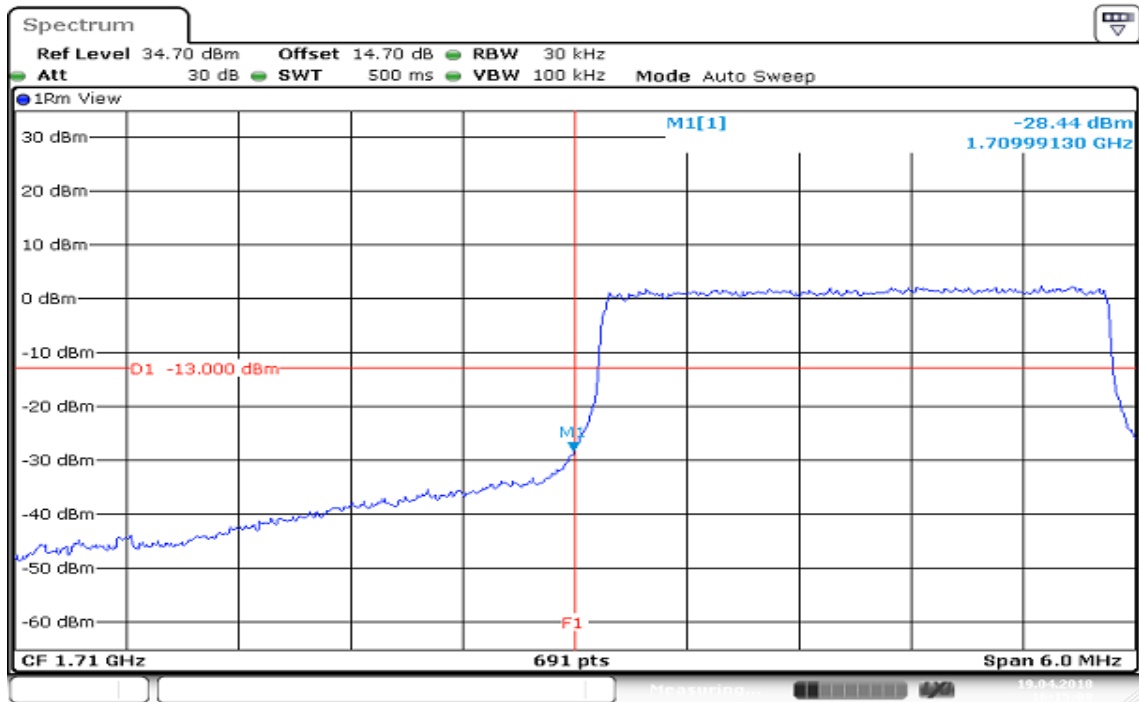
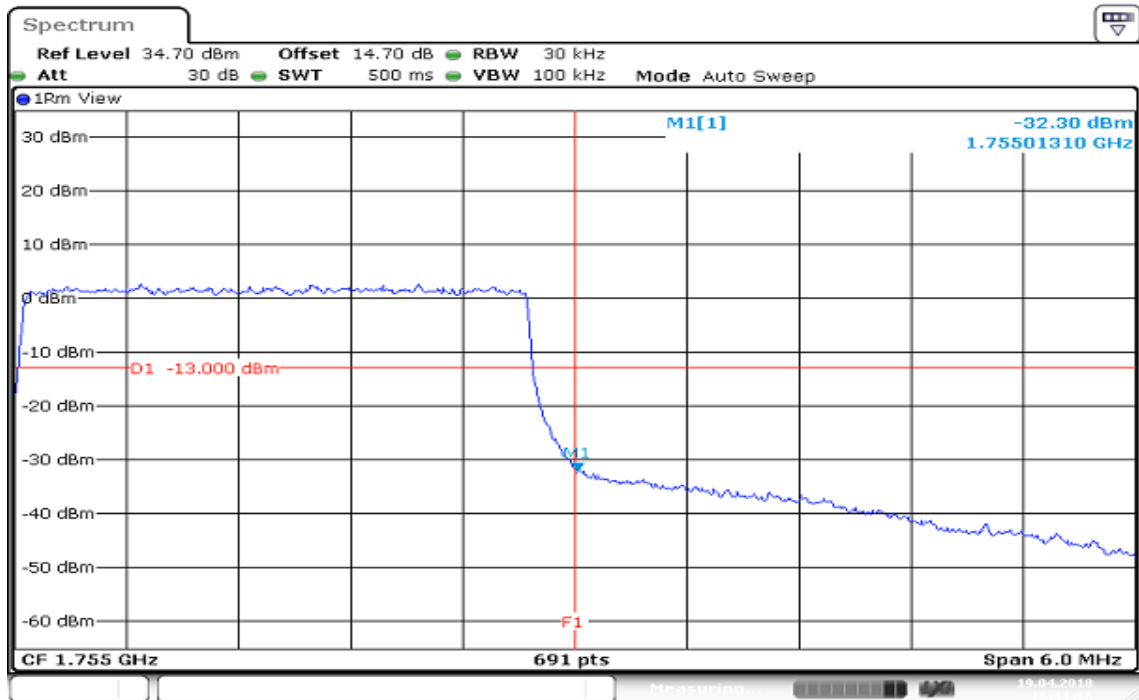


CHANNEL BANDWIDTH: 3MHz / QPSK / 100%RB ALLOCATED LOWER BAND EDGE



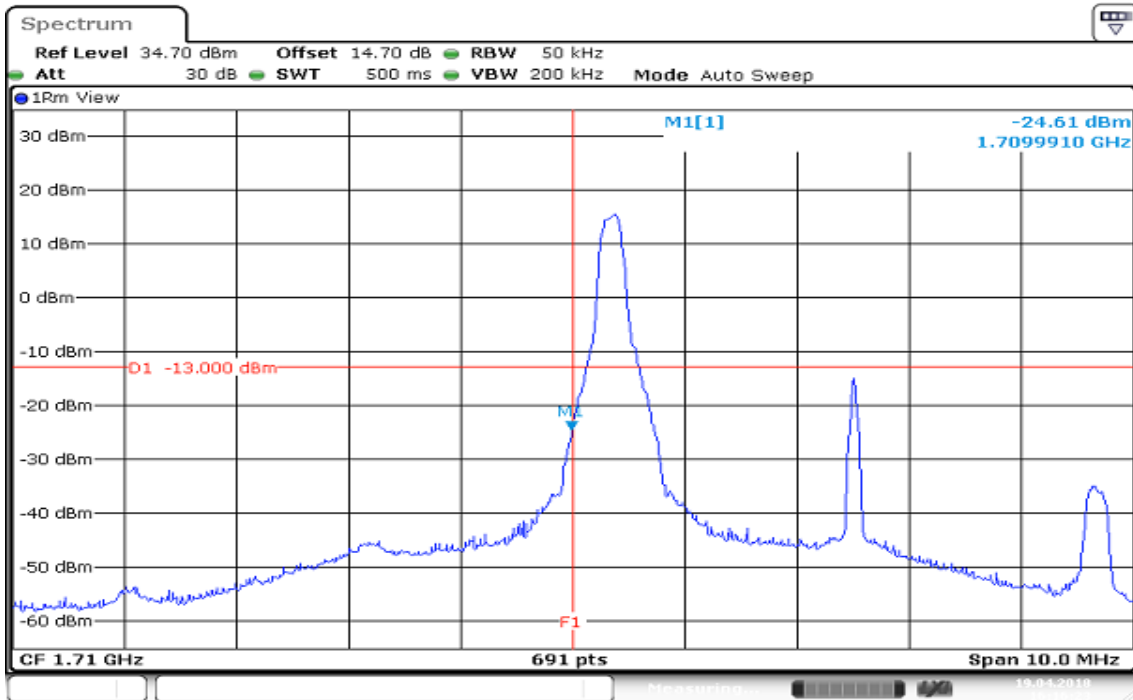
Date: 19 APR 2018 16:15:08

HIGHER BAND EDGE



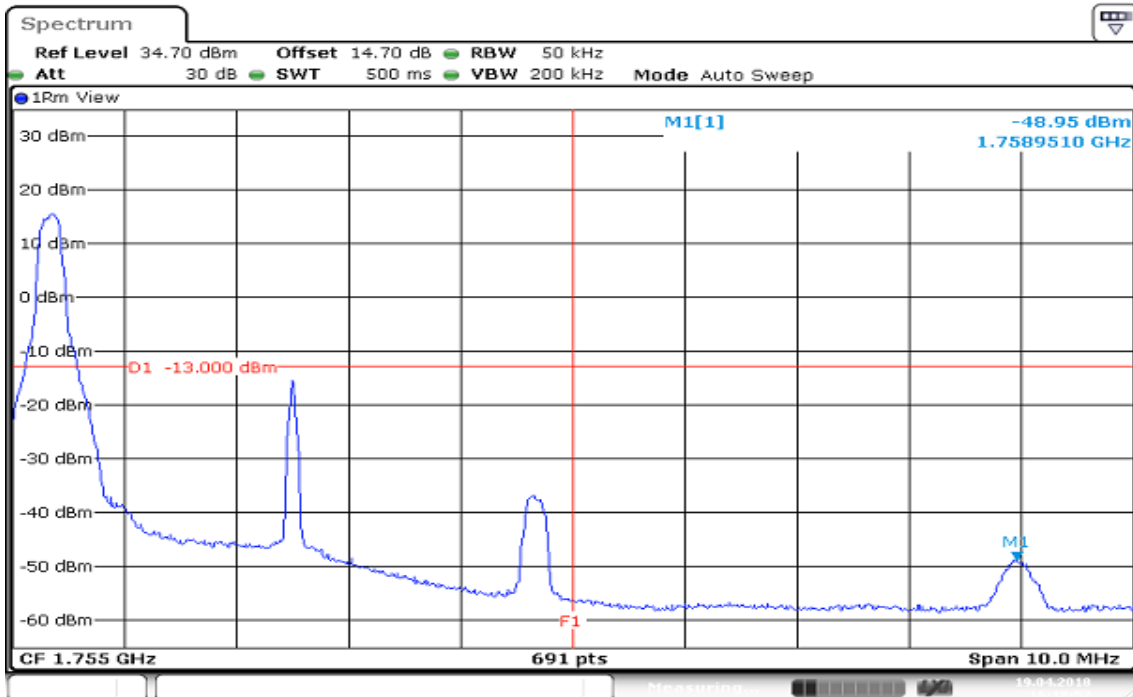
Date: 19 APR 2018 16:11:56

CHANNEL BANDWIDTH: 5MHz / QPSK / 1RB ALLOCATED LOWER BAND EDGE



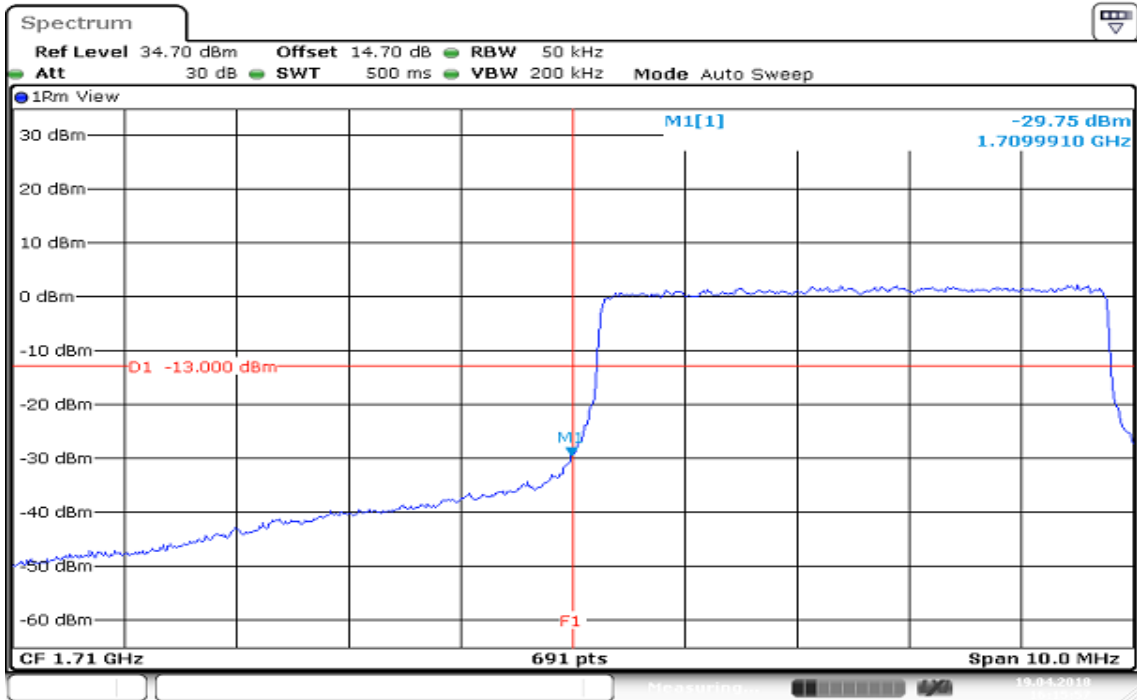
Date: 19 APR 2018 16:16:23

HIGHER BAND EDGE



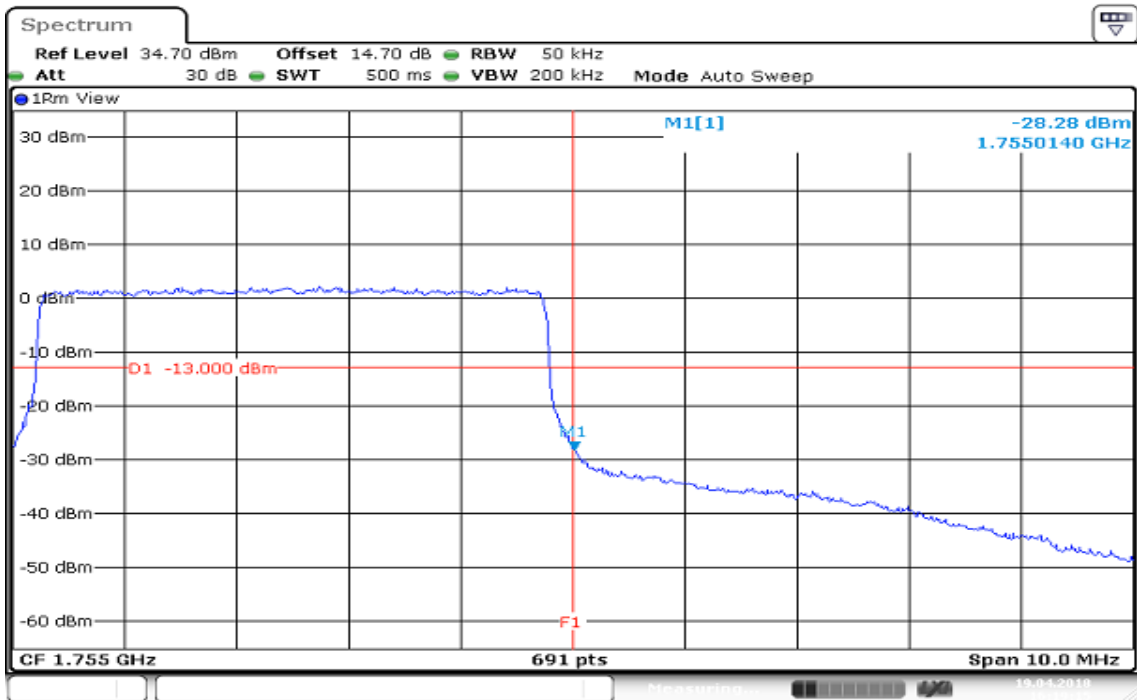
Date: 19 APR 2018 16:16:52

CHANNEL BANDWIDTH: 5MHz / QPSK / 100%RB ALLOCATED LOWER BAND EDGE



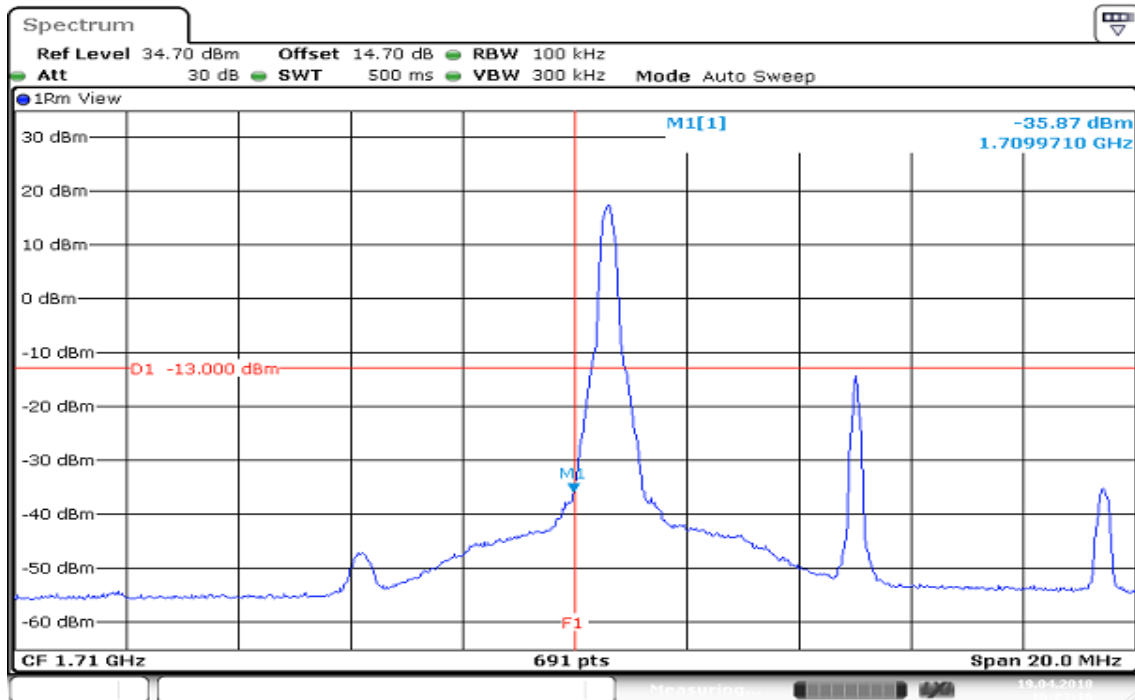
Date: 19 APR 2018 16:15:58

HIGHER BAND EDGE



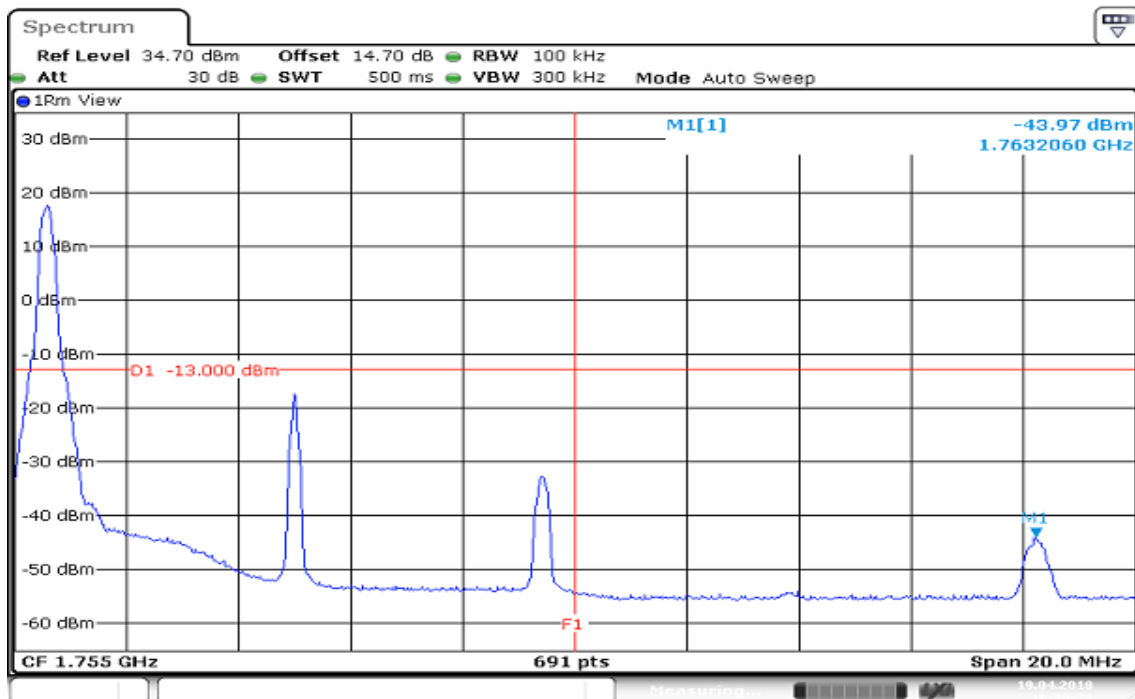
Date: 19 APR 2018 16:19:15

CHANNEL BANDWIDTH: 10MHz / QPSK / 1RB ALLOCATED LOWER BAND EDGE



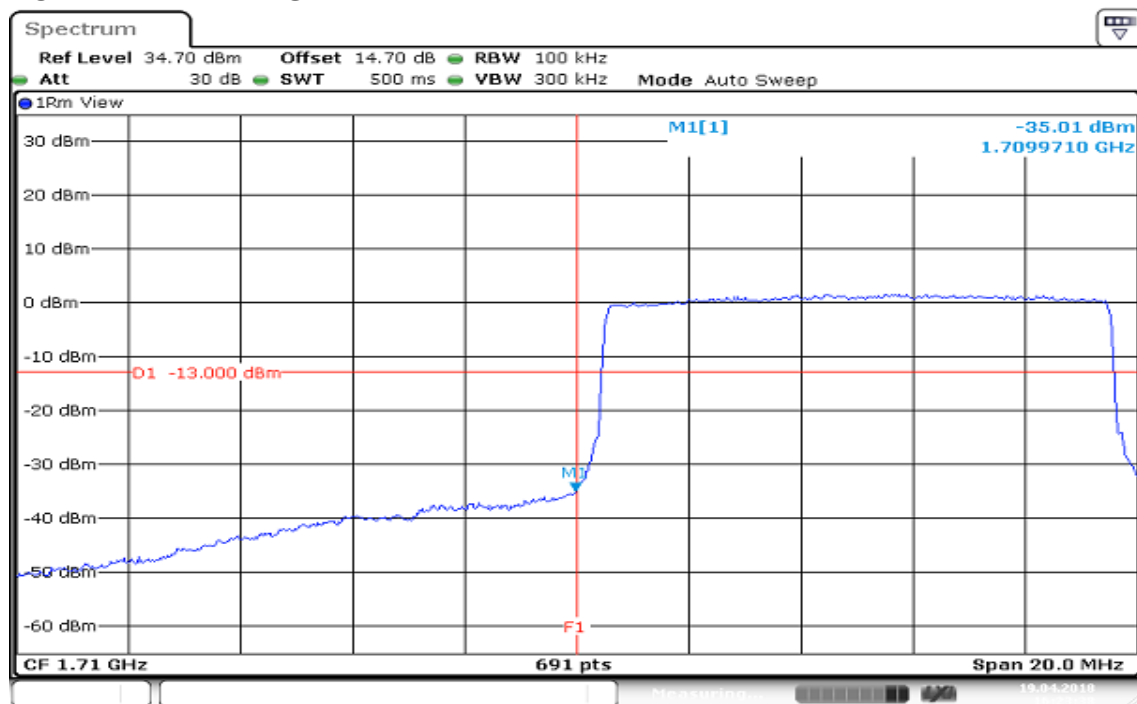
Date: 19 APR 2018 16:23:17

HIGHER BAND EDGE



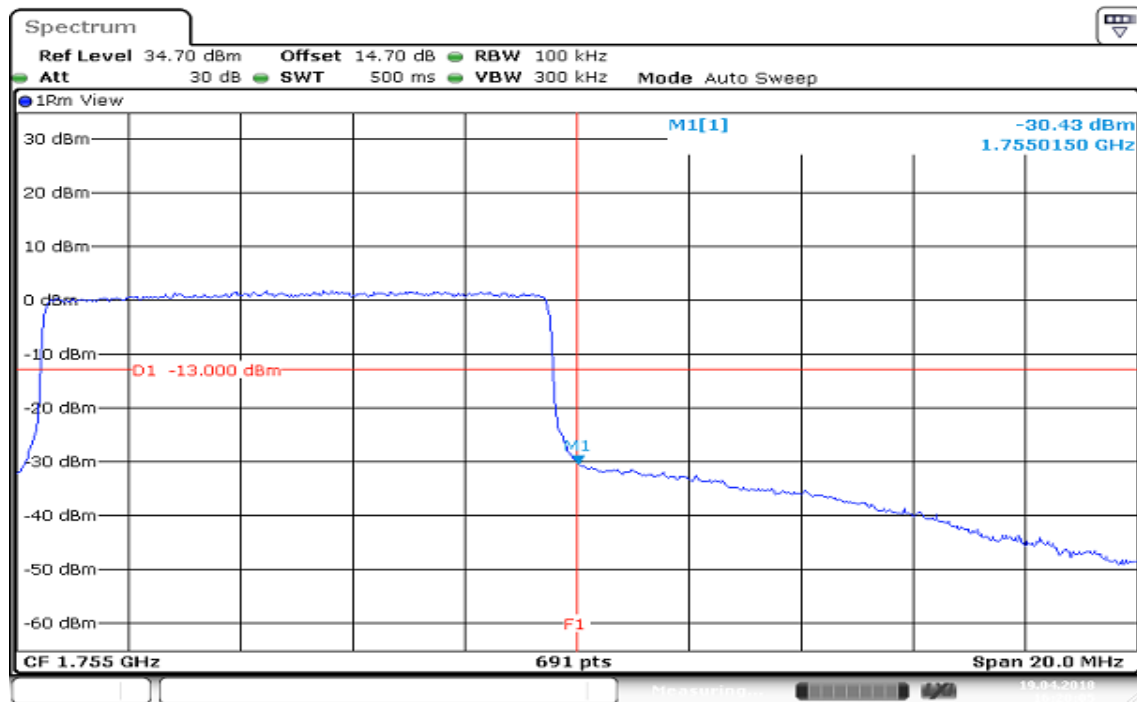
Date: 19 APR 2018 16:20:28

CHANNEL BANDWIDTH: 10MHz / QPSK / 100%RB ALLOCATED LOWER BAND EDGE



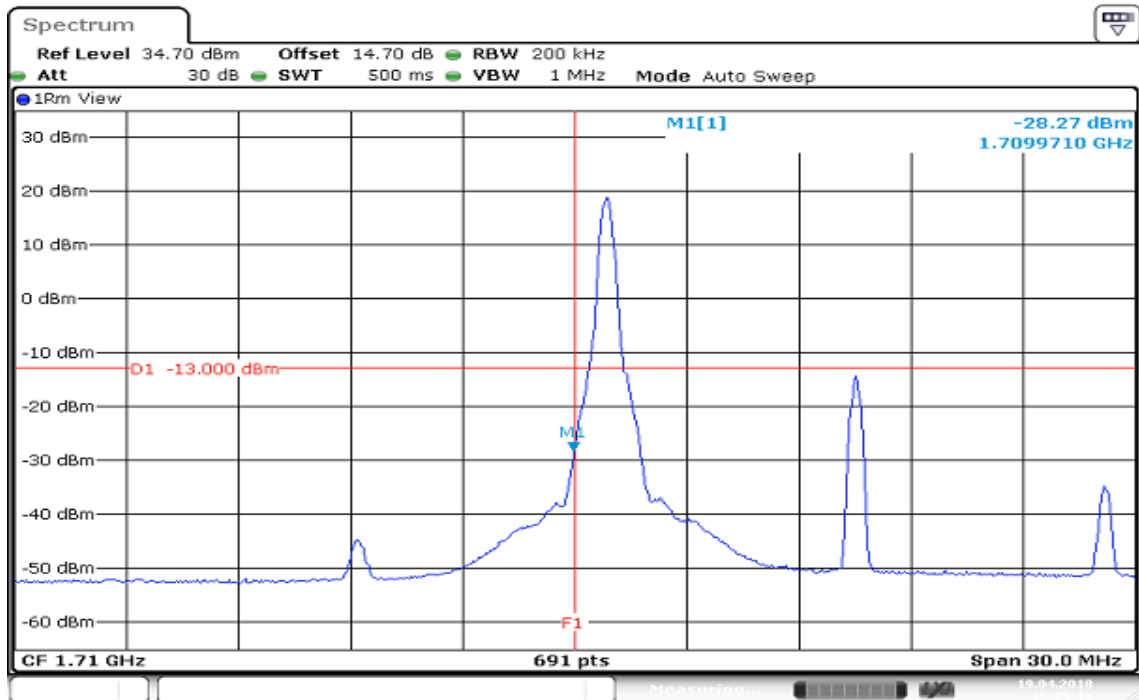
Date: 19 APR 2018 16:23:38

HIGHER BAND EDGE

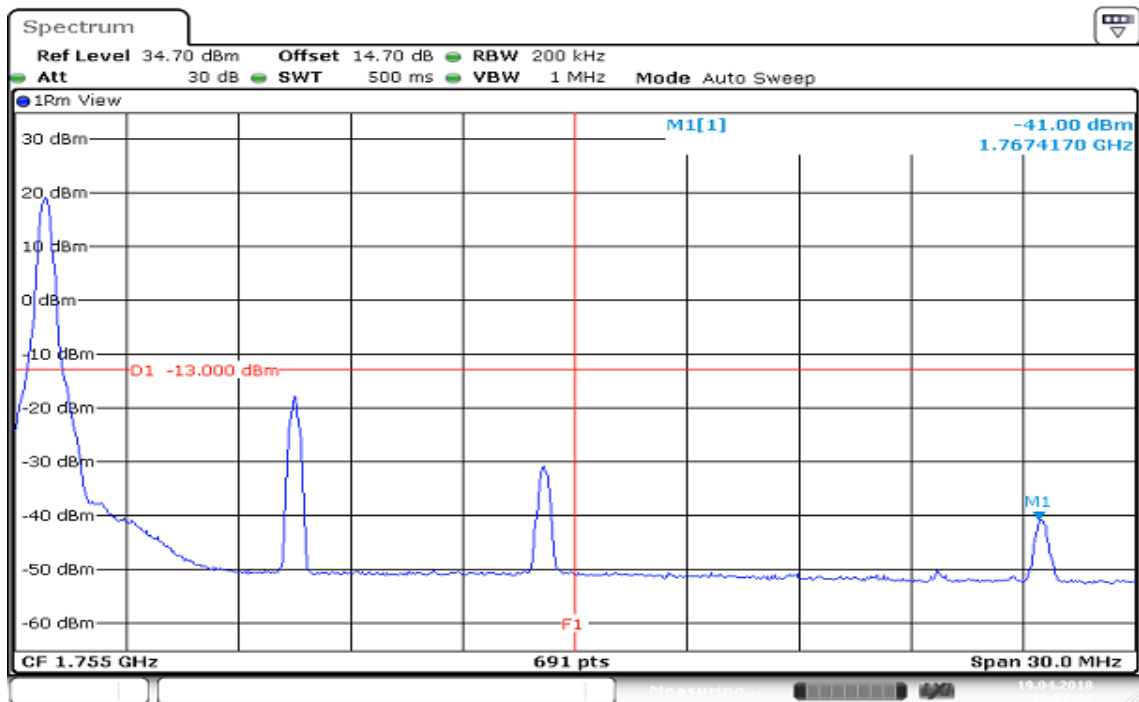


Date: 19 APR 2018 16:20:05

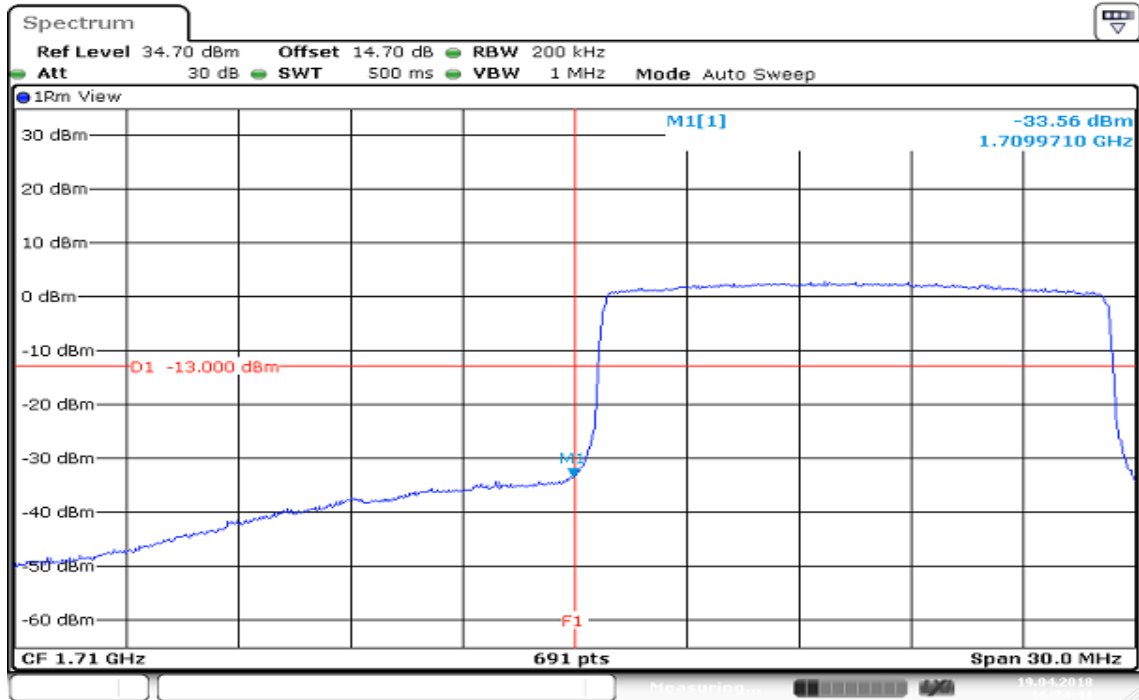
CHANNEL BANDWIDTH: 15MHz / QPSK / 1RB ALLOCATED LOWER BAND EDGE



