



Test Report Serial Number:

45461626 R1.0

Test Report Date:

4 December 2020

Project Number:

1510

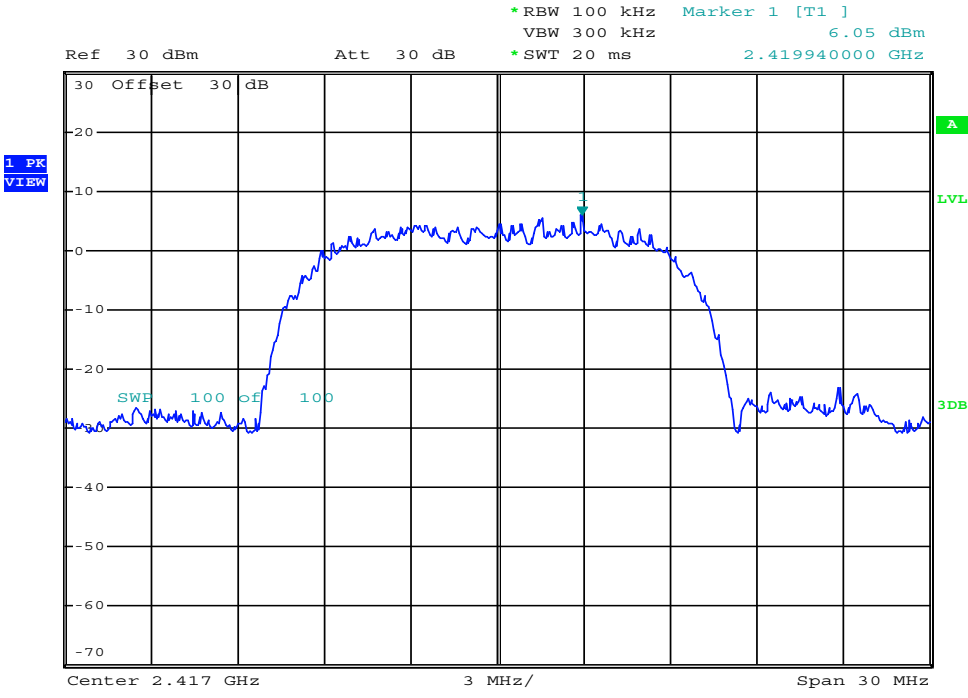
Appendix I - Conducted Tx Spurious Emissions Measurement Plots

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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)
2417.00	DSSS	5.5	6.05	30	-23.950
2417.00	OFDM	12	0.98	30	-29.020
2417.00	MCS7	-	-1.02	30	-31.020

