

Report No.: SZEM170700703401

Page: 98 of 176



Date: 22.DEC.2016 16:43:51

#### 5.1.1.8 Test Mode = LTE/TM2 10MHz

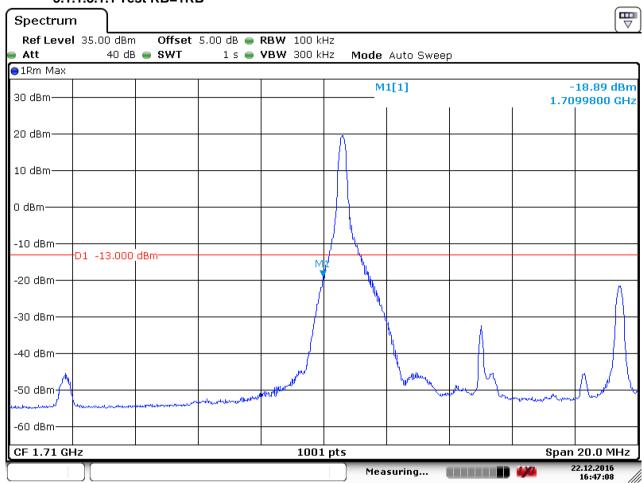


Report No.: SZEM170700703401

Page: 99 of 176

#### **5.1.1.8.1** Test Channel = LCH

#### 5.1.1.8.1.1 Test RB=1RB



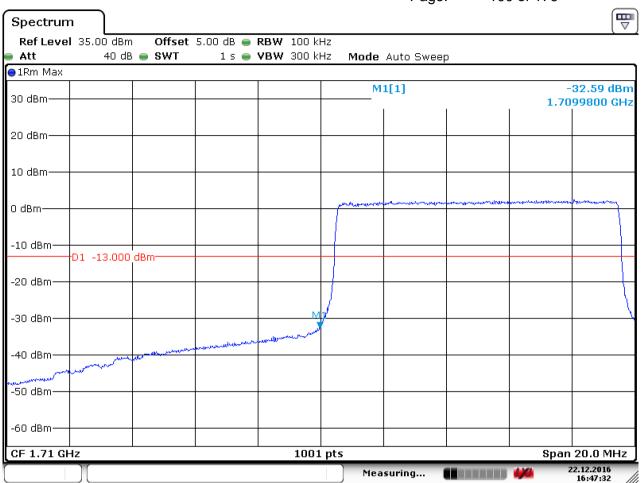
Date: 22.DEC.2016 16:47:08

#### 5.1.1.8.1.2 Test RB=50RB



Report No.: SZEM170700703401

Page: 100 of 176



Date: 22.DEC.2016 16:47:33

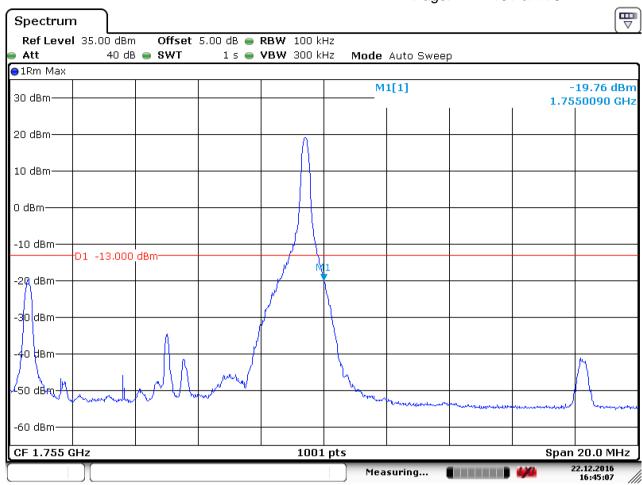
5.1.1.8.2 Test Channel = HCH

5.1.1.8.2.1 Test RB=1RB



Report No.: SZEM170700703401

Page: 101 of 176



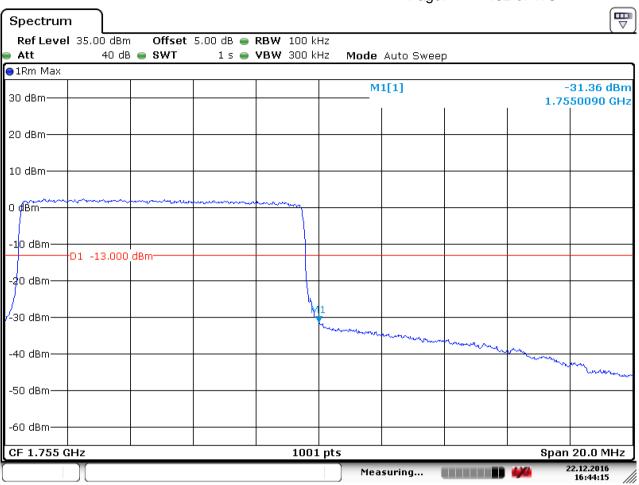
Date: 22.DEC.2016 16:45:08

#### 5.1.1.8.2.2 Test RB=50RB



Report No.: SZEM170700703401

Page: 102 of 176



Date: 22.DEC.2016 16:44:14

#### 5.1.1.9 Test Mode = LTE/TM1 15MHz

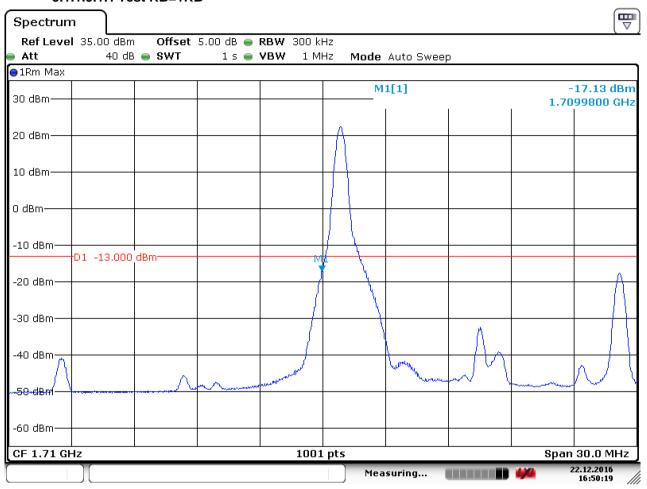


Report No.: SZEM170700703401

Page: 103 of 176

#### 5.1.1.9.1 Test Channel = LCH

#### 5.1.1.9.1.1 Test RB=1RB

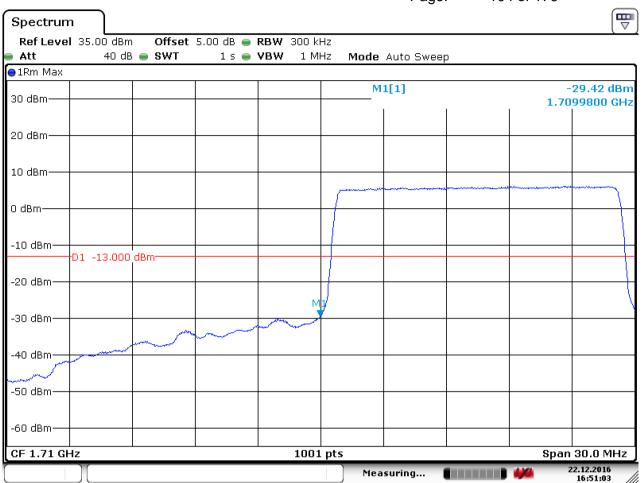


Date: 22.DEC.2016 16:50:19



Report No.: SZEM170700703401

Page: 104 of 176



Date: 22.DEC.2016 16:51:03

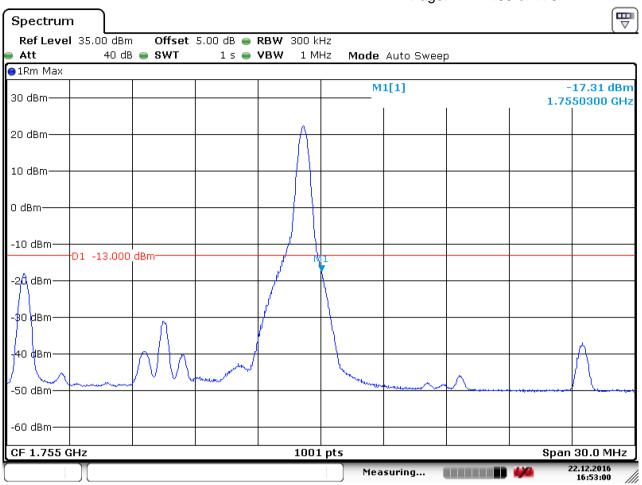
5.1.1.9.2 Test Channel = HCH

5.1.1.9.2.1 Test RB=1RB



Report No.: SZEM170700703401

Page: 105 of 176



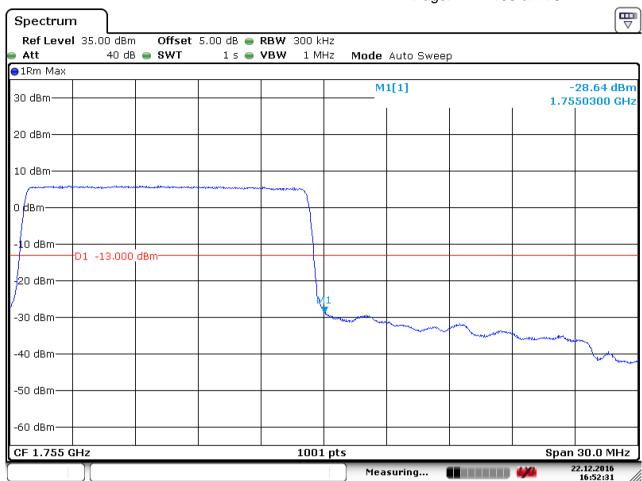
Date: 22.DEC.2016 16:53:00

#### 5.1.1.9.2.2 Test RB=75RB



Report No.: SZEM170700703401

Page: 106 of 176



Date: 22.DEC.2016 16:52:31

#### 5.1.1.10 Test Mode = LTE/TM2 15MHz

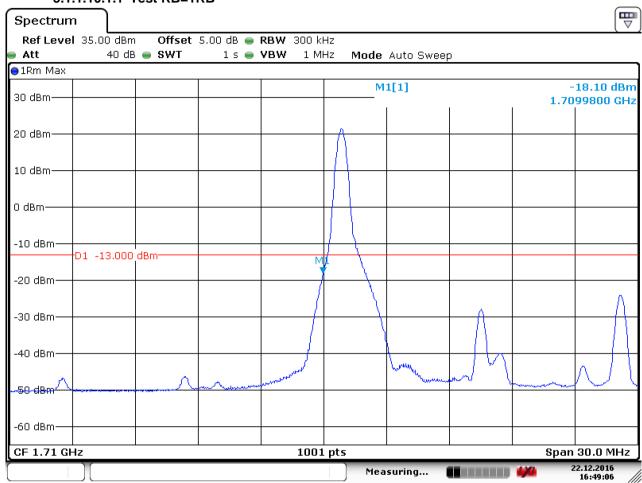


Report No.: SZEM170700703401

Page: 107 of 176

#### 5.1.1.10.1 Test Channel = LCH

#### 5.1.1.10.1.1 Test RB=1RB

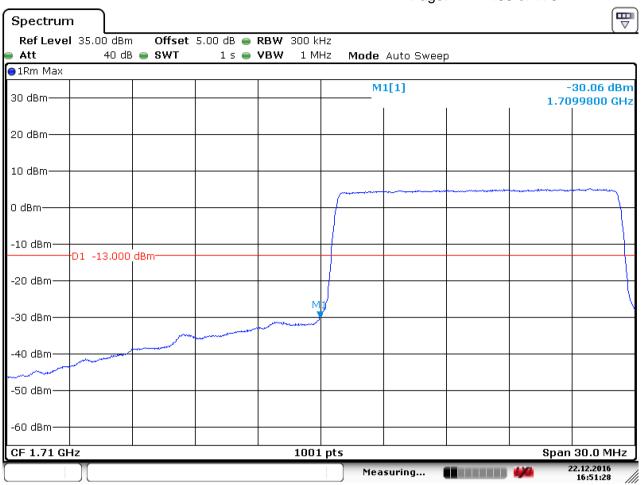


Date: 22.DEC.2016 16:49:06



Report No.: SZEM170700703401

Page: 108 of 176



Date: 22.DEC.2016 16:51:27

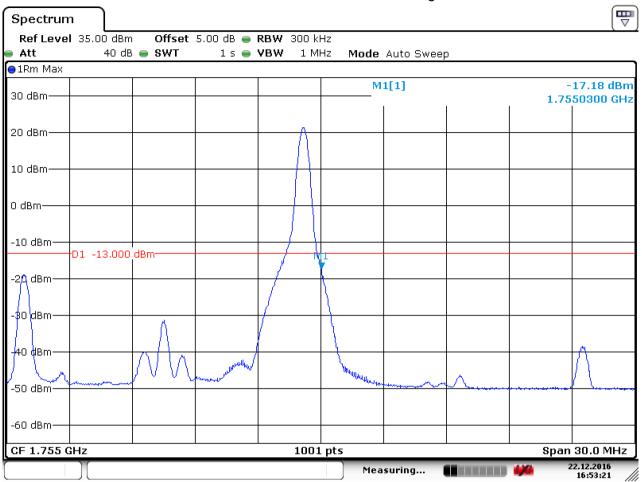
