



Appendix B

WCDMA Band 2&4&5



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1 Effective (Isotropic) Radiated Power Output Data

Part I - Test Results

Main Supply:

Test Band	Test Mode	Test Channel	Measured[dB]	EIRP[dB]	Limit[dBm]	Verdict
WCDMA1900	UMTS/TM1	LCH	23.39	23.34	33	PASS
		MCH	23.23	23.13	33	PASS
		HCH	23.47	23.41	33	PASS
WCDMA1700	UMTS/TM1	LCH	23.36	23.35	30	PASS
		MCH	23.03	22.96	30	PASS
		HCH	22.91	22.84	30	PASS

Note:

a: For getting the ERP (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[dB]	ERP[dB]	Limit[dBm]	Verdict
WCDMA850	UMTS/TM1	LCH	23.11	22.10	38.45	PASS
		MCH	23.40	22.26	38.45	PASS
		HCH	23.22	22.19	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



Secondary Supply:

Test Band	Test Mode	Test Channel	Measured[dB]	EIRP[dB]	Limit[dBm]	Verdict
WCDMA1900	UMTS/TM1	LCH	22.70	21.28	33	PASS
		MCH	22.42	21.12	33	PASS
		HCH	22.68	21.23	33	PASS
WCDMA1700	UMTS/TM1	LCH	23.33	20.60	30	PASS
		MCH	22.93	20.21	30	PASS
		HCH	22.92	20.19	30	PASS

Note:

a: For getting the ERP (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[dB]	ERP[dB]	Limit[dBm]	Verdict
WCDMA850	UMTS/TM1	LCH	22.58	21.57	38.45	PASS
		MCH	22.67	21.82	38.45	PASS
		HCH	22.78	21.96	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	2.96	13	PASS
		MCH	2.75	13	PASS
		HCH	2.84	13	PASS
WCDMA1700	UMTS/TM1	LCH	3.42	13	PASS
		MCH	3.39	13	PASS
		HCH	3.45	13	PASS
WCDMA850	UMTS/TM1	LCH	3.07	13	PASS
		MCH	3.04	13	PASS
		HCH	2.67	13	PASS



