



Test Report Serial Number:

45461624 R1.0

Test Report Date:

4 December 2020

Project Number:

1511

Appendix H - Conducted Tx Spurious Emissions Measurement Plots

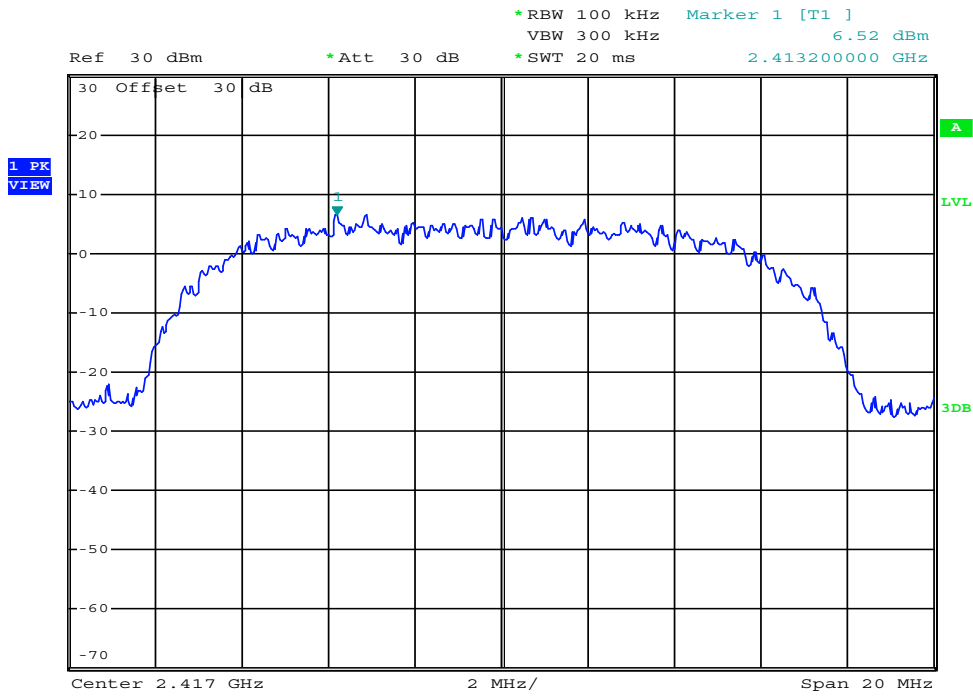
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Conducted Spurious Emissions - Reference Measurement

Frequency (MHz)	Modulation	Bit Rate (Mbps)	Measured PSD [P _{Meas}] (dBm)	Required Attenuation [A _R] (dB)	Limit Line [A _L] (dBm)
2412.00	DSSS	11	6.52	30	-23.480
2412.00	OFDM	54	3.70	30	-26.300
2412.00	MCS0	-	2.97	30	-27.030

Power Spectral Density



Date: 19.NOV.2020 16:18:46

Channel Frequency:

2417.00 MHz

DUT Modulation:

DSSS

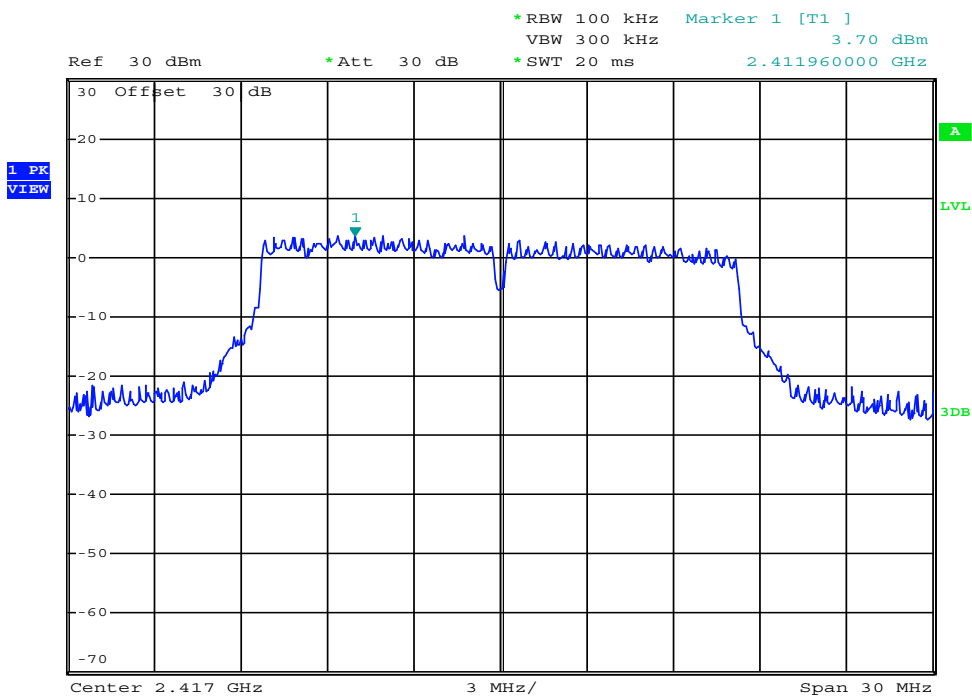
Data Rate:

11 Mbps

Measured PSD:

6.52 dBm

Power Spectral Density



Date: 19.NOV.2020 16:30:52

Channel Frequency:

2417.00 MHz

DUT Modulation:

OFDM

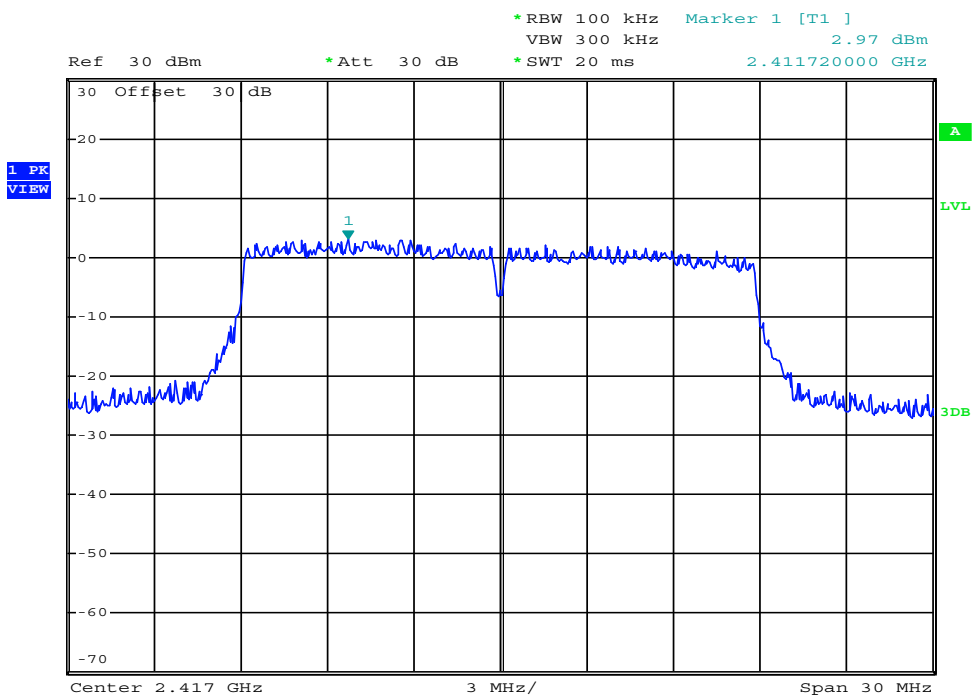
Data Rate:

54 Mbps

Measured PSD:

3.70 dBm

Power Spectral Density



Date: 19.NOV.2020 16:29:58

Channel Frequency:

2417.00 MHz

DUT Modulation:

MCS0

Data Rate:

- Mbps

Measured PSD:

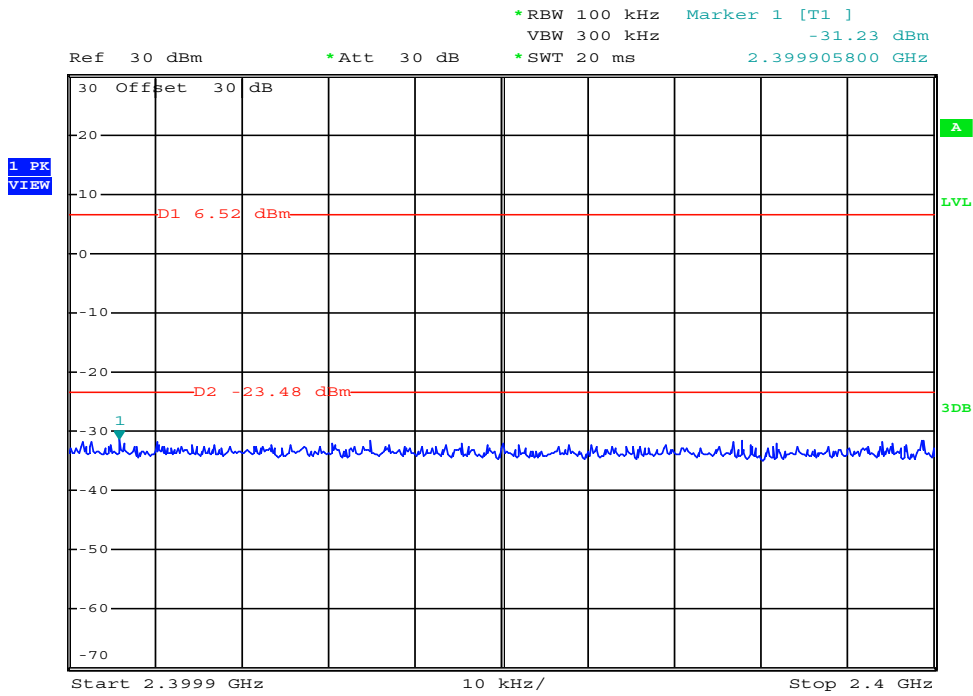
2.97 dBm

Emission Level Measurement - Band Edge						
Channel Frequency (MHz)	Modulation	Bit Rate (Mbps)	Measured Emission [E _{Meas}] (dBm)	Emission Frequency (MHz)	Limit Line [A _L] (dBm)	Margin (dB)
2412	DSSS	1	-31.23	2.399	-23.48	7.75
2412	DSSS	11	-28.35	2.399		4.87
2412	OFDM	54	-29.33	2.399		5.85
2412	MCS0	-	-29.80	2.399		6.32
2462	DSSS	1	-31.72	2.483		8.24
2462	DSSS	11	-34.38	2.483		10.90
2462	OFDM	54	-31.91	2.399		8.43
2462	MCS0	-	-31.34	2.399		7.86
Results:					Complies	

Margin = A_L - E_{MEAS}

Limit Line = Measured PSD - Required Attenuation

Conducted Spurious Emissions - Lower Band Edge



Date: 19.NOV.2020 16:39:32

Channel Frequency:

2412.00 MHz

Emission Frequency:

2.399 MHz

DUT Modulation:

DSSS

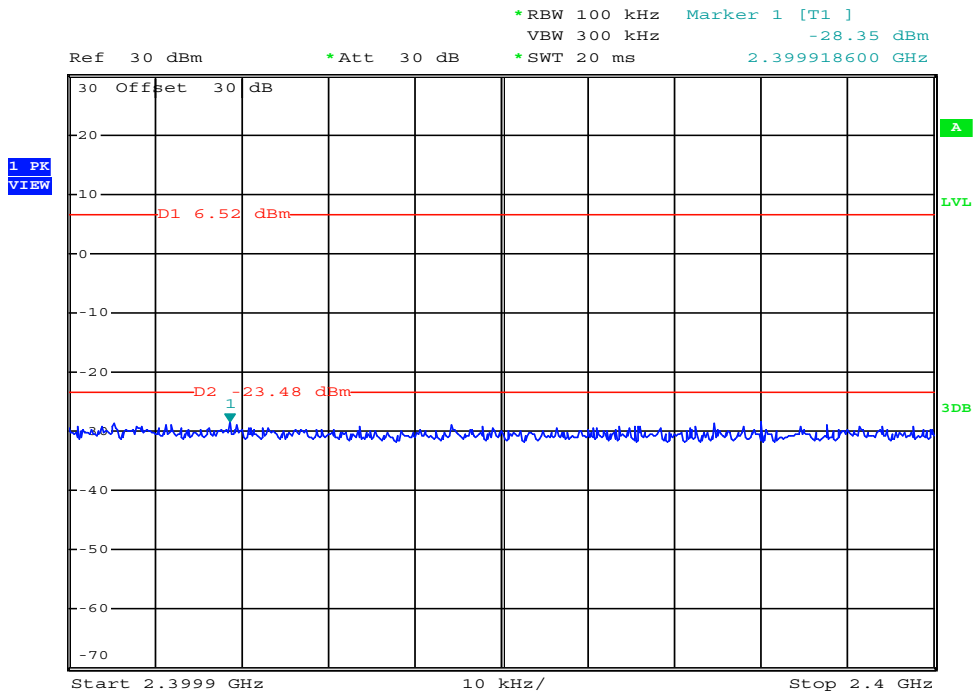
Data Rate:

1 Mbps

Measured Emission:

-31.23 dBm

Conducted Spurious Emissions - Lower Band Edge



Date: 19.NOV.2020 16:40:18

Channel Frequency:

2412.00 MHz

Emission Frequency:

2.399 MHz

DUT Modulation:

DSSS

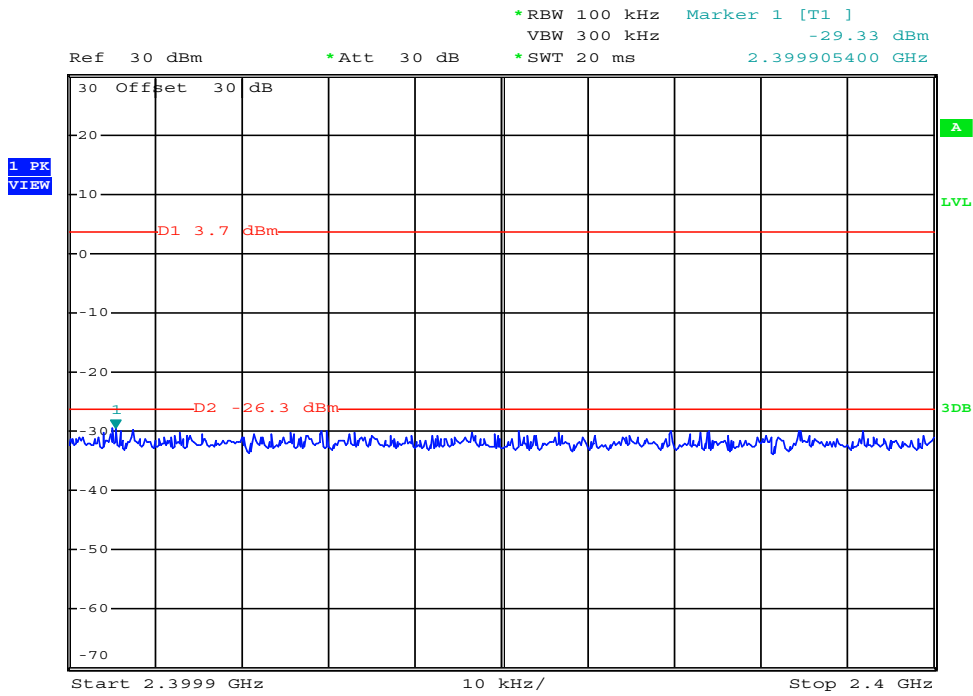
Data Rate:

11 Mbps

Measured Emission:

-28.35 dBm

Conducted Spurious Emissions - Lower Band Edge



Date: 19.NOV.2020 16:43:14

Channel Frequency:

2412.00 MHz

Emission Frequency:

2.399 MHz

DUT Modulation:

OFDM

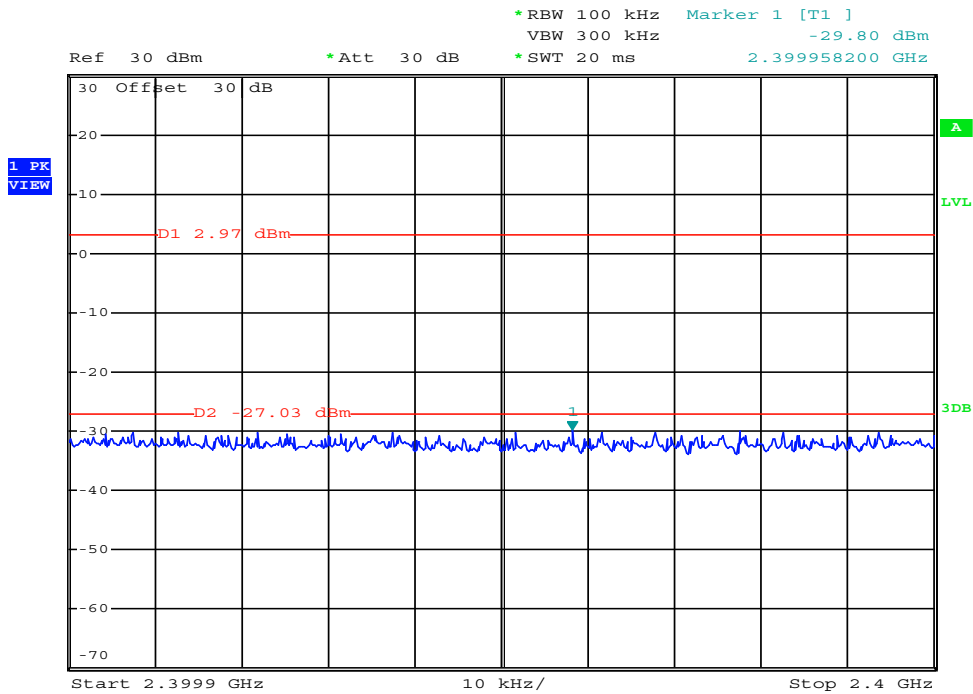
Data Rate:

54 Mbps

Measured Emission:

-29.33 dBm

Conducted Spurious Emissions - Lower Band Edge



Date: 19.NOV.2020 16:44:31

Channel Frequency:

2412.00 MHz

Emission Frequency:

2.399 MHz

DUT Modulation:

MCS0

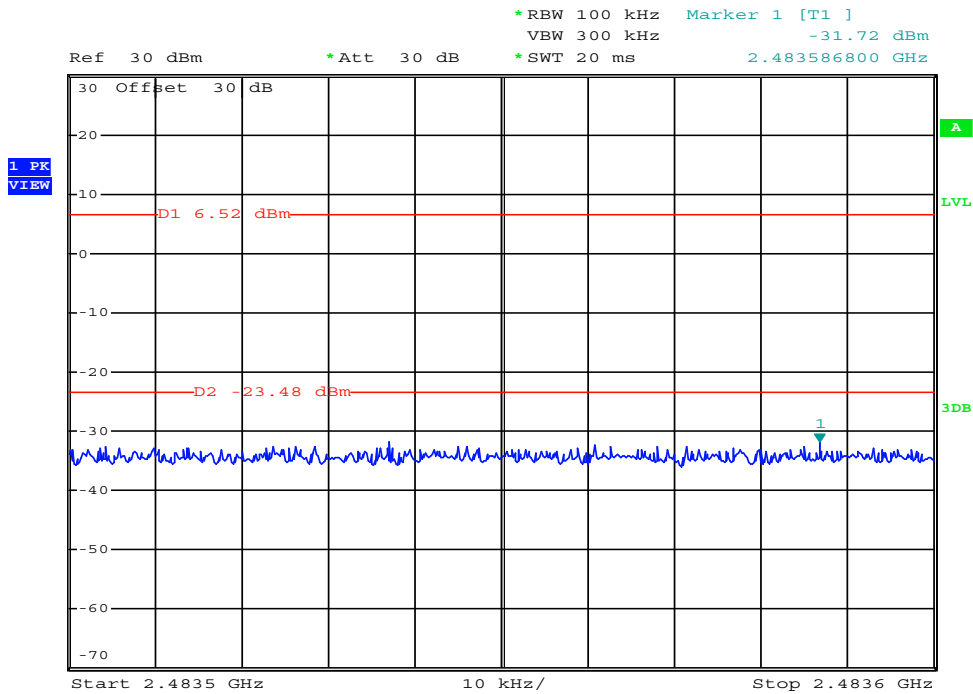
Data Rate:

- Mbps

Measured Emission:

-29.80 dBm

Conducted Spurious Emissions - Upper Band Edge



Date: 19.NOV.2020 16:50:03

Channel Frequency:

2462.00 MHz

Emission Frequency:

2.483 MHz

DUT Modulation:

DSSS

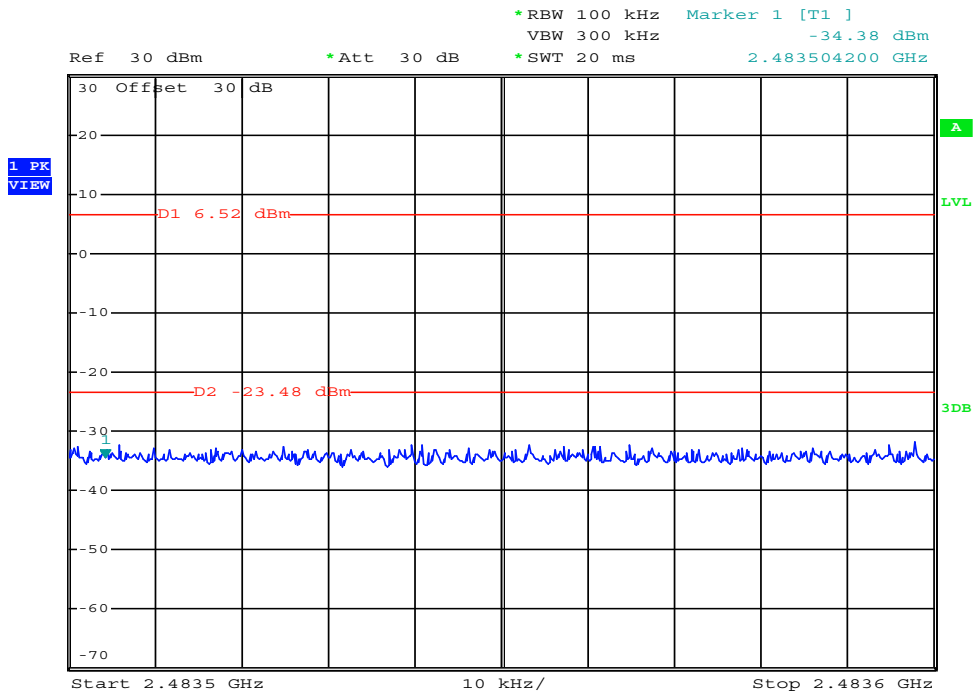
Data Rate:

1 Mbps

Measured Emission:

-31.72 dBm

Conducted Spurious Emissions - Upper Band Edge



Date: 19.NOV.2020 16:49:23

Channel Frequency:

2462.00 MHz

Emission Frequency:

2.483 MHz

DUT Modulation:

DSSS

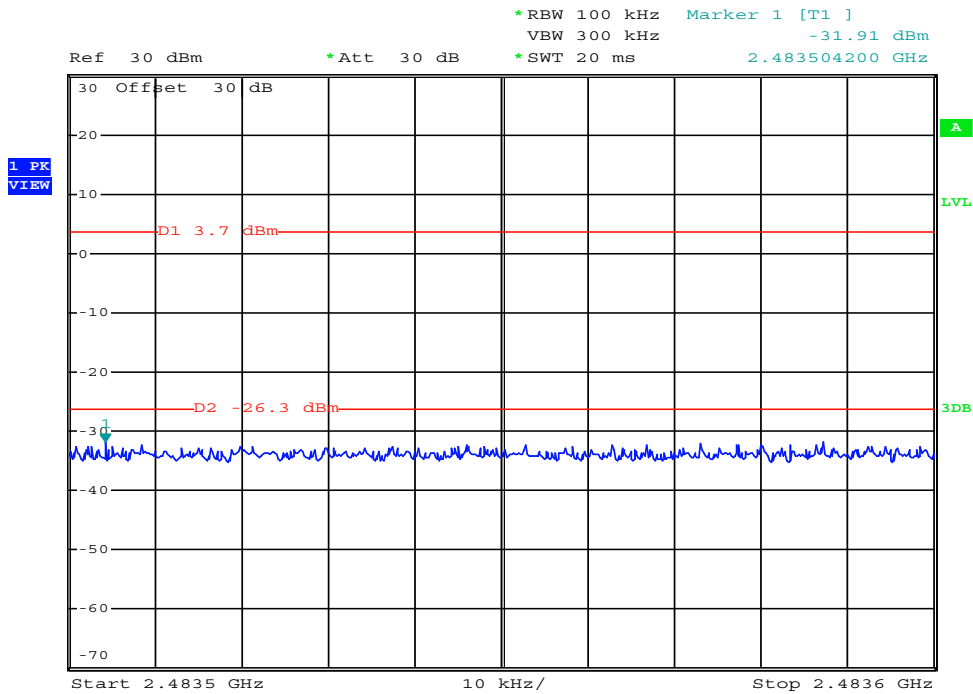
Data Rate:

11 Mbps

Measured Emission:

-34.38 dBm

Conducted Spurious Emissions - Upper Band Edge



Date: 19.NOV.2020 16:48:05

Channel Frequency:

2462.00 MHz

Emission Frequency:

2.399 MHz

DUT Modulation:

OFDM

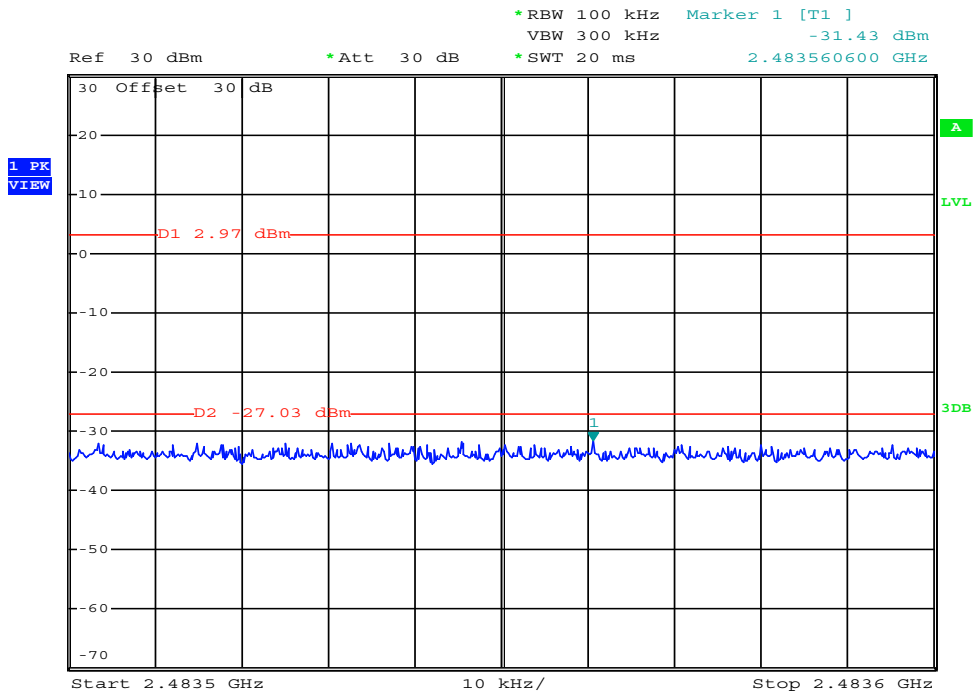
Data Rate:

54 Mbps

Measured Emission:

-31.91 dBm

Conducted Spurious Emissions - Upper Band Edge



Date: 19.NOV.2020 16:46:50

Channel Frequency:

2462.00 MHz

Emission Frequency:

2.399 MHz

DUT Modulation:

MCS0

Data Rate:

- Mbps

Measured Emission:

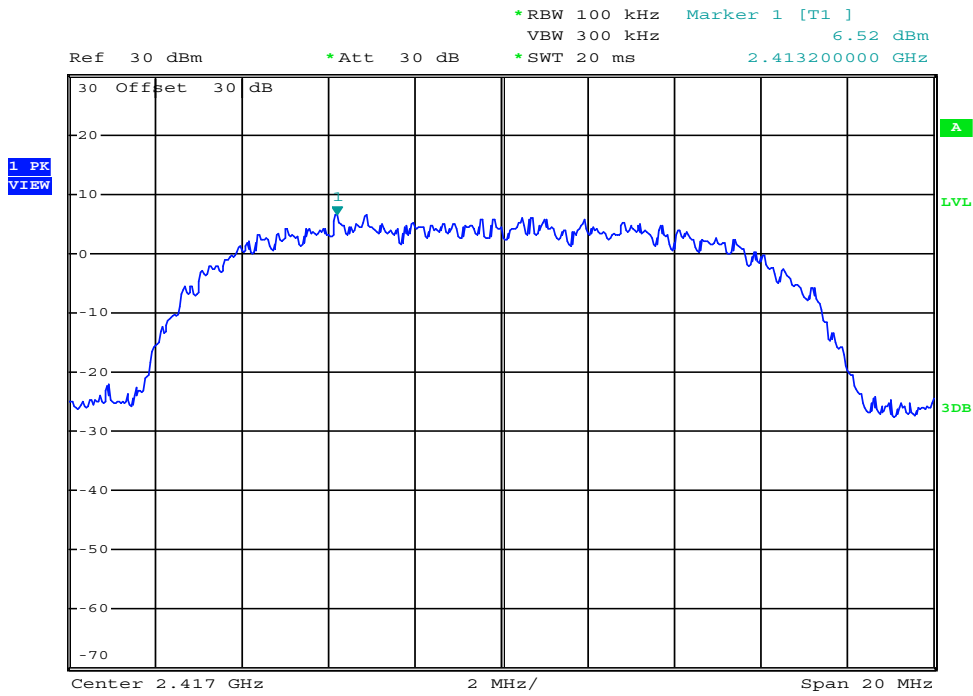
-31.34 dBm

Conducted Spurious Emissions - Reference Measurement

Frequency (MHz)	Modulation	Bit Rate (Mbps)	Measured PSD [P _{Meas}] (dBm)	Required Attenuation [A _R] (dB)	Limit Line [A _L] (dBm)
2402.00	Pi/4-DQPSK	2	7.21	30	-22.79
2442.00			7.04	30	-22.96
2480.00			7.01	30	-22.99

Limit Line = Measured PSD - Required Attenuation

Power Spectral Density



Date: 19.NOV.2020 16:18:46

Channel Frequency:

2417.00 MHz

DUT Modulation:

DSSS

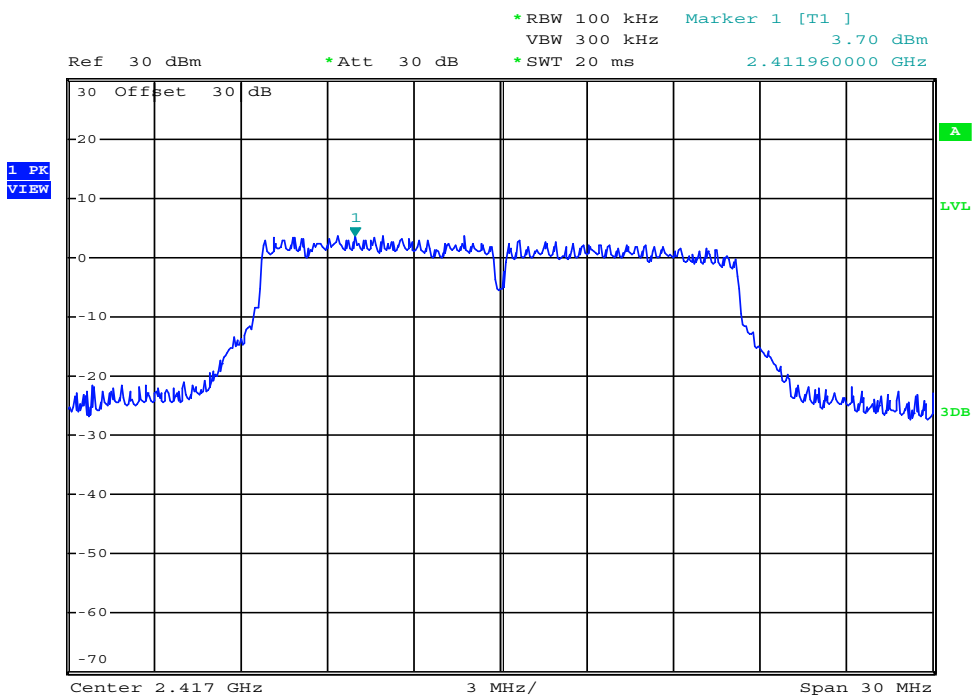
Data Rate:

11 Mbps

Measured PSD:

6.52 dBm

Power Spectral Density



Date: 19.NOV.2020 16:30:52

Channel Frequency:

2417.00 MHz

DUT Modulation:

OFDM

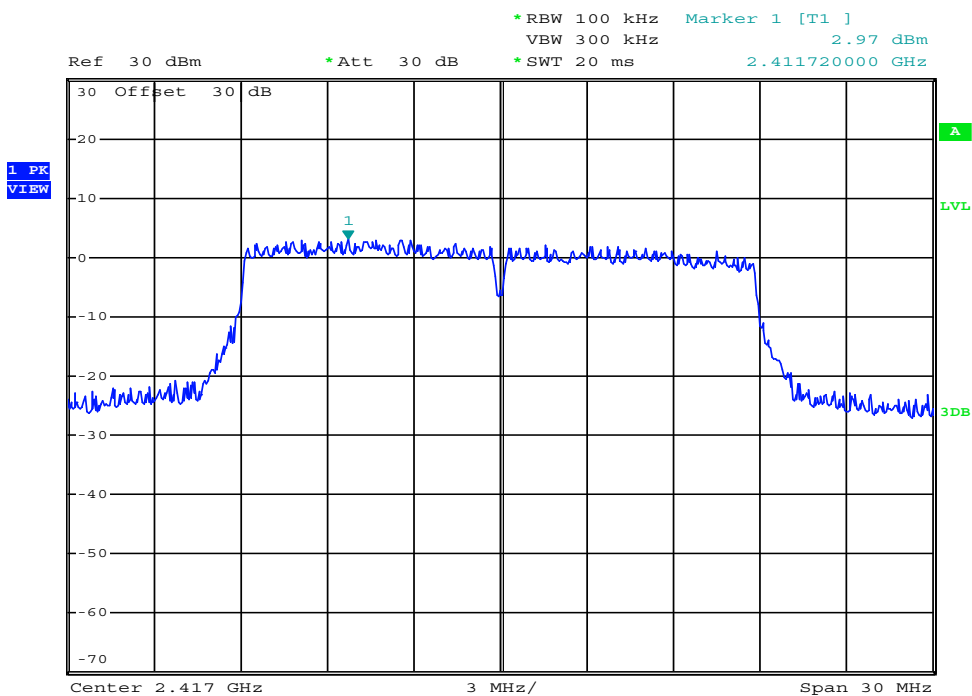
Data Rate:

54 Mbps

Measured PSD:

3.70 dBm

Power Spectral Density



Date: 19.NOV.2020 16:29:58

Channel Frequency:

2417.00 MHz

DUT Modulation:

MCS0

Data Rate:

- Mbps

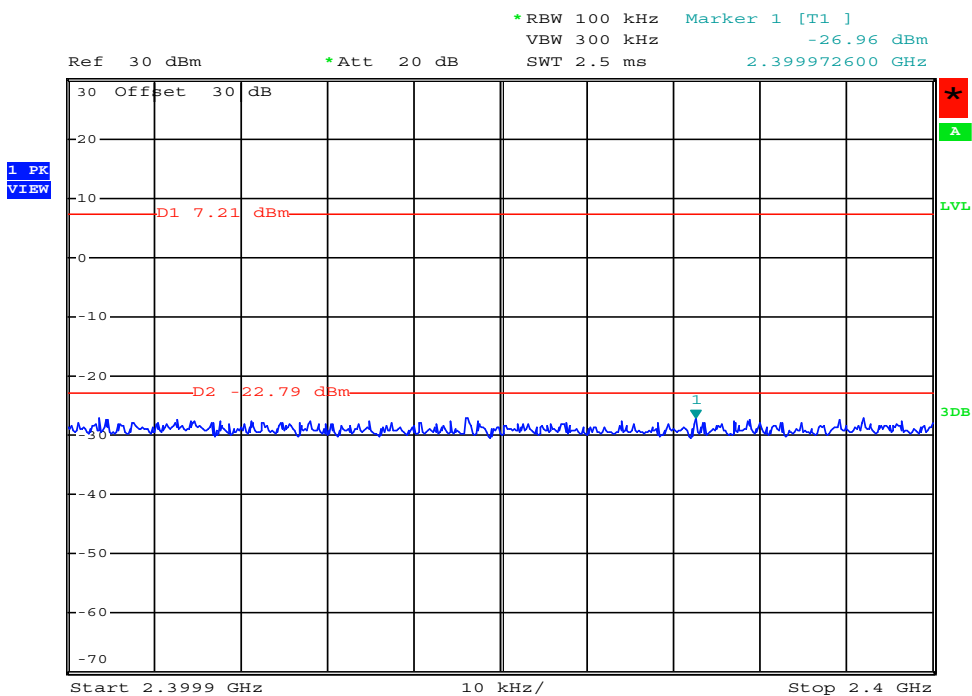
Measured PSD:

2.97 dBm

Emission Level Measurement - Band Edge						
Channel Frequency (MHz)	Modulation	Bit Rate (mbps)	Measured Emission [E _{Meas}] (dBm)	Emission Frequency (MHz)	Limit Line [A _L] (dBm)	Margin (dB)
2402	Pi/4-DQPSK	2	-26.96	2.399	-22.79	4.17
2480	Pi/4-DQPSK	2	-36.70	2.483		13.91
Results:					Complies	

Margin = A_L - E_{MEAS}

Conducted Spurious Emissions - Lower Band Edge



Date: 30.NOV.2020 16:53:39

Channel Frequency:

2402.00 MHz

Emission Frequency:

2.399 MHz

DUT Modulation:

Pi/4-DQPSK

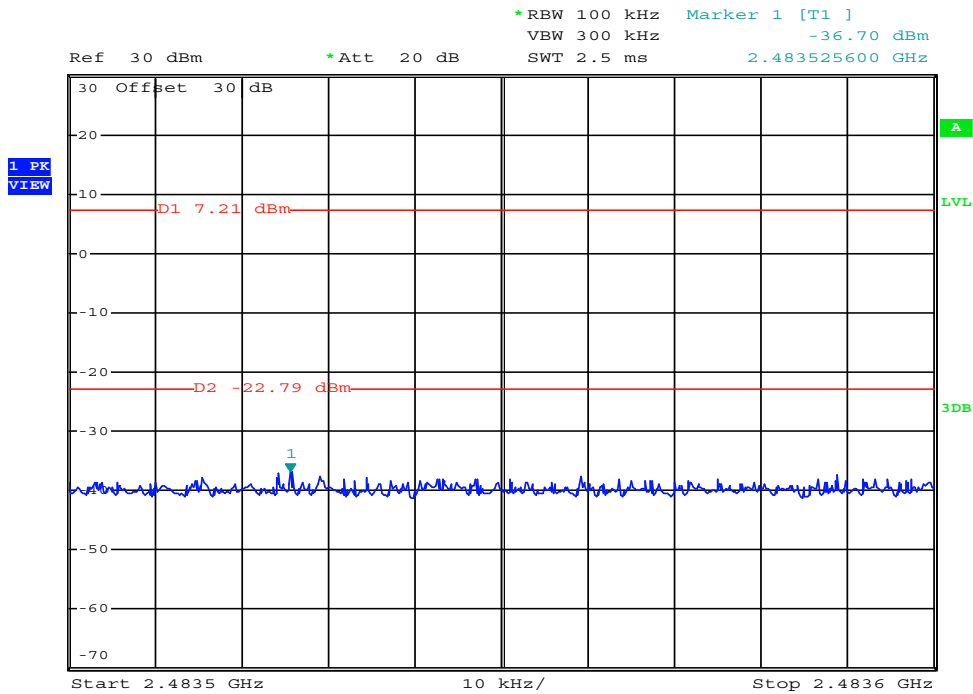
Data Rate:

2 Mbps

Measured Emission:

-26.96 dBm

Conducted Spurious Emissions - Upper Band Edge



Date: 30.NOV.2020 16:54:56

Channel Frequency:

2480.00 MHz

Emission Frequency:

2.483 MHz

DUT Modulation:

Pi/4-DQPSK

Data Rate:

2 Mbps

Measured Emission:

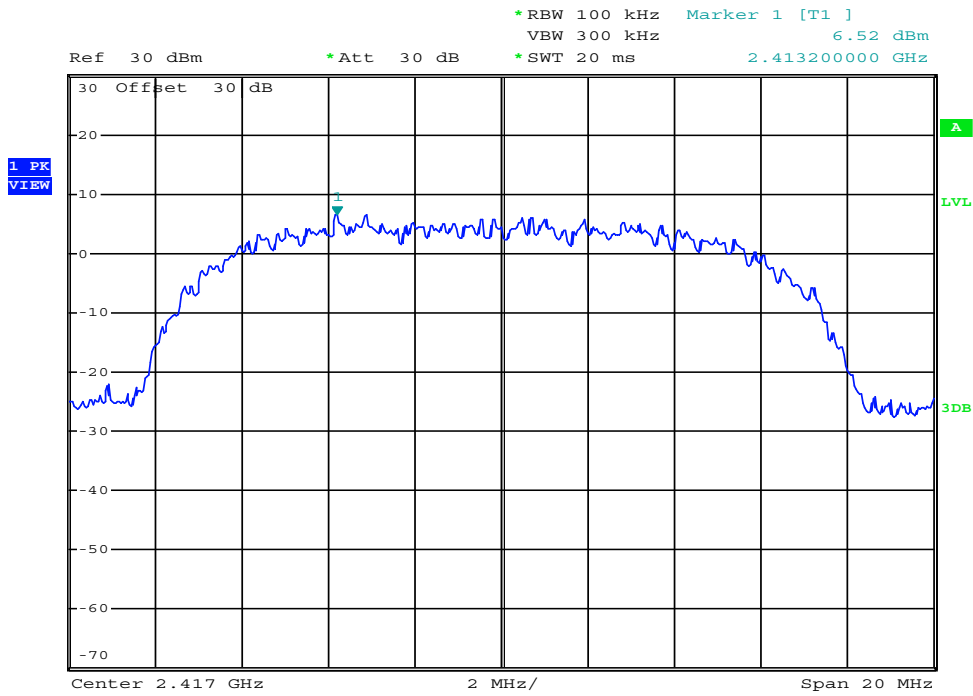
-36.70 dBm

Conducted Spurious Emissions - Reference Measurement

Frequency (MHz)	Modulation	Bit Rate (Mbps)	Measured PSD [P _{Meas}] (dBm)	Required Attenuation [A _R] (dB)	Limit Line [A _L] (dBm)
2402.00	8-DPSK	2	7.09	30	-22.91
2442.00			7.51	30	-22.49
2480.00			7.07	30	-22.93

Limit Line = Measured PSD - Required Attenuation

Power Spectral Density



Date: 19.NOV.2020 16:18:46

Channel Frequency:

2417.00 MHz

DUT Modulation:

DSSS

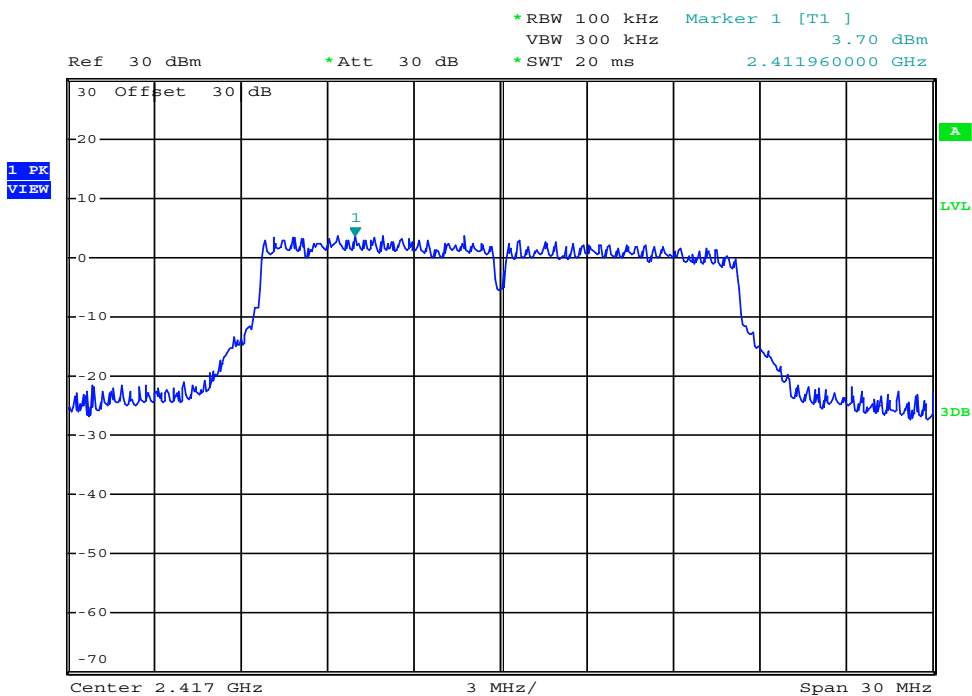
Data Rate:

11 Mbps

Measured PSD:

6.52 dBm

Power Spectral Density



Date: 19.NOV.2020 16:30:52

Channel Frequency:

2417.00 MHz

DUT Modulation:

OFDM

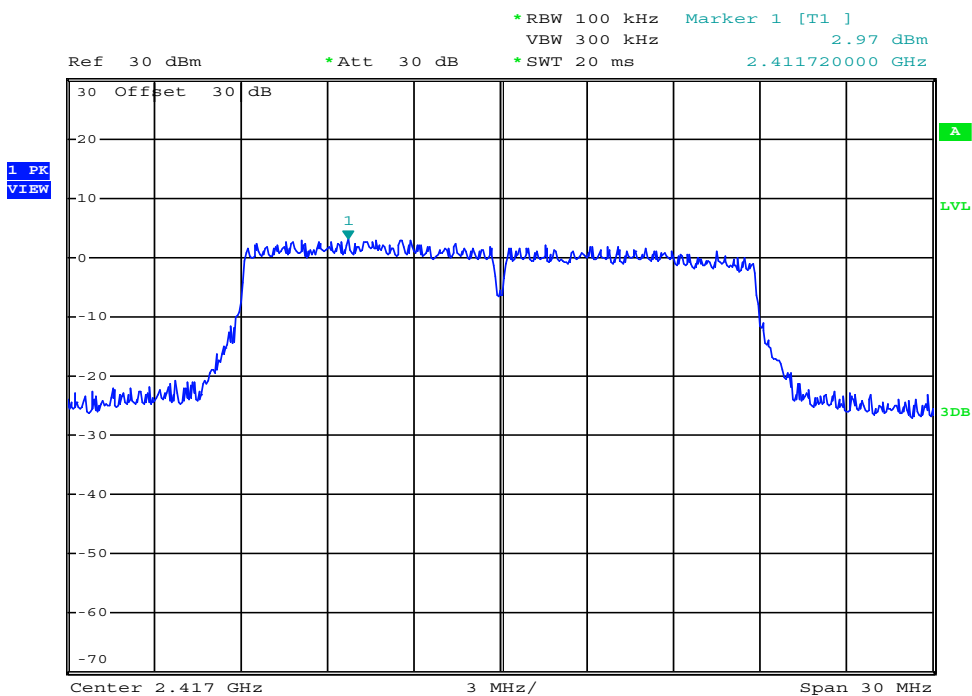
Data Rate:

54 Mbps

Measured PSD:

3.70 dBm

Power Spectral Density



Date: 19.NOV.2020 16:29:58

Channel Frequency:

2417.00 MHz

DUT Modulation:

MCS0

Data Rate:

- Mbps

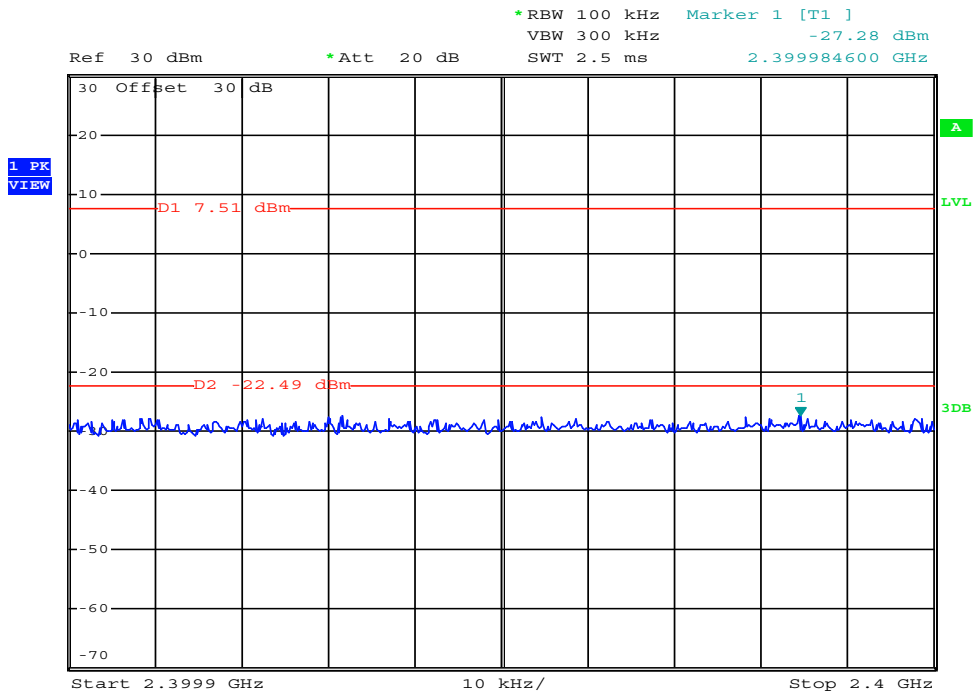
Measured PSD:

2.97 dBm

Emission Level Measurement - Band Edge						
Channel Frequency (MHz)	Modulation	Bit Rate (mbps)	Measured Emission [E _{Meas}] (dBm)	Emission Frequency (MHz)	Limit Line [A _L] (dBm)	Margin (dB)
2402	8-DPSK	3	-27.28	2.399	-22.49	4.79
2480	8-DPSK	3	-37.10	2.483		14.61
Results:					Complies	

Margin = A_L - E_{MEAS}

Conducted Spurious Emissions - Lower Band Edge



Date: 30.NOV.2020 16:57:02

Channel Frequency:

2402.00 MHz

Emission Frequency:

2.399 MHz

DUT Modulation:

8-DPSK

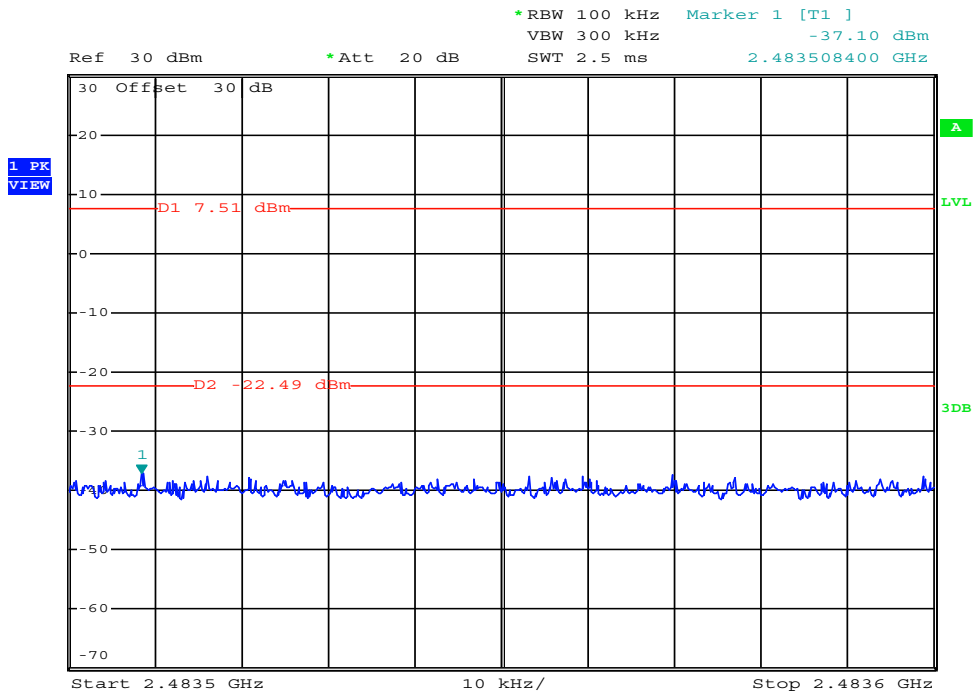
Data Rate:

3 Mbps

Measured Emission:

-27.28 dBm

Conducted Spurious Emissions - Upper Band Edge



Date: 30.NOV.2020 16:56:08

Channel Frequency:

2480.00 MHz

Emission Frequency:

2.483 MHz

DUT Modulation:

8-DPSK

Data Rate:

3 Mbps

Measured Emission:

-37.10 dBm