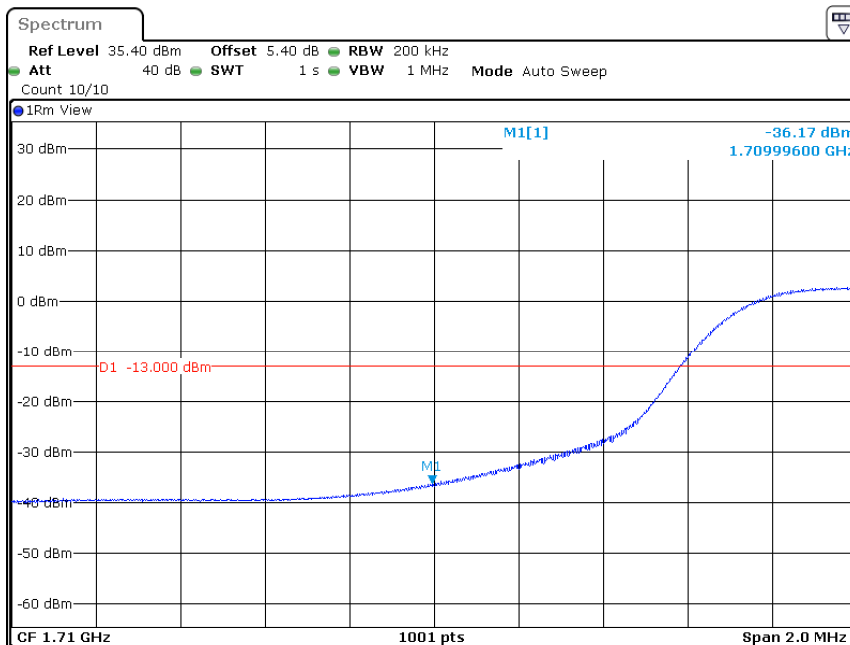


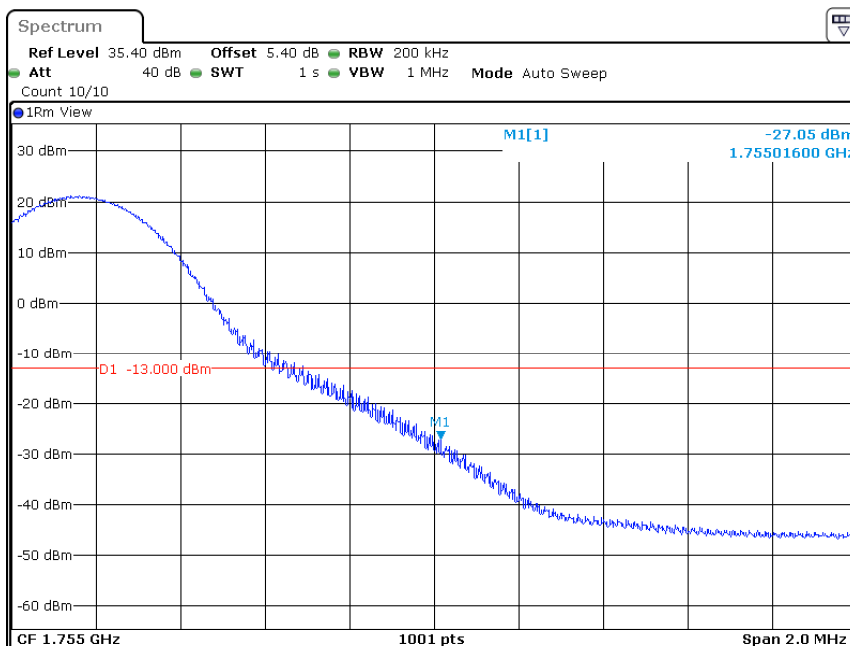


Band4-15MHz-64QAM-20025-75RB#0



Date: 7.SEP.2020 12:41:15

Band4-15MHz-64QAM-20325-1RB#74

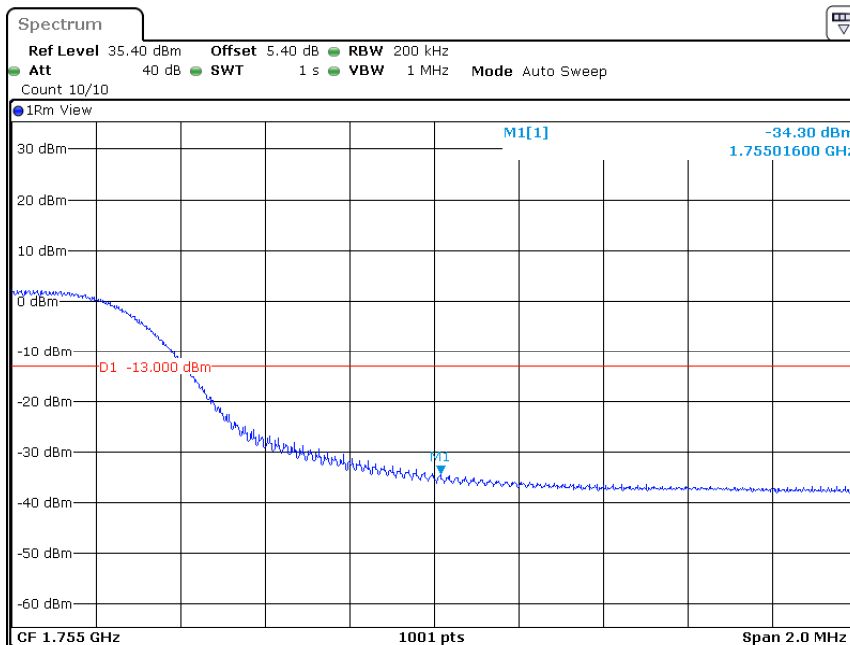


Date: 7.SEP.2020 12:41:41



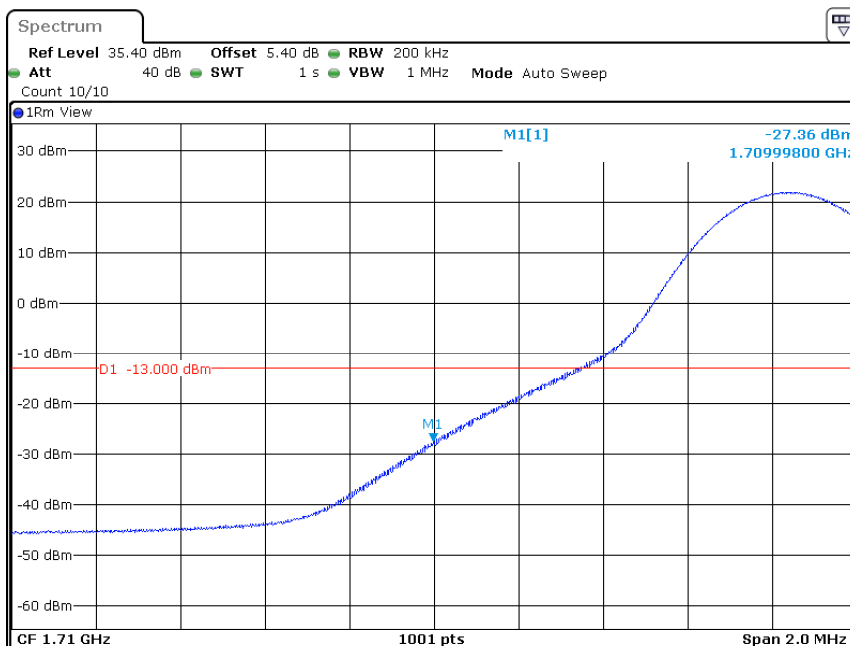


Band4-15MHz-64QAM-20325-75RB#0



Date: 7.SEP.2020 12:42:01

Band4-15MHz-16QAM-20025-1RB#0



Date: 7.SEP.2020 11:07:04



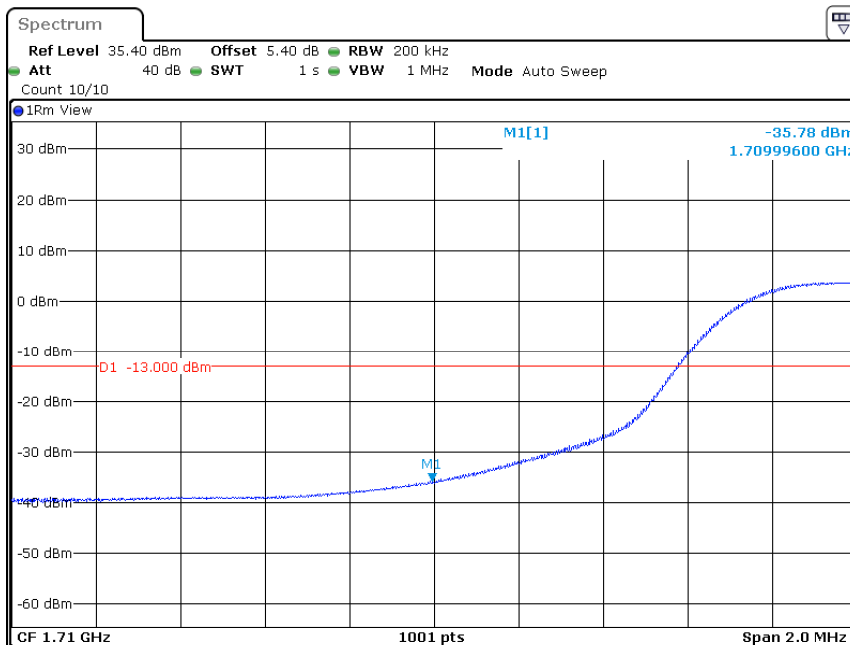
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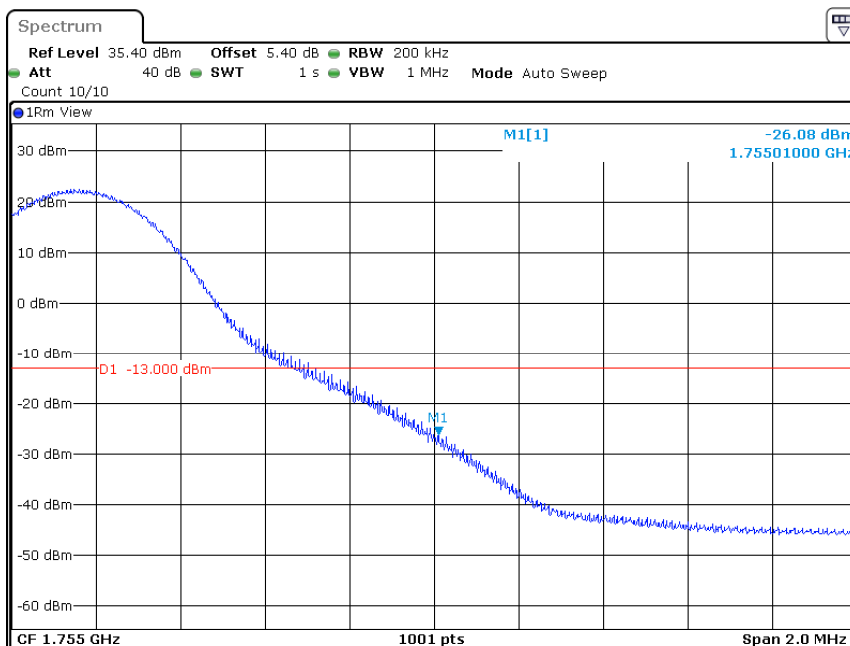


