



Test Report Serial Number:

**45461624 R1.0**

Test Report Date:

**4 December 2020**

Project Number:

**1511**

## **Appendix I - Conducted Tx Spurious Emissions Measurement Plots**

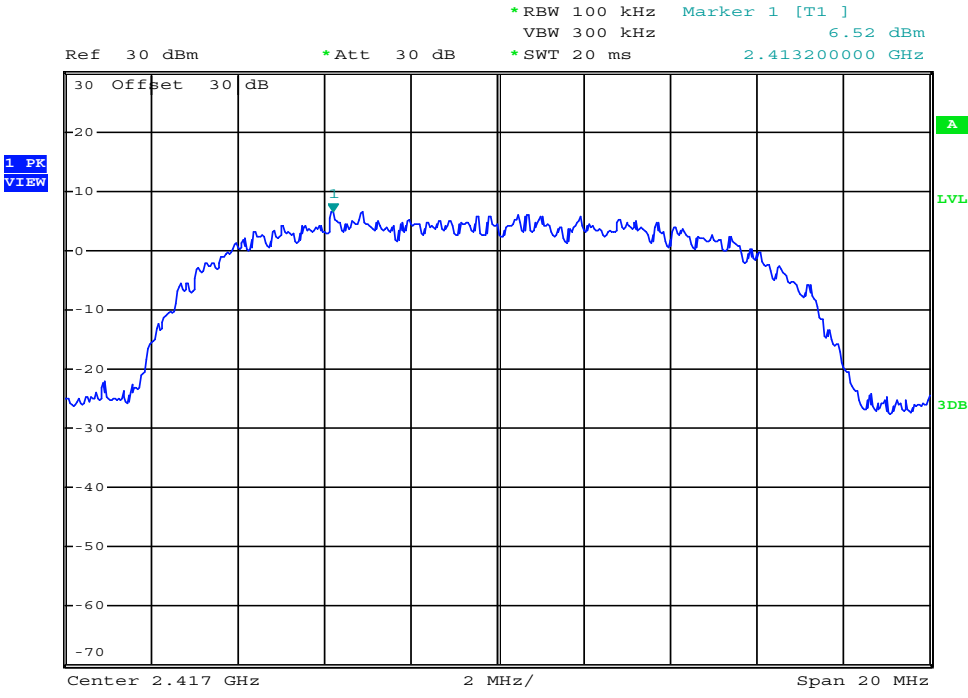
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<b>Conducted Spurious Emissions - Reference Measurement</b>					
<b>Frequency (MHz)</b>	<b>Modulation</b>	<b>Bit Rate (Mbps)</b>	<b>Measured PSD [P<sub>Meas</sub>] (dBm)</b>	<b>Required Attenuation [A<sub>R</sub>] (dB)</b>	<b>Limit Line [A<sub>L</sub>] (dBm)</b>
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

