



Appendix B

WCDMA Band 2&4&5



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1 Effective (Isotropic) Radiated Power Output Data

Part I - Test Results

Test Band	Test Mode	Test Channel	Measured[dBm]	EIRP[dBm]	Limit[dBm]	Verdict
WCDMA1900	UMTS/TM1	LCH	23.38	25.18	33	PASS
		MCH	23.44	25.24	33	PASS
		HCH	23.48	25.28	33	PASS
WCDMA1700	UMTS/TM1	LCH	23.14	24.64	30	PASS
		MCH	23.21	24.71	30	PASS
		HCH	23.44	24.94	30	PASS

Note:

a: For getting the EIRP (Efficient Isotropic Radiated Power) in substitution method, the following formula should be taken to calculate it,

$$\text{EIRP [dBm]} = \text{SGP [dBm]} - \text{Cable Loss [dB]} + \text{Gain [dBi]}$$

b: SGP=Signal Generator Level

c: RBW > emission bandwidth, VBW > 3 x RBW.

Detector: RMS

Test Band	Test Mode	Test Channel	Measured[dBm]	ERP[dBm]	Limit[dBm]	Verdict
WCDMA850	UMTS/TM1	LCH	23.20	20.15	38.45	PASS
		MCH	23.10	20.05	38.45	PASS
		HCH	23.12	20.07	38.45	PASS

Note:

a: For getting the ERP (Efficient Radiated Power) in substitution method, the following formula should be taken to calculate it,

$$\text{ERP [dBm]} = \text{SGP [dBm]} - \text{Cable Loss [dB]} + \text{Gain [dBd]}$$

b: SGP=Signal Generator Level

c: RBW > emission bandwidth, VBW > 3 x RBW.

Detector: RMS



2 Peak-to-Average Ratio

Part I - Test Results

Test Band	Test Mode	Test Channel	Measured[dB]	Limit [dB]	Verdict
WCDMA1900	UMTS/TM1	LCH	2.67	13	PASS
		MCH	2.55	13	PASS
		HCH	2.84	13	PASS
WCDMA1700	UMTS/TM1	LCH	2.70	13	PASS
		MCH	3.16	13	PASS
		HCH	2.49	13	PASS
WCDMA850	UMTS/TM1	LCH	3.01	13	PASS
		MCH	2.26	13	PASS
		HCH	2.61	13	PASS