HIGHER BAND EDGE

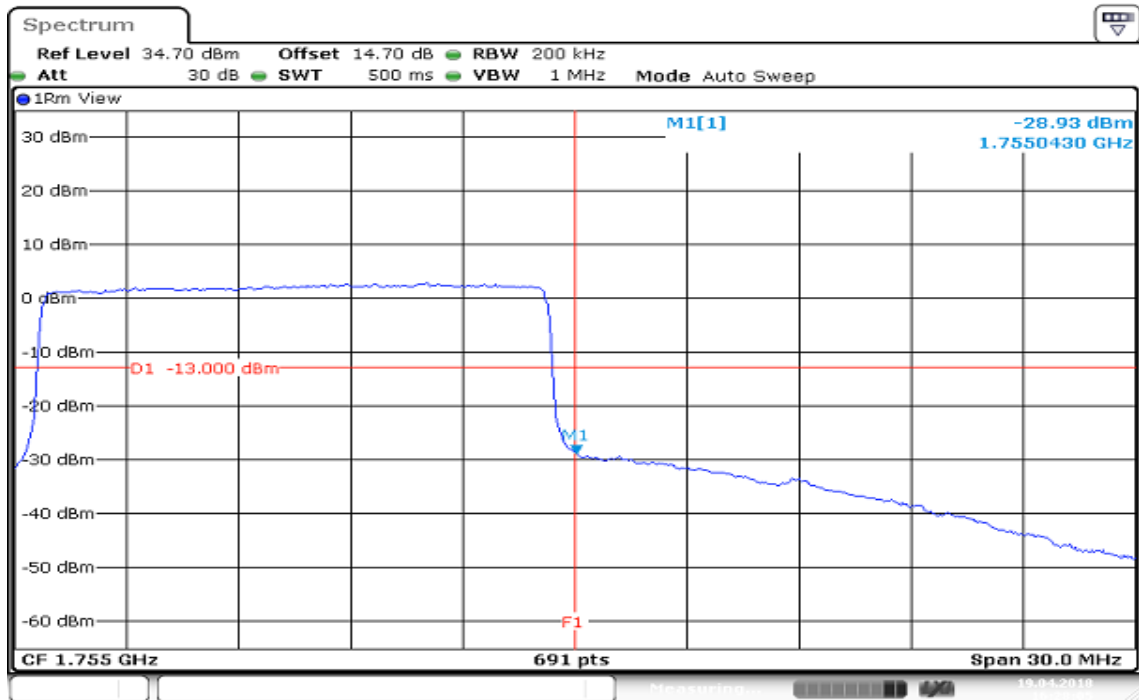


CHANNEL BANDWIDTH: 15MHz / QPSK / 100%RB ALLOCATED LOWER BAND EDGE



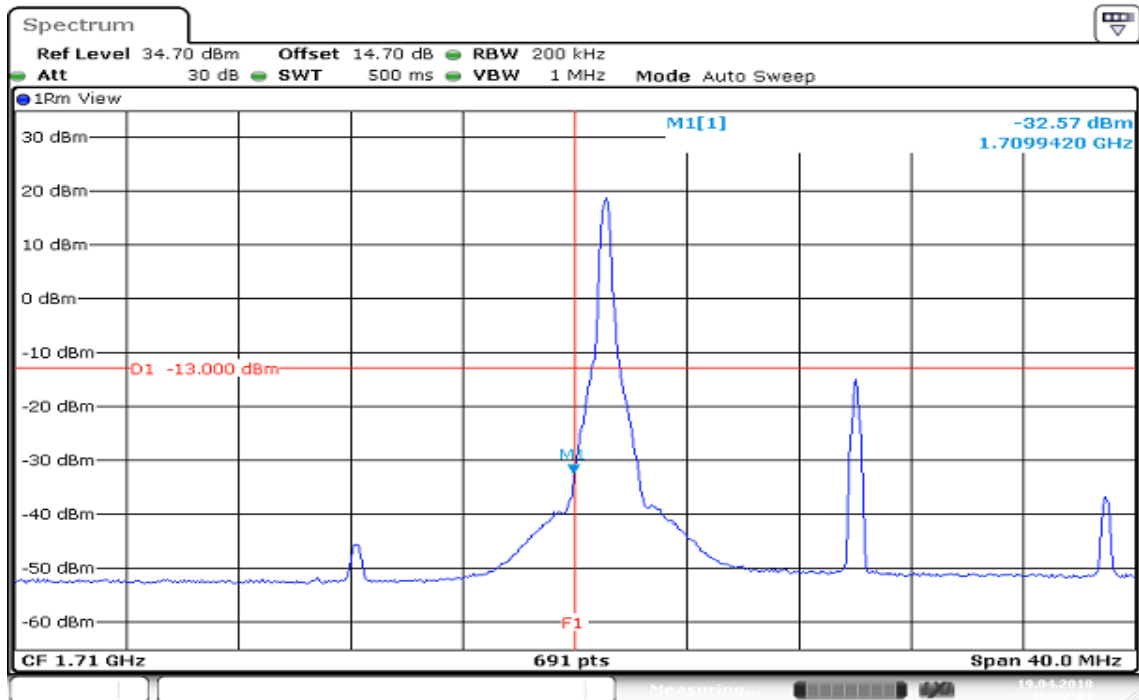
Date: 19 APR 2018 16:24:42

HIGHER BAND EDGE



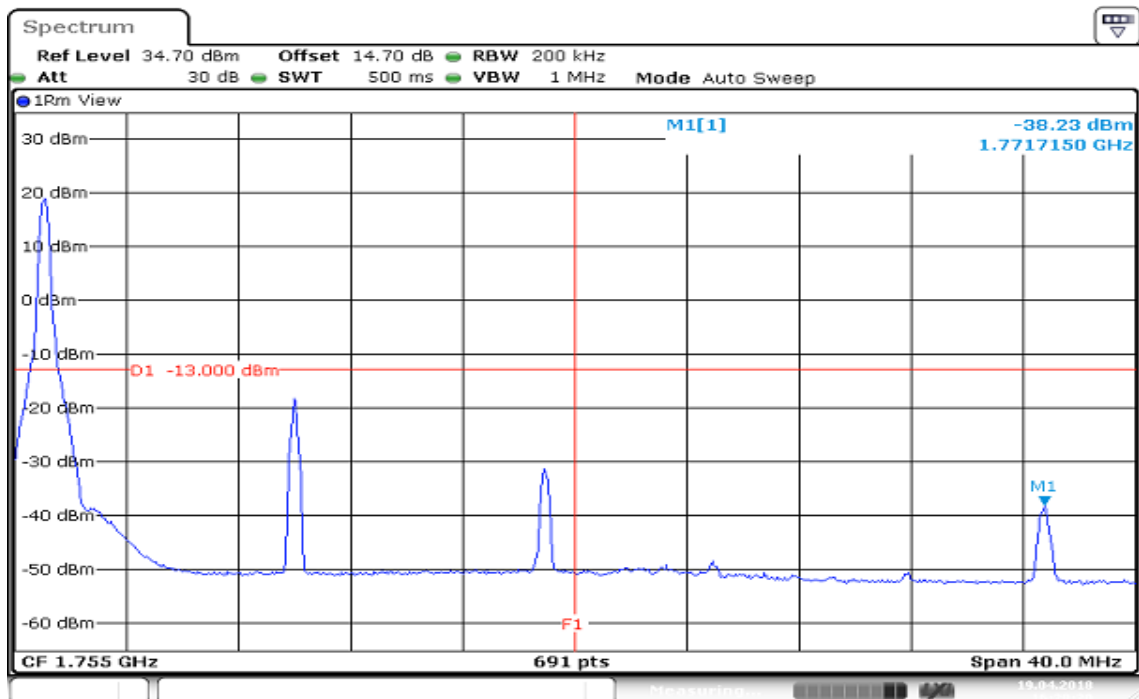
Date: 19 APR 2018 16:28:05

CHANNEL BANDWIDTH: 20MHz / QPSK / 1RB ALLOCATED LOWER BAND EDGE



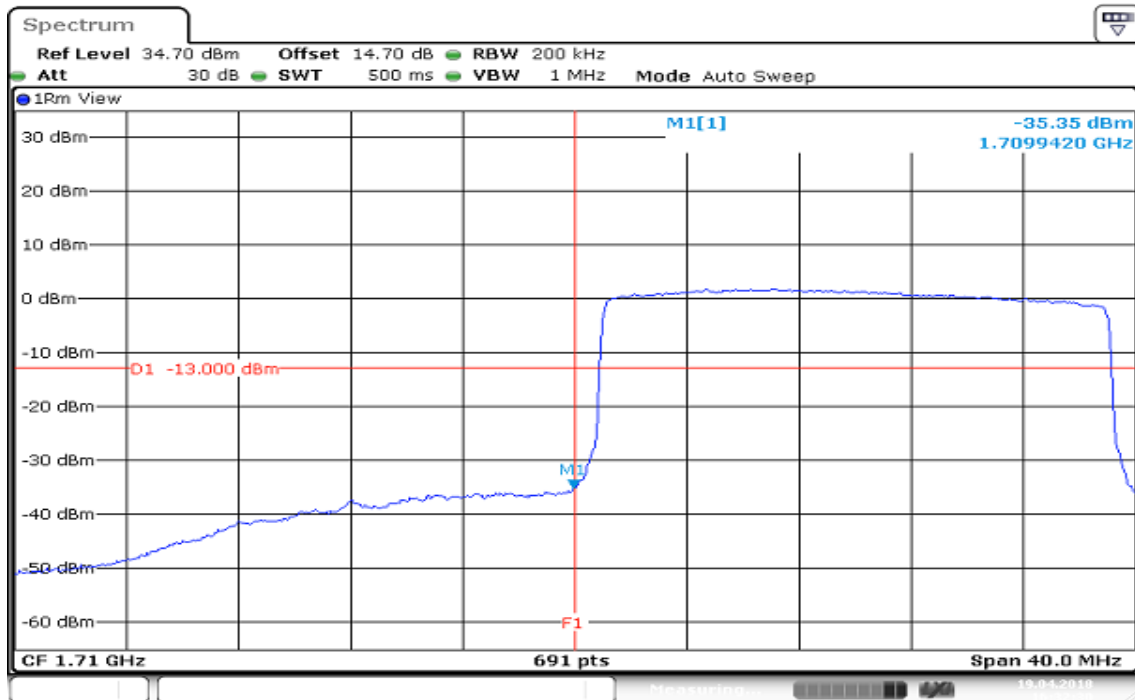
Date: 19 APR 2018 16:22:03

HIGHER BAND EDGE



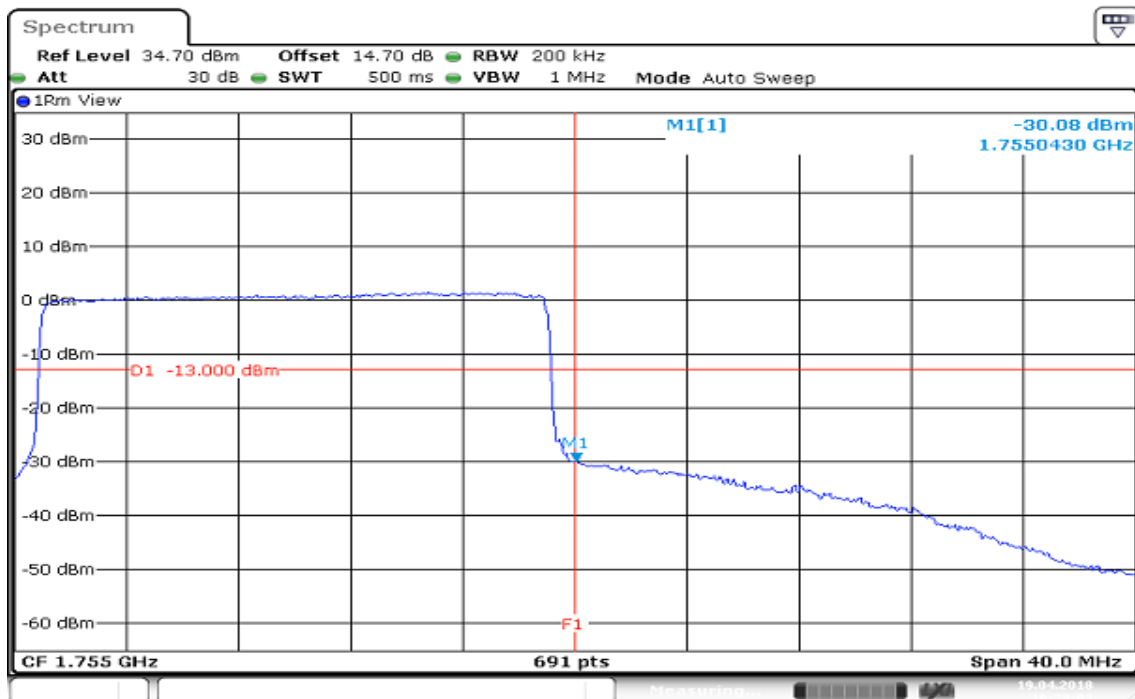
Date: 19 APR 2018 16:29:31

CHANNEL BANDWIDTH: 20MHz / QPSK / 100%RB ALLOCATED LOWER BAND EDGE



Date: 19 APR 2018 16:22:30

HIGHER BAND EDGE

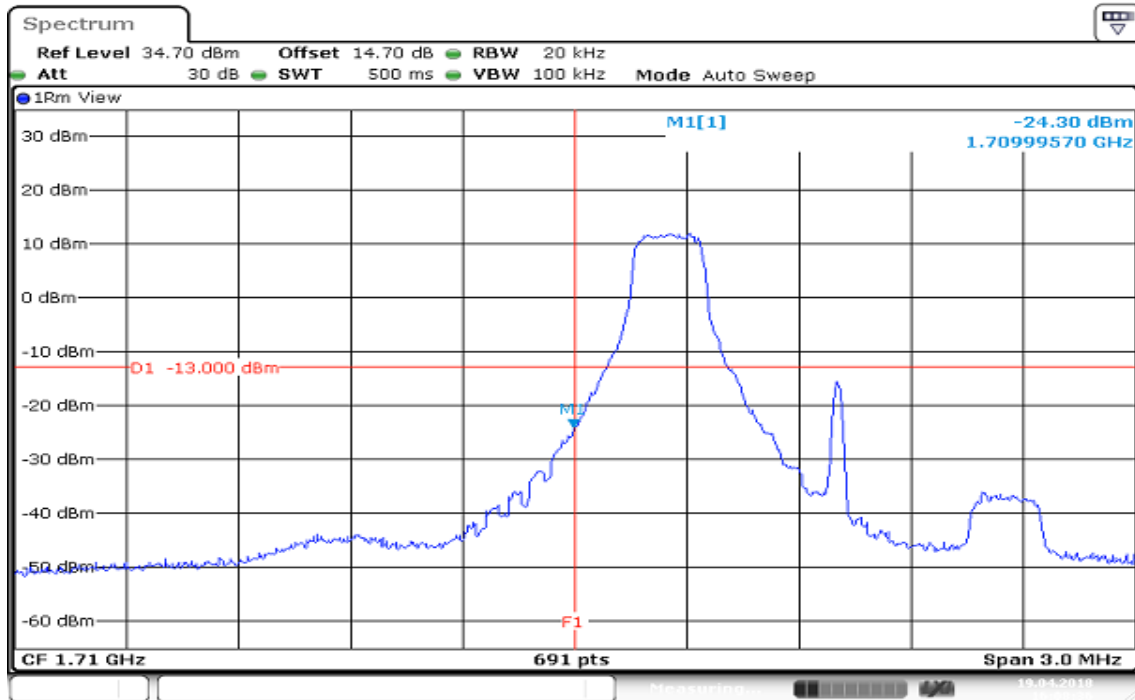


Date: 19 APR 2018 16:29:04

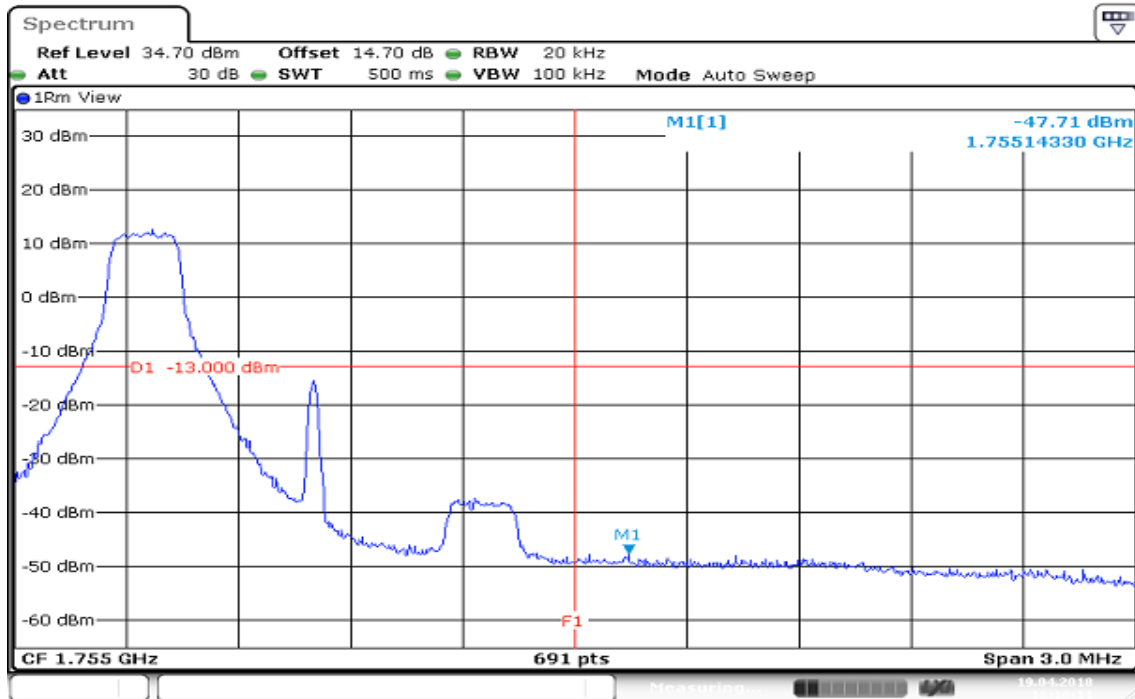
LTE Band 4

CHANNEL BANDWIDTH: 1.4MHz / 16QAM / 1RB ALLOCATED

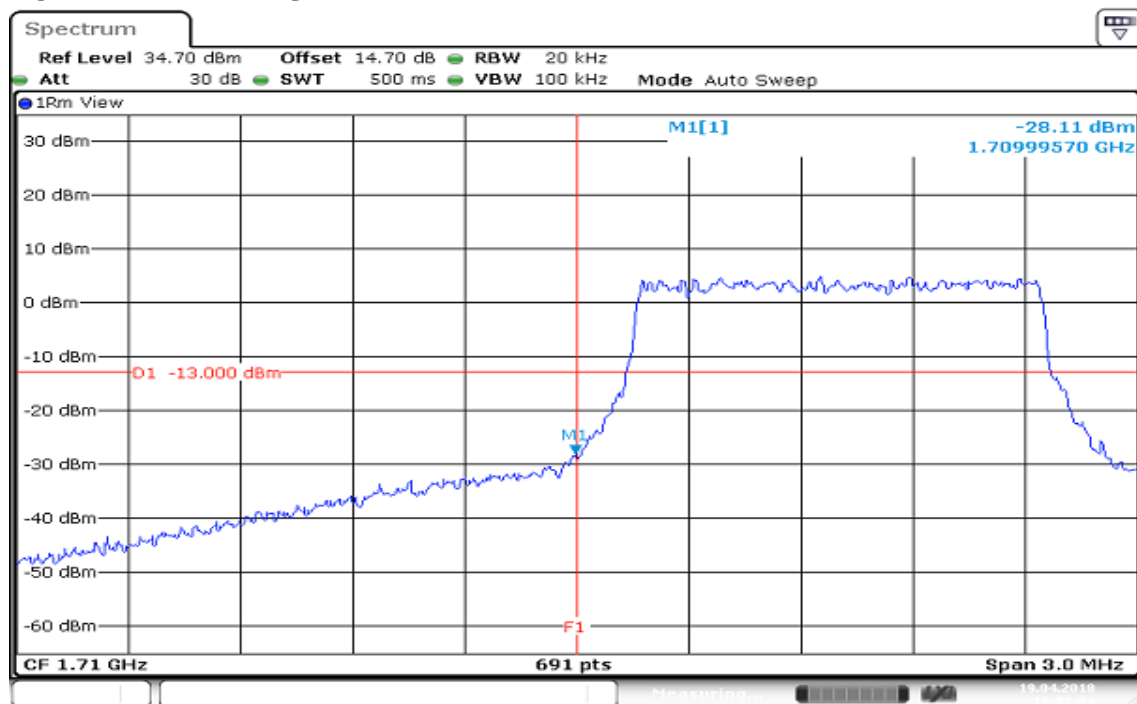
LOWER BAND EDGE



HIGHER BAND EDGE

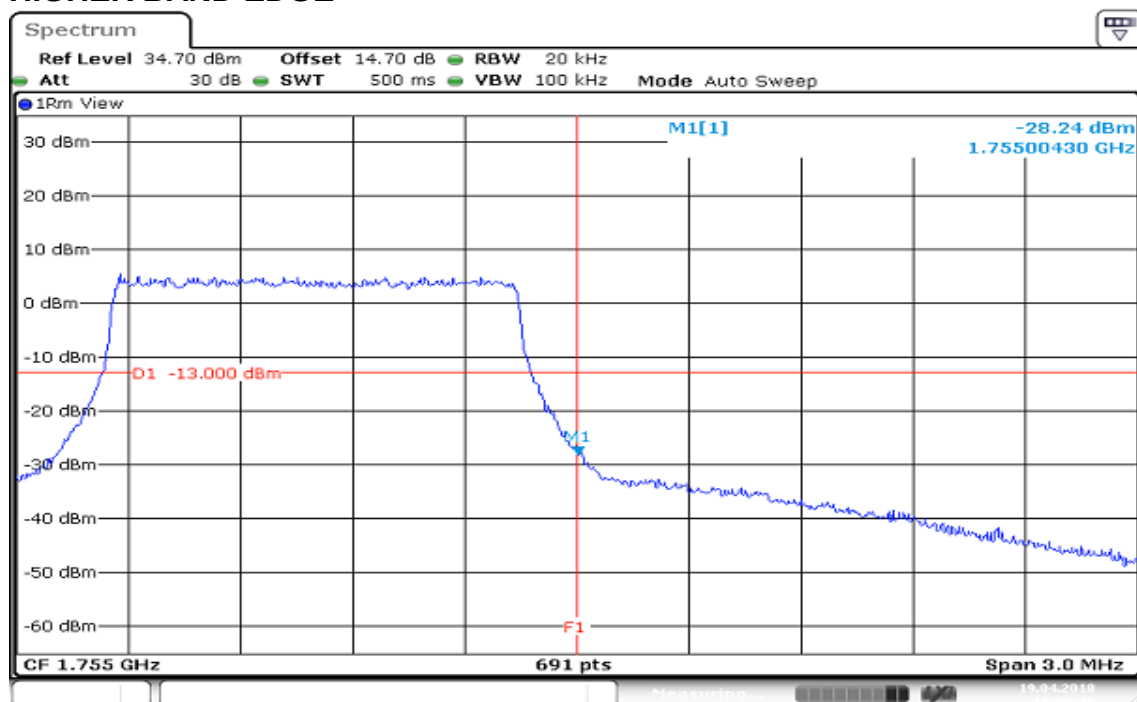


CHANNEL BANDWIDTH: 1.4MHz / 16QAM / 100%RB ALLOCATED LOWER BAND EDGE



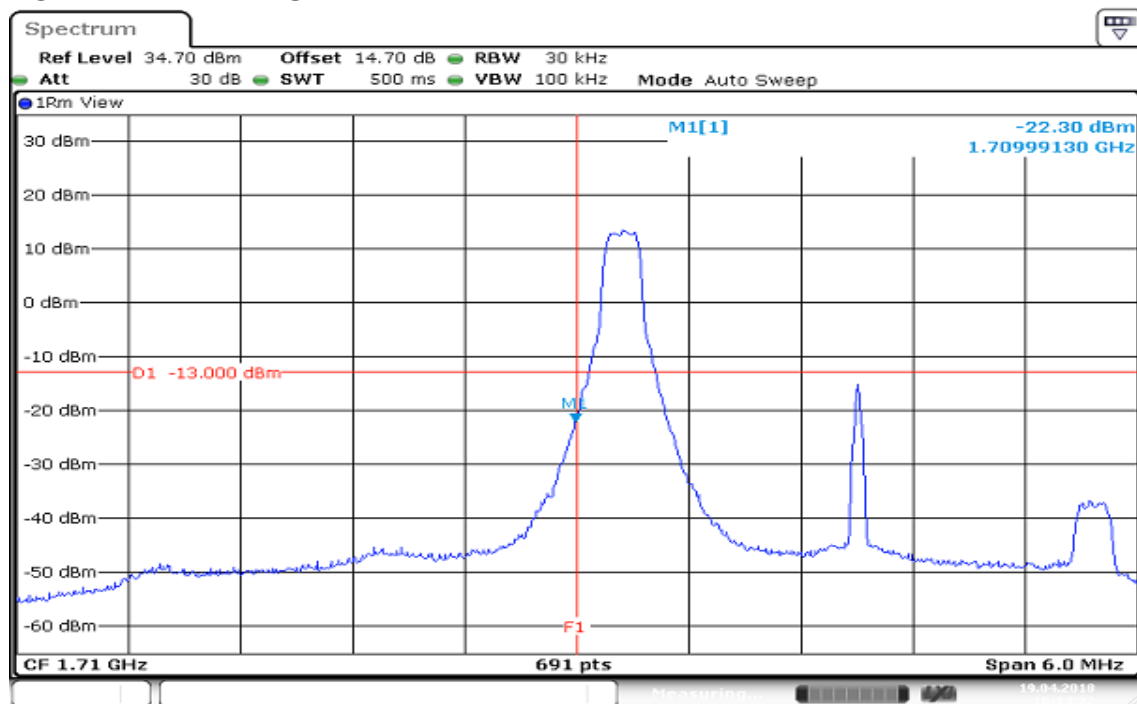
Date: 19 APR 2018 16:08:04

HIGHER BAND EDGE

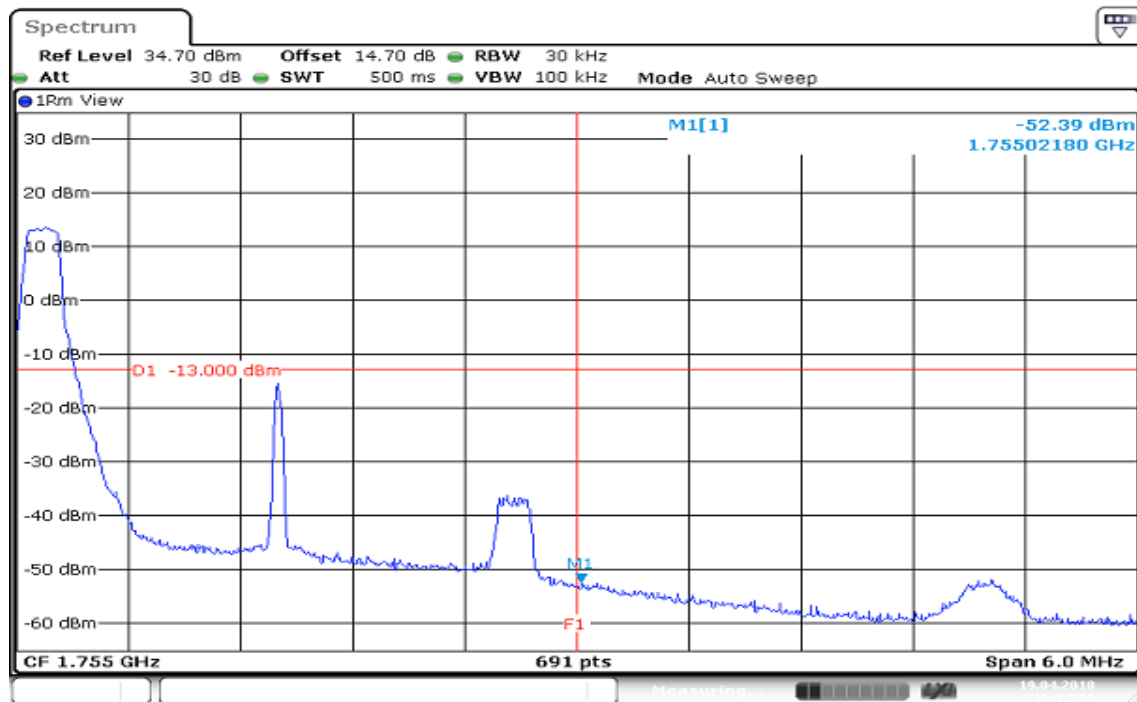


Date: 19 APR 2018 16:09:47

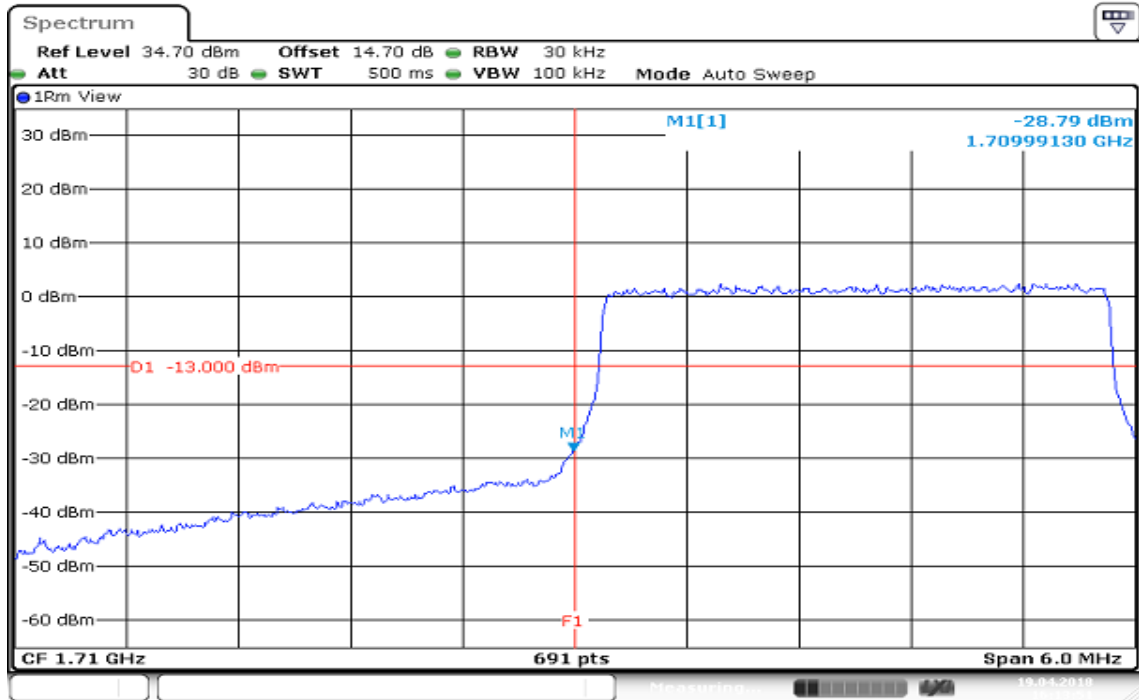
CHANNEL BANDWIDTH: 3MHz / 16QAM / 1RB ALLOCATED LOWER BAND EDGE



HIGHER BAND EDGE

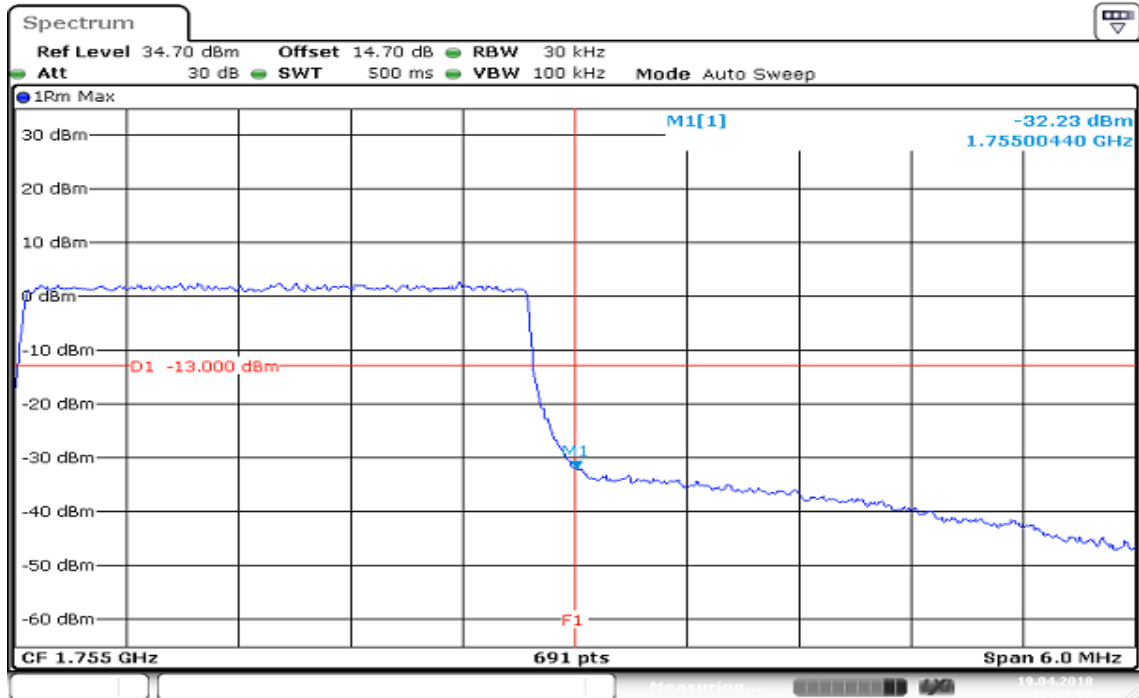


CHANNEL BANDWIDTH: 3MHz / 16QAM / 100%RB ALLOCATED LOWER BAND EDGE



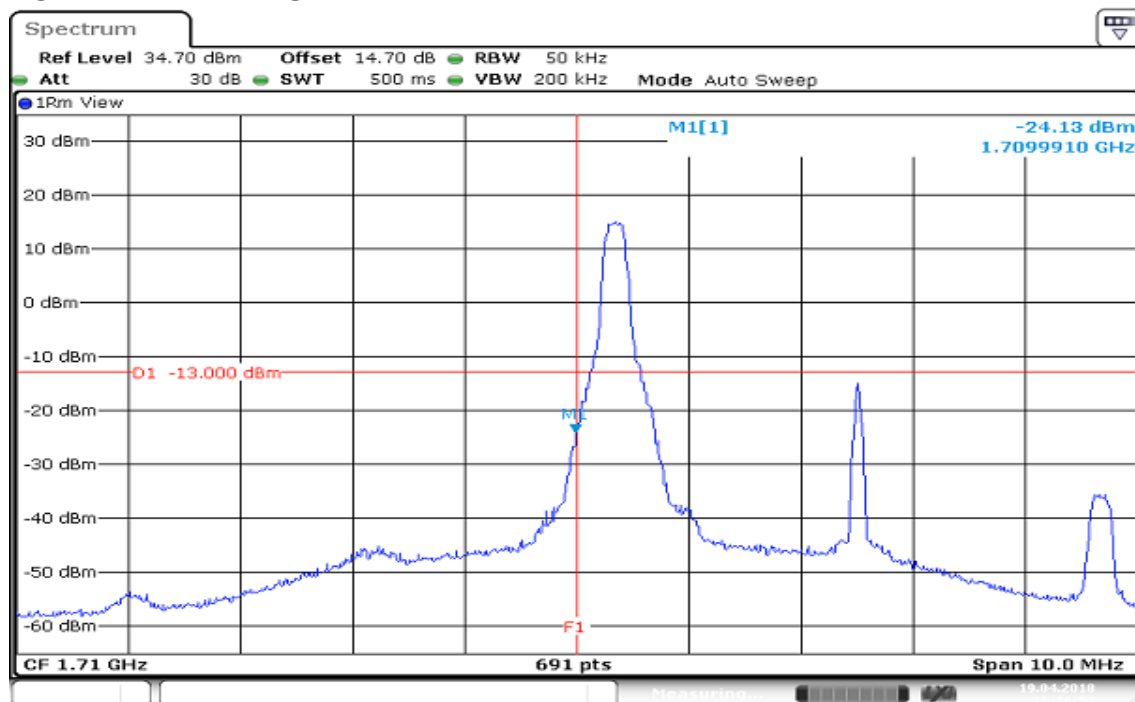
Date: 19 APR 2018 16:13:51

HIGHER BAND EDGE



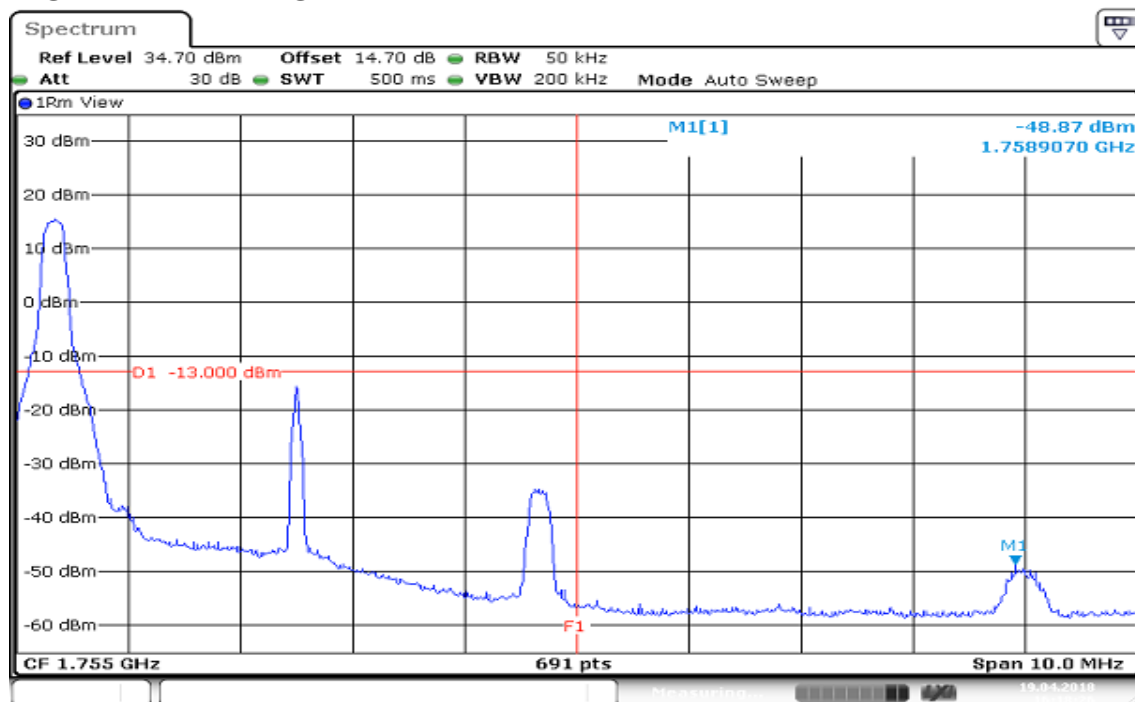
Date: 19 APR 2018 16:13:07

CHANNEL BANDWIDTH: 5MHz / 16QAM / 1RB ALLOCATED LOWER BAND EDGE



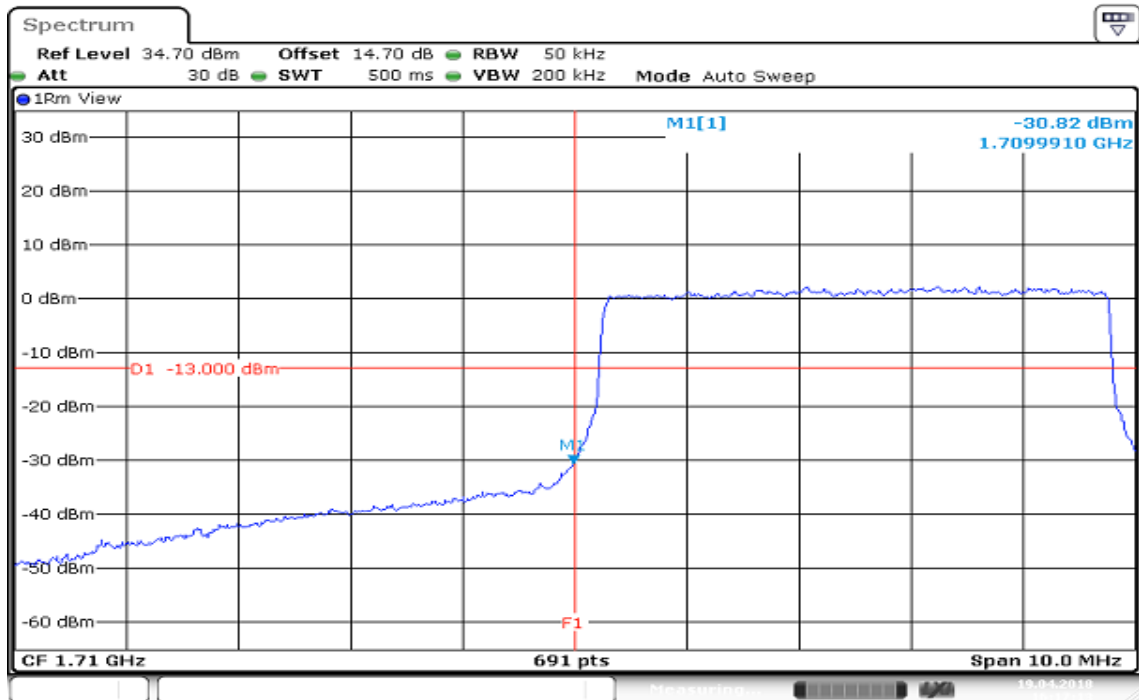
Date: 19 APR 2018 16:16:53

HIGHER BAND EDGE



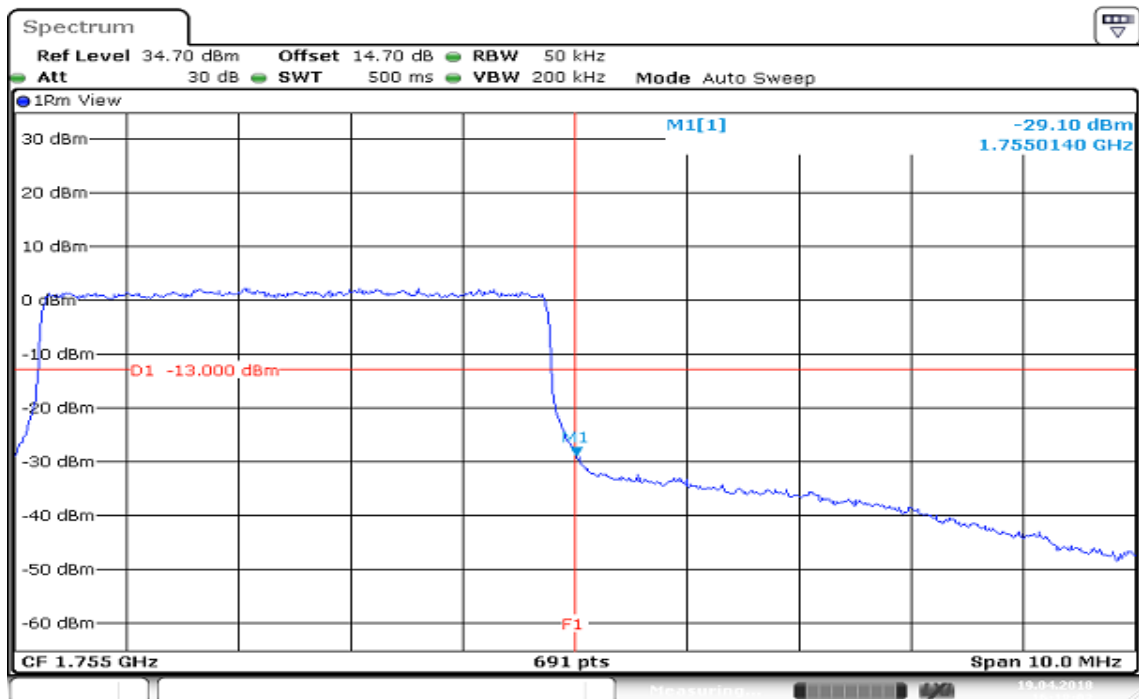
Date: 19 APR 2018 16:16:27

CHANNEL BANDWIDTH: 5MHz / 16QAM / 100%RB ALLOCATED LOWER BAND EDGE



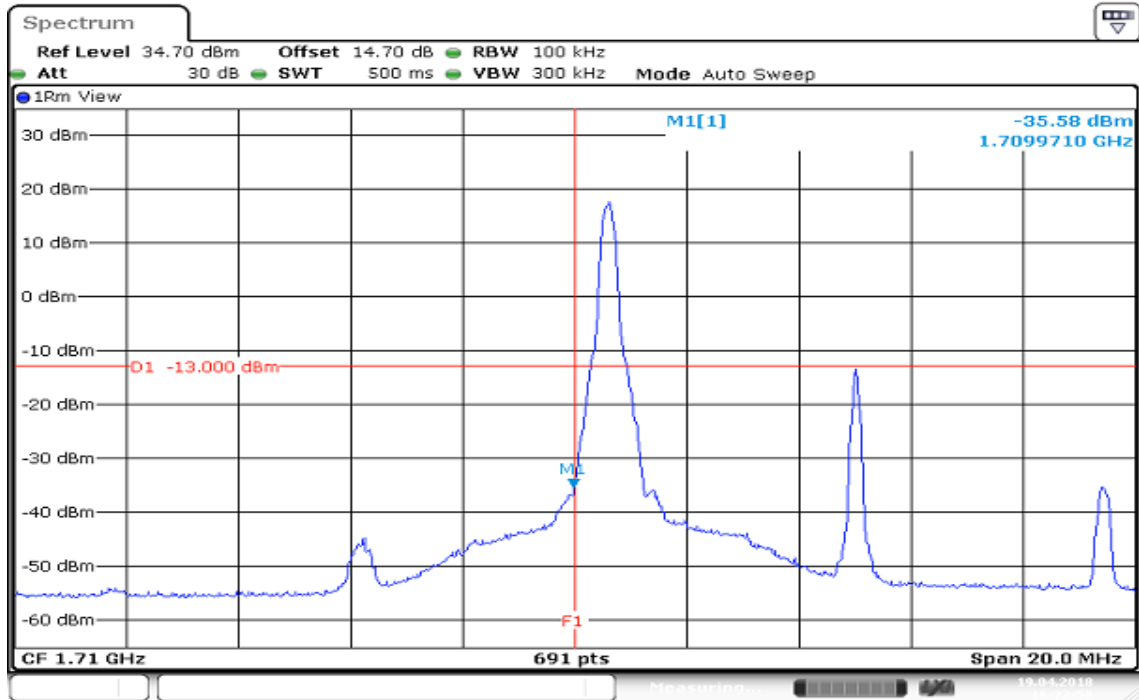
Date: 19 APR 2018 16:17:14

HIGHER BAND EDGE

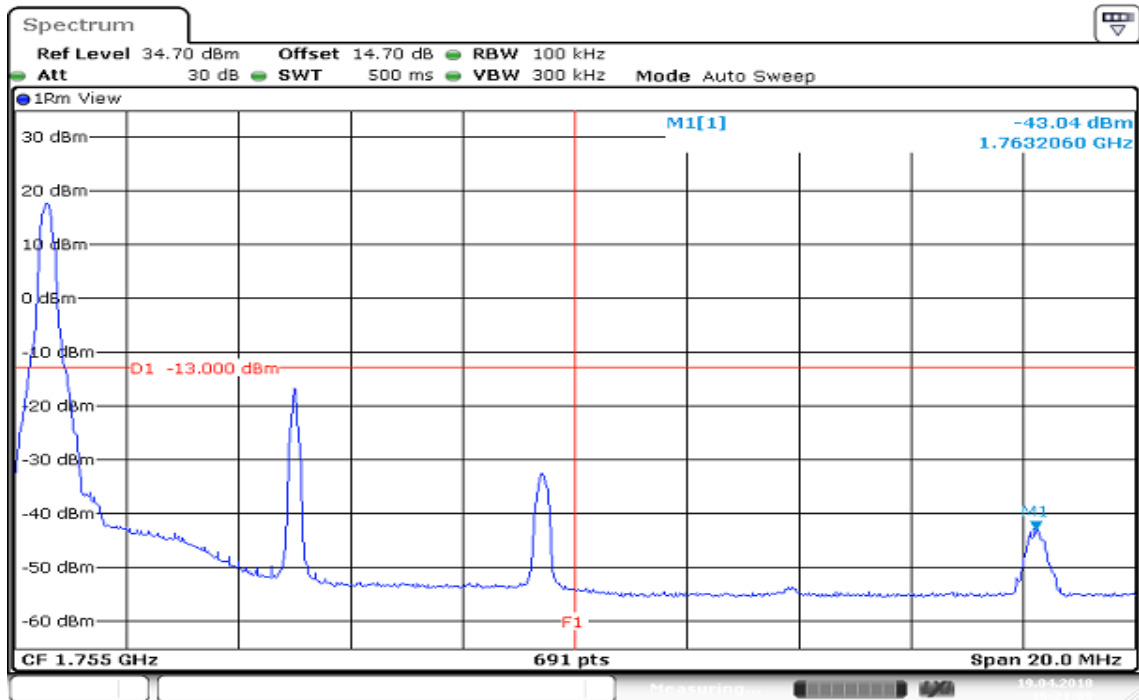


Date: 19 APR 2018 16:18:03

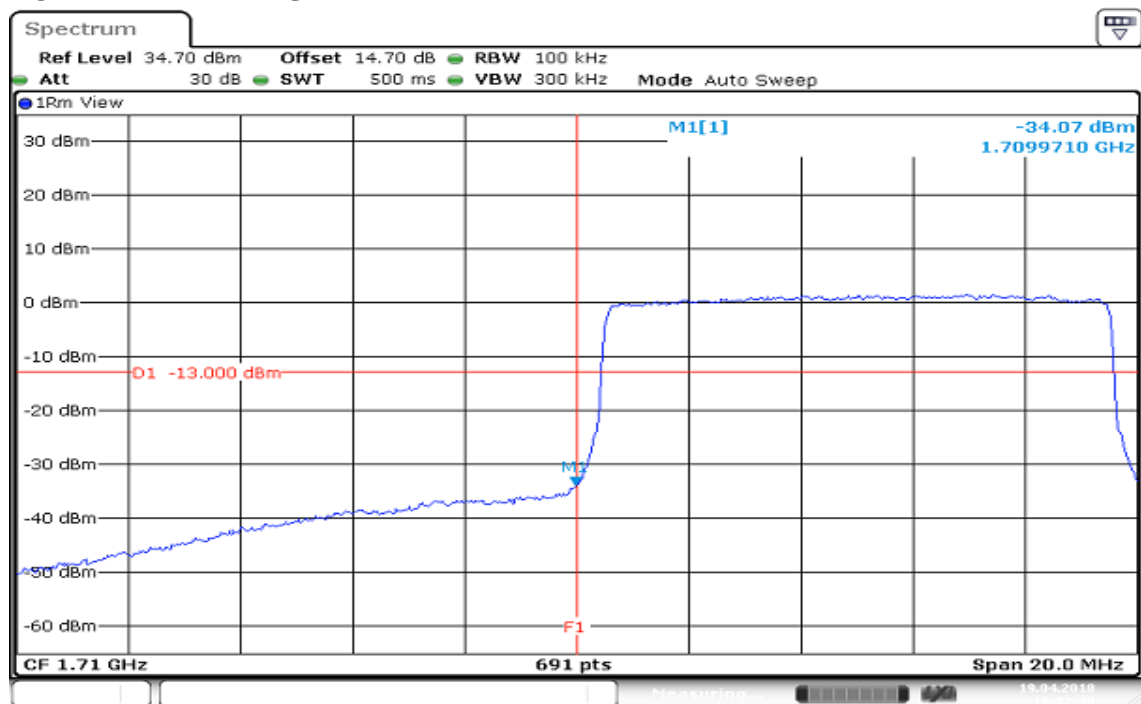
CHANNEL BANDWIDTH: 10MHz / 16QAM / 1RB ALLOCATED LOWER BAND EDGE



HIGHER BAND EDGE

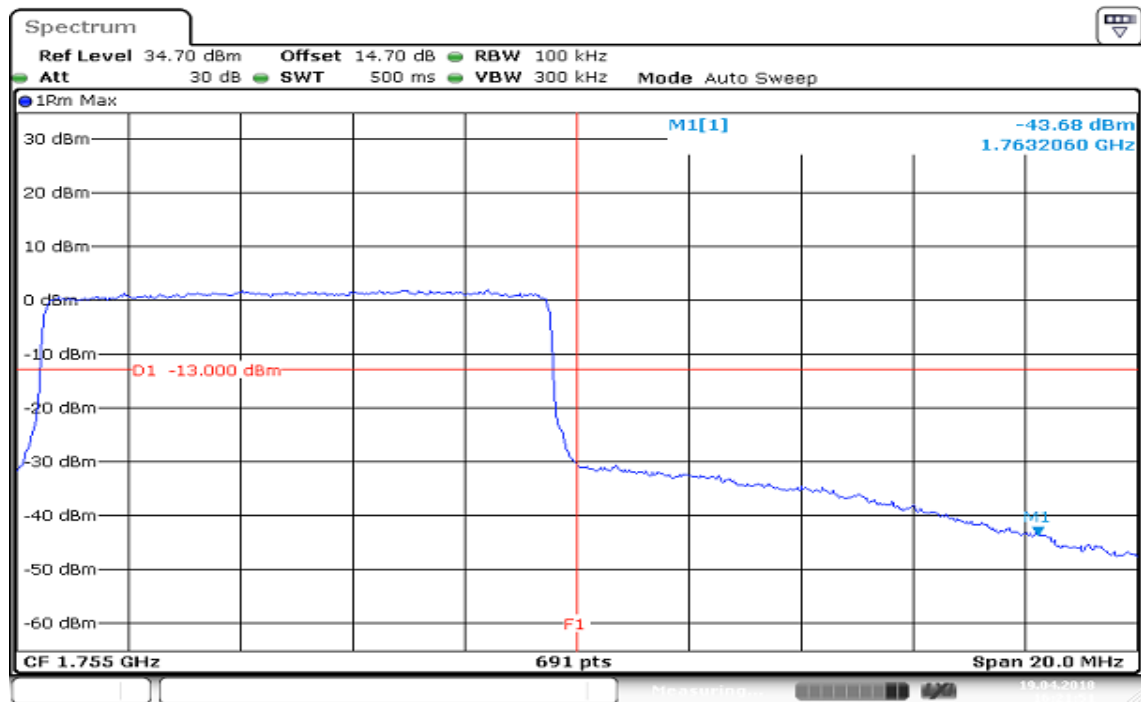


CHANNEL BANDWIDTH: 10MHz / 16QAM / 100%RB ALLOCATED LOWER BAND EDGE



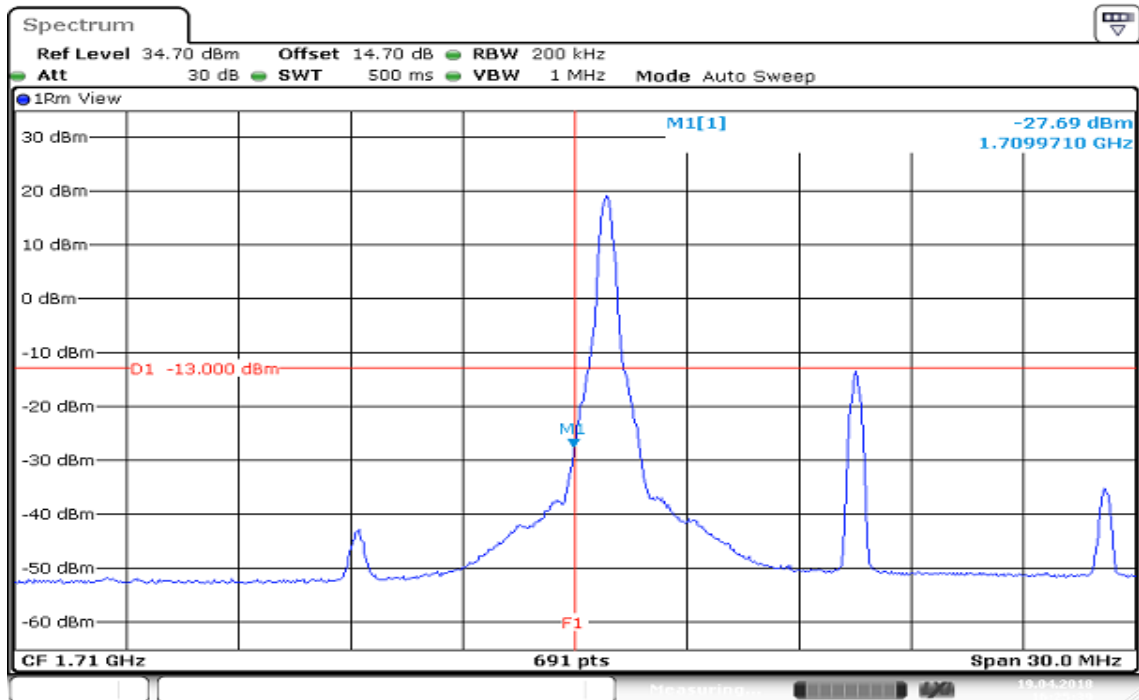
Date: 19 APR 2018 16:22:40

HIGHER BAND EDGE



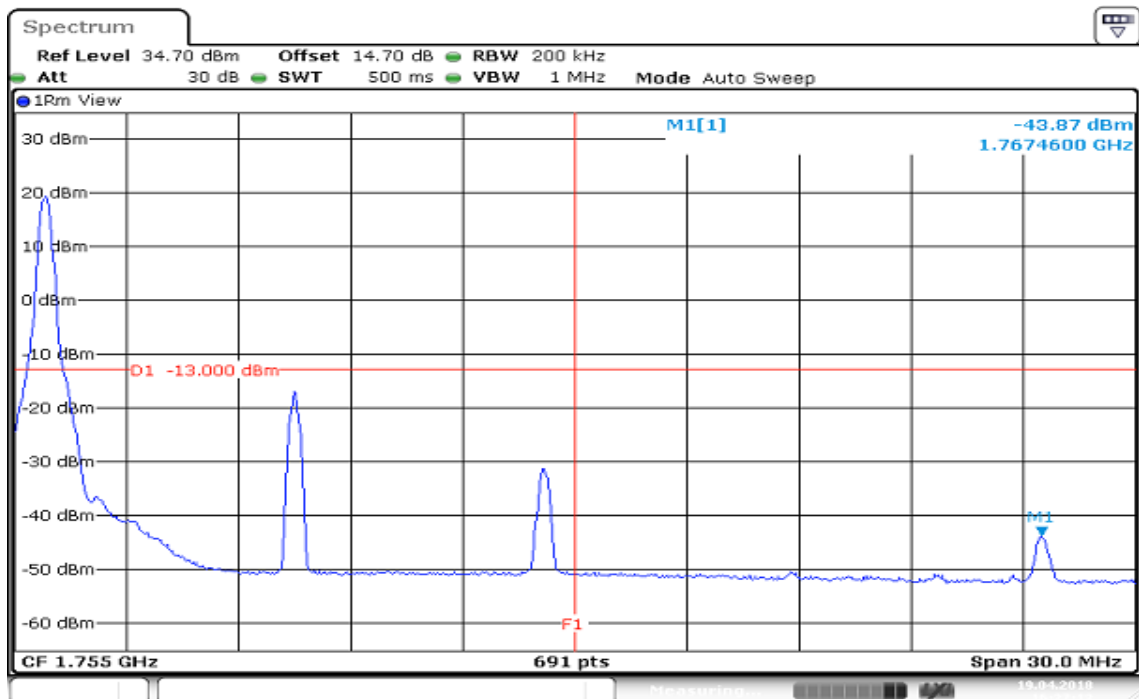
Date: 19 APR 2018 16:21:51

CHANNEL BANDWIDTH: 15MHz / 16QAM / 1RB ALLOCATED LOWER BAND EDGE



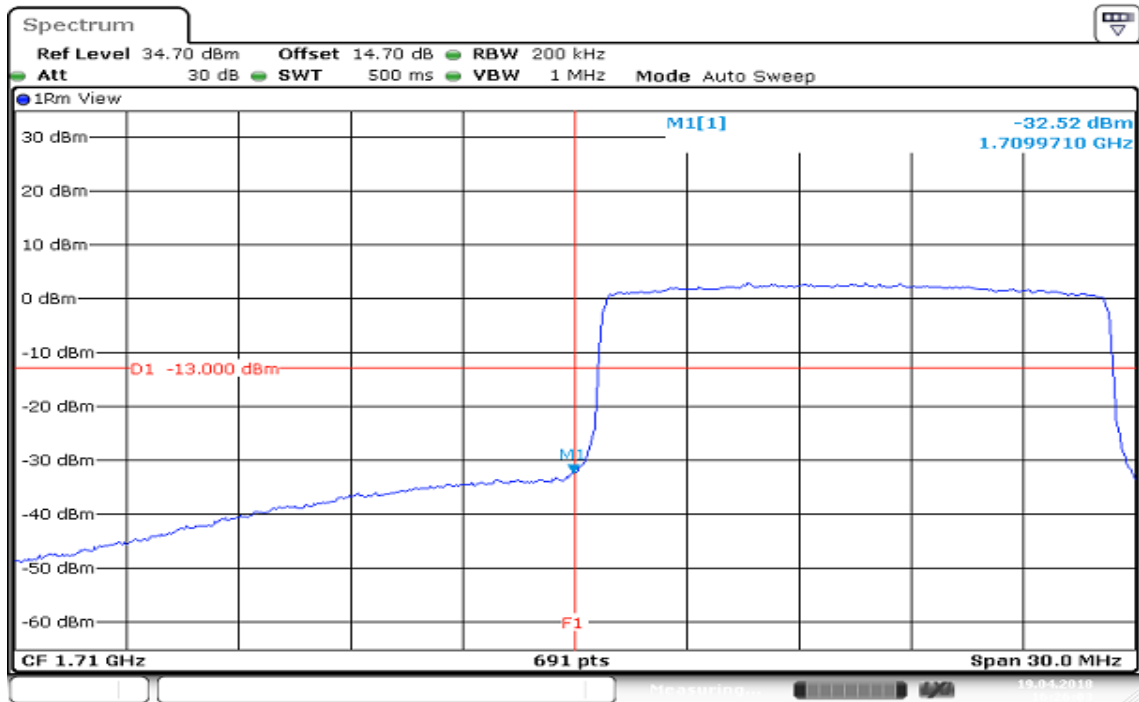