Band4-15MHz-16QAM-20025-75RB#0



Date: 7.SEP.2020 11:07:46

Band4-15MHz-16QAM-20325-1RB#74



Date: 7.SEP.2020 11:08:31

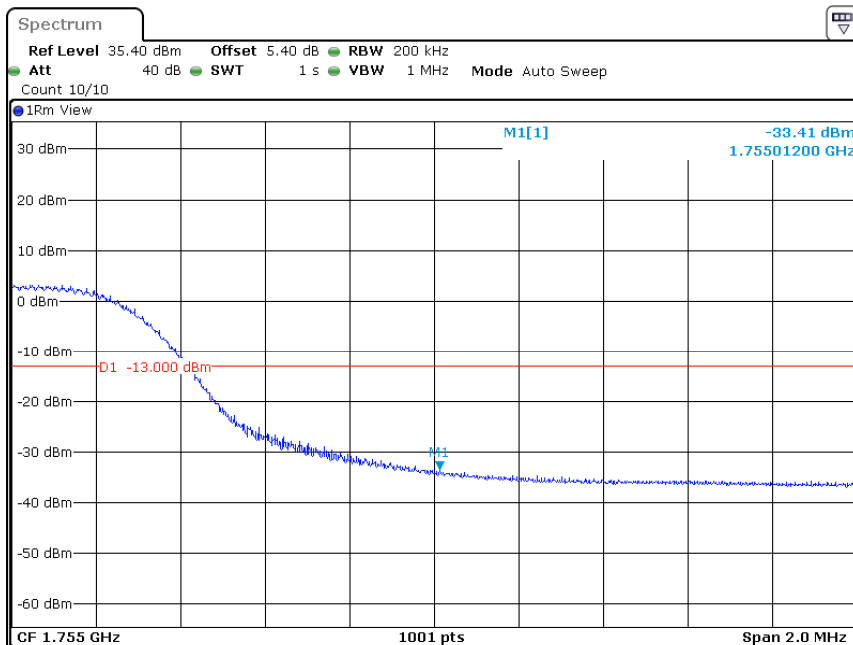


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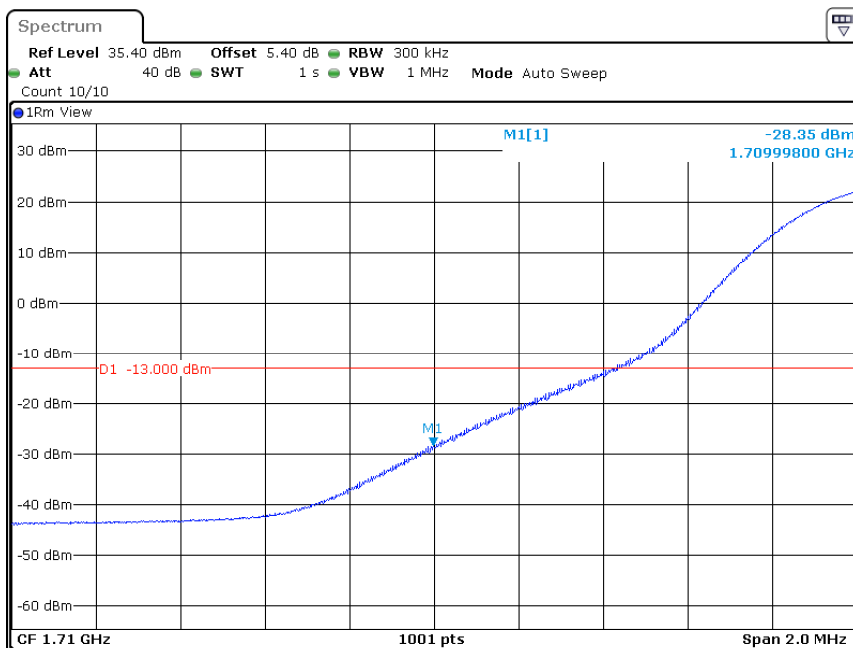


Band4-15MHz-16QAM-20325-75RB#0



Date: 7.SEP.2020 11:09:13

Band4-20MHz-QPSK-20050-1RB#0



Date: 7.SEP.2020 11:25:28



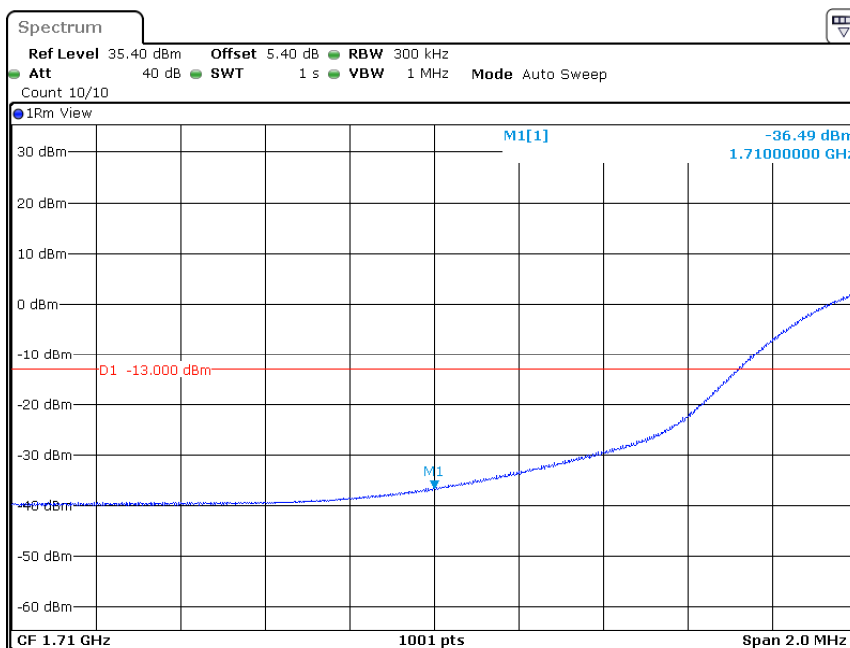
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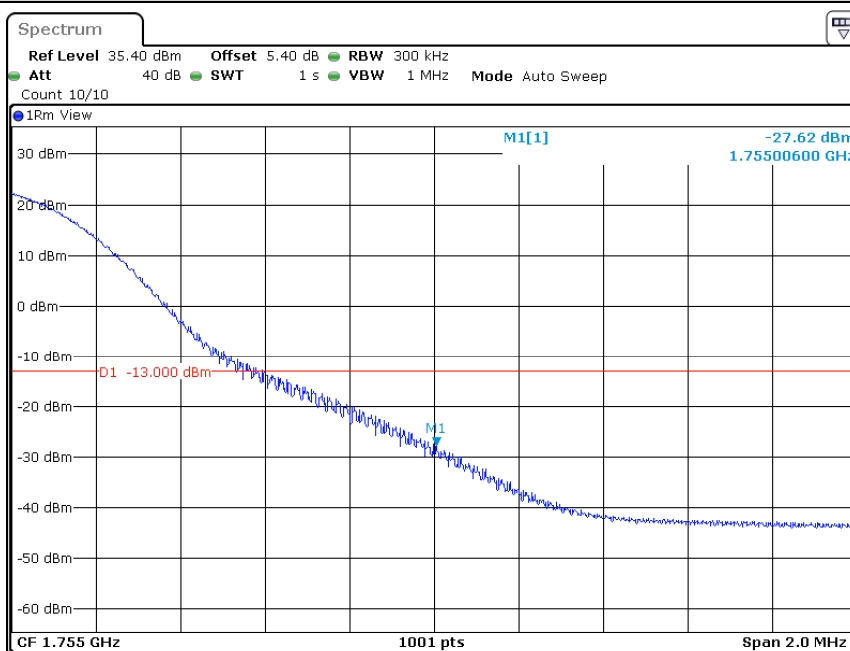


Band4-20MHz-QPSK-20050-100RB#0



Date: 7.SEP.2020 11:26:10

Band4-20MHz-QPSK-20300-1RB#99



Date: 7.SEP.2020 11:26:56



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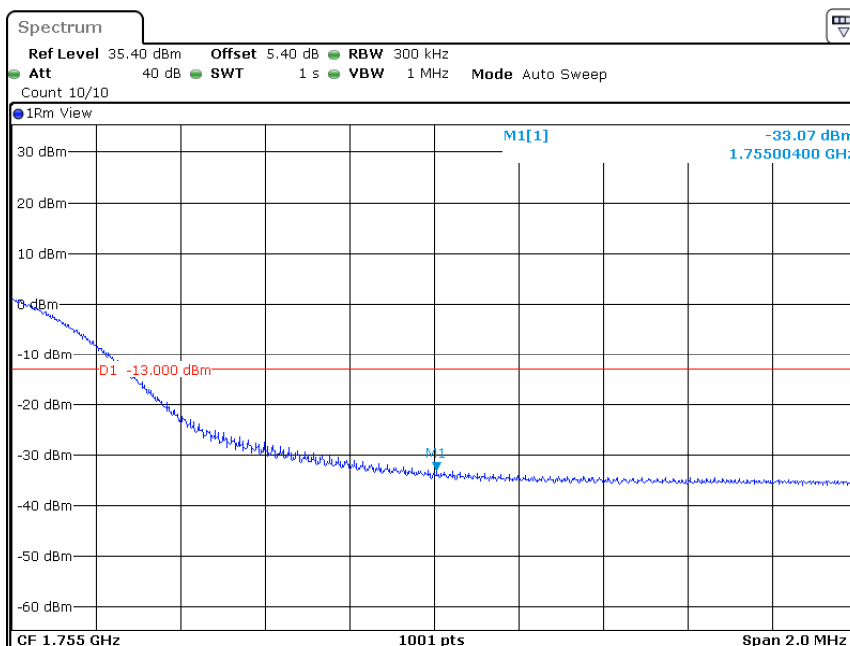
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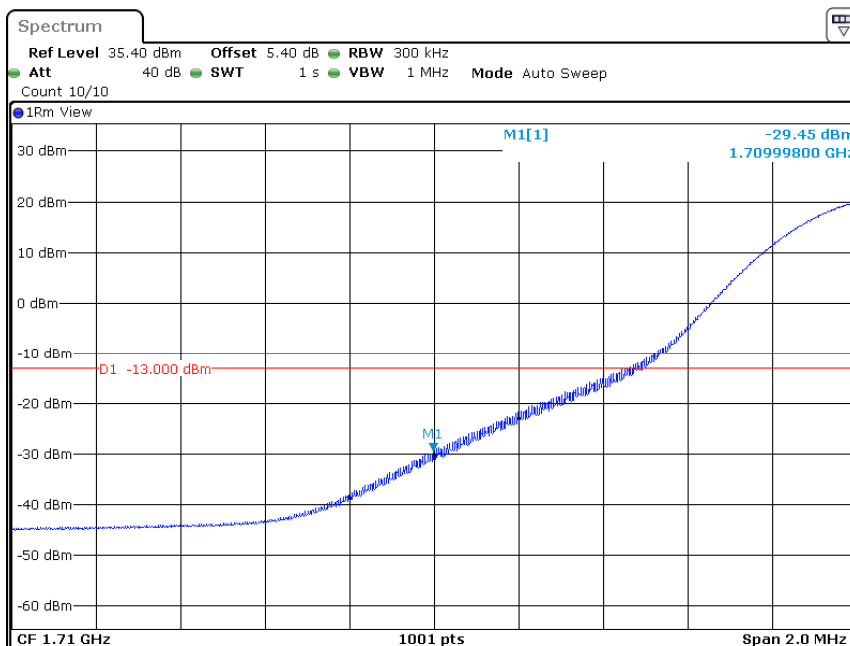


