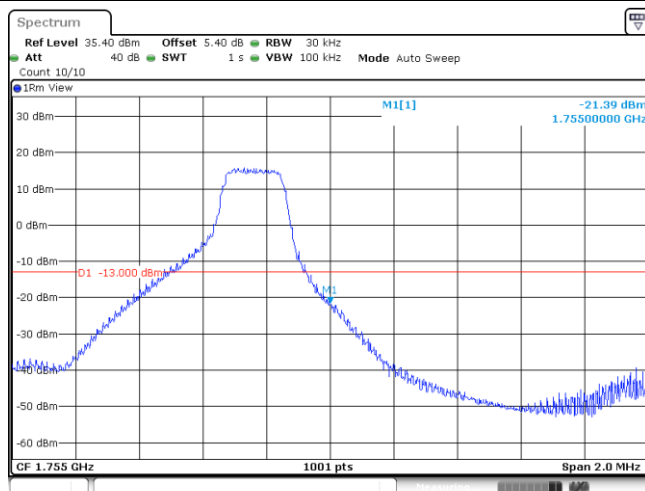
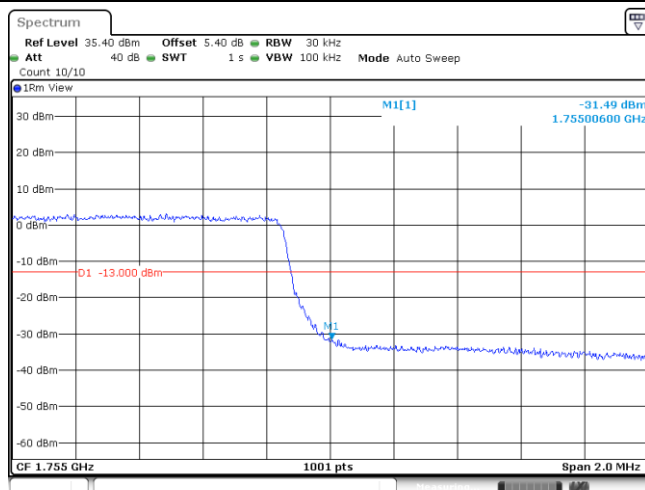




Date: 11 AUG. 2019 03:17:19

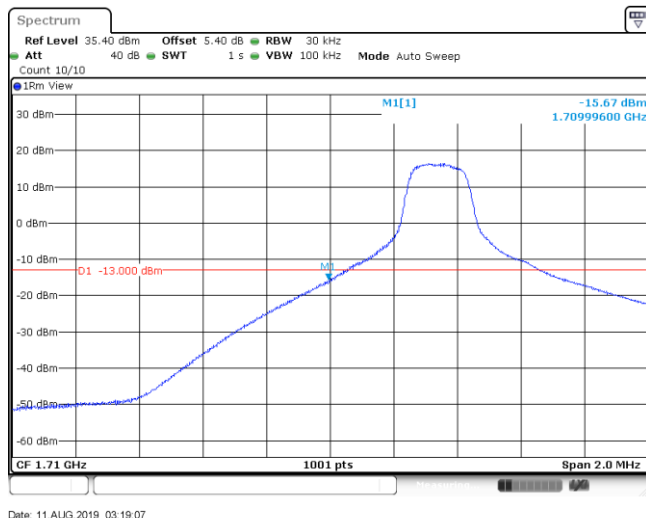
Band4_3MHz_16QAM_20385_15RB#0



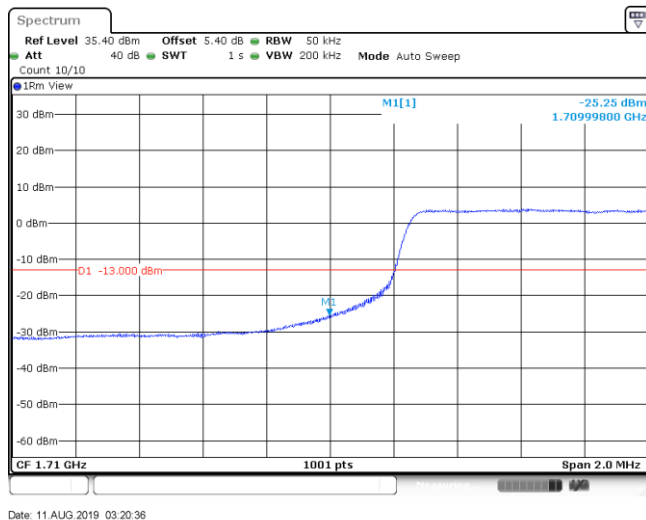
Date: 11 AUG. 2019 03:18:43

Band4_5MHz_QPSK_19975_1RB#0





Band4_5MHz_QPSK_19975_25RB#0

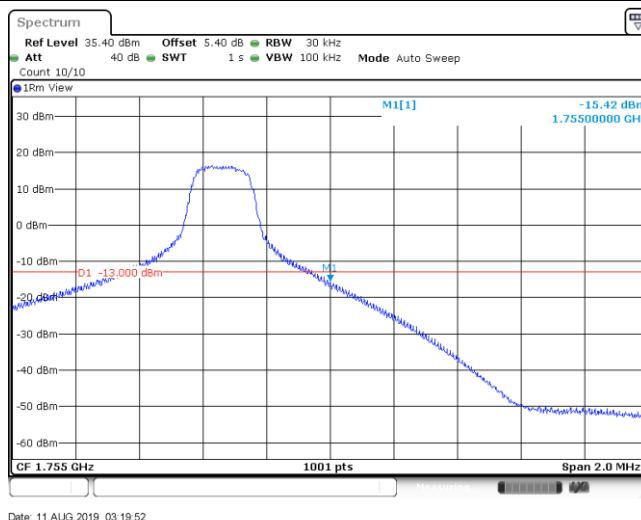


Band4_5MHz_QPSK_20375_1RB#24

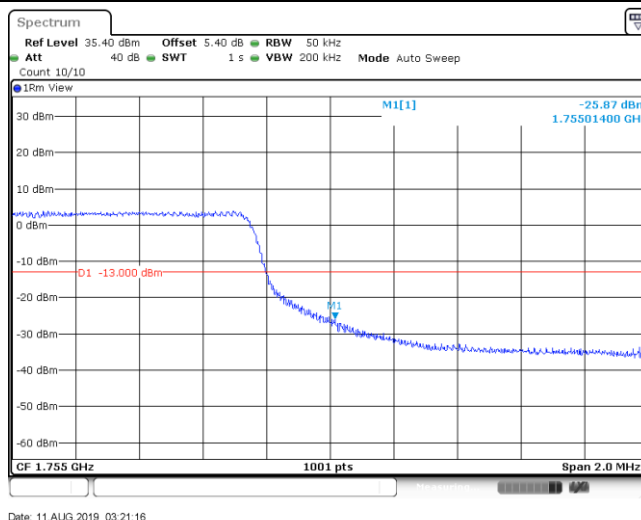


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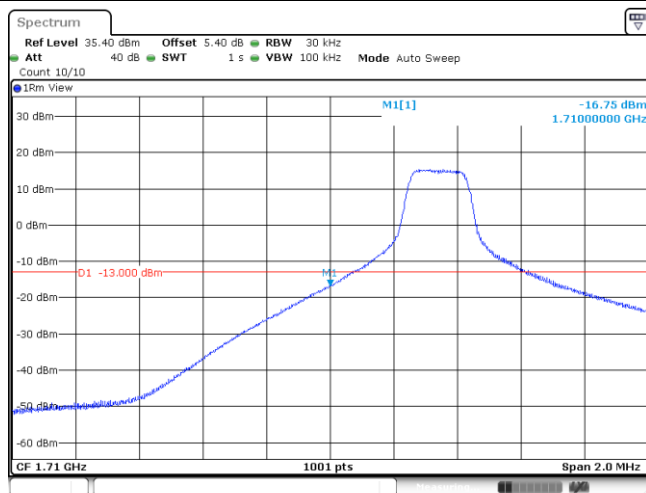


