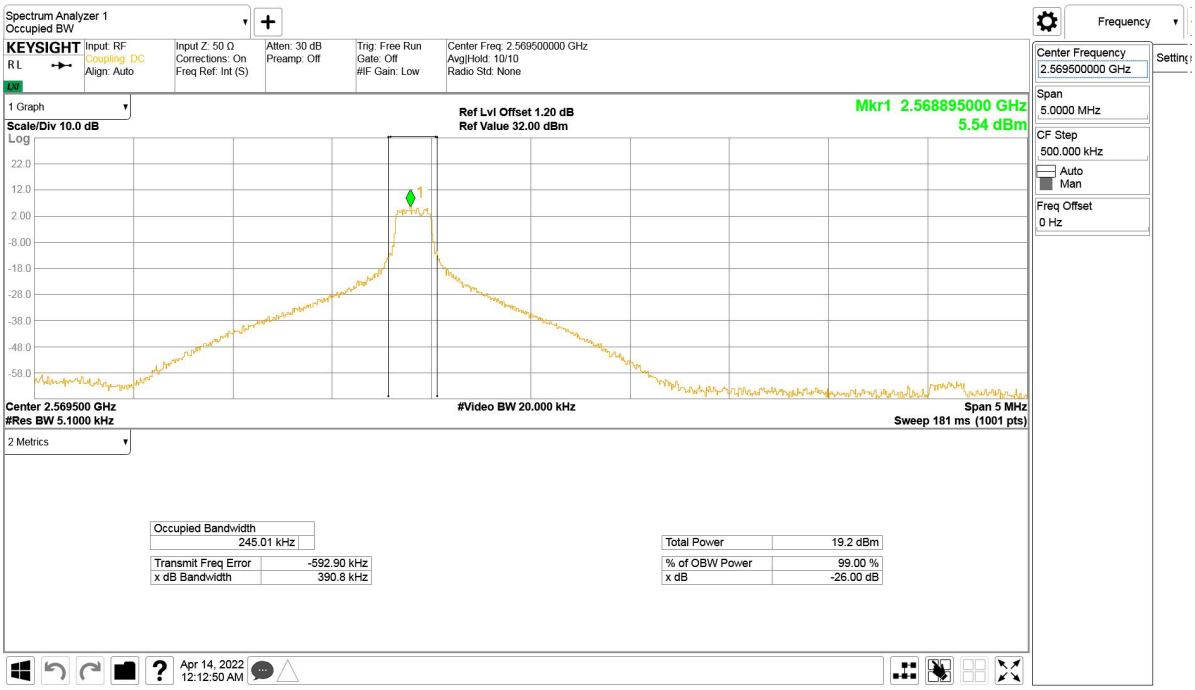
LOW BAND EDGE BLOCK-1RB-10MHz+20M1RB_offset

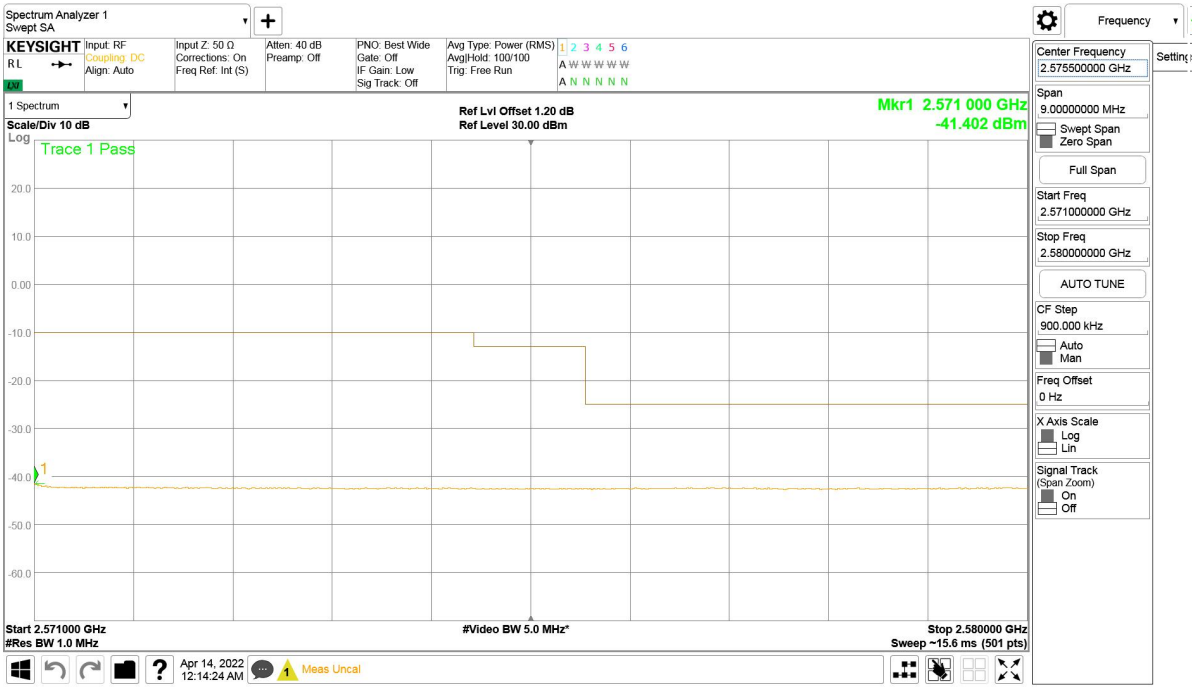


OBW: 1RB-HIGH_offset

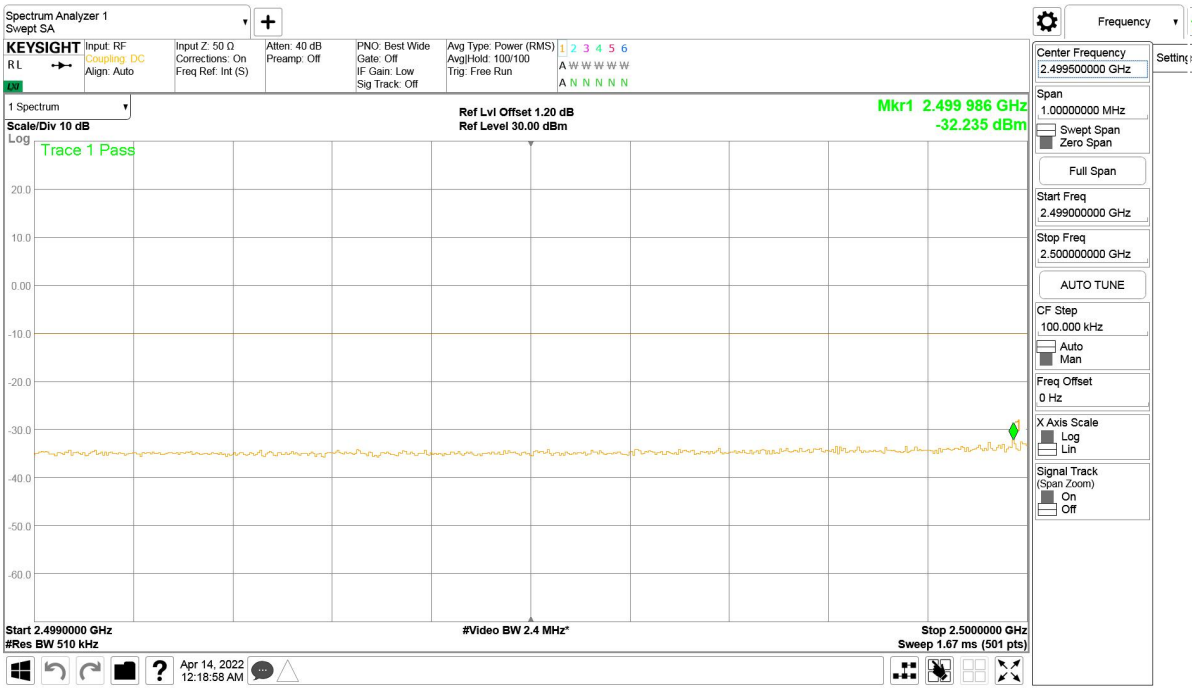


HIGH BAND EDGE BLOCK-1RB-10MHz+20M1RB_offset

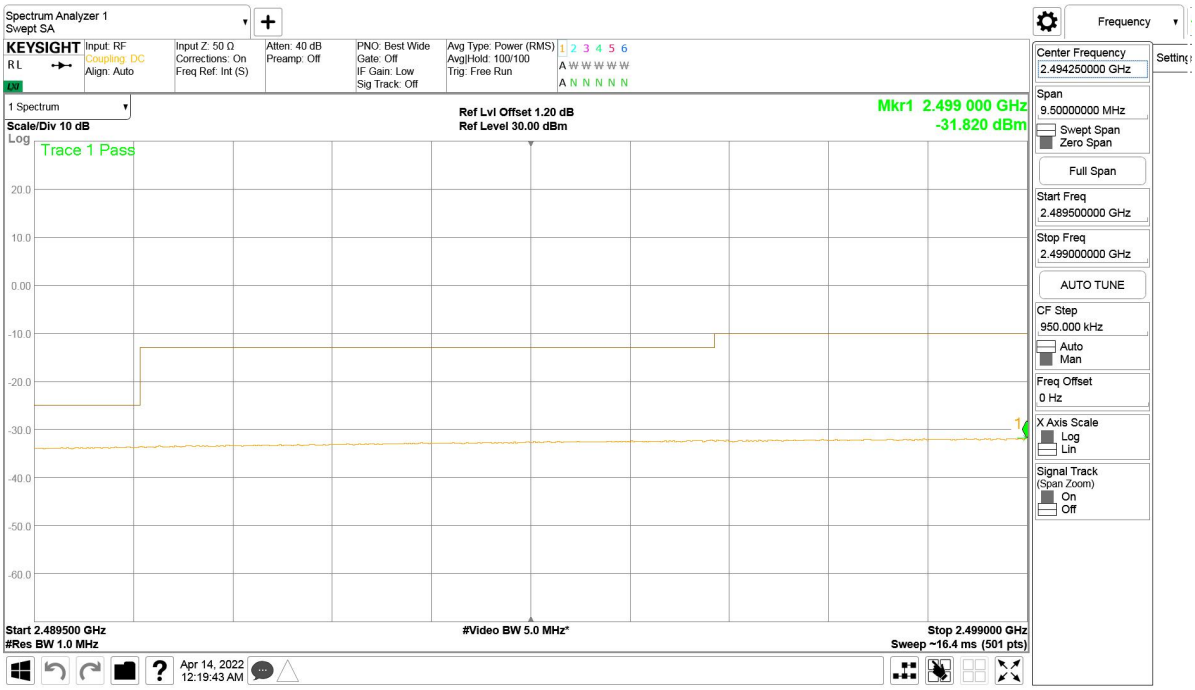
HIGH BAND EDGE BLOCK-1RB-10MHz+20M1RB_offset



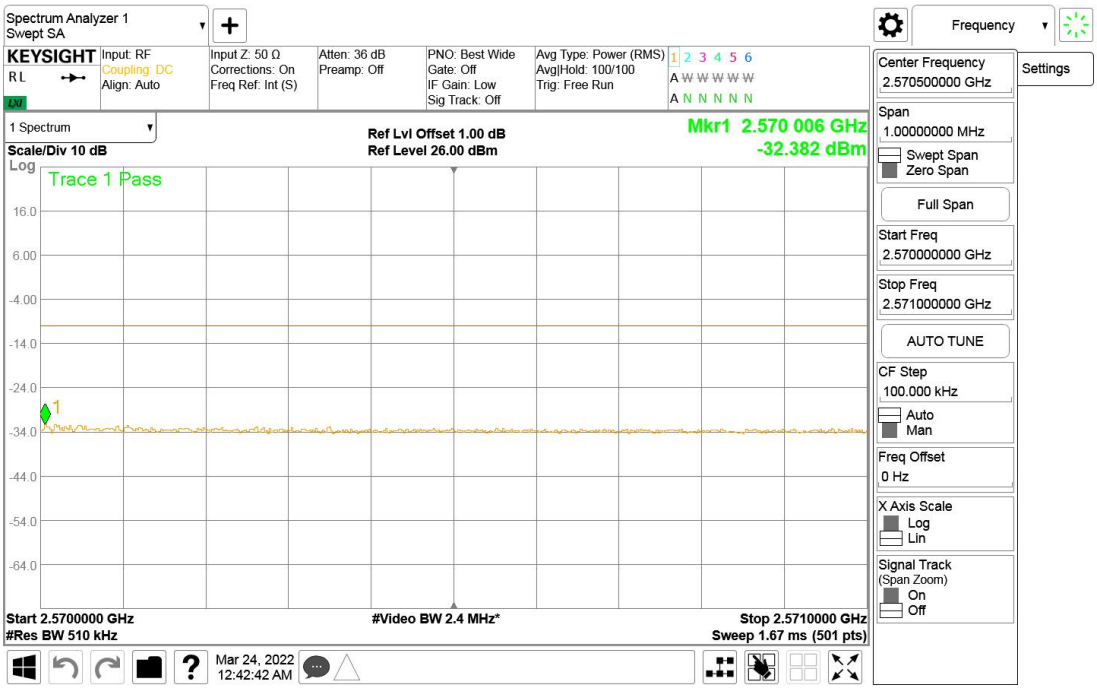
LOW BAND EDGE BLOCK-1RB-20MHz+20M1RB_offset



