

Report No.: SZEM161000916605

Page: 1 of 177

Appendix B

Test Data for SZEM161000916605RG



Report No.: SZEM161000916605

Page: 2 of 177

CONTENT

		Page
1 EF	FFECTIVE (ISOTROPIC) RADIATED POWER OUTPUT DATA	3
2 PE	EAK-TO-AVERAGE RATIO	15
2.1	FOR LTE	
2.	.1.1 Test Band = LTE band2	
3 M	IODULATION CHARACTERISTICS	22
3.1	FOR LTE	22
3.	.1.1 Test Band = LTE band2	22
4 B	ANDWIDTH	34
4.1	For LTE	36
4.	.1.1 Test Band = LTE band2	
5 B	AND EDGES COMPLIANCE	72
5.1	FOR LTE	
5.	.1.1 Test Band = LTE band2	72
6 SF	PURIOUS EMISSION AT ANTENNA TERMINAL	120
6.1	FOR LTE	120
6.	.1.1 Test Band = LTE band2	120
7 FI	IELD STRENGTH OF SPURIOUS RADIATION	174
7.1	FOR LTE	174
7.	.1.1 Test Band = LTE band2	
8 FF	REQUENCY STABILITY	175
8.1	FREQUENCY ERROR VS. VOLTAGE	
8.2	FREQUENCY ERROR VS. TEMPERATURE	176



Report No.: SZEM161000916605

3 of 177

Effective (Isotropic) Radiated Power Output Data 1

Effective Isotropic Radiated Power of Transmitter (EIRP) for LTE BAND 2										
Test Band(LTE)	Test Mode	Test Bandwidth	Test channel	Test RB	Measured (dBm)	EIRP (dBm)	limit (dBm)	Verdict		
				RB1#0	24.01	26.24	33.00	PASS		
				RB1#2	24.05	26.28	33.00	PASS		
				RB1#5	24.25	26.48	33.00	PASS		
			LCH	RB3#0	24.01	26.24	33.00	PASS		
				RB3#2	24.06	26.29	33.00	PASS		
				RB3#3	24.22	26.45	33.00	PASS		
				RB6#0	23.23	25.46	33.00	PASS		
				RB1#0	24.81	27.04	33.00	PASS		
				RB1#2	24.86	27.09	33.00	PASS		
				RB1#5	24.79	27.02	33.00	PASS		
BAND2	LTE/TM1	1.4M	MCH	RB3#0	24.92	27.15	33.00	PASS		
				RB3#2	24.85	27.08	33.00	PASS		
				RB3#3	24.91	27.14	33.00	PASS		
				RB6#0	23.88	26.11	33.00	PASS		
				RB1#0	24.63	26.86	33.00	PASS		
				RB1#2	24.69	26.92	33.00	PASS		
				RB1#5	24.59	26.82	33.00	PASS		
			HCH	RB3#0	24.74	26.97	33.00	PASS		
				RB3#2	24.72	26.95	33.00	PASS		
				RB3#3	24.71	26.94	33.00	PASS		
				RB6#0	23.75	25.98	33.00	PASS		



Report No.: SZEM161000916605

Page: 4 of 177

Test Band(LTE)	Test Mode	Test Bandwidth	Test channel	Test RB	Measured (dBm)	EIRP (dBm)	limit (dBm)	Verdict
				RB1#0	23.17	25.40	33.00	PASS
				RB1#2	23.33	25.56	33.00	PASS
				RB1#5	23.61	25.84	33.00	PASS
			LCH	RB3#0	23.11	25.34	33.00	PASS
				RB3#2	23.12	25.35	33.00	PASS
				RB3#3	23.28	25.51	33.00	PASS
				RB6#0	22.31	24.54	33.00	PASS
				RB1#0	23.97	26.20	33.00	PASS
				RB1#2	24.09	26.32	33.00	PASS
				RB1#5	23.96	26.19	33.00	PASS
BAND2	LTE/TM2	1.4M	MCH	RB3#0	23.86	26.09	33.00	PASS
				RB3#2	23.80	26.03	33.00	PASS
				RB3#3	23.85	26.08	33.00	PASS
				RB6#0	22.93	25.16	33.00	PASS
				RB1#0	23.62	25.85	33.00	PASS
				RB1#2	23.66	25.89	33.00	PASS
				RB1#5	23.57	25.80	33.00	PASS
			HCH	RB3#0	23.55	25.78	33.00	PASS
				RB3#2	23.48	25.71	33.00	PASS
				RB3#3	23.52	25.75	33.00	PASS
				RB6#0	22.68	24.91	33.00	PASS



Report No.: SZEM161000916605

Page: 5 of 177

Test Band(LTE)	Test Mode	Test Bandwidth	Test channel	Test RB	Measured (dBm)	EIRP (dBm)	limit (dBm)	Verdict
				RB1#0	23.86	26.09	33.00	PASS
				RB1#7	24.22	26.45	33.00	PASS
				RB1#14	24.75	26.98	33.00	PASS
			LCH	RB8#0	23.25	25.48	33.00	PASS
				RB8#4	23.51	25.74	33.00	PASS
				RB8#7	23.74	25.97	33.00	PASS
				RB15#0	23.47	25.70	33.00	PASS
				RB1#0	24.82	27.05	33.00	PASS
				RB1#7	24.84	27.07	33.00	PASS
				RB1#14	24.78	27.01	33.00	PASS
BAND2	LTE/TM1	3M	MCH	RB8#0	23.94	26.17	33.00	PASS
				RB8#4	23.95	26.18	33.00	PASS
				RB8#7	23.94	26.17	33.00	PASS
				RB15#0	23.95	26.18	33.00	PASS
				RB1#0	24.72	26.95	33.00	PASS
				RB1#7	24.71	26.94	33.00	PASS
				RB1#14	24.57	26.80	33.00	PASS
			НСН	RB8#0	23.82	26.05	33.00	PASS
				RB8#4	23.80	26.03	33.00	PASS
				RB8#7	23.75	25.98	33.00	PASS
				RB15#0	23.80	26.03	33.00	PASS



Report No.: SZEM161000916605

Page: 6 of 177

Test Band(LTE)	Test Mode	Test Bandwidth	Test channel	Test RB	Measured (dBm)	EIRP (dBm)	limit (dBm)	Verdict
				RB1#0	23.21	25.44	33.00	PASS
				RB1#7	23.69	25.92	33.00	PASS
				RB1#14	24.10	26.33	33.00	PASS
			LCH	RB8#0	22.40	24.63	33.00	PASS
				RB8#4	22.69	24.92	33.00	PASS
				RB8#7	22.93	25.16	33.00	PASS
				RB15#0	22.63	24.86	33.00	PASS
				RB1#0	23.97	26.20	33.00	PASS
				RB1#7	23.99	26.22	33.00	PASS
				RB1#14	23.93	26.16	33.00	PASS
BAND2	LTE/TM2	ЗМ	MCH	RB8#0	22.95	25.18	33.00	PASS
				RB8#4	22.94	25.17	33.00	PASS
				RB8#7	22.94	25.17	33.00	PASS
				RB15#0	22.91	25.14	33.00	PASS
				RB1#0	23.71	25.94	33.00	PASS
				RB1#7	23.67	25.90	33.00	PASS
				RB1#14	23.52	25.75	33.00	PASS
			НСН	RB8#0	22.73	24.96	33.00	PASS
				RB8#4	22.70	24.93	33.00	PASS
				RB8#7	22.65	24.88	33.00	PASS
				RB15#0	22.70	24.93	33.00	PASS



Report No.: SZEM161000916605

Page: 7 of 177

Test Band(LTE)	Test Mode	Test Bandwidth	Test channel	Test RB	Measured (dBm)	EIRP (dBm)	limit (dBm)	Verdict
				RB1#0	23.89	26.12	33.00	PASS
				RB1#13	24.35	26.58	33.00	PASS
				RB1#24	25.04	27.27	33.00	PASS
			LCH	RB12#0	23.14	25.37	33.00	PASS
				RB12#6	23.49	25.72	33.00	PASS
				RB12#13	24.03	26.26	33.00	PASS
				RB25#0	23.58	25.81	33.00	PASS
				RB1#0	24.89	27.12	33.00	PASS
				RB1#13	24.86	27.09	33.00	PASS
				RB1#24	24.82	27.05	33.00	PASS
BAND2	LTE/TM1	5M	MCH	RB12#0	24.00	26.23	33.00	PASS
				RB12#6	23.97	26.20	33.00	PASS
				RB12#13	23.98	26.21	33.00	PASS
				RB25#0	23.96	26.19	33.00	PASS
				RB1#0	24.83	27.06	33.00	PASS
				RB1#13	24.74	26.97	33.00	PASS
				RB1#24	24.58	26.81	33.00	PASS
			НСН	RB12#0	23.89	26.12	33.00	PASS
				RB12#6	23.83	26.06	33.00	PASS
				RB12#13	23.77	26.00	33.00	PASS
				RB25#0	23.87	26.10	33.00	PASS



Report No.: SZEM161000916605

Page: 8 of 177

Test Band(LTE)	Test Mode	Test Bandwidth	Test channel	Test RB	Measured (dBm)	EIRP (dBm)	limit (dBm)	Verdict
				RB1#0	23.19	25.42	33.00	PASS
				RB1#13	23.68	25.91	33.00	PASS
				RB1#24	24.18	26.41	33.00	PASS
			LCH	RB12#0	22.17	24.40	33.00	PASS
				RB12#6	22.52	24.75	33.00	PASS
				RB12#13	23.15	25.38	33.00	PASS
				RB25#0	22.63	24.86	33.00	PASS
				RB1#0	24.07	26.30	33.00	PASS
				RB1#13	24.08	26.31	33.00	PASS
				RB1#24	24.02	26.25	33.00	PASS
BAND2	LTE/TM2	5M	MCH	RB12#0	23.00	25.23	33.00	PASS
				RB12#6	22.96	25.19	33.00	PASS
				RB12#13	22.97	25.20	33.00	PASS
				RB25#0	22.94	25.17	33.00	PASS
				RB1#0	23.94	26.17	33.00	PASS
				RB1#13	23.77	26.00	33.00	PASS
				RB1#24	23.58	25.81	33.00	PASS
			HCH	RB12#0	22.86	25.09	33.00	PASS
				RB12#6	22.75	24.98	33.00	PASS
				RB12#13	22.69	24.92	33.00	PASS
				RB25#0	22.75	24.98	33.00	PASS



Report No.: SZEM161000916605

Page: 9 of 177

Test Band(LTE)	Test Mode	Test Bandwidth	Test channel	Test RB	Measured (dBm)	EIRP (dBm)	limit (dBm)	Verdict
				RB1#0	24.50	26.73	33.00	PASS
				RB1#25	25.12	27.35	33.00	PASS
				RB1#49	24.76	26.99	33.00	PASS
			LCH	RB25#0	23.65	25.88	33.00	PASS
				RB25#13	24.26	26.49	33.00	PASS
				RB25#25	24.26	26.49	33.00	PASS
				RB50#0	24.08	26.31	33.00	PASS
				RB1#0	24.86	27.09	33.00	PASS
				RB1#25	24.87	27.10	33.00	PASS
				RB1#49	24.90	27.13	33.00	PASS
BAND2	LTE/TM1	10M	MCH	RB25#0	24.02	26.25	33.00	PASS
				RB25#13	23.98	26.21	33.00	PASS
				RB25#25	23.99	26.22	33.00	PASS
				RB50#0	24.03	26.26	33.00	PASS
				RB1#0	24.58	26.81	33.00	PASS
				RB1#25	24.84	27.07	33.00	PASS
				RB1#49	24.53	26.76	33.00	PASS
			НСН	RB25#0	24.07	26.30	33.00	PASS
				RB25#13	23.99	26.22	33.00	PASS
				RB25#25	23.90	26.13	33.00	PASS
				RB50#0	24.03	26.26	33.00	PASS



Report No.: SZEM161000916605

Page: 10 of 177

Test	Test	Test	Test	Test RB	Measured	EIRP	limit	Verdict
Band(LTE)	Mode	Bandwidth	channel	DD4#0	(dBm)	(dBm)	(dBm)	DAGG
				RB1#0	22.81	25.04	33.00	PASS
				RB1#25	24.30	26.53	33.00	PASS
				RB1#49	24.02	26.25	33.00	PASS
			LCH	RB25#0	22.64	24.87	33.00	PASS
				RB25#13	23.22	25.45	33.00	PASS
				RB25#25	23.23	25.46	33.00	PASS
				RB50#0	23.16	25.39	33.00	PASS
				RB1#0	24.18	26.41	33.00	PASS
				RB1#25	24.07	26.30	33.00	PASS
				RB1#49	24.09	26.32	33.00	PASS
BAND2	LTE/TM2	10M	MCH	RB25#0	22.99	25.22	33.00	PASS
				RB25#13	22.94	25.17	33.00	PASS
				RB25#25	22.96	25.19	33.00	PASS
				RB50#0	22.99	25.22	33.00	PASS
				RB1#0	23.83	26.06	33.00	PASS
				RB1#25	23.94	26.17	33.00	PASS
				RB1#49	23.66	25.89	33.00	PASS
			HCH	RB25#0	23.02	25.25	33.00	PASS
				RB25#13	22.91	25.14	33.00	PASS
				RB25#25	22.76	24.99	33.00	PASS
				RB50#0	22.95	25.18	33.00	PASS