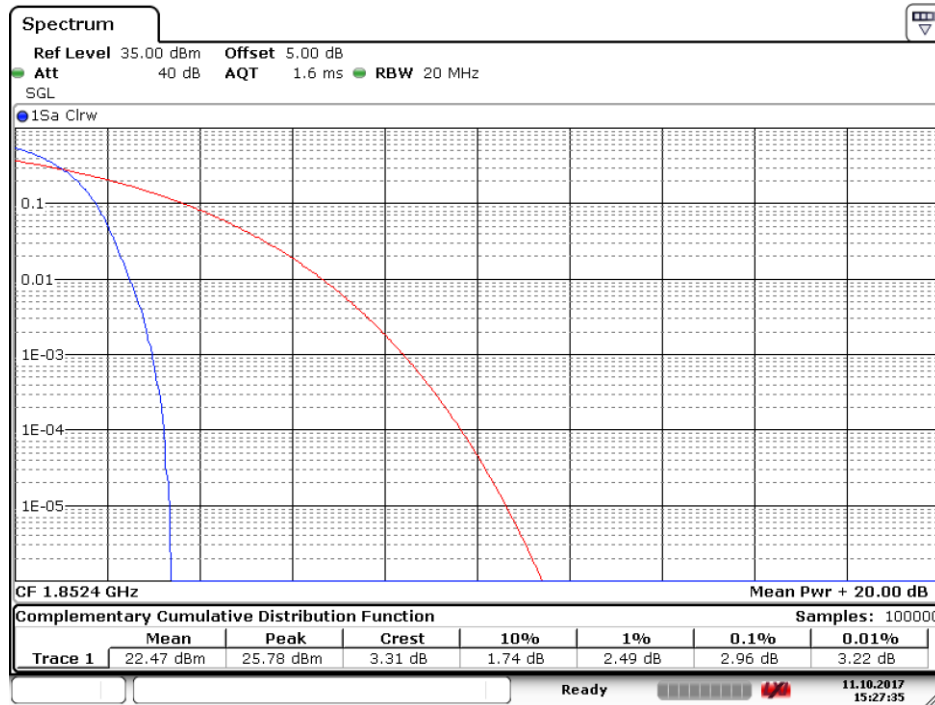
Part II - Test Plots

2.1 For WCDMA

2.1.1 Test Band = WCDMA 1900

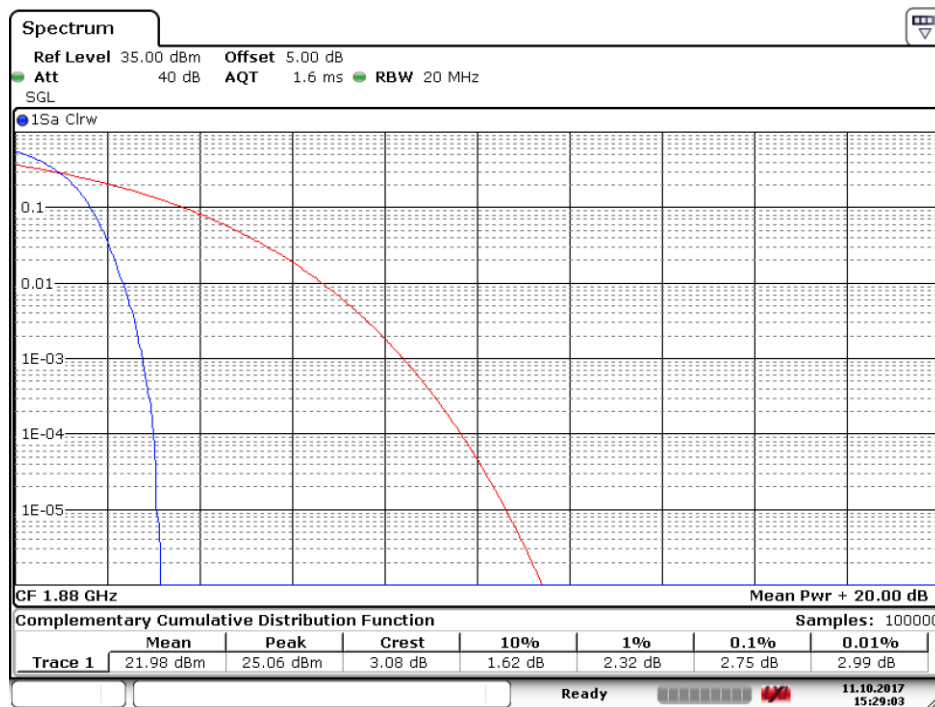
2.1.1.1 Test Mode = UMTS/TM1

2.1.1.1.1 Test Channel = LCH



Date: 11.OCT.2017 15:27:36

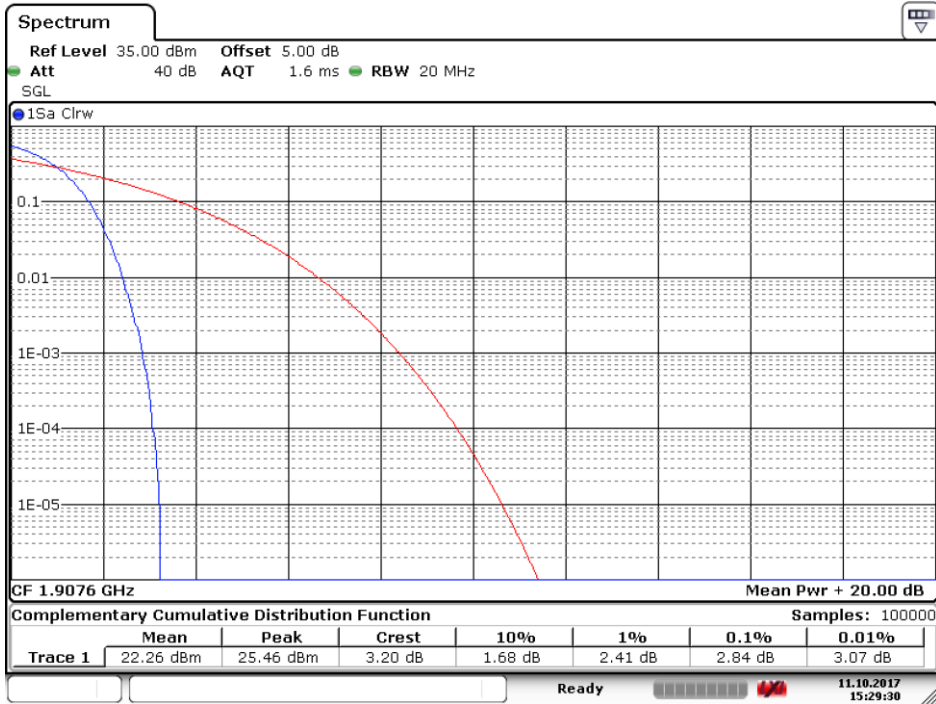
2.1.1.1.2 Test Channel = MCH



Date: 11.OCT.2017 15:29:03



2.1.1.1.3 Test Channel = HCH

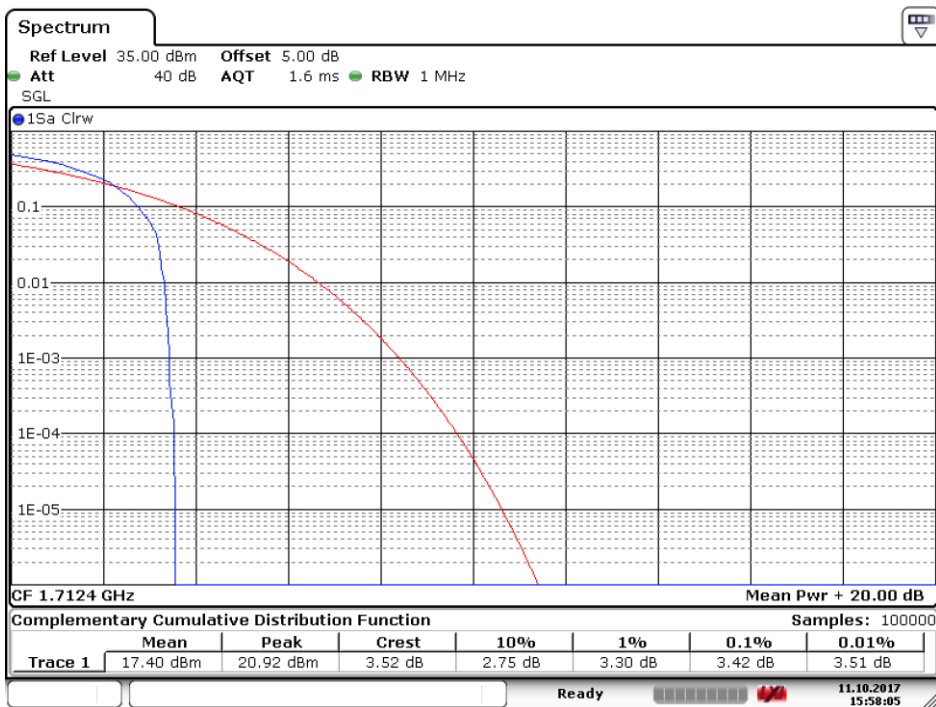


Date: 11.OCT.2017 15:29:30

2.1.2 Test Band = WCDMA 1700

2.1.2.1 Test Mode = UMTS/TM1

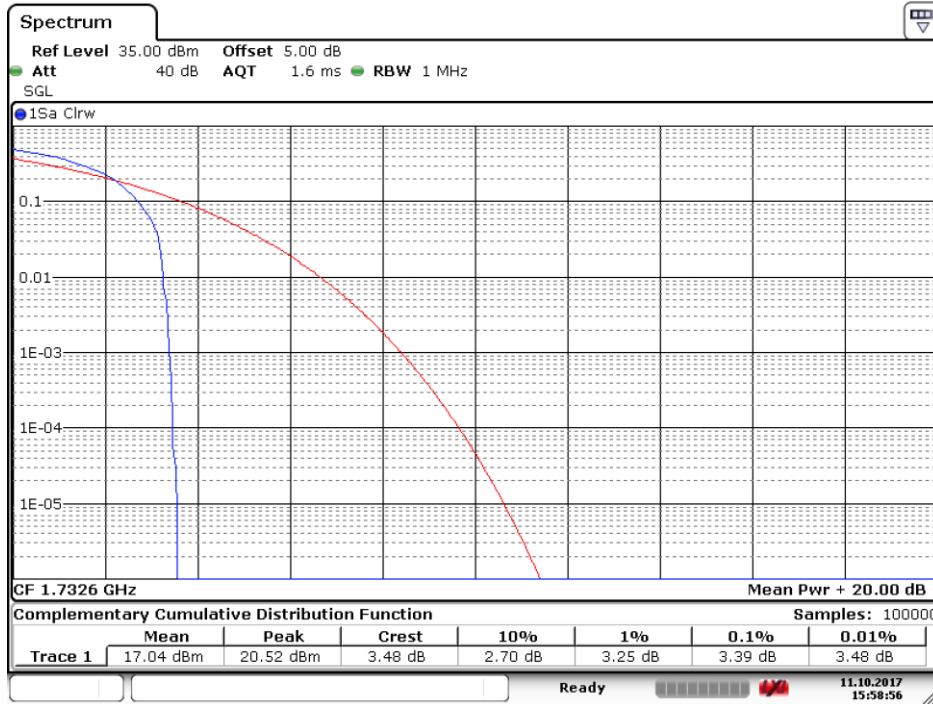
2.1.2.1.1 Test Channel = LCH



Date: 11.OCT.2017 15:58:05

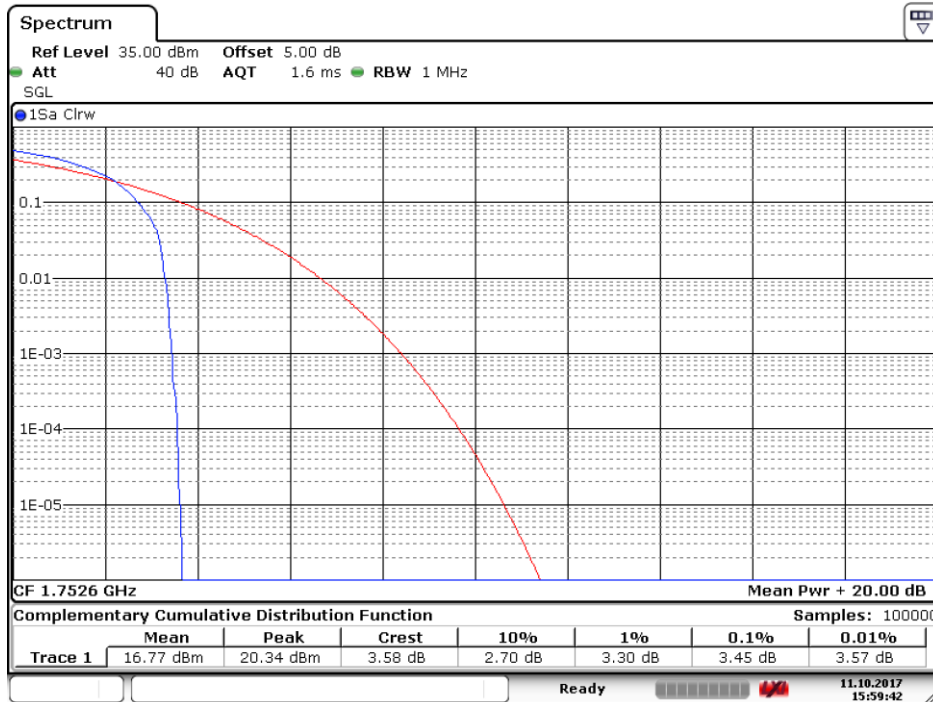


2.1.2.1.2 Test Channel = MCH



Date: 11.OCT.2017 15:58:57

2.1.2.1.3 Test Channel = HCH



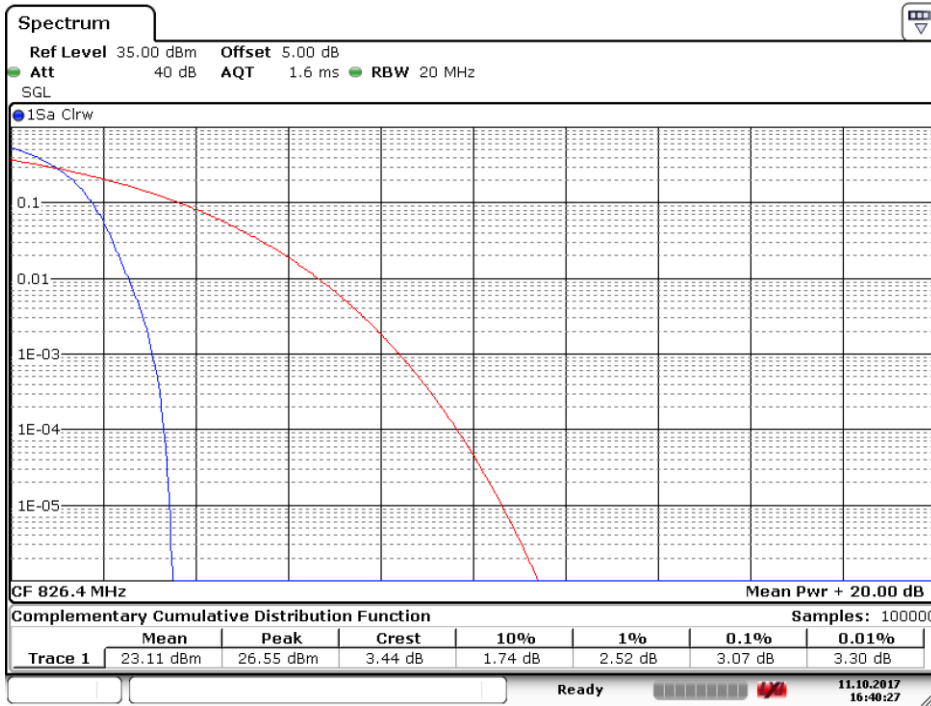
Date: 11.OCT.2017 15:59:43



2.1.3 Test Band = WCDMA 850

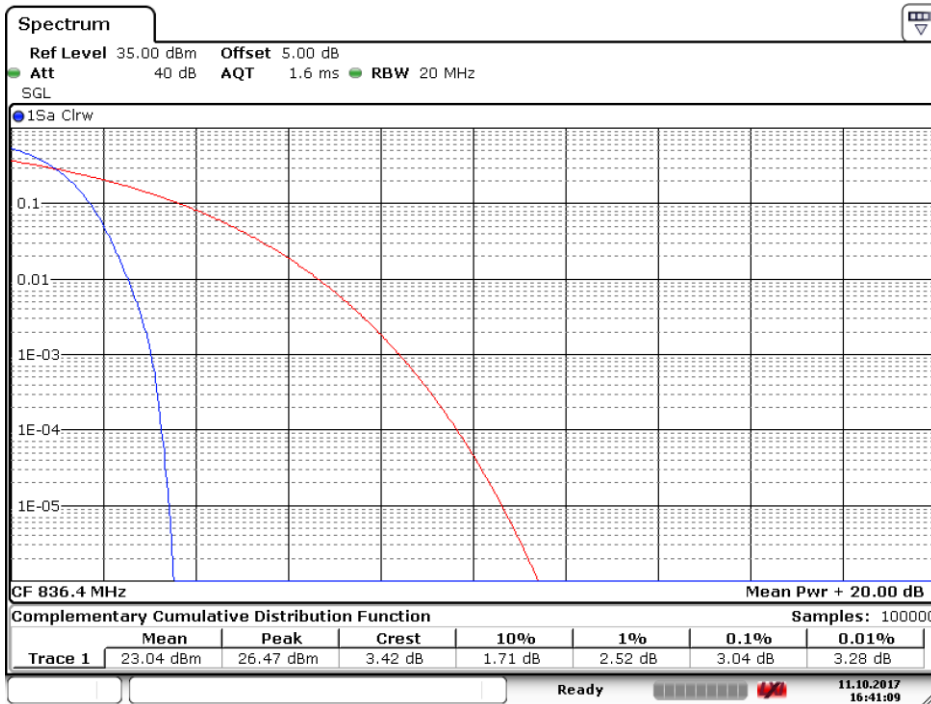
2.1.3.1 Test Mode = UMTS/TM1

2.1.3.1.1 Test Channel = LCH



Date: 11.OCT.2017 16:40:27

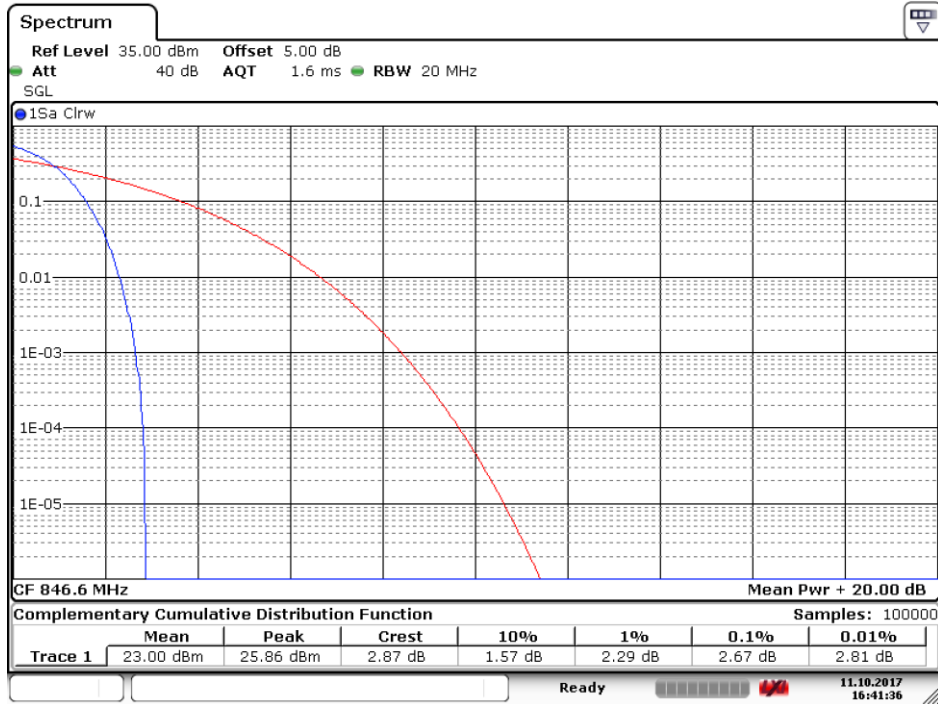
2.1.3.1.2 Test Channel = MCH



Date: 11.OCT.2017 16:41:10



2.1.3.1.3 Test Channel = HCH



Date: 11.OCT.2017 16:41:36

3 Modulation Characteristics

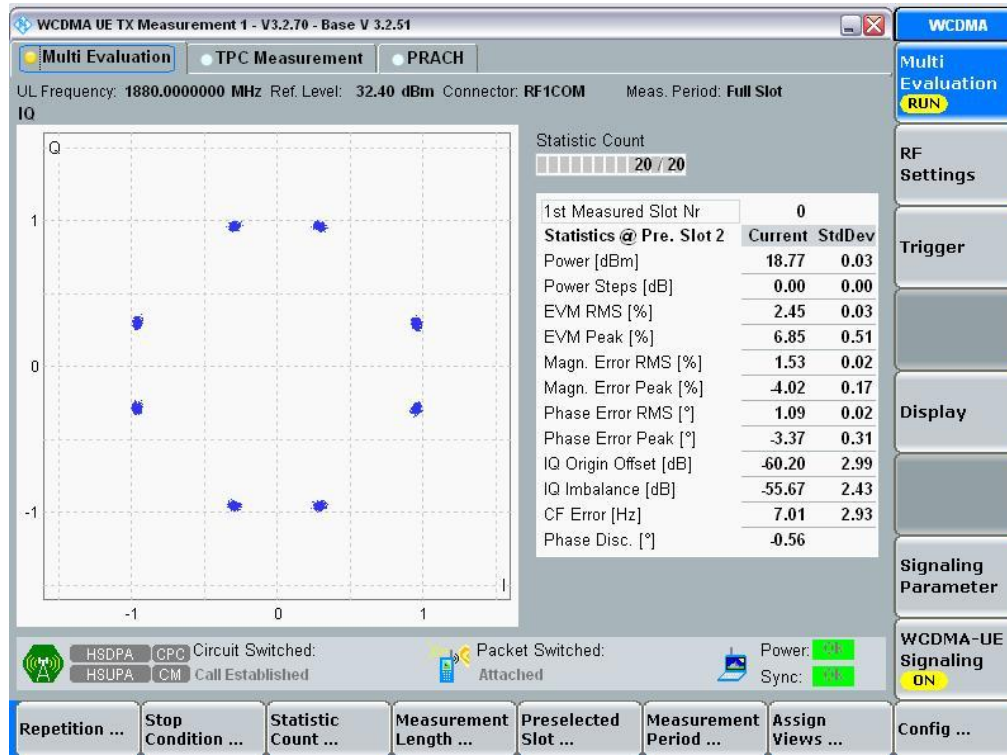
Part I - Test Plots

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

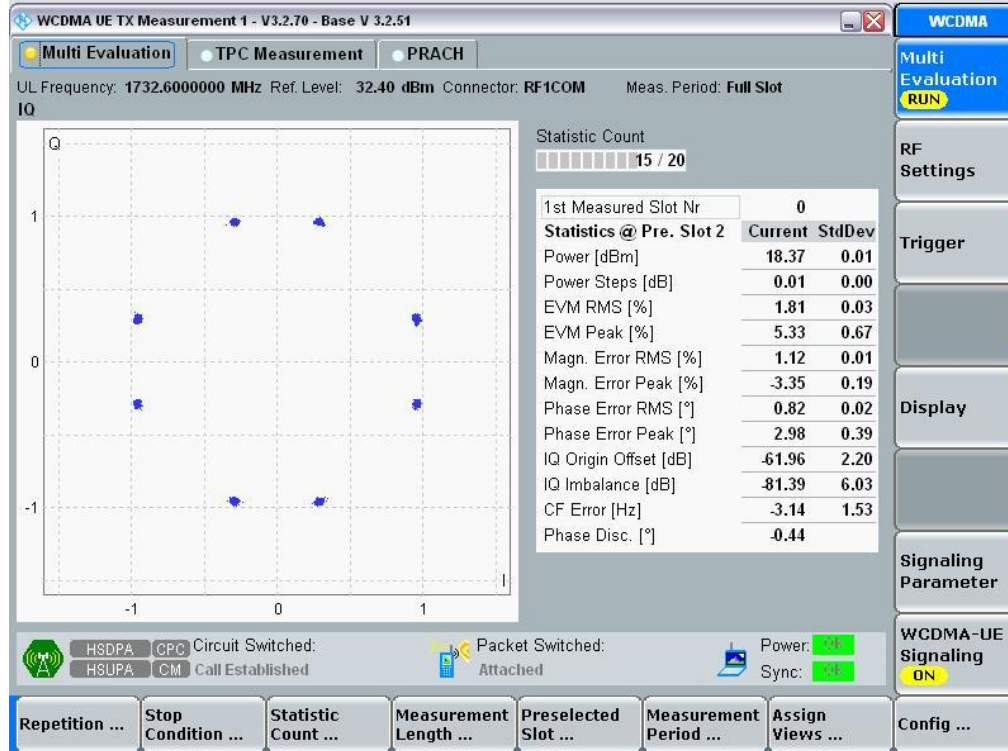




3.1.2 Test Band = WCDMA 1700

3.1.2.1 Test Mode = UMTS /TM1

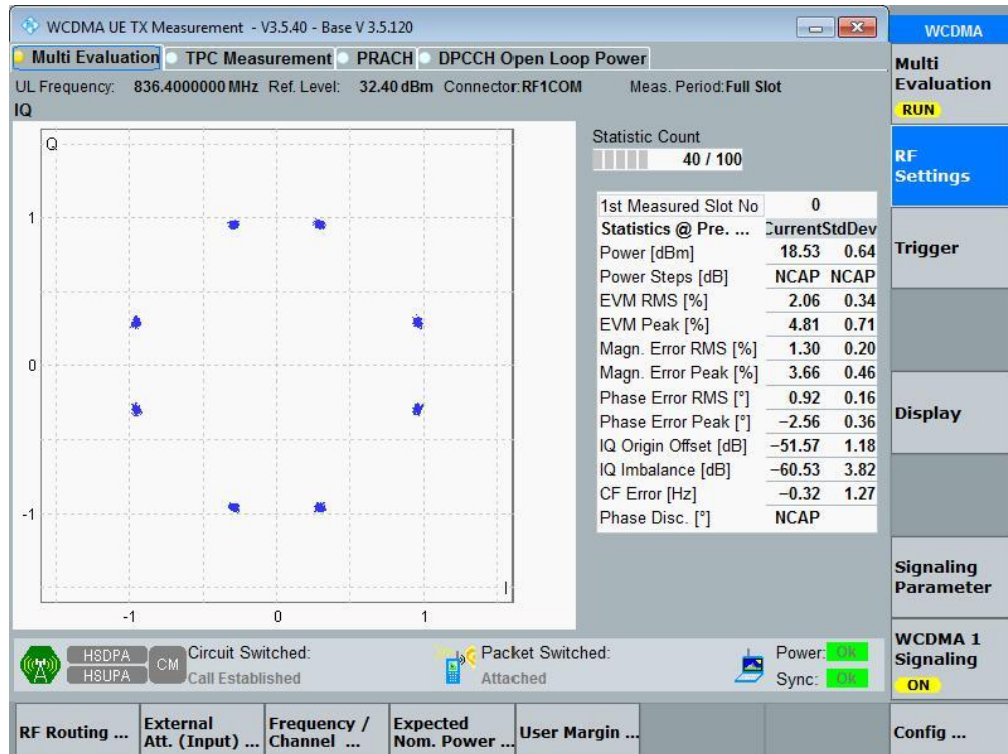
3.1.2.1.1 Test Channel = MCH



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	4.20	4.87	PASS
		MCH	4.20	4.87	PASS
		HCH	4.20	4.87	PASS
WCDMA1700	UMTS/TM1	LCH	4.21	4.88	PASS
		MCH	4.20	4.88	PASS
		HCH	4.21	4.88	PASS
WCDMA850	UMTS/TM1	LCH	4.22	4.87	PASS
		MCH	4.21	4.87	PASS
		HCH	4.21	4.90	PASS

