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# Appendix B

E-UTRA Band 5



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5.1

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8.2

7.1.1

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

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

Effect Test Band(LTE)	ive Radiated Test Mode	l Power of Trar Test Bandwidth	Test channel	Test RB	BAND 5 Measured (dBm)	ERP (dBm)	limit (dBm)	Verdict
. ,				RB1#0	22.8	16.75	38.45	PASS
				RB1#2	22.87	16.82	38.45	PASS
				RB1#5	22.85	16.8	38.45	PASS
			LCH	RB3#0	22.99	16.94	38.45	PASS
				RB3#2	22.99	16.94	38.45	PASS
				RB3#3	22.99	16.94	38.45	PASS
			RB6#0	22	15.95	38.45	PASS	
			RB1#0	22.81	16.76	38.45	PASS	
			МСН	RB1#2	22.85	16.8	38.45	PASS
		re/TM1 1.4M		RB1#5	22.85	16.8	38.45	PASS
BAND5	LTE/TM1			RB3#0	22.95	16.9	38.45	PASS
				RB3#2	22.96	16.91	38.45	PASS
				RB3#3	22.95	16.9	38.45	PASS
				RB6#0	21.98	15.93	38.45	PASS
				RB1#0	22.77	16.72	38.45	PASS
				RB1#2	22.82	16.77	38.45	PASS
				RB1#5	22.83	16.78	38.45	PASS
			НСН	RB3#0	22.95	16.9	38.45	PASS
				RB3#2	22.94	16.89	38.45	PASS
				RB3#3	22.95	16.9	38.45	PASS
				RB6#0	21.97	15.92	38.45	PASS

Test Band(LTE)	Test Mode	Test Bandwidth	Test channel	Test RB	Measured (dBm)	ERP (dBm)	limit (dBm)	Verdict
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				RB1#0	21.76	15.71	38.45	PASS
				RB1#2	21.85	15.8	38.45	PASS
				RB1#5	21.77	15.72	38.45	PASS
			LCH	RB3#0	21.86	15.81	38.45	PASS
				RB3#2	21.86	15.81	38.45	PASS
				RB3#3	21.81	15.76	38.45	PASS
				RB6#0	21.07	15.02	38.45	PASS
				RB1#0	22.04	15.99	38.45	PASS
				RB1#2	22.12	16.07	38.45	PASS
		1.4M		RB1#5	22.07	16.02	38.45	PASS
BAND5	LTE/TM2		МСН	RB3#0	21.91	15.86	38.45	PASS
				RB3#2	21.91	15.86	38.45	PASS
				RB3#3	21.96	15.91	38.45	PASS
				RB6#0	20.93	14.88	38.45	PASS
				RB1#0	21.88	15.83	38.45	PASS
				RB1#2	21.98	15.93	38.45	PASS
				RB1#5	21.91	15.86	38.45	PASS
			НСН	RB3#0	21.89	15.84	38.45	PASS
			RB3#2	21.89	15.84	38.45	PASS	
				RB3#3	21.83	15.78	38.45	PASS
				RB6#0	21.01	14.96	38.45	PASS



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Test Band(LTE)	Test Mode	Test Bandwidth	Test channel	Test RB	Measured (dBm)	ERP (dBm)	limit (dBm)	Verdict
				RB1#0	22.96	16.91	38.45	PASS
				RB1#7	22.91	16.86	38.45	PASS
				RB1#14	22.98	16.93	38.45	PASS
			LCH	RB8#0	22.16	16.11	38.45	PASS
				RB8#4	22.16	16.11	38.45	PASS
				RB8#7	22.15	16.1	38.45	PASS
				RB15#0	22.15	16.1	38.45	PASS
		ЗМ		RB1#0	22.88	16.83	38.45	PASS
				RB1#7	22.83	16.78	38.45	PASS
			МСН	RB1#14	22.86	16.81	38.45	PASS
BAND5	LTE/TM1			RB8#0	22.11	16.06	38.45	PASS
				RB8#4	22.12	16.07	38.45	PASS
				RB8#7	22.11	16.06	38.45	PASS
				RB15#0	22.09	16.04	38.45	PASS
				RB1#0	22.87	16.82	38.45	PASS
				RB1#7	22.8	16.75	38.45	PASS
				RB1#14	22.88	16.83	38.45	PASS
			НСН	RB8#0	22.08	16.03	38.45	PASS
				RB8#4	22.07	16.02	38.45	PASS
				RB8#7	22.06	16.01	38.45	PASS
				RB15#0	22.05	16	38.45	PASS



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Test Band(LTE)	Test Mode	Test Bandwidth	Test channel	Test RB	Measured (dBm)	ERP (dBm)	limit (dBm)	Verdict
				RB1#0	21.85	15.8	38.45	PASS
				RB1#7	21.81	15.76	38.45	PASS
				RB1#14	21.86	15.81	38.45	PASS
			LCH	RB8#0	21.23	15.18	38.45	PASS
				RB8#4	21.23	15.18	38.45	PASS
				RB8#7	21.23	15.18	38.45	PASS
				RB15#0	21.15	15.1	38.45	PASS
				RB1#0	22.08	16.03	38.45	PASS
				RB1#7	22.01	15.96	38.45	PASS
			МСН	RB1#14	22.02	15.97	38.45	PASS
BAND5	LTE/TM2	ЗМ		RB8#0	21.18	15.13	38.45	PASS
				RB8#4	21.19	15.14	38.45	PASS
				RB8#7	21.17	15.12	38.45	PASS
				RB15#0	21.18	15.13	38.45	PASS
				RB1#0	22.02	15.97	38.45	PASS
				RB1#7	21.95	15.9	38.45	PASS
				RB1#14	22.02	15.97	38.45	PASS
			НСН	RB8#0	21.06	15.01	38.45	PASS
				RB8#4	21.06	15.01	38.45	PASS
				RB8#7	21.07	15.02	38.45	PASS
				RB15#0	21	14.95	38.45	PASS



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Test Band(LTE)	Test Mode	Test Bandwidth	Test channel	Test RB	Measured (dBm)	ERP (dBm)	limit (dBm)	Verdict
				RB1#0	22.98	16.93	38.45	PASS
				RB1#13	22.97	16.92	38.45	PASS
				RB1#24	22.96	16.91	38.45	PASS
			LCH	RB12#0	22.04	15.99	38.45	PASS
				RB12#6	22.05	16	38.45	PASS
				RB12#13	22.05	16	38.45	PASS
				RB25#0	22.07	16.02	38.45	PASS
		5M		RB1#0	22.98	16.93	38.45	PASS
				RB1#13	22.96	16.91	38.45	PASS
			МСН	RB1#24	22.93	16.88	38.45	PASS
BAND5	LTE/TM1			RB12#0	22.02	15.97	38.45	PASS
				RB12#6	22.02	15.97	38.45	PASS
				RB12#13	21.96	15.91	38.45	PASS
				RB25#0	21.99	15.94	38.45	PASS
				RB1#0	22.94	16.89	38.45	PASS
				RB1#13	22.93	16.88	38.45	PASS
				RB1#24	22.93	16.88	38.45	PASS
			НСН	RB12#0	22.04	15.99	38.45	PASS
				RB12#6	22.03	15.98	38.45	PASS
				RB12#13	21.93	15.88	38.45	PASS
				RB25#0	21.98	15.93	38.45	PASS



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Test Band(LTE)	Test Mode	Test Bandwidth	Test channel	Test RB	Measured (dBm)	ERP (dBm)	limit (dBm)	Verdict
				RB1#0	21.99	15.94	38.45	PASS
				RB1#13	21.99	15.94	38.45	PASS
				RB1#24	21.99	15.94	38.45	PASS
			LCH	RB12#0	21.1	15.05	38.45	PASS
				RB12#6	21.11	15.06	38.45	PASS
				RB12#13	21.12	15.07	38.45	PASS
				RB25#0	21.16	15.11	38.45	PASS
		5M		RB1#0	22.16	16.11	38.45	PASS
				RB1#13	22.13	16.08	38.45	PASS
			МСН	RB1#24	22.09	16.04	38.45	PASS
BAND5	LTE/TM2			RB12#0	21.12	15.07	38.45	PASS
				RB12#6	21.11	15.06	38.45	PASS
				RB12#13	21.06	15.01	38.45	PASS
				RB25#0	21.04	14.99	38.45	PASS
				RB1#0	21.94	15.89	38.45	PASS
				RB1#13	21.94	15.89	38.45	PASS
				RB1#24	21.96	15.91	38.45	PASS
			НСН	RB12#0	21.04	14.99	38.45	PASS
				RB12#6	21.05	15	38.45	PASS
				RB12#13	20.95	14.9	38.45	PASS
				RB25#0	20.99	14.94	38.45	PASS



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Test Band(LTE)	Test Mode	Test Bandwidth	Test channel	Test RB	Measured (dBm)	ERP (dBm)	limit (dBm)	Verdict
				1RB#0	23.12	17.07	38.45	PASS
				1RB#24	23.06	17.01	38.45	PASS
				1RB#49	23.04	16.99	38.45	PASS
			LCH	25RB#0	22.08	16.03	38.45	PASS
				25RB#12	22.08	16.03	38.45	PASS
				25RB#25	22.07	16.02	38.45	PASS
				50RB#0	22.08	16.03	38.45	PASS
				1RB#0	23.1	17.05	38.45	PASS
				1RB#24	23.04	16.99	38.45	PASS
			МСН	1RB#49	22.99	16.94	38.45	PASS
BAND5	LTE/TM1	10M		25RB#0	22.06	16.01	38.45	PASS
				25RB#12	22.06	16.01	38.45	PASS
				25RB#25	21.95	15.9	38.45	PASS
				50RB#0	22.04	15.99	38.45	PASS
				1RB#0	23.01	16.96	38.45	PASS
				1RB#24	22.9	16.85	38.45	PASS
				1RB#49	22.92	16.87	38.45	PASS
			НСН	25RB#0	22.1	16.05	38.45	PASS
				25RB#12	22.1	16.05	38.45	PASS
				25RB#25	21.88	15.83	38.45	PASS
				50RB#0	22.02	15.97	38.45	PASS