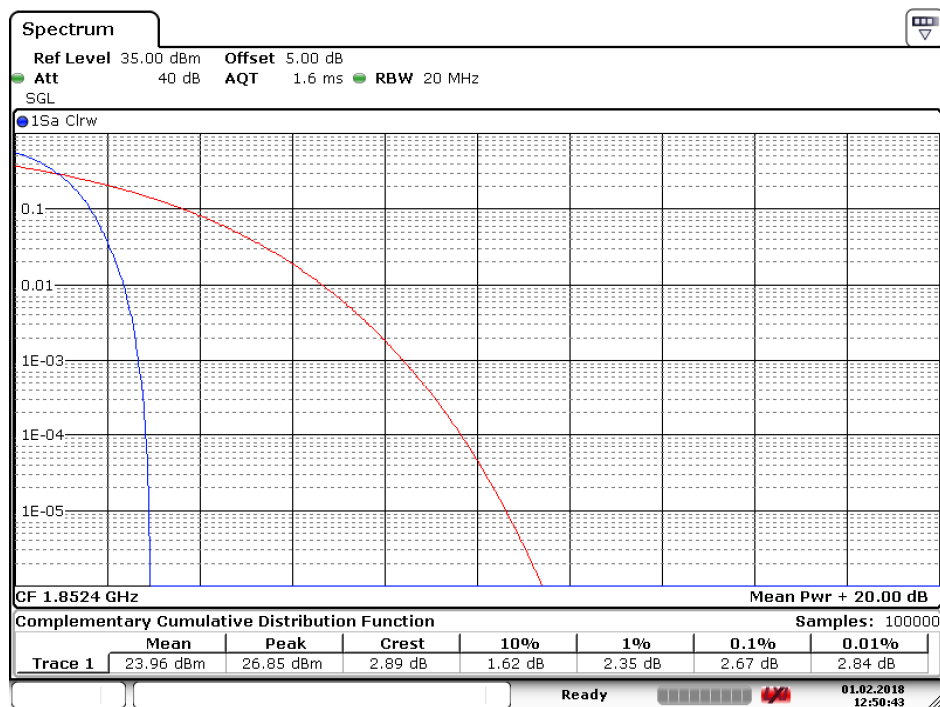
Part II - Test Plots

2.1 For WCDMA

2.1.1 Test Band = WCDMA 1900

2.1.1.1 Test Mode = UMTS/TM1

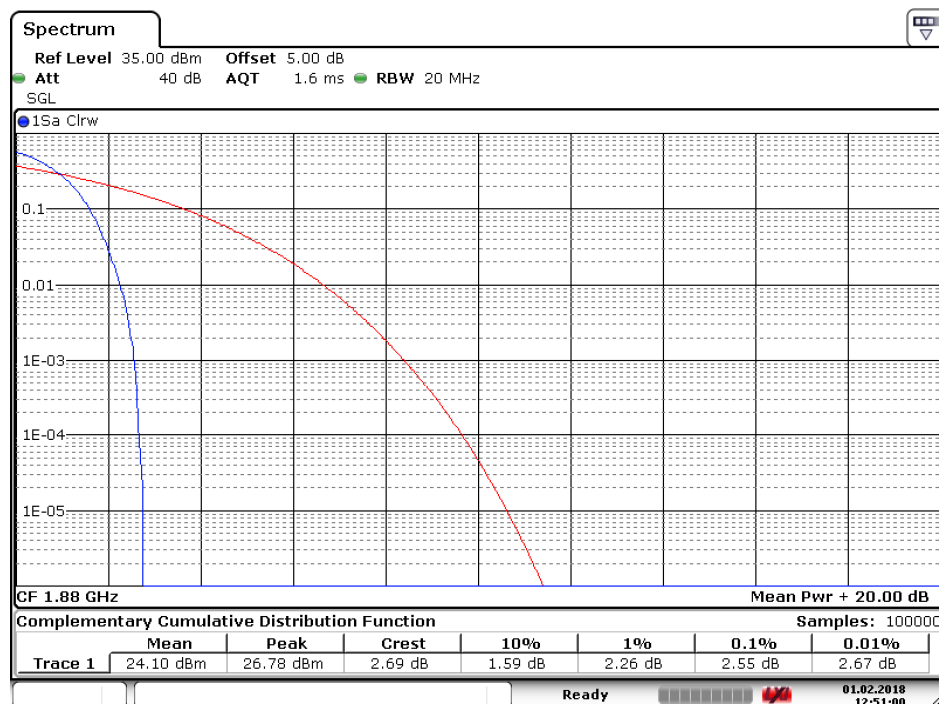
2.1.1.1.1 Test Channel = LCH



Date: 1.FEB.2018 12:50:43

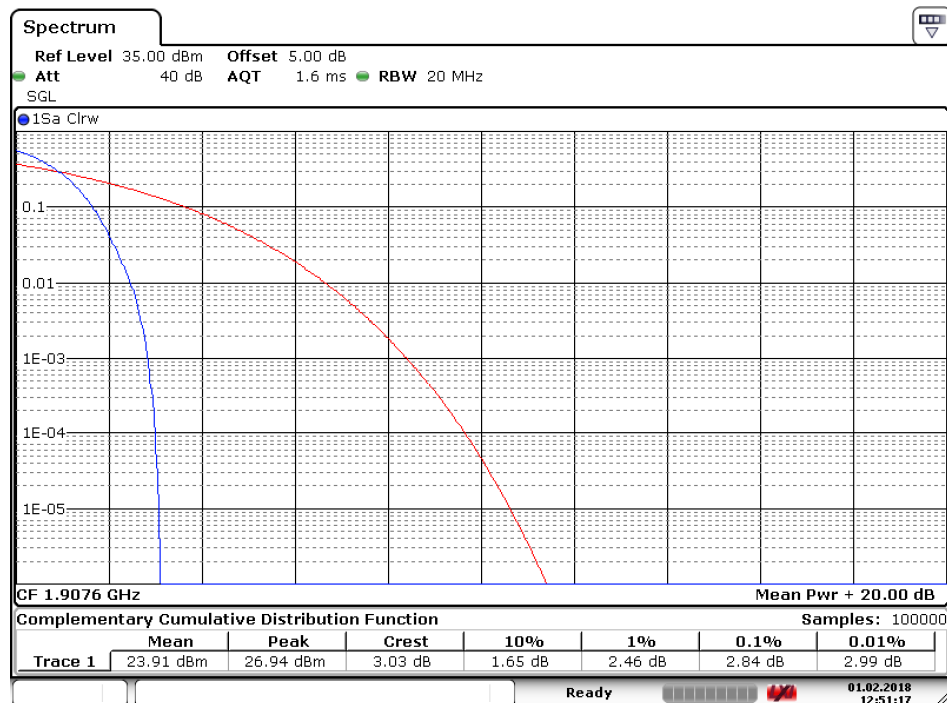


2.1.1.1.2 Test Channel = MCH



Date: 1.FEB.2018 12:51:00

2.1.1.1.3 Test Channel = HCH



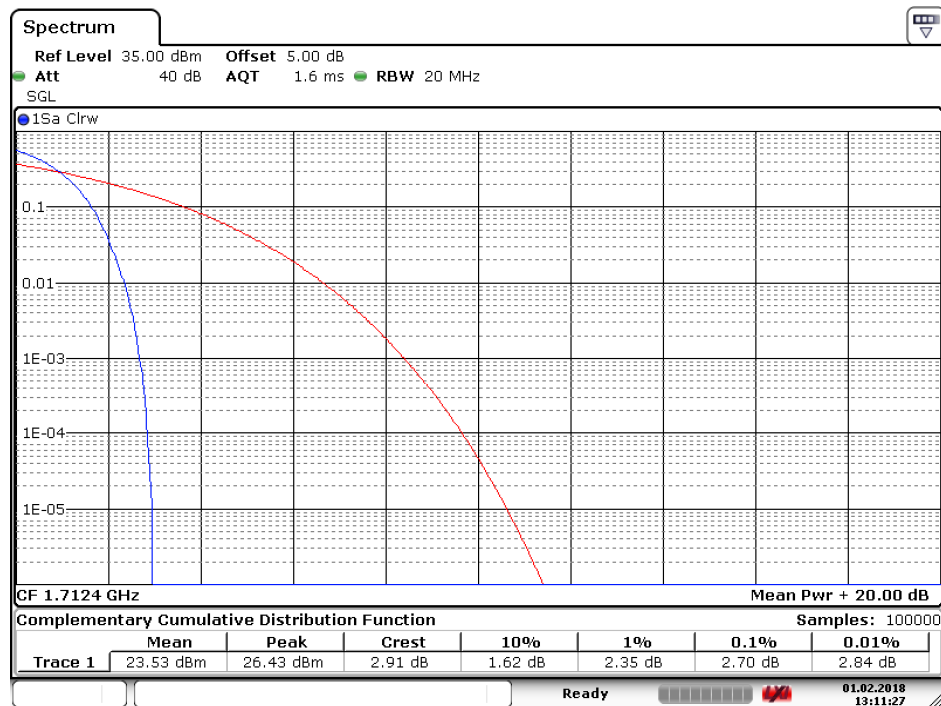
Date: 1.FEB.2018 12:51:17



2.1.2 Test Band = WCDMA 1700

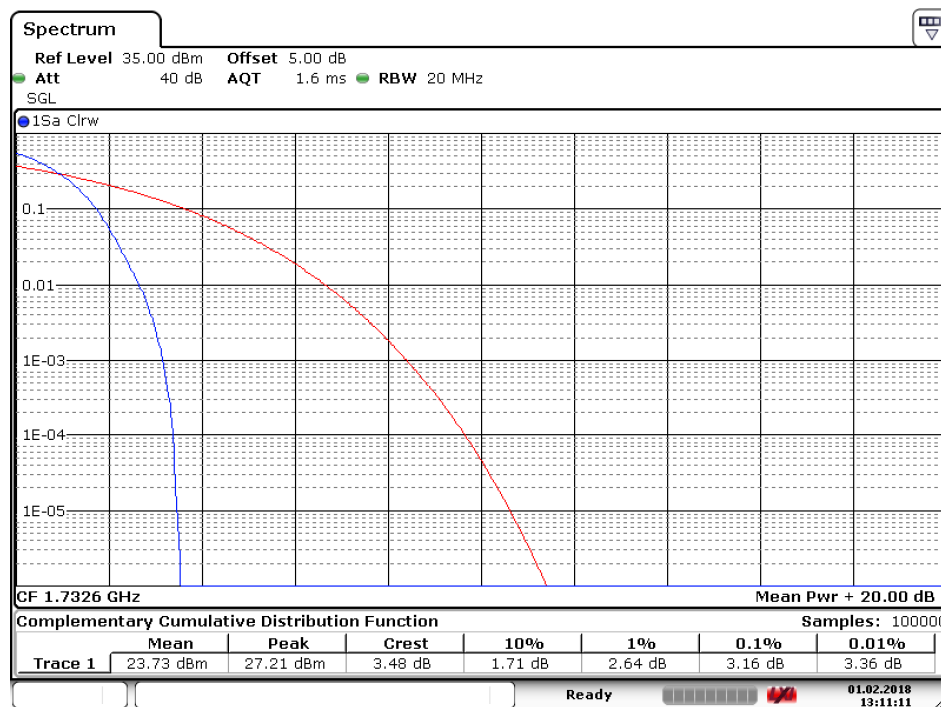
2.1.2.1 Test Mode = UMTS/TM1

2.1.2.1.1 Test Channel = LCH



Date: 1.FEB.2018 13:11:27

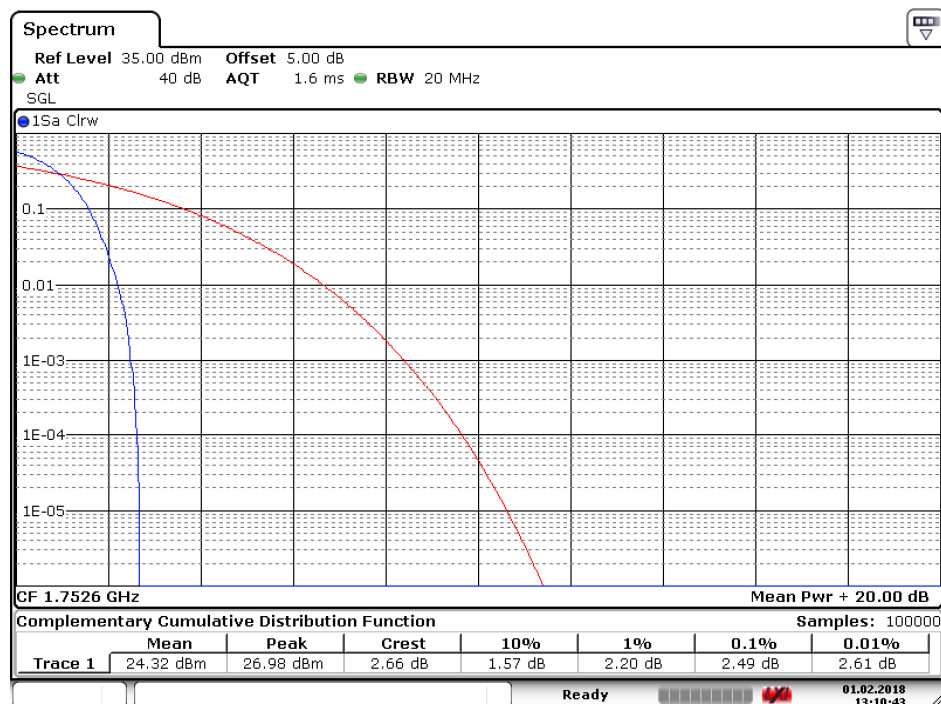
2.1.2.1.2 Test Channel = MCH



Date: 1.FEB.2018 13:11:11



2.1.2.1.3 Test Channel = HCH

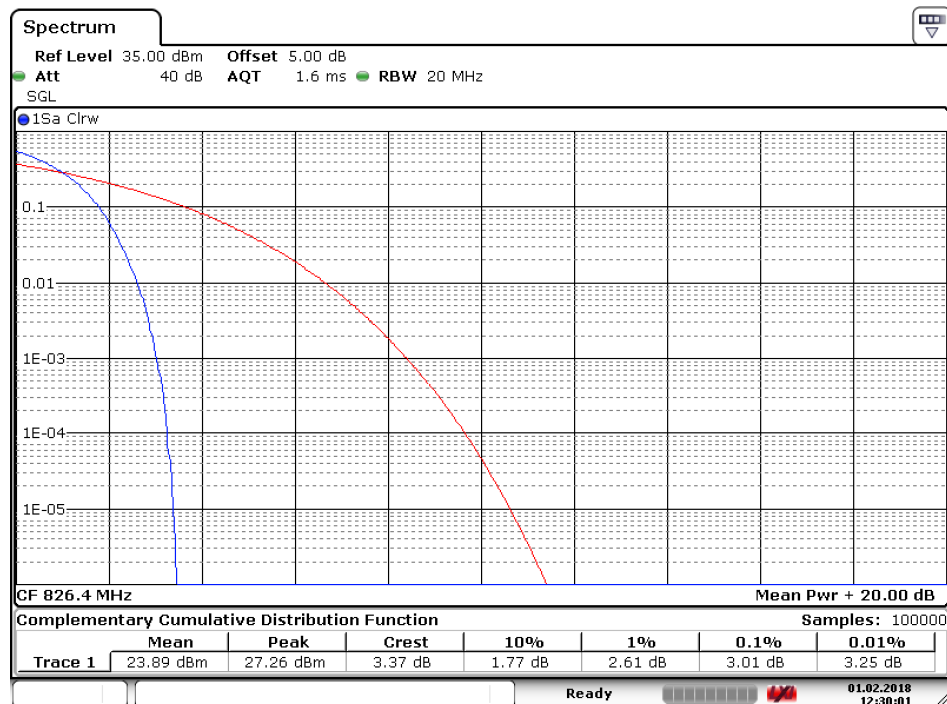


Date: 1.FEB.2018 13:10:44

2.1.3 Test Band = WCDMA 850

2.1.3.1 Test Mode = UMTS/TM1

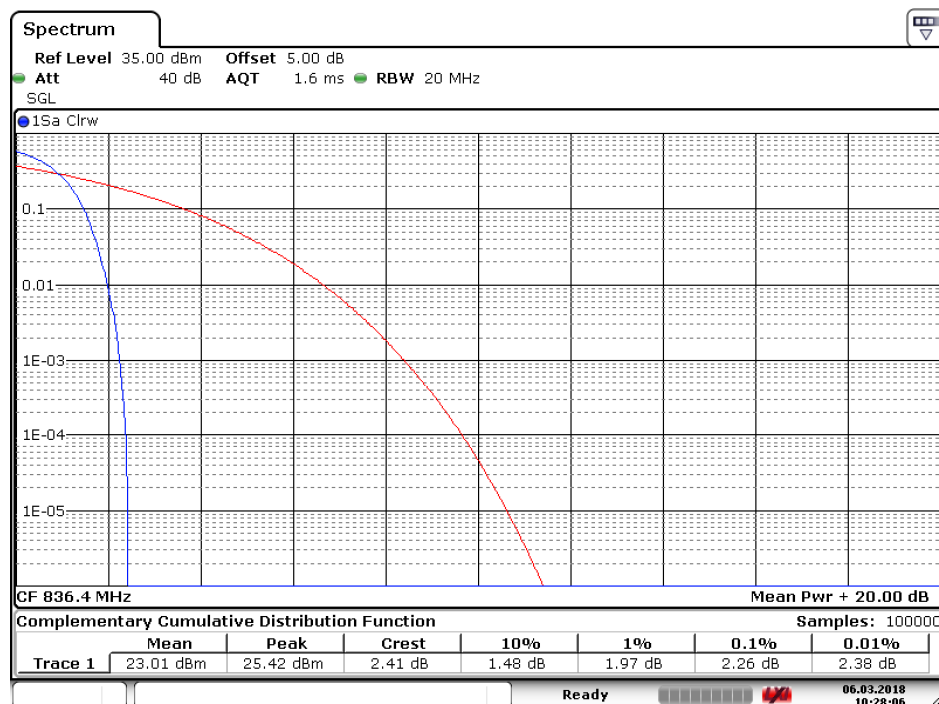
2.1.3.1.1 Test Channel = LCH



Date: 1.FEB.2018 12:30:02

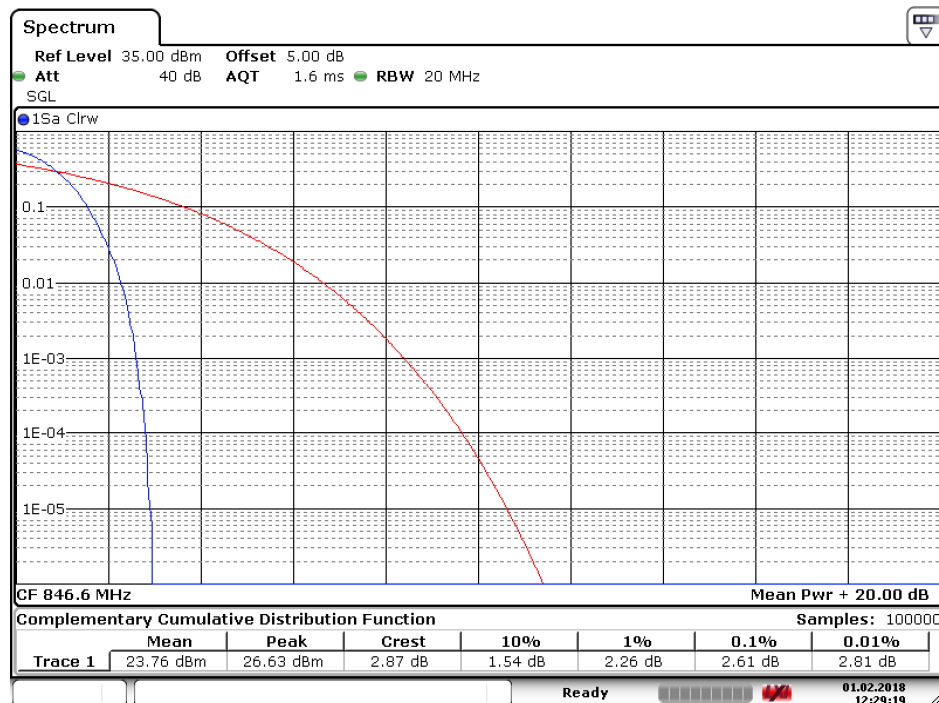


2.1.3.1.2 Test Channel = MCH



Date: 6.MAR.2018 10:28:07

2.1.3.1.3 Test Channel = HCH



Date: 1.FEB.2018 12:29:19

3 Modulation Characteristics

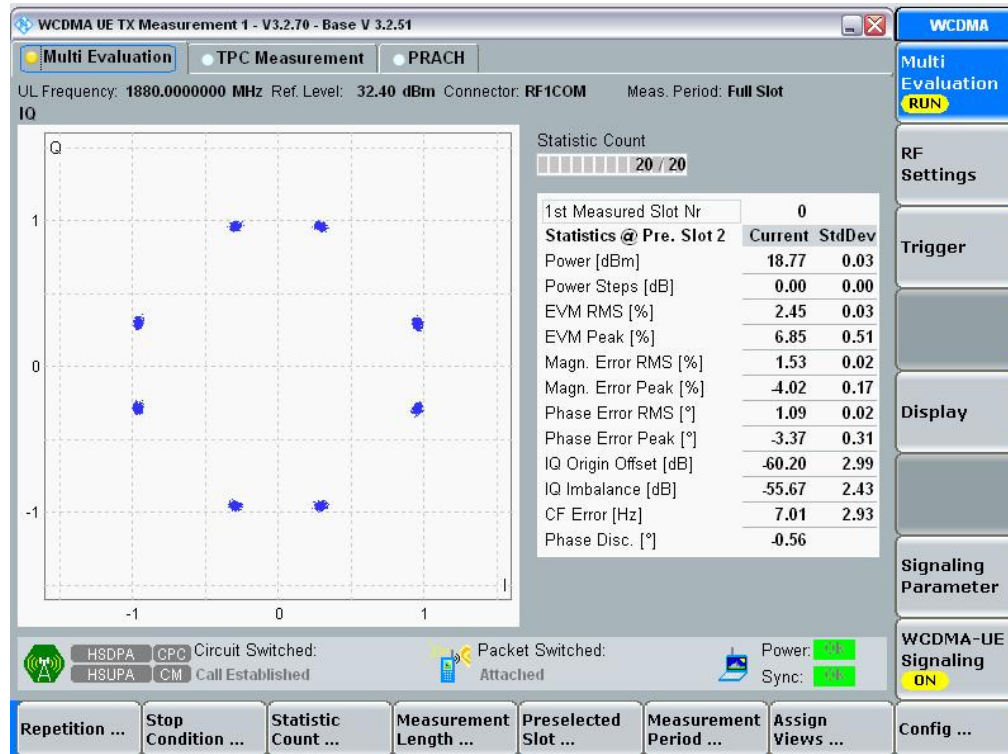
Part I - Test Plots

3.1 For WCDMA

3.1.1 Test Band = WCDMA 1900

3.1.1.1 Test Mode = UMTS/TM1

3.1.1.1.1 Test Channel = MCH

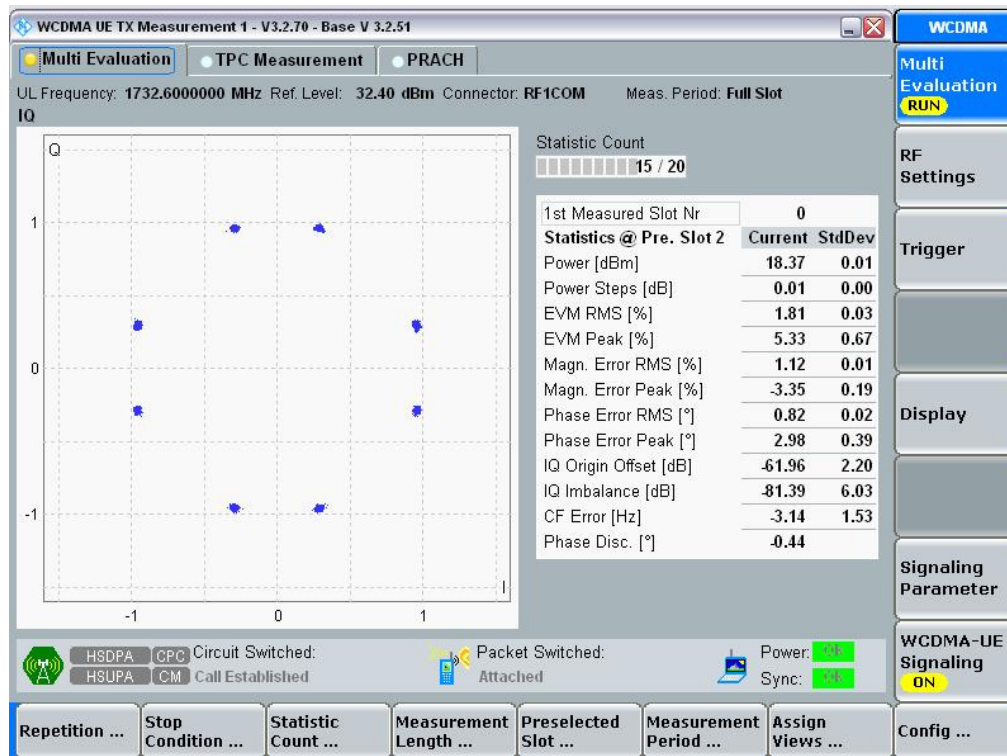




3.1.2 Test Band = WCDMA 1700

3.1.2.1 Test Mode = UMTS /TM1

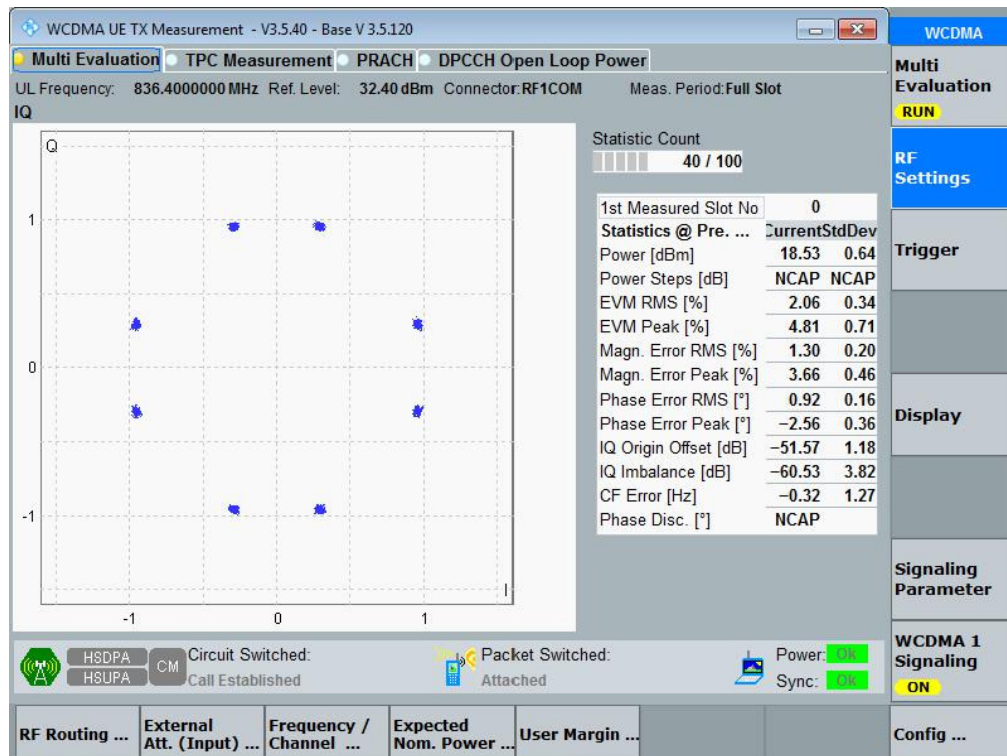
3.1.2.1.1 Test Channel = MCH



3.1.3 Test Band = WCDMA 850

3.1.3.1 Test Mode = UMTS /TM1

3.1.3.1.1 Test Channel = MCH





4 Bandwidth

Part I - Test Results

Test Band	Test Mode	Test Channel	Occupied Bandwidth [MHz]	Emission Bandwidth [MHz]	Verdict
WCDMA1900	UMTS/TM1	LCH	4.14	4.73	PASS
		MCH	4.15	4.74	PASS
		HCH	4.13	4.72	PASS
WCDMA1700	UMTS/TM1	LCH	4.15	4.71	PASS
		MCH	4.14	4.69	PASS
		HCH	4.14	4.72	PASS
WCDMA850	UMTS/TM1	LCH	4.14	4.70	PASS
		MCH	4.17	4.77	PASS
		HCH	4.12	4.71	PASS