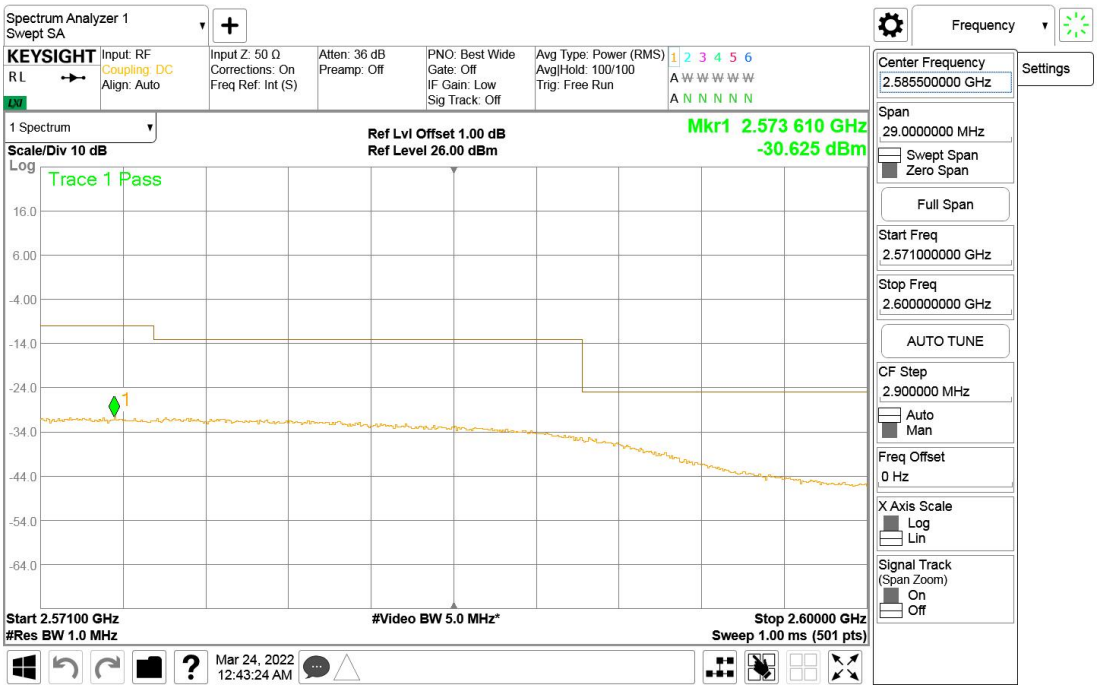
LOW BAND EDGE BLOCK-1RB-20MHz+20M1RB_offset



HIGH BAND EDGE BLOCK-1RB-20MHz+20M1RB_offset



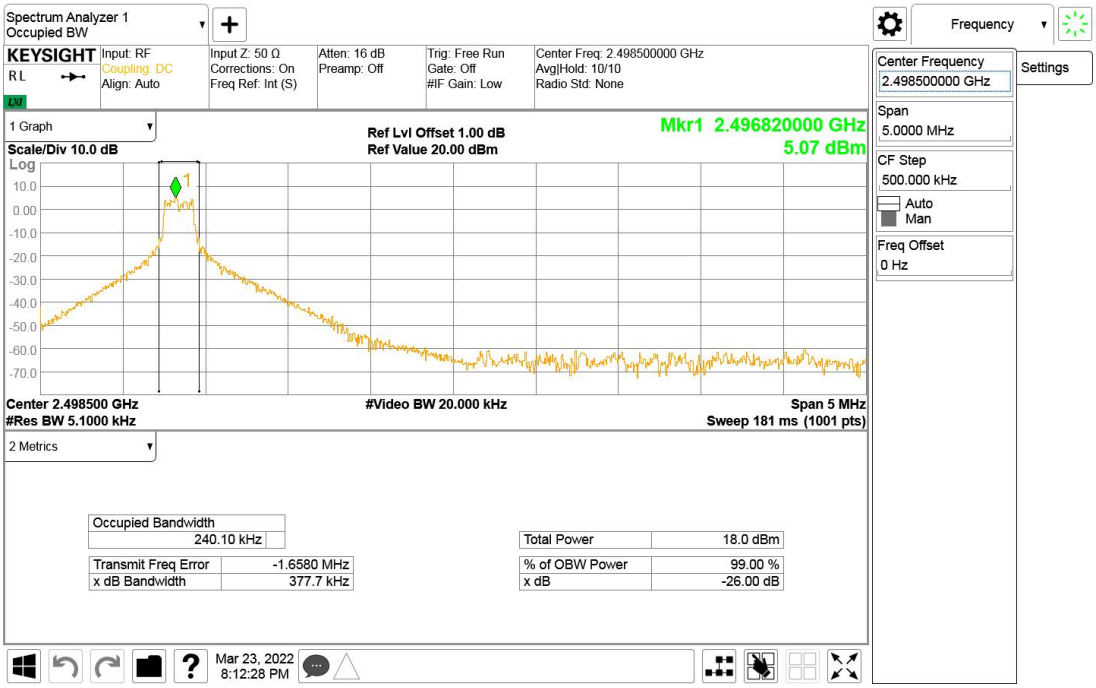
HIGH BAND EDGE BLOCK-1RB-20MHz+20M1RB_offset



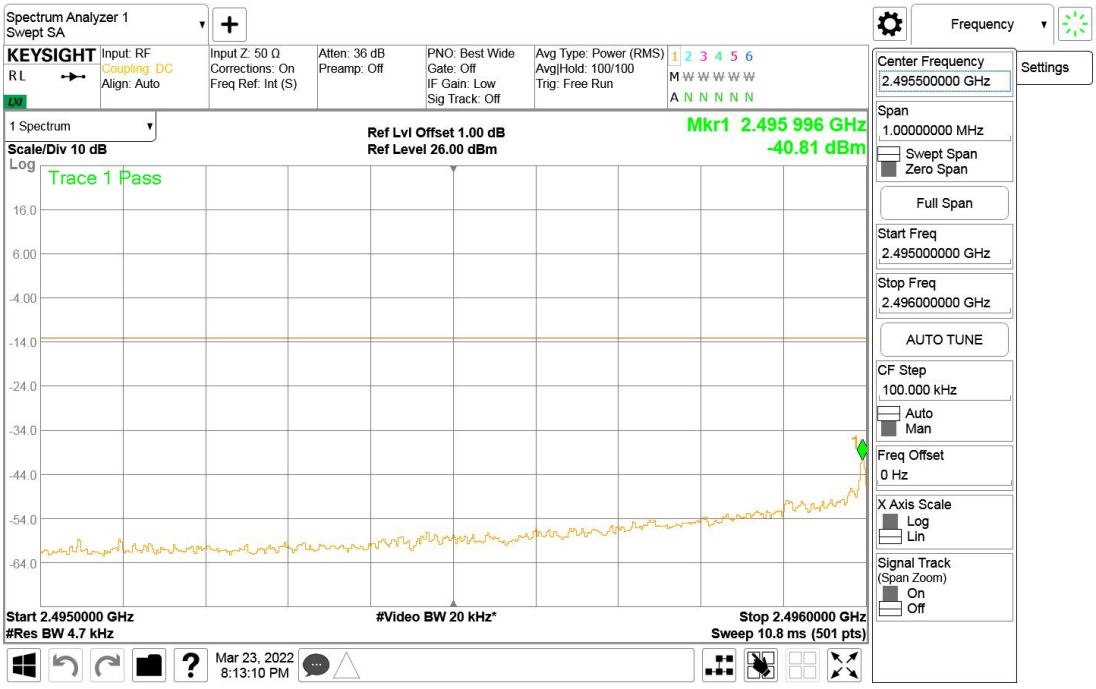
LTE CA_band 41C

Only the worst case result is given below

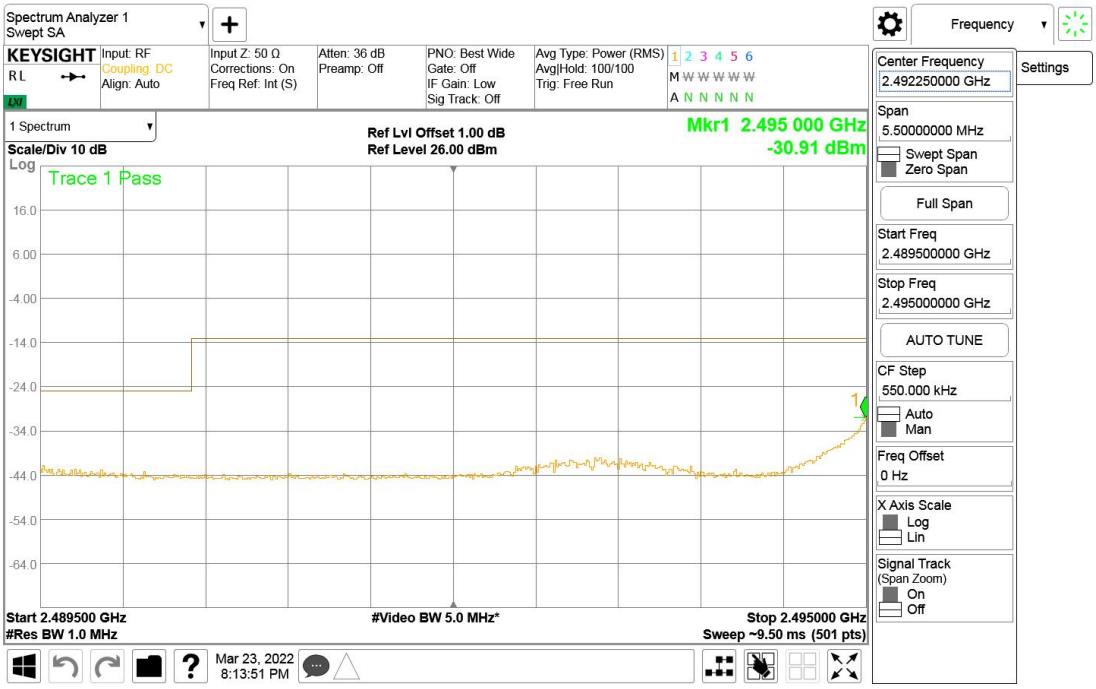
OBW: 1RB-LOW_offset



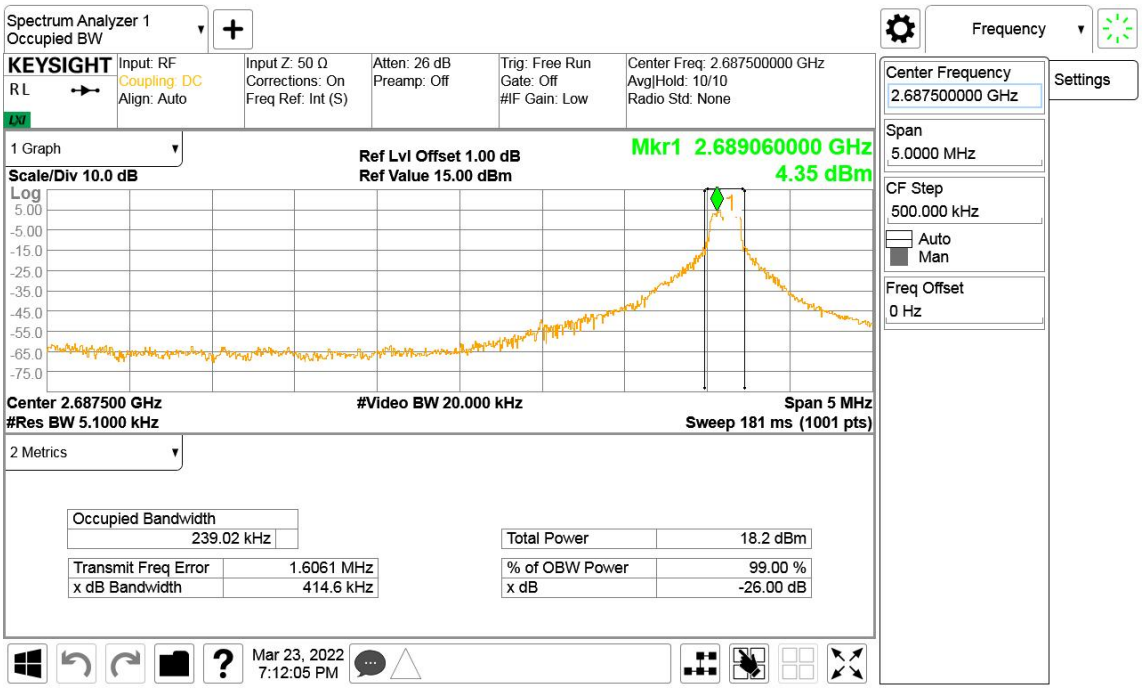
LOW BAND EDGE BLOCK-1RB-15MHz+10M1RB_offset