Date: 19 APR 2018 16:25:29

HIGHER BAND EDGE



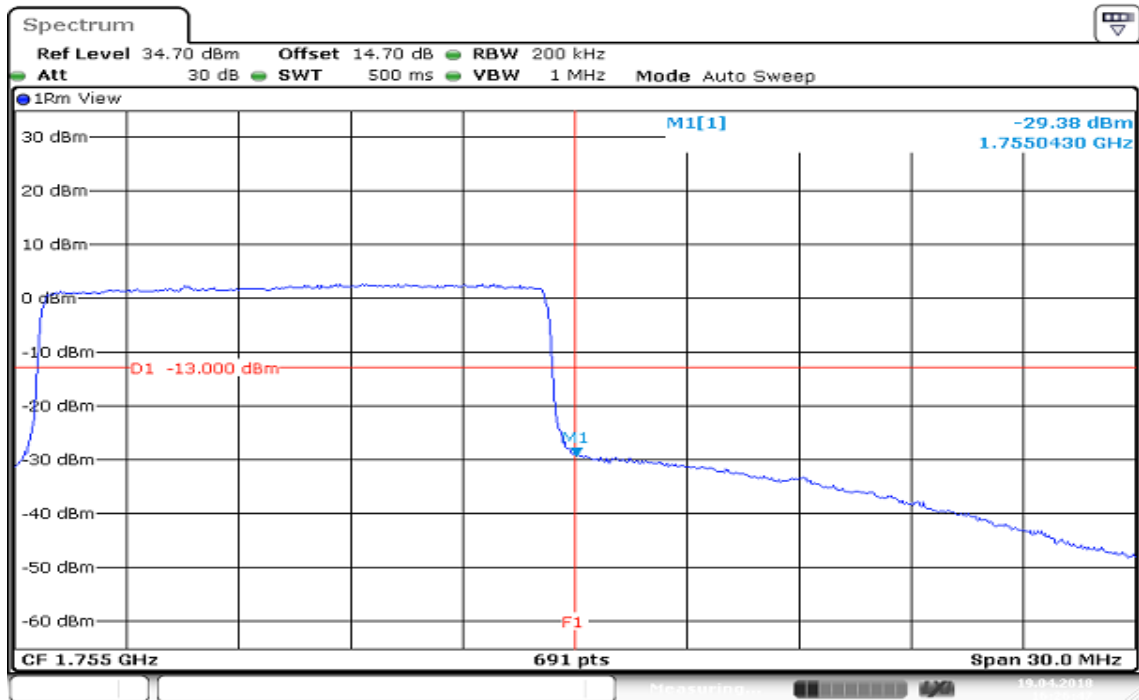
Date: 19 APR 2018 16:27:12

CHANNEL BANDWIDTH: 15MHz / 16QAM / 100%RB ALLOCATED LOWER BAND EDGE



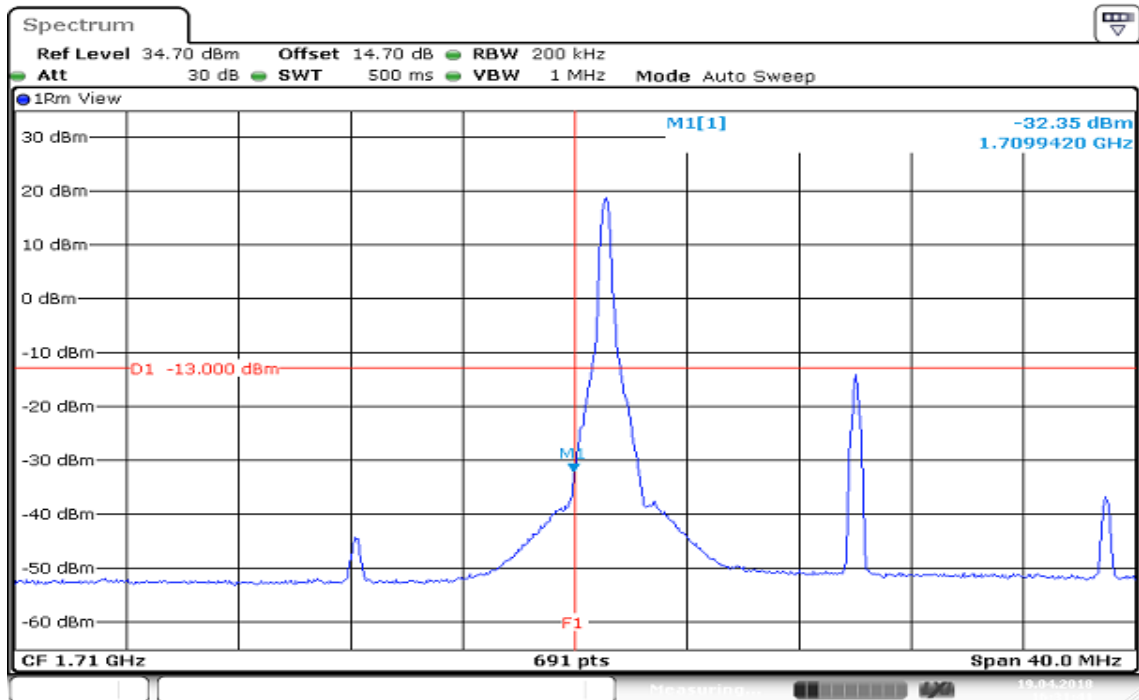
Date: 19 APR 2018 16:26:03

HIGHER BAND EDGE



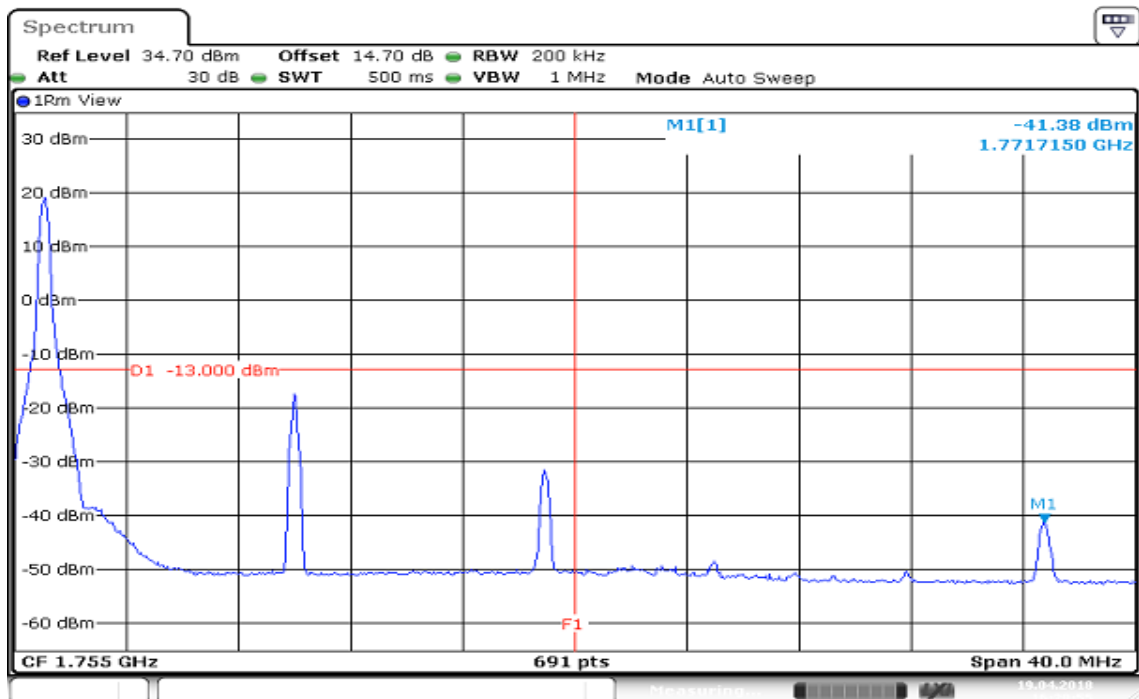
Date: 19 APR 2018 16:26:48

CHANNEL BANDWIDTH: 20MHz / 16QAM / 1RB ALLOCATED LOWER BAND EDGE



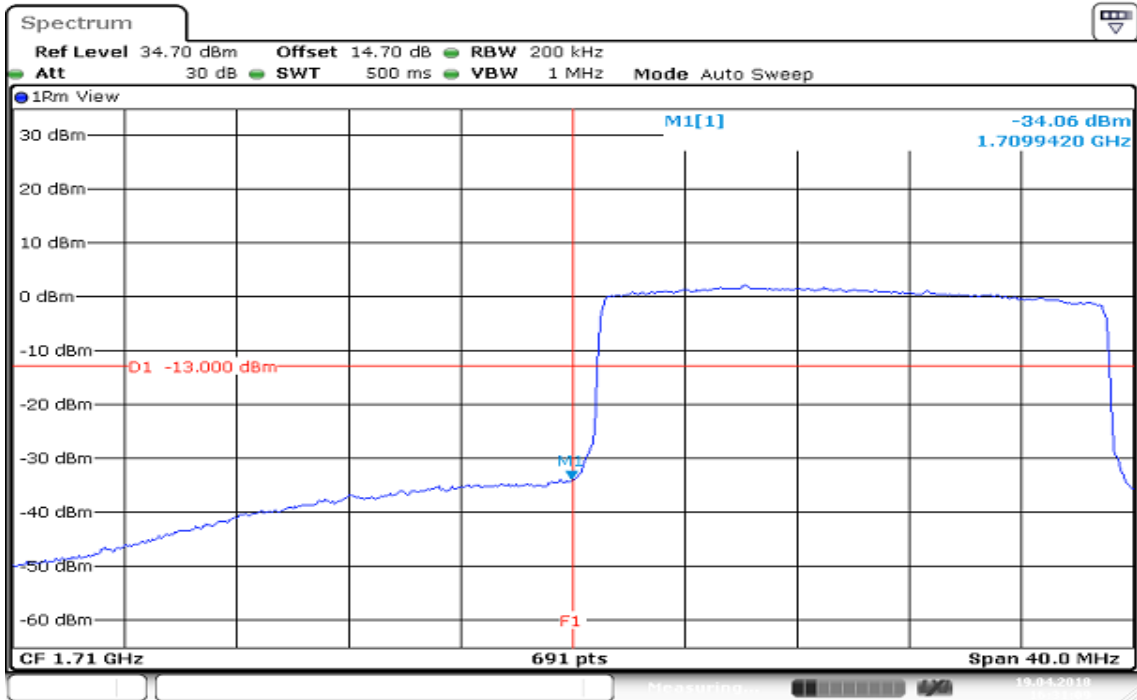
Date: 19 APR 2018 16:31:42

HIGHER BAND EDGE



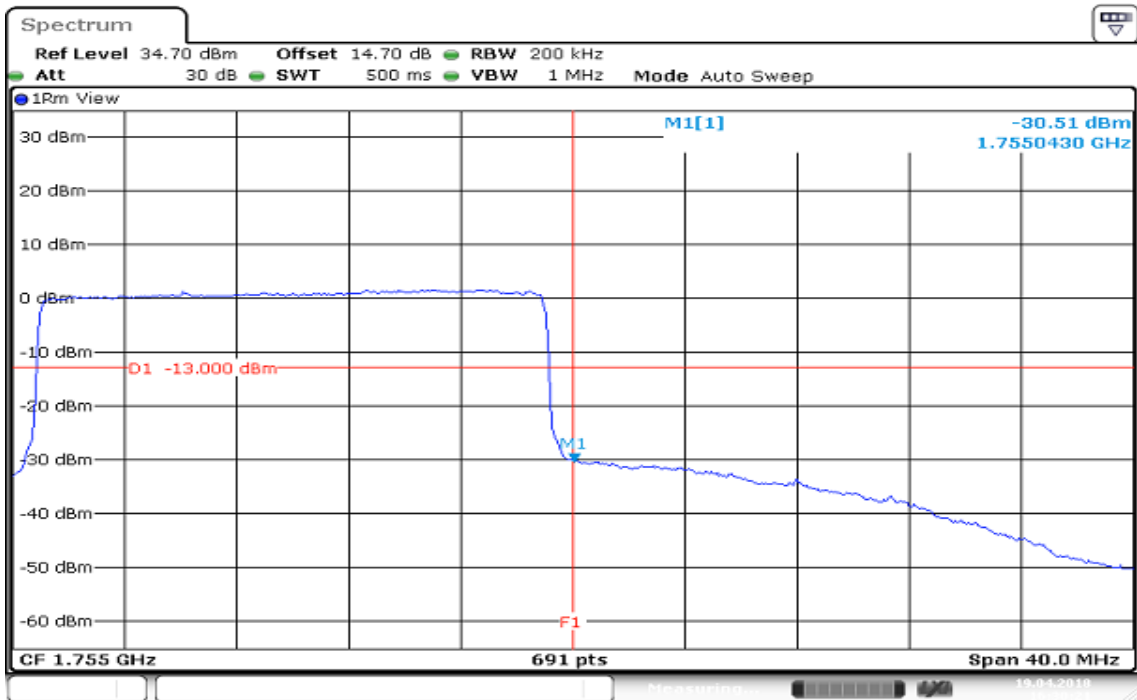
Date: 19 APR 2018 16:29:55

CHANNEL BANDWIDTH: 20MHz / 16QAM / 100%RB ALLOCATED LOWER BAND EDGE



Date: 19 APR 2018 16:21:09

HIGHER BAND EDGE



Date: 19 APR 2018 16:20:22

8.7 CONDUCTED SPURIOUS EMISSIONS

LIMITS

The power of any emission outside a licensee's frequency block shall be attenuated below the transmitter power (P) by at least $43 + 10 \log_{10}(P)$ dB. The limit of emission equal to -13dBm

TEST PROCEDURES

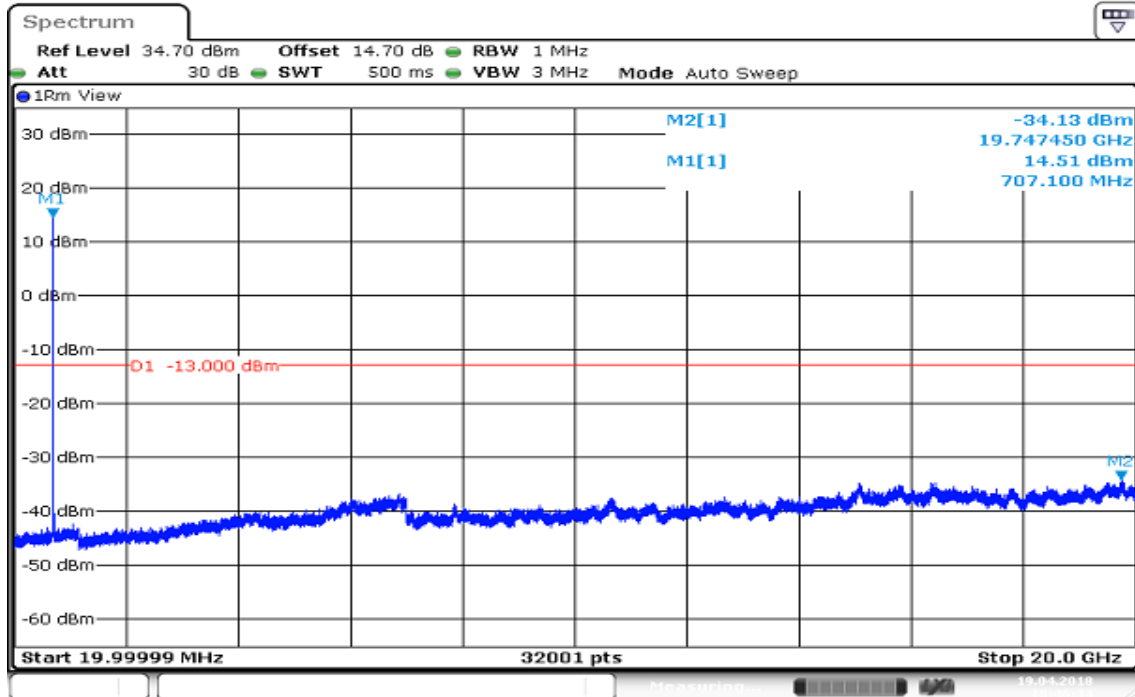
1. The EUT was set up for the maximum peak power with LTE link data modulation. The power was measured with Spectrum Analyzer. All measurements were done at 3 channels (low, middle and high operational frequency range.).
2. The conducted spurious emission used the power splitter via EUT RF power connector between simulation base station and spectrum analyzer.
3. When the spectrum scanned from 30MHz to 3GHz, it shall be connected to the band reject filter attenuated the carried frequency. The spectrum set $RB=1\text{MHz}$, $VB=3\text{MHz}$.
4. When the spectrum scanned from 3GHz to 20GHz, it shall be connected to the high pass filter attenuated the carried frequency. The spectrum set $RB=1\text{MHz}$, $VB=3\text{MHz}$.

TEST RESULTS

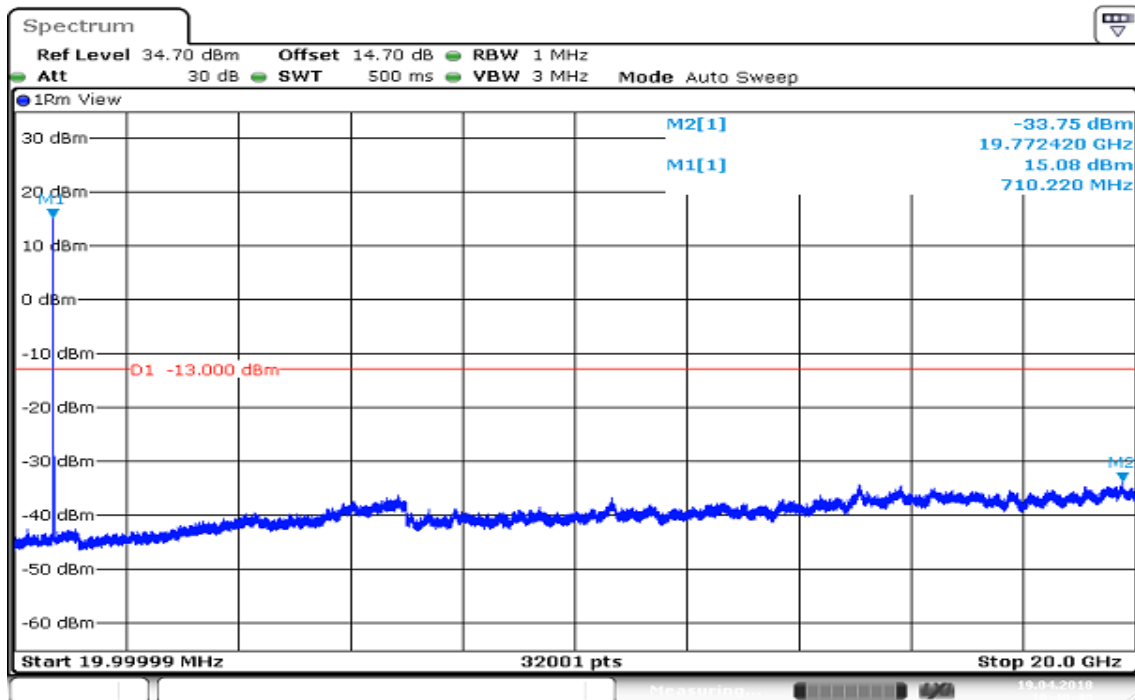
LTE Band 17

CHANNEL BANDWIDTH: 5MHz / QPSK

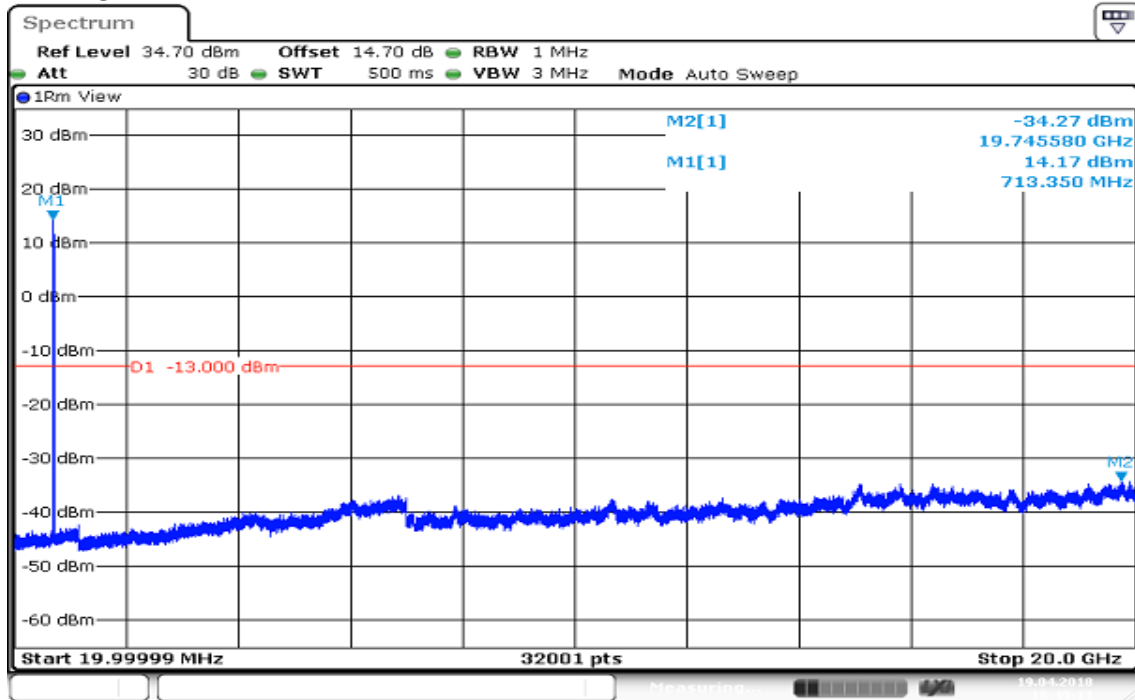
CH Low



CH Mid



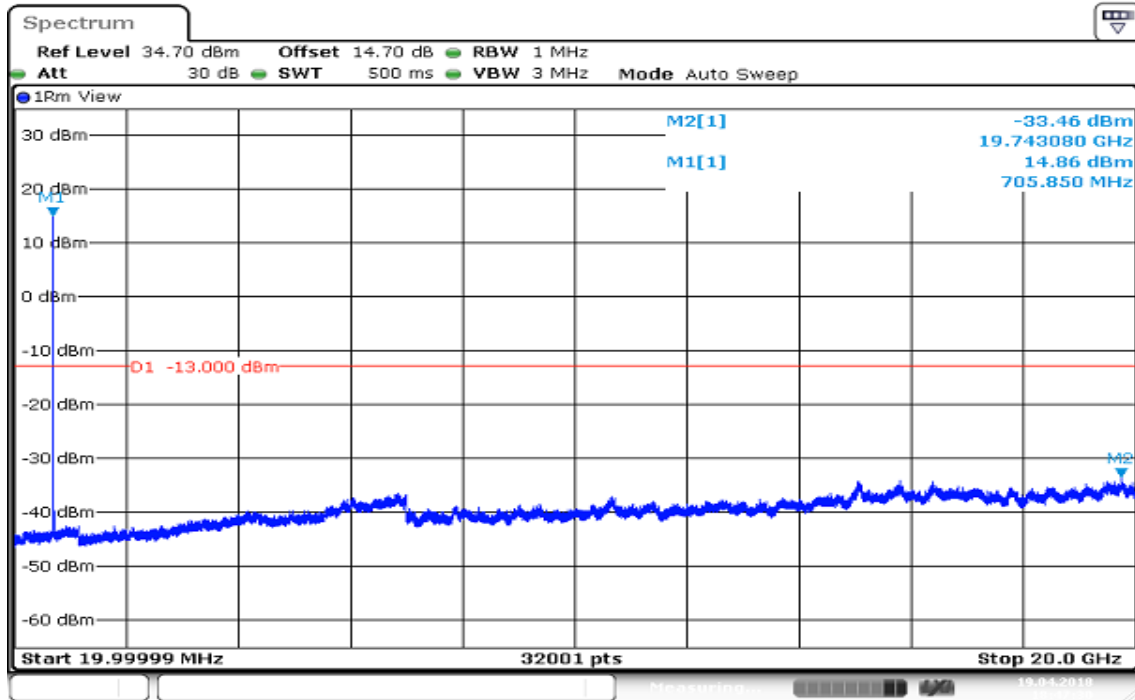
CH High



Date: 19 APR 2018 18:49:14

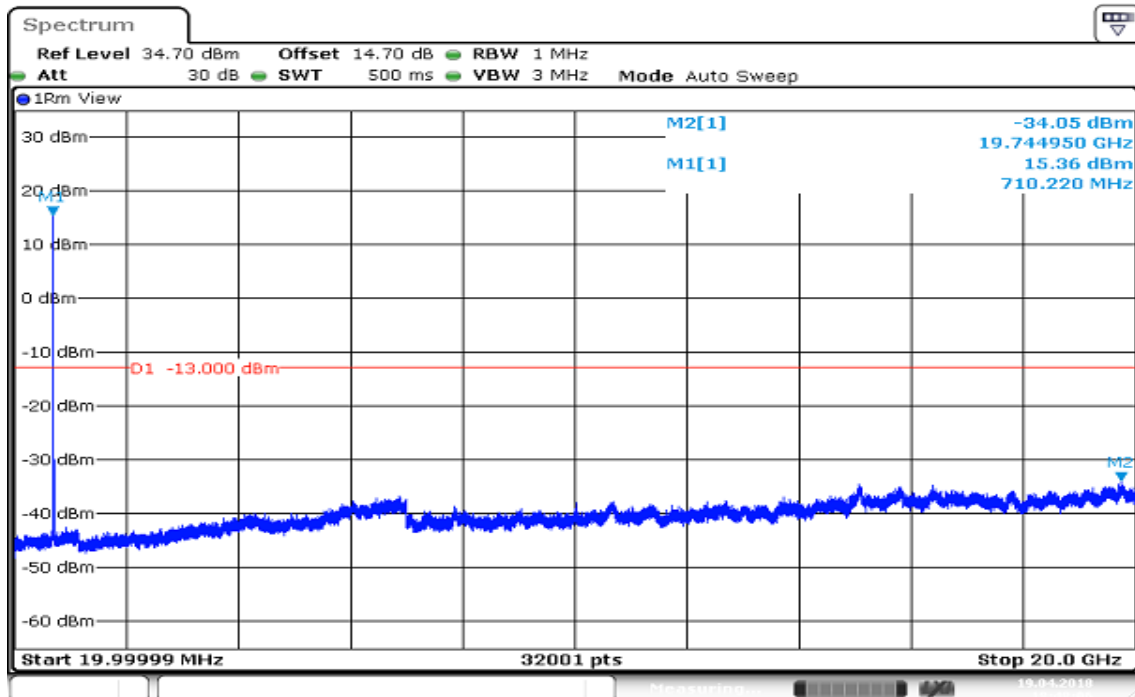
CHANNEL BANDWIDTH: 5MHz / 16QAM

CH Low



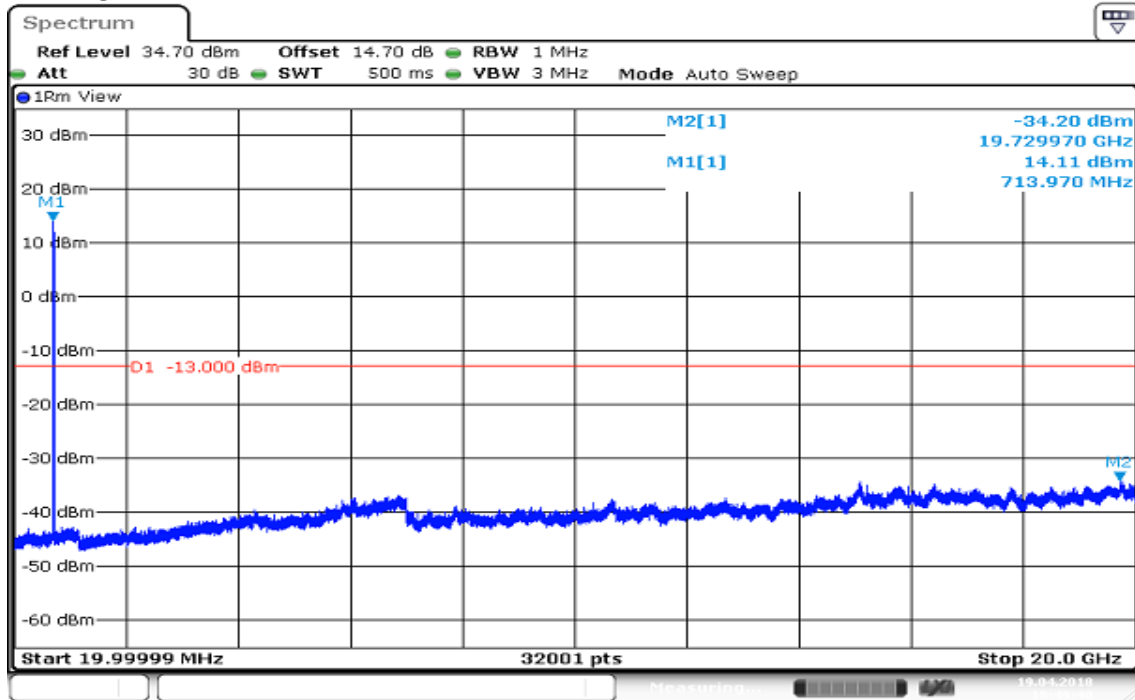
Date: 19 APR 2018 18:47:30

CH Mid



Date: 19 APR 2018 18:48:07

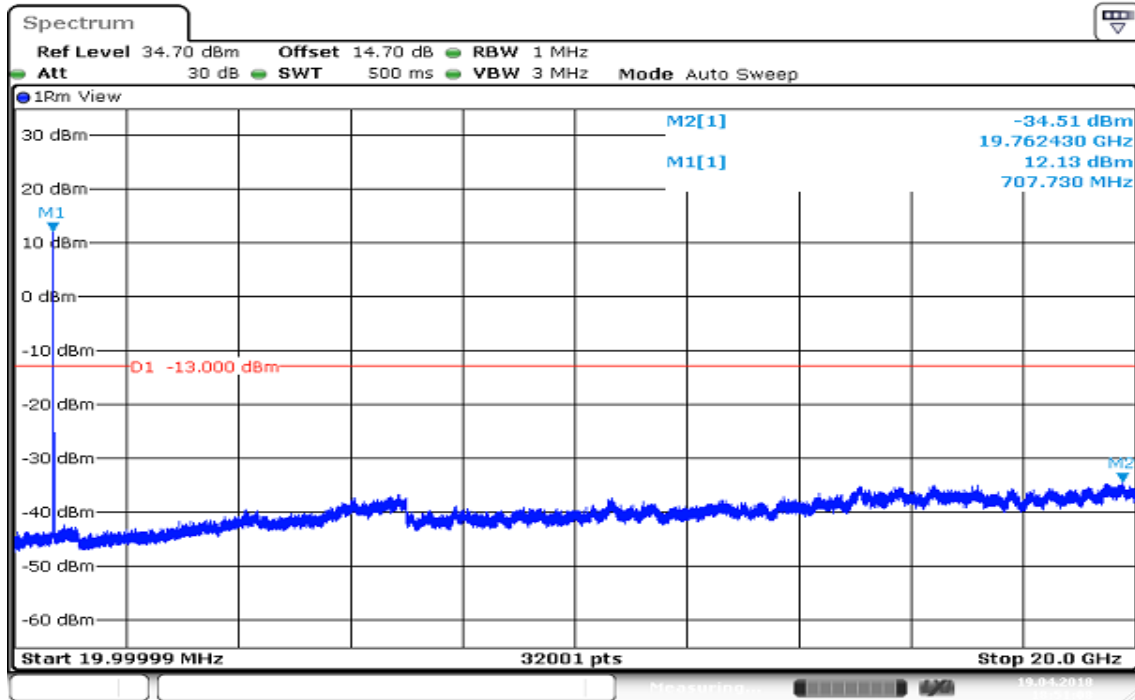
CH High



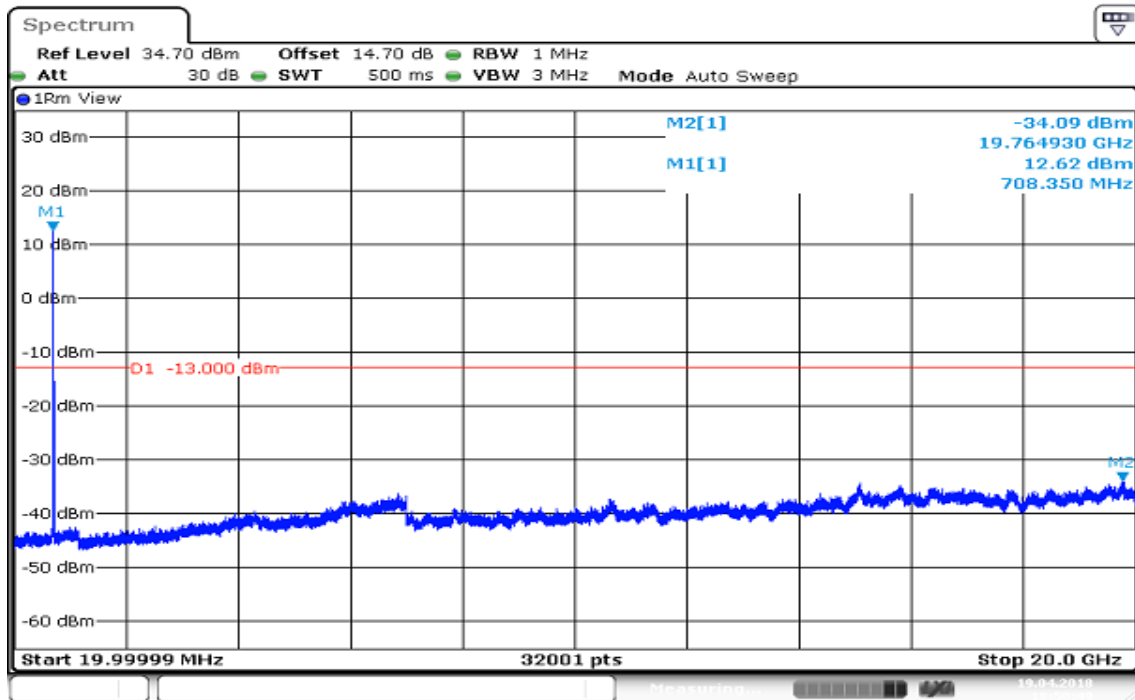
Date: 19 APR 2018 18:49:40

CHANNEL BANDWIDTH: 10MHz / QPSK

CH Low



CH Mid

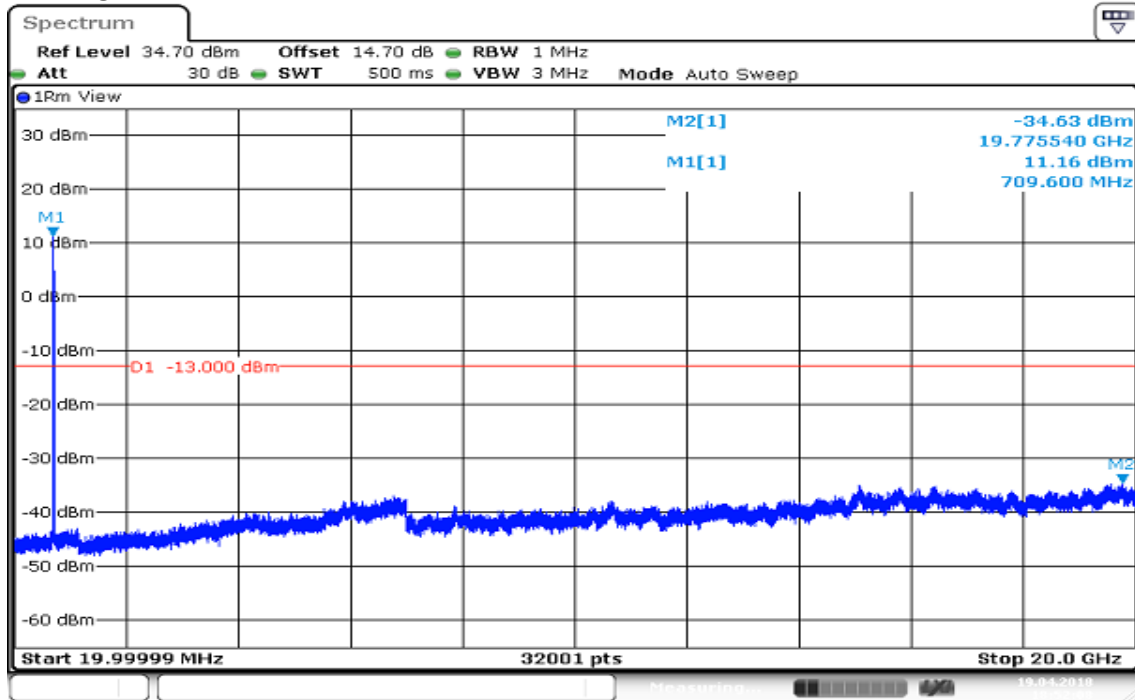




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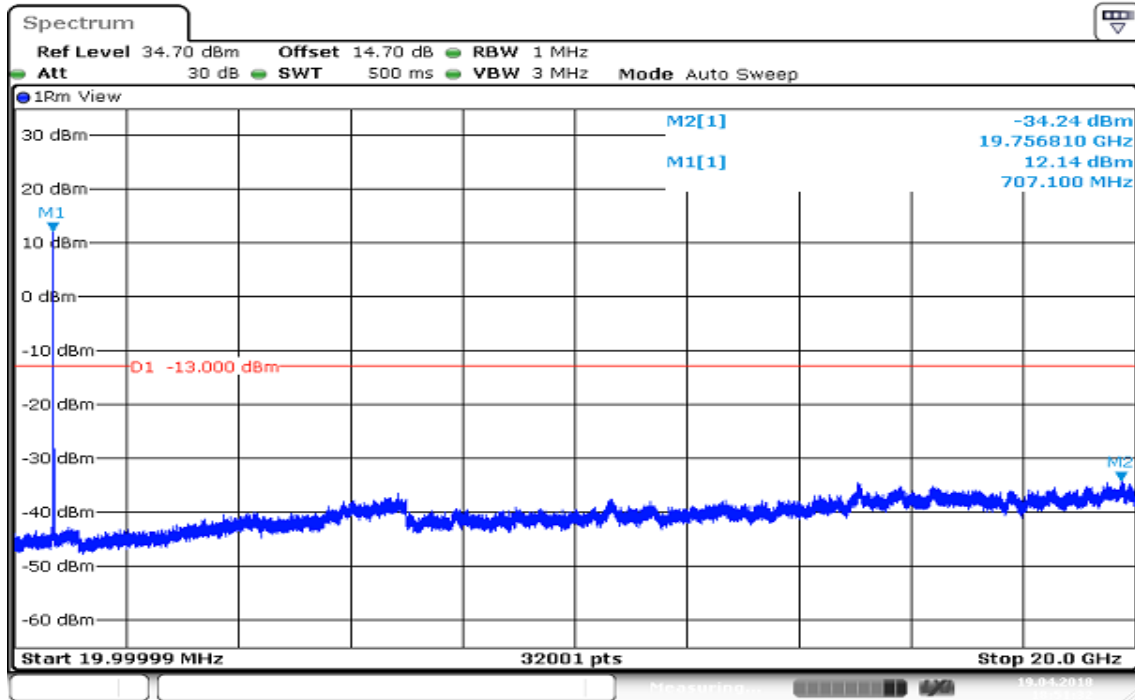
CH High