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Test Band(LTE)	Test Mode	Test Bandwidth	Test channel	Test RB	Measured (dBm)	ERP (dBm)	limit (dBm)	Verdic t
				1RB#0	22.33	16.28	38.45	PASS
				1RB#24	22.27	16.22	38.45	PASS
				1RB#49	22.23	16.18	38.45	PASS
			LCH	25RB#0	21.19	15.14	38.45	PASS
				25RB#12	21.19	15.14	38.45	PASS
				25RB#25	21.17	15.12	38.45	PASS
				50RB#0	21.19	15.14	38.45	PASS
				1RB#0	22.02	15.97	38.45	PASS
				1RB#24	21.96	15.91	38.45	PASS
			MCH	1RB#49	21.93	15.88	38.45	PASS
BAND5	LTE/TM2	10M		25RB#0	21.18	15.13	38.45	PASS
				25RB#12	21.17	15.12	38.45	PASS
				25RB#25	21	14.95	38.45	PASS
				50RB#0	21.11	15.06	38.45	PASS
				1RB#0	22.23	16.18	38.45	PASS
				1RB#24	22.13	16.08	38.45	PASS
				1RB#49	22.15	16.1	38.45	PASS
			НСН	25RB#0	21.1	15.05	38.45	PASS
				25RB#12	21.11	15.06	38.45	PASS
				25RB#25	20.88	14.83	38.45	PASS
				50RB#0	21.02	14.97	38.45	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



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### 2 Peak-to-Average Ratio

#### Part I - Test Results

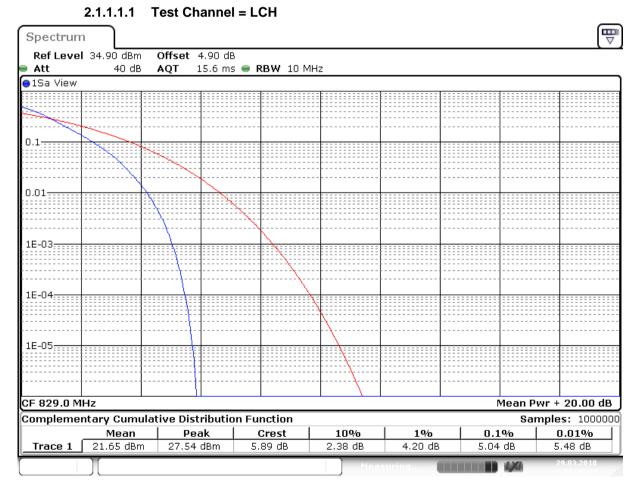
Test Band	Test Mode	Test Channel	Measured[dB]	Limit [dB]	Verdict
		LCH	5.04	13	PASS
	TM1/10M	MCH	5.01	13	PASS
Dond 5		НСН	4.96	13	PASS
Band 5		LCH	6.03	13	PASS
	TM2/10M	MCH	5.97	13	PASS
		НСН	5.94	13	PASS

### Part II - Test Plots

### 2.1 For LTE

### 2.1.1 Test Band = LTE band5

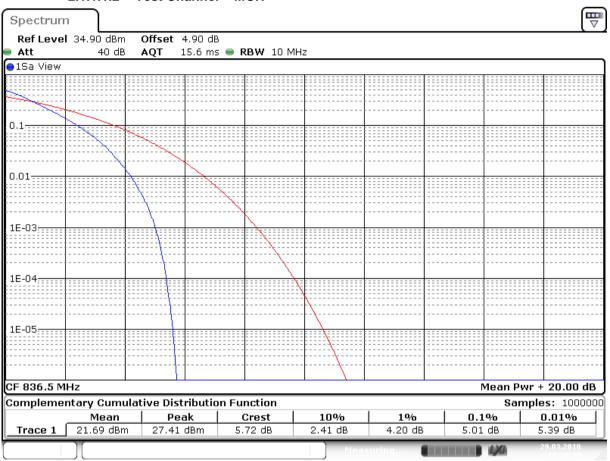
### 2.1.1.1 Test Mode = LTE/TM1.Bandwidth=10MHz



Date:29 MAR.2018 12:39:22



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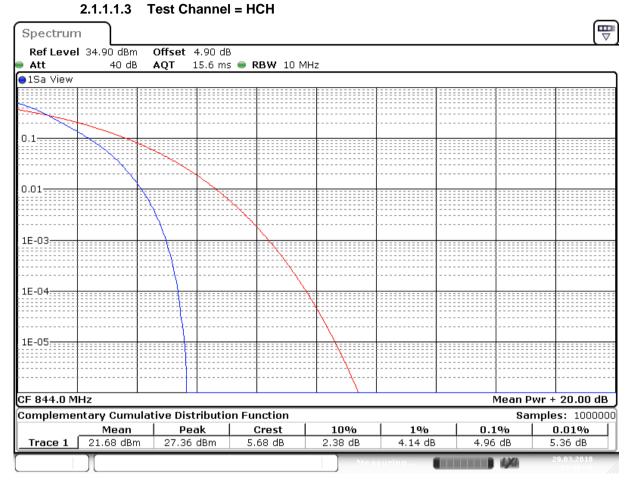


2.1.1.1.2 Test Channel = MCH

Date: 29 MAR 2018 12:39:59



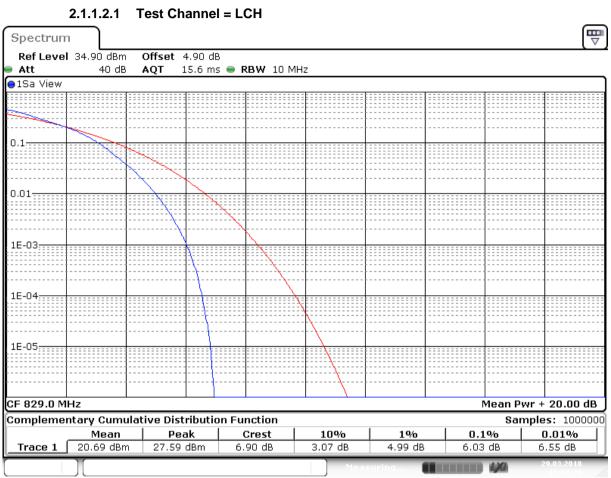
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Date: 29 MAR 2018 12:40:37



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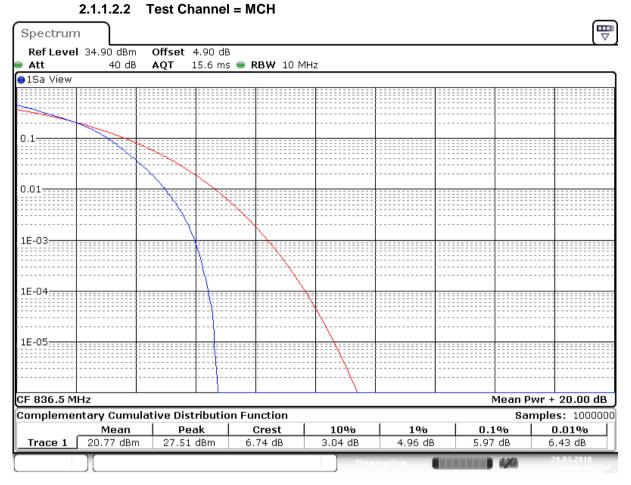


### 2.1.1.2 Test Mode = LTE/TM2.Bandwidth=10MHz

Date:29 MAR.2018 12:39:27



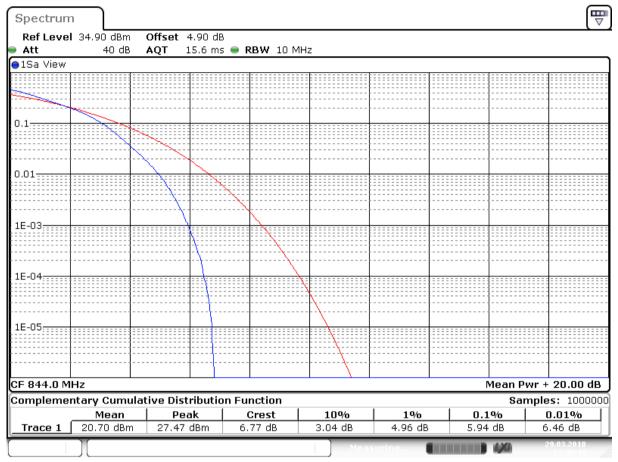
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Date:29.MAR.2018 12:40:05



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#### 2.1.1.2.3 Test Channel = HCH

Date:29MAR.2018 12:40:42



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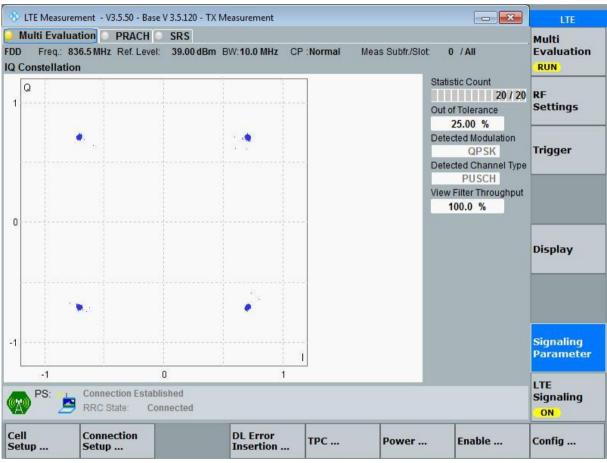
### **3 Modulation Characteristics**

### 3.1 For LTE

### 3.1.1 Test Band = LTE band5

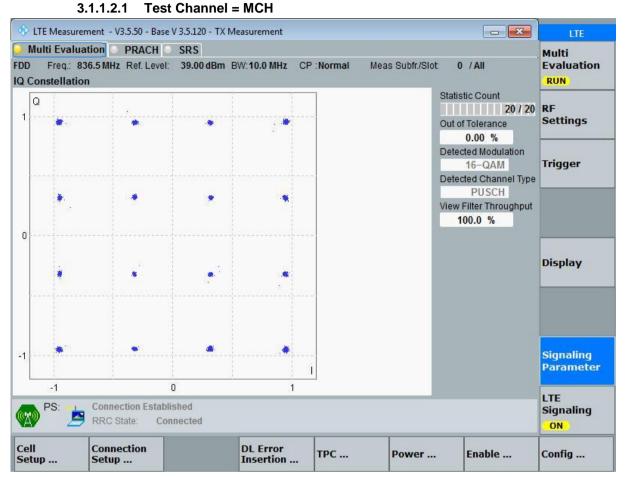
#### 3.1.1.1 Test Mode = LTE /TM1 10MHz

#### 3.1.1.1.1 Test Channel = MCH





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



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### 4 Bandwidth

#### Part I - Test Results

Test Band	Test Mode	Test Channel	Occupied Bandwidth [MHz]	Emission Bandwidth [MHz]	Verdict
		LCH	1.091	1.236	PASS
	TM1/1.4MHz	MCH	1.085	1.218	PASS
		HCH	1.088	1.206	PASS
		LCH	1.088	1.233	PASS
	TM2/1.4MHz	MCH	1.088	1.242	PASS
		HCH	1.091	1.233	PASS
		LCH	2.697	2.874	PASS
	TM1/ 3MHz	MCH	2.697	2.862	PASS
		HCH	2.697	2.856	PASS
		LCH	2.691	2.868	PASS
	TM2/3MHz	MCH	2.697	2.892	PASS
		HCH	2.697	2.850	PASS
Band 5		LCH	4.476	4.770	PASS
	TM1/ 5MHz	MCH	4.476	4.700	PASS
		HCH	4.466	4.730	PASS
		LCH	4.466	4.730	PASS
	TM2/ 5MHz	MCH	4.466	4.730	PASS
		HCH	4.476	4.730	PASS
		LCH	8.931	9.340	PASS
	TM1/10MHz	MCH	8.971	9.320	PASS
		HCH	8.931	9.300	PASS
		LCH	8.931	9.280	PASS
	TM2/ 10MHz	MCH	8.931	9.280	PASS
		HCH	8.931	9.300	PASS



