

Report No.: SZEM161201085001 Page: 1 of 179

# Appendix B

### Test Data for SZEM161201085001RG



Report No.: SZEM161201085001 Page: 2 of 179

### CONTENT

1	EFFECTIVE (ISOTROPIC) RADIATED POWER OUTPUT DATA	3
2	PEAK-TO-AVERAGE RATIO	15
	2.1 For LTE	
	2.1.1 Test Band = LTE band2	
3	MODULATION CHARACTERISTICS	22
	3.1 For LTE	
	3.1.1 Test Band = LTE band2	
4	BANDWIDTH	34
	4.1 For LTE	
	4.1.1 Test Band = LTE band2	
5	BAND EDGES COMPLIANCE	72
	5.1 For LTE	
	5.1.1 Test Band = LTE band2	
6	SPURIOUS EMISSION AT ANTENNA TERMINAL	
	6.1 For LTE	
	6.1.1 Test Band = LTE band2	
7	FIELD STRENGTH OF SPURIOUS RADIATION	175
	7.1 For LTE	
	7.1.1 Test Band = LTE band2	
8	FREQUENCY STABILITY	176
	8.1 FREQUENCY ERROR VS. VOLTAGE	176
	8.2 FREQUENCY ERROR VS. TEMPERATURE	177



Report No.: SZEM161201085001 Page: 3 of 179

### 1 Effective (Isotropic) Radiated Power Output Data

### 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	22.87	22.87	33.00	PASS
				RB1#2	22.96	22.96	33.00	PASS
				RB1#5	22.86	22.86	33.00	PASS
			LCH	RB3#0	21.95	21.95	33.00	PASS
				RB3#2	21.94	21.94	33.00	PASS
				RB3#3	21.92	21.92	33.00	PASS
				RB6#0	21.98	21.98	33.00	PASS
				RB1#0	22.87	22.87	33.00	PASS
				RB1#2	22.97	22.97	33.00	PASS
				RB1#5	22.90	22.90	33.00	PASS
BAND2	LTE/TM1	1.4M	MCH	RB3#0	21.97	21.97	33.00	PASS
				RB3#2	21.93	21.93	33.00	PASS
				RB3#3	21.95	21.95	33.00	PASS
				RB6#0	21.97	21.97	33.00	PASS
				RB1#0	22.85	22.85	33.00	PASS
				RB1#2	22.94	22.94	33.00	PASS
				RB1#5	22.84	22.84	33.00	PASS
			НСН	RB3#0	21.93	21.93	33.00	PASS
				RB3#2	21.91	21.91	33.00	PASS
				RB3#3	21.90	21.90	33.00	PASS
				RB6#0	21.98	21.98	33.00	PASS

<sup>&</sup>quot;This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <u>www.sgs.com/terms\_and\_conditions.htm</u> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <u>www.sgs.com/terms\_e-document.htm</u>. 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.: SZEM161201085001 Page: 4 of 179

Test Band(LTE)	Test Mode	Test Bandwidth	Test channel	Test RB	Measured (dBm)	EIRP (dBm)	limit (dBm)	Verdict
				RB1#0	22.08	22.08	33.00	PASS
				RB1#2	22.17	22.17	33.00	PASS
				RB1#5	22.09	22.09	33.00	PASS
			LCH	RB3#0	21.93	21.93	33.00	PASS
				RB3#2	21.89	21.89	33.00	PASS
				RB3#3	21.91	21.91	33.00	PASS
				RB6#0	20.99	20.99	33.00	PASS
		1.4M		RB1#0	22.08	22.08	33.00	PASS
				RB1#2	22.18	22.18	33.00	PASS
			МСН	RB1#5	22.09	22.09	33.00	PASS
BAND2	LTE/TM2			RB3#0	21.95	21.95	33.00	PASS
				RB3#2	21.92	21.92	33.00	PASS
				RB3#3	21.95	21.95	33.00	PASS
				RB6#0	21.01	21.01	33.00	PASS
				RB1#0	22.01	22.01	33.00	PASS
				RB1#2	22.11	22.11	33.00	PASS
				RB1#5	22.00	22.00	33.00	PASS
			НСН	RB3#0	21.90	21.90	33.00	PASS
				RB3#2	21.87	21.87	33.00	PASS
				RB3#3	21.89	21.89	33.00	PASS
				RB6#0	20.95	20.95	33.00	PASS



Report No.: SZEM161201085001 Page: 5 of 179

Page: 5 of 179								
Test Band(LTE)	Test Mode	Test Bandwidth	Test channel	Test RB	Measured (dBm)	EIRP (dBm)	limit (dBm)	Verdict
				RB1#0	22.88	22.88	33.00	PASS
				RB1#7	22.89	22.89	33.00	PASS
				RB1#14	22.83	22.83	33.00	PASS
			LCH	RB8#0	21.97	21.97	33.00	PASS
				RB8#4	21.95	21.95	33.00	PASS
				RB8#7	21.94	21.94	33.00	PASS
				RB15#0	21.96	21.96	33.00	PASS
		ЗМ		RB1#0	22.84	22.84	33.00	PASS
				RB1#7	22.89	22.89	33.00	PASS
			МСН	RB1#14	22.83	22.83	33.00	PASS
BAND2	LTE/TM1			RB8#0	21.99	21.99	33.00	PASS
				RB8#4	21.94	21.94	33.00	PASS
				RB8#7	21.96	21.96	33.00	PASS
				RB15#0	21.97	21.97	33.00	PASS
				RB1#0	22.83	22.83	33.00	PASS
				RB1#7	22.85	22.85	33.00	PASS
				RB1#14	22.80	22.80	33.00	PASS
			НСН	RB8#0	21.95	21.95	33.00	PASS
				RB8#4	21.94	21.94	33.00	PASS
				RB8#7	21.93	21.93	33.00	PASS
				RB15#0	21.95	21.95	33.00	PASS



Report No.: SZEM161201085001 Page: 6 of 179

Test Band(LTE)	Test Mode	Test Bandwidth	Test channel	Test RB	Measured (dBm)	EIRP (dBm)	limit (dBm)	Verdict
				RB1#0	21.98	21.98	33.00	PASS
				RB1#7	22.03	22.03	33.00	PASS
				RB1#14	21.94	21.94	33.00	PASS
			LCH	RB8#0	20.90	20.90	33.00	PASS
				RB8#4	20.89	20.89	33.00	PASS
				RB8#7	20.88	20.88	33.00	PASS
				RB15#0	20.85	20.85	33.00	PASS
	LTE/TM2	ЗМ		RB1#0	21.98	21.98	33.00	PASS
				RB1#7	22.07	22.07	33.00	PASS
			МСН	RB1#14	22.00	22.00	33.00	PASS
BAND2				RB8#0	20.94	20.94	33.00	PASS
				RB8#4	20.90	20.90	33.00	PASS
				RB8#7	20.92	20.92	33.00	PASS
				RB15#0	20.89	20.89	33.00	PASS
				RB1#0	21.98	21.98	33.00	PASS
				RB1#7	21.99	21.99	33.00	PASS
				RB1#14	21.93	21.93	33.00	PASS
			НСН	RB8#0	20.86	20.86	33.00	PASS
				RB8#4	20.85	20.85	33.00	PASS
				RB8#7	20.86	20.86	33.00	PASS
				RB15#0	20.82	20.82	33.00	PASS



Report No.: SZEM161201085001 Page: 7 of 179

					Page:	7 of 17	/9	
Test Band(LTE)	Test Mode	Test Bandwidth	Test channel	Test RB	Measured (dBm)	EIRP (dBm)	limit (dBm)	Verdict
				RB1#0	22.81	22.81	33.00	PASS
				RB1#13	22.80	22.80	33.00	PASS
				RB1#24	22.70	22.70	33.00	PASS
			LCH	RB12#0	21.89	21.89	33.00	PASS
				RB12#6	21.87	21.87	33.00	PASS
				RB12#13	21.84	21.84	33.00	PASS
				RB25#0	21.85	21.85	33.00	PASS
		5M		RB1#0	22.82	22.82	33.00	PASS
				RB1#13	22.82	22.82	33.00	PASS
			МСН	RB1#24	22.72	22.72	33.00	PASS
BAND2	LTE/TM1			RB12#0	21.91	21.91	33.00	PASS
				RB12#6	21.87	21.87	33.00	PASS
				RB12#13	21.88	21.88	33.00	PASS
				RB25#0	21.85	21.85	33.00	PASS
				RB1#0	22.78	22.78	33.00	PASS
				RB1#13	22.78	22.78	33.00	PASS
				RB1#24	22.69	22.69	33.00	PASS
			НСН	RB12#0	21.87	21.87	33.00	PASS
				RB12#6	21.86	21.86	33.00	PASS
				RB12#13	21.83	21.83	33.00	PASS
				RB25#0	21.84	21.84	33.00	PASS



Report No.: SZEM161201085001 Page: 8 of 179

Page: 8 of 179								
Test Band(LTE)	Test Mode	Test Bandwidth	Test channel	Test RB	Measured (dBm)	EIRP (dBm)	limit (dBm)	Verdict
				RB1#0	22.13	22.13	33.00	PASS
				RB1#13	22.12	22.12	33.00	PASS
				RB1#24	22.04	22.04	33.00	PASS
			LCH	RB12#0	20.96	20.96	33.00	PASS
				RB12#6	20.94	20.94	33.00	PASS
				RB12#13	20.90	20.90	33.00	PASS
				RB25#0	20.91	20.91	33.00	PASS
	LTE/TM2	5M		RB1#0	22.15	22.15	33.00	PASS
				RB1#13	22.13	22.13	33.00	PASS
			МСН	RB1#24	22.04	22.04	33.00	PASS
BAND2				RB12#0	20.96	20.96	33.00	PASS
				RB12#6	20.92	20.92	33.00	PASS
				RB12#13	20.93	20.93	33.00	PASS
				RB25#0	20.89	20.89	33.00	PASS
				RB1#0	22.08	22.08	33.00	PASS
				RB1#13	22.04	22.04	33.00	PASS
				RB1#24	21.97	21.97	33.00	PASS
			НСН	RB12#0	20.88	20.88	33.00	PASS
				RB12#6	20.89	20.89	33.00	PASS
				RB12#13	20.86	20.86	33.00	PASS
				RB25#0	20.86	20.86	33.00	PASS



Report No.: SZEM161201085001 Page: 9 of 179

Test Band(LTE)	Test Mode	Test Bandwidth	Test channel	Test RB	Measured (dBm)	EIRP (dBm)	limit (dBm)	Verdict
				RB1#0	22.83	22.83	33.00	PASS
				RB1#25	22.75	22.75	33.00	PASS
				RB1#49	22.72	22.72	33.00	PASS
			LCH	RB25#0	21.82	21.82	33.00	PASS
				RB25#13	21.79	21.79	33.00	PASS
				RB25#25	21.77	21.77	33.00	PASS
				RB50#0	21.84	21.84	33.00	PASS
				RB1#0	22.79	22.79	33.00	PASS
		10M		RB1#25	22.74	22.74	33.00	PASS
			МСН	RB1#49	22.71	22.71	33.00	PASS
BAND2	LTE/TM1			RB25#0	21.82	21.82	33.00	PASS
				RB25#13	21.79	21.79	33.00	PASS
				RB25#25	21.77	21.77	33.00	PASS
				RB50#0	21.81	21.81	33.00	PASS
				RB1#0	22.75	22.75	33.00	PASS
				RB1#25	22.71	22.71	33.00	PASS
				RB1#49	22.66	22.66	33.00	PASS
			НСН	RB25#0	21.80	21.80	33.00	PASS
				RB25#13	21.78	21.78	33.00	PASS
				RB25#25	21.75	21.75	33.00	PASS
				RB50#0	21.79	21.79	33.00	PASS



Report No.: SZEM161201085001 Page: 10 of 179

						Page: 10 of 179			
Test Band(LTE)	Test Mode	Test Bandwidth	Test channel	Test RB	Measured (dBm)	EIRP (dBm)	limit (dBm)	Verdict	
				RB1#0	22.08	22.08	33.00	PASS	
				RB1#25	21.99	21.99	33.00	PASS	
				RB1#49	21.99	21.99	33.00	PASS	
			LCH	RB25#0	20.82	20.82	33.00	PASS	
				RB25#13	20.79	20.79	33.00	PASS	
				RB25#25	20.79	20.79	33.00	PASS	
				RB50#0	20.82	20.82	33.00	PASS	
	LTE/TM2	10M		RB1#0	22.05	22.05	33.00	PASS	
				RB1#25	21.98	21.98	33.00	PASS	
			МСН	RB1#49	21.94	21.94	33.00	PASS	
BAND2				RB25#0	20.83	20.83	33.00	PASS	
				RB25#13	20.81	20.81	33.00	PASS	
				RB25#25	20.78	20.78	33.00	PASS	
				RB50#0	20.81	20.81	33.00	PASS	
				RB1#0	21.99	21.99	33.00	PASS	
				RB1#25	21.95	21.95	33.00	PASS	
				RB1#49	21.89	21.89	33.00	PASS	
			НСН	RB25#0	20.80	20.80	33.00	PASS	
				RB25#13	20.78	20.78	33.00	PASS	
				RB25#25	20.75	20.75	33.00	PASS	
				RB50#0	20.79	20.79	33.00	PASS	