Report No.: SZEM161000916605

Page: 11 of 177

	1	1			r age.	1101	1	
Test Band(LTE)	Test Mode	Test Bandwidth	Test channel	Test RB	Measured (dBm)	EIRP (dBm)	limit (dBm)	Verdict
				RB1#0	24.05	26.28	33.00	PASS
				RB1#38	25.18	27.41	33.00	PASS
				RB1#74	24.63	26.86	33.00	PASS
			LCH	RB36#0	24.29	26.52	33.00	PASS
				RB36#18	24.31	26.54	33.00	PASS
				RB36#39	24.22	26.45	33.00	PASS
				RB75#0	24.27	26.50	33.00	PASS
				RB1#0	24.76	26.99	33.00	PASS
				RB1#38	24.78	27.01	33.00	PASS
				RB1#74	24.94	27.17	33.00	PASS
BAND2	LTE/TM1	15M	MCH	RB36#0	24.09	26.32	33.00	PASS
				RB36#18	24.01	26.24	33.00	PASS
				RB36#39	24.05	26.28	33.00	PASS
				RB75#0	24.07	26.30	33.00	PASS
				RB1#0	24.78	27.01	33.00	PASS
				RB1#38	24.73	26.96	33.00	PASS
				RB1#74	24.7	26.93	33.00	PASS
			HCH	RB36#0	23.99	26.22	33.00	PASS
				RB36#18	24.13	26.36	33.00	PASS
				RB36#39	23.97	26.20	33.00	PASS
				RB75#0	24.09	26.32	33.00	PASS



Report No.: SZEM161000916605

Page: 12 of 177

Test Band(LTE)	Test Mode	Test Bandwidth	Test channel	Test RB	Measured (dBm)	EIRP (dBm)	limit (dBm)	Verdict
,				RB1#0	23.35	25.58	33.00	PASS
				RB1#38	24.33	26.56	33.00	PASS
				RB1#74	23.89	26.12	33.00	PASS
			LCH	RB36#0	23.26	25.49	33.00	PASS
				RB36#18	23.28	25.51	33.00	PASS
				RB36#39	23.26	25.49	33.00	PASS
				RB75#0	23.27	25.50	33.00	PASS
				RB1#0	24.14	26.37	33.00	PASS
				RB1#38	24.10	26.33	33.00	PASS
				RB1#74	24.16	26.39	33.00	PASS
BAND2	LTE/TM2	15M	MCH	RB36#0	23.07	25.30	33.00	PASS
				RB36#18	22.99	25.22	33.00	PASS
				RB36#39	23.05	25.28	33.00	PASS
				RB75#0	23.04	25.27	33.00	PASS
				RB1#0	24.31	26.54	33.00	PASS
				RB1#38	24.13	26.36	33.00	PASS
				RB1#74	23.73	25.96	33.00	PASS
			HCH	RB36#0	23.03	25.26	33.00	PASS
				RB36#18	23.09	25.32	33.00	PASS
				RB36#39	22.91	25.14	33.00	PASS
				RB75#0	23.05	25.28	33.00	PASS



Report No.: SZEM161000916605

Page: 13 of 177

Test Band(LTE)	Test Mode	Test Bandwidth	Test channel	Test RB	Measured	EIRP	limit	Verdict
Band(LTE)	Mode	Bandwidth	channel	RB1#0	(dBm) 23.65	(dBm) 25.88	(dBm) 33.00	PASS
				RB1#50	24.58	26.81	33.00	PASS
				RB1#99	23.79	26.02	33.00	PASS
			LCH	RB50#0	24.00	26.23	33.00	PASS
				RB50#25	23.88	26.11	33.00	PASS
				RB50#50	23.21	25.44	33.00	PASS
				RB100#0	23.62	25.85	33.00	PASS
				RB1#0	24.18	26.41	33.00	PASS
				RB1#50	24.83	27.06	33.00	PASS
				RB1#99	24.92	27.15	33.00	PASS
BAND2	LTE/TM1	20M	MCH	RB50#0	24.06	26.29	33.00	PASS
				RB50#25	24.02	26.25	33.00	PASS
				RB50#50	24.05	26.28	33.00	PASS
				RB100#0	24.05	26.28	33.00	PASS
				RB1#0	24.77	27.00	33.00	PASS
				RB1#50	24.06	26.29	33.00	PASS
				RB1#99	24.68	26.91	33.00	PASS
			HCH	RB50#0	24.14	26.37	33.00	PASS
				RB50#25	23.62	25.85	33.00	PASS
				RB50#50	24.02	26.25	33.00	PASS
				RB100#0	24.08	26.31	33.00	PASS



Report No.: SZEM161000916605

Page: 14 of 177

Test	Test	Test	Test	Test RB	Measured	EIRP	limit	Verdict
Band(LTE)	Mode	Bandwidth	channel		(dBm)	(dBm)	(dBm)	
	LTE/TM2	20M	LCH	RB1#0	22.96	25.19	33.00	PASS
				RB1#50	23.9	26.13	33.00	PASS
				RB1#99	23.09	25.32	33.00	PASS
				RB50#0	23.00	25.23	33.00	PASS
				RB50#25	22.89	25.12	33.00	PASS
				RB50#50	22.20	24.43	33.00	PASS
				RB100#0	22.61	24.84	33.00	PASS
			МСН	RB1#0	23.48	25.71	33.00	PASS
				RB1#50	24.00	26.23	33.00	PASS
				RB1#99	24.12	26.35	33.00	PASS
BAND2				RB50#0	22.91	25.14	33.00	PASS
				RB50#25	22.98	25.21	33.00	PASS
				RB50#50	23.04	25.27	33.00	PASS
				RB100#0	23.01	25.24	33.00	PASS
			НСН	RB1#0	24.17	26.40	33.00	PASS
				RB1#50	23.28	25.51	33.00	PASS
				RB1#99	23.70	25.93	33.00	PASS
				RB50#0	23.16	25.39	33.00	PASS
				RB50#25	22.69	24.92	33.00	PASS
				RB50#50	23.00	25.23	33.00	PASS
				RB100#0	23.05	25.28	33.00	PASS

Note:

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

EIRP [dBm] = SGP [dBm] - Cable Loss [dB] + Gain [dBi]

b: SGP=Signal Generator Level

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

Detector: RMS



Report No.: SZEM161000916605

Page: 15 of 177

2 Peak-to-Average Ratio

Part I - Test Results

Test Band	Test Mode	Test Channel	Measured[dB]	Limit [dB]	Verdict
	TM1/20M	LCH	4.58	13	PASS
		MCH	4.49	13	PASS
Band 2		HCH	4.70	13	PASS
Danu 2	TM2/20M	LCH	5.59	13	PASS
		MCH	5.59	13	PASS
		HCH	5.62	13	PASS



Report No.: SZEM161000916605

Page: 16 of 177

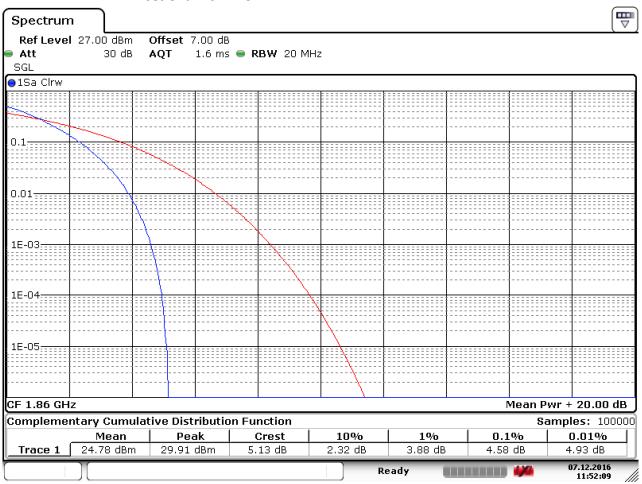
Part II - Test Plots

2.1 For LTE

2.1.1 Test Band = LTE band2

2.1.1.1 Test Mode = LTE/TM1.Bandwidth=20MHz

2.1.1.1.1 Test Channel = LCH



Date: 7.DEC.2016 11:52:09



Report No.: SZEM161000916605

Page: 17 of 177

2.1.1.1.2 Test Channel = MCH



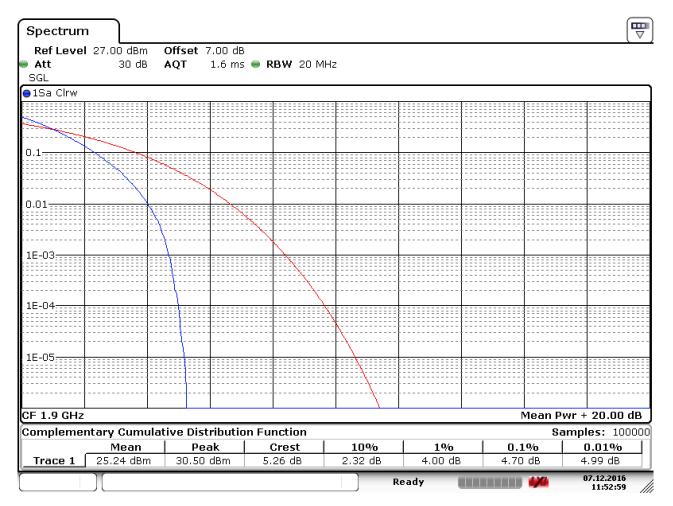
Date: 7.DEC.2016 11:50:48



Report No.: SZEM161000916605

Page: 18 of 177

2.1.1.1.3 Test Channel = HCH



Date: 7.DEC.2016 11:53:00

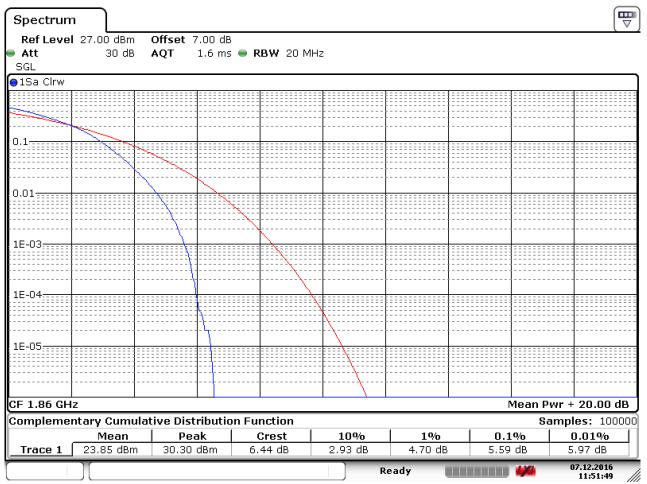


Report No.: SZEM161000916605

Page: 19 of 177

2.1.1.2 Test Mode = LTE/TM2.Bandwidth=20MHz

2.1.1.2.1 Test Channel = LCH



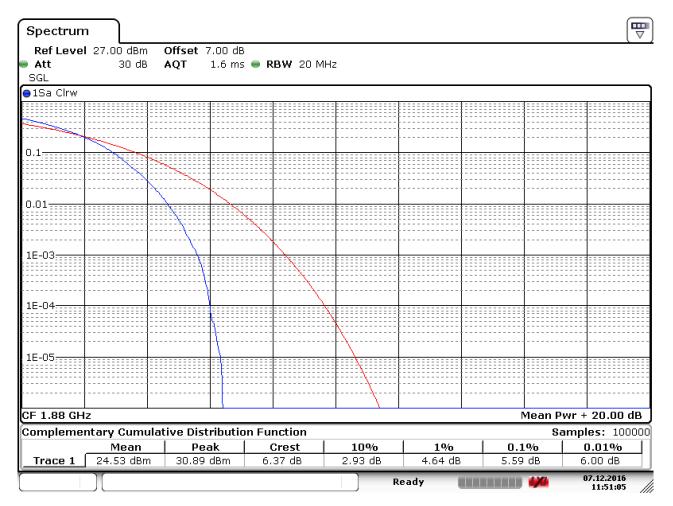
Date: 7.DEC.2016 11:51:49



Report No.: SZEM161000916605

Page: 20 of 177

2.1.1.2.2 Test Channel = MCH



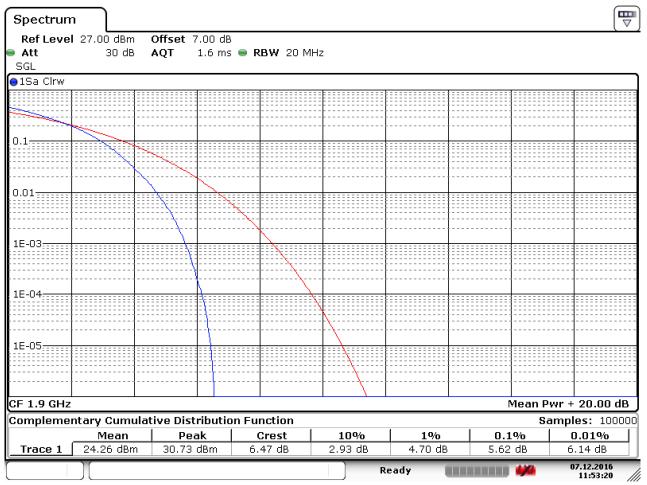
Date: 7.DEC.2016 11:51:05



Report No.: SZEM161000916605

Page: 21 of 177

2.1.1.2.3 Test Channel = HCH



Date: 7.DEC.2016 11:53:20



Report No.: SZEM161000916605

Page: 22 of 177

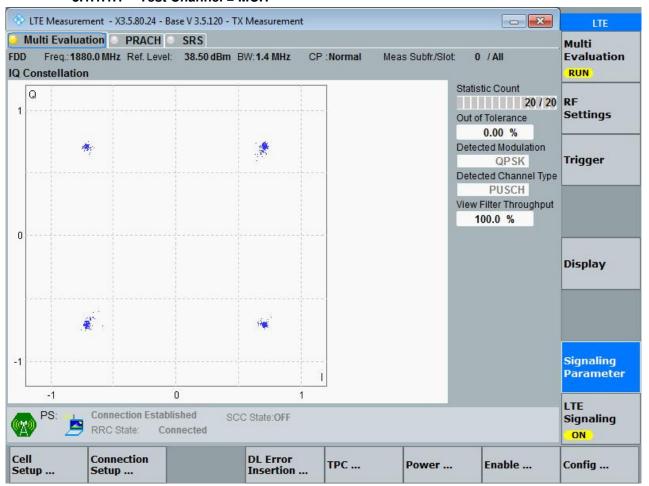
3 Modulation Characteristics

3.1 For LTE

3.1.1 Test Band = LTE band2

3.1.1.1 Test Mode = LTE /TM1 1.4MHz

3.1.1.1.1 Test Channel = MCH



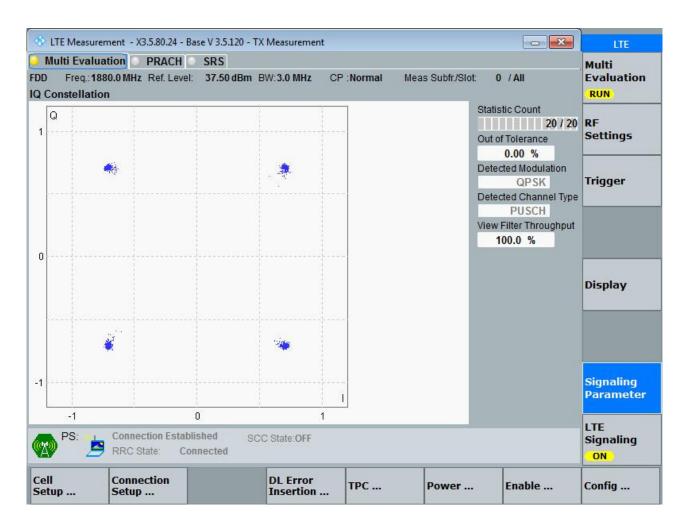
[&]quot;This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at www.sgs.com/terms_and_conditions.htm and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at www.sgs.com/terms_e-document.htm. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only."