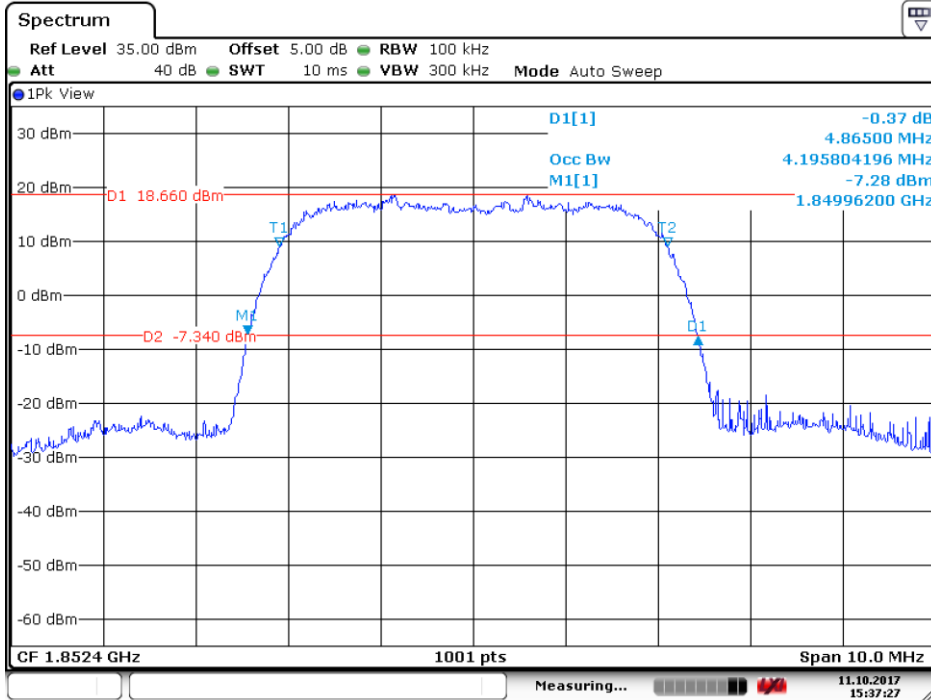


4.1 For WCDMA

4.1.1 Test Band = WCDMA 1900

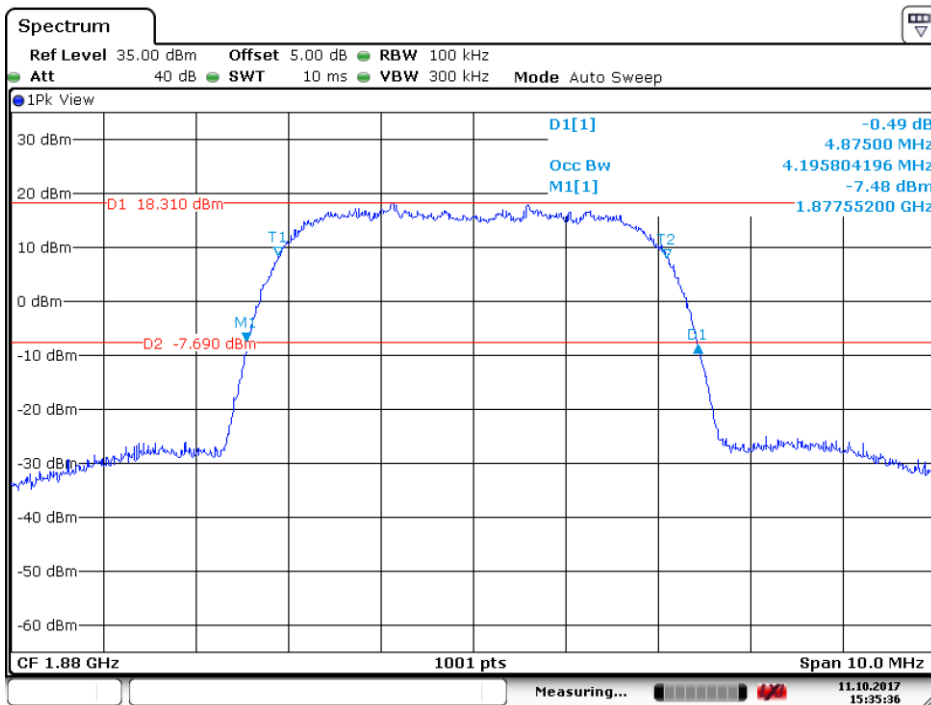
4.1.1.1 Test Mode = UMTS/TM1

4.1.1.1.1 Test Channel = LCH



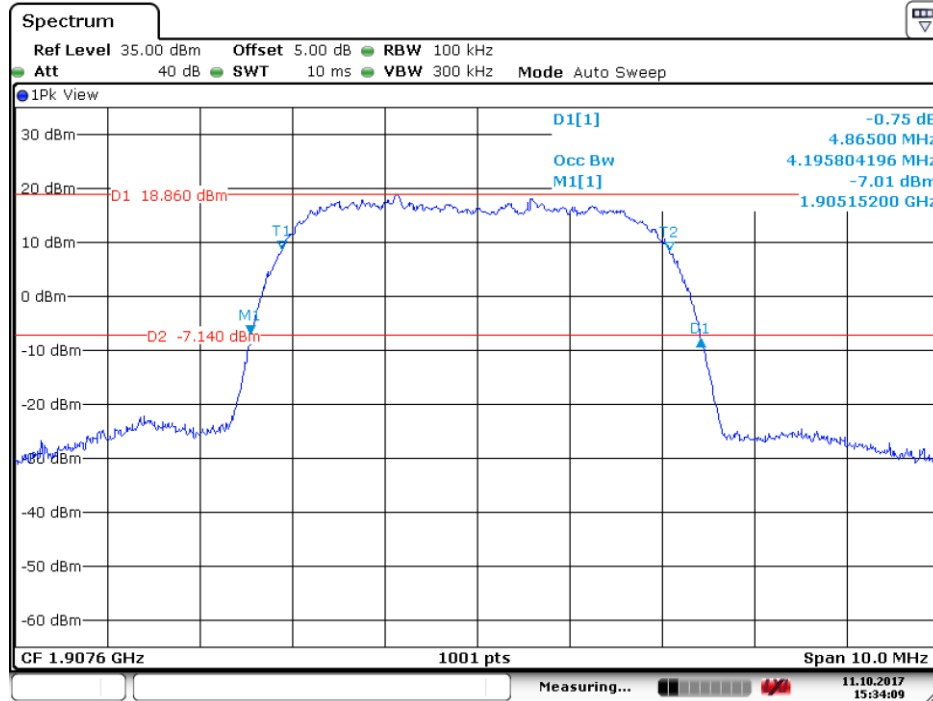
Date: 11.OCT.2017 15:37:27

4.1.1.1.2 Test Channel = MCH



Date: 11.OCT.2017 15:35:37

4.1.1.1.3 Test Channel = HCH

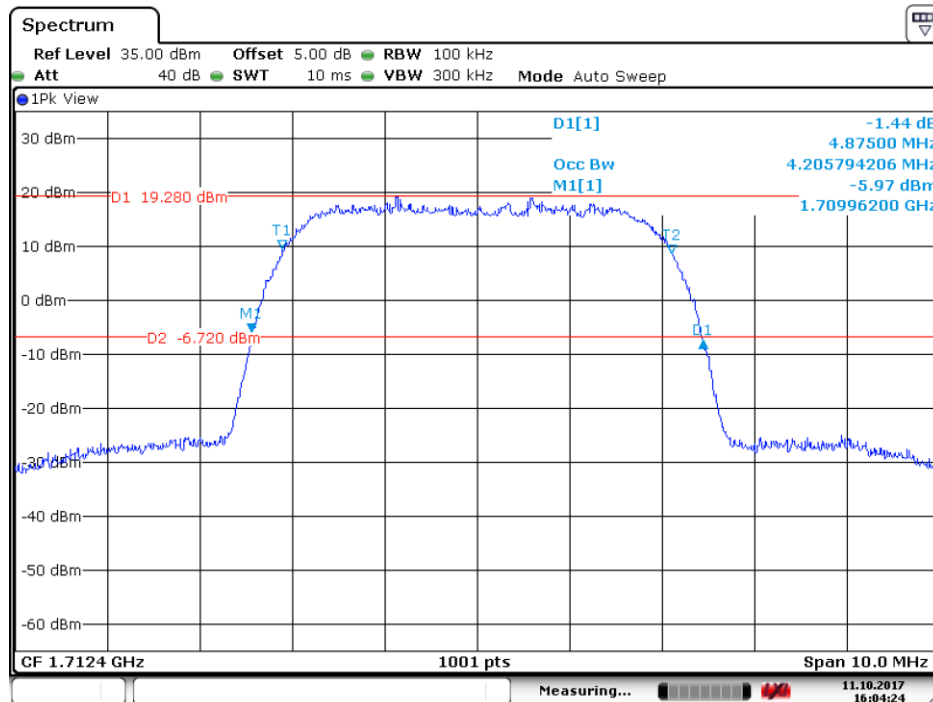


Date: 11.OCT.2017 15:34:09

4.1.2 Test Band = WCDMA 1700

4.1.2.1 Test Mode = UMTS/TM1

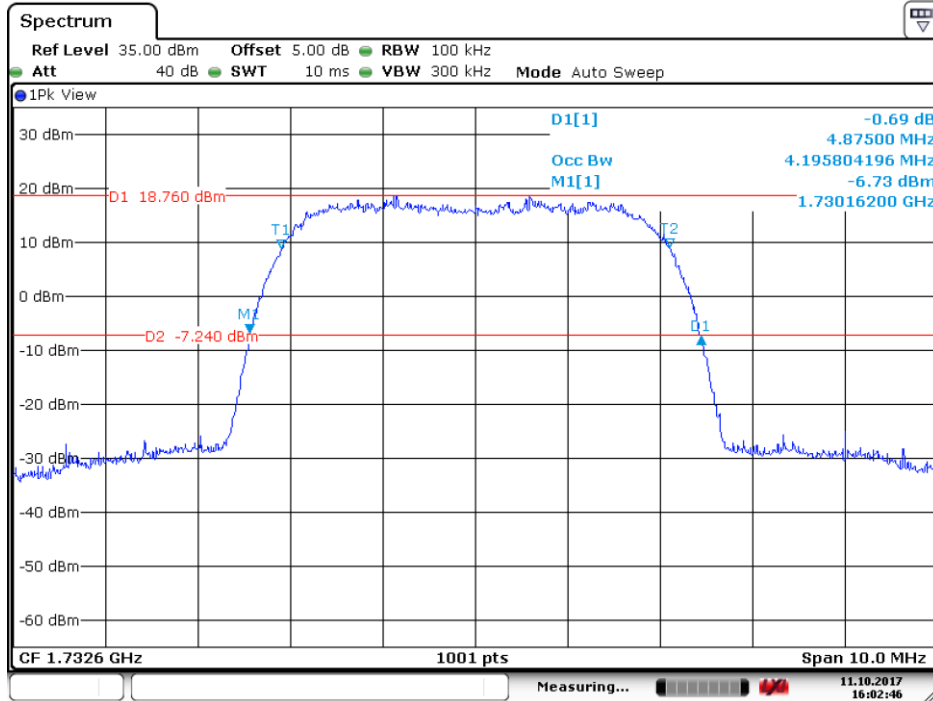
4.1.2.1.1 Test Channel = LCH



Date: 11.OCT.2017 16:04:24

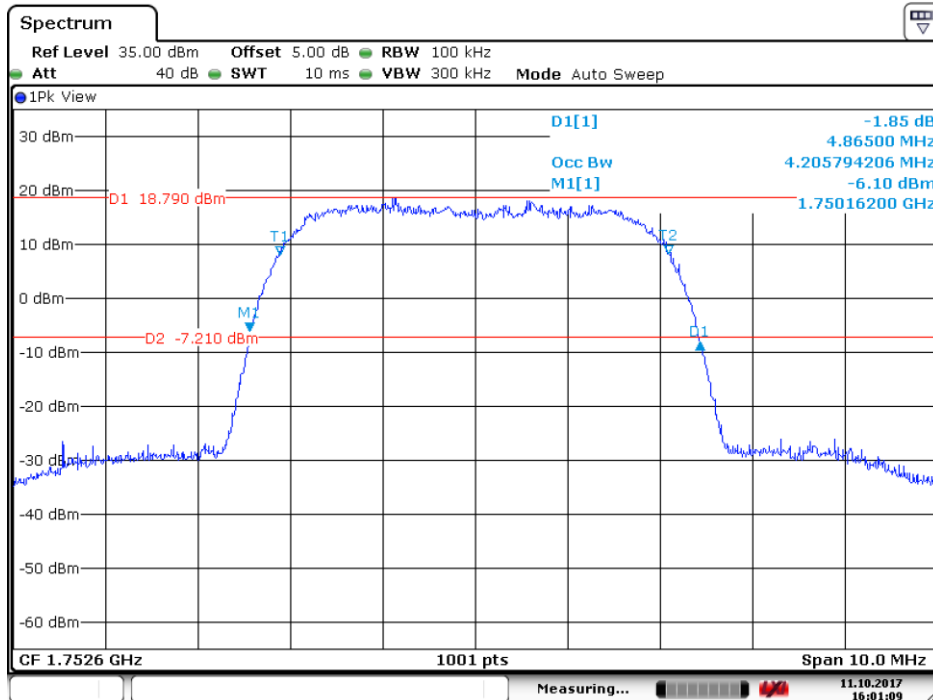


4.1.2.1.2 Test Channel = MCH



Date: 11.OCT.2017 16:02:46

4.1.2.1.3 Test Channel = HCH



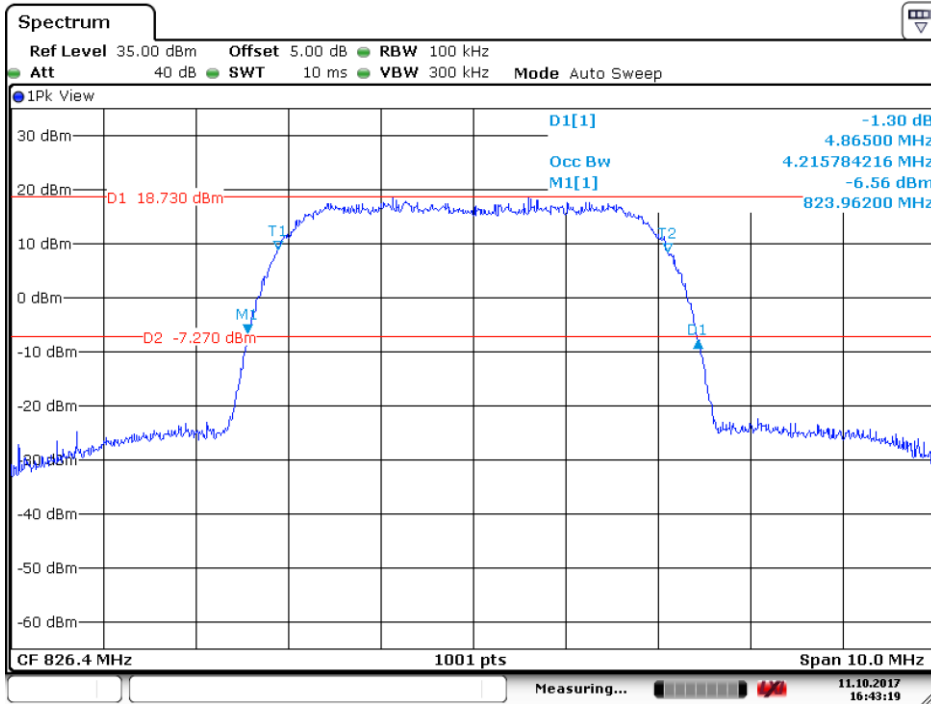
Date: 11.OCT.2017 16:01:09



4.1.3 Test Band = WCDMA 850

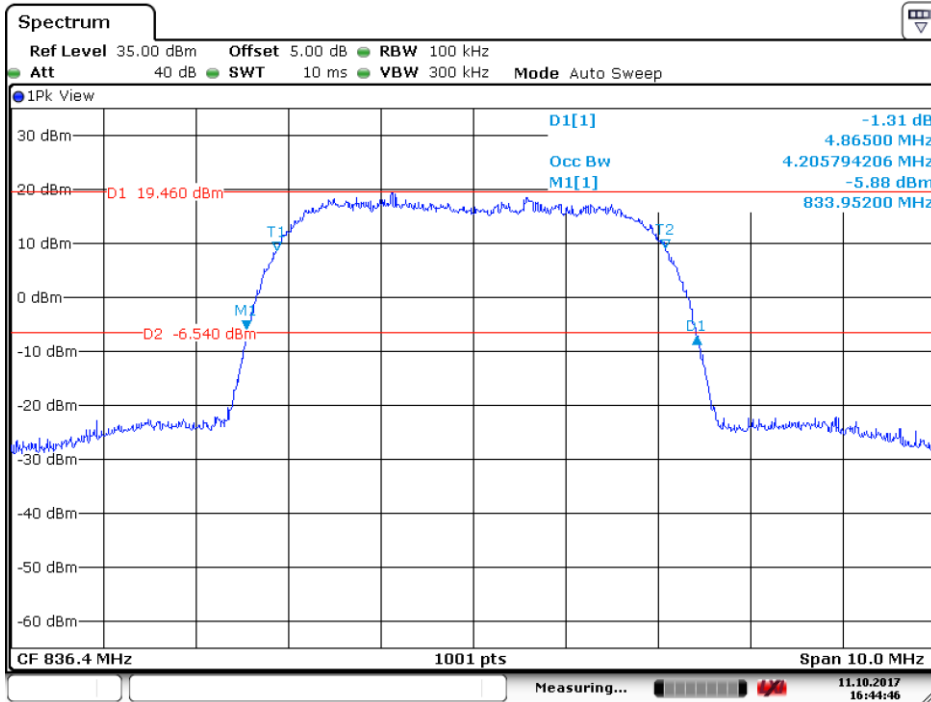
4.1.3.1 Test Mode = UMTS/TM1

4.1.3.1.1 Test Channel = LCH



Date: 11.OCT.2017 16:43:20

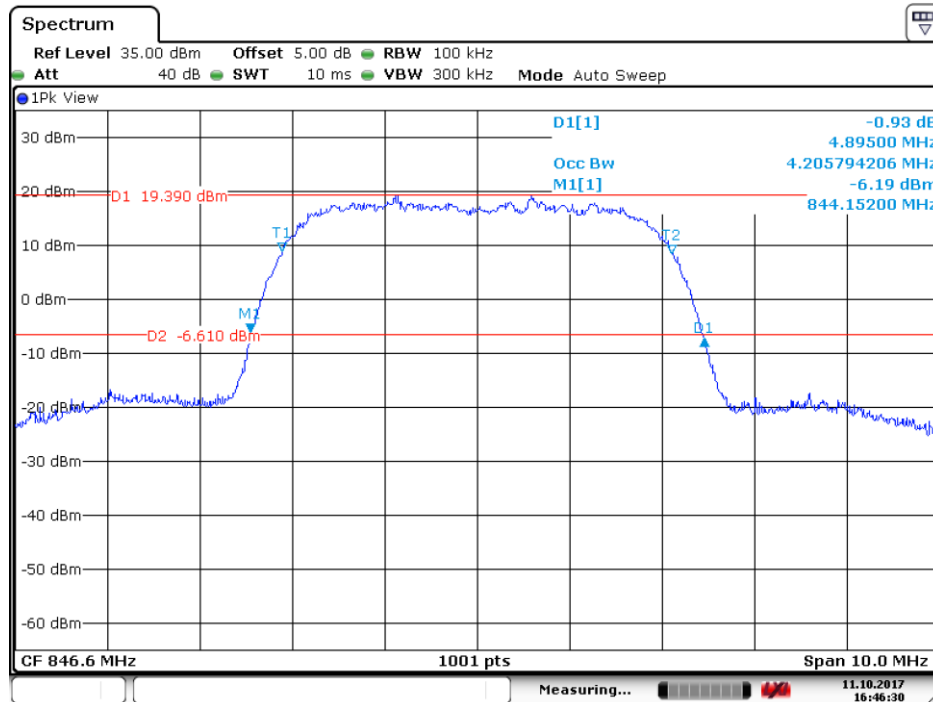
4.1.3.1.2 Test Channel = MCH