**5.1.1.10.2 Test Channel = HCH** 

5.1.1.10.2.1 Test RB=1RB



Report No.: SZEM170700703401

Page: 109 of 176



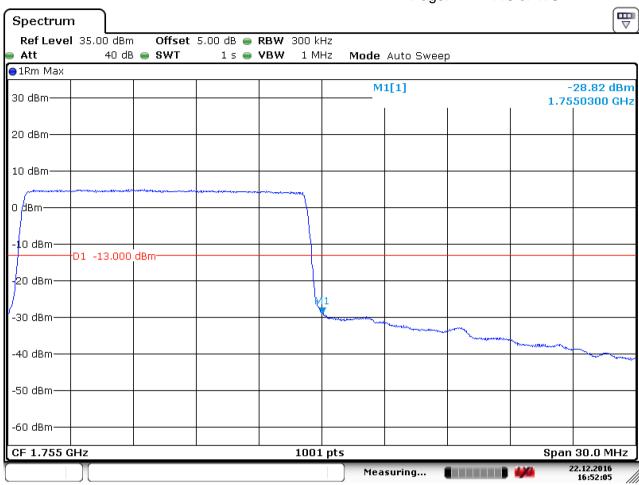
Date: 22.DEC.2016 16:53:22

#### 5.1.1.10.2.2 Test RB=75RB



Report No.: SZEM170700703401

Page: 110 of 176



Date: 22.DEC.2016 16:52:05

#### 5.1.1.11 Test Mode = LTE/TM1 20MHz

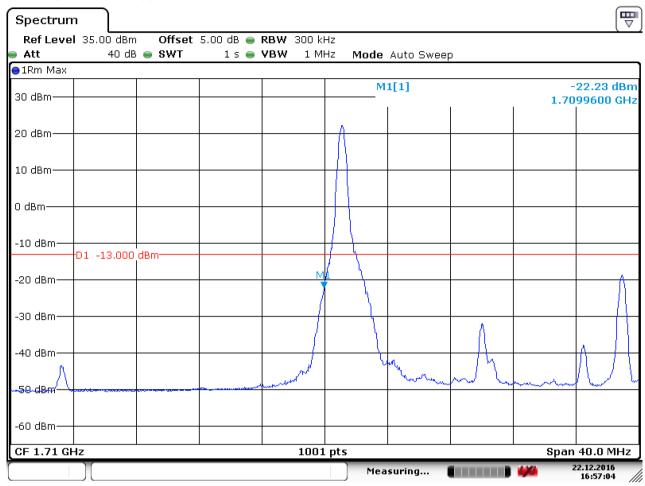


Report No.: SZEM170700703401

Page: 111 of 176

#### 5.1.1.11.1 Test Channel = LCH

#### 5.1.1.11.1.1 Test RB=1RB

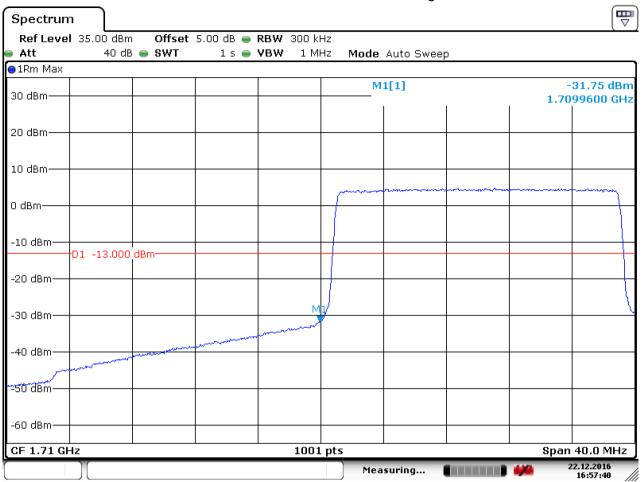


Date: 22.DEC.2016 16:57:05



Report No.: SZEM170700703401

Page: 112 of 176



Date: 22.DEC.2016 16:57:40

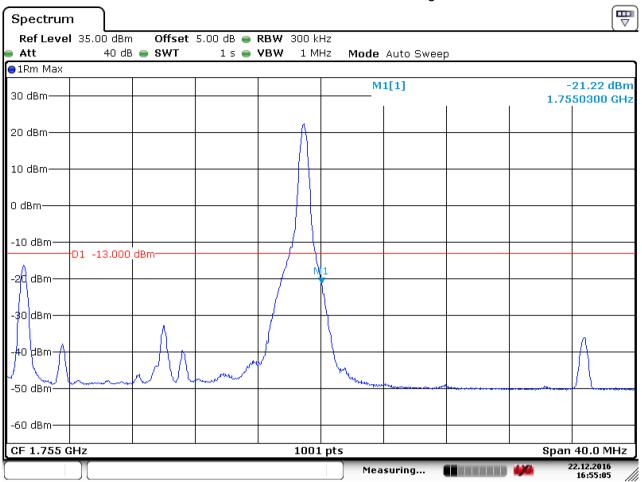
5.1.1.11.2 Test Channel = HCH

5.1.1.11.2.1 Test RB=1RB



Report No.: SZEM170700703401

Page: 113 of 176



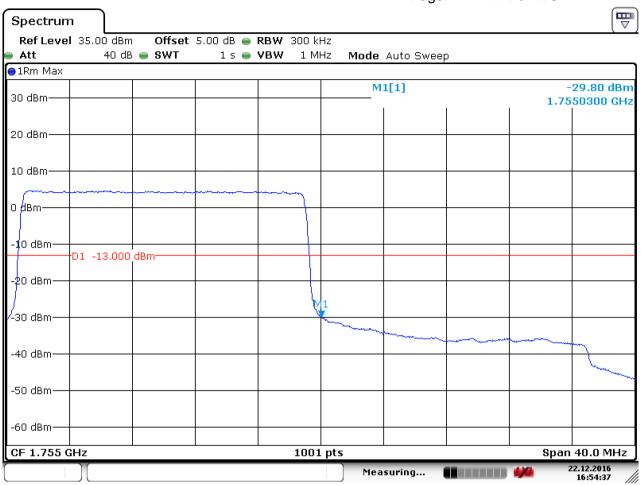
Date: 22.DEC.2016 16:55:05

#### 5.1.1.11.2.2 Test RB=100RB



Report No.: SZEM170700703401

Page: 114 of 176



Date: 22.DEC.2016 16:54:38

#### 5.1.1.12 Test Mode = LTE/TM2 20MHz

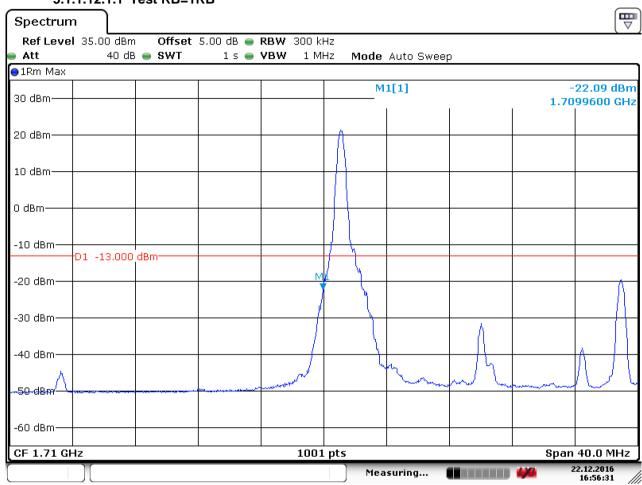


Report No.: SZEM170700703401

Page: 115 of 176

#### 5.1.1.12.1 Test Channel = LCH

#### 5.1.1.12.1.1 Test RB=1RB

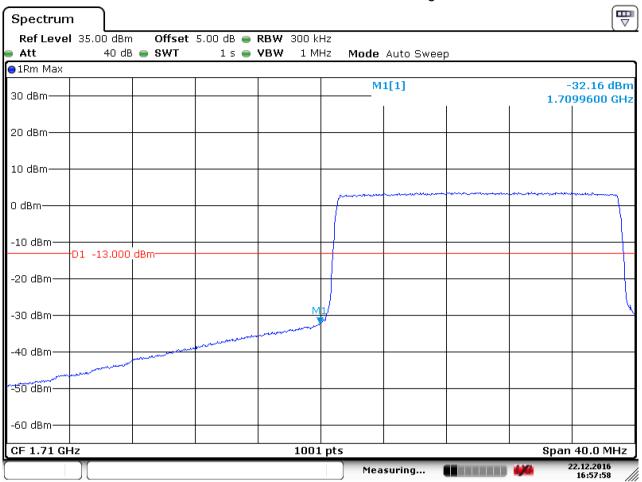


Date: 22.DEC.2016 16:56:31



Report No.: SZEM170700703401

Page: 116 of 176



Date: 22.DEC.2016 16:57:58

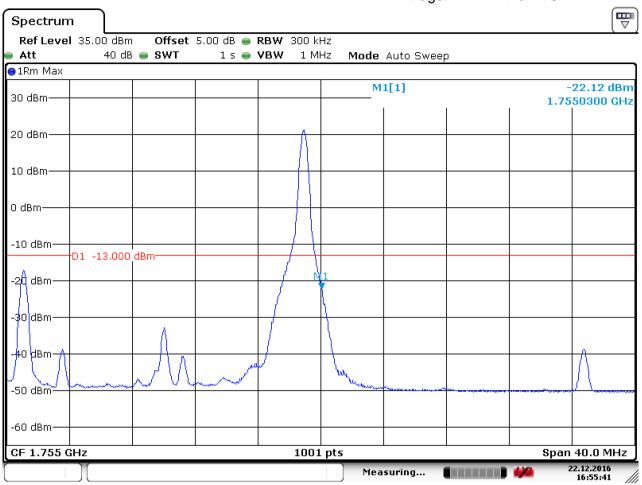
5.1.1.12.2 Test Channel = HCH

5.1.1.12.2.1 Test RB=1RB



Report No.: SZEM170700703401

Page: 117 of 176



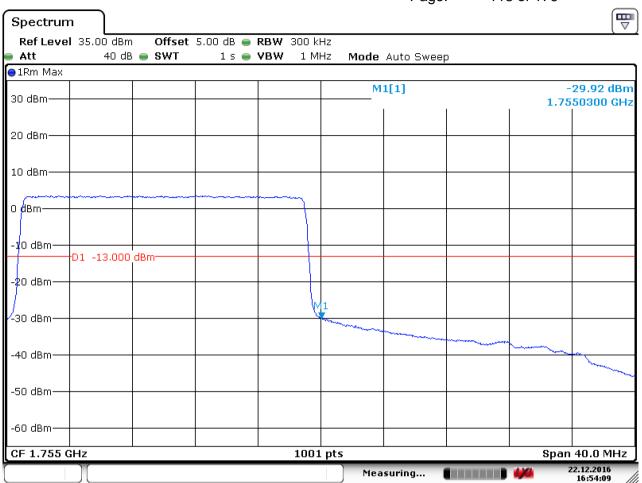
Date: 22.DEC.2016 16:55:41

#### 5.1.1.12.2.2 Test RB=100RB



Report No.: SZEM170700703401

Page: 118 of 176



Date: 22.DEC.2016 16:54:09



Report No.: SZEM170700703401

Page: 119 of 176

#### 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 = 4 \* (Span / RBW) with k = 4 \* (Span / RBW) with k = 4 \* (Span / RBW) with k = 4 \* (Span / RBW).