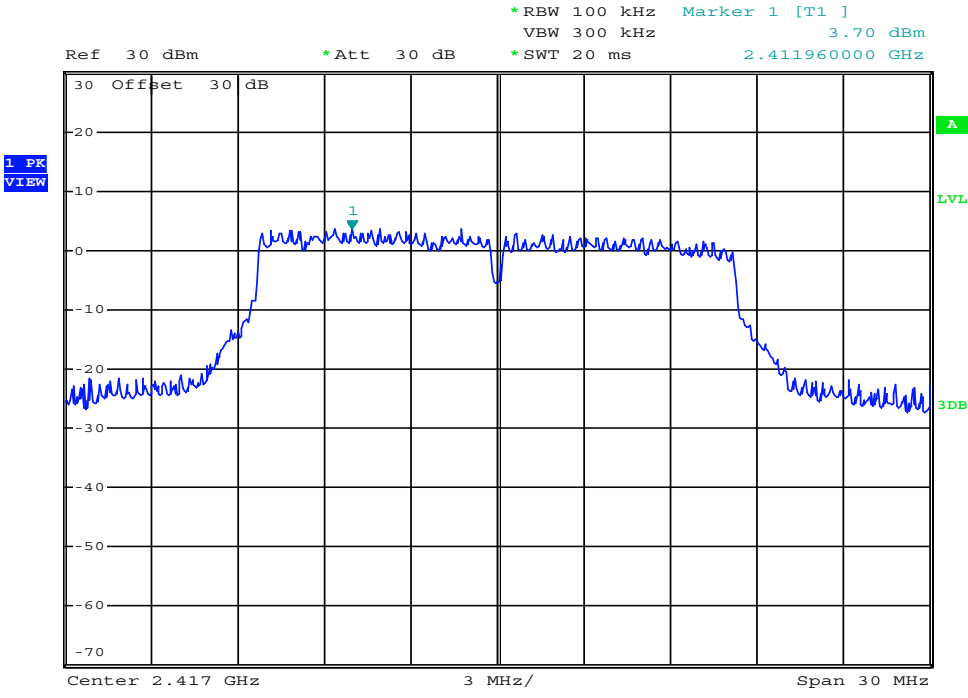
Channel Frequency:  
**2417.00 MHz**

DUT Modulation:  
**DSSS**

Data Rate:  
**11 Mbps**

Measured PSD:  
**6.52 dBm**

# Power Spectral Density



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

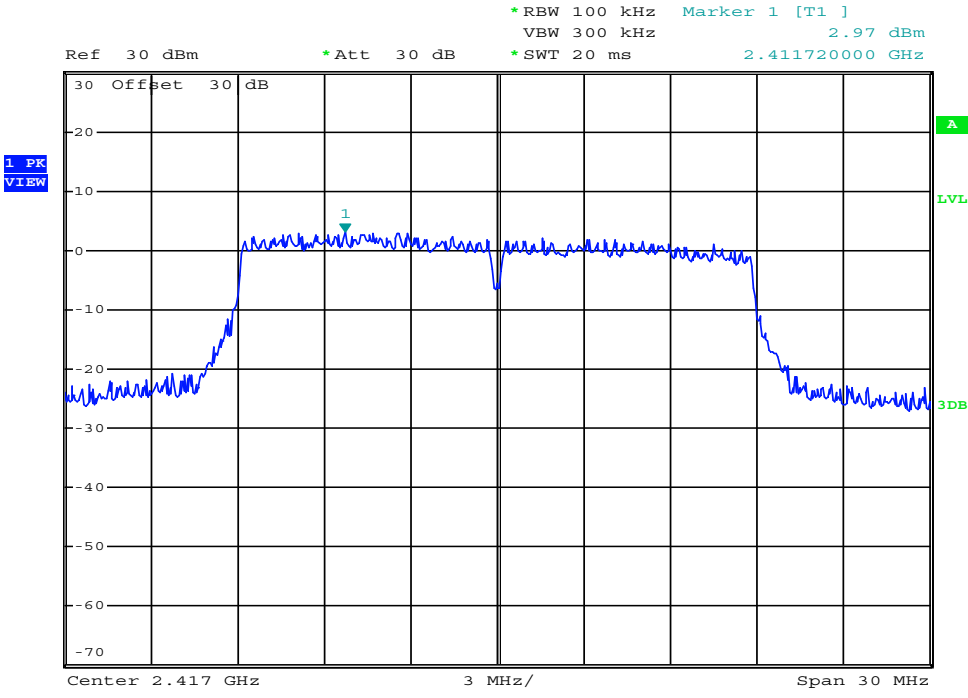
Channel Frequency:  
**2417.00 MHz**

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**

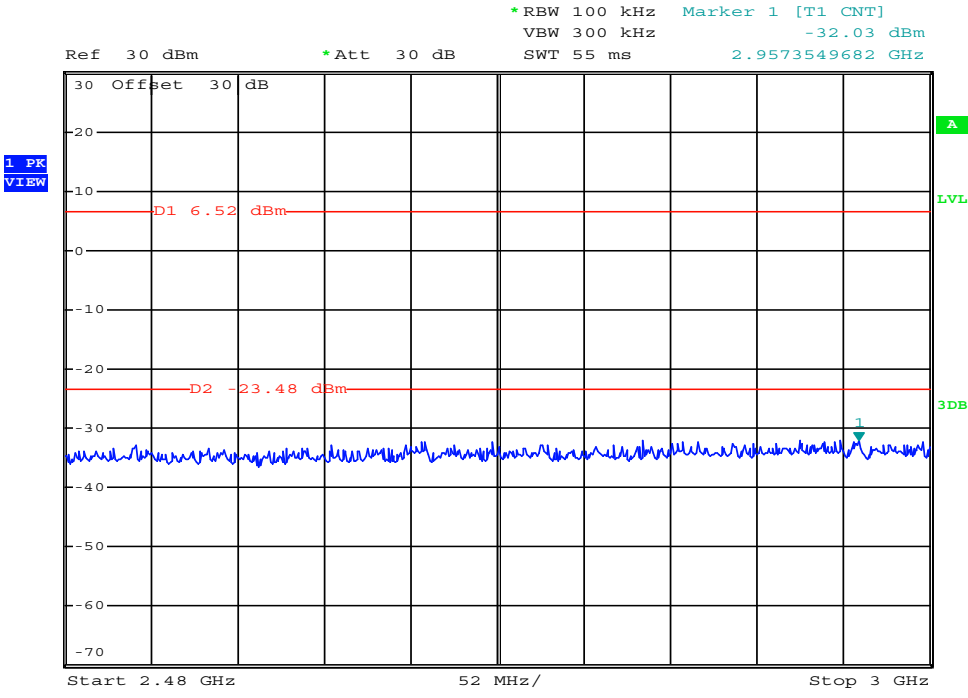
Data Rate:  
- Mbps

Measured PSD:  
**2.97 dBm**

<b>Emission Level Measurement</b>					
<b>Frequency Range (GHz)</b>	<b>Bit Rate (Mbps)</b>	<b>Modulation</b>	<b>Measured Emission [E<sub>Meas</sub>] (dBm)</b>	<b>Limit Line [A<sub>L</sub>] (dBm)</b>	<b>Margin (dB)</b>
to 3GHz	11	DSSS	-32.03	-23.48	<b>8.55</b>
3-10			-36.93		<b>13.45</b>
10-13.6			-36.91		<b>13.43</b>
13.6-18			-32.84		<b>9.36</b>
18-25			-32.37		<b>8.89</b>
<b>Results:</b>				<b>Complies</b>	