Date: 11.OCT.2017 16:44:47



4.1.3.1.3 Test Channel = HCH



Date: 11.OCT.2017 16:46:30

5 Band Edges Compliance

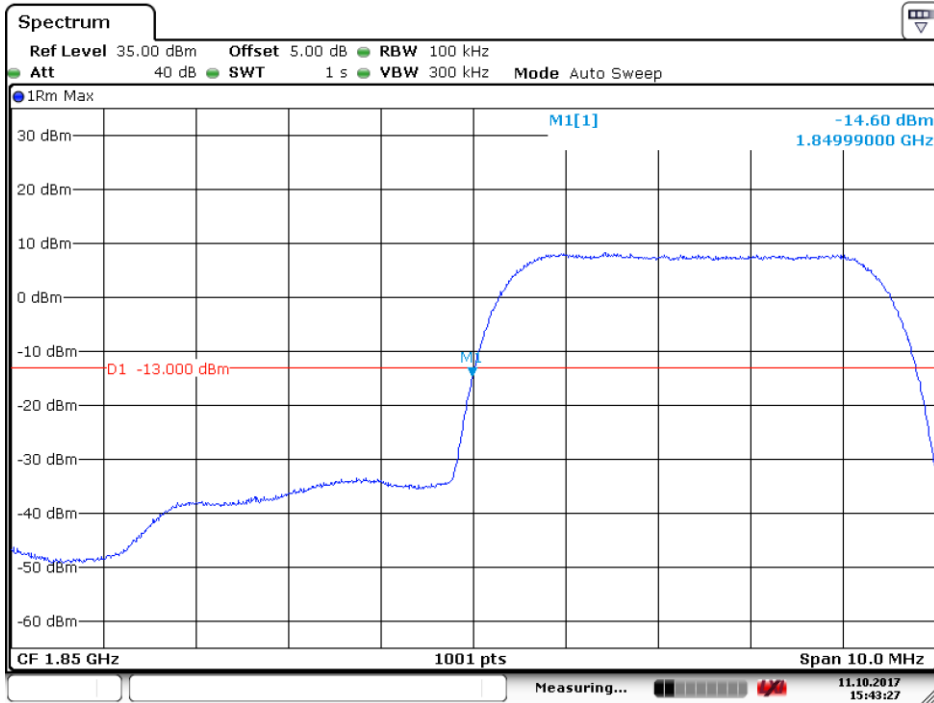
Part I - Test Plots

5.1 For WCDMA

5.1.1 Test Band = WCDMA 1900

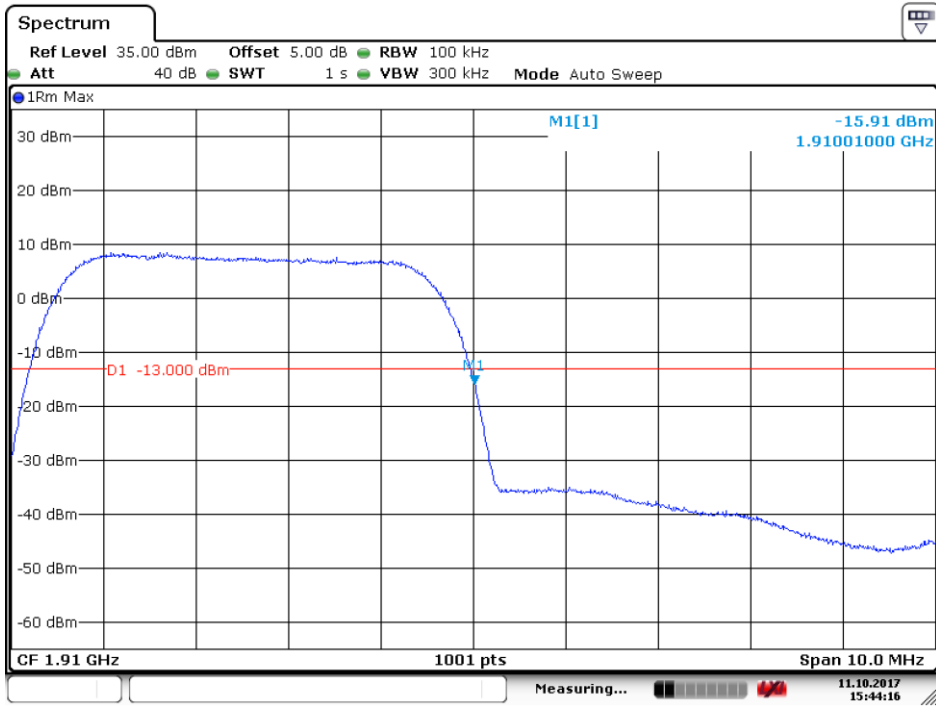
5.1.1.1 Test Mode = UMTS/TM1

5.1.1.1.1 Test Channel = LCH



Date: 11.OCT.2017 15:43:27

5.1.1.1.2 Test Channel = HCH

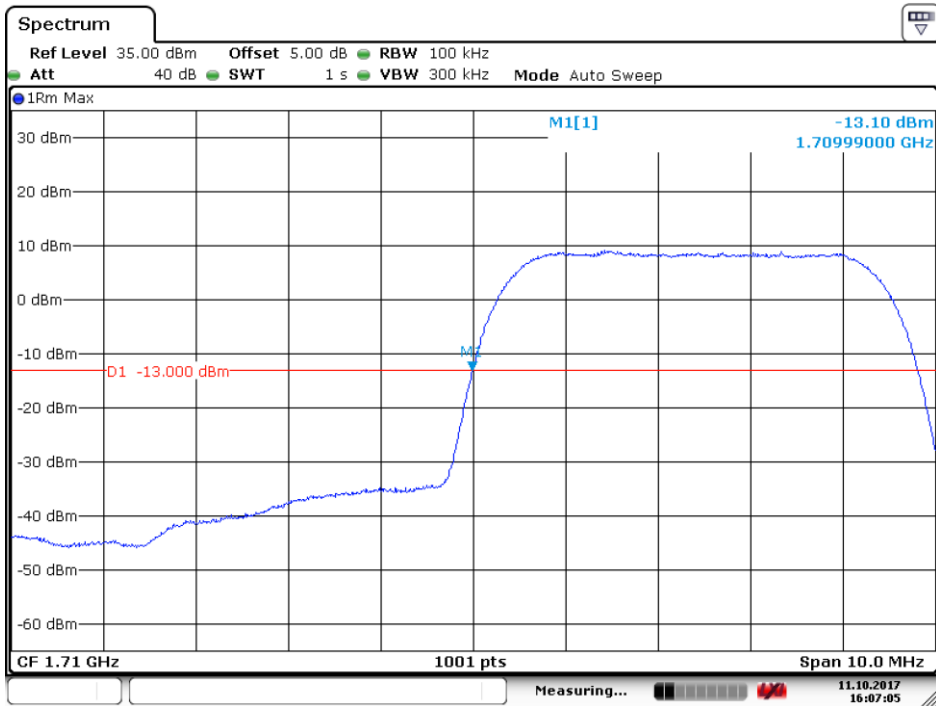


Date: 11.OCT.2017 15:44:17

5.1.2 Test Band = WCDMA 1700

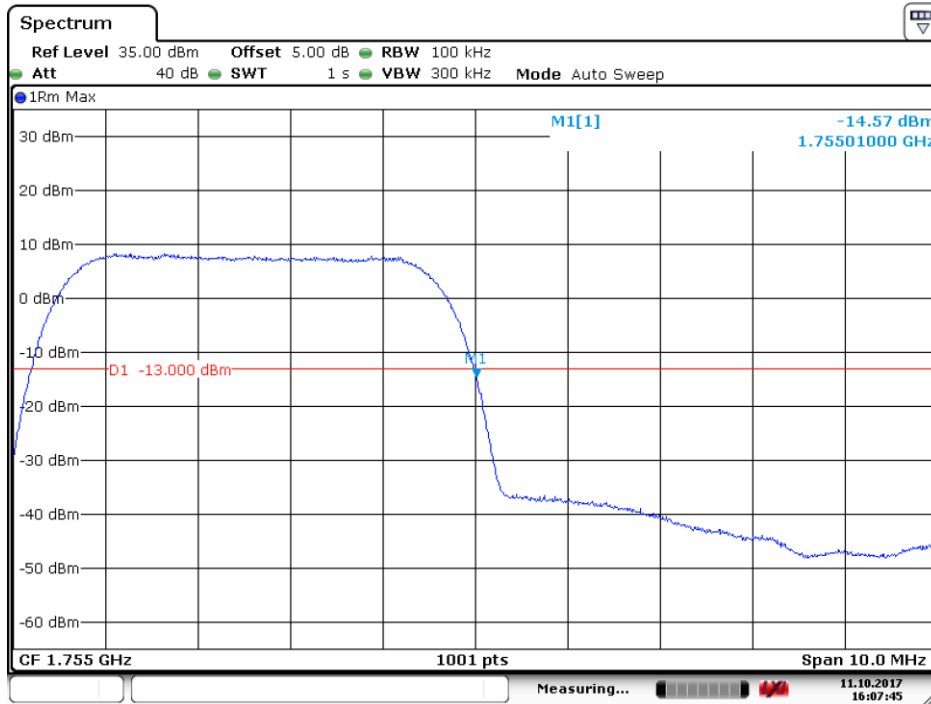
5.1.2.1 Test Mode = UMTS/TM1

5.1.2.1.1 Test Channel = LCH



Date: 11.OCT.2017 16:07:05

5.1.2.1.2 Test Channel = HCH

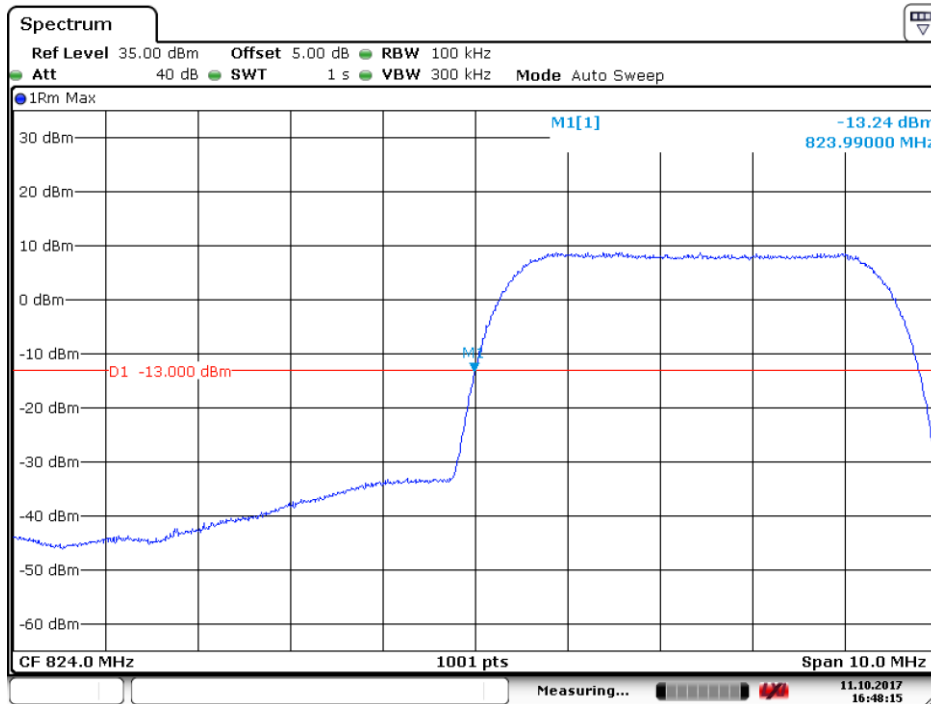


Date: 11.OCT.2017 16:07:46

5.1.3 Test Band = WCDMA 850

5.1.3.1 Test Mode = UMTS/TM1

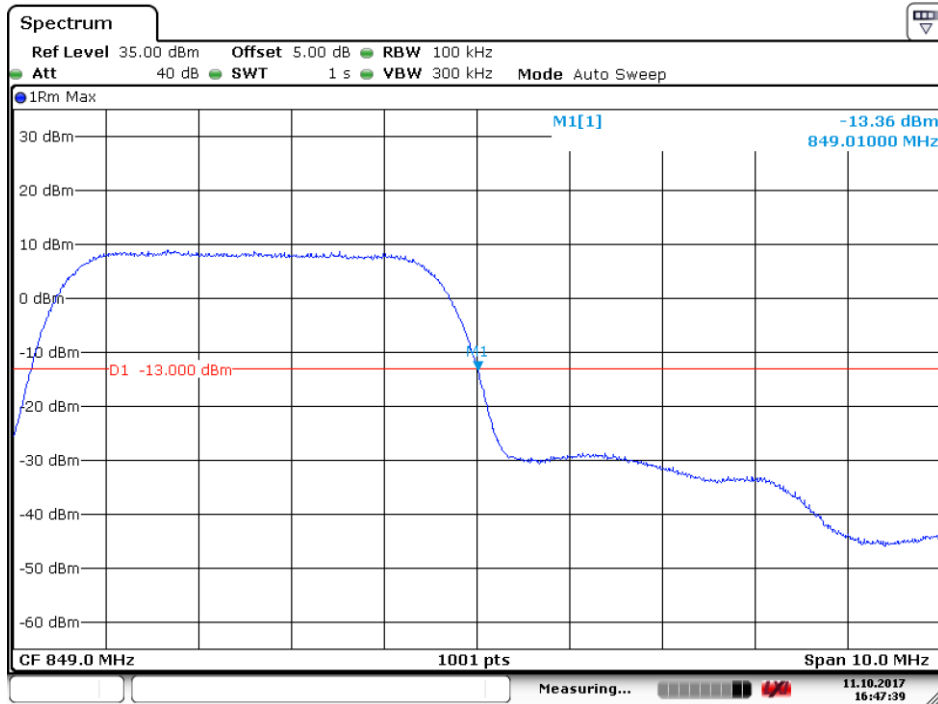
5.1.3.1.1 Test Channel = LCH



Date: 11.OCT.2017 16:48:16



5.1.3.1.2 Test Channel = HCH



Date: 11.OCT.2017 16:47:39

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.