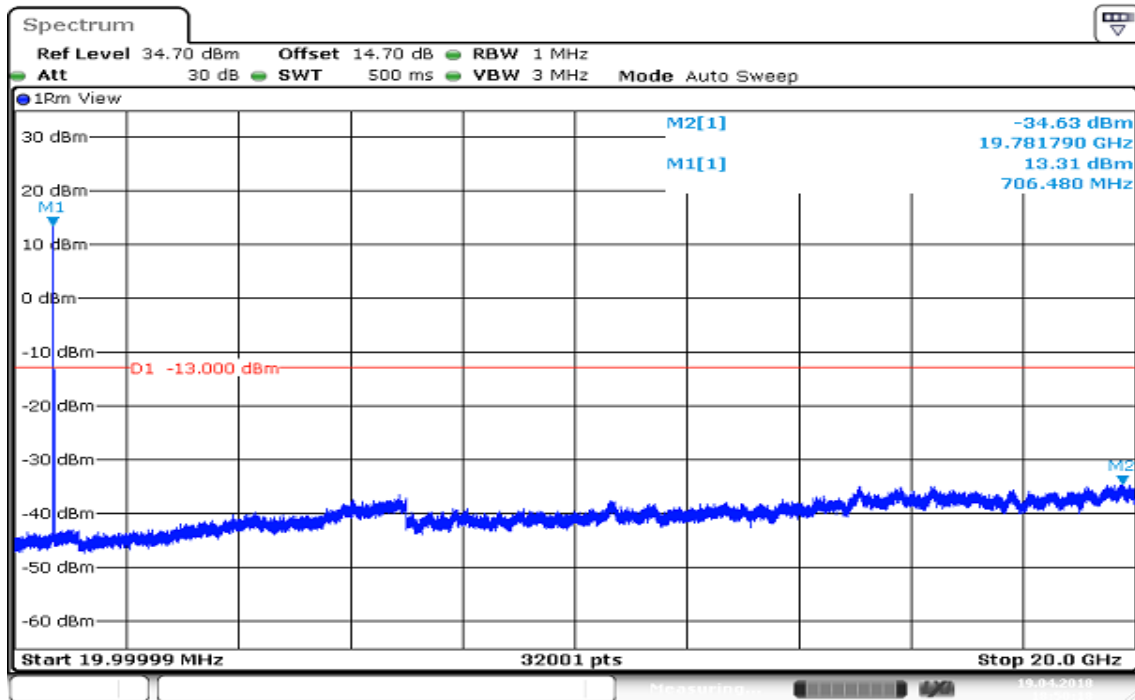
Date: 19 APR 2018 18:52:08

CHANNEL BANDWIDTH: 10MHz / 16QAM

CH Low



CH Mid

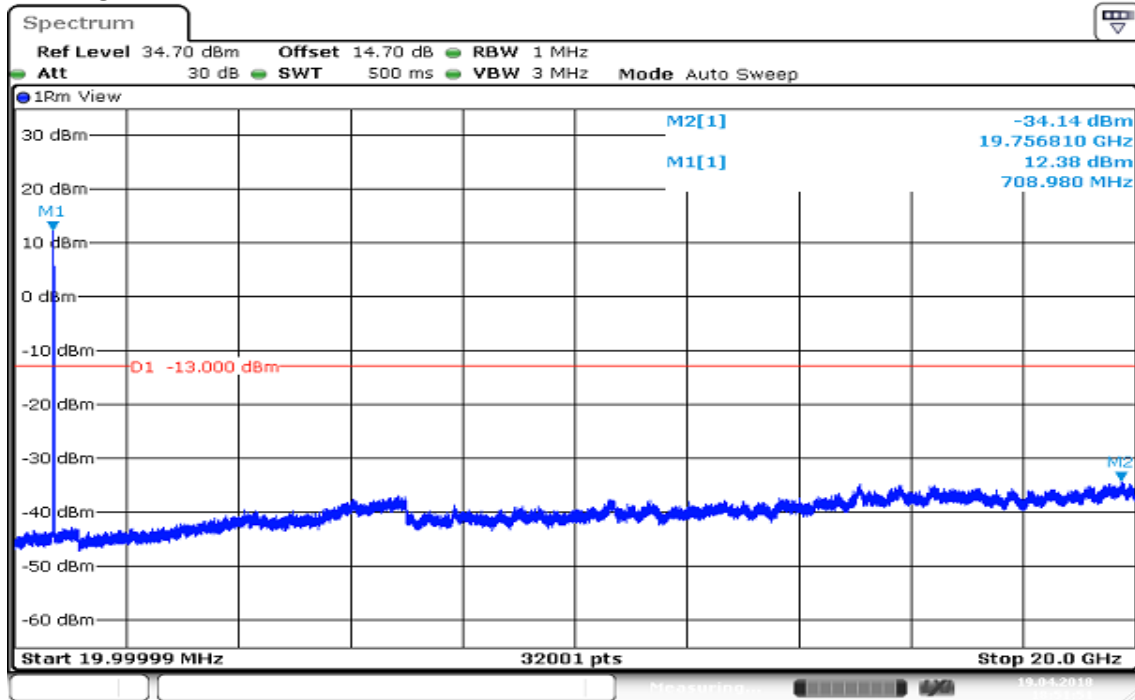




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CH High

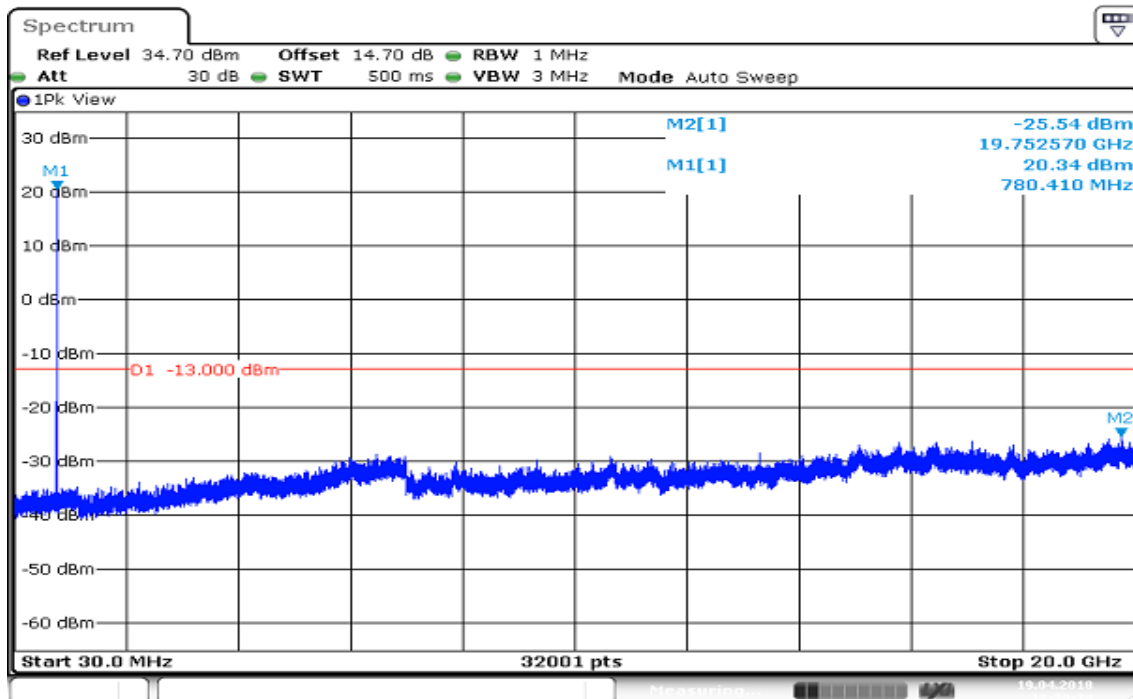


Date: 19 APR 2018 18:51:52

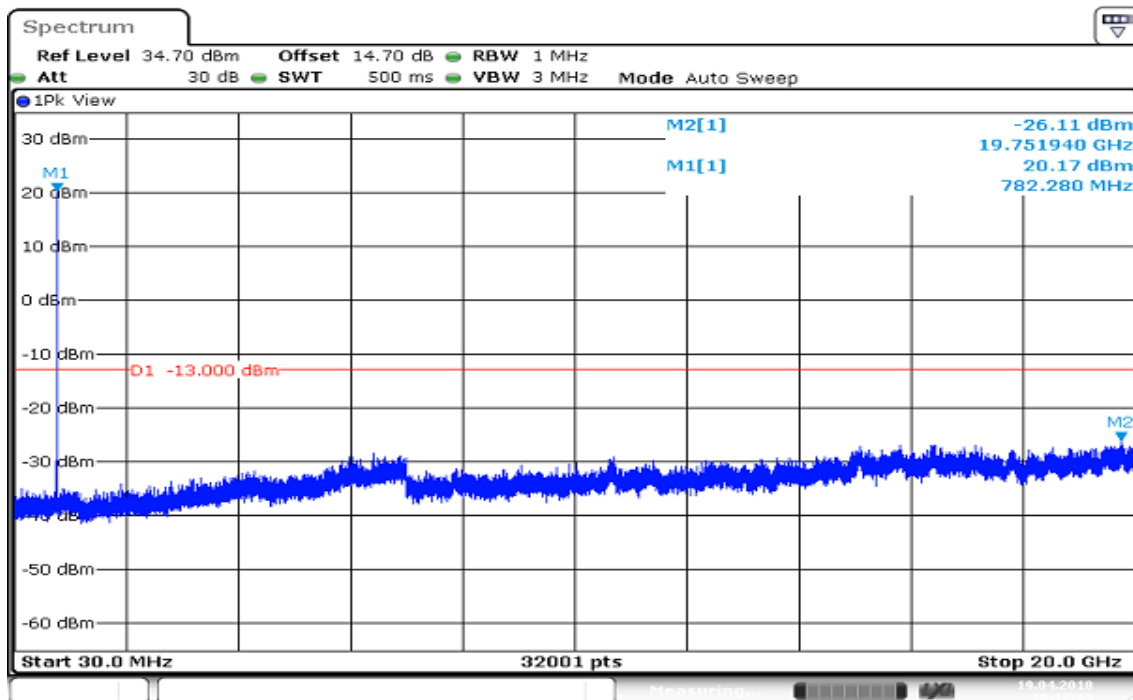
LTE Band 13

CHANNEL BANDWIDTH: 5MHz / QPSK

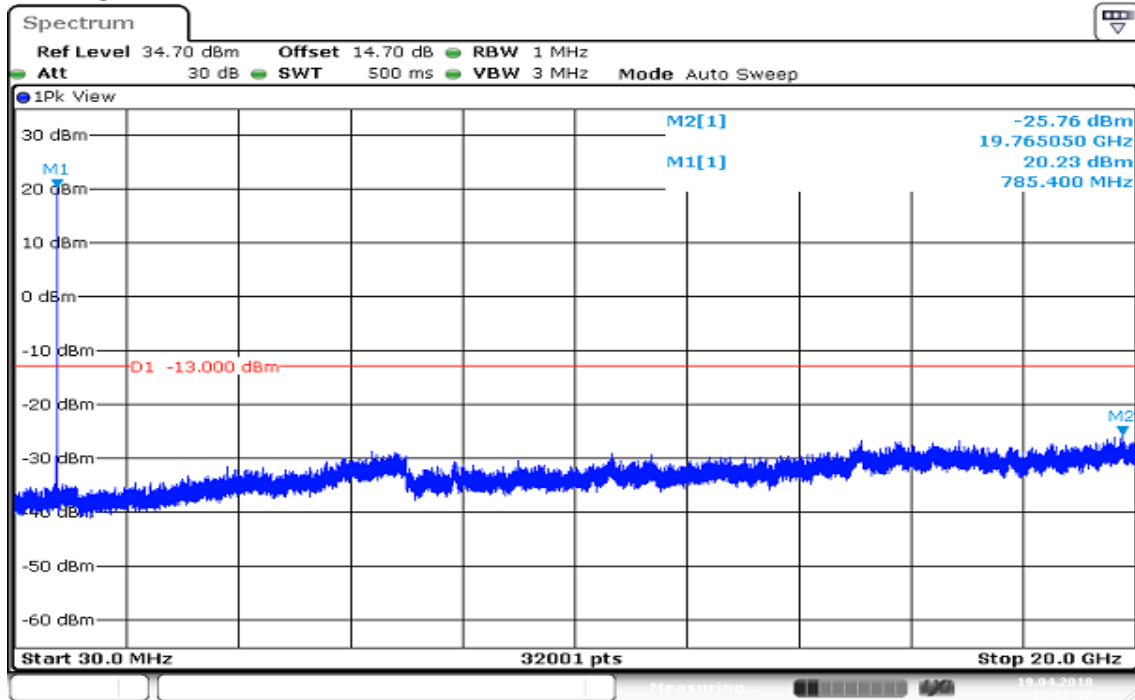
CH Low



CH Mid



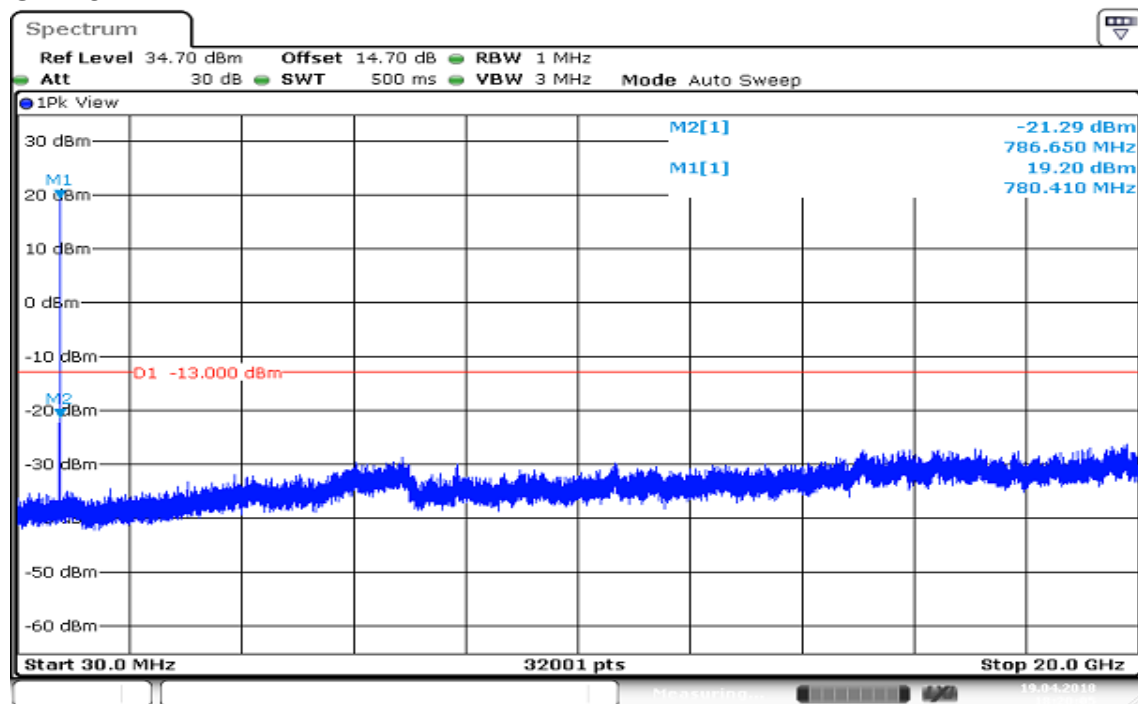
CH High



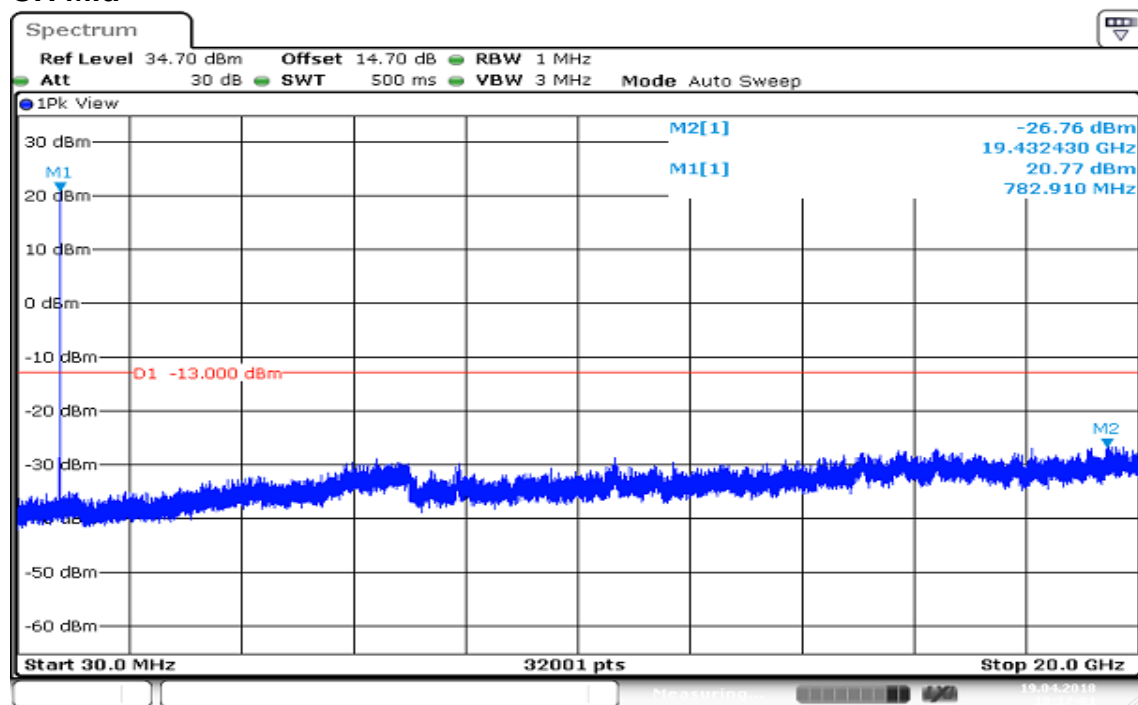
Date: 19 APR 2018 18:17:59

CHANNEL BANDWIDTH: 5MHz / 16QAM

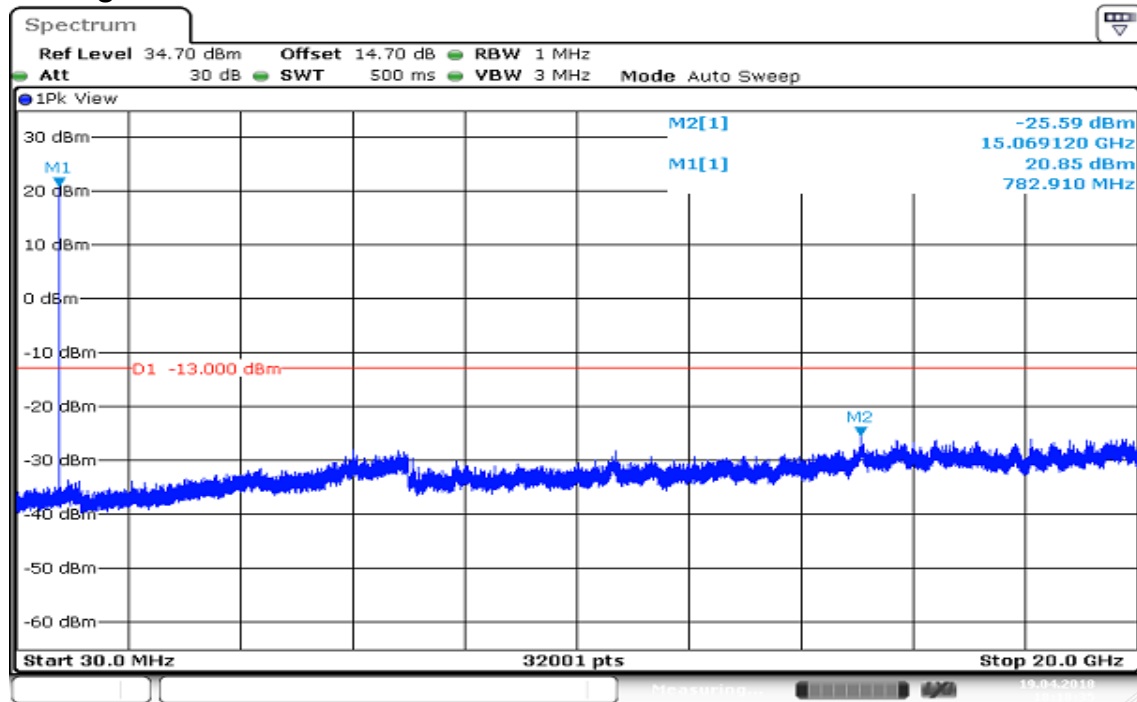
CH Low



CH Mid

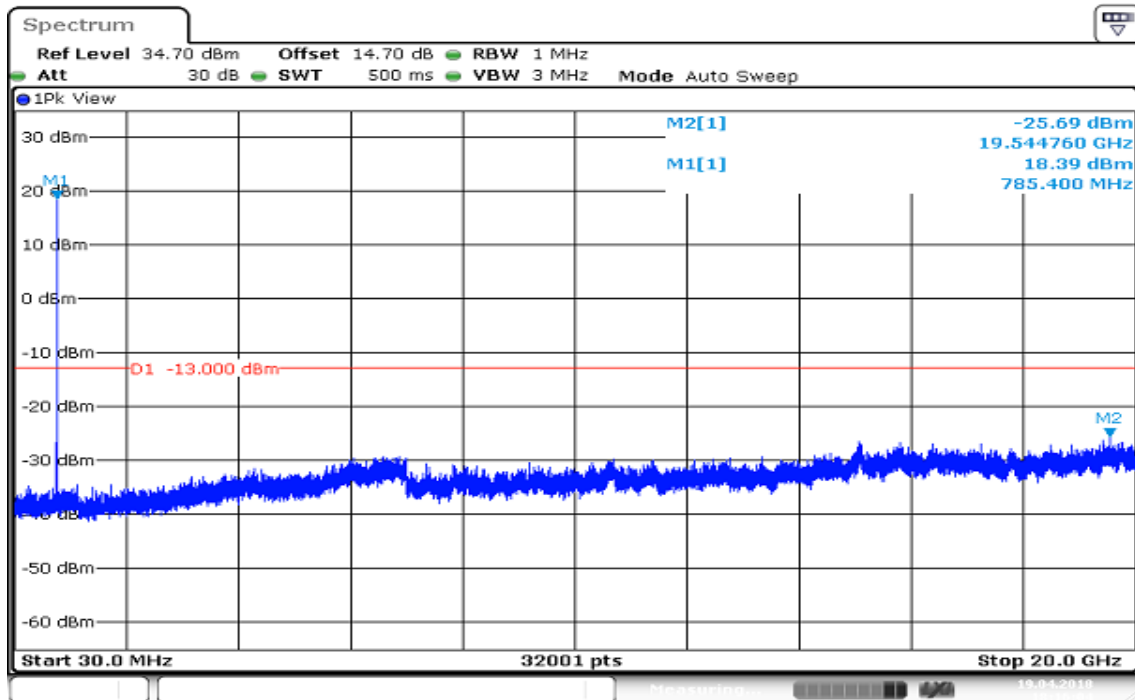


CH High

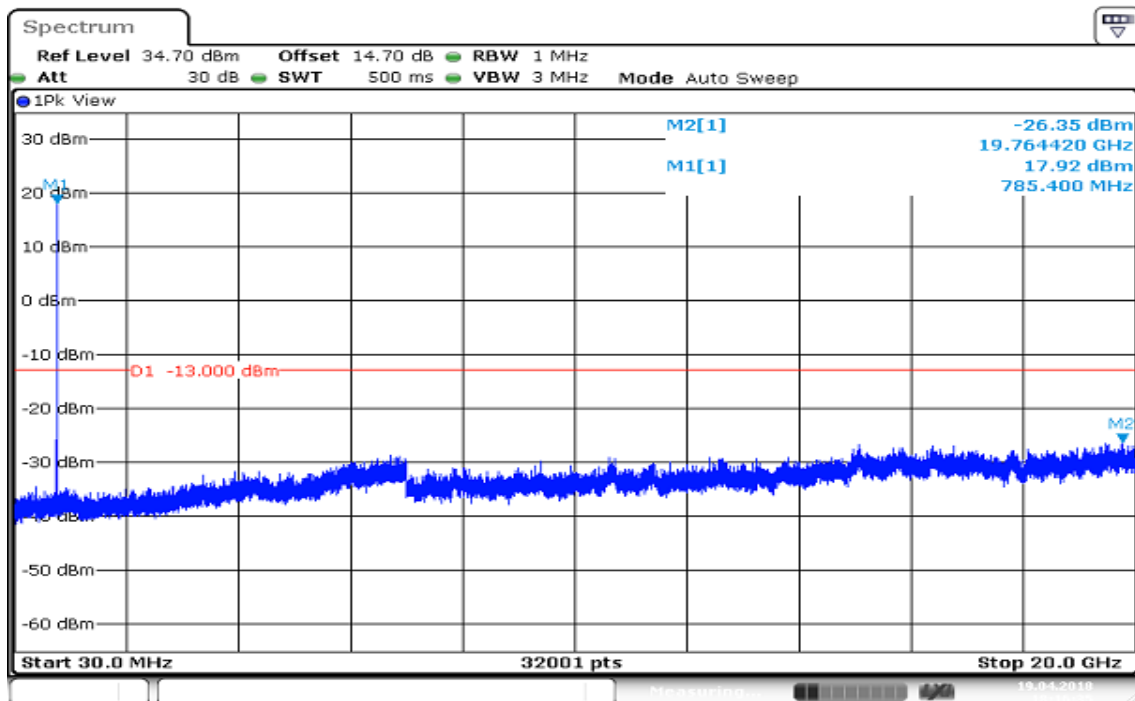


Date: 19 APR 2018 18:18:36

CHANNEL BANDWIDTH: 10MHz / QPSK CH Mid



CHANNEL BANDWIDTH: 10MHz / 16QAM CH Mid



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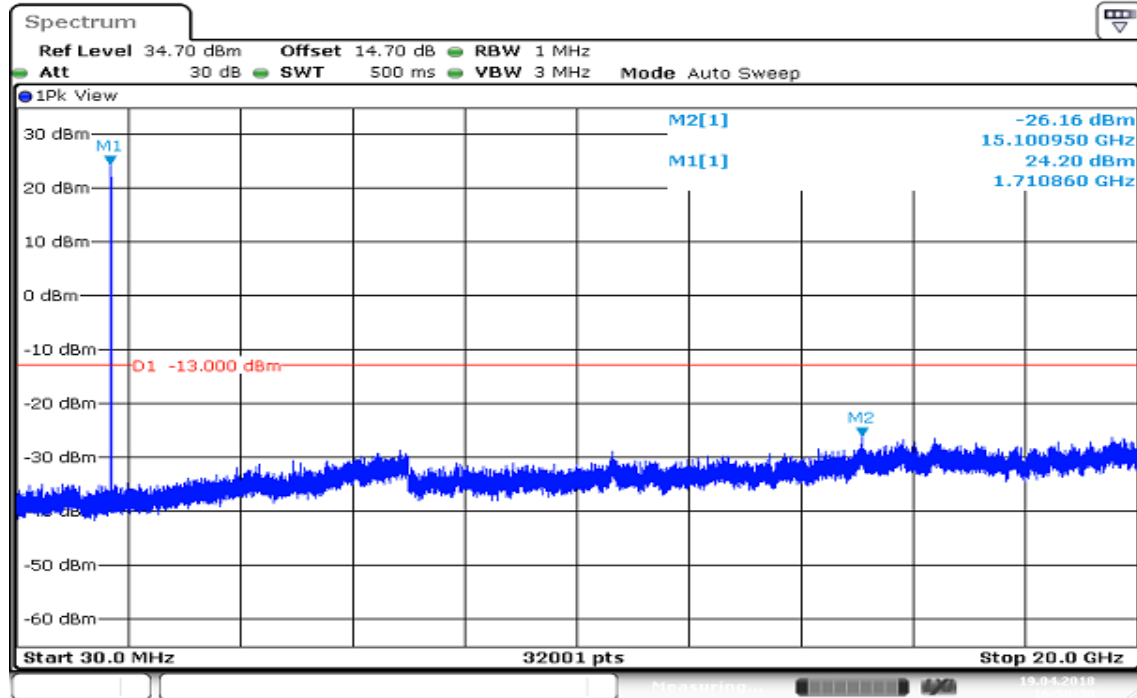
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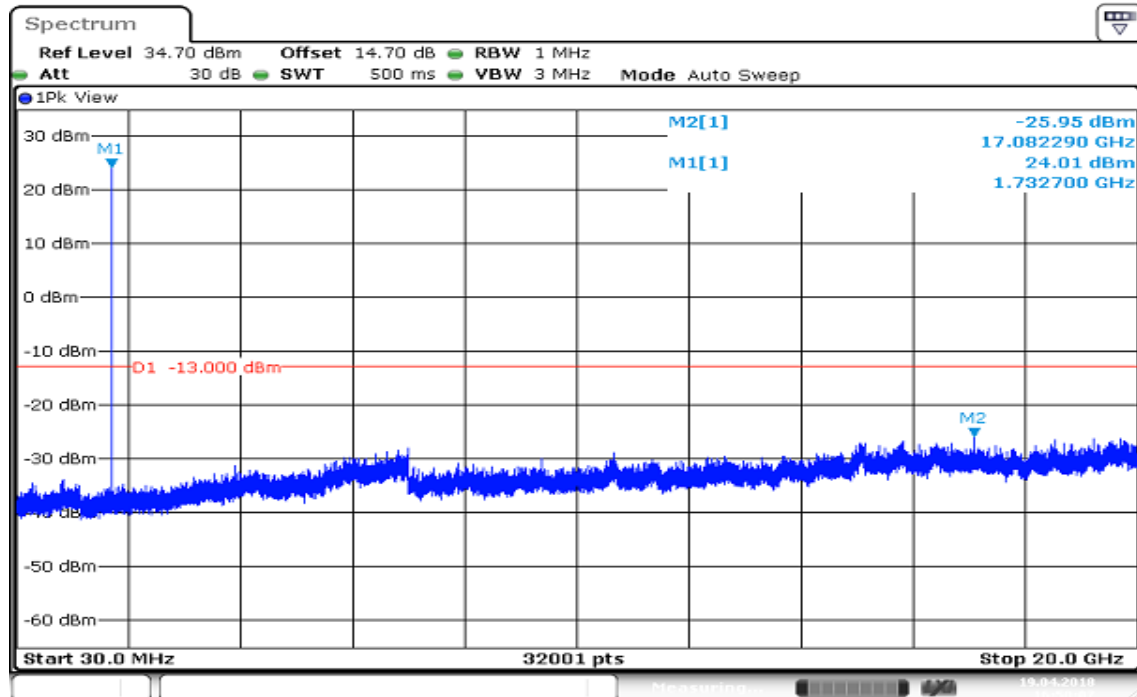
LTE Band 4

CHANNEL BANDWIDTH: 1.4MHz / QPSK

CH Low



CH Mid

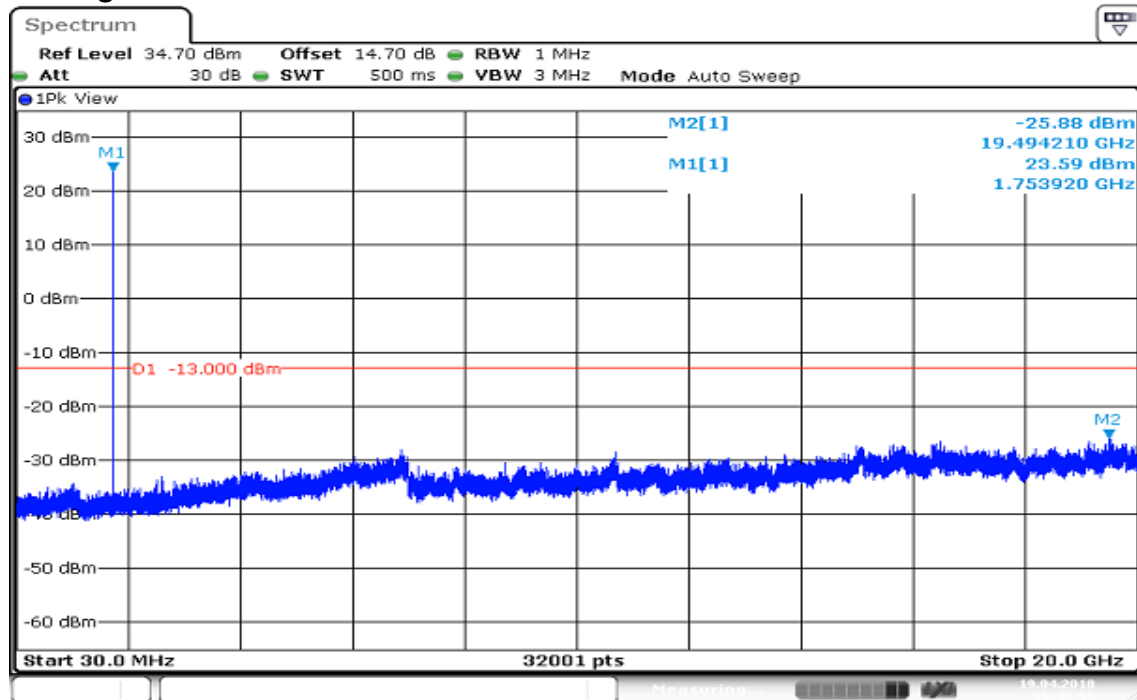




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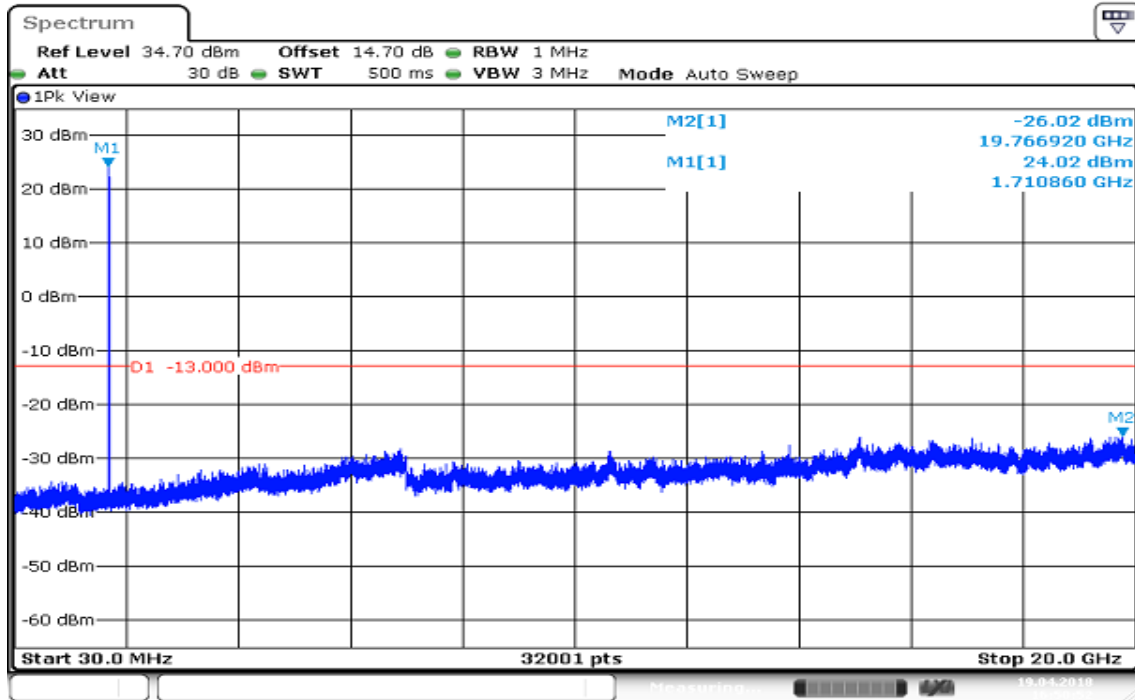
CH High