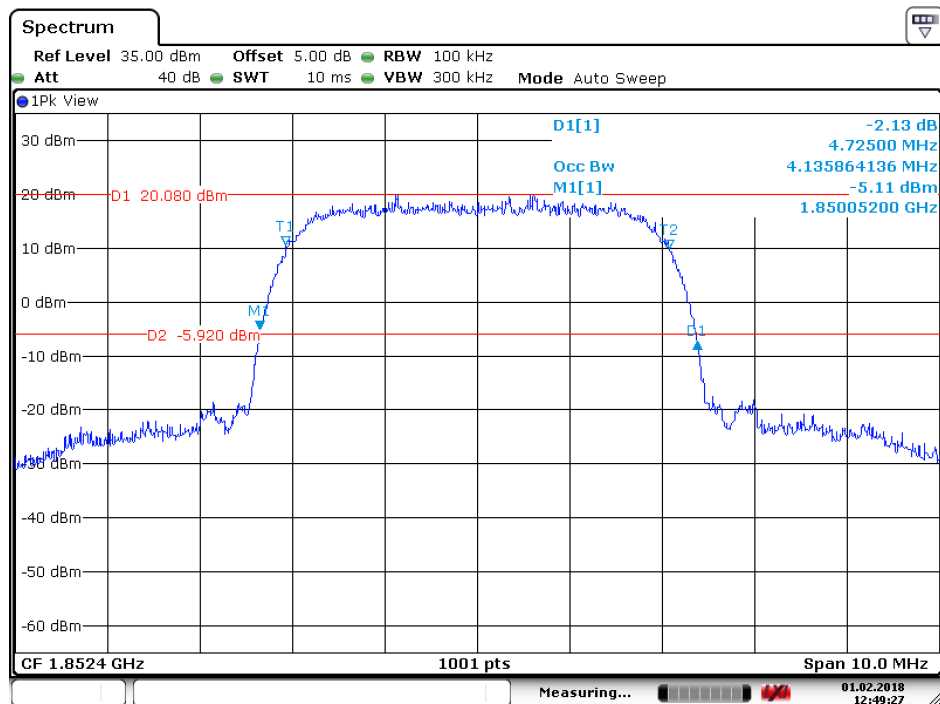


4.1 For WCDMA

4.1.1 Test Band = WCDMA 1900

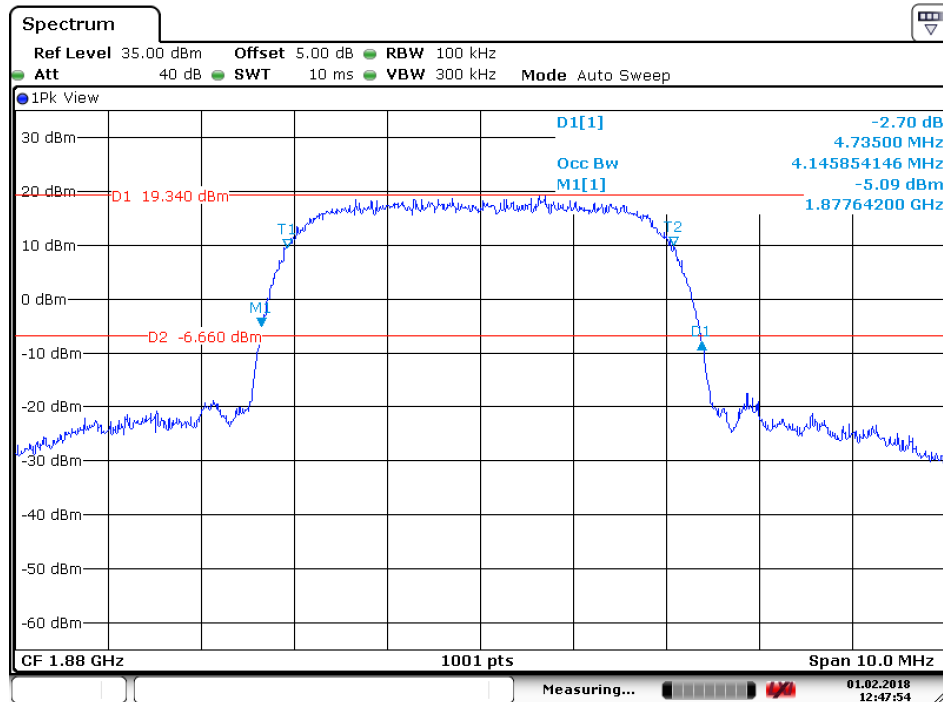
4.1.1.1 Test Mode = UMTS/TM1

4.1.1.1.1 Test Channel = LCH



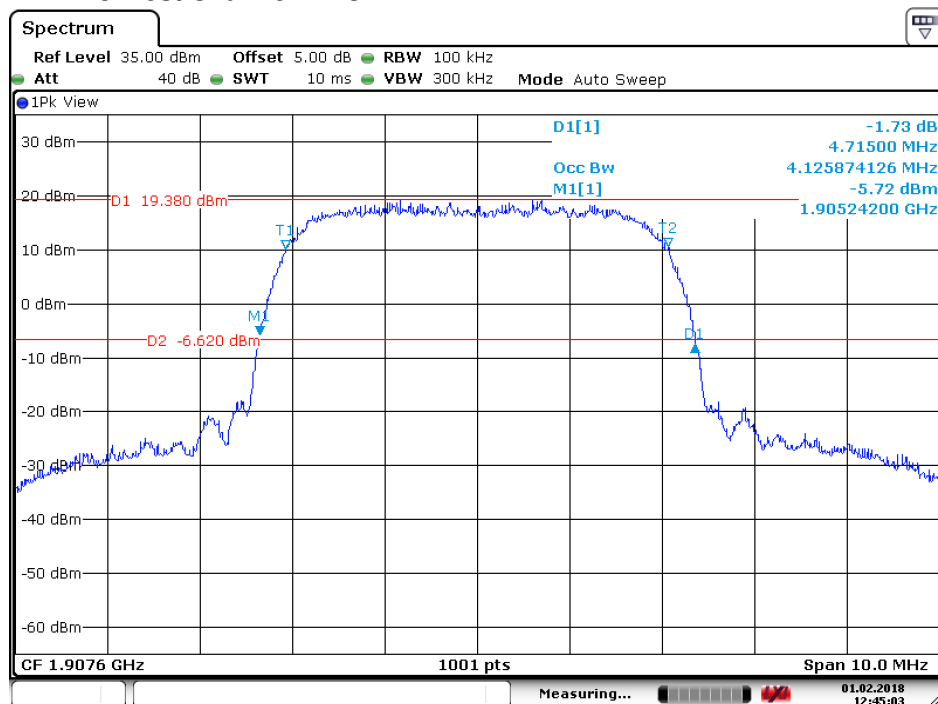
Date: 1.FEB.2018 12:49:27

4.1.1.1.2 Test Channel = MCH



Date: 1.FEB.2018 12:47:55

4.1.1.1.3 Test Channel = HCH



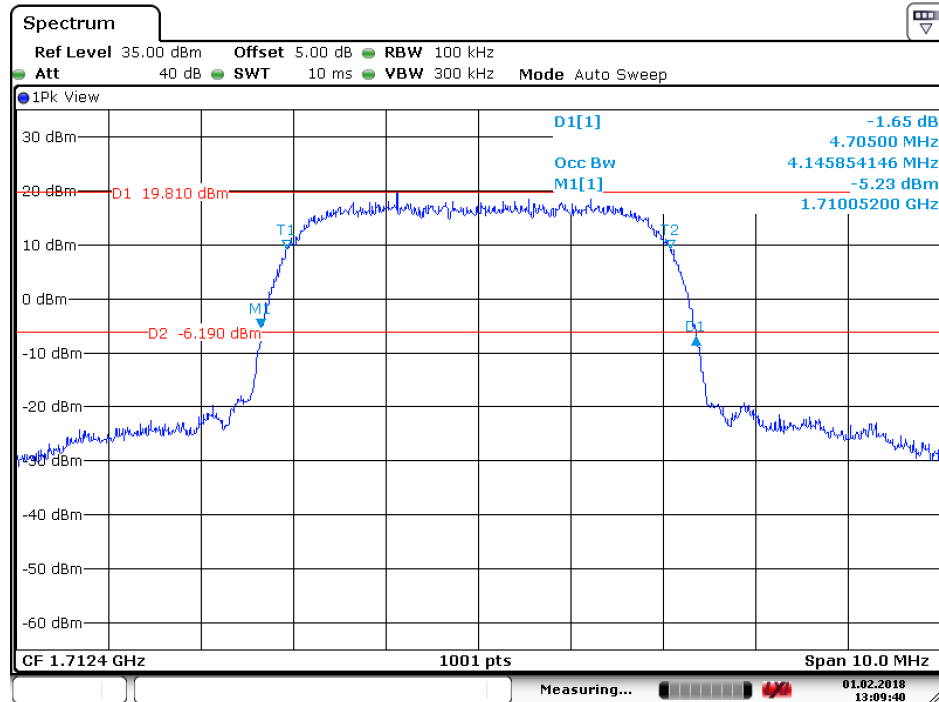
Date: 1.FEB.2018 12:45:04



4.1.2 Test Band = WCDMA 1700

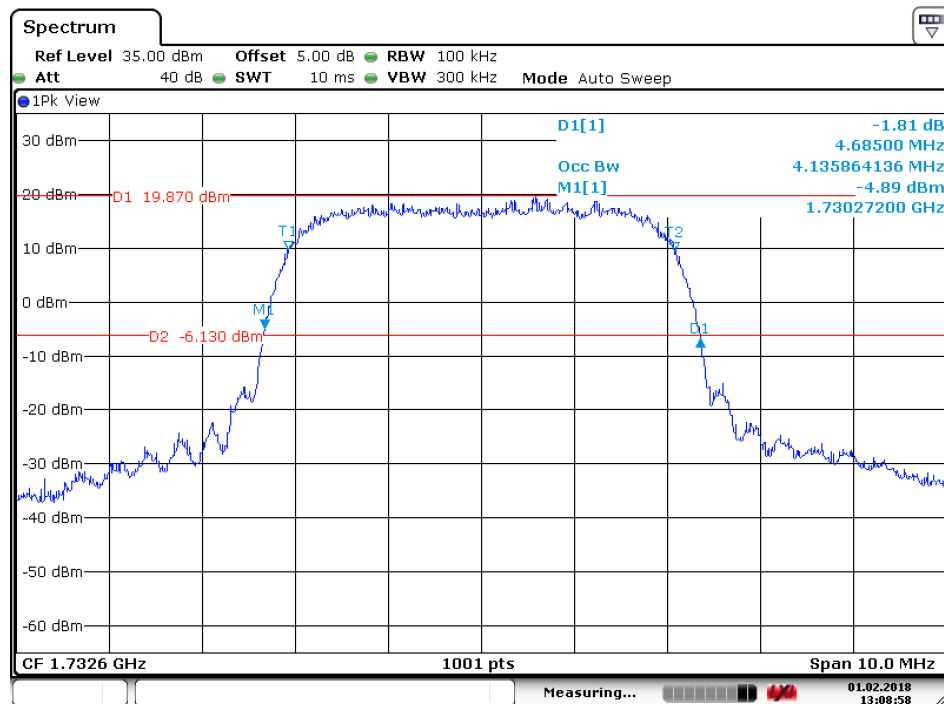
4.1.2.1 Test Mode = UMTS/TM1

4.1.2.1.1 Test Channel = LCH



Date: 1.FEB.2018 13:09:41

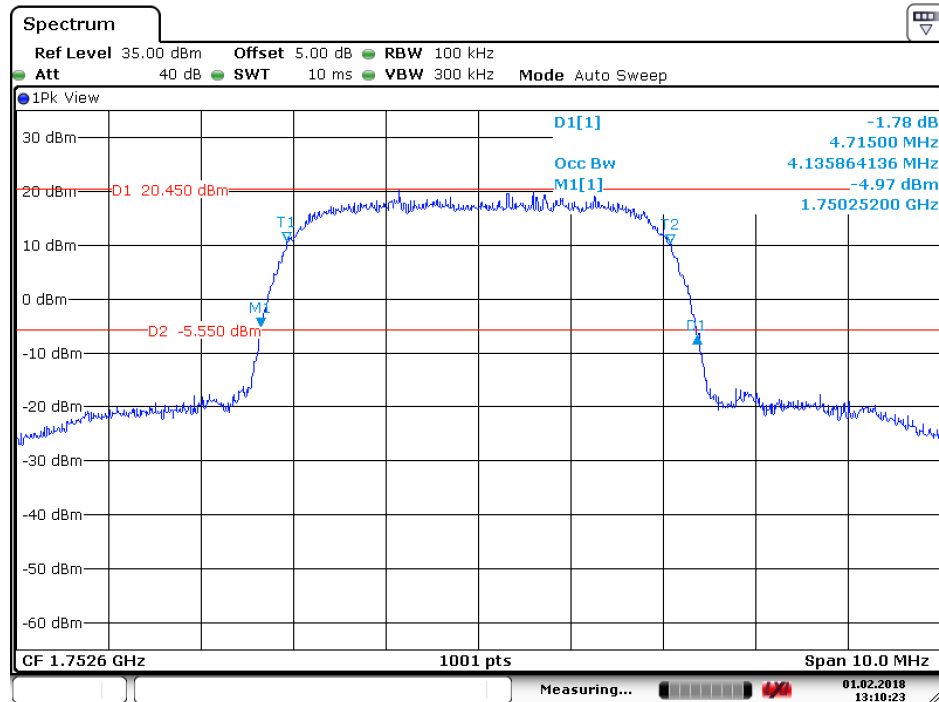
4.1.2.1.2 Test Channel = MCH



Date: 1.FEB.2018 13:08:58



4.1.2.1.3 Test Channel = HCH

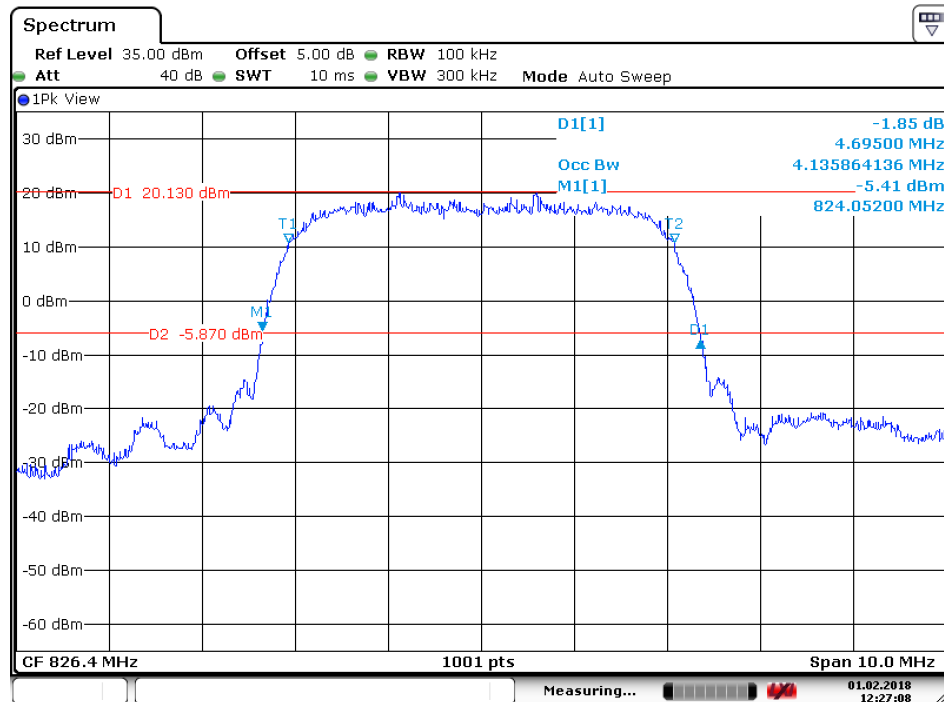


Date: 1.FEB.2018 13:10:24

4.1.3 Test Band = WCDMA 850

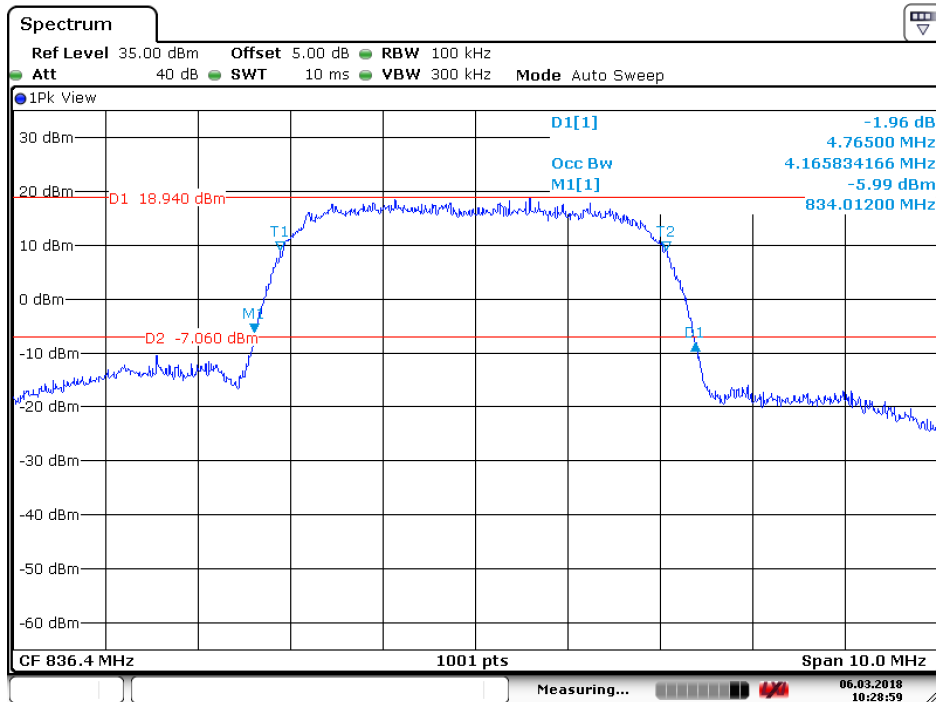
4.1.3.1 Test Mode = UMTS/TM1

4.1.3.1.1 Test Channel = LCH



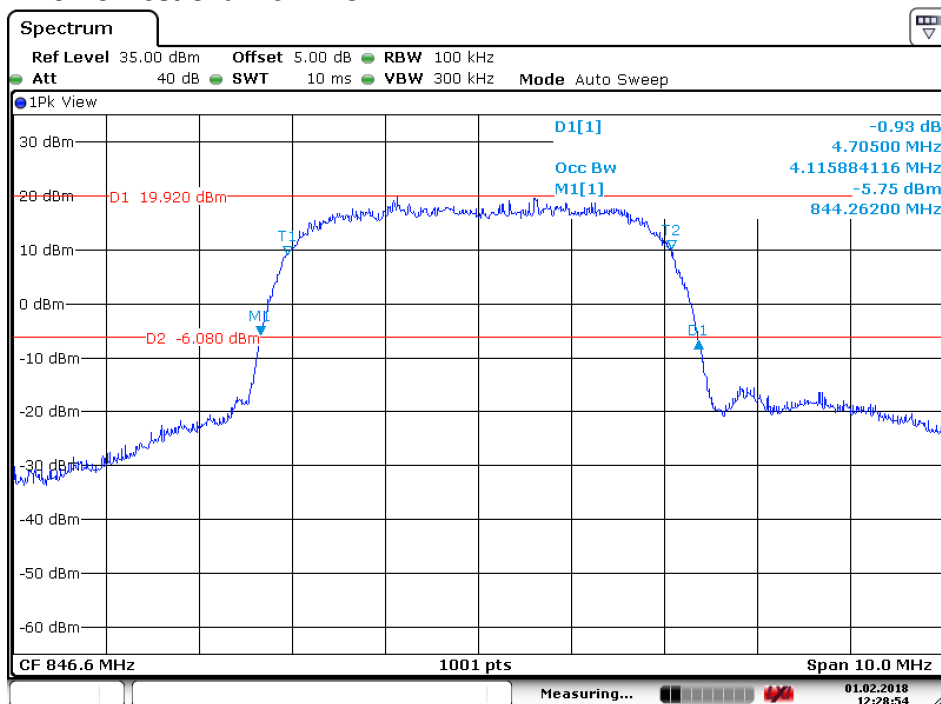
Date: 1.FEB.2018 12:27:09

4.1.3.1.2 Test Channel = MCH



Date: 6.MAR.2018 10:28:59

4.1.3.1.3 Test Channel = HCH