Report No.: SZEM161201085001 Page: 11 of 179

<b></b>	Page: 11 of 179							
Test Band(LTE)	Test Mode	Test Bandwidth	Test channel	Test RB	Measured (dBm)	EIRP (dBm)	limit (dBm)	Verdict
				RB1#0	22.90	22.90	33.00	PASS
				RB1#38	22.82	22.82	33.00	PASS
				RB1#74	22.78	22.78	33.00	PASS
			LCH	RB36#0	21.93	21.93	33.00	PASS
				RB36#18	21.87	21.87	33.00	PASS
				RB36#39	21.84	21.84	33.00	PASS
				RB75#0	21.88	21.88	33.00	PASS
		15M		RB1#0	22.88	22.88	33.00	PASS
				RB1#38	22.81	22.81	33.00	PASS
			МСН	RB1#74	22.80	22.80	33.00	PASS
BAND2	LTE/TM1			RB36#0	21.92	21.92	33.00	PASS
				RB36#18	21.87	21.87	33.00	PASS
				RB36#39	21.86	21.86	33.00	PASS
				RB75#0	21.88	21.88	33.00	PASS
				RB1#0	22.82	22.82	33.00	PASS
				RB1#38	22.75	22.75	33.00	PASS
				RB1#74	22.73	22.73	33.00	PASS
			HCH	RB36#0	21.88	21.88	33.00	PASS
				RB36#18	21.86	21.86	33.00	PASS
				RB36#39	21.83	21.83	33.00	PASS
				RB75#0	21.86	21.86	33.00	PASS



Report No.: SZEM161201085001 Page: 12 of 179

Page: 12 of 179								
Test Band(LTE)	Test Mode	Test Bandwidth	Test channel	Test RB	Measured (dBm)	EIRP (dBm)	limit (dBm)	Verdict
				RB1#0	22.15	22.15	33.00	PASS
				RB1#38	22.08	22.08	33.00	PASS
				RB1#74	22.04	22.04	33.00	PASS
			LCH	RB36#0	20.93	20.93	33.00	PASS
				RB36#18	20.90	20.90	33.00	PASS
				RB36#39	20.85	20.85	33.00	PASS
				RB75#0	20.91	20.91	33.00	PASS
		15M		RB1#0	22.15	22.15	33.00	PASS
				RB1#38	22.06	22.06	33.00	PASS
			МСН	RB1#74	22.08	22.08	33.00	PASS
BAND2	LTE/TM2			RB36#0	20.93	20.93	33.00	PASS
				RB36#18	20.89	20.89	33.00	PASS
				RB36#39	20.88	20.88	33.00	PASS
				RB75#0	20.89	20.89	33.00	PASS
				RB1#0	22.10	22.10	33.00	PASS
				RB1#38	22.02	22.02	33.00	PASS
				RB1#74	21.98	21.98	33.00	PASS
			HCH	RB36#0	20.85	20.85	33.00	PASS
				RB36#18	20.84	20.84	33.00	PASS
				RB36#39	20.83	20.83	33.00	PASS
				RB75#0	20.82	20.82	33.00	PASS



Report No.: SZEM161201085001 Page: 13 of 179

F	Page: 13 of 179							
Test Band(LTE)	Test Mode	Test Bandwidth	Test channel	Test RB	Measured (dBm)	EIRP (dBm)	limit (dBm)	Verdict
				RB1#0	22.91	22.91	33.00	PASS
				RB1#50	22.79	22.79	33.00	PASS
				RB1#99	22.83	22.83	33.00	PASS
			LCH	RB50#0	21.78	21.78	33.00	PASS
				RB50#25	21.75	21.75	33.00	PASS
				RB50#50	21.72	21.72	33.00	PASS
				RB100#0	21.75 21.7	21.75	33.00	PASS
		TE/TM1 20M		RB1#0	22.89	33.00	PASS	
				RB1#50	22.79 22.86	22.79	33.00	PASS
				RB1#99		22.86	33.00	PASS
BAND2	LTE/TM1		MCH	RB50#0 21.81	21.81	21.81	33.00	PASS
				RB50#25	21.77	21.77	33.00	PASS
				RB50#50	21.76	21.76	33.00	PASS
				RB100#0 21.77	21.77	33.00	PASS	
				RB1#0	22.88	22.88	33.00	PASS
				RB1#50	22.85	22.85	33.00	PASS
				RB1#99	22.78	22.78	33.00	PASS
			НСН	RB50#0	21.82	21.82	33.00	PASS
				RB50#25	21.74	21.74	33.00	PASS
				RB50#50	21.76	21.76	33.00	PASS
				RB100#0	21.77	21.77	33.00	PASS

<sup>&</sup>quot;This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <u>www.sgs.com/terms\_and\_conditions.htm</u> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <u>www.sgs.com/terms\_e-document.htm</u>. 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.: SZEM161201085001 Page: 14 of 179

	Page: 14 01 179							
Test Band(LTE)	Test Mode	Test Bandwidth	Test channel	Test RB	Measured (dBm)	EIRP (dBm)	limit (dBm)	Verdict
				RB1#0	22.38	22.38	33.00	PASS
				RB1#50	22.31	22.31	33.00	PASS
				RB1#99	22.23	22.23	33.00	PASS
			LCH	RB50#0	20.84	20.84	33.00	PASS
				RB50#25	20.77	20.77	33.00	PASS
				RB50#50	20.76	20.76	33.00	PASS
				RB100#0	20.84	20.84	33.00	PASS
				RB1#0	22.23	22.23	33.00	PASS
				RB1#50	22.22	22.22	33.00	PASS
			20M MCH RB50#0 20.82 RB50#25 20.83 RB50#50 20.83	22.28	33.00	PASS		
BAND2	LTE/TM2	LTE/TM2 20M		RB50#0	20.82	20.82	33.00	PASS
				RB50#25	20.83	20.83	33.00	PASS
				RB50#50	20.83	20.83	33.00	PASS
				RB100#0	20.80	20.80	33.00	PASS
				RB1#0	22.21	22.21	33.00	PASS
				RB1#50	22.12	22.12	33.00	PASS
				RB1#99	22.13	22.13	33.00	PASS
			НСН	RB50#0	20.83	20.83	33.00	PASS
				RB50#25	20.82	20.82	33.00	PASS
				RB50#50	20.81	20.81	33.00	PASS
Note:				RB100#0	20.81	20.81	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 >  $3 \times RBW$ .

Detector: RMS

<sup>&</sup>quot;This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <u>www.sgs.com/terms\_and\_conditions.htm</u> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <u>www.sgs.com/terms\_e-document.htm</u>. 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.: SZEM161201085001 Page: 15 of 179

### 2 Peak-to-Average Ratio

### Part I - Test Results

Test Band	Test Mode	Test Channel	Measured[dB]	Limit [dB]	Verdict
	TM1/20M	LCH	4.75	13	PASS
		MCH	4.96	13	PASS
Bond 2		НСН	5.04	13	PASS
Band 2	TM2/20M	LCH	5.74	13	PASS
		MCH	5.88	13	PASS
		НСН	5.94	13	PASS



Report No.: SZEM161201085001 Page: 16 of 179

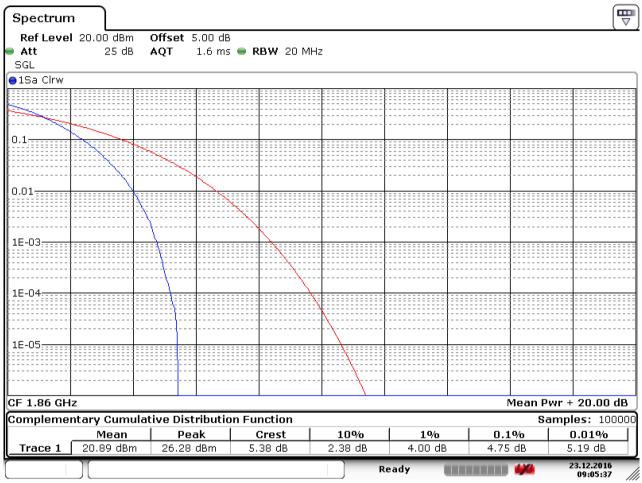
Part II - Test Plots

### 2.1 For LTE

2.1.1 Test Band = LTE band2



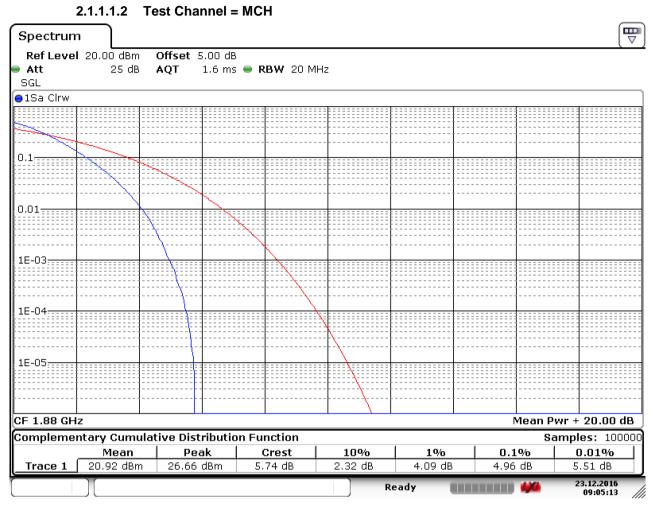
2.1.1.1.1 Test Channel = LCH



Date: 23.DEC.2016 09:05:38



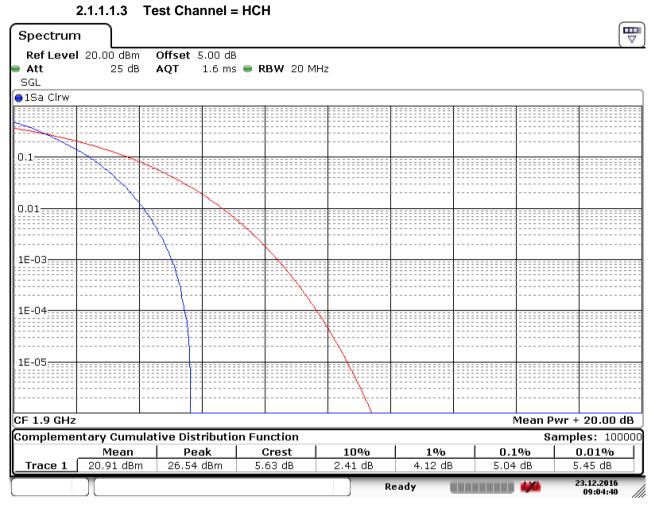
Report No.: SZEM161201085001 Page: 17 of 179



Date: 23.DEC.2016 09:05:14



Report No.: SZEM161201085001 Page: 18 of 179

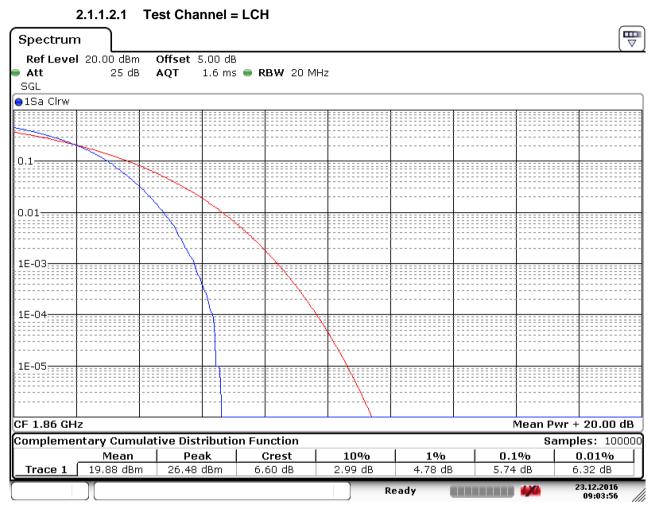


Date: 23.DEC.2016 09:04:40



Report No.: SZEM161201085001 Page: 19 of 179

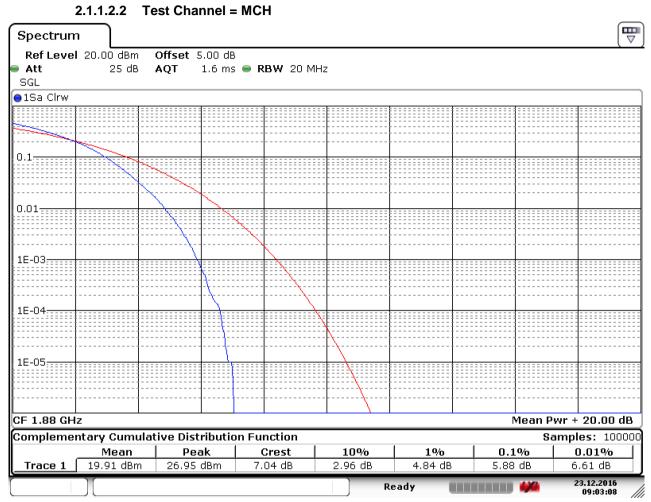
#### 2.1.1.2 Test Mode = LTE/TM2.Bandwidth=20MHz



Date: 23.DEC.2016 09:03:56



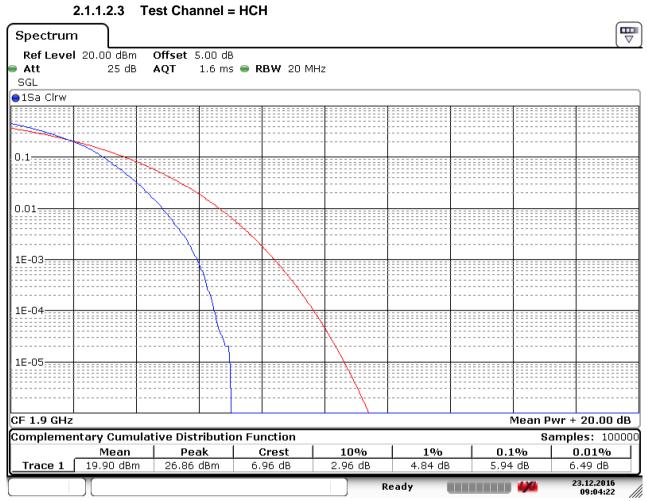
Report No.: SZEM161201085001 Page: 20 of 179