Power Spectral Density



Date: 2.DEC.2020 13:29:33

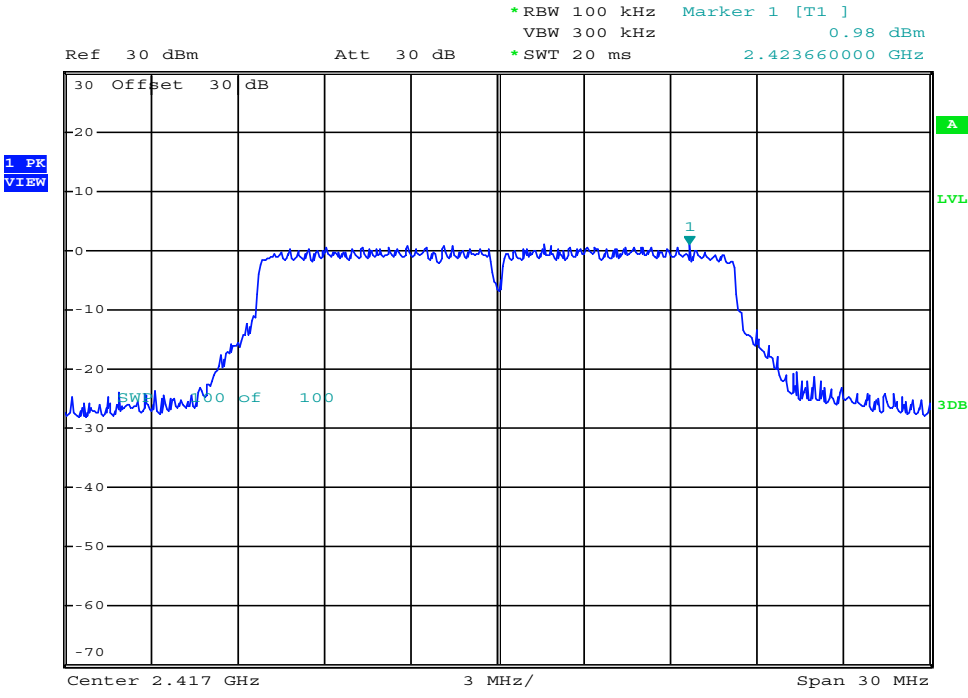
Channel Frequency:
2417.00 MHz

DUT Modulation:
DSSS

Data Rate:
5.5 Mbps

Measured PSD:
6.05 dBm

Power Spectral Density



Date: 2.DEC.2020 13:31:48

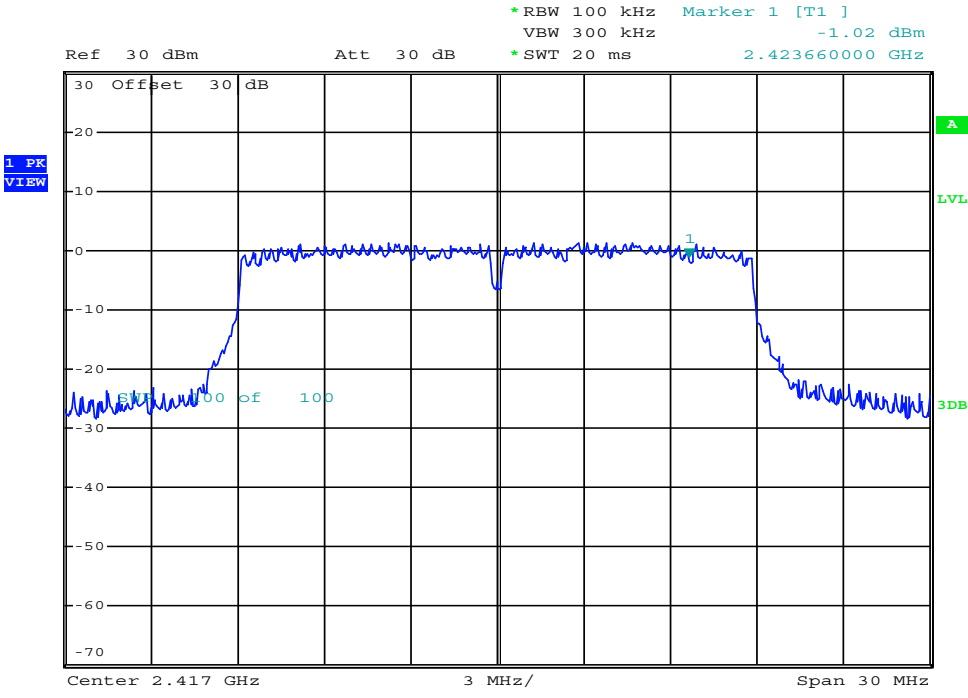
Channel Frequency:
2417.00 MHz

DUT Modulation:
OFDM

Data Rate:
12 Mbps

Measured PSD:
0.98 dBm

Power Spectral Density



Date: 2.DEC.2020 13:33:11

Channel Frequency:
2417.00 MHz

DUT Modulation:
MCS7

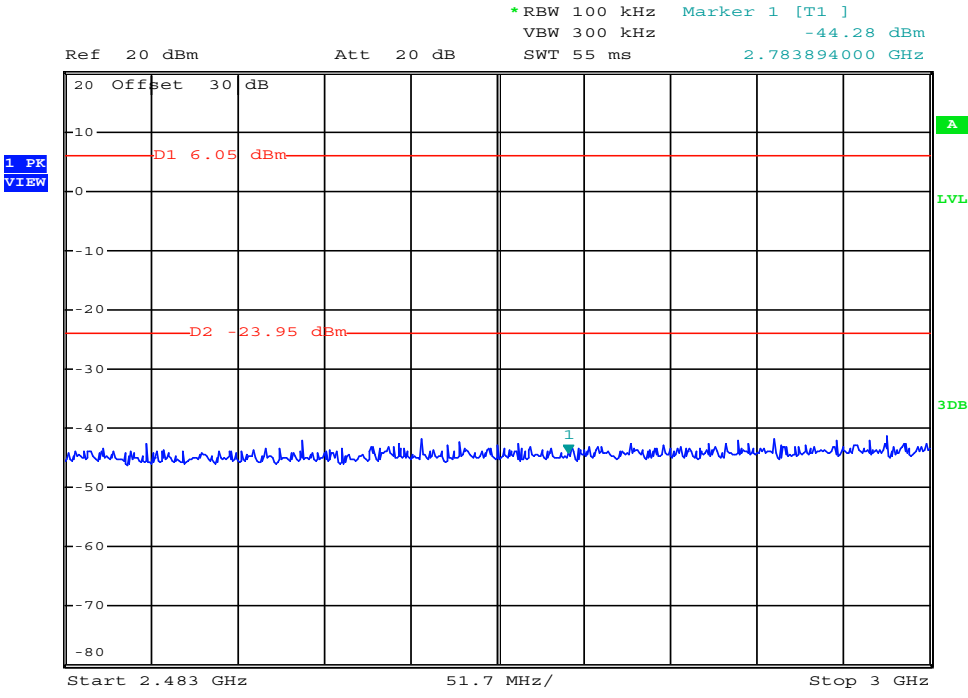
Data Rate:
- Mbps

Measured PSD:
-1.02 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	5.5	DSSS	-44.28	-23.95	20.33
3-13.6			-32.68		8.73
13.6-18			-32.07		8.12
18-25			-32.48		8.53
Results:				Complies	

Margin = A_L - E_{MEAS}

Conducted Spurious Emissions



Date: 2.DEC.2020 13:53:44

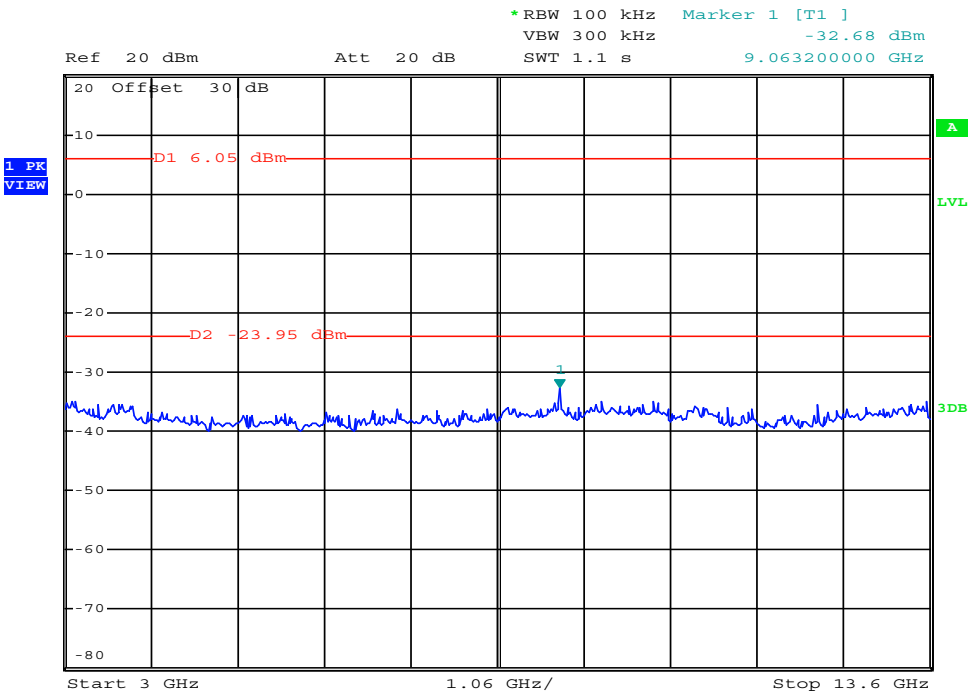
Channel Frequency:
2417.00 MHz

DUT Modulation:
DSSS

Data Rate:
5.5 Mbps

Measured Emission:
-44.28 dBm

Conducted Spurious Emissions



Date: 2.DEC.2020 13:54:17

Channel Frequency:

2417.00 MHz

DUT Modulation:

DSSS

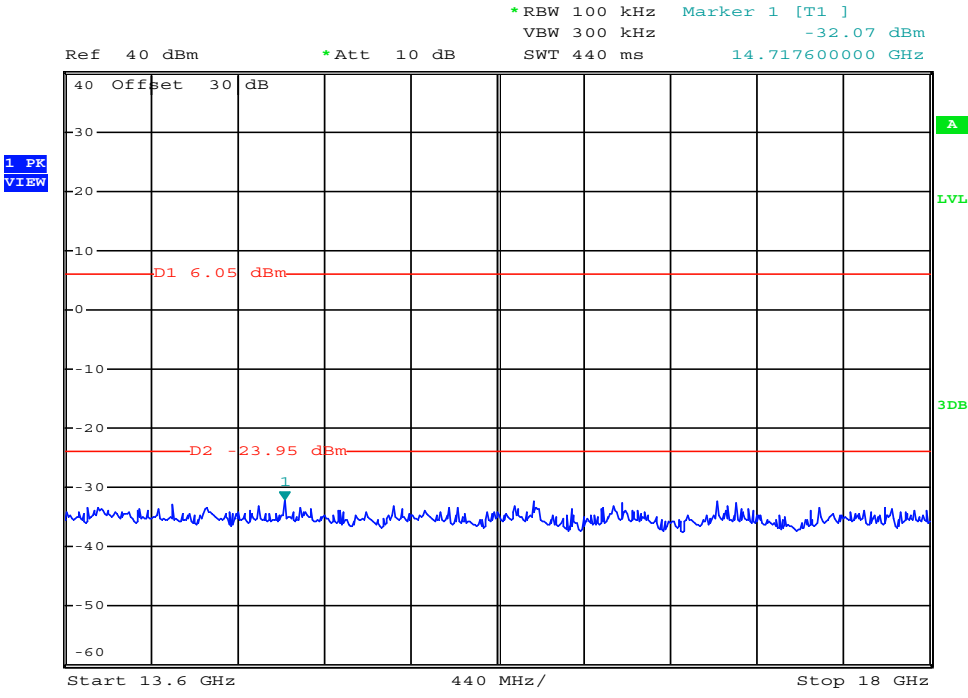
Data Rate:

5.5 Mbps

Measured Emission:

-32.68 dBm

Conducted Spurious Emissions



Date: 2.DEC.2020 13:57:24

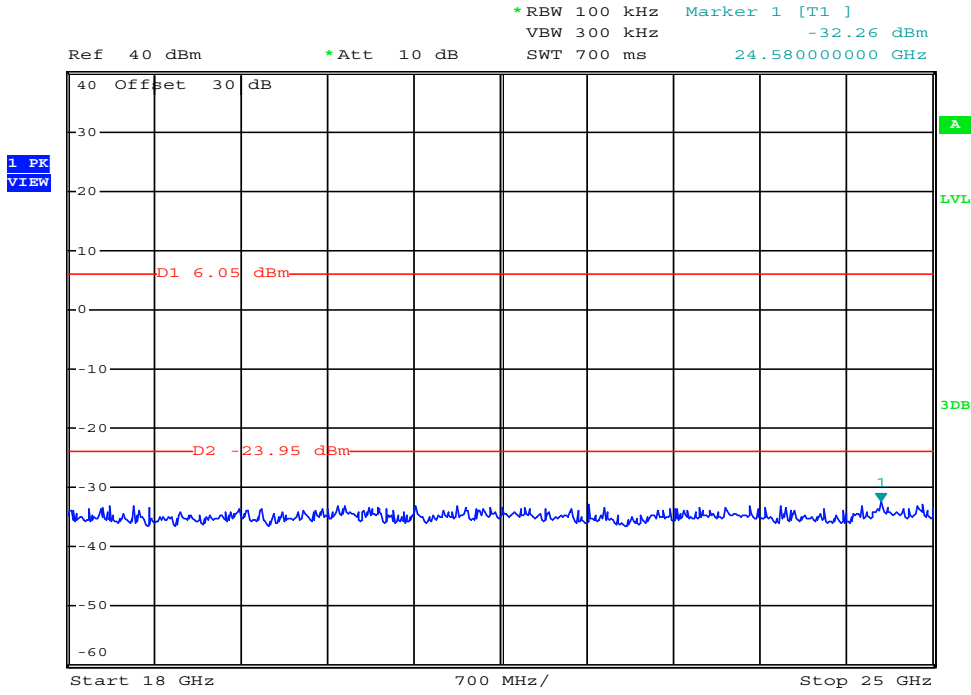
Channel Frequency:
2417.00 MHz

DUT Modulation:
DSSS

Data Rate:
5.5 Mbps

Measured Emission:
-32.07 dBm

Conducted Spurious Emissions



Date: 2.DEC.2020 13:57:45

Channel Frequency:

2417.00 MHz

DUT Modulation:

DSSS

Data Rate:

5.5 Mbps

Measured Emission:

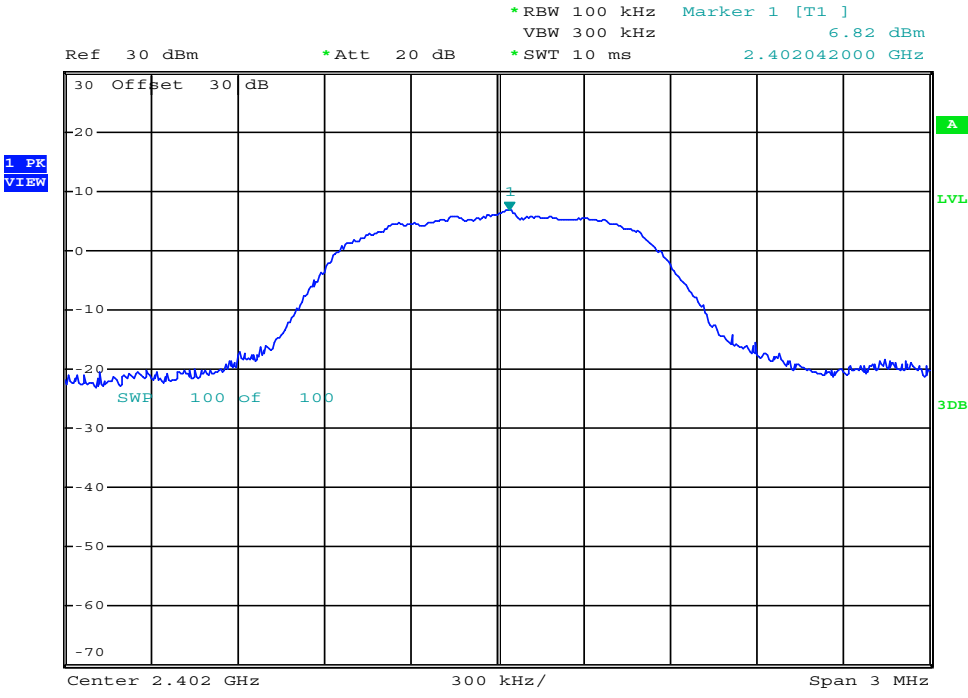
-32.84 dBm

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	6.82	30	-23.18
2442.00			6.62	30	-23.38
2480.00			5.73	30	-24.27