Margin = A<sub>L</sub> - E<sub>MEAS</sub>

# Conducted Spurious Emissions



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

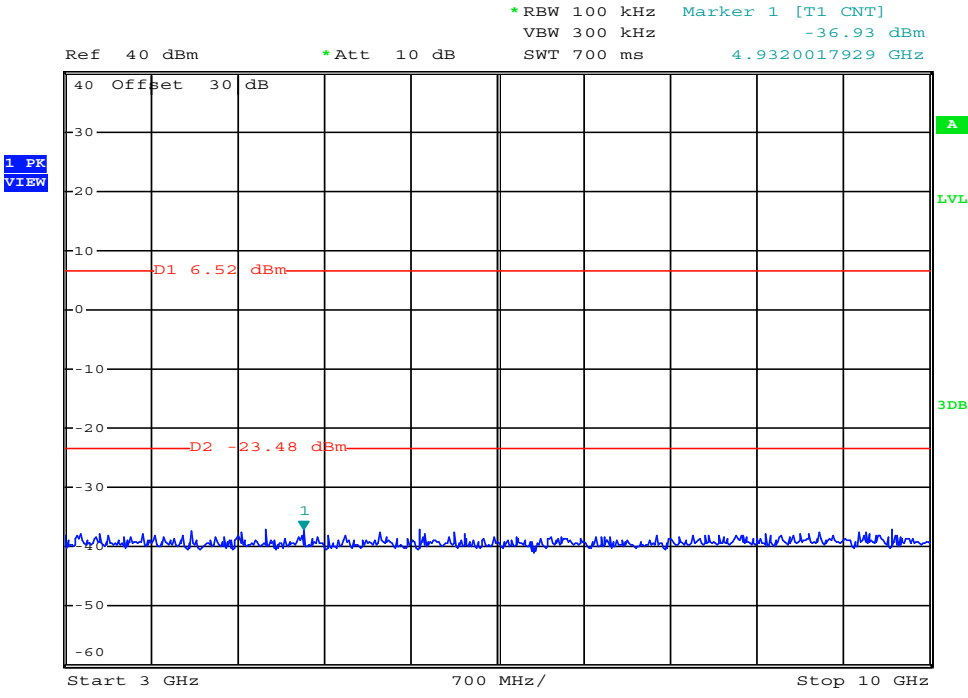
Channel Frequency:  
**2417.00 MHz**

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**

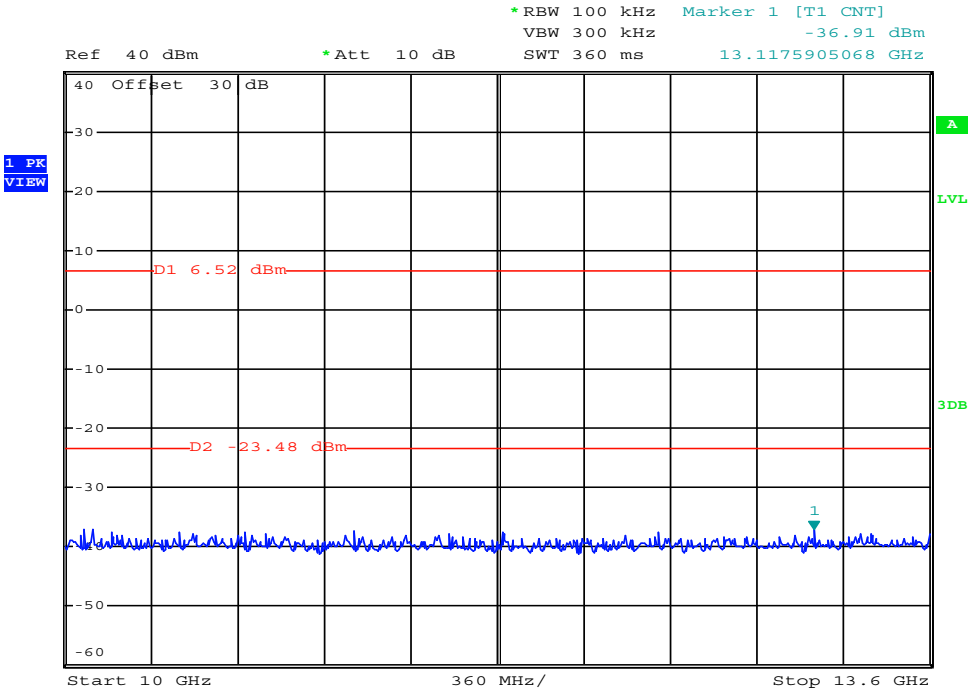
DUT Modulation:  
**DSSS**

Data Rate:  
**11 Mbps**

Measured Emission:  
**-36.93 dBm**



# Conducted Spurious Emissions



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

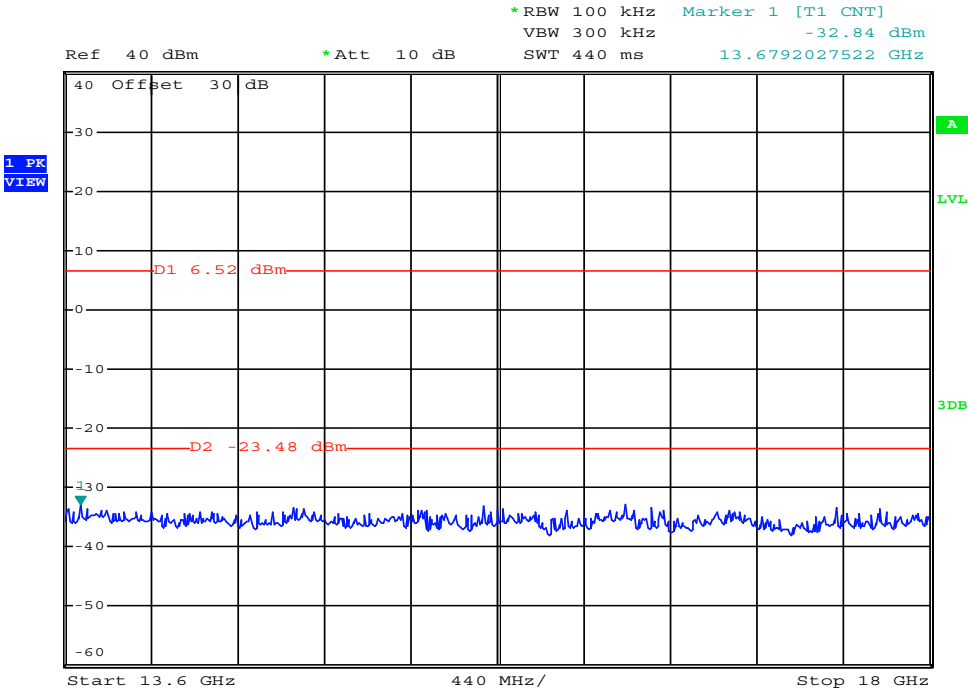
Channel Frequency:  
**2417.00 MHz**

DUT Modulation:  
**DSSS**

Data Rate:  
**11 Mbps**

Measured Emission:  