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### Part II -Test Plots

### 4.1 For LTE

### 4.1.1 Test Band = LTE band5

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

	4.1.1.	1.1 T	est Ch	annel :	= LCH							
Spectrum	ι											E
Ref Level	נ 1 24.90	l dBm	Offset	4.90 dB	RBW	30 kHz						
🛢 Att	3	30 dB 😑	SWT	100 ms	🔵 VBW	100 kHz	Mode	Auto S	weep			
●1Av View												
20 dBm							M	1[1]				11.56 dBm
20 00									41			18850 MHz
10 dBm				T1	week a proof	male to make	annorthan Al	REAL COLOR	T2			09091 MHz
				Ι Y			M	2[1]	ų.			15.35 dBm
0 dBm								1	1.		824.	07900 MHz I
10 40				7					- 11			
-10 dBm—	-D1 _14	438 dBr	m	l)					1	3		
										<u>/</u> m		
-20 dBm Pest-dBm	والمراجعا	her while your	healthaller							"Yorkind Alaly	a horougudu pourting	All the set of the
usp and the second	adan Manunan										a solution for	a way and a second
-40 dBm												
-50 dBm												
00 abiii												
-60 dBm												
-70 dBm												
CF 824.7 M	1Hz					1001 pt	s		I		Spa	n 3.0 MHz
Marker												
Type Ret	f   Trc		X-value	.	<u>Y-v</u>	alue	Func	tion		Fun	ction Result	t
M1	1		825.188			1.56 dBm						
T1	1		824.1545			5.60 dBm	0	cc Bw			1.0909	09091 MHz
T2	1		825.2454			7.39 dBm						
M2 M3	1		824.07 825.31			5.35 dBm 5.60 dBm						
		•	020.01		-1:	5.00 ubm		_				
							Mea				1.74	29.05.2018 11:04:59

Date:29MAR.2018 11:34:59



41112 Test Channel - MCH

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Spectrum										E
Ref Level	24.90 d	Bm Offset	4.90 dB 📢	<b>RBW</b> 30 kł	Ηz					
Att	30	dB 🔵 SWT	100 ms (	VBW 100 kł	Ηz	Mode Au	ito Sw	/еер		
●1Av View										
20 dBm						M1[1	]			12.01 dBm
20 0011						M1			836	5.78170 MHz
10 dBm			T.J. Marchald	وجوالكم وحوارك محالاته وحدور وخلال	Lating to be	and mar Refer	BALLAN	T2	1.084	915085 MHz
			Y			M2[1	ij	Y		-14.37 dBm
0 dBm			l			<u> </u>		1.	835	5.89400 MHz
								1		
-10 dBm			<b>/</b>					- <u>No</u>		
	1 -13.9	86 dBm						K		
-20 dBm		1 1 14						<u> </u>		
"-30"tBrillun	mphilipp	with which w						Կավերտեվ	hllyllin Ulan is driften allaft	لمستحصيها لغر للليسا
-40 dBm										
-50 dBm										
-60 dBm										
-70 dBm										
CF 836.5 MI	Ηz	•		1001	pts	;			Sp	an 3.0 MHz
Marker										
Type   Ref	Trc	X-value	,	Y-value	1	Functio	n	F	unction Resu	lt
M1	1	836.78:	17 MHz	12.01 dB	m					
T1	1	835.9575	54 MHz	6.64 dB	m	Occ	Bw		1.084	915085 MHz
T2	1	837.0424	46 MHz	6.60 dB	m					
M2	1	835.89	94 MHz	-14.37 dB	m					
M3	1	837.1:	12 MHz	-14.86 dB	m					
	][					Measu	ing		1/4	29.03.2018 11:35:45

Date:29MAR.2018 11:35:45



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	4	4.1.1.1	I.3 Test C	hannel =	= HCH							
Spect	rum											□
Ref L	evel	24.90	dBm Offse	t 4.90 dB	🔵 RBW 30 kH	Ηz						
🔵 Att		31	o db 🥃 SWT	100 ms	🔵 <b>VBW</b> 100 kH	Ηz	Mode	Auto S	weep	I		
<mark>⊝</mark> 1Av V	'iew											
20 dBm							M	1[1]				12.06 dBm
20 000							M1					57270 MHz
10 dBm	·——			T Jober MA	water and the second second	নশদন		FR. R.Y.	MT2			12088 MHz
				<b>7</b> "			M:	2[1]	Ĩ			16.21 dBm
0 dBm-									-		847.	69700 MHz I
10 40-	_								- 1	_		
-10 dBr		01 -13.	937_dBm	M2					1	3		
-20 dBr	n			Ã						<u>ų</u>		
	l.		Mup pulland at the are	(						Walatala	own have all by	
<u>-36'aek</u>	2 <mark>741Ma</mark>	<b>NAMANA</b>	1000 a 2000.0 1000							in an will firth	and sport for and for	ا دەلەرۈرلىرى بەرسالىكان ب
-40 dBr	n											
-50 dBr												
-50 001	"											
-60 dBr	n——											
-70 dBn	n—+											
CF 848	3.3 MI	Hz			1001	pts			I		Spa	n 3.0 MHz
Marker						<u> </u>					•	
Туре	Ref	Trc	X-val	ue	Y-value	1	Func	tion		Fun	ction Result	
M1		1	848.5	727 MHz	12.06 dB	m						
T1		1		455 MHz	5.52 dB		0	cc Bw			1.0879	12088 MHz
T2		1		246 MHz	6.51 dB							
M2		1		697 MHz	-16.21 dB							
M3		1	848	903 MHz	-15.00 dB	m						
		JI –					Mea	suring.			1,X1	29.03.2018

Date:29MAR.2018 11:36:19



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	4	4.1.1.2	.1 Test Ch	annel =	= LCH							_
Spect	rum											E C
Ref L	evel	24.90	dBm Offset	4.90 dB	🔵 RBW 30	kHz						
🔵 Att		30	) dB 😑 SWT	100 ms	🔵 VBW 100	kHz	Mode	Auto S	weep			
⊖1AV V	iew											
20 dBm							M	1[1]				10.91 dB
20 00.00				M1								.22950 MH
10 dBm				THURAN	www.www.www.www.www.	Patrilia A	Internet of	CC BW	T2			12088 MH
				P			M	2[1] "	Y			-16.33 dBi
0 dBm-				Η		-			- <u>\</u>		824.	.08800 MH
				1					- 11			
-10 dBn			M	¥					Из			
-20 dBn		JI -15.	)92 dBm						T.	_		
-20 001	ц	Jul Al BANKY	1 HAMMAN MARKEN						`	Malnor Mar	while will be a	
1.90°deh	4 <u>4.1110/</u>	After of the last	drame work and the offer			_					whilm will have a	ALL THELE ALL ALL ALL ALL ALL ALL ALL ALL ALL
-40 dBn	n					-						
-50 dBn	n											
-60 dBn												
-00 080												
-70 dBn	n					_						
CF 824					100	1					Cn -	 in 3.0 MHz
	F. 7 IVII	HZ			100	1 pt:	2				she	ITI 3.0 MHZ
Marker	<b>D</b> -f	1		1	V	- 1	<b>F</b>		1	<b>F</b>		
Type M1	Ref	Trc 1	<u>X-value</u> 824.22		<u>Y-value</u> 10.91 d	D.m.	Func	tion		Fun	ction Result	[
T1		1	824.157		10.91 u 5.01 d		0	cc Bw			1 0879	12088 MHz
T2		1	825.245					00 DW			1.0079	12000 0012
M2		1		38 MHz	-16.33 d							
MЗ		1	825.3	21 MHz	-17.11 d	Bm						
		1					Mos	curin a		TITT	4.365	29.03.2018
											age of the second se	

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

Date:29.MAR.2018 11:35:09



41122 Test Channel = MCH

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

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Spectrum	ı									Ē
Ref Level	لے ا 24.90 (	dBm Offset	4.90 dB 🧉	• RBW 30 kł	Ηz					
👄 Att	30	i dB 😑 SWT	100 ms 🧉	<b>VBW</b> 100 kł	Ηz	Mode Auto	Sweep	)		
●1Av View										
20 dBm						M1[1]				11.08 dBm
20 0011			M1						835.	99050 MHz
10 dBm			T 1	my to to whether	apple of	Occ By			1.0879	12088 MHz
			Province	and one successfully the		M2[1]	William Y			-15.14 dBm
0 dBm			H				- L.		835.	88200 MHz
							(			
-10 dBm—			<u> </u>					ИЗ		
	D1 -14.9	924 dBm	1					N.		
-20 dBm—		W						¥		
<sub>℩ຉ</sub> ൢ൨ <sub>୶</sub> ⅆ֎զոտակ	ull trailer shows	helper all the second of						~~	the fille of the section	Work where apply
-40 dBm										
-50 dBm										
-60 dBm										
-70 dBm—										
CF 836.5 N	1Hz	•		1001	pts	•			Spa	n 3.0 MHz
Marker										
Type Ret	f   Trc	X-valu	e	Y-value		Function		Fun	ction Result	t
M1	1	835.99	05 MHz	11.08 dB	m					
T1	1	835.957		5.87 dB		Occ Bw	'		1.0879	12088 MHz
T2	1	837.045		4.97 dB						
M2	1		82 MHz	-15.14 dB			_			
МЗ		837.1	24 MHz	-16.64 dB	m					
						Measuring			1,70	29.03.2018 11:35:55