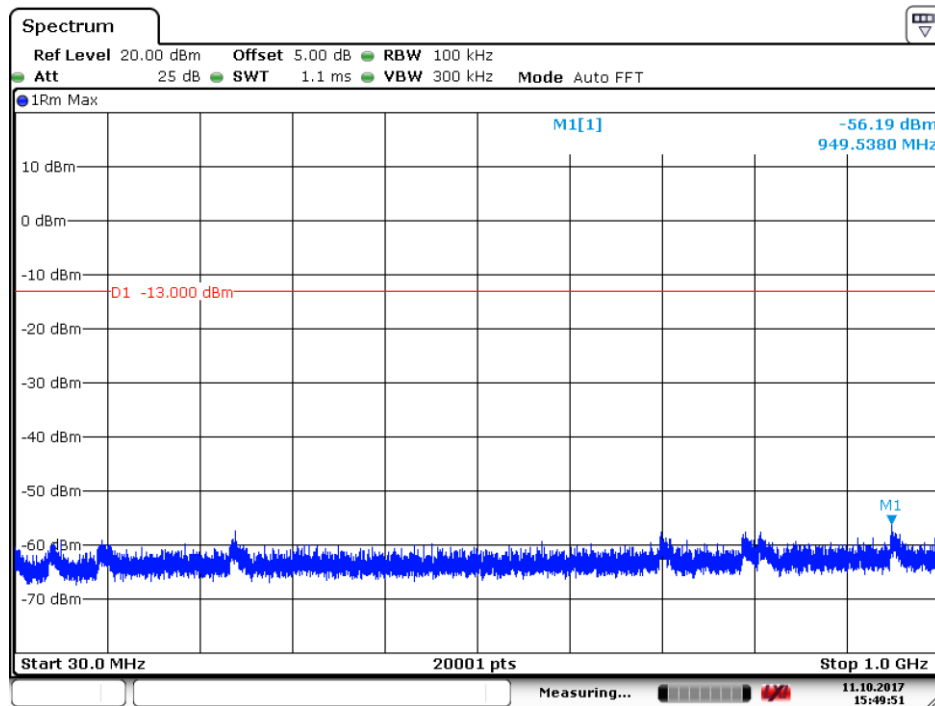
Part I - Test Plots

6.1 For WCDMA

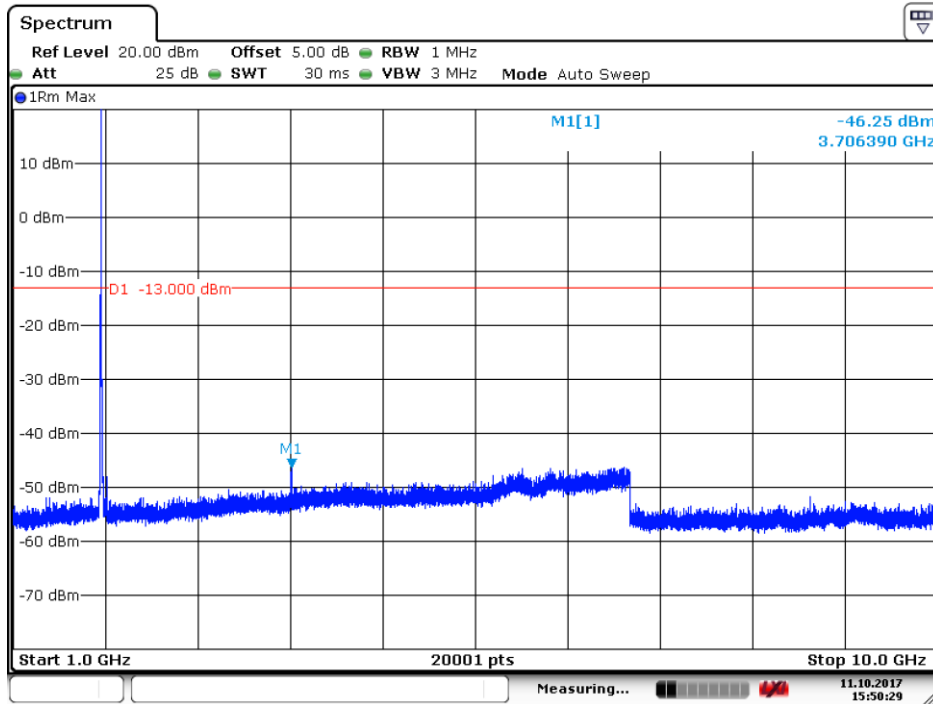
6.1.1 Test Band = WCDMA 1900

6.1.1.1 Test Mode = UMTS/TM1

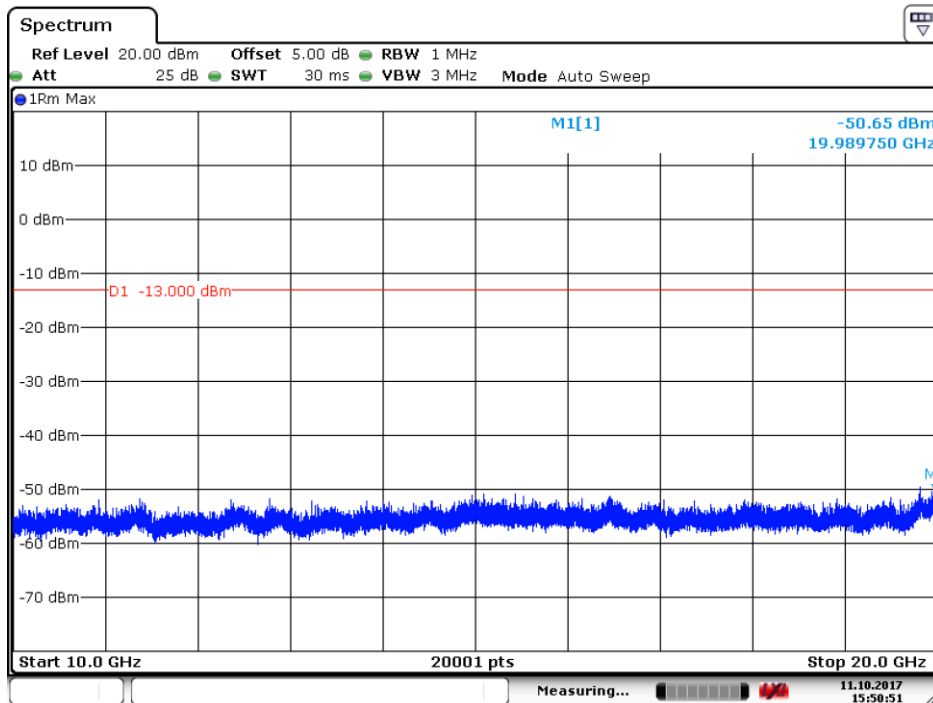
6.1.1.1.1 Test Channel = LCH



Date: 11.OCT.2017 15:49:51



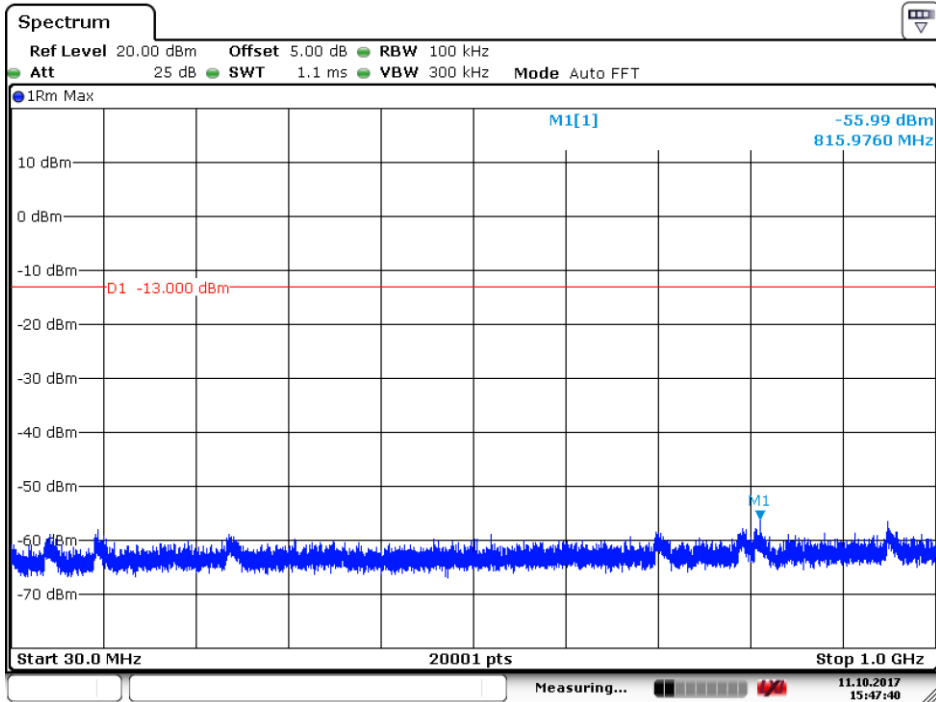
Date: 11.OCT.2017 15:50:30



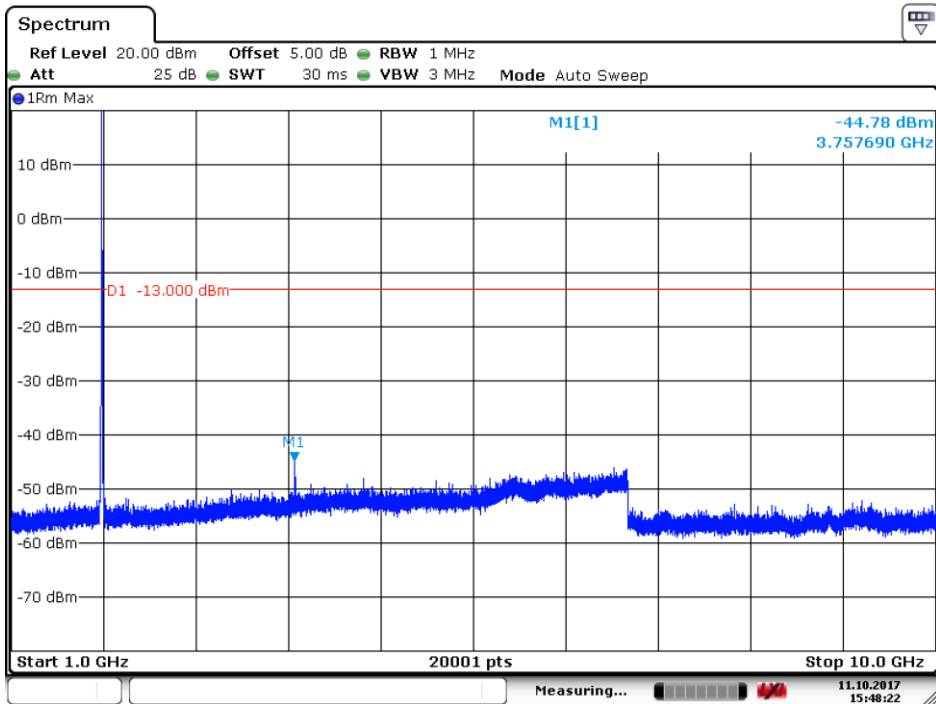
Date: 11.OCT.2017 15:50:51



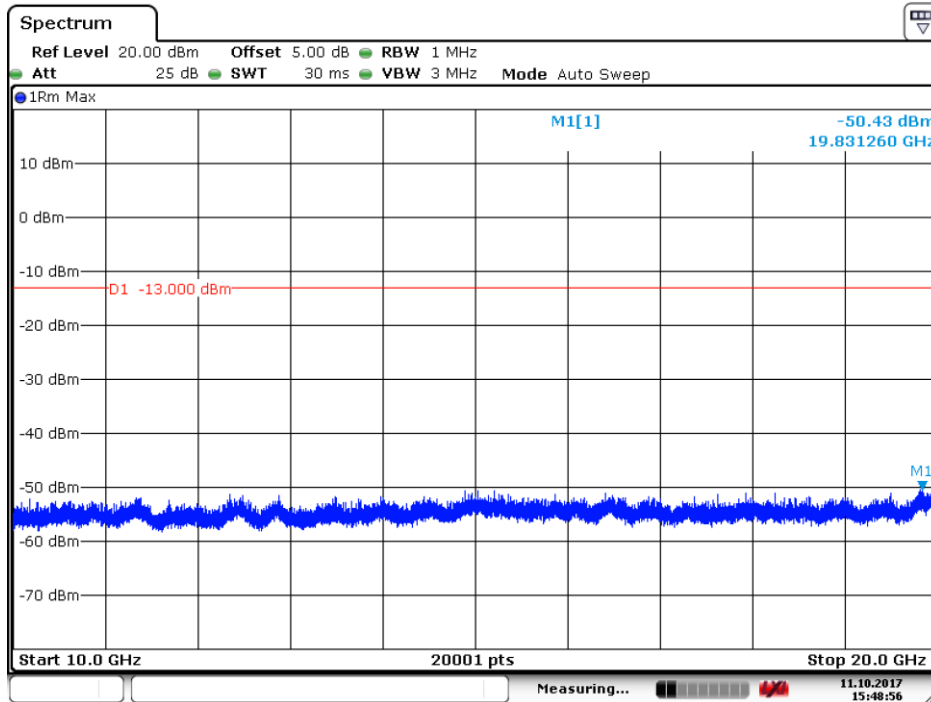
6.1.1.1.2 Test Channel = MCH



Date: 11.OCT.2017 15:47:40

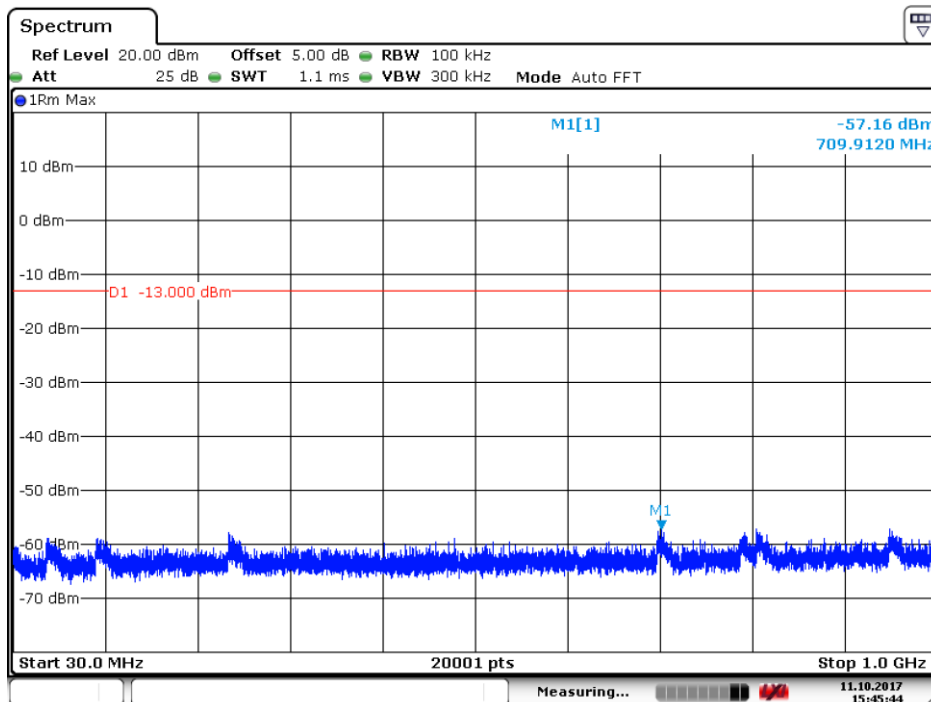


Date: 11.OCT.2017 15:48:22

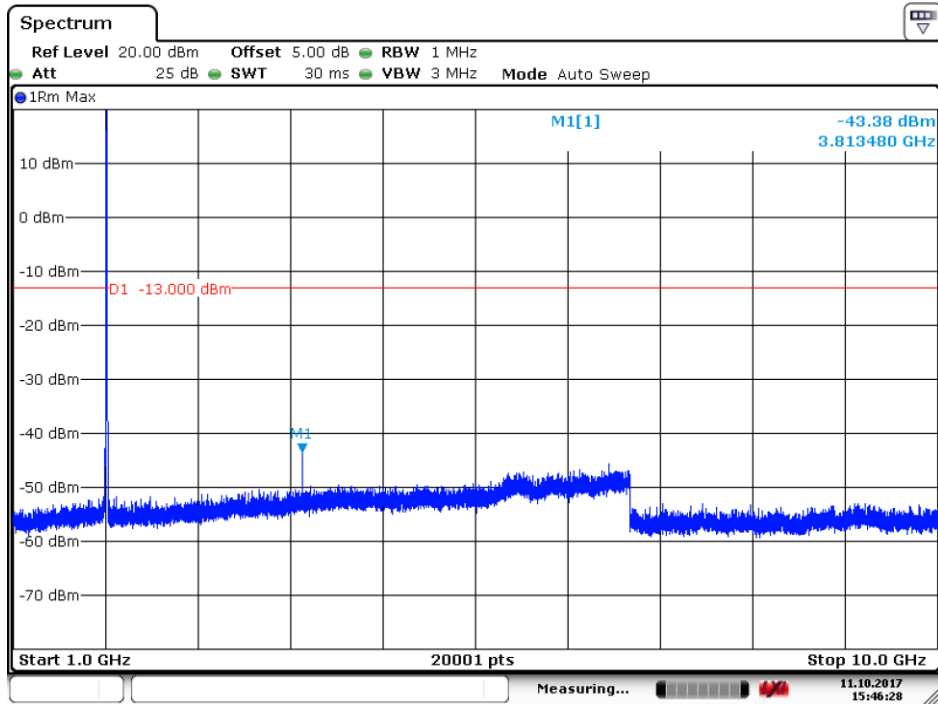


Date: 11.OCT.2017 15:48:57

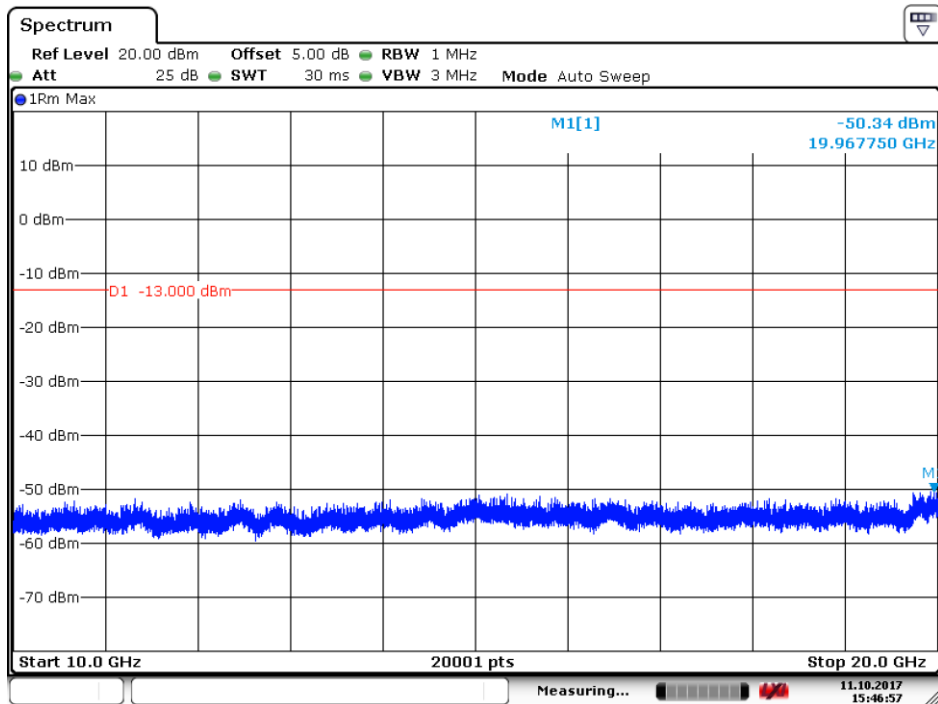
6.1.1.1.3 Test Channel = HCH



Date: 11.OCT.2017 15:45:45



Date: 11.OCT.2017 15:46:29



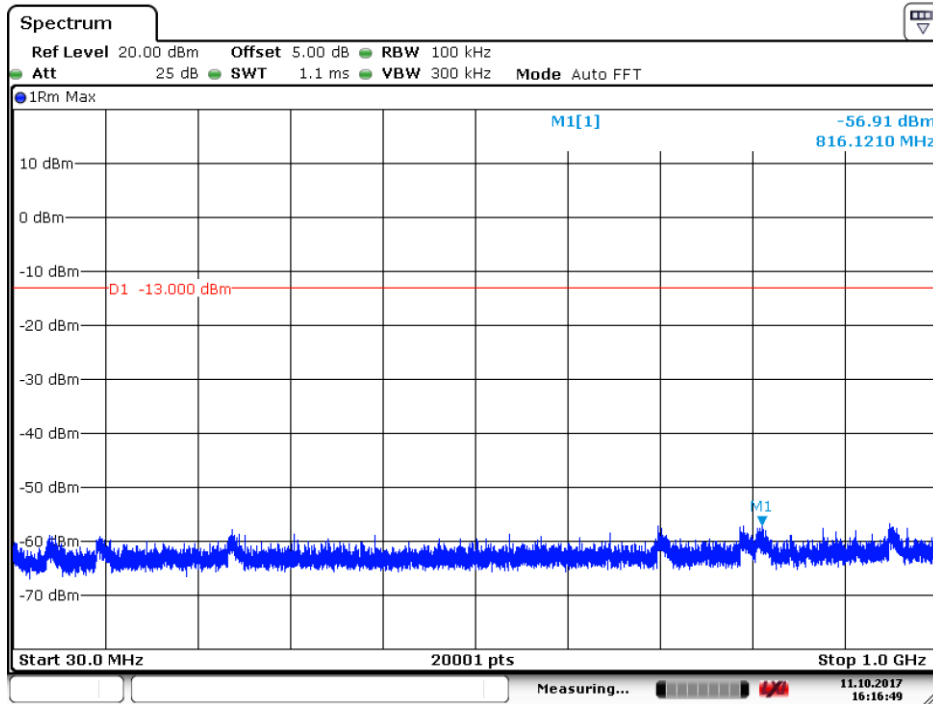
Date: 11.OCT.2017 15:46:57



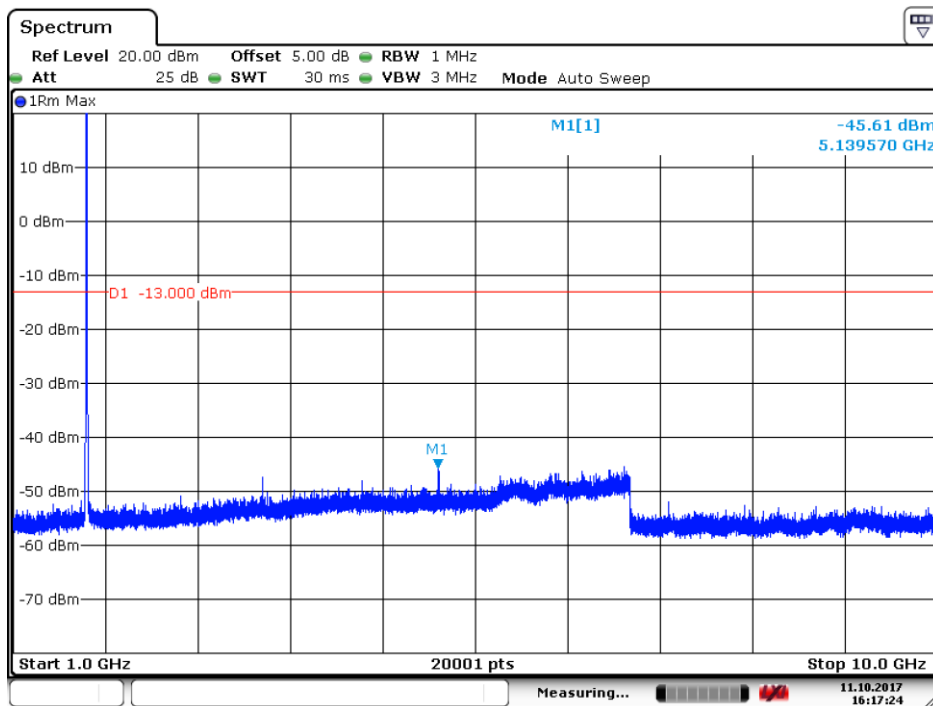
6.1.2 Test Band = WCDMA 1700

6.1.2.1 Test Mode = UMTS/TM1

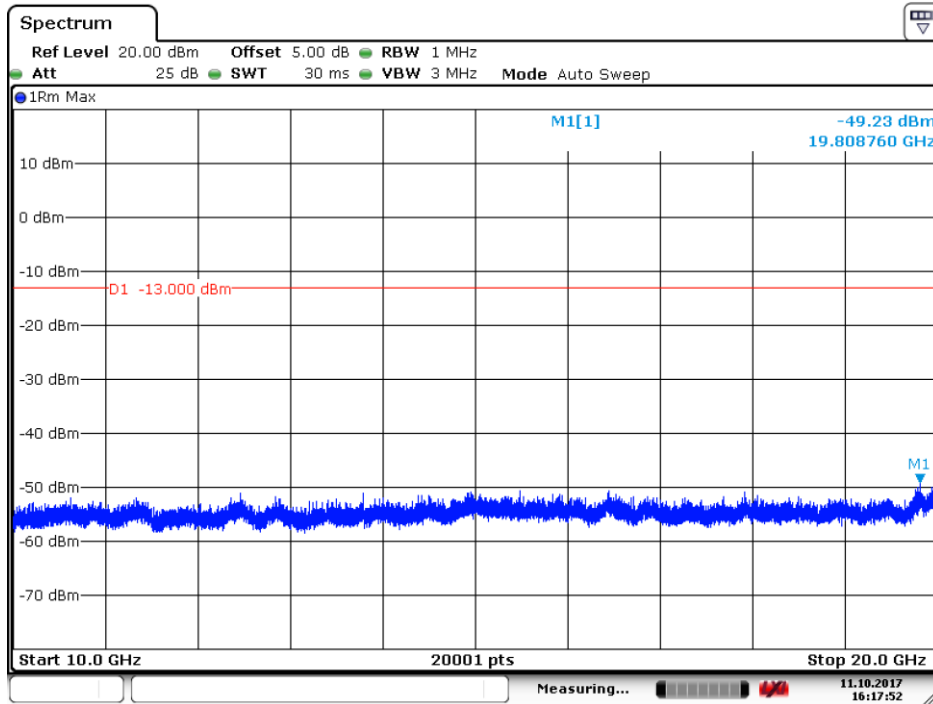
6.1.2.1.1 Test Channel = LCH



Date: 11.OCT.2017 16:16:49

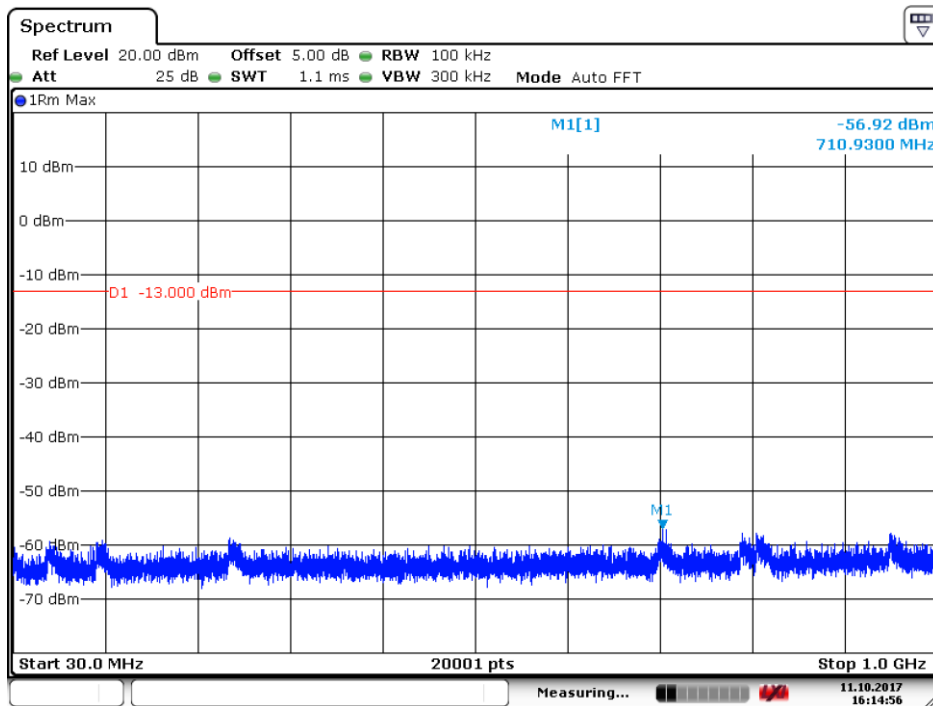


Date: 11.OCT.2017 16:17:24

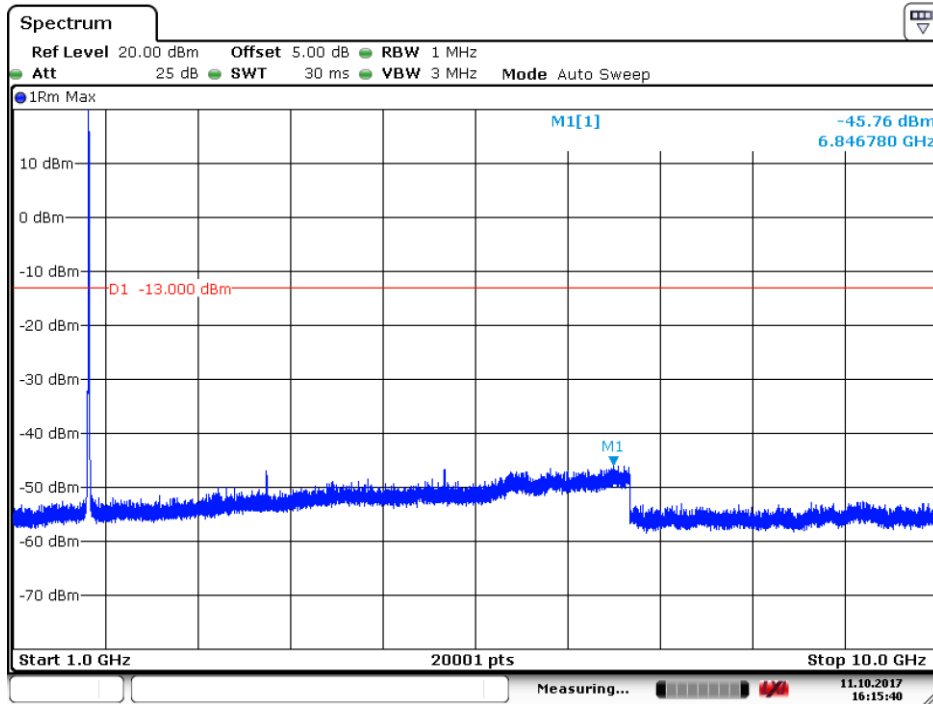


Date: 11.OCT.2017 16:17:52

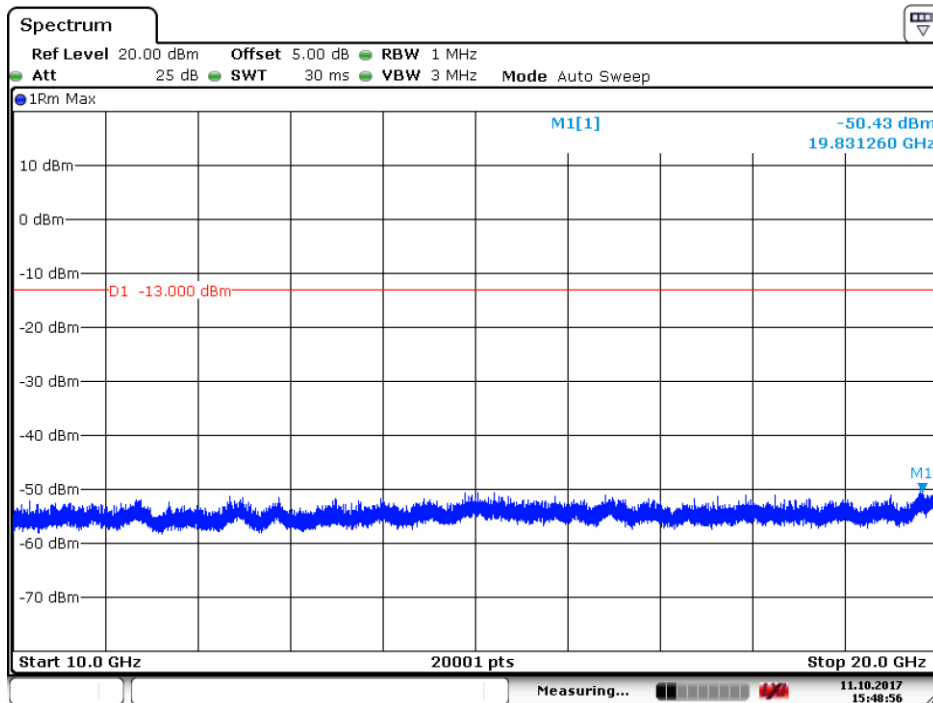
6.1.2.1.2 Test Channel = MCH



Date: 11.OCT.2017 16:14:56



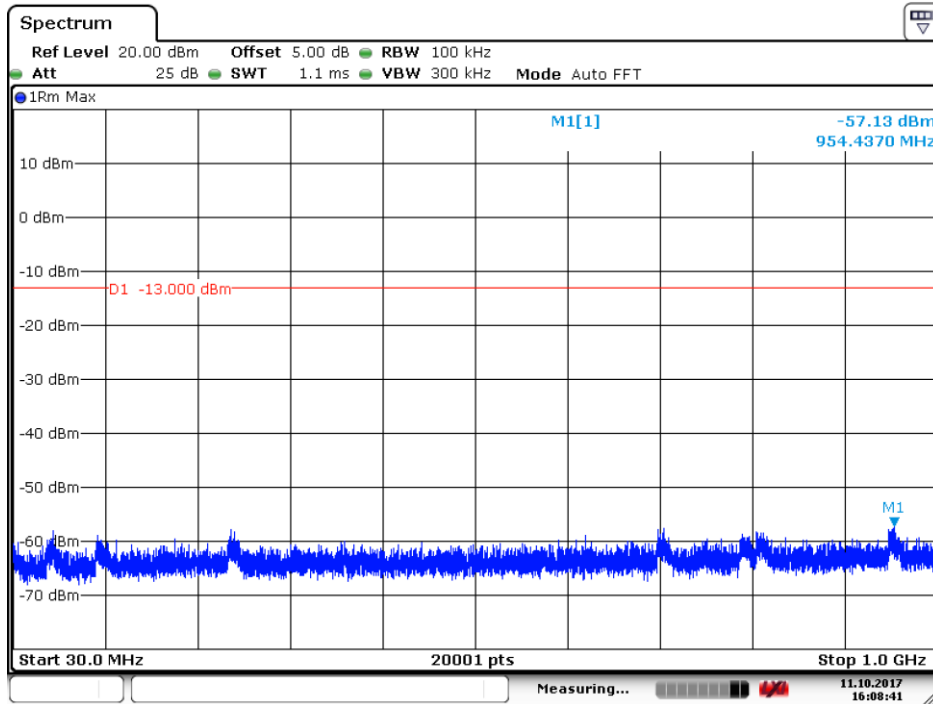
Date: 11.OCT.2017 16:15:40



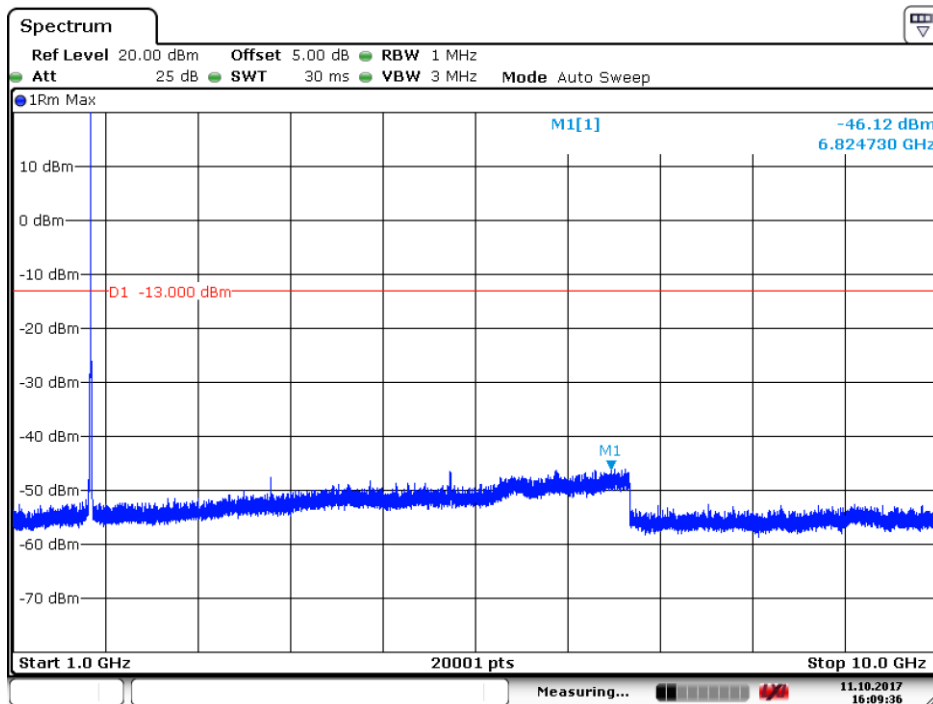
Date: 11.OCT.2017 15:48:57



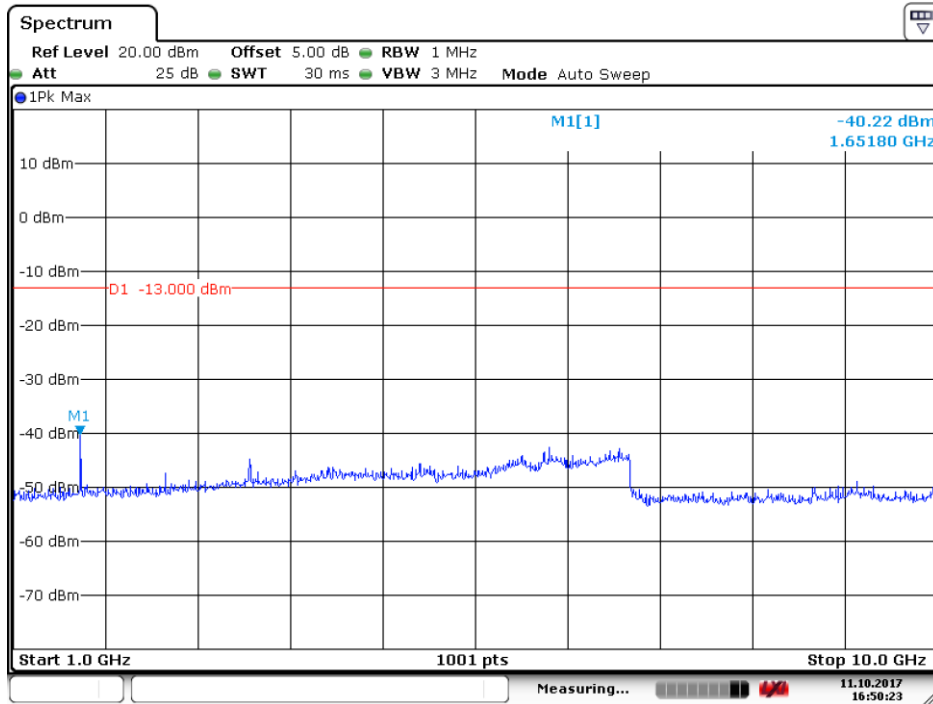
6.1.2.1.3 Test Channel = HCH



Date: 11.OCT.2017 16:08:42

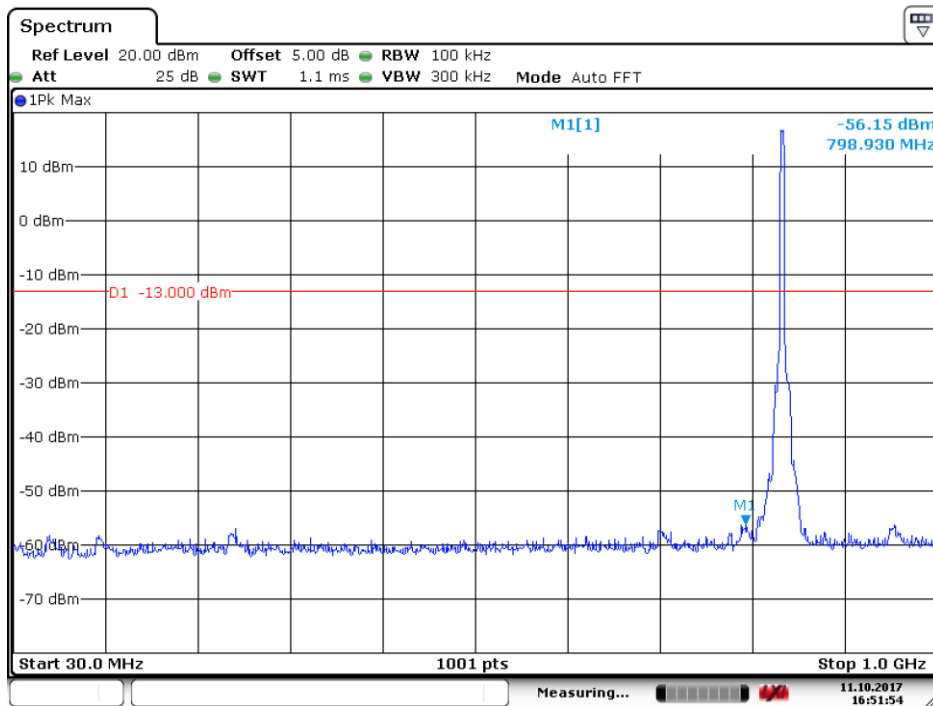


Date: 11.OCT.2017 16:09:37

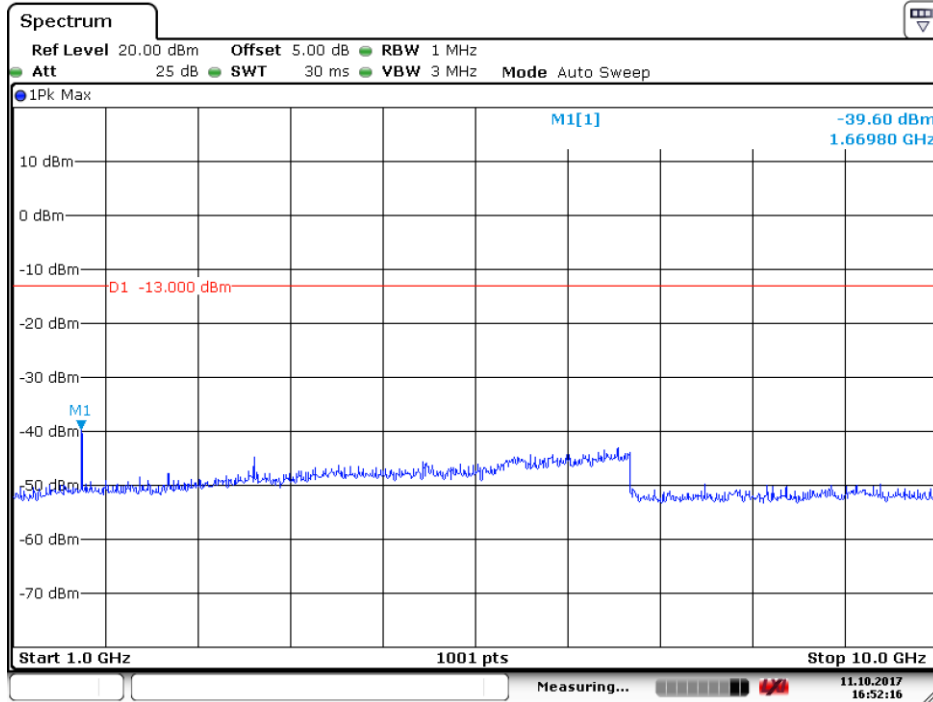


Date: 11.OCT.2017 16:50:24

6.1.3.1.2 Test Channel = MCH

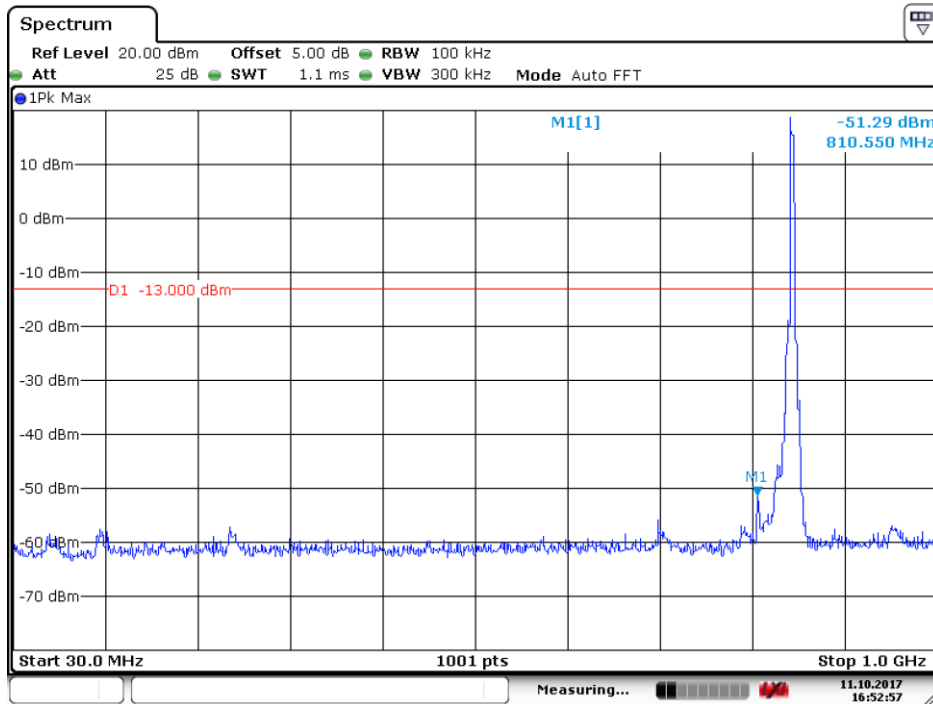


Date: 11.OCT.2017 16:51:54

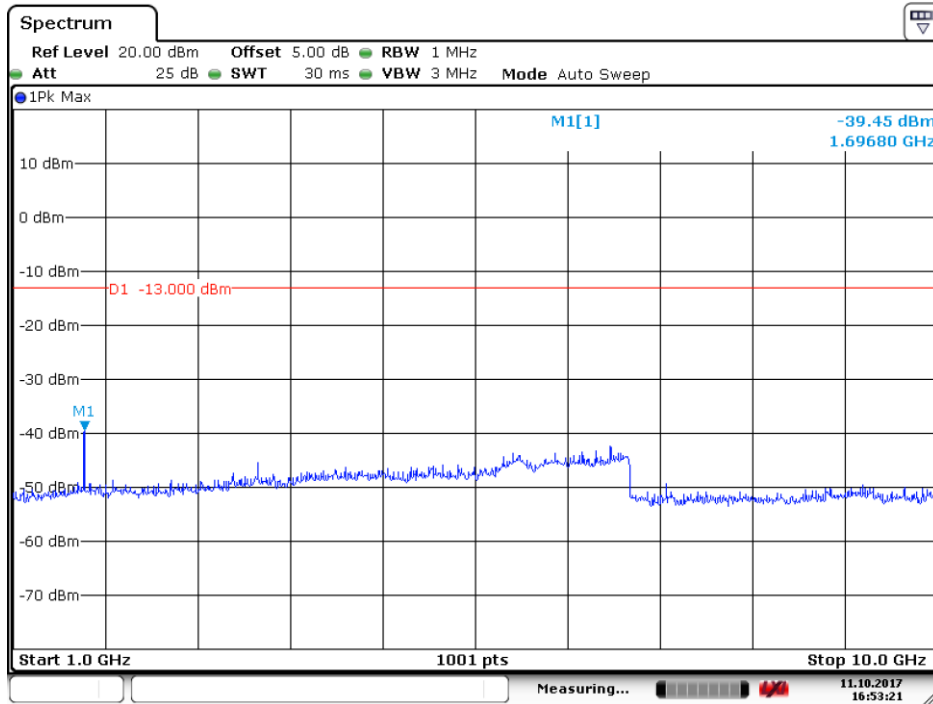


Date: 11.OCT.2017 16:52:16

6.1.3.1.3 Test Channel = HCH



Date: 11.OCT.2017 16:52:57



Date: 11.OCT.2017 16:53:22



7 Field Strength of Spurious Radiation

Part I - Test Plots

7.1 For WCDMA

Main Supply:

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
1483.500	-48.69	-13.00	-35.69	Vertical
4319.175	-54.96	-13.00	-41.96	Vertical
5741.213	-54.25	-13.00	-41.25	Vertical
1761.500	-46.85	-13.00	-33.85	Horizontal
2696.000	-44.92	-13.00	-31.92	Horizontal
6237.975	-52.48	-13.00	-39.48	Horizontal

7.1.1.1.2 Test Channel = MCH