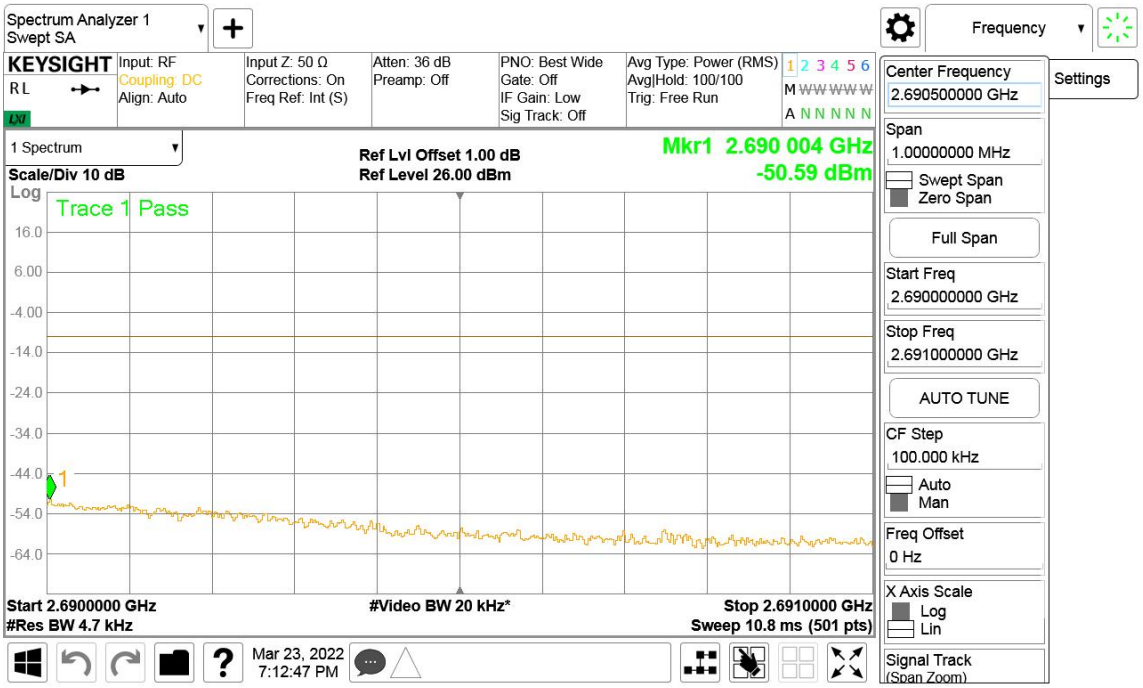
LOW BAND EDGE BLOCK-1RB-15MHz+10M1RB_offset



OBW: 1RB-HIGH_offset

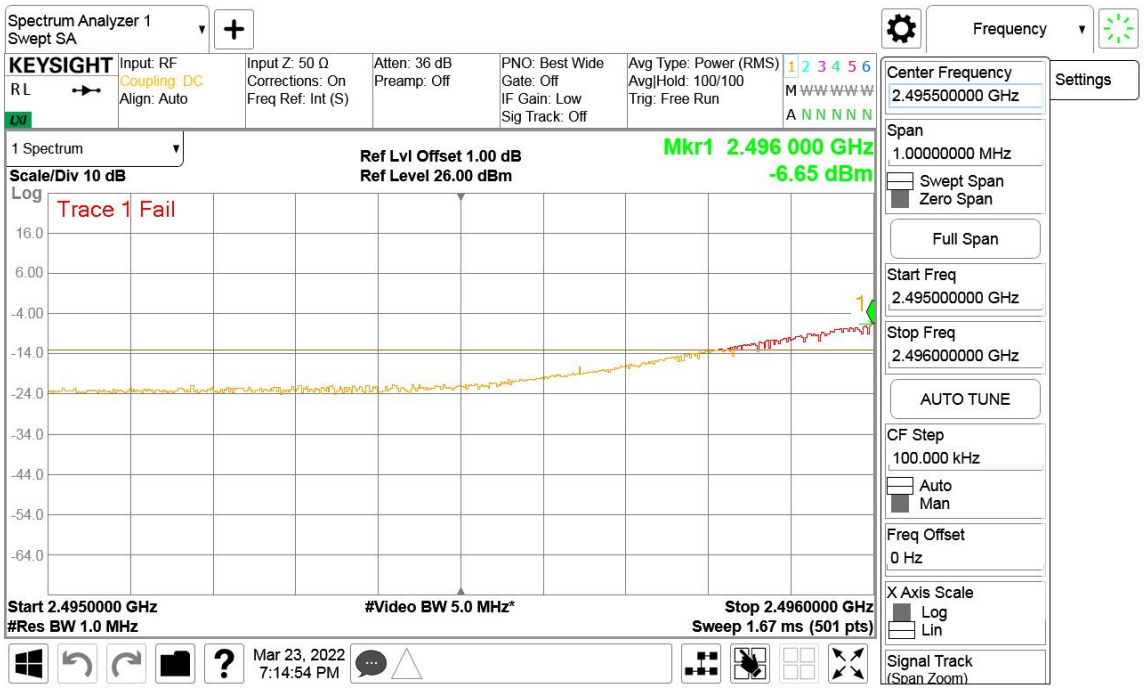


HIGH BAND EDGE BLOCK-1RB-15MHz+10M1RB_offset

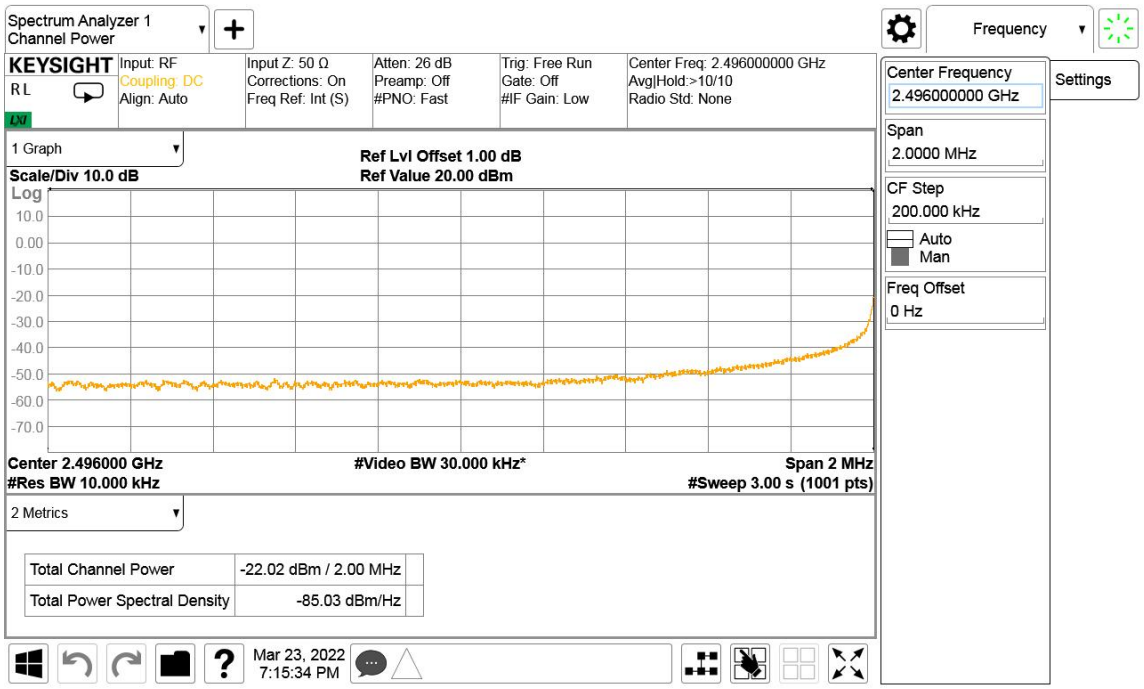


HIGH BAND EDGE BLOCK-1RB-15MHz+10M1RB_offset

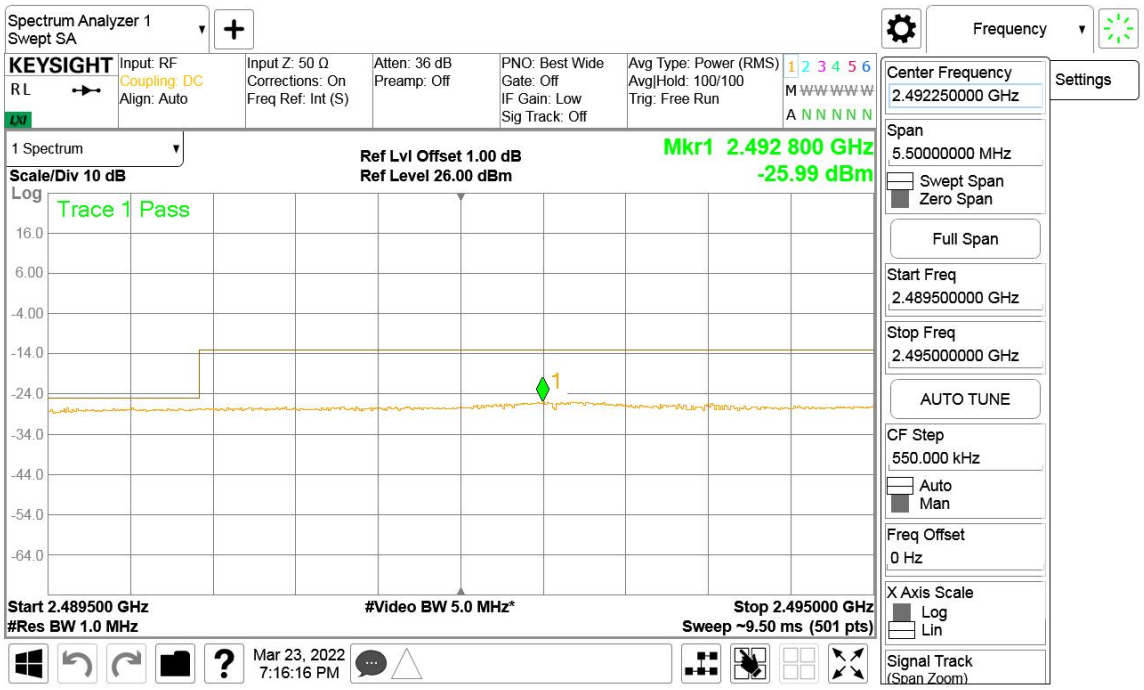
LOW BAND EDGE BLOCK-1RB-20MHz+20M1RB_offset