**-36.91 dBm**

# Conducted Spurious Emissions



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

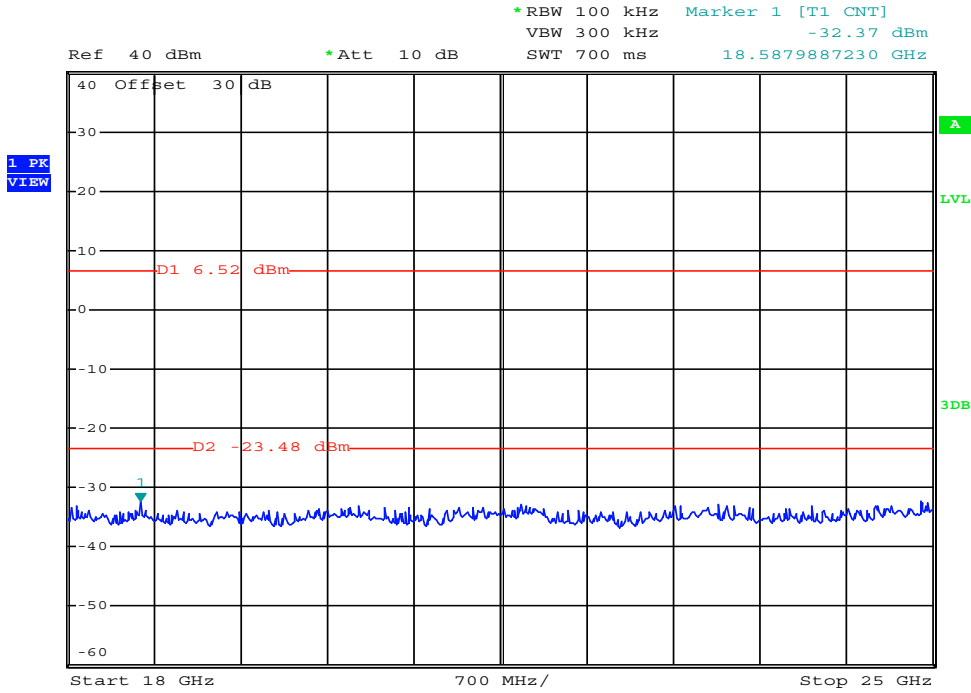
Channel Frequency:  
**2417.00 MHz**

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**

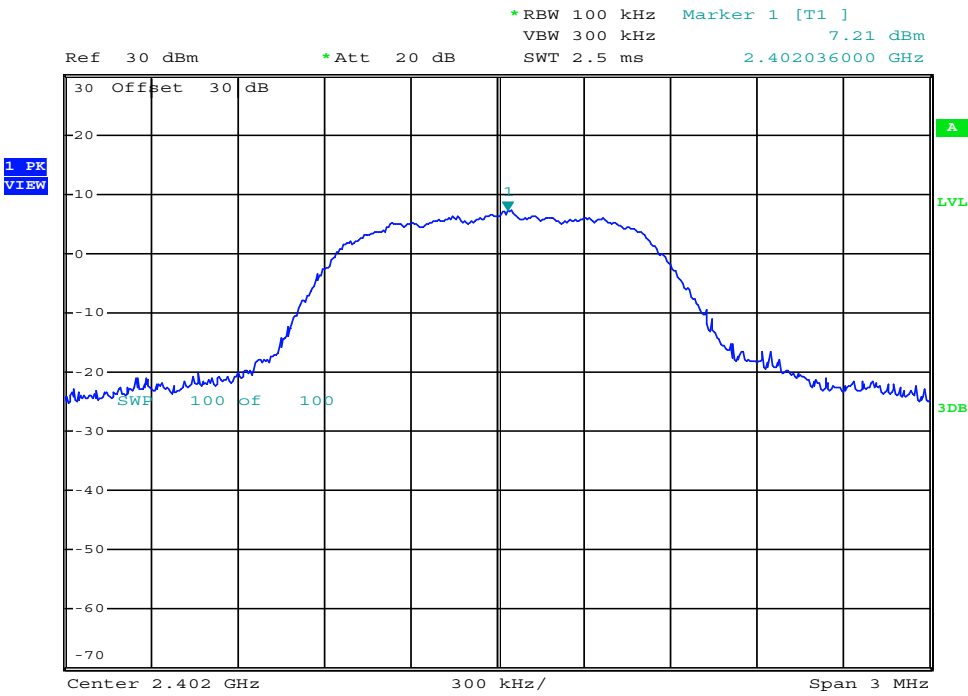
Data Rate:  
**11 Mbps**

Measured Emission:  
**-32.37 dBm**

<b>Conducted Spurious Emissions - Reference Measurement</b>					
<b>Frequency (MHz)</b>	<b>Modulation</b>	<b>Bit Rate (Mbps)</b>	<b>Measured PSD [P<sub>Meas</sub>] (dBm)</b>	<b>Required Attenuation [A<sub>R</sub>] (dB)</b>	<b>Limit Line [A<sub>L</sub>] (dBm)</b>
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