Band4-20MHz-QPSK-20300-100RB#0



Date: 7.SEP.2020 11:27:37

Band4-20MHz-64QAM-20050-1RB#0



Date: 7.SEP.2020 12:42:29



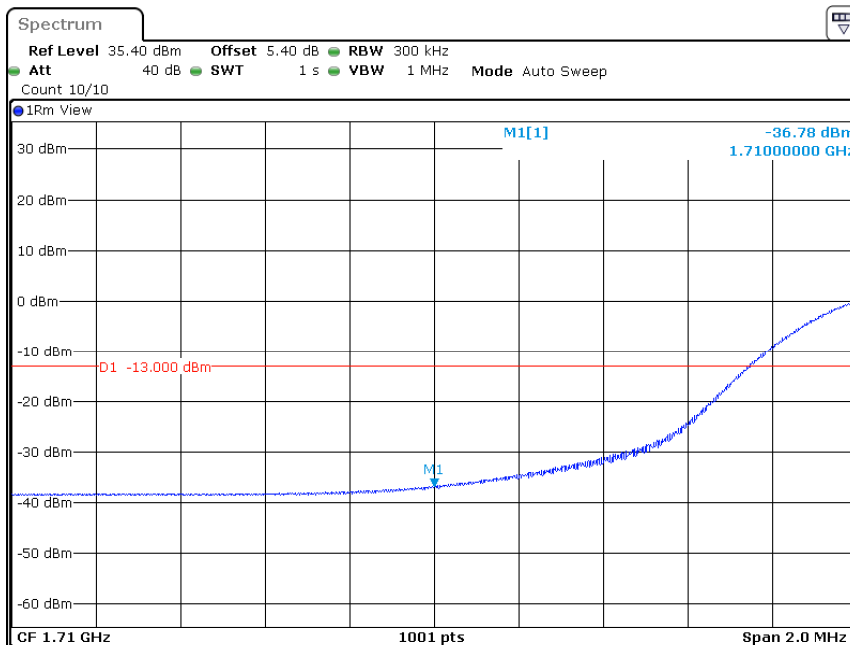
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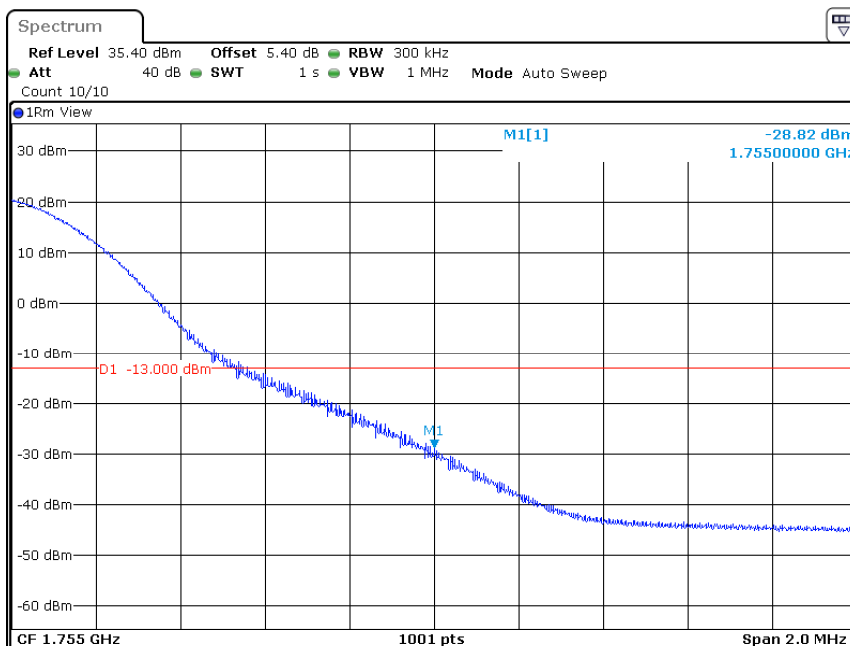


Band4-20MHz-64QAM-20050-100RB#0



Date: 7.SEP.2020 12:42:50

Band4-20MHz-64QAM-20300-1RB#99



Date: 7.SEP.2020 12:43:16



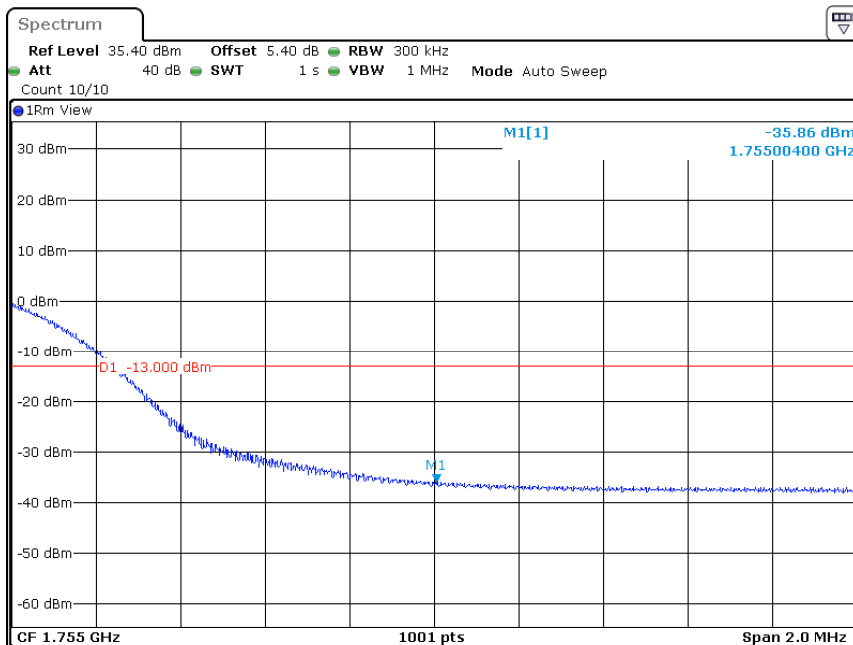
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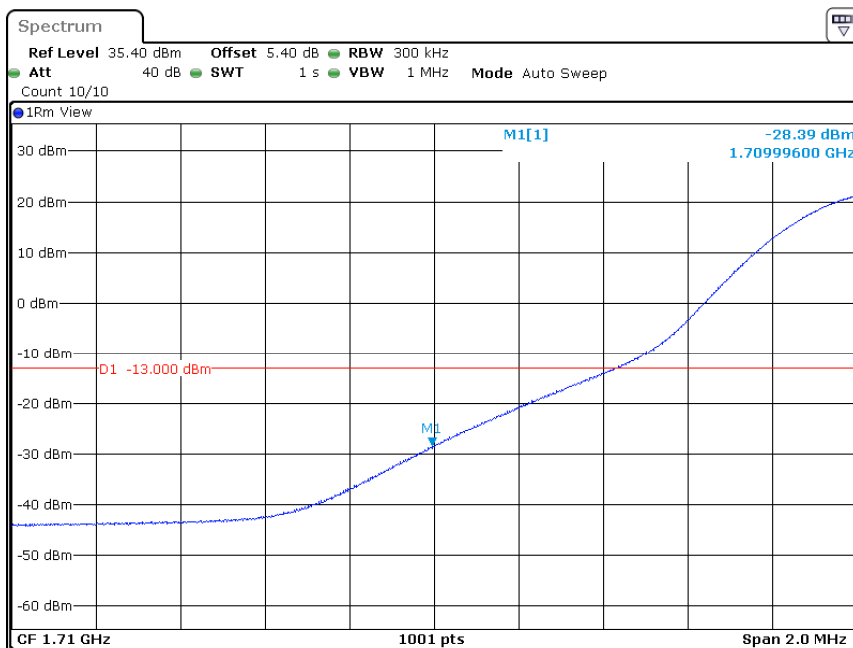


Band4-20MHz-64QAM-20300-100RB#0



Date: 7.SEP.2020 12:43:37

Band4-20MHz-16QAM-20050-1RB#0



Date: 7.SEP.2020 11:25:49



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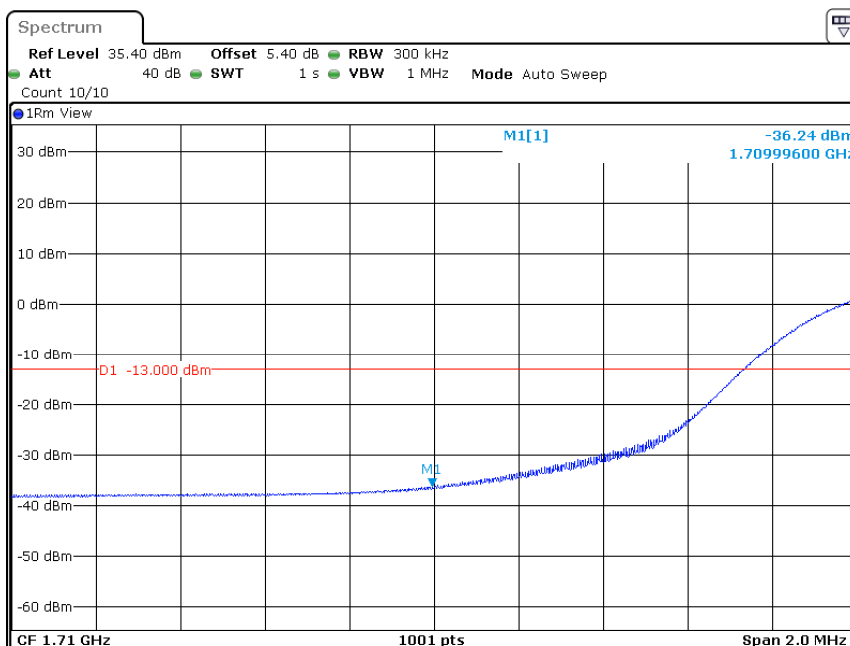
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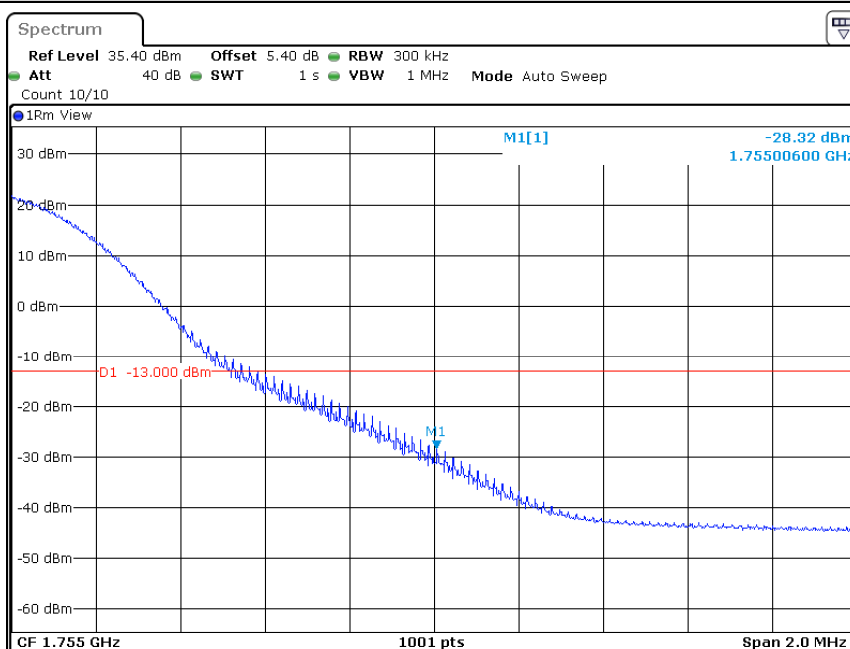