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Over Limit (dB)	Polarization
1202.500	-49.64	-13.00	-36.64	Vertical
4986.075	-54.65	-13.00	-41.65	Vertical
8627.700	-51.81	-13.00	-38.81	Vertical
1295.000	-50.30	-13.00	-37.30	Horizontal
2814.000	-44.11	-13.00	-31.11	Horizontal
5780.700	-54.49	-13.00	-41.49	Horizontal

7.1.1.1.3 Test Channel = HCH

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Over Limit (dB)	Polarization
1738.000	-46.50	-13.00	-33.50	Vertical
2745.000	-44.48	-13.00	-31.48	Vertical
4705.762	-54.20	-13.00	-41.20	Vertical
1250.000	-49.46	-13.00	-36.46	Horizontal
4240.687	-54.73	-13.00	-41.73	Horizontal
7421.137	-52.33	-13.00	-39.33	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
1253.000	-48.80	-13.00	-35.80	Vertical
2672.500	-44.70	-13.00	-31.70	Vertical
5338.537	-54.89	-13.00	-41.89	Vertical
1990.500	-45.29	-13.00	-32.29	Horizontal
2580.000	-45.95	-13.00	-32.95	Horizontal
4995.825	-54.11	-13.00	-41.11	Horizontal

7.1.2.1.1 Test Channel = MCH

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Over Limit (dB)	Polarization
1204.000	-49.00	-13.00	-36.00	Vertical
2692.500	-45.11	-13.00	-32.11	Vertical
5029.462	-54.53	-13.00	-41.53	Vertical
1181.500	-50.15	-13.00	-37.15	Horizontal
4671.150	-55.28	-13.00	-42.28	Horizontal
6322.800	-52.91	-13.00	-39.91	Horizontal

7.1.2.1.2 Test Channel = HCH

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Over Limit (dB)	Polarization
3546.487	-57.29	-13.00	-44.29	Vertical
4288.462	-54.98	-13.00	-41.98	Vertical
6960.450	-52.07	-13.00	-39.07	Vertical
1206.500	-49.45	-13.00	-36.45	Horizontal
2852.000	-44.21	-13.00	-31.21	Horizontal
5103.0750	-54.35	-13.00	-41.35	Horizontal



7.1.3 Test Band = WCDMA band 850

7.1.3.1 Test Mode = UMTS/TM1

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Over Limit (dB)	Polarization
4356.225	-54.02	-13.00	-41.02	Vertical
5513.062	-54.43	-13.00	-41.43	Vertical
6996.525	-52.79	-13.00	-39.79	Vertical
3654.225	-56.44	-13.00	-43.44	Horizontal
4989.975	-55.26	-13.00	-42.26	Horizontal
6991.162	-51.85	-13.00	-38.85	Horizontal

7.1.3.1.1 Test Channel = MCH

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Over Limit (dB)	Polarization
1254.000	-49.26	-13.00	-36.26	Vertical
2703.000	-44.86	-13.00	-31.86	Vertical
4004.737	-55.87	-13.00	-42.87	Vertical
1210.000	-49.93	-13.00	-36.93	Horizontal
1804.000	-45.80	-13.00	-32.80	Horizontal
2107.000	-44.55	-13.00	-31.55	Horizontal

