

Report No.: SZEM180100088201 Page: 1 of 86

# Appendix B

E-UTRA Band 12



Report No.: SZEM180100088201 Page: 2 of 86

### CONTENT

Page
------

1 EFFECTIVE (ISOTROPIC) RADIATED PC	OWER OUTPUT DATA3
2 PEAK-TO-AVERAGE RATIO	
2.1 For LTE	
2.1.1 Test Band = LTE BAND 12	
3 MODULATION CHARACTERISTICS	
3.1 For LTE	
3.1.1 Test Band = LTE BAND 12	
4 BANDWIDTH	
4.1 For LTE	
4.1.1 Test Band = LTE BAND 12	
5 BAND EDGES COMPLIANCE	
5.1 For LTE	
5.1.1 Test Band = LTE BAND 12	
6 SPURIOUS EMISSION AT ANTENNA TE	RMINAL76
6.1 FOR LTE	
7 FIELD STRENGTH OF SPURIOUS RADI	ATION82
7.1 For LTE	
7.1.1 Test Band = LTE BAND 12	
8 FREQUENCY STABILITY	
8.1 FREQUENCY ERROR VS. VOLTAGE	
8.2 FREQUENCY ERROR VS. TEMPERATUR	E



Report No.: SZEM180100088201 Page: 3 of 86

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

	ive Radiated	Power of Trar		RP) for LTE	BAND 12	1	1	
Test Band(LTE)	Test Mode	Test Bandwidth	Test channel	Test RB	Measured (dBm)	ERP (dBm)	limit (dBm)	Verdict
				1RB#0	22.65	15.6	34.77	PASS
				1RB#2	22.71	15.66	34.77	PASS
				1RB#5	22.71	15.66	34.77	PASS
			LCH	3RB#0	22.76	15.71	34.77	PASS
				3RB#1	22.76	15.71	34.77	PASS
				3RB#3	22.79	15.74	34.77	PASS
				6RB#0	21.91	14.86	34.77	PASS
			МСН	1RB#0	22.73	15.68	34.77	PASS
				1RB#2	22.75	15.7	34.77	PASS
				1RB#5	22.78	15.73	34.77	PASS
BAND 12	LTE/TM1	1.4M		3RB#0	22.76	15.71	34.77	PASS
				3RB#1	22.76	15.71	34.77	PASS
				3RB#3	22.75	15.7	34.77	PASS
				6RB#0	21.96	14.91	34.77	PASS
				1RB#0	22.71	15.66	34.77	PASS
				1RB#2	22.79	15.74	34.77	PASS
				1RB#5	22.81	15.76	34.77	PASS
			НСН	3RB#0	22.76	15.71	34.77	PASS
				3RB#1	22.76	15.71	34.77	PASS
				3RB#3	22.76	15.71	34.77	PASS
				6RB#0	21.98	14.93	34.77	PASS

Test Band(LTE)	Test Mode	Test Bandwidth	Test channel	Test RB	Measured (dBm)	ERP (dBm)	limit (dBm)	Verdict
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Report No.: SZEM180100088201 Page: 4 of 86

					Page:	4 of 86	)	
				1RB#0	21.62	14.57	34.77	PASS
				1RB#2	21.75	14.7	34.77	PASS
				1RB#5	21.66	14.61	34.77	PASS
			LCH	3RB#0	21.68	14.63	34.77	PASS
				3RB#1	21.68	14.63	34.77	PASS
				3RB#3	21.66	14.61	34.77	PASS
			6RB#0	20.89	13.84	34.77	PASS	
				1RB#0	21.85	14.8	34.77	PASS
		Л2 1.4M		1RB#2	21.93	14.88	34.77	PASS
			МСН	1RB#5	21.9	14.85	34.77	PASS
BAND 12	LTE/TM2			3RB#0	21.69	14.64	34.77	PASS
				3RB#1	21.69	14.64	34.77	PASS
				3RB#3	21.75	14.7	34.77	PASS
				6RB#0	20.75	13.7	34.77	PASS
				1RB#0	21.85	14.8	34.77	PASS
				1RB#2	21.93	14.88	34.77	PASS
				1RB#5	21.91	14.86	34.77	PASS
			НСН	3RB#0	21.68	14.63	34.77	PASS
				3RB#1	21.69	14.64	34.77	PASS
				3RB#3	21.75	14.7	34.77	PASS
				6RB#0	20.78	13.73	34.77	PASS



Report No.: SZEM180100088201 Page: 5 of 86

Test Band(LTE)	Test Mode	Test Bandwidth	Test channel	Test RB	Measured (dBm)	ERP (dBm)	limit (dBm)	Verdict
				1RB#0	22.71	15.66	34.77	PASS
				1RB#8	22.67	15.62	34.77	PASS
				1RB#14	22.76	15.71	34.77	PASS
			LCH	8RB#0	21.96	14.91	34.77	PASS
				8RB#4	21.96	14.91	34.77	PASS
				8RB#7	22.03	14.98	34.77	PASS
				15RB#0	21.99	14.94	34.77	PASS
			1RB#0	22.86	15.81	34.77	PASS	
			МСН	1RB#8	22.77	15.72	34.77	PASS
				1RB#14	22.84	15.79	34.77	PASS
BAND 12	LTE/TM1	ЗМ		8RB#0	22.03	14.98	34.77	PASS
				8RB#4	22.03	14.98	34.77	PASS
				8RB#7	22.03	14.98	34.77	PASS
				15RB#0	21.96	14.91	34.77	PASS
				1RB#0	22.82	15.77	34.77	PASS
				1RB#8	22.77	15.72	34.77	PASS
				1RB#14	22.87	15.82	34.77	PASS
			НСН	8RB#0	22.03	14.98	34.77	PASS
				8RB#4	22.03	14.98	34.77	PASS
				8RB#7	22.06	15.01	34.77	PASS
				15RB#0	21.99	14.94	34.77	PASS



Report No.: SZEM180100088201 Page: 6 of 86

Test Band(LTE)	Test Mode	Test Bandwidth	Test channel	Test RB	Measured (dBm)	ERP (dBm)	limit (dBm)	Verdict
				1RB#0	21.9	14.85	34.77	PASS
				1RB#8	21.86	14.81	34.77	PASS
				1RB#14	21.93	14.88	34.77	PASS
			LCH	8RB#0	20.98	13.93	34.77	PASS
				8RB#4	20.97	13.92	34.77	PASS
				8RB#7	21.04	13.99	34.77	PASS
				15RB#0	21.01	13.96	34.77	PASS
				1RB#0	21.89	14.84	34.77	PASS
			МСН	1RB#8	21.82	14.77	34.77	PASS
				1RB#14	21.87	14.82	34.77	PASS
BAND 12	LTE/TM2	ЗM		8RB#0	20.93	13.88	34.77	PASS
				8RB#4	20.92	13.87	34.77	PASS
				8RB#7	20.93	13.88	34.77	PASS
				15RB#0	20.85	13.8	34.77	PASS
				1RB#0	21.72	14.67	34.77	PASS
				1RB#8	21.66	14.61	34.77	PASS
				1RB#14	21.75	14.7	34.77	PASS
			НСН	8RB#0	20.99	13.94	34.77	PASS
				8RB#4	20.98	13.93	34.77	PASS
				8RB#7	20.99	13.94	34.77	PASS
				15RB#0	20.85	13.8	34.77	PASS



Report No.: SZEM180100088201 Page: 7 of 86

Test Band(LTE)	Test Mode	Test Bandwidth	Test channel	Test RB	Measured (dBm)	ERP (dBm)	limit (dBm)	Verdict
				1RB#0	22.8	15.75	34.77	PASS
				1RB#12	22.82	15.77	34.77	PASS
				1RB#24	22.83	15.78	34.77	PASS
			LCH	12RB#0	21.78	14.73	34.77	PASS
				12RB#6	21.78	14.73	34.77	PASS
				12RB#13	21.96	14.91	34.77	PASS
				25RB#0	21.9	14.85	34.77	PASS
				1RB#0	22.89	15.84	34.77	PASS
			МСН	1RB#12	22.9	15.85	34.77	PASS
				1RB#24	22.88	15.83	34.77	PASS
BAND 12	LTE/TM1	5M		12RB#0	21.93	14.88	34.77	PASS
				12RB#6	21.93	14.88	34.77	PASS
				12RB#13	21.84	14.79	34.77	PASS
				25RB#0	21.88	14.83	34.77	PASS
				1RB#0	22.85	15.8	34.77	PASS
				1RB#12	22.8	15.75	34.77	PASS
				1RB#24	22.89	15.84	34.77	PASS
			НСН	12RB#0	21.88	14.83	34.77	PASS
				12RB#6	21.87	14.82	34.77	PASS
			12RB#13	21.83	14.78	34.77	PASS	
				25RB#0	21.87	14.82	34.77	PASS



Report No.: SZEM180100088201 Page: 8 of 86

Test Band(LTE)	Test Mode	Test Bandwidth	Test channel	Test RB	Measured (dBm)	ERP (dBm)	limit (dBm)	Verdict
				1RB#0	21.97	14.92	34.77	PASS
				1RB#12	22.02	14.97	34.77	PASS
				1RB#24	21.97	14.92	34.77	PASS
			LCH	12RB#0	20.83	13.78	34.77	PASS
				12RB#6	20.83	13.78	34.77	PASS
				12RB#13	21	13.95	34.77	PASS
				25RB#0	20.9	13.85	34.77	PASS
				1RB#0	21.82	14.77	34.77	PASS
				1RB#12	21.82	14.77	34.77	PASS
			МСН	1RB#24	21.84	14.79	34.77	PASS
BAND 12	LTE/TM2	5M		12RB#0	20.9	13.85	34.77	PASS
				12RB#6	20.9	13.85	34.77	PASS
				12RB#13	20.84	13.79	34.77	PASS
				25RB#0	20.87	13.82	34.77	PASS
				1RB#0	21.85	14.8	34.77	PASS
				1RB#12	21.79	14.74	34.77	PASS
				1RB#24	21.83	14.78	34.77	PASS
			НСН	12RB#0	20.86	13.81	34.77	PASS
				12RB#6	20.86	13.81	34.77	PASS
			12RB#13	20.81	13.76	34.77	PASS	
				25RB#0	20.87	13.82	34.77	PASS



Report No.: SZEM180100088201 Page: 9 of 86

Test Band(LTE)	Test Mode	Test Bandwidth	Test channel	Test RB	Measured (dBm)	ERP (dBm)	limit (dBm)	Verdict
				1RB#0	22.91	15.86	34.77	PASS
				1RB#24	22.91	15.86	34.77	PASS
				1RB#49	22.96	15.91	34.77	PASS
			LCH	25RB#0	21.79	14.74	34.77	PASS
				25RB#12	21.79	14.74	34.77	PASS
				25RB#25	21.79	14.74	34.77	PASS
				50RB#0	21.77	14.72	34.77	PASS
			1RB#0	22.95	15.9	34.77	PASS	
			1RB#24	22.93	15.88	34.77	PASS	
			МСН	1RB#49	22.96	15.91	34.77	PASS
BAND 12	LTE/TM1	E/TM1 10M		25RB#0	21.95	14.9	34.77	PASS
				25RB#12	21.93	14.88	34.77	PASS
				25RB#25	21.87	14.82	34.77	PASS
				50RB#0	21.92	14.87	34.77	PASS
				1RB#0	22.92	15.87	34.77	PASS
				1RB#24	22.87	15.82	34.77	PASS
				1RB#49	22.95	15.9	34.77	PASS
			НСН	25RB#0	21.99	14.94	34.77	PASS
				25RB#12	21.99	14.94	34.77	PASS
				25RB#25	21.94	14.89	34.77	PASS
				50RB#0	21.97	14.92	34.77	PASS



Report No.: SZEM180100088201 Page: 10 of 86

Test Band(LTE)	Test Mode	Test Bandwidth	Test channel	Test RB	Measured (dBm)	ERP (dBm)	limit (dBm)	Verdic t
				1RB#0	22.07	15.02	34.77	PASS
				1RB#24	22.02	14.97	34.77	PASS
				1RB#49	22.02	14.97	34.77	PASS
			LCH	25RB#0	20.8	13.75	34.77	PASS
				25RB#12	20.79	13.74	34.77	PASS
				25RB#25	20.8	13.75	34.77	PASS
				50RB#0	20.8	13.75	34.77	PASS
		10M		1RB#0	21.86	14.81	34.77	PASS
				1RB#24	21.84	14.79	34.77	PASS
			МСН	1RB#49	21.89	14.84	34.77	PASS
BAND 12	LTE/TM2			25RB#0	20.95	13.9	34.77	PASS
				25RB#12	20.95	13.9	34.77	PASS
				25RB#25	20.89	13.84	34.77	PASS
				50RB#0	20.91	13.86	34.77	PASS
				1RB#0	22.04	14.99	34.77	PASS
				1RB#24	22.08	15.03	34.77	PASS
				1RB#49	22.05	15	34.77	PASS
			НСН	25RB#0	20.96	13.91	34.77	PASS
				25RB#12	20.94	13.89	34.77	PASS
				25RB#25	20.9	13.85	34.77	PASS
				50RB#0	20.95	13.9	34.77	PASS

Note:

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

ERP [dBm] = SGP [dBm] – Cable Loss [dB] + Gain [dBd] b: SGP=Signal Generator Level



Report No.: SZEM180100088201 Page: 11 of 86

### 2 Peak-to-Average Ratio

#### Part I - Test Results

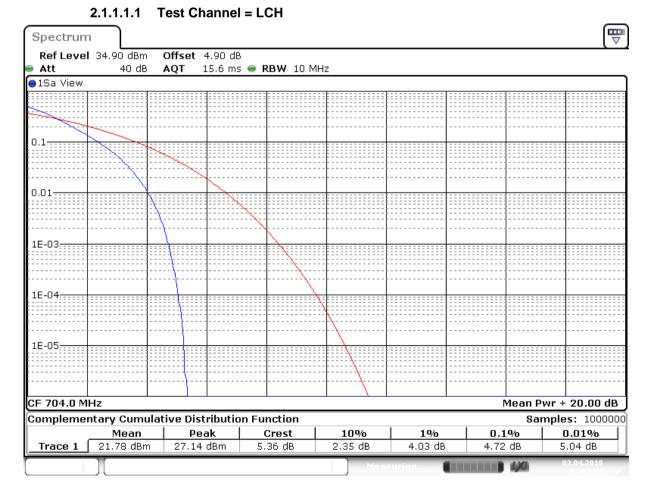
Test Band	Test Mode	Test Channel	Measured[dB]	Limit [dB]	Verdict
		LCH	4.72	13	PASS
	TM1/10M	MCH	4.67	13	PASS
		НСН	4.72	13	PASS
BAND 12		LCH	5.74	13	PASS
	TM2/10M	MCH	5.65	13	PASS
		НСН	5.62	13	PASS

Part II - Test Plots

#### 2.1 For LTE

#### 2.1.1 Test Band = LTE BAND 12

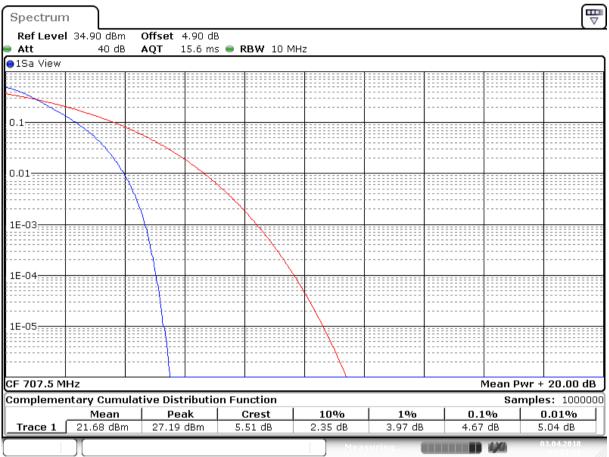
#### 2.1.1.1 Test Mode = LTE/TM1.Bandwidth=10MHz