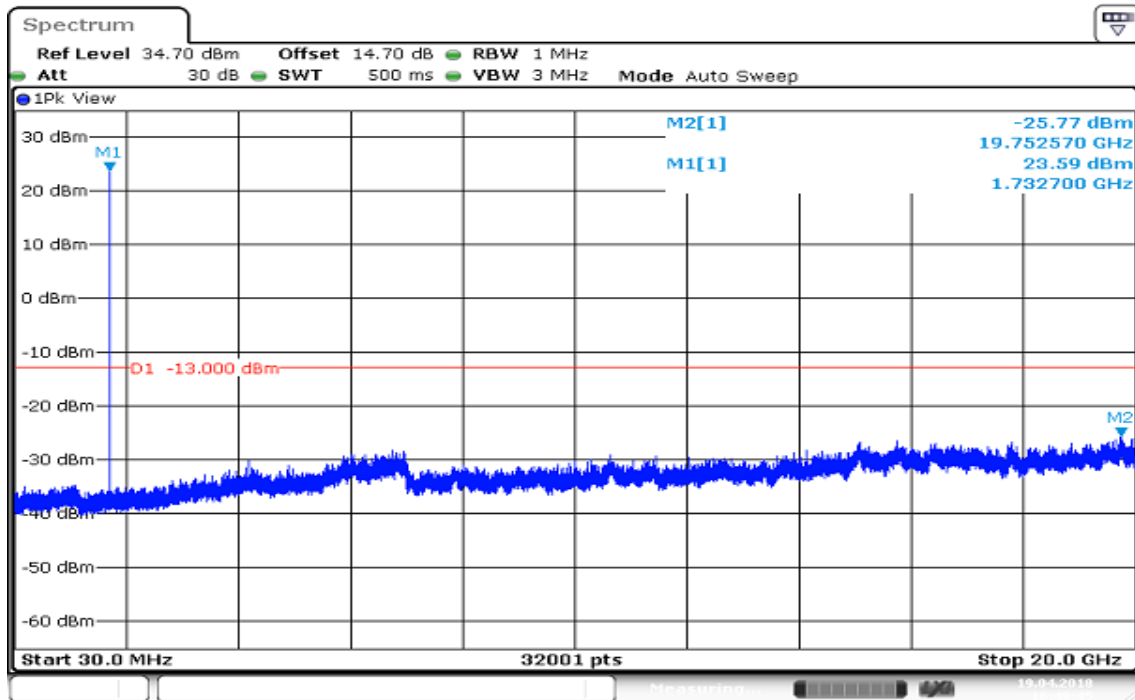
Date: 19 APR 2018 16:48:56

CHANNEL BANDWIDTH: 1.4MHz / 16QAM

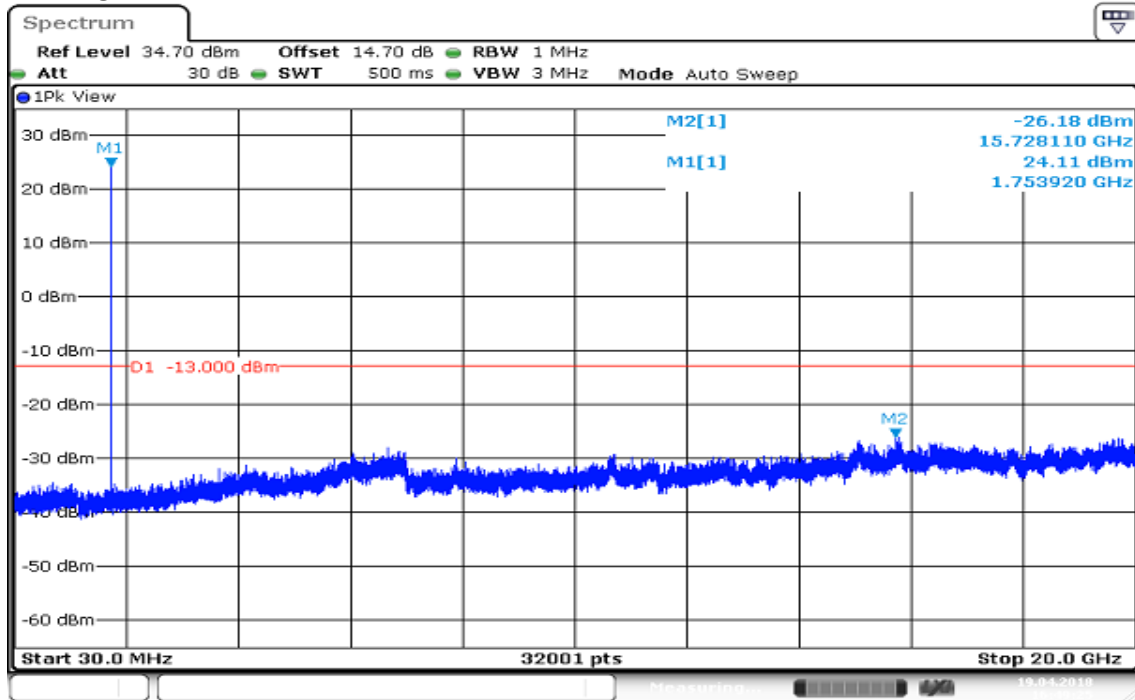
CH Low



CH Mid



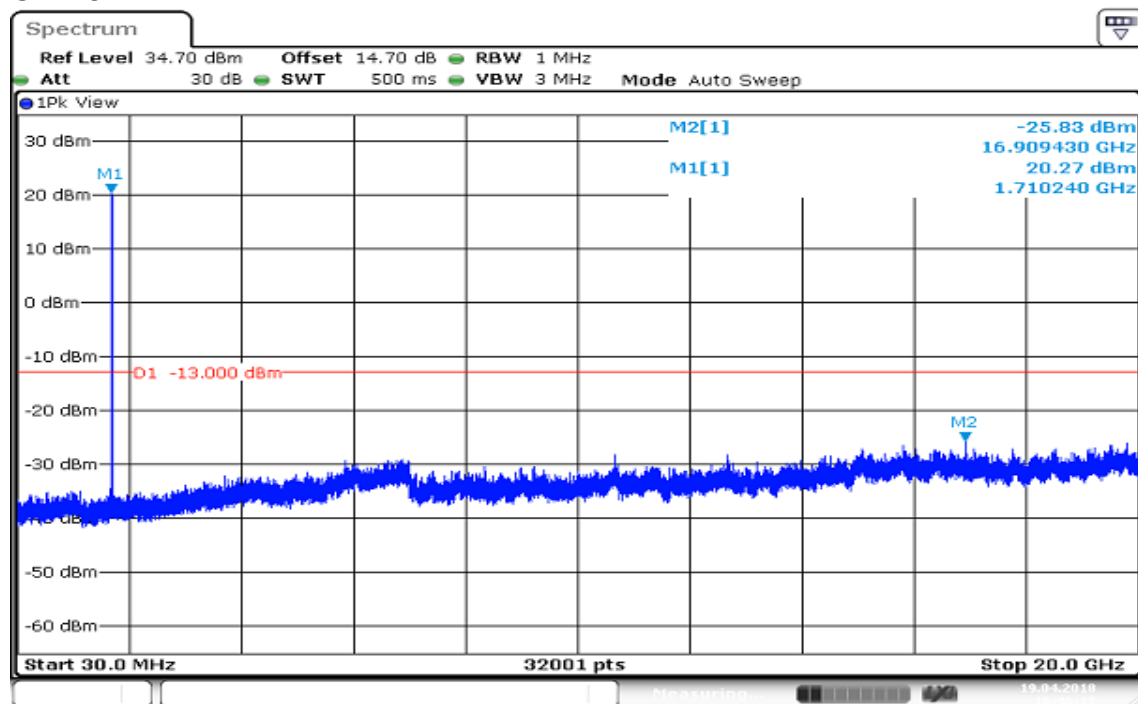
CH High



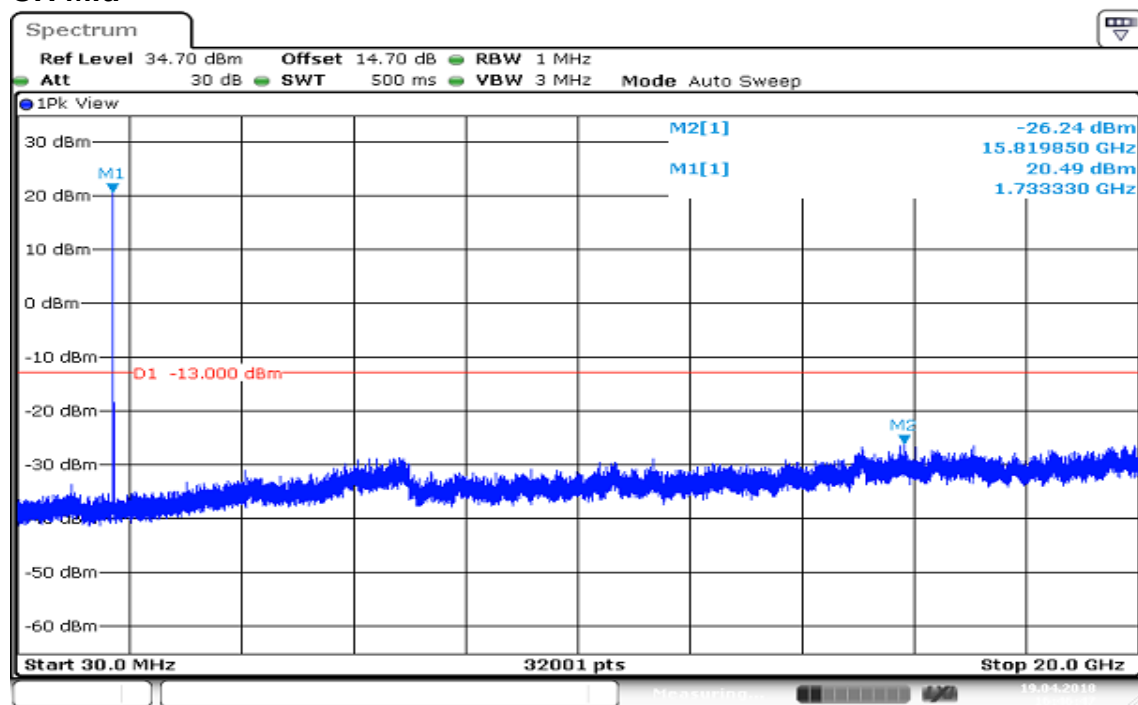
Date: 19 APR 2018 16:49:25

CHANNEL BANDWIDTH: 3MHz / QPSK

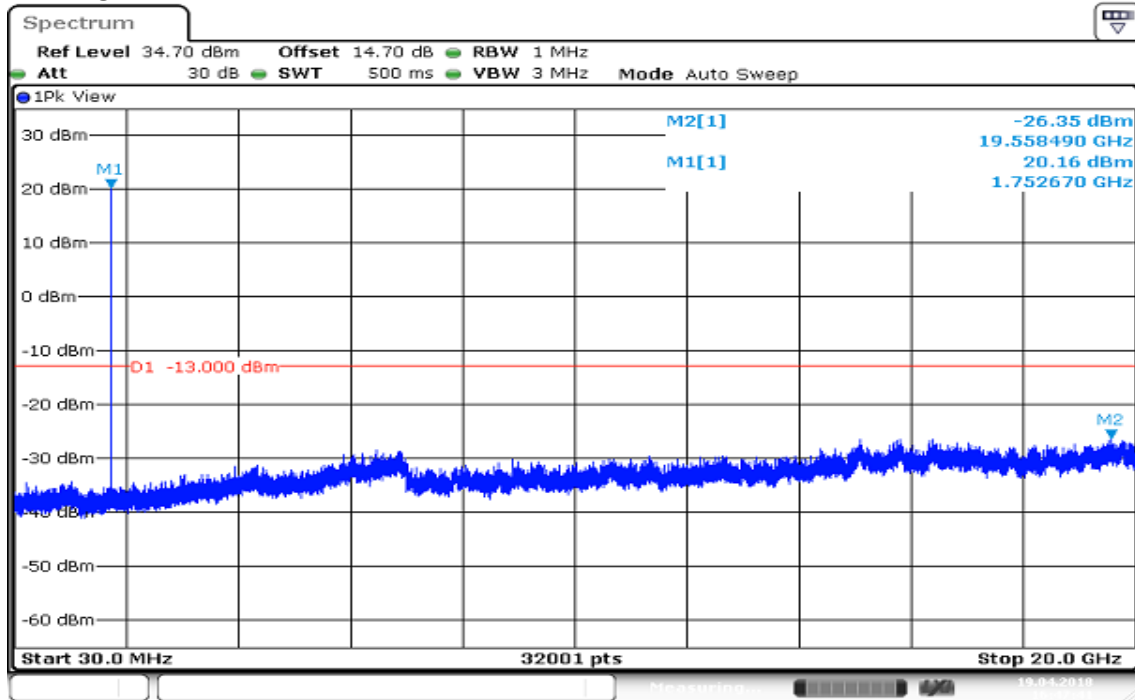
CH Low



CH Mid

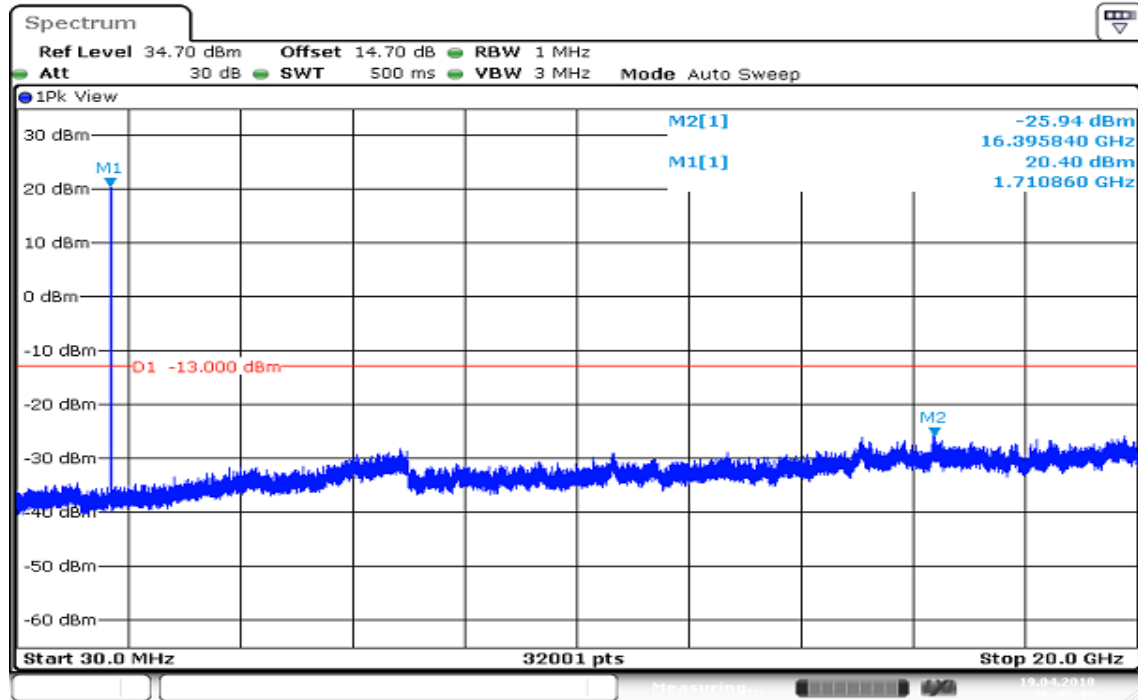


CH High

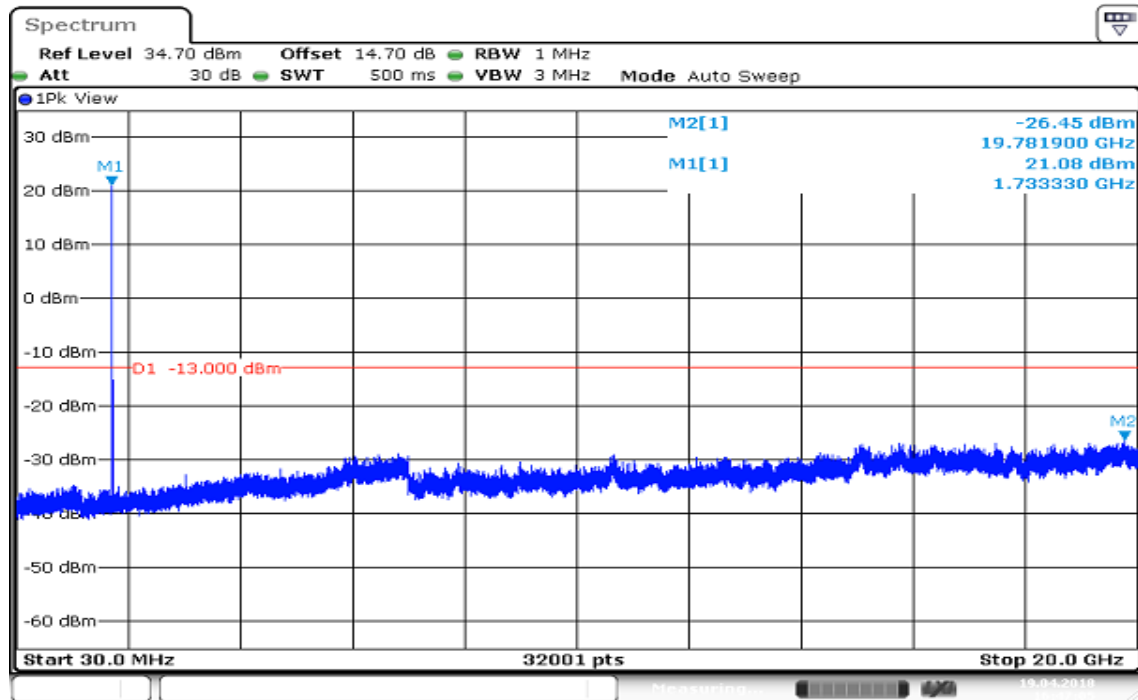


Date: 19 APR 2018 16:47:41

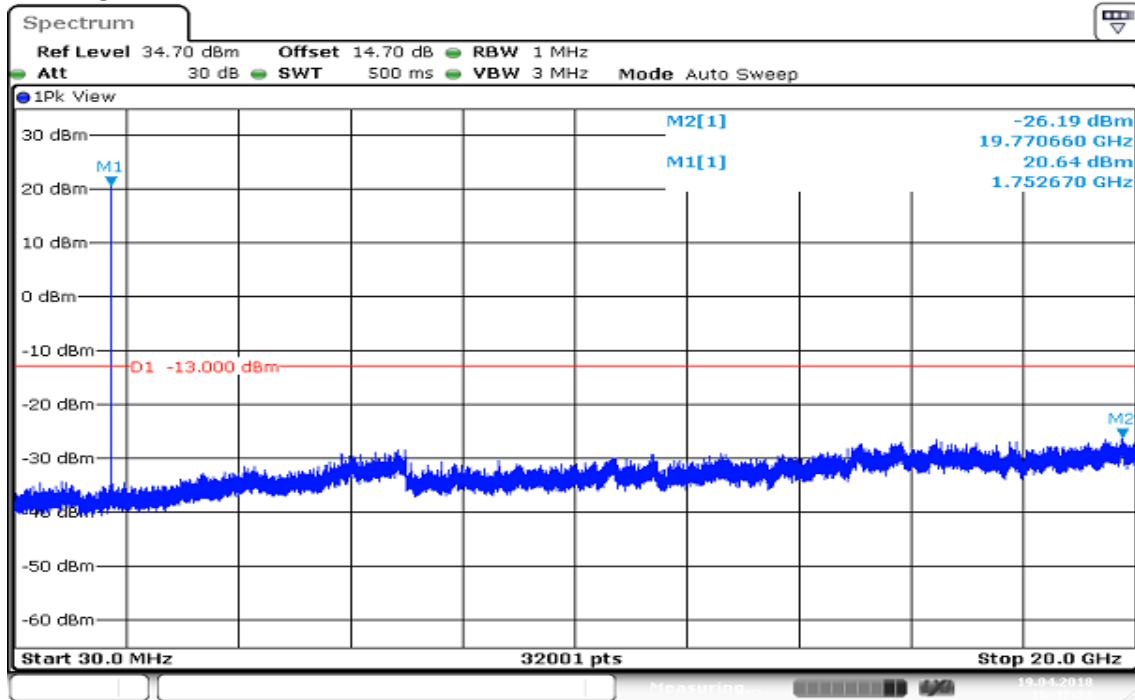
CHANNEL BANDWIDTH: 3MHz / 16QAM CH Low



CH Mid

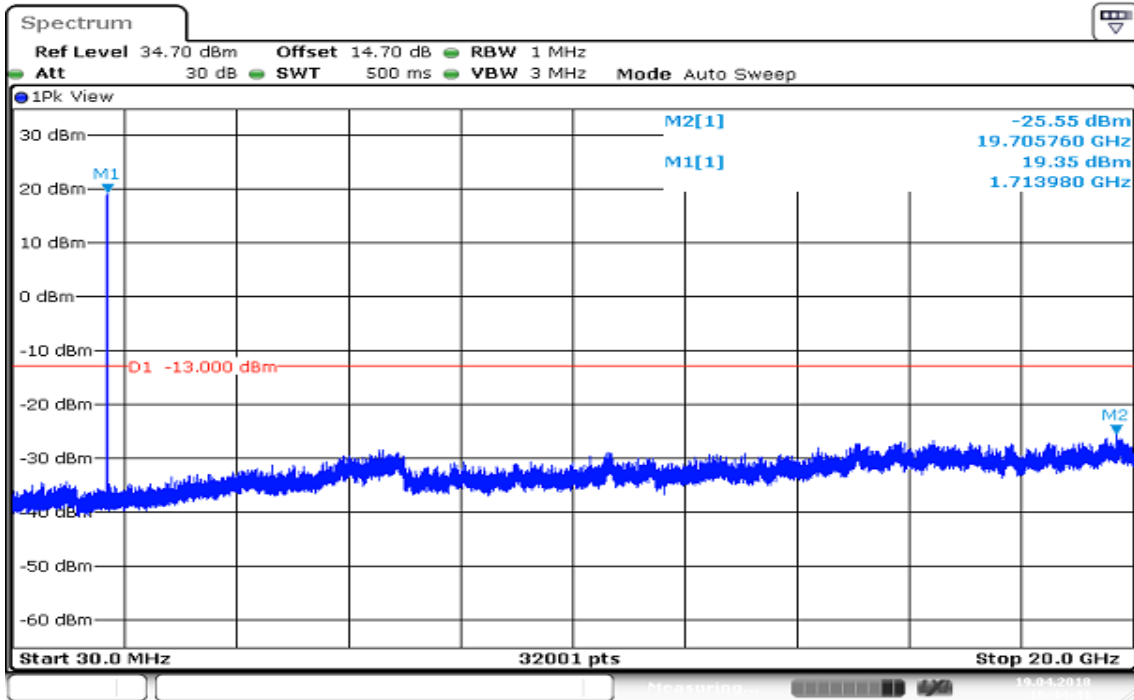


CH High

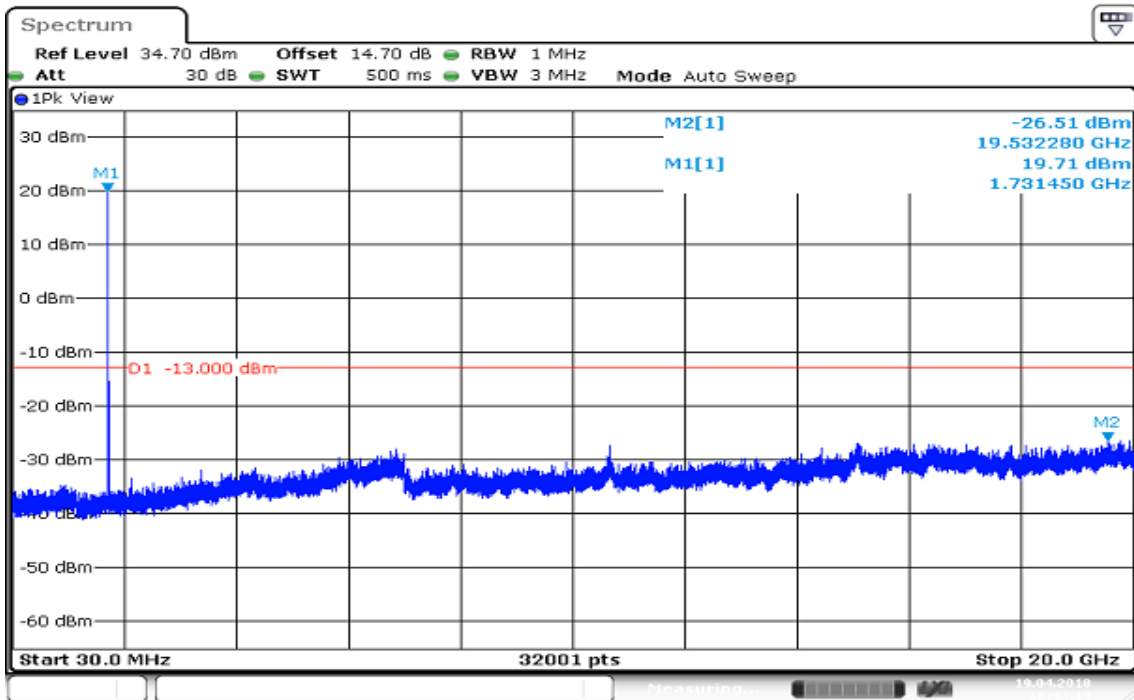


Date: 19 APR 2018 16:47:23

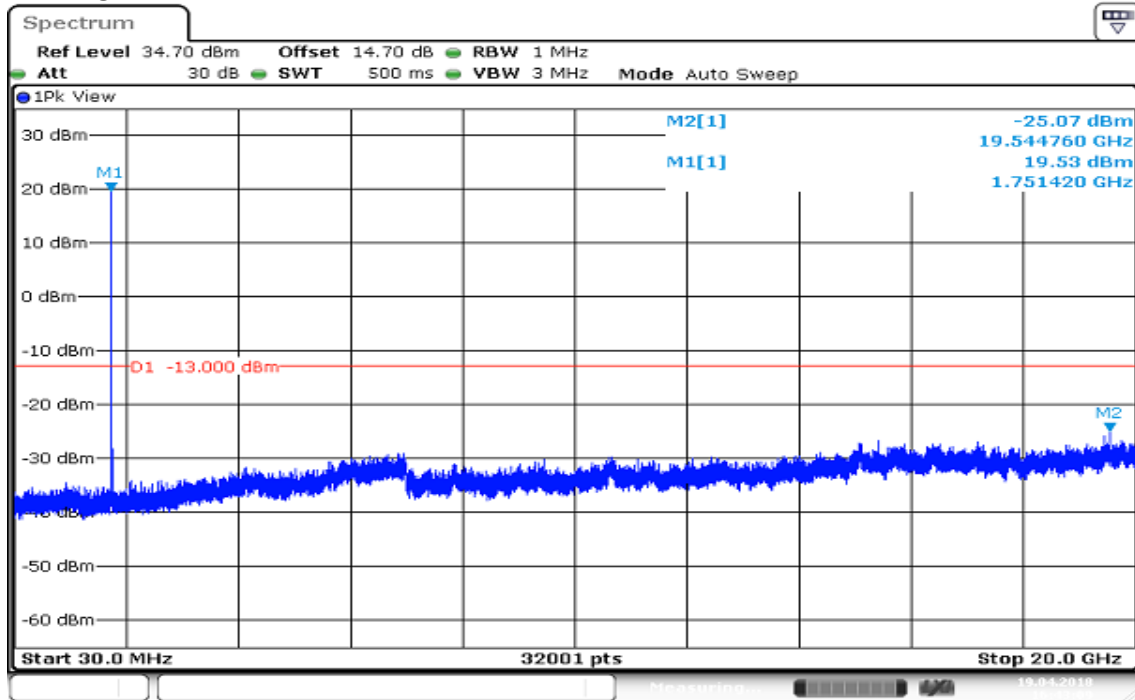
CHANNEL BANDWIDTH: 5MHz / QPSK CH Low



CH Mid



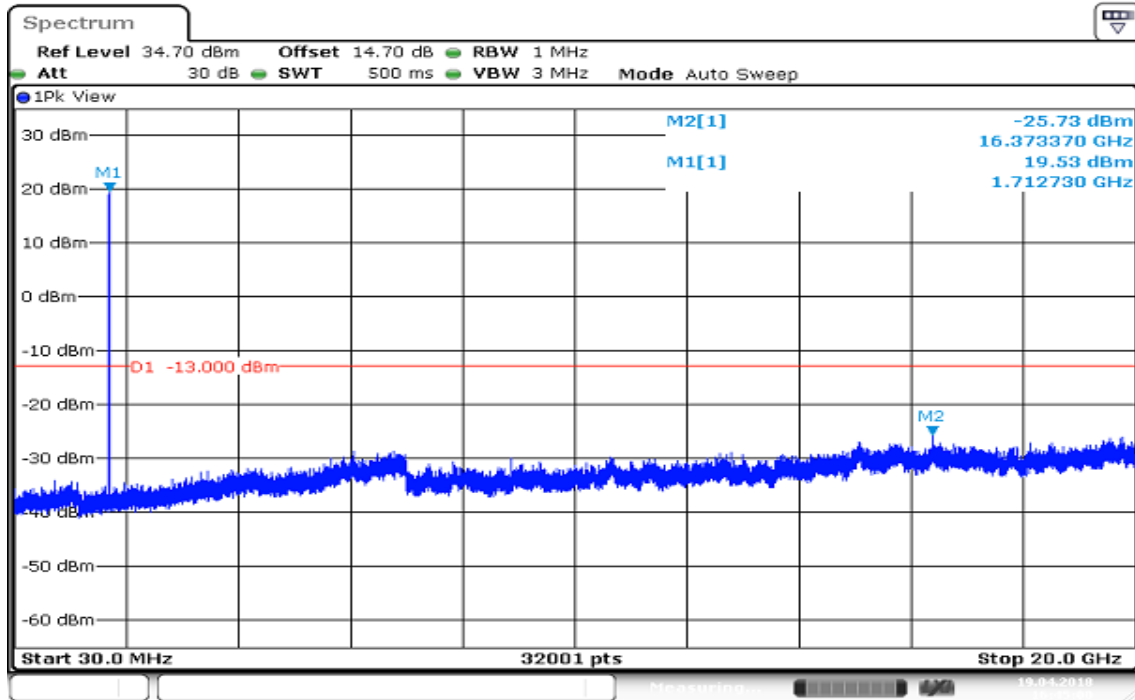
CH High



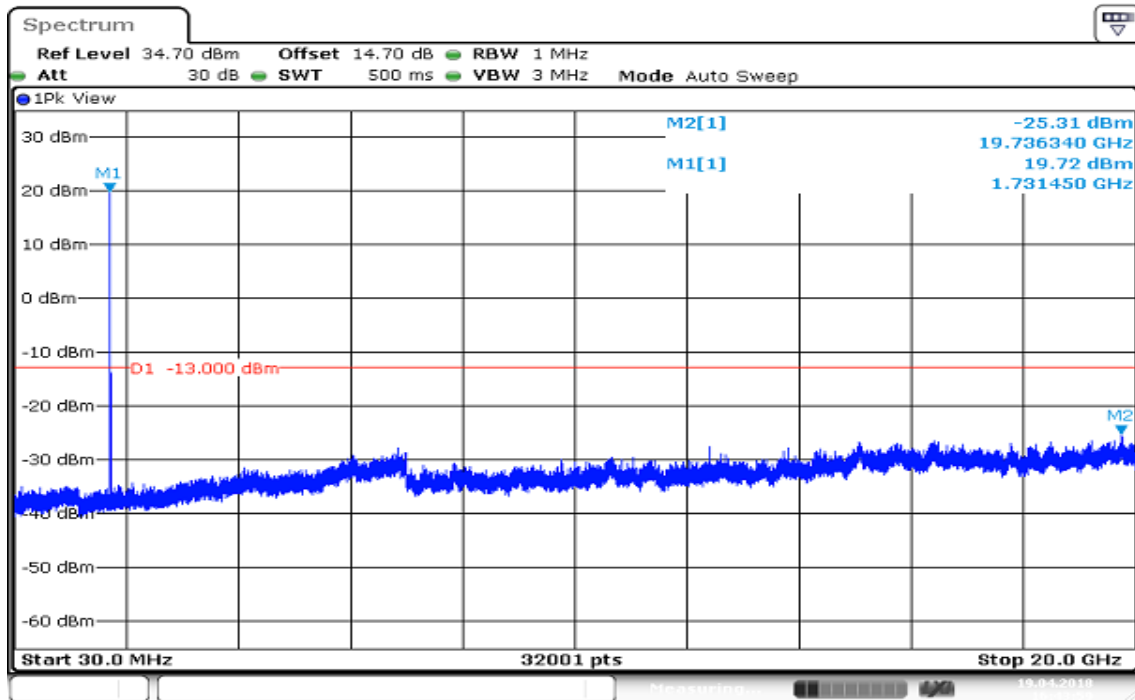
Date: 19 APR 2018 16:43:09

CHANNEL BANDWIDTH: 5MHz / 16QAM

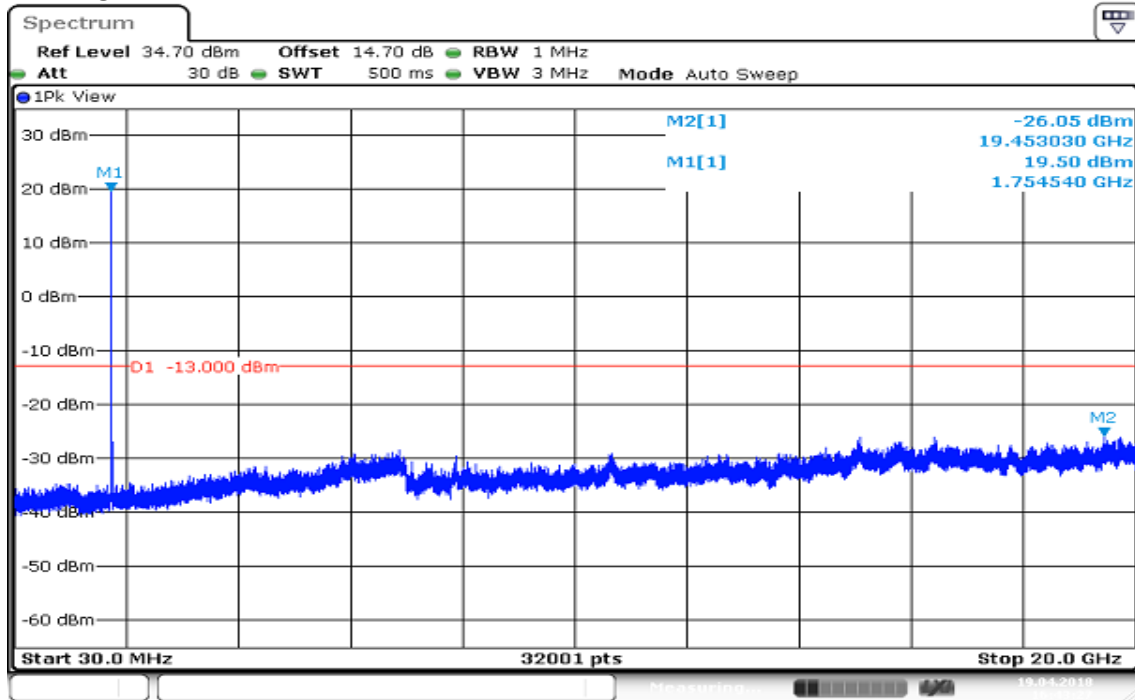
CH Low



CH Mid

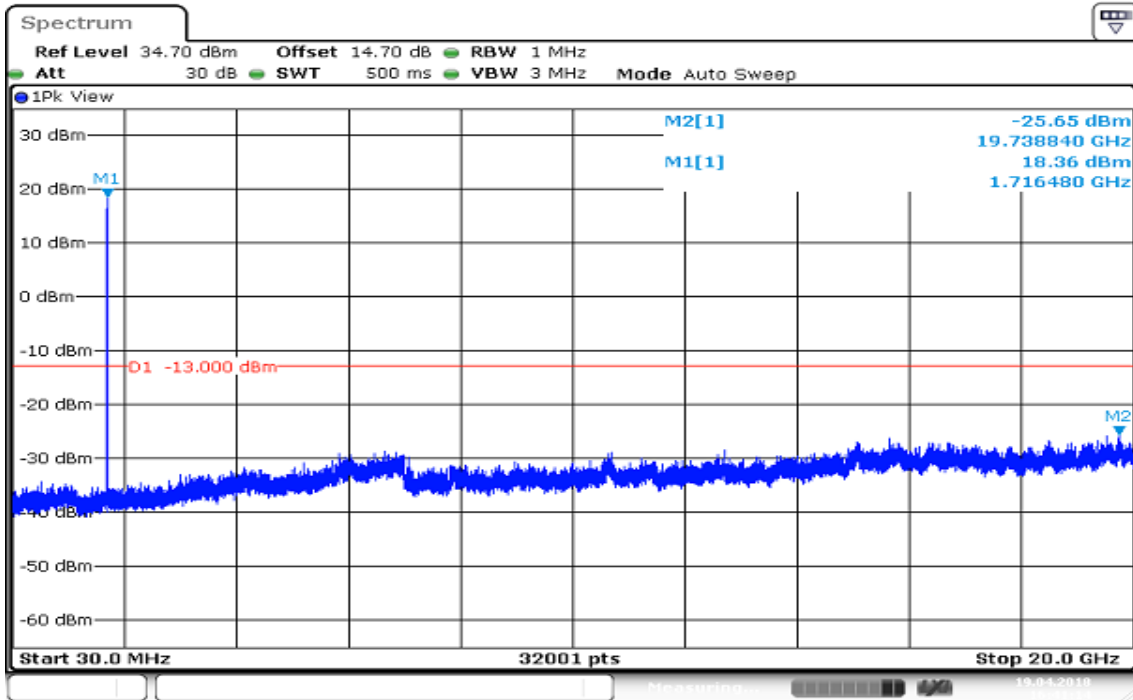


CH High

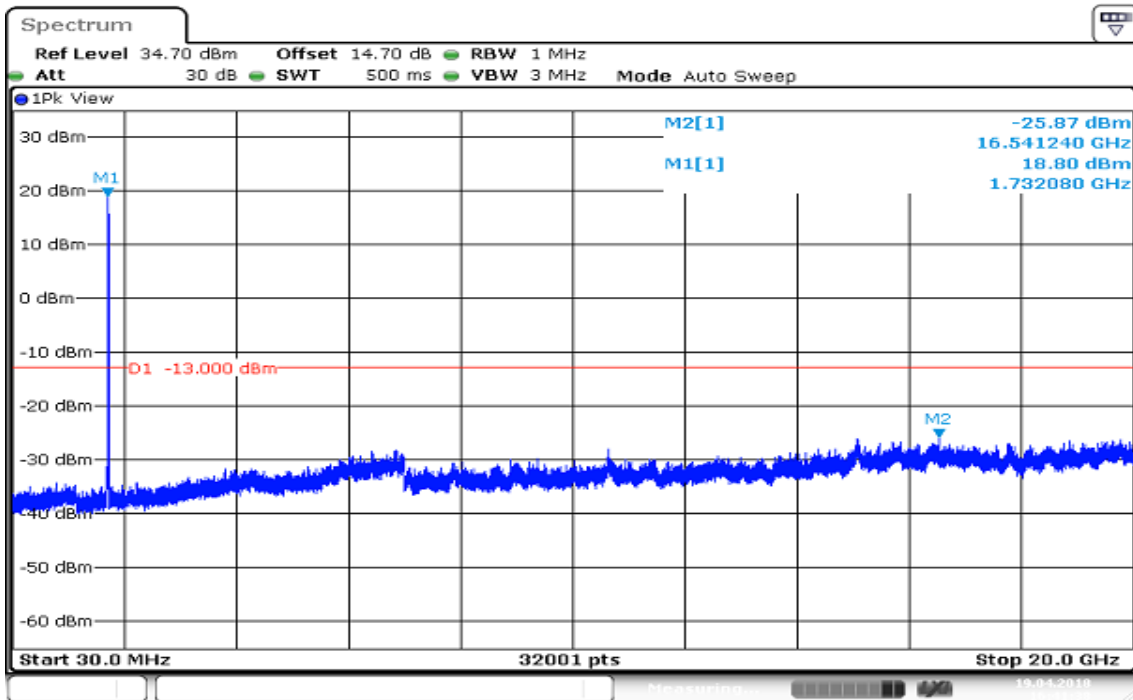


Date: 19.APR.2018 16:43:27

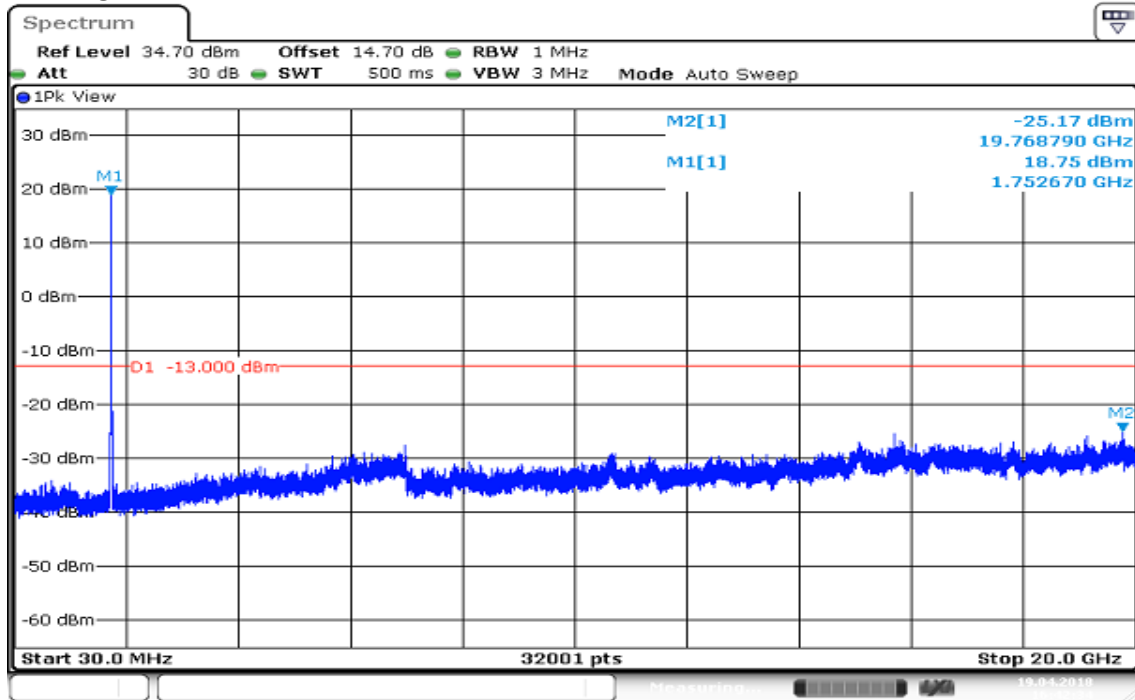
CHANNEL BANDWIDTH: 10MHz / QPSK CH Low



CH Mid

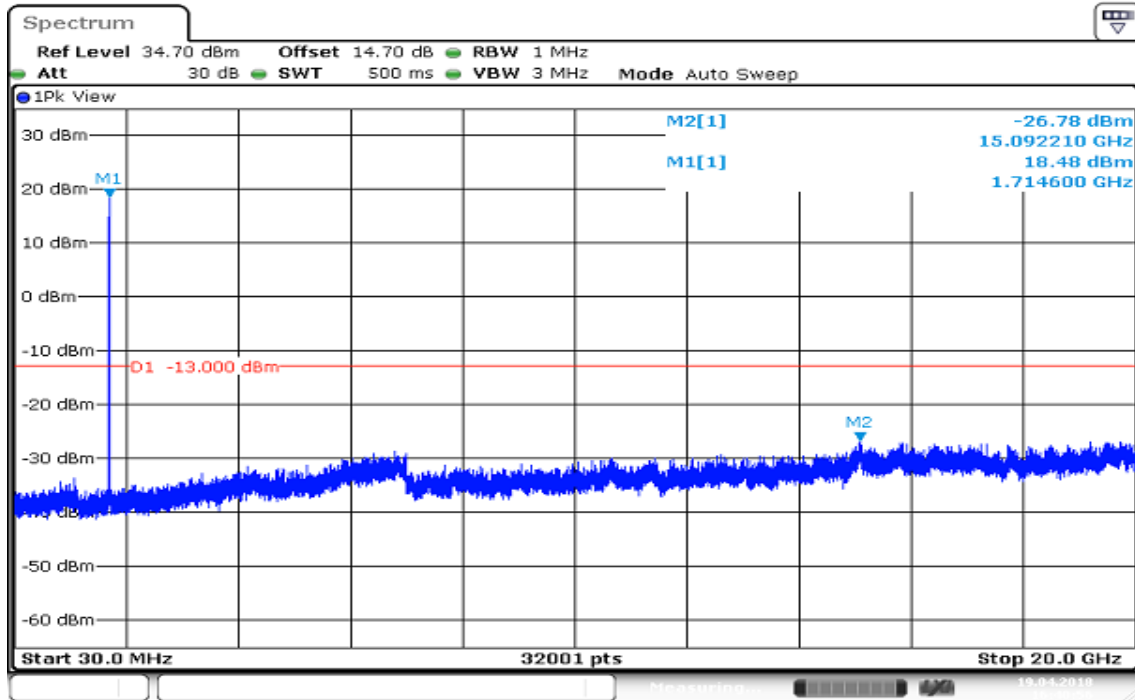


CH High

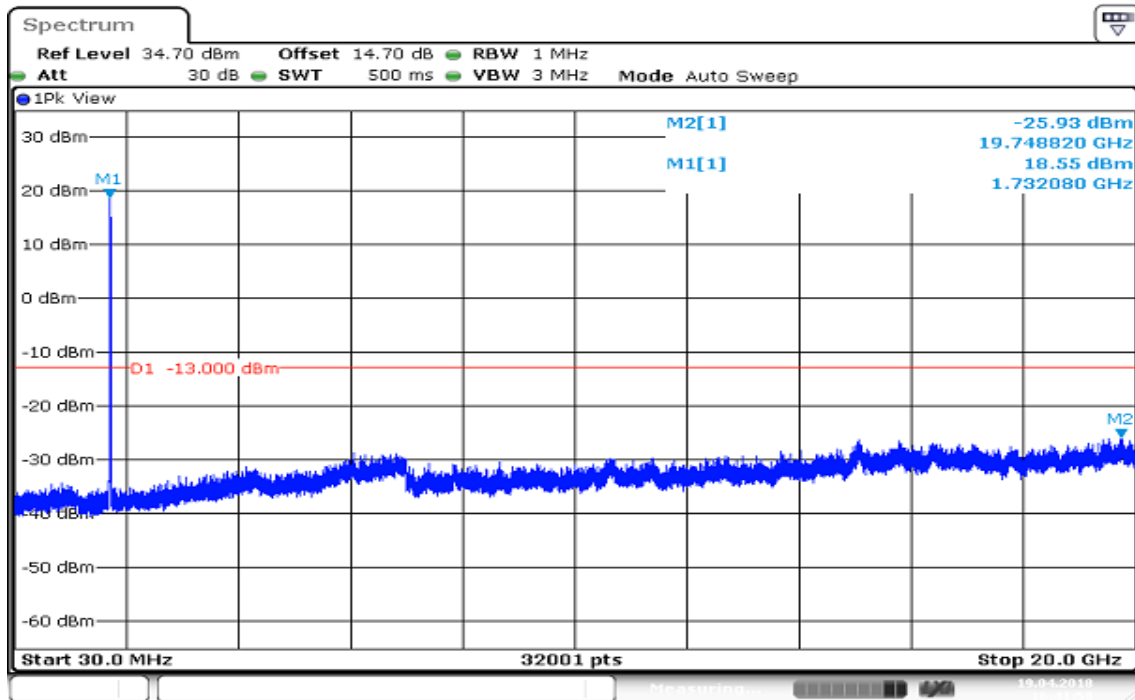


Date: 19 APR 2018 16:42:34

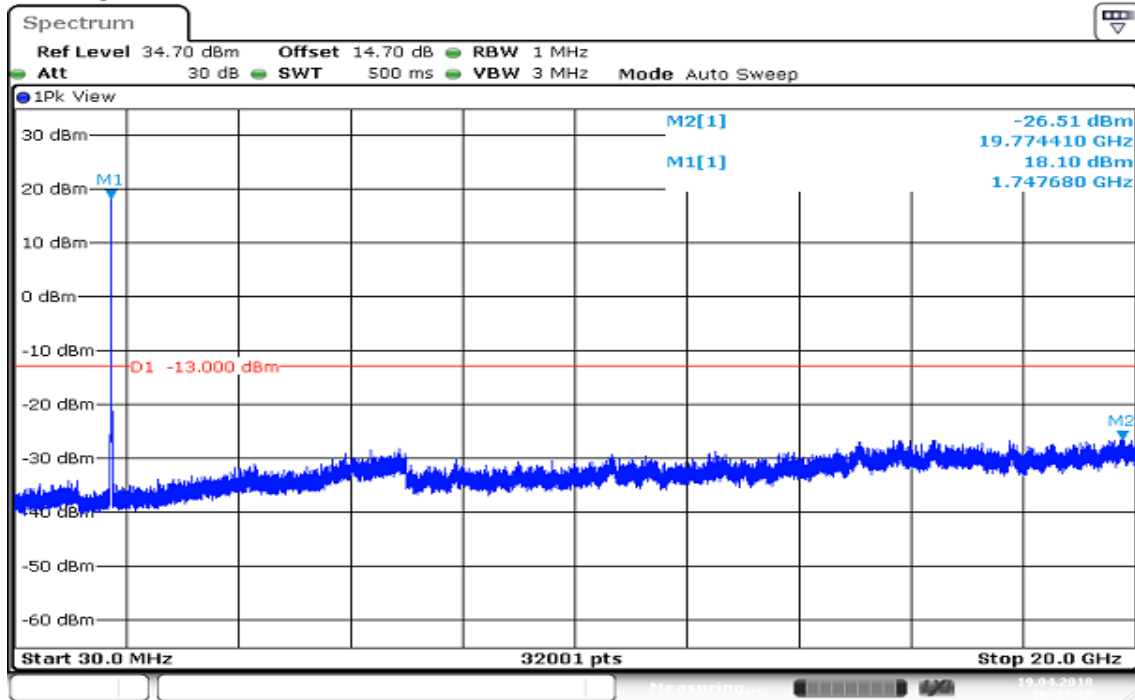
CHANNEL BANDWIDTH: 10MHz / 16QAM CH Low



CH Mid

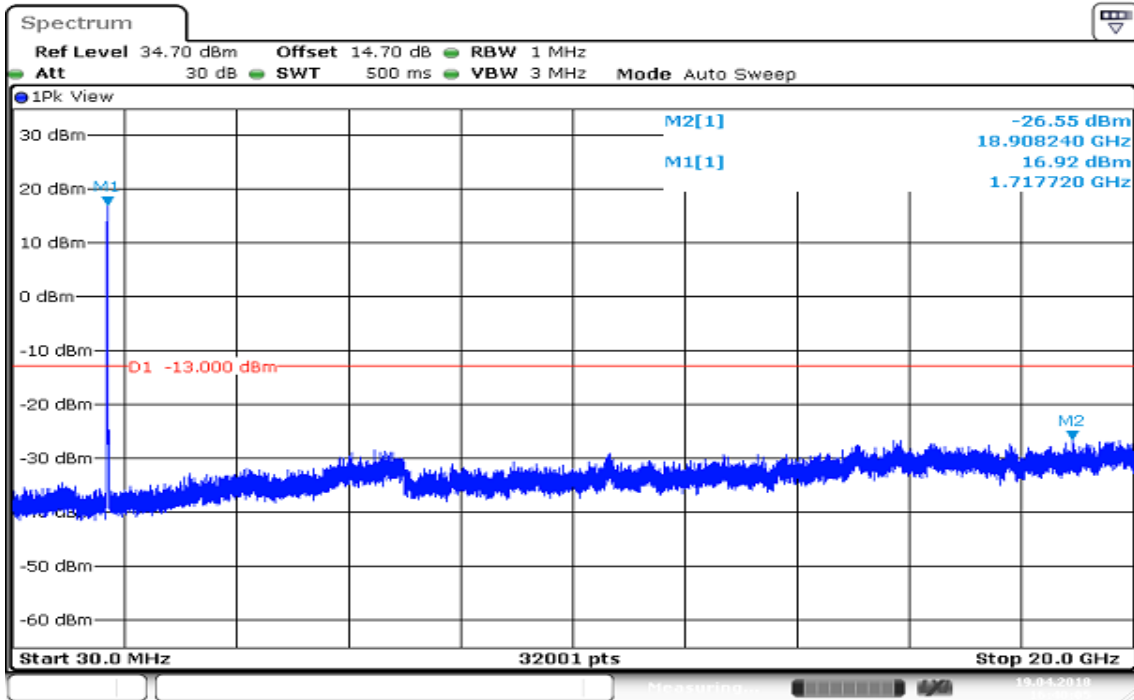


CH High

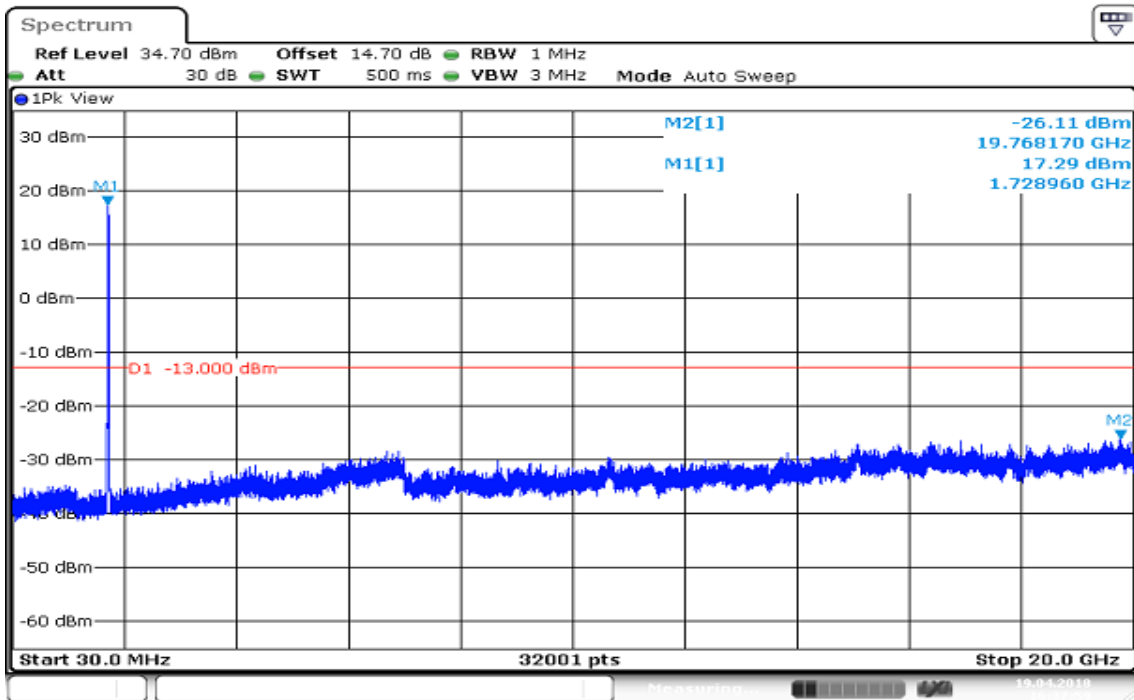


Date: 19 APR 2018 16:42:17

CHANNEL BANDWIDTH: 15MHz / QPSK CH Low

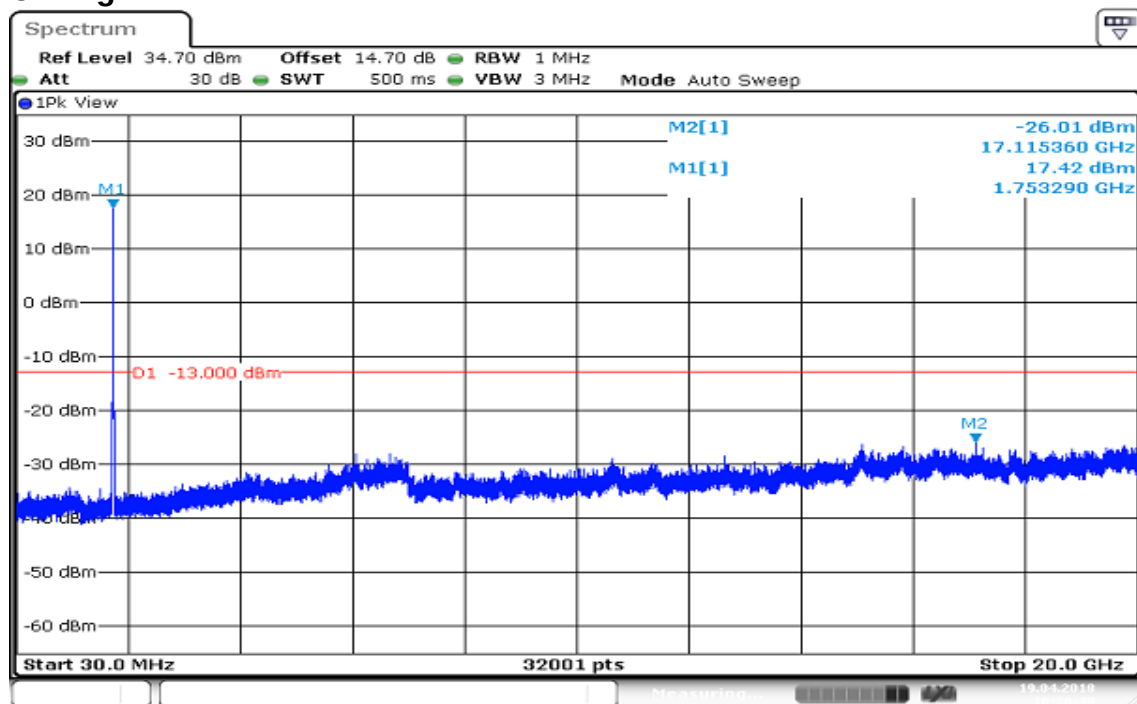


CH Mid



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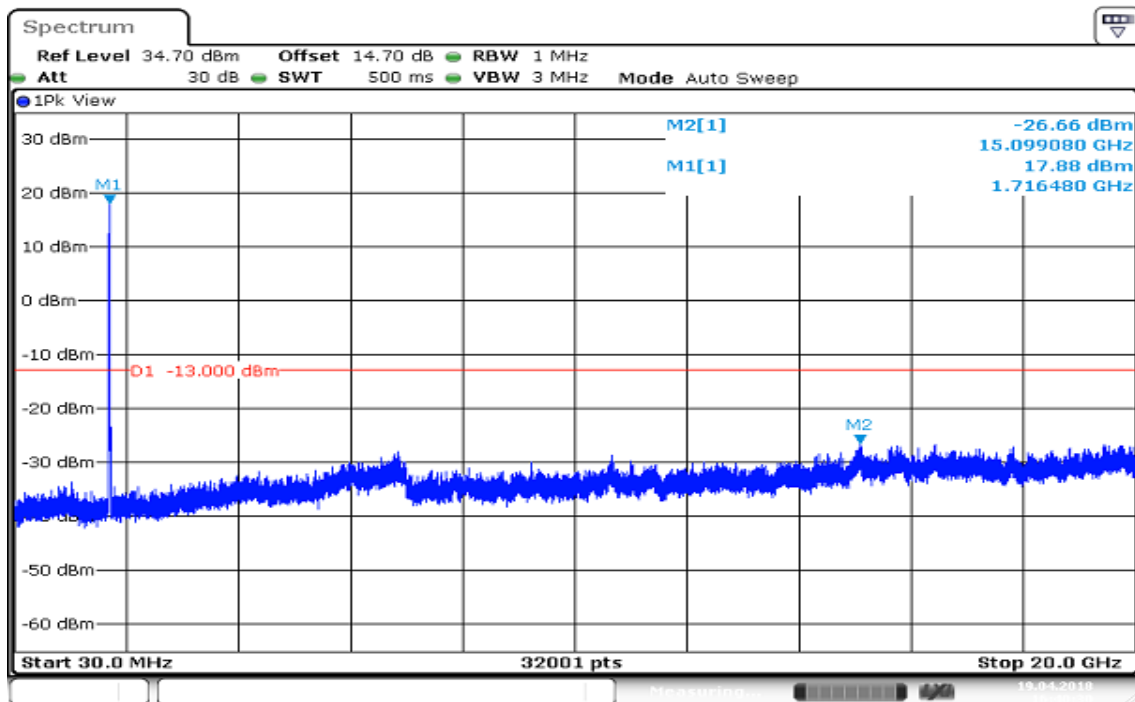
CH High