Date: 23.DEC.2016 09:03:08



Report No.: SZEM161201085001 Page: 21 of 179



Date: 23.DEC.2016 09:04:22



Report No.: SZEM161201085001 Page: 22 of 179

### **3 Modulation Characteristics**

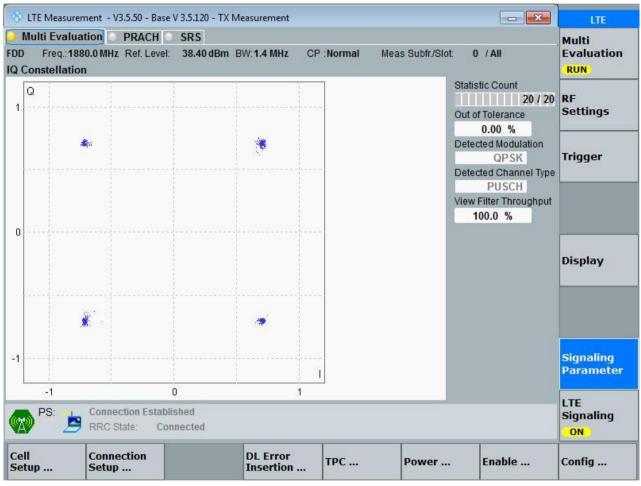
Part I - Test Plots

### 3.1 For LTE

### 3.1.1 Test Band = LTE band2

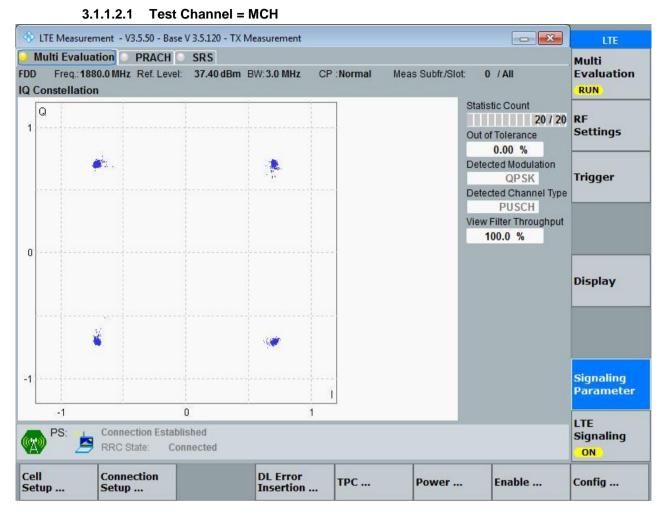
### 3.1.1.1 Test Mode = LTE /TM1 1.4MHz

3.1.1.1.1 Test Channel = MCH





Report No.: SZEM161201085001 Page: 23 of 179

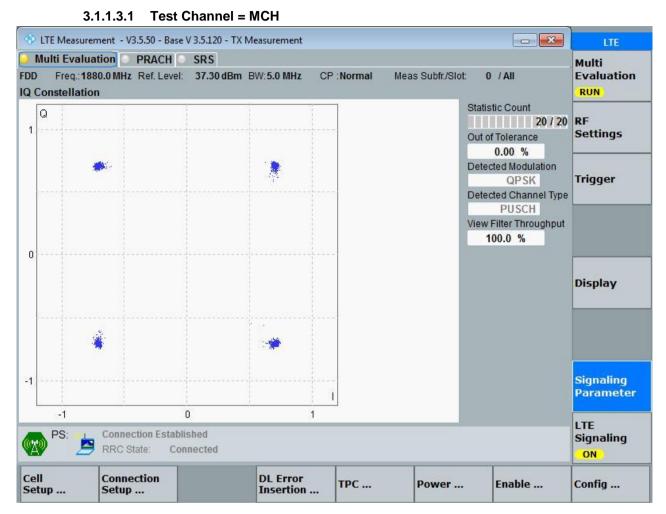


"This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <u>www.sgs.com/terms\_and\_conditions.htm</u> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <u>www.sgs.com/terms\_e-document.htm</u>. 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."

3.1.1.2 Test Mode = LTE /TM1 3MHz



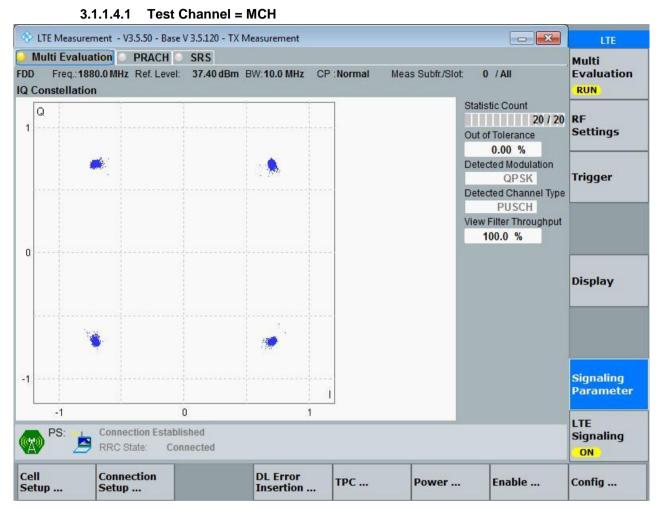
Report No.: SZEM161201085001 Page: 24 of 179



#### 3.1.1.3 Test Mode = LTE /TM1 5MHz



Report No.: SZEM161201085001 Page: 25 of 179

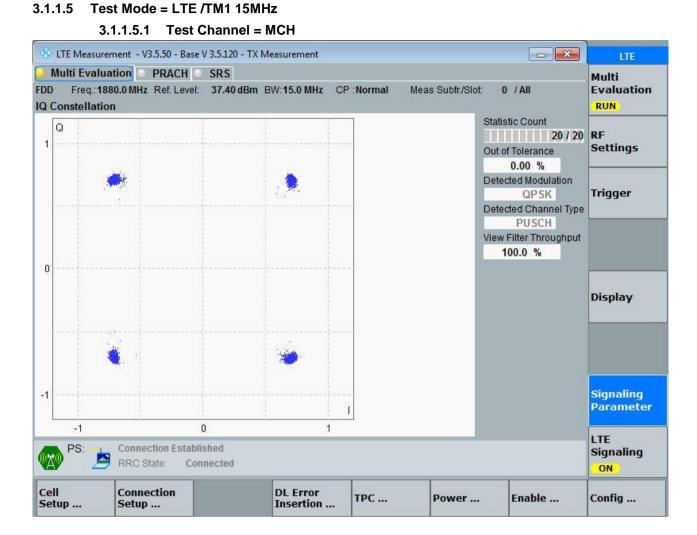


"This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <u>www.sgs.com/terms\_and\_conditions.htm</u> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <u>www.sgs.com/terms\_e-document.htm</u>. 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."

#### 3.1.1.4 Test Mode = LTE /TM1 10MHz

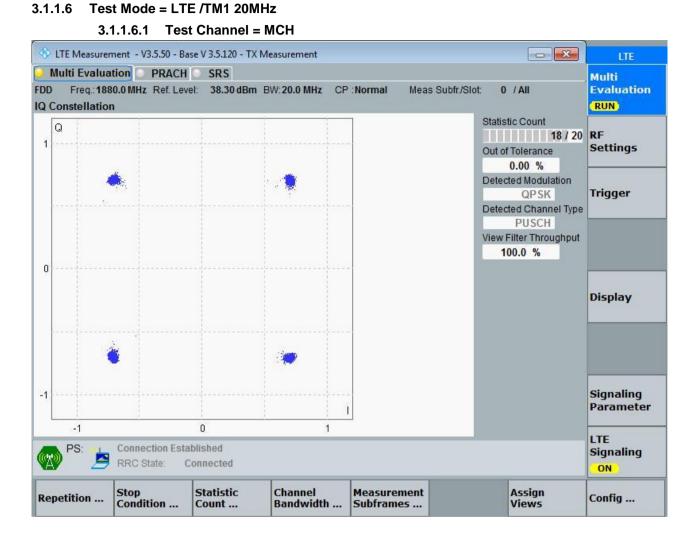


Report No.: SZEM161201085001 Page: 26 of 179



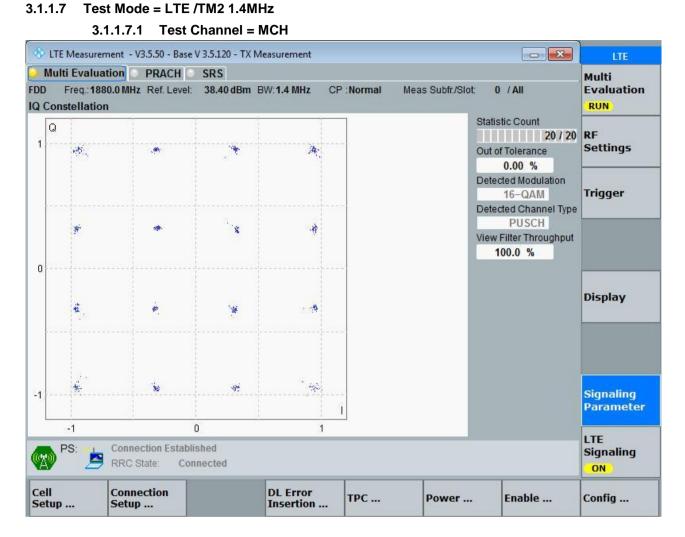


Report No.: SZEM161201085001 Page: 27 of 179



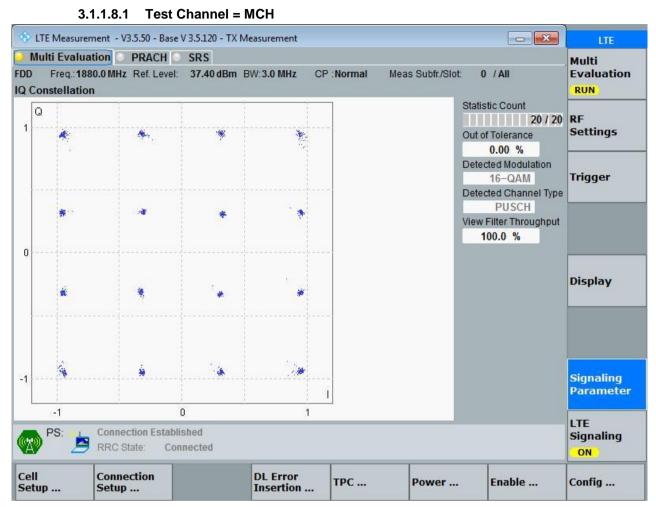


Report No.: SZEM161201085001 Page: 28 of 179





Report No.: SZEM161201085001 Page: 29 of 179

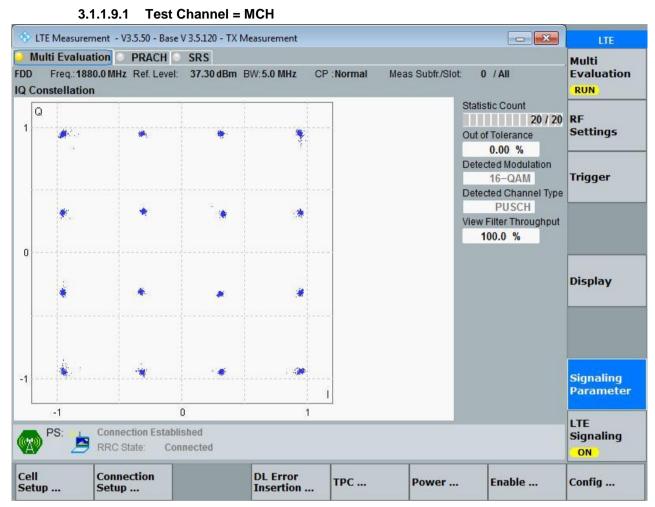


"This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <u>www.sgs.com/terms\_and\_conditions.htm</u> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <u>www.sgs.com/terms\_e-document.htm</u>. 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."

3.1.1.8 Test Mode = LTE /TM2 3MHz



Report No.: SZEM161201085001 Page: 30 of 179

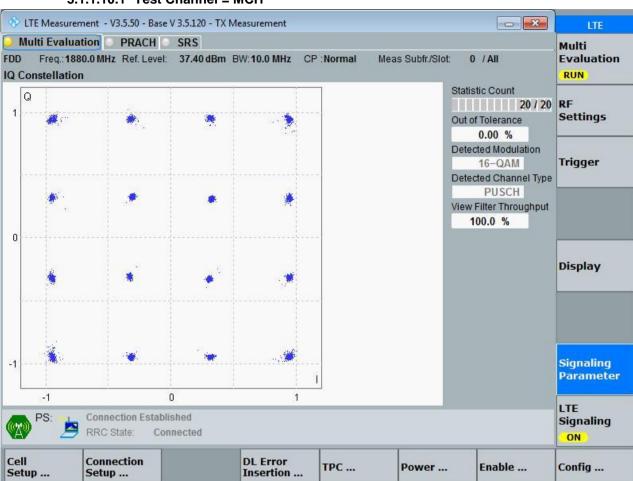


"This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <u>www.sgs.com/terms\_and\_conditions.htm</u> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <u>www.sgs.com/terms\_e-document.htm</u>. 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 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."