Limit Line = Measured PSD - Required Attenuation

Power Spectral Density



Date: 2.DEC.2020 16:01:01

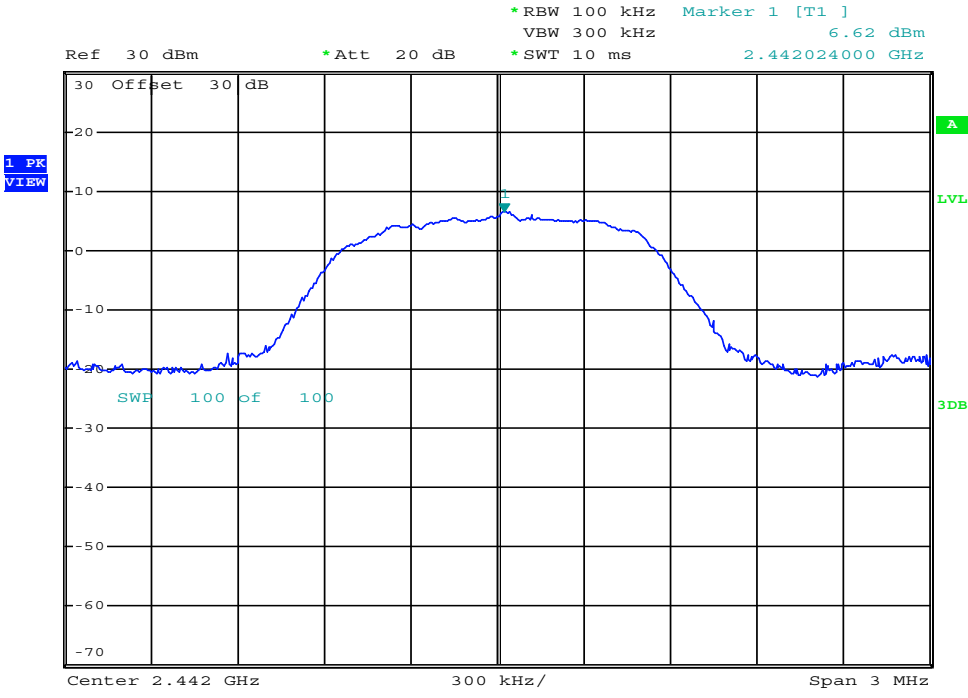
Channel Frequency:
2402.00 MHz

DUT Modulation:
Pi/4-DQPSK

Data Rate:
2 Mbps

Measured PSD:
6.82 dBm

Power Spectral Density



Date: 2.DEC.2020 16:02:45

Channel Frequency:
2442.00 MHz

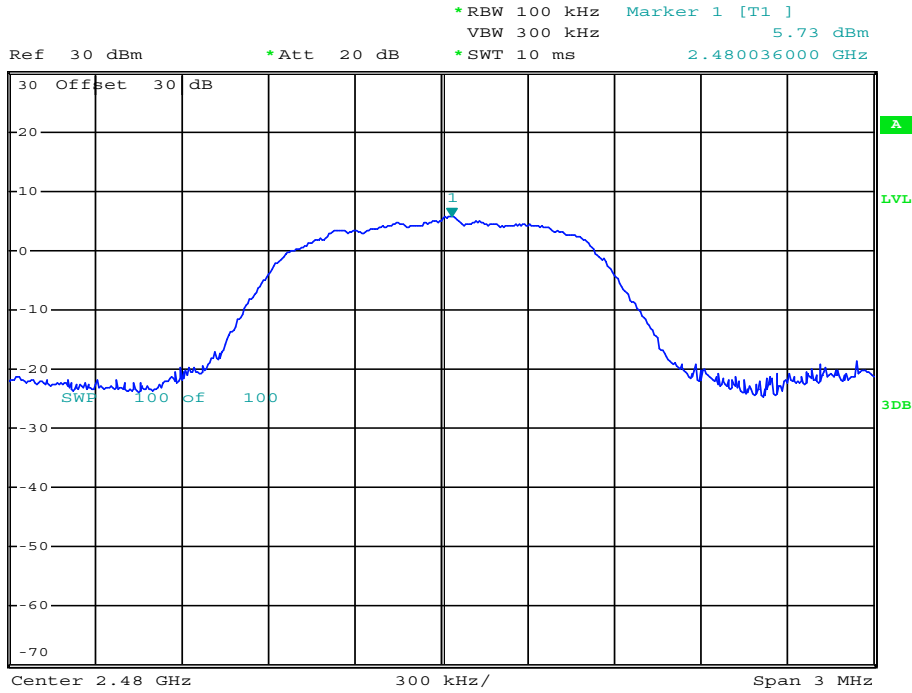
DUT Modulation:
Pi/4-DQPSK

Data Rate:
2 Mbps

Measured PSD:
6.62 dBm

Power Spectral Density

1 PK
VIEW



Date: 2.DEC.2020 16:01:46

Channel Frequency:
2408.00 MHz

DUT Modulation:
Pi/4-DQPSK

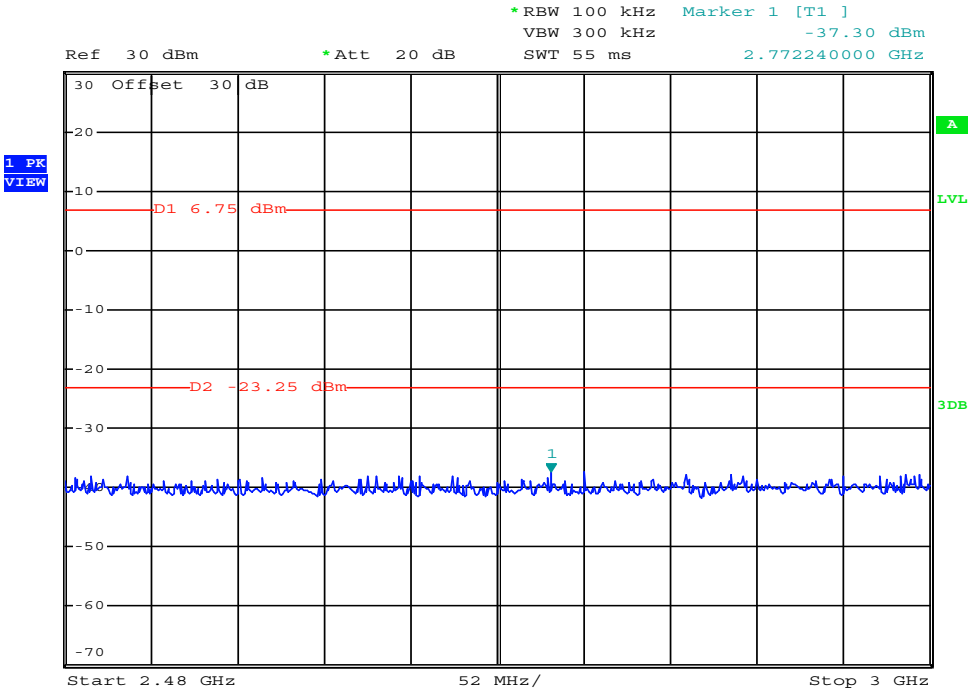
Data Rate:
2 Mbps

Measured PSD:
5.73 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	-37.30	-23.18	14.12
3-10			-33.38		10.20
10-13.6			-33.95		10.77
13.6-25			-32.12		8.94
Results:				Complies	