Date: 3 APR 2018 03:03:14



Report No.: SZEM180100088201 Page: 12 of 86

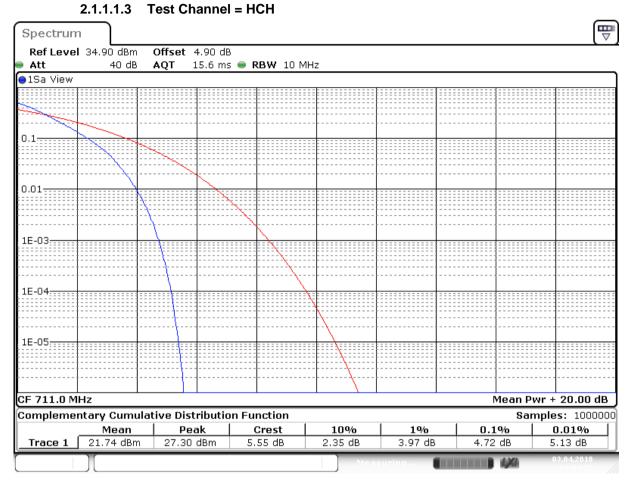


2.1.1.1.2 Test Channel = MCH

Date: 3.APR.2018 03:03:50



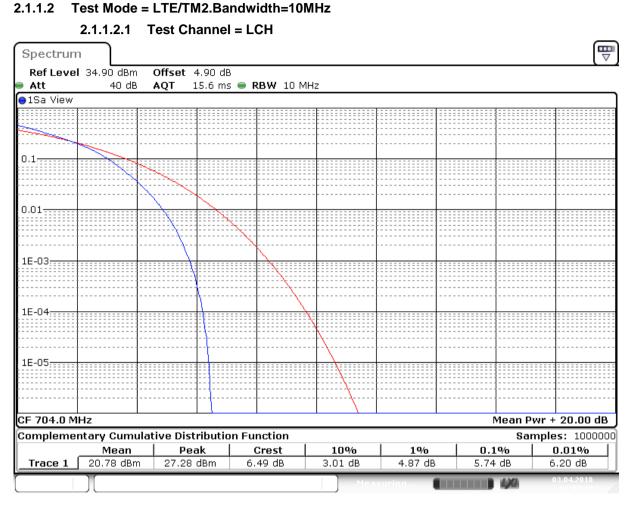
Report No.: SZEM180100088201 Page: 13 of 86



Date: 3 APR 2018 03:04:27



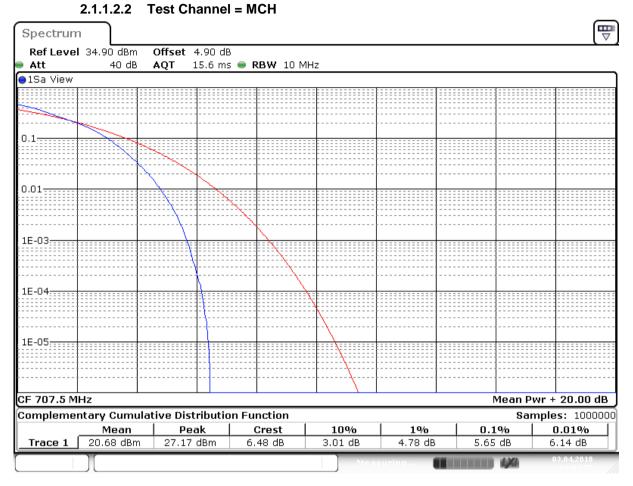
Report No.: SZEM180100088201 Page: 14 of 86



#### Date: 3 APR 2018 03:03:19



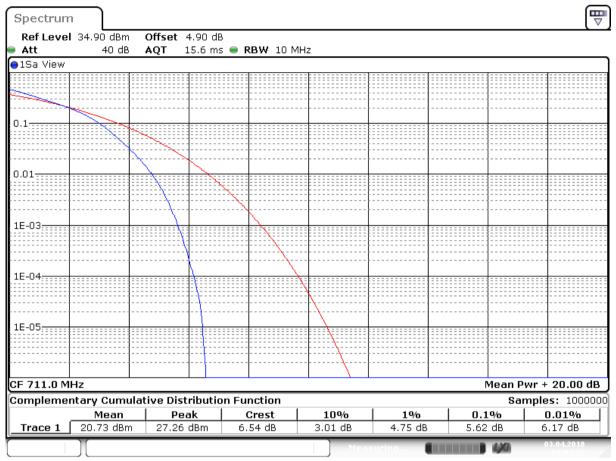
Report No.: SZEM180100088201 Page: 15 of 86



Date: 3 APR 2018 03:03:56



Report No.: SZEM180100088201 Page: 16 of 86



#### 2.1.1.2.3 Test Channel = HCH

Date: 3 APR 2018 03:04:32



Report No.: SZEM180100088201 Page: 17 of 86

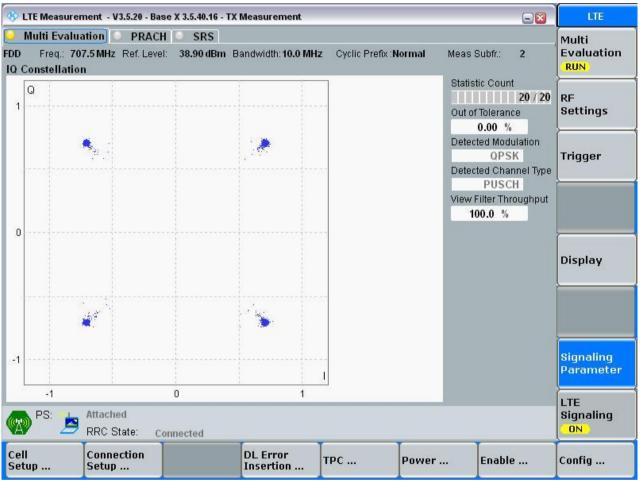
### **3 Modulation Characteristics**

### 3.1 For LTE

#### 3.1.1 Test Band = LTE BAND 12

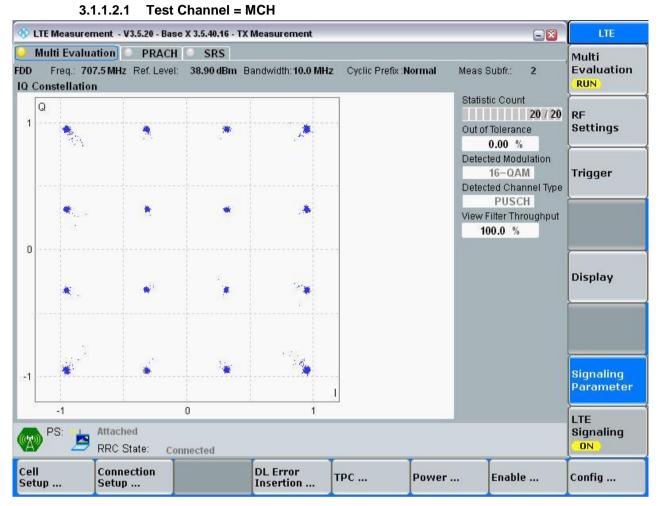
#### 3.1.1.1 Test Mode = LTE /TM1 10MHz

#### 3.1.1.1.1 Test Channel = MCH





Report No.: SZEM180100088201 Page: 18 of 86



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



Report No.: SZEM180100088201 Page: 19 of 86

### 4 Bandwidth

#### Part I - Test Results

Test Band	Test Mode	Test Channel	Occupied Bandwidth [MHz]	Emission Bandwidth [MHz]	Verdict
		LCH	1.088	1.203	PASS
	TM1/1.4MHz	MCH	1.094	1.218	PASS
		HCH	1.088	1.227	PASS
		LCH	1.091	1.206	PASS
	TM2/1.4MHz	MCH	1.088	1.227	PASS
		HCH	1.088	1.233	PASS
		LCH	2.697	2.844	PASS
	TM1/ 3MHz	MCH	2.697	2.868	PASS
		HCH	2.697	2.850	PASS
		LCH	2.691	2.874	PASS
	TM2/3MHz	MCH	2.697	2.862	PASS
		HCH	2.697	2.862	PASS
BAND 12		LCH	4.476	4.740	PASS
	TM1/ 5MHz	MCH	4.476	4.720	PASS
		HCH	4.476	4.740	PASS
		LCH	4.476	4.710	PASS
	TM2/ 5MHz	MCH	4.476	4.780	PASS
		HCH	4.476	4.750	PASS
		LCH	8.931	9.300	PASS
	TM1/10MHz	MCH	8.931	9.300	PASS
		HCH	8.931	9.300	PASS
		LCH	8.931	9.280	PASS
	TM2/ 10MHz	MCH	8.911	9.280	PASS
		HCH	8.931	9.280	PASS



Report No.: SZEM180100088201 Page: 20 of 86

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#### Part II -Test Plots

#### 4.1 For LTE

#### 4.1.1 Test Band = LTE BAND 12

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

4.1.1.1.1 Test Channel = LCH

Ref Le	vel	24.90 di	Bm	Offset	4.90 dB	3 😐 I	RBW	30 k	Hz						
🔵 Att		30	dB 🧉	SWT	100 ms	5 😑 '	vbw	100 k	Hz	Mode	Auto S	Sweep	)		
😑 1 Av Vie	ew														
20 dBm-										M	1[1]				11.98 dBm
20 40.00						41									.29240 MHz
10 dBm-					Three	Lust	mouto	da naturios	M	white the	FF. B.W.	mI2			912088 MHz
					7				ř	M	2[1]	`` <b>Y</b>			-15.17 dBm
0 dBm—			_									- L	I	699	.09700 MHz
					17							- (			
-10 dBm		1 -14.0		m	4							Ň	3		
-20 dBm				J.	1								M		
-20 dBm <sup>A</sup> -sə <sup>-</sup> ៥៩ក		. Incoded	Maria	Mr. Rohn									Mr. Hak. W.	Sec. a Ant	Merch Ballanow
<sup>∧</sup> чзв∕авни	runlin	MAN AN	~wn •w ·	V. 1919.									a).00.400.	Annan Markel	mon adversar
-40 dBm															
50 JB															
-50 dBm															
-60 dBm															
00 0011															
-70 dBm	_														
CF 699.	7 MH	17						1001	nts	:					an 3.0 MHz
Marker								1001							
	Ref	Trc		X-value	2	1	Y-v	alue	1	Func	tion	1	Fun	ction Resul	t
M1		1		699.29				1.98 dB	m	1 4110				ocion nosul	
T1		1		699.154				4.93 dB		0	cc Bw			1.0879	12088 MHz
T2		1		700.242	46 MHz		5	5.76 dB	m						
M2		1			97 MHz			5.17 dB							
M3		1		700	.3 MHz		-16	5.50 dB	m						
		)[								Mea	suring.			1,00	02.04.2018

Date: 2.APR 2018 14:04:49



41112 Test Channel = MCH

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

#### Report No.: SZEM180100088201 Page: 21 of 86

Spectrum											Ē
Ref Level	24.90 c	Bm Offset	4.90 dB 🧉	• RBW 30 ki	Hz						( '
🖷 Att	30	dB 👄 SWT	100 ms 🧉	<b>VBW</b> 100 ki	Hz	Mode /	Auto S <sup>i</sup>	weep			
●1Av View											
20 dBm						M1	[1]				11.79 dBm
20 000					i i		M1			707.	92260 MHz
10 dBm			I Jun Marcharton	a partilla man yourd	U.U.S. Mar		5.8 <b>%</b> #	<b>T</b> 2			06094 MHz
			Y I	1	ſ Ĩ	M2	[1]	7			14.88 dBm
0 dBm					<u> </u>			- <u>\</u>		706.	89400 MHz
			17		i i			1			
-10 dBm	D1 -14.2		7					Мз			
								N.			
-20 uBili	المعاريبين	and all the server						MANY L	Antorna De a	L	
Marson Aspender	and the second second	Wyor wall Maland							oon on on	minural	h.mallely, web-type,
					i i						
-40 dBm——					<u> </u>						
					i i						
-50 dBm											
co do-					i i						
-60 dBm											
-70 dBm											
CF 707.5 M	HZ			1001	. pts	5				Spa	n 3.0 MHz
Marker											
Type Ref		X-value		Y-value	_	Functi	ion		Functio	on Result	
M1	1	707.92		11.79 dB						1 00000	
T1 T2	1	706.951		6.26 dB 5.89 dB		UC	сBw			1.09390	06094 MHz
M2	1		94 MHz	-14.88 dB							
M3	1		12 MHz	-15.56 dB							
	7			20.00 00		)		-		M74	12 04 2018
	Л					Meas				7.0	