Report No.: SZEM161000916605

Page: 23 of 177

3.1.1.2 Test Mode = LTE /TM1 3MHz 3.1.1.2.1 Test Channel = MCH



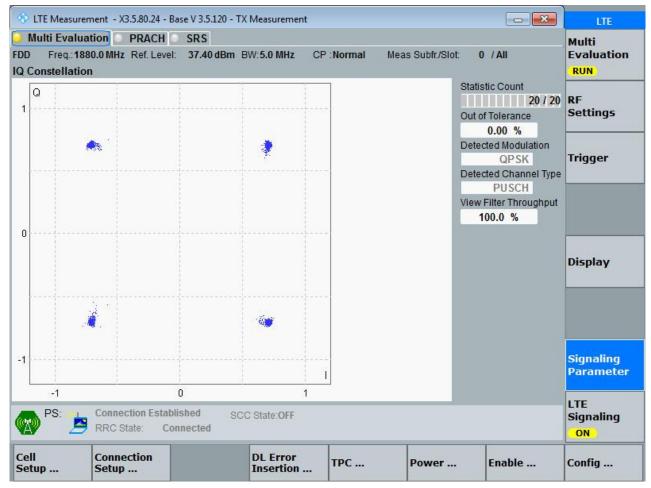


Report No.: SZEM161000916605

Page: 24 of 177

3.1.1.3 Test Mode = LTE /TM1 5MHz

3.1.1.3.1 Test Channel = MCH



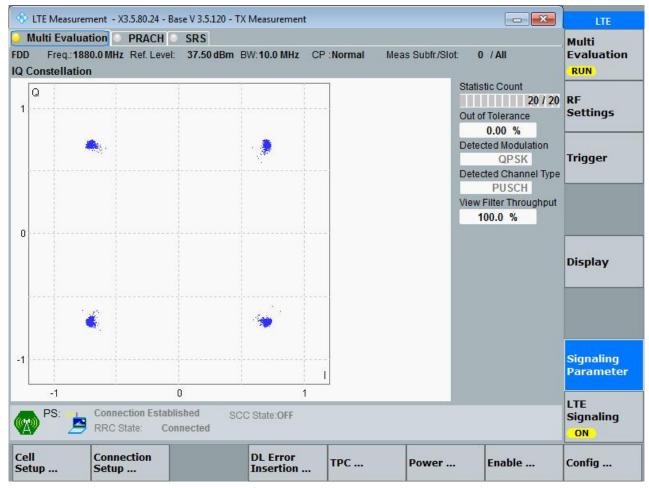


Report No.: SZEM161000916605

Page: 25 of 177

3.1.1.4 Test Mode = LTE /TM1 10MHz

3.1.1.4.1 Test Channel = MCH



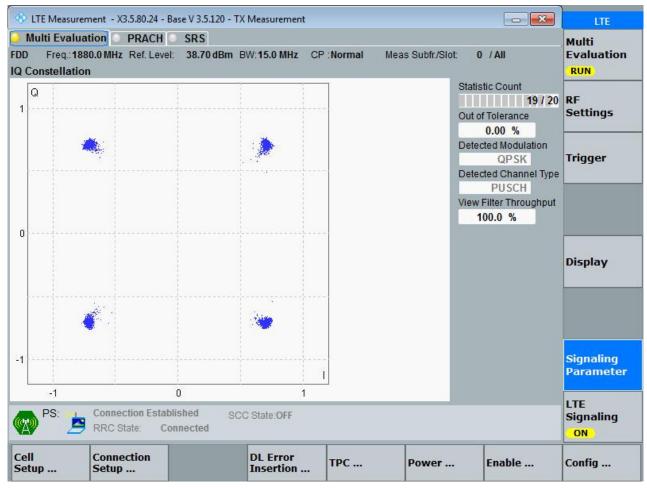


Report No.: SZEM161000916605

Page: 26 of 177

3.1.1.5 Test Mode = LTE /TM1 15MHz

3.1.1.5.1 Test Channel = MCH



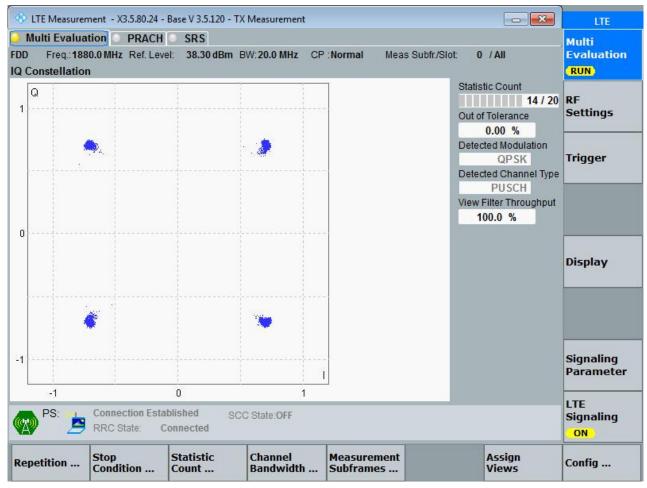


Report No.: SZEM161000916605

Page: 27 of 177

3.1.1.6 Test Mode = LTE /TM1 20MHz

3.1.1.6.1 Test Channel = MCH



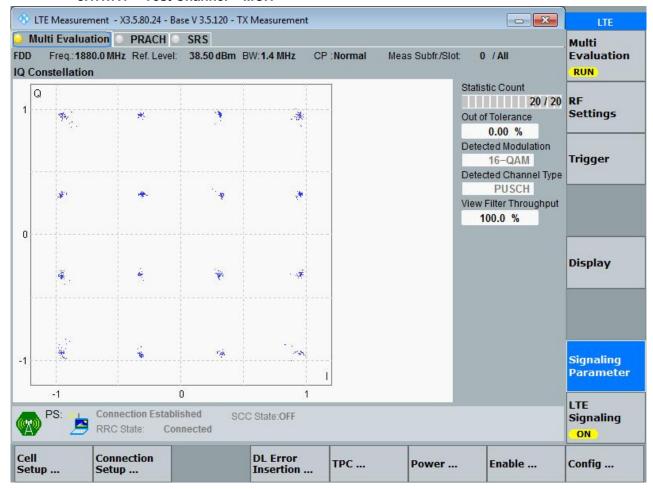


Report No.: SZEM161000916605

Page: 28 of 177

3.1.1.7 Test Mode = LTE /TM2 1.4MHz

3.1.1.7.1 Test Channel = MCH



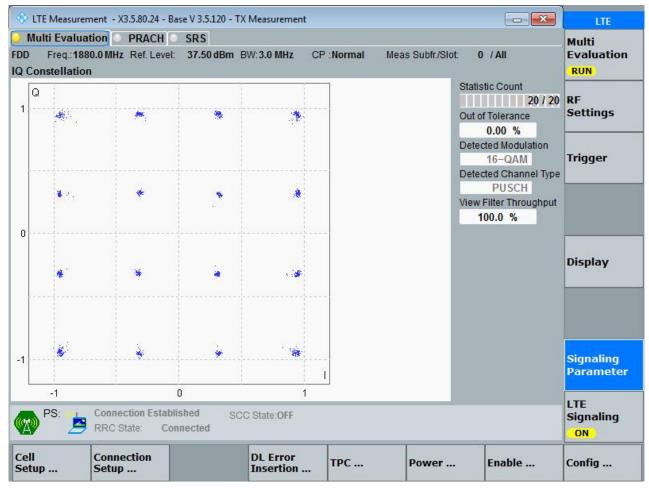


Report No.: SZEM161000916605

Page: 29 of 177

3.1.1.8 Test Mode = LTE /TM2 3MHz

3.1.1.8.1 Test Channel = MCH



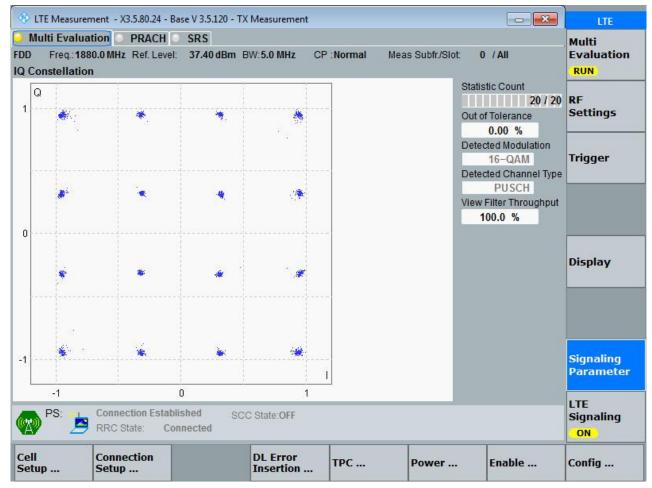


Report No.: SZEM161000916605

Page: 30 of 177

3.1.1.9 Test Mode = LTE /TM2 5MHz

3.1.1.9.1 Test Channel = MCH

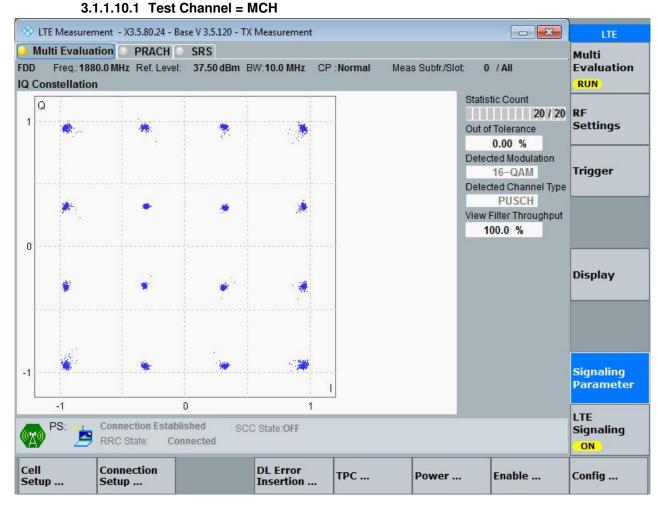




Report No.: SZEM161000916605

Page: 31 of 177

3.1.1.10 Test Mode = LTE /TM2 10MHz



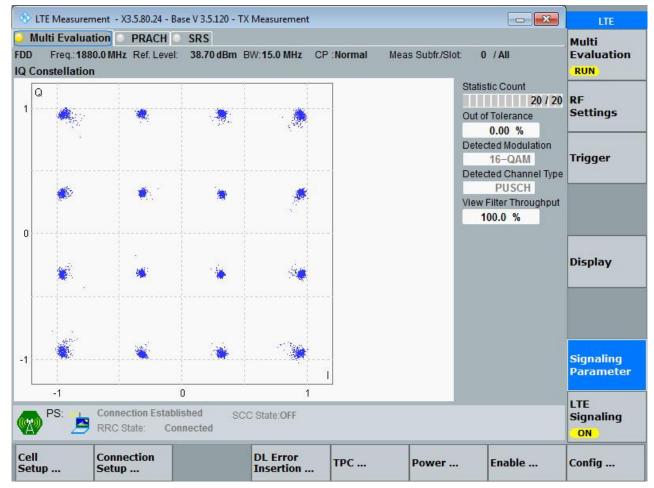


Report No.: SZEM161000916605

Page: 32 of 177

3.1.1.11 Test Mode = LTE /TM2 15MHz

3.1.1.11.1 Test Channel = MCH



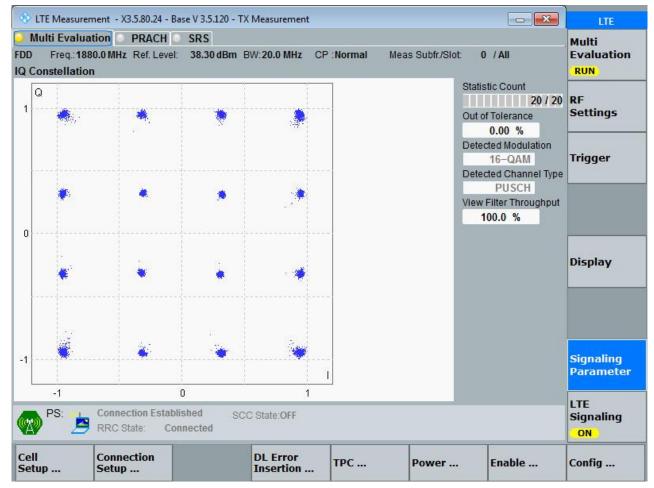


Report No.: SZEM161000916605

Page: 33 of 177

3.1.1.12 Test Mode = LTE /TM2 20MHz

3.1.1.12.1 Test Channel = MCH





Report No.: SZEM161000916605

Page: 34 of 177

4 Bandwidth

Part I - Test Results

Test Band	Test Mode	Test Channel	Occupied Bandwidth [MHz]	Emission Bandwidth [MHz]	Verdict
		LCH	1.10	1.28	PASS
	TM1/1.4MHz	MCH	1.09	1.28	PASS
		HCH	1.10	1.32	PASS
		LCH	1.09	1.27	PASS
	TM2/1.4MHz	MCH	1.10	1.29	PASS
		HCH	1.11	1.29	PASS
		LCH	2.69	2.90	PASS
	TM1/3MHz	MCH	2.69	2.91	PASS
		HCH	2.69	3.00	PASS
		LCH	2.68	2.92	PASS
	TM2/3MHz	MCH	2.69	2.93	PASS
		HCH	2.69	2.93	PASS
		LCH	4.48	4.96	PASS
	TM1/5MHz	MCH	4.48	4.98	PASS
		HCH	4.50	5.00	PASS
Band 2		LCH	4.49	5.00	PASS
	TM2/5MHz	MCH	4.50	5.00	PASS
		HCH	4.49	4.95	PASS
		LCH	8.93	9.71	PASS
	TM1/10MHz	MCH	8.93	9.77	PASS
		HCH	8.95	9.81	PASS
		LCH	8.95	9.75	PASS
	TM2/ 10MHz	MCH	8.93	9.73	PASS
		HCH	8.93	9.65	PASS
		LCH	13.52	14.99	PASS
	TM1/15MHz	MCH	13.49	14.99	PASS
		HCH	13.46	14.97	PASS
		LCH	13.52	14.93	PASS
	TM2/ 15MHz	MCH	13.52	14.96	PASS
		HCH	13.52	14.79	PASS