Margin = A_L - E_{MEAS}

Conducted Spurious Emissions



Date: 2.DEC.2020 16:28:49

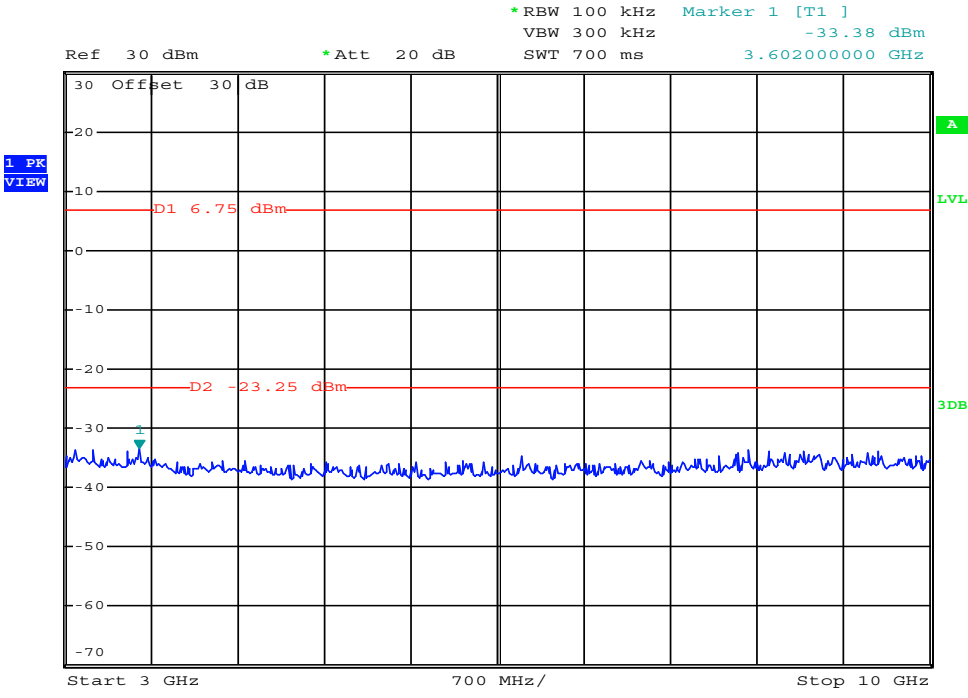
Channel Frequency:
2417.00 MHz

DUT Modulation:
Pi/4-DQPSK

Data Rate:
2 Mbps

Measured Emission:
-37.30 dBm

Conducted Spurious Emissions



Date: 2.DEC.2020 16:29:09

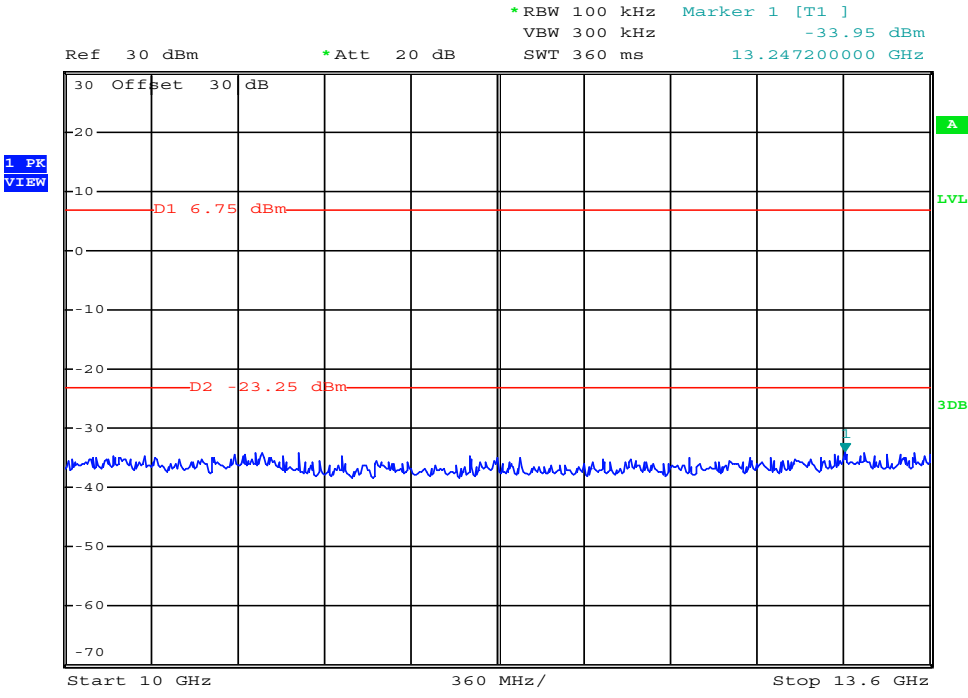
Channel Frequency:
2417.00 MHz

DUT Modulation:
Pi/4-DQPSK

Data Rate:
2 Mbps

Measured Emission:
-33.38 dBm

Conducted Spurious Emissions



Date: 2.DEC.2020 16:29:29

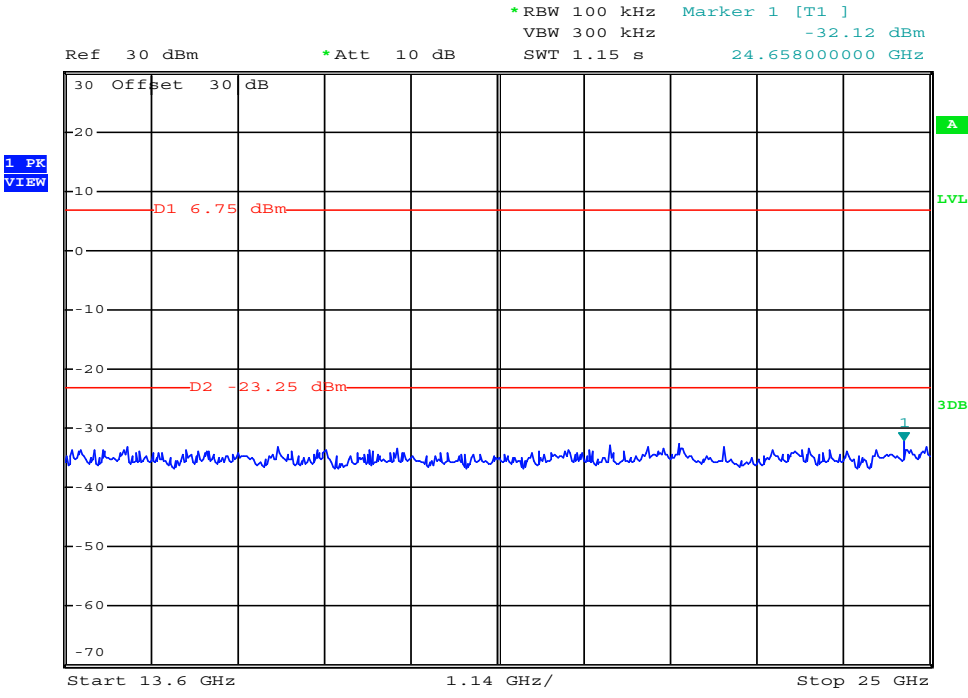
Channel Frequency:
2417.00 MHz

DUT Modulation:
Pi/4-DQPSK

Data Rate:
2 Mbps

Measured Emission:
-33.95 dBm

Conducted Spurious Emissions



Date: 2.DEC.2020 16:30:33

Channel Frequency:
2417.00 MHz

DUT Modulation:
Pi/4-DQPSK

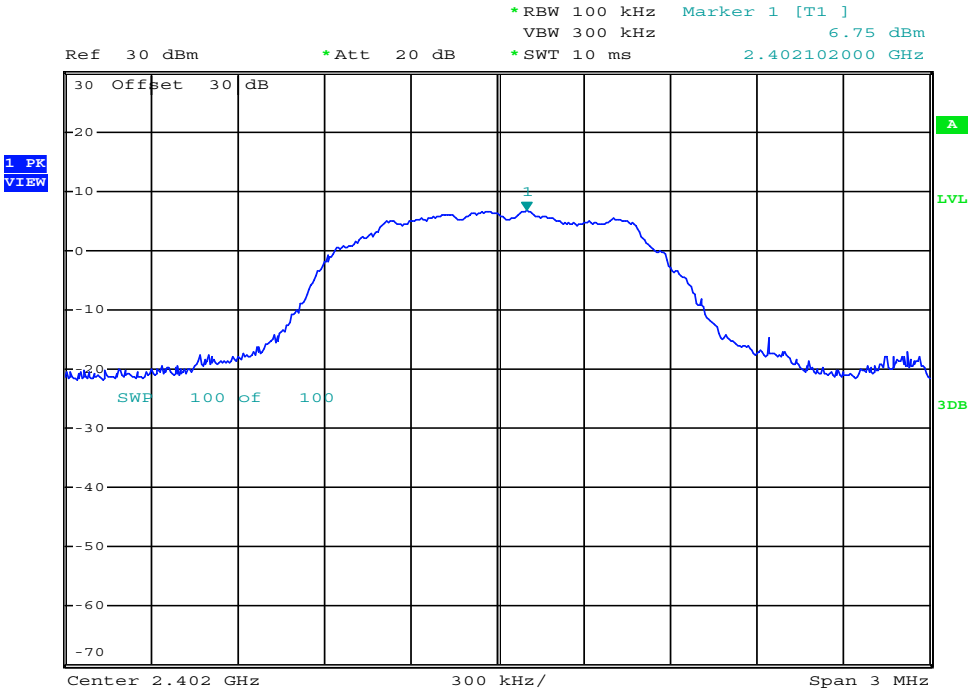
Data Rate:
2 Mbps

Measured Emission:
-32.12 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	3	6.75	30	-23.25
2442.00			6.50	30	-23.50
2480.00			5.94	30	-24.06