Date: 1.FEB.2018 12:28:54



5 Band Edges Compliance

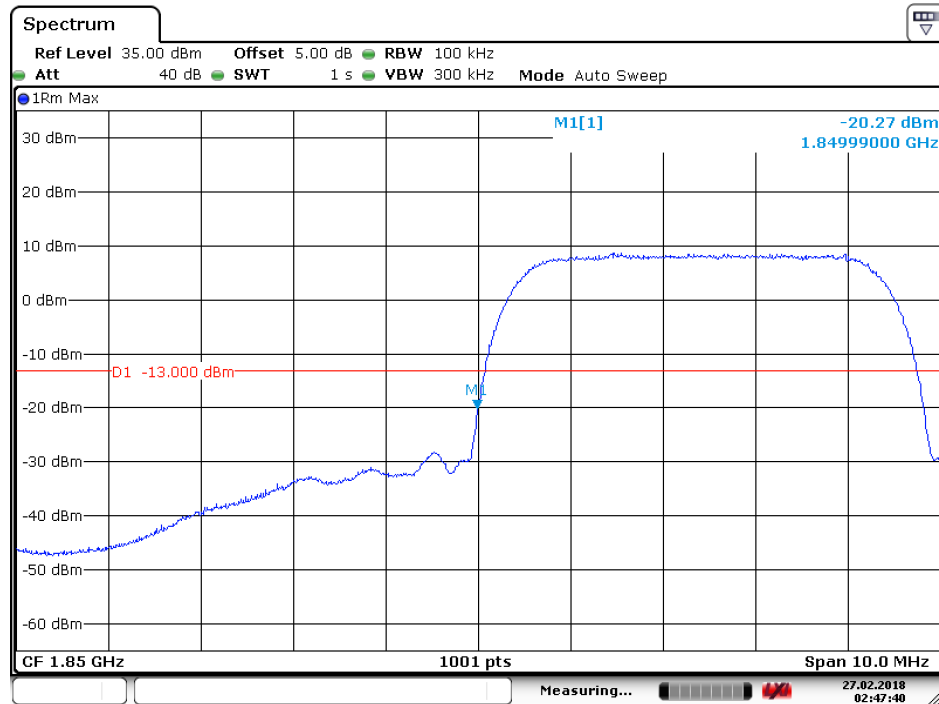
Part I - Test Plots

5.1 For WCDMA

5.1.1 Test Band = WCDMA 1900

5.1.1.1 Test Mode = UMTS/TM1

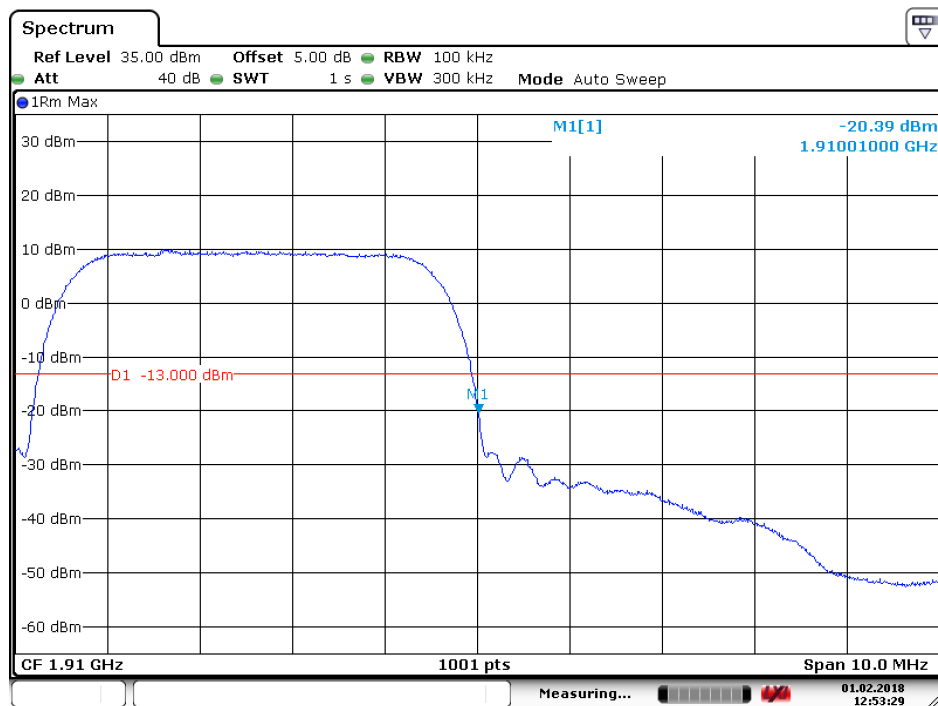
5.1.1.1.1 Test Channel = LCH



Date: 27.FEB.2018 02:47:40



5.1.1.1.2 Test Channel = HCH

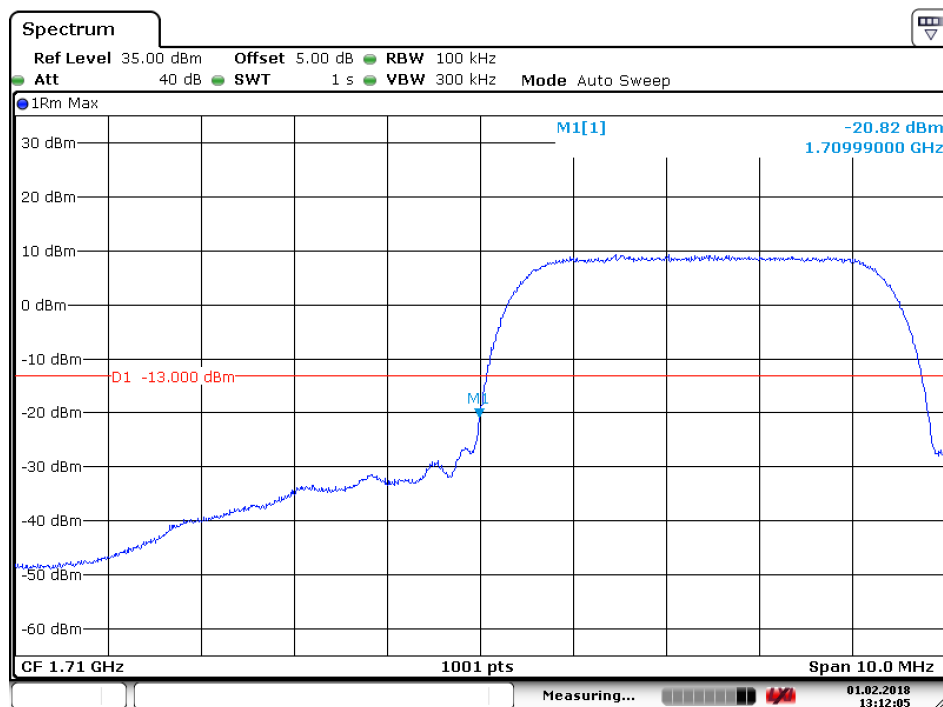


Date: 1.FEB.2018 12:53:29

5.1.2 Test Band = WCDMA 1700

5.1.2.1 Test Mode = UMTS/TM1

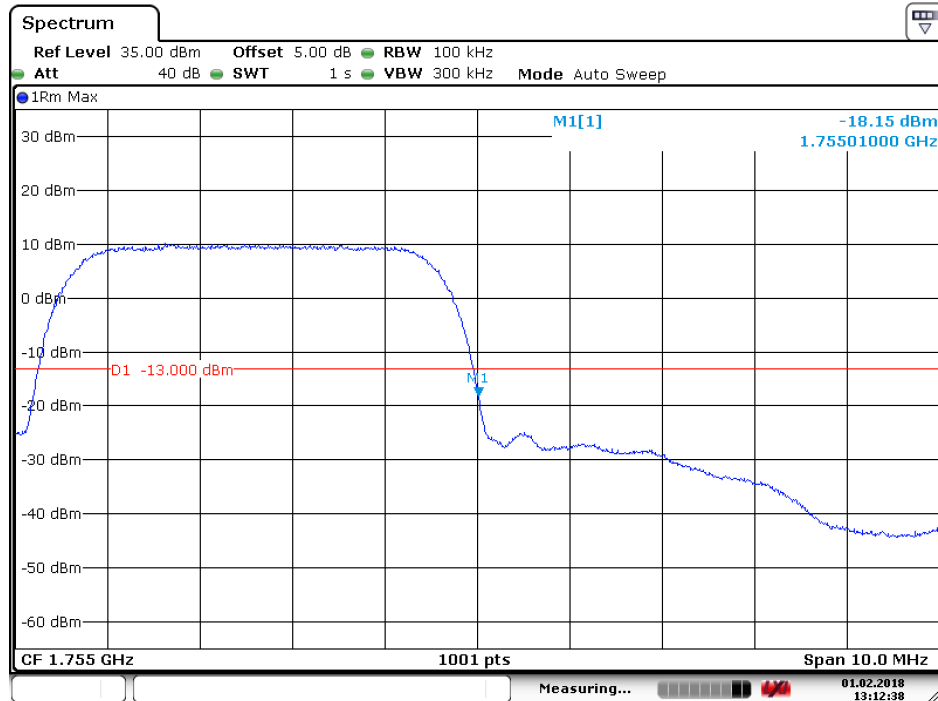
5.1.2.1.1 Test Channel = LCH



Date: 1.FEB.2018 13:12:05



5.1.2.1.2 Test Channel = HCH

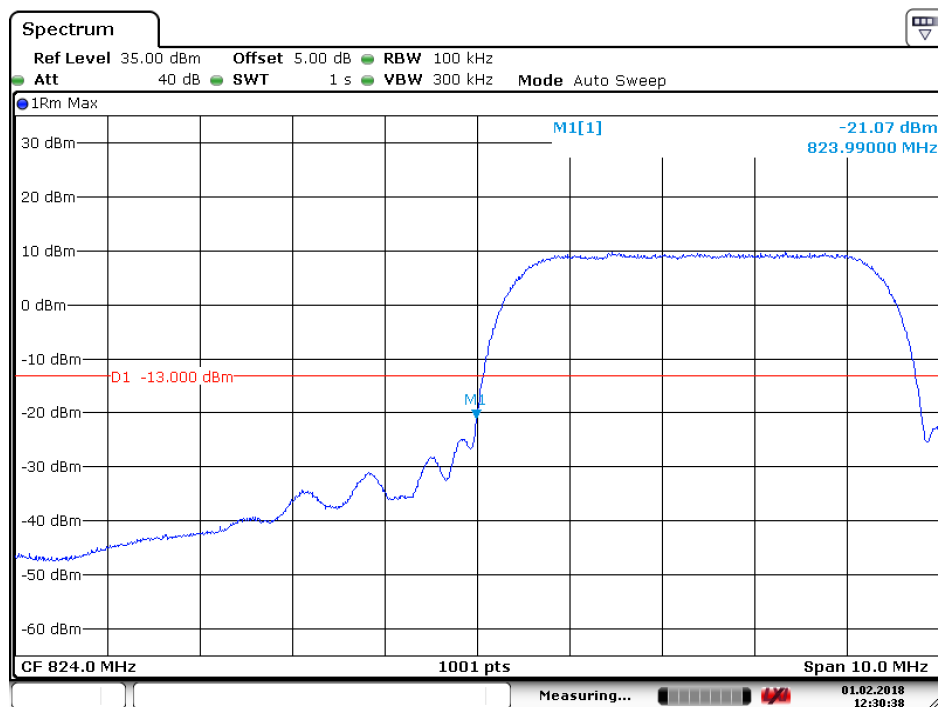


Date: 1.FEB.2018 13:12:38

5.1.3 Test Band = WCDMA 850

5.1.3.1 Test Mode = UMTS/TM1

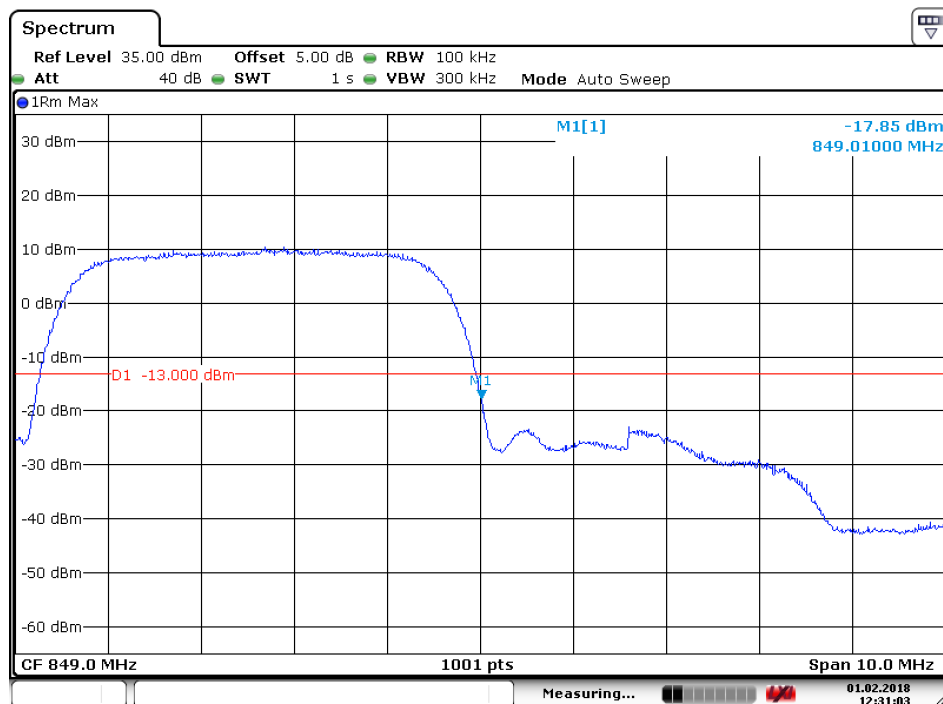
5.1.3.1.1 Test Channel = LCH



Date: 1.FEB.2018 12:30:38



5.1.3.1.2 Test Channel = HCH



Date: 1.FEB.2018 12:31:04



6 Spurious Emission at Antenna Terminal

NOTE: 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 = $k * (Span / RBW)$ " with k between 4 and 5, which results in an acceptable level error of less than 0.5 dB.