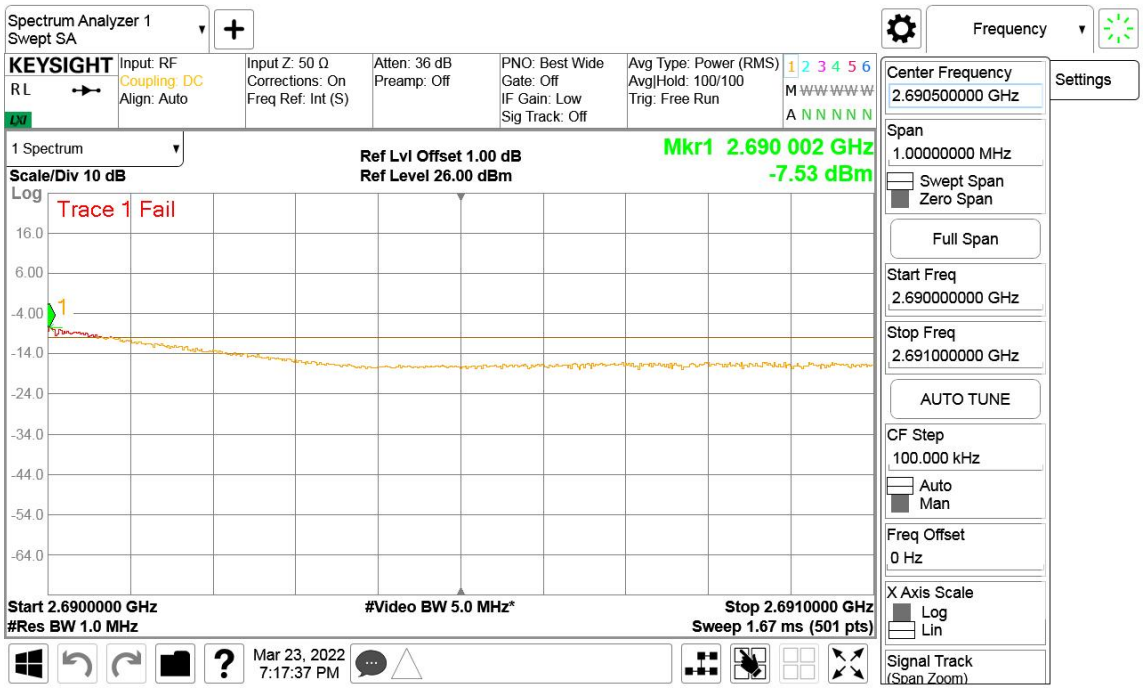
Channal Power



LOW BAND EDGE BLOCK-1RB-20MHz+20M1RB_offset

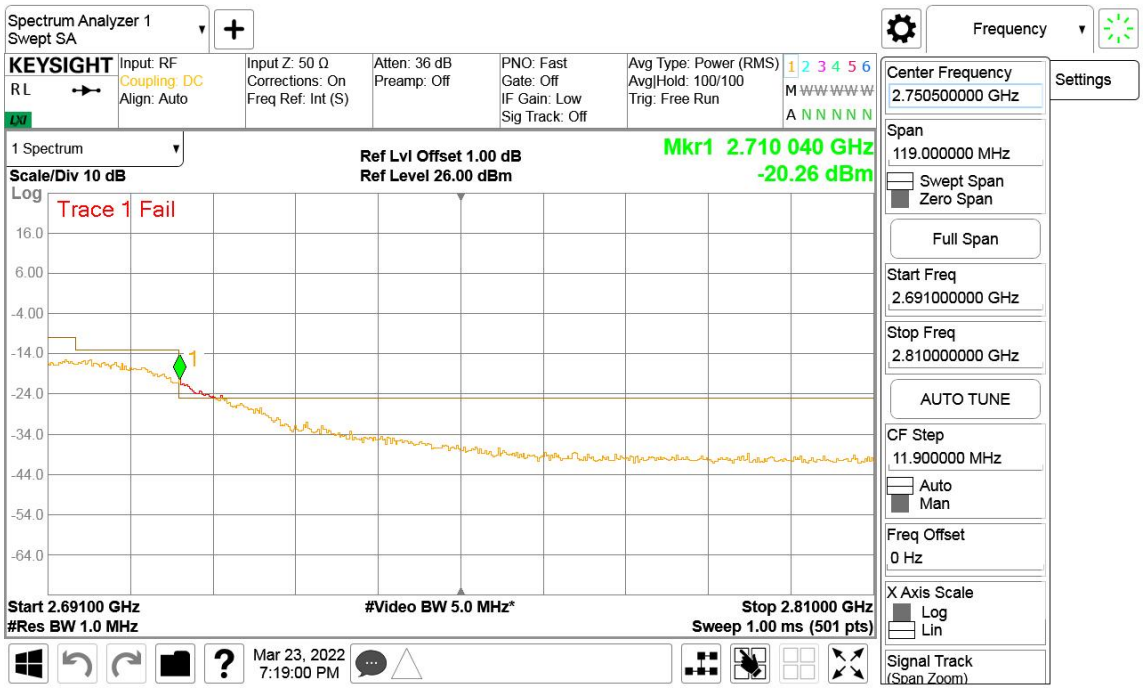


HIGH BAND EDGE BLOCK-1RB-20MHz+20M1RB_offset



Channal Power

HIGH BAND EDGE BLOCK-1RB-20MHz+20M1RB_offset



Channal Power

Spectrum Analyzer 1
Channel Power
KEYSIGHT
RL
Input: RF
Coupling: DC
Align: Auto
Input Z: 50 Ω
Corrections: On
Freq Ref: Int (S)
Atten: 26 dB
Preamp: Off
#PNO: Fast
Trig: Free Run
Gate: Off
#IF Gain: Low
Center Freq: 2.710040000 GHz
Avg|Hold:>10/10
Radio Std: None
Frequency
Settings
Center Frequency
2.710040000 GHz
Span
2.0000 MHz
CF Step
200.000 kHz
Auto
Man
Freq Offset
0 Hz
1 Graph
Ref Lvl Offset 1.00 dB
Ref Value 20.00 dBm
Scale/Div 10.0 dB
Log
10.0
0.00
-10.0
-20.0
-30.0
-40.0
-50.0
-60.0
-70.0
Center 2.710040 GHz
#Res BW 10.000 kHz
#Video BW 30.000 kHz*
Span 2 MHz
#Sweep 3.00 s (1001 pts)
2 Metrics
Total Channel Power
-29.17 dBm / 2.00 MHz
Total Power Spectral Density
-92.18 dBm/Hz
Mar 23, 2022
7:19:41 PM

6.8. Frequency Stability

Specifications:	FCC Part 2.1055, 22.355,24.235, 27.54,90.213
DUT Serial Number:	864542050016100/864542050016050
Test conditions:	Ambient Temperature:15℃-35℃ Relative Humidity:30%-60% Air pressure: 86-106kPa
Test Results:	Pass

Limit	
Frequency deviation [ppm]	±2.5

Measurement Uncertainty:

Item	Uncertainty
Expanded Uncertainty	1.54 Hz (k=2)

Test Method

Frequency stability is a measure of the frequency drift due to temperature and supply voltage variations, with reference to the frequency measured at +20 °C and rated supply voltage. Two reference points are established at the applicable unwanted emissions limit using a RBW equal to the RBW required by the unwanted emissions specification of the applicable regulatory standard. These reference points measured using the lowest and highest channel of operation shall be identified as FL and FH respectively.

In order to measure the carrier frequency under the condition of AFC lock, it is necessary to make measurements with the EUT in a “call mode”. This is accomplished with the use of CMW500.

1. Measure the carrier frequency at room temperature.
2. Subject the EUT to overnight soak at -30℃.
3. With the EUT, powered via nominal voltage, connected to the CMW500, and in a simulated call on middle channel for each LTE band, measure the carrier frequency. These measurements should be made within 2 minutes of Powering up the EUT, to prevent significant self-warming.
4. Repeat the above measurements at 10℃ increments from -30℃ to +50℃. Allow at least 1.5 hours at each temperature, unpowered, before making measurements.
5. Re-measure carrier frequency at room temperature with nominal voltage. Vary supply voltage from minimum voltage to maximum voltage, in 0.1Volt increments re-measuring carrier frequency at each voltage. Pause at nominal voltage for 1.5 hours unpowered, to allow any self-heating to stabilize, before continuing.

6. Subject the EUT to overnight soak at +50℃.
7. With the EUT, powered via nominal voltage, connected to the CMW500 and in a simulated call on the center channel, measure the carrier frequency. These measurements should be made within 2 minutes of Powering up the EUT, to prevent significant self-warming.
8. Repeat the above measurements at 10 ℃increments from +50℃ to -30℃. Allow at least 1.5 hours at each temperature, unpowered, before making measurements.
9. At all temperature levels hold the temperature to +/- 0.5℃ during the measurement procedure.

6.8.1 Frequency Stability over Temperature Variation Results

LTE band 2, 20MHz bandwidth QPSK(worst case of all bandwidths)

Frequency Error vs Voltage

Temperature(℃)	Voltage(V)	FL(MHz)	FH(MHz)	Offset(Hz)	Frequency error(ppm)
20	3.8	1850.780	1909.210		
50				7.10	0.0038
40				9.27	0.0049
30				9.81	0.0052
10				10.23	0.0054
0				3.88	0.0021
-10				4.55	0.0024
-20				1.17	0.0006
-30				0.00	0.0000

Frequency Error vs Voltage

Voltage(V)	Temperature(℃)	FL(MHz)	FH(MHz)	Offset(Hz)	Frequency error(ppm)
3.4	20	1850.780	1909.210	3.00	0.0016
4.2				4.55	0.0024

LTE band 4, 20MHz bandwidth QPSK(worst case of all bandwidths)

Frequency Error vs Voltage

Temperature(℃)	Voltage(V)	FL(MHz)	FH(MHz)	Offset(Hz)	Frequency error(ppm)
20	3.8	1710.800	1754.220		
50				2.20	0.0013
40				5.02	0.0029
30				8.15	0.0047
10				2.70	0.0016
0				8.18	0.0047
-10				3.29	0.0019
-20				-1.69	0.0010
-30				2.62	0.0015

Frequency Error vs Voltage

Voltage(V)	Temperature(℃)	FL(MHz)	FH(MHz)	Offset(Hz)	Frequency error(ppm)
3.4	20	1710.800	1754.220	6.50	0.0037
4.2				4.12	0.0024

LTE band 5, 10MHz bandwidth QPSK(worst case of all bandwidths)

Frequency Error vs Voltage

Temperature(℃)	Voltage(V)	FL(MHz)	FH(MHz)	Offset(Hz)	Frequency error(ppm)
20	3.8	824.400	848.590		
50				-5.82	0.0070
40				-5.81	0.0069
30				-4.19	0.0050
10				-2.56	0.0031
0				-2.05	0.0024
-10				-0.69	0.0008
-20				-0.60	0.0007
-30				-1.85	0.0022

Frequency Error vs Voltage

Voltage(V)	Temperature(℃)	FL(MHz)	FH(MHz)	Offset(Hz)	Frequency error(ppm)
3.4	20	824.400	848.590	-2.43	0.0029
4.2				-3.92	0.0047

LTE band 7, 20MHz bandwidth QPSK(worst case of all bandwidths)

Frequency Error vs Voltage

Temperature(℃)	Voltage(V)	FL(MHz)	FH(MHz)	Offset(Hz)	Frequency error(ppm)
20	3.8	2500.880	2569.200		
50				-6.11	0.0024
40				-4.21	0.0017
30				-4.65	0.0018
10				-6.87	0.0027
0				-3.92	0.0015
-10				-6.27	0.0025
-20				1.93	0.0008
-30				-3.16	0.0012

Frequency Error vs Voltage

Voltage(V)	Temperature(℃)	FL(MHz)	FH(MHz)	Offset(Hz)	Frequency error(ppm)
3.4	20	2500.880	2569.200	-0.10	0.0000
4.2				4.62	0.0018

LTE band 12, 10MHz bandwidth QPSK(worst case of all bandwidths)

Frequency Error vs Voltage

Temperature(℃)	Voltage(V)	FL(MHz)	FH(MHz)	Offset(Hz)	Frequency error(ppm)
20	3.8	699.480	715.520		
50				-3.58	0.0051
40				-3.66	0.0052
30				-1.67	0.0024
10				-2.52	0.0036
0				-3.89	0.0055
-10				-6.75	0.0095
-20				-2.45	0.0035
-30				-4.54	0.0064

Frequency Error vs Voltage

Voltage(V)	Temperature(℃)	FL(MHz)	FH(MHz)	Offset(Hz)	Frequency error(ppm)
3.4	20	699.480	715.520	-2.05	0.0029
4.2				-1.56	0.0022

LTE band 13, 10MHz bandwidth QPSK(worst case of all bandwidths)

Frequency Error vs Voltage

Temperature(℃)	Voltage(V)	FL(MHz)	FH(MHz)	Offset(Hz)	Frequency error(ppm)
20	3.8	778.938	784.677		
50				-2.85	0.0036
40				-3.41	0.0044
30				-3.16	0.0040
10				-2.22	0.0028
0				-1.06	0.0014
-10				-0.47	0.0006
-20				0.07	0.0001
-30				-2.69	0.0034

Frequency Error vs Voltage

Voltage(V)	Temperature(℃)	FL(MHz)	FH(MHz)	Offset(Hz)	Frequency error(ppm)
3.4	20	778.938	784.677	-5.16	0.0066
4.2				-4.36	0.0056

LTE band 14, 10MHz bandwidth QPSK(worst case of all bandwidths)

Frequency Error vs Voltage

Temperature(℃)	Voltage(V)	FL(MHz)	FH(MHz)	Offset(Hz)	Frequency error(ppm)
20	3.8	788.480	797.520		
50				-2.98	0.0038
40				-1.93	0.0024
30				-3.10	0.0039
10				-0.44	0.0006
0				-0.66	0.0008
-10				-0.32	0.0004
-20				-0.43	0.0005
-30				-1.14	0.0014

Frequency Error vs Voltage

Voltage(V)	Temperature(℃)	FL(MHz)	FH(MHz)	Offset(Hz)	Frequency error(ppm)
3.4	20	788.480	797.520	-3.09	0.0039
4.2				-3.68	0.0046

LTE band 17, 10MHz bandwidth QPSK(worst case of all bandwidths)

Frequency Error vs Voltage

Temperature(℃)	Voltage(V)	FL(MHz)	FH(MHz)	Offset(Hz)	Frequency error(ppm)
20	3.8	704.420	715.570		
50				4.45	0.0063
40				1.59	0.0022
30				-1.67	0.0024
10				-0.22	0.0003
0				0.23	0.0003
-10				0.14	0.0002
-20				1.50	0.0021
-30				2.82	0.0040

Frequency Error vs Voltage

Voltage(V)	Temperature(℃)	FL(MHz)	FH(MHz)	Offset(Hz)	Frequency error(ppm)
3.4	20	704.420	715.570	3.13	0.0044
4.2				3.71	0.0052

LTE band 25, 20MHz bandwidth QPSK(worst case of all bandwidths)

Frequency Error vs Voltage

Temperature(℃)	Voltage(V)	FL(MHz)	FH(MHz)	Offset(Hz)	Frequency error(ppm)
20	3.8	1850.820	1914.190		
50				0.07	0.0000
40				-0.13	0.0001
30				-6.04	0.0032
10				-5.54	0.0029
0				-2.55	0.0014
-10				-10.23	0.0054
-20				-10.51	0.0056
-30				-10.96	0.0058

Frequency Error vs Voltage

Voltage(V)	Temperature(℃)	FL(MHz)	FH(MHz)	Offset(Hz)	Frequency error(ppm)
3.4	20	1850.820	1914.190	-7.68	0.0041
4.2				-6.02	0.0032

LTE band 26 Part22, 15MHz bandwidth QPSK(worst case of all bandwidths)

Frequency Error vs Voltage

Temperature(℃)	Voltage(V)	FL(MHz)	FH(MHz)	Offset(Hz)	Frequency error(ppm)
20	3.8	824.540	848.460		
50				-3.68	0.0044
40				-3.33	0.0040
30				-3.13	0.0037
10				-3.29	0.0039
0				-4.08	0.0049
-10				-2.26	0.0027
-20				-5.54	0.0066
-30				-4.18	0.0050