Limit Line = Measured PSD - Required Attenuation

Power Spectral Density



Date: 2.DEC.2020 15:59:25

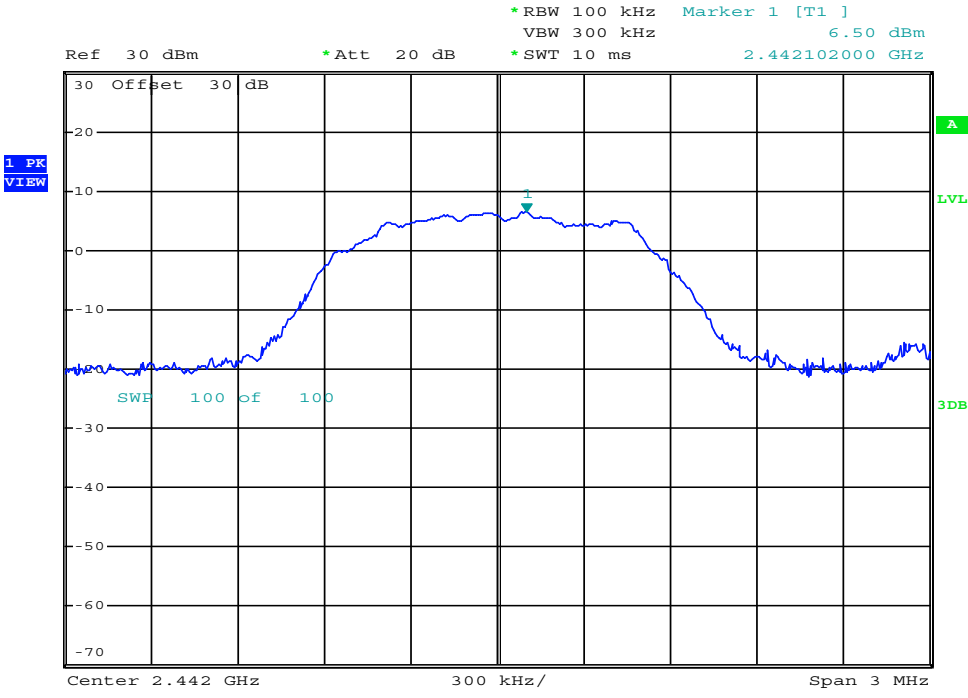
Channel Frequency:
2402.00 MHz

DUT Modulation:
8-DPSK

Data Rate:
3 Mbps

Measured PSD:
6.75 dBm

Power Spectral Density



Date: 2.DEC.2020 15:58:32

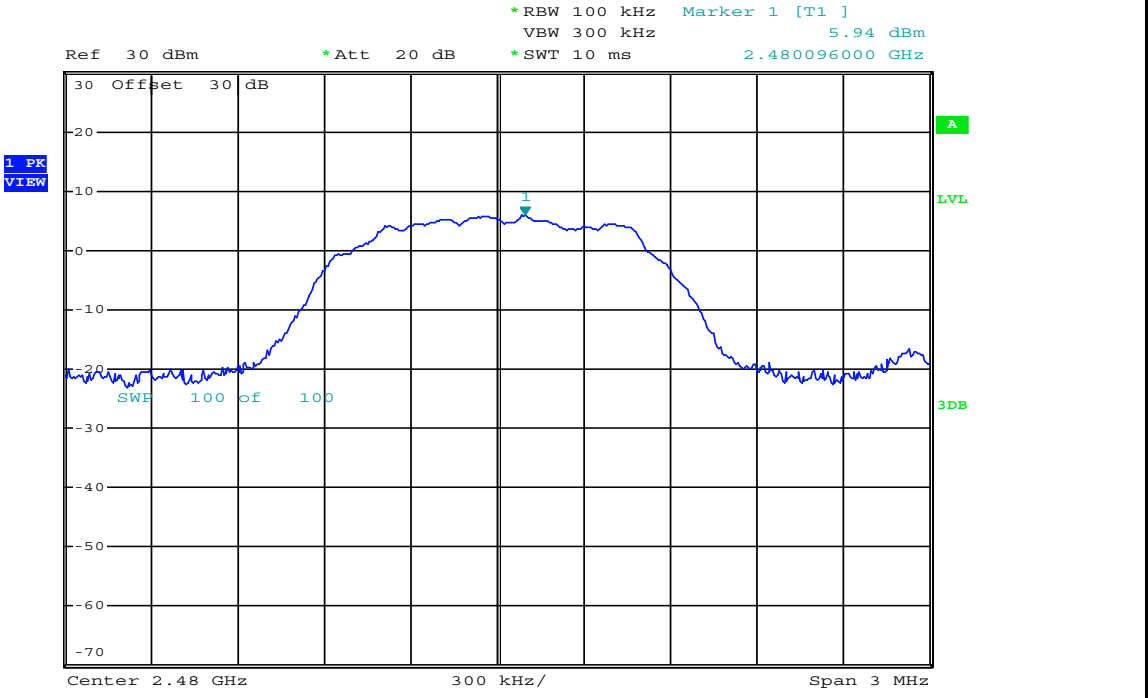
Channel Frequency:
2442.00 MHz

DUT Modulation:
8-DPSK

Data Rate:
3 Mbps

Measured PSD:
6.50 dBm

Power Spectral Density



Date: 2.DEC.2020 15:58:00

Channel Frequency:
2480.00 MHz

DUT Modulation:
8-DPSK

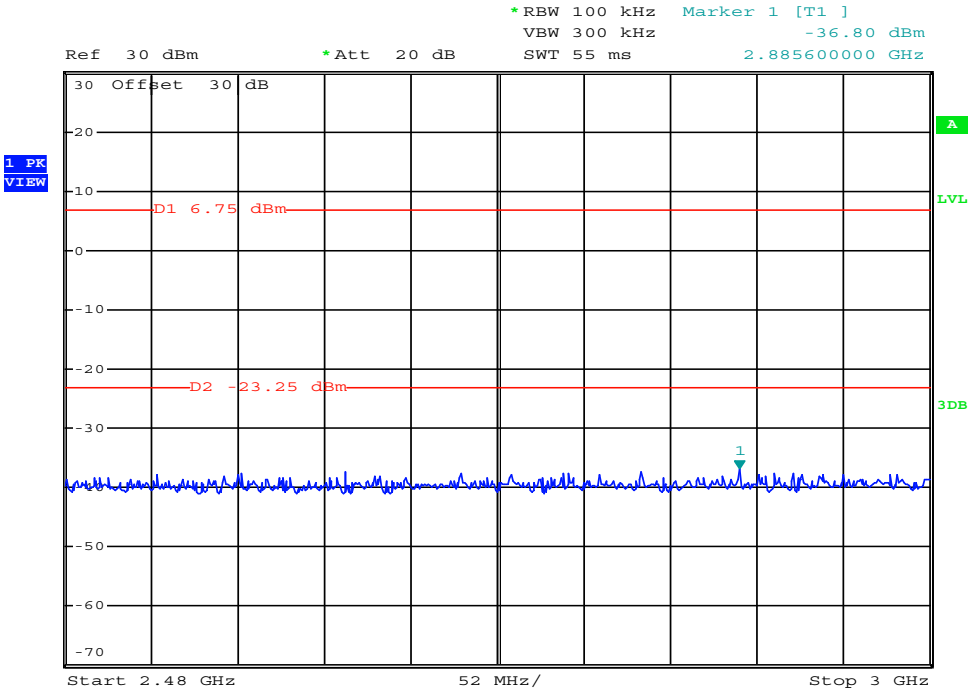
Data Rate:
3 Mbps

Measured PSD:
5.94 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	3	8-DPSK	-36.80	-23.25	13.55
3-10			-33.43		10.18
10-13.6			-33.62		10.37
13.6-25			-37.03		13.78
Results:				Complies	

