



Test Report Serial Number:

45461624 R1.0

Test Report Date:

4 December 2020

Project Number:

1511

Appendix I - Conducted Tx Spurious Emissions Measurement Plots

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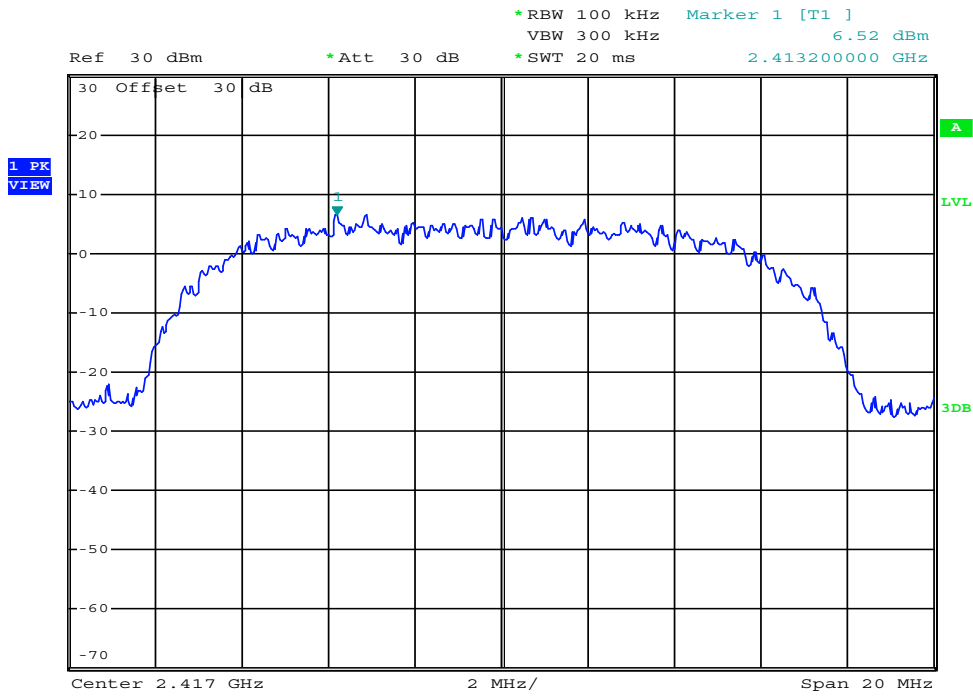
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Conducted Spurious Emissions - Reference Measurement

Frequency (MHz)	Modulation	Bit Rate (Mbps)	Measured PSD [P _{Meas}] (dBm)	Required Attenuation [A _R] (dB)	Limit Line [A _L] (dBm)
2417.00	DSSS	11	6.52	30	-23.480
2417.00	OFDM	54	3.70	30	-26.300
2417.00	MCS0	-	2.97	30	-27.030

Limit Line = Measured PSD - Required Attenuation

Power Spectral Density



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

Channel Frequency:

2417.00 MHz

DUT Modulation:

DSSS

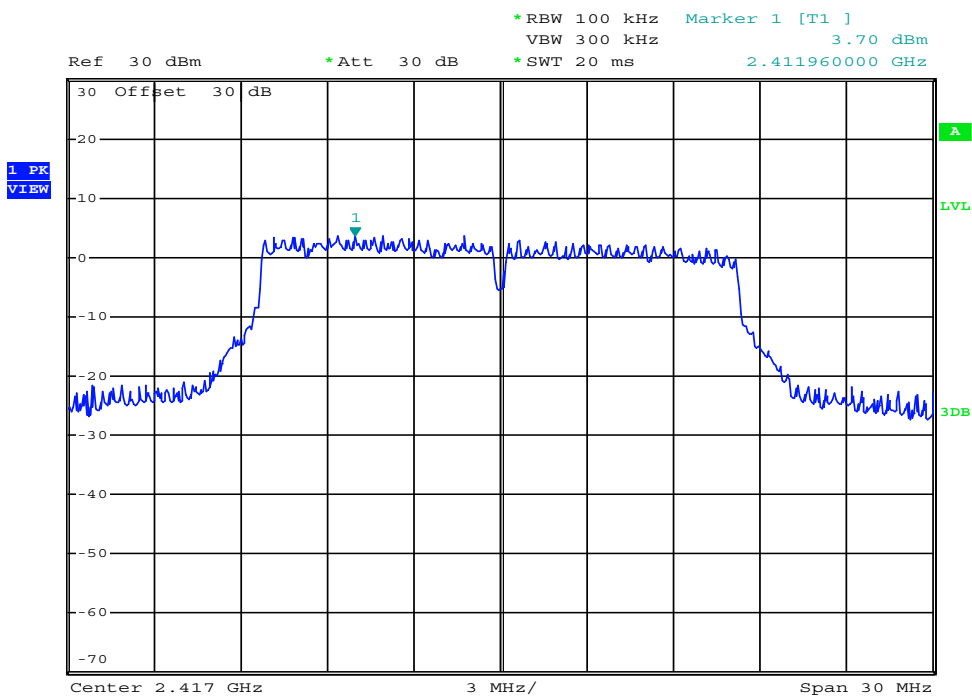
Data Rate:

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

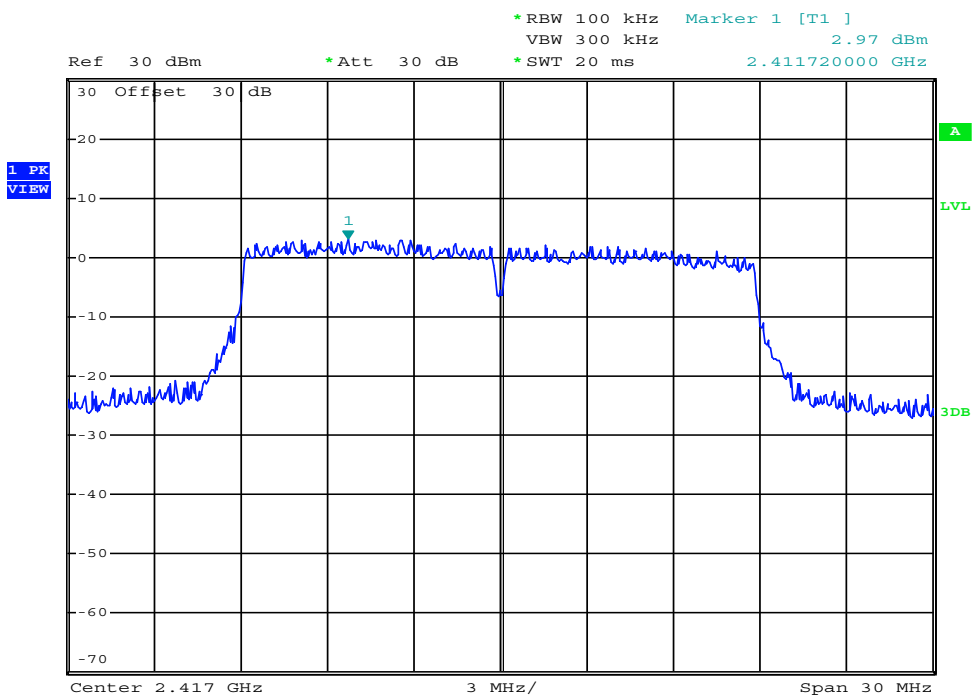
Data Rate:

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

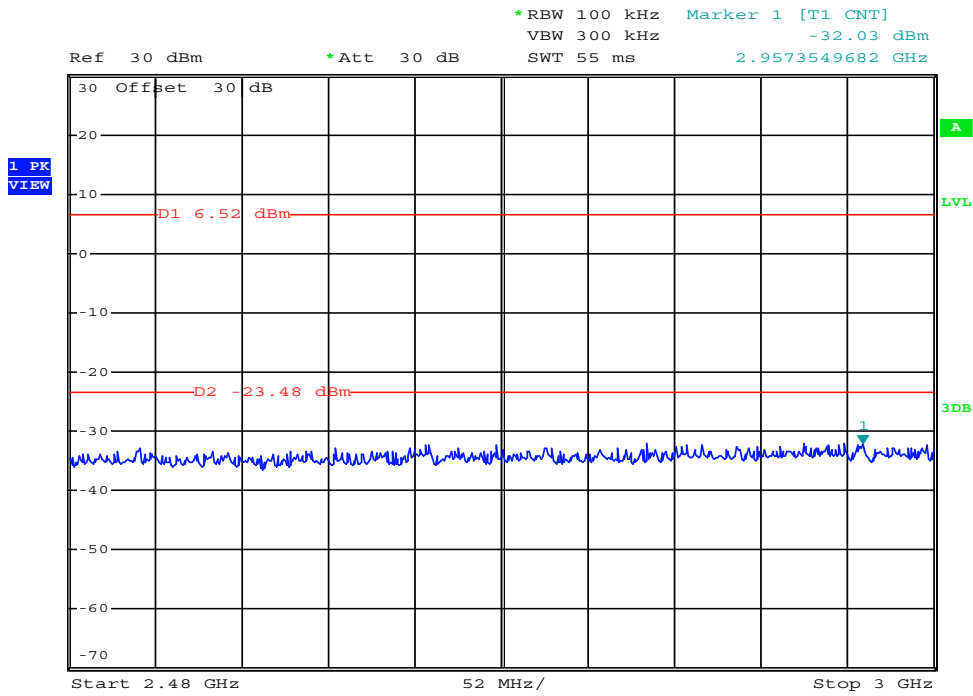
Measured PSD:

2.97 dBm

Emission Level Measurement					
Frequency Range (GHz)	Bit Rate (mbps)	Modulation	Measured Emission [E _{Meas}] (dBm)	Limit Line [A _L] (dBm)	Margin (dB)
to 3GHz	11	DSSS	-32.03	-23.48	8.55
3-10			-36.93		13.45
10-13.6			-36.91		13.43
13.6-18			-32.84		9.36
18-25			-32.37		8.89
Results:				Complies	

Margin = A_L - E_{MEAS}

Conducted Spurious Emissions



Date: 3.DEC.2020 14:30:37

Channel Frequency:

2417.00 MHz

DUT Modulation:

DSSS

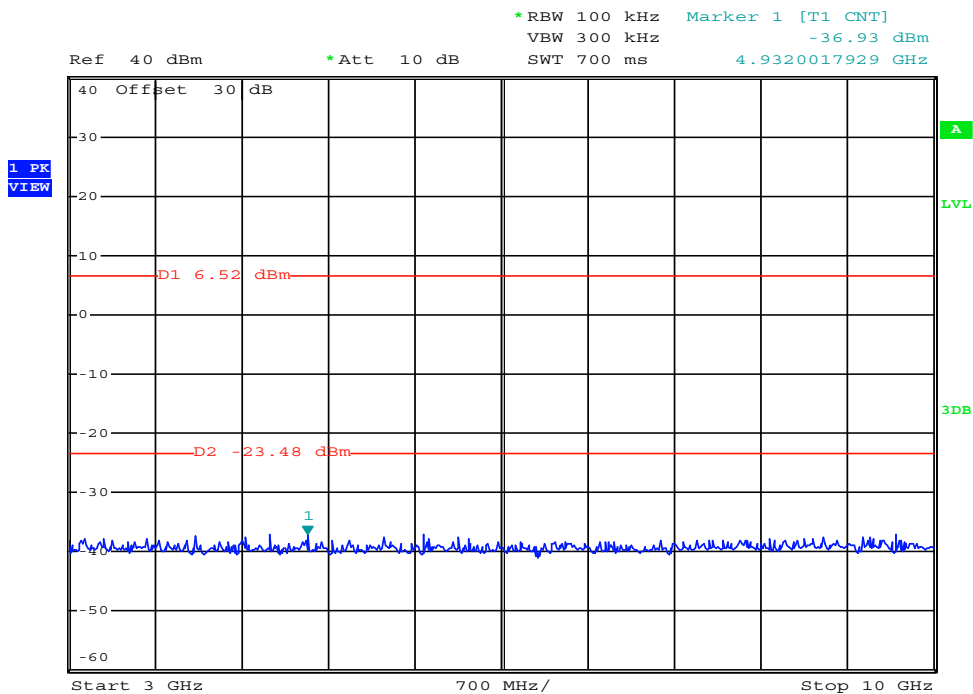
Data Rate:

11 Mbps

Measured Emission:

-32.03 dBm

Conducted Spurious Emissions



Date: 3.DEC.2020 14:31:48

Channel Frequency:

2417.00 MHz

DUT Modulation:

DSSS

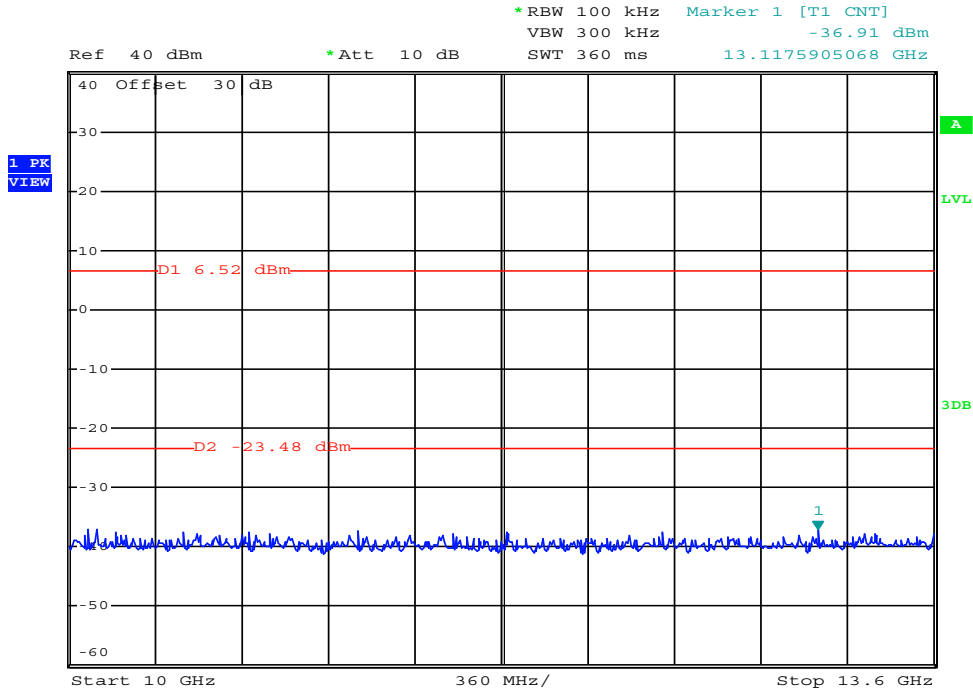
Data Rate:

11 Mbps

Measured Emission:

-36.93 dBm

Conducted Spurious Emissions



Date: 3.DEC.2020 14:32:16

Channel Frequency:

2417.00 MHz

DUT Modulation:

DSSS

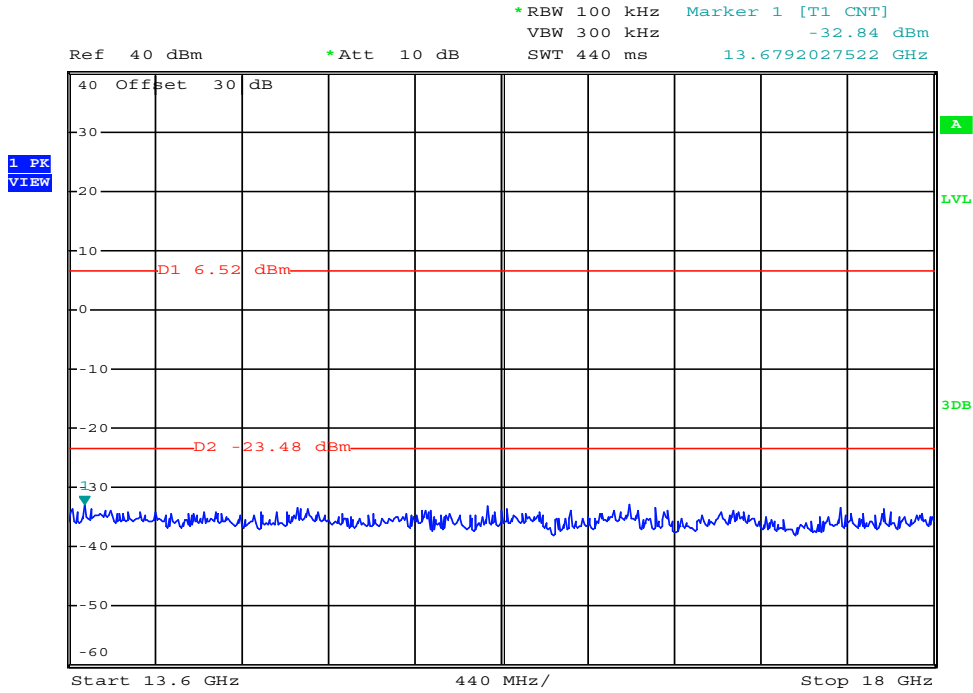
Data Rate:

11 Mbps

Measured Emission:

-36.91 dBm

Conducted Spurious Emissions



Date: 3.DEC.2020 14:32:47

Channel Frequency:

2417.00 MHz

DUT Modulation:

DSSS

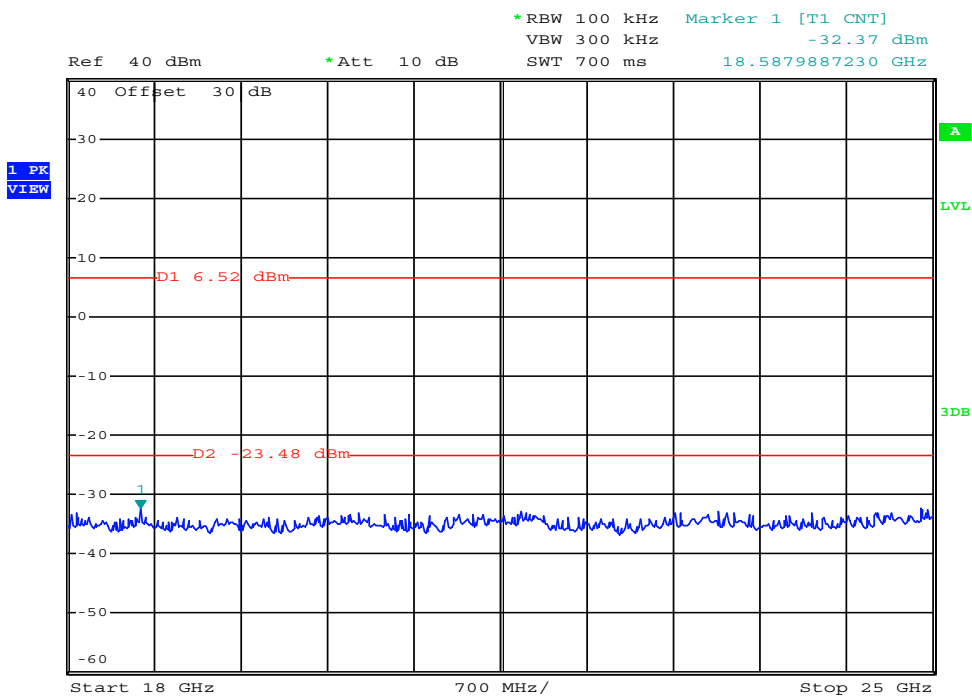
Data Rate:

11 Mbps

Measured Emission:

-32.84 dBm

Conducted Spurious Emissions



Date: 3.DEC.2020 14:33:15

Channel Frequency:

2417.00 MHz

DUT Modulation:

DSSS

Data Rate:

11 Mbps

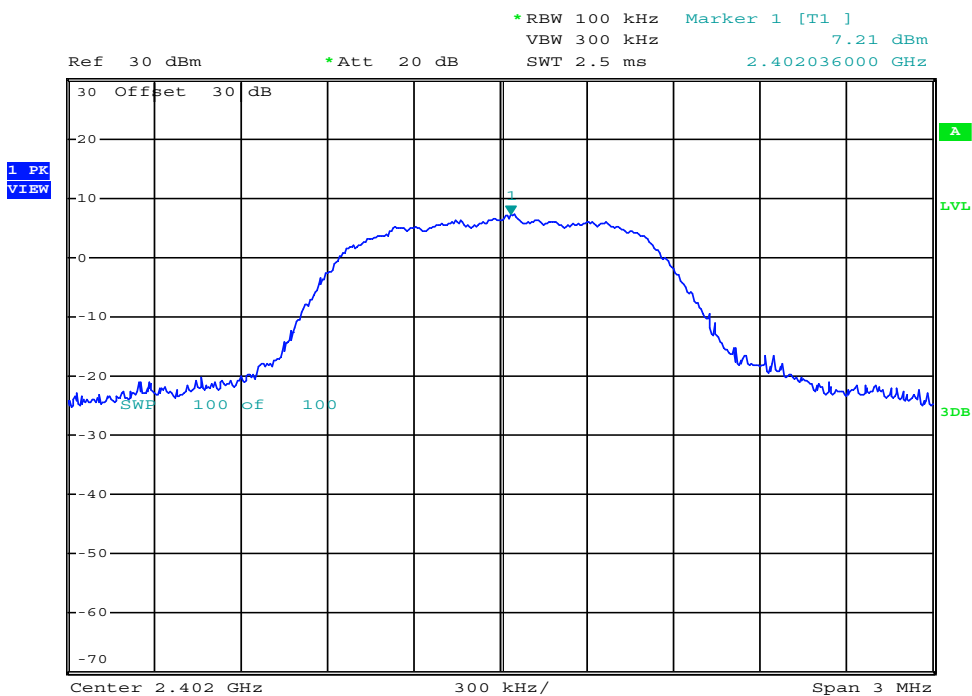
Measured Emission:

-32.37 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: 30.NOV.2020 16:36:01

Channel Frequency:

2402.00 MHz

DUT Modulation:

Pi/4-DQPSK

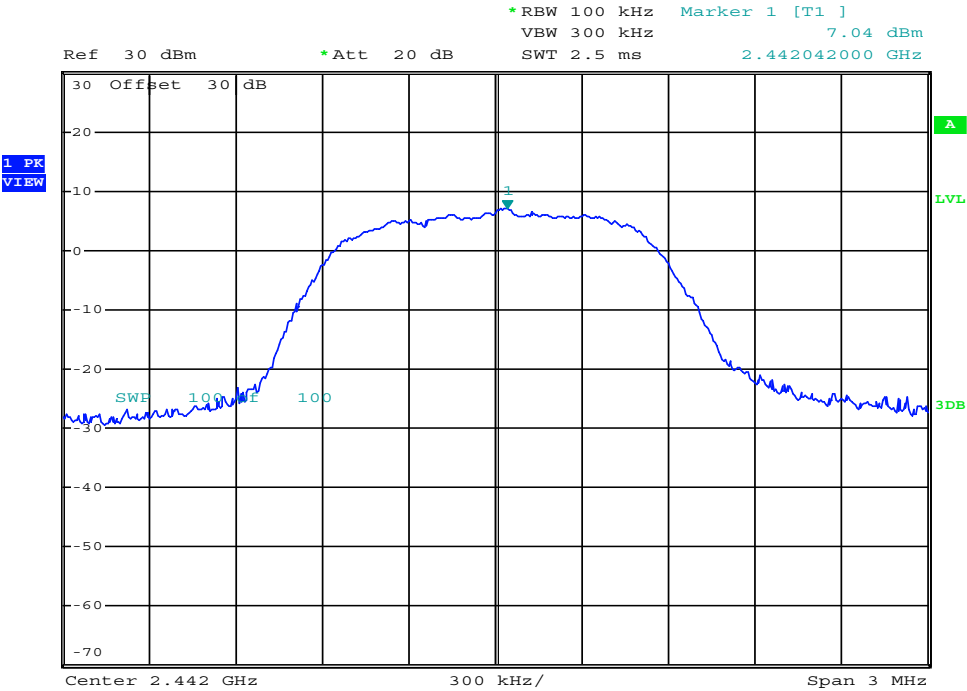
Data Rate:

2 Mbps

Measured PSD:

7.21 dBm

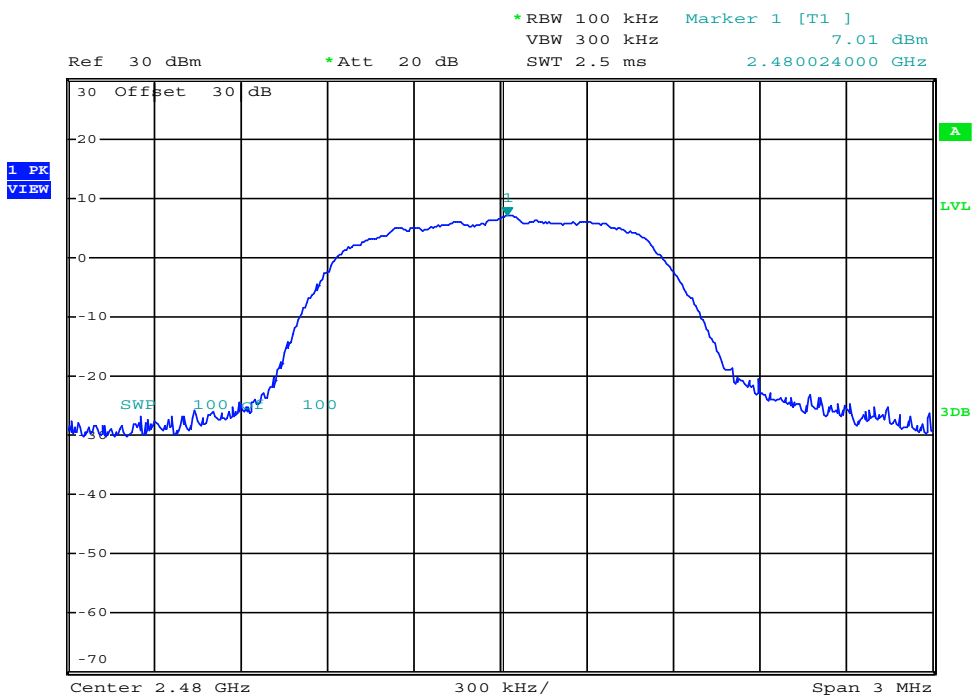
Power Spectral Density



Date: 30.NOV.2020 16:37:59

Channel Frequency: 2442.00 MHz		
DUT Modulation: Pi/4-DQPSK	Data Rate: 2 Mbps	Measured PSD: 7.04 dBm

Power Spectral Density



Date: 30.NOV.2020 16:36:59

Channel Frequency:

2480.00 MHz

DUT Modulation:

Pi/4-DQPSK

Data Rate:

2 Mbps

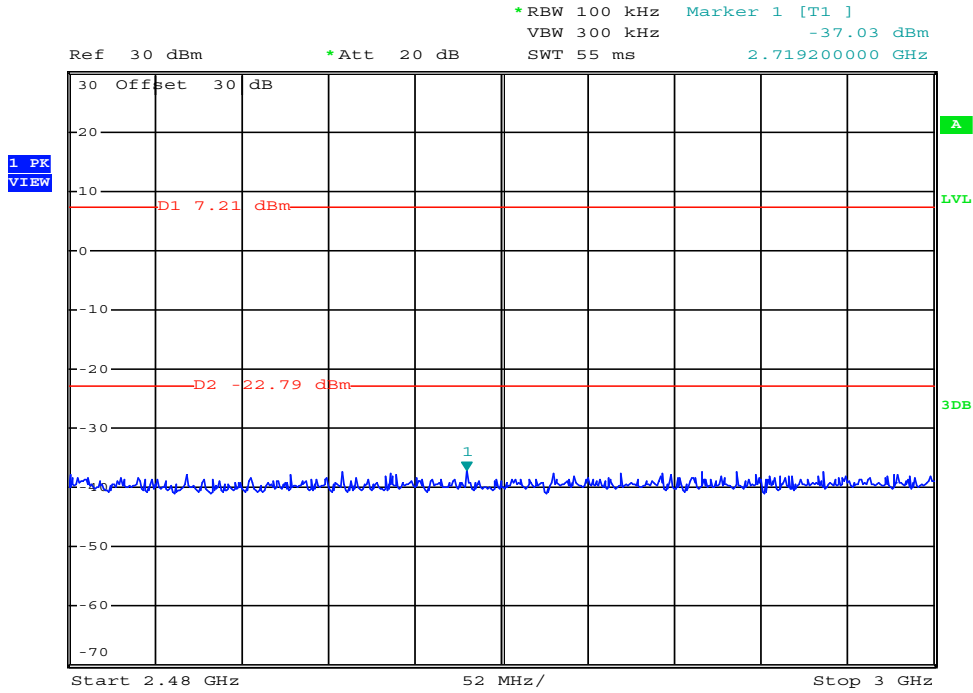
Measured PSD:

7.01 dBm

Emission Level Measurement					
Frequency Range (GHz)	Bit Rate (mbps)	Modulation	Measured Emission [E _{Meas}] (dBm)	Limit Line [A _L] (dBm)	Margin (dB)
to 3GHz	2	Pi/4-DQPSK	-37.03	-22.79	14.24
3-13.6			-33.39		10.60
13.6-25			-23.20		0.41
Results:				Complies	

Margin = A_L - E_{MEAS}

Conducted Spurious Emissions



Date: 1.DEC.2020 10:58:41

Channel Frequency:

2417.00 MHz

DUT Modulation:

Pi/4-DQPSK

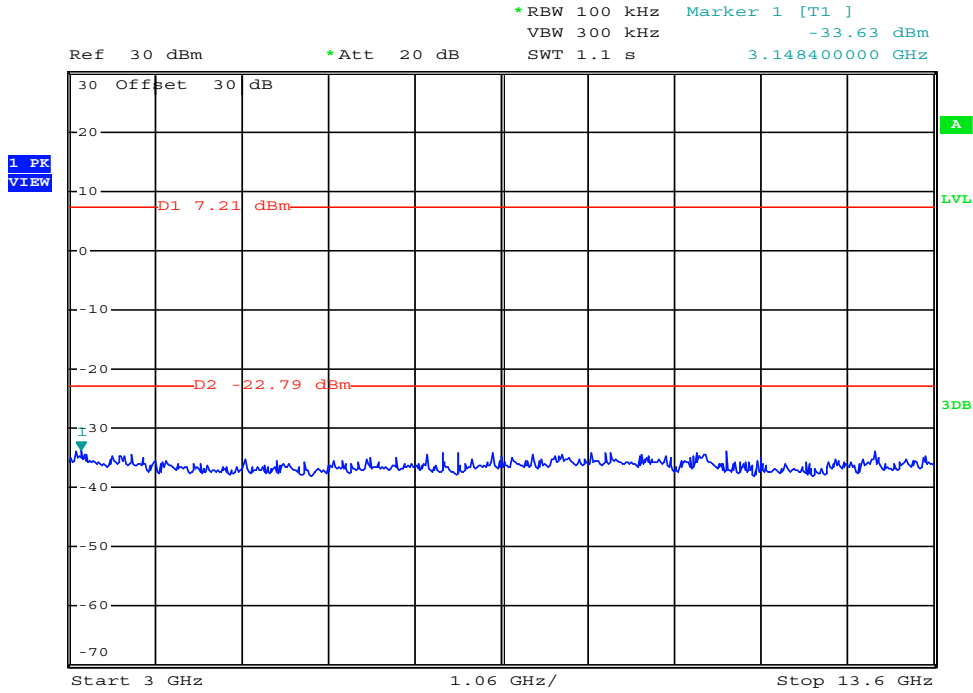
Data Rate:

2 Mbps

Measured Emission:

-37.03 dBm

Conducted Spurious Emissions



Date: 1.DEC.2020 10:59:05

Channel Frequency:

2417.00 MHz

DUT Modulation:

Pi/4-DQPSK

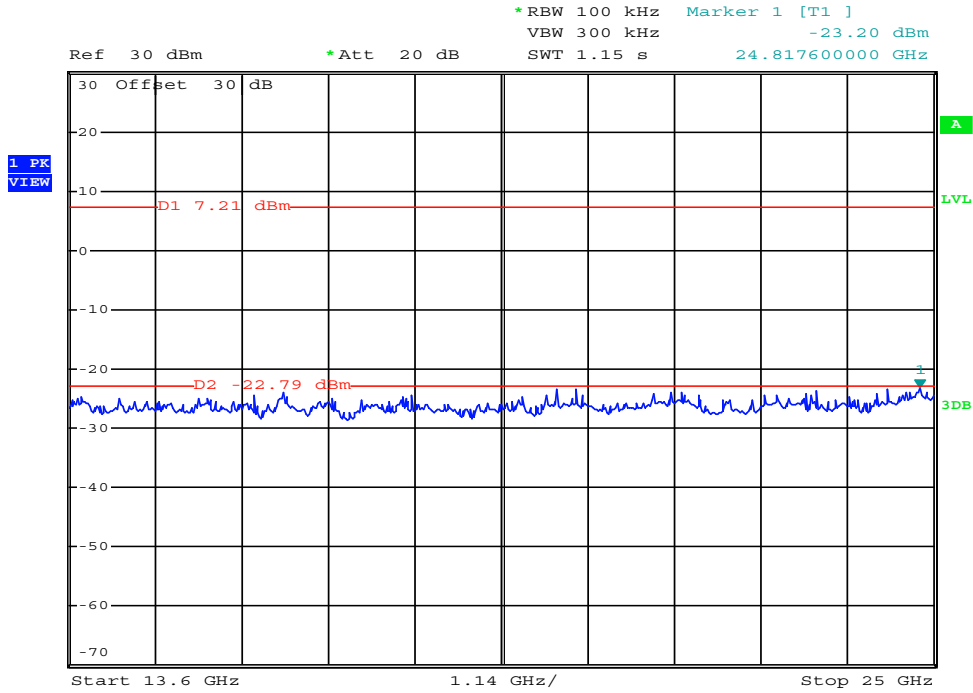
Data Rate:

2 Mbps

Measured Emission:

-33.39 dBm

Conducted Spurious Emissions



Date: 1.DEC.2020 10:59:33

Channel Frequency:

2417.00 MHz

DUT Modulation:

Pi/4-DQPSK

Data Rate:

2 Mbps

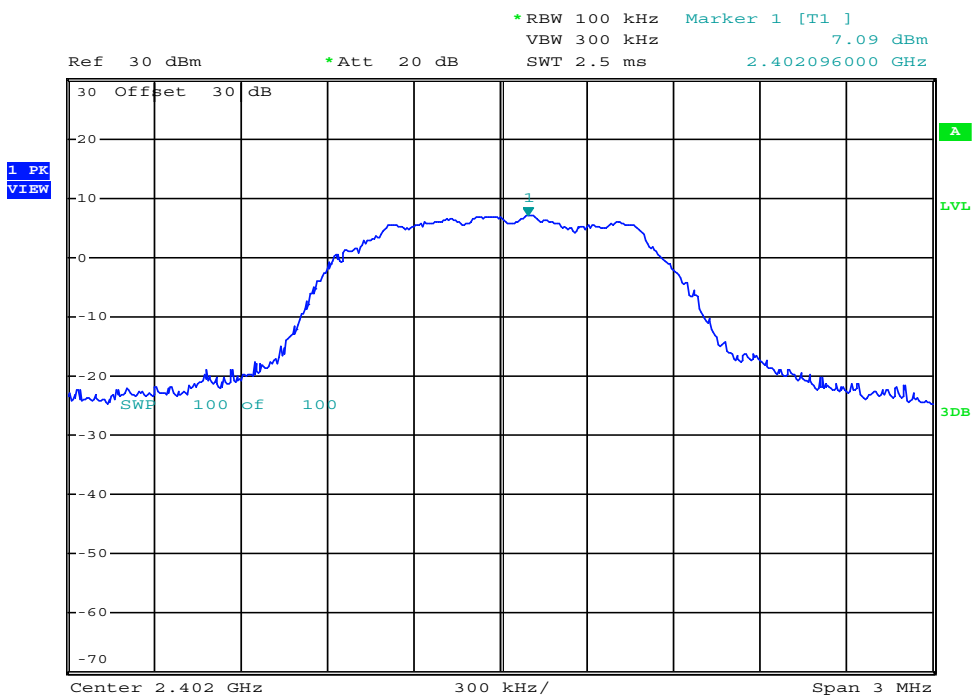
Measured Emission:

-23.20 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: 30.NOV.2020 16:34:44

Channel Frequency:

2402.00 MHz

DUT Modulation:

8-DPSK

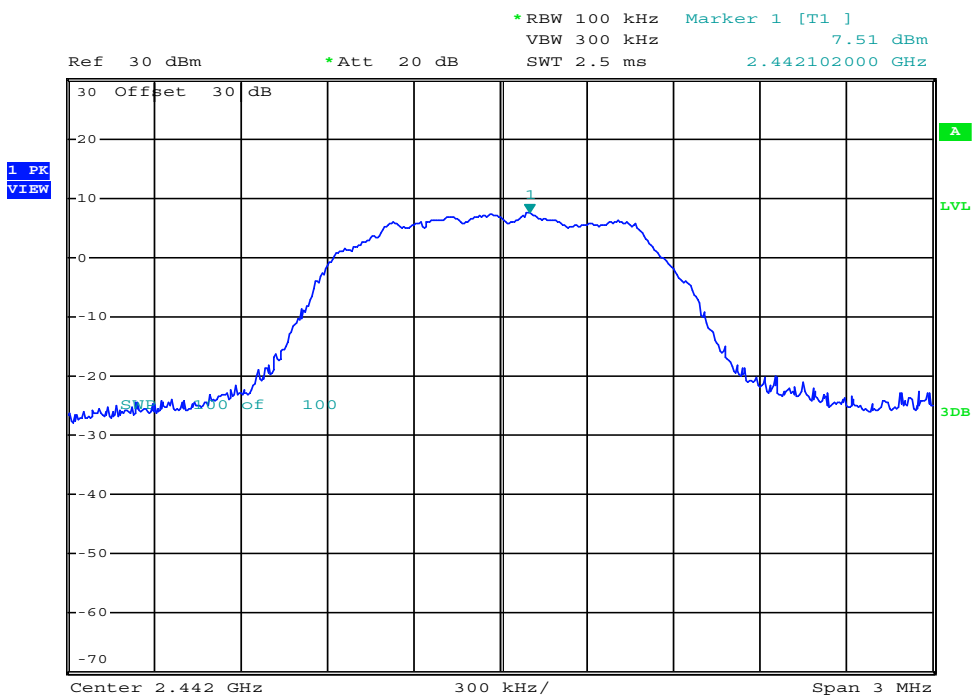
Data Rate:

3 Mbps

Measured PSD:

7.09 dBm

Power Spectral Density



Date: 30.NOV.2020 16:33:51

Channel Frequency:

2442.00 MHz

DUT Modulation:

8-DPSK

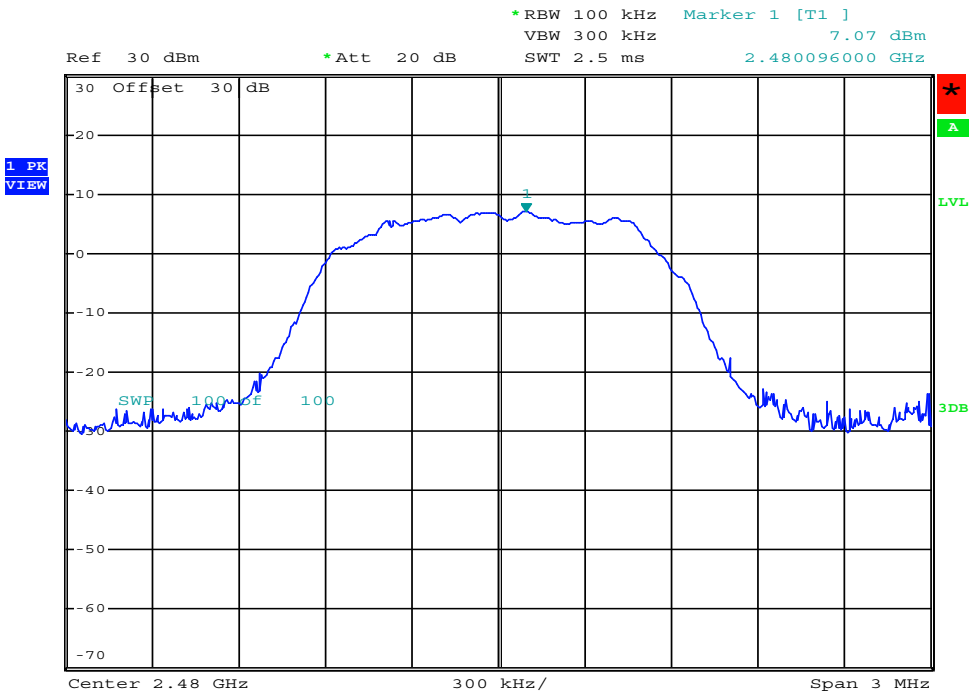
Data Rate:

3 Mbps

Measured PSD:

7.51 dBm

Power Spectral Density



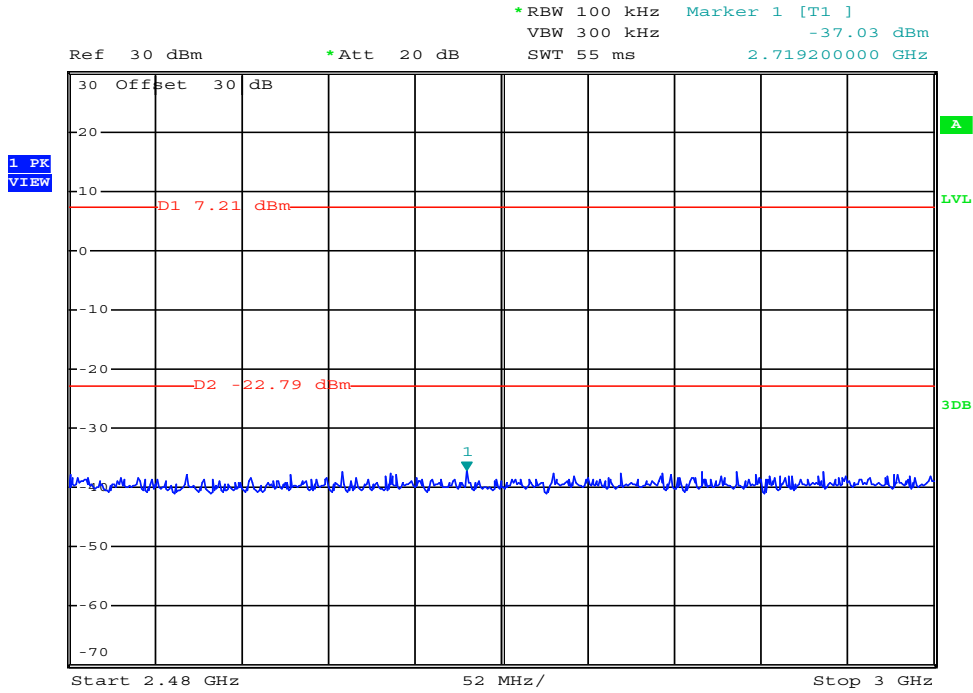
Date: 30.NOV.2020 16:32:28

Channel Frequency:	2480.00 MHz		
DUT Modulation:	Data Rate:	Measured PSD:	
8-DPSK	3 Mbps	7.07 dBm	