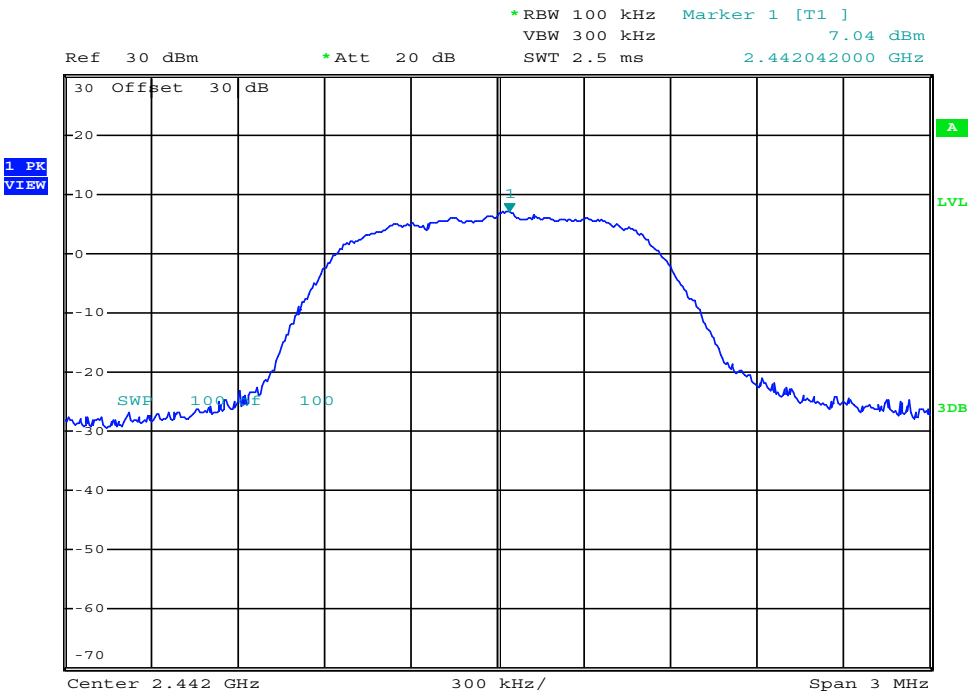
Channel Frequency:  
**2402.00 MHz**

DUT Modulation:  
**Pi/4-DQPSK**

Data Rate:  
**2 Mbps**

Measured PSD:  
**7.21 dBm**

# Power Spectral Density



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

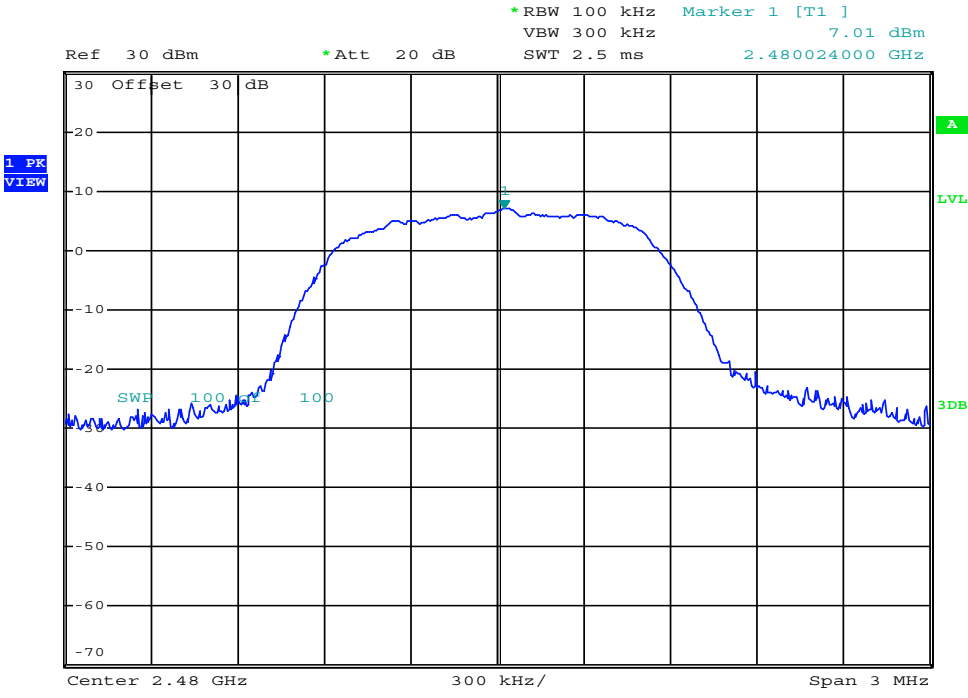
Channel Frequency:  
**2442.00 MHz**

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**

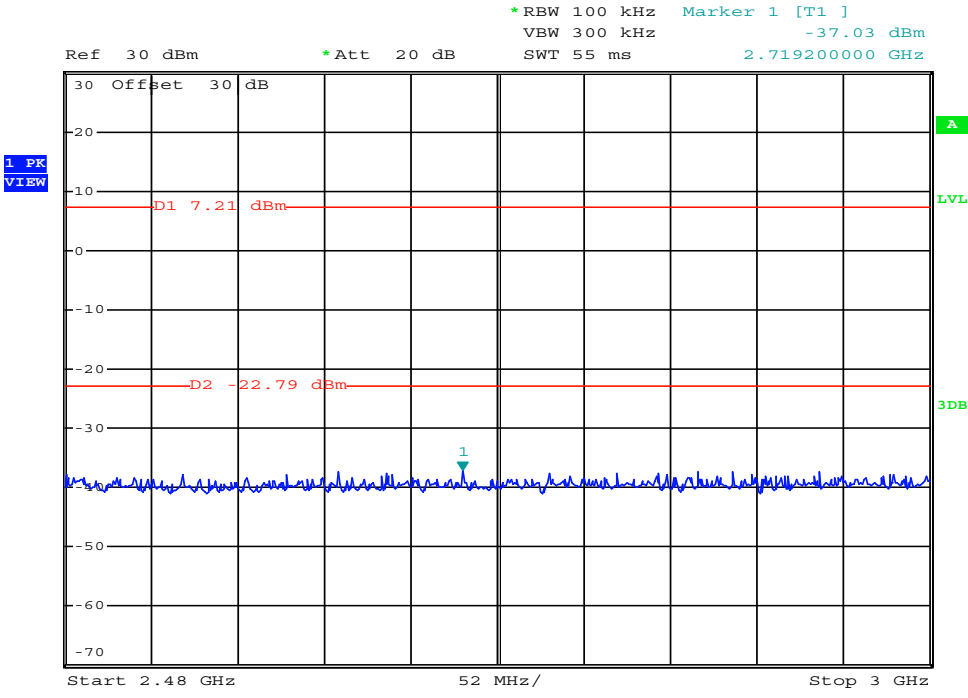
Measured PSD:  
**7.01 dBm**

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

Margin = A<sub>L</sub> - E<sub>MEAS</sub>



# Conducted Spurious Emissions



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

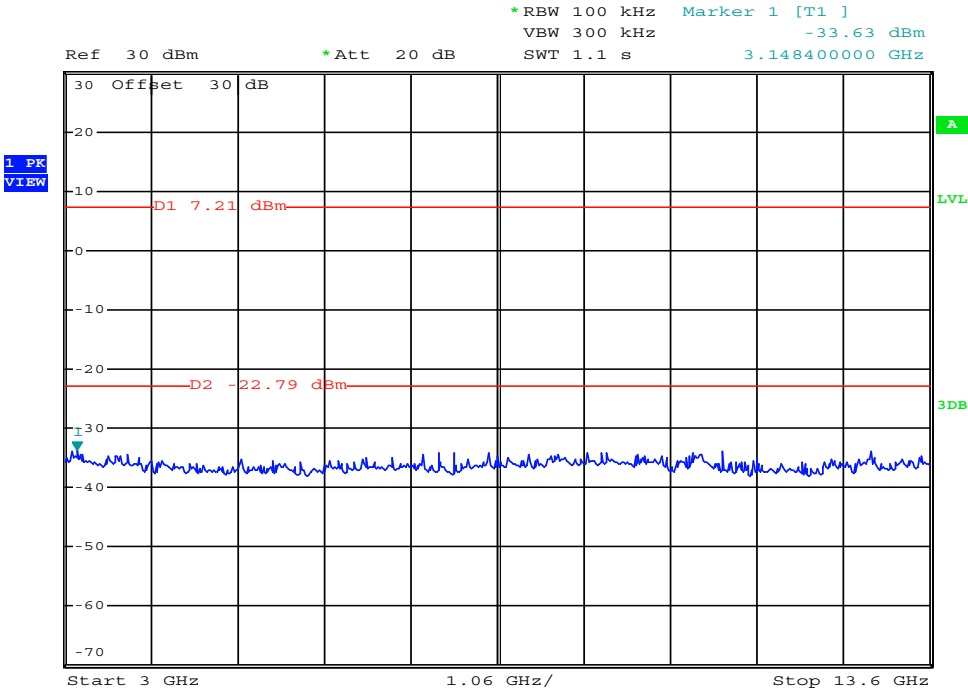
Channel Frequency:  
**2417.00 MHz**

DUT Modulation:  