Band4_5MHz_QPSK_20375_25RB#0



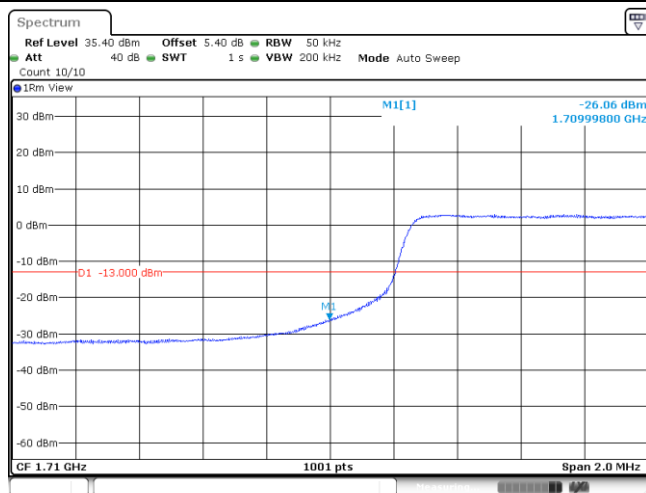
Band4_5MHz_16QAM_19975_1RB#0





Date: 11 AUG. 2019 03:19:27

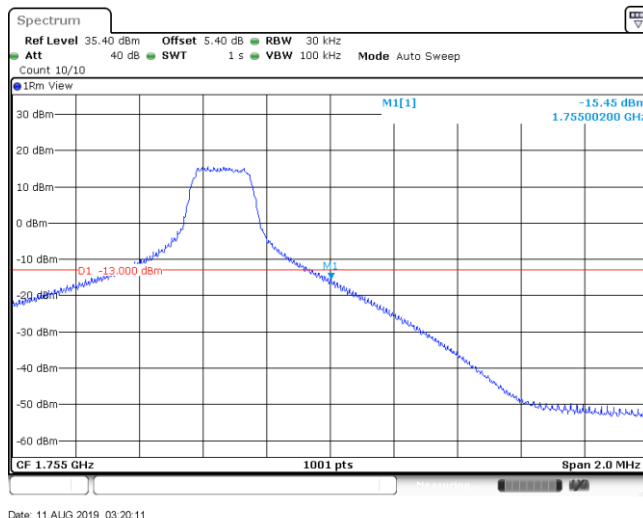
Band4_5MHz_16QAM_19975_25RB#0



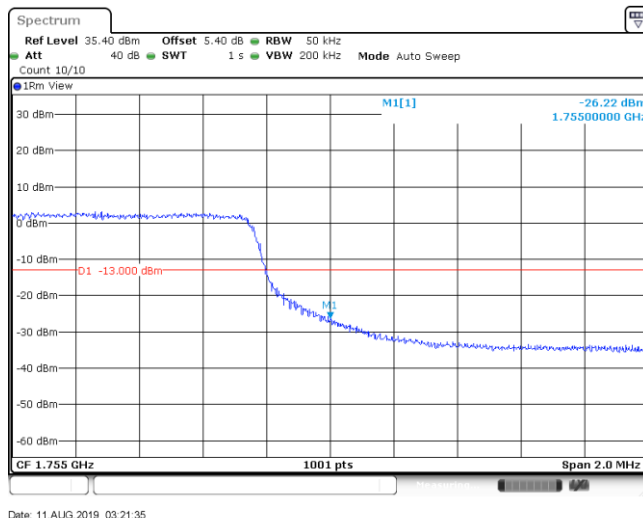
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Band4_5MHz_16QAM_20375_1RB#24





Band4_5MHz_16QAM_20375_25RB#0

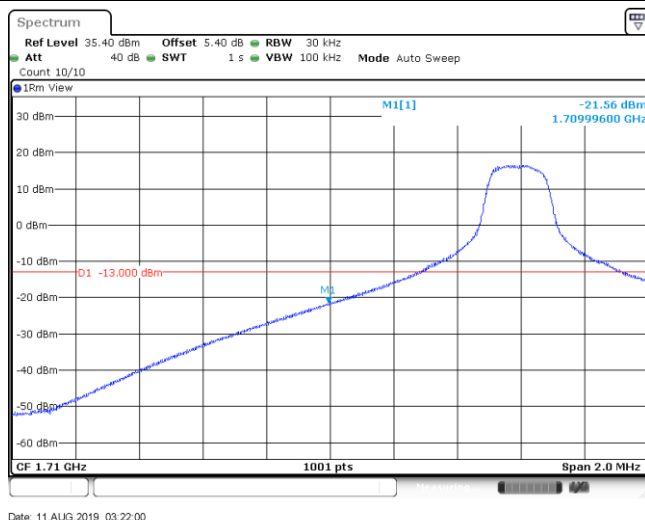


Band4_10MHz_QPSK_20000_1RB#0

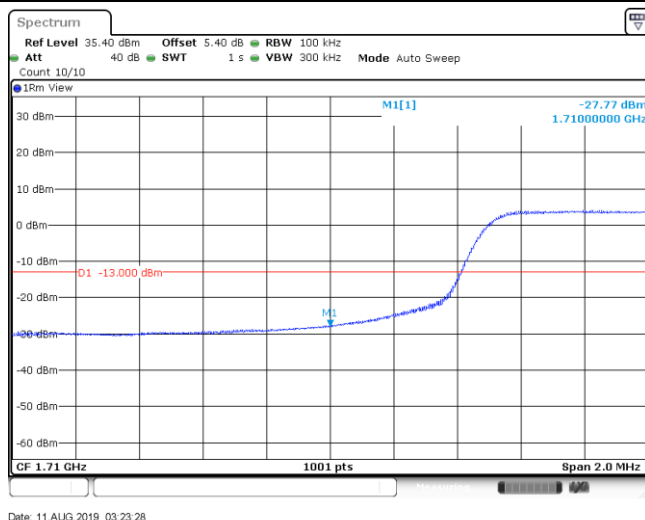


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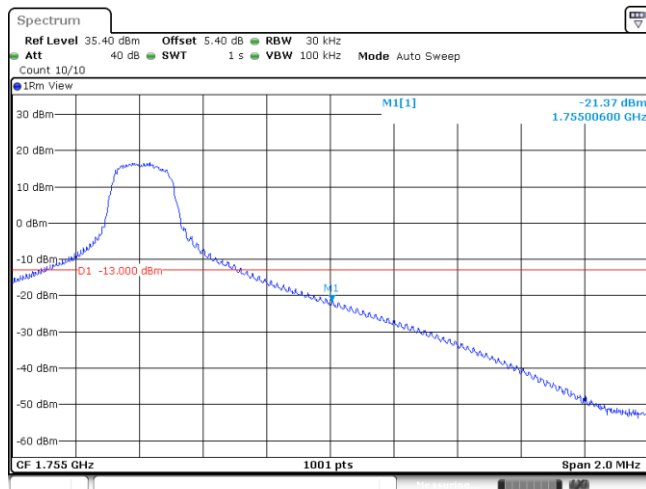


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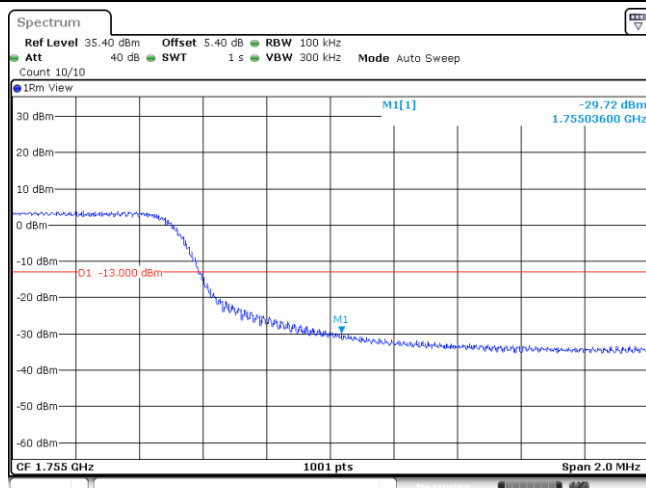
Band4_10MHz_QPSK_20350_1RB#49