Frequency Error vs Voltage

Voltage(V)	Temperature(℃)	FL(MHz)	FH(MHz)	Offset(Hz)	Frequency error(ppm)
3.4	20	824.540	848.460	-3.33	0.0040
4.2				-5.14	0.0061

LTE band 26 Part90, 10MHz bandwidth QPSK(worst case of all bandwidths)

Frequency Error vs Voltage

Temperature(℃)	Voltage(V)	FL(MHz)	FH(MHz)	Offset(Hz)	Frequency error(ppm)
20	3.8	814.420	823.580		
50				-6.95	0.0085
40				-7.28	0.0089
30				-5.64	0.0069
10				-5.22	0.0064
0				-2.85	0.0035
-10				-2.40	0.0029
-20				-2.40	0.0029
-30				-2.55	0.0031

Frequency Error vs Voltage

Voltage(V)	Temperature(℃)	FL(MHz)	FH(MHz)	Offset(Hz)	Frequency error(ppm)
3.4	20	814.420	823.580	-2.76	0.0034
4.2				-3.16	0.0039

LTE band 66, 20MHz bandwidth QPSK(worst case of all bandwidths)

Frequency Error vs Voltage

Temperature(℃)	Voltage(V)	FL(MHz)	FH(MHz)	Offset(Hz)	Frequency error(ppm)
20	3.8	1710.810	1779.230		
50				-3.91	0.0022
40				-6.75	0.0039
30				-4.52	0.0026
10				-0.57	0.0003
0				-2.60	0.0015
-10				-4.05	0.0023
-20				-7.01	0.0040
-30				-7.28	0.0042

Frequency Error vs Voltage

Voltage(V)	Temperature(℃)	FL(MHz)	FH(MHz)	Offset(Hz)	Frequency error(ppm)
3.4	20	1710.810	1779.230	-6.67	0.0038
4.2				1.32	0.0008

LTE band 71, 20MHz bandwidth QPSK(worst case of all bandwidths)

Frequency Error vs Voltage

Temperature(℃)	Voltage(V)	FL(MHz)	FH(MHz)	Offset(Hz)	Frequency error(ppm)
20	3.8	663.820	697.220		
50				-1.22	0.0018
40				-0.19	0.0003
30				-0.49	0.0007
10				-0.93	0.0014
0				0.06	0.0001
-10				0.23	0.0003
-20				-0.56	0.0008
-30				-0.92	0.0013

Frequency Error vs Voltage

Voltage(V)	Temperature(℃)	FL(MHz)	FH(MHz)	Offset(Hz)	Frequency error(ppm)
3.4	20	663.820	697.220	-1.25	0.0018
4.2				-1.09	0.0016

LTE band 41, 20MHz bandwidth QPSK(worst case of all bandwidths)

Frequency Error vs Temperature

Temperature(℃)	Voltage(V)	FL(MHz)	FH(MHz)	Offset(Hz)	Frequency error(ppm)
20	3.8	2496.960	2689.040		
50				6.52	0.0025
40				4.75	0.0018
30				4.99	0.0019
10				5.48	0.0021
0				5.64	0.0022
-10				6.78	0.0026
-20				7.01	0.0027
-30				6.09	0.0024

Frequency Error vs Voltage

Voltage(V)	Temperature(℃)	FL(MHz)	FH(MHz)	Offset(Hz)	Frequency error(ppm)
3.4	20	2496.960	2689.040	6.44	0.0025
4.2				6.45	0.0025

LTE band 7_CA, 20MHz+20MHz bandwidth QPSK(worst case of all bandwidths)

Frequency Error vs Voltage

Temperature(℃)	Voltage(V)	FL(MHz)	FH(MHz)	Offset(Hz)	Frequency error(ppm)
20	3.8	2500.640	2569.340		
50				34.79	0.0137
40				35.42	0.0140
30				38.34	0.0151
10				37.67	0.0149
0				35.46	0.0140
-10				41.30	0.0163
-20				36.99	0.0146
-30				34.60	0.0137

Frequency Error vs Voltage

Voltage(V)	Temperature(℃)	FL(MHz)	FH(MHz)	Offset(Hz)	Frequency error(ppm)
3.4	20	2500.640	2569.340	36.08	0.0142
4.2				38.24	0.0151

LTE band 41_CA, 20MHz+20MHz bandwidth QPSK(worst case of all bandwidths)

Frequency Error vs Voltage

Temperature(℃)	Voltage(V)	FL(MHz)	FH(MHz)	Offset(Hz)	Frequency error(ppm)
20	3.8	2496.780	2689.240		
50				34.22	0.0132
40				35.76	0.0138
30				33.60	0.0130
10				30.30	0.0117
0				33.77	0.0130
-10				32.39	0.0125
-20				32.77	0.0126
-30				31.74	0.0122

Frequency Error vs Voltage

Voltage(V)	Temperature(℃)	FL(MHz)	FH(MHz)	Offset(Hz)	Frequency error(ppm)
3.4	20	2496.780	2689.240	33.05	0.0127
4.2				30.91	0.0119

6.9. Peak to Average Ratio

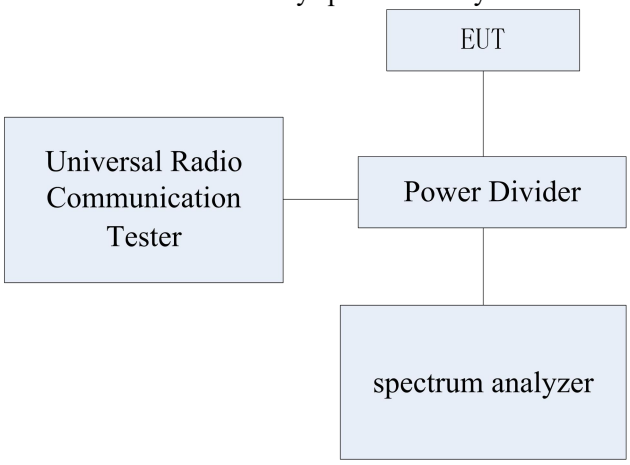
Specifications:	FCC Part 24.232, 27.50
DUT Serial Number:	864542050016100/864542050016050
Test conditions:	Ambient Temperature:15℃-35℃ Relative Humidity:30%-60% Air pressure: 86-106kPa
Test Results:	Pass

Limit

The EUT meets the requirement of having a peak to average ratio of less than 13dB.

Test Setup

During the test, the EUT was controlled via the Wireless Communications Test Set to ensure max power transmission and proper modulation and measured by spectrum analyzer.



Measurement Uncertainty:

Item	Uncertainty
Expanded Uncertainty	0.62 dB (k=2)

Test Method

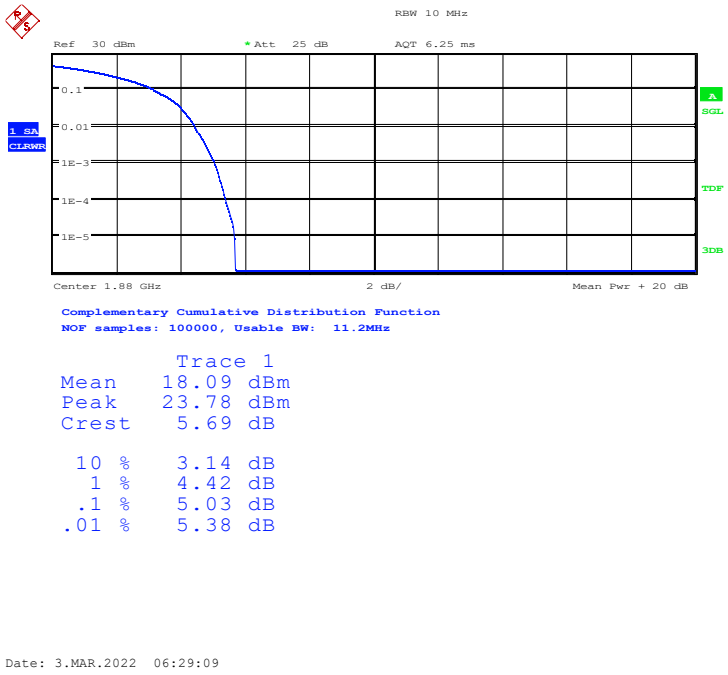
The transmitter output was connected to a CMW500 through a coaxial RF cable and directional coupler, and configured to operate at maximum power. The peak to average ratio was measured at the required operating frequencies in each Band on the Spectrum Analyzer.

6.9.1 Peak to Average Ratio Results

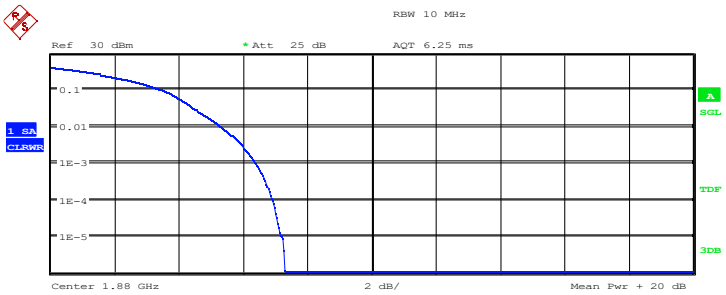
LTE Band 2, 20MHz

Frequency (MHz)	RB	PAPR (dB)	
		QPSK	16QAM
1880	100%,0	5.03	6.38

LTE band 2 , 20MHz Bandwidth,QPSK



LTE band 2 , 20MHz Bandwidth,16QAM



Complementary Cumulative Distribution Function
NOF samples: 100000, Usable BW: 11.2MHz

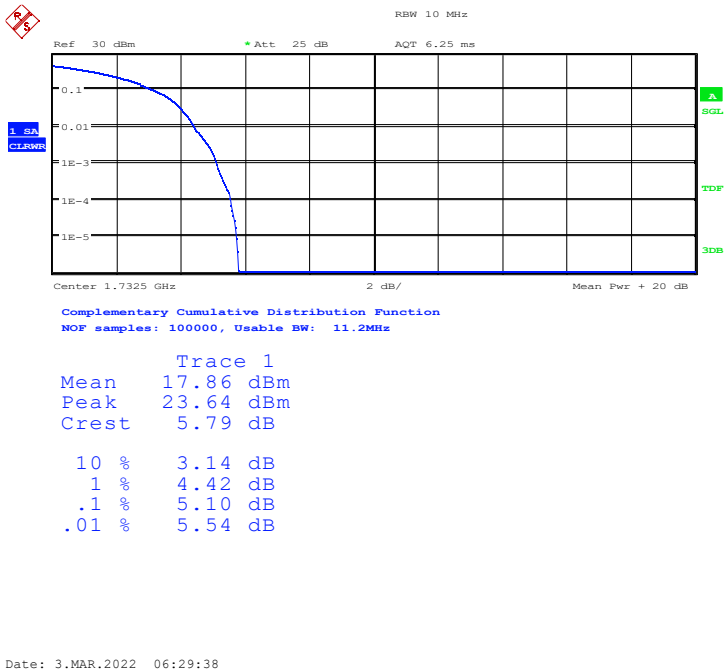
	Trace 1
Mean	17.06 dBm
Peak	24.35 dBm
Crest	7.29 dB
10 %	3.46 dB
1 %	5.29 dB
.1 %	6.38 dB
.01 %	6.89 dB

Date: 3.MAR.2022 06:29:22

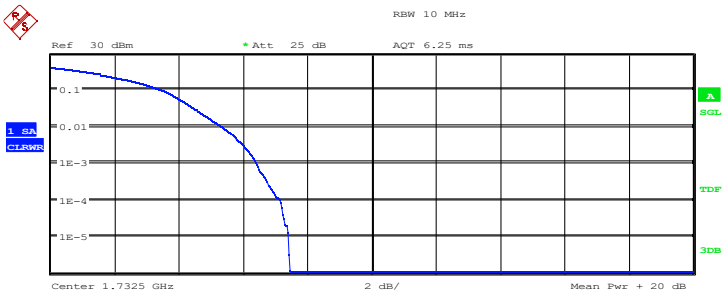
LTE Band 4, 20MHz

Frequency (MHz)	RB	PAPR (dB)	
		QPSK	16QAM
1732.5	100%,0	5.10	6.41

LTE band 4 , 20MHz Bandwidth,QPSK



LTE band 4 , 20MHz Bandwidth,16QAM



Complementary Cumulative Distribution Function
NOF samples: 100000, Usable BW: 11.2MHz