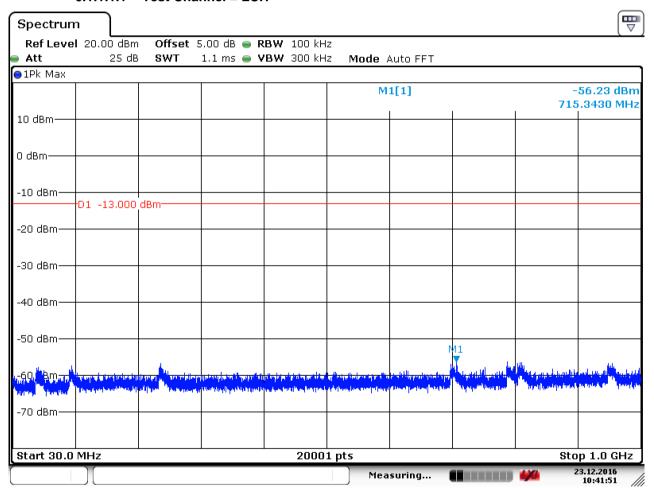
Part I - Test Plots

#### 6.1 For LTE

#### 6.1.1 Test Band = LTE band4

#### 6.1.1.1 Test Mode = LTE / TM1 1.4MHz RB1#0

6.1.1.1.1 Test Channel = LCH

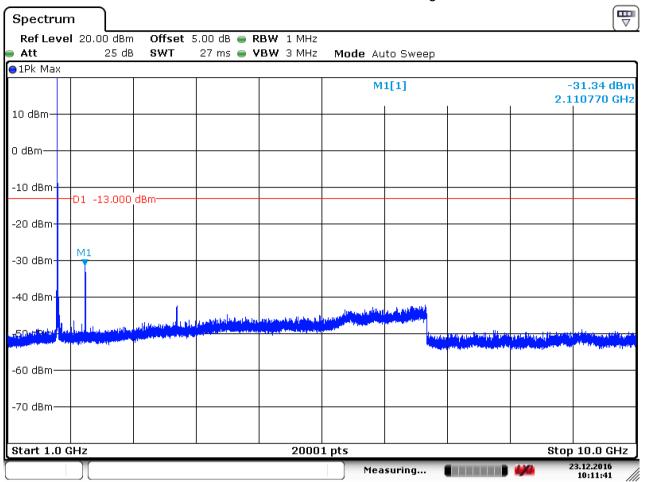


Date: 23.DEC.2016 10:41:51



Report No.: SZEM170700703401

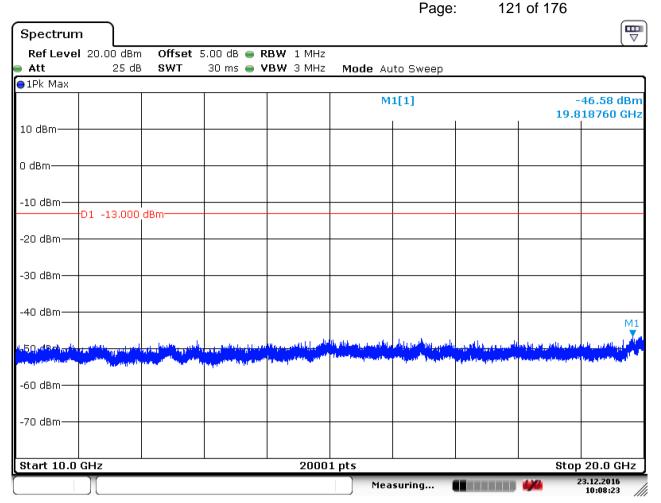
Page: 120 of 176



Date: 23.DEC.2016 10:11:41



Report No.: SZEM170700703401



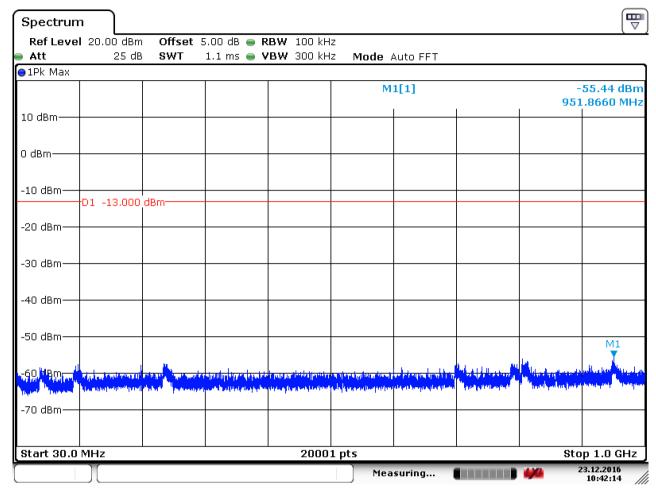
Date: 23.DEC.2016 10:08:24



Report No.: SZEM170700703401

Page: 122 of 176

#### 6.1.1.1.2 Test Channel = MCH

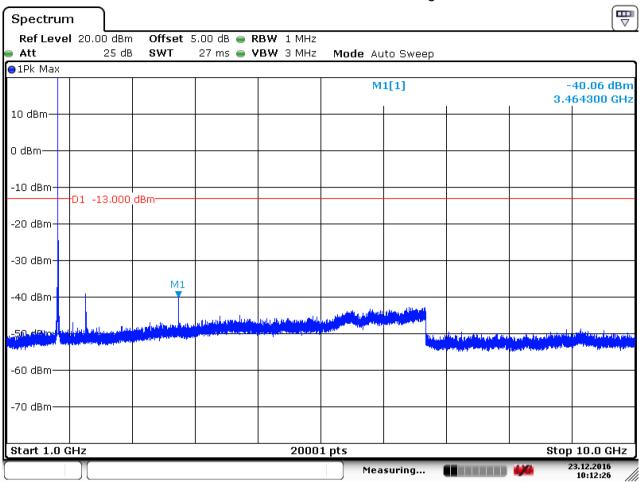


Date: 23.DEC.2016 10:42:14



Report No.: SZEM170700703401

Page: 123 of 176

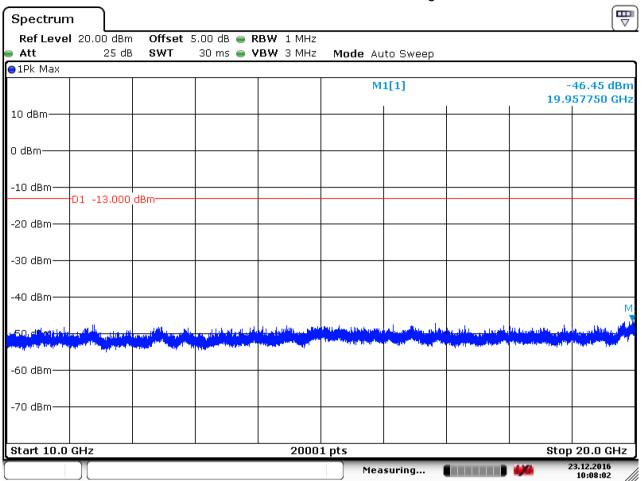


Date: 23.DEC.2016 10:12:27



Report No.: SZEM170700703401

Page: 124 of 176



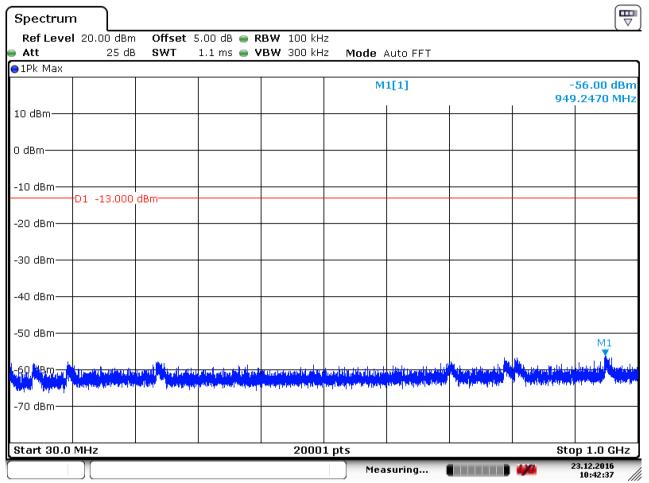
Date: 23.DEC.2016 10:08:03



Report No.: SZEM170700703401

Page: 125 of 176

#### 6.1.1.1.3 Test Channel = HCH

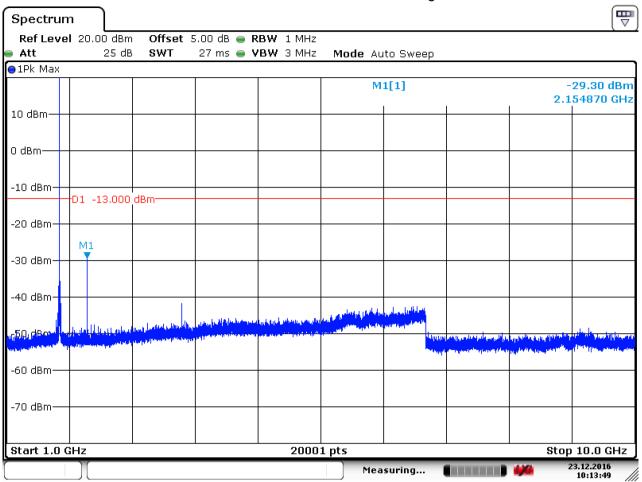


Date: 23.DEC.2016 10:42:37



Report No.: SZEM170700703401

Page: 126 of 176

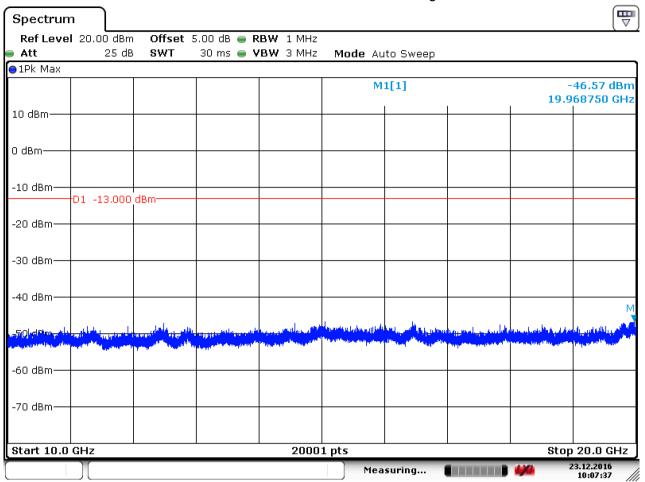


Date: 23.DEC.2016 10:13:50



Report No.: SZEM170700703401

Page: 127 of 176



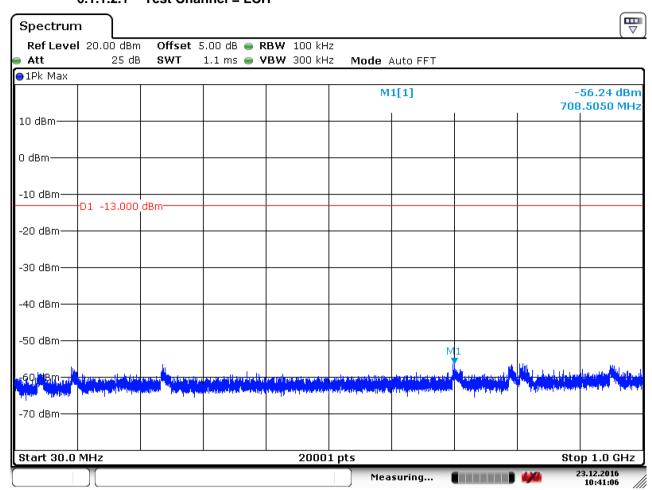
Date: 23.DEC.2016 10:07:38



Report No.: SZEM170700703401

Page: 128 of 176

#### 6.1.1.2 Test Mode = LTE / TM1 3MHz RB1#0 6.1.1.2.1 Test Channel = LCH

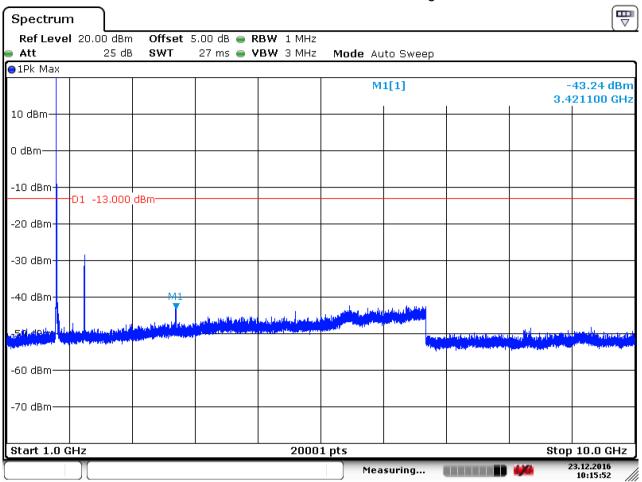


Date: 23.DEC.2016 10:41:06



Report No.: SZEM170700703401

Page: 129 of 176

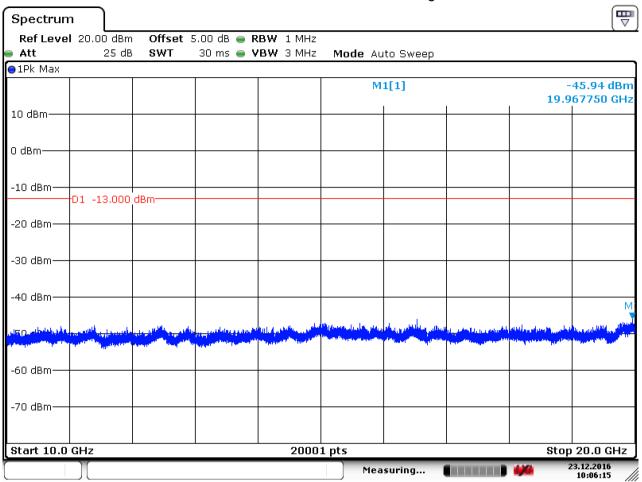


Date: 23.DEC.2016 10:15:52



Report No.: SZEM170700703401

Page: 130 of 176



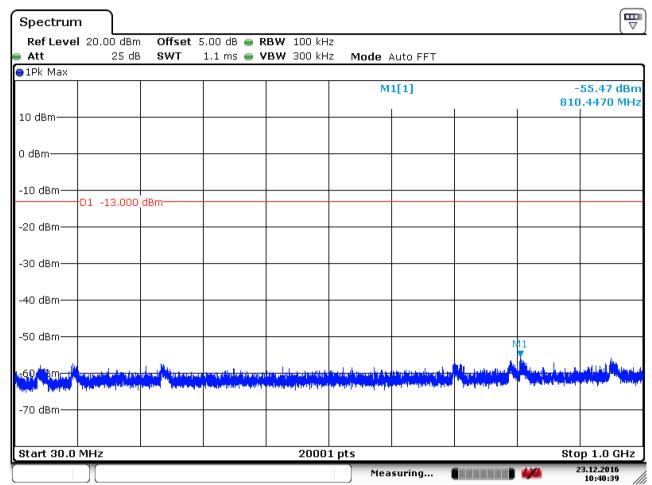
Date: 23.DEC.2016 10:06:15



Report No.: SZEM170700703401

Page: 131 of 176

#### 6.1.1.2.2 Test Channel = MCH

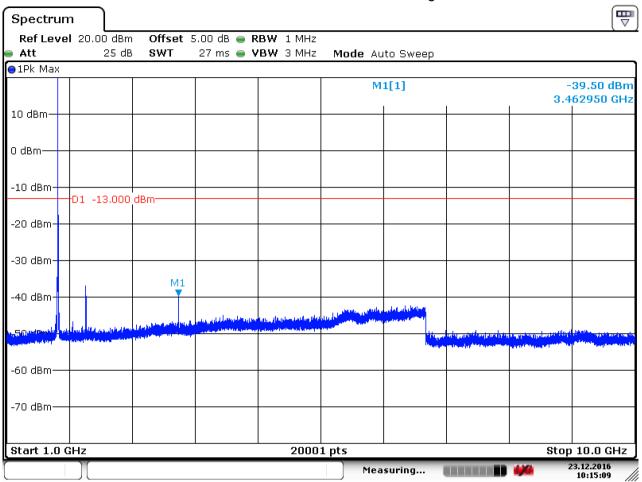


Date: 23.DEC.2016 10:40:39