3.1.1.9 Test Mode = LTE /TM2 5MHz



Report No.: SZEM161201085001 Page: 31 of 179

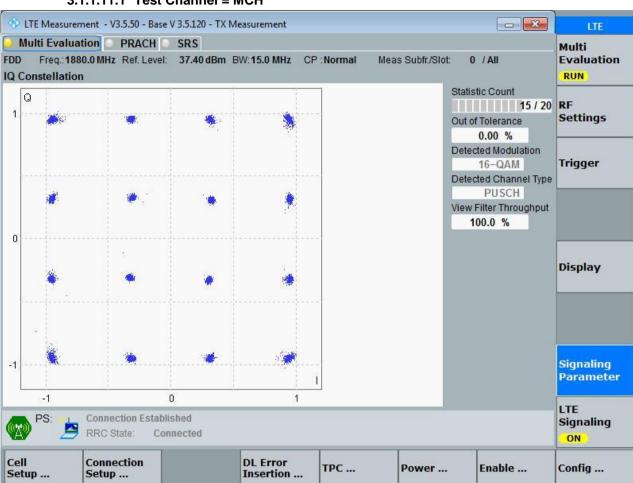


#### 3.1.1.10 Test Mode = LTE /TM2 10MHz

3.1.1.10.1 Test Channel = MCH



Report No.: SZEM161201085001 Page: 32 of 179

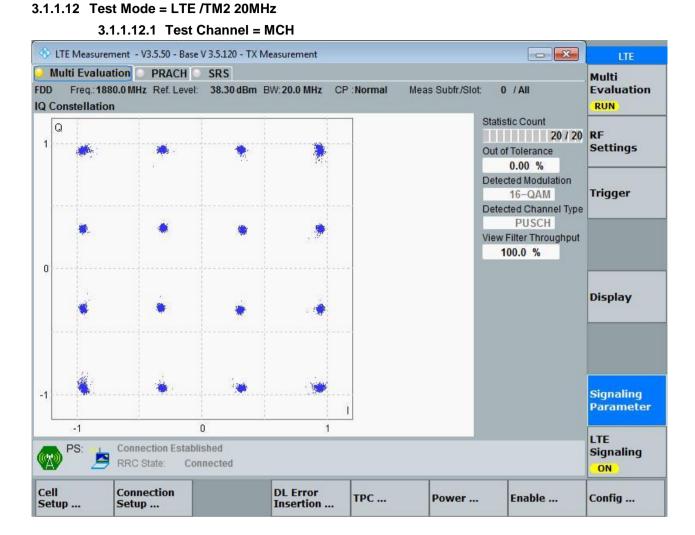


#### 3.1.1.11 Test Mode = LTE /TM2 15MHz

3.1.1.11.1 Test Channel = MCH



Report No.: SZEM161201085001 Page: 33 of 179





Report No.: SZEM161201085001 Page: 34 of 179

### 4 Bandwidth

Part I - Test Results

Test Band	Test Mode	Test Channel	Occupied Bandwidth [MHz]	Emission Bandwidth [MHz]	Verdict
		LCH	1.10	1.29	PASS
	TM1/1.4MHz	MCH	1.09	1.27	PASS
		HCH	1.10	1.27	PASS
		LCH	1.09	1.27	PASS
	TM2/1.4MHz	MCH	1.10	1.28	PASS
		HCH	1.10	1.28	PASS
		LCH	2.69	2.91	PASS
	TM1/ 3MHz	MCH	2.69	2.91	PASS
		HCH	2.69	2.92	PASS
		LCH	2.69	2.92	PASS
	TM2/3MHz	MCH	2.69	2.93	PASS
		HCH	2.69	2.92	PASS
		LCH	4.50	4.99	PASS
	TM1/ 5MHz	MCH	4.49	4.99	PASS
		HCH	4.49	4.99	PASS
		LCH	4.49	5.00	PASS
Band 2	TM2/ 5MHz	MCH	4.49	4.93	PASS
		HCH	4.49	4.99	PASS
		LCH	8.91	9.65	PASS
	TM1/10MHz	MCH	8.97	9.83	PASS
		HCH	8.95	9.79	PASS
		LCH	8.95	9.69	PASS
	TM2/ 10MHz	MCH	8.93	9.63	PASS
		HCH	8.95	9.77	PASS
		LCH	13.46	14.84	PASS
	TM1/ 15MHz	MCH	13.52	14.96	PASS
		HCH	13.52	15.05	PASS
		LCH	13.46	14.84	PASS
	TM2/ 15MHz	MCH	13.52	14.96	PASS
		HCH	13.55	14.96	PASS
		LCH	17.90	19.38	PASS
	TM1/ 20MHz	MCH	17.94	19.42	PASS
		HCH	18.02	19.70	PASS



Report No.: SZEM161201085001 Page: 35 of 179

	5						
Test Band	Test Mode	Test Channel	Occupied Bandwidth [MHz]	Emission Bandwidth [MHz]	Verdict		
		LCH	17.94	19.58	PASS		
	TM2/ 20MHz	MCH	17.94	19.50	PASS		
		HCH	18.02	19.70	PASS		



Report No.: SZEM161201085001 Page: 36 of 179

### 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

Spectrun	Γ								
	I 35.00 dBm		5.00 dB 👄						
Att	40 dB	s 🔵 SWT	10 ms 👄	<b>VBW</b> 100 k	Hz Mode	Auto FFT			
⊖1Pk View			1	1	<del></del>				
30 dBm					D	1[1]			-0.22 dB
50 abiii						D			29470 MHz
						CC BW 1[1]			00100 MHz 10.16 dBm
20 dBm——						11[1]			04670 GHz
	D1 15.680	dBm			man	the second		1.000	
10 dBm			4			12			
						1 1			
0 dBm			1/						
			/				l l		
		M1/					λ.		
<u>10 dBm</u>	D2 -10	).320 dBm <del>7-</del>			+				
	$\sim$	m					~~~~`	m	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~
~2Q.dBro-∽									~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~
-30 dBm—									
-40 dBm									
TO GDIN									
-50 dBm									
-60 dBm—									
									<u> </u>
CF 1.8507	GHZ			1001	l pts				n 3.0 MHz
					Mea	asuring		<b>4/4</b> 2	22.12.2016 15:22:39

Date: 22.DEC.2016 15:22:39



4.1.1.1.2 Test Channel = MCH

# SGS-CSTC Standards Technical Services Co., Ltd. Shenzhen Branch

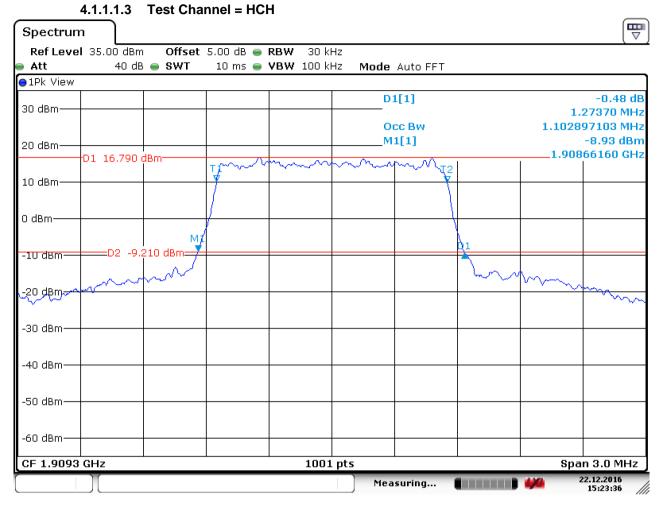
Report No.: SZEM161201085001 Page: 37 of 179

Spectrum	ī								
Ref Level	l 35.00 dBm	Offset	5.00 dB 👄	<b>RBW</b> 30 k	Hz				
🖷 Att	40 dE	B 👄 SWT	10 ms 👄	<b>VBW</b> 100 k	Hz Mode	Auto FFT			
⊖1Pk View									
30 dBm						1[1] cc Bw			-0.49 dB 27070 MHz 06094 MHz
20 dBm	D1 16.290					1[1]			-9.35 dBm 37060 GHz
10 dBm	DI 10.290		Tim	m	h	the second secon			
0 dBm			/						
- <del>10 dBm</del>	D2 -9.	710 dBm - 7	4				Q1		
-20 dBm		n					1 m	<u> </u>	~~~~~~
-30 dBm									
-40 dBm									
-50 dBm									
-60 dBm									
CF 1.88 GF	17			100:	Inte				n 3.0 MHz
	<u>اد</u>			100.				-	22.12.2016
L I					Mea	suring		440	15:19:19

Date: 22.DEC.2016 15:19:20



Report No.: SZEM161201085001 Page: 38 of 179

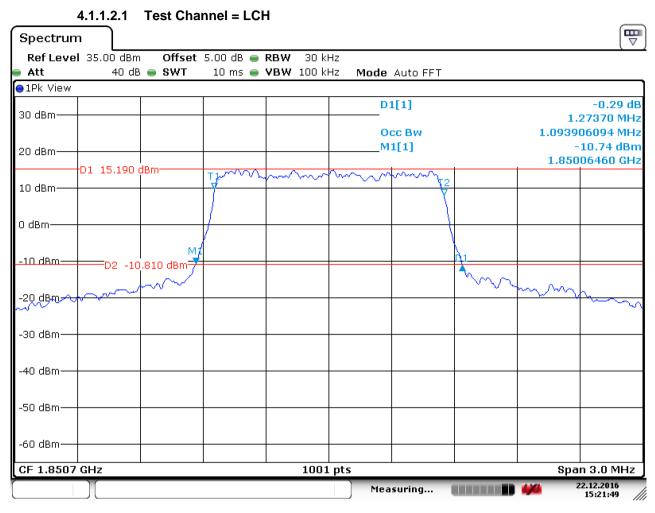


Date: 22.DEC.2016 15:23:36



Report No.: SZEM161201085001 Page: 39 of 179

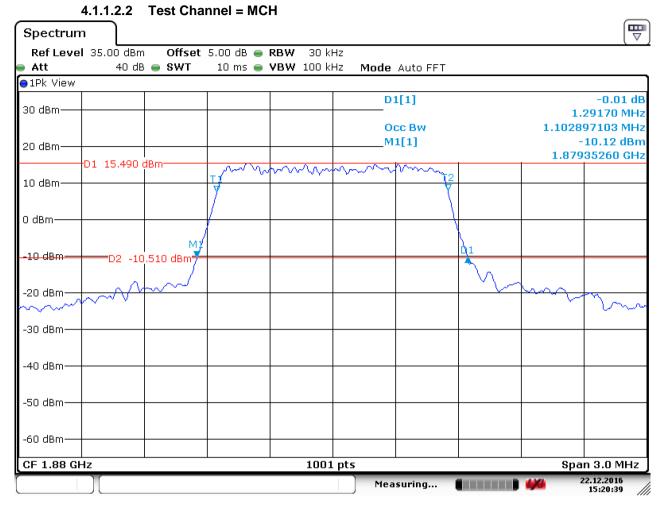
#### 4.1.1.2 Test Mode = LTE/TM2 1.4MHz



Date: 22.DEC.2016 15:21:50



Report No.: SZEM161201085001 Page: 40 of 179



Date: 22.DEC.2016 15:20:40



Report No.: SZEM161201085001 Page: 41 of 179

	4.1.1.2.3	Test Cha	nnel = HCF	ł					
Spectru	m								E
Ref Lev	el 35.00 dBn	n Offset	5.00 dB 👄 F	<b>RBW</b> 30 kH	z				
🖷 Att	40 di	B 🔵 SWT	10 ms 👄	<b>/BW</b> 100 kH	z Mode	Auto FFT			
😑 1Pk View	/								
					D1	[1]			-0.33 dB
30 dBm—									27670 MHz
						c Bw			03097 MHz
20 dBm—					N1	[1]			10.10 dBm 65860 GHz
	D1 15.710	dBm	TIM	man	n mart	-mq2		1.500	00000 0112
10 dBm—	_		T⊉ °	- 0		~ .v*(2			
			1						
0 dBm			/						
			/			J			
		M¥					h1		
<u>10 dBm</u>	D2 -10	0.290 dBm <del>7</del>					A		
		Land .					m		
-20 dBm-	+	ľ						᠆᠂ᢦ᠊᠆ᠰᡕ	<u> </u>
~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~									- ~~~
-30 dBm—									
-40 dBm—									
-50 dBm—									
-60 dBm—									
CF 1.909	 3 GHz			1001	nts			 Sna	n 3.0 MHz
				1001					2.12.2016
L					Meas	suring		<b>4/4</b> 4	15:24:21 //

Date: 22.DEC.2016 15:24:22



4.1.1.3

Test Mode = LTE/TM1 3MHz

## SGS-CSTC Standards Technical Services Co., Ltd. Shenzhen Branch

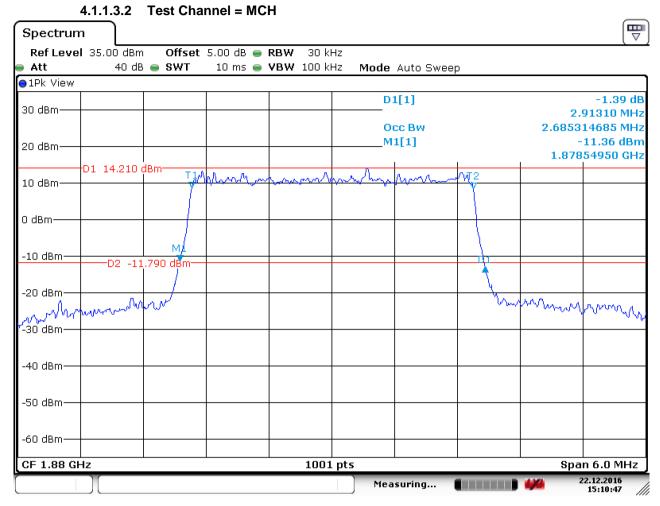
Report No.: SZEM161201085001 Page: 42 of 179