Emission Level Measurement					
Frequency Range (GHz)	Bit Rate (mbps)	Modulation	Measured Emission [E _{Meas}] (dBm)	Limit Line [A _L] (dBm)	Margin (dB)
to 3GHz	2	Pi/4-DQPSK	-37.03	-22.79	14.24
3-13.6			-32.84		10.05
13.6-25			-23.49		0.70
Results:				Complies	

Margin = A_L - E_{MEAS}

Conducted Spurious Emissions



Date: 1.DEC.2020 10:58:41

Channel Frequency:

2417.00 MHz

DUT Modulation:

8-DPSK

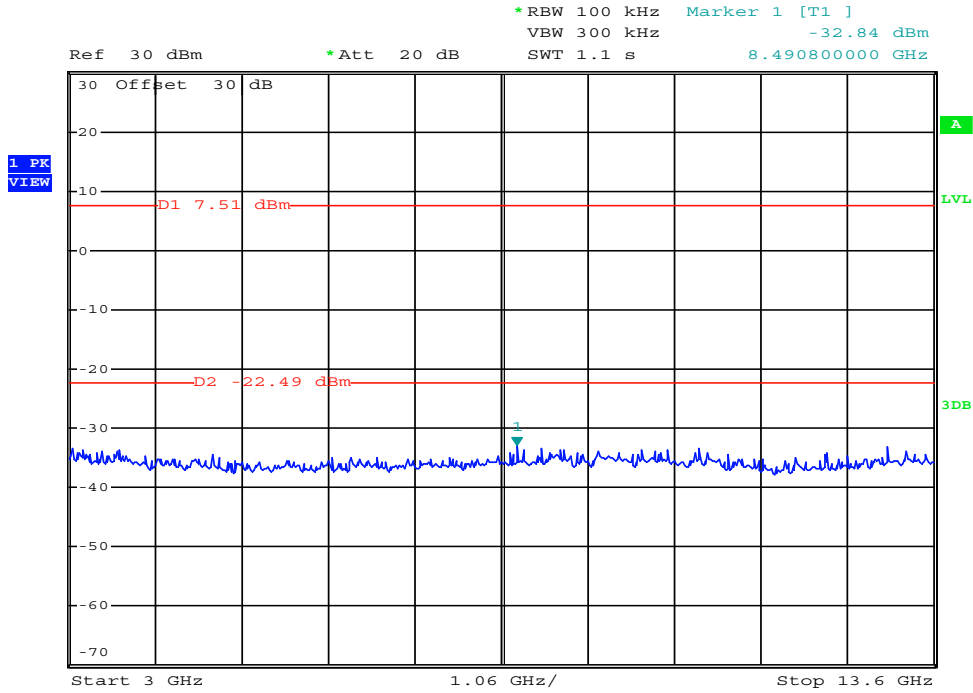
Data Rate:

3 Mbps

Measured Emission:

-37.03 dBm

Conducted Spurious Emissions



Date: 1.DEC.2020 10:53:26

Channel Frequency:

2417.00 MHz

DUT Modulation:

8-DPSK

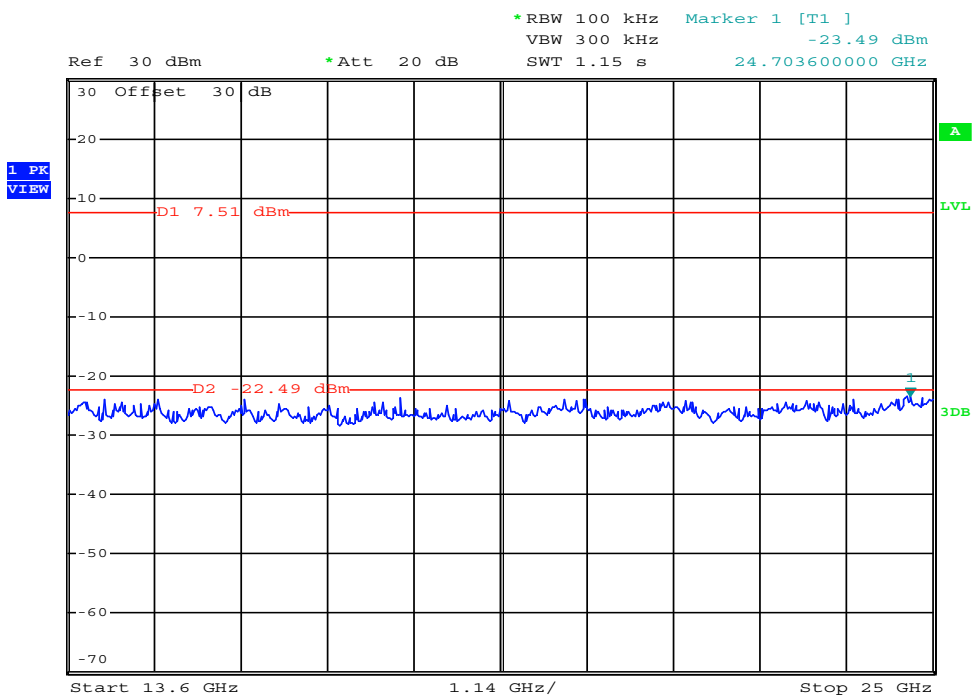
Data Rate:

3 Mbps

Measured Emission:

-32.84 dBm

Conducted Spurious Emissions



Date: 1.DEC.2020 10:55:08

Channel Frequency:

2417.00 MHz

DUT Modulation:

8-DPSK

Data Rate:

3 Mbps

Measured Emission:

-23.49 dBm