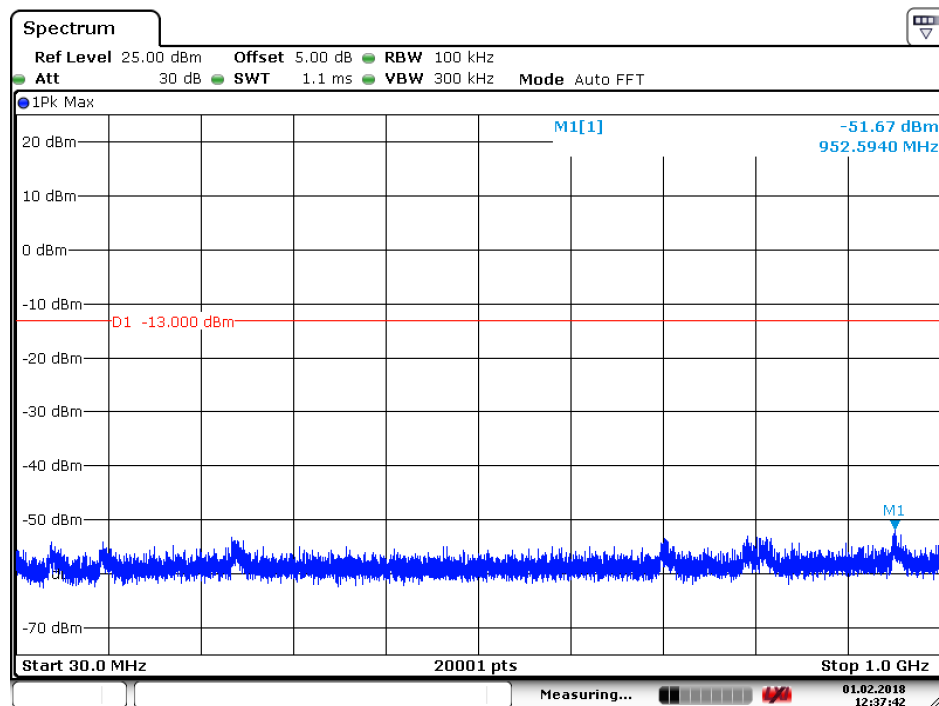
Part I - Test Plots

6.1 For WCDMA

6.1.1 Test Band = WCDMA 1900

6.1.1.1 Test Mode = UMTS/TM1

6.1.1.1.1 Test Channel = LCH



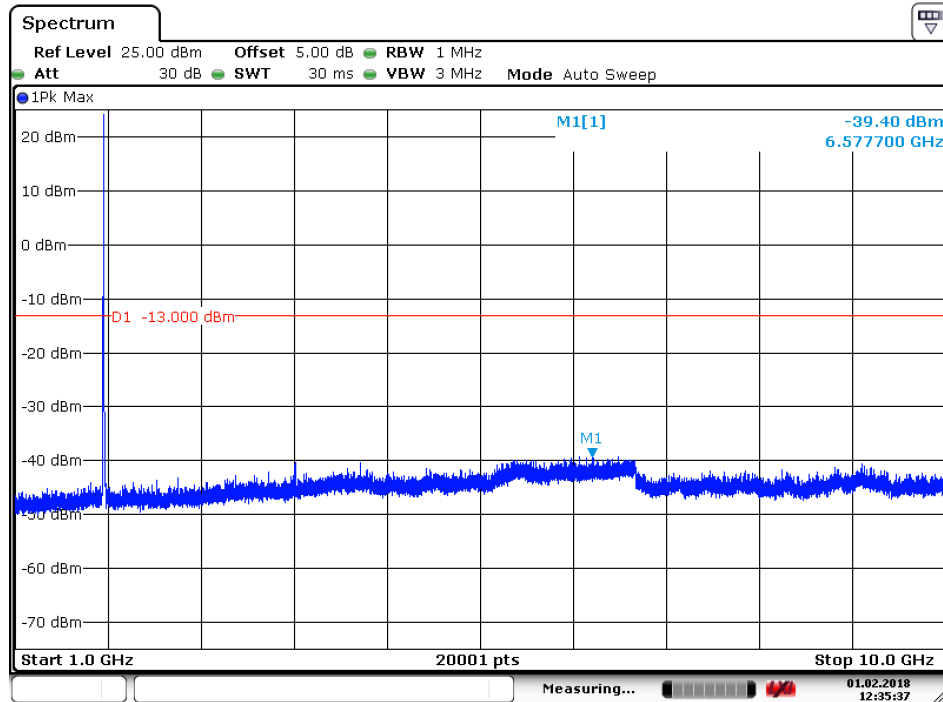
Date: 1.FEB.2018 12:37:42



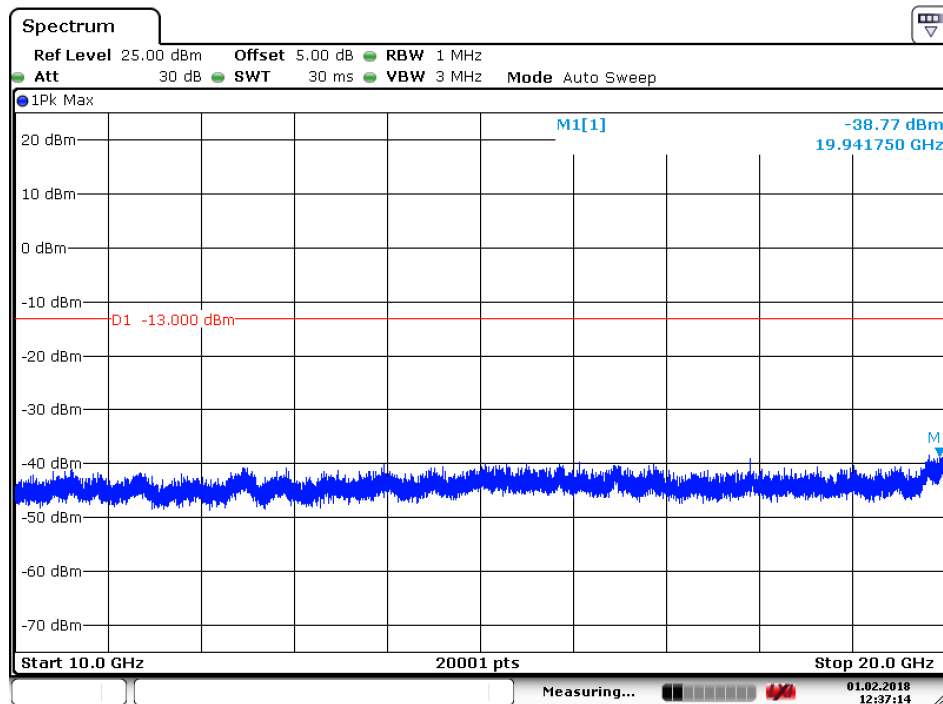
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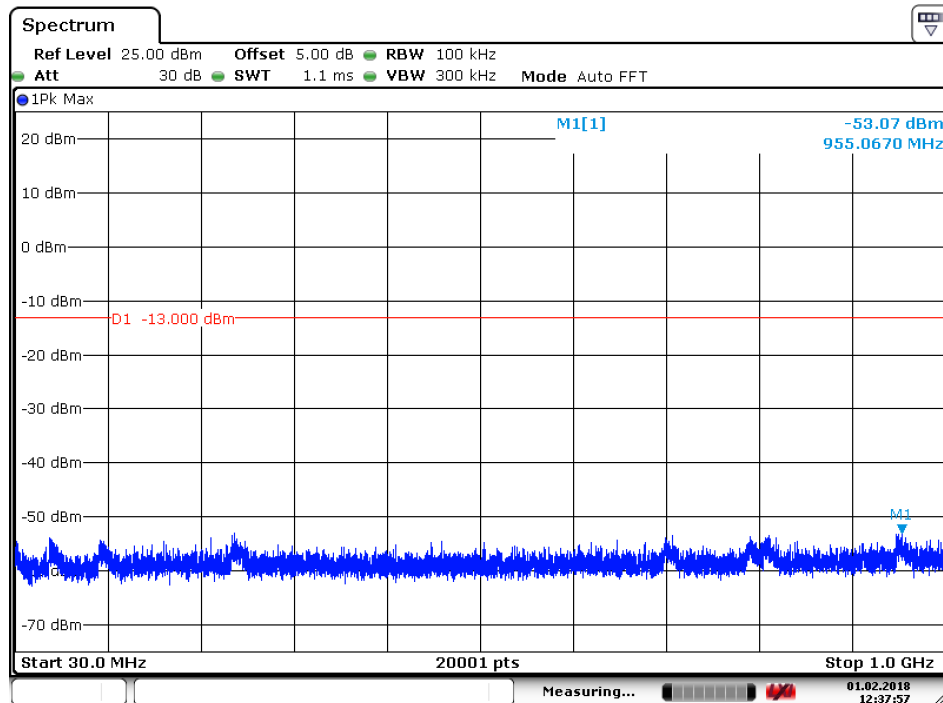
Date: 1.FEB.2018 12:35:37



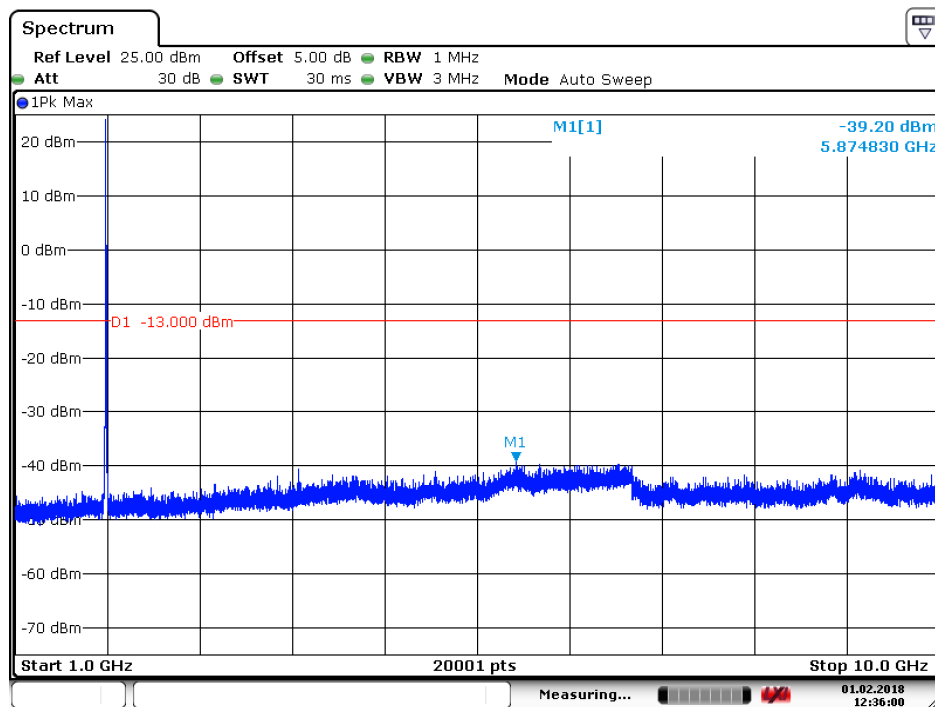
Date: 1.FEB.2018 12:37:15



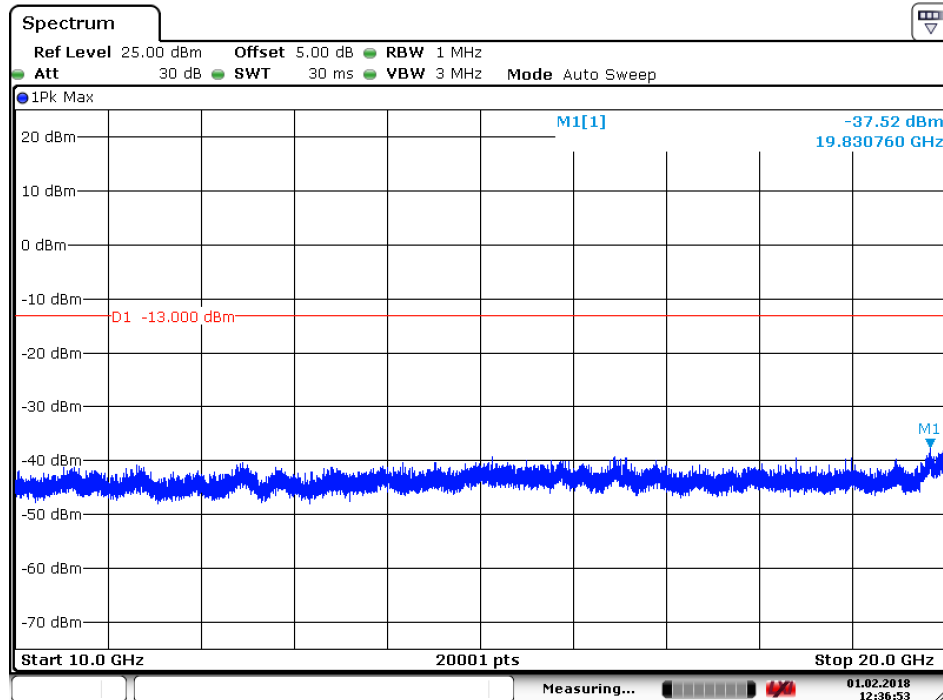
6.1.1.1.2 Test Channel = MCH



Date: 1.FEB.2018 12:37:57

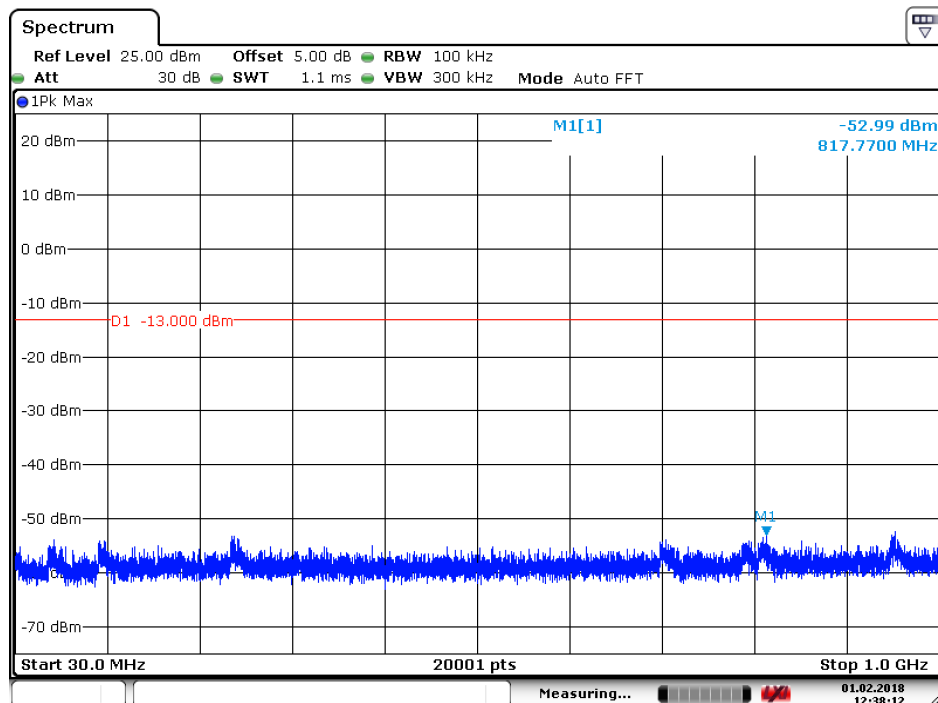


Date: 1.FEB.2018 12:36:01



Date: 1.FEB.2018 12:36:54

6.1.1.1.3 Test Channel = HCH



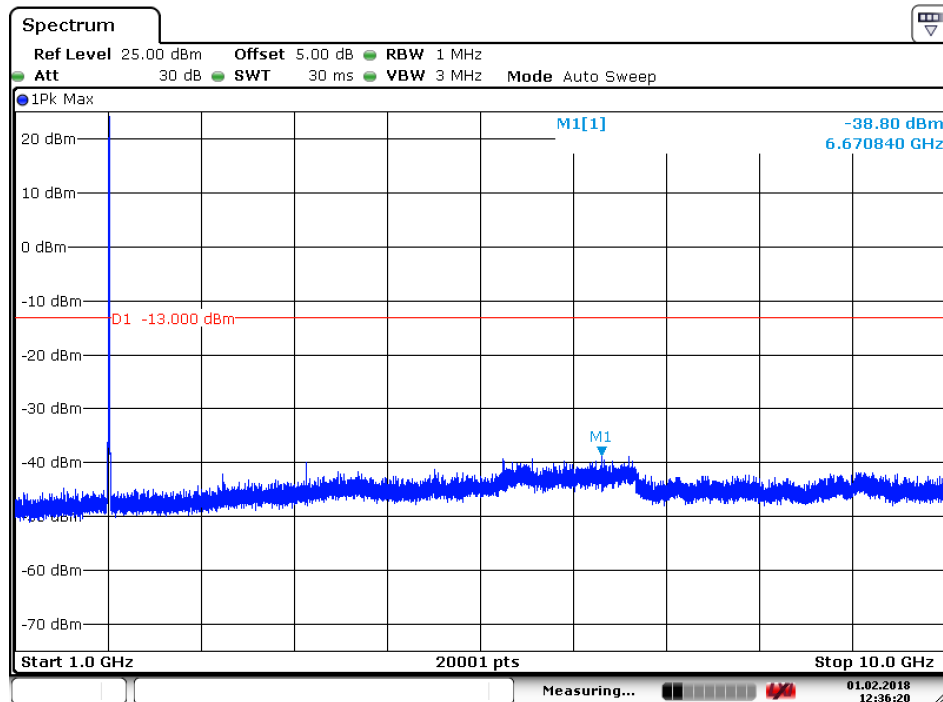
Date: 1.FEB.2018 12:38:13



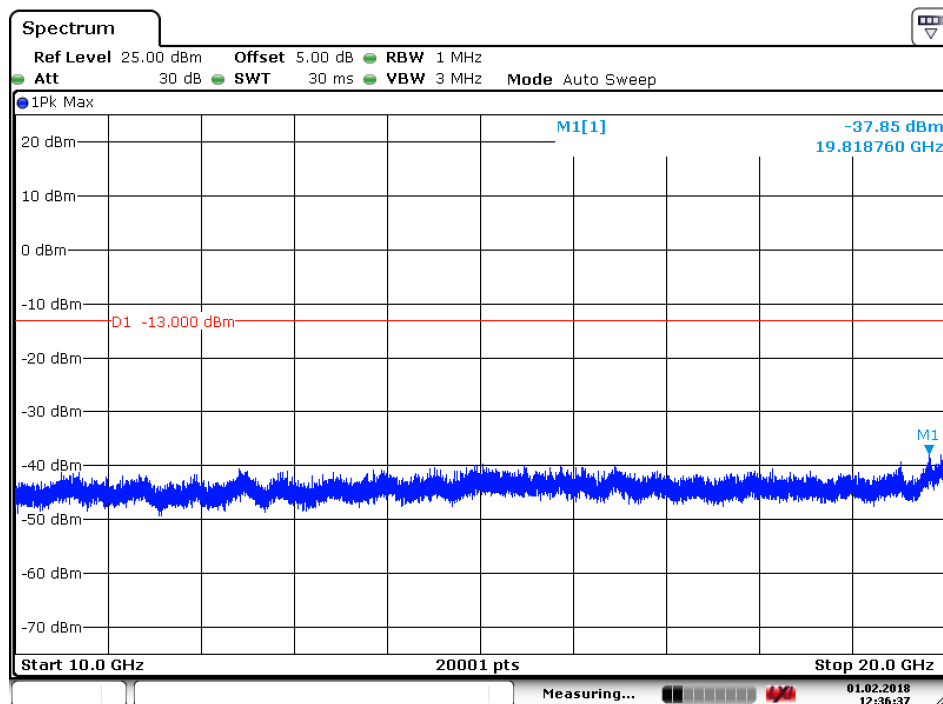
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Date: 1.FEB.2018 12:36:20