Band4-20MHz-16QAM-20050-100RB#0



Date: 7.SEP.2020 11:26:30

Band4-20MHz-16QAM-20300-1RB#99

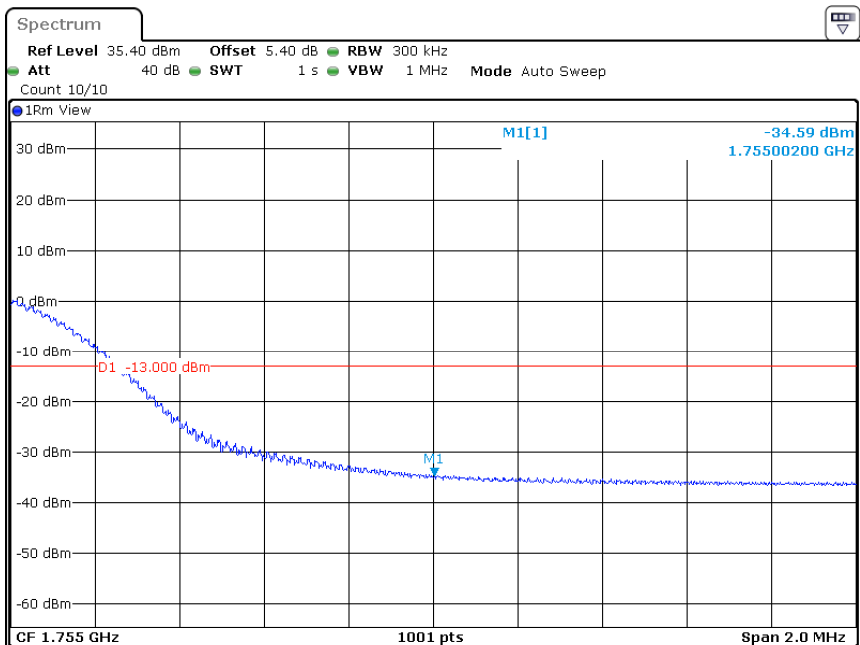


Date: 7.SEP.2020 11:27:17





Band4-20MHz-16QAM-20300-100RB#0



Date: 7.SEP.2020 11:27:58



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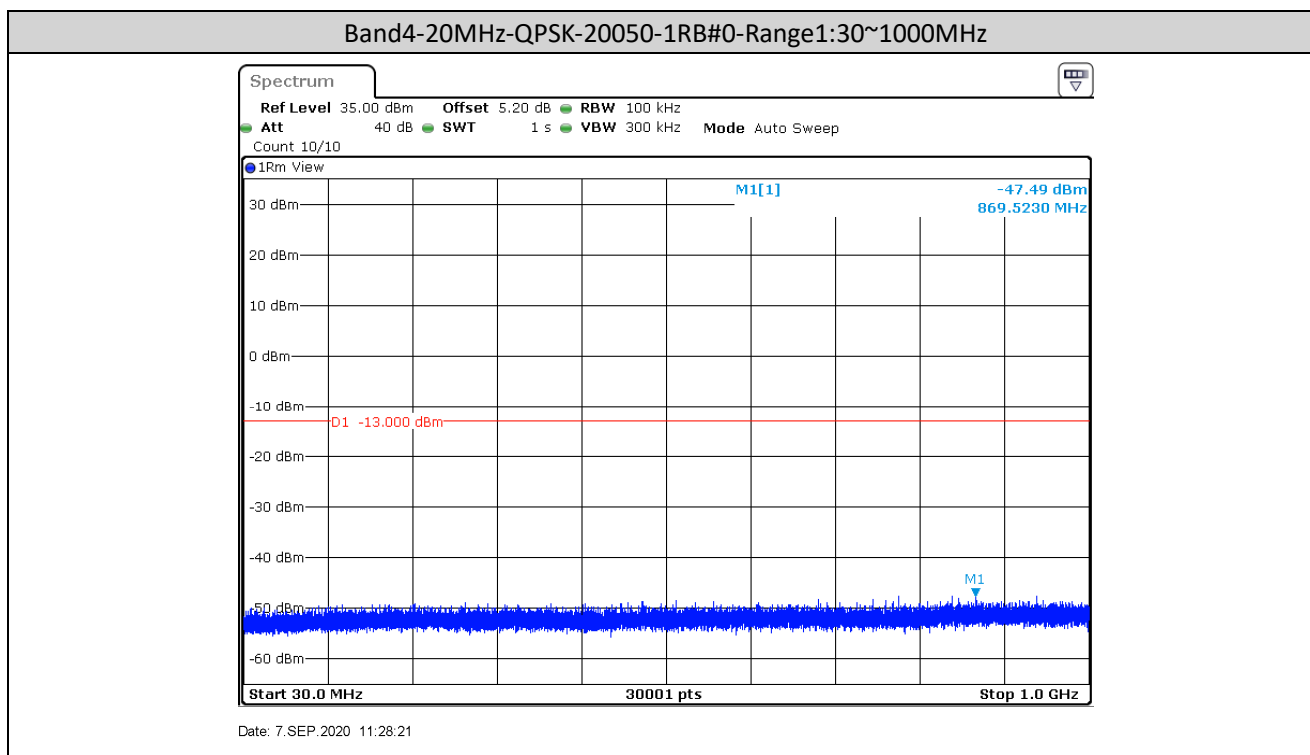
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## 6. Spurious Emission at Antenna Terminal

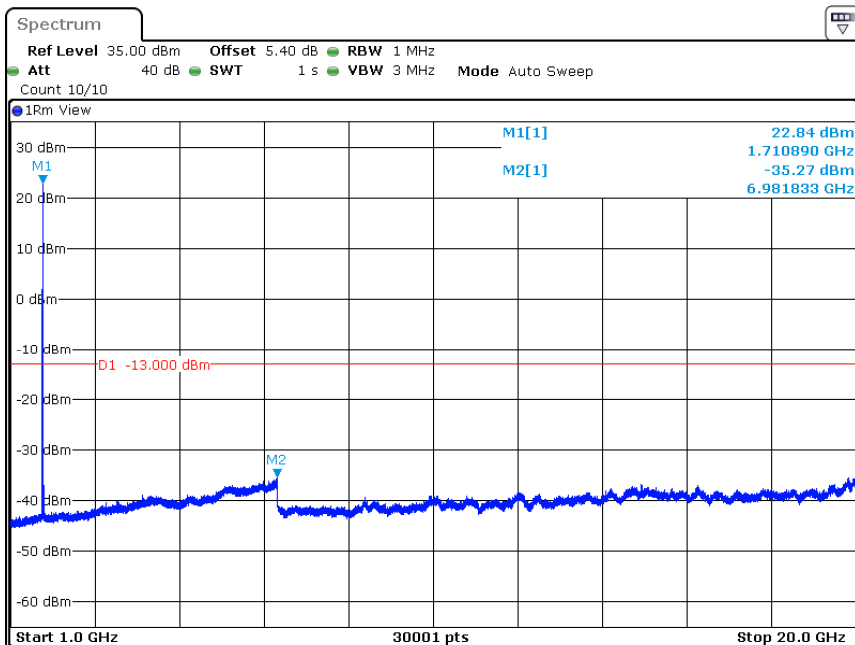
Remark1: For the averaged unwanted emissions measurements, the measurement points in each sweep is greater than twice the Span/RBW in order to ensure bin-to-bin spacing of  $< RBW/2$  so that narrowband signals are not lost between frequency bins. As to the present test item, the "Measurement Points =  $k * (\text{Span} / RBW)$ " with  $k$  between 4 and 5, which results in an acceptable level error of less than 0.5 dB.

Remark2: only the worst case data displayed in this report.

### 6.1. Test Plots

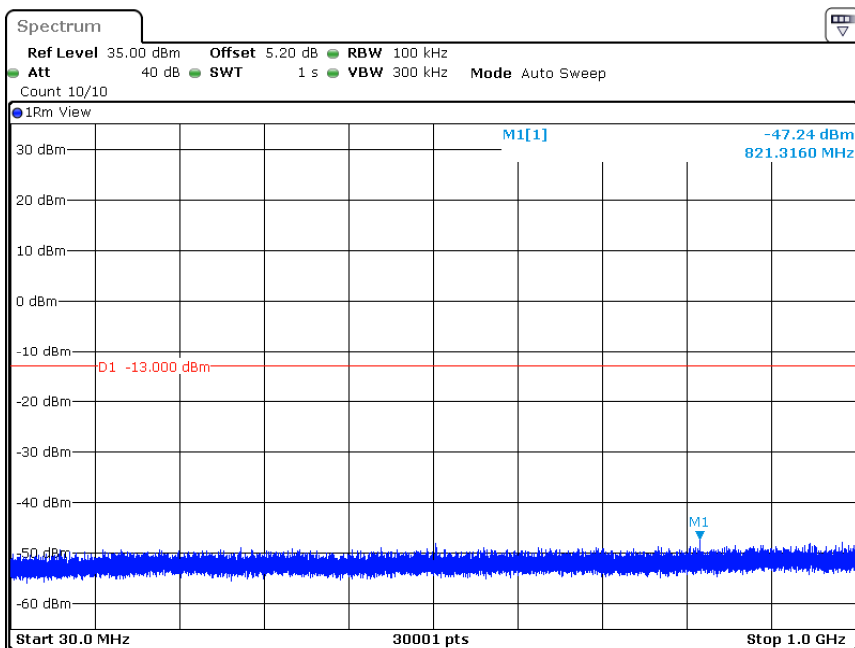


## Band4-20MHz-QPSK-20050-1RB#0-Range2:1000~20000MHz



Date: 7.SEP.2020 11:28:37

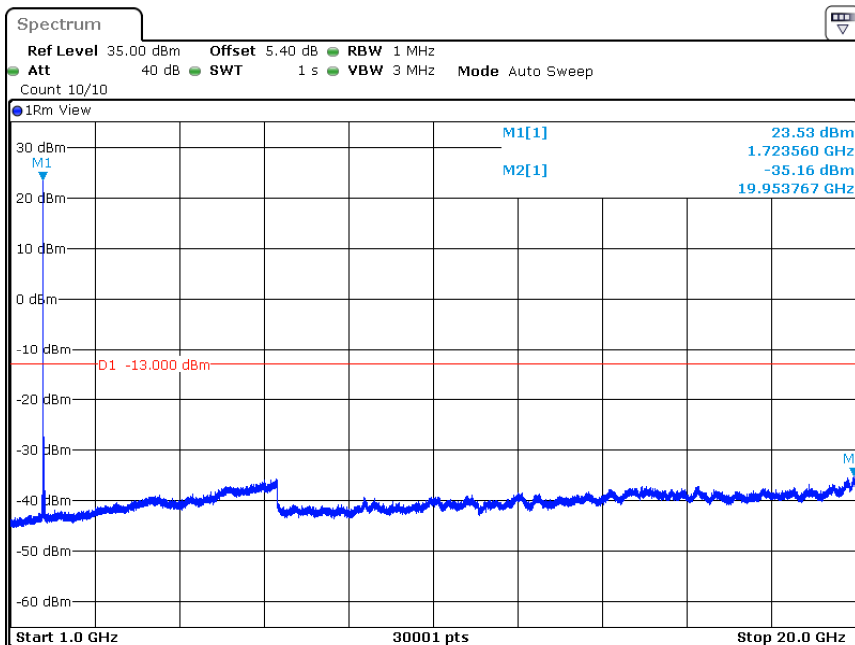
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Date: 7.SEP.2020 11:29:31