Date: 2 APR 2018 14:05:34



Report No.: SZEM180100088201 Page: 22 of 86

Spectrum         T           Ref Level 24.90 dBm         Offset 4.90 dB          RBW         30 kHz           Att         30 dB          SWT         100 ms          VBW         100 kHz         Mode         Auto Sweep           Interview         Interview <th< th=""><th></th><th>4</th><th>1.1.1.1</th><th>.3 Test Ch</th><th>annel =</th><th>НСН</th><th></th><th></th><th></th><th></th><th></th><th></th></th<>		4	1.1.1.1	.3 Test Ch	annel =	НСН						
Att         30 dB         SWT         100 ms         VBW         100 kHz         Mode Auto Sweep           0 1Av View         0 dBm	Specti	um										
• Tay View         • Mile         • M	Ref Le	evel	24.90	dBm Offset	4.90 dB 🧉	• RBW 30 kH	z					
20 dBm         M1[1]         11.67 dBn           10 dBm         T1         M1         715.78250 MH           0 dBm         T1         M1         715.78250 MH           0 dBm         T1         M1         714.68500 MH           10 dBm         D1         -14.328 dBm         M1         714.68500 MH           -20 dBm         D1         -14.328 dBm         M1         714.68500 MH           -20 dBm         -10 dBm         M1         -10.48500 MH         -10.48500 MH           -20 dBm         -14.328 dBm         -10.4800 MH         -10.48500 MH         -10.48500 MH           -20 dBm         -10.48500 MH         -10.4800 MH         -10.48500 MH         -10.4800 MH           -20 dBm         -10.4800 MH         -10.4800 MH         -10.4800 MH         -10.4800 MH           -20 dBm         -10.4800 MH         -10.4800 MH         -10.4800 MH         -10.4800 MH           -30 dBm         -30.4800 MH         -30.4800 MH         -30.4800 MH         -30.4800 MH           -70 dBm         -30.4800 MH         -30.4800 MH         -30.4800 MH         -30.4800 MH           -70 dBm         -30.4800 MH         -30.4800 MH         -30.4800 MH         -30.4800 MH           -711         1	🔵 Att		30	) dB 😑 SWT	100 ms 🧉	• <b>VBW</b> 100 kH	z Mo	ode Auto S	weep			
20 dBm       T1	😑 1AV Vi	ew										
M1     715.78250 MH       10 dBm     T1       0 dBm     T1       -10 dBm     T1       -10 dBm     T1       -10 dBm     T1       -20 dBm     T2       -20 dBm     T2 <td< td=""><td>20 dBm-</td><td></td><td></td><td></td><td></td><td></td><td></td><td>M1[1]</td><td></td><td></td><td></td><td>11.67 dBm</td></td<>	20 dBm-							M1[1]				11.67 dBm
0 dBm     -15.48 dBr       -10 dBm     -14.328 dBm       -20 dBm     -14.328 dBm       -30 dBm     -14.328 dBm       -50 dBm     -14.328 dBm       -70 dBm     -14.328 dBm       -70 dBm     -14.328 dBm       -70 dBm     -14.328 dBm       -70 dBm     -15.48 dBm       -70 dBm     -10.087912088 MHz       -71 1     1 </td <td>20 00111</td> <td></td>	20 00111											
0 dBm       714.68500 MI         -10 dBm       MI         -20 dBm       0 dBm         -30 dBm       0 dBm         -40 dBm       0 dBm         -50 dBm       0 dBm         -60 dBm       0 dBm         -70 dBm       0 dBm         <	10 dBm-				T1	ware ware war	ᠣᠰᡵᢦᠲ	PEC BW	LT2			
-10 dBm     -11     -11     -11     -11     -11     -11     -11     -11     -11     -11     -11     -11     -11     -11     -11     -11     -11     -11     -11     -11     -11     -11     -11     -11     -11     -11     -11     -11     -11     -11     -11     -11     -11     -11     -11     -11     -11     -11     -11     -11     -11     -11     -11     -11     -11     -11     -11     -11     -11     -11     -11     -11     -11     -11     -11     -11     -11     -11     -11     -11     -11     -11     -11     -11     -11     -11     -11     -11     -11     -11     -11     -11     -11     -11     -11     -11     -11     -11     -11     -11     -11     -11     -11     -11     -11     -11     -11     -11     -11     -11     -11     -11     -11     -11     -11     -11     -11     -11     -11     -11     -11     -11     -11     -11     -11     -11     -11     -11     -11     -11     -11     -11     -11     -11     -11     -11     -11     -11     -1					1			~ M2[1]	Y			
-20 dBm	0 dBm—				1	+ +		— <sub>1</sub>	$\lambda_1$		/14.	.68500 MH2 1
-20 dBm	10 d0 co											
-20 dBm	-10 UBII		1 -14.	328 dBm	ř				13			
Marker     Model     Model       Type     Ref     Trc     X-value     Y-value     Function       Marker       T1     1     715.7825 MHz     11.67 dBm       T2     1     715.84246 MHz     5.11 dBm       M2     1     714.685 MHz     -15.48 dBm	-20 dBm			P		_			$\rightarrow$			
-40 dBm			Ar	mount					× 1	Myn	ulorum a	
-50 dBm	190°abri	-an a	"WWW"			++					walk	for her change were
-50 dBm												
-60 dBm     -70 dBm     Span 3.0 MHz       CF 715.3 MHz     1001 pts     Span 3.0 MHz       Offer Tric     X-value     Y-value     Function       Marker     -71     1     715.7825 MHz     11.67 dBm       M1     1     715.7825 MHz     11.67 dBm     -71.000 BW       T1     1     714.75455 MHz     6.81 dBm     Occ BW     1.087912088 MHz       T2     1     714.685 MHz     5.11 dBm     -71.000 BW       M2     1     714.685 MHz     -15.48 dBm     -71.000 BW	-40 dBm											
-60 dBm     -70 dBm     Span 3.0 MHz       CF 715.3 MHz     1001 pts     Span 3.0 MHz       Offer Tric     X-value     Y-value     Function       Marker     -71     1     715.7825 MHz     11.67 dBm       M1     1     715.7825 MHz     11.67 dBm     -71.000 BW       T1     1     714.75455 MHz     6.81 dBm     Occ BW     1.087912088 MHz       T2     1     714.685 MHz     5.11 dBm     -71.000 BW       M2     1     714.685 MHz     -15.48 dBm     -71.000 BW	-50 dBm											
-70 dBm         Image: Constraint of the second	-30 0011	'										
CF 715.3 MHz         1001 pts         Span 3.0 MHz           Marker         Your State         Span 3.0 MHz           M1         1         715.7825 MHz         11.67 dBm           T1         1         715.7825 MHz         6.81 dBm         Occ Bw         1.087912088 MHz           T2         1         715.84246 MHz         5.11 dBm         1.087912088 MHz         MHz           M2         1         714.685 MHz         -15.48 dBm         1.087912088 MHz         1.087912088 MHz	-60 dBm	ı——										
CF 715.3 MHz         1001 pts         Span 3.0 MHz           Marker         Your State         Span 3.0 MHz           M1         1         715.7825 MHz         11.67 dBm           T1         1         715.7825 MHz         6.81 dBm         Occ Bw         1.087912088 MHz           T2         1         715.84246 MHz         5.11 dBm         1.087912088 MHz         MHz           M2         1         714.685 MHz         -15.48 dBm         1.087912088 MHz         1.087912088 MHz												
Marker           Type         Ref         Trc         X-value         Y-value         Function         Function Result           M1         1         715.7825 MHz         11.67 dBm            1.087912088 MHz           T1         1         714.75455 MHz         6.81 dBm         Occ Bw         1.087912088 MHz           T2         1         715.84246 MHz         5.11 dBm             M2         1         714.685 MHz         -15.48 dBm	-70 dBm											
Type         Ref         Trc         X-value         Y-value         Function         Function Result           M1         1         715.7825 MHz         11.67 dBm	CF 715	.3 MF	Ηz			1001	pts				Spa	n 3.0 MHz
M1         1         715.7825 MHz         11.67 dBm           T1         1         714.75455 MHz         6.81 dBm         Occ Bw         1.087912088 MHz           T2         1         715.84246 MHz         5.11 dBm         1.087912088 MHz           M2         1         714.685 MHz         -15.48 dBm         1.087912088 MHz	Marker										-	
T1         1         714.75455 MHz         6.81 dBm         Occ Bw         1.087912088 MHz           T2         1         715.84246 MHz         5.11 dBm            M2         1         714.685 MHz         -15.48 dBm	Type	Ref	Trc	X-value	.	Y-value	F	unction		Fund	ction Result	t
T2         1         715.84246 MHz         5.11 dBm           M2         1         714.685 MHz         -15.48 dBm			1	715.782	25 MHz	11.67 dBn	1					
M2 1 714.685 MHz -15.48 dBm			1					Occ Bw			1.0879	12088 MHz
			-									
M3 1 /15.912 MHZ -15.07 dBm							-					
	<u>M3</u>		1	/15.91	L2 MHZ	-15.07 dBn	1					
Measuring 10.04.2018								Measuring.			1,20	02.04.2018

Date: 2.APR.2018 14:06:29



Report No.: SZEM180100088201 Page: 23 of 86

	4	4.1.1.2	2.1 Test C	hannel =	= LCH						
Spect	rum										
Ref Le	evel	24.90	dBm Offset	t 4.90 dB	🔵 RBW 30 ki	Hz					
🗕 Att		3	O dB 🕳 SWT	100 ms	🔵 <b>VBW</b> 100 ki	Hz	Mode	Auto S	Sweep		
😑 1AV Vi	ew										
20 dBm·							M	1[1]			11.15 dBm
20 0011					M	1				699	.70900 MHz
10 dBm·				T 10 10 10	with www.www.phus		0	CC BW	_T2		09091 MHz
				- I AMA VOV	in-alogon thereforeds	1004-0	- remonstration	2[[1]	my Phil		-15.32 dBm
0 dBm—				+1				I	- \	699	.10000 MHz
-10 dBm	·		054 48-5	Ma					Mз		
-20 dBm		51 -14.	854 dBm	d					<u> </u>		
			le cont	¢ .					Mu de la		
-30Jd8m	and	A. Branger	mphontport						Նալտալ	manulanyastury	the second
WIND BUSH	N P										1. Dames to Allegrand
-40 dBm	<b>⊢</b> ⊢					<u> </u>					
-50 dBm	<del>ا –</del> ۱					-					
-60 dBm	ו—ו										
-70 dBm											
CF 699	.7 M	Hz			1001	. pt :	5			Spa	an 3.0 MHz
Marker											
Туре	Ref	Trc	X-valı		Y-value		Func	tion	Fι	inction Resul	t 🔤
M1		1		709 MHz	11.15 dB						
T1		1		455 MHz	2.99 dB		0	cc Bw		1.0909	09091 MHz
T2		1		545 MHz	5.27 dB						
M2		1		9.1 MHz	-15.32 dB						
M3		1	700	306 MHz	-16.54 dB	in					
[		Л					Mea			1,00	02.04.2018

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

Date:2.APR.2018 14:04:59



41122 Test Channel = MCH

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

#### Report No.: SZEM180100088201 Page: 24 of 86

Spectrum										
Ref Level	24.90 dBr	n Offset	4.90 dB 🧉	• RBW 30 kł	Ηz					
👄 Att	30 d	B 👄 SWT	100 ms 🧉	• <b>VBW</b> 100 kł	Ηz	Mode Au	ito Swi	еер		
●1Av View										
20 dBm						M1[:	L]			10.59 dBm
20 ubiii						M1			707	.71880 MHz
10 dBm			T 1dt			▼Occ	BW T	2	1.0879	912088 MHz
10 0.011			Palluna	montering	and the	MZ[.	l] whe	7		-16.78 dBm
0 dBm									706	.88500 MHz
-10 dBm		M	/							
tC	01 -15.407		<u> </u>					<u>N</u> 3		
-20 dBm								<u> </u>		
	All the	way the will						When the start	wardly Andreader	
~ <u>30_dBm~~~~</u>	and man and									to the the of the work
-40 dBm										
-40 0811										
-50 dBm										
00 00										
-60 dBm					<u> </u>					
-70 dBm										
CF 707.5 M	LI-7			1001	nte				Sn:	an 3.0 MHz
Marker	12			1001	prs	,			346	3H 3.0 MHZ
	1 - 1	. I			- 1		- 1			
Type Ref		X-value		Y-value		Functio	<u>n  </u>	Fu	nction Resul	t
M1 T1	1	707.718		10.59 dB 5.10 dB		Occ	<b>D</b>		1 0070	12088 MHz
T2	1	708.0424		5.10 dB		000	DW		1.0879	12088 MHZ
M2	1		+o i™iH∠ 35 MHz	-16.78 dB						
M3	1		L2 MHz	-17.90 dB						
		,00,11		17.50 00						00.04.0040
	Л					Measu				14:05:43

Date: 2 APR 2018 14:05:44



Report No.: SZEM180100088201 Page: 25 of 86

	4	.1.1.2	.3 Test	Channel	= HCH							
Spectri	um											
Ref Le	vel	<b>لا</b> 24.90	dBm Off	<b>set</b> 4.90 dB	3 <b>= RBW</b> 30	кНz						
🔵 Att			) dB 💿 SW		5 👄 <b>VBW</b> 100	кНz	Mode	Auto S	weep			
😑 1Av Vie	W											,
20 dBm-							M	1[1]				10.15 dBm
20 00111								M1			715.	68660 MHz
10 dBm—				T1	un an	henn	. #P \ N	C BW	Т2			12088 MHz
				Allahore	and a constrained and	10-20	·····································	2[1]	wiy -			16.38 dBm
0 dBm—									- \ .		714.	67300 MHz
									- 11			
-10 dBm-				Ma		+			- M	3		
	-D	1 -15.	853 dBm	7						(,		
-20 dBm-				24						Nrs.		
-30.dBm-		mound of	wana rawy	r						many	Month and and	
Contract Che	" ]`											and produced
-40 dBm-												
-50 dBm-						-						
-60 dBm-												
70 - 10												
-70 dBm-												
CF 715.	3 MF	łz			100	1 pts	5				Spa	n 3.0 MHz
Marker												
Туре	Ref	Trc	X-v	alue	Y-value		Funct	tion		Fun	ction Result	:
M1		1	715	.6866 MHz	10.15 d	Bm						
T1		1		75754 MHz	6.12 d		0	c Bw			1.0879	12088 MHz
T2		1		84545 MHz	5.05 d							
M2		1		4.673 MHz	-16.38 d							
M3		1	71	.5.906 MHz	-16.11 d	Bm						
							Mela	suring.			1,00	02.04.2018
	· · ·						,					

Date:2.APR.2018 14:06:38



Report No.: SZEM180100088201 Page: 26 of 86

	4.1.1.:	3.1 Test Ch	annel =	LCH					
Spectrum	ι								
Ref Level	l 24.90	dBm Offset	4.90 dB	💿 RBW 50 kH;	2				
🖷 Att	3	O dB 👄 SWT	100 ms	👄 <b>VBW</b> 200 kH:	2 Mode	Auto S	Sweep		
●1Av View									
20 dBm					M	1[1]			10.61 dBm
20 0.0		м	1						27120 MHz
10 dBm			الم من ال	المرسف أوالدية المقال	00	CC BW	L J JANK T2		02697 MHz
		7	(Make Marile	workerwoodstation	allan develop	2419~~	connect		-16.31 dBm
0 dBm							4	699.	07200 MHz I
-10 dBm—									
-10 uBiii—	D1 15	.390 dBm 7					EM.		
-20 dBm	DI -15	.390 UBIII					L.		
							1 N		
un Baughertherer	aly yes and the	-under utran					"Yorrow	An which where the start of the	and the second of the state of the
* · ·									
-40 dBm—									
-50 dBm—									
-30 dbiii									
-60 dBm									
-70 dBm—									
CF 700.5 M	1Hz			1001 μ	ots		I	Spa	n 6.0 MHz
Marker									
Type   Rei	f   Trc	X-value	e	Y-value	Func	tion	Fun	ction Result	t
M1	1	699.27:	12 MHz	10.61 dBm					
T1	1	699.1573		4.74 dBm		cc Bw		2.6973	02697 MHz
T2	1	701.8546		4.83 dBm					
M2 M3	1		72 MHz 16 MHz	-16.31 dBm -15.92 dBm					
		/01.9.		-12.92 UBII	·			_	
	Л				Mea			4,20	02704.2018

#### 4.1.1.3 Test Mode = LTE/TM1 3MHz

Date: 2 APR .2018 14:21:37



Report No.: SZEM180100088201 Page: 27 of 86

Spectr	um														₽
Ref Le	evel	24.90	dBm	Offset	4.90 dB	🔵 RBW 50 k	Hz								<u>`</u>
🛛 Att		3	O dB (	SWT	100 ms	🔵 <b>VBW</b> 200 k	Hz	Mode	Auto S	weep					
⊖1Av Vie	вw														
20 dBm-								M	1[1]					8.38	
20 00.00														37910	
10 dBm-					M1		<u> </u>		cc Bw	т	-0	2.		02697	
				7.	Harry marketer	Alleraphindianolome	malling	www.all	@[As]why	alderented	Ϋ́			18.29	
0 dBm—							-				{		706.	06000	MHz
											1				
-10 dBm	-+			M2							M3				
-20 dBm		01 -17.	616 d								*				
				J.											
-30 dBm	-	N. Laterate	4 worker WI	he for a for the second s							hall	weber waget	tel contra	1	
mputution	,00TQ	Mage has											an Arshedd	annord	hullion
-40 dBm	-+						-								
-50 dBm	+														
co do es															
-60 dBm															
-70 dBm															
CF 707.	.5 M	Hz				100	1 pts						Spa	n 6.0 M	٩Hz
Marker			1												
	Ref			X-value		Y-value		Func	tion		Fur	nction F	Result		
M1		1		706.37		8.38 di							60700		
T1 T2		1		706.151		4.07 df 3.41 df		0	cc Bw			2	.09730	02697 I	MHZ
M2		1			06 MHz	-18.29 df									
M3		1			28 MHz	-17.83 df									
		1				1		)						2 04 204	0
								, Mea				170			

4.1.1.3.2 Test Channel = MCH

Date: 2.APR.2018 14:21:59



41133 Test Channel = HCH

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

Report No.: SZEM180100088201 Page: 28 of 86

Spect	rum												
Ref L	evel	24.90	dBm	Offset	4.90 dB	🔵 RBW 50 kł	Ηz						
🔵 Att		3	O dB 🧉	swt	100 ms	🔵 <b>VBW</b> 200 kł	Ηz	Mode	Auto S	weep			
<mark>⊝</mark> 1Av V	iew												
20 dBm								M	1[1]			7	9.39 dBm L4.96150 MHz
10 dBm				T1 Veral	and a second	11. margarates and			C BW	T T mar the set			7302697 MHz -18.24 dBm
0 dBm-					194021-000111	llows and the set of the set	0~~ <b>~</b> ~		eff. and the second		{	7:	10.24 dbm 13.07800 MHz
-10 dBn	n			Me							<u> </u>		
-20 dBr	n[	D1 -16.	.608 dB	Sm							M3		
-30 dBn Դվատան	n Nun, the	papertelation	when	our la company							- Window	www.epplo.au	and the way of the way
-40 dBn	n												
-50 dBr	n		_										
-60 dBr	n												
-70 dBr	n												
CF 714	1.5 M	Hz	I			1001	pts	;		•		S	pan 6.0 MHz
Marker													
Туре	Ref	Trc		X-value	e	Y-value		Funct	ion		Fun	ction Res	ult
M1		1		714.96		9.39 dB							
T1		1		713,151		5.49 dB		00	c Bw			2.69	7302697 MHz
T2		1		715.848		5.09 dB							
M2 M3		1			78 MHz 28 MHz	-18.24 dB -20.46 dB							
(		)[						) Mea	suring			4,40	02.04.2018 14:22:22