Date:29MAR.2018 11:35:55



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-					= HCH							
Spectrun	n											₩
Ref Leve	1 24.90	) dBm	Offset	4.90 dB	🔵 RBW 30 kł	Ηz						
Att		30 dB	SWT	100 ms	🔵 VBW 100 kł	Ηz	Mode	Auto S	weep	)		
●1Av View												
20 dBm							M	1[1]				11.22 dBm
20 000				M1							847.	79650 MHz
10 dBm				THULM	M HARLING MARK	anida	O C	CC BW	.T2			09091 MHz
				7	0.0 00.0000 000 000000000	*** U [i	M	2[1]	~~ <b>~</b>			14.95 dBm
0 dBm									<u>ا</u>	1	847.	68200 MHz
				1					- (			
-10 dBm—	D1 1	1 700		Y					0	13		
-20 dBm—	-D1 -14	+.783	asm <del></del>							۳ L		
-20 ubiii			I have be and							a subtract of		
MB049Bpharm	developetra V	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	raidian Alteria							want have a	Manural Murphyline	Walt Martin and a
												· · · · · · · · · · · · · · · · · · ·
-40 dBm—												
-50 dBm—												
-60 dBm—												
-70 dBm												
CF 848.3 M	MHz				1001	pts	5				Spa	n 3.0 MHz
Marker												
Type Re	_		X-value		Y-value		Func	tion		Fund	tion Result	
M1	1		847.796		11.22 dB							
T1	1		847.7545		4.37 dB		0	cc Bw			1.0909	09091 MHz
T2 M2	1	-	848.8454 847.68		5.79 dB -14.95 dB							
M2 M3		-	847.68		-14.95 UB -15.33 dB							
		-	070.91		10,00 UD			_				0.00.0010
							Mea				4,70	11.36.32

Date:29MAR.2018 11:36:33



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	4.1.1.3	3.1 Test Ch	annel :	= LCH			
Spectrum	ı )						
Ref Level	l 24.90	dBm Offset	4.90 dB	👄 RBW 50 kHz			
🖷 Att	3	O dB 👄 SWT	100 ms	👄 <b>VBW</b> 200 kHz	Mode Auto S	Sweep	
●1Av View							
20 dBm					M1[1]		9.96 dBm
		M	1				824.25920 MHz
10 dBm			Alla at an alla	wood and the would are	OCC BW	toma attes 2	2.697302697 MHz
		<b>W</b>	un n-more i	erflete den frank and and	M2[1]	An and a second	-18.02 dBm
0 dBm						1	824.06000 MHz
-10 dBm							
	D1 16	M¢				MЗ	
-20 dBm—	·DI -16.	.039 dBm					
		محمس المعالمة المليجين				Union	distribute and
<sub>հդ</sub> ՅՕ-dB <del>M-+</del>	Louhana	Marrient					and and the and the and the second standing of the second standing o
-40 dBm—							
-50 dBm							
oo abiii							
-60 dBm							
-70 dBm							
CF 825.5 M	1Hz			1001 pt	s	1	Span 6.0 MHz
Marker							
Type   Ref	f   Trc	X-value	e	Y-value	Function	Fun	ction Result
M1	1	824.25	92 MHz	9.96 dBm			
T1	1	824.157		4.69 dBm	Occ Bw		2.697302697 MHz
T2	1	826.854		4.58 dBm			
M2 M3	1		06 MHz 34 MHz	-18.02 dBm -17.75 dBm			
L 1¥13		820.9	oh MHZ	-17.75 dBM			
	Л				Measuring.		29.03.2018

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

Date:29MAR.2018 11:56:52



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Spect	rum										₽
Ref L	evel	24.90	dBm Offset	4.90 dB (	<b>RBW</b> 50 k	Hz					
🔵 Att		3	D dB 🔵 SWT	100 ms (	<b>= VBW</b> 200 k	Hz	Mode	Auto S	weep		
<mark>⊝</mark> 1Av V	iew										
20 dBm							M	1[1]			9.70 dBm
20 0011				MI						835.	72080 MHz
10 dBm			T1	_			0	cc Bw	,T2		02697 MHz
				www.with	And the man and the second	Mur		፝፼ <mark>፼ኯ</mark> ኯዀኯ	and the second		-16.94 dBm
0 dBm-						+			\	835.	.06600 MHz
-10 dBn			́мź			+			M3		
-20 dBr		1 -16.	296 dBm 🕇 🕇						- 7		
-20 UBI											
-30.dBr			under and rease of the			<u> </u>			hu	and the state of the second second	Likewin March Hay
K-AF-BAND-MIL	-Ondar No										Allender Martin Martin
-40 dBn	n										
-50 dBr	∩—†					+					
-60 dBr	.										
-60 aBh											
-70 dBr	n					<u> </u>					
						Ļ					
CF 836	5.5 MI	ΗZ			100:	l pts	5			Spa	n 6.0 MHz
Marker		1 - 1				- 1					
Туре	Ref		X-valu		Y-value	_	Func	tion	Fi	unction Result	t
M1 T1		1	835.72	25 MHz	9.70 dE 5.65 dE			cc Bw		2 6072	02697 MHz
T2		1	835.151		5.51 de		0			2.0973	02097 10182
M2		1		166 MHz	-16.94 dB						
M3		1		28 MHz	-16.64 dB						
		)(				_	)			4.974	29.03.2018
		Л					) Mea			100	

4.1.1.3.2 Test Channel = MCH

Date: 29 MAR 2018 11:57:15



41133 Test Channel - HCH

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

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Spectrum											E
Ref Leve	للے ا 24.90 (	dBm Offset	4.90 dB 🧉	RBW 50 kH	Ηz						( ·
🛢 Att	30	i dB 👄 SWT	100 ms 🧉	• <b>VBW</b> 200 kH	Ηz	Mode Au	to Sv	veep			
●1Av View											
20 dBm						M1[1	]				9.89 dBn
20 0011						M1				847.	97350 MH;
10 dBm								Т2			02697 MH:
		- And	phonolallingrationtralify	and we are the second of the s	phun	now my house for	<b>d</b> umul"	mound			18.27 dBn
0 dBm								- <u>\</u>		846.	06600 MH: '
-10 dBm—		. M2						M3			
-20 dBm—	D1 -16.3	108 dBm 😽						*			
"	البوسوالالمعاليرال	HAMMAN						``	بالم المسلام	dian and a second	wall block
4.460 F 1000 - 1 - 1									Ī		a solute land
-40 dBm—											
-50 dBm—											
-60 dBm—											
-00 060											
-70 dBm—				_							
CF 847.5 M	41.1~			1001						0	n 6.0 MHz
Marker				1001	prs					эра	11 0.0 19182
	f   Trc	X-value	. 1	Y-value	-	Function				on Result	
Type Re M1		847.97		9.89 dB		Function	<u> </u>		-uncu	on Result	
T1	1	846.145		4.33 dBi		Occ I	Rw			2,6973(	02697 MHz
T2	1	848.842		5.80 dB		0001				2.00100	2007 1112
M2	1		56 MHz	-18.27 dB							
M3	1	848.9	22 MHz	-17.27 dB	m						
	)[					Moscur	ine			M	29.03.2018
						110 3 5 01				and the second s	

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	4.1.1.	4.1 Test Cl	nannel =	LCH							
Spectrun	n										₩
Ref Leve	l 24.90	dBm Offset	4.90 dB	🖷 RBW 50 kH	Ηz						
🖷 Att	з	10 dB 👄 SWT	100 ms	🔵 <b>VBW</b> 200 kH	Ηz	Mode .	Auto S	weep			
●1Av View											
20 dBm						M1	[1]				8.85 dBm
				M1		_	_				13440 MHz
10 dBm			المرالية منا	Jumphat pleasance			C BW	Transformer and	2		08691 MHz
		- I P	Changert water	Anna martin and a second second		Accellence 144.3	fi Thurn	an san san san	4		17.77 dBm 06600 MHz
0 dBm								1	4	024.	
-10 dBm									1		
	D1 17	140 40-							MЗ		
-20 dBm	101 -17	.149 dBm 7							<u> </u>		
~a&a-ld&m™∽≏	Inablebea	an and the second second							Marcaharro		all the surprise of a party of
~ <u>#</u> 28-@8m	WUP V- ···										Contraction of the second second
-40 dBm											
io abiii											
-50 dBm											
-60 dBm—											
-70 dBm—											
CF 825.5 M	MHZ			1001	pts	5				Spa	n 6.0 MHz
Marker	<u>.  </u>	1	1		- 1			1			
Type Re		X-valu	e	<u>Y-value</u>		Funct	ion		Fun	ction Result	
T1	1			8.85 dB 4.58 dB		00	сBw			2 6013	08691 MHz
T2	1			3.69 dB			0.011			2,0010	55551 MILZ
M2	1		I66 MHz	-17.77 dB							
M3	1	826.9	34 MHz	-19.45 dB	m						
						Meas	uring.			1,00	29.03.2018

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

Date:29.MAR.2018 11:57:01



4.1.1.4.2 Test Channel = MCH

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

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Spect	rum												₩
Ref L	evel	24.90	dBm	Offset	4.90 dB	<b>RBW</b> 50	kHz						<b>`</b>
🗕 Att		3	O dB 😑	SWT	100 ms (	<b>• VBW</b> 200	kHz	Mode	Auto St	weep			
<mark>⊝</mark> 1Av V	iew												
20 dBm								M	1[1]			835	8.02 dBm 5.21730 MHz
10 dBm				M1	-handrederter	wellow month the server	maylen	0.	cc Bw ԶԱՔԱԻԴԻ	سلر بور الم	2	2.697	302697 MHz -20.37 dBm
0 dBm-											[	835	5.04800 MHz
-10 dBn	n						+				N13		
-20 dBr	n	01 -17.	976 dBm	1 <u>M2</u>			+				10		
<sub>₩</sub> ₽₽ <b>৻</b> ₽₽	Qe <sup>rrenden</sup>	وميعمهمهما		Har"			+				Wy antwo	-	montourouro
-40 dBr	n						+						
-50 dBr	n						-						
-60 dBr	n						+						
-70 dBr													
CF 836		Hz				100	1 pts	5				Sp	an 6.0 MHz
Marker													
Туре	Ref			X-value		Y-value		Func	tion		Fun	ction Resu	lt
M1		1		835.217		8.02 c							
T1		1		335.1513		4.20 c		0	CC BW			2.697	302697 MHz
T2		1	6	337.8486		4.13 0							
M2 M3		1		835.04 837.9	94 MHz	-20.37 c -19.29 c							
(								) Mea	suring			1/4	29.03.2018