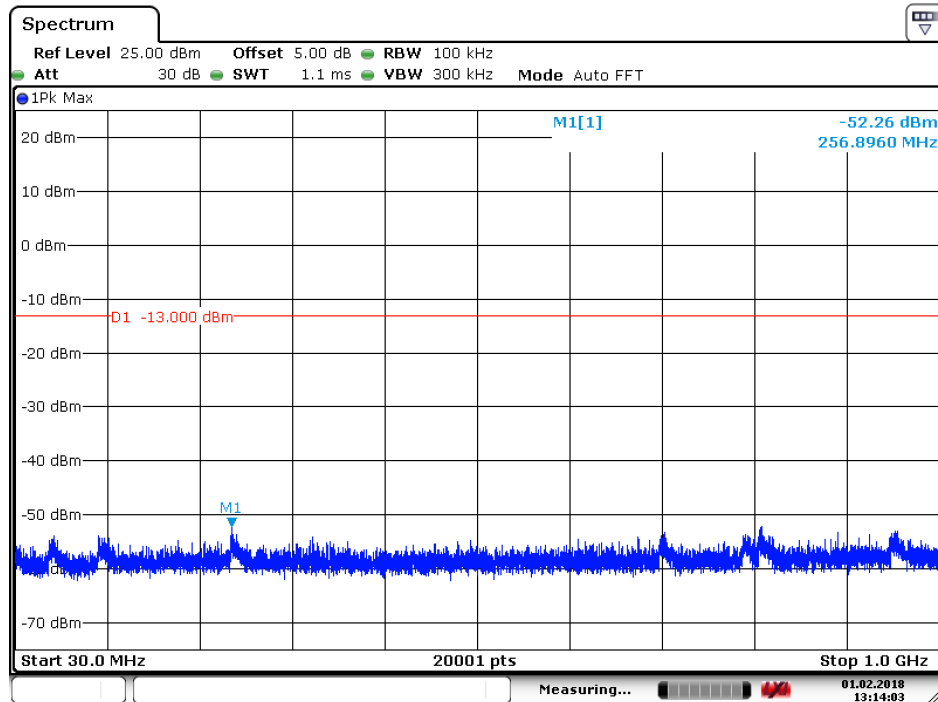
Date: 1.FEB.2018 12:36:37



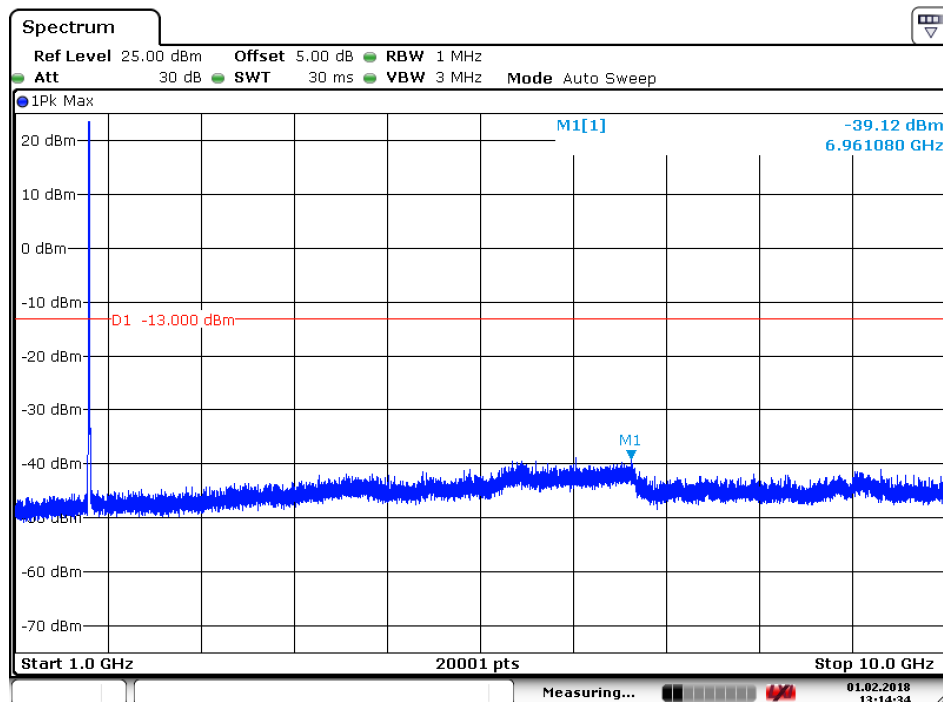
6.1.2 Test Band = WCDMA 1700

6.1.2.1 Test Mode = UMTS/TM1

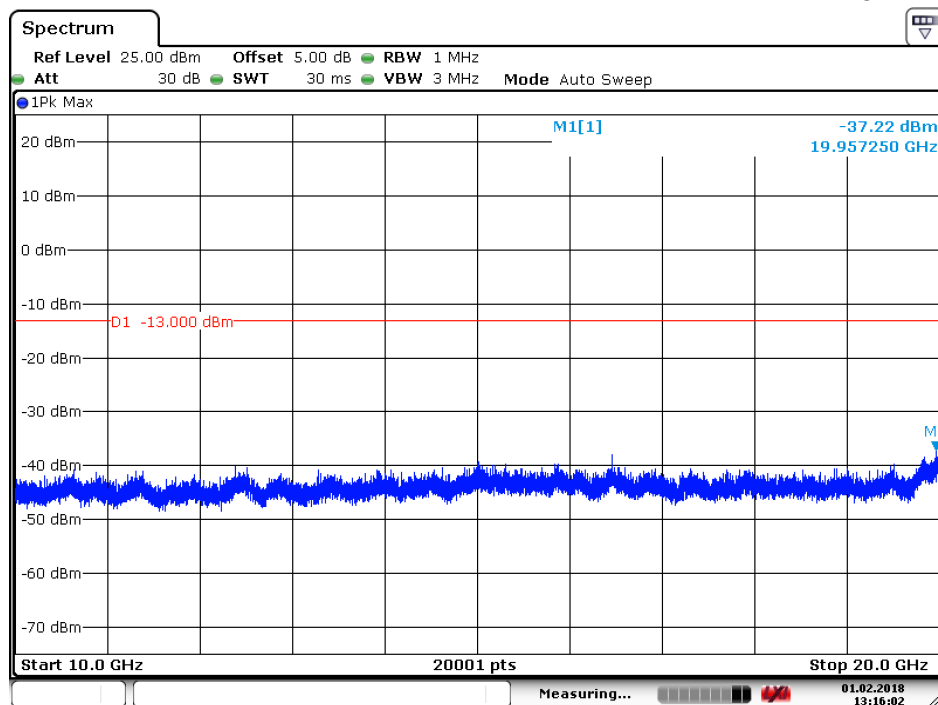
6.1.2.1.1 Test Channel = LCH



Date: 1.FEB.2018 13:14:04

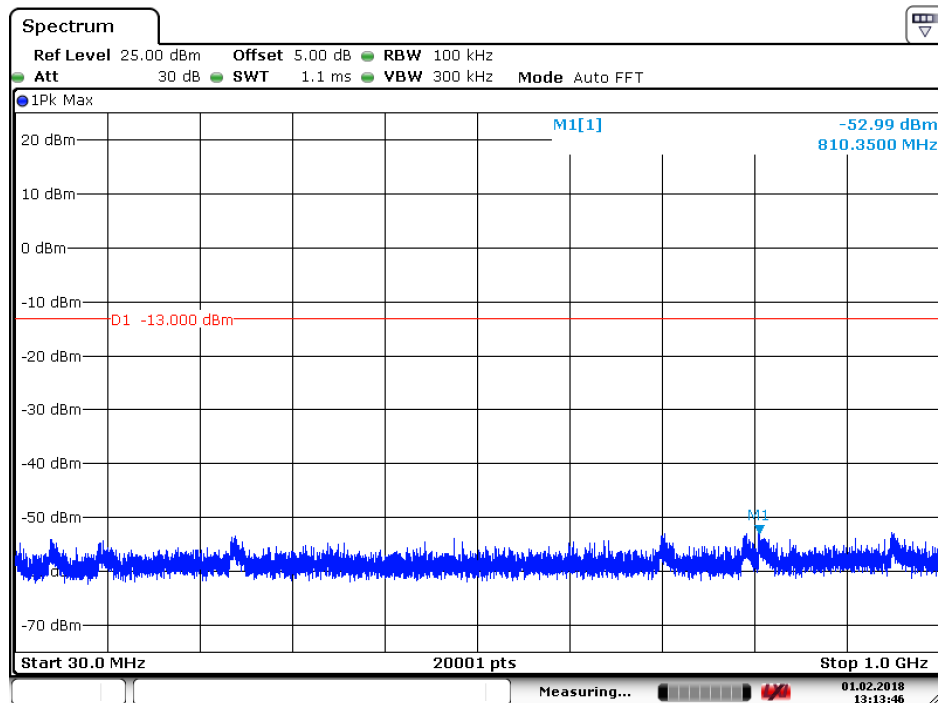


Date: 1.FEB.2018 13:14:35



Date: 1.FEB.2018 13:16:02

6.1.2.1.2 Test Channel = MCH



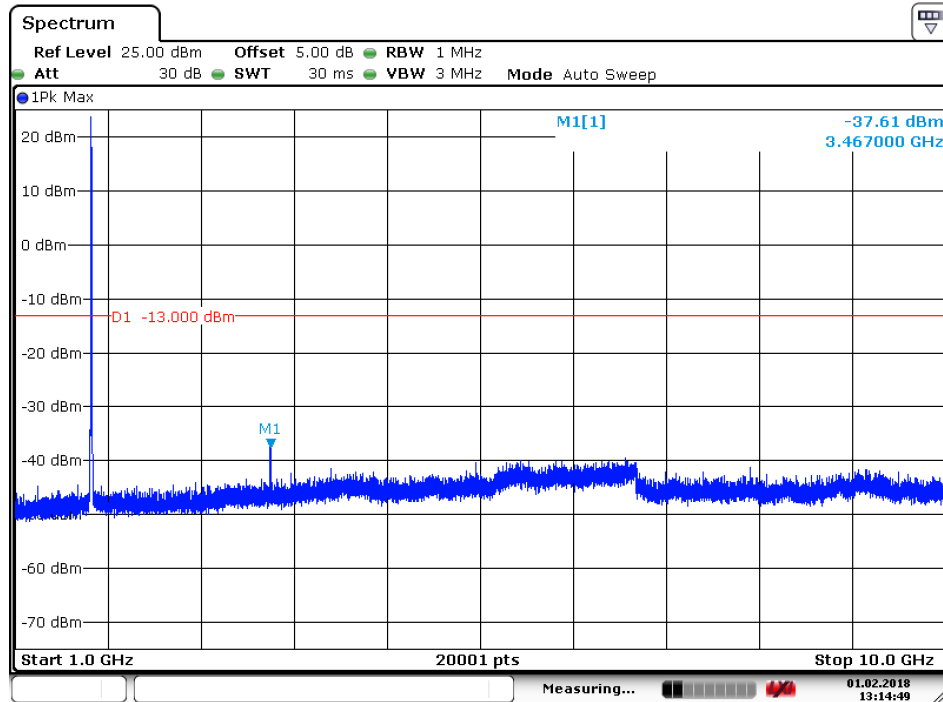
Date: 1.FEB.2018 13:13:46



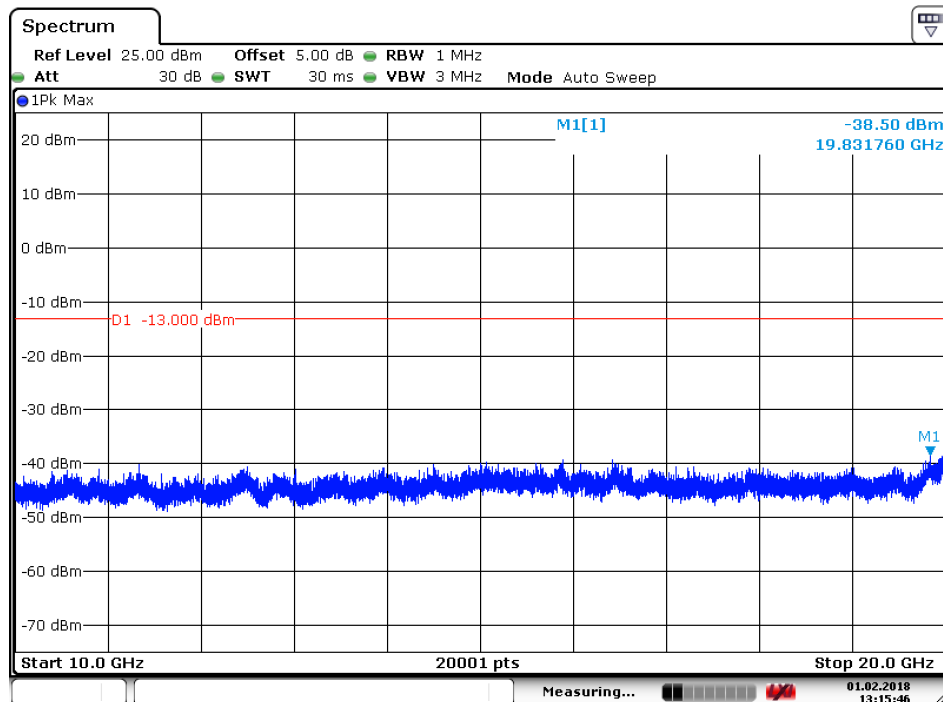
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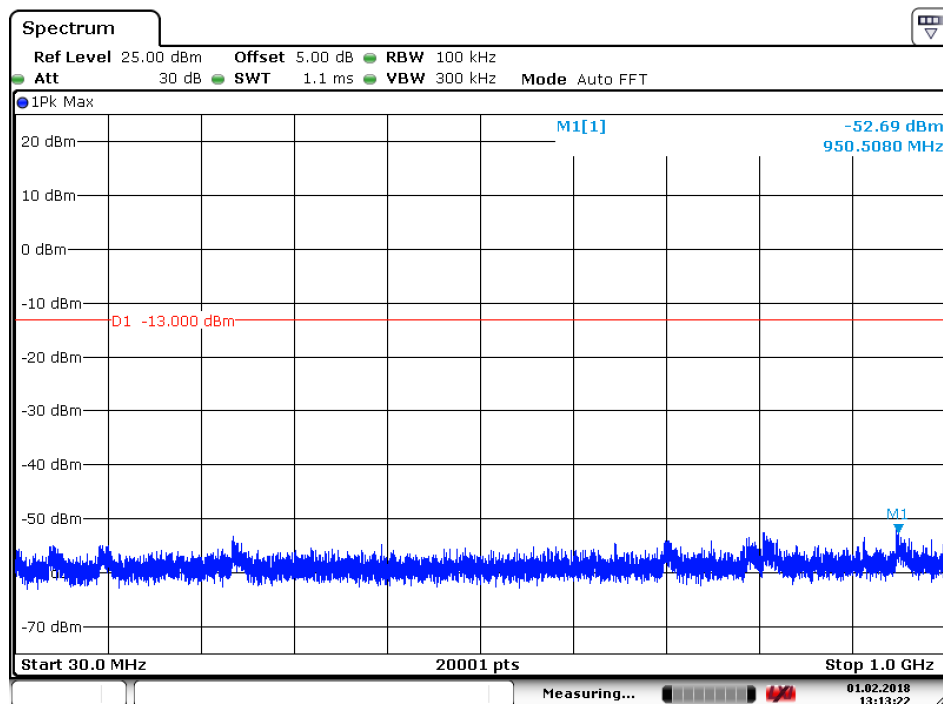
Date: 1.FEB.2018 13:14:49