Date: 2.APR.2018 14:22:22



Report No.: SZEM180100088201 Page: 29 of 86

	4.1.1.	4.1	Test Ch	annel :	= LCH							
Spectrur	n											
Ref Leve	<b>ا</b> 24.90	dBm	Offset	4.90 dB	🔵 RBW 50 ki	Ηz						
🖷 Att	3	30 dB	e swt	100 ms	🔵 <b>VBW</b> 200 kł	Ηz	Mode	Auto S	weep			
😑 1 Av View												
20 dBm							M	1[1]				8.36 dBm
20 32					M1							14640 MHz
10 dBm			<del></del>					c Bw	. т	2		08691 MHz
			Jun	العراب السويالة محدد	When what we worked	breyny	when a had	21. Martin	Murrallowig	7		18.21 dBm
0 dBm									I	\ \	699.	07200 MHz 
-10 dBm—										ļ		
-10 000			мģ							Мз		
-20 dBm—	D1 -17	'.641 d	Bm 🥇 👘							1		
			J							<u>ъ</u>		
-30 dBm	the with production		pp-bypp-dd							<u>nohten</u>	all potentic dentliking	Howhork themat
-40 dBm—												
-40 uBIII—												
-50 dBm—												
-60 dBm—												
-70 dBm—												
CF 700.5	MHz				1001	pt	s				Spa	n 6.0 MHz
Marker												
Type Re	ef   Trc		X-value		Y-value		Funct	ion		Fun	ction Result	
M1	1		700.146		8.36 dB							
T1	1		699.1573		4.70 dB		00	cc Bw			2.69130	08691 MHz
T2 M2	1		701.8486	5 MHZ 72 MHZ	3.76 dB -18.21 dB							
M2 M3	1			16 MHz	-17.96 dB							
		· I	.010		21100 40		)	_				2 04 2018
L							Mea				4,74	

#### 4.1.1.4 Test Mode = LTE/TM2 3MHz

Date:2.APR.2018 14:21:46



Report No.: SZEM180100088201 Page: 30 of 86

Spect	rum												
Ref L	.evel	24.90	dBm	Offset	4.90 dB 🥃	RBW	50 kHz						
🗕 Att		3	O dB 🧉	SWT	100 ms 🥃	VBW	200 kHz	Mode	Auto Sv	weep			
<mark>⊝</mark> 1Av V	'iew												
20 dBm								M	1[1]				8.20 dBn
													5.79270 MH
10 dBm	۱ <u> </u>			T1.	M				cc Bw	T	2	2.697	302697 MH
				Yer	wellegemen.el	under	in land	whethereddell	2 July Mr.	mandan man	7	700	-17.94 dBn
0 dBm-									I	1	1	1 700	6.06600 MH:
-10 dBr											l		
-10 081				мģ							νз		
-20 dBr	n	D1 -17.	.801 dB	<u>m – 7 – – – – – – – – – – – – – – – – – </u>							<b>1</b>		
	.			1							<u>₹</u>		
-30 dBr	Runn	nytoperators al	Yorradia alfed	محملكها							- Conthese	Martin and the forest	where we wanted
· · ·													a constanting
-40 dBr	n-+												
-50 dBr													
-30 001	"												
-60 dBr	n					_							
-70 dBr	n-+												
CF 703	7.5 M	Hz	I				1001 pt	s	1	I		Sp	an 6.0 MHz
Marker												· · ·	
Туре	Ref	Trc		X-valu	e	Y-va	lue	Fund	tion		Fun	ction Resu	lt
M1		1			27 MHz	8.	.20 dBm						
T1		1		706.151	35 MHz		.12 dBm	0	cc Bw			2.697	302697 MHz
T2		1		708.848			.05 dBm						
M2		1			66 MHz		.94 dBm						
МЗ		1		708.9	28 MHz	-19.	.20 dBm	-					
		Υ						Mea	suring			1,1/1	02.04.2018
								_					

### 4.1.1.4.2 Test Channel = MCH

Date: 2.APR.2018 14:22:09



41143 Test Channel = HCH

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

Report No.: SZEM180100088201 Page: 31 of 86

Spectrum										E
Ref Level	24.90 c	IBm Offset	4.90 dB 🔵	<b>RBW</b> 50 k	Hz					
🗕 Att	30	dB 👄 SWT	100 ms 👄	<b>VBW</b> 200 k	Hz	Mode Au	uto Sv	weep		
●1Av View										
20 dBm						M1[	1]			8.25 dBm
20 40.00						6.4.1				97350 MHz
10 dBm						Mbcc		т2		02697 MHz
		Jarry	Martin and the second states	American	-ruent	n marked Market	hlymone/	monthering		-19.21 dBm
0 dBm					<u> </u>			1	/13.	06600 MHz I
-10 dBm										
-10 0800		M2						MЗ		
-20 dBm	01 -17.7	'49 dBm 🕇 👘		_	<b> </b>					
		1								
-30 dBm	the when the state	alter and the order			<u> </u>			- home	and a glimate and a strategy way	-theorew bundly
-40 dBm										
-50 dBm										
-60 dBm										
!_										
-70 dBm										
CF 714.5 M	Hz			1001	i pts	5			Spa	n 6.0 MHz
Marker										
Type   Ref	Trc	X-value	.	Y-value		Functio	n	Fun	ction Result	t
M1	1	714.973		8.25 dB						
T1	1	713,1513		4.36 dB		Occ	Bw		2.6973	02697 MHz
T2	1	715.8486		3.85 dB						
M2 M3	1		56 MHz 28 MHz	-19.21 dB -18.09 dB						
	1 1	13.92		10.09 00		)	_	-		02.04.2010
	Л					Measu			120	14:22:31

Date: 2 APR 2018 14:22:31



Report No.: SZEM180100088201 Page: 32 of 86

	4.1.1.	5.1 Test Ch	annel = L	.CH							
Spectrur	n										
Ref Leve	el 24.90	dBm Offset	4.90 dB 👄	<b>RBW</b> 50 ki	Ηz						
🔵 Att	3	O dB 👄 SWT	100 ms 👄	<b>VBW</b> 200 ki	Ηz	Mode	Auto S	weep			
●1Av View											
20 dBm						M	1[1]				8.10 dBm
		-M:				0.					39200 MHz
10 dBm		1.20		montant	e		ce Bw abt Jewe	T	2		24476 MHz 18.46 dBm
0 dBm		- Part	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	and the second sec			of and in the		Ϋ́		12000 MHz
o abiii											
-10 dBm—									140		
	D1 -17	.897 dBm 7							M3		
-20 dBm—									<u> '</u> \		
-30 dBm—									Your	- Buttell - Brown	
-30 dBm-	1 months and	a down literary and							.00.4	montenterme	when the with sold we
-40 dBm—											
-50 dBm—											
-30 ubiii—											
-60 dBm—										_	
-70 dBm—											
CF 701.51	MHz	· · ·	•	1001	pts					Span	10.0 MHz
Marker											
Type Re	ef Trc	X-valu		Y-value		Funct	ion		Fun	iction Result	:
M1	1		92 MHz	8.10 dB							
T1 T2	1	699.262 703.737		5.24 dB 4.46 dB		00	CC BW			4.4755	24476 MHz
M2	1		12 MHz	-18.46 dB							
M3	1		86 MHz	-18.18 dB							
	)[					Mea	suring.		TITT	1,00	03.04.2018

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

Date: 3 APR .2018 02:39:43



Report No.: SZEM180100088201 Page: 33 of 86

Spect	rum	$\square$									E
Ref L Att	evel	24.90 3	dBm Offset O dB 👄 SWT	4.90 dB (	RBW 50 kH VBW 200 kH		Mode Auto	Sweep			
<mark>⊜</mark> 1Av V	iew										
20 dBm							M1[1]			70	7.94 dBm 7.73000 MHz
10 dBm			T1 Van	and the second	angeter yet where a flow of	M1	Occ Br		T2	4.475	524476 MHz -18.93 dBm
0 dBm–										70	5.14000 MHz
-10 dBn	n-+		M2						MI3		
-20 dBn	n <mark></mark> [	D1 -18.	064 dBm						t		
-30 dBn	n-	CALMANN	an July work work						- W ww	manun	Hugermer marine
-40 dBn											
-50 dBn	n										
-60 dBn	n—										
-70 dBn	n										
CF 707		Hz	·		1001	pts				Spa	an 10.0 MHz
Marker			-								
Туре	Ref		X-value		Y-value		Function		Fu	nction Resu	ılt
M1		1		73 MHz	7.94 dBi		0 50			4 475	
T1 T2		1	705.262		5.09 dBi 3.95 dBi		Occ Bv	V		4.475	524476 MHz
M2		1		14 MHz	-18.93 dBi						
M3		1		86 MHz	-18.60 dBi						
		][					Measurin	G		144	03.04.2018 02:40:20

4.1.1.5.2 Test Channel = MCH

Date: 3 APR 2018 02:40:20



4.1.1.5.3 Test Channel = HCH

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

Report No.: SZEM180100088201 Page: 34 of 86

Spectru	ım											₽
Ref Lev	zel 2	24.90 c	dBm	Offset	4.90 dB	<b>RBW</b> 50	) kHz					
🔵 Att		30	I dB 😑	SWT	100 ms (	🔵 <b>VBW</b> 200	) kHz	Mode	Auto S	weep		
●1Av Vie	W											
20 dBm—								M	1[1]			7.71 dBm
									8de Bw			.57900 MHz 24476 MHz
10 dBm—				T1		henderacheracher			-			-20.40 dBm
0 dBm—					al hold an and the	Marine and a love	un de la compañía de		I ALE DISCOURS	all and a second		.12000 MHz
				- ( -								
-10 dBm–										MI3		
-20 dBm-		L -18.2	287 dBm				+					
-30 dBm-	w	www.	مەر بەر <sub>م</sub> ەر بەر بەر بەر بەر بەر بەر بەر بەر بەر ب	al			+			- Ward	- marine warden war	-
-40 dBm-	_						_					
-50 dBm-	_						_					
-60 dBm-	+						_					
-70 dBm-												
CF 713.5	5 MLI	-					01 pts	-			Phar	10.0 MHz
Marker	J 1910	2				10	or pe	3			эра	110.0 MHZ
	Ref	Trc	,	X-value	. 1	Y-value	. 1	Func	tion 1	Em	nction Resul	F I
M1		1			79 MHz	7.71		runc			Inction Kesul	
T1		1	7	11.2622		4.89		0	CC BW		4.4755	24476 MHz
T2		1		15.737		3.65						
M2		1		711.3	12 MHz	-20.40	dBm					
МЗ		1		715.8	36 MHz	-19.40	dBm					
								) Mela	suring		144	03.04.2018 02:40:56

Date: 3 APR 2018 02:40:57



Report No.: SZEM180100088201 Page: 35 of 86

	4.1.1.	6.1 Test Ch	annel =	LCH					
Spectrun	n								[₩
Ref Leve	l 24.90	dBm Offset	4.90 dB	■ <b>RBW</b> 50 kH	Iz				
🖷 Att	3	O dB 😑 SWT	100 ms (	● <b>VBW</b> 200 kH	lz <b>Mode</b>	e Auto S	Sweep		
●1Av View	_		_						
20 dBm					P	41[1]		703.	7.26 dBm 71800 MHz
10 dBm		<b>T</b> 1				Dec Bw	M1		24476 MHz
		- Vin	والمعادية الماريدين	water many and the	holyphilipper	12 Lim	Harman H	-	19.87 dBm
0 dBm						1		699.	14000 MHz
-10 dBm—				_					
-20 dBm	D1 -18	.736 dBm					N13		
-30 dBm—									
-30 dBm-	Amargh	4 wet all and the second					~44W	harlillanduring	mullionthe
-40 dBm—						-			
-50 dBm—									
-60 dBm—									
-70 dBm									
CF 701.5 M	MHz			1001	pts			Span	10.0 MHz
Marker					•			· · ·	
Type Re	f   Trc	X-value	e	Y-value	Fun	ction	Fun	ction Result	
M1	1		18 MHz	7.26 dBr					
T1	1	699.262		4.90 dBr		Occ Bw		4.47552	24476 MHz
T2 M2	1	703.737	76 MHz   14 MHz	3.35 dBr -19.87 dBr					
M3	1		B5 MHz	-19.87 dBr -19.14 dBr					
	)[				Me	asuring.		4,44	3.04.2018

#### 4.1.1.6 Test Mode = LTE/TM2 5MHz

Date: 3.APR.2018 02:40:00



Report No.: SZEM180100088201 Page: 36 of 86

Spect	rum												E
Ref L	evel	24.90	dBm	Offset	4.90 dB	🖷 RBW	50 kHz						
🔵 Att		31	)dB 🧉	SWT	100 ms	e vbw	200 kHz	Mode	Auto S	weep			
⊖1AV Vi	iew												
20 dBm								M	1[1]				6.64 dBm
20 0011												708	.08900 MHz
10 dBm	$\rightarrow$								CC BW	т	-		524476 MHz
				Yan	manum	the and	ourmant	winten	Shikhry	www.hopenhis	2		-21.10 dBm
0 dBm—						_						705	.10000 MHz
											{		
-10 dBm													
-20 dBn	r	ni _10	 361 dB	MZ							Ņз		
-20 UBII	' <b></b> '	JI -19,		··· /							X		
-30 dBr	ן—ר										hyper .		
-30 dBm	under	mound	wyw	wч								valleturangetur	- manununum
-40 dBr	−+-י												
-50 dBr													
-60 dBm													
-00 UBII	'												
-70 dBr	ן—ר												
05 707							1001						- 10.0 101-
CF 707	'.5 IYI	HZ					1001 p	ts				spa	n 10.0 MHz
Marker		1 1			1		•	1 -					. 1
Туре	Ref	Trc		X-value			alue	Func	tion		⊢ur	nction Resul	lt
M1 T1		1		705.262	89 MHz		i.64 dBm I.10 dBm		cc Bw			4 475	524476 MHz
T2		1		709.737			10 dBm 1.26 dBm					4.4753	
M2		1			.1 MHz		10 dBm						
M3		1			88 MHz		37 dBm						
		7						·				1.444	03.04.2018
L								, Mies					

4.1.1.6.2 Test Channel = MCH

Date: 3 APR 2018 02:40:37



Report No.: SZEM180100088201 Page: 37 of 86

Spectrum	1			-							E
Ref Level	L 24.90 dE	Bm Offset	4.90 dB (	<b>RBW</b> 50 kł	Ηz						( '
🗕 Att	30	dB 👄 SWT	100 ms (	<b>&gt; VBW</b> 200 kł	Ηz	Mode	Auto S	weep			
●1Av View											
20 dBm						M	1[1]				7.39 dBm
20 00.0											83100 MHz
10 dBm				M1			C BW	Т			24476 MHz
		7~	www.wookwalkay	Here and marker of the second	now	emphand	Flitcher	munud	ξ		-20.68 dBm
0 dBm							1	I		711.	.12000 MHz
10 -10									1		
-10 dBm—									мз		
-20 dBm	D1 -18.6:	11 dBm							115		
20 00									1		
-30 dBm		and a second							V.a.H.	a Alan	
-30 dBm-	enter anter anter a	and the second								He was and the owner of the owner	Mar Manuela
-40 dBm											
-50 dBm—											
-60 dBm											
00 00											
-70 dBm—											
CF 713.5 M	1117			1001	nte					Snan	10.0 MHz
Marker	11 12			1001	pro					3941	10.0 0112
Type   Ref	f   Trc	X-value	<b>.</b> 1	Y-value	1	Func	lion		Eur	ction Result	F
M1	1		31 MHz	7.39 dB	m	Func			Fui	ICTION RESUL	L
T1	1	711.262		3.76 dB		0	cc Bw			4.4755	24476 MHz
T2	1	715.737		5.29 dB							
M2	1		12 MHz	-20.68 dB							
M3	1	715.0	B7 MHz	-19.78 dB	m						
	1					Mea	surina		11111	1.26	03.04.2018
						)					