Date: 29 MAR .2018 11:57:24



41143 Test Channel - HCH

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

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Spectrum											₽
Ref Level	l 24.90	dBm Offset	4.90 dB 🧉	• RBW 50 ki	Hz						
🕳 Att	30	) dB 😑 SWT	100 ms 🧉	• <b>VBW</b> 200 ki	Hz	Mode /	Auto S	weep			
●1Av View											
20 dBm						M1	[1]				10.01 dBm
20 übili						M1				847.	.96750 MHz
10 dBm		T1					c Bw	т.		2.6973	02697 MHz
10 0.0		- Vint	noutralinghille	we have a star and the second	-U-Lant	monulling	[Allano	Angunna V		-	-16.39 dBm
0 dBm					<u> </u>	<u> </u>				846.	.07200 MHz
					i i						
-10 dBm—		M2			<u> </u>				3		
	D1 -15.	993 dBm 🕂 🕇 👘			<u> </u>			1	-		
-20 dBm		<u>}</u>							$\frown$		
,	an and straken	or low systered							Gulanes	educa day a	
A THE AND A REAL AND A										and a solution	a the has been and the
-40 dBm											
10 dbiii					i i						
-50 dBm—					<u> </u>						
					i i						
-60 dBm—					<u> </u>						
					i i						
-70 dBm—											
CF 847.5 M	1Hz			1001	pts	5				Spa	n 6.0 MHz
Marker					-						
Type   Ref	f   Trc	X-value	• I	Y-value	1	Functi	ion I		Fun	ction Result	F I
M1	1	847.96		10.01 dB	m	- i unoc			1 411	belon nobul	
T1	1	846.151		5.06 dB		Oc	сBw			2.6973	02697 MHz
T2	1	848.8480		3.64 dB							
M2	1	846.0	72 MHz	-16.39 dB	m						
M3	1	848.92	22 MHz	-17.75 dB	m						
						Meas	urina			4.364	29.03.2018
(						J				a second	

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	4.1.1.	5.1	Test Ch	annel :	= LCH								_
Spectrur	n												
Ref Leve	el 24.90	dBm	Offset	4.90 dB	😑 RBW 50 k	Hz							<b>`</b>
🔵 Att	3	30 dB	SWT	100 ms	👄 <b>VBW</b> 200 k	Hz	Mode	Auto S	Sweep				
😑 1Av View													
20 dBm							M	1[1]					7.79 dBm
						м							3000 MHz
10 dBm—			<u></u>		www.mar.Mar.allen			CC BW		<u>7</u> 2	4.4		4466 MHz 18.52 dBm
0 dBm			Yur	per-thetropolog	ware and war all	nwy	an a	(alveration the		7			.3000 MHz
										1			
-10 dBm—										+			
			M2							N13			
-20 dBm—	D1 -18	1.213 (	авт <u>—</u>							-h_			
20 dBm-			mont							June	malamary		
-30 dBm	hannon	appendor.											-manuroully-my
-40 dBm—													
-50 dBm—	1												
-60 dBm—													
-00 abiii													
-70 dBm—						-							
CF 826.5	⊥ MHz				1001	l pts	5					span :	10.0 MHz
Marker													
	ef   Trc	1	X-value	. 1	Y-value	1	Func	tion		Fu	Inction Re	esult	1
M1	1		826.7	'3 MHz	7.79 dB	١m							
T1	1		824.27223 MHz		4.57 dB		0	cc Bw		4.465534466 MHz			4466 MHz
T2	1	-	828.7377		3.95 dB								
M2 M3	1			L3 MHZ 36 MHZ	-18.52 dB -18.39 dB								
			020.0		-10,39 UE	an						~~~	02.2040
							Mea						12:11:27

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

Date:29MAR.2018 12:11:28



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Spect	rum											₽
	evel	24.90			4.90 dB	_						
Att		3	O dB 😑	SWT	100 ms	o vbw	200 kHz	Mode	Auto S	weep		
⊖1Av V	'iew											
20 dBm	ι <u> </u>							M	1[1]			7.50 dBm
												56900 MH2
10 dBm	)— <del> </del>								₩d Bw	Т2		34466 MHz
				Y.M	un hand the star	warehaver	muddunium	washing make	Aller	medualy		20.15 dBm
0 dBm-											834.	12000 MHz
-10 dBr	n-+									MI3		
-20 dBr		01 -18	.499 dBr	M¥						¥		
-20 UBI	II—		1.1.5 5 (4.5)	×								
-30 dBr	n			J.								
mound	lionarp	sal-deloch_d	wature								all when the stand of the stand	the type the months
-40 dBr	n											
-50 dBr	n-+											
-60 dBr	n-+											
-70 dBr												
-70 aBr	11											
CF 836	5.5 M	Hz					1001 p	ts			Span	10.0 MHz
Marker	•											
Туре	Ref	Trc		X-value	e	Y-v	alue	Func	tion	Fu	inction Result	
M1		1		837.5	69 MHz	-	7.50 dBm					
T1		1		834.262			4.21 dBm	0	cc Bw		4.4655	34466 MHz
T2		1		838.727			4.32 dBm					
M2		1			12 MHz		).15 dBm					
МЗ		1		838.	85 MHz	-18	3.96 dBm					
		$\Pi$						Mea	suring		N 420	29.03.2018

4.1.1.5.2 Test Channel = MCH

Date:29.MAR.2018 12:12:05



4.1.1.5.3 Test Channel = HCH

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

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Specti	um												E
Ref Le	evel	24.90	dBm	Offset	t 4.90 dB	RBW	50 kHz						<b>`</b>
🔵 Att		30	) dB 🌘	SWT	100 ms	👄 VBW 2	200 kHz	Mode	Auto S	weep			
😑 1AV Vi	ew												
20 dBm-								M	1[1]			844	7.76 dBm 
10 dBm-	_				M1				cc Bw	Т2			524476 MHz
0 dBm—						hours ware we	ununyeuut	~~~~ <u>~</u>	Gele July rise			844	-19.62 dBm 13000 MHz
-10 dBm	ı—												
-20 dBm		1 -18.	240 di	Bm						- N	3		
-30, dBm		wyson problem	-	a contraction							- Jug	Mulumund	authorist the way
-40 dBm	-												
-50 dBm	-												
-60 dBm	-												
-70 dBm	-												
CF 846	.5 MI	Ηz				I	1001 pt:	s		I		Spa	n 10.0 MHz
Marker													
Туре	Ref	Trc		X-valu	ie	Y-va	lue	Func	tion		Fun	ction Resu	lt
M1		1			942 MHz		76 dBm						
T1		1			224 MHz		44 dBm	0	CC BW			4,475	524476 MHz
T2		1			776 MHz		92 dBm						
M2 M3		1			.13 MHz .86 MHz		62 dBm 01 dBm						
				040	100 1112	19,0	or doni					10.000	29.03.2018
L								) Mea				il an	

Date:29MAR.2018 12:12:42



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	4.1.1.	6.1	Test Ch	annel =	LCH								
Spectrur	n											(	₽
Ref Leve	<b>1</b> 24.90	dBm	Offset	4.90 dB	🔵 <b>RBW</b> 50 k	Hz						······	
Att	3	30 dB	e swt	100 ms	<b>= VBW</b> 200 k	Hz	Mode	Auto S	weep				
⊖1Av View													
20 dBm							M	1[1]				6.61 d	
							0	cov <b>B</b> iw				327.76900 M 75524476 M	
10 dBm			<del></del>		umplember					Г2	7.7	-20.70 d	
0 dBm				manum	whenter	1 ww		an tan mit	an a	٣	8	324.12000 N	
o abiii										1			
-10 dBm—						-				_			
-20 dBm	D1 -19	1 201 6	IBm M2							MB			
-20 uBiii—										8.			
-30 dBm	maning	o-man	Male land							Mr.	www.Manmon	٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠	de brad
1 M	1												10000
-40 dBm—													
-50 dBm—													
00 00													
-60 dBm—						<u> </u>							
-70 dBm—													
CF 826.5	MHz				100:	L pts	5				S	pan 10.0 Mi	Hz
Marker													
	ef Trc		X-value		Y-value		Func	tion		Fu	nction Re	esult	
M1 T1	1		827.76	59 MHz	6.61 dB 4.76 dB			cc Bw				75524476 MI	
T2	1		824.2622		4.76 df 2.74 df		0	JU BW			4,4	10024470 MI	HZ
M2	1			L2 MHz	-20.70 di								
M3	1		828.8	39 MHz	-20.29 d£	3m							
	)[						) Me a	suring.			144	29.03.2018	

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

Date:29.MAR.2018 12:11:45



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Spect	rum												
Ref L	evel	24.90	dBm	Offset	4.90 dB	<b>RBW</b> 50	kHz						
🔵 Att		31	D dB 😑	SWT	100 ms 🌘	<b>VBW</b> 200	kHz	Mode	Auto Sv	weep			
<mark>⊝</mark> 1Av V	iew												
20 dBm	ı——							M	1[1]				7.70 dBr
						M1		~	D				84100 MH
10 dBm	·			Τ1			+		CC BW	Т2			24476 MH 18.53 dBr
0 dBm-				- Yeur	he make a property of the second s	mouthmat	en printer	mproduption	tobetydnunge	Munduly			14000 MH
-10 dBn	n			M2			+						
-20 dBr	n —	01 -18.	298 dBr	n <del></del>			+			N3			
-30 dBr	Jurner	uwww.nn	ngurt Verlauguser	, sk			-			1	Maran Carlo	hourseweede	waterward
-40 dBn	n					-							
-50 dBr	n						-						
-60 dBr	n						-						
-70 dBr	n												
CF 836	5.5 M	Hz					1 pts	5				Span	10.0 MHz
Marker								-					
Туре	Ref	Trc		X-value	.	Y-value	1	Func	tion		Functi	ion Result	:
M1		1		835.84	41 MHz	7.70 d	Bm						
Τ1		1		834.2622	24 MHz	3.35 d	Bm	0	cc Bw			4.4755	24476 MHz
T2		1		838.7377	76 MHz	2.90 d							
M2		1		834.:	14 MHz	-18.53 d	Bm						
МЗ		1		838.8	34 MHz	-20.32 d	Bm						
		][						) Mela	suring			LXI	29.03.2018 12:12:21

4.1.1.6.2 Test Channel = MCH

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Spect	rum												E
Ref L	evel	24.90	dBm	Offset	4.90 dB	😑 RBW 50 k	Hz						
🗕 Att		3	O dB	e swt	100 ms	🔵 <b>VBW</b> 200 k	Hz	Mode	Auto S	weep			
●1AV V	iew												
20 dBm								M	1[1]				6.08 dBm
20 0.0													5.97000 MHz
10 dBm									cc Bw	т		4.465	534466 MHz
				Jun	merhan	munnation	hone	my muddle	Statur	whenthe	Ŕ		-20.17 dBm
0 dBm–										1	1	844	4.13000 MHz
10 -10													
-10 dBn				M2									
-20 dBn		D1 -19.	923 /	· · · · · · · · · · · · · · · · · · ·							MЗ		
-20 0011		01 -19,	1 220								5		
-30 dBn	n	Altern	A. B. Martin	www.							<u></u>	a alla chi il	
Andrena	muter	literation in the second									~~~	and the second second	which married
-40 dBn	n-+												
-50 dBn													
-60 dBn													
-00 001													
-70 dBn	n												
CF 846						100	1	_					
<u> </u>	0.5 W	HZ				100	r pts	<u> </u>				spa	in 10.0 MHz
Marker	<b>D</b> (	1-		× 1	- 1		- 1	_			-		
Туре	Ref			X-value		Y-value	2	Func	tion		Fui	nction Resu	llt
M1 T1		1		846. 846. 844.262	97 MHz	6.08 d8 4.81 d8			cc Bw			1 165	534466 MHz
T2		1		844.202		4.81 ut 3.35 dt		0				4.405	554400 MHZ
M2		1			13 MHz	-20.17 df							
M3		1			86 MHz	-21.30 df							
		) [					-				1.1.1.1	B 4.9/2	29.03.2018
								, nea					