**Pi/4-DQPSK**

Data Rate:  
**2 Mbps**

Measured Emission:  
**-37.03 dBm**

# Conducted Spurious Emissions



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

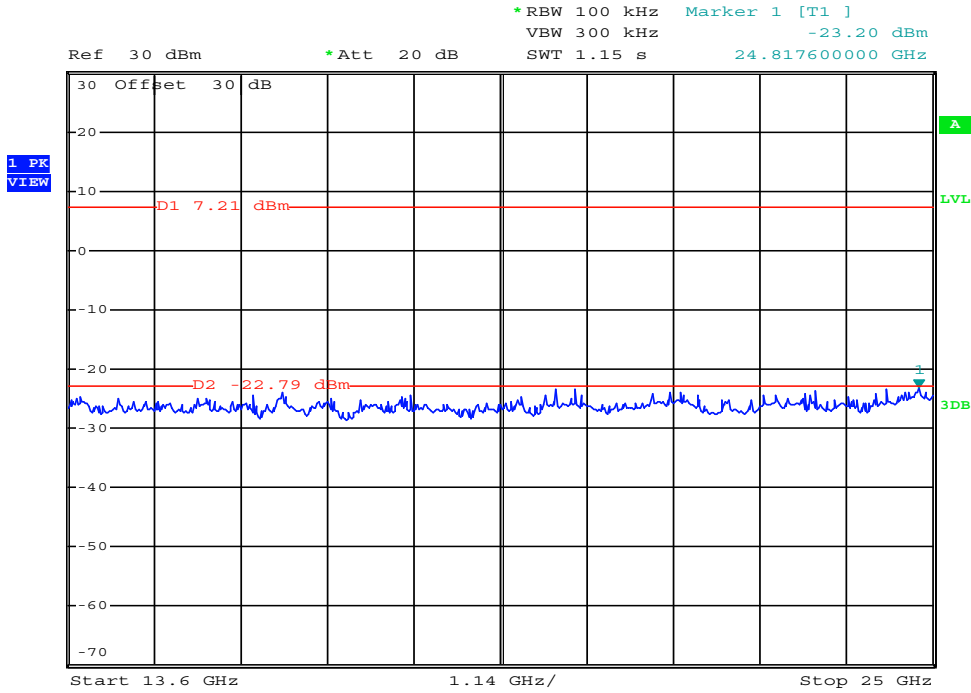
Channel Frequency:  
**2417.00 MHz**

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**

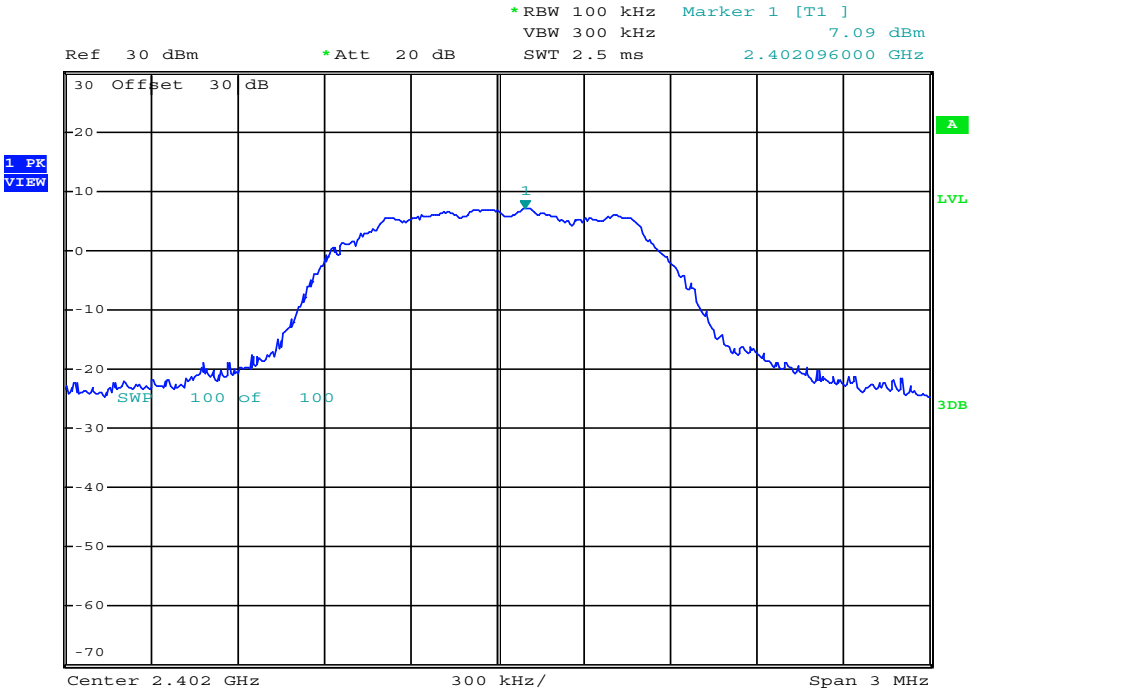
Data Rate:  
**2 Mbps**

Measured Emission:  
**-23.20 dBm**

<b>Conducted Spurious Emissions - Reference Measurement</b>					
<b>Frequency (MHz)</b>	<b>Modulation</b>	<b>Bit Rate (Mbps)</b>	<b>Measured PSD [P<sub>Meas</sub>] (dBm)</b>	<b>Required Attenuation [A<sub>R</sub>] (dB)</b>	<b>Limit Line [A<sub>L</sub>] (dBm)</b>
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