#### 4.1.1.3.1 Test Channel = LCH ∀ Spectrum Ref Level 35.00 dBm Offset 5.00 dB 👄 RBW 30 kHz 40 dB 👄 SWT Att 10 ms 👄 **VBW** 100 kHz Mode Auto Sweep ●1Pk View D1[1] -1.15 dB 30 dBm-2.90710 MHz Occ Bw 2.691308691 MHz -12.14 dBm M1[1] 20 dBm-1.85005540 GHz D1 13.330 dBm- $T1_{2}$ ne A hin 10 dBm-Amara .ano 0 dBm· -10 dBm--D2 -12.670 dBm -20 dBm wr A -30 dBm 40 dBm -50 dBm--60 dBm-Span 6.0 MHz CF 1.8515 GHz 1001 pts 22.12.2016 Measuring... 15:15:00

Date: 22.DEC.2016 15:15:00



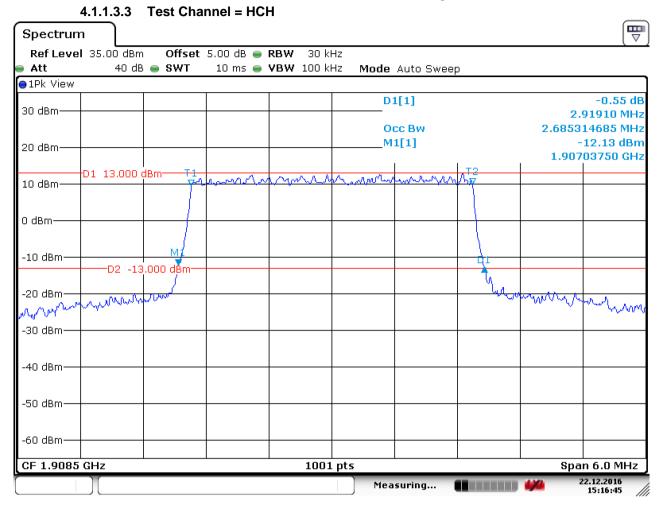
Report No.: SZEM161201085001 Page: 43 of 179



Date: 22.DEC.2016 15:10:48



Report No.: SZEM161201085001 Page: 44 of 179



Date: 22.DEC.2016 15:16:45



4.1.1.4 Test Mode = LTE/TM2 3MHz

## SGS-CSTC Standards Technical Services Co., Ltd. Shenzhen Branch

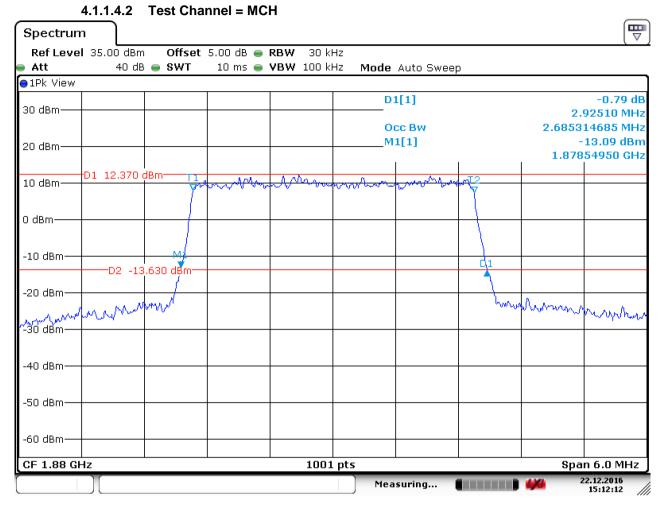
Report No.: SZEM161201085001 Page: 45 of 179

#### 4.1.1.4.1 Test Channel = LCH ∀ Spectrum Ref Level 35.00 dBm Offset 5.00 dB 👄 RBW 30 kHz 40 dB 👄 SWT Att 10 ms 👄 **VBW** 100 kHz Mode Auto Sweep ●1Pk View D1[1] -0.14 dB 30 dBm-2.91910 MHz Occ Bw 2.685314685 MHz -13.47 dBm M1[1] 20 dBm-1.85003750 GHz D1 12.510 dBm A Das 10 dBmwww.deA 0 dBm--10 dBm-<u>гі 1</u> -D2 -13.490 dBm -20 dBmmonth mar mar mar mm -30 dBm--40 dBm--50 dBm--60 dBm-Span 6.0 MHz CF 1.8515 GHz 1001 pts 22.12.2016 Measuring... 15:13:33

Date: 22.DEC.2016 15:13:33



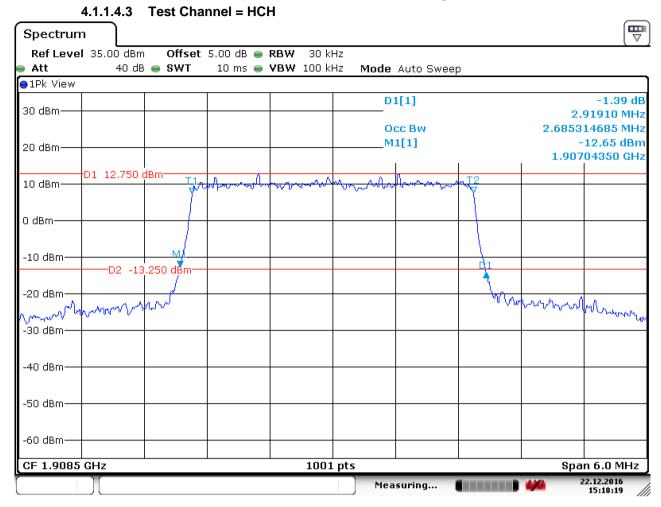
Report No.: SZEM161201085001 Page: 46 of 179



Date: 22.DEC.2016 15:12:13



Report No.: SZEM161201085001 Page: 47 of 179



Date: 22.DEC.2016 15:18:20



Report No.: SZEM161201085001 Page: 48 of 179

#### 4.1.1.5.1 Test Channel = LCH ∀ Spectrum Ref Level 35.00 dBm Offset 5.00 dB 👄 RBW 50 kHz 40 dB 👄 Att SWT 10 ms 👄 **VBW** 200 kHz Mode Auto Sweep ●1Pk View D1[1] -0.97 dB 30 dBm-4.98500 MHz Occ Bw 4.495504496 MHz -12.76 dBm M1[1] 20 dBm-1.85002200 GHz Т1 D1 12.780 dBm-In A M ~l\_h/h/h Unmo 10 dBm-0 dBm· -10 dBm-D2 -13,220 dBm -20 dBm--30 dBm--40 dBm--50 dBm--60 dBm-CF 1.8525 GHz 1001 pts Span 10.0 MHz 22.12.2016 Measuring... 15:03:47

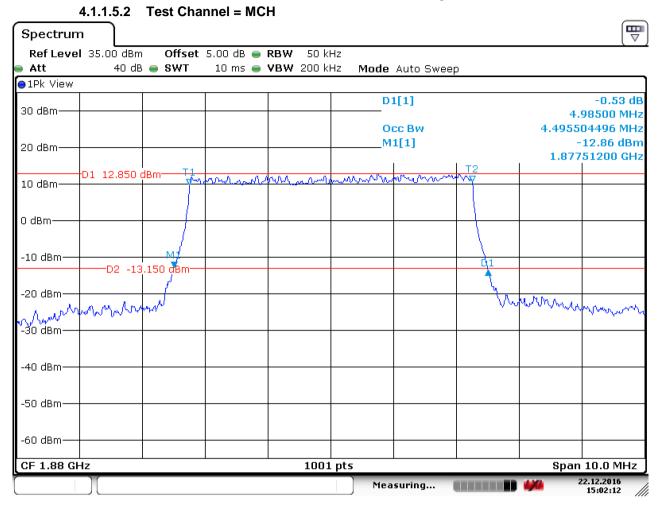
Date: 22.DEC.2016 15:03:47

"This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <u>www.sgs.com/terms\_and\_conditions.htm</u> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <u>www.sgs.com/terms\_e-document.htm</u>. 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."

#### 4.1.1.5 Test Mode = LTE/TM1 5MHz



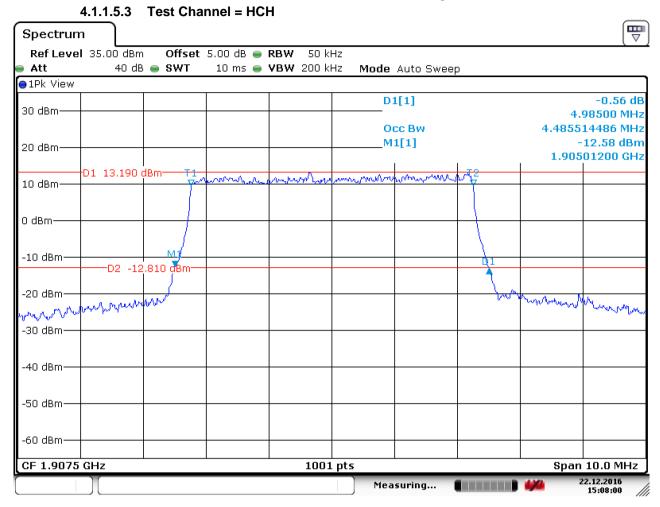
Report No.: SZEM161201085001 Page: 49 of 179



Date: 22.DEC.2016 15:02:12



Report No.: SZEM161201085001 Page: 50 of 179



Date: 22.DEC.2016 15:08:00



4.1.1.6 Test Mode = LTE/TM2 5MHz

## SGS-CSTC Standards Technical Services Co., Ltd. Shenzhen Branch

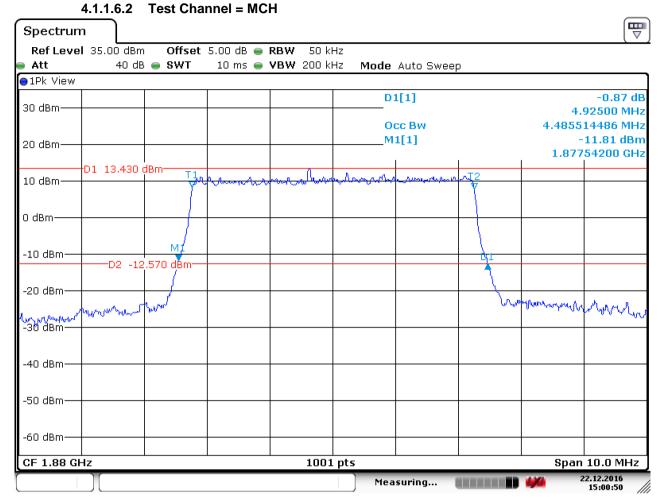
Report No.: SZEM161201085001 Page: 51 of 179

#### 4.1.1.6.1 Test Channel = LCH ∀ Spectrum Ref Level 35.00 dBm Offset 5.00 dB 👄 RBW 50 kHz 40 dB 👄 SWT Att 10 ms 👄 **VBW** 200 kHz Mode Auto Sweep ●1Pk View D1[1] -0.07 dB 30 dBm-4.99500 MHz Occ Bw 4.485514486 MHz -14.29 dBm M1[1] 20 dBm-1.85000200 GHz D1 11.560 dBm-10 dBm-0 dBm--10 dBm-<u>ñ</u> 1 -D2 -14.440 aBm -20 dBmhr Theman 514.5 MM -30 dBm--40 dBm--50 dBm--60 dBm-CF 1.8525 GHz 1001 pts Span 10.0 MHz 22.12.2016 Measuring... 15:05:01

Date: 22.DEC.2016 15:05:02



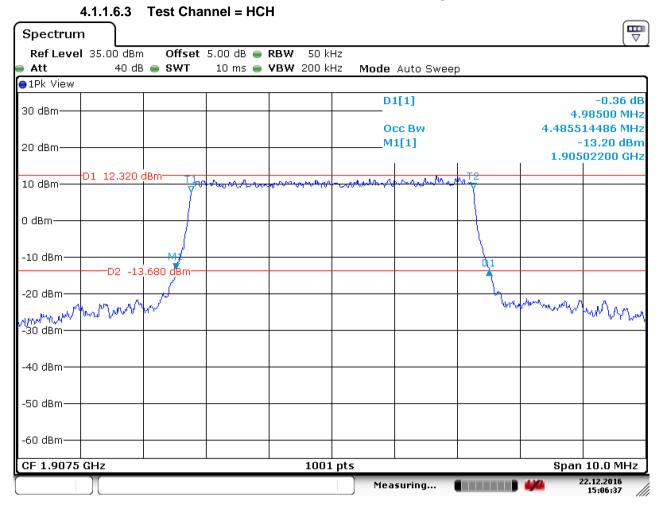
Report No.: SZEM161201085001 Page: 52 of 179



Date: 22.DEC.2016 15:00:50



Report No.: SZEM161201085001 Page: 53 of 179



Date: 22.DEC.2016 15:06:37



4.1.1.7

#### SGS-CSTC Standards Technical Services Co., Ltd. Shenzhen Branch

Report No.: SZEM161201085001 54 of 179 Page:

#### ∀ Spectrum Ref Level 35.00 dBm Offset 5.00 dB 👄 RBW 100 kHz 40 dB 👄 Att SWT 10 ms 👄 **VBW** 300 kHz Mode Auto Sweep ●1Pk View -0.72 dB D1[1] 30 dBm-9.6500 MHz Occ Bw 8.911088911 MHz -11.72 dBm M1[1] 20 dBm-1.8501850 GHz D1 13.880 dBm anon will men hour tom mounter 10 dBm-0 dBm· -10 dBm--D2 -12,120 dBm when how and when have a -20 dBmmound الهعل المسطقها الملاحط -30 dBm--40 dBm--50 dBm--60 dBm-CF 1.855 GHz 1001 pts Span 20.0 MHz 22.12.2016 Measuring... 14:55:09