Date: 11 AUG. 2019 03:22:44

Band4_10MHz_QPSK_20350_50RB#0



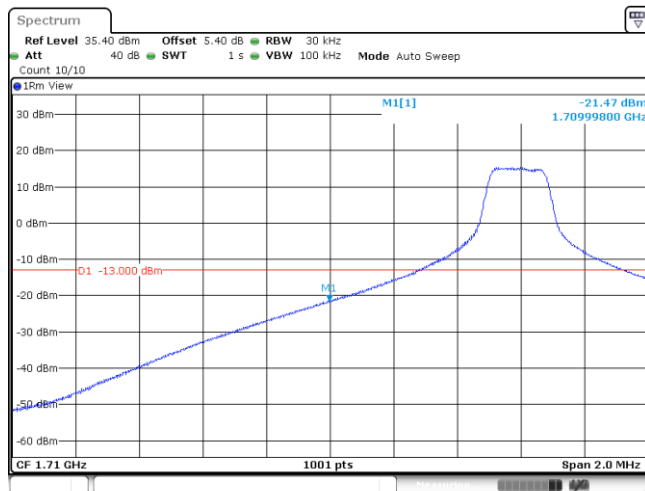
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Band4_10MHz_16QAM_20000_1RB#0



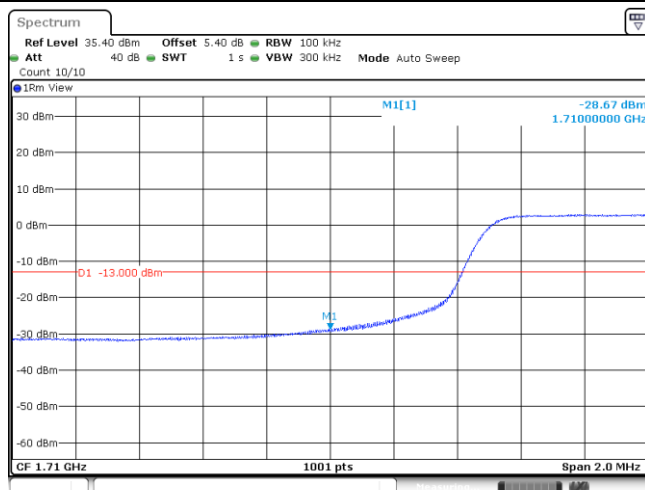
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Date: 11 AUG. 2019 03:22:20

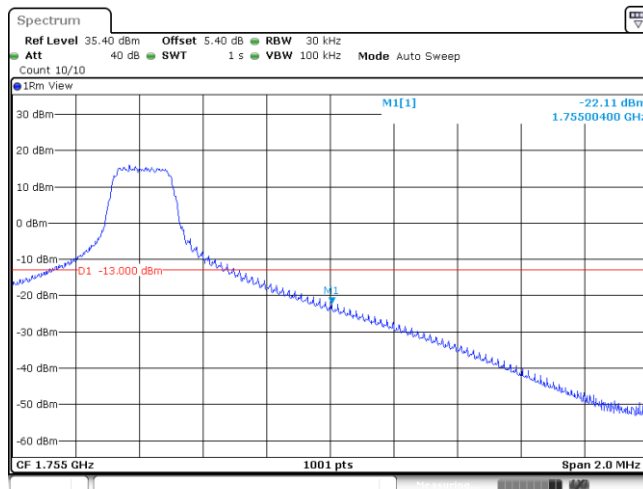
Band4_10MHz_16QAM_20000_50RB#0



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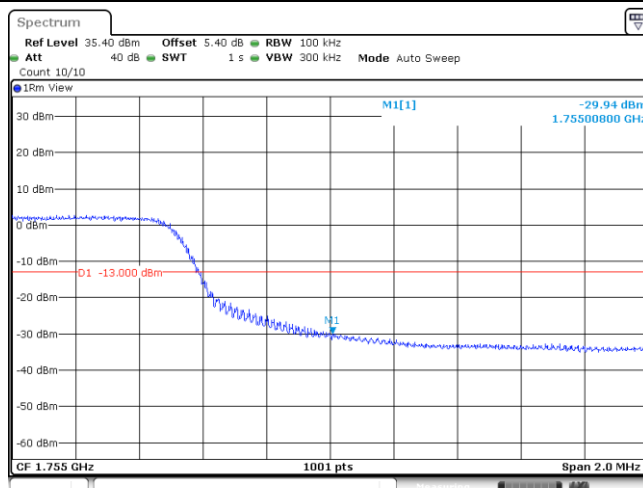
Band4_10MHz_16QAM_20350_1RB#49





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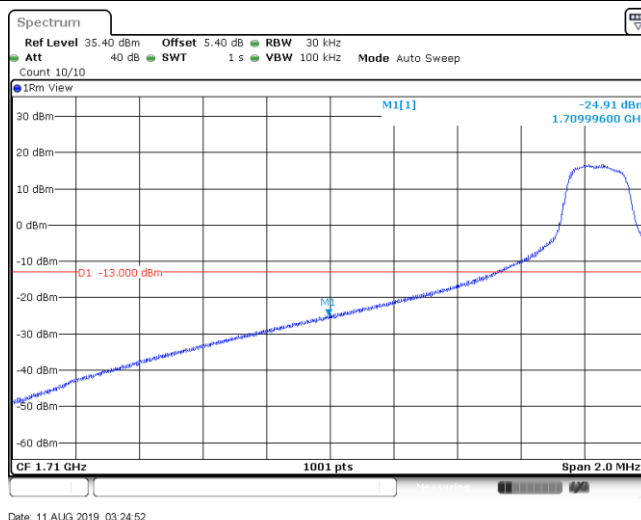
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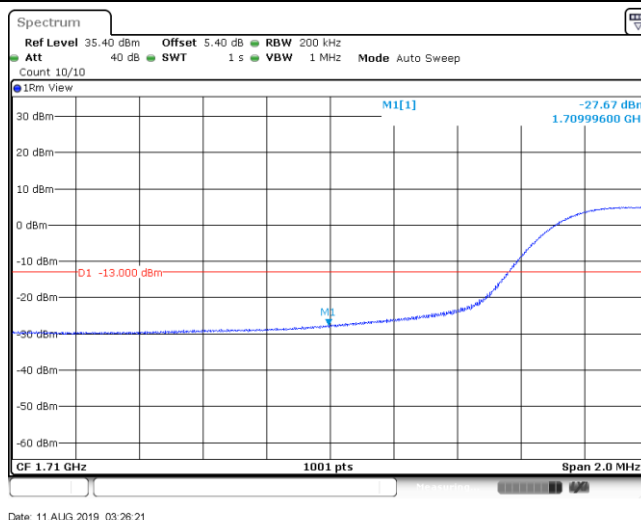
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Band4_15MHz_QPSK_20025_1RB#0