Report No.: SZEM170700703401

Page: 132 of 176

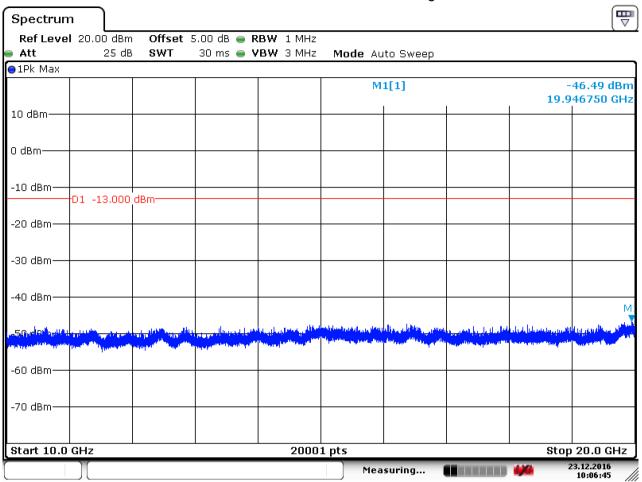


Date: 23.DEC.2016 10:15:10



Report No.: SZEM170700703401

Page: 133 of 176



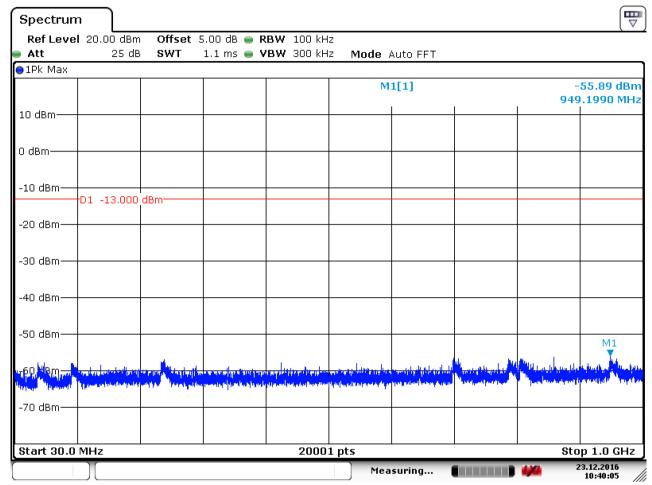
Date: 23.DEC.2016 10:06:46



Report No.: SZEM170700703401

Page: 134 of 176

#### 6.1.1.2.3 Test Channel = HCH

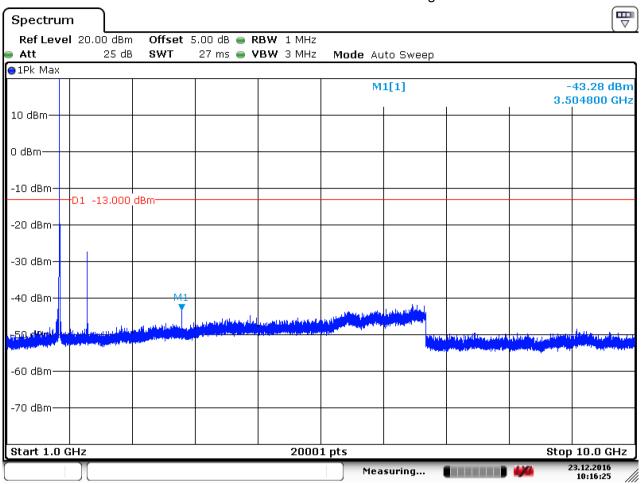


Date: 23.DEC.2016 10:40:06



Report No.: SZEM170700703401

Page: 135 of 176

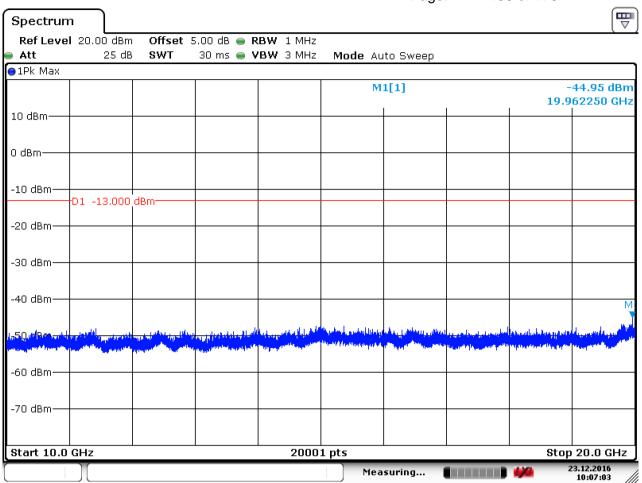


Date: 23.DEC.2016 10:16:25



Report No.: SZEM170700703401

Page: 136 of 176



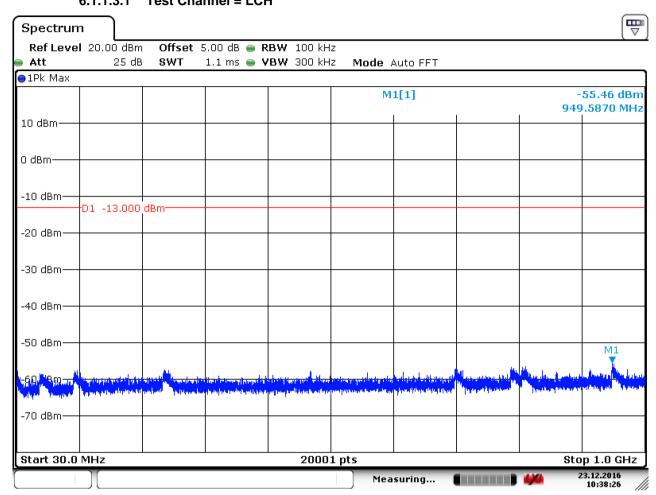
Date: 23.DEC.2016 10:07:04



Report No.: SZEM170700703401

Page: 137 of 176

#### 6.1.1.3 Test Mode = LTE / TM1 5MHz RB1#0 6.1.1.3.1 Test Channel = LCH

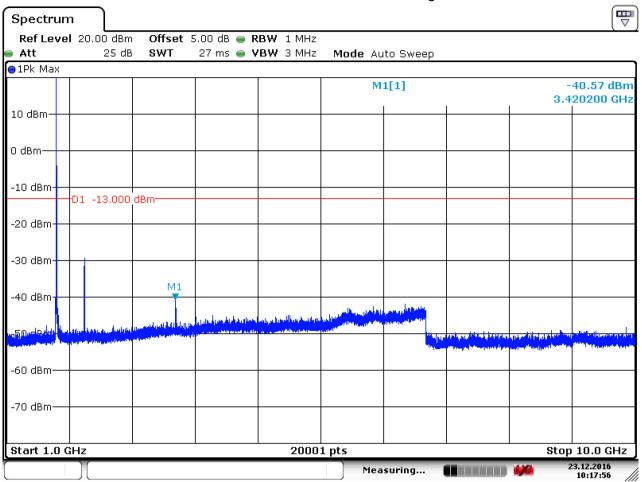


Date: 23.DEC.2016 10:38:27



Report No.: SZEM170700703401

Page: 138 of 176

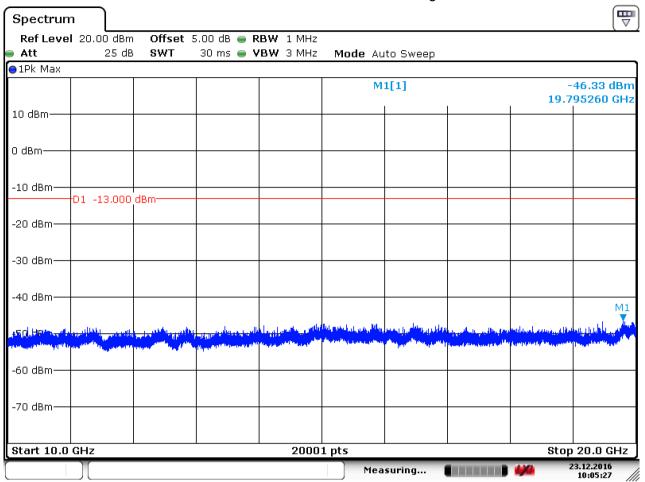


Date: 23.DEC.2016 10:17:56



Report No.: SZEM170700703401

Page: 139 of 176



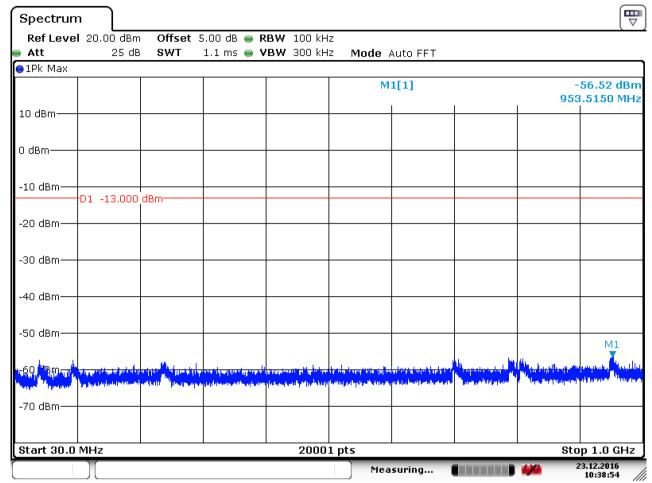
Date: 23.DEC.2016 10:05:27



Report No.: SZEM170700703401

Page: 140 of 176

#### 6.1.1.3.2 Test Channel = MCH

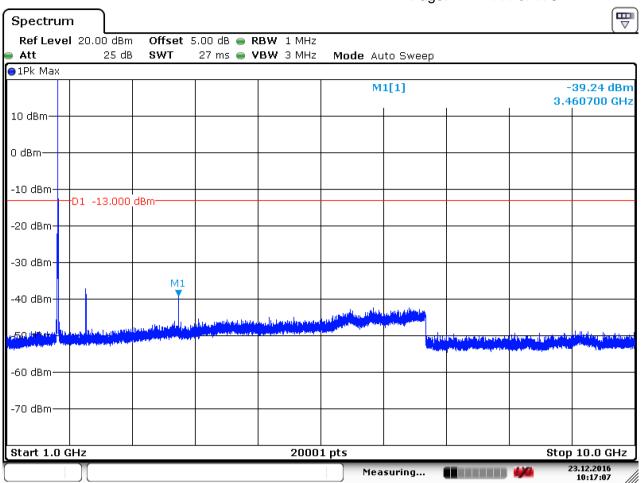


Date: 23.DEC.2016 10:38:54



Report No.: SZEM170700703401

Page: 141 of 176

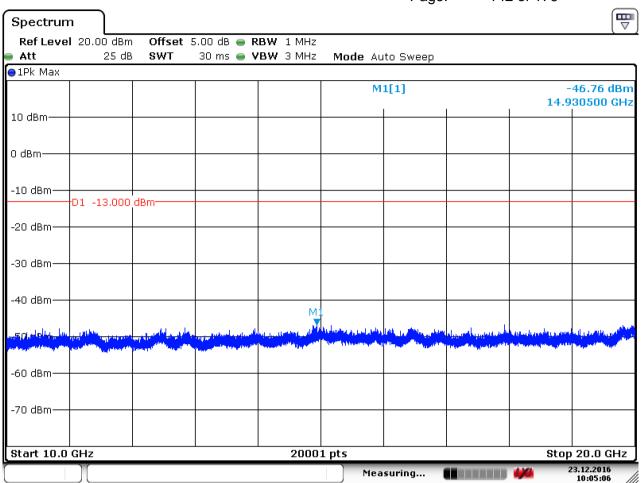


Date: 23.DEC.2016 10:17:07



Report No.: SZEM170700703401

Page: 142 of 176



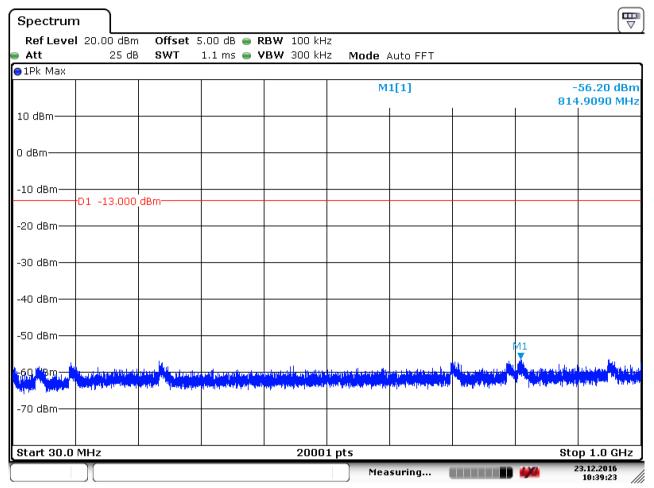
Date: 23.DEC.2016 10:05:06



Report No.: SZEM170700703401

Page: 143 of 176

#### 6.1.1.3.3 Test Channel = HCH

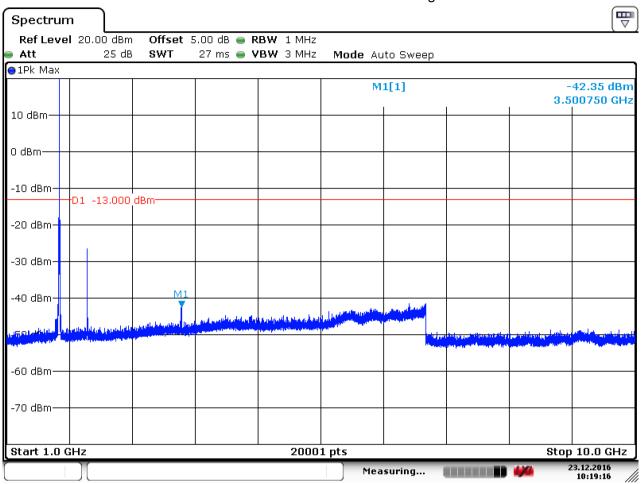


Date: 23.DEC.2016 10:39:23



Report No.: SZEM170700703401

Page: 144 of 176

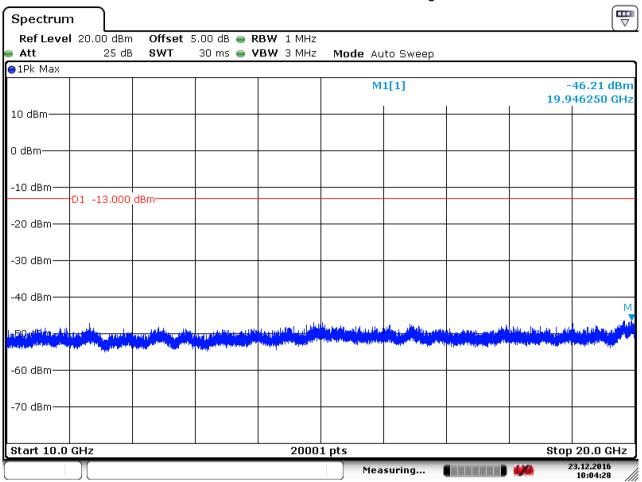


Date: 23.DEC.2016 10:19:17



Report No.: SZEM170700703401

Page: 145 of 176



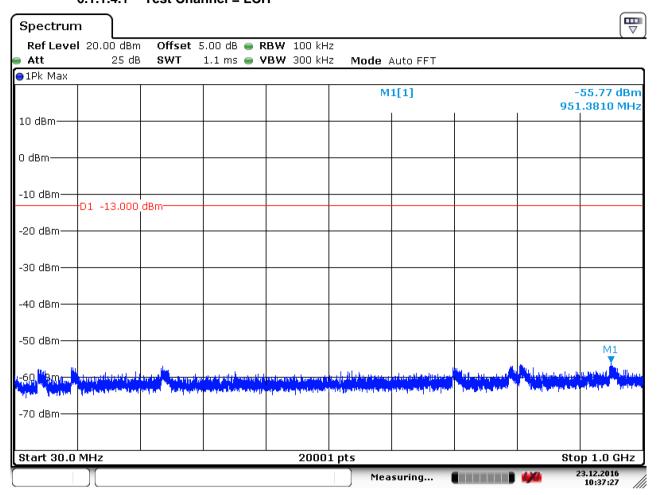
Date: 23.DEC.2016 10:04:29



Report No.: SZEM170700703401