7.1.3.1.2 Test Channel = HCH

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Over Limit (dB)	Polarization
3838.012	-56.08	-13.00	-43.08	Vertical
5063.587	-54.53	-13.00	-41.53	Vertical
7407.487	-52.78	-13.00	-39.78	Vertical
1349.000	-50.04	-13.00	-37.04	Horizontal
4423.500	-55.24	-13.00	-42.24	Horizontal
6493.425	-53.13	-13.00	-40.13	Horizontal

Secondary Supply:

7.1.4 Test Band = WCDMA 1900

7.1.4.1 Test Mode = UMTS/TM1

7.1.4.1.1 Test Channel = MCH

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Over Limit (dB)	Polarization
3758.550	-51.17	-13.00	-38.17	Vertical
5637.375	-48.76	-13.00	-35.76	Vertical
9277.050	-51.87	-13.00	-38.87	Vertical
3758.062	-51.47	-13.00	-38.47	Horizontal
6216.525	-52.62	-13.00	-39.62	Horizontal
9575.400	-51.30	-13.00	-38.30	Horizontal



7.1.5 Test Band = WCDMAband 1700

7.1.5.1.1 Test Channel = MCH

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Over Limit (dB)	Polarization
3462.150	-51.81	-13.00	-38.81	Vertical
5195.212	-46.29	-13.00	-33.29	Vertical
7929.600	-50.93	-13.00	-37.93	Vertical
3463.125	-53.31	-13.00	-40.31	Horizontal
5195.700	-47.09	-13.00	-34.09	Horizontal
9582.225	-50.67	-13.00	-37.67	Horizontal

7.1.6 Test Band = WCDMAband 850

7.1.6.1.1 Test Channel = MCH

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Over Limit (dB)	Polarization
1814.500	-39.52	-13.00	-26.52	Vertical
2585.000	-52.93	-13.00	-39.93	Vertical
6086.850	-64.43	-13.00	-51.43	Vertical
1810.500	-41.12	-13.00	-28.12	Horizontal
2576.500	-49.76	-13.00	-36.76	Horizontal
6224.325	-64.71	-13.00	-51.71	Horizontal

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	3.28	0.00177	PASS
				VN	-0.32	-0.00017	PASS
				VH	0.42	0.00023	PASS
		MCH	TN	VL	1.83	0.00097	PASS
				VN	0.76	0.00040	PASS
				VH	-1.67	-0.00089	PASS
		HCH	TN	VL	2.64	0.00138	PASS
				VN	-2.68	-0.00140	PASS
				VH	-4.44	-0.00233	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	-3.58	-0.00209	PASS
				VN	-3.48	-0.00203	PASS
				VH	2.36	0.00138	PASS
		MCH	TN	VL	-1.84	-0.00106	PASS
				VN	0.35	0.00020	PASS
				VH	-2.25	-0.00130	PASS
		HCH	TN	VL	5.75	0.00328	PASS
				VN	-4.11	-0.00235	PASS
				VH	4.80	0.00274	PASS



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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	-3.48	-0.00421	PASS
				VN	-2.48	-0.00300	PASS
				VH	2.52	0.00305	PASS
		MCH	TN	VL	-1.84	-0.00220	PASS
				VN	0.38	0.00045	PASS
				VH	-2.65	-0.00317	PASS