Band4_15MHz_QPSK_20025_75RB#0

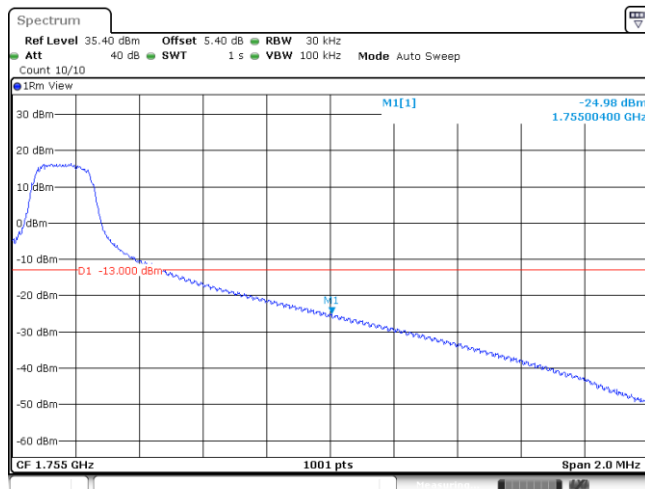


Band4_15MHz_QPSK_20325_1RB#74



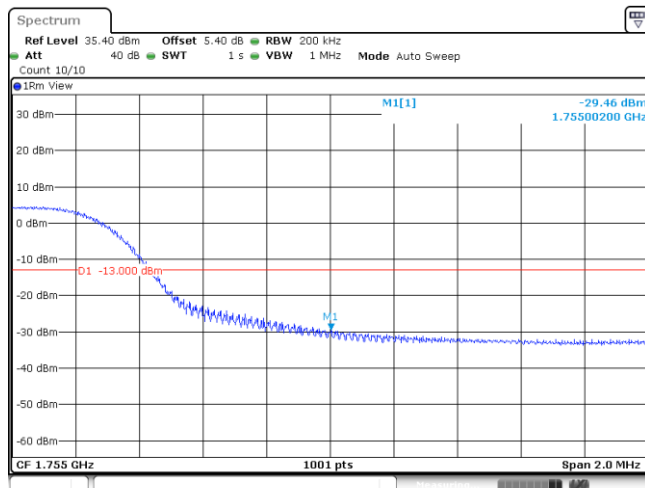
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Date: 11 AUG. 2019 03:25:37

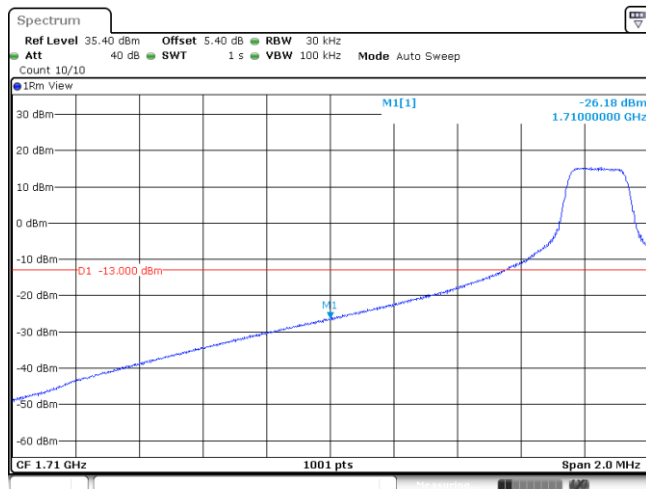
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Date: 11 AUG. 2019 03:27:01

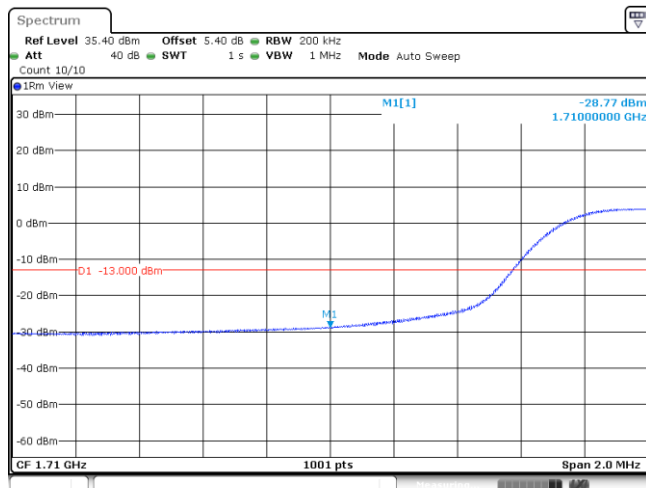
Band4_15MHz_16QAM_20025_1RB#0





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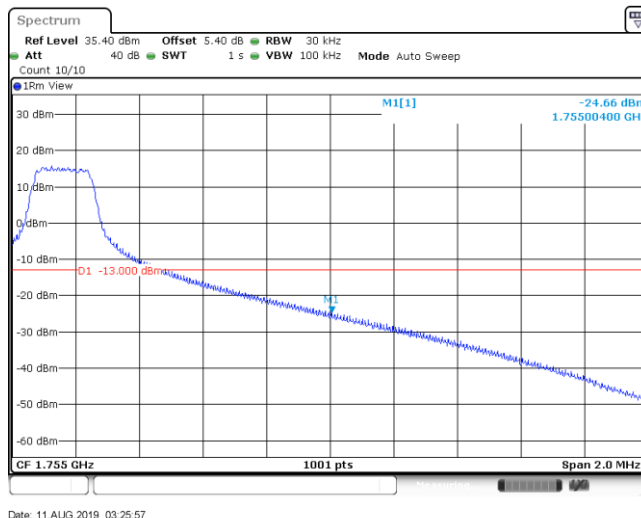
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Date: 11 AUG.2019 03:26:41

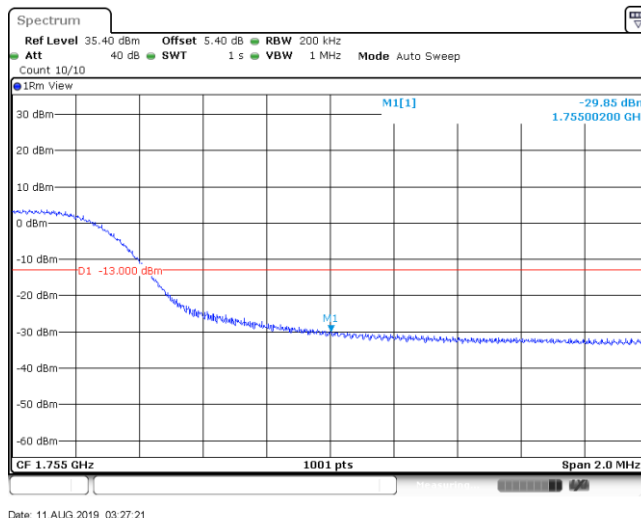
Band4_15MHz_16QAM_20325_1RB#74





Date: 11 AUG. 2019 03:25:57

Band4_15MHz_16QAM_20325_75RB#0



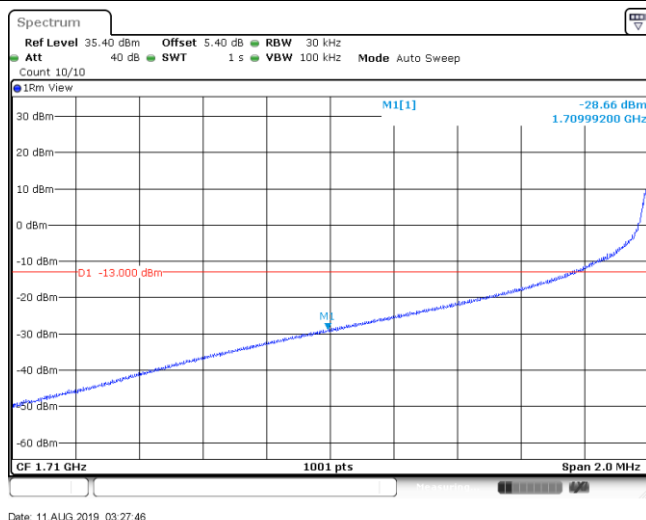
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Band4_20MHz_QPSK_20050_1RB#0