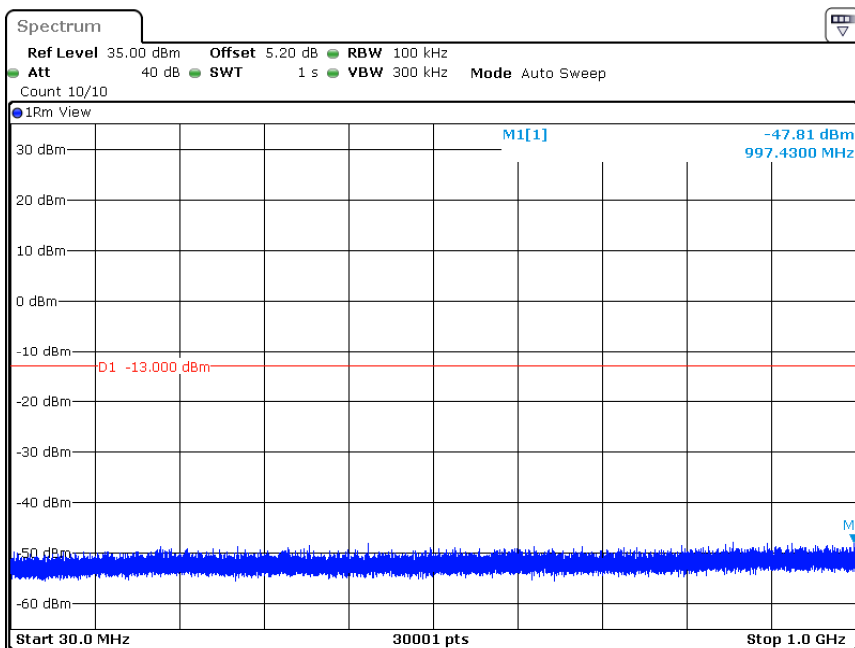


## Band4-20MHz-QPSK-20175-1RB#0-Range2:1000~20000MHz



Date: 7.SEP.2020 11:29:47

## Band4-20MHz-QPSK-20300-1RB#0-Range1:30~1000MHz

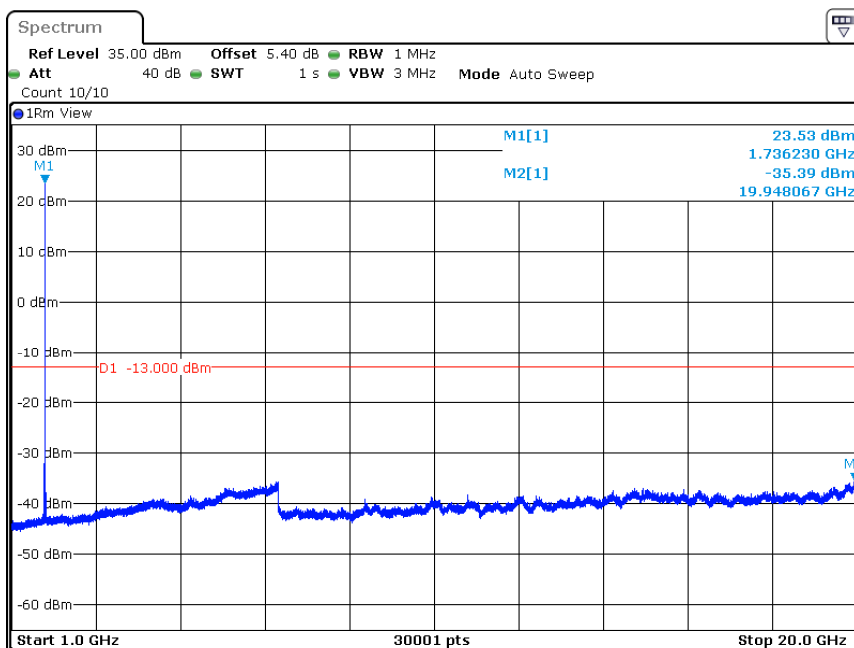


Date: 7.SEP.2020 11:30:41



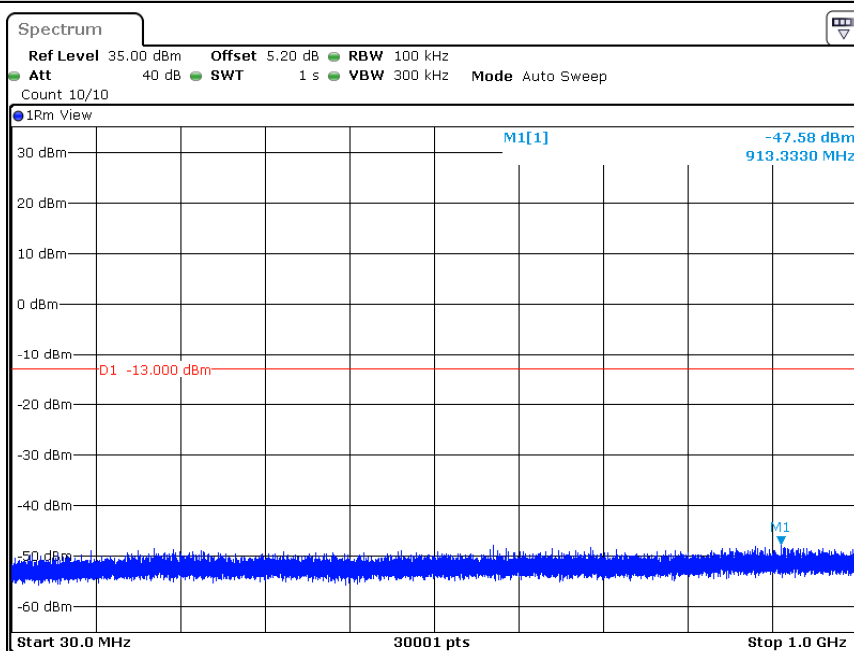


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Date: 7.SEP.2020 11:30:57

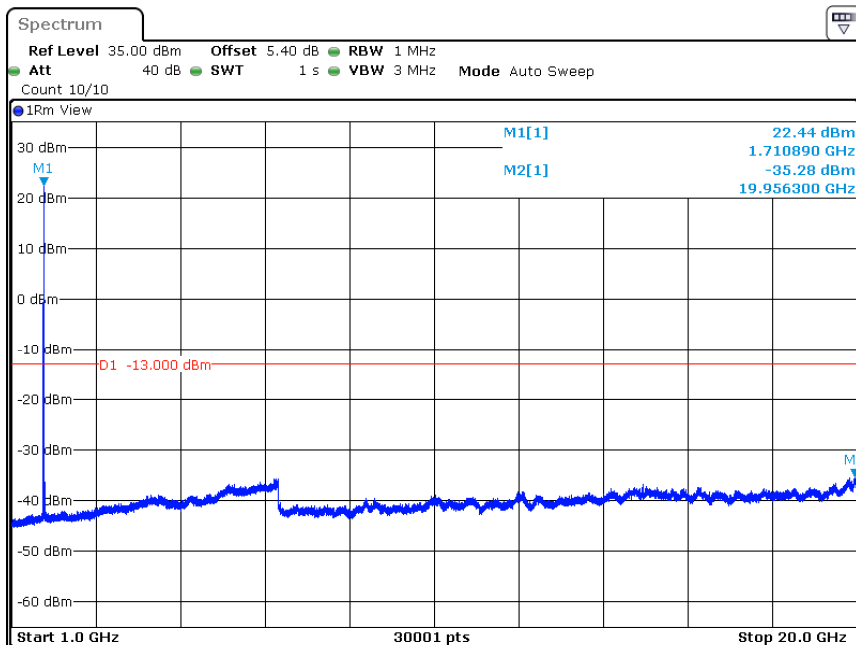
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Date: 7.SEP.2020 12:44:00