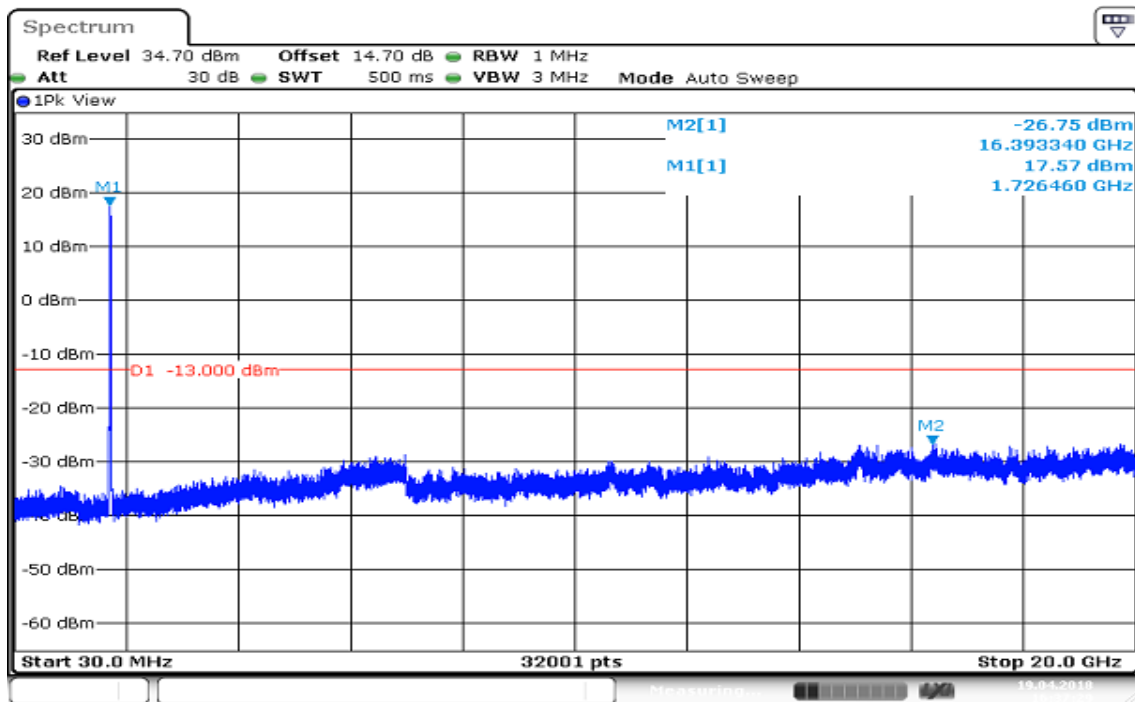
Date: 19 APR 2018 16:36:41

CHANNEL BANDWIDTH: 15MHz / 16QAM

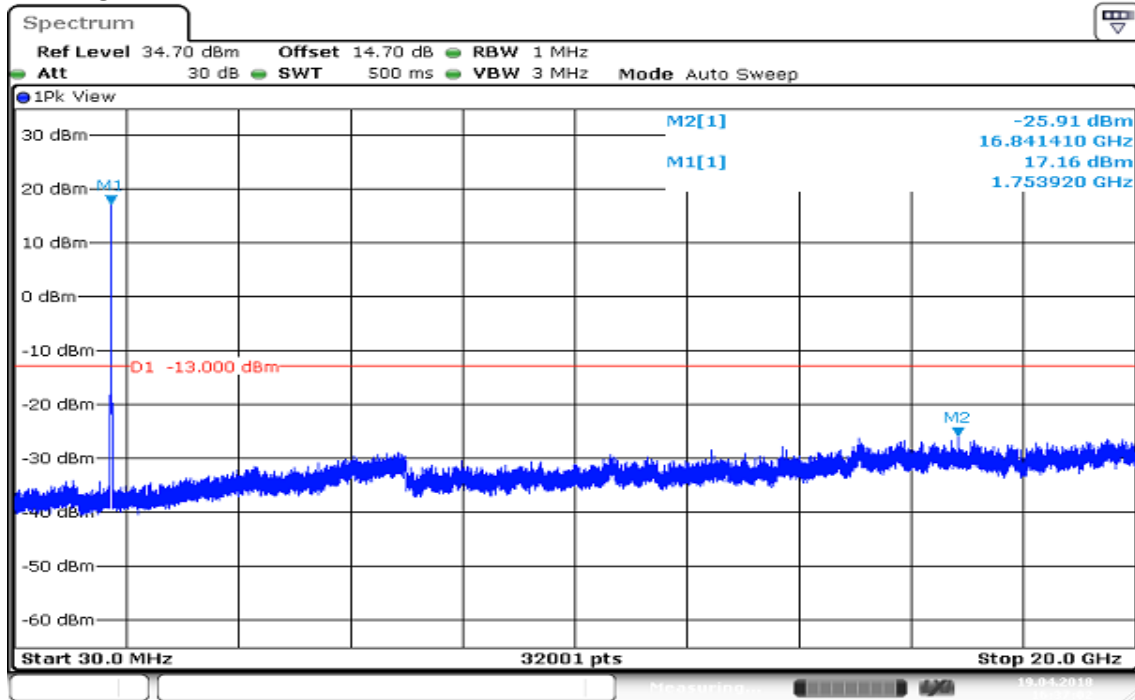
CH Low



CH Mid

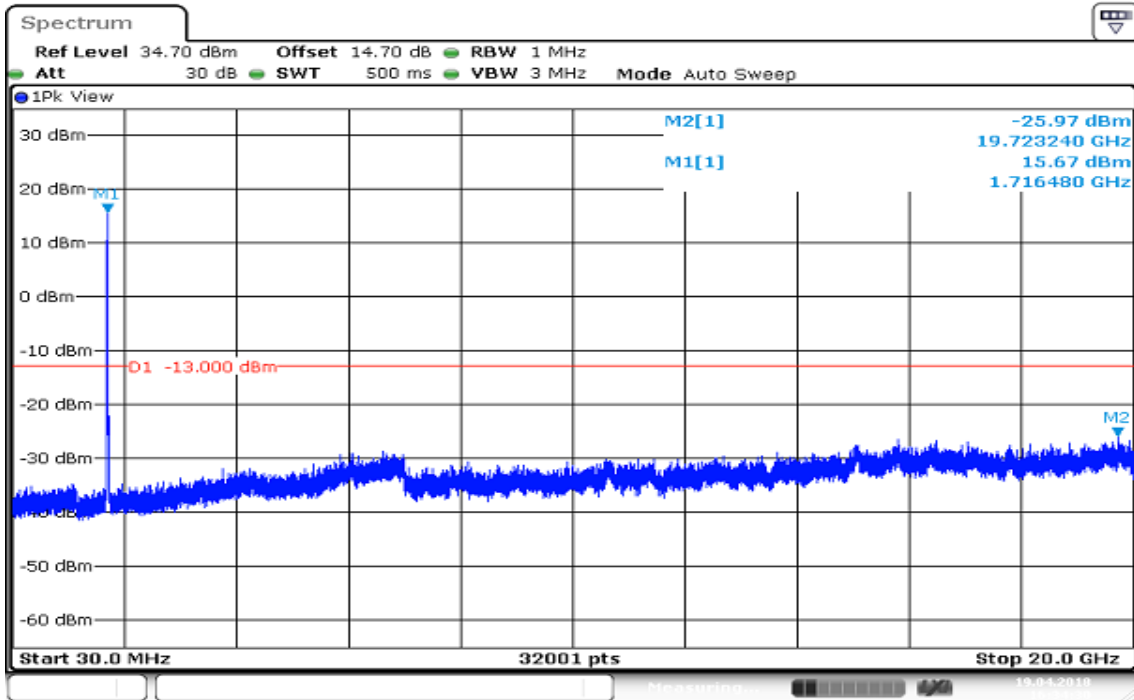


CH High

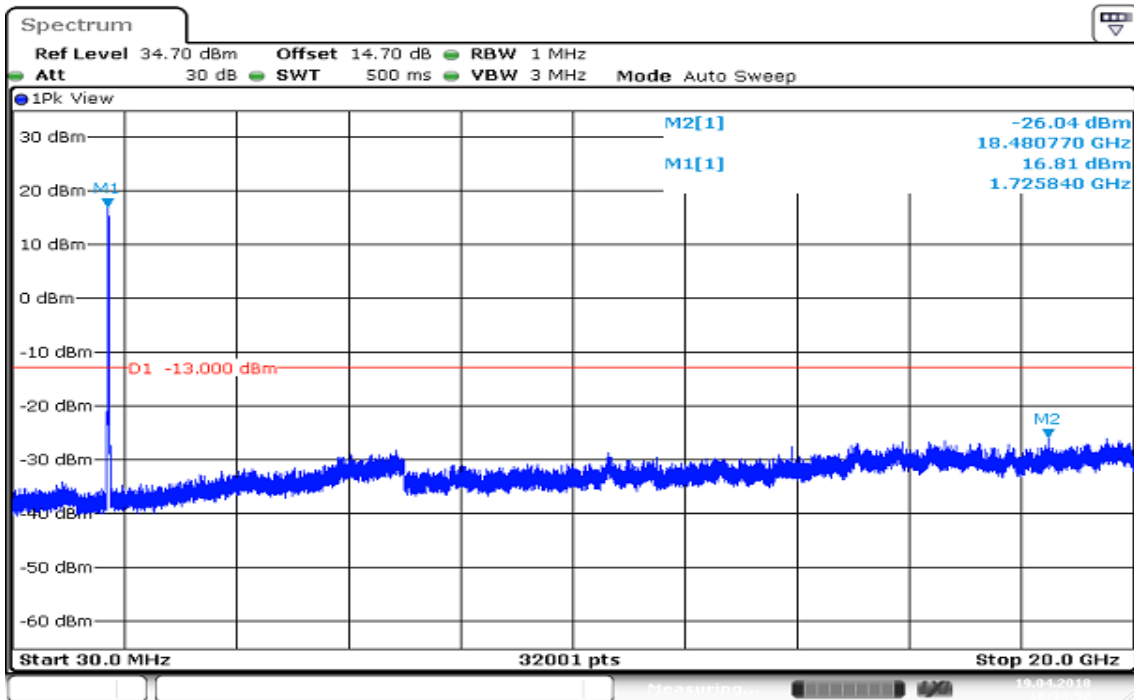


Date: 19 APR 2018 16:37:02

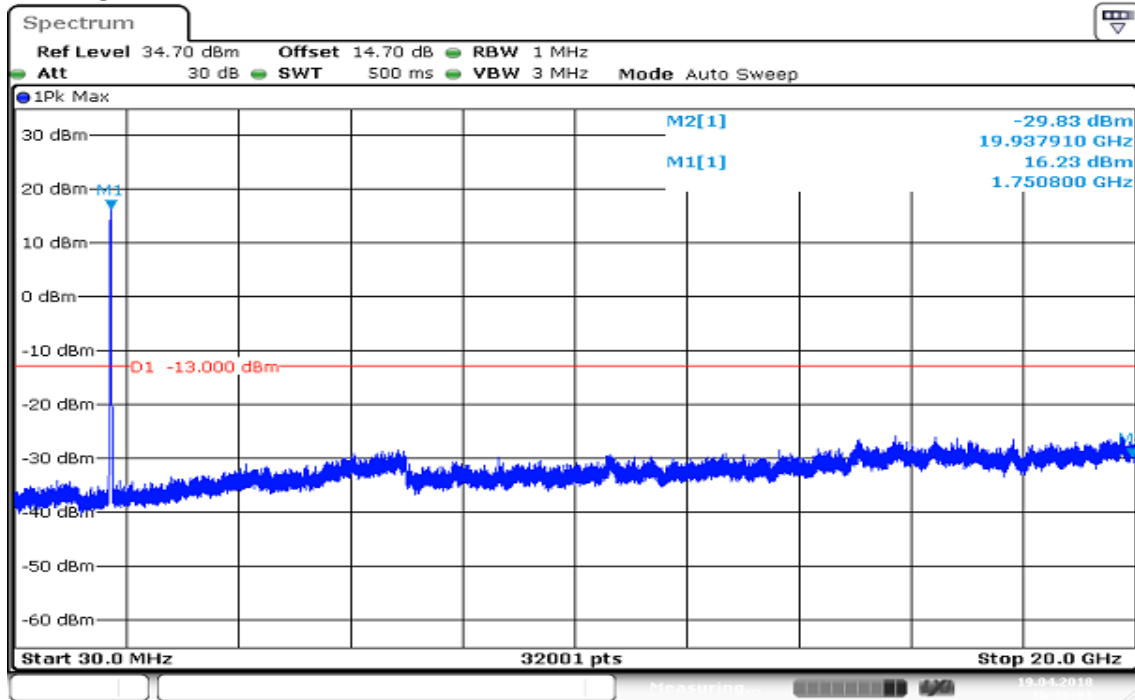
CHANNEL BANDWIDTH: 20MHz / QPSK CH Low



CH Mid



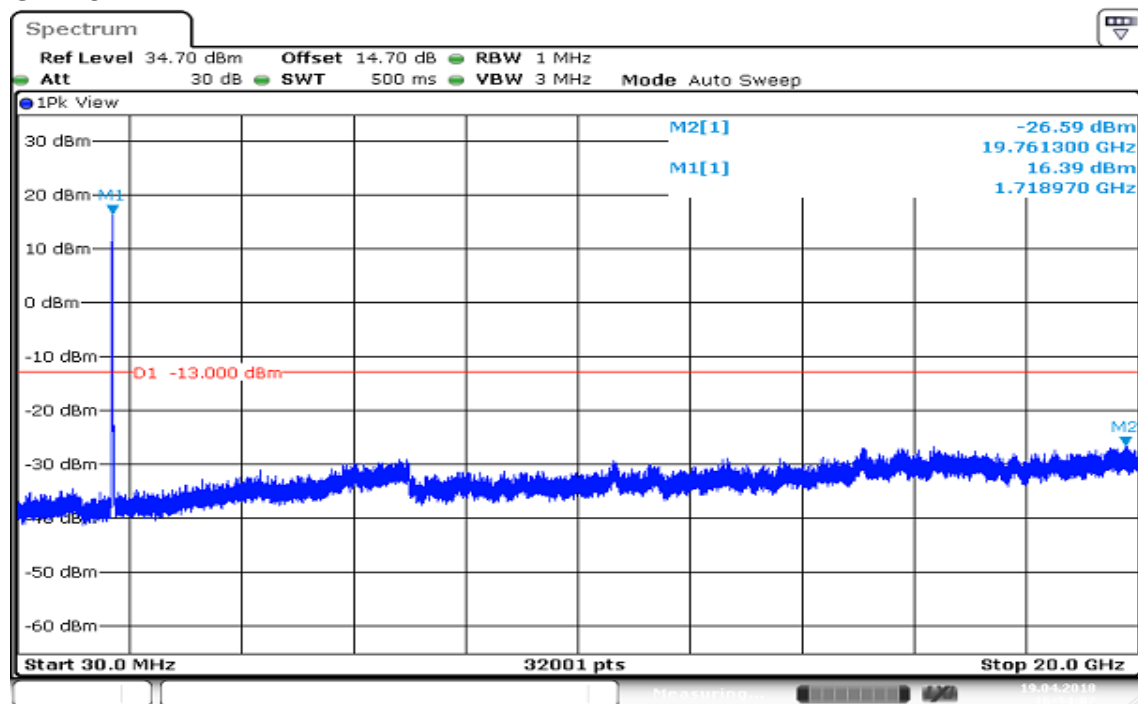
CH High



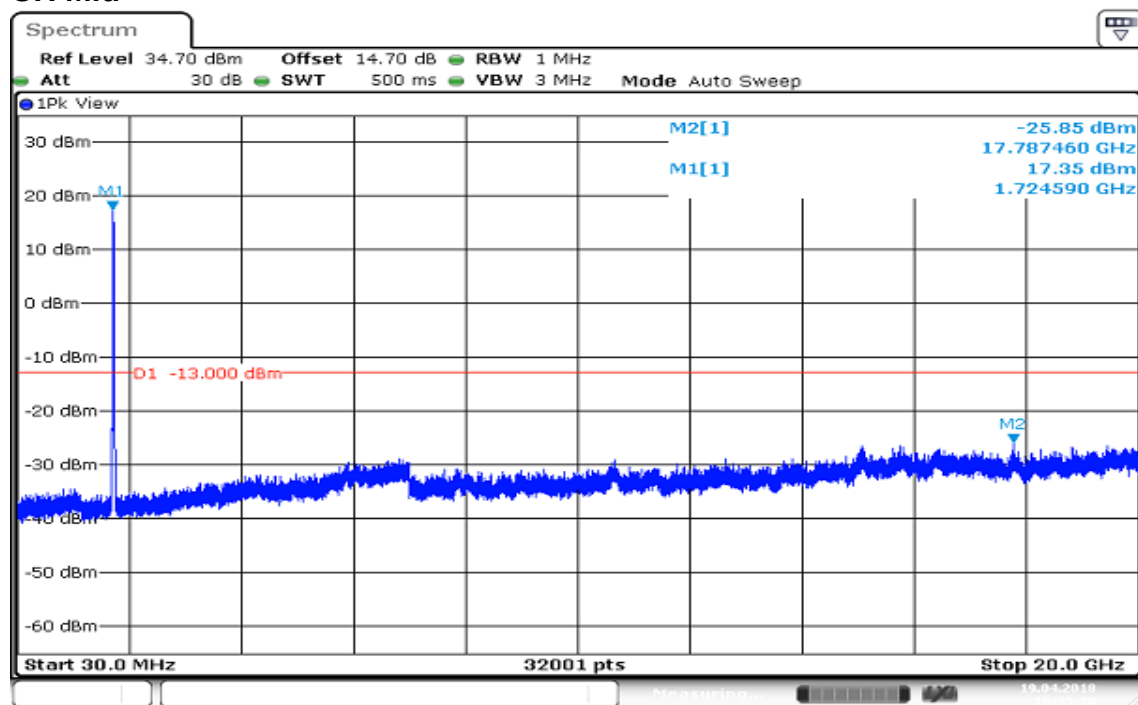
Date: 19 APR 2018 16:26:01

CHANNEL BANDWIDTH: 20MHz / 16QAM

CH Low



CH Mid

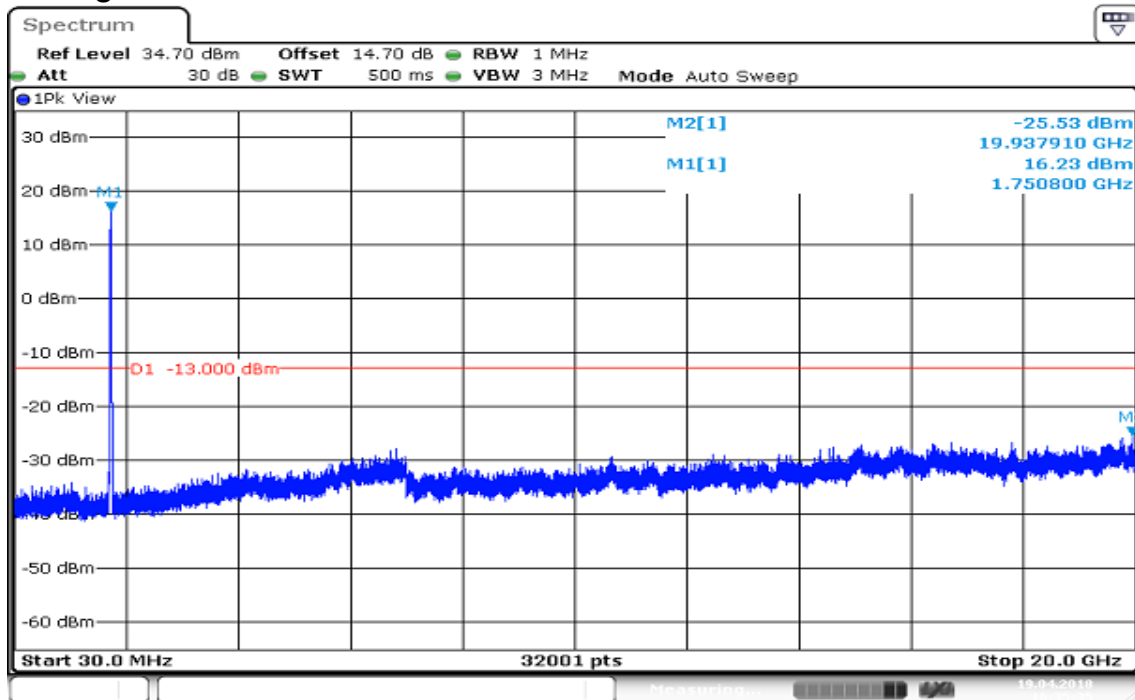




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CH High



Date: 19 APR 2018 16:35:35

8.8 RADIATED EMISSION MEASUREMENT

LIMITS

FCC §27.53(h), Band 4

General protection levels. Except as otherwise specified below, for operations in the 1710-1755MHz bands, the power of any emission outside a licensee's frequency block shall be attenuated below the transmitter power (P) in watts by at least $43 + 10 \log_{10}(P)$ dB.

27.53(c)(2), Band 13

For operations in the 600 MHz band and the 698-746MHz band, the power of any emission outside a licensee's frequency band(s) of operation shall be attenuated below the transmitter power (P) within the licensed band(s) of operation, measured in watts, by at least $43 + 10 \log(P)$ dB. Compliance with this provision is based on the use of measurement instrumentation employing a resolution bandwidth of 100 kilohertz or greater. 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.

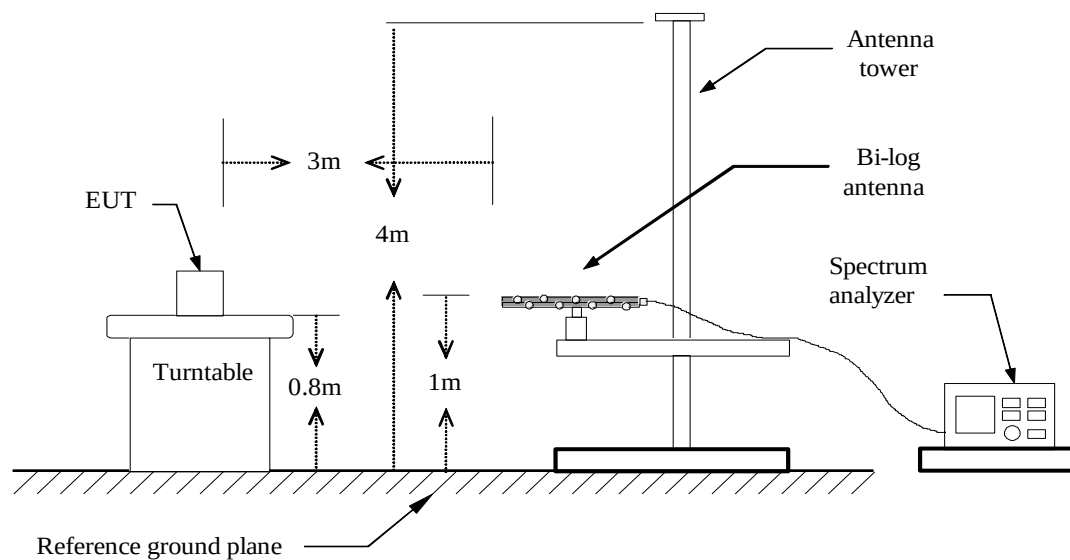
FCC §27.53(g), Band 17

For operations in the 600 MHz band and the 698-746MHz band, the power of any emission outside a licensee's frequency band(s) of operation shall be attenuated below the transmitter power (P) within the licensed band(s) of operation, measured in watts, by at least $43 + 10 \log(P)$ dB. Compliance with this provision is based on the use of measurement instrumentation employing a resolution bandwidth of 100 kilohertz or greater. 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.

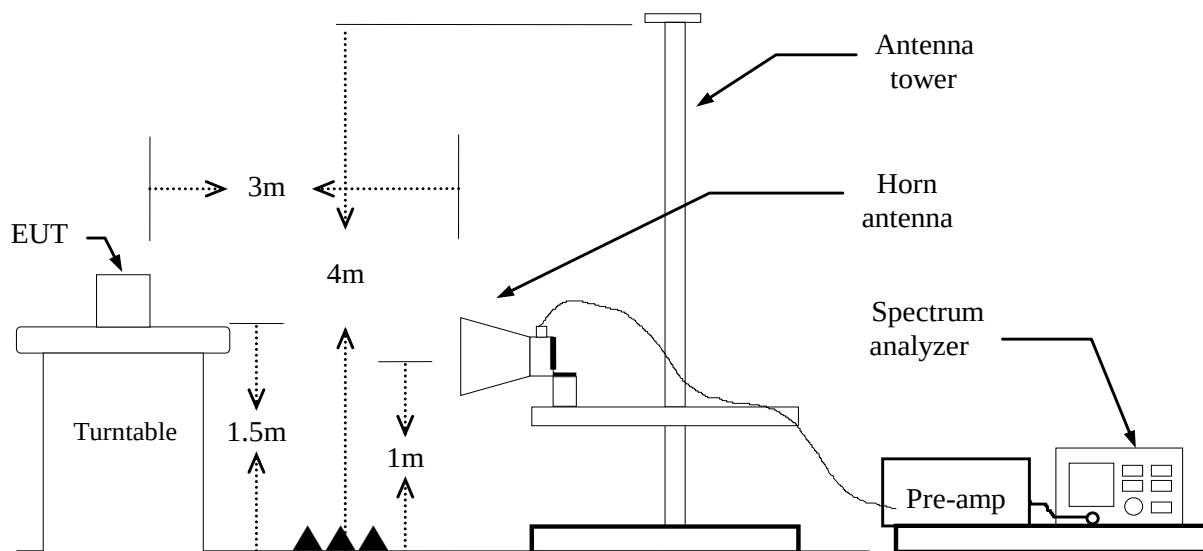
Limit Line: -13dBm

Test Configuration

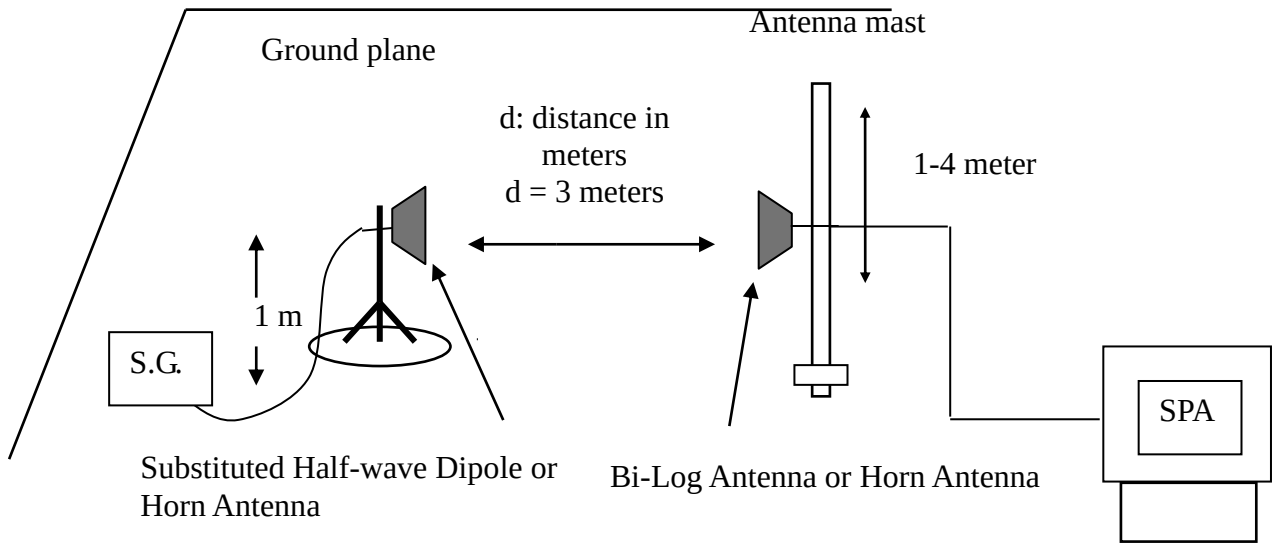
Below 1 GHz



Above 1 GHz



Substituted Method Test Set-up



TEST PROCEDURES

1. According to KDB 971168 D01 Power Meas License Digital Systems. Section 5.8 and TIA-603-E Section 2.2.12.
2. The EUT was placed on a turntable
 - (1) Below 1G : 0.8m
 - (2) Above 1G : 0.8m
 - (3) EUT set 3m from the receiving antenna
 - (4) The table was rotated 360 degrees of the highest spurious emission to determine the position.
3. Set the spectrum analyzer , RBW=1MHz, VBW=3MHz.
4. A horn antenna was driven by a signal generator.
5. Tune the output power of signal generator to the same emission level with EUT maximum spurious emission

$ERP = \text{S.G. output (dBm)} + \text{Antenna Gain (dBi)} - \text{Cable (dB)} - 2.15$

$EIRP = \text{S.G. output (dBm)} + \text{Antenna Gain (dBi)} - \text{Cable (dB)}$

For test result, the S.G. value is including antenna gain and cable loss.



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Test Results

Below 1GHz

LTE Band 4 / BW: 20MHz / QPSK / RB =1, RB Offset = 0

Operation Mode: Tx / Mid CH

Test Date:

December 4, 2017

Temperature: 23°C

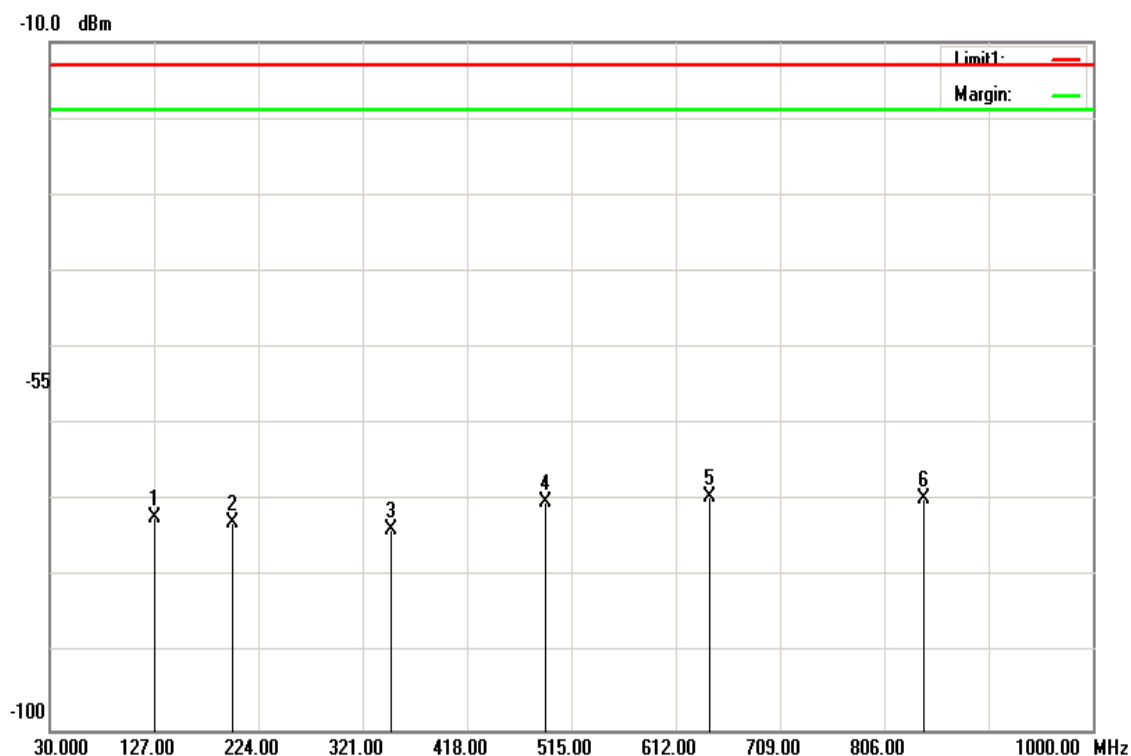
Tested by:

Ivan Wang

Humidity: 51% RH

Polarity:

Ver.



Frequency (MHz)	S.G. (dBm)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
127.0000	-73.24	1.01	-72.23	-13.00	-59.23	V
199.7500	-76.89	4.1	-72.79	-13.00	-59.79	V
347.6750	-80.93	7.09	-73.84	-13.00	-60.84	V
490.7500	-77.11	6.85	-70.26	-13.00	-57.26	V
643.5250	-70.54	0.92	-69.62	-13.00	-56.62	V
842.3750	-70.93	1.19	-69.74	-13.00	-56.74	V



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Operation Mode: Tx / Mid CH

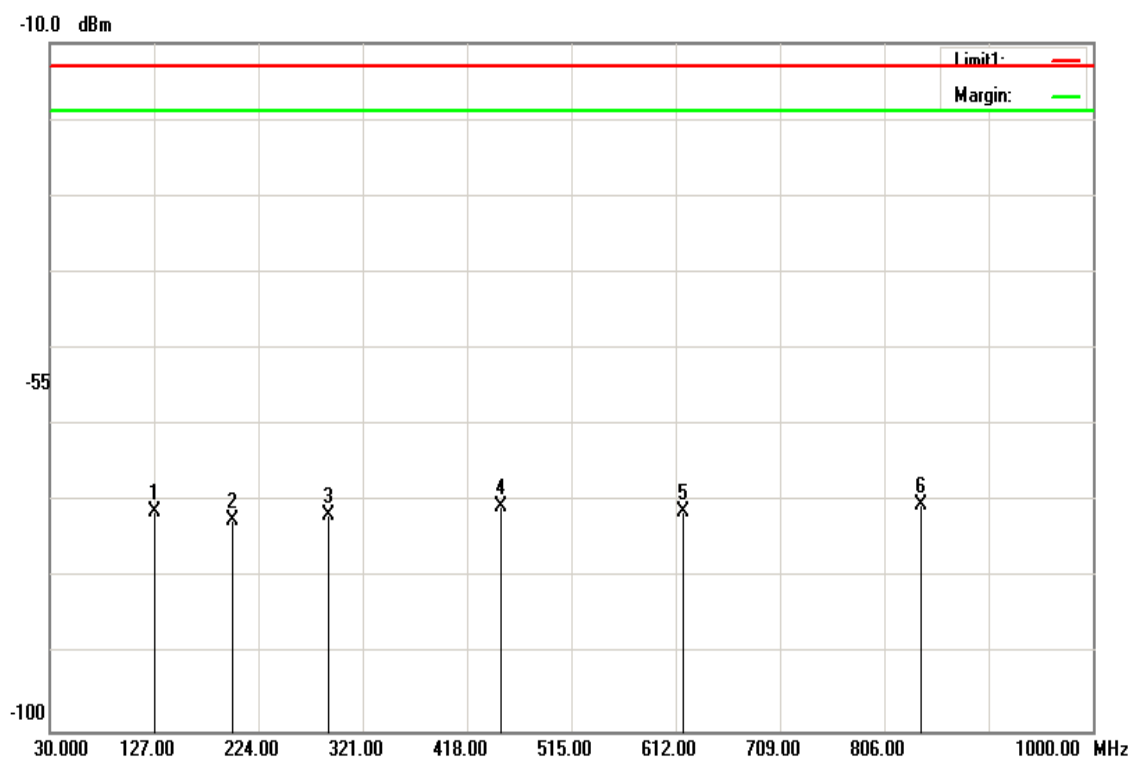
Test Date: December 4, 2017

Temperature: 23°C

Tested by: Ivan Wang

Humidity: 51% RH

Polarity: Hor.



Frequency (MHz)	S.G. (dBm)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
127.0000	-72.27	1.01	-71.26	-13.00	-58.26	H
199.7500	-76.56	4.1	-72.46	-13.00	-59.46	H
289.4750	-78.7	7.01	-71.69	-13.00	-58.69	H
449.5250	-77.63	7.05	-70.58	-13.00	-57.58	H
619.2750	-70.78	-0.47	-71.25	-13.00	-58.25	H
839.9500	-71.64	1.19	-70.45	-13.00	-57.45	H



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LTE Band 4 / BW: 20MHz / 16QAM / RB =1, RB Offset = 0

Operation Mode: Tx / Mid CH

Test Date:

December 4, 2017

Temperature: 23°C

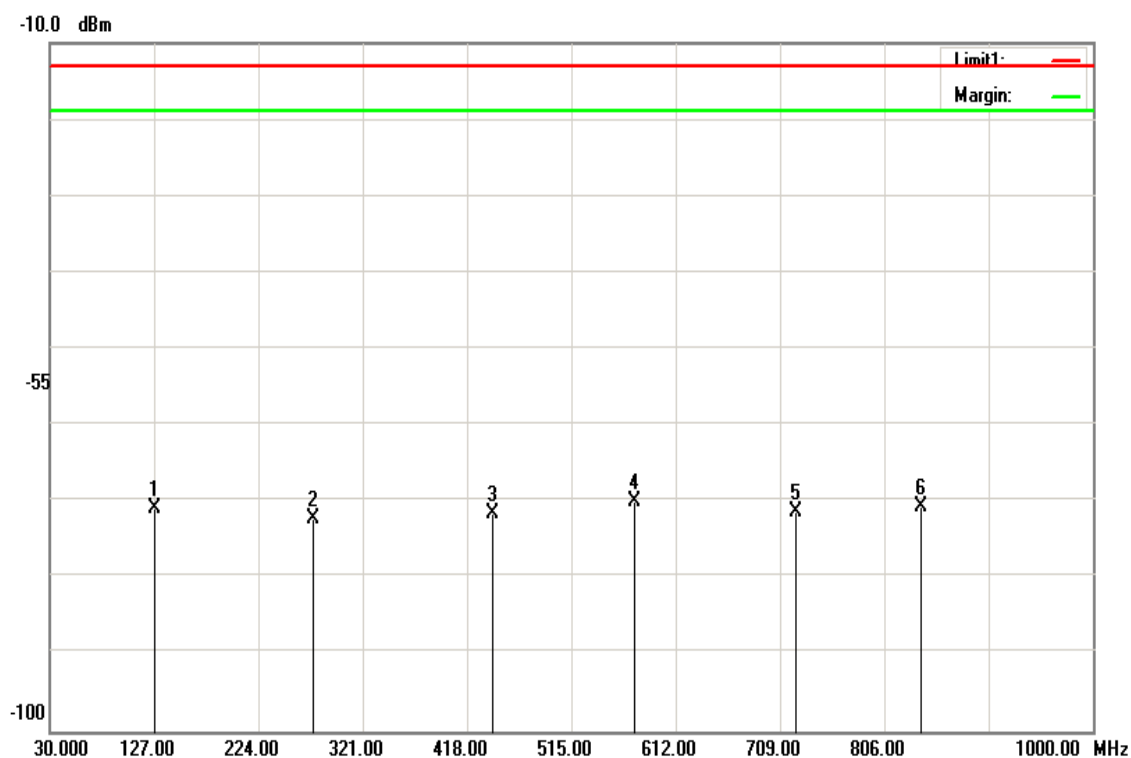
Tested by:

Ivan Wang

Humidity: 51% RH

Polarity:

Ver.



Frequency (MHz)	S.G. (dBm)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
127.0000	-71.95	1.01	-70.94	-13.00	-57.94	V
274.9250	-79.43	7.15	-72.28	-13.00	-59.28	V
442.2500	-78.7	7.09	-71.61	-13.00	-58.61	V
573.2000	-72.82	2.94	-69.88	-13.00	-56.88	V
723.5500	-73.28	1.87	-71.41	-13.00	-58.41	V
839.9500	-71.91	1.19	-70.72	-13.00	-57.72	V

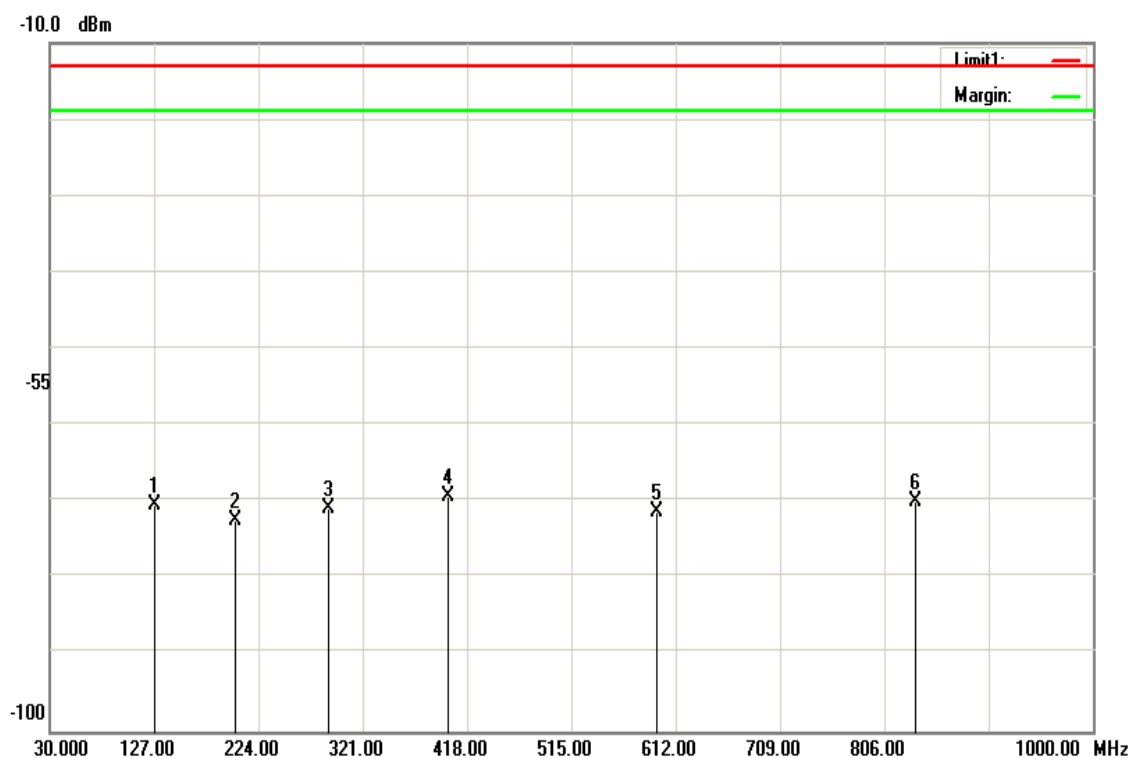
Operation Mode: Tx / Mid CH

Test Date: December 4, 2017

Temperature: 23°C

Tested by: Ivan Wang

Humidity: 51% RH

Polarity: Hor.


Frequency (MHz)	S.G. (dBm)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
127.0000	-71.46	1.01	-70.45	-13.00	-57.45	H
202.1750	-76.64	4.24	-72.40	-13.00	-59.40	H
289.4750	-77.83	7.01	-70.82	-13.00	-57.82	H
401.0250	-76.62	7.29	-69.33	-13.00	-56.33	H
595.0250	-70.61	-0.74	-71.35	-13.00	-58.35	H
835.1000	-71.11	1.21	-69.90	-13.00	-56.90	H

Above 1GHz**LTE Band 4 / BW: 20MHz / QPSK RB =1, RB Offset = 0****Operation Mode:** Tx / Low CH**Test Date:**

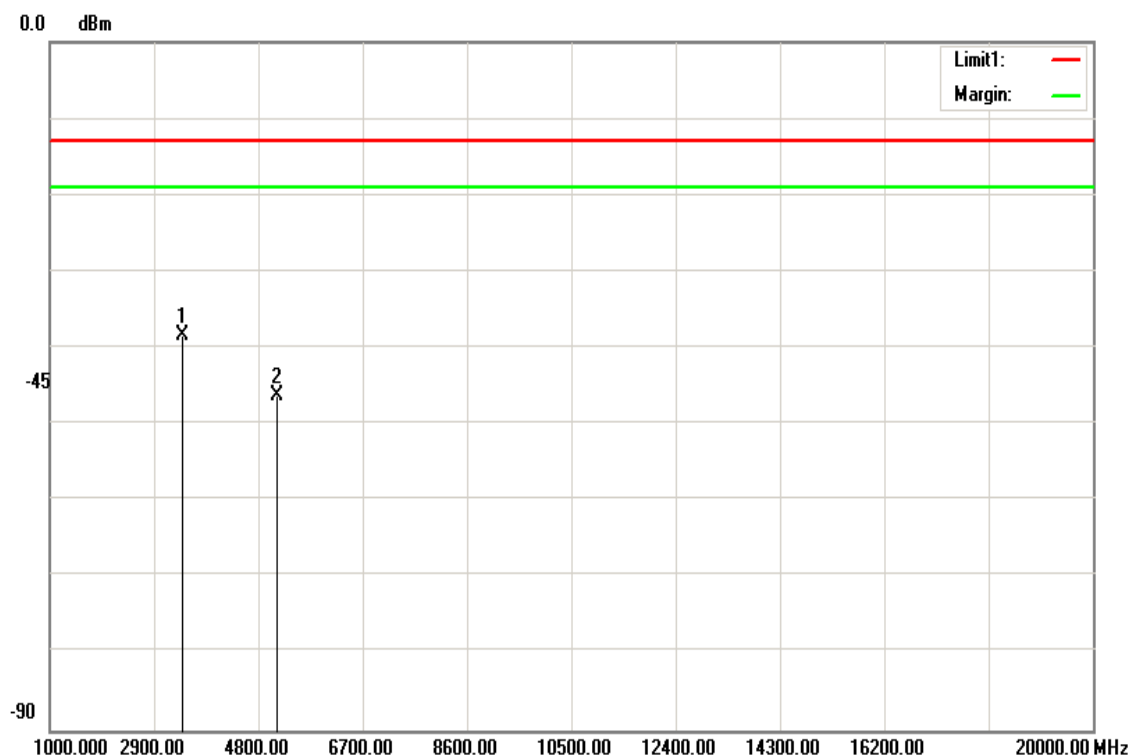
December 4, 2017

Temperature: 23°C**Tested by:**

Ivan Wang

Humidity: 51% RH**Polarity:**

Ver.



Frequency (MHz)	S.G. (dBm)	Ant. Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
3422.000	-50.7	12.3	-38.40	-13.00	-25.40	V
5137.000	-58.91	12.61	-46.30	-13.00	-33.30	V
N/A						

Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.

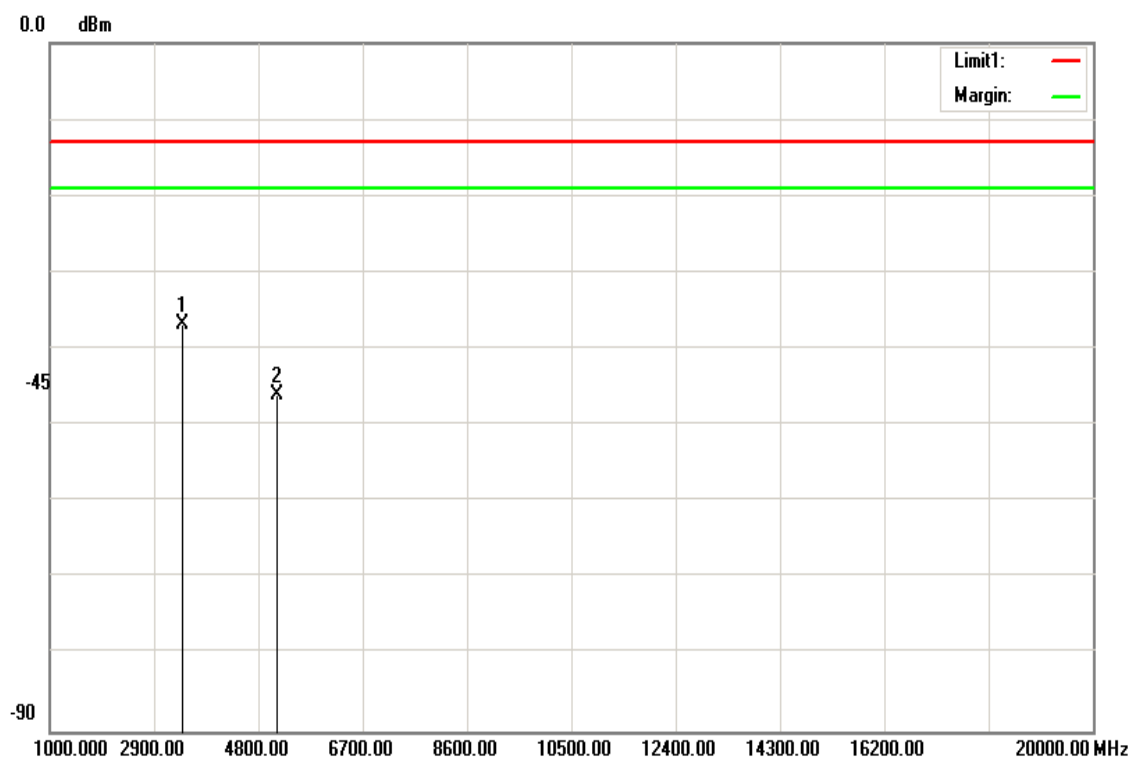
Operation Mode: Tx / Low CH

Test Date: December 4, 2017

Temperature: 23°C

Tested by: Ivan Wang

Humidity: 51% RH

Polarity: Hor.


Frequency (MHz)	S.G. (dBm)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
3422.000	-49.01	12.3	-36.71	-13.00	-23.71	H
5137.000	-58.65	12.61	-46.04	-13.00	-33.04	H
N/A						

Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.



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Operation Mode: Tx / Mid CH

Temperature: 23°C

Humidity: 51% RH

Test Date:

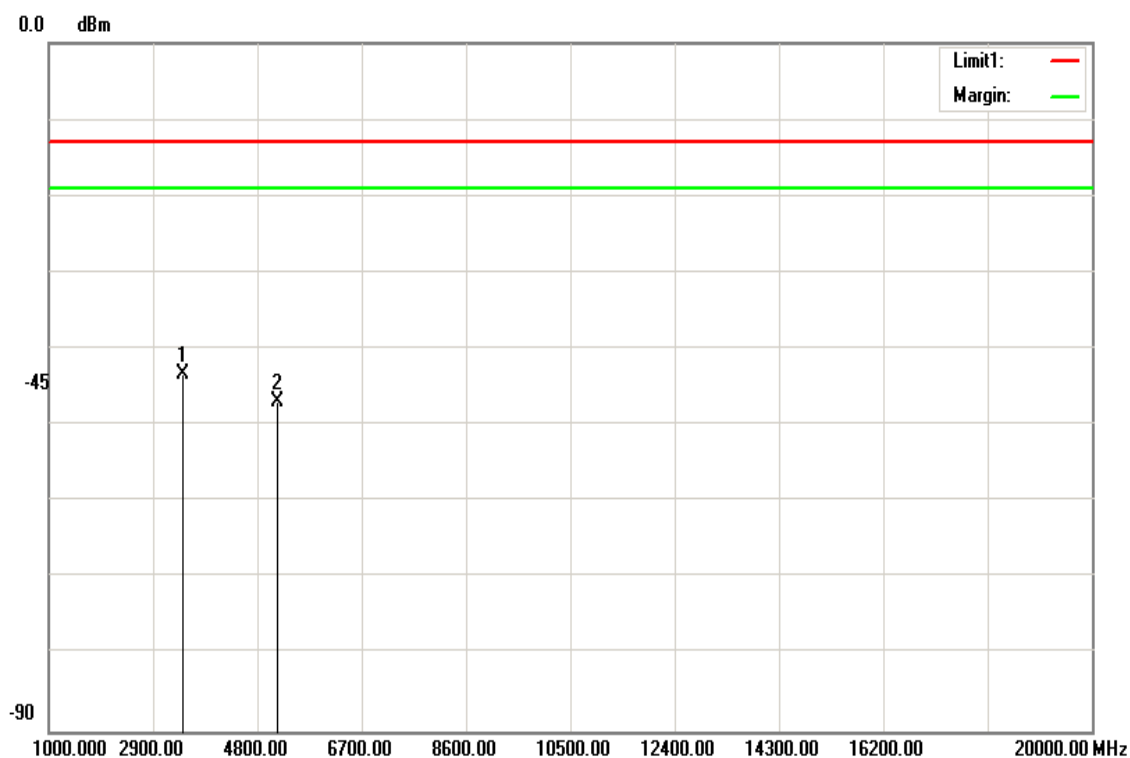
December 4, 2017

Tested by:

Ivan Wang

Polarity:

Ver.



Frequency (MHz)	S.G. (dBm)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
3450.000	-55.71	12.37	-43.34	-13.00	-30.34	V
5172.000	-59.49	12.64	-46.85	-13.00	-33.85	V
N/A						

Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.

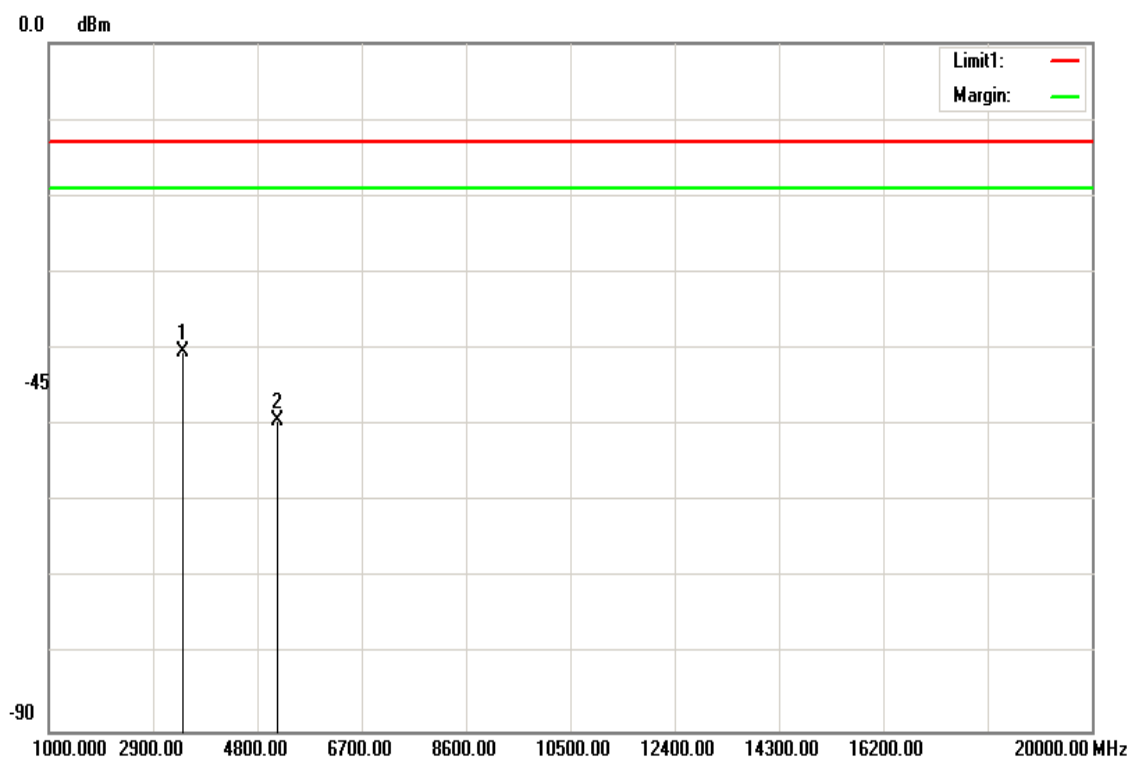
Operation Mode: Tx / Mid CH

Test Date: December 4, 2017

Temperature: 23°C

Tested by: Ivan Wang

Humidity: 51% RH

Polarity: Hor.


Frequency (MHz)	S.G. (dBm)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
3450.000	-52.7	12.37	-40.33	-13.00	-27.33	H
5172.000	-62.09	12.64	-49.45	-13.00	-36.45	H
N/A						

Remark:

- Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.



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Operation Mode: Tx / High CH

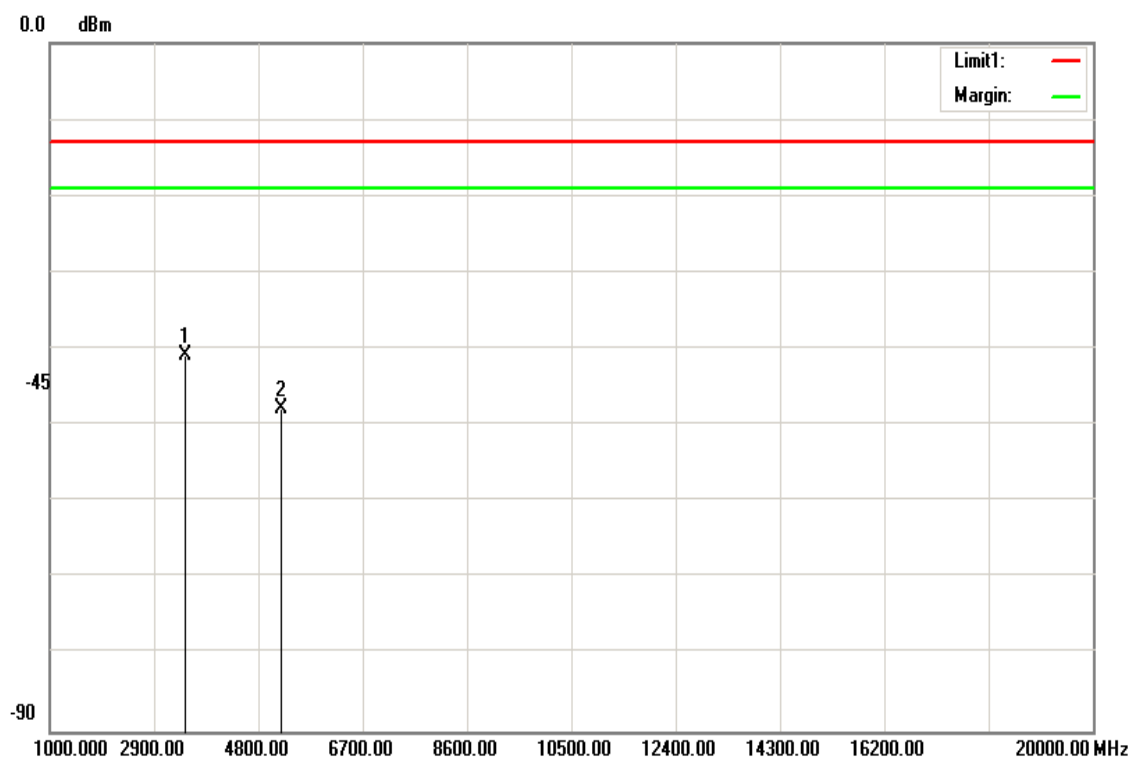
Test Date: December 4, 2017

Temperature: 23°C

Tested by: Ivan Wang

Humidity: 51% RH

Polarity: Ver.



Frequency (MHz)	S.G. (dBm)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
3471.000	-53.35	12.42	-40.93	-13.00	-27.93	V
5207.000	-60.47	12.67	-47.80	-13.00	-34.80	V
N/A						

Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.

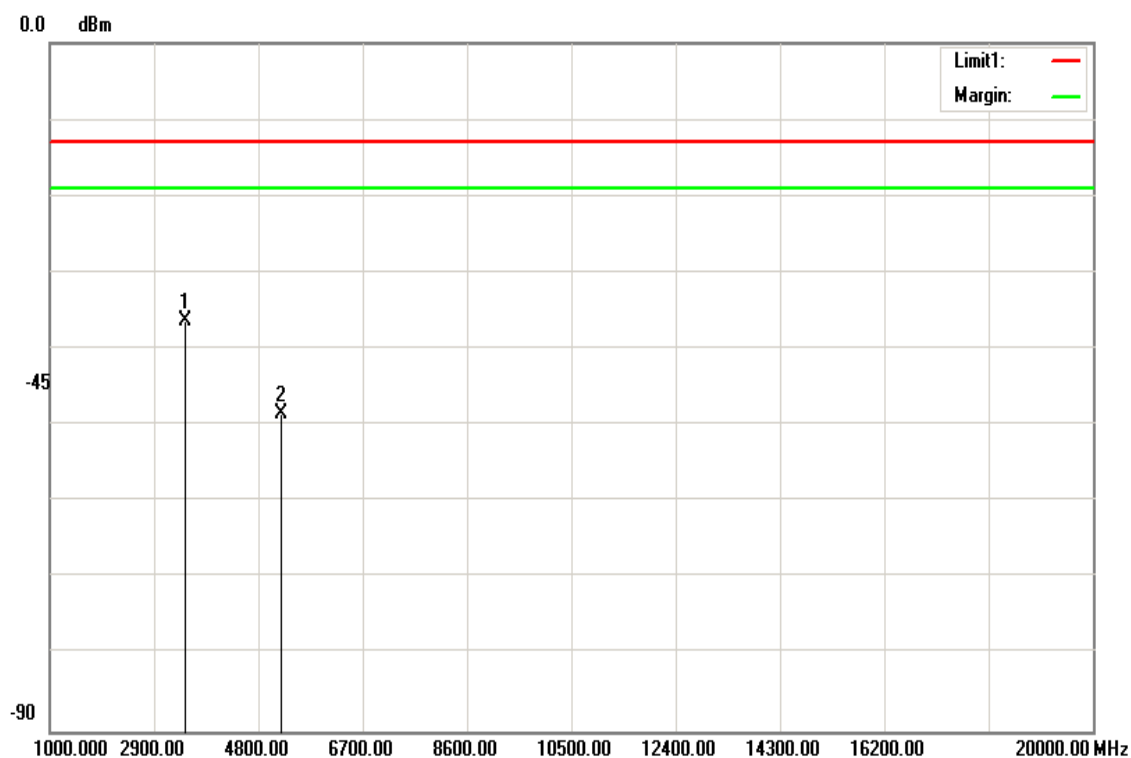
Operation Mode: Tx / High CH

Test Date: December 4, 2017

Temperature: 23°C

Tested by: Ivan Wang

Humidity: 51% RH

Polarity: Hor.