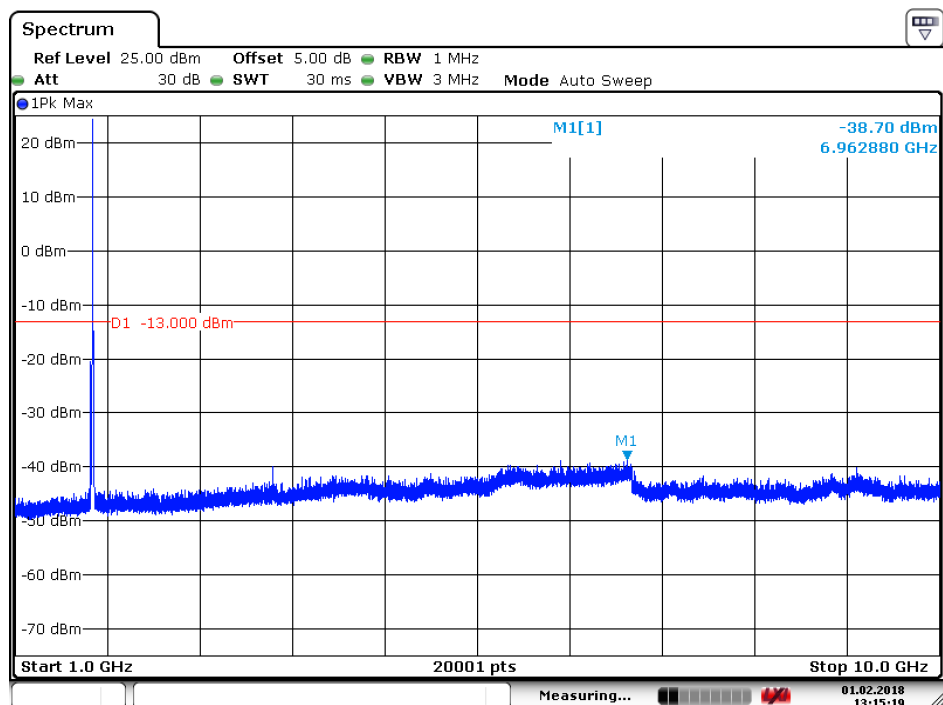
Date: 1.FEB.2018 13:15:47



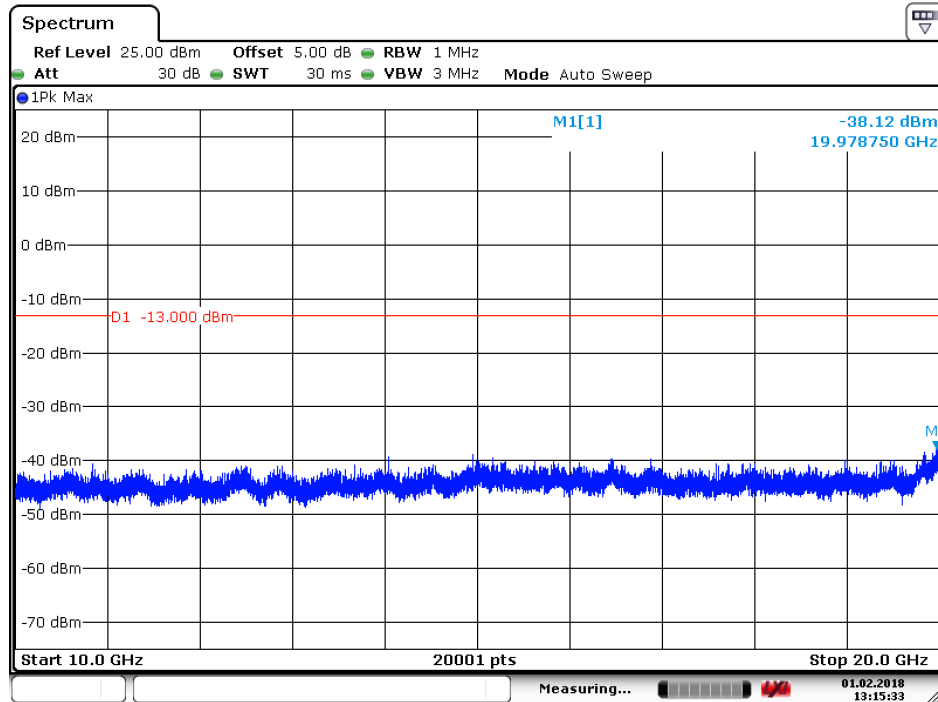
6.1.2.1.3 Test Channel = HCH



Date: 1.FEB.2018 13:13:22



Date: 1.FEB.2018 13:15:19

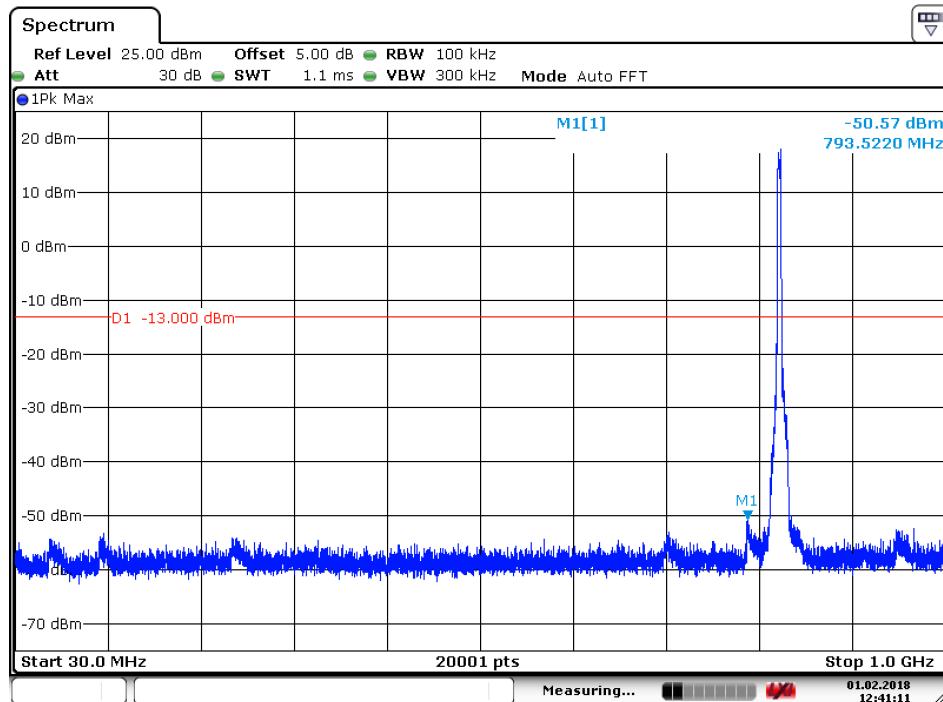


Date: 1.FEB.2018 13:15:34

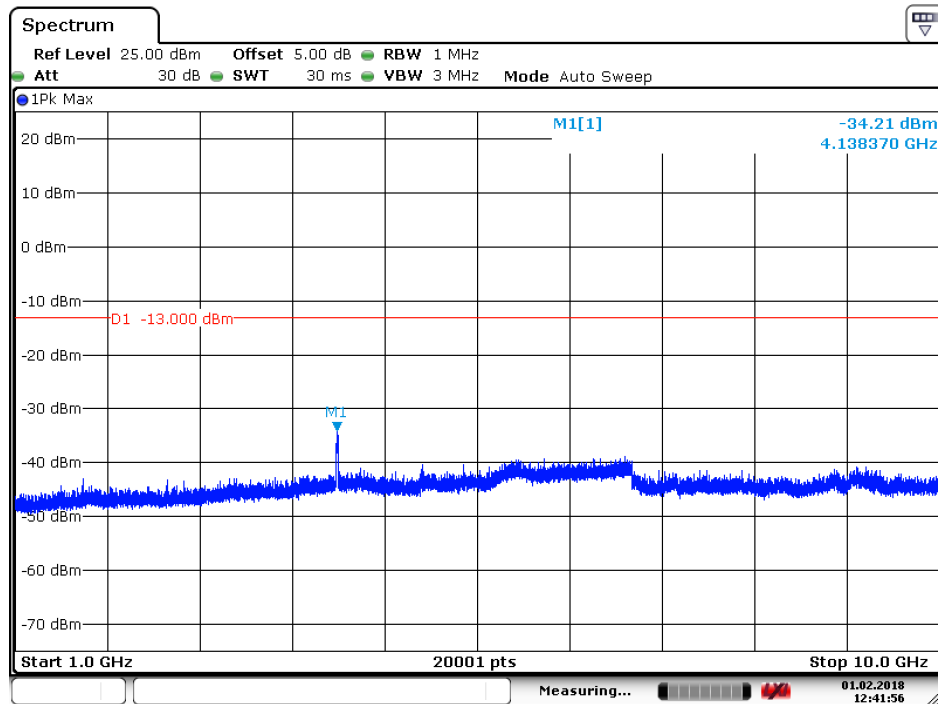
6.1.3 Test Band = WCDMA 850

6.1.3.1 Test Mode = UMTS/TM1

6.1.3.1.1 Test Channel = LCH

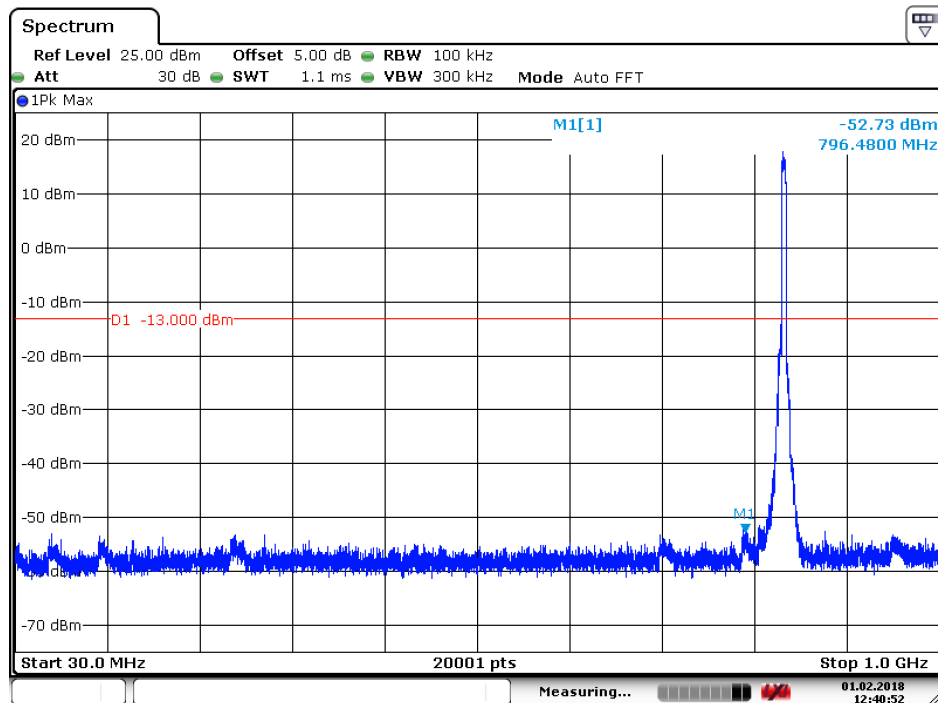


Date: 1.FEB.2018 12:41:11

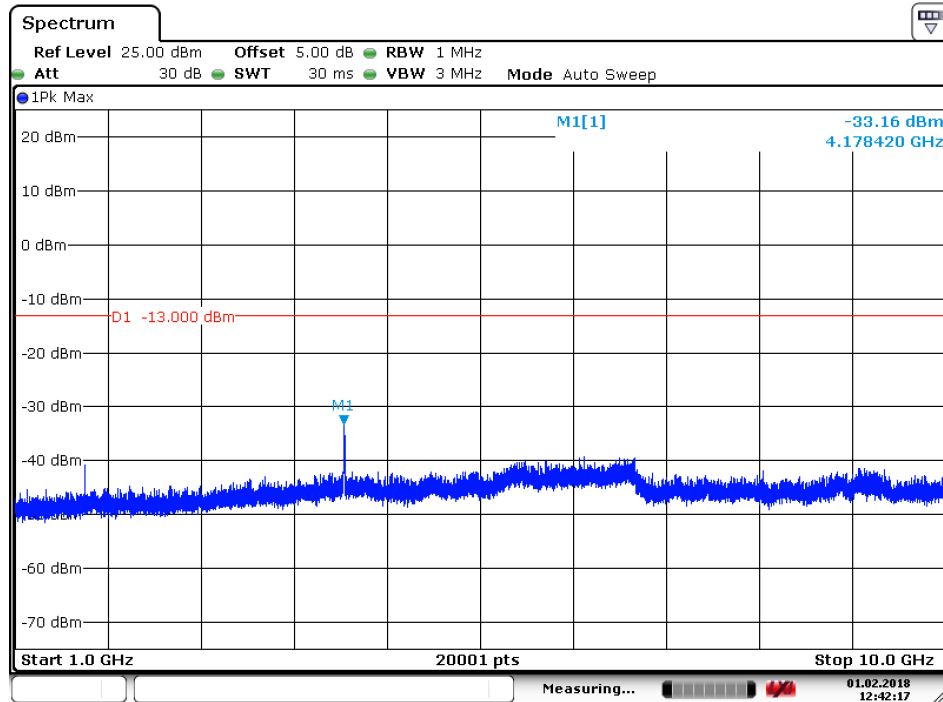


Date: 1.FEB.2018 12:41:57

6.1.3.1.2 Test Channel = MCH

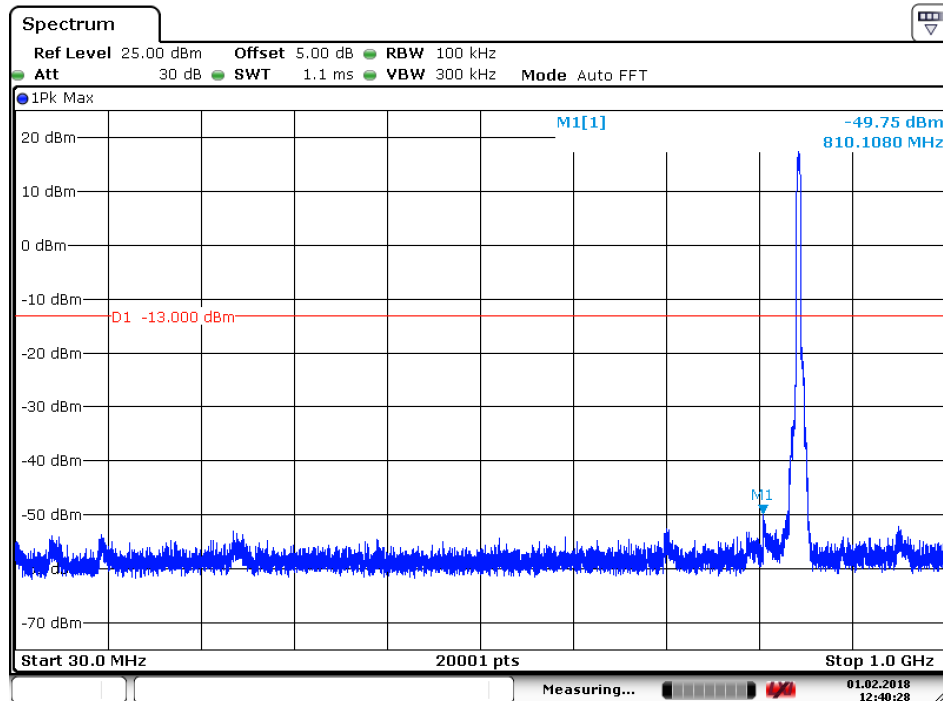


Date: 1.FEB.2018 12:40:52

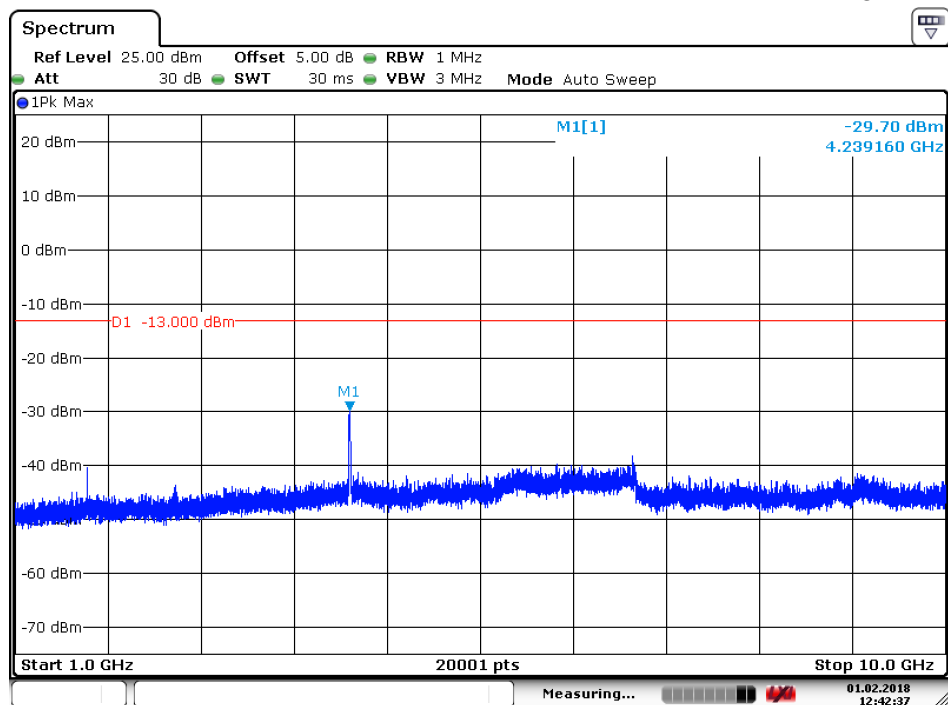


Date: 1.FEB.2018 12:42:17

6.1.3.1.3 Test Channel = HCH



Date: 1.FEB.2018 12:40:28



Date: 1.FEB.2018 12:42:37



7 Field Strength of Spurious Radiation

Part I - Test Plots

7.1 For WCDMA

7.1.1 Test Band = WCDMA 1900

7.1.1.1 Test Mode = UMTS/TM1

7.1.1.1.1 Test Channel = LCH

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Over Limit (dB)	Polarization
1271.000000	-49.59	-13.00	-36.59	Vertical
1040.833333	-48.83	-13.00	-35.83	Vertical
2387.000000	-59.08	-13.00	-46.08	Vertical
4722.337500	-54.80	-13.00	-41.80	Vertical
5006.062500	-66.59	-13.00	-53.59	Vertical
7939.837500	-52.08	-13.00	-39.08	Vertical
1475.500000	-48.44	-13.00	-35.44	Horizontal
2496.000000	-55.36	-30.00	-25.36	Horizontal
2800.000000	-56.95	-13.00	-43.95	Horizontal
4286.512500	-66.88	-13.00	-53.88	Horizontal
4699.425000	-54.93	-13.00	-41.93	Horizontal
7807.725000	-51.77	-13.00	-38.77	Horizontal

7.1.1.1.2 Test Channel = MCH

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Over Limit (dB)	Polarization
3842.400000	-56.03	-13.00	-43.03	Vertical
1279.000000	-66.24	-13.00	-53.24	Vertical
2800.000000	-57.46	-13.00	-44.46	Vertical
4849.087500	-55.40	-13.00	-42.40	Vertical
7748.250000	-53.26	-13.00	-40.26	Vertical
9847.912500	-64.62	-13.00	-51.62	Vertical
1289.500000	-50.15	-13.00	-37.15	Horizontal
2691.000000	-57.47	-13.00	-44.47	Horizontal
4299.187500	-53.47	-13.00	-40.47	Horizontal
7186.162500	-52.97	-13.00	-39.97	Horizontal
7934.475000	-64.01	-13.00	-51.01	Horizontal
9847.912500	-64.62	-13.00	-51.62	Horizontal

7.1.1.1.3 Test Channel = HCH

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Over Limit (dB)	Polarization
1103.000000	-66.36	-13.00	-53.36	Vertical
2608.000000	-58.15	-13.00	-45.15	Vertical
4244.587500	-54.93	-13.00	-41.93	Vertical

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6472.462500	-65.19	-13.00	-52.19	Vertical
7792.612500	-51.99	-13.00	-38.99	Vertical
10208.175000	-52.74	-13.00	-39.74	Vertical
1476.000000	-49.60	-13.00	-36.60	Horizontal
3298.350000	-63.31	-13.00	-50.31	Horizontal
4147.087500	-55.22	-13.00	-42.22	Horizontal
5488.687500	-54.65	-13.00	-41.65	Horizontal
6595.800000	-65.22	-13.00	-52.22	Horizontal
7235.400000	-64.62	-13.00	-51.62	Horizontal

7.1.2 Test Band = WCDMAband 1700

7.1.2.1 Test Mode = UMTS/TM1

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Over Limit (dB)	Polarization
1208.500000	-49.01	-13.00	-36.01	Vertical
1523.500000	-49.31	-13.00	-36.31	Vertical
2748.000000	-45.45	-13.00	-32.45	Vertical
4269.450000	-54.65	-13.00	-41.65	Vertical
5909.887500	-53.38	-13.00	-40.38	Vertical
7914.000000	-51.86	-13.00	-38.86	Vertical
1270.500000	-50.44	-13.00	-37.44	Horizontal
1645.000000	-47.68	-13.00	-34.68	Horizontal
2810.500000	-44.66	-13.00	-31.66	Horizontal
4032.525000	-56.23	-13.00	-43.23	Horizontal
4726.725000	-54.24	-13.00	-41.24	Horizontal
6707.437500	-52.91	-13.00	-39.91	Horizontal

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7.1.2.1.1 Test Channel = MCH

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Over Limit (dB)	Polarization
1209.000000	-49.34	-13.00	-36.34	Vertical
2572.500000	-46.91	-13.00	-33.91	Vertical
4298.212500	-53.72	-13.00	-40.72	Vertical
5182.050000	-54.20	-13.00	-41.20	Vertical
6131.700000	-53.72	-13.00	-40.72	Vertical
7755.562500	-52.44	-13.00	-39.44	Vertical
1167.000000	-50.85	-13.00	-37.85	Horizontal
1487.500000	-49.01	-13.00	-36.01	Horizontal
2606.000000	-46.20	-13.00	-33.20	Horizontal
4614.112500	-54.88	-13.00	-41.88	Horizontal
5952.787500	-54.04	-13.00	-41.04	Horizontal
7079.887500	-52.58	-13.00	-39.58	Horizontal



7.1.2.1.2 Test Channel = HCH

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Over Limit (dB)	Polarization
1215.000000	-49.17	-13.00	-36.17	Vertical
1611.000000	-48.73	-13.00	-35.73	Vertical
2811.000000	-45.57	-13.00	-32.57	Vertical
4280.175000	-55.12	-13.00	-42.12	Vertical
5948.887500	-53.26	-13.00	-40.26	Vertical
7938.862500	-51.60	-13.00	-38.60	Vertical
1193.000000	-50.61	-13.00	-37.61	Horizontal
1454.500000	-49.27	-13.00	-36.27	Horizontal
2601.500000	-45.94	-13.00	-32.94	Horizontal
3755.137500	-56.38	-13.00	-43.38	Horizontal
4660.425000	-54.85	-13.00	-41.85	Horizontal
6182.400000	-53.64	-13.00	-40.64	Horizontal

7.1.3 Test Band = WCDMAband 850

7.1.3.1 Test Mode = UMTS/TM1

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Over Limit (dB)	Polarization
1192.500000	-50.46	-13.00	-37.46	Vertical
1460.000000	-49.41	-13.00	-36.41	Vertical
2655.500000	-45.29	-13.00	-32.29	Vertical
4529.287500	-55.34	-13.00	-42.34	Vertical
5752.912500	-54.61	-13.00	-41.61	Vertical
7211.025000	-53.40	-13.00	-40.40	Vertical
1249.000000	-50.97	-13.00	-37.97	Horizontal
1676.500000	-47.78	-13.00	-34.78	Horizontal
2770.500000	-45.00	-13.00	-32.00	Horizontal
4010.587500	-55.73	-13.00	-42.73	Horizontal
5961.562500	-53.66	-13.00	-40.66	Horizontal