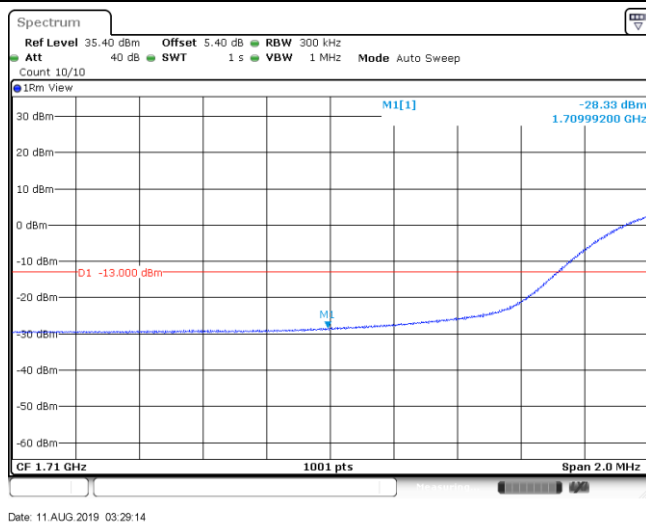


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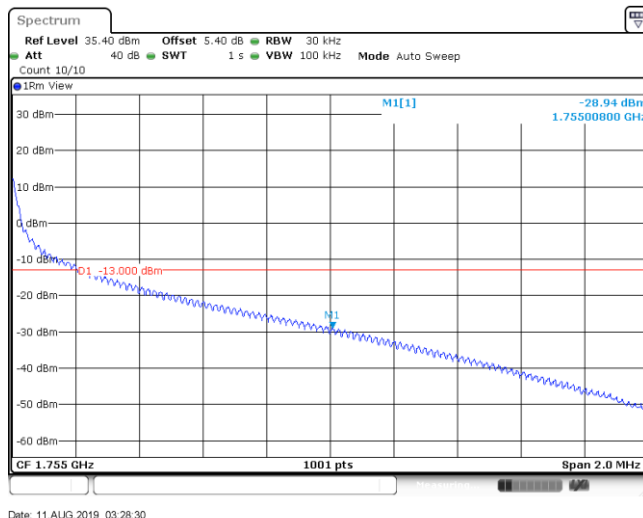


Band4_20MHz_QPSK_20050_100RB#0

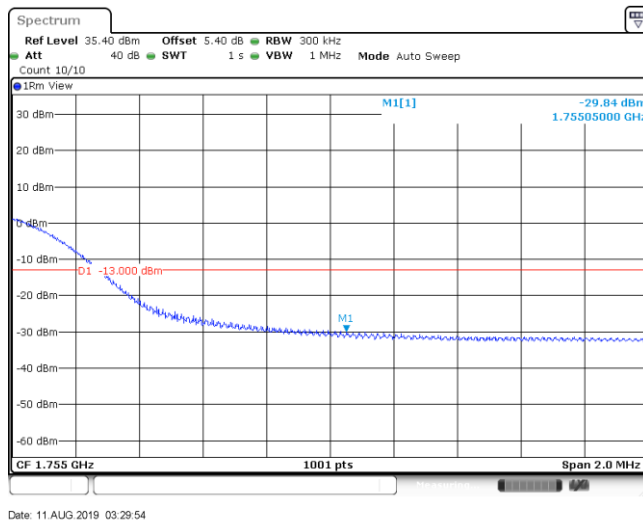


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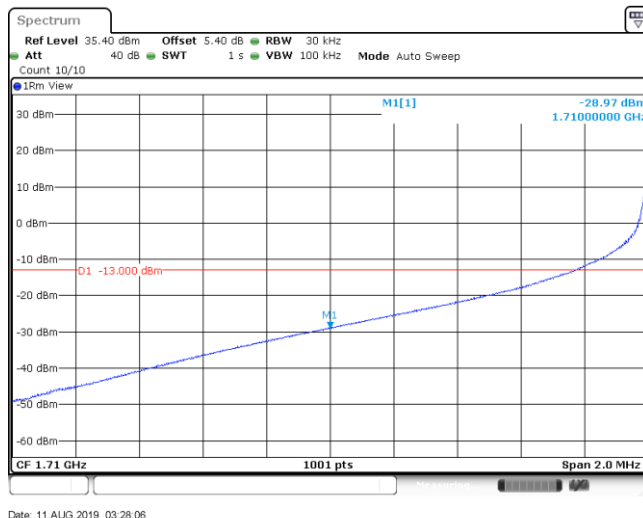


Band4_20MHz_QPSK_20300_100RB#0

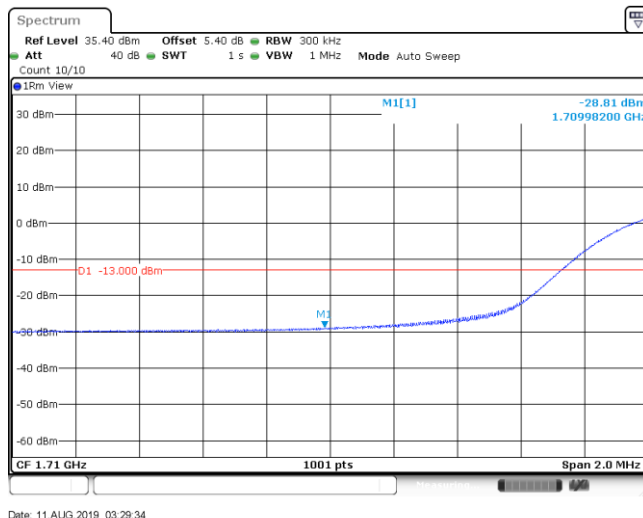


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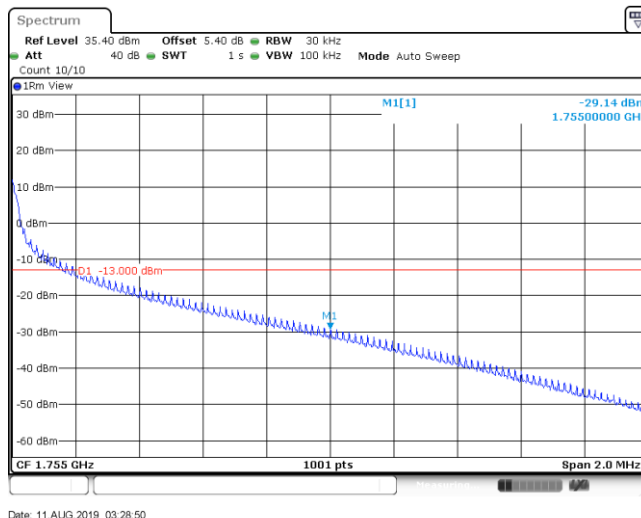


Band4_20MHz_16QAM_20300_1RB#99

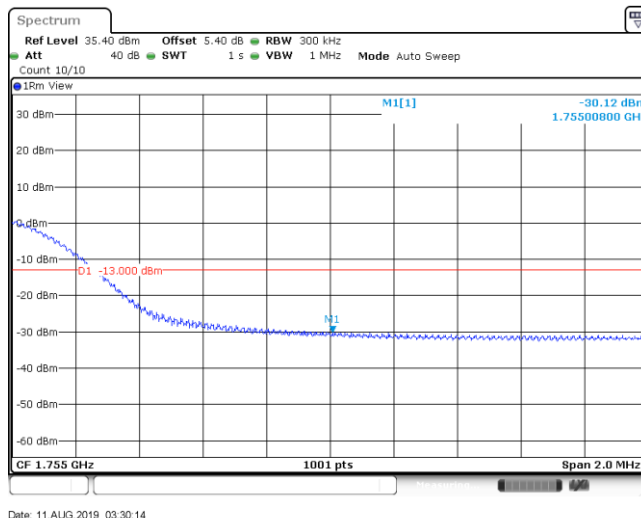


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Band4_20MHz_16QAM_20300_100RB#0



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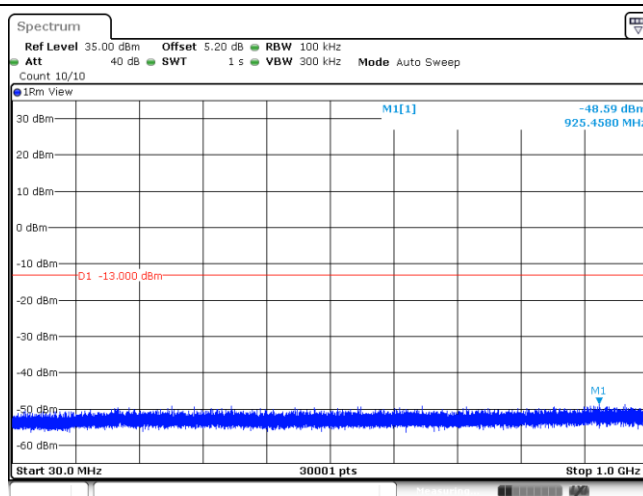
6. Spurious Emission at Antenna Terminal

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.