#### 4.1.1.6.3 Test Channel = HCH

Date: 3 APR 2018 02:41:14



Report No.: SZEM180100088201 Page: 38 of 86

	4.1.1.	7.1 Test Ch	nannel = l	LCH							
Spectru	n										
Ref Leve	el 24.90	dBm Offset	4.90 dB 🥃	RBW 100 ki	Ηz						
🔵 Att	Э	10 dB 🕳 SWT	100 ms 🥃	<b>VBW</b> 300 kł	Ηz	Mode	Auto S	Sweep			
●1Av View											
20 dBm—						M	1[1]			70	6.12 dBm
						~					6.8570 MHz 168931 MHz
10 dBm—		<u></u>					CC Bγγγ1	Т2			-20.73 dBm
0 dBm		<b>∛~</b> -	, may dely resonance on the	- Aller Mythorman	what	mphilippi	60Lofushiku	the second se			9.3600 MHz
-10 dBm—											
		M2						мз			
-20 dBm-	D1 -19	.881 dBm 🕂 🕇									
00.40		- J						- N.			
-30 dBm—		manneurodowald							manun	monohoute	an a
-40 dBm	a marine the	and a second									
-40 dBm											
-50 dBm—											
-60 dBm—											
-70 dBm—											
CF 704.0	MHz			1001	pts	;				Spar	n 20.0 MHz
Marker											
	ef Trc			Y-value		Func	tion		Func	tion Resul	t
M1	1		57 MHz	6.12 dB							
T1 T2	1		45 MHz 55 MHz	4.25 dB 3.46 dB		0	cc Bw			8,9310	68931 MHz
M2	1		36 MHz	-20.73 dB							
M2 M3			66 MHz	-21.60 dB							
						Mea	suring.			1/1	03.04.2018

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

Date: 3 APR 2018 02:53:14



Report No.: SZEM180100088201 Page: 39 of 86

		<u> </u>		anner -								_
Spectr	um	)										[₩
	evel	24.90 d			👄 RBW 100 kH							
Att		30	dB 👄 SWT	100 ms	🔵 <b>VBW</b> 300 kH	ΗZ	Mode	Auto S	weep			
⊖1Av Vie	ew .											
20 dBm-							M	1[1]				5.88 dBm
							_	_		_		.3830 MHz
10 dBm-				M1				cc Bw	т2	8		58931 MHz
			Frenc	hurranter	where and where	owrige	munne	21 minu	mallon			21.57 dBm
0 dBm—										1	702	.8400 MHz
-10 dBm	-											
00 40			MP						M3			
-20 dBm	10	1 -20.1	.24 dBm 🚽									
-30 dBm												
		mount	merenter						<u>``</u>	Mary and the second	romandary	rensperson
-40 dBm												· ··· (• · ··· (•
-50 dBm												
-60 dBm												
-70 dBm	-											
CF 707.	.5 MF	łz			1001	pts	;		•	I	Span	20.0 MHz
Marker												
Type	Ref	Trc	X-value	e	Y-value	1	Func	tion	F	unction I	Result	
M1		1		33 MHz	5.88 dB	m						
T1		1	703.024	45 MHz	3.75 dB	m	0	cc Bw		8	.93106	8931 MHz
T2		1	711.95	55 MHz	3.14 dB	m						
M2		1		34 MHz	-21.57 dB							
МЗ		1	712.3	14 MHz	-20.77 dB	m						
							Mea	surina.		<b>1 1 1 1 1</b>		3.04.2018
	1						)					

#### 4.1.1.7.2 Test Channel = MCH

Date: 3 APR 2018 02:53:37



41173 Test Channel - HCH

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

Report No.: SZEM180100088201 Page: 40 of 86

Spectrum										₽
Ref Level	<b>لا</b> 24.90 (	dBm Offset	4.90 dB 🧉	• <b>RBW</b> 100 kH	łz					
Att	30	) dB 😑 SWT		• <b>VBW</b> 300 kH		Mode Auto 9	Sweep			
●1Av View										
20 dBm						M1[1]				6.60 dBm
20 00111									70	7.1040 MHz
10 dBm		N	11			Occ Bw		т2	8.9310	68931 MHz
		Yur	by warman me	manueptoton by some	An	unter M21-11	mapanahad	v₩		-21.26 dBm
0 dBm					· ·			1	700	5.3400 MHz
-10 dBm								1		
	1 10 1	399 dBm <del>— ∳</del>						мз		
-20 dBm-D	1 -19.							1		
-30 dBm		- A - A - A - A - A - A - A - A - A - A						<u> </u>		
-30 dBm	e marth mar	walkers and with a second						There	and the second	moundance
-40 dBm										
-50 dBm——										
-60 dBm										
-70 dBm										
-70 ubiii										
CF 711.0 MH	łz			1001	pts				Span	20.0 MHz
Marker										
Type Ref	Trc	X-value	.	Y-value		Function		Fu	inction Result	t
M1	1	707.10	)4 MHz	6.60 dBr						
T1	1	706.524		3.87 dBr		Occ Bw			8.9310	68931 MHz
T2	1	715.455		3.63 dBr						
M2	1		34 MHz	-21.26 dBr						
M3	1	/15.6	54 MHz	-21.96 dBr	n					
						Measuring			1,00	03.04.2018

Date: 3 APR 2018 02:54:00



Report No.: SZEM180100088201 Page: 41 of 86

	4.1.1.	8.1 Test Ch	annel = l	LCH						
Spectrur	n									□
Ref Leve	el 24.90	dBm Offset	4.90 dB 🥃	RBW 100 ki	Hz					``
🕳 Att	з	0 dB 👄 SWT	100 ms 🥃	<b>VBW</b> 300 ki	Hz	Mode	Auto S	Sweep		
●1Av View										
20 dBm						M	1[1]			5.43 dBm
20 0011									705	5.8780 MHz
10 dBm							C Bw	Т2		68931 MHz
		T1 Varia	ALLIN LIN ALLINA MARK	more marked and the second	in	hundener	2[1]	workway		22.52 dBm
0 dBm		-		· ·				<b>\</b>	699	9.3600 MHz
-10 dBm—										
- 20 dBm	01 00	.571 dBm M2						M3		
20 0011	-20	.571 UBIII								
-30 dBm—		y						- Maria		
	معريف	bernghallow and and						and	and an anti-	Marhow way the when
-40 dBm	and a stand of the stand									
-50 dBm—										
-60 dBm—										
00 00.										
-70 dBm—										
CF 704.0	⊥ MHz			1001	nte	5			Span	20.0 MHz
Marker										
	ef   Trc	X-valu	e	Y-value	1	Funct	tion	Eun	ction Result	.
M1	1		78 MHz	5.43 dB	m	1 4110				
T1	1	699.54	45 MHz	2.41 dB	m	00	c Bw		8.9310	58931 MHz
T2	1	708.47	55 MHz	3.46 dB						
M2	1		36 MHz	-22.52 dB						
M3	1	708.	64 MHz	-21.10 dB	m					
						Mea	suring.		1/0	03.04.2018 02:53:24

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

Date: 3 APR .2018 02:53:24



41182 Test Channel = MCH

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

Report No.: SZEM180100088201 Page: 42 of 86

Spect	rum											E
Ref L	evel	24.90	dBm Offset	4.90 dB	🖷 RBW 100 ki	Ηz						
🗕 Att		31	O dB 🔵 SWT	100 ms	🔵 <b>VBW</b> 300 ki	Ηz	Mode	Auto S	weep			
<mark>⊜</mark> 1Av V	iew											
20 dBm							M:	1[1]				5.13 dBm
20 00111											7	03.7640 MHz
10 dBm				M1				c Bw			8.91	1088911 MHz
			T1 V4	- Marshan	and	yuu	Mo	2[1]	Τ2	2		-21.91 dBm
0 dBm-			<i>["</i>						munitord		7	02.8600 MHz
-10 dBn	n-+											
00.10			м2						M	з		
-20 dBn	n	01 -20.	874 dBm 🔫							(		
-30 dBn	n									ų		
00 dbii			AM about the water and the							maps	Munder Hannesson	in multiple management
~40 dBn	n											
-50 dBn	n—+											
-60 dBn	n—†										-	
70 40-												
-70 dBn	n——											
CF 707	7.5 M	Hz			1001	pts	;				Sp	an 20.0 MHz
Marker												
Туре	Ref	Trc	X-valu	e	Y-value		Funct	ion		Fur	nction Res	ult
M1		1	703.7	764 MHz	5.13 dB	m						
T1		1		145 MHz	2.95 dB		Oc	cc Bw			8.913	1088911 MHz
T2		1		555 MHz	1.03 dB							
M2		1		.86 MHz	-21.91 dB							
M3		1	712	.14 MHz	-21.59 dB	m						
							Mea	suring			1,00	03.04.2018
							,					

Date: 3 APR 2018 02:53:47



41183 Test Channel = HCH

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

Report No.: SZEM180100088201 Page: 43 of 86

Spectrun	n									₽
Ref Leve	<b>ا</b> 24.90	dBm Offset	4.90 dB 🧉	• RBW 100 kH	Ηz					
🗕 Att	3	O dB 👄 SWT		• <b>VBW</b> 300 kH		Mode Auto	Sweep			
●1Av View										
20 dBm						M1[1]				5.50 dBm
20 aBm-									703	7.9430 MHz
10 dBm			M1			Occ Bw			8.9310	68931 MHz
TO GDIII		T1 Vide	men stronger			M2[1]		Т2	-	21.54 dBm
0 dBm		- your	and a set of a set of the	and the second s		~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	when the gradese	7	706	5.3600 MHz
-10 dBm—										
		Me						мз		
20 dBm	D1 -20	.503 dBm 🕂 👎						1013		
		1						4		
-30 dBm-		and any round						Marthan	Non-angelia di Ula di	
Alar and a strategic and all all and	and the second								manushabilition	almun almon
-40 dBm—										
-50 dBm—										
-30 0011										
-60 dBm										
00 00										
-70 dBm				_						
CF 711.0 M				1001	nto					00 0 MU
<u></u>	*IHZ			1001	prs	,			span	20.0 MHz
Marker	<u> </u>									1
Type Re		X-value		Y-value	_	Function		Fu	nction Result	
M1	1		43 MHz	5.50 dBi		0 0			0.0010	0001 MU-
T1 T2	1	706.52		3.17 dB 1.75 dB		Occ Bw			8,9310	68931 MHz
M2			36 MHz	-21.54 dB						
M2 M3	1		54 MHz	-22.31 dB						
		/13.0		22,JI UD						
						Measuring			1,70	02:54:09

Date: 3 APR 2018 02:54:10



Report No.: SZEM180100088201 Page: 44 of 86

### 5 Band Edges Compliance

### 5.1 For LTE

#### 5.1.1 Test Band = LTE BAND 12

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

5.1.1.1.1 Test Channel = LCH

₩ Spectrum Ref Level 35.10 dBm Offset 5.10 dB 👄 RBW 30 kHz 1 s 🔵 **VBW** 100 kHz Att 40 dB 💿 SWT Mode Auto Sweep o1Av View M1[1] -20.55 dBm 30 dBm-698.99700 MHz 20 dBm-*باللا*لع 10 dBm-0 dBm--10 dBm-D1 -13.000 dBm u. -20 dBm-ЫI -30 dBm-Milliola 18.1 Hunmon Lound With Man Market -60 dBm ATHUN HUN 4414 CF 699.0 MHz 1001 pts Span 3.0 MHz 12.04.2018 4,00 Measuring... 11 08:48:10