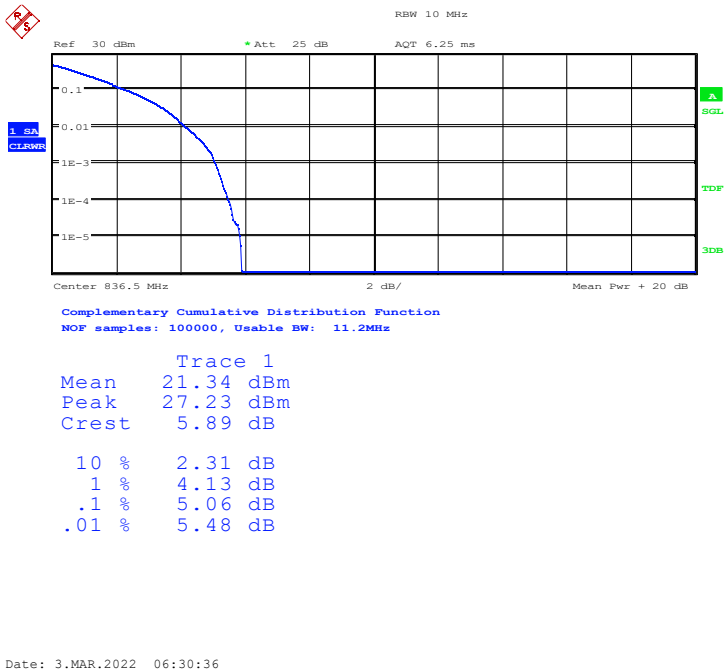
	Trace 1
Mean	16.92 dBm
Peak	24.35 dBm
Crest	7.43 dB
10 %	3.46 dB
1 %	5.32 dB
.1 %	6.41 dB
.01 %	7.12 dB

Date: 3.MAR.2022 06:29:51

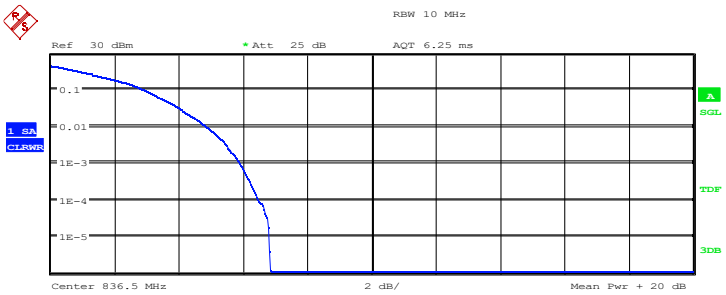
LTE Band 5, 10MHz

Frequency (MHz)	RB	PAPR (dB)	
		QPSK	16QAM
836.5	100%,0	5.06	5.87

LTE band 5 , 10MHz Bandwidth,QPSK



LTE band 5 , 10MHz Bandwidth,16QAM



Complementary Cumulative Distribution Function
NOF samples: 100000, Usable BW: 11.2MHz

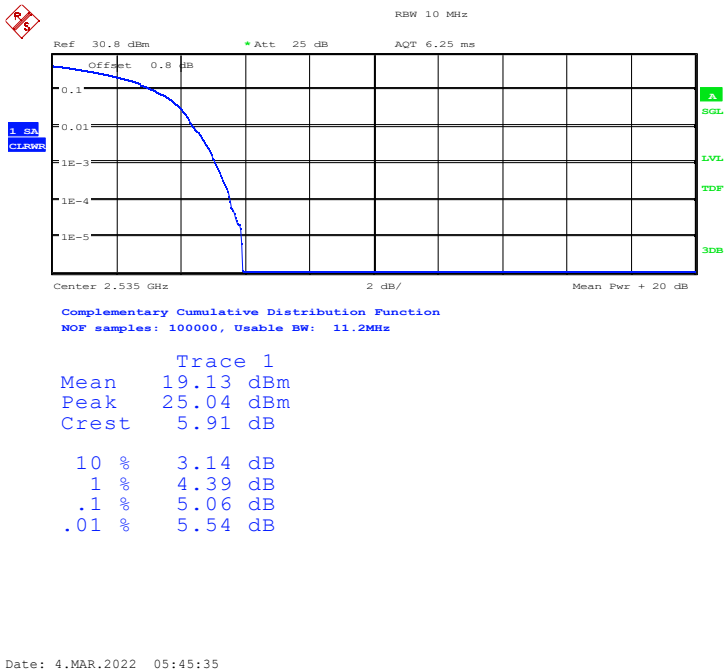
	Trace 1
Mean	20.34 dBm
Peak	27.16 dBm
Crest	6.82 dB
10 %	2.92 dB
1 %	4.84 dB
.1 %	5.87 dB
.01 %	6.47 dB

Date: 3.MAR.2022 06:30:49

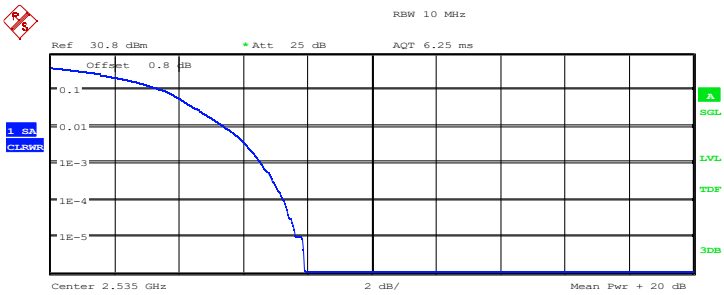
LTE Band 7, 20MHz

Frequency (MHz)	RB	PAPR (dB)	
		QPSK	16QAM
2535	100%,0	5.06	6.57

LTE band 7 , 20MHz Bandwidth,QPSK



LTE band 7 , 20MHz Bandwidth,16QAM



Complementary Cumulative Distribution Function
NOF samples: 100000, Usable BW: 11.2MHz

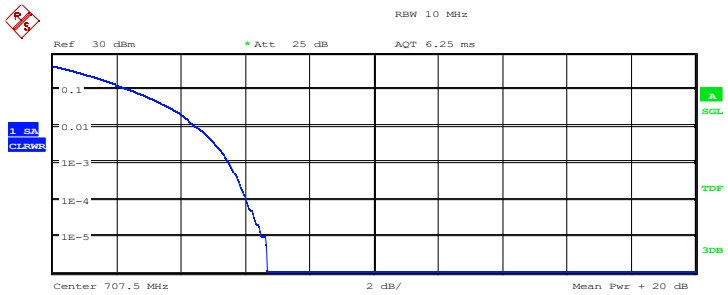
	Trace 1
Mean	18.27 dBm
Peak	26.17 dBm
Crest	7.90 dB
10 %	3.49 dB
1 %	5.38 dB
.1 %	6.57 dB
.01 %	7.24 dB

Date: 4.MAR.2022 05:45:49

LTE Band 12, 10MHz

Frequency (MHz)	RB	PAPR (dB)	
		QPSK	16QAM
707.5	100%,0	5.51	6.28

LTE band 12 , 10MHz Bandwidth,QPSK

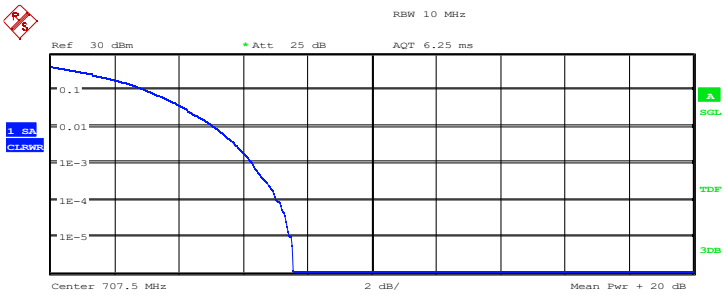


Complementary Cumulative Distribution Function
NOF samples: 100000, Usable BW: 11.2MHz

	Trace 1
Mean	21.34 dBm
Peak	28.03 dBm
Crest	6.69 dB
10 %	2.44 dB
1 %	4.46 dB
.1 %	5.51 dB
.01 %	6.03 dB

Date: 4.MAR.2022 05:46:38

LTE band 12 , 10MHz Bandwidth,16QAM



Complementary Cumulative Distribution Function
NOF samples: 100000, Usable BW: 11.2MHz

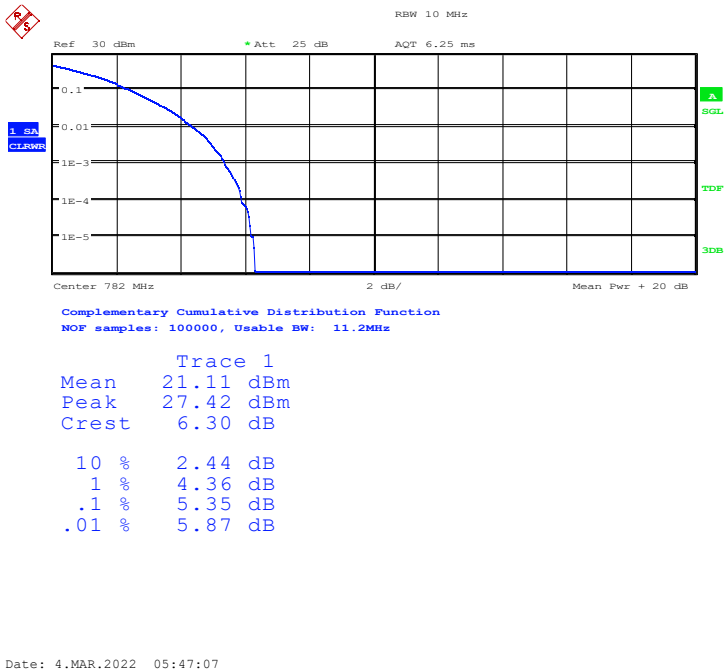
	Trace 1
Mean	20.33 dBm
Peak	27.89 dBm
Crest	7.56 dB
10 %	2.98 dB
1 %	5.06 dB
.1 %	6.28 dB
.01 %	7.02 dB

Date: 4.MAR.2022 05:46:51

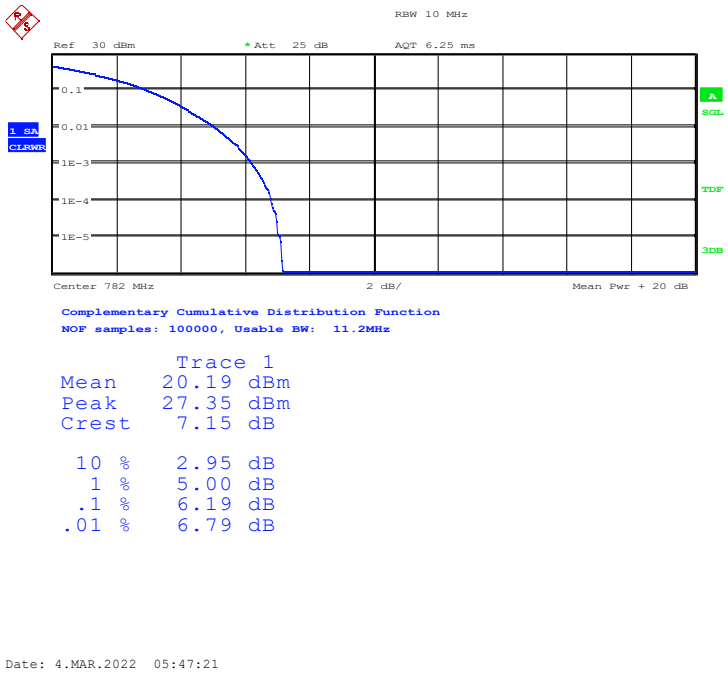
LTE Band 13, 10MHz

Frequency (MHz)	RB	PAPR (dB)	
		QPSK	16QAM
782	100%,0	5.35	6.19

LTE band 13 , 10MHz Bandwidth,QPSK



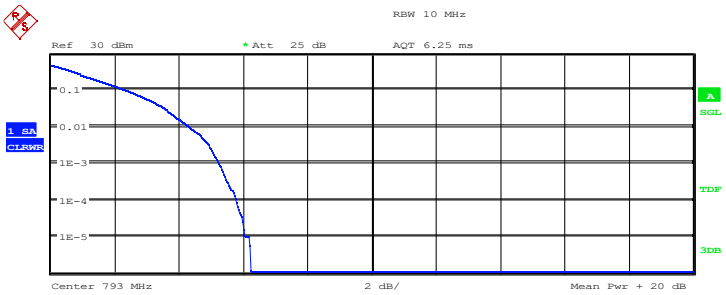
LTE band 13 , 10MHz Bandwidth,16QAM



LTE Band 14, 10MHz

Frequency (MHz)	RB	PAPR (dB)	
		QPSK	16QAM
793	100%,0	5.26	6.09

LTE band 14 , 10MHz Bandwidth,QPSK

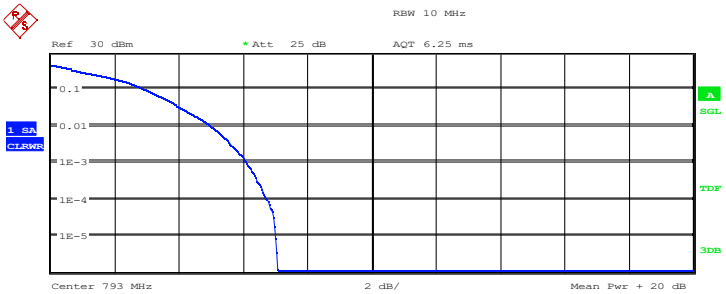


Complementary Cumulative Distribution Function
NOF samples: 100000, Usable BW: 11.2MHz

	Trace 1
Mean	21.18 dBm
Peak	27.43 dBm
Crest	6.25 dB
10 %	2.34 dB
1 %	4.29 dB
.1 %	5.26 dB
.01 %	5.77 dB

Date: 7.MAR.2022 19:31:56

LTE band 14 , 10MHz Bandwidth,16QAM



Complementary Cumulative Distribution Function
NOF samples: 100000, Usable BW: 11.2MHz