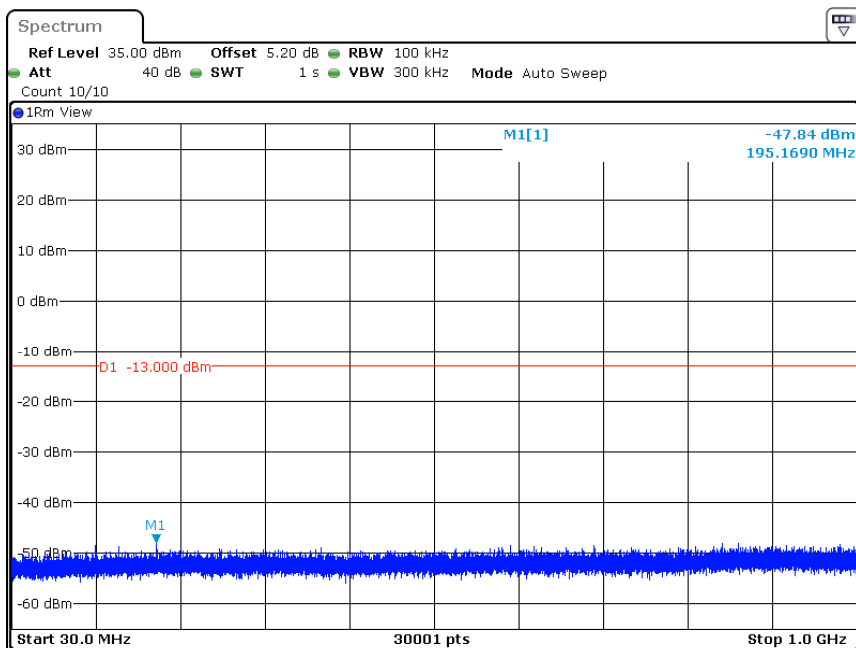


## Band4-20MHz-64QAM-20050-1RB#0-Range2:1000~20000MHz



Date: 7.SEP.2020 12:44:17

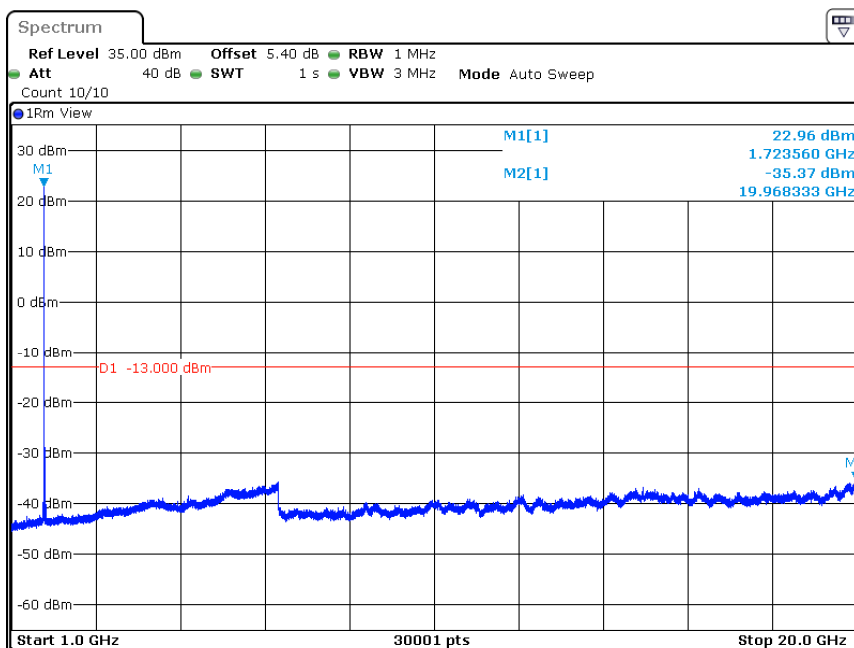
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Date: 7.SEP.2020 12:44:37

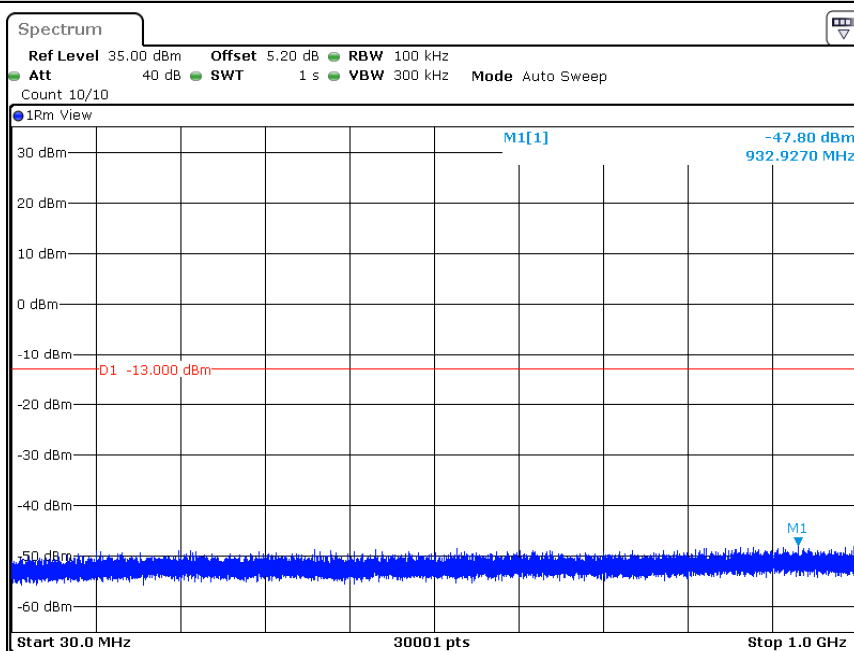


## Band4-20MHz-64QAM-20175-1RB#0-Range2:1000~20000MHz



Date: 7.SEP.2020 12:44:53

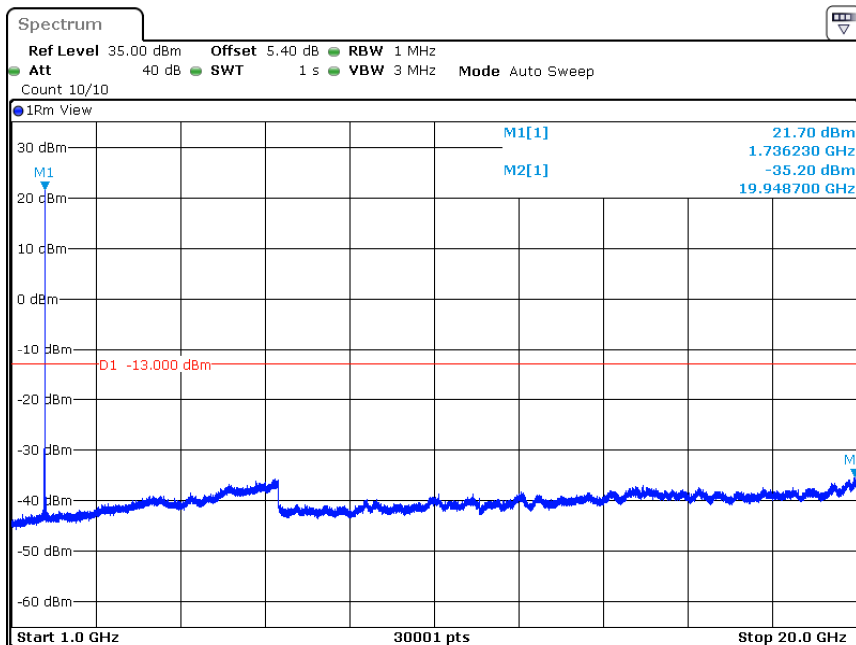
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Date: 7.SEP.2020 12:45:12

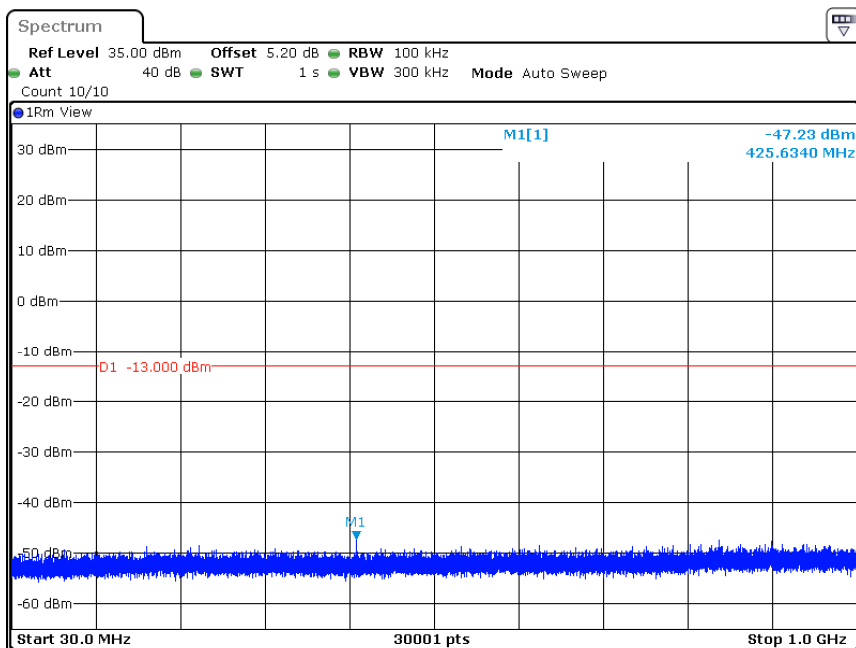


## Band4-20MHz-64QAM-20300-1RB#0-Range2:1000~20000MHz



Date: 7.SEP.2020 12:45:28

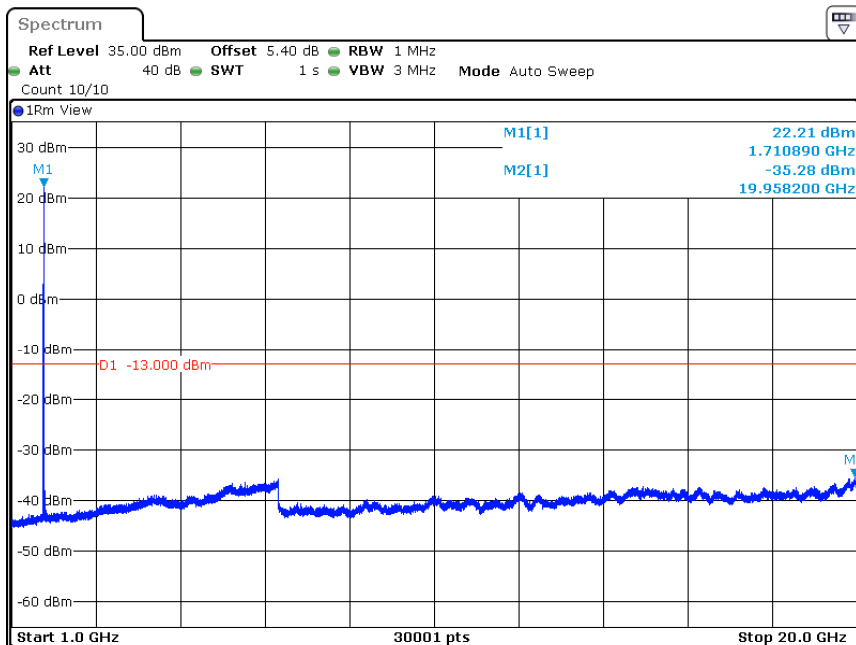
## Band4-20MHz-16QAM-20050-1RB#0-Range1:30~1000MHz