Report No.: SZEM161000916605

Page: 35 of 177

Test Band	Test Mode	Test Channel	Occupied Bandwidth [MHz]	Emission Bandwidth [MHz]	Verdict
	TM1/ 20MHz	LCH	17.90	19.46	PASS
		MCH	17.94	19.42	PASS
		HCH	17.98	19.58	PASS
		LCH	17.94	19.66	PASS
	TM2/ 20MHz	MCH	17.94	19.46	PASS
		HCH	17.94	19.54	PASS



Report No.: SZEM161000916605

Page: 36 of 177

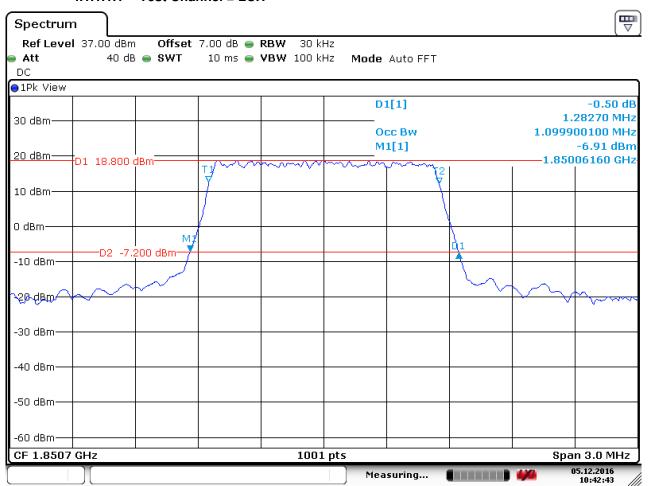
Part II -Test Plots

4.1 For LTE

4.1.1 Test Band = LTE band2

4.1.1.1 Test Mode = LTE/TM1 1.4MHz

4.1.1.1.1 Test Channel = LCH



Date: 5.DEC.2016 10:42:43



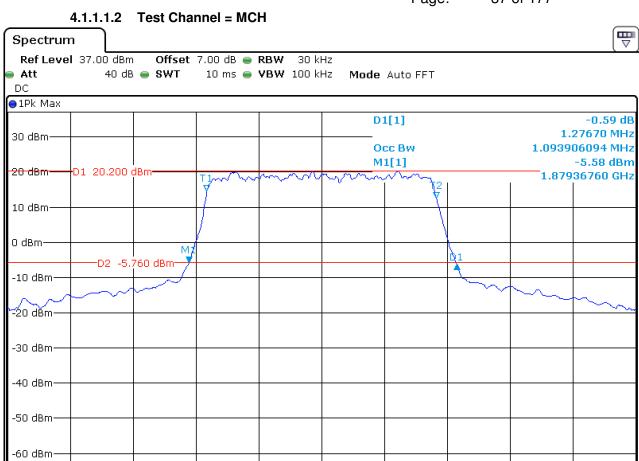
Report No.: SZEM161000916605

Span 3.0 MHz

05.12.2016

10:39:30

Page: 37 of 177



1001 pts

Measuring...

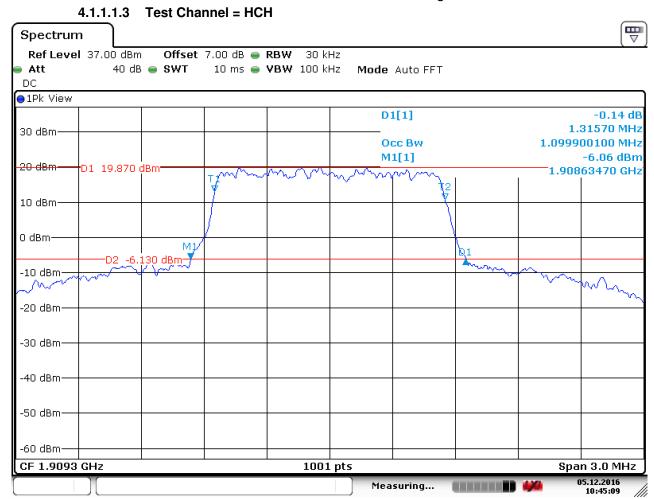
Date: 5.DEC.2016 10:39:30

CF 1.88 GHz



Report No.: SZEM161000916605

Page: 38 of 177



Date: 5.DEC.2016 10:45:09

[&]quot;This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at www.sgs.com/terms_and_conditions.htm and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at www.sgs.com/terms_e-document.htm. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only."