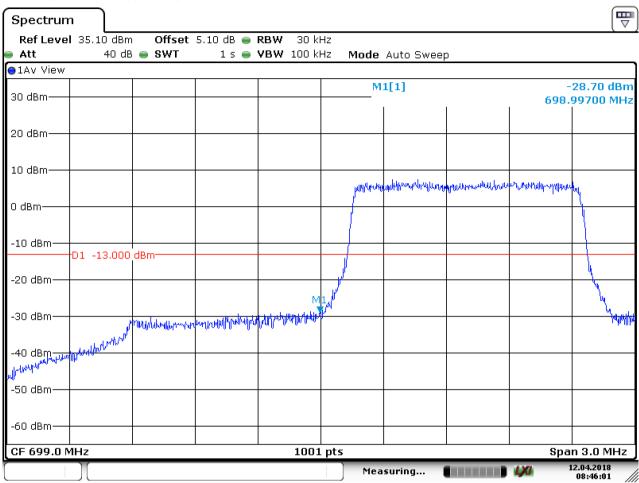
Date: 12.APR.2018 08:48:11

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5.1.1.1.1.1 Test RB=1RB



Report No.: SZEM180100088201 Page: 45 of 86

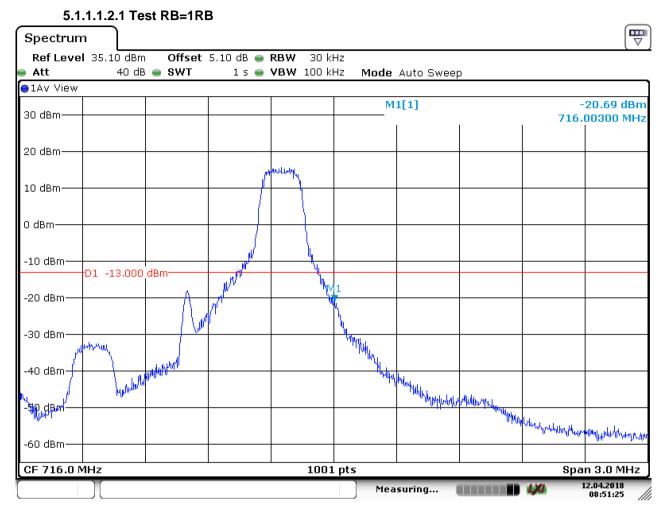


5.1.1.1.1.2 Test RB=6RB

Date: 12.APR.2018 08:46:01



Report No.: SZEM180100088201 Page: 46 of 86



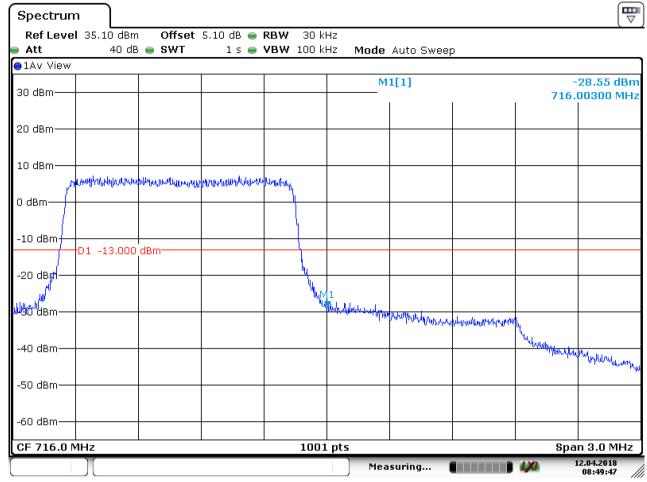
#### 5.1.1.1.2 Test Channel = HCH

Date: 12.APR.2018 08:51:26

#### 5.1.1.1.2.2 Test RB=6RB



Report No.: SZEM180100088201 Page: 47 of 86

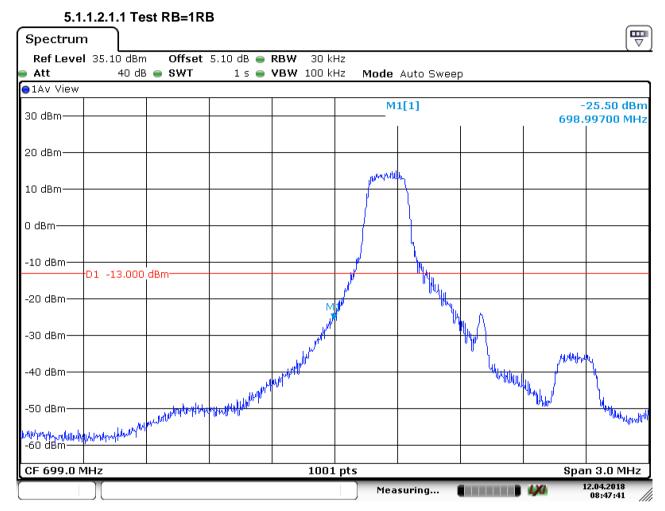


Date: 12.APR.2018 08:49:47



Report No.: SZEM180100088201 Page: 48 of 86

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



Date: 12.APR.2018 08:47:42



Report No.: SZEM180100088201 Page: 49 of 86

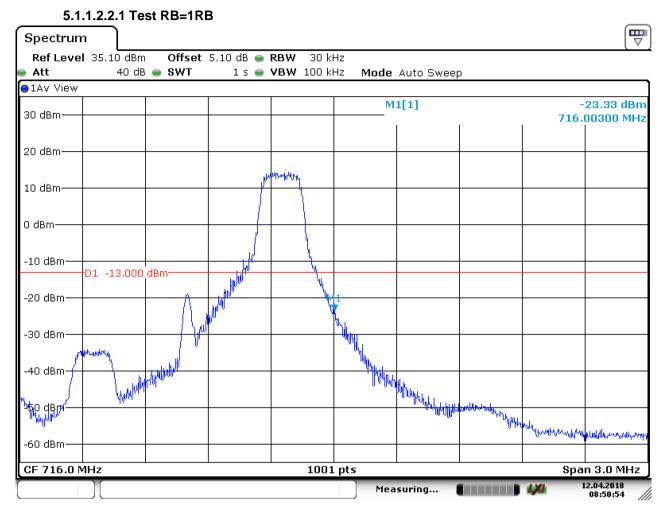
Spectrum	<u> </u>								
Ref Level	35.10 dBm	Offset	5.10 dB 🔵	<b>RBW</b> 30 kł	Ηz				
🕳 Att	40 dB	s 🔵 SWT	1 s 👄	<b>VBW</b> 100 kł	Hz Mode	Auto Swee	р		
●1Av View									
30 dBm					M	1[1] 	1		30.10 dBm 99700 MHz
20 dBm									
10 dBm								a haban data a s	
0 dBm						nodrywyddiadau	HU-WARDWAAHAMM	Mitulininikajnen	NI
-10 dBm	D1 -13.000	dBro							
-20 dBm				M					
-30 dBm -40 dBm -40 dBm	لىر	urt-byppus.ouruht	drubburghand	odry hundren aller	4				արիկո
-40 dBm	Annan tafahanan								
-50 dBm									
-60 dBm									
CF 699.0 M	IHz	1	I	1001	pts	1	1	Spa	n 3.0 MHz
(	)[]				Mea	suring		<b>1/0</b> 1	2.04.2018 08:46:45

#### 5.1.1.2.1.2 Test RB=6RB

Date: 12.APR.2018 08:46:46



Report No.: SZEM180100088201 Page: 50 of 86

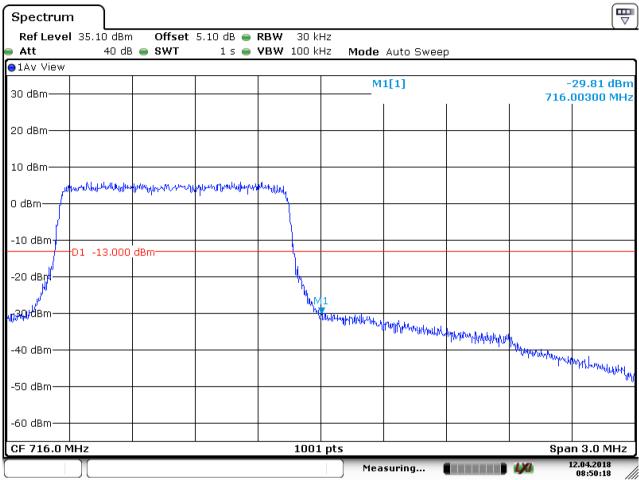


#### 5.1.1.2.2 Test Channel = HCH

Date: 12.APR.2018 08:50:54



Report No.: SZEM180100088201 Page: 51 of 86



#### 5.1.1.2.2.2 Test RB=6RB

Date: 12.APR.2018 08:50:18

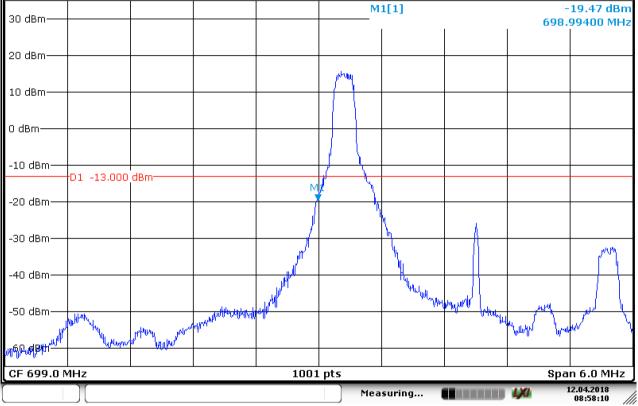


Report No.: SZEM180100088201 Page: 52 of 86

Ţ

#### 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 Spectrum Ref Level 35.10 dB Offset 5.10 dB RBW 30 kHz Att 40 dB SWT 1 s VBW 100 kHz Mode Auto Sweep I Av View 30 dBm M1[1] M1[1] 20 dBm M1 M1[1] M1[1]



Date: 12.APR.2018 08:58:10



Report No.: SZEM180100088201 Page: 53 of 86

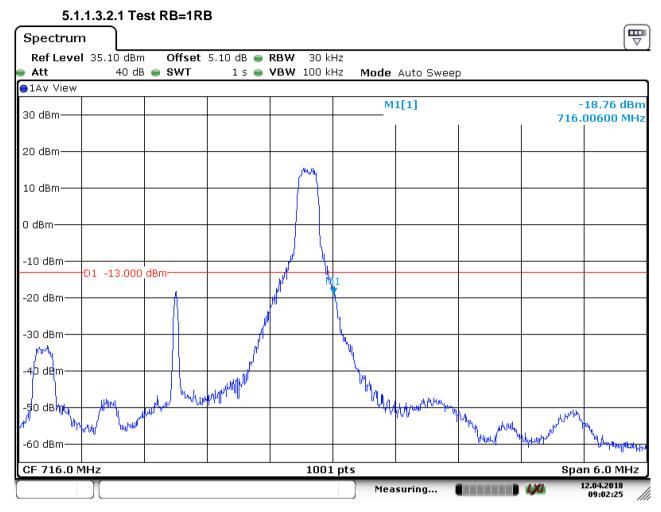
Spectrum	ī									
Ref Level	35.10 dBr	n Offset	5.10 dB 👄	<b>RBW</b> 30 k	Hz					`
Att	40 d	B 🔵 SWT	1 s 👄	<b>VBW</b> 100 k	Hz	Mode	Auto Swe	ер		
●1Av View										
						M	1[1]		-	32.96 dBm
30 dBm							1	1	698.	99400 MHz
20 dBm										1
10 dBm										
0 dBm						prophysiology	monorprophy	moundmaker	Happy you want	phantonenathy
o dbiii						[ `				
-10 dBm—	D1 -13.000	 ) dBm								
	DI 10.000									
-20 dBm—					+					
					1					۱ ۱
-30 dBm				M	Į.					1
				a mark to a makelout	ľ					
-40 dBm	nph. 1. Moth Margaret	ully mall workingh	puncherapuntation	alabudens conner						
-40 aBm <del>j-**</del>										
-50 dBm										1
-60 dBm—										
CF 699.0 M	1Hz			1001	nt nt	5				n 6.0 MHz
	)(			1001	. p.	<u> </u>				12.04.2018
L – –						mea	suring		L/I	08:56:01

#### 5.1.1.3.1.2 Test RB=15RB

Date: 12.APR.2018 08:56:02



Report No.: SZEM180100088201 Page: 54 of 86



#### 5.1.1.3.2 Test Channel = HCH

Date: 12.APR.2018 09:02:26



Report No.: SZEM180100088201 Page: 55 of 86

Spectrum	ı )								
	35.10 dBm		5.10 dB 👄						`
Att	40 dB	🛛 😑 SWT	1 s 👄	<b>VBW</b> 100 k	Hz Mode	Auto Swee	0		
⊖1Av View						1[1]			30.30 dBm
30 dBm						1[1]	I		00600 MHz
20 dBm									
10 dBm									
O &BHY	Murphinautical	udhamanypul	Markanahan	hannahaldhala					
-10 dBm									
	D1 -13.000	dBm							
-20 dBm—				6	1				
<sup>4</sup> -30 dBm				)	Manyounder	unduruhurhurhur	hyperty hours before an	Merrichanthalpress	
-40 dBm							····	anandan makan	Meretranting
-50 dBm									
-60 dBm									
CF 716.0 N	/IHz	I		1001	. pts			Spa	n 6.0 MHz
					📄 Mea	suring		170	12.04.2018 09:00:42

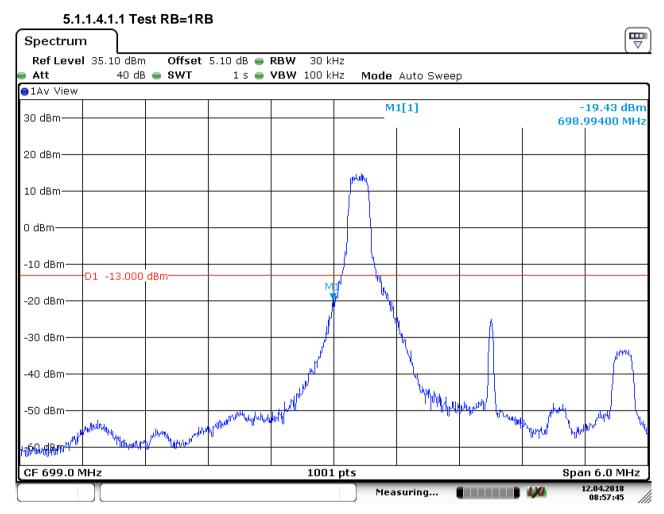
#### 5.1.1.3.2.2 Test RB=15RB

Date: 12.APR.2018 09:00:42



Report No.: SZEM180100088201 Page: 56 of 86

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



Date: 12.APR.2018 08:57:46



Report No.: SZEM180100088201 Page: 57 of 86

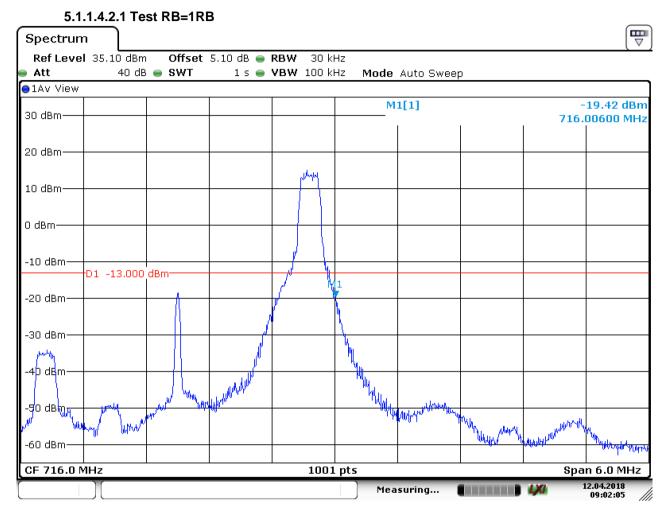
5.1.	.1.4.1.2 16	STRB=15	<b>ND</b>							6	
Spectrum	ן ר									[	V
Ref Level • Att	l 35.10 dBm 40 dB	n Offset 3 <b>e SWT</b>	5.10 dB 👄 1 s 👄	<b>RBW</b> 30 ki <b>VBW</b> 100 ki		Mode	Auto Swe	эр			
●1Av View											
30 dBm						M	1[1]	I		·31.59 dE 99400 M	
20 dBm											
10 dBm											
0 dBm						- Harris Anna Markadordad	the state of the s	anapaliteration and a subsection of the second s	wannya	alauthripshilt-damy	
-10 dBm—	D1 -13.000	dBm									
-20 dBm											ł
-30 dBm				м	ſ						4
-40 dBm	and the following first	Harter Harter Wester Harder Marker	and the state of t	anthe who who have be							
-30 dBm	ebelevile										
-60 dBm											
CF 699.0 N	41.1-5			1001					<b>P</b> n n		
[ CF 699.0 N	AHZ			1001	. pi	<u> </u>				in 6.0 MH 12.04.2018	IZ
Į – – – – – – – – – – – – – – – – – – –	Л					Mea	suring		LXI ·	08:56:53	1

5.1.1.4.1.2 Test RB=15RB

Date: 12.APR.2018 08:56:53



Report No.: SZEM180100088201 Page: 58 of 86



#### 5.1.1.4.2 Test Channel = HCH

Date: 12.APR.2018 09:02:06



Report No.: SZEM180100088201 Page: 59 of 86

	.1.4.2.2 10								(m)
Spectrum									(₩
	35.10 dBm		5.10 dB 👄						
Att	40 dB	🗧 SWT	1 s 👄	<b>VBW</b> 100 k	Hz Mode	Auto Swee	p		
●1Av View			1	1					
30 dBm					M	1[1]			32.76 dBm 00600 MHz
						1	1	/10.	JUUUU MHZ
00 d0m									
20 dBm									
10 dBm									
0 alendultuulu	مريها فالمحصيفة الأسته	hana na na mana na man Na mana na mana n	a Hunged Cumba Andre La	Helmanylandy					
{									
-10 dBm									
	D1 -13.000	dBm							
-20 dBm									
				1	1				
<mark>/</mark> −30 dBm				, A	the second second		Morrieral budgaaado		
					man manufactures and	Allelinentiller	Monoralda a		
-40 dBm——							0	hippedictor allowed the	dryy.
									Manual
-50 dBm—									
-60 dBm									
CF 716.0 M	1HZ			1001	. pts				n 6.0 MHz
					Mea	suring		LXI	12.04.2018 09:01:20