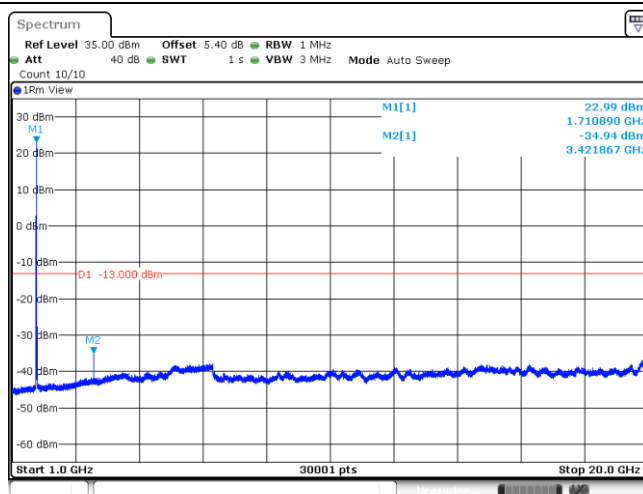
6.1. Test Plots

Band4_20MHz_QPSK_20050_1RB#0



Date: 11 AUG 2019 03:30:37

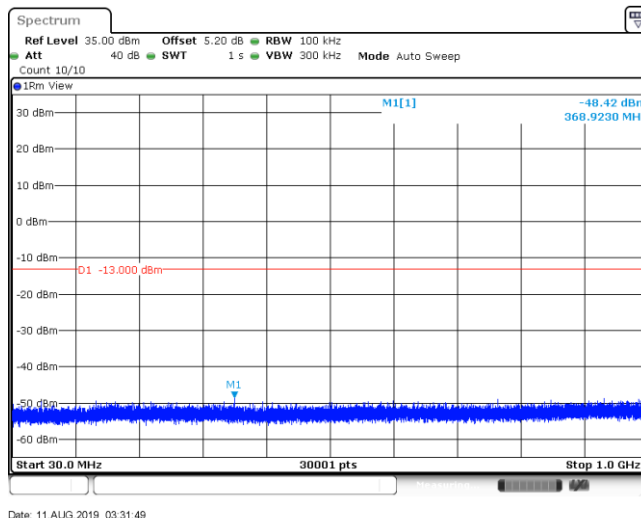
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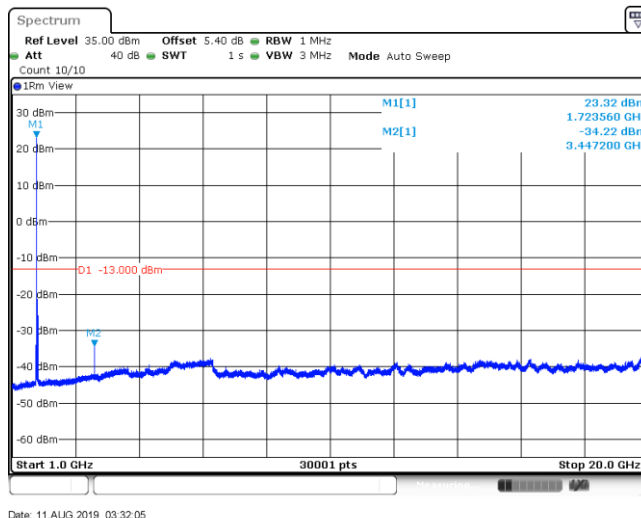
Date: 11 AUG 2019 03:30:54

Band4_20MHz_QPSK_20175_1RB#0





Band4_20MHz_QPSK_20175_1RB#0

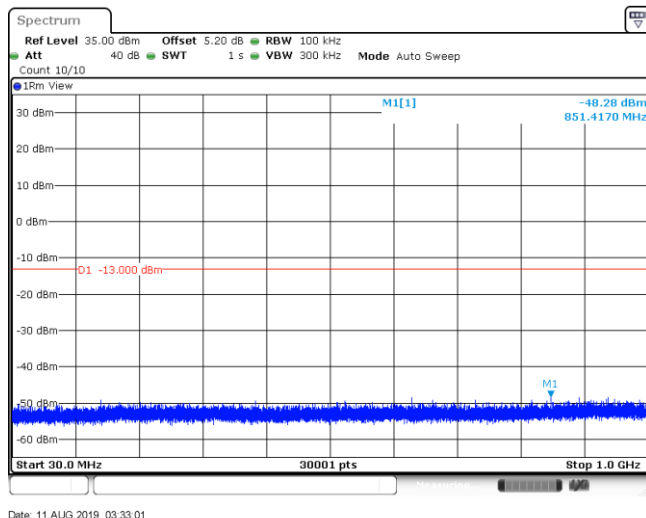


Band4_20MHz_QPSK_20300_1RB#0

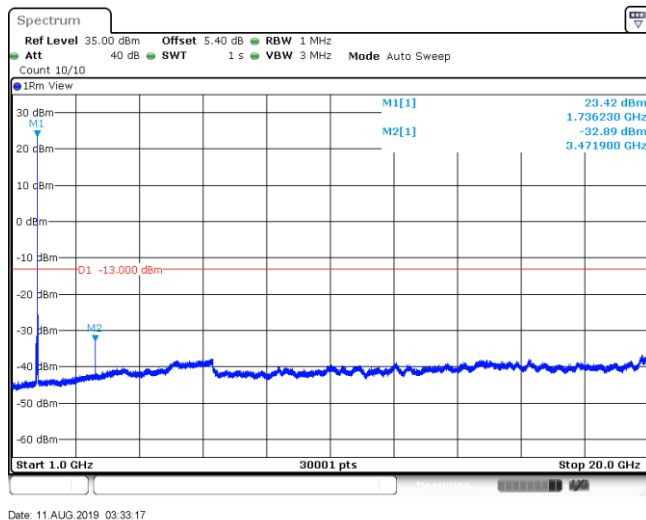


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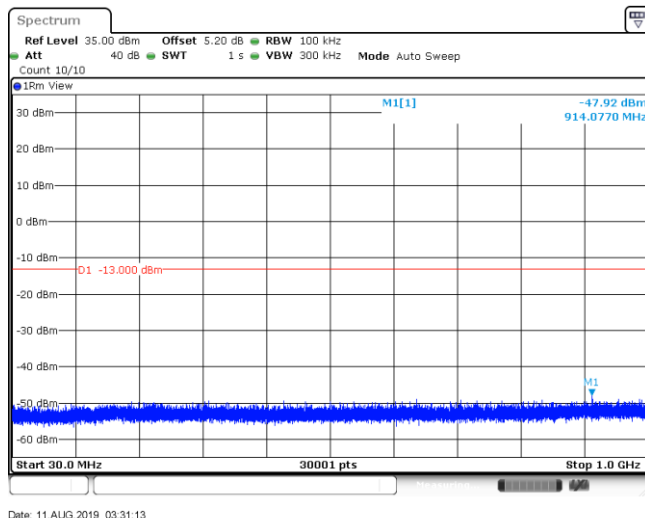