Date: 7.SEP.2020 11:28:56

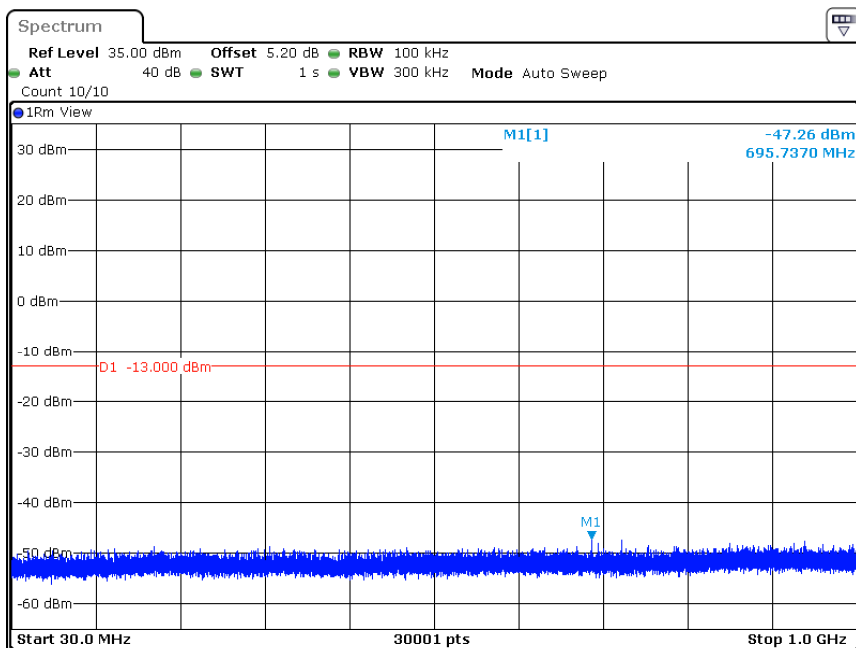


## Band4-20MHz-16QAM-20050-1RB#0-Range2:1000~20000MHz



Date: 7.SEP.2020 11:29:12

## Band4-20MHz-16QAM-20175-1RB#0-Range1:30~1000MHz

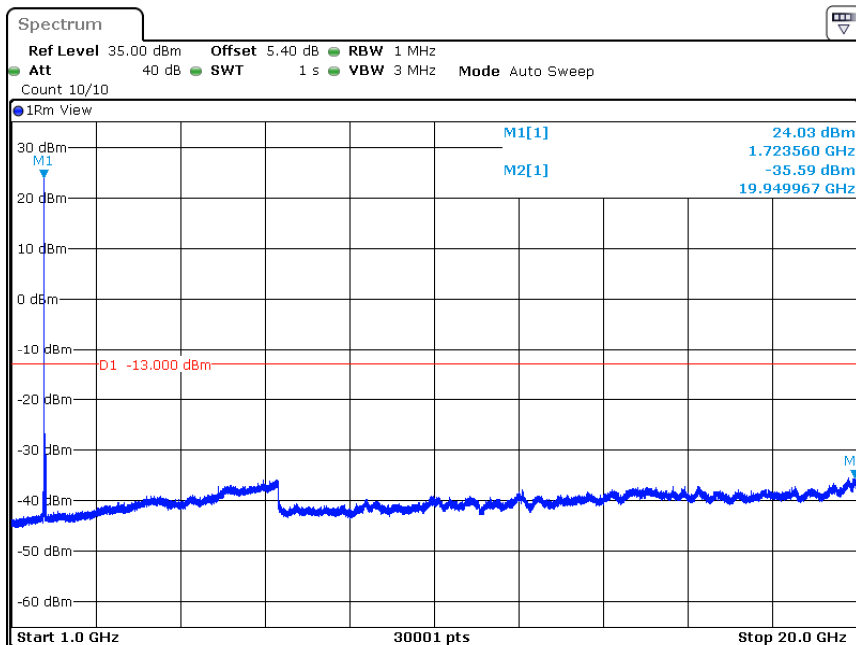


Date: 7.SEP.2020 11:30:06



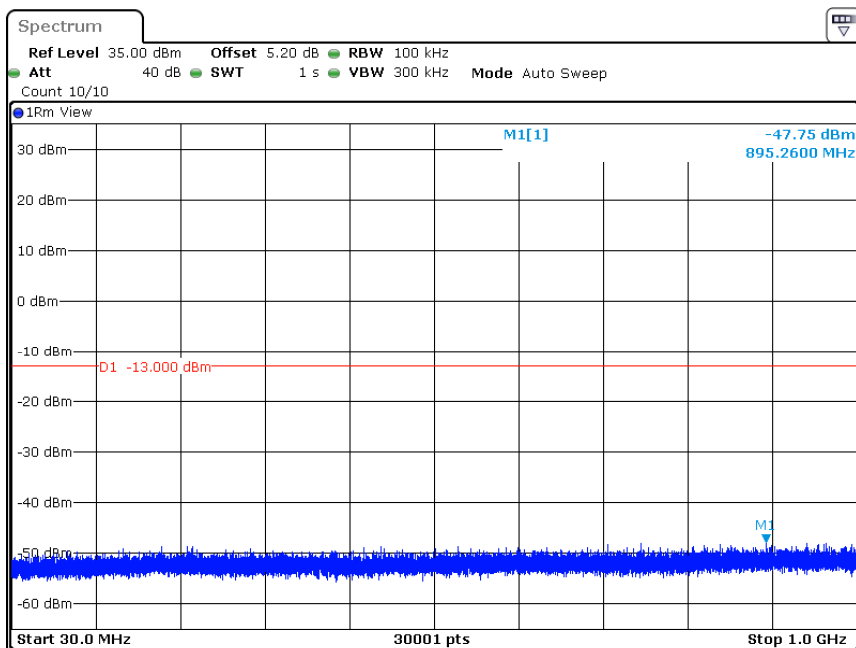


## Band4-20MHz-16QAM-20175-1RB#0-Range2:1000~20000MHz



Date: 7.SEP.2020 11:30:22

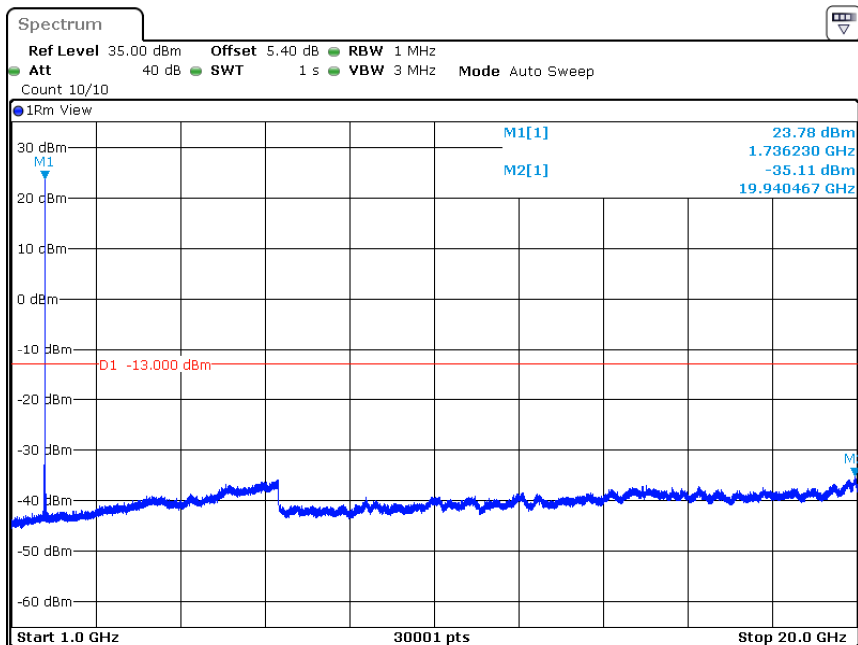
## Band4-20MHz-16QAM-20300-1RB#0-Range1:30~1000MHz



Date: 7.SEP.2020 11:31:16



## Band4-20MHz-16QAM-20300-1RB#0-Range2:1000~20000MHz



Date: 7.SEP.2020 11:31:32





## 7. Field Strength of Spurious Radiation

### 7.1. Test Mode =LTE/TM1 20MHz

#### 7.1.1. Test Channel = LCH

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Margin (dB)	Polarization
46.1028	-74.06	-13.00	61.06	Vertical
110.2230	-64.68	-13.00	51.68	Vertical
313.0602	-68.27	-13.00	55.27	Vertical
3422.0141	-62.32	-13.00	49.32	Vertical
7962.6654	-55.83	-13.00	42.83	Vertical
17998.5000	-40.65	-13.00	27.65	Vertical
41.6891	-63.85	-13.00	50.85	Horizontal
231.9156	-67.77	-13.00	54.77	Horizontal
2703.5407	-35.50	-13.00	22.50	Horizontal
3422.0141	-61.13	-13.00	48.13	Horizontal
7472.1491	-56.37	-13.00	43.37	Horizontal
16396.4465	-43.79	-13.00	30.79	Horizontal

#### 7.1.2. Test Channel = MCH

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Margin (dB)	Polarization
50.3225	-73.36	-13.00	60.36	Vertical
113.7637	-65.48	-13.00	52.48	Vertical
381.3516	-68.41	-13.00	55.41	Vertical
3824.5275	-61.89	-13.00	48.89	Vertical
7329.6443	-55.76	-13.00	42.76	Vertical
17999.5000	-40.50	-13.00	27.50	Vertical
43.1927	-64.75	-13.00	51.75	Horizontal
88.4939	-74.00	-13.00	61.00	Horizontal
234.8257	-68.05	-13.00	55.05	Horizontal
3643.0214	-60.89	-13.00	47.89	Horizontal
7472.1491	-56.18	-13.00	43.18	Horizontal
16395.4465	-43.50	-13.00	30.50	Horizontal



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### 7.1.3. Test Channel = HCH

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Margin (dB)	Polarization
48.4794	-73.19	-13.00	60.19	Vertical
110.4170	-65.43	-13.00	52.43	Vertical
495.6233	-66.67	-13.00	53.67	Vertical
5099.0700	-61.97	-13.00	48.97	Vertical
7480.1493	-55.87	-13.00	42.87	Vertical
17996.9999	-40.25	-13.00	27.25	Vertical
44.2112	-64.49	-13.00	51.49	Horizontal
99.8920	-75.52	-13.00	62.52	Horizontal
231.3821	-68.58	-13.00	55.58	Horizontal
3633.5211	-61.29	-13.00	48.29	Horizontal
7475.1492	-56.08	-13.00	43.08	Horizontal
16393.9465	-43.40	-13.00	30.40	Horizontal

#### Remark:

- 1 According to 971168 D01 Power Meas License Digital Systems, The amplitudes of unwanted emissions that are attenuated more than 20 dB below the applicable limit are not required to be reported.
- 2 The disturbance below 30MHz was very low, and the above harmonics were the highest point could be found when testing, so only the worst case data displayed in this report.
- 3 all modulation and all Bandwidth had been tested, but only the worst case data displayed in this report.