#### 4.1.1.6.3 Test Channel = HCH

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	4	1.1.1.7	7.1 Test C	hannel =	LCH						
Spect	rum										
Ref L	evel	24.90	dBm Offset	: 4.90 dB (	<b>RBW</b> 100 k	Hz					
🕳 Att		3	O dB 👄 SWT		🔵 <b>VBW</b> 300 k		Mode	Auto S	weep		
<mark>0</mark> 1AV V	'iew								•		
20 dBm							M	1[1]			6.09 dBm
											9.4000 MHz
10 dBm	·		T1			<u>M1</u>		cc Bw	т2		68931 MHz
			20	m Justimentelle	and the second second second	who	Mannet	26.t.l.	montherety		20.74 dBm
0 dBm-								I	<u>\</u>	824	1.3200 MHz
-10 dBr	n— -										
-20 dBr		1 _10	.910_dBm <del></del>						M3		
-20 001	"	/I -19.							- I 🐧		
-30 dBr	n——		narrado and			<u> </u>			-	Street and the last of the last of the	
-30 dBr , աստղափ	A MARCONT	www.publiction								man white the work	a hundred and have been been been been been been been be
-40 dBr	n-+-					<u> </u>					
-50 dBr	n										
-60 dBr	_										
-00 UBI											
-70 dBr	n——										
05.000		-									
CF 829		ΗZ			1001	l pts	5			span	20.0 MHz
Marker 		<b>-</b>				- 1	-	1			
Туре	Ref		X-valu		Y-value		Func	tion	Fu	inction Result	
M1 T1		1		9.4 MHz	6.09 dB 3.00 dB		0	cc Bw		9 0010	68931 MHz
T2		1		755 MHz	3.00 dB 3.44 dB		0			0.9310	00931 MHZ
M2		1		.32 MHz	-20.74 dB						
M3		1		.66 MHz	-22.48 dB						
		)(				1	]		and the second second	IN AND	29.03.2018
							)			in the second se	

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

Date:29.MAR.2018 12:27:06



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			a							_
Spectrum										∀
Ref Level	24.90 dE	Sm Offset	4.90 dB (	RBW 100 kł	Ηz					
🔵 Att	30 (	dB 👄 SWT	100 ms (	📄 <b>VBW</b> 300 kł	Ηz	Mode	Auto S	weep		
●1Av View										
20 dBm						M	1[1]			6.73 dBm
20 00111									83	5.2210 MHz
10 dBm				M1			c Bw	т2		28971 MHz
		T1	monum	unopenternene	How	monum	2[1]	Salution and a second		-21.41 dBm
0 dBm		+ +							83	1.8400 MHz
-10 dBm——										
-20 dBm	D1 10.26							MЗ		
-20 aBm	01 -19.20							Ţ		
-30 dBm		the second						L.	_	
-30 dBm	francessan	Coloradore.						www	nde monte mont	montroneedude
-40 dBm—										
-50 dBm——										
60 ID										
-60 dBm										
-70 dBm										
CF 836.5 M	Hz			1001	pts				Spar	20.0 MHz
Marker										
Type Ref		X-value		Y-value		Funct	ion	Fu	nction Result	t
M1	1		21 MHz	6.73 dB			_			
T1	1	832.00		3.37 dB		00	c Bw		8.9710	28971 MHz
T2 M2	1	840.97	34 MHz	3.95 dB -21.41 dB						
M3	1		16 MHz	-21.41 dB						
	1 -	041,		21,91 00						20.02.2010
						Mea			100	12:27:30

#### 4.1.1.7.2 Test Channel = MCH

Date:29MAR.2018 12:27:30



4.1.1.7.3 Test Channel = HCH

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Spect	rum														₽
Ref L	evel	24.90	dBm	Offs	<b>et</b> 4.90 c	B 👄	<b>RBW</b> 100 k	Hz							
🗕 Att		3	O dB (	🕳 SWT	100 m	is 😑	<b>VBW</b> 300 k	Hz	Mode	Auto S	weep				
😑 1AV Vi	iew														
20 dBm									M	1[1]					6.11 dBm
20 0011														842	2.0220 MHz
10 dBm					1		41			cc Bw	-	2			68931 MHz
					Jaunartran	www.	- Marguedissement	produ	warmer M	2[J.L.m.	بىرمىلەرمىلىدىك	x .			-22.18 dBm
0 dBm-												η		839	9.3400 MHz
												1			
-10 dBm	-+-י											+			
			000 4	М	2							Мз			
-20 dBn		1 -19.	.886 a	Bm 7								Ĩ.			
-30 dBm				کلوں								Mun			
-30 dBr	yman	almontal.	Bandlow	00000								Terd	mary	home hand	munanter
-40 dBm	י—⊢														
-50 dBrr	−+						+								
-60 dBr	ר−י														
70 40-															
-70 dBm															
CF 844	0 MF	Ηz					1001	. pts	5					Span	20.0 MHz
Marker															
Туре	Ref	Trc		X-va	lue		Y-value		Func	tion		F	uncti	ion Result	t l
M1		1		842	2.022 MHz		6.11 dB								
T1		1			5245 MHz	_	3.94 dB		0	cc Bw				8.9310	68931 MHz
Т2		1			4555 MHz	_	3.85 dB								
M2		1			39.34 MHz	_	-22.18 dB								
M3		1		84	18.64 MHz	<u> </u>	-21.20 dB	m							
									Mea	suring				NA I	29.03.2018
									,		_				

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	4.1.1.	8.1 Test Cl	nannel =	LCH							
Spectrur	n										[₩
Ref Leve	el 24.90	dBm Offset	4.90 dB	🔵 RBW 100 kH	Ηz						
🕳 Att	З	0 dB 👄 SWT	100 ms	🕳 <b>VBW</b> 300 kH	Ηz	Mode	Auto S	Sweep			
●1Av View											
20 dBm						M	1[1]				5.23 dBm
20 0011										8	27.6810 MHz
10 dBm				M1			C Bw	-		8.93	1068931 MHz
		T1	وريد والعادي مريد العالمي الم	manniter	miller	M	2[1]	1 Emproprise	2		-22.29 dBm
0 dBm								1	}	8	24.3600 MHz
10 -10									1		
-10 dBm—											
-20 dBm	L	.771 dBm						1	V <mark>3</mark>		
-20 0011	-20								ί.		
-30 dBm—		BARN ALL LAND MAN MAN AND							- Warter	n Menner were	where we are a second where the second se
-30 dBm	u have been and	And a second sec									when an and the second design
-40 dBm—											
50 40-5											
-50 dBm—											
-60 dBm—											
00 0011											
-70 dBm—											
CF 829.0	 MHz			1001	nts					Sn	an 20.0 MHz
Marker				1001	pes						
	ef   Trc	X-valu	e	Y-value	1	Funct	ion	1	Eur	nction Res	ult
M1	1		81 MHz	5.23 dB	m	T unc.			1 41	ICCION NO 3	
T1	1		45 MHz	2.19 dB		00	cc Bw			8.93	1068931 MHz
T2	1	833.47	'55 MHz	2.63 dB	m						
M2	1	824	36 MHz	-22.29 dB							
M3	1	833	64 MHz	-21.27 dB	m						
	)[					Mea	suring.		11111	1,00	29.03.2018 12:27:16

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

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4.1.1.8.2 Test Channel = MCH

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Spect	rum														₽
Ref L	evel	24.90	dBm	Offset	4.90 dB	<b>e RBW</b> 100 k	Hz								<u> </u>
🔵 Att		3	O dB 🥃	SWT	100 ms	<b>– VBW</b> 300 k	Hz	Mode	Auto S <sup>1</sup>	weep					
😑 1AV V	'iew														
20 dBm								M	1[1]					6.10	
20 0.011	·													.4030	
10 dBm	·			T1	<u>M1</u>				cc Bw			8.		58931	
				View V	un marthren	water between the who	manne	Mangalow	2[1] ~~~~~~~	T ووراهار راب الدو	2			20.75 (	
0 dBm-									1	1	ĺ	1	831	.8600	MHZ
10 40-	_										{				
-10 dBr	n														
-20 dBr	<u></u> _	1 -19	.900 dB	m <u></u>							MЗ				
20 001	"		1	··· /							1				
-30 dBr	n		gonariana	محكمه مملله							- the second	and the barries	Manual	eta libritar. Lieta	
a		Month													a month
-40 dBr	n														
-50 dBr	_														
-50 UBI															
-60 dBr	n														
-70 dBr	n——						-								
CF 836	5.5 MI	47				100	l nts						Snan	20.0 M	1Hz
Marker		12				100	r per	,					opun	2010 1	
Type	Ref	Trc		X-value	. 1	Y-value	1	Func	tion [		Eu	nction R	esult		
M1		1			, J3 MHz	6.10 dt	3m	- T une			10	necioni	osuit		
T1		1		832.024		2.83 di		0	cc Bw			8.	93106	8931 N	ИНZ
Т2		1		840.95	55 MHz	1.28 df	3m								
M2		1			36 MHz	-20.75 dł									
МЗ		1		841.3	14 MHz	-21.44 di	3m								
								Mela	suring		11111	IN LXA	2	9.03.2018	
	1							)							