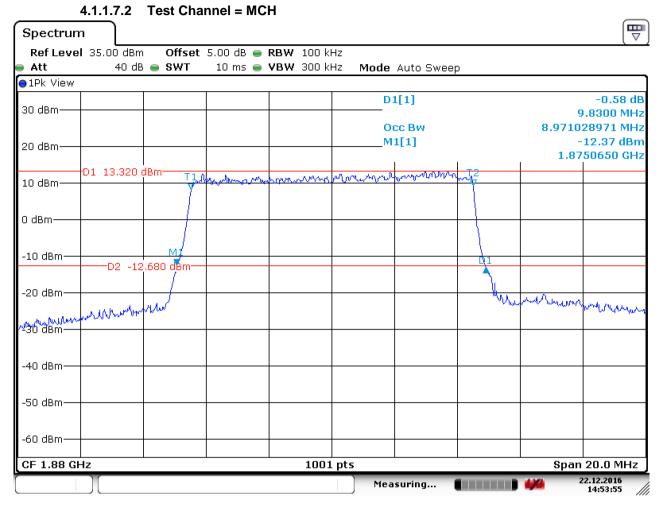
4.1.1.7.1 Test Channel = LCH

Test Mode = LTE/TM1 10MHz

Date: 22.DEC.2016 14:55:10



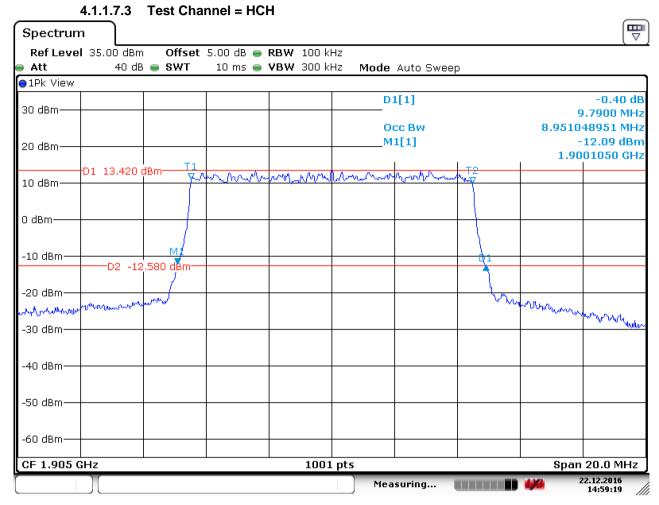
Report No.: SZEM161201085001 Page: 55 of 179



Date: 22.DEC.2016 14:53:56



Report No.: SZEM161201085001 Page: 56 of 179



Date: 22.DEC.2016 14:59:18



Report No.: SZEM161201085001 Page: 57 of 179

#### 4.1.1.8.1 Test Channel = LCH ∀ Spectrum Ref Level 35.00 dBm Offset 5.00 dB 👄 RBW 100 kHz 40 dB 👄 Att SWT 10 ms 👄 **VBW** 300 kHz Mode Auto Sweep ●1Pk View D1[1] -0.87 dB 30 dBm-9.6300 MHz Occ Bw 8.931068931 MHz M1[1] -11.56 dBm 20 dBm-1.8752050 GHz D1 14.050 dBm Т1 all والمجارين والاس 10 dBm-0 dBm· M -10 dBm--D2 -11.950 dBm<sup>.</sup> -20 dBm-Mentin mariant www.methan whether ഭ്രാഷ്ണ്---40 dBm -50 dBm--60 dBm-CF 1.88 GHz 1001 pts Span 20.0 MHz 22.12.2016 Measuring... 14:52:39

4.1.1.8 Test Mode = LTE/TM2 10MHz

Date: 22.DEC.2016 14:52:39



4.1.1.8.2 Test Channel = MCH

# SGS-CSTC Standards Technical Services Co., Ltd. Shenzhen Branch

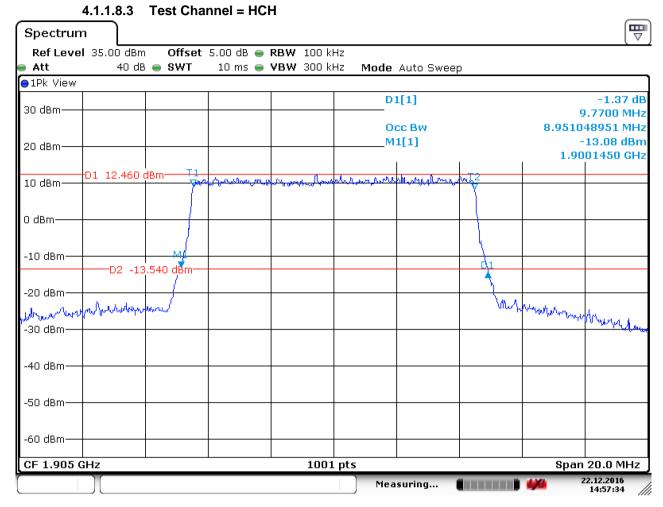
Report No.: SZEM161201085001 Page: 58 of 179

Spectrum	ı )								
Ref Level	35.00 dBm	Offset	5.00 dB 🔵	<b>RBW</b> 100 k	Hz				
🖷 Att	40 dB	s 👄 SWT	10 ms 👄	<b>VBW</b> 300 k	Hz Mode	Auto Swee	р		
●1Pk View									
30 dBm					D	1[1]		g	-0.87 dB 6300 MHz
20 dBm						cc Bw 1[1]		-	68931 MHz 11.56 dBm 52050 GHz
10 dBm	D1 14.050 (	dBmT1	they way to a the as a g		uma.c.a.c.u	onner			
0 dBm									
-10 dBm—	D2 -11	950 dBm					- d1		
-20 dBm							turn	mannana	non many many
∿•90°018m̃——	<u> </u>								
-40 dBm									
-50 dBm									
-60 dBm									
CF 1.88 GF	lz			1001	. pts			-	20.0 MHz
	Л				Mea	suring		- <u>2</u>	2.12.2016 14:52:39

Date: 22.DEC.2016 14:52:39



Report No.: SZEM161201085001 Page: 59 of 179



Date: 22.DEC.2016 14:57:34



Report No.: SZEM161201085001 Page: 60 of 179

	4.1.1.9.1	Test Cha	nnel = LCH						
Spectrur	n								
Ref Leve	el 35.00 dBm	1 Offset	5.00 dB 🥌 RB	<b>W</b> 300 kH	z				
🖷 Att	40 dE	B 😑 SWT	10 ms 👄 🛛 🛛	<b>W</b> 1 MH	z Mode	Auto Sweep	)		
⊖1Pk View									
00 dB					D	l[1]			-0.67 dB
30 dBm						_			1.8350 MHz
						CC BW		13.4565	43457 MHz -8.37 dBm
20 dBm—					IYI .	1[1]		1.85	-8.37 uBm 00670 GHz
	-D1 16.840	asm₹	mon	mon	www	More	mT2	1.00	
10 dBm—		Y Y					7		
0 dBm									
		Mź							
-10 dBm—	n2q	160 dBm===					d1		
	manter	mon					mount	whenter	
-20 dBm <del>h/"</del>	month								and the state of t
alla, e									
-30 dBm—									
-40 dBm—									
-50 dBm—									
co Jp									
-60 dBm—									
CF 1.8575	GHz	1	I I	1001	pts			Span	30.0 MHz
	)(				Mea	suring (		<b>4/4</b> 2	22.12.2016 14:48:14

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

Date: 22.DEC.2016 14:48:15



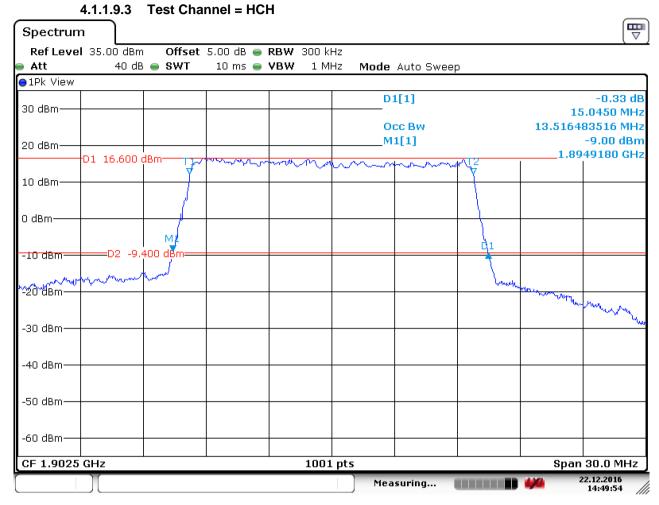
Report No.: SZEM161201085001 Page: 61 of 179



Date: 22.DEC.2016 14:44:37



Report No.: SZEM161201085001 Page: 62 of 179

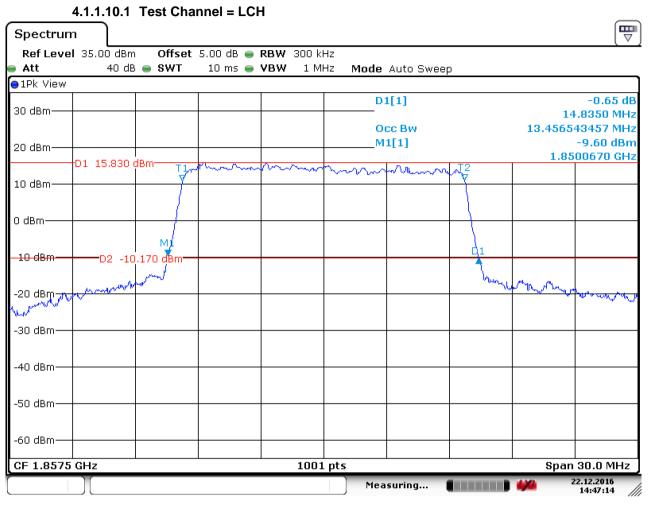


Date: 22.DEC.2016 14:49:54



Report No.: SZEM161201085001 Page: 63 of 179

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



Date: 22.DEC.2016 14:47:14



Report No.: SZEM161201085001 Page: 64 of 179

Spectrum	<u>,                                     </u>								
	35.00 dBm	Offset	5.00 dB 👄	<b>RBW</b> 300 k	Hz				(*
🖷 Att	40 dB	e swt	10 ms 😑			Auto Swee	ер		
●1Pk View									
30 dBm						1[1] cc Bw			-0.72 dB I.9550 MHz 83516 MHz
20 dBm	D1 15.670 (	18m			M	1[1]		-	10.03 dBm 25970 GHz
10 dBm	51 13.070 (		vann	m	www.www.w	mar n			
0 dBm							+		
-10 dBm	D2 -10	.330 dBm <del></del>							
-20 dBm	runny	report.					- Unit	and the second of the	manytran
-30 dBm									
-40 dBm									
-50 dBm									
-60 dBm									
CF 1.88 GH	łz		1	1001	l pts	1	1	Span	30.0 MHz
	)[]				Mea	suring		- <sup>2</sup>	2.12.2016 14:45:57

#### 4.1.1.10.2 Test Channel = MCH

Date: 22.DEC.2016 14:45:57



Report No.: SZEM161201085001 Page: 65 of 179

Spectrun	n								
	l 35.00 dBm			<b>RBW</b> 300 ki					
e Att	40 dB	🛛 😑 SWT	10 ms 👄	VBW 1 MI	Hz Mode	Auto Swe	ер		
⊖1Pk View	1			1					
30 dBm					D	1[1]			-0.65 dB
					0	cc Bw		14.9550 MHz 13.546453546 MHz	
20 dBm						1[1]			-9.55 dBm
20 0011	D1 15.970(	  Bm	L b D b					1.89	50370 GHz
10 dBm	DI 13.5701	l <i>tr</i> ≁	warn	harrier	www	m	~∕¶₽		
10 aBm									
0 dBm——									
		M					h1		
-10 dBm	D2 -10	1.030 dBm					4		
	mm	Jone &					$  \rangle$		
᠉᠌ᢧᠣ᠔ᡃᡆᢆᡃᡌᠯ᠁ᢅ	a com mar a						- have	mar the work /1	
								Ĭ	Lungeronder
-30 dBm									* 1004
-40 dBm—									
-50 dBm									
-60 dBm									
CF 1.9025				1001	ntc			 	30.0 MHz
[ CL 1.9029				1001				-	30.0 MHZ
					Mea	suring		4	14:51:06