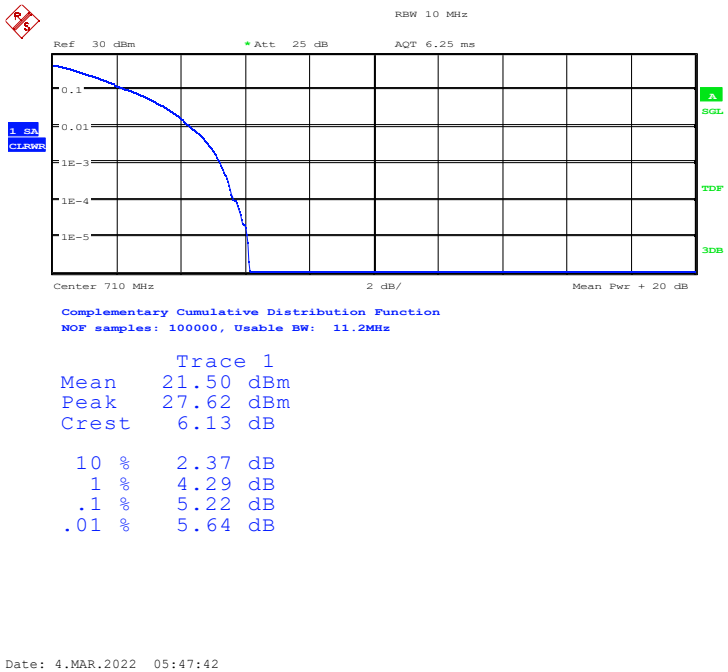
	Trace 1
Mean	20.15 dBm
Peak	27.22 dBm
Crest	7.06 dB
10 %	2.92 dB
1 %	4.97 dB
.1 %	6.09 dB
.01 %	6.73 dB

Date: 7.MAR.2022 19:32:08

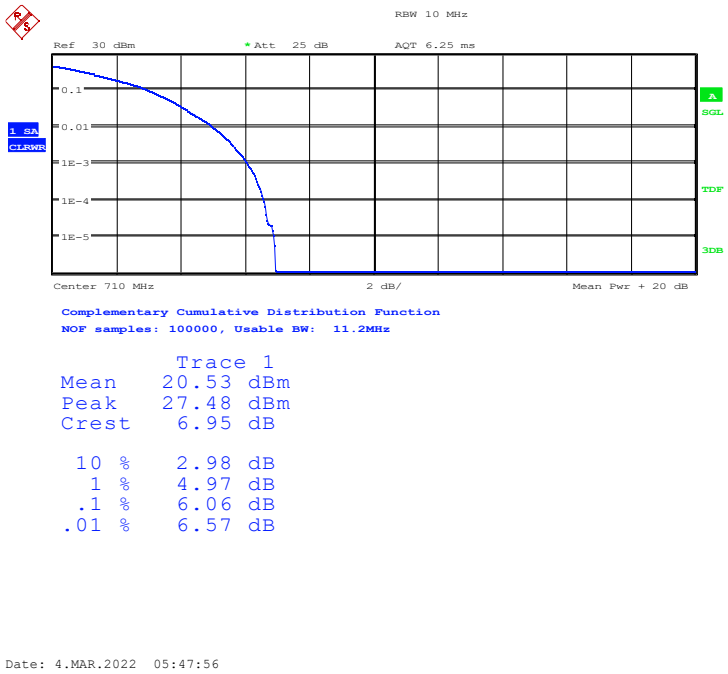
LTE Band 17, 10MHz

Frequency (MHz)	RB	PAPR (dB)	
		QPSK	16QAM
710	100%,0	5.22	6.06

LTE band 17 , 10MHz Bandwidth,QPSK



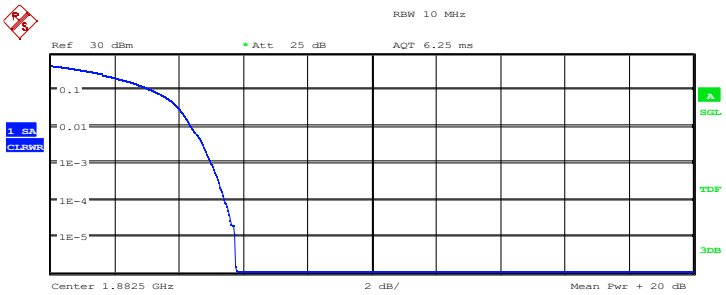
LTE band 17 , 10MHz Bandwidth,16QAM



LTE Band 25, 20MHz

Frequency (MHz)	RB	PAPR (dB)	
		QPSK	16QAM
1882.5	100%,0	5.00	6.38

LTE band 25 , 20MHz Bandwidth,QPSK

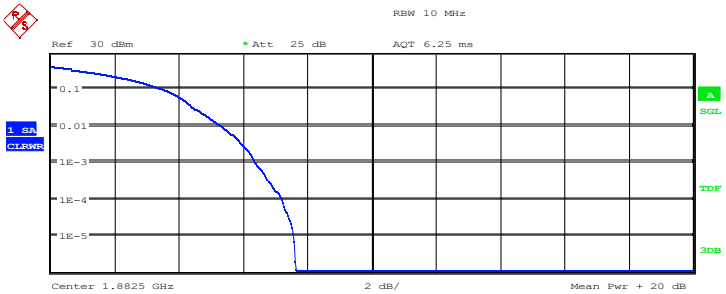


Complementary Cumulative Distribution Function
NOF samples: 100000, Usable BW: 11.2MHz

	Trace 1
Mean	18.33 dBm
Peak	24.10 dBm
Crest	5.77 dB
10 %	3.14 dB
1 %	4.36 dB
.1 %	5.00 dB
.01 %	5.42 dB

Date: 7.MAR.2022 19:32:31

LTE band 25 , 20MHz Bandwidth,16QAM



Complementary Cumulative Distribution Function
NOF samples: 100000, Usable BW: 11.2MHz

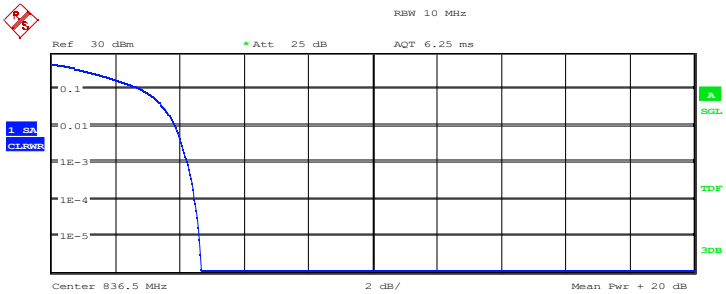
	Trace 1
Mean	17.31 dBm
Peak	24.94 dBm
Crest	7.63 dB
10 %	3.46 dB
1 %	5.29 dB
.1 %	6.38 dB
.01 %	7.18 dB

Date: 7.MAR.2022 19:32:44

LTE Band 26 Part22, 15MHz

Frequency (MHz)	RB	PAPR (dB)	
		QPSK	16QAM
836.5	100%,0	4.23	5.77

LTE band 26 , 15MHz Bandwidth,QPSK

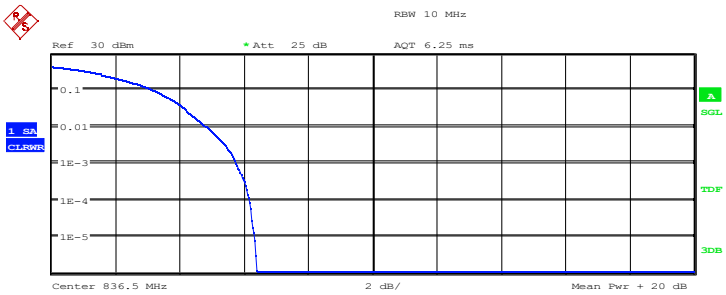


Complementary Cumulative Distribution Function
NOF samples: 100000, Usable BW: 11.2MHz

	Trace 1
Mean	20.38 dBm
Peak	25.04 dBm
Crest	4.66 dB
10 %	2.76 dB
1 %	3.85 dB
.1 %	4.23 dB
.01 %	4.46 dB

Date: 7.MAR.2022 19:33:38

LTE band 26 , 15MHz Bandwidth,16QAM



Complementary Cumulative Distribution Function
NOF samples: 100000, Usable BW: 11.2MHz

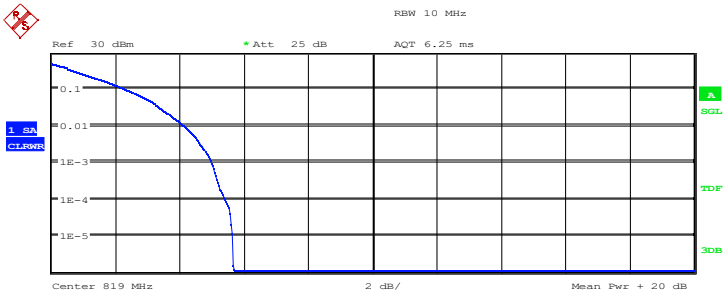
	Trace 1
Mean	19.36 dBm
Peak	25.75 dBm
Crest	6.39 dB
10 %	3.17 dB
1 %	4.81 dB
.1 %	5.77 dB
.01 %	6.15 dB

Date: 7.MAR.2022 19:33:53

LTE Band 26 Part90, 10MHz

Frequency (MHz)	RB	PAPR (dB)	
		QPSK	16QAM
819	100%,0	4.97	5.87

LTE band 26 , 10MHz Bandwidth,QPSK

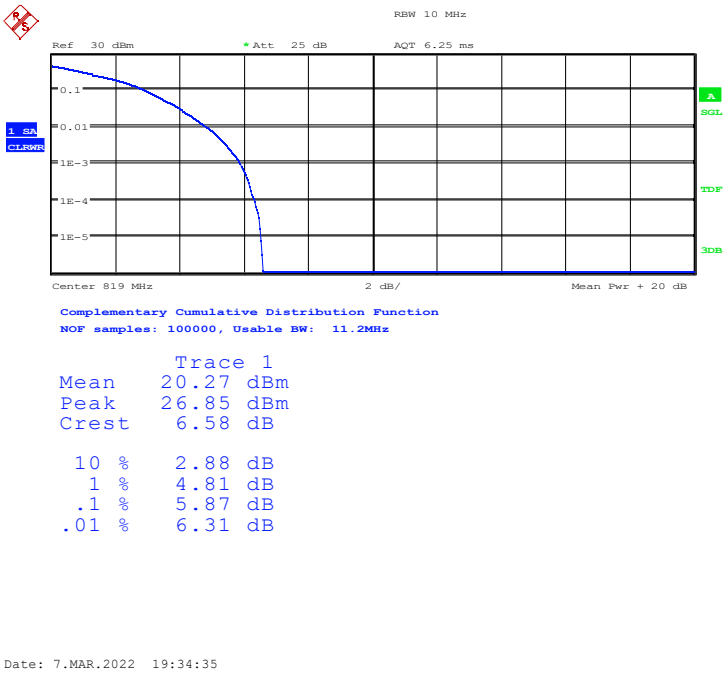


Complementary Cumulative Distribution Function
NOF samples: 100000, Usable BW: 11.2MHz

	Trace 1
Mean	21.26 dBm
Peak	26.92 dBm
Crest	5.67 dB
10 %	2.31 dB
1 %	4.10 dB
.1 %	4.97 dB
.01 %	5.38 dB

Date: 7.MAR.2022 19:34:19

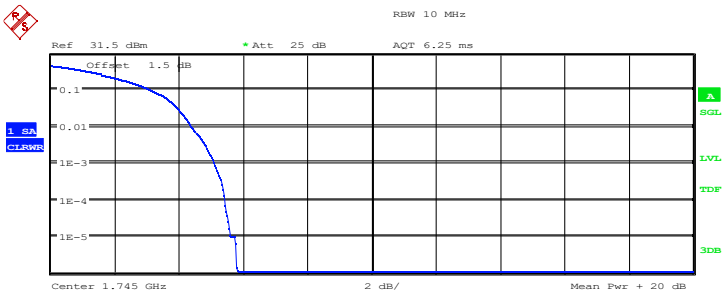
LTE band 26 , 10MHz Bandwidth,16QAM



LTE Band 66, 20MHz

Frequency (MHz)	RB	PAPR (dB)	
		QPSK	16QAM
1745	100%,0	5.10	6.44

LTE band 66 , 20MHz Bandwidth,QPSK

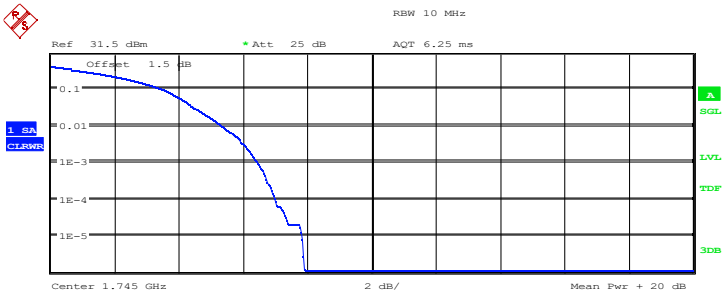


Complementary Cumulative Distribution Function
NOF samples: 100000, Usable BW: 11.2MHz