Page: 146 of 176

#### 6.1.1.4 Test Mode = LTE / TM1 10MHz RB1#0 6.1.1.4.1 Test Channel = LCH

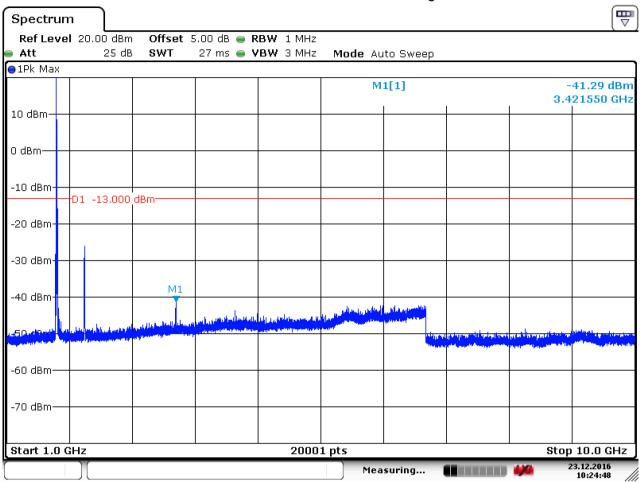


Date: 23.DEC.2016 10:37:27



Report No.: SZEM170700703401

Page: 147 of 176

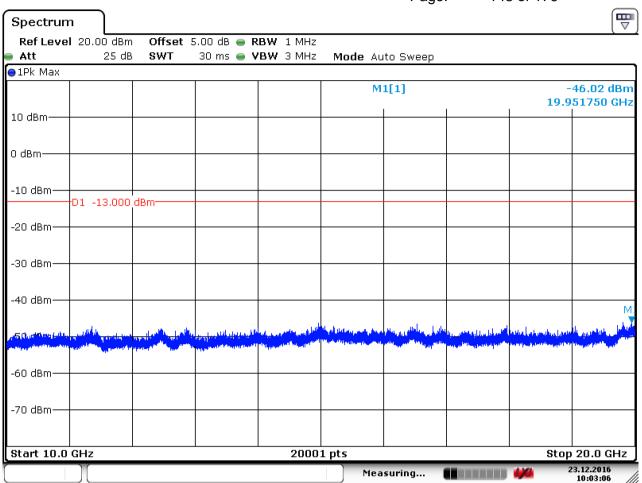


Date: 23.DEC.2016 10:24:48



Report No.: SZEM170700703401

Page: 148 of 176



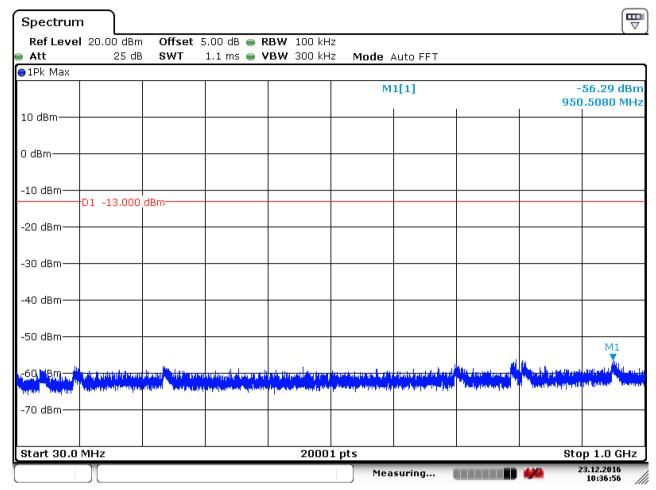
Date: 23.DEC.2016 10:03:06



Report No.: SZEM170700703401

Page: 149 of 176

#### 6.1.1.4.2 Test Channel = MCH

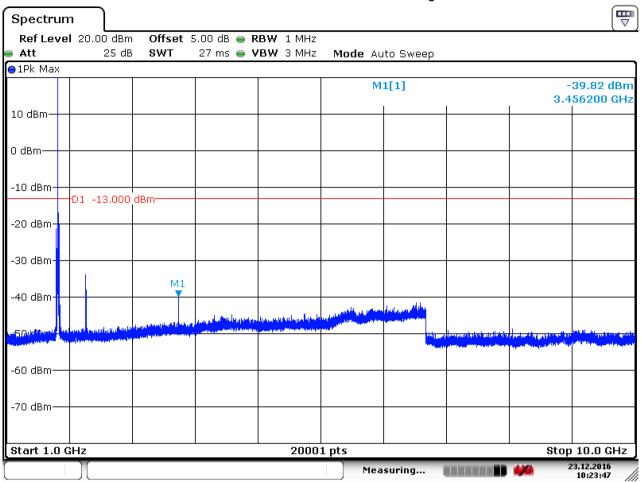


Date: 23.DEC.2016 10:36:56



Report No.: SZEM170700703401

Page: 150 of 176

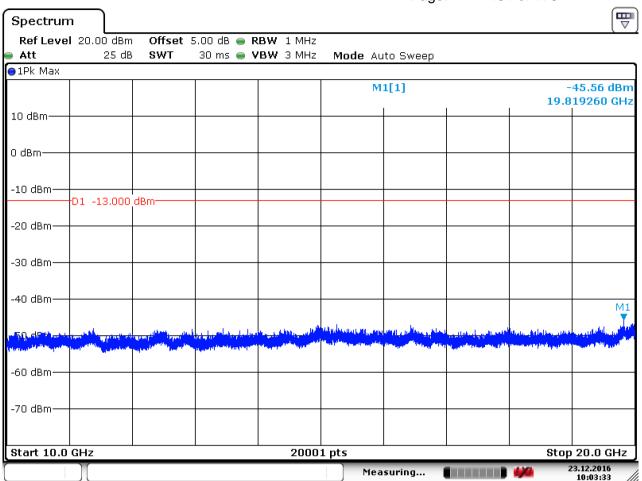


Date: 23.DEC.2016 10:23:47



Report No.: SZEM170700703401

Page: 151 of 176



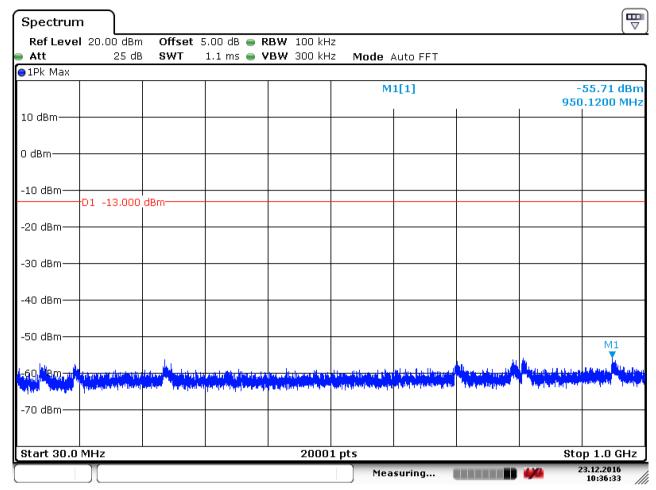
Date: 23.DEC.2016 10:03:34



Report No.: SZEM170700703401

Page: 152 of 176

#### 6.1.1.4.3 Test Channel = HCH

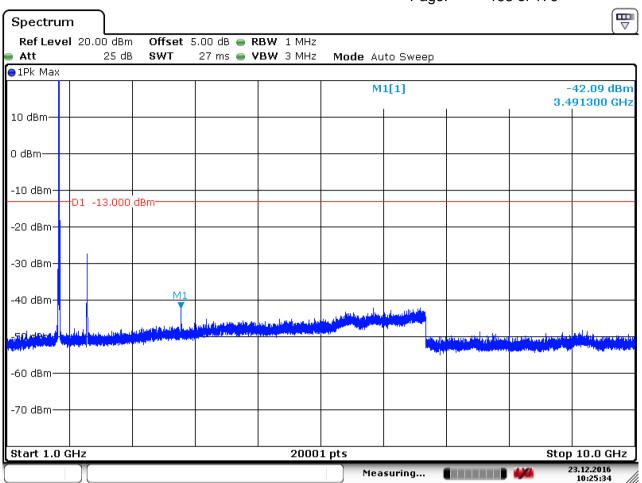


Date: 23.DEC.2016 10:36:33



Report No.: SZEM170700703401

Page: 153 of 176

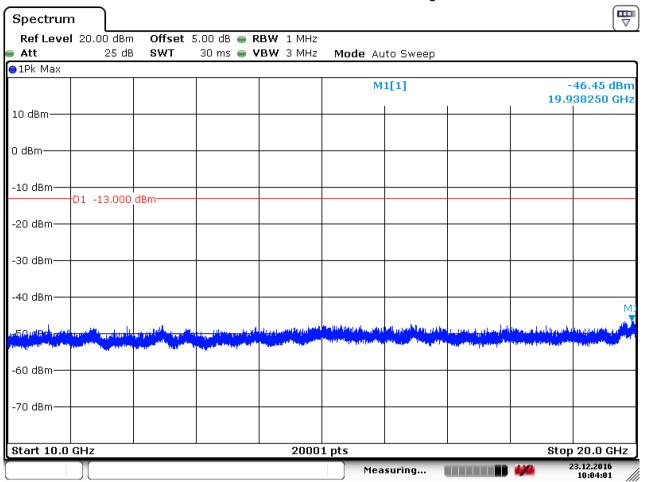


Date: 23.DEC.2016 10:25:34



Report No.: SZEM170700703401

Page: 154 of 176



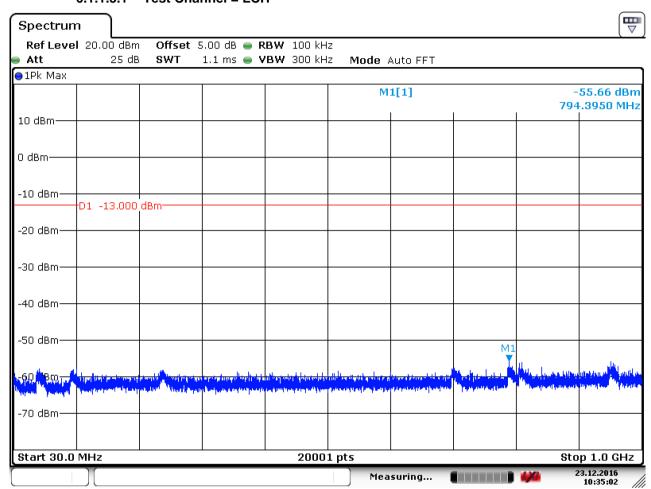
Date: 23.DEC.2016 10:04:01



Report No.: SZEM170700703401

Page: 155 of 176

#### 6.1.1.5 Test Mode = LTE / TM1 15MHz RB1#0 6.1.1.5.1 Test Channel = LCH

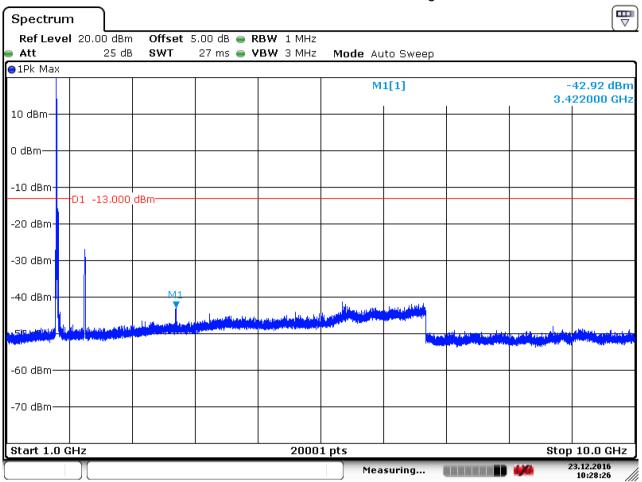


Date: 23.DEC.2016 10:35:02



Report No.: SZEM170700703401

Page: 156 of 176

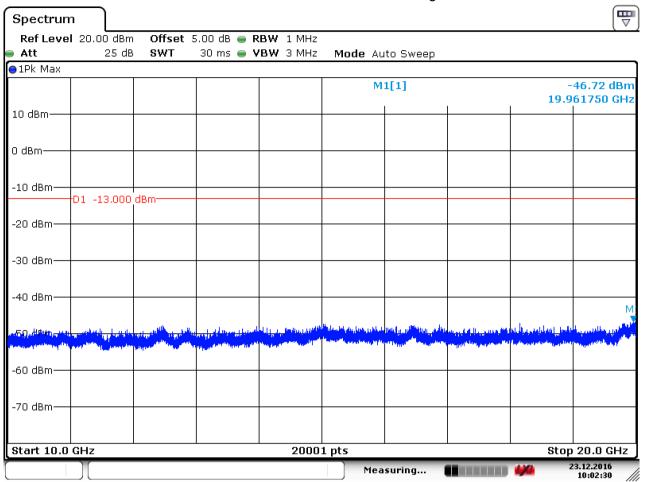


Date: 23.DEC.2016 10:28:27



Report No.: SZEM170700703401

Page: 157 of 176



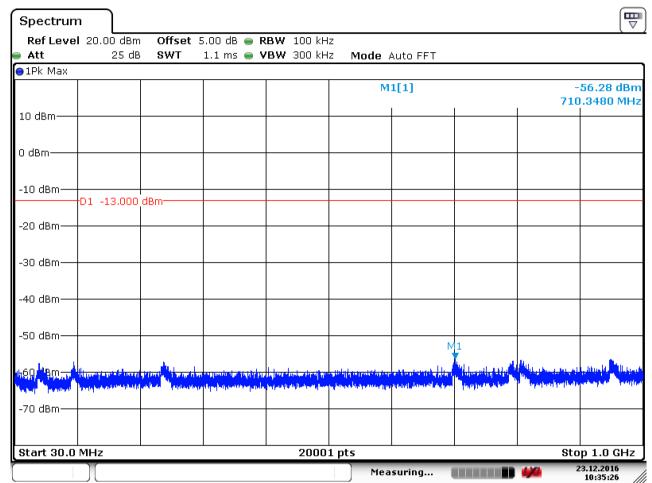
Date: 23.DEC.2016 10:02:29



Report No.: SZEM170700703401

Page: 158 of 176

#### 6.1.1.5.2 Test Channel = MCH

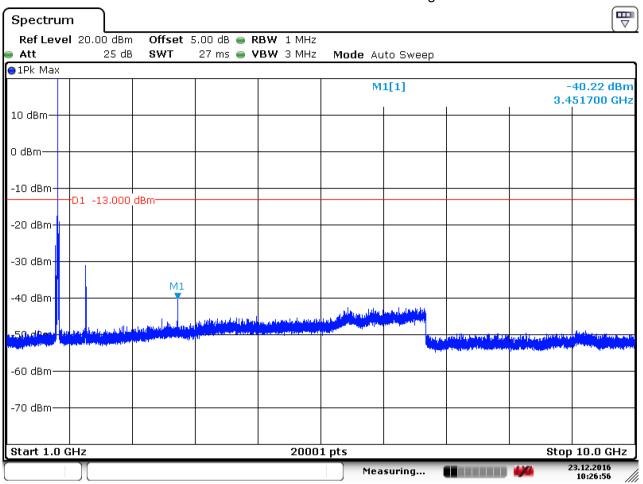


Date: 23.DEC.2016 10:35:26



Report No.: SZEM170700703401

Page: 159 of 176

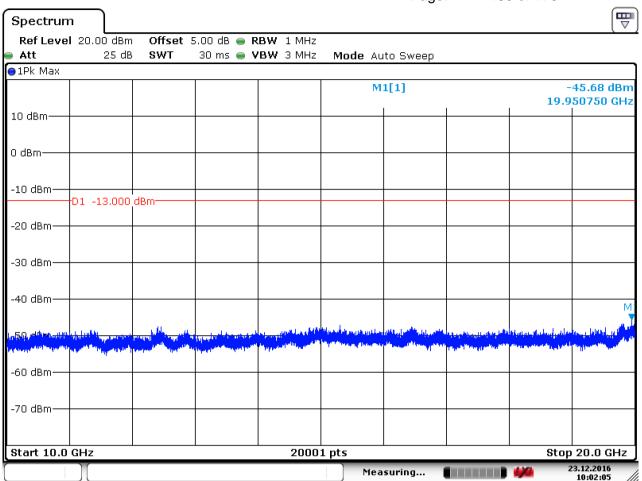