#### 4.1.1.10.3 Test Channel = HCH

Date: 22.DEC.2016 14:51:06



Report No.: SZEM161201085001 Page: 66 of 179

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

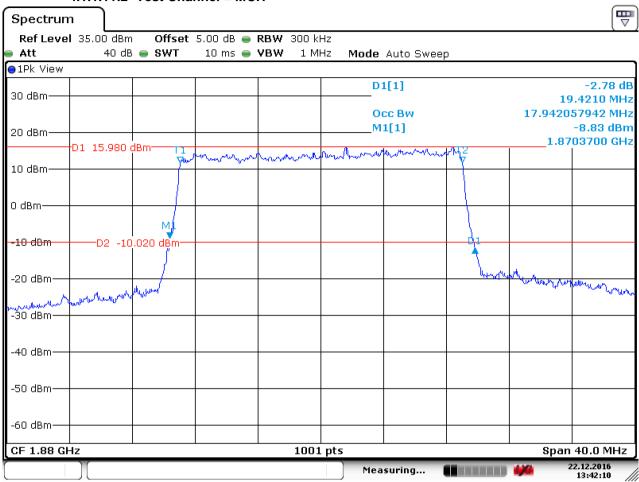


Spectrun	n								
	l 35.00 dBm			RBW 300 ki					
Att 1Pk View	40 dB	3 👄 SWT	10 ms 👄	VBW 1 MI	Hz Mode	Auto Swee	ер		
					D	1[1]			-0.97 dB
30 dBm					0	CC BW			9.3810 MHz 97902 MHz
20 dBm						1[1]			-9.16 dBm
10 dBm	D1 16.340	dBm ⊤n y	human	Marian	www.	hanna	4-72	1.00	
10 dbiii									
0 dBm									
- <del>10 dBm</del>	D2 -9,	ML 660 dBm							
00 dBm	. mar	month							
-20 dBm	M. M. M. M. M.						0,000	and the second	hall have not have
-30 dBm									
-40 dBm									
-50 dBm									
-60 dBm									
CF 1.86 GH	Hz		l	1001	. pts	I		Span	40.0 MHz
					Mea	isuring		4/4	22.12.2016 14:23:07

Date: 22.DEC.2016 14:23:07



Report No.: SZEM161201085001 Page: 67 of 179



#### 4.1.1.11.2 Test Channel = MCH

Date: 22.DEC.2016 13:42:10



Report No.: SZEM161201085001 Page: 68 of 179

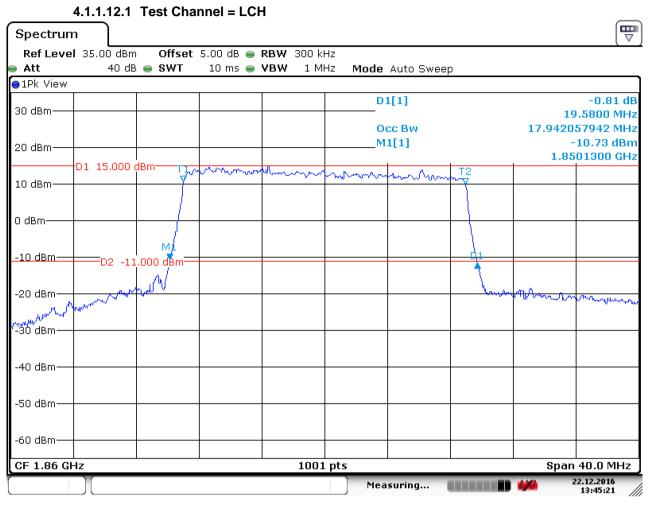
	4.1.1.11.3	Test Cha	nnel = HCl	4					
Spectrun	n								
Ref Leve	I 35.00 dBm	n Offset	5.00 dB 😑	<b>RBW</b> 300 kł	Ηz				
🗕 Att	40 dE	B 👄 SWT	10 ms 😑	VBW 1 Mł	Hz Mode	Auto Swee	эр		
⊖1Pk View	_		-						
30 dBm					D	1[1]			-2.90 dB
30 UBIII						D			9.7000 MHz
						cc Bw 1[1]		18.0219	78022 MHz -9.48 dBm
20 dBm	D1 16 050					+[+]		1.89	01300 GHz
	D1 16.250	asm <del></del>	moreno	mon	Lann	man	1 <sup>2</sup>		
10 dBm		<u> </u>					+		
0 dBm							- <b>b</b>		
		м							
- <del>10 dBm</del>	D2 -9.	750 dBm							
		M					1 7		
Anora	manon	grut					Wr_		
-28 ubili							- Court	by burnery	Hy winner winner
								- What	Mu Contract
-30 dBm—									" "HPh Work
									<b>~</b> W
-40 dBm—									
-50 dBm—									
-60 dBm									
CF 1.9 GH	z			1001	pts			· · ·	40.0 MHz
					Mea	suring		- <b>444</b>	22.12.2016 14:24:35

Date: 22.DEC.2016 14:24:35



Report No.: SZEM161201085001 Page: 69 of 179

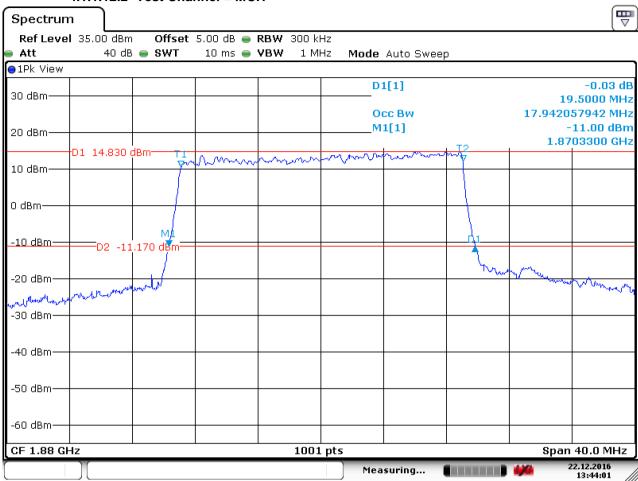
#### 4.1.1.12 Test Mode = LTE/TM2 20MHz



Date: 22.DEC.2016 13:45:21



Report No.: SZEM161201085001 Page: 70 of 179



#### 4.1.1.12.2 Test Channel = MCH

Date: 22.DEC.2016 13:44:02



Report No.: SZEM161201085001 Page: 71 of 179

	4.1.1.12.3	Test Cha	nnel = HC	Н					
Spectrun	n								
Ref Leve	I 35.00 dBm	n Offset	5.00 dB 👄	<b>RBW</b> 300 kł	Ηz				
🗕 Att	40 dE	B 👄 SWT	10 ms 👄	VBW 1 Mł	Hz Mode	Auto Swee	эр		
⊖1Pk View	_								
30 dBm					D	1[1]			-2.90 dB
30 UBIII						D			0.7000 MHz
						cc Bw 1[1]		18.0219	78022 MHz -9.48 dBm
20 dBm——	D1 16 050					-[-]		1.89	01300 GHz
	D1 16.250	UBIII TIV	moren	mour	Lann	man	$h_{12}^{12}$		
10 dBm							+ ¥		
0 dBm							<u> </u>		
		м							
-10 dBm	D2 -9.						<u> </u>	Ļ	
	D2 -9.	N					- <b>-</b>		
Angrow	wanner	mour					Jun-		
-28 0011								and provident and	
								~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	HI WINN
-30 dBm—									Monthly Monthly
									প্ৰ
-40 dBm—									
-50 dBm—									
-60 dBm—									
									L
CF 1.9 GH	z			1001	pts			· · ·	40.0 MHz
					Mea	suring		<b>4/4</b> 2	22.12.2016 14:43:16  //

Date: 22.DEC.2016 14:43:17



Report No.: SZEM161201085001 Page: 72 of 179

#### 5 Band Edges Compliance

Part I –

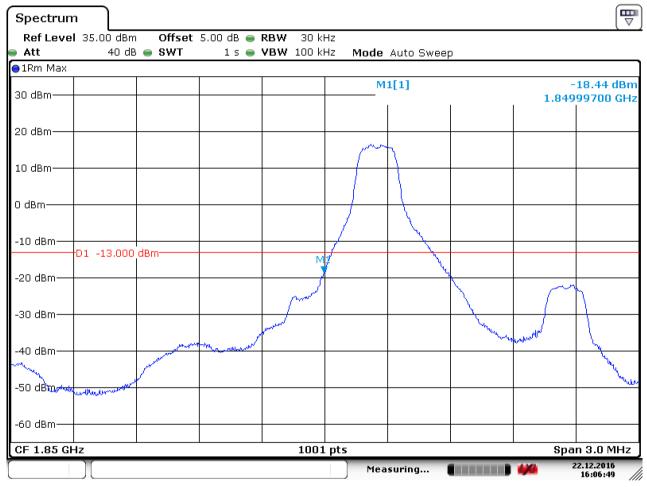
#### 5.1 For LTE

#### 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

#### 5.1.1.1.1.1 Test RB=1RB



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



Report No.: SZEM161201085001 Page: 73 of 179

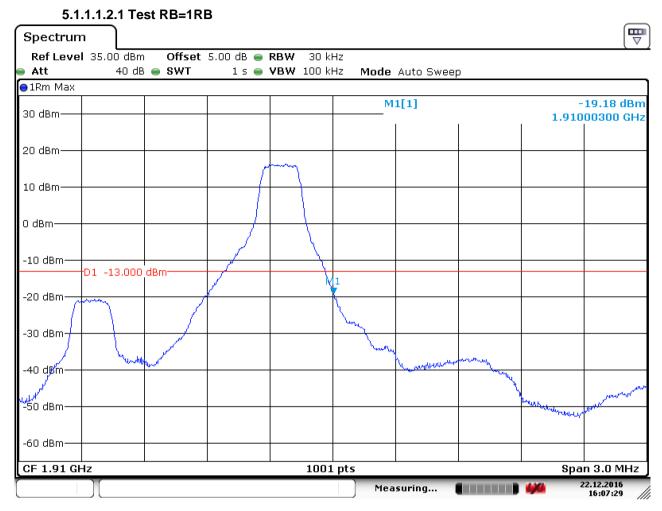
Spectrum	'n								
Ref Level e Att	35.00 dBm 40 dB	Offset	5.00 dB 👄 1 s 👄	<b>RBW</b> 30 ki <b>VBW</b> 100 ki		Auto Swee	0		
⊖1Rm Max									
30 dBm					M	1[1]			23.91 dBm 99700 GHz
20 dBm									
10 dBm						l	water water and the	marka marka marka ang kana sa	~
0 dBm									
-10 dBm—	D1 -13.000	dBm							
-20 dBm					·/				hundere
-30 dBm	/	ting of the second second	- marken and the man	an manander					
-40 dBm	mon								
-50 dBm									
-60 dBm									
CF 1.85 GH	lz	1	I	1001	. pts		I	Spa	n 3.0 MHz
						suring			22.12.2016 16:04:12

5.1.1.1.1.2 Test RB=6RB

Date: 22.DEC.2016 16:04:13



Report No.: SZEM161201085001 Page: 74 of 179

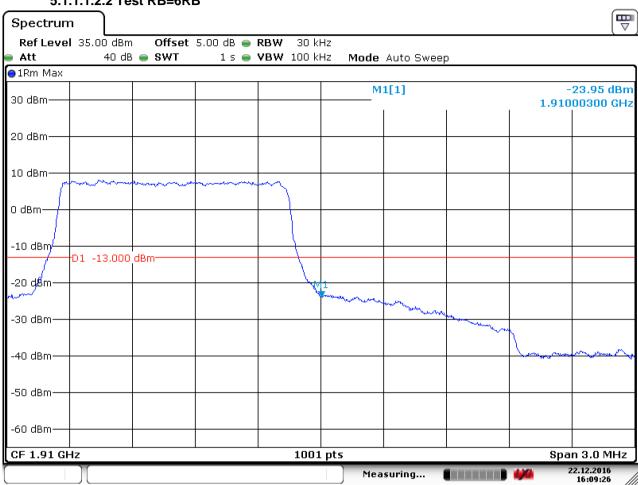


#### 5.1.1.1.2 Test Channel = HCH

Date: 22.DEC.2016 16:07:30



Report No.: SZEM161201085001 Page: 75 of 179



5.1.1.1.2.2 Test RB=6RB

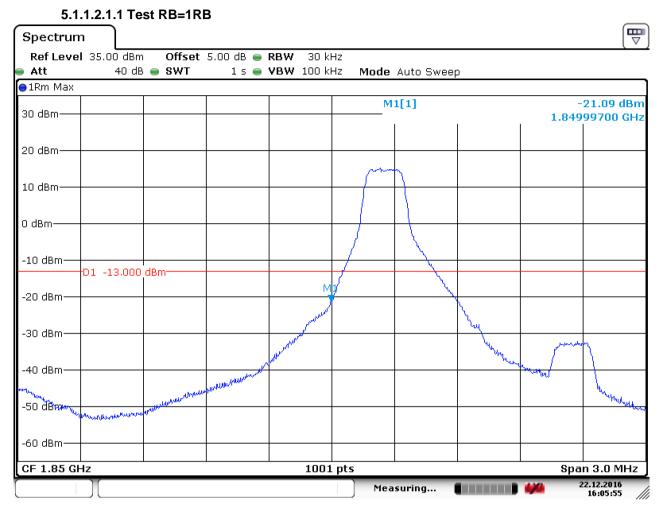
Date: 22.DEC.2016 16:09:26



Report No.: SZEM161201085001 Page: 76 of 179

### 5.1.1.2 Test Mode = LTE/TM2 1.4MHz

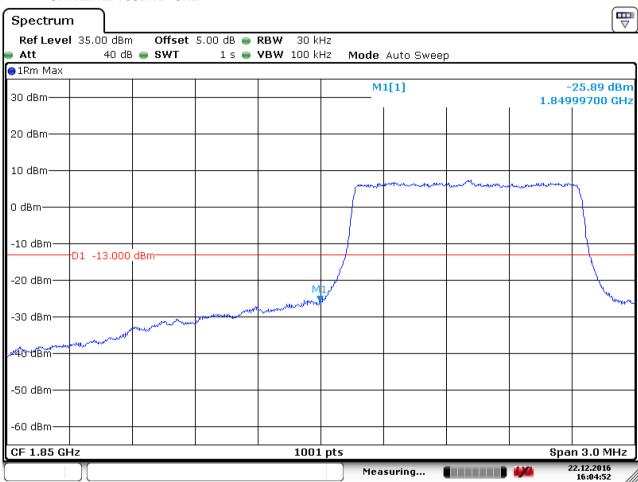
### 5.1.1.2.1 Test Channel = LCH



Date: 22.DEC.2016 16:05:56



Report No.: SZEM161201085001 Page: 77 of 179



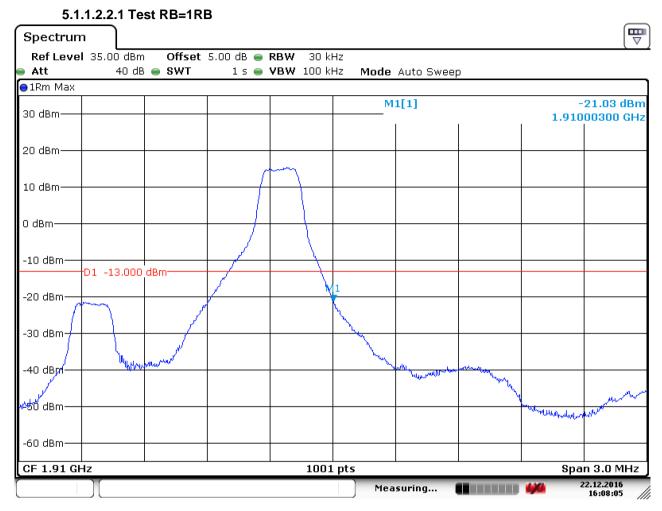
Date: 22.DEC.2016 16:04:53

"This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <u>www.sgs.com/terms\_and\_conditions.htm</u> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <u>www.sgs.com/terms\_e-document.htm</u>. 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."