5.1.1.4.2.2 Test RB=15RB

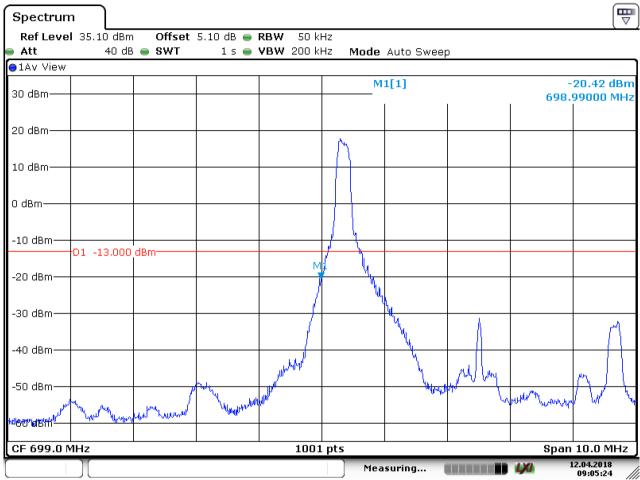
Date: 12.APR.2018 09:01:21



Report No.: SZEM180100088201 Page: 60 of 86

#### 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: 12.APR.2018 09:05:25



Report No.: SZEM180100088201 Page: 61 of 86

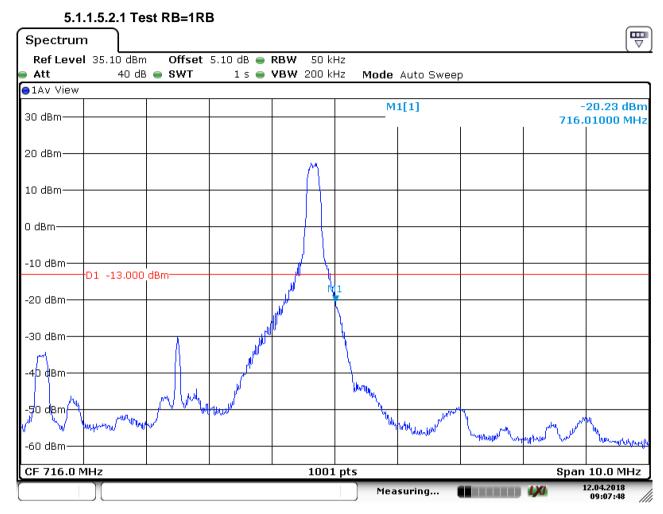
Spectrum			
	5.10 dB 👄 <b>RBW</b> 50 k		•
● Att 40 dB ● SWT	1 s 👄 <b>VBW</b> 200 k	Hz – <b>Mode</b> Auto Sweep	)
●1Av View			
20 dbm		M1[1]	-31.37 dBm
30 dBm			698.99000 MHz
20 dBm			
10 dBm			
10 0800			
0 dBm		warter warter and warder and the second	wondersmakerparters warrang ad algorithmethy
-10 dBm			
-20 dBm			
	N	14	
-30 dBm			
	and an average the war when the		
-40 dBm	philosophic descente		
when the party of the provident the second			
J50,#8/11			
-60 dBm			
CF 699.0 MHz	100:	L pts	Span 10.0 MHz
		Measuring	12.04.2018 09:04:18

#### 5.1.1.5.1.2 Test RB=25RB

Date: 12.APR.2018 09:04:18



Report No.: SZEM180100088201 Page: 62 of 86



#### 5.1.1.5.2 Test Channel = HCH

Date: 12.APR.2018 09:07:48



Report No.: SZEM180100088201 Page: 63 of 86

Spectrum	ı )								
	35.10 dBm		5.10 dB 👄						
Att 1Av View	40 dE	B 👄 SWT	1 s 👄	<b>VBW</b> 200 k	Hz Mode	Auto Swee	2		
30 dBm					М	1[1]			30.66 dBm
SU UBIII						1	1	716.	01000 MHz 
20 dBm									
10 dBm									
o d <sup>la ta</sup> lahovyte	mallinopolitication	hardenalite	yubardanthangarah	Newman					
-10 dBm									
	D1 -13.000	dBm							
-20 dBm									
⊮30 dBm—				<u>ل</u>	1				
					ny Urolandy)ganaa	and work where a	when he was	and the providences	
-40 dBm								and and back for the second	handburner
-50 dBm									or only a
-60 dBm									
CF 716.0 N	 /IHz			1001	 . pts			 Span	10.0 MHz
						suring		1)0	12.04.2018 09:06:25

#### 5.1.1.5.2.2 Test RB=25RB

Date: 12.APR.2018 09:06:25

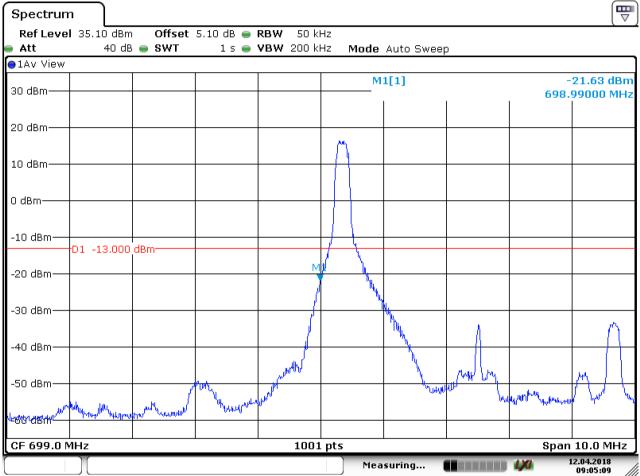


Report No.: SZEM180100088201 Page: 64 of 86

#### 5.1.1.6 Test Mode = LTE/TM2 5MHz

5.1.1.6.1 Test Channel = LCH

#### 5.1.1.6.1.1 Test RB=1RB



Date: 12.APR.2018 09:05:09



Report No.: SZEM180100088201 Page: 65 of 86

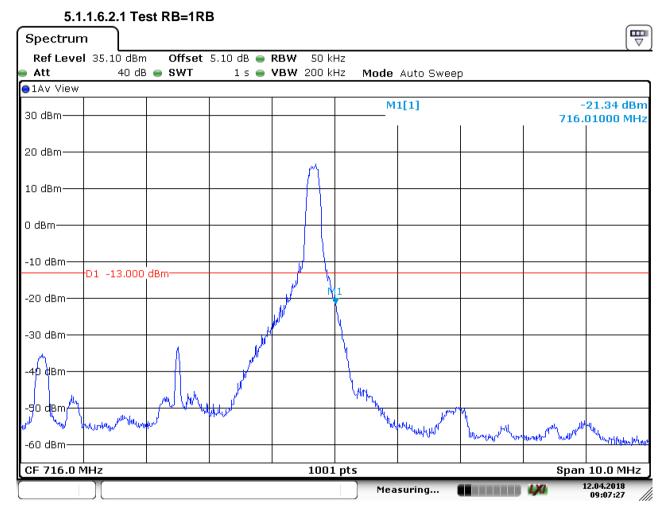
Spectrum									
Ref Level	35.10 dBn	n Offset	5.10 dB 😑	<b>RBW</b> 50 k	Hz				<u>`</u>
🖷 Att	40 dB	B 👄 SWT	1 s 👄	<b>VBW</b> 200 ki	Hz Mode	Auto Swee	р		
●1Av View									
30 dBm					M	1[1]			33.97 dBm 99000 MHz
20 dBm									
10 dBm									
0 dBm					hindindindameda 	y,	<mark>hunden dar bere</mark>	hiladelanda aktivisi	upmanan ka
-10 dBm	01 -13.000	   dBm							
-20 dBm									
-30 dBm				الم الم الم الم الم الم الم الم	p <sup>pl</sup>				
-30 dBm -40 dBm -50 dBm	Harry day and all the	ward and a standing the	when a fear the second s	And Anna Jallin and					
	ni								
-60 dBm									
CF 699.0 M	Hz			1001	. pts			Span	10.0 MHz
					Mea	suring		4/0	12.04.2018 09:04:48

#### 5.1.1.6.1.2 Test RB=25RB

Date: 12.APR.2018 09:04:48



Report No.: SZEM180100088201 Page: 66 of 86



#### 5.1.1.6.2 Test Channel = HCH

Date: 12.APR.2018 09:07:28



Report No.: SZEM180100088201 Page: 67 of 86

Spectrum	.2.2 Test RB=25						E
Ref Level 35 Att	.10 dBm Offset 40 dB 🖷 SWT	: 5.10 dB 👄 RBW 1 s 👄 VBW	50 kHz 200 kHz <b>Mo</b>	de Auto Swee	эр		
●1Av View							
30 dBm			M1[1]	1	-30.91 dBn 716.01000 MH		
20 dBm							
10 dBm							
0 datestand where a statestand of the second	ويريهون الالاراميم والمعروفين ومراجع المراجع	walan walan kata ana ang a	wy				
-10 dBmD1	-13.000 dBm						
-20 dBm							
-30 dBm			1				
-40 dBm			<sup>Nu</sup> wholatavaada	narrhung under	44 Marta Jugard and Marting	Willier of a	
-50 dBm						and realities the second	where the address
-60 dBm CF 716.0 MHz			1001 pts			Span	10.0 MHz
				Measuring			2.04.2018 09:07:06

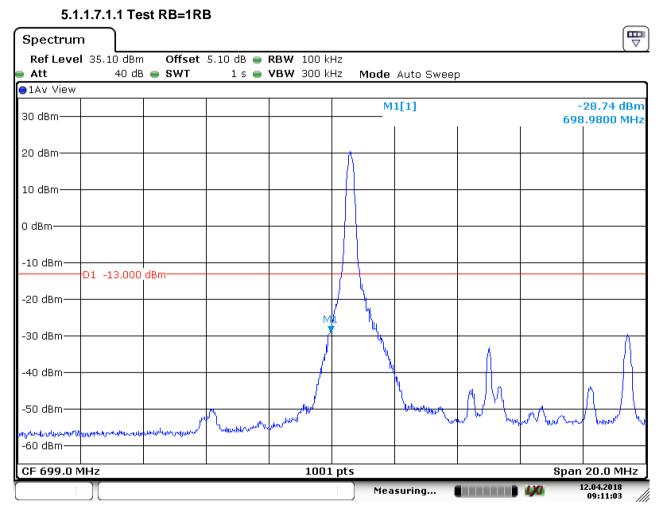
#### 5.1.1.6.2.2 Test RB=25RB

Date: 12.APR.2018 09:07:06



Report No.: SZEM180100088201 Page: 68 of 86

#### 5.1.1.7 Test Mode = LTE/TM1 10MHz 5.1.1.7.1 Test Channel = LCH



Date: 12.APR.2018 09:11:04



Report No.: SZEM180100088201 Page: 69 of 86

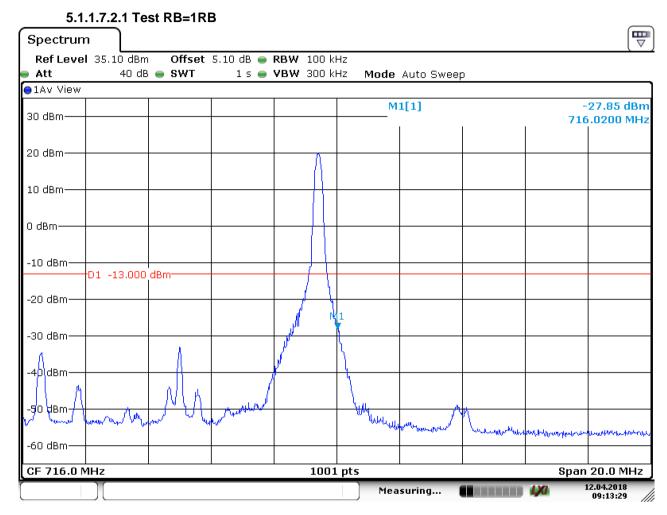
Spectrum	1 1										
Ref Level Att	1 35.10 dBm 40 dB	) Offset S <b>e</b> SWT		<b>RBW</b> 100 ki <b>VBW</b> 300 ki		<b>1ode</b> Au	uto Swee	p			
o1Av View											
30 dBm						M1[1]			-34.85 dBn 698.9800 MH:		
20 dBm											
10 dBm											
0 dBm					- Andle	- un and a start	han an a	about a stand and a stand a sta	production and	bernormanderlang	
-10 dBm	D1 -13.000	dBm									
-20 dBm											
-30 dBm				M	) }/						
-40 dBm			a subsecond galage	100 hardson billington and							
-50 dBm	www.www.	adul Mar Mon Markette	μμ <sup>ρ</sup> υ								
میں											
CF 699.0 N	∟ ∕IHz	1	1	1001	pts	I		1	Spa	 n 20.0 MHz	
	][]					Measu	ring		1/0	12.04.2018 09:09:55	

#### 5.1.1.7.1.2 Test RB=50RB

Date: 12.APR.2018 09:09:55



Report No.: SZEM180100088201 Page: 70 of 86



#### 5.1.1.7.2 Test Channel = HCH

Date: 12.APR.2018 09:13:30



Report No.: SZEM180100088201 Page: 71 of 86

Spectrun	1 )								
Ref Leve			et 5.10 dB 👄						
Att	40	dB 🔵 SW1	1 s 🖷	<b>VBW</b> 300 k	Hz <b>Mod</b>	e Auto Swee	p		
∋1Av View				1					01.10.40
30 dBm						M1[1]			-31.18 dBn 6.0200 MH:
20 dBm						_		<u> </u>	
10 dBm									
10 00.00									
0 dBm	webersterrykling	mountary	ng hangelyen gen hand	moundaria					
-10 dBm	D1 -13.0	)00 dBm							
1.									
-20 dBm—									
N					1				
430 dBm				4	Hubert and a				
					or one programs	upper unipper			
-40 dBm—						My monder mary mary	March Mr. Marker		
							۳ ۱	Annally.	
-50 dBm—								- Way	-
								Thrush	way where the second
-60 dBm									
CF 716.0 N	 /IH7			100	 1 pts			Spar	 1 20.0 MHz
01 /10.01	-11 IZ			100	r prs			-	12.04.2018

5.1.1.7.2.2 Test RB=50RB

Date: 12.APR.2018 09:12:31



Report No.: SZEM180100088201 Page: 72 of 86

#### 5.1.1.8 Test Mode = LTE/TM2 10MHz 5.1.1.8.1 Test Channel = LCH

#### 5.1.1.8.1.1 Test RB=1RB The second secon Spectrum Ref Level 35.10 dBm Offset 5.10 dB 👄 RBW 100 kHz 40 dB 🔵 SWT Att 1 s 👄 **VBW** 300 kHz Mode Auto Sweep ●1Av View M1[1] -29.58 dBm 30 dBm-698.9800 MHz 20 dBm-10 dBm-0 dBm--10 dBm-D1 -13.000 dBm -20 dBm--30 dBm--40 dBm· -50 dBmmonter ՌՐԱտ MARTINET -60 dBm-CF 699.0 MHz 1001 pts Span 20.0 MHz 12.04.2018 Measuring... 09:10:48

Date: 12.APR.2018 09:10:49



Report No.: SZEM180100088201 Page: 73 of 86

Att	l 35.10 dBr: 40 dl	B e SWT	5.10 dB 👄 1 s 👄	<b>VBW</b> 300 ki		ode Auto Swee	эр	
●1Av View			-	-				
30 dBm						M1[1]	I	-35.13 dB 8.9800 MF
20 dBm								
10 dBm								
0 dBm					- Journal of the second	<del>hann an an an an an a</del>	puturen and dalla	 programmention
-10 dBm—	D1 10 000				_			
-20 dBm—	D1 -13.000							
-30 dBm					1.4			
-40 dBm			a the state	M	ð.			
-50 dBm		and the second proves	Mar & Market Market Market					
مىرىيە بەللەرلىرى -60 dBm	and a second second second	ufferen						

#### 5.1.1.8.1.2 Test RB=50RB

Date: 12.APR.2018 09:10:23



Report No.: SZEM180100088201 Page: 74 of 86

Spectrum	, J								
Ref Level	35.10 dBm	Offset	5.10 dB 🔵	<b>RBW</b> 100 k	Hz				
🗕 Att	40 dB	🔵 SWT	1 s 👄	<b>VBW</b> 300 k	Hz Mode	Auto Swee	D		
●1Av View									
30 dBm					M	1[1] 	1		27.01 dBm 5.0200 MHz 
20 dBm				٨					
10 dBm									
0 dBm									
-10 dBm	D1 -13.000	dBm							
-20 dBm——					1				
-30 dBm		٨		N. A. C.	l,				
	п	Ma	لر امريم المالية من		1 test	^			
-60 dBm	www. Are	word W W	www.		Hudenman	mound	- Louise have	aller and the second	warman warden type
CF 716.0 M				1001	l nte				00.0 ML-
CF 716.0 M	HZ			1001					20.0 MHz
Į –	Л				Mea	suring		LX0	12.04.2018 09:13:12

#### 5.1.1.8.2 Test Channel = HCH

5.1.1.8.2.1 Test RB=1RB

Date: 12.APR.2018 09:13:12



Report No.: SZEM180100088201 Page: 75 of 86

Refleve	n I 35.10 dBm	Offset	5.10 dB 👄	<b>RBW</b> 100 k	H7				( 2
Att		SWT		<b>VBW</b> 300 k		Auto Sweep	)		
)1Av View									
30 dBm					M	1[1]			-33.98 dBi 5.0200 MH
20 dBm									
10 dBm									
D dBm	Mahay Unreason	فلاعدي ورويكي للاعدية واللا	ج <mark>و الارسانية الماركين الم</mark>						
-10 dBm—	D1 -13.000	dBm							
-20 dBm									
 ⊮30 dBm—					1				
-40 dBm—					the work of the second s	Land Content of the second	ad the way have		
-50 dBm							<u>``</u>	Mund Markey	
-60 dBm								- whether	un and the
CF 716.0 M	 MHz			1001	l . pts			 Span	 20.0 MH:

#### 5.1.1.8.2.2 Test RB=50RB

Date: 12.APR.2018 09:12:55



Report No.: SZEM180100088201 Page: 76 of 86

### 6 Spurious Emission at Antenna Terminal

NOTE: For the averaged unwanted emissions measurements, the measurement points in each sweep is greater than twice the Span/RBW in order to ensure bin-to-bin spacing of < RBW/2 so that narrowband signals are not lost between frequency bins. As to the present test item, the "Measurement Points = k \* (Span / RBW)" with k between 4 and 5, which results in an acceptable level error of less than 0.5 dB.