7841.362500	-52.42	-13.00	-39.42	Horizontal

-

7.1.3.1.1 Test Channel = MCH

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Over Limit (dB)	Polarization
1251.000000	-49.76	-13.00	-36.76	Vertical
3213.525000	-55.66	-13.00	-42.66	Vertical
3450.937500	-56.96	-13.00	-43.96	Vertical
4097.850000	-54.12	-13.00	-41.12	Vertical
5998.612500	-53.73	-13.00	-40.73	Vertical
6948.750000	-52.25	-13.00	-39.25	Vertical



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1195.500000	-51.23	-13.00	-38.23	Horizontal
1662.500000	-47.60	-13.00	-34.60	Horizontal
3799.987500	-56.31	-13.00	-43.31	Horizontal
5328.300000	-54.77	-13.00	-41.77	Horizontal
6714.750000	-53.62	-13.00	-40.62	Horizontal
7924.237500	-52.01	-13.00	-39.01	Horizontal

-

7.1.3.1.2 Test Channel = HCH

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Over Limit (dB)	Polarization
1296.000000	-50.02	-13.00	-37.02	Vertical
1697.000000	-47.41	-13.00	-34.41	Vertical
2673.500000	-44.66	-13.00	-31.66	Vertical
4226.062500	-54.00	-13.00	-41.00	Vertical
6707.925000	-51.69	-13.00	-38.69	Vertical
8612.100000	-50.49	-13.00	-37.49	Vertical
1244.500000	-50.91	-13.00	-37.91	Horizontal
1459.000000	-49.93	-13.00	-36.93	Horizontal
2707.000000	-45.63	-13.00	-32.63	Horizontal
4397.175000	-55.06	-13.00	-42.06	Horizontal
5501.850000	-54.73	-13.00	-41.73	Horizontal
6916.087500	-53.60	-13.00	-40.60	Horizontal

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NOTE:

- 1) The disturbance above 13GHz and below 30MHz was very low, and the above harmonics were the highest point could be found when testing, so only the above harmonics had been displayed.



8 Frequency Stability

8.1 Frequency Error VS. Voltage

Test Band	Test Mode	Test Channel	Test Temp.	Test Volt.	Freq. Error [Hz]	Freq. vs. rated [ppm]	Verdict
WCDMA 1900	UMTS/TM1	LCH	TN	VL	2.42	0.00131	PASS
				VN	-0.38	-0.00021	PASS
				VH	0.702	0.00038	PASS
		MCH	TN	VL	1.83	0.00097	PASS
				VN	2.75	0.00146	PASS
				VH	-1.37	-0.00073	PASS
		HCH	TN	VL	1.64	0.00086	PASS
				VN	-2.73	-0.00143	PASS
				VH	-1.34	-0.00070	PASS

Test Band	Test Mode	Test Channel	Test Temp.	Test Volt.	Freq. Error [Hz]	Freq. vs. rated [ppm]	Verdict
WCDMA 1700	UMTS/TM1	LCH	TN	VL	-3.50	-0.00204	PASS
				VN	-2.48	-0.00145	PASS
				VH	2.32	0.00135	PASS
		MCH	TN	VL	-3.84	-0.00222	PASS
				VN	0.34	0.00020	PASS
				VH	-2.45	-0.00141	PASS
		HCH	TN	VL	1.76	0.00100	PASS
				VN	-4.61	-0.00263	PASS
				VH	2.80	0.00160	PASS

Test Band	Test Mode	Test Channel	Test Temp.	Test Volt.	Freq. Error [Hz]	Freq. vs. rated [ppm]	Verdict
WCDMA 850	UMTS/TM1	LCH	TN	VL	-3.38	-0.00409	PASS
				VN	-1.48	-0.00179	PASS
				VH	2.32	0.00281	PASS
		MCH	TN	VL	-3.84	-0.00459	PASS
				VN	0.34	0.00041	PASS
				VH	-2.45	-0.00293	PASS
		HCH	TN	VL	1.75	0.00207	PASS
				VN	-4.61	-0.00545	PASS
				VH	2.24	0.00265	PASS



8.2 Frequency Error VS. Temperature

Test Band	Test Mode	Test Channel	Test Volt.	Test Temp.	Freq. Error [Hz]	Freq. vs. rated [ppm]	Verdict
WCDMA 1900	UMTS/TM1	LCH	VN	-30	-4.74	0.00117	PASS
				-20	1.60	0.00229	PASS
				-10	2.67	0.00148	PASS
				0	-2.68	-0.00155	PASS
				10	0.56	0.00287	PASS
				20	-4.80	0.00094	PASS
				30	1.60	-0.00291	PASS
				40	-1.04	0.00132	PASS
				50	-6.01	0.00194	PASS
		MCH	VN	-30	-3.80	0.00103	PASS
				-20	-5.08	0.00278	PASS
				-10	-0.39	-0.00130	PASS
				0	-3.38	0.00233	PASS
				10	1.31	0.00071	PASS
				20	2.72	0.00126	PASS
				30	1.61	-0.00237	PASS
				40	0.13	-0.00129	PASS
				50	-4.35	0.00087	PASS
		HCH	VN	-30	-0.17	0.00369	PASS
				-20	3.68	0.00179	PASS
				-10	2.55	0.00226	PASS
				0	-5.52	-0.00183	PASS
				10	1.57	0.00133	PASS
				20	-2.78	0.00169	PASS
				30	3.64	-0.00145	PASS
				40	-0.63	0.00084	PASS
				50	-4.33	0.00148	PASS



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Test Band	Test Mode	Test Channel	Test Volt.	Test Temp.	Freq. Error [Hz]	Freq. vs. rated [ppm]	Verdict
WCDMA 1700	UMTS/TM1	LCH	VN	-30	-3.21	-0.00187	PASS
				-20	-4.95	-0.00289	PASS
				-10	1.98	0.00116	PASS
				0	-3.45	-0.00201	PASS
				10	-0.58	-0.00034	PASS
				20	1.08	0.00063	PASS
				30	-3.89	-0.00227	PASS
				40	-5.30	-0.00310	PASS
				50	-4.29	-0.00251	PASS
		MCH	VN	-30	-4.92	-0.00284	PASS
				-20	1.27	0.00073	PASS
				-10	-2.43	-0.00140	PASS
				0	4.84	0.00279	PASS
				10	-3.25	-0.00188	PASS
				20	-6.59	-0.00380	PASS
				30	-3.27	-0.00189	PASS
				40	-8.13	-0.00469	PASS
				50	-5.11	-0.00295	PASS
		HCH	VN	-30	-3.35	-0.00191	PASS
				-20	3.63	0.00207	PASS
				-10	1.85	0.00106	PASS
				0	-4.37	-0.00249	PASS
				10	-3.18	-0.00181	PASS
				20	-4.16	-0.00237	PASS
				30	1.31	0.00075	PASS
				40	-2.55	-0.00145	PASS
				50	-4.24	-0.00242	PASS



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Test Band	Test Mode	Test Channel	Test Volt.	Test Temp.	Freq. Error [Hz]	Freq. vs. rated [ppm]	Verdict
WCDMA 850	UMTS/TM1	LCH	VN	-30	2.17	0.00263	PASS
				-20	4.25	0.00514	PASS
				-10	2.75	0.00333	PASS
				0	-2.87	-0.00347	PASS
				10	5.32	0.00644	PASS
				20	1.74	0.00211	PASS
				30	-5.39	-0.00652	PASS
				40	2.45	0.00296	PASS
				50	3.60	0.00436	PASS
		MCH	VN	-30	1.94	0.00232	PASS
				-20	5.23	0.00625	PASS
				-10	-2.45	-0.00293	PASS
				0	4.38	0.00524	PASS
				10	1.34	0.00160	PASS
				20	2.37	0.00283	PASS
				30	-4.45	-0.00532	PASS
				40	-2.43	-0.00291	PASS
				50	1.64	0.00196	PASS
		HCH	VN	-30	7.04	0.00832	PASS
				-20	3.42	0.00404	PASS
				-10	4.32	0.00510	PASS
				0	-3.50	-0.00413	PASS
				10	2.54	0.00300	PASS
				20	3.22	0.00380	PASS
				30	-2.77	-0.00327	PASS
				40	1.60	0.00189	PASS
				50	2.83	0.00334	PASS

The End