		HCH	TN	VL	4.75	0.00561	PASS
				VN	-4.91	-0.00580	PASS
				VH	2.40	0.00283	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	-2.73	-0.00147	PASS
				-20	1.64	0.00089	PASS
				-10	0.17	0.00009	PASS
				0	-2.62	-0.00141	PASS
				10	0.46	0.00025	PASS
				20	-5.80	-0.00313	PASS
				30	1.68	0.00091	PASS
				40	-0.34	-0.00018	PASS
				50	-6.51	-0.00351	PASS
		MCH	VN	-30	-3.30	-0.00176	PASS
				-20	-1.08	-0.00057	PASS
				-10	-0.34	-0.00018	PASS
				0	-3.31	-0.00176	PASS
				10	1.81	0.00096	PASS
				20	4.72	0.00251	PASS
				30	1.62	0.00086	PASS
				40	0.53	0.00028	PASS
				50	-4.25	-0.00226	PASS
		HCH	VN	-30	-0.47	-0.00025	PASS
				-20	3.66	0.00192	PASS
				-10	2.35	0.00123	PASS
				0	-2.52	-0.00132	PASS
				10	1.53	0.00080	PASS
				20	-4.78	-0.00251	PASS
				30	3.94	0.00207	PASS
				40	-0.68	-0.00036	PASS
				50	-4.61	-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 1700	UMTS/TM1	LCH	VN	-30	-3.73	-0.00218	PASS
				-20	-4.25	-0.00248	PASS
				-10	1.48	0.00086	PASS
				0	-1.45	-0.00085	PASS
				10	-0.56	-0.00033	PASS
				20	1.68	0.00098	PASS
				30	-3.81	-0.00222	PASS
				40	-4.30	-0.00251	PASS
				50	-4.64	-0.00271	PASS
		MCH	VN	-30	-1.92	-0.00111	PASS
				-20	1.23	0.00071	PASS
				-10	-2.53	-0.00146	PASS
				0	4.34	0.00250	PASS
				10	-3.15	-0.00182	PASS
				20	-6.53	-0.00377	PASS
				30	-3.57	-0.00206	PASS
				40	-8.12	-0.00469	PASS
				50	-2.11	-0.00122	PASS
		HCH	VN	-30	-3.25	-0.00185	PASS
				-20	5.65	0.00322	PASS
				-10	1.35	0.00077	PASS
				0	-2.37	-0.00135	PASS
				10	-3.58	-0.00204	PASS
				20	-1.16	-0.00066	PASS
				30	1.37	0.00078	PASS
				40	-2.42	-0.00138	PASS
				50	-4.28	-0.00244	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	0.64	0.00077	PASS
				-20	3.25	0.00393	PASS
				-10	5.75	0.00696	PASS
				0	-2.77	-0.00335	PASS
				10	5.22	0.00632	PASS
				20	3.74	0.00453	PASS
				30	-5.36	-0.00649	PASS
				40	3.45	0.00417	PASS
				50	3.69	0.00447	PASS
		MCH	VN	-30	1.34	0.00160	PASS
				-20	2.23	0.00267	PASS
				-10	-2.46	-0.00294	PASS
				0	3.38	0.00404	PASS
				10	1.38	0.00165	PASS
				20	1.37	0.00164	PASS
				30	-4.46	-0.00533	PASS
				40	-2.83	-0.00338	PASS
				50	1.39	0.00166	PASS
		HCH	VN	-30	4.04	0.00477	PASS
				-20	3.72	0.00439	PASS
				-10	2.32	0.00274	PASS
				0	-4.50	-0.00532	PASS
				10	2.94	0.00347	PASS
				20	3.87	0.00457	PASS
				30	-2.72	-0.00321	PASS
				40	1.56	0.00184	PASS
				50	2.74	0.00324	PASS

The End