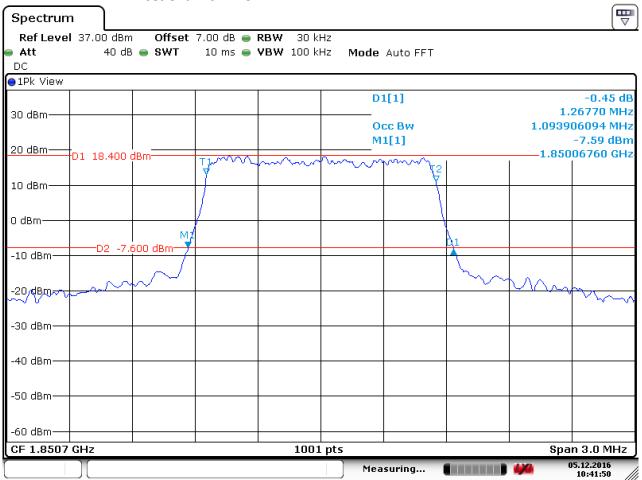


Report No.: SZEM161000916605

Page: 39 of 177

4.1.1.2 Test Mode = LTE/TM2 1.4MHz

4.1.1.2.1 Test Channel = LCH

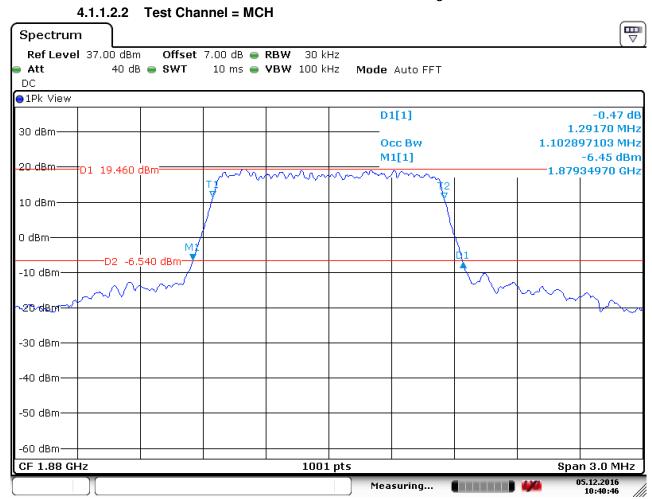


Date: 5.DEC.2016 10:41:50



Report No.: SZEM161000916605

Page: 40 of 177

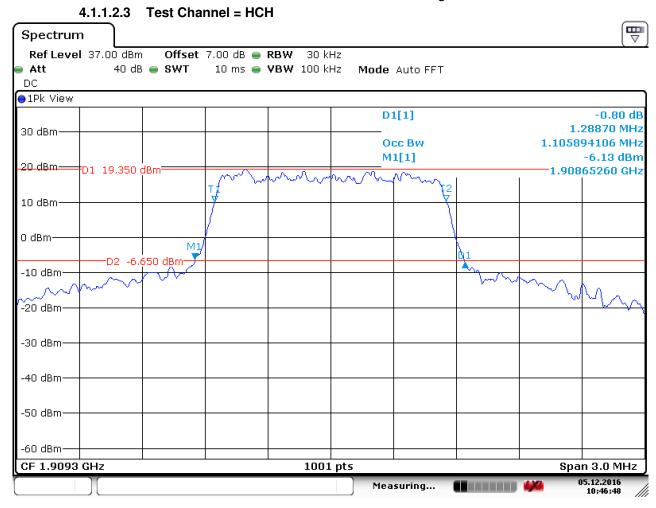


Date: 5.DEC.2016 10:40:46



Report No.: SZEM161000916605

Page: 41 of 177



Date: 5.DEC.2016 10:46:49

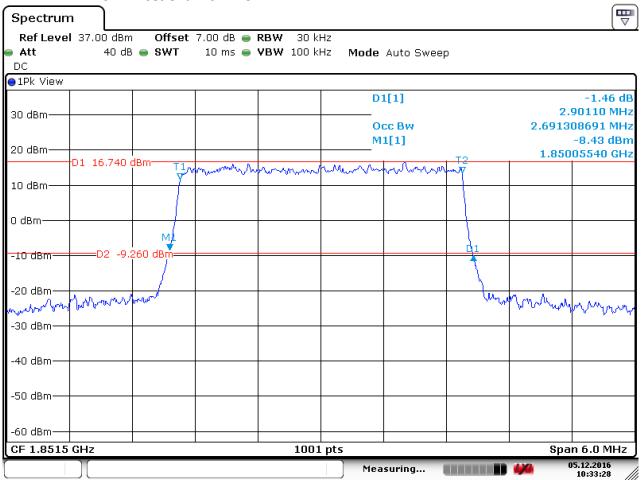


Report No.: SZEM161000916605

Page: 42 of 177

4.1.1.3 Test Mode = LTE/TM1 3MHz

4.1.1.3.1 Test Channel = LCH

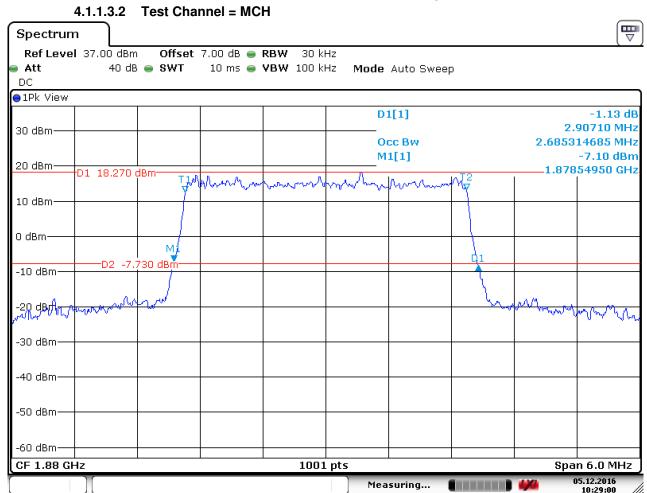


Date: 5.DEC.2016 10:33:28



Report No.: SZEM161000916605

Page: 43 of 177

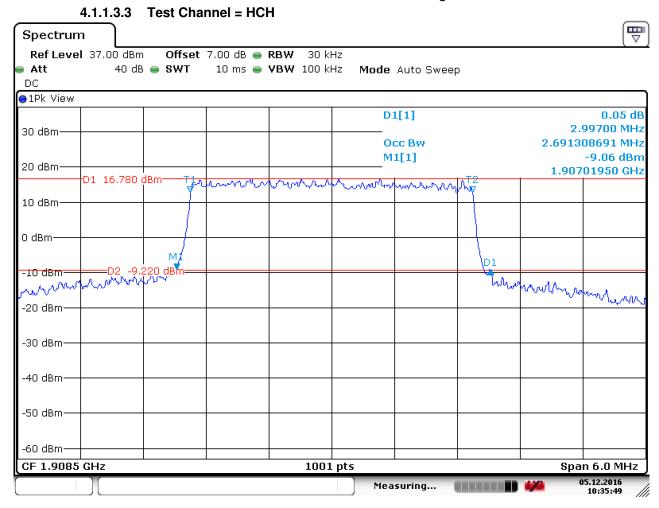


Date: 5.DEC.2016 10:29:00



Report No.: SZEM161000916605

Page: 44 of 177



Date: 5.DEC.2016 10:35:49

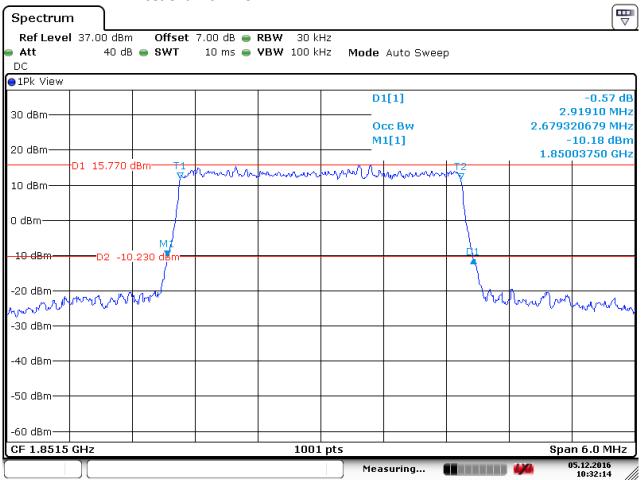


Report No.: SZEM161000916605

Page: 45 of 177

4.1.1.4 Test Mode = LTE/TM2 3MHz

4.1.1.4.1 Test Channel = LCH

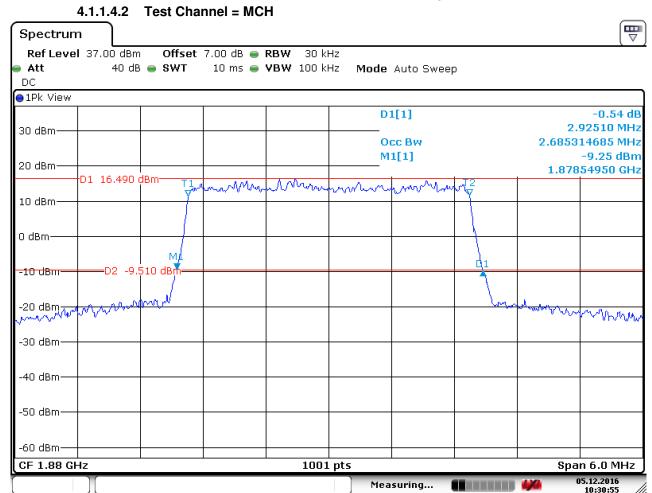


Date: 5.DEC.2016 10:32:15



Report No.: SZEM161000916605

Page: 46 of 177

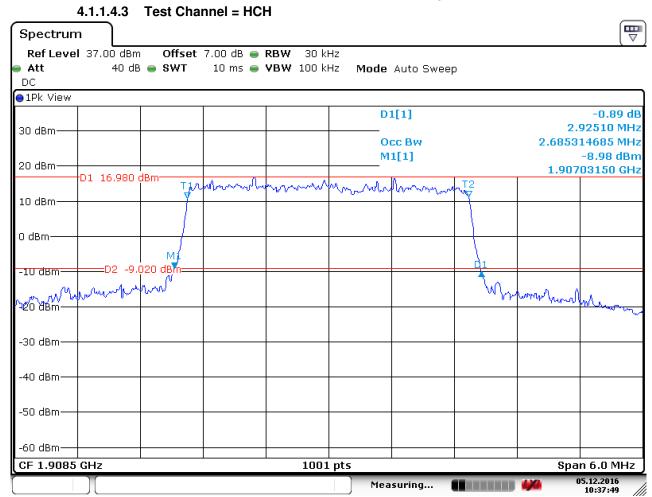


Date: 5.DEC.2016 10:30:56



Report No.: SZEM161000916605

Page: 47 of 177



Date: 5.DEC.2016 10:37:49

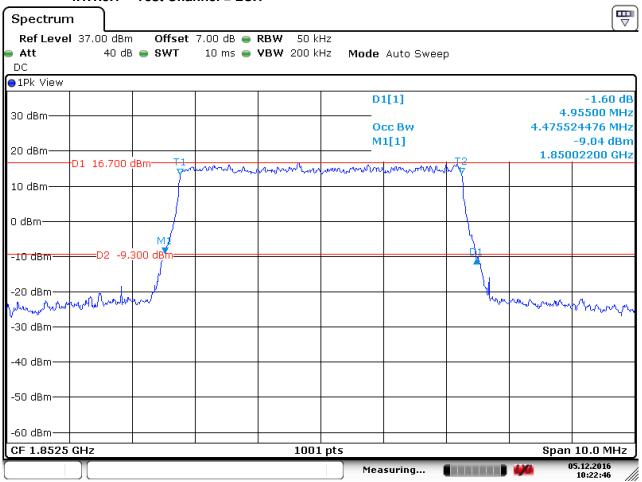


Report No.: SZEM161000916605

Page: 48 of 177

4.1.1.5 Test Mode = LTE/TM1 5MHz

4.1.1.5.1 Test Channel = LCH

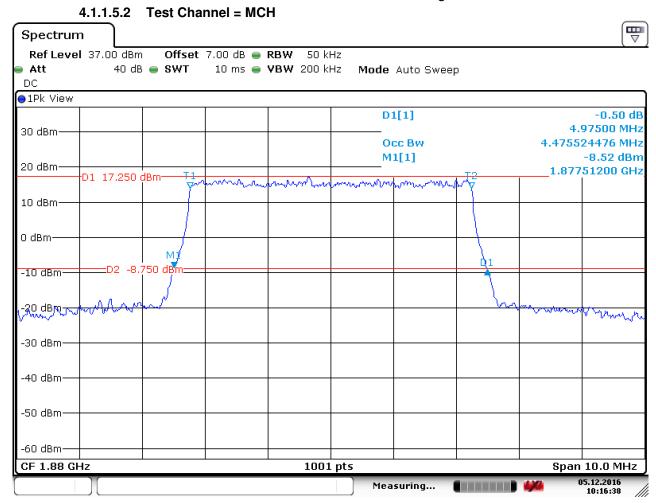


Date: 5.DEC.2016 10:22:47



Report No.: SZEM161000916605

Page: 49 of 177

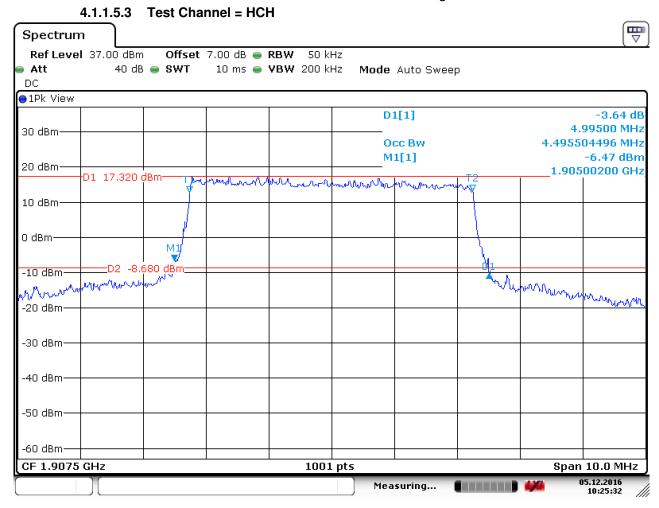


Date: 5.DEC.2016 10:16:39



Report No.: SZEM161000916605

Page: 50 of 177



Date: 5.DEC.2016 10:25:33

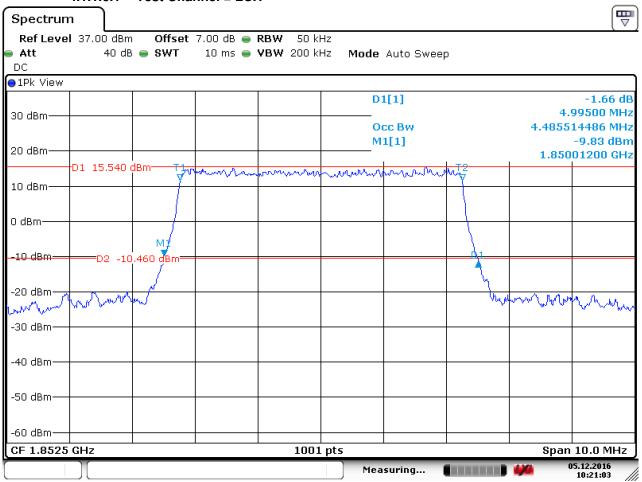


Report No.: SZEM161000916605

Page: 51 of 177

4.1.1.6 Test Mode = LTE/TM2 5MHz

4.1.1.6.1 Test Channel = LCH

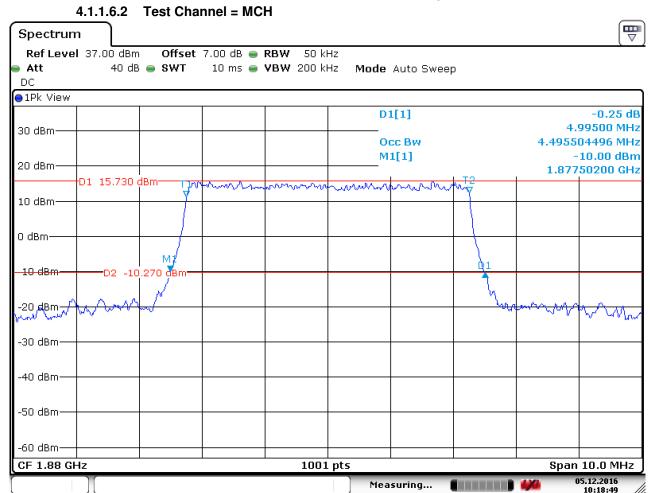


Date: 5.DEC.2016 10:21:03



Report No.: SZEM161000916605

Page: 52 of 177

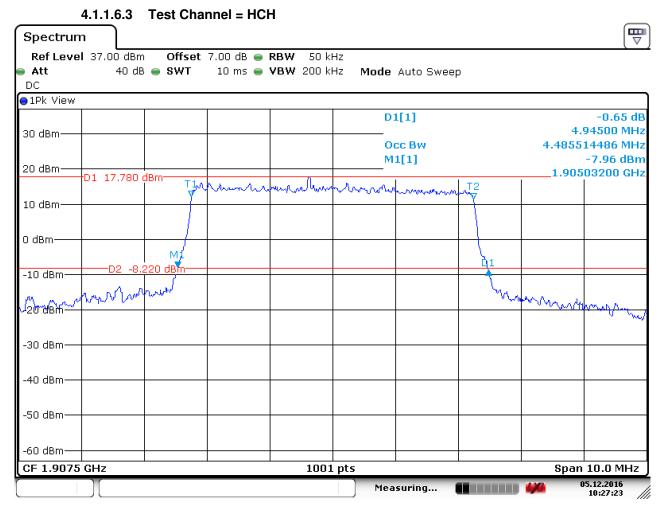


Date: 5.DEC.2016 10:18:49



Report No.: SZEM161000916605

Page: 53 of 177



Date: 5.DEC.2016 10:27:23

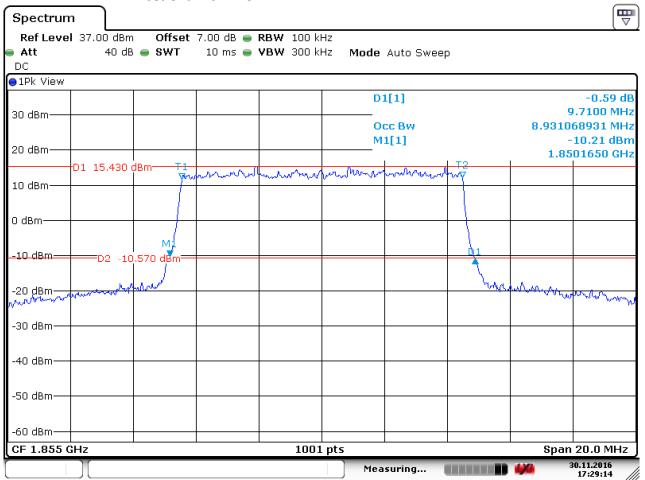


Report No.: SZEM161000916605

Page: 54 of 177

4.1.1.7 Test Mode = LTE/TM1 10MHz

4.1.1.7.1 Test Channel = LCH

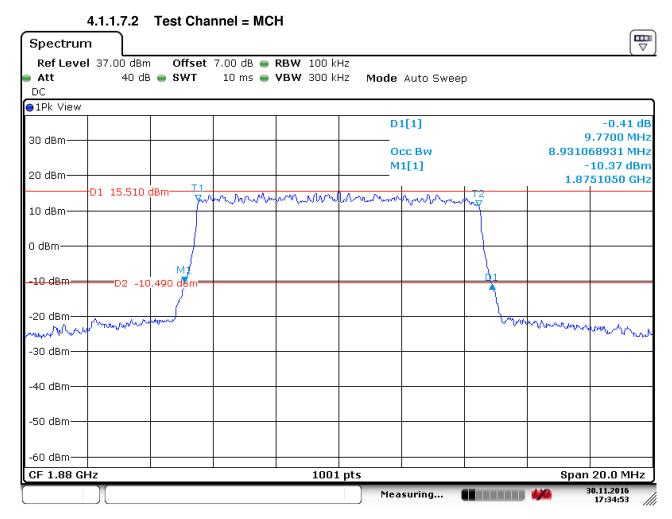


Date: 30.NOV.2016 17:29:15



Report No.: SZEM161000916605

Page: 55 of 177



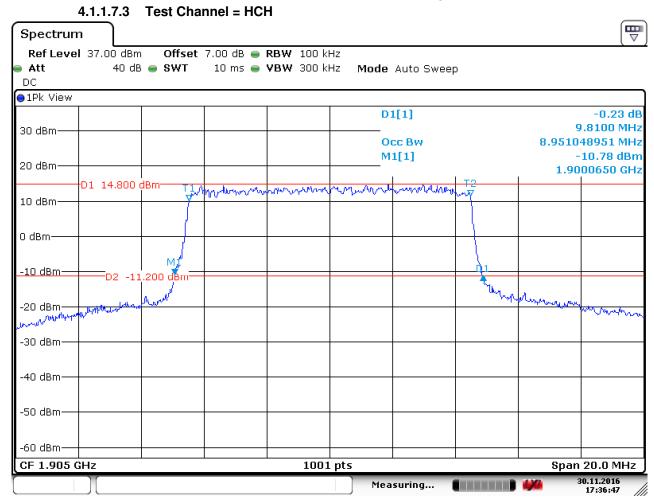
Date: 30.NOV.2016 17:34:53

[&]quot;This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at www.sgs.com/terms_and_conditions.htm and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at www.sgs.com/terms_e-document.htm. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only."