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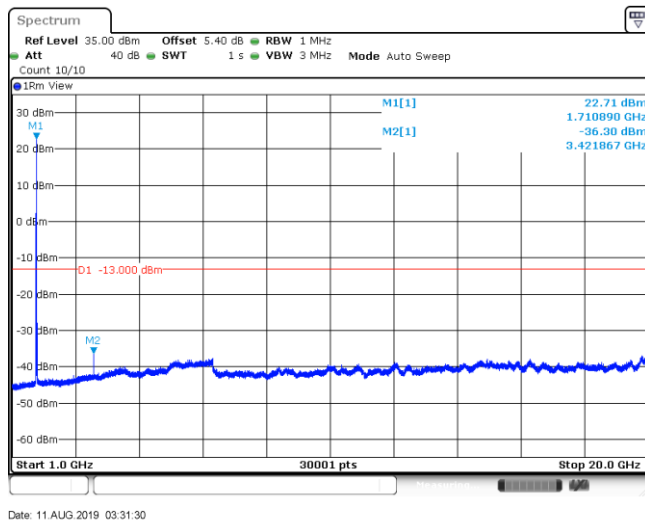


Band4_20MHz_16QAM_20050_1RB#0



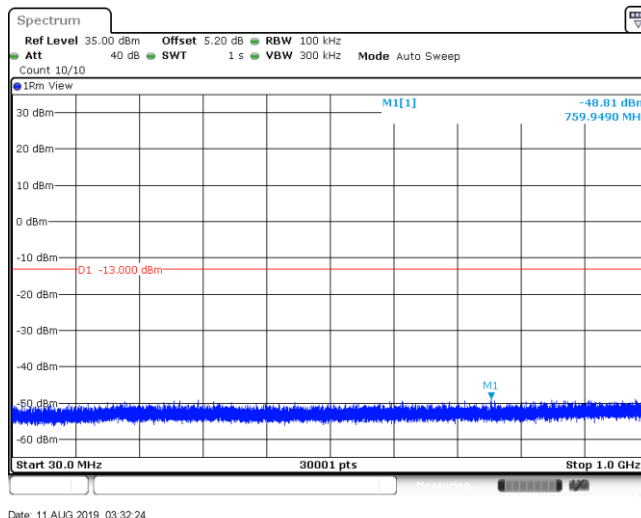


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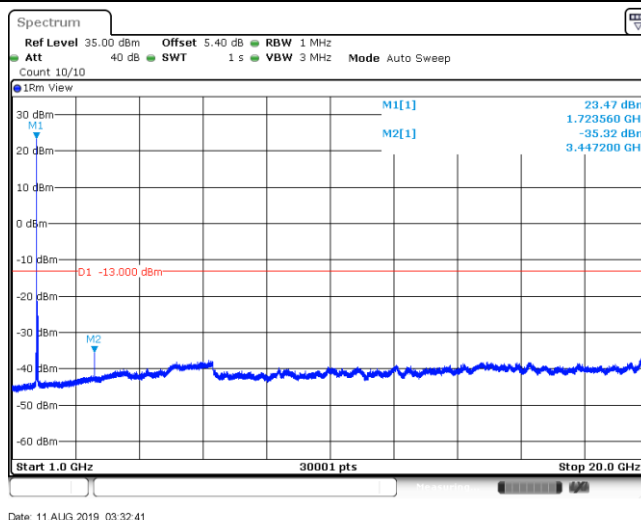


Band4_20MHz_16QAM_20175_1RB#0





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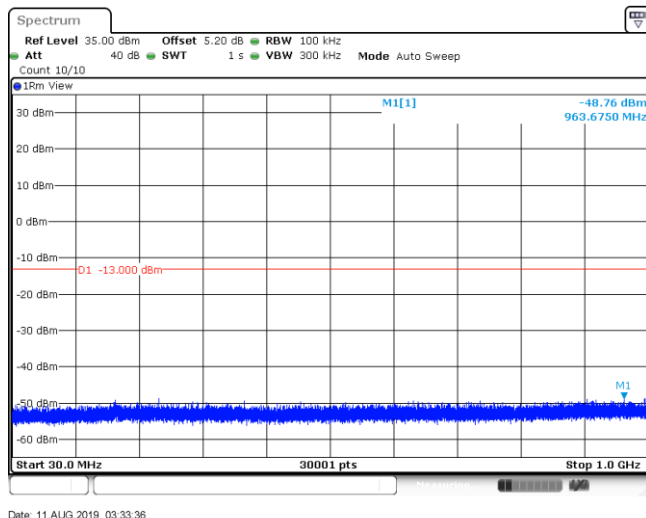


Band4_20MHz_16QAM_20300_1RB#0

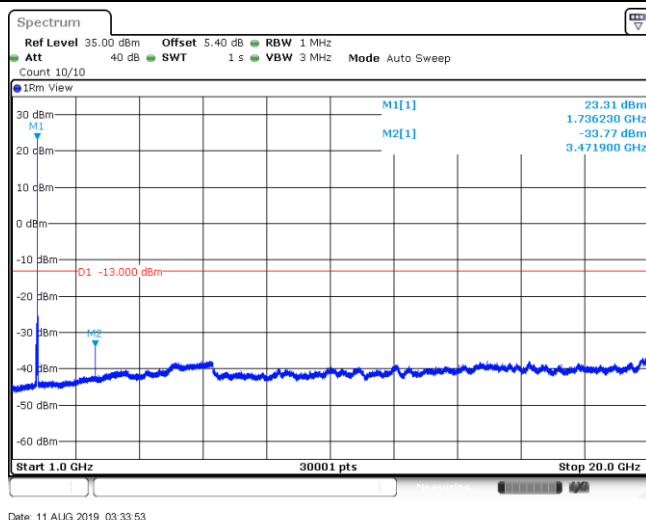


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7. Field Strength of Spurious Radiation

7.1. Test Band = LTE Band 4

7.1.1. Test Mode = LTE/TM1 20MHz

7.1.1.1. Test Channel = LCH

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Margin (dB)	Polarization
39.8460	-64.11	-13.00	51.11	Horizontal
241.3736	-68.21	-13.00	55.21	Horizontal
2695.9392	-36.14	-13.00	23.14	Horizontal
3422.0141	-43.88	-13.00	30.88	Horizontal
16398.4466	-38.03	-13.00	25.03	Horizontal
17991.9997	-36.97	-13.00	23.97	Horizontal
109.4955	-65.36	-13.00	52.36	Vertical
757.7304	-62.57	-13.00	49.57	Vertical
2699.1398	-37.41	-13.00	24.41	Vertical
3422.0141	-51.77	-13.00	38.77	Vertical
14724.8908	-41.79	-13.00	28.79	Vertical
17910.4970	-34.06	-13.00	21.06	Vertical

7.1.1.2. Test Channel = MCH

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Margin (dB)	Polarization
42.3681	-63.07	-13.00	50.07	Horizontal
708.5004	-61.68	-13.00	48.68	Horizontal
2695.5391	-36.31	-13.00	23.31	Horizontal
3447.0149	-48.20	-13.00	35.20	Horizontal
16397.9466	-38.27	-13.00	25.27	Horizontal
17996.4999	-37.40	-13.00	24.40	Horizontal
110.9991	-65.65	-13.00	52.65	Vertical
721.4506	-62.65	-13.00	49.65	Vertical
2700.3401	-37.21	-13.00	24.21	Vertical
3447.0149	-52.40	-13.00	39.40	Vertical
14481.8827	-42.96	-13.00	29.96	Vertical
17989.4997	-32.13	-13.00	19.13	Vertical



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7.1.1.3. Test Channel = HCH

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Margin (dB)	Polarization
46.9273	-63.83	-13.00	50.83	Horizontal
835.4798	-61.41	-13.00	48.41	Horizontal
2675.5351	-36.93	-13.00	23.93	Horizontal
3472.0157	-45.83	-13.00	32.83	Horizontal
16399.4466	-38.00	-13.00	25.00	Horizontal
17985.4995	-37.16	-13.00	24.16	Horizontal
111.0961	-64.80	-13.00	51.80	Vertical
775.8703	-62.39	-13.00	49.39	Vertical
2697.5395	-37.41	-13.00	24.41	Vertical
3472.0157	-51.08	-13.00	38.08	Vertical
14711.3904	-42.19	-13.00	29.19	Vertical
17914.4972	-34.04	-13.00	21.04	Vertical

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 had been displayed.
- 3 all modulation and all Bandwidth had been tested, but only the worst case data displayed in this report.