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41183 Test Channel = HCH

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Spectru	m	٦										E
Ref Lev	el 24.	90 dBr	n Offset	4.90 dB	🔵 RBW 100 ki	Ηz						
🗕 Att		30 d	B 👄 SWT		🔵 <b>VBW</b> 300 ki		Mode A	uto S	weep			
●1Av Viev	V											
20 dBm—							M1[	1]				5.33 dBm
20 ubiii—											84	1.9820 MHz
10 dBm—					M1			: Bw			8.931	068931 MHz
10 abiii			T1		Numertalhammetergeland		M2[	1]		2		-22.90 dBm
0 dBm	_		700	an a	a service and service services of the service of th	with the	~applitudered the paper	arandah kan	manner		83	9.3400 MHz
										l		
-10 dBm—			+ +									
									N	3		
-20 dBm-	- D1 -	20.668	3 dBm MP							ŧ—		
										5		
-30 dBm-	helenen	فيهمو اللسو	A Marked States and a state of the states of							- The allow	Nevermenthe	millimentermy
												- I wall want of the second
-40 dBm—												
-50 dBm—												
-30 0.011												
-60 dBm—											_	
00 40												
-70 dBm—											_	
CF 844.0					1001							
<u> </u>	MHZ				1001	pes	<b>`</b>				ъра	n 20.0 MHz
Marker	<u> </u>											
	tef   Ti		X-value		Y-value	_	Functio	on		Fu	nction Resu	lt
M1		1		32 MHz	5.33 dB			. D			0.001	
T1 T2		1	839.524 848.45		2.97 dB 2.57 dB		UCC	: Bw			8,931	068931 MHz
M2		1		35 MHZ 34 MHZ	-22.90 dB							
M2 M3		1		54 MHz	-22.90 dB -21.59 dB							
	- 26	1	040.0		21.39 UB				_			
							Measu				1,00	29.03.2018

Date:29.MAR.2018 12:28:03



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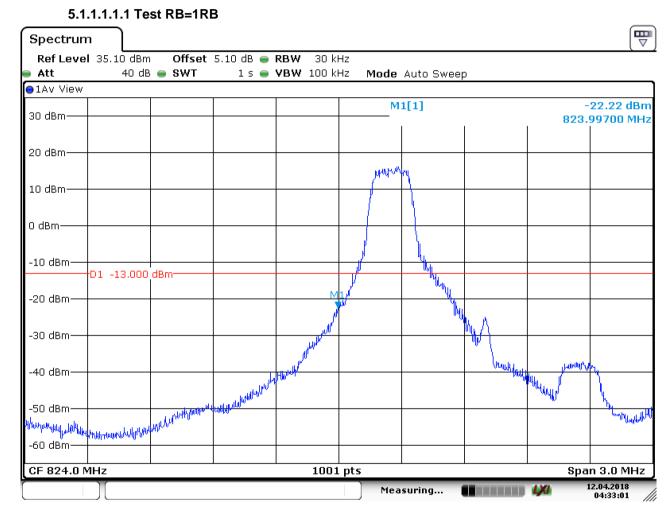
### 5 Band Edges Compliance

### 5.1 For LTE

### 5.1.1 Test Band = LTE band5

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

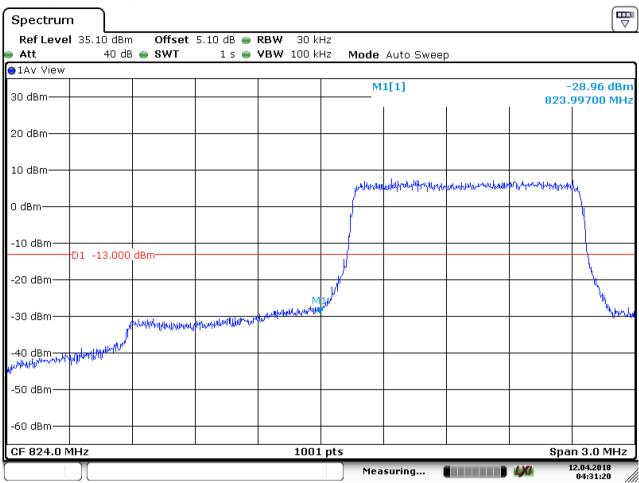
5.1.1.1.1 Test Channel = LCH



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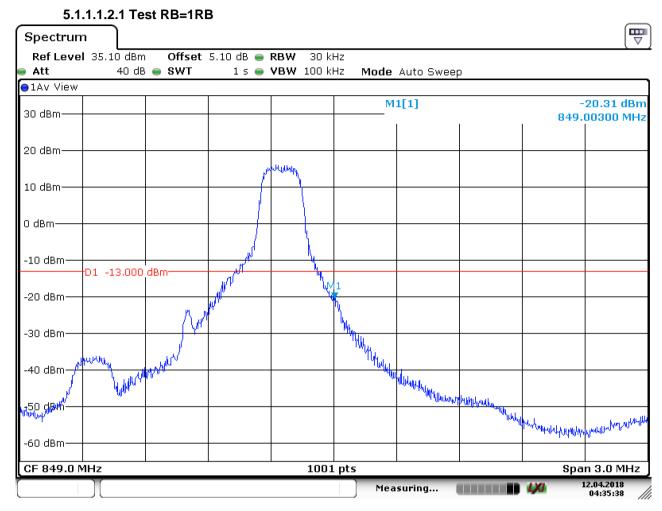


5.1.1.1.1.2 Test RB=6RB

Date: 12.APR.2018 04:31:20



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### 5.1.1.1.2 Test Channel = HCH

Date: 12.APR.2018 04:35:39



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Spectrum	Γ								
	35.10 dBm		5.10 dB 👄						
Att	40 dB	SWT	1 s 👄	<b>VBW</b> 100 k	Hz Mode	Auto Swee	р		
⊖1Av View			1	T					
30 dBm					M	1[1]	1		31.10 dBm 00300 MHz
20 dBm									
10 dBm		with marked and and	An Make Marker and Mark	hkat.					
0 dBm		en of a solution							
-10 dBm	D1 -13.000	dBm							
-20 dBm									
Nggr dBm—				Nu Nu	1 Harden Jacken March	aliel weather and too	the land the allowed the second	L.	
-40 dBm						anten a teoretelen	(Brun in Mil	Warrougerra	the chille the weather
-50 dBm									in the Ma
-60 dBm									
CF 849.0 M	1Hz			1001	. pts				n 3.0 MHz
					Mea	suring		4/0	12.04.2018 04:34:21

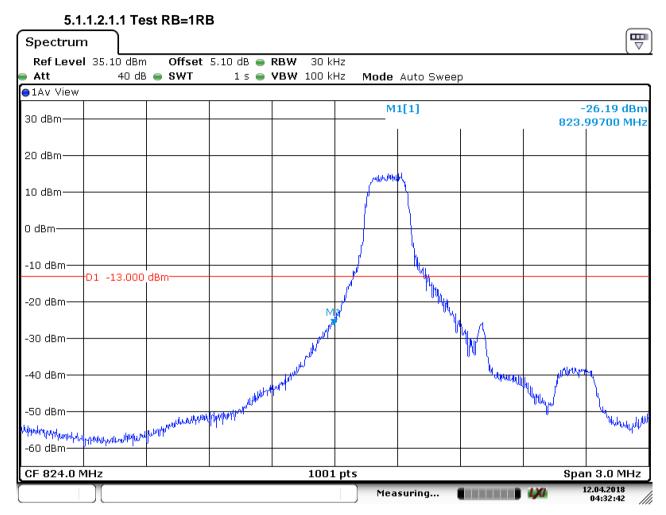
### 5.1.1.1.2.2 Test RB=6RB

Date: 12.APR.2018 04:34:22



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



Date: 12.APR.2018 04:32:42



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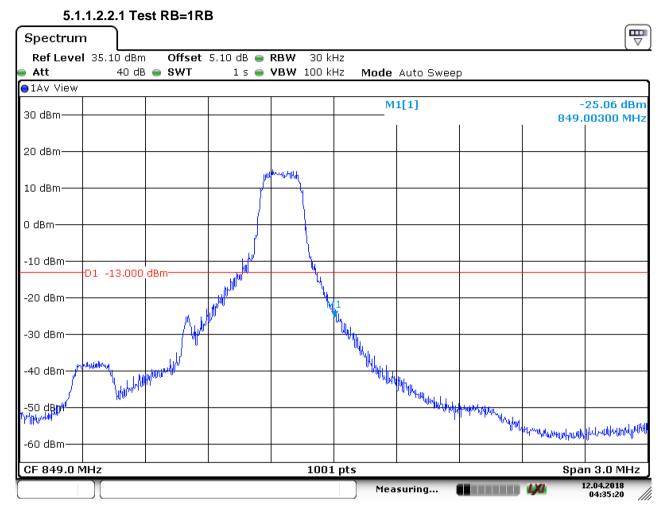
Spectrum									
Ref Level	35.10 dB	m Offset	5.10 dB 👄	RBW 30 ki	Ηz				
🕳 Att	40 d	IB 🔵 SWT	1 s 👄	<b>VBW</b> 100 ki	Hz Mode	Auto Swee	р		
●1Av View									
30 dBm					M	1[1]	1		28.39 dBm 99700 MHz
20 dBm									
10 dBm									
0 dBm					- ANNUM	photostophytophytophytophytophytophytophytophy	Angene and the second se	han an fuir an	<u>}</u>
-10 dBm	D1 -13.00								
-20 dBm					- WA				h.
-30 dBm			Herderformulation	M Myrthyddwyddyddiad	1 1				New product
-30 dBm -40 dBm թո <sup>ղություն</sup> ներ	1/140/06/00-00-00	- Manager of the							
-50 dBm									
-60 dBm									
CF 824.0 M	Hz			1001	pts			· · · · ·	n 3.0 MHz
					Mea	suring		4/0	12.04.2018 04:32:09

### 5.1.1.2.1.2 Test RB=6RB

Date: 12.APR.2018 04:32:09



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### 5.1.1.2.2 Test Channel = HCH