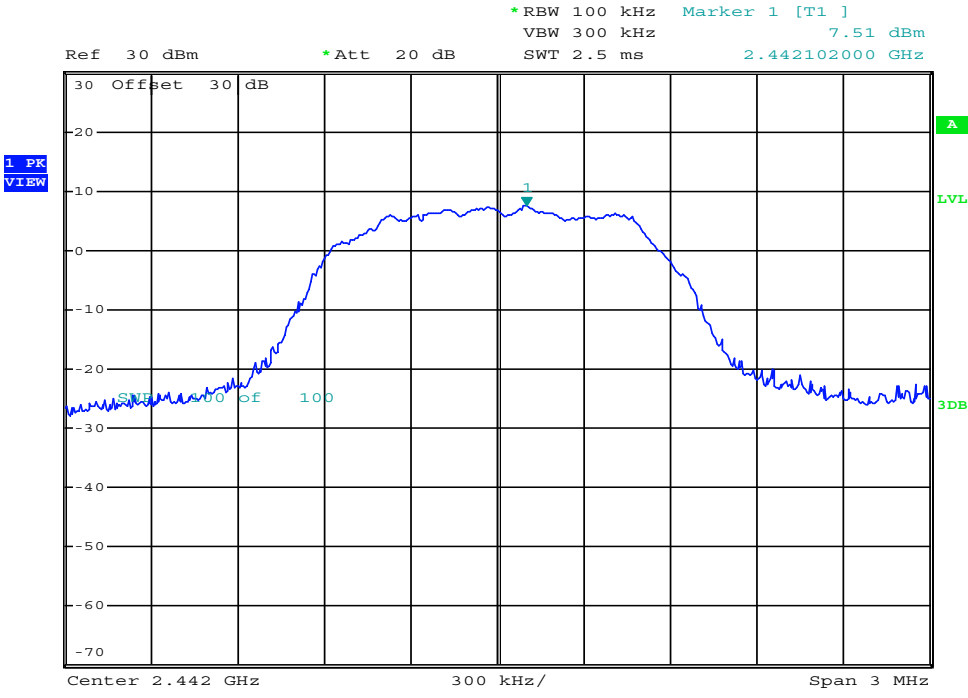
Channel Frequency:  
**2402.00 MHz**

DUT Modulation:  
**8-DPSK**

Data Rate:  
**3 Mbps**

Measured PSD:  
**7.09 dBm**

# Power Spectral Density



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

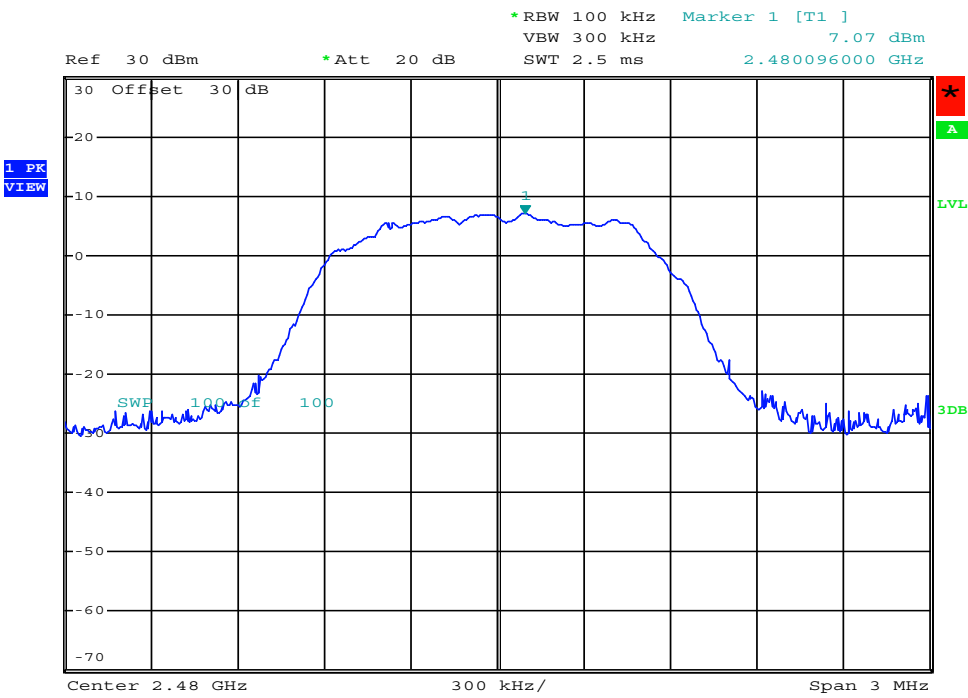
Channel Frequency:  
**2442.00 MHz**

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:  
**8-DPSK**

Data Rate:  
**3 Mbps**

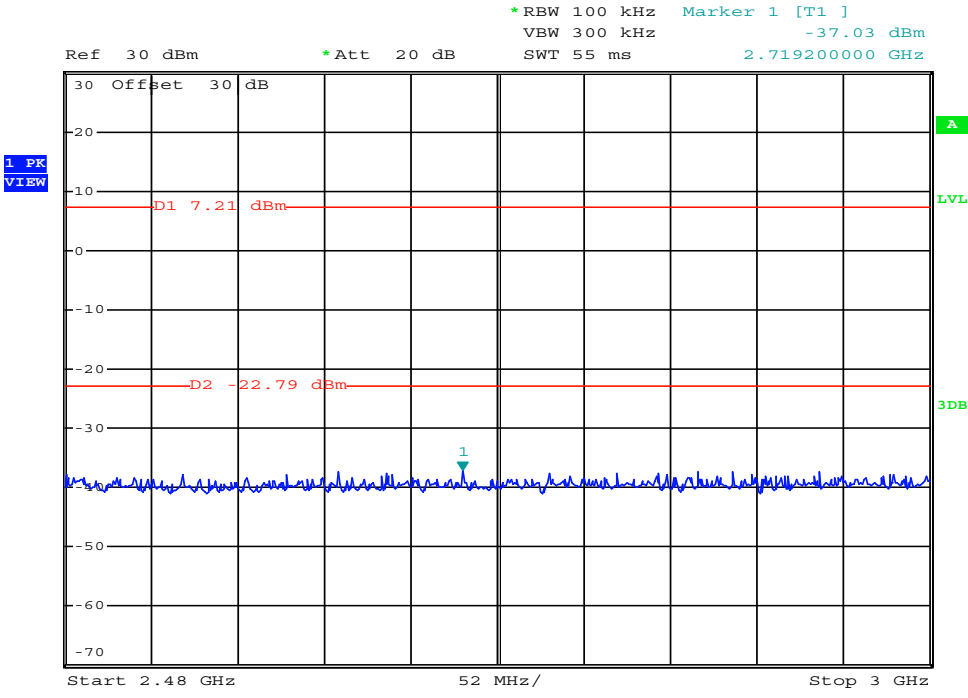
Measured PSD:  
**7.07 dBm**

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