Margin = A_L - E_{MEAS}

Conducted Spurious Emissions



Date: 2.DEC.2020 16:24:55

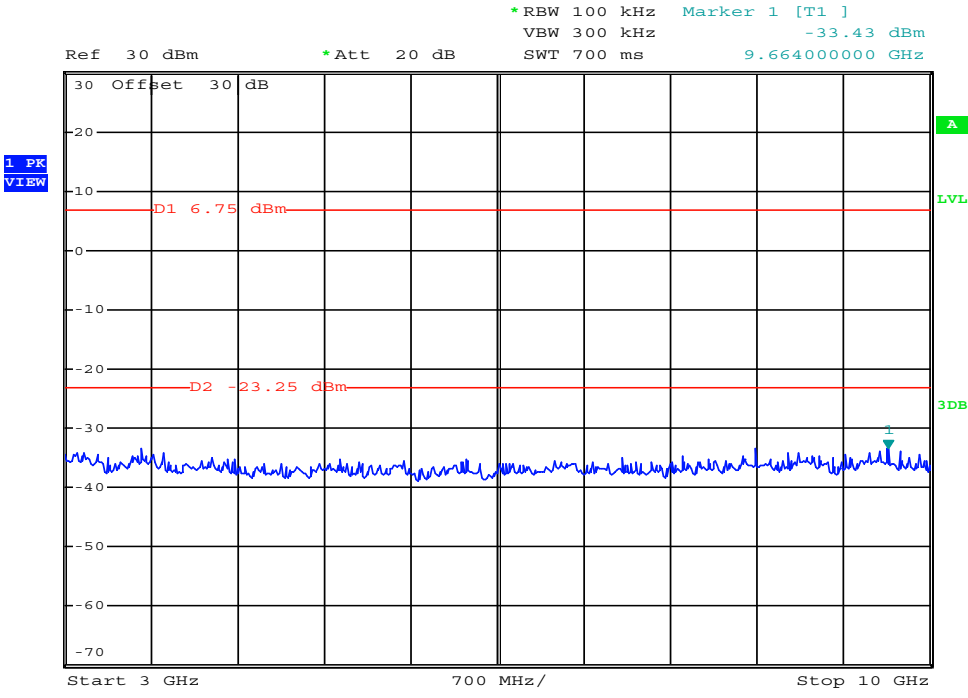
Channel Frequency:
2417.00 MHz

DUT Modulation:
8-DPSK

Data Rate:
3 Mbps

Measured Emission:
-36.80 dBm

Conducted Spurious Emissions



Date: 2.DEC.2020 16:25:30

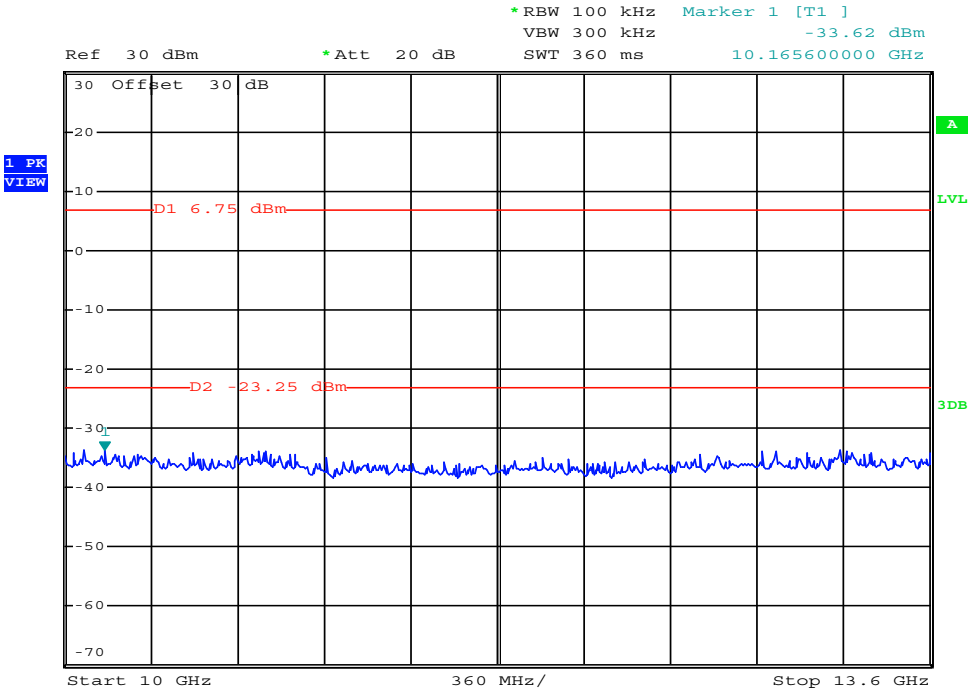
Channel Frequency:
2417.00 MHz

DUT Modulation:
8-DPSK

Data Rate:
3 Mbps

Measured Emission:
-33.43 dBm

Conducted Spurious Emissions



Date: 2.DEC.2020 16:26:01

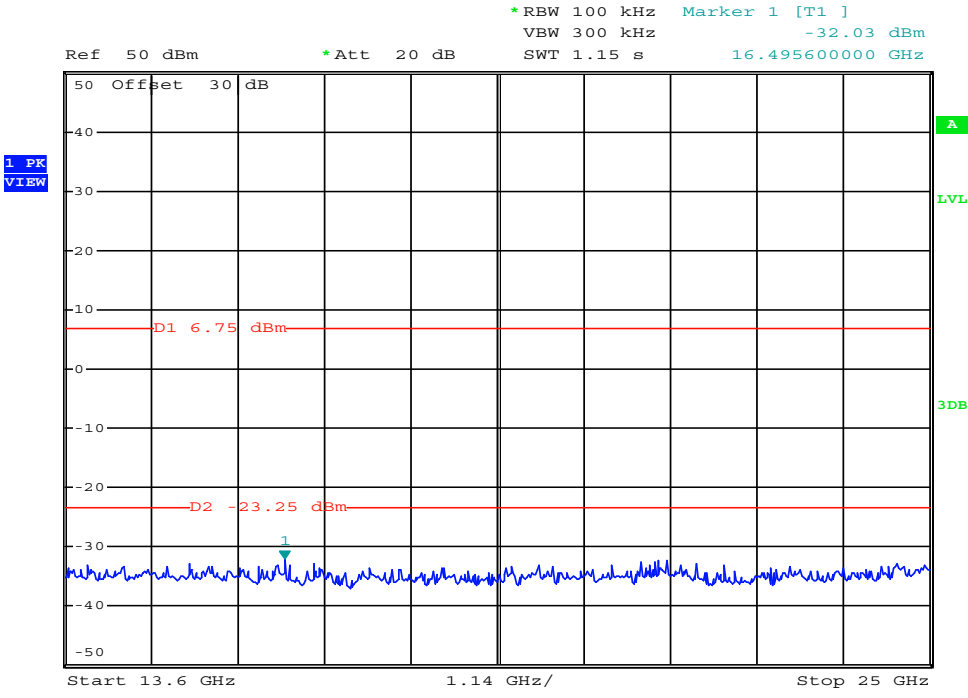
Channel Frequency:
2417.00 MHz

DUT Modulation:
8-DPSK

Data Rate:
3 Mbps

Measured Emission:
-33.62 dBm

Conducted Spurious Emissions



Date: 2.DEC.2020 16:27:11

Channel Frequency:
2417.00 MHz

DUT Modulation:
8-DPSK

Data Rate:
3 Mbps

Measured Emission:
-32.03 dBm