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## 8. Frequency Stability

### 8.1. Frequency Vs Voltage

Band	Bandwidth	Modulation	Channel	RB Configure	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
Band4	20MHz	QPSK	20050	100RB#0	VL	NT	5.10	0.002965	±2.5	PASS
Band4	20MHz	QPSK	20050	100RB#0	VN	NT	1.70	0.000988	±2.5	PASS
Band4	20MHz	QPSK	20050	100RB#0	VH	NT	1.80	0.001047	±2.5	PASS
Band4	20MHz	QPSK	20175	100RB#0	VL	NT	2.60	0.001501	±2.5	PASS
Band4	20MHz	QPSK	20175	100RB#0	VN	NT	3.10	0.001789	±2.5	PASS
Band4	20MHz	QPSK	20175	100RB#0	VH	NT	1.70	0.000981	±2.5	PASS
Band4	20MHz	QPSK	20300	100RB#0	VL	NT	-0.50	-0.000287	±2.5	PASS
Band4	20MHz	QPSK	20300	100RB#0	VN	NT	0.40	0.000229	±2.5	PASS
Band4	20MHz	QPSK	20300	100RB#0	VH	NT	-3.80	-0.002178	±2.5	PASS
Band4	20MHz	64QAM	20050	100RB#0	VL	NT	1.10	0.000640	±2.5	PASS
Band4	20MHz	64QAM	20050	100RB#0	VN	NT	3.00	0.001744	±2.5	PASS
Band4	20MHz	64QAM	20050	100RB#0	VH	NT	1.10	0.000640	±2.5	PASS
Band4	20MHz	64QAM	20175	100RB#0	VL	NT	3.60	0.002078	±2.5	PASS
Band4	20MHz	64QAM	20175	100RB#0	VN	NT	0.50	0.000289	±2.5	PASS
Band4	20MHz	64QAM	20175	100RB#0	VH	NT	0.30	0.000173	±2.5	PASS
Band4	20MHz	64QAM	20300	100RB#0	VL	NT	-3.00	-0.001719	±2.5	PASS
Band4	20MHz	64QAM	20300	100RB#0	VN	NT	-3.20	-0.001834	±2.5	PASS
Band4	20MHz	64QAM	20300	100RB#0	VH	NT	-0.10	-0.000057	±2.5	PASS
Band4	20MHz	16QAM	20050	100RB#0	VL	NT	3.70	0.002151	±2.5	PASS
Band4	20MHz	16QAM	20050	100RB#0	VN	NT	4.00	0.002326	±2.5	PASS
Band4	20MHz	16QAM	20050	100RB#0	VH	NT	3.30	0.001919	±2.5	PASS
Band4	20MHz	16QAM	20175	100RB#0	VL	NT	1.30	0.000750	±2.5	PASS
Band4	20MHz	16QAM	20175	100RB#0	VN	NT	0.50	0.000289	±2.5	PASS
Band4	20MHz	16QAM	20175	100RB#0	VH	NT	-0.40	-0.000231	±2.5	PASS
Band4	20MHz	16QAM	20300	100RB#0	VL	NT	-1.60	-0.000917	±2.5	PASS
Band4	20MHz	16QAM	20300	100RB#0	VN	NT	-0.80	-0.000458	±2.5	PASS
Band4	20MHz	16QAM	20300	100RB#0	VH	NT	-3.30	-0.001891	±2.5	PASS



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## 8.2. Frequency Vs Temperature

Band	Bandwidth	Modulation	Channel	RB Configure	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
Band4	20MHz	QPSK	20050	100RB#0	NV	-30	0.70	0.000407	±2.5	PASS
Band4	20MHz	QPSK	20050	100RB#0	NV	-20	0.50	0.000291	±2.5	PASS
Band4	20MHz	QPSK	20050	100RB#0	NV	-10	1.60	0.000930	±2.5	PASS
Band4	20MHz	QPSK	20050	100RB#0	NV	0	3.40	0.001977	±2.5	PASS
Band4	20MHz	QPSK	20050	100RB#0	NV	10	3.10	0.001802	±2.5	PASS
Band4	20MHz	QPSK	20050	100RB#0	NV	20	1.60	0.000930	±2.5	PASS
Band4	20MHz	QPSK	20050	100RB#0	NV	30	0.60	0.000349	±2.5	PASS
Band4	20MHz	QPSK	20050	100RB#0	NV	40	3.20	0.001860	±2.5	PASS
Band4	20MHz	QPSK	20050	100RB#0	NV	50	2.90	0.001686	±2.5	PASS
Band4	20MHz	QPSK	20175	100RB#0	NV	-30	0.00	0.000000	±2.5	PASS
Band4	20MHz	QPSK	20175	100RB#0	NV	-20	3.90	0.002251	±2.5	PASS
Band4	20MHz	QPSK	20175	100RB#0	NV	-10	0.40	0.000231	±2.5	PASS
Band4	20MHz	QPSK	20175	100RB#0	NV	0	4.50	0.002597	±2.5	PASS
Band4	20MHz	QPSK	20175	100RB#0	NV	10	1.50	0.000866	±2.5	PASS
Band4	20MHz	QPSK	20175	100RB#0	NV	20	1.10	0.000635	±2.5	PASS
Band4	20MHz	QPSK	20175	100RB#0	NV	30	-0.70	-0.000404	±2.5	PASS
Band4	20MHz	QPSK	20175	100RB#0	NV	40	-2.10	-0.001212	±2.5	PASS
Band4	20MHz	QPSK	20175	100RB#0	NV	50	2.60	0.001501	±2.5	PASS
Band4	20MHz	QPSK	20300	100RB#0	NV	-30	-2.40	-0.001375	±2.5	PASS
Band4	20MHz	QPSK	20300	100RB#0	NV	-20	-0.50	-0.000287	±2.5	PASS
Band4	20MHz	QPSK	20300	100RB#0	NV	-10	-2.10	-0.001203	±2.5	PASS
Band4	20MHz	QPSK	20300	100RB#0	NV	0	-3.10	-0.001777	±2.5	PASS
Band4	20MHz	QPSK	20300	100RB#0	NV	10	-0.80	-0.000458	±2.5	PASS
Band4	20MHz	QPSK	20300	100RB#0	NV	20	-1.30	-0.000745	±2.5	PASS
Band4	20MHz	QPSK	20300	100RB#0	NV	30	-3.20	-0.001834	±2.5	PASS
Band4	20MHz	QPSK	20300	100RB#0	NV	40	-3.50	-0.002006	±2.5	PASS
Band4	20MHz	QPSK	20300	100RB#0	NV	50	-3.30	-0.001891	±2.5	PASS
Band4	20MHz	64QAM	20050	100RB#0	NV	-30	3.40	0.001977	±2.5	PASS
Band4	20MHz	64QAM	20050	100RB#0	NV	-20	4.30	0.002500	±2.5	PASS
Band4	20MHz	64QAM	20050	100RB#0	NV	-10	-1.00	-0.000581	±2.5	PASS
Band4	20MHz	64QAM	20050	100RB#0	NV	0	3.30	0.001919	±2.5	PASS
Band4	20MHz	64QAM	20050	100RB#0	NV	10	0.40	0.000233	±2.5	PASS
Band4	20MHz	64QAM	20050	100RB#0	NV	20	3.60	0.002093	±2.5	PASS
Band4	20MHz	64QAM	20050	100RB#0	NV	30	2.70	0.001570	±2.5	PASS



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Band4	20MHz	64QAM	20050	100RB#0	NV	40	2.20	0.001279	±2.5	PASS
Band4	20MHz	64QAM	20050	100RB#0	NV	50	2.50	0.001453	±2.5	PASS
Band4	20MHz	64QAM	20175	100RB#0	NV	-30	2.20	0.001270	±2.5	PASS
Band4	20MHz	64QAM	20175	100RB#0	NV	-20	2.90	0.001674	±2.5	PASS
Band4	20MHz	64QAM	20175	100RB#0	NV	-10	2.50	0.001443	±2.5	PASS
Band4	20MHz	64QAM	20175	100RB#0	NV	0	-1.00	-0.000577	±2.5	PASS
Band4	20MHz	64QAM	20175	100RB#0	NV	10	2.30	0.001328	±2.5	PASS
Band4	20MHz	64QAM	20175	100RB#0	NV	20	2.10	0.001212	±2.5	PASS
Band4	20MHz	64QAM	20175	100RB#0	NV	30	-0.50	-0.000289	±2.5	PASS
Band4	20MHz	64QAM	20175	100RB#0	NV	40	0.00	0.000000	±2.5	PASS
Band4	20MHz	64QAM	20175	100RB#0	NV	50	1.60	0.000924	±2.5	PASS
Band4	20MHz	64QAM	20300	100RB#0	NV	-30	-2.60	-0.001490	±2.5	PASS
Band4	20MHz	64QAM	20300	100RB#0	NV	-20	-2.10	-0.001203	±2.5	PASS
Band4	20MHz	64QAM	20300	100RB#0	NV	-10	-1.20	-0.000688	±2.5	PASS
Band4	20MHz	64QAM	20300	100RB#0	NV	0	0.10	0.000057	±2.5	PASS
Band4	20MHz	64QAM	20300	100RB#0	NV	10	-3.60	-0.002063	±2.5	PASS
Band4	20MHz	64QAM	20300	100RB#0	NV	20	-1.50	-0.000860	±2.5	PASS
Band4	20MHz	64QAM	20300	100RB#0	NV	30	-1.10	-0.000630	±2.5	PASS
Band4	20MHz	64QAM	20300	100RB#0	NV	40	-0.70	-0.000401	±2.5	PASS
Band4	20MHz	64QAM	20300	100RB#0	NV	50	-2.80	-0.001605	±2.5	PASS
Band4	20MHz	16QAM	20050	100RB#0	NV	-30	2.00	0.001163	±2.5	PASS
Band4	20MHz	16QAM	20050	100RB#0	NV	-20	1.70	0.000988	±2.5	PASS
Band4	20MHz	16QAM	20050	100RB#0	NV	-10	4.70	0.002733	±2.5	PASS
Band4	20MHz	16QAM	20050	100RB#0	NV	0	0.30	0.000174	±2.5	PASS
Band4	20MHz	16QAM	20050	100RB#0	NV	10	1.60	0.000930	±2.5	PASS
Band4	20MHz	16QAM	20050	100RB#0	NV	20	2.40	0.001395	±2.5	PASS
Band4	20MHz	16QAM	20050	100RB#0	NV	30	1.10	0.000640	±2.5	PASS
Band4	20MHz	16QAM	20050	100RB#0	NV	40	0.90	0.000523	±2.5	PASS
Band4	20MHz	16QAM	20050	100RB#0	NV	50	1.00	0.000581	±2.5	PASS
Band4	20MHz	16QAM	20175	100RB#0	NV	-30	1.10	0.000635	±2.5	PASS
Band4	20MHz	16QAM	20175	100RB#0	NV	-20	2.10	0.001212	±2.5	PASS
Band4	20MHz	16QAM	20175	100RB#0	NV	-10	-2.20	-0.001270	±2.5	PASS
Band4	20MHz	16QAM	20175	100RB#0	NV	0	-0.10	-0.000058	±2.5	PASS
Band4	20MHz	16QAM	20175	100RB#0	NV	10	1.20	0.000693	±2.5	PASS
Band4	20MHz	16QAM	20175	100RB#0	NV	20	0.10	0.000058	±2.5	PASS
Band4	20MHz	16QAM	20175	100RB#0	NV	30	2.10	0.001212	±2.5	PASS
Band4	20MHz	16QAM	20175	100RB#0	NV	40	0.20	0.000115	±2.5	PASS
Band4	20MHz	16QAM	20175	100RB#0	NV	50	3.20	0.001847	±2.5	PASS



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Band4	20MHz	16QAM	20300	100RB#0	NV	-30	-2.70	-0.001547	±2.5	PASS
Band4	20MHz	16QAM	20300	100RB#0	NV	-20	-2.90	-0.001662	±2.5	PASS
Band4	20MHz	16QAM	20300	100RB#0	NV	-10	-4.70	-0.002693	±2.5	PASS
Band4	20MHz	16QAM	20300	100RB#0	NV	0	-1.00	-0.000573	±2.5	PASS
Band4	20MHz	16QAM	20300	100RB#0	NV	10	-1.30	-0.000745	±2.5	PASS
Band4	20MHz	16QAM	20300	100RB#0	NV	20	-1.20	-0.000688	±2.5	PASS
Band4	20MHz	16QAM	20300	100RB#0	NV	30	-1.80	-0.001032	±2.5	PASS
Band4	20MHz	16QAM	20300	100RB#0	NV	40	-1.90	-0.001089	±2.5	PASS
Band4	20MHz	16QAM	20300	100RB#0	NV	50	-1.60	-0.000917	±2.5	PASS