Date: 23.DEC.2016 10:26:56



Report No.: SZEM170700703401

Page: 160 of 176



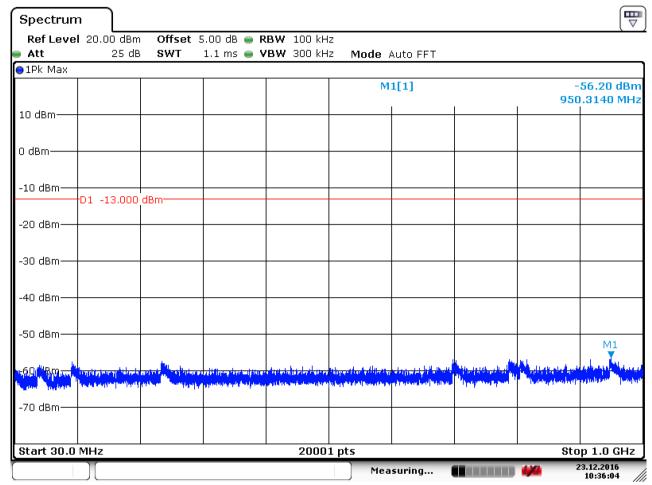
Date: 23.DEC.2016 10:02:05



Report No.: SZEM170700703401

Page: 161 of 176

#### 6.1.1.5.3 Test Channel = HCH

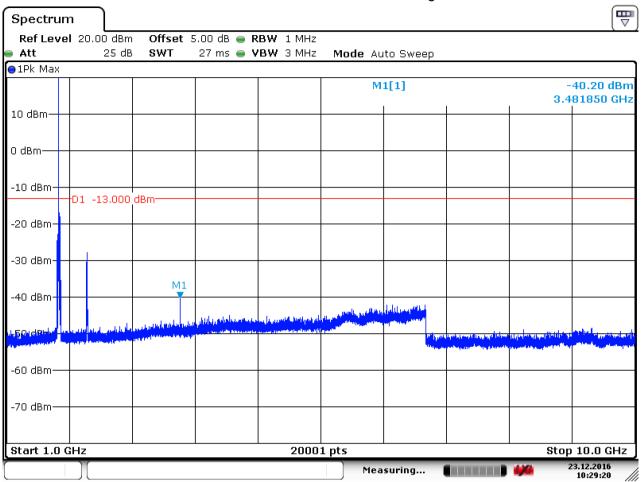


Date: 23.DEC.2016 10:36:05



Report No.: SZEM170700703401

Page: 162 of 176

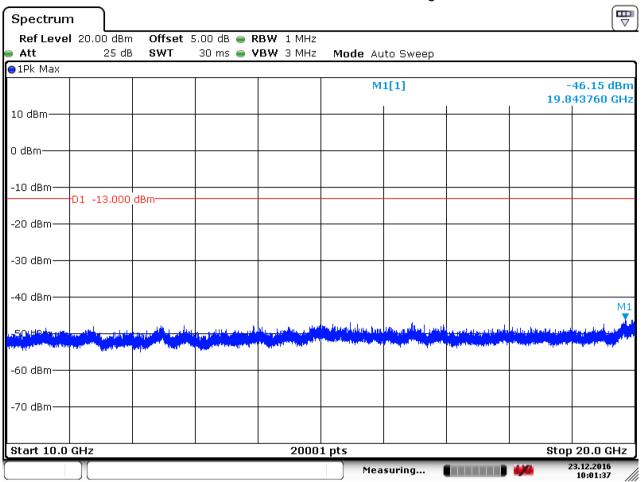


Date: 23.DEC.2016 10:29:20



Report No.: SZEM170700703401

Page: 163 of 176



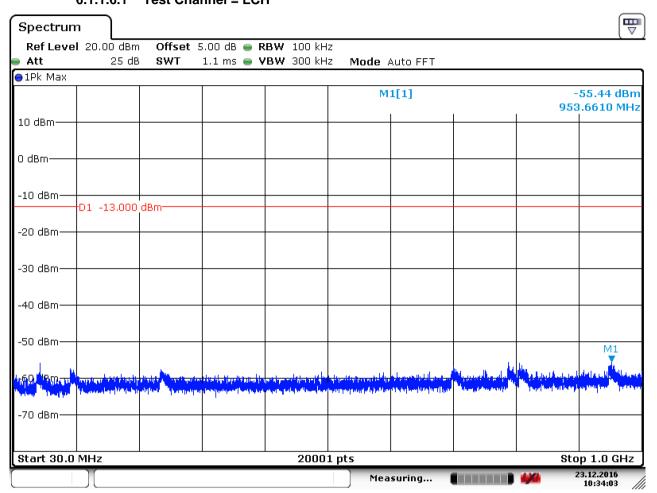
Date: 23.DEC.2016 10:01:37



Report No.: SZEM170700703401

Page: 164 of 176

#### 6.1.1.6 Test Mode = LTE / TM1 20MHz RB1#0 6.1.1.6.1 Test Channel = LCH

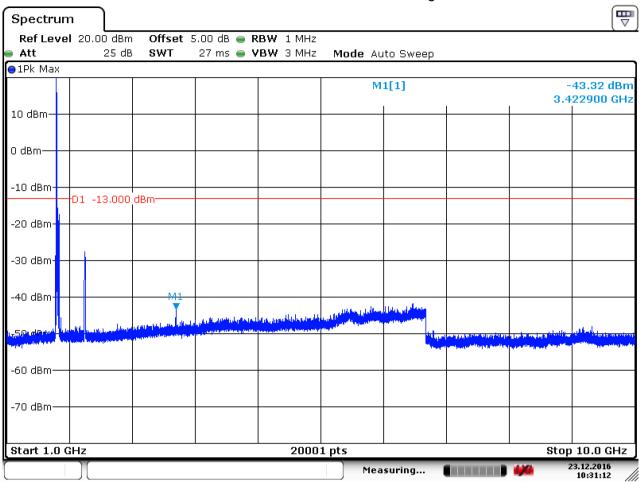


Date: 23.DEC.2016 10:34:03



Report No.: SZEM170700703401

Page: 165 of 176

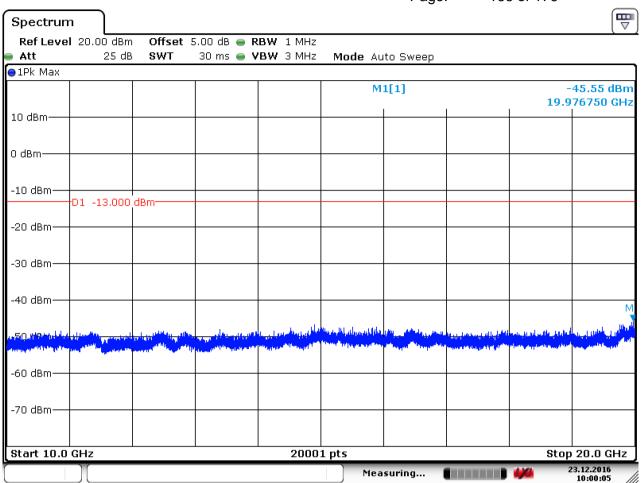


Date: 23.DEC.2016 10:31:13



Report No.: SZEM170700703401

Page: 166 of 176



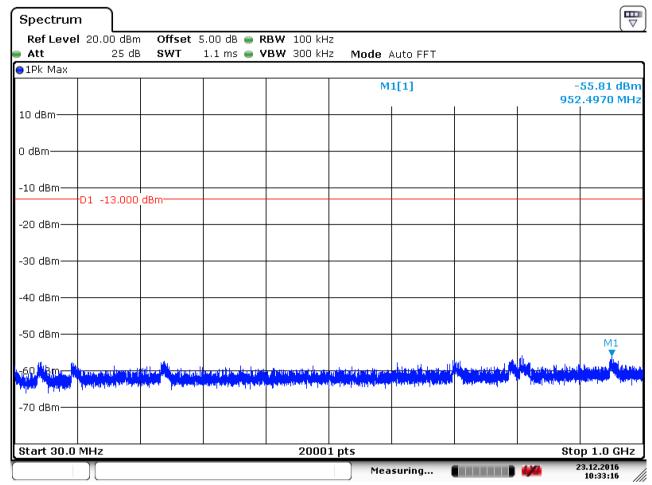
Date: 23.DEC.2016 10:00:05



Report No.: SZEM170700703401

Page: 167 of 176

#### 6.1.1.6.2 Test Channel = MCH

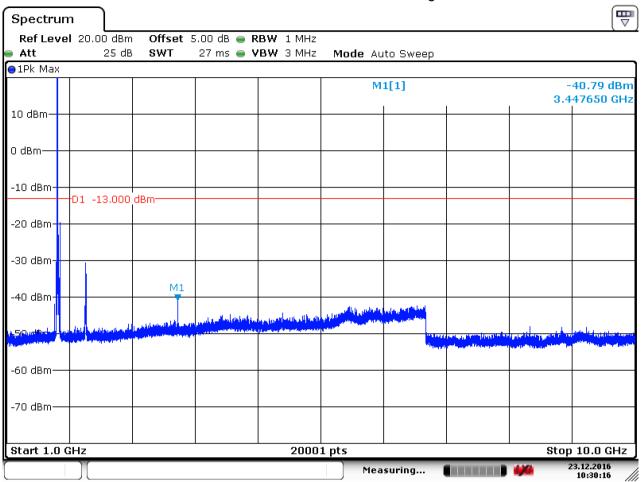


Date: 23.DEC.2016 10:33:17



Report No.: SZEM170700703401

Page: 168 of 176

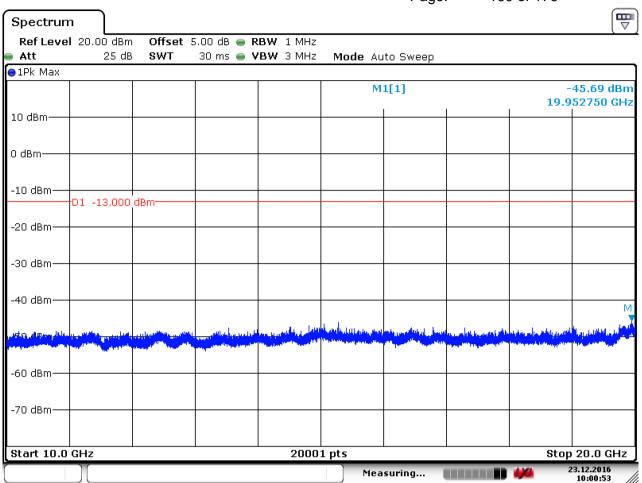


Date: 23.DEC.2016 10:30:16



Report No.: SZEM170700703401

Page: 169 of 176



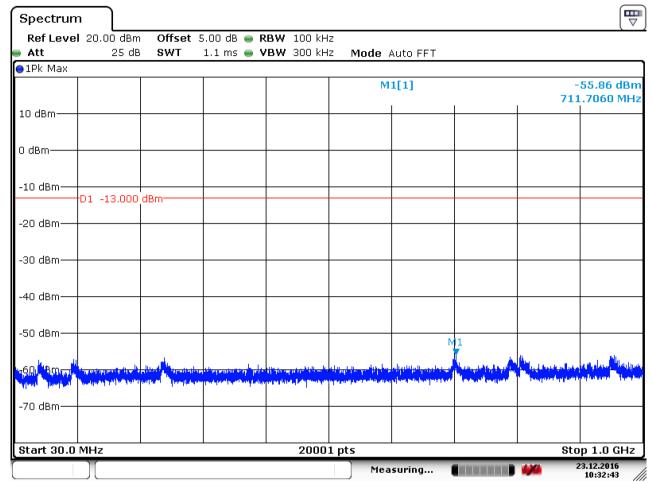
Date: 23.DEC.2016 10:00:54



Report No.: SZEM170700703401

Page: 170 of 176

#### 6.1.1.6.3 Test Channel = HCH

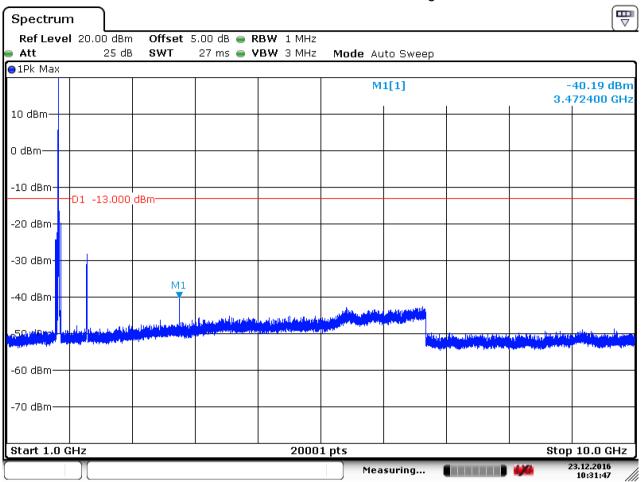


Date: 23.DEC.2016 10:32:43



Report No.: SZEM170700703401

Page: 171 of 176

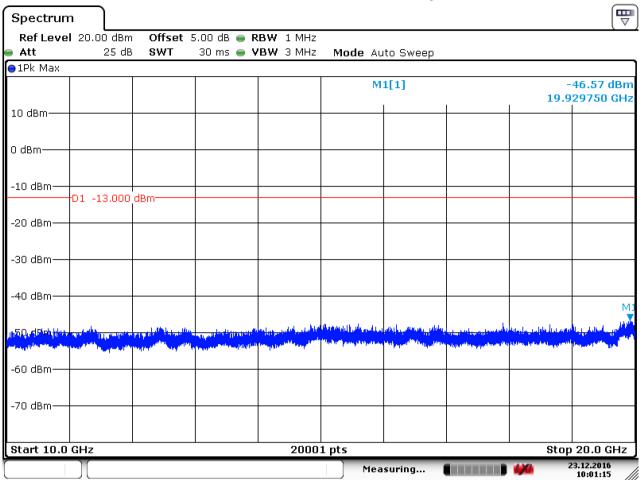


Date: 23.DEC.2016 10:31:48



Report No.: SZEM170700703401

Page: 172 of 176



Date: 23.DEC.2016 10:01:15



Report No.: SZEM170700703401

Page: 173 of 176

#### 7 Field Strength of Spurious Radiation

#### 7.1 For LTE

#### 7.1.1 Test Band = LTE band4

#### 7.1.1.1.1 Test Channel = LCH

7.1.1.1.1	TCSt Offarifici = EC	/1 I			
Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Over Limit (dB)	Polarization	
1199.000	-66.17	-13.00	53.17	Vertical	
1518.000	-66.42	-13.00	53.42	Vertical	
4267.500	-67.63	-13.00	54.63	Vertical	
1584.000	-65.57	-13.00	52.57	Horizontal	
4267.500	-67.44	-13.00	54.44	Horizontal	
5730.000	-67.16	-13.00	54.16	Horizontal	

#### 7.1.1.1.2 Test Channel = MCH

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Over Limit (dB)	Polarization	
1584.000	-66.13	-13.00	53.13	Vertical	
2632.000	-58.03	-13.00	45.03	Vertical	
4950.000	-67.27	-13.00	54.27	Vertical	
1958.000	-63.31	-13.00	50.31	Horizontal	
3975.000	-68.68	-13.00	55.68	Horizontal	
6510.000	-66.64	-13.00	53.64	Horizontal	

#### 7.1.1.1.3 Test Channel = HCH

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Over Limit (dB)	Polarization
1595.000	-65.95	-13.00	52.95	Vertical
2552.000	-58.82	-13.00	45.82	Vertical
5145.000	-67.63	-13.00	54.63	Vertical
2616.000	-58.55	-13.00	45.55	Horizontal
4267.500	-67.83	-13.00	54.83	Horizontal
6510.000	-66.57	-13.00	53.57	Horizontal

#### NOTE:

1) All modes are tested, but the data presented above is the worst case 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.



Report No.: SZEM170700703401

Page: 174 of 176

#### 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
		LCH	TN	VL	-3.03	-0.00176	PASS
				VN	1.46	0.00085	PASS
				VH	-4.73	-0.00275	PASS
				VL	2.49	0.00144	PASS
	LTE/TM1 20MHz	MCH	TN	VN	-3.84	-0.00222	PASS
				VH	2.22	0.00128	PASS
		НСН	TN	VL	-3.56	-0.00204	PASS
				VN	-5.07	-0.00291	PASS
LTE band				VH	-1.39	-0.00080	PASS
4	LTE/TM2 20MHz	LCH	TN	VL	-4.08	-0.00237	PASS
				VN	-2.95	-0.00172	PASS
				VH	-3.06	-0.00178	PASS
		МСН	TN	VL	3.56	0.00205	PASS
				VN	-5.25	-0.00303	PASS
				VH	2.54	0.00147	PASS
		нсн	TN	VL	-3.38	-0.00194	PASS
				VN	-7.10	-0.00407	PASS