5.1.1.2.1.2 Test RB=6RB



Report No.: SZEM161201085001 Page: 78 of 179



#### 5.1.1.2.2 Test Channel = HCH

Date: 22.DEC.2016 16:08:05



Report No.: SZEM161201085001 Page: 79 of 179

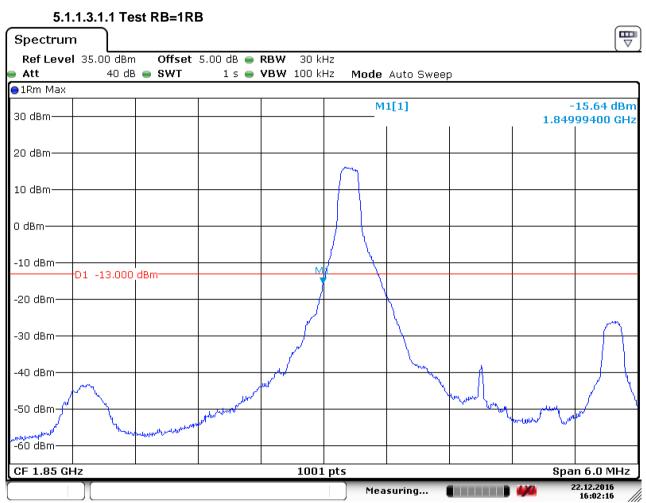
Att	l 35.00 dBm 40 dB	B 🔵 SWT	5.00 dB 👄 1 s 👄	<b>VBW</b> 100 k		Auto Sweej	0		
1Rm Max	1	1	1	1	1				
30 dBm					M	1[1]	-25.88 dBn 1.91000300 GH:		
20 dBm									
10 dBm	<u> </u>								_
0 dBm				$\square$					
-10 dBm	D1 -13.000								
-20 dBm—	DI -13.000	uBIII							
مستعمر -30 dBm—				V <sup>v</sup> <sub>h</sub>	1	~			
							where we want the second se	mon	-
-40 dBm—									
-50 dBm—									
.60 dBm									

### 5.1.1.2.2.2 Test RB=6RB

Date: 22.DEC.2016 16:08:48



Report No.: SZEM161201085001 Page: 80 of 179



5.1.1.3 Test Mode = LTE/TM1 3MHz

5.1.1.3.1 Test Channel = LCH

Date: 22.DEC.2016 16:02:16



Report No.: SZEM161201085001 Page: 81 of 179

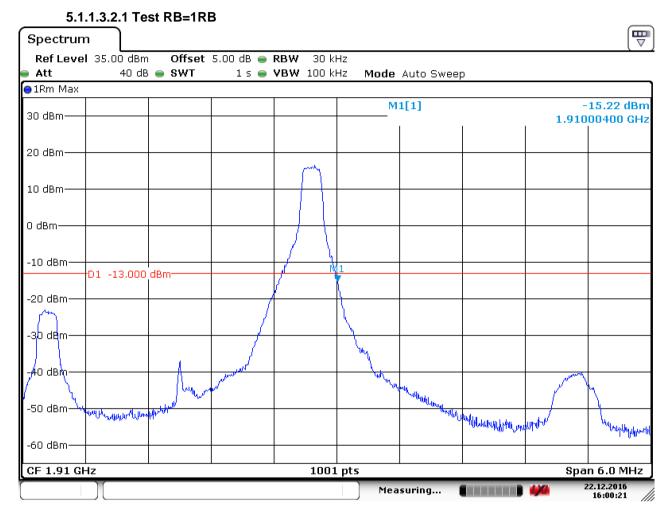
5.1	.1.3.1.2 Te	St RB=15	RB							_
Spectrun	n ]									
Ref Leve Att	l 35.00 dBm 40 dB	) Offset ) 👄 SWT	5.00 dB 👄 1 s 👄	<b>RBW</b> 30 kł <b>VBW</b> 100 kł		Mode	Auto Swee	p		<b>`</b>
⊖1Rm Max										
30 dBm						M	1[1] I	1		25.79 dBm 99400 GHz 
20 dBm										
10 dBm										
0 dBm						from	- Constantine and an	hora markane	han an a	monto
-10 dBm—	D1 -13.000	dBm								
-20 dBm—				M	1					
-30 dBm		فسيتودون والمعار	and good and a start of the sta	and a surprised	/					
-40 dBm	hanne ann an	Rosenal Concept of								
-50 dBm										
-60 dBm—										
CF 1.85 GI	Hz		-	1001	pt	s			Spa	n 6.0 MHz
						Mea	suring		4/4	22.12.2016 16:02:53

. . . . . . 

Date: 22.DEC.2016 16:02:53



Report No.: SZEM161201085001 Page: 82 of 179



### 5.1.1.3.2 Test Channel = HCH

Date: 22.DEC.2016 16:00:21



Report No.: SZEM161201085001 Page: 83 of 179

5.1	.1.3.2.2.16	ST RD=13	<b>ND</b>						_
Spectrun	ιÌ								
Ref Leve	l 35.00 dBm	n Offset	5.00 dB 👄	<b>RBW</b> 30 k	Hz				`
👄 Att	40 dE	B 👄 SWT	1 s 👄	<b>VBW</b> 100 k	Hz Mode	Auto Sweej	р		
😑 1 Rm Max									
					M	1[1]		-	26.19 dBm
30 dBm								1.910	00400 GHz
20 dBm									
10 dBm									
panne	mour	menn	mormon	mony					
0 dBm									
-10 dBm									
	D1 -13.000	dBm							
-20 dBm									
720 ubiii-				h.	1				
<i>(</i>					hur				
-30 dBm					- Twong meth	and many	warmen de		
							and the second	amon many a	
-40 dBm								~	<u> </u>
									mound
-50 dBm									
-30 0011									
-60 dBm									
CF 1.91 GF	∣ <b>⊣z</b>	I	1	1001	L pts			lSna	n 6.0 MHz
				200.					22.12.2016
					Mea	suring			15:59:44

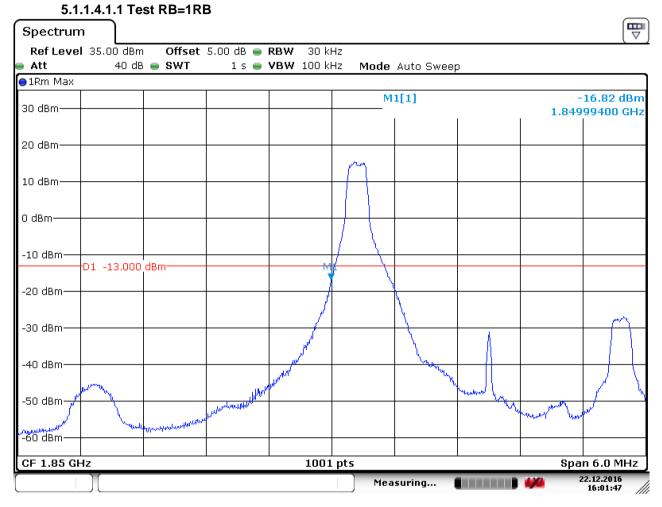
5 4 4 2 2 2 Teat DD-4500

Date: 22.DEC.2016 15:59:45



Report No.: SZEM161201085001 Page: 84 of 179

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



Date: 22.DEC.2016 16:01:47



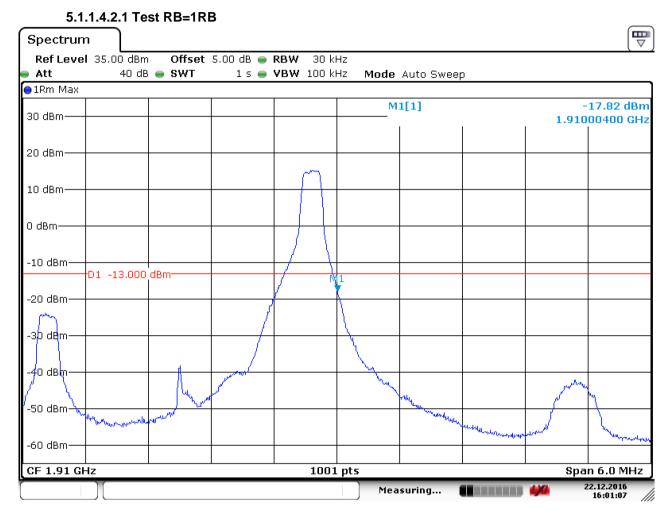
Report No.: SZEM161201085001 Page: 85 of 179

5.1.	1.4.1.2 Ie	St RB=151	KB							_	_
Spectrum	ı ]										7
Ref Level Att	35.00 dBm 40 dB	Offset SWT	5.00 dB 👄 1 s 👄	<b>RBW</b> 30 ki <b>VBW</b> 100 ki		lode A	uto Sweep	)		``	
●1Rm Max											
30 dBm						M1	[1]	l		28.37 dBr 99400 GH	
20 dBm											
10 dBm											
0 dBm						n	and and a second se	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	www.	howing	_
-10 dBm	D1 -13.000	dBm									
-20 dBm					]						$\left\{ \right\}$
-30 dBm		na and an and	future there are a star	M	y						~
-40 dBm	and the second										
-50 dBm											
-60 dBm											
CF 1.85 GH	z			1001	pts					n 6.0 MHz	:
						Measu	uring (		- <b>44</b>	22.12.2016 16:03:33	

Date: 22.DEC.2016 16:03:33



Report No.: SZEM161201085001 Page: 86 of 179

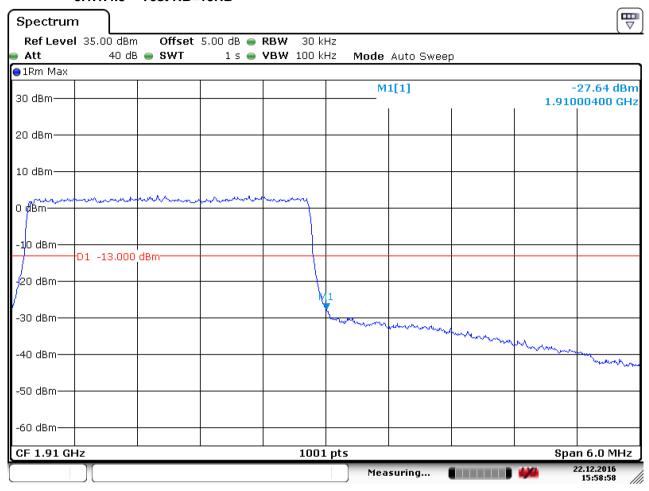


### 5.1.1.4.2 Test Channel = HCH

Date: 22.DEC.2016 16:01:07



Report No.: SZEM161201085001 Page: 87 of 179



5.1.1.4.3 Test RB=15RB

Date: 22.DEC.2016 15:58:59

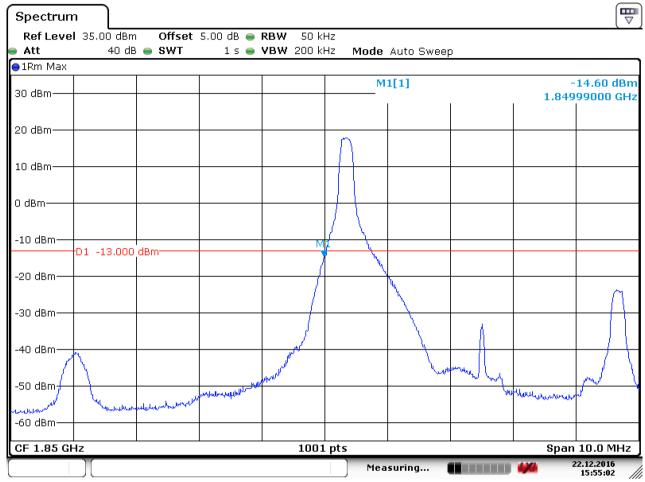


Report No.: SZEM161201085001 Page: 88 of 179

### 5.1.1.5 Test Mode = LTE/TM1 5MHz

#### 5.1.1.5.1 Test Channel = LCH





Date: 22.DEC.2016 15:55:02