	Trace 1
Mean	19.61 dBm
Peak	25.41 dBm
Crest	5.80 dB
10 %	3.14 dB
1 %	4.39 dB
.1 %	5.10 dB
.01 %	5.42 dB

Date: 8.MAR.2022 05:50:44

LTE band 66 , 20MHz Bandwidth,16QAM



Complementary Cumulative Distribution Function
NOF samples: 100000, Usable BW: 11.2MHz

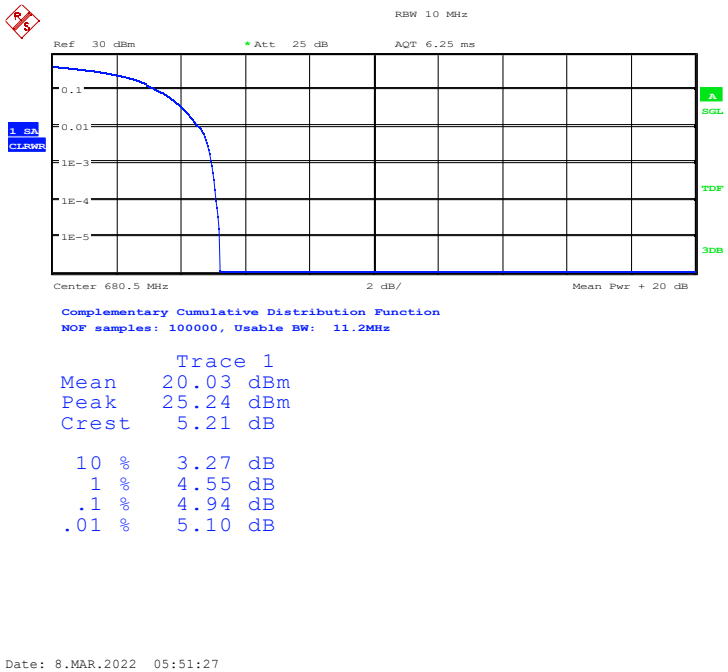
	Trace 1
Mean	18.65 dBm
Peak	26.54 dBm
Crest	7.89 dB
10 %	3.46 dB
1 %	5.32 dB
.1 %	6.44 dB
.01 %	6.99 dB

Date: 8.MAR.2022 05:51:02

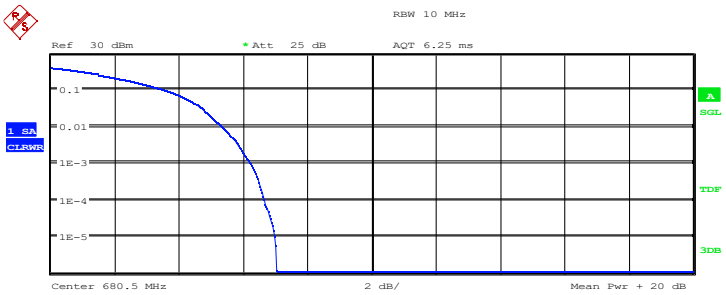
LTE Band 71, 20MHz

Frequency (MHz)	RB	PAPR (dB)	
		QPSK	16QAM
683	100%,0	4.94	6.22

LTE band 71 , 20MHz Bandwidth,QPSK



LTE band 71 , 20MHz Bandwidth,16QAM



Complementary Cumulative Distribution Function
NOF samples: 100000, Usable BW: 11.2MHz

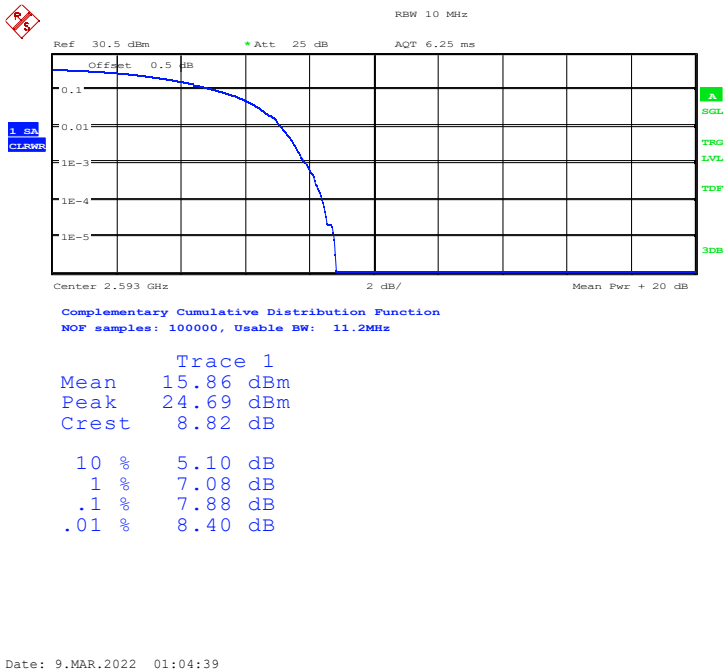
	Trace 1
Mean	19.04 dBm
Peak	26.09 dBm
Crest	7.04 dB
10 %	3.56 dB
1 %	5.35 dB
.1 %	6.22 dB
.01 %	6.67 dB

Date: 8.MAR.2022 05:51:41

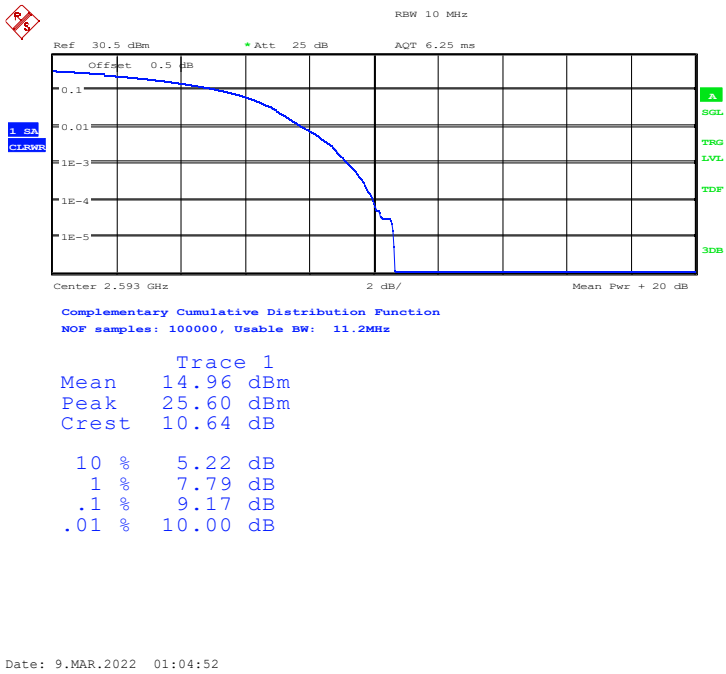
LTE Band 41, 20MHz

Frequency (MHz)	RB	PAPR (dB)	
		QPSK	16QAM
2593	100%,0	7.88	9.17

LTE band 41 , 20MHz Bandwidth,QPSK



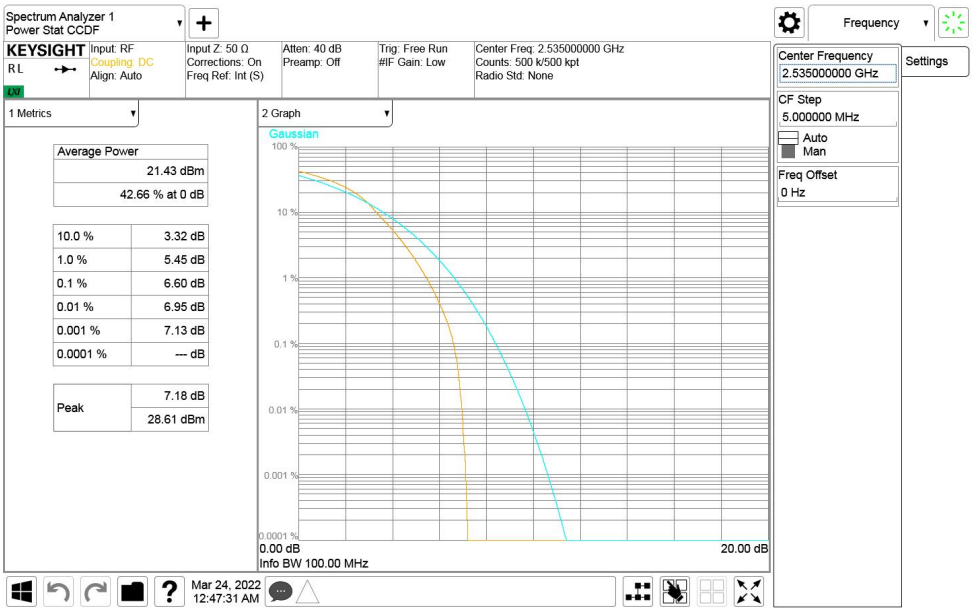
LTE band 41 , 20MHz Bandwidth,16QAM



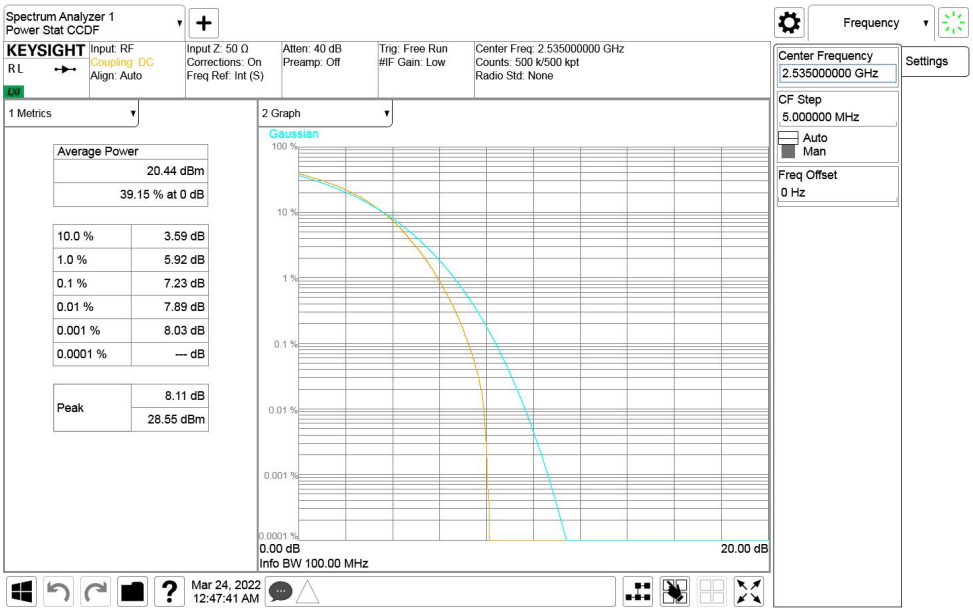
LTE band 7_CA,20MHz+20MHz

Frequency (MHz)	PAPR (dB)		
	QPSK	16QAM	64QAM
2525.1	6.60	7.23	**7.28**

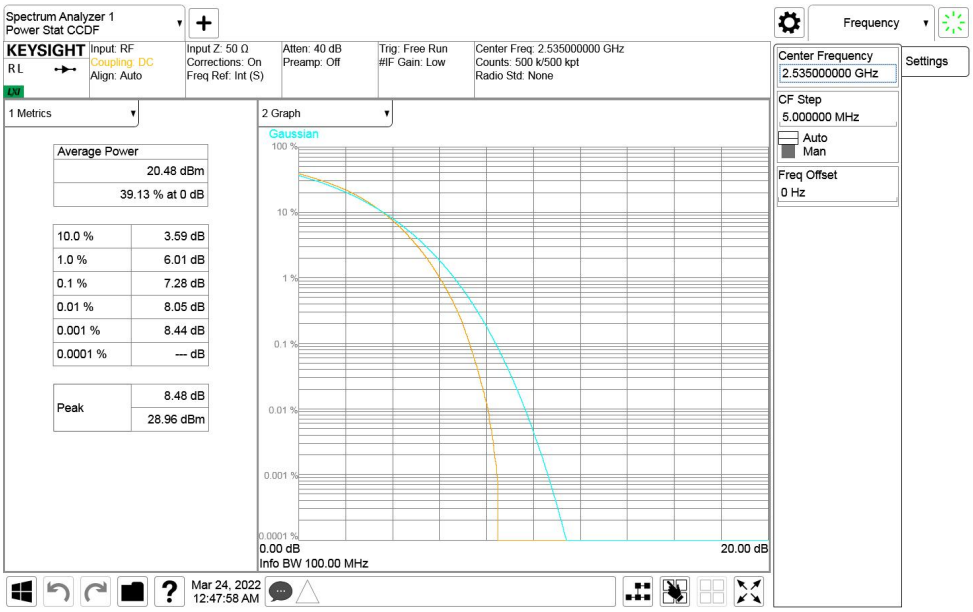
LTE band 7_CA, 20MHz+20MHz Bandwidth,QPSK



LTE band 7_CA , 20MHz+20MHz Bandwidth,16QAM



LTE band 7_CA , 20MHz+20MHz Bandwidth,16QAM



LTE band 41_CA,20MHz+20MHz

Frequency (MHz)	PAPR (dB)		
	QPSK	16QAM	64QAM
2583.1	10.97	12.78	10.12