Report No.: SZEM161000916605

Page: 56 of 177



Date: 30.NOV.2016 17:36:47

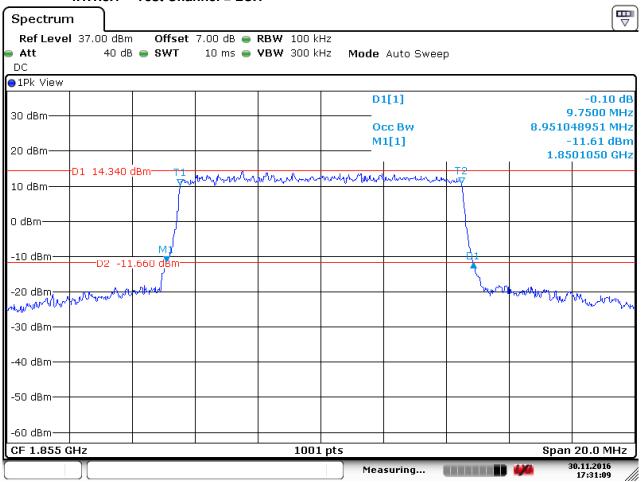


Report No.: SZEM161000916605

Page: 57 of 177

4.1.1.8 Test Mode = LTE/TM2 10MHz

4.1.1.8.1 Test Channel = LCH

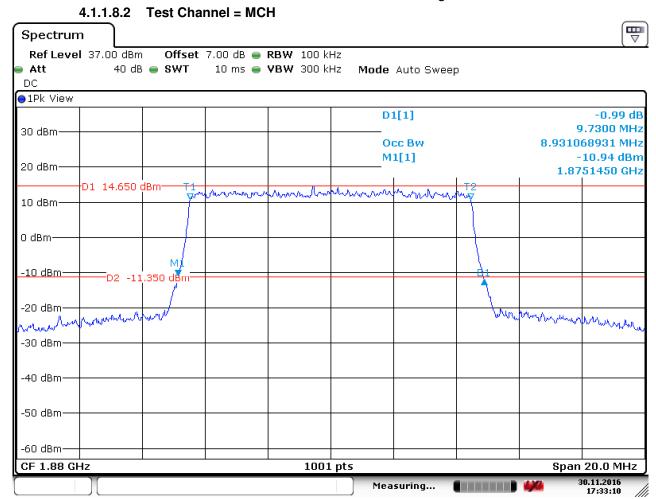


Date: 30.NOV.2016 17:31:09



Report No.: SZEM161000916605

Page: 58 of 177

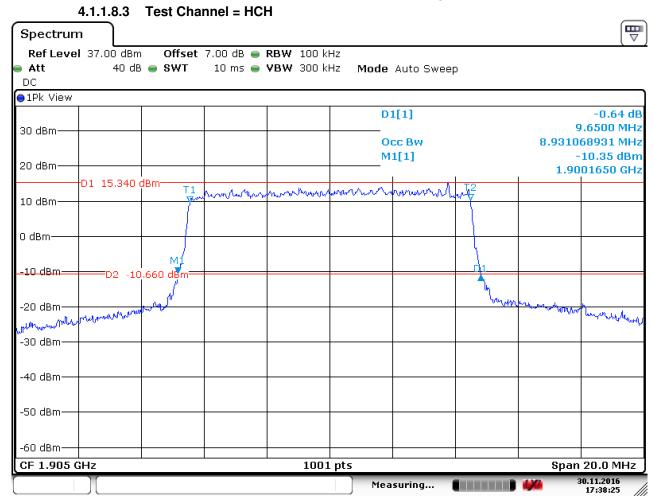


Date: 30.NOV.2016 17:33:10



Report No.: SZEM161000916605

Page: 59 of 177



Date: 30.NOV.2016 17:38:26

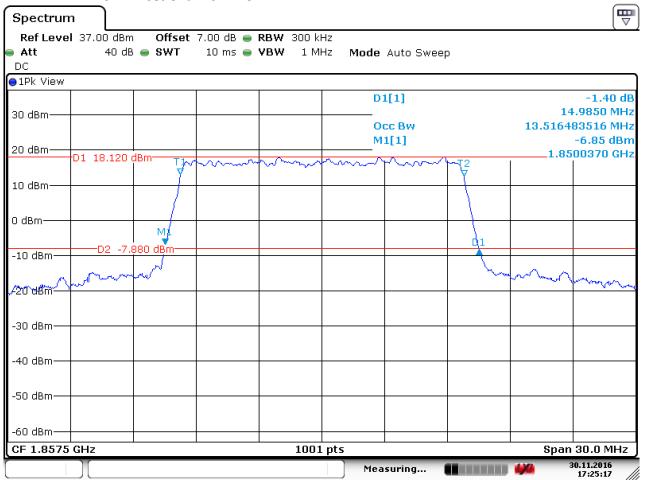


Report No.: SZEM161000916605

Page: 60 of 177

4.1.1.9 Test Mode = LTE/TM1 15MHz

4.1.1.9.1 Test Channel = LCH

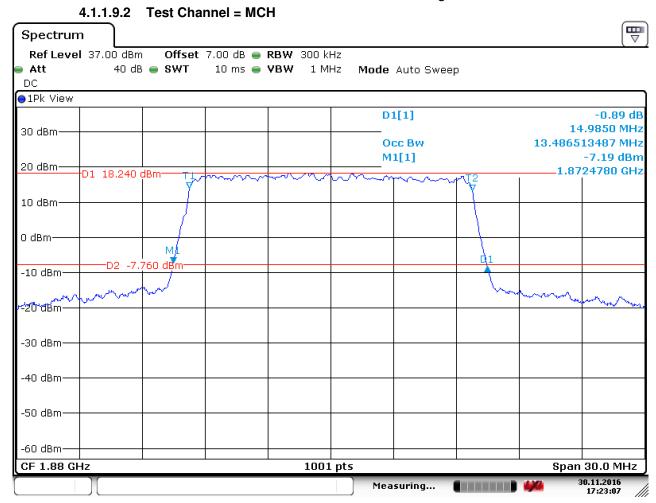


Date: 30.NOV.2016 17:25:17



Report No.: SZEM161000916605

Page: 61 of 177

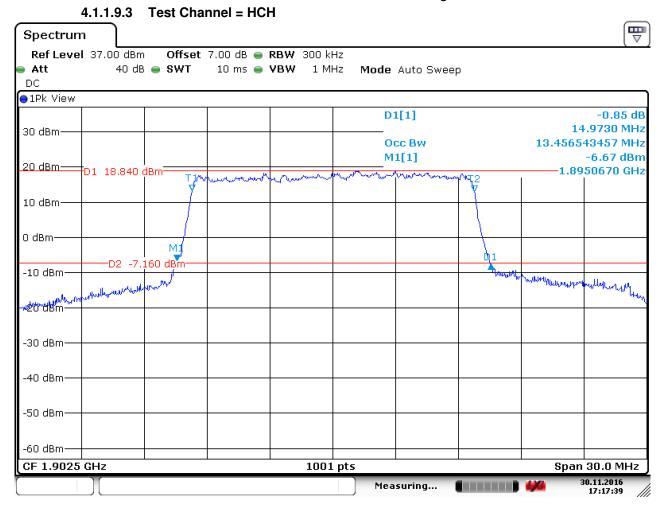


Date: 30.NOV.2016 17:23:08



Report No.: SZEM161000916605

Page: 62 of 177



Date: 30.NOV.2016 17:17:39

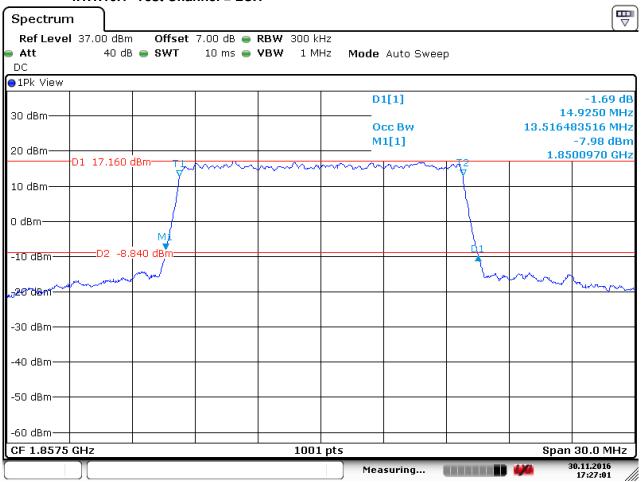


Report No.: SZEM161000916605

Page: 63 of 177

4.1.1.10 Test Mode = LTE/TM2 15MHz

4.1.1.10.1 Test Channel = LCH

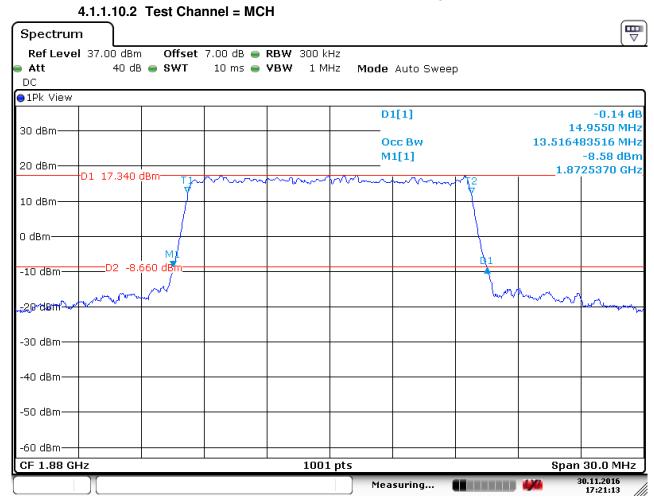


Date: 30.NOV.2016 17:27:01



Report No.: SZEM161000916605

Page: 64 of 177



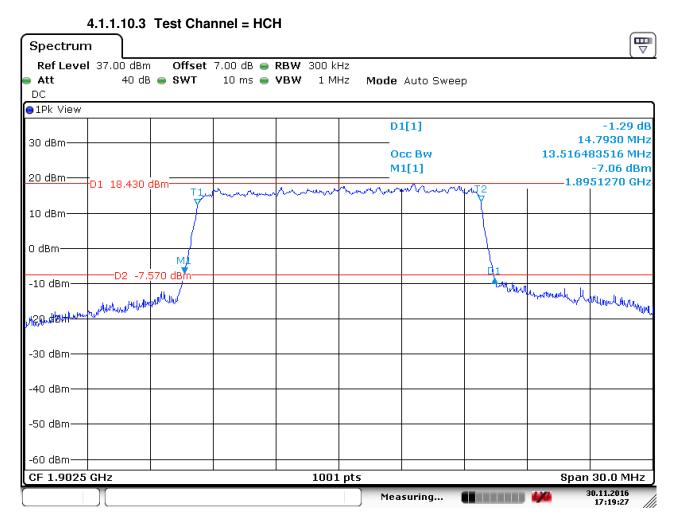
Date: 30.NOV.2016 17:21:13

[&]quot;This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at www.sgs.com/terms and conditions.htm and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at www.sgs.com/terms_e-document.htm. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only."



Report No.: SZEM161000916605

Page: 65 of 177



Date: 30.NOV.2016 17:19:28

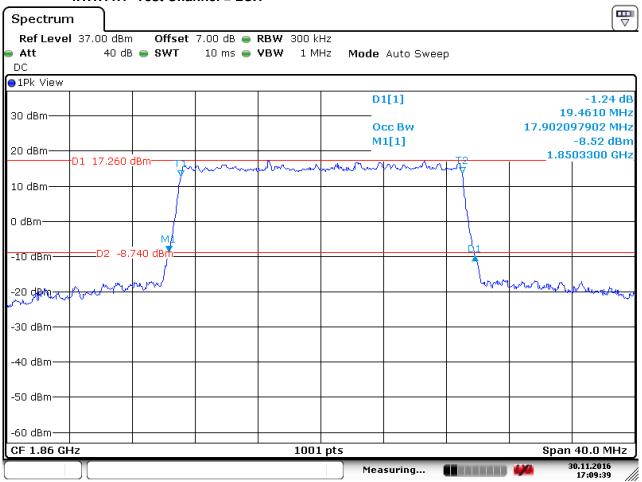


Report No.: SZEM161000916605

Page: 66 of 177

4.1.1.11 Test Mode = LTE/TM1 20MHz

4.1.1.11.1 Test Channel = LCH



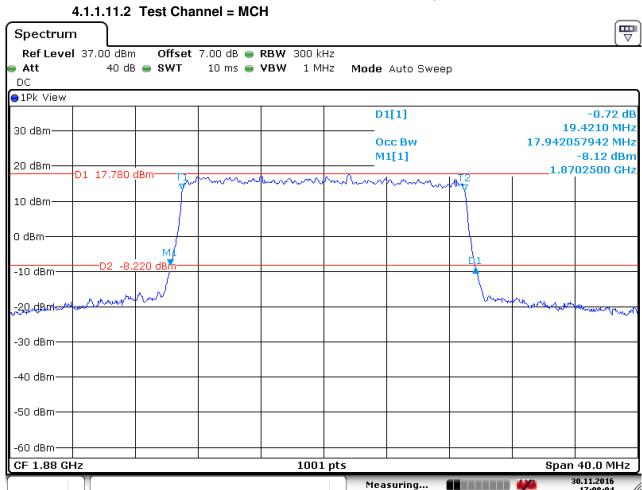
Date: 30.NOV.2016 17:09:39



Report No.: SZEM161000916605

17:08:04

67 of 177 Page:

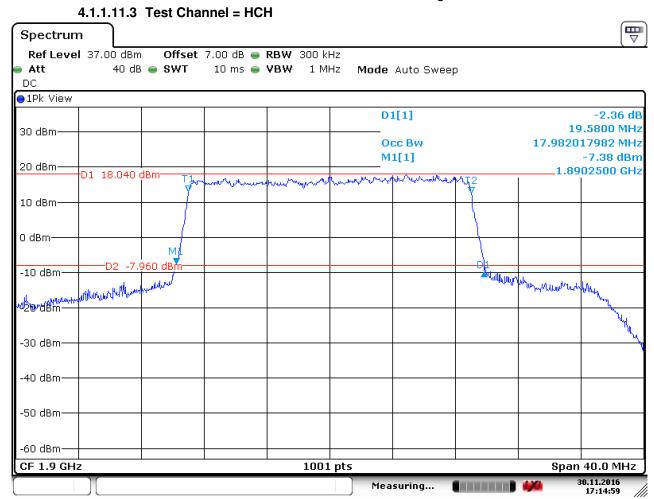


Date: 30.NOV.2016 17:08:04



Report No.: SZEM161000916605

Page: 68 of 177



Date: 30.NOV.2016 17:14:59

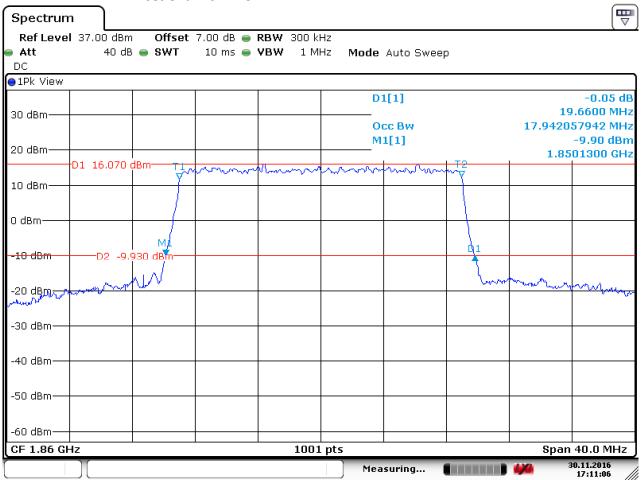


Report No.: SZEM161000916605

Page: 69 of 177

4.1.1.12 Test Mode = LTE/TM2 20MHz

4.1.1.12.1 Test Channel = LCH



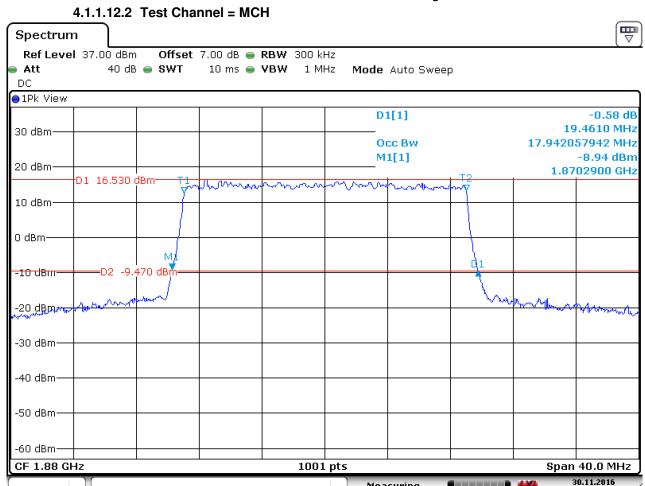
Date: 30.NOV.2016 17:11:07



Report No.: SZEM161000916605

17:03:04

Page: 70 of 177



Measuring...

Date: 30.NOV.2016 17:03:04

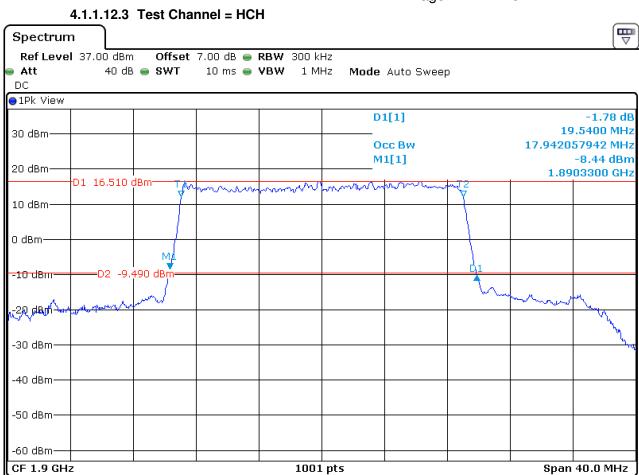


Report No.: SZEM161000916605

30.11.2016

17:13:14

Page: 71 of 177



Measuring...