8. Frequency Stability

8.1. Frequency Vs Voltage

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	-8.10	-0.004709	± 2.5	PASS
Band4	20MHz	QPSK	20050	100RB#0	VN	NT	-10.00	-0.005814	± 2.5	PASS
Band4	20MHz	QPSK	20050	100RB#0	VH	NT	-10.50	-0.006105	± 2.5	PASS
Band4	20MHz	QPSK	20175	100RB#0	VL	NT	-6.40	-0.003694	± 2.5	PASS
Band4	20MHz	QPSK	20175	100RB#0	VN	NT	3.30	0.001905	± 2.5	PASS
Band4	20MHz	QPSK	20175	100RB#0	VH	NT	-8.60	-0.004964	± 2.5	PASS
Band4	20MHz	QPSK	20300	100RB#0	VL	NT	0.00	0.000000	± 2.5	PASS
Band4	20MHz	QPSK	20300	100RB#0	VN	NT	-9.80	-0.005616	± 2.5	PASS
Band4	20MHz	QPSK	20300	100RB#0	VH	NT	-3.80	-0.002178	± 2.5	PASS
Band4	20MHz	16QAM	20050	100RB#0	VL	NT	-4.70	-0.002733	± 2.5	PASS
Band4	20MHz	16QAM	20050	100RB#0	VN	NT	-6.50	-0.003779	± 2.5	PASS
Band4	20MHz	16QAM	20050	100RB#0	VH	NT	-6.50	-0.003779	± 2.5	PASS
Band4	20MHz	16QAM	20175	100RB#0	VL	NT	-3.60	-0.002078	± 2.5	PASS
Band4	20MHz	16QAM	20175	100RB#0	VN	NT	-6.70	-0.003867	± 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	-5.30	-0.003037	± 2.5	PASS
Band4	20MHz	16QAM	20300	100RB#0	VN	NT	-4.90	-0.002808	± 2.5	PASS
Band4	20MHz	16QAM	20300	100RB#0	VH	NT	-13.90	-0.007966	± 2.5	PASS

8.2. Frequency Vs Temperature

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	-5.70	-0.003314	± 2.5	PASS
Band4	20MHz	QPSK	20050	100RB#0	NV	-20	-7.90	-0.004593	± 2.5	PASS
Band4	20MHz	QPSK	20050	100RB#0	NV	0	-6.60	-0.003837	± 2.5	PASS
Band4	20MHz	QPSK	20050	100RB#0	NV	10	-7.30	-0.004244	± 2.5	PASS
Band4	20MHz	QPSK	20050	100RB#0	NV	20	-4.00	-0.002326	± 2.5	PASS
Band4	20MHz	QPSK	20050	100RB#0	NV	30	-7.00	-0.004070	± 2.5	PASS
Band4	20MHz	QPSK	20050	100RB#0	NV	40	-15.10	-0.008779	± 2.5	PASS
Band4	20MHz	QPSK	20050	100RB#0	NV	50	-7.30	-0.004244	± 2.5	PASS



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Band4	20MHz	QPSK	20175	100RB#0	NV	-30	1.90	0.001097	± 2.5	PASS
Band4	20MHz	QPSK	20175	100RB#0	NV	-20	-2.90	-0.001674	± 2.5	PASS
Band4	20MHz	QPSK	20175	100RB#0	NV	0	-9.50	-0.005483	± 2.5	PASS
Band4	20MHz	QPSK	20175	100RB#0	NV	10	-9.00	-0.005195	± 2.5	PASS
Band4	20MHz	QPSK	20175	100RB#0	NV	20	-9.90	-0.005714	± 2.5	PASS
Band4	20MHz	QPSK	20175	100RB#0	NV	30	-9.50	-0.005483	± 2.5	PASS
Band4	20MHz	QPSK	20175	100RB#0	NV	40	-4.30	-0.002482	± 2.5	PASS
Band4	20MHz	QPSK	20175	100RB#0	NV	50	-4.90	-0.002828	± 2.5	PASS
Band4	20MHz	QPSK	20300	100RB#0	NV	-30	-0.90	-0.000516	± 2.5	PASS
Band4	20MHz	QPSK	20300	100RB#0	NV	-20	-2.20	-0.001261	± 2.5	PASS
Band4	20MHz	QPSK	20300	100RB#0	NV	0	-6.20	-0.003553	± 2.5	PASS
Band4	20MHz	QPSK	20300	100RB#0	NV	10	-9.00	-0.005158	± 2.5	PASS
Band4	20MHz	QPSK	20300	100RB#0	NV	20	-10.30	-0.005903	± 2.5	PASS
Band4	20MHz	QPSK	20300	100RB#0	NV	30	-8.00	-0.004585	± 2.5	PASS
Band4	20MHz	QPSK	20300	100RB#0	NV	40	-5.70	-0.003266	± 2.5	PASS
Band4	20MHz	QPSK	20300	100RB#0	NV	50	-6.50	-0.003725	± 2.5	PASS
Band4	20MHz	16QAM	20050	100RB#0	NV	-30	-0.40	-0.000233	± 2.5	PASS
Band4	20MHz	16QAM	20050	100RB#0	NV	-20	-3.70	-0.002151	± 2.5	PASS
Band4	20MHz	16QAM	20050	100RB#0	NV	0	-6.30	-0.003663	± 2.5	PASS
Band4	20MHz	16QAM	20050	100RB#0	NV	10	-1.40	-0.000814	± 2.5	PASS
Band4	20MHz	16QAM	20050	100RB#0	NV	20	-2.70	-0.001570	± 2.5	PASS
Band4	20MHz	16QAM	20050	100RB#0	NV	30	-15.40	-0.008953	± 2.5	PASS
Band4	20MHz	16QAM	20050	100RB#0	NV	40	-9.90	-0.005756	± 2.5	PASS
Band4	20MHz	16QAM	20050	100RB#0	NV	50	-5.90	-0.003430	± 2.5	PASS
Band4	20MHz	16QAM	20175	100RB#0	NV	-30	-5.20	-0.003001	± 2.5	PASS
Band4	20MHz	16QAM	20175	100RB#0	NV	-20	0.40	0.000231	± 2.5	PASS
Band4	20MHz	16QAM	20175	100RB#0	NV	0	-2.10	-0.001212	± 2.5	PASS
Band4	20MHz	16QAM	20175	100RB#0	NV	10	-8.50	-0.004906	± 2.5	PASS
Band4	20MHz	16QAM	20175	100RB#0	NV	20	-4.10	-0.002367	± 2.5	PASS
Band4	20MHz	16QAM	20175	100RB#0	NV	30	-4.80	-0.002771	± 2.5	PASS
Band4	20MHz	16QAM	20175	100RB#0	NV	40	-1.60	-0.000924	± 2.5	PASS
Band4	20MHz	16QAM	20175	100RB#0	NV	50	-5.90	-0.003405	± 2.5	PASS
Band4	20MHz	16QAM	20300	100RB#0	NV	-30	1.10	0.000630	± 2.5	PASS
Band4	20MHz	16QAM	20300	100RB#0	NV	-20	-4.30	-0.002464	± 2.5	PASS
Band4	20MHz	16QAM	20300	100RB#0	NV	0	-8.40	-0.004814	± 2.5	PASS
Band4	20MHz	16QAM	20300	100RB#0	NV	10	-5.80	-0.003324	± 2.5	PASS
Band4	20MHz	16QAM	20300	100RB#0	NV	20	-10.40	-0.005960	± 2.5	PASS
Band4	20MHz	16QAM	20300	100RB#0	NV	30	-13.40	-0.007679	± 2.5	PASS



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Band4	20MHz	16QAM	20300	100RB#0	NV	40	-3.50	-0.002006	± 2.5	PASS
Band4	20MHz	16QAM	20300	100RB#0	NV	50	-1.60	-0.000917	± 2.5	PASS

The End