				VH	1.45	0.00083	PASS



Report No.: SZEM170700703401

Page: 175 of 176

#### 8.2 Frequency Error VS. Temperature

Test Band	Test Mode	Test Channel	Test Volt.	Test Temp.	Freq. Error [Hz]	Freq. vs. rated [ppm]	Verdict
			VN	-30	-3.40	-0.00198	PASS
				-20	-1.24	-0.00072	PASS
				-10	3.38	0.00197	PASS
				0	-3.75	-0.00218	PASS
		LCH		10	1.65	0.00096	PASS
				20	2.15	0.00125	PASS
				30	-0.71	-0.00041	PASS
				40	-4.14	-0.00241	PASS
	LTE/TM1 20MHz			50	1.69	0.00098	PASS
				-30	-2.80	-0.00162	PASS
				-20	-3.95	-0.00228	PASS
		MCH	VN	-10	-7.29	-0.00421	PASS
				0	-5.32	-0.00307	PASS
LTEband 4				10	-0.44	-0.00025	PASS
·				20	-3.94	-0.00227	PASS
				30	-5.66	-0.00327	PASS
				40	-2.43	-0.00140	PASS
				50	-6.92	-0.00399	PASS
		нсн		-30	2.24	0.00128	PASS
				-20	-1.49	-0.00085	PASS
				-10	1.65	0.00095	PASS
				0	-2.83	-0.00162	PASS
			VN	10	1.60	0.00092	PASS
				20	-3.57	-0.00205	PASS
				30	-2.09	-0.00120	PASS
				40	-5.53	-0.00317	PASS
				50	-4.90	-0.00281	PASS



Report No.: SZEM170700703401

Page: 176 of 176

Test Band	Test Mode	Test Channel	Test Volt.	Test Temp.	Freq. Error [Hz]	Freq. vs. rated [ppm]	Verdict
			VN	-30	-2.52	-0.00147	PASS
				-20	-2.45	-0.00142	PASS
				-10	3.18	0.00185	PASS
				0	-2.64	-0.00153	PASS
		LCH		10	1.60	0.00093	PASS
				20	-0.23	-0.00013	PASS
				30	-2.44	-0.00142	PASS
				40	5.34	0.00310	PASS
				50	4.73	0.00275	PASS
	LTE/TM2 20MHz			-30	-3.80	-0.00219	PASS
				-20	-5.38	-0.00311	PASS
		МСН	VN	-10	-7.19	-0.00415	PASS
				0	-4.32	-0.00249	PASS
LTEband 4				10	-2.34	-0.00135	PASS
'				20	1.74	0.00100	PASS
				30	-5.67	-0.00327	PASS
				40	-2.32	-0.00134	PASS
				50	-3.41	-0.00197	PASS
		нсн	VN	-30	3.84	0.00220	PASS
				-20	-2.55	-0.00146	PASS
				-10	1.59	0.00091	PASS
				0	-3.73	-0.00214	PASS
				10	-2.34	-0.00134	PASS
				20	-1.47	-0.00084	PASS
			F	30	-2.89	-0.00166	PASS
				40	-4.39	-0.00252	PASS
				50	-5.60	-0.00321	PASS

The End