Frequency (MHz)	S.G. (dBm)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
3471.000	-48.79	12.42	-36.37	-13.00	-23.37	H
5207.000	-61.2	12.67	-48.53	-13.00	-35.53	H
N/A						

Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.

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LTE Band 4 / BW: 20MHz / 16QAM / RB =1, RB Offset = 0

Operation Mode: Tx / Low CH

Test Date:

December 4, 2017

Temperature: 23°C

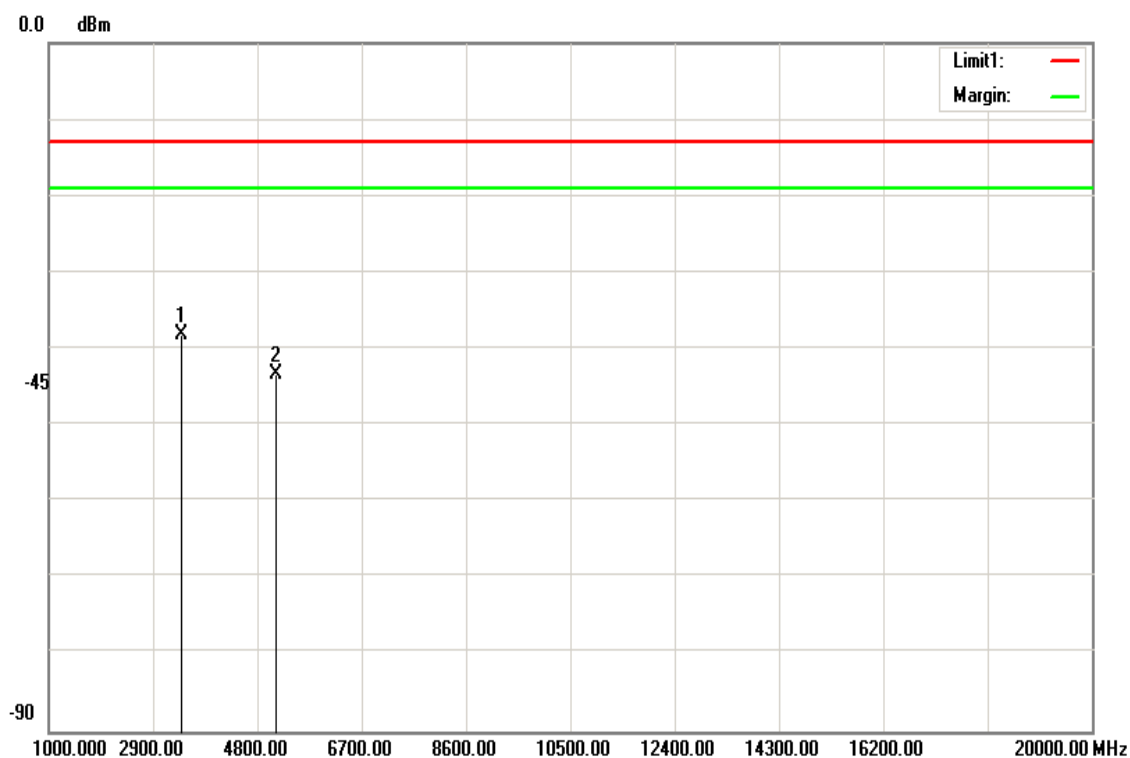
Tested by:

Ivan Wang

Humidity: 51% RH

Polarity:

Ver.



Frequency (MHz)	S.G. (dBm)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
3422.000	-50.38	12.3	-38.08	-13.00	-25.08	V
5137.000	-55.84	12.61	-43.23	-13.00	-30.23	V
N/A						

Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.



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Operation Mode: Tx / Low CH

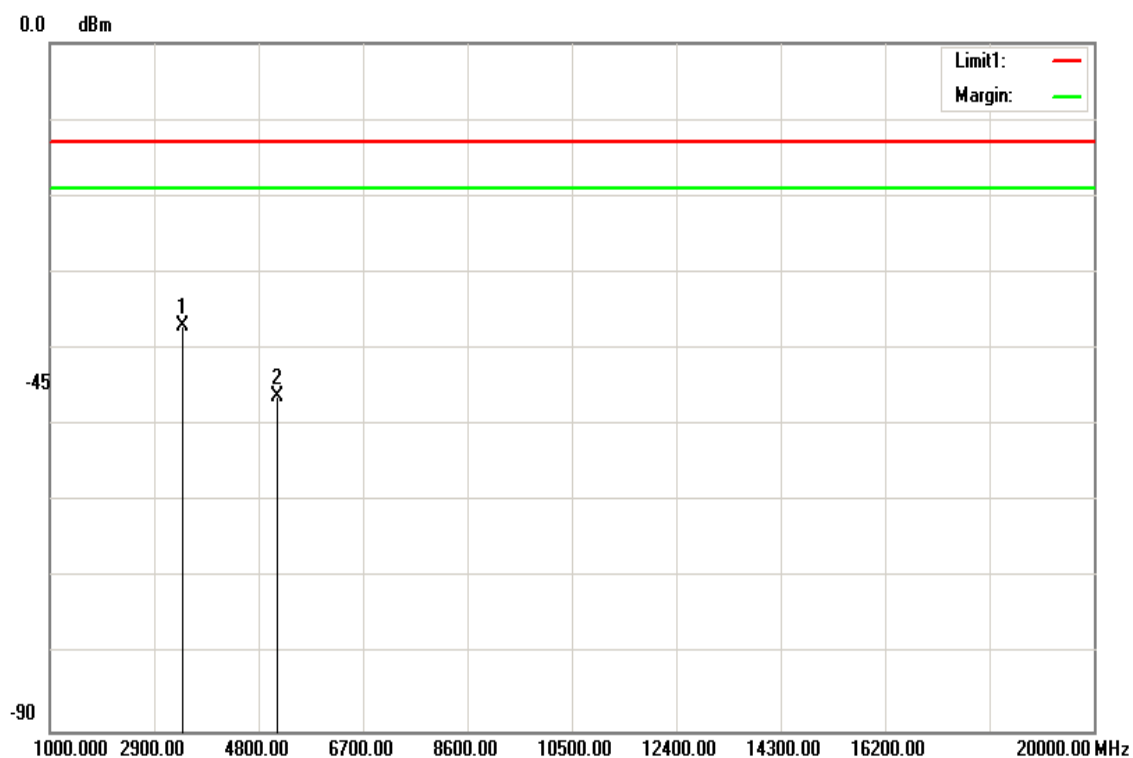
Test Date: December 4, 2017

Temperature: 23°C

Tested by: Ivan Wang

Humidity: 51% RH

Polarity: Hor.



Frequency (MHz)	S.G. (dBm)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
3422.000	-49.38	12.3	-37.08	-13.00	-24.08	H
5137.000	-58.86	12.61	-46.25	-13.00	-33.25	H
N/A						

Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.



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Operation Mode: Tx / Mid CH

Temperature: 23°C

Humidity: 51% RH

Test Date:

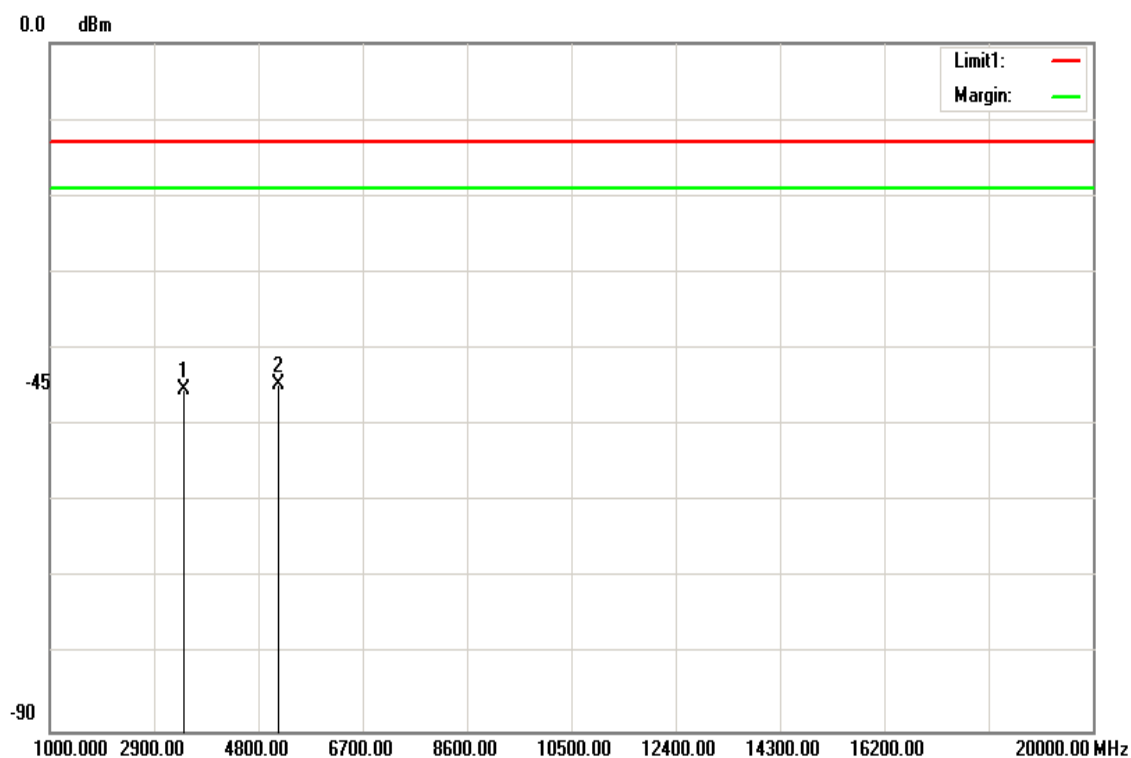
December 4, 2017

Tested by:

Ivan Wang

Polarity:

Ver.



Frequency (MHz)	S.G. (dBm)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
3450.000	-57.69	12.37	-45.32	-13.00	-32.32	V
5172.000	-57.31	12.64	-44.67	-13.00	-31.67	V
N/A						

Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.



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Operation Mode: Tx / Mid CH

Temperature: 23°C

Humidity: 51% RH

Test Date:

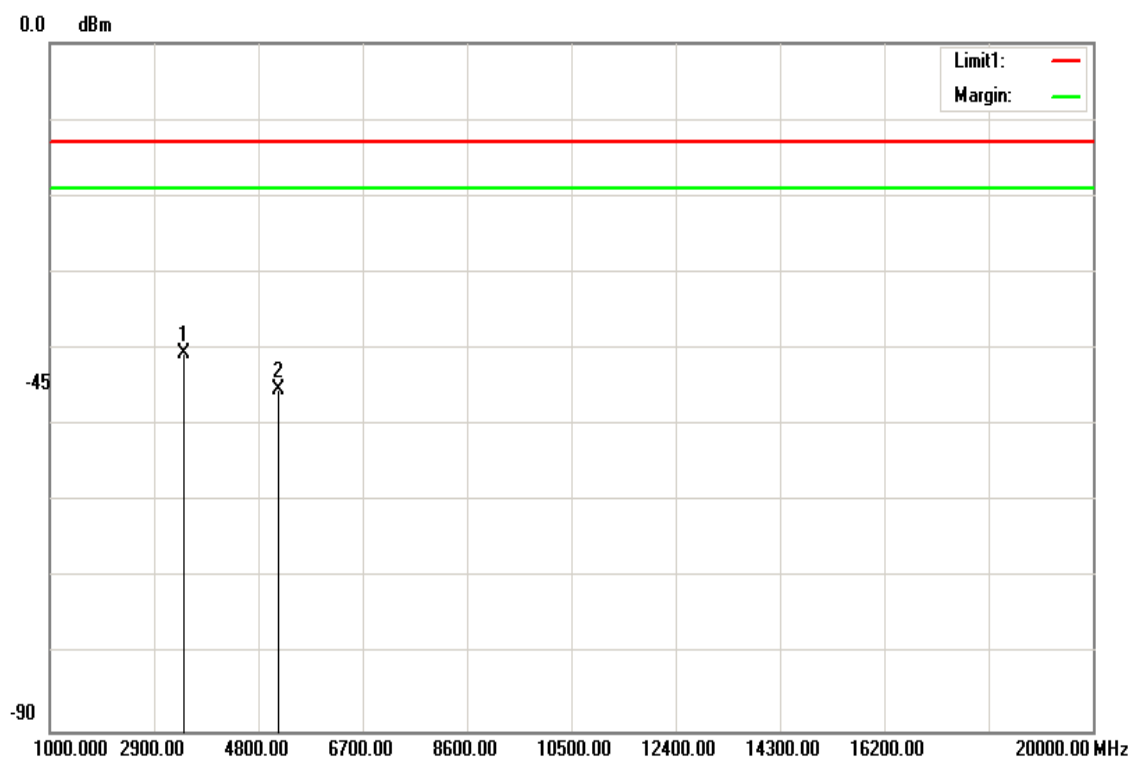
December 4, 2017

Tested by:

Ivan Wang

Polarity:

Hor.



Frequency (MHz)	S.G. (dBm)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
3450.000	-53	12.37	-40.63	-13.00	-27.63	H
5172.000	-57.89	12.64	-45.25	-13.00	-32.25	H
N/A						

Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.



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Operation Mode: Tx / High CH

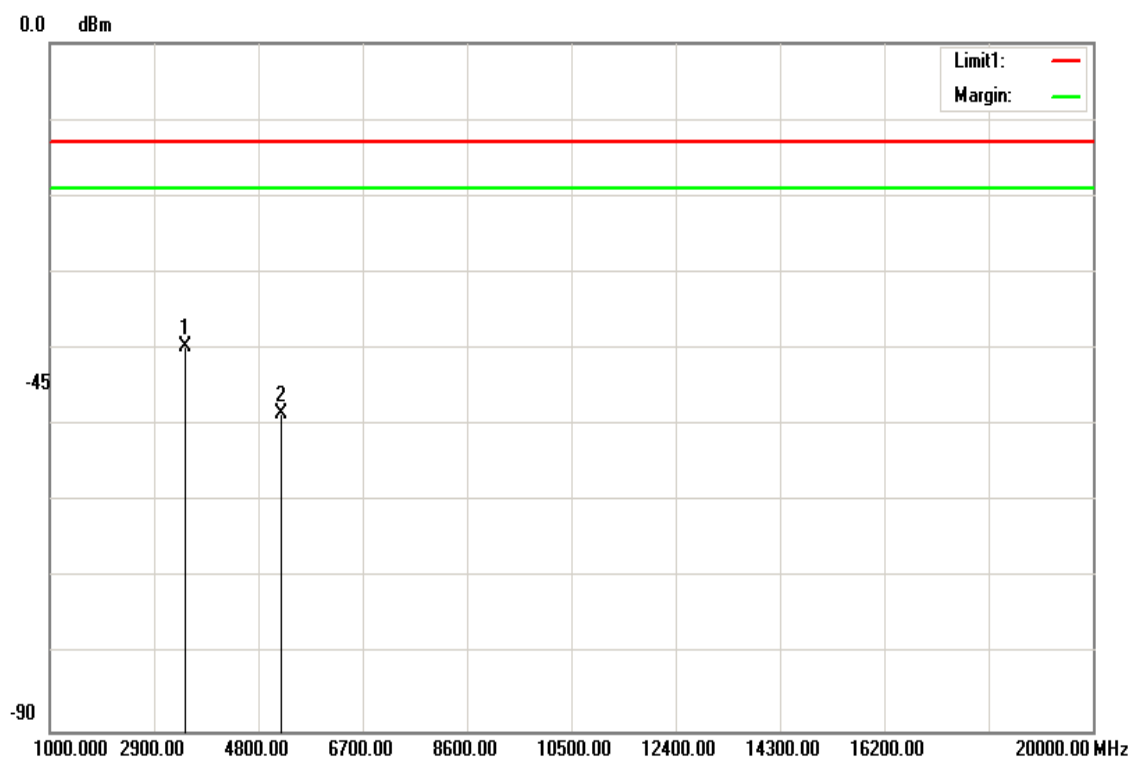
Test Date: December 4, 2017

Temperature: 23°C

Tested by: Ivan Wang

Humidity: 51% RH

Polarity: Ver.



Frequency (MHz)	S.G. (dBm)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
3471.000	-52.07	12.42	-39.65	-13.00	-26.65	V
5207.000	-61.13	12.67	-48.46	-13.00	-35.46	V
N/A						

Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.



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Operation Mode: Tx / High CH

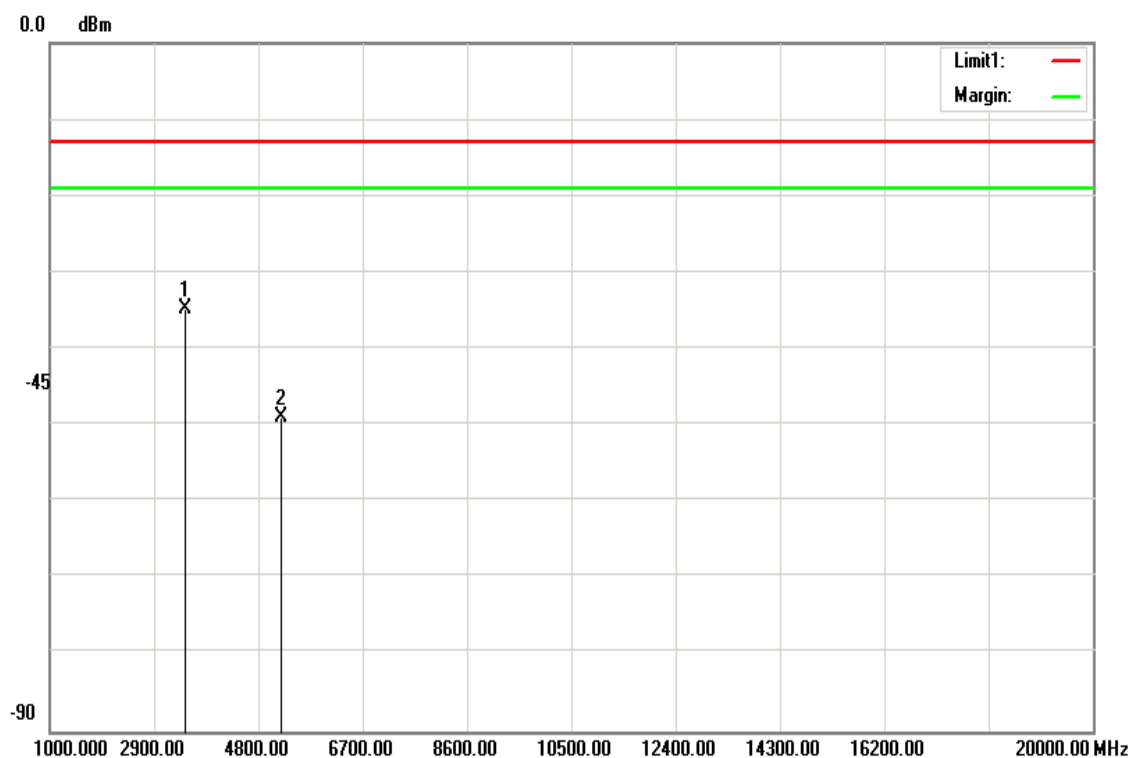
Test Date: December 4, 2017

Temperature: 23°C

Tested by: Ivan Wang

Humidity: 51% RH

Polarity: Hor.



Frequency (MHz)	S.G. (dBm)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
3471.000	-47.19	12.42	-34.77	-13.00	-21.77	H
5207.000	-61.61	12.67	-48.94	-13.00	-35.94	H
N/A						

Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.

Test Results**Below 1GHz****LTE Band 13 / BW: 10MHz / QPSK / RB =1, RB Offset = 0****Operation Mode:** Tx / Mid CH**Test Date:**

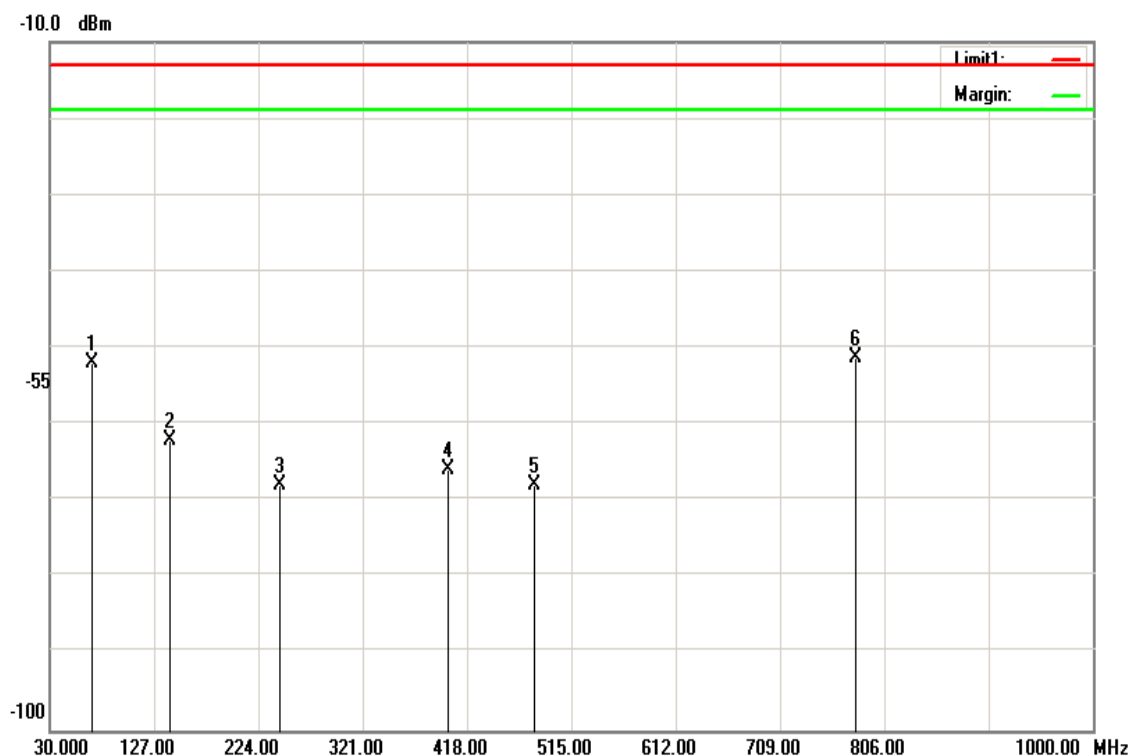
December 5, 2017

Temperature: 21°C**Tested by:**

Ivan Wang

Humidity: 52% RH**Polarity:**

Ver.



Frequency (MHz)	S.G. (dBm)	Ant. Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
68.8000	-52.38	0.46	-51.92	-13.00	-38.92	V
141.5500	-63.25	1.06	-62.19	-13.00	-49.19	V
243.4000	-74.87	6.96	-67.91	-13.00	-54.91	V
401.0250	-73.12	7.29	-65.83	-13.00	-52.83	V
481.0500	-74.84	6.89	-67.95	-13.00	-54.95	V
779.3250	-52.67	1.45	-51.22	-13.00	-38.22	V



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Operation Mode: Tx / Mid CH

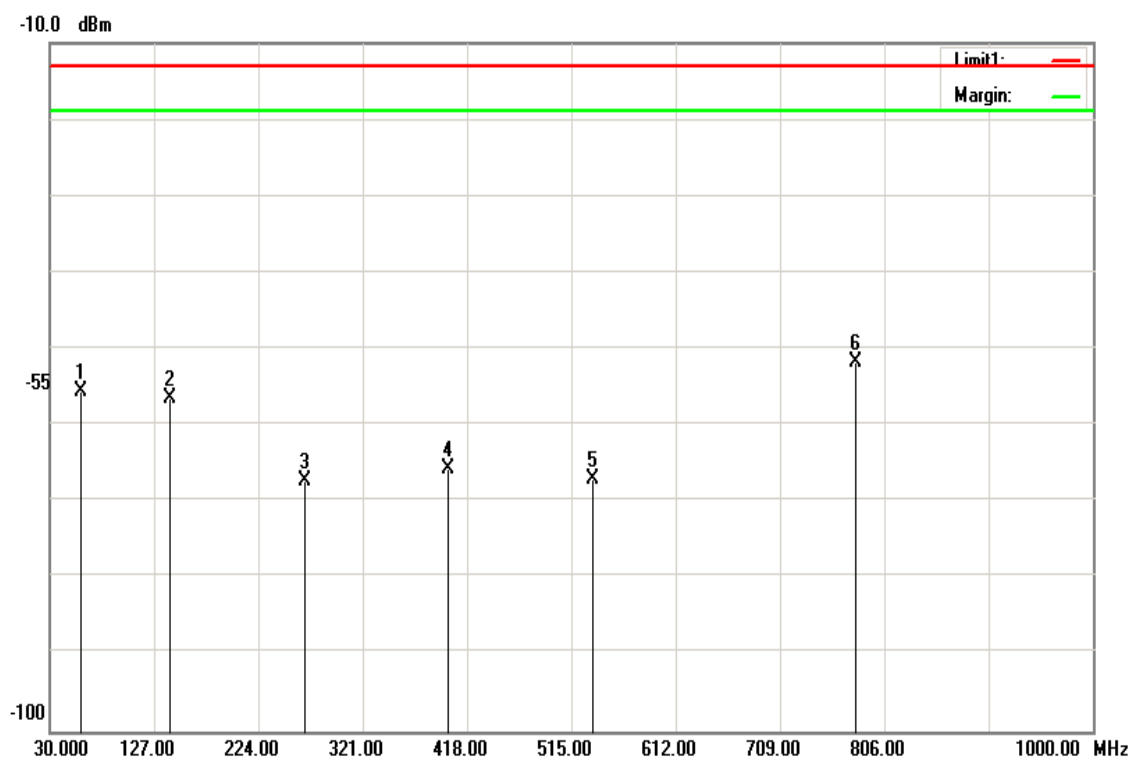
Test Date: December 5, 2017

Temperature: 21°C

Tested by: Ivan Wang

Humidity: 52% RH

Polarity: Hor.



Frequency (MHz)	S.G. (dBm)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
59.1000	-54.13	-1.39	-55.52	-13.00	-42.52	H
141.5500	-57.48	1.06	-56.42	-13.00	-43.42	H
267.6500	-74.41	7.22	-67.19	-13.00	-54.19	H
401.0250	-72.88	7.29	-65.59	-13.00	-52.59	H
534.4000	-73.76	6.83	-66.93	-13.00	-53.93	H
779.3250	-53.11	1.45	-51.66	-13.00	-38.66	H

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LTE Band 13 / BW: 10MHz / 16QAM / RB =1, RB Offset = 0
Operation Mode: Tx / Mid CH

Test Date:

December 5, 2017

Temperature: 21°C

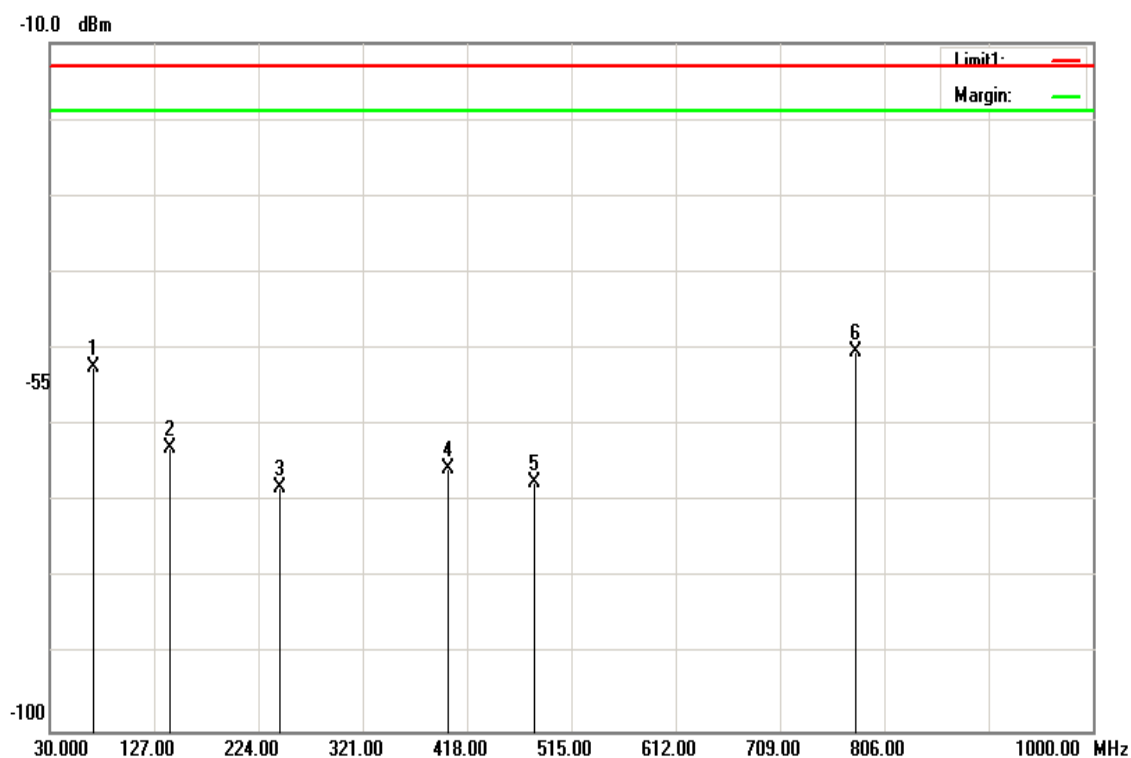
Tested by:

Ivan Wang

Humidity: 52% RH

Polarity:

Ver.



Frequency (MHz)	S.G. (dBm)	Ant. Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
71.2250	-53.01	0.68	-52.33	-13.00	-39.33	V
141.5500	-64.09	1.06	-63.03	-13.00	-50.03	V
243.4000	-75.03	6.96	-68.07	-13.00	-55.07	V
401.0250	-72.89	7.29	-65.60	-13.00	-52.60	V
481.0500	-74.49	6.89	-67.60	-13.00	-54.60	V
779.3250	-51.74	1.45	-50.29	-13.00	-37.29	V

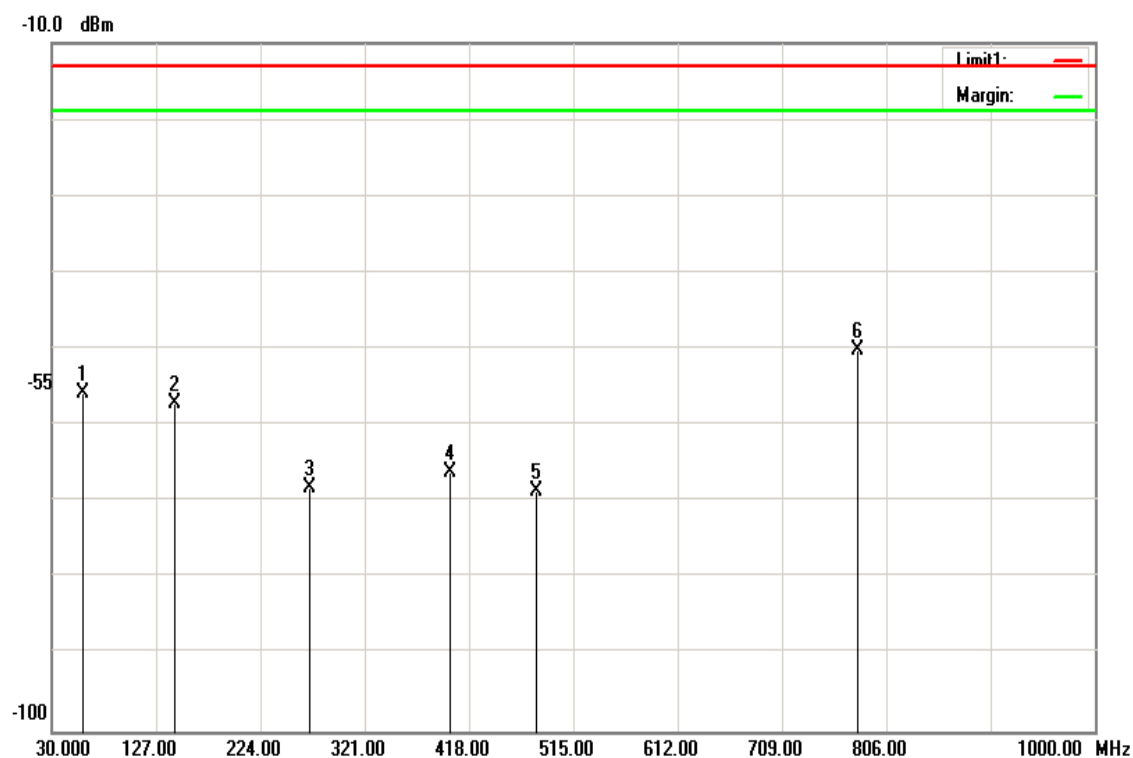
Operation Mode: Tx / Mid CH

Test Date: December 5, 2017

Temperature: 21°C

Tested by: Ivan Wang

Humidity: 52% RH

Polarity: Hor.


Frequency (MHz)	S.G. (dBm)	Ant. Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
59.1000	-54.39	-1.39	-55.78	-13.00	-42.78	H
143.9750	-57.97	0.84	-57.13	-13.00	-44.13	H
270.0750	-75.3	7.2	-68.10	-13.00	-55.10	H
401.0250	-73.46	7.29	-66.17	-13.00	-53.17	H
481.0500	-75.46	6.89	-68.57	-13.00	-55.57	H
779.3250	-51.59	1.45	-50.14	-13.00	-37.14	H

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Above 1GHz

LTE Band 13 / BW: 10MHz / QPSK RB =1, RB Offset = 0

Operation Mode: Tx / Mid CH

Test Date:

December 5, 2017

Temperature: 21°C

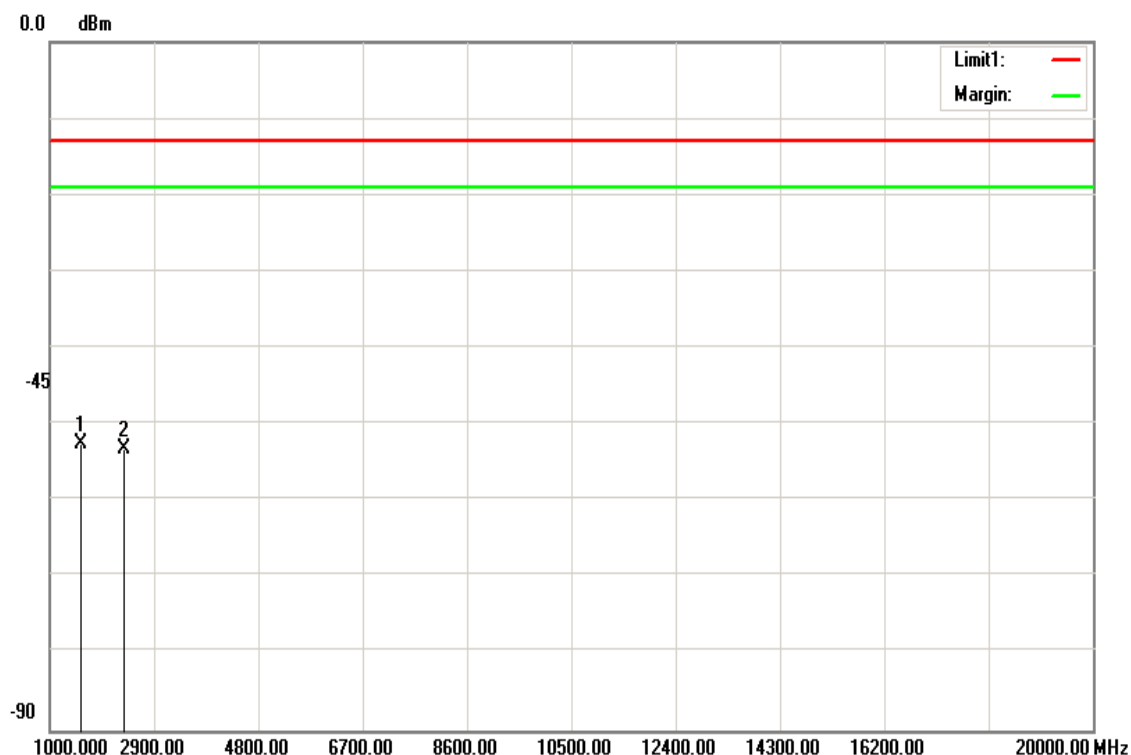
Tested by:

Ivan Wang

Humidity: 52% RH

Polarity:

Ver.



Frequency (MHz)	S.G. (dBm)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
1564.000	-53.96	1.52	-52.44	-13.00	-39.44	V
2346.000	-54.87	1.74	-53.13	-13.00	-40.13	V
N/A						

Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.



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Operation Mode: Tx / Mid CH

Temperature: 21°C

Humidity: 52% RH

Test Date:

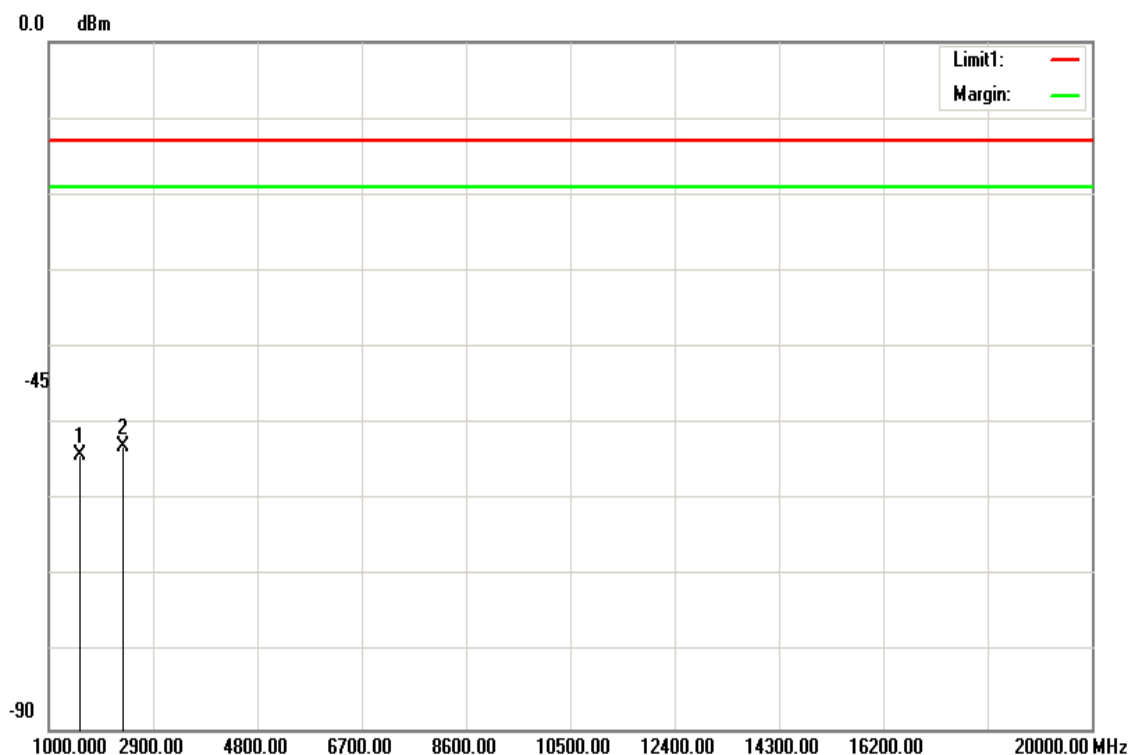
December 5, 2017

Tested by:

Ivan Wang

Polarity:

Hor.



Frequency (MHz)	S.G. (dBm)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
1564.000	-55.57	1.52	-54.05	-13.00	-41.05	H
2346.000	-54.73	1.74	-52.99	-13.00	-39.99	H
N/A						

Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.

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LTE Band 13 / BW: 10MHz / 16QAM RB =1, RB Offset = 0
Operation Mode: Tx / Mid CH

Test Date:

December 5, 2017

Temperature: 21°C

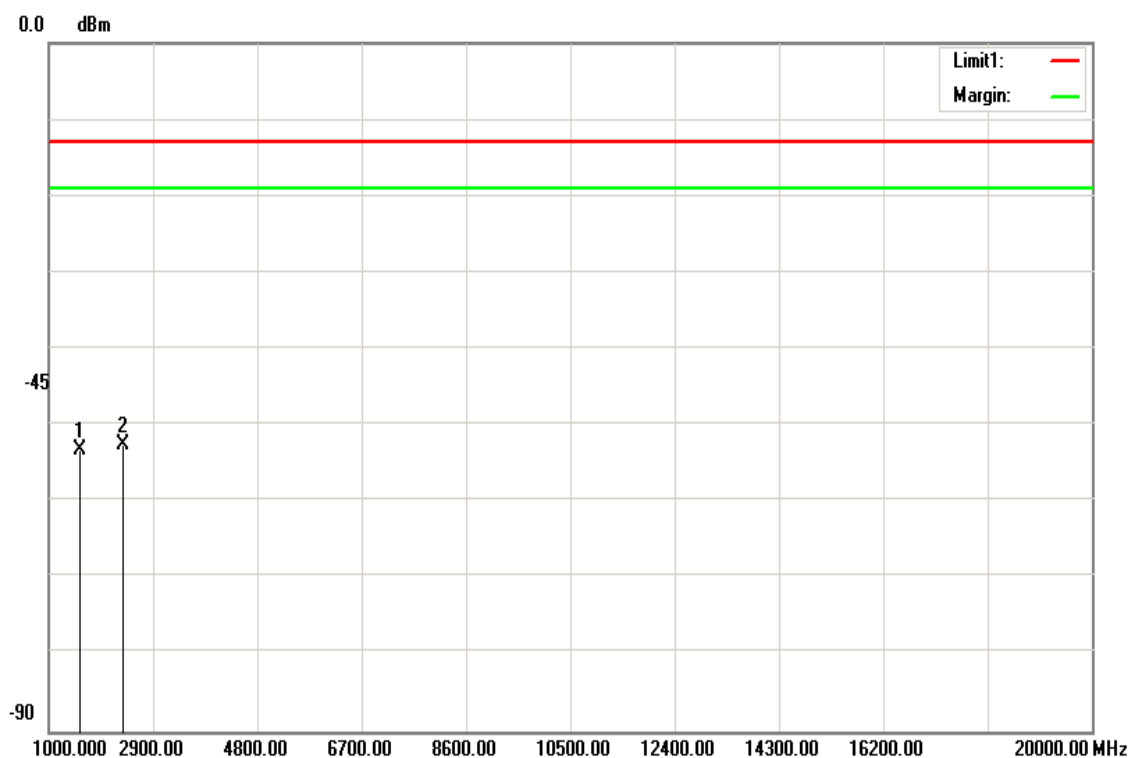
Tested by:

Ivan Wang

Humidity: 52% RH

Polarity:

Ver.



Frequency (MHz)	S.G. (dBm)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
1564.000	-54.68	1.52	-53.16	-13.00	-40.16	V
2346.000	-54.19	1.74	-52.45	-13.00	-39.45	V
N/A						

Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.

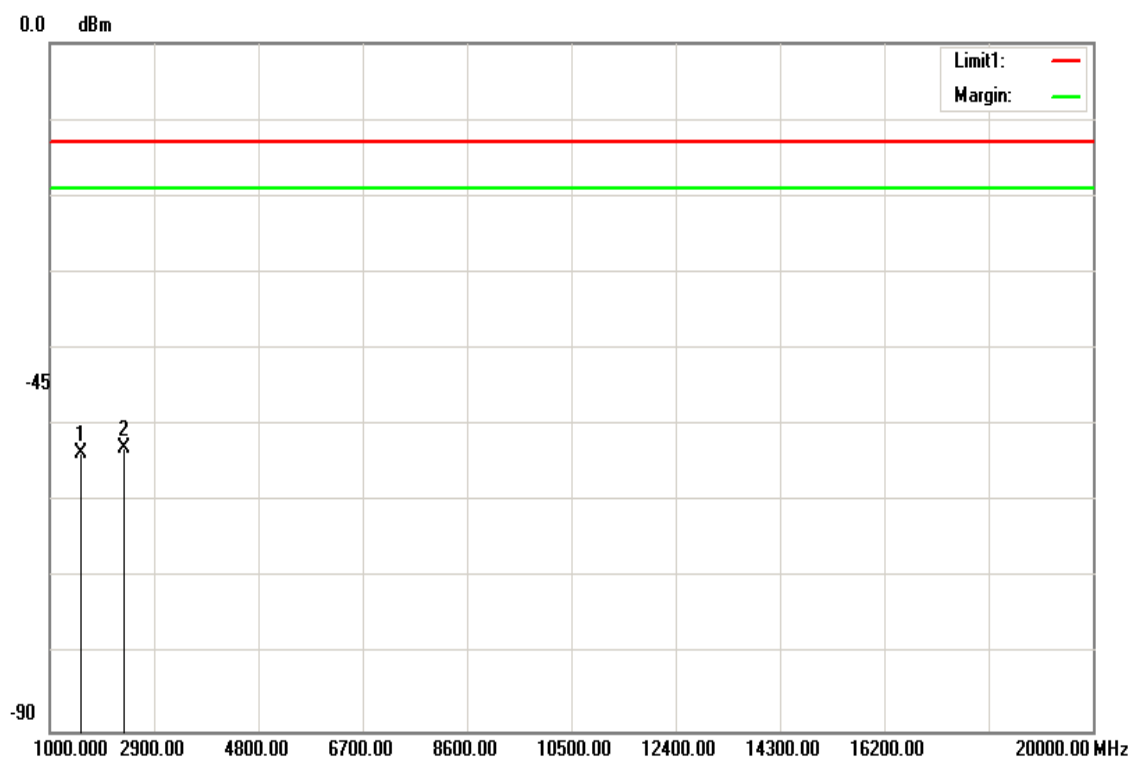
Operation Mode: Tx / Mid CH

Test Date: December 5, 2017

Temperature: 21°C

Tested by: Ivan Wang

Humidity: 52% RH

Polarity: Hor.


Frequency (MHz)	S.G. (dBm)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
1564.000	-55.22	1.52	-53.70	-13.00	-40.70	H
2346.000	-54.64	1.74	-52.90	-13.00	-39.90	H
N/A						

Remark:

- Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.

Test Results

Below 1GHz

LTE Band 17 / BW: 10MHz / QPSK / RB =1, RB Offset = 0

Operation Mode: Tx / Mid CH

Test Date:

December 5, 2017

Temperature: 23°C

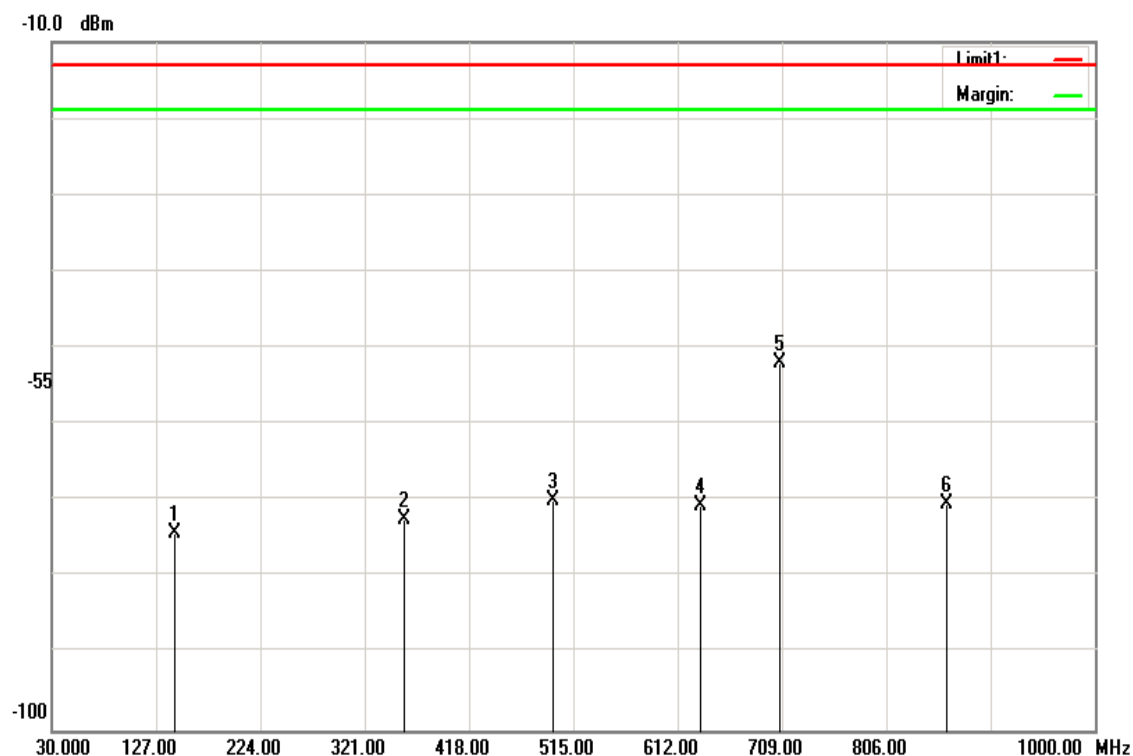
Tested by:

Ivan Wang

Humidity: 51% RH

Polarity:

Ver.