Part I - Test Plots

### 6.1 For LTE



6.1.1.1.1 Test Channel = LCH

Spectrum	ı )								
Ref Level	35.00 dBm	Offset	5.00 dB 👄	<b>RBW</b> 100 k	Ηz				
🔵 Att	40 dB	e swt	90 ms 😑	<b>VBW</b> 300 ki	Hz Mode	Auto Sweej	D		
😑 1Pk Max									
30 dBm					M	1[1] ∣ <sup>™</sup>	1		24.50 dBm .3600 MHz
20 dBm									
10 dBm									
0 dBm									
-10 dBm	D1 -13.000	dBm							
-20 dBm									
-30 dBm									
-40 dBm							1	4	
testaleus altas kerta bat Perijan Perijan	n han de la contrata de la contrata Contrata de la contrata de la contrat	l hallash dariya dashiya Marina gutana ay		na an airth an an airth Na an an airth an		in the policity provided by the second s	Mandas, at dan Tang tang pangangang	ika yi wa si ngi Panjan Millinin Mangangan ngi ngi nangalak Millinin	na di sharaja baya jitu bahis na mata kanatsa da ya da ya
-60 dBm									
Start 30.0	MHz	I	I	2000	1 pts	I	I	Sto	p 1.0 GHz
(	)[				) Mea	suring		170	2.04.2018 11:38:27

Date: 12.APR.2018 11:38:27



Report No.: SZEM180100088201 Page: 77 of 86

Spectrum									
Ref Level 35				RBW 1 MHz					
Att	40 dB	SWT 😑 SWT	90 ms 👄	VBW 3 MHz	Mode A	uto Sweep			
●1Pk Max									
					M	1[1]			29.13 dBm
30 dBm							1	6.8	83230 GHz
20 dBm									
10 dBm									
0 dBm									
-10 dBm									
D1	-13.000	dBm							
-20 dBm									
20 00111									
						M1			
-30 dBm				ويقتلونهم ومقاطعتهم ومعاللهما			بالبدو المطيني والمراد	an a sand as to a stational to	وبالاستعاد أتدام
البرية بمقاللهم التقام	politica address			Concepts of the Article of the	and the second second second		a distance de la company de	the second s	Allowing and
-40 dBm									
-50 dBm									
-SO abili									
-60 dBm									
Start 1.0 GHz		1	1	2000:	l pts	1	1	Stop	10.0 GHz
	-					suring			12.04.2018 11:41:47

Date: 12.APR.2018 11:41:47



Report No.: SZEM180100088201 Page: 78 of 86

Spectrum	ι								
Ref Leve	l 35.00 dBm	offset	5.00 dB 😑	<b>RBW</b> 100 ki	Ηz				
Att	40 dB	s 🕳 SWT	90 ms 👄	<b>VBW</b> 300 ki	Hz Mode	Auto Sweep	)		
😑 1Pk Max									
					M	1[1]			24.85 dBm
30 dBm						, N	11	711	.8520 MHz
							T		
20 dBm									
10 dBm									
10 0.011									
0 dBm——									
-10 dBm——									
	D1 -13.000	dBm							
-20 dBm									
-30 dBm									
-30 0.011									
						1			
-40 dBm									
distance of the later	and a land	dent antilates to	Land and the state of the	المعرب والمسالية والمطالبة والمسالية	approximation of the state	المعتولة ومرافلة ومورياته	1. Marcala Laka	And Appendiate of	الله ومراولة فرادة مرجعة
			-					a fa pinana ng katata katata	فليط بالمستحر إربا بيطيفه ومرحظه
-60 dBm—									
Start 30.0	MHz			2000	1 pts				p 1.0 GHz
					Mea	suring (		4/0	2.04.2018 11:39:18

6.1.1.1.2 Test Channel = MCH

Date: 12.APR.2018 11:39:18



Report No.: SZEM180100088201 Page: 79 of 86

Spectrum	ı )								
	35.00 dBm			RBW 1 MHz					`
Att	40 dE	B 🔵 SWT	90 ms 😑	VBW 3 MHz	Mode A	uto Sweep			
⊖1Pk Max			1	1					
30 dBm					M	1[1]			28.92 dBm 94930 GHz
								0.0	97900 GH2
20 dBm									
20 06111									
10 dBm									
0 dBm									
-10 dBm	D1 10.000								
	D1 -13.000	ubili							
-20 dBm—									
						M1			
-30 dBm					and the second second				
والمتحدث والمراجع	مسالية مستقلية	والمويقية وحارج الروادي	And a shirt of the	الاسليكة واللكامة وعريان مساول. معاد بدير مطابقات	A state of the second s	a selection protocolity	والمتعرفة التعلم وأدقانها		a faldada a da a dan bar da
w-rondBm	فالمرد والروح الأحداد المردي	and the second	and the second				a de la construcción de la constru La construcción de la construcción d	Print and a second s	and a second second
-50 dBm									
-30 abiii									
co do-									
-60 dBm									
Start 1.0 G	Hz	ı	1	2000:	1 pts	I	ı	Stop	10.0 GHz
	Υ				Mea	suring		<b>1/0</b>	12.04.2018 11:41:07

Date: 12.APR.2018 11:41:07



Report No.: SZEM180100088201 Page: 80 of 86

Spectrum	ı													
Ref Level	<b>I</b> 35.0	0 dBm		Offset	5.00 dB 🧉	RBW	100 kl	Hz						`
🔵 Att		40 dB	•	SWT	90 ms 🧉	VBW	' 300 kl	Hz	Mode	Auto Swee	р			
😑 1Pk Max														
30 dBm									M	1[1] 	M	1		24.15 dBn 5.4400 MH
20 dBm														
10 dBm														
0 dBm														
-10 dBm—	D1 -1	3.000	dBn											
-20 dBm				·										
-30 dBm											-			
-40 dBm														
والمرابط ويعتد المرابع	and the set	فرافه أحاسا	alle	hay all dates to	And the later of the second	ام و المال الل	المرامعة المألقه	Hunt	վուլվայի	المربوع ومعرف ومعرف	ľ	weather production	alan bij kant di kala	alite Hinteredulte
elgilleps <sub>e</sub> arstadillets														
-60 dBm														
Start 30.0	MHz						2000	l 1 nts					Sto	p 1.0 GHz
	Υ						2000			suring	l			11:39:39

### 6.1.1.1.3 Test Channel = HCH

Date: 12.APR.2018 11:39:39



Report No.: SZEM180100088201 Page: 81 of 86

Spectrum	ן י								
	I 35.00 dBm			RBW 1 MHz					
Att 1Pk Max	40 dE	B 👄 SWT	90 ms 😑	VBW 3 MHz	Mode A	uto Sweep			
●1РК Мах					0.0	1[1]			29.05 dBm
30 dBm									59730 GHz
20 dBm									
10 dBm									
0 dBm									
-10 dBm—									
-20 dBm	D1 -13.000	dBm							
-30 dBm						M1			
	واللافقار ومروق والمغراق	IL C. Low Proven	and a start of the	مال المعلوم والمالية وي إلى الارتبار مسلح المعلوم والمالية وي إلى الارتبار	in the second	A Designation of the local data	التصبير بالتبازين أأتب		a fallandes y la van dy der
'-+o'aBm	and definition of the second secon								
-50 dBm									
-60 dBm									
Start 1.0 G	Hz			2000:	1 pts			Ston	) 10.0 GHz
	Ĭ					suring			12.04.2018 11:40:27

Date: 12.APR.2018 11:40:27



Report No.: SZEM180100088201 Page: 82 of 86

### 7 Field Strength of Spurious Radiation

### 7.1 For LTE

### 7.1.1 Test Band = LTE BAND 12

### 7.1.1.1 Test Mode =LTE/TM1 10MHz RB1#0

7.1.1.1.1	7.1.1.1.1 Test Channel = LCH										
Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Over Limit (dB)	Polarization							
64.533333	-81.76	-13.00	68.76	Vertical							
124.966667	-85.05	-13.00	72.05	Vertical							
1399.000000	-66.79	-13.00	53.79	Vertical							
2798.500000	-55.85	-13.00	42.85	Vertical							
3497.737500	-66.86	-13.00	53.86	Vertical							
4197.300000	-62.32	-13.00	49.32	Vertical							
62.900000	-77.64	-13.00	64.64	Horizontal							
146.900000	-85.29	-13.00	72.29	Horizontal							
2099.000000	-60.66	-13.00	47.66	Horizontal							
2798.500000	-54.99	-13.00	41.99	Horizontal							
3497.737500	-65.86	-13.00	52.86	Horizontal							
4197.300000	-63.55	-13.00	50.55	Horizontal							

#### 7.1.1.1.2 Test Channel = MCH

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Over Limit (dB)	Polarization
63.880000	-81.96	-13.00	68.96	Vertical
124.966667	-85.17	-13.00	72.17	Vertical
2109.500000	-59.99	-13.00	46.99	Vertical
2812.500000	-56.56	-13.00	43.56	Vertical
3515.287500	-67.37	-13.00	54.37	Vertical
4218.262500	-63.47	-13.00	50.47	Vertical
63.320000	-77.97	-13.00	64.97	Horizontal
433.993333	-78.56	-13.00	65.56	Horizontal
2109.500000	-57.99	-13.00	44.99	Horizontal
2812.500000	-55.60	-13.00	42.60	Horizontal
3515.287500	-67.12	-13.00	54.12	Horizontal
4218.750000	-64.51	-13.00	51.51	Horizontal

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Report No.: SZEM180100088201 Page: 83 of 86

7.1.1.1.3 Test Channel = HCH										
Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Over Limit (dB)	Polarization						
63.460000	-82.07	-13.00	69.07	Vertical						
124.966667	-84.82	-13.00	71.82	Vertical						
2120.000000	-59.29	-13.00	46.29	Vertical						
3532.837500	-67.11	-13.00	54.11	Vertical						
4239.225000	-63.65	-13.00	50.65	Vertical						
7942.762500	-64.00	-13.00	51.00	Vertical						
63.226667	-78.80	-13.00	65.80	Horizontal						
613.075000	-79.28	-13.00	66.28	Horizontal						
2120.000000	-56.90	-13.00	43.90	Horizontal						
3532.837500	-67.11	-13.00	54.11	Horizontal						
4239.225000	-63.60	-13.00	50.60	Horizontal						
7045.762500	-65.20	-13.00	52.20	Horizontal						

#### 7.1.1.1.3 Test Channel = HCH

NOTE:

- 1) All modes are tested, but the data presented above is the worst case. the disturbance above 13GHz and below 30MHz was very low, and the above harmonics were the highest point could be found when testing, so only the above harmonics had been displayed.
- 2) We have tested all modulation and all Bandwidth, but only the worst case data presented in this report.



Report No.: SZEM180100088201 Page: 84 of 86

### 8 Frequency Stability

### 8.1 Frequency Error VS. Voltage

Test Band	Test Mode	Test Channel	Test Temp.	Test Volt.	Freq. Error [Hz]	Freq. vs. rated [ppm]	Verdict
LTE BAND 12	LTE/TM1 10MHz	LCH	TN	VL	-2.32	-0.003295	PASS
				VN	4.11	0.005838	PASS
				VH	4.32	0.006136	PASS
		МСН	TN	VL	4.62	0.006530	PASS
				VN	4.56	0.006445	PASS
				VH	-11.10	-0.015689	PASS
		НСН	TN	VL	4.12	0.005795	PASS
				VN	4.72	0.006639	PASS
				VH	-11.82	-0.016624	PASS
	LTE/TM2 10MHz	LCH	TN	VL	-5.59	-0.007940	PASS
				VN	-3.63	-0.005156	PASS
				VH	3.79	0.005384	PASS
		МСН	TN	VL	-4.76	-0.006728	PASS
				VN	-5.04	-0.007124	PASS
				VH	-3.75	-0.005300	PASS
		НСН	TN	VL	-3.20	-0.004501	PASS
				VN	-3.39	-0.004768	PASS
				VH	2.63	0.003699	PASS



Report No.: SZEM180100088201 Page: 85 of 86

#### Freq. Test Test Test Freq. vs. **Test Band** Test Mode Error Verdict Volt. rated [ppm] Channel Temp. [Hz] -30 3.13 0.004446 PASS -20 -4.39 -0.006236 PASS -10 -4.25 -0.006037 PASS 0 5.29 0.007514 PASS LCH VN 10 4.36 0.006193 PASS PASS 20 -2.98 -0.004212 30 -2.70 -0.003816 PASS PASS 40 2.80 0.003958 4.79 0.006770 PASS 50 PASS -30 5.09 0.007194 -20 5.55 0.007806 PASS PASS -10 2.35 0.003305 0 5.87 0.008256 PASS LTE BAND LTE/TM1 10MHz MCH VN 10 5.01 0.007046 PASS 12 20 4.63 0.006512 PASS -3.82 -0.005453 PASS 30 40 -2.66 -0.003797 PASS 50 -2.72 -0.003883 PASS -4.56 -0.006510 PASS -30 -20 -5.58 -0.007966 PASS -10 2.79 0.003943 PASS 0 3.13 0.004446 PASS VN HCH 10 -4.39 -0.006236 PASS -4.25 PASS 20 -0.006037 5.29 0.007514 PASS 30 PASS 40 4.36 0.006193 50 -2.98 -0.004212PASS

### 8.2 Frequency Error VS. Temperature

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Report No.: SZEM180100088201 Page: 86 of 86

			F	Page: 86 of 86			
Test Band	Test Mode	Test Channel	Test Volt.	Test Temp.	Freq. Error [Hz]	Freq. vs. rated [ppm]	Verdict
	LTE/TM2 10MHz	LCH	VN	-30	-3.72	-0.005258	PASS
				-20	-2.59	-0.003661	PASS
				-10	3.53	0.004989	PASS
				0	4.46	0.006304	PASS
				10	4.43	0.006193	PASS
				20	-4.18	-0.005844	PASS
				30	-4.85	-0.006780	PASS
				40	-5.48	-0.007661	PASS
				50	3.00	0.004194	PASS
		МСН	VN	-30	-3.85	-0.005469	PASS
				-20	-4.66	-0.006619	PASS
				-10	-5.69	-0.008082	PASS
				0	-4.09	-0.005810	PASS
LTE BAND 12				10	-4.52	-0.006420	PASS
12				20	4.58	0.006473	PASS
				30	4.61	0.006516	PASS
				40	5.08	0.007180	PASS
				50	4.46	0.006304	PASS
		нсн	VN	-30	-2.73	-0.003859	PASS
				-20	-4.02	-0.005654	PASS
				-10	-4.26	-0.005992	PASS
				0	-3.93	-0.005527	PASS
				10	4.78	0.006723	PASS
				20	4.53	0.006371	PASS
				30	-3.72	-0.005258	PASS
				40	-2.59	-0.003661	PASS
				50	3.53	0.004989	PASS

The End