Margin = A<sub>L</sub> - E<sub>MEAS</sub>



# Conducted Spurious Emissions



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

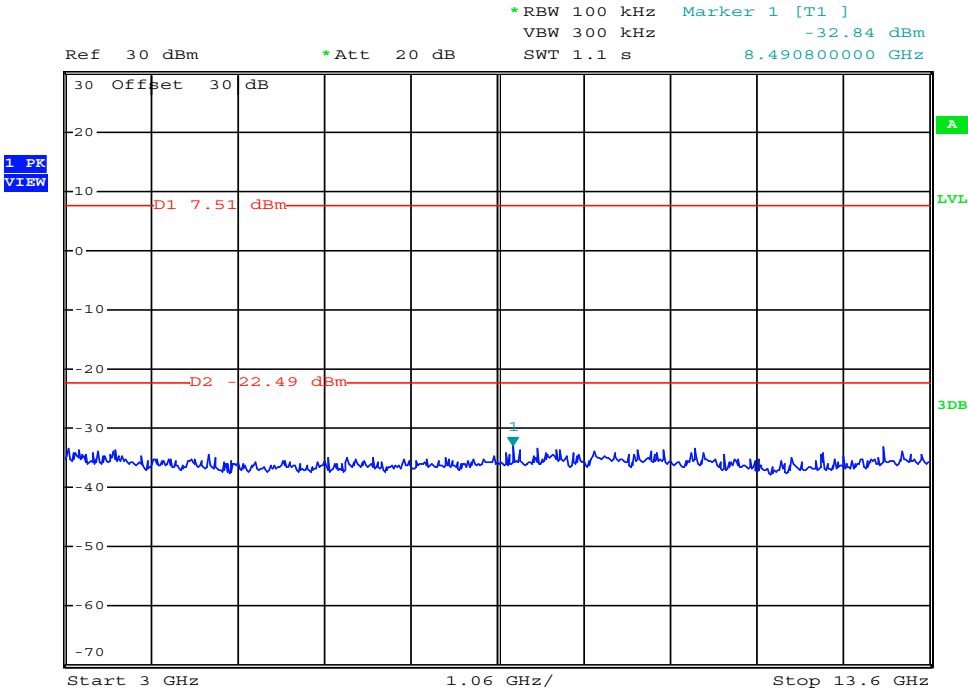
Channel Frequency:  
**2417.00 MHz**

DUT Modulation:  
**8-DPSK**

Data Rate:  
**3 Mbps**

Measured Emission:  
**-37.03 dBm**

# Conducted Spurious Emissions



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

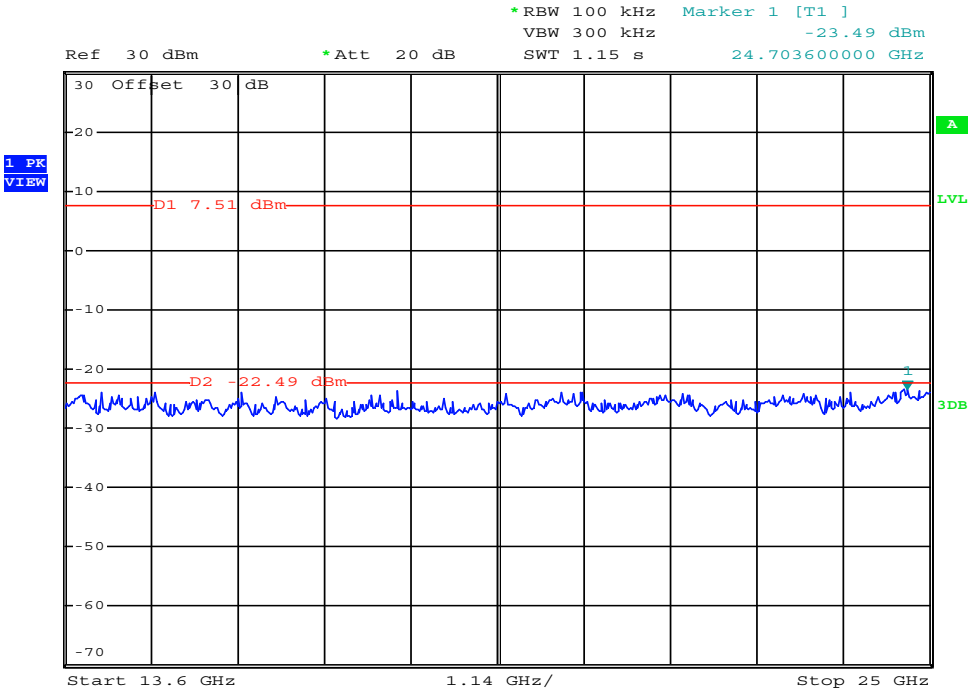
Channel Frequency:  
**2417.00 MHz**

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**