Frequency (MHz)	S.G. (dBm)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
143.9750	-75	0.84	-74.16	-13.00	-61.16	V
357.3750	-79.54	7.13	-72.41	-13.00	-59.41	V
495.6000	-76.8	6.82	-69.98	-13.00	-56.98	V
633.8250	-71.08	0.36	-70.72	-13.00	-57.72	V
706.5750	-53.85	2	-51.85	-13.00	-38.85	V
861.7750	-71.7	1.24	-70.46	-13.00	-57.46	V

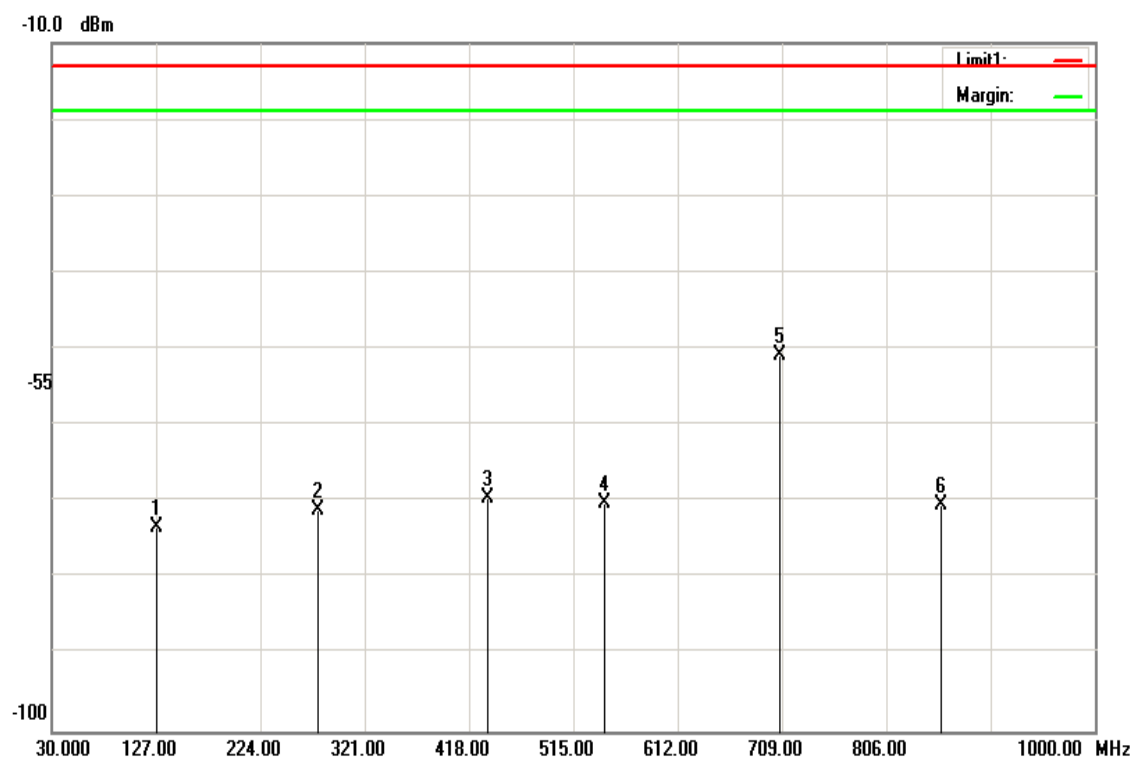
Operation Mode: Tx / Mid CH

Test Date: December 5, 2017

Temperature: 23°C

Tested by: Ivan Wang

Humidity: 51% RH

Polarity: Hor.


Frequency (MHz)	S.G. (dBm)	Ant. Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
127.0000	-74.36	1.01	-73.35	-13.00	-60.35	H
277.3500	-78.11	7.13	-70.98	-13.00	-57.98	H
434.9750	-76.56	7.13	-69.43	-13.00	-56.43	H
544.1000	-77.11	6.84	-70.27	-13.00	-57.27	H
706.5750	-52.75	2	-50.75	-13.00	-37.75	H
856.9250	-71.61	1.21	-70.40	-13.00	-57.40	H

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LTE Band 17 / BW: 10MHz / 16QAM / RB =1, RB Offset = 0
Operation Mode: Tx / Mid CH

Test Date:

December 5, 2017

Temperature: 23°C

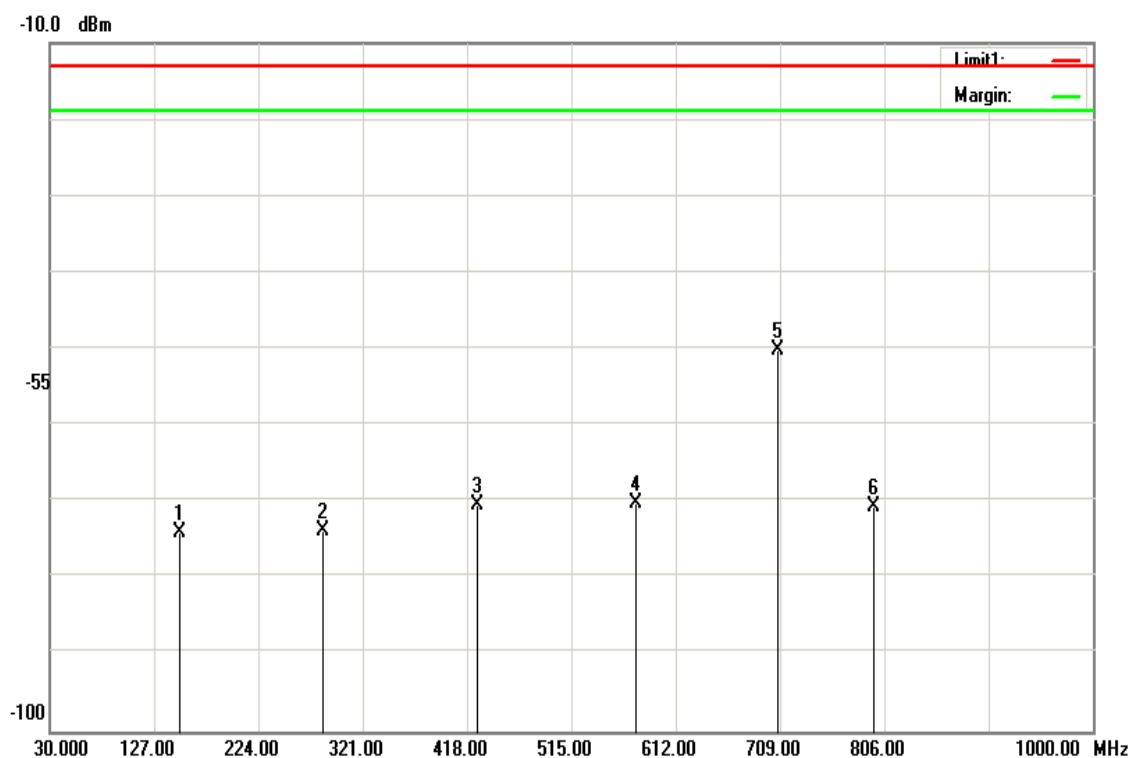
Tested by:

Ivan Wang

Humidity: 51% RH

Polarity:

Ver.



Frequency (MHz)	S.G. (dBm)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
151.2500	-74.23	0.19	-74.04	-13.00	-61.04	V
284.6250	-80.9	7.05	-73.85	-13.00	-60.85	V
427.7000	-77.56	7.16	-70.40	-13.00	-57.40	V
575.6250	-72.62	2.53	-70.09	-13.00	-57.09	V
706.5750	-52.11	2	-50.11	-13.00	-37.11	V
796.3000	-71.92	1.32	-70.60	-13.00	-57.60	V



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Operation Mode: Tx / Mid CH

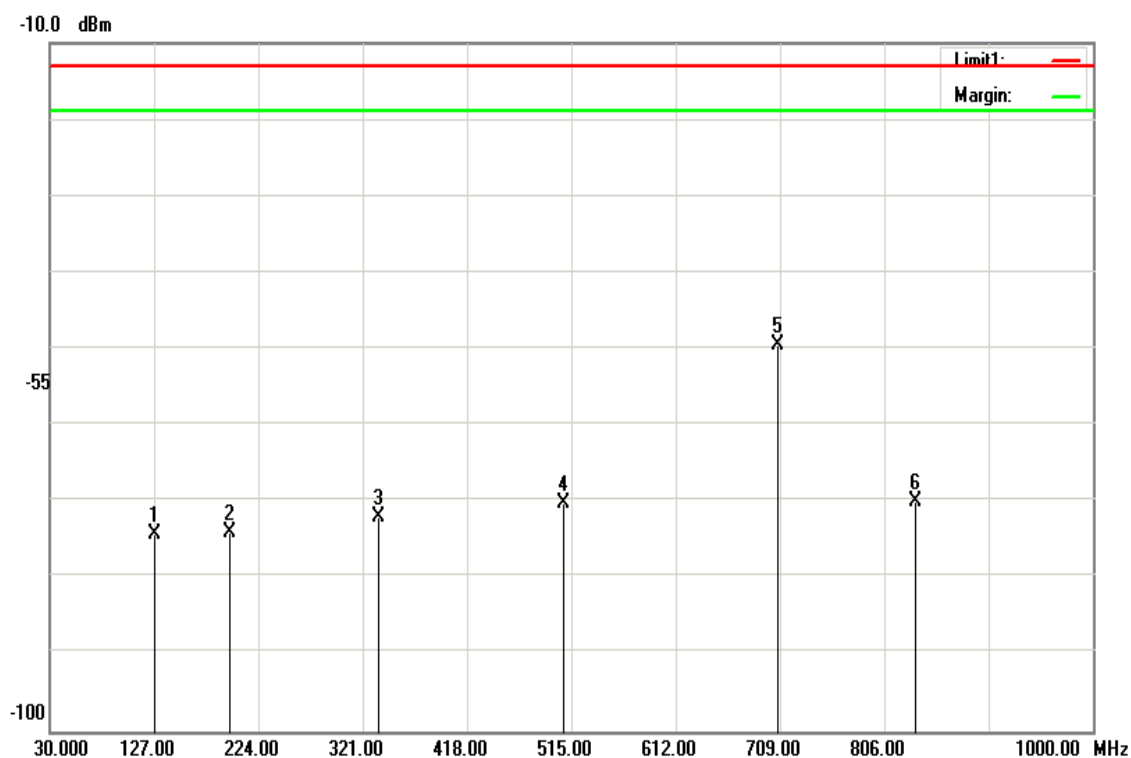
Test Date: December 5, 2017

Temperature: 23°C

Tested by: Ivan Wang

Humidity: 51% RH

Polarity: Hor.



Frequency (MHz)	S.G. (dBm)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
127.0000	-75.34	1.01	-74.33	-13.00	-61.33	H
197.3250	-78.09	4.1	-73.99	-13.00	-60.99	H
335.5500	-78.99	7.04	-71.95	-13.00	-58.95	H
507.7250	-77.09	6.81	-70.28	-13.00	-57.28	H
706.5750	-51.55	2	-49.55	-13.00	-36.55	H
835.1000	-71.26	1.21	-70.05	-13.00	-57.05	H



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Above 1GHz

LTE Band 17 / BW: 10MHz / QPSK RB =1, RB Offset = 0

Operation Mode: Tx / Low CH

Test Date:

December 5, 2017

Temperature: 21°C

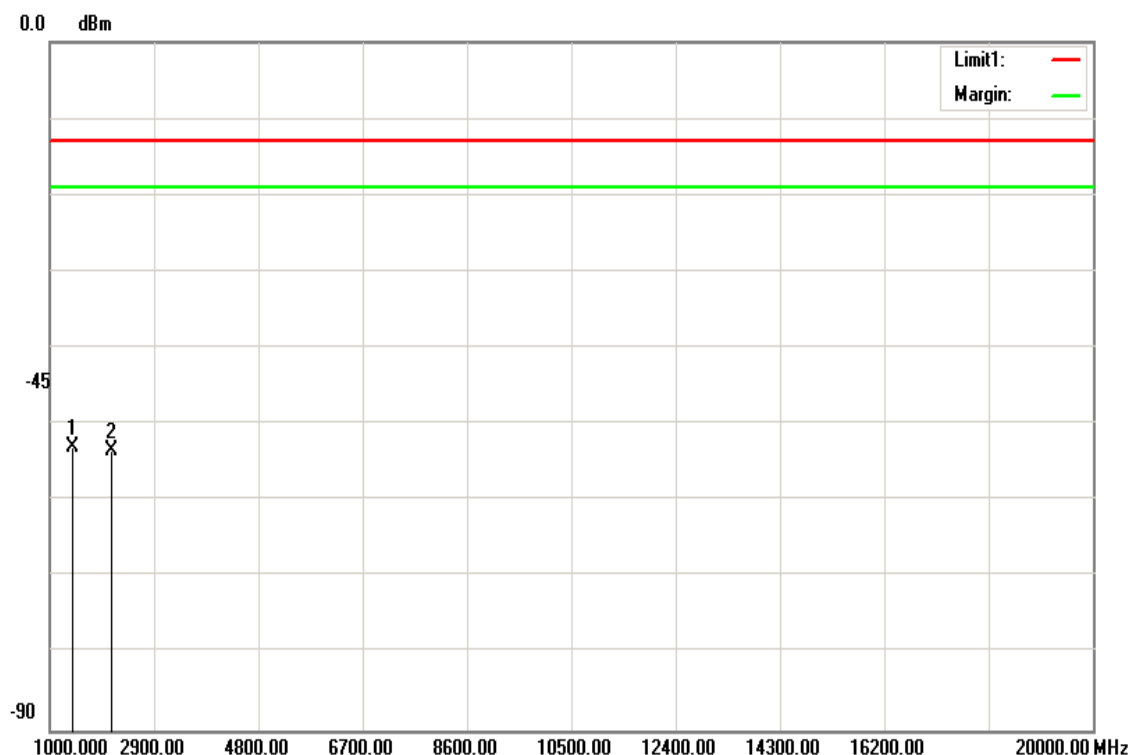
Tested by:

Ivan Wang

Humidity: 52% RH

Polarity:

Ver.



Frequency (MHz)	S.G. (dBm)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
1418.000	-55.24	2.33	-52.91	-13.00	-39.91	V
2127.000	-54.93	1.58	-53.35	-13.00	-40.35	V
N/A						

Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.



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Operation Mode: Tx / Low CH

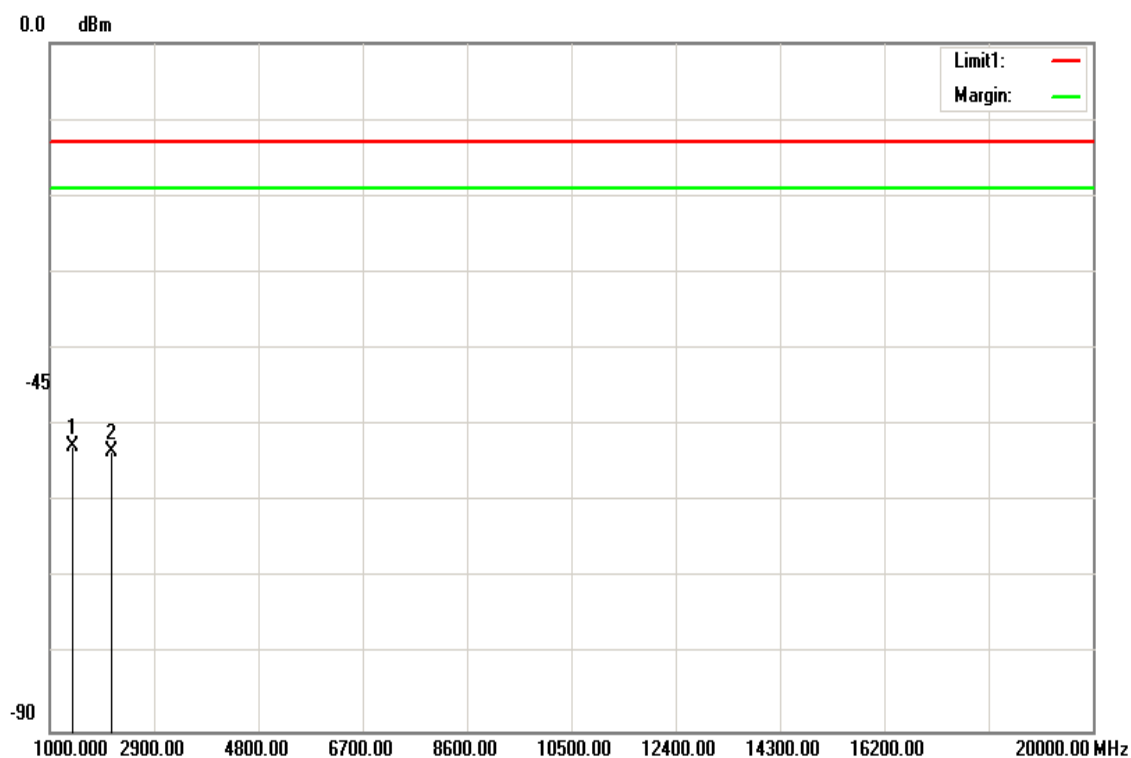
Test Date: December 5, 2017

Temperature: 21°C

Tested by: Ivan Wang

Humidity: 52% RH

Polarity: Hor.



Frequency (MHz)	S.G. (dBm)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
1418.000	-55.02	2.33	-52.69	-13.00	-39.69	H
2127.000	-55.07	1.58	-53.49	-13.00	-40.49	H
N/A						

Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.



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Operation Mode: Tx / Mid CH

Temperature: 21°C

Humidity: 52% RH

Test Date:

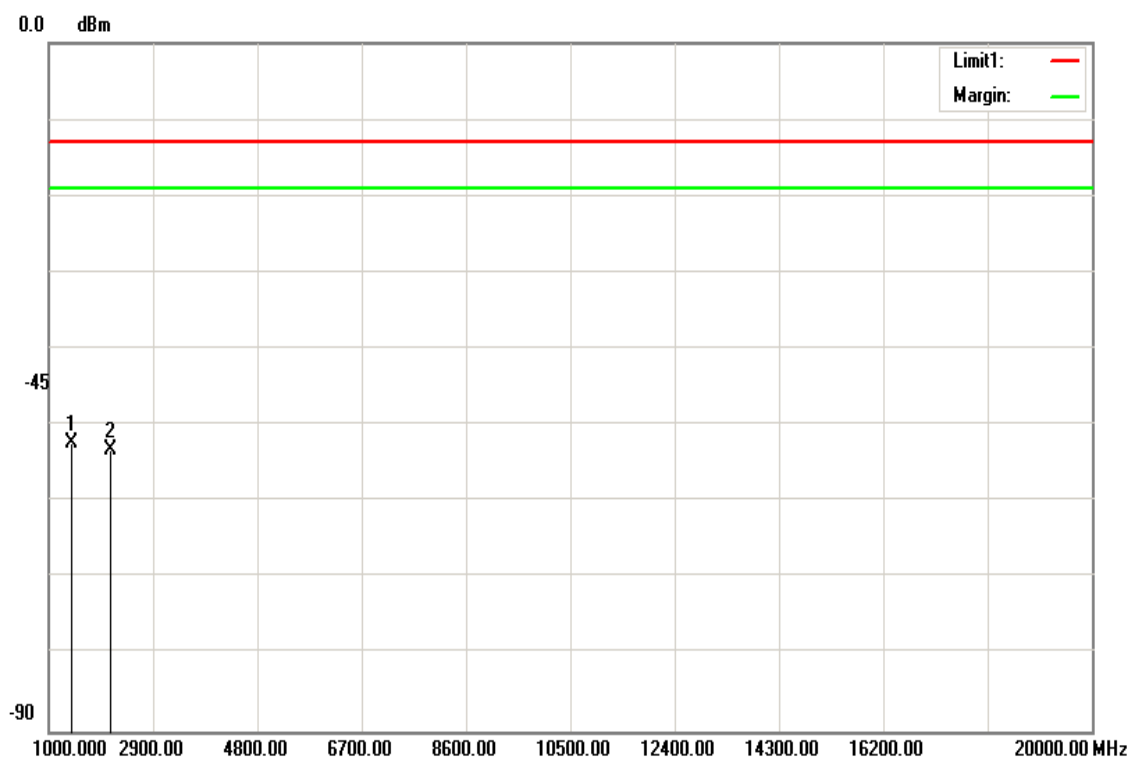
December 5, 2017

Tested by:

Ivan Wang

Polarity:

Ver.



Frequency (MHz)	S.G. (dBm)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
1420.000	-54.55	2.31	-52.24	-13.00	-39.24	V
2130.000	-54.69	1.58	-53.11	-13.00	-40.11	V
N/A						

Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.



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Operation Mode: Tx / Mid CH

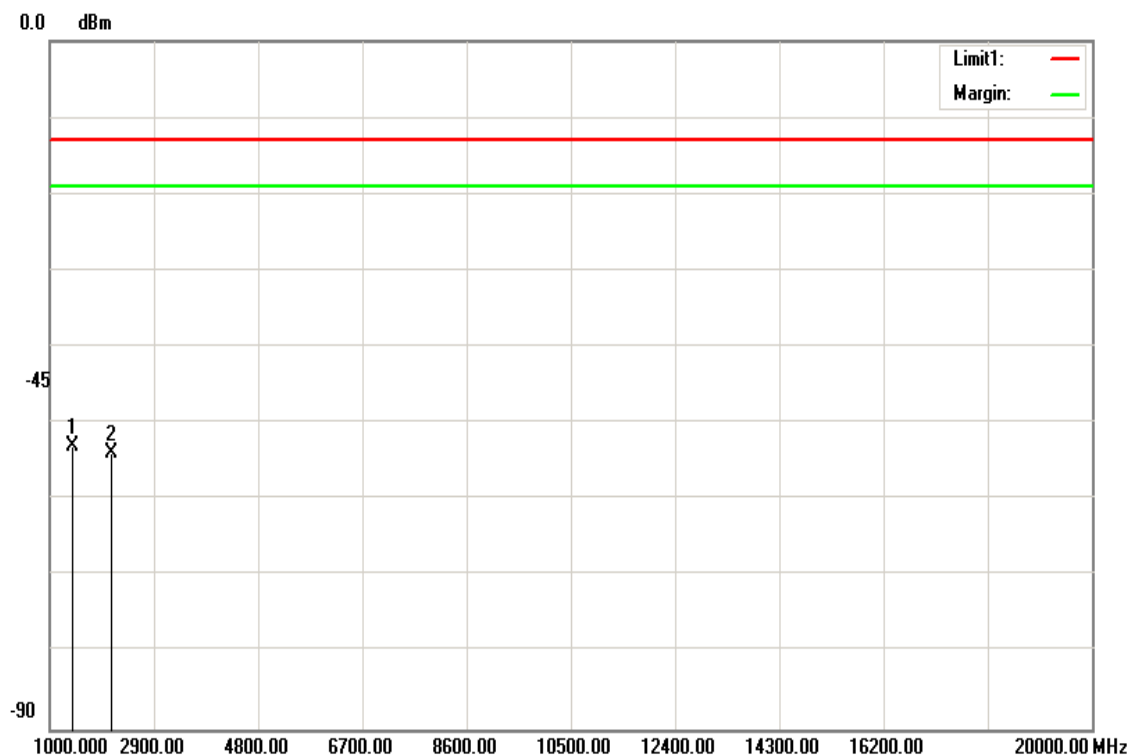
Temperature: 21°C

Humidity: 52% RH

Test Date: December 5, 2017

Tested by: Ivan Wang

Polarity: Hor.



Frequency (MHz)	S.G. (dBm)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
1420.000	-55.28	2.31	-52.97	-13.00	-39.97	H
2130.000	-55.51	1.58	-53.93	-13.00	-40.93	H
N/A						

Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.

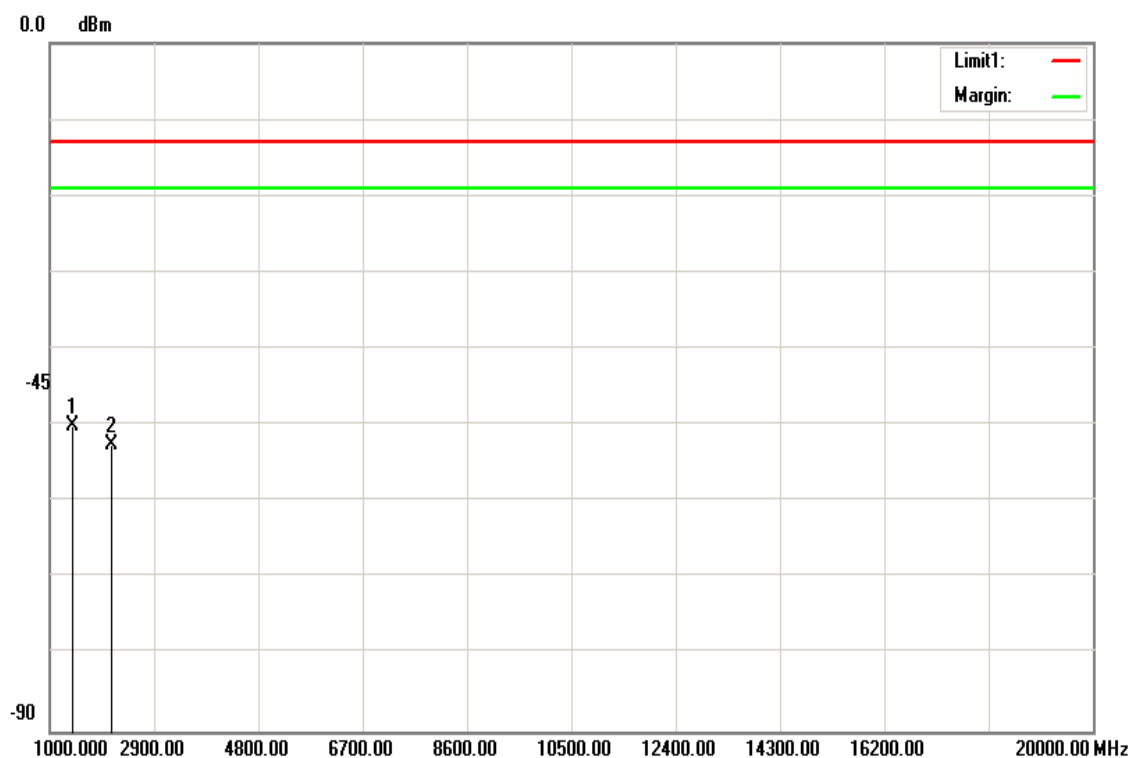
Operation Mode: Tx / High CH

Test Date: December 5, 2017

Temperature: 21°C

Tested by: Ivan Wang

Humidity: 52% RH

Polarity: Ver.


Frequency (MHz)	S.G. (dBm)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
1422.000	-52.32	2.29	-50.03	-13.00	-37.03	V
2133.000	-54.12	1.59	-52.53	-13.00	-39.53	V
N/A						

Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.

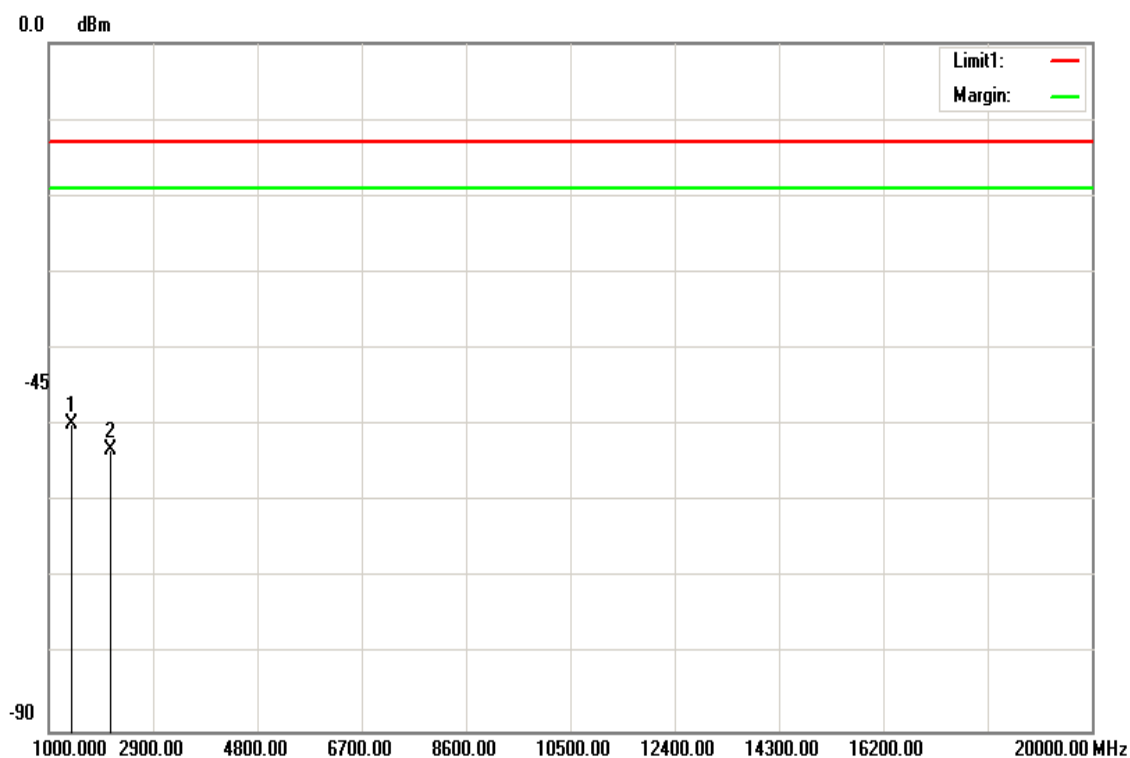
Operation Mode: Tx / High CH

Test Date: December 5, 2017

Temperature: 21°C

Tested by: Ivan Wang

Humidity: 52% RH

Polarity: Hor.


Frequency (MHz)	S.G. (dBm)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
1422.000	-52.12	2.29	-49.83	-13.00	-36.83	H
2133.000	-54.88	1.59	-53.29	-13.00	-40.29	H
N/A						

Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.



Report No.: T170908D07-A-RP9

LTE Band 17 / BW: 10MHz / 16QAM / RB =1, RB Offset = 0

Operation Mode: Tx / Low CH

Test Date:

December 5, 2017

Temperature: 21°C

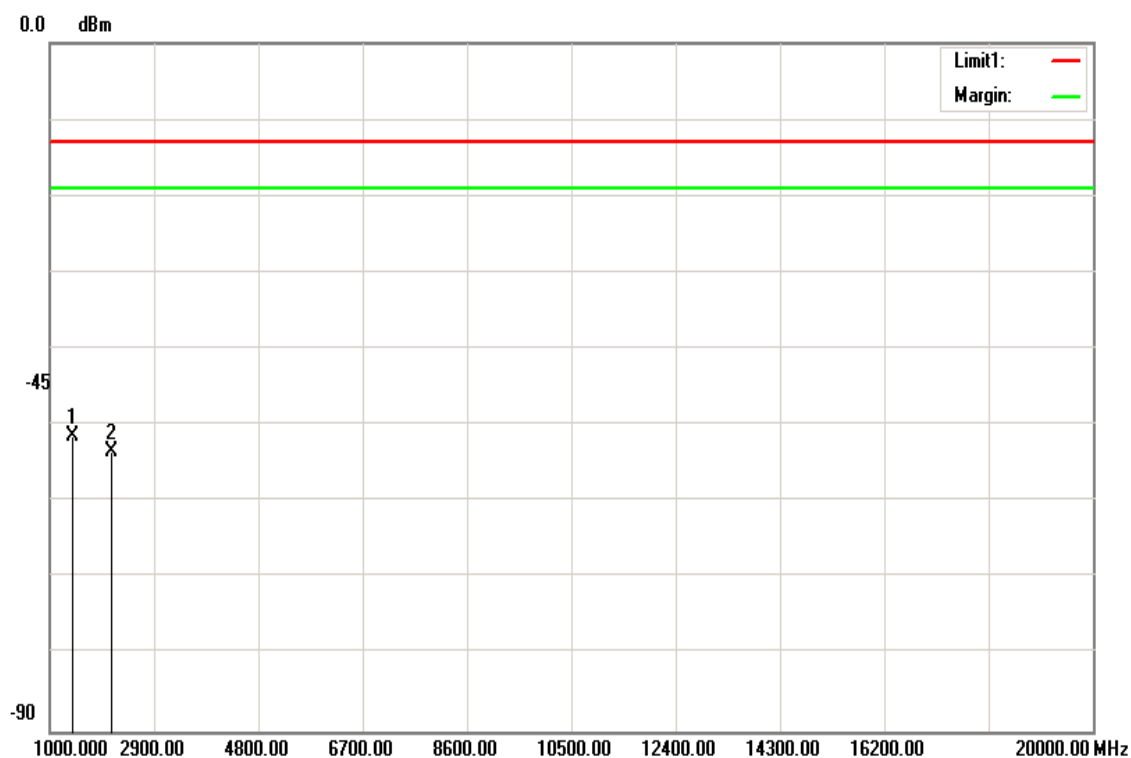
Tested by:

Ivan Wang

Humidity: 52% RH

Polarity:

Ver.



Frequency (MHz)	S.G. (dBm)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
1418.000	-53.81	2.33	-51.48	-13.00	-38.48	V
2127.000	-54.99	1.58	-53.41	-13.00	-40.41	V
N/A						

Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.



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Operation Mode: Tx / Low CH

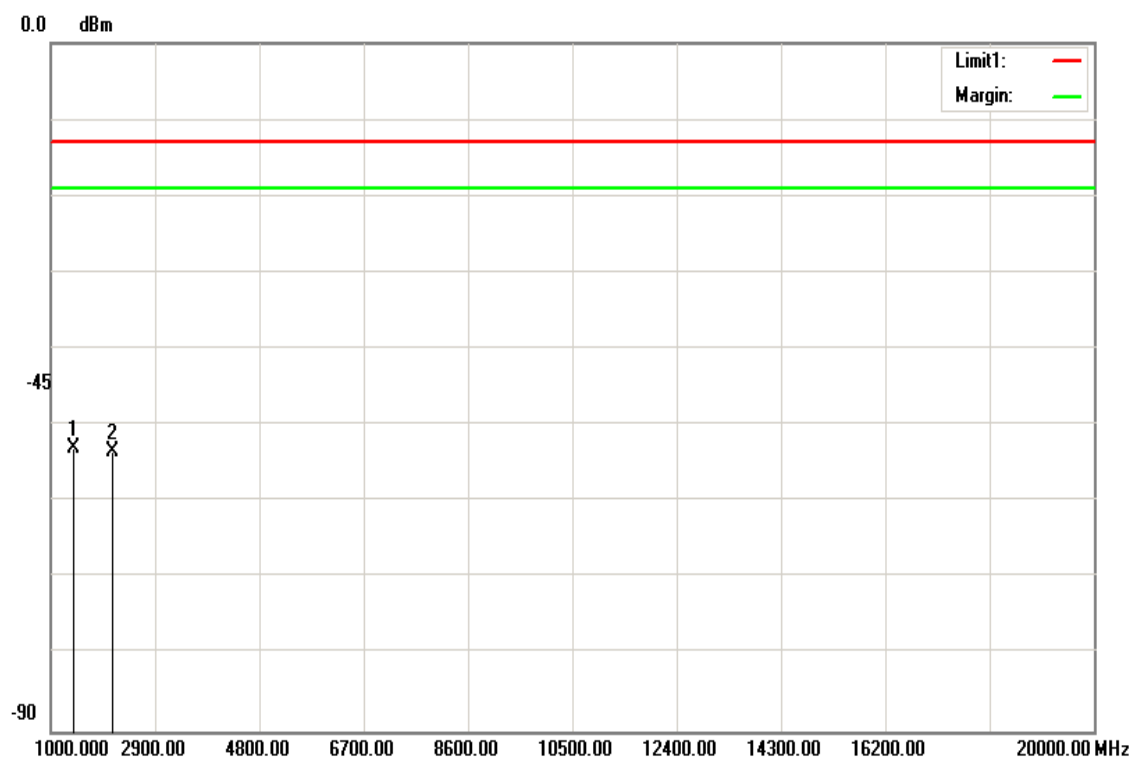
Temperature: 21°C

Humidity: 52% RH

Test Date: December 5, 2017

Tested by: Ivan Wang

Polarity: Hor.



Frequency (MHz)	S.G. (dBm)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
1418.000	-55.31	2.33	-52.98	-13.00	-39.98	H
2127.000	-55.11	1.58	-53.53	-13.00	-40.53	H
N/A						

Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.



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Operation Mode: Tx / Mid CH

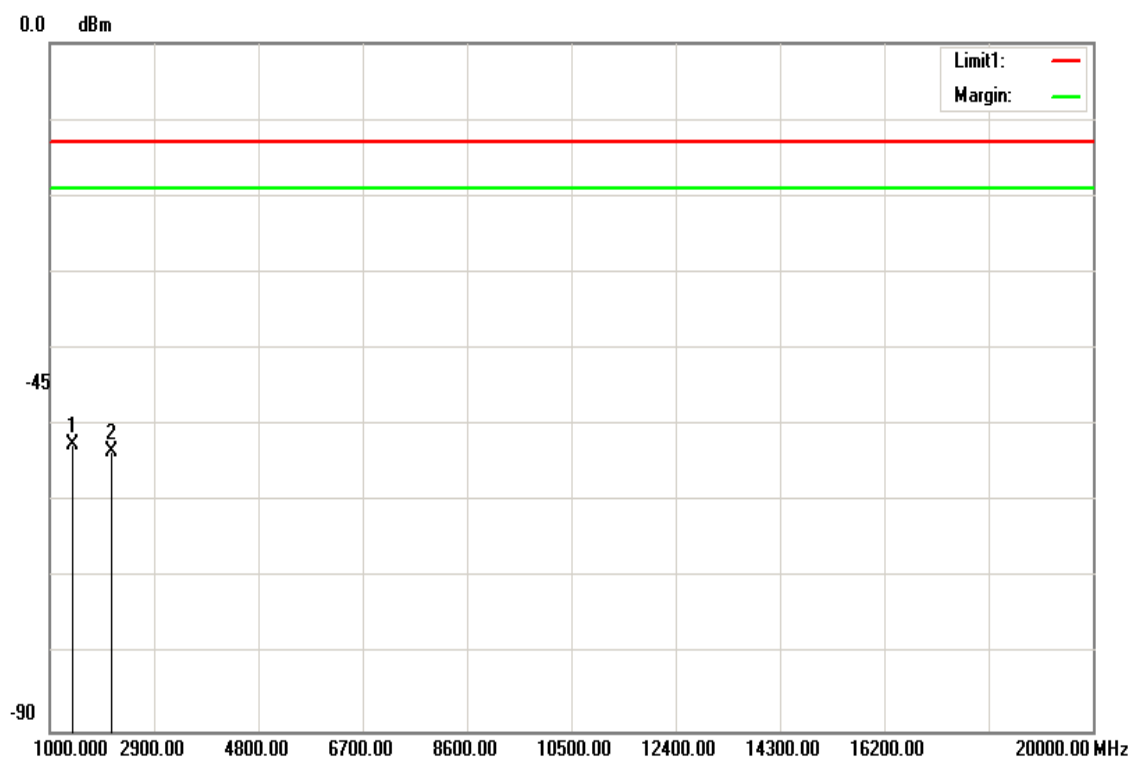
Temperature: 21°C

Humidity: 52% RH

Test Date: December 5, 2017

Tested by: Ivan Wang

Polarity: Ver.



Frequency (MHz)	S.G. (dBm)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
1420.000	-54.79	2.31	-52.48	-13.00	-39.48	V
2130.000	-55.06	1.58	-53.48	-13.00	-40.48	V
N/A						

Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.

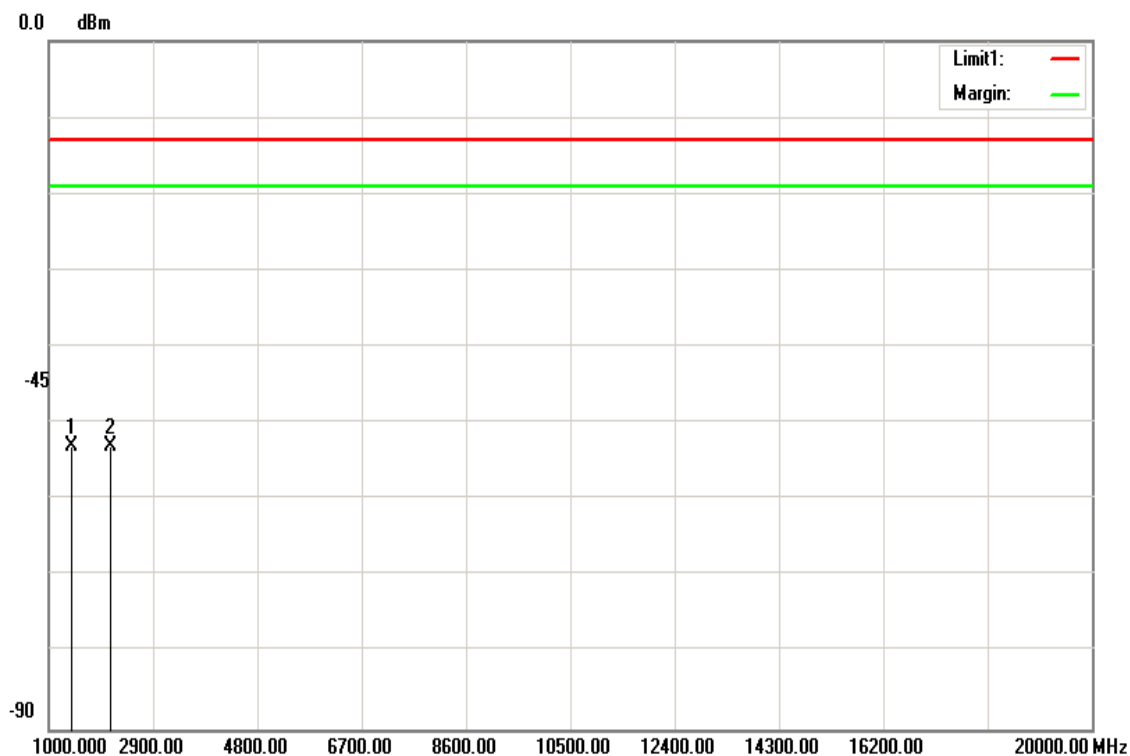
Operation Mode: Tx / Mid CH

Test Date: December 5, 2017

Temperature: 21°C

Tested by: Ivan Wang

Humidity: 52% RH

Polarity: Hor.


Frequency (MHz)	S.G. (dBm)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
1420.000	-55.19	2.31	-52.88	-13.00	-39.88	H
2130.000	-54.55	1.58	-52.97	-13.00	-39.97	H
N/A						

Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.



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Rev.: 02

Operation Mode: Tx / High CH

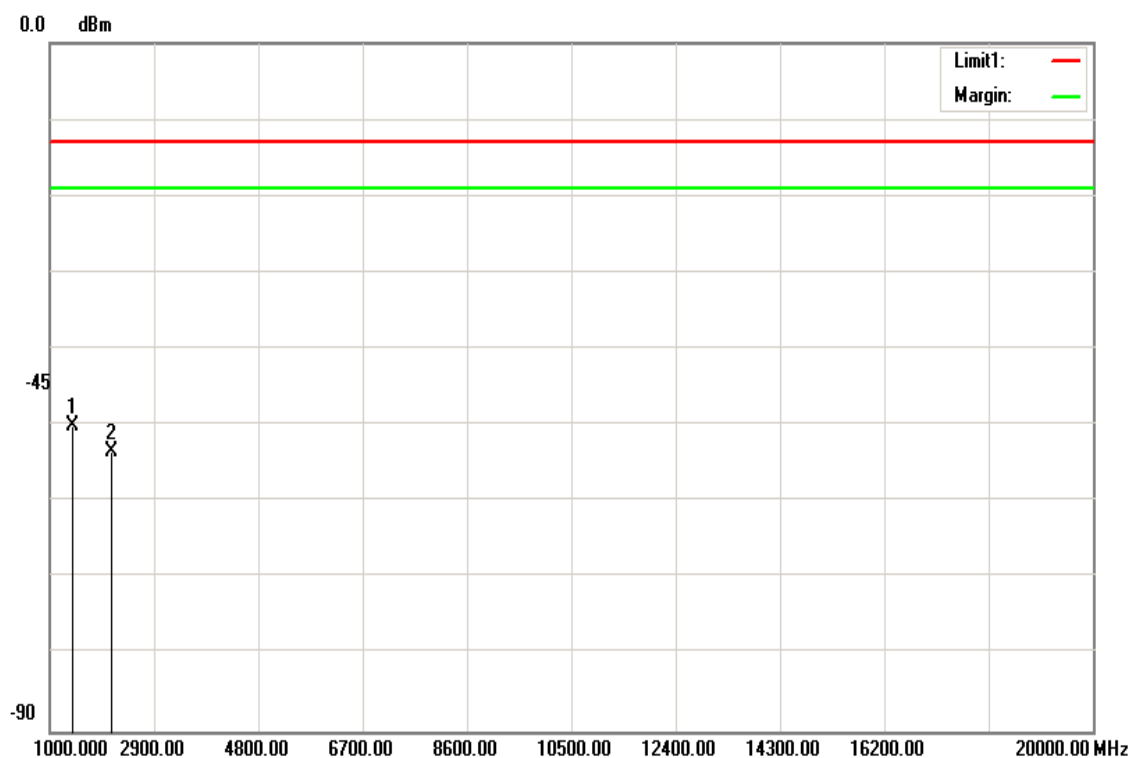
Temperature: 21°C

Humidity: 52% RH

Test Date: December 5, 2017

Tested by: Ivan Wang

Polarity: Ver.



Frequency (MHz)	S.G. (dBm)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
1422.000	-52.39	2.29	-50.10	-13.00	-37.10	V
2133.000	-55.14	1.59	-53.55	-13.00	-40.55	V
N/A						

Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.



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Operation Mode: Tx / High CH

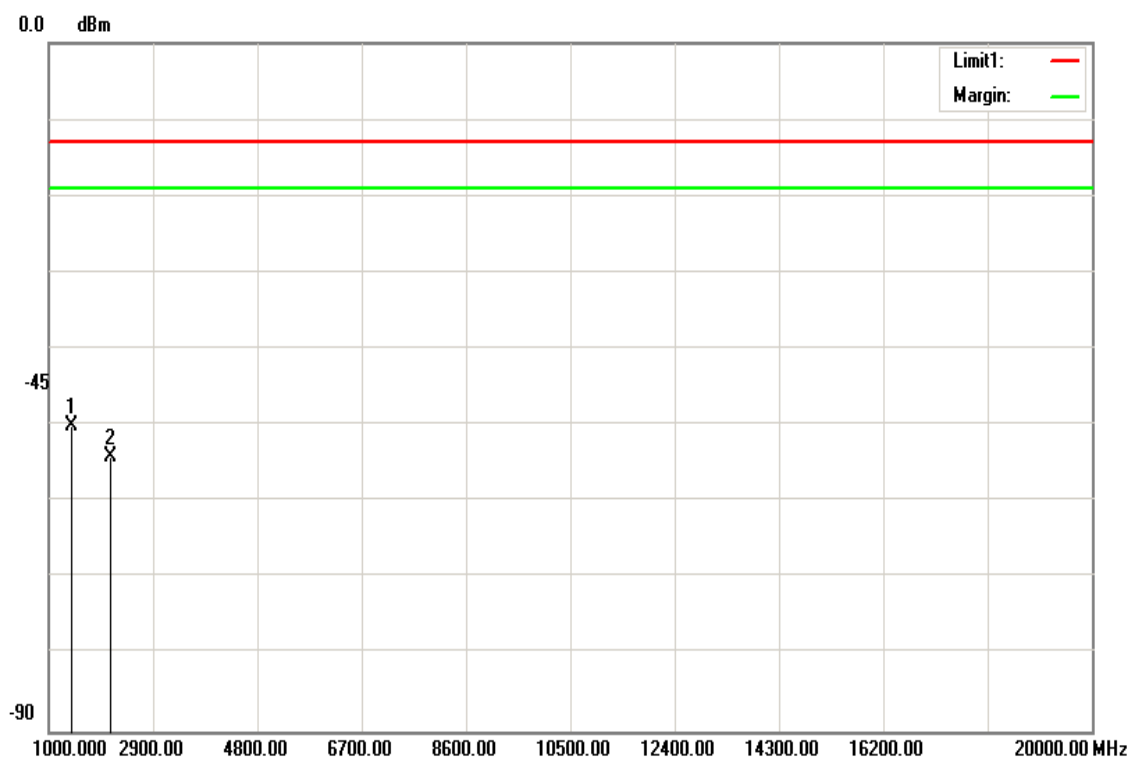
Temperature: 21°C

Humidity: 52% RH

Test Date: December 5, 2017

Tested by: Ivan Wang

Polarity: Hor.



Frequency (MHz)	S.G. (dBm)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
1422.000	-52.38	2.29	-50.09	-13.00	-37.09	H
2133.000	-55.78	1.59	-54.19	-13.00	-41.19	H
N/A						

Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.

-- End of Test Report --