Date: 30.NOV.2016 17:13:15



Report No.: SZEM161000916605

Page: 72 of 177

5 Band Edges Compliance

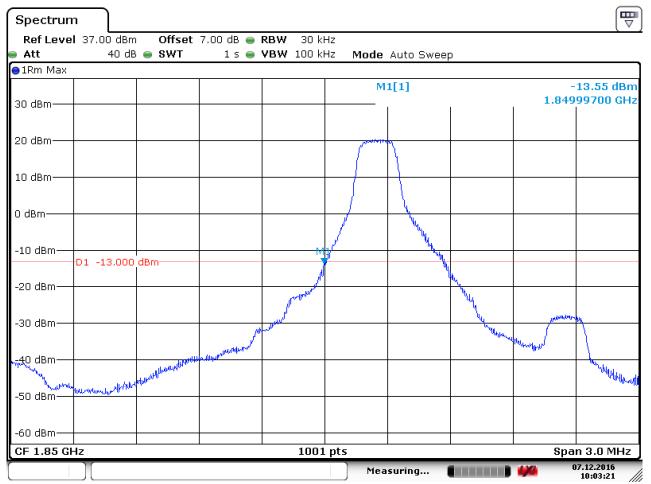
5.1 For LTE

5.1.1 Test Band = LTE band2

5.1.1.1 Test Mode = LTE/TM1 1.4MHz

5.1.1.1.1 Test Channel = LCH

5.1.1.1.1 Test RB=1RB



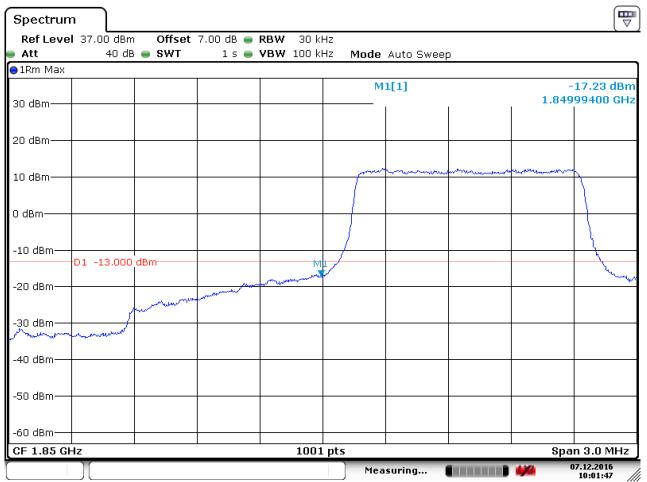
Date: 7.DEC.2016 10:03:22



Report No.: SZEM161000916605

Page: 73 of 177

5.1.1.1.1.2 Test RB=6RB



Date: 7.DEC.2016 10:01:47

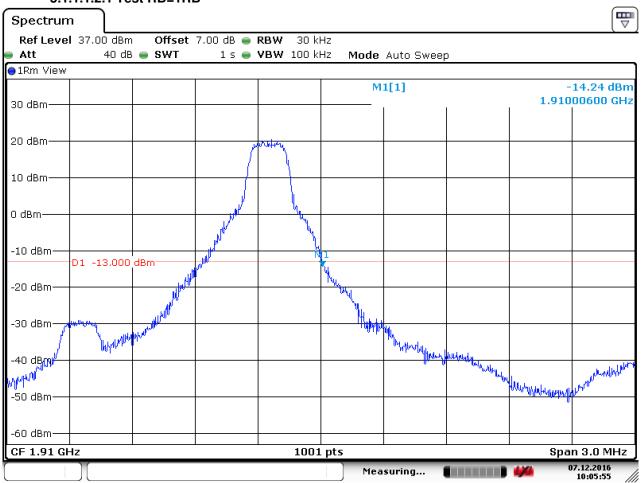


Report No.: SZEM161000916605

Page: 74 of 177

5.1.1.1.2 Test Channel = HCH

5.1.1.1.2.1 Test RB=1RB



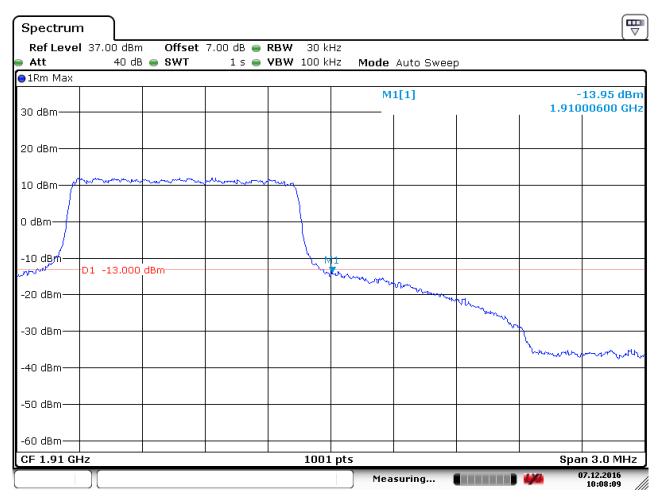
Date: 7.DEC.2016 10:05:55



Report No.: SZEM161000916605

Page: 75 of 177

5.1.1.1.2.2 Test RB=6RB



Date: 7.DEC.2016 10:08:10

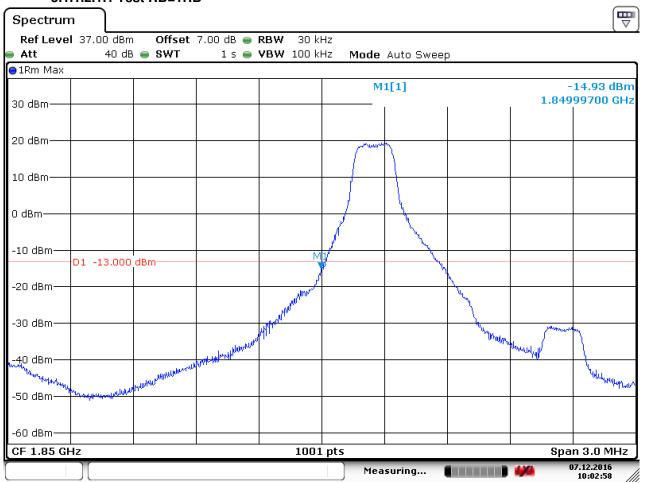


Report No.: SZEM161000916605

Page: 76 of 177

5.1.1.2 Test Mode = LTE/TM2 1.4MHz 5.1.1.2.1 Test Channel = LCH

5.1.1.2.1.1 Test RB=1RB



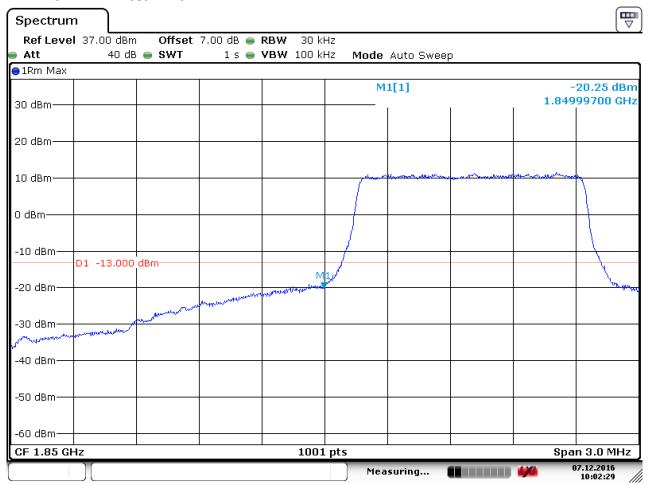
Date: 7.DEC.2016 10:02:58



Report No.: SZEM161000916605

Page: 77 of 177

5.1.1.2.1.2 Test RB=6RB



Date: 7.DEC.2016 10:02:29

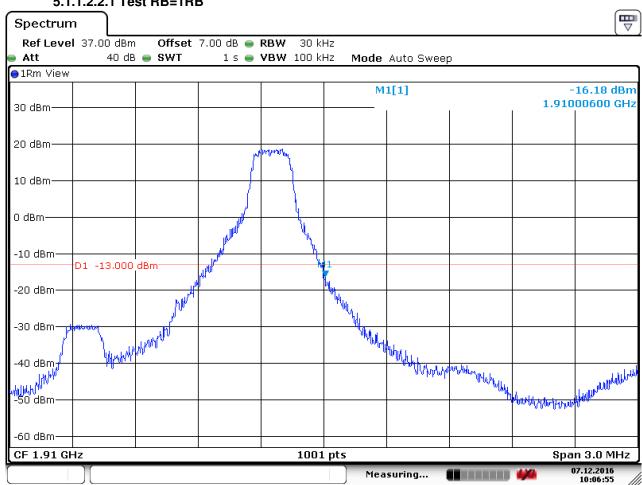


Report No.: SZEM161000916605

Page: 78 of 177

5.1.1.2.2 Test Channel = HCH

5.1.1.2.2.1 Test RB=1RB



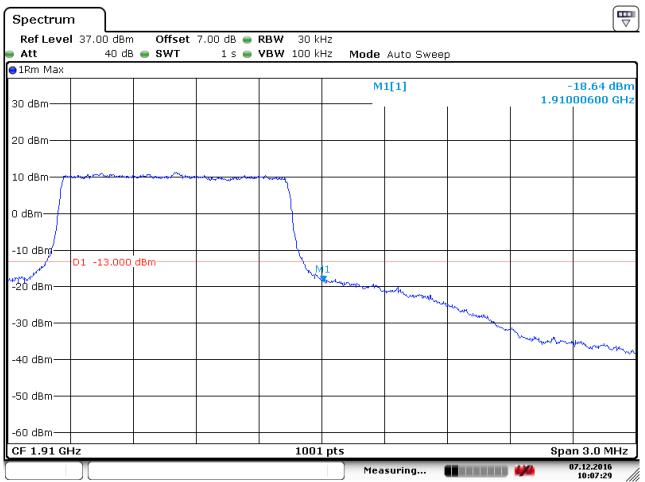
Date: 7.DEC.2016 10:06:56



Report No.: SZEM161000916605

Page: 79 of 177

5.1.1.2.2.2 Test RB=6RB



Date: 7.DEC.2016 10:07:30

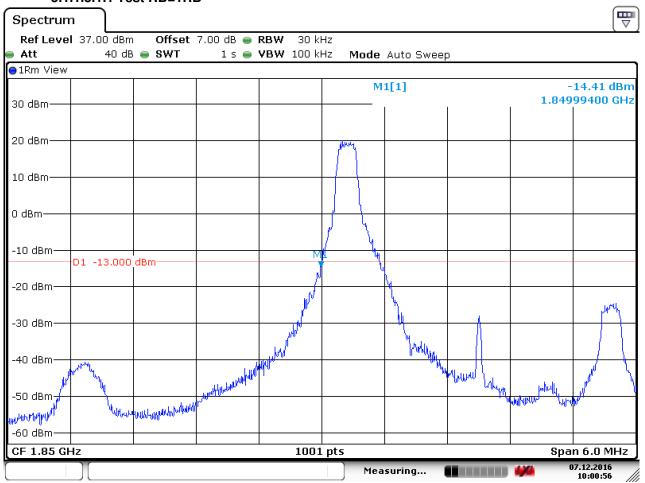


Report No.: SZEM161000916605

Page: 80 of 177

5.1.1.3 Test Mode = LTE/TM1 3MHz 5.1.1.3.1 Test Channel = LCH

5.1.1.3.1.1 Test RB=1RB



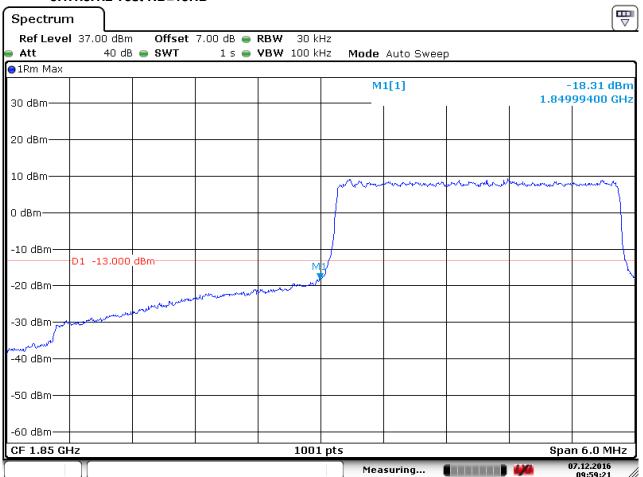
Date: 7.DEC.2016 10:00:57



Report No.: SZEM161000916605

Page: 81 of 177

5.1.1.3.1.2 Test RB=15RB



Date: 7.DEC.2016 09:59:21

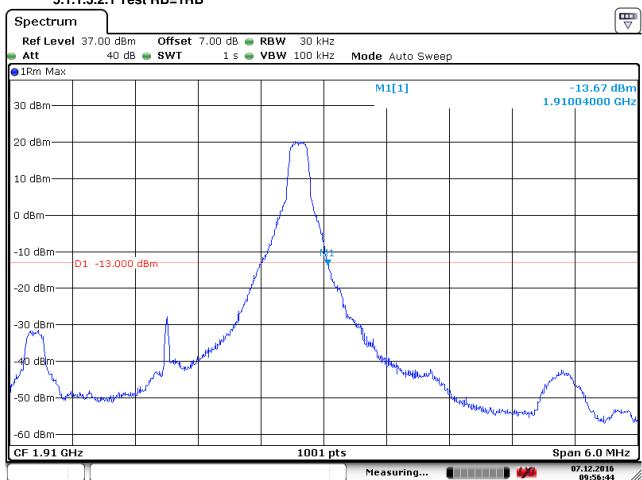


Report No.: SZEM161000916605

Page: 82 of 177

5.1.1.3.2 Test Channel = HCH

5.1.1.3.2.1 Test RB=1RB



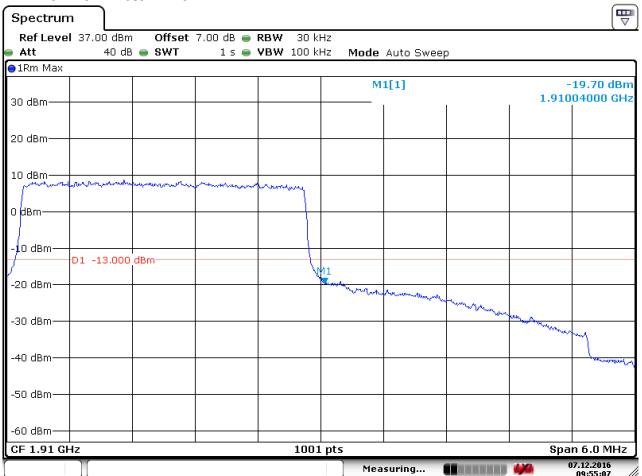
Date: 7.DEC.2016 09:56:44



Report No.: SZEM161000916605

Page: 83 of 177

5.1.1.3.2.2 Test RB=15RB



Date: 7.DEC.2016 09:55:07

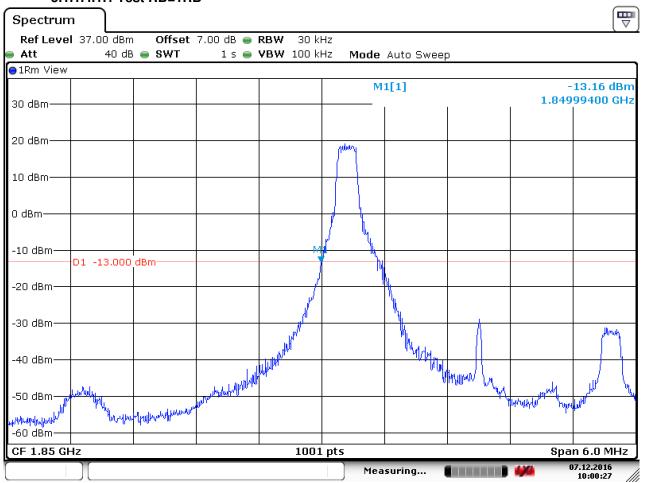


Report No.: SZEM161000916605

Page: 84 of 177

5.1.1.4 Test Mode = LTE/TM2 3MHz 5.1.1.4.1 Test Channel = LCH

5.1.1.4.1.1 Test RB=1RB



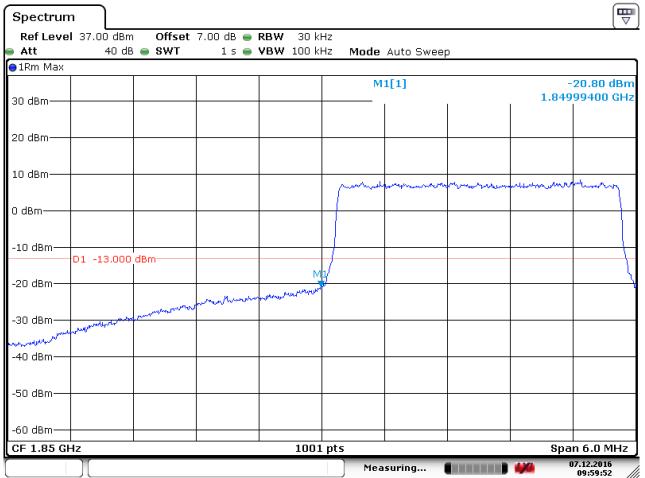
Date: 7.DEC.2016 10:00:28



Report No.: SZEM161000916605

Page: 85 of 177

5.1.1.4.1.2 Test RB=15RB



Date: 7.DEC.2016 09:59:52

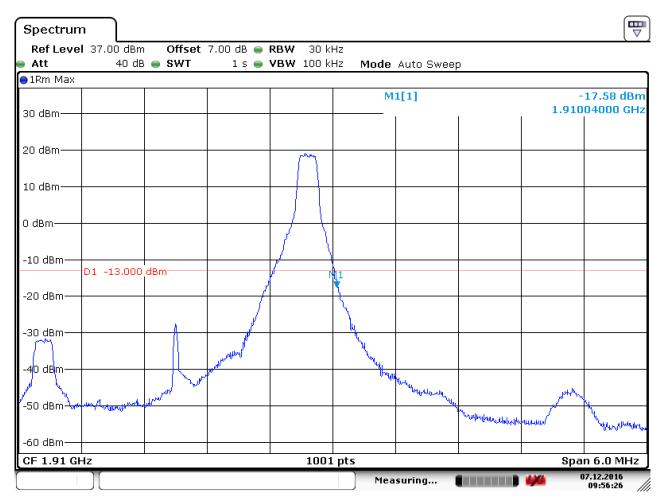


Report No.: SZEM161000916605

Page: 86 of 177

5.1.1.4.2 Test Channel = HCH

5.1.1.4.2.1 Test RB=1RB



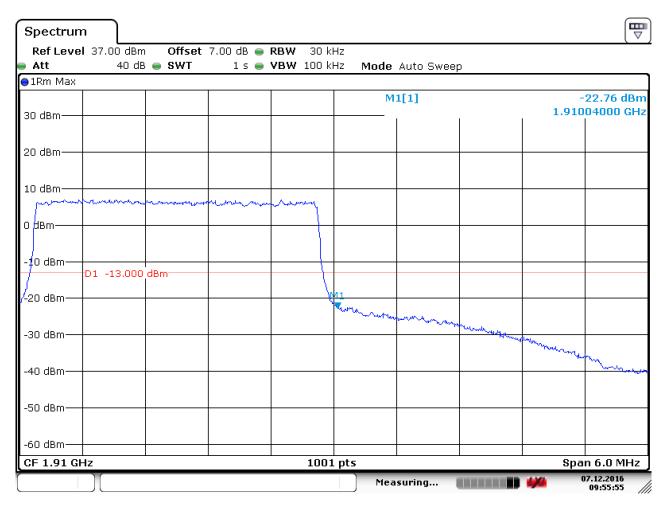
Date: 7.DEC.2016 09:56:26



Report No.: SZEM161000916605

Page: 87 of 177

5.1.1.4.3 Test RB=15RB



Date: 7.DEC.2016 09:55:55

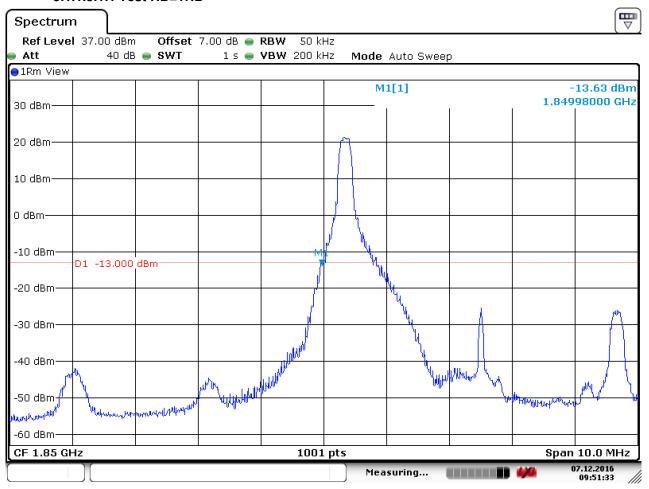


Report No.: SZEM161000916605

Page: 88 of 177

5.1.1.5 Test Mode = LTE/TM1 5MHz 5.1.1.5.1 Test Channel = LCH

5.1.1.5.1.1 Test RB=1RB



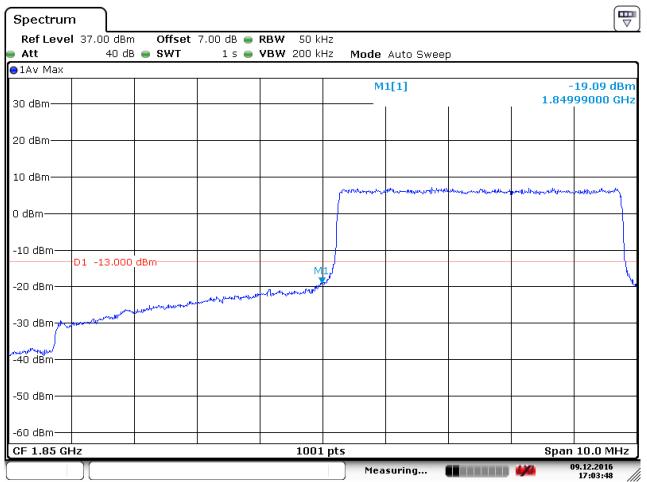
Date: 7.DEC.2016 09:51:33



Report No.: SZEM161000916605

Page: 89 of 177

5.1.1.5.1.2 Test RB=25RB



Date: 9.DEC.2016 17:03:49

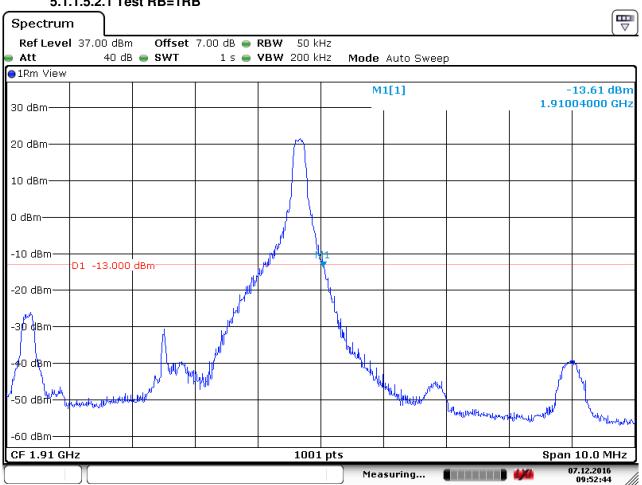


Report No.: SZEM161000916605

Page: 90 of 177

5.1.1.5.2 Test Channel = HCH

5.1.1.5.2.1 Test RB=1RB



Date: 7.DEC.2016 09:52:44