Date: 12.APR.2018 04:35:20



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-50 dBm -60 dBm CF 849.0 MHz 1001 pts Span 3.0 MHz 12.04.2018	Spectrum	ι								
1 Av View       M1[1]       -30.71 dBm         30 dBm       849.00300 MHz         20 dBm       9         10 dBm       9         20 dBm       9         -20 dBm       9         -30 dBm       9         -20 dBm       9         -20 dBm       9         -30 dBm       9         -30 dBm       9         -30 dBm       9         -40 dBm       9         -50 dBm       9         -60 dBm       9         -1001 pts       Span 3.0 MHz	Ref Level									``````
30 dBm	_	40 dB	s 😑 SWT	1 s 👄	<b>VBW</b> 100 k	Hz Mode	Auto Swee	р		
30 dBm       849.00300 MHz         20 dBm       90 dBm         10 dBm       90 dBm         0 dBm       90 dBm         0 dBm       90 dBm         -10 dBm       91 -13.000 dBm         -20 dBm       91 -13.000 dBm </td <td>●1Av View</td> <td></td> <td></td> <td>1</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>	●1Av View			1						
10 dBm     10 dBm <td>30 dBm</td> <td></td> <td></td> <td></td> <td></td> <td>M</td> <td>1[1]  </td> <td>1</td> <td></td> <td></td>	30 dBm					M	1[1] 	1		
0 dBm / 1 / 13.000 dBm / 1 / 1 / 1 / 1 / 1 / 1 / 1 / 1 / 1 /	20 dBm									
0 dBm -10 dBm -10 dBm -20 dBm -40 dBm -50 dBm -50 dBm -60 dBm -20 d										
-20 dBm -20 dBm -20 dBm -40 dBm -50 dBm -60 dBm -60 dBm -60 dBm -60 dBm -60 dBm -60 dBm -1001 pts -20 dBm -20 dBm -		underheiten	ed addited and a second and a	ALUUHALAHMAAAMYYA	htter the terms of te					
-20 dBm -20 dBm -40 dBm -50 dBm -60 dBm CF 849.0 MHz 1001 pts Span 3.0 MHz 12.94.2018		D1 10.000	dData							
-50 dBm -60 dBm CF 849.0 MHz 1001 pts Span 3.0 MHz 12.04.2018	l l	DI -13.000								
-50 dBm -60 dBm CF 849.0 MHz 1001 pts Span 3.0 MHz 12.04.2018	₩ <b>30</b> /dBm				N.	1				
-50 dBm -60 dBm CF 849.0 MHz 1001 pts Span 3.0 MHz 12.04.2018	Ĩ					who are all full all all all all all all all all all	huddlanaaaaa	have and the second	U. Mediatelana	
-60 dBm CF 849.0 MHz 1001 pts Span 3.0 MHz Maccuring 12.04.2018									a a construction of the second	North Annal March March
CF 849.0 MHz         1001 pts         Span 3.0 MHz           Image: CF 849.0 MHz         12.04.2018         12.04.2018	-50 dBm—									
Monouring 12.04.2018		1Hz			1001	nts			Sna	n 3.0 MHz
		Υ			1501		surina		-	12.04.2018

#### 5.1.1.2.2.2 Test RB=6RB

Date: 12.APR.2018 04:34:50



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### 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 dBm Offset 5.10 dB 👄 RBW 30 kHz Att 40 dB 👄 SWT 1 s 👄 **VBW** 100 kHz Mode Auto Sweep ●1Av View M1[1] -19.16 dBm 30 dBm-823.99400 MHz 20 dBm-10 dBm-0 dBm--10 dBm-D1 -13.000 dBm ľ -20 dBm--30 dBm-WIRLING -40 dBm-MM -50 dBm-AND MALLI bruth WW/11 loute алын nsqualbanh<sup>ur</sup> CF 824.0 MHz 1001 pts Span 6.0 MHz 12.04.2018 Measuring... 04:40:15

Date: 12.APR.2018 04:40:15



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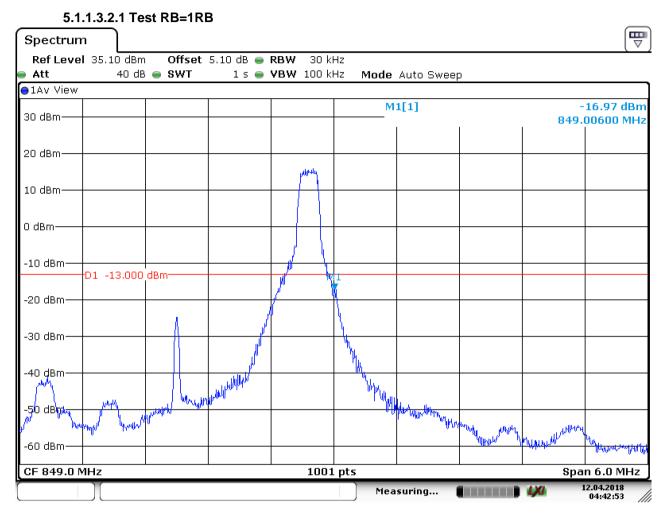
Spectrum	1														V
Ref Level	35.1	0 dBm		Offset	5.10 dE			) kHz						`	
🔵 Att		40 dB		SWT	1 9	5 😑	<b>VBW</b> 100	) kHz	: Mo	de	Auto Sweej	2			
⊖1Av View							_								
30 dBm										_M3	1[1]			·29.48 dB 99400 MI	
													023.	99400 00	ΠZ
20 dBm										$\neg$					
10 dBm								_						-	
0 dBm									Malan	herbe	hhypertelitenseering	a human many	hallowerman	hlunoweddoeddy	
10 -0															l
-10 dBm—	D1 -1	3.000	dBm												Ļ
-20 dBm——															
								м‡	ł						ł
-30 dBm—							and and	NV I						<u> </u>	-
-30 dBm -40 dBm/ <sup>Jabuy</sup>	doutination	Umbulla	Jurit	Mayamenta	at your all and	ut (frutu	AND								
-40 dBm															
-50 dBm										$\neg$					
-60 dBm										$\neg$					
CF 824.0 M	1Hz						10	)01 p	ots			1	Spa	in 6.0 MH	Iz
									-	1ea:	suring		<b>1/0</b>	12.04.2018 04:38:22	

### 5.1.1.3.1.2 Test RB=15RB

Date: 12.APR.2018 04:38:22



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### 5.1.1.3.2 Test Channel = HCH

Date: 12.APR.2018 04:42:53



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Spectrum	ι								
	35.10 dBm		5.10 dB 👄						
Att	40 dB	e swt	1 s 👄	<b>VBW</b> 100 k	Hz Mode	Auto Swee	p		
30 dBm					M	1[1]	1		32.86 dBm 00600 MHz
20 dBm									
10 dBm									
o dem	af the later of the state of th	utudahilun dalamatikan	unleitheachtyphonant	HAMANA MAN					
-10 dBm—	D1 -13.000	dBm							
-20 dBm									
/ -30 dBm				, A	1 <u>1</u>				
-40 dBm					* Marinkaki Kork	Humahashira	toportion of the provided of t	h dhan la an	WHM Marsharapa
-50 dBm									~ 4w
-60 dBm									
CF 849.0 M	1Hz	I	I	1001	. pts	I	I	Spa	n 6.0 MHz
					Mea	suring		LX0	12.04.2018 04:41:27

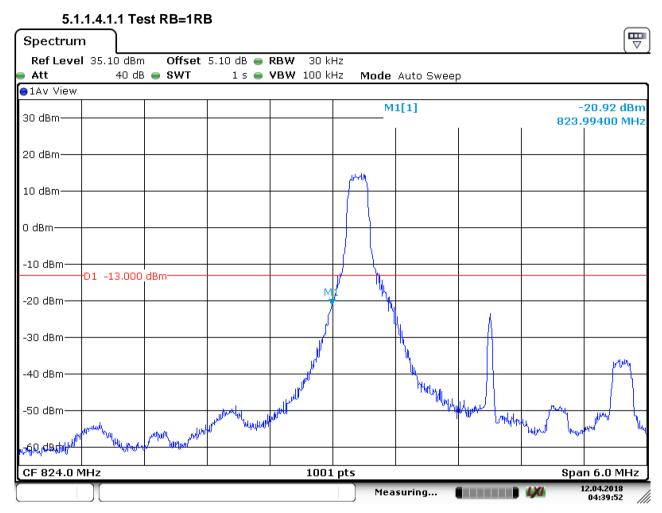
### 5.1.1.3.2.2 Test RB=15RB

Date: 12.APR.2018 04:41:27



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



Date: 12.APR.2018 04:39:52



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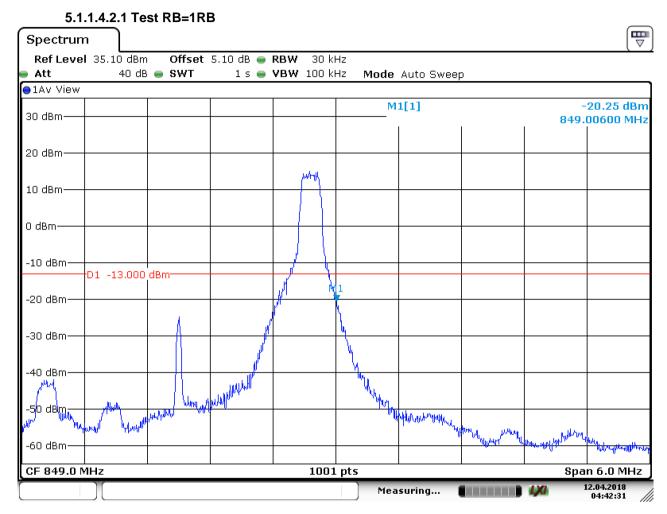
	.1.4.1.2 16	est RB=1	DKB							ſ	m
Spectrun											∀
Ref Leve Att	l 35.10 dBr: 40 dl	n Offse B 🖷 SWT	t 5.10 dB 👄 1 s 👄	<b>RBW</b> 30 ki <b>VBW</b> 100 ki		Mode	Auto Swee	р			
●1Av View	-										
30 dBm						M	1[1]	1		∙29.87 d 99400 M 	
20 dBm											
10 dBm											
0 dBm						- p. p. okor kon	han a share the second state of	anter the particulation of the	pturnellinelp	Harpertal	¥
-10 dBm—	D1 -13.000	   dBm									
-20 dBm—					-						+
-30 dBm—				M	ľ						4
-40 dBm	and approximation of the	Newspirensterand	munpedhithmutdern	-Urdunklymodia V ~							
տ <b>նարն<sup>իչ չուլ</sup></b> -50 dBm——											
-60 dBm											
CF 824.0 M	⊥ MHz			1001	. pt	ts		1	l Spa	in 6.0 Mi	Hz
	][					)	suring			12.04.2018 04:38:53	

5.1.1.4.1.2 Test RB=15RB

Date: 12.APR.2018 04:38:53



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### 5.1.1.4.2 Test Channel = HCH

Date: 12.APR.2018 04:42:31



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Spectrum	ייין אין אין אין אין אין אין אין אין אין								
	35.10 dBm		5.10 dB 👄						
Att	40 dB	e swt	1 s 👄	<b>VBW</b> 100 k	Hz Mode	Auto Swee	р		
●1Av View									
30 dBm					M	1[1]	1		32.30 dBm 00600 MHz
20 dBm									
10 dBm									
o demand	humantymu	mulpulylumu	aluwara.hiyodaw	han she water shop					
-10 dBm	·D1 -13.000								
-20 dBm	·DI -13.000								
-30 dBm				L Y	1				
-40 dBm					human	nyonanthe Manager	Monterproduces	Kaladar Ladacaa	
									my furging way
-50 dBm									
-60 dBm	1117			1001	nts			Qna	n 6.0 MHz
	Υ Υ			1001		curing			12.04.2018
					Mea	isuring		LX0	04:42:07

5.1.1.4.2.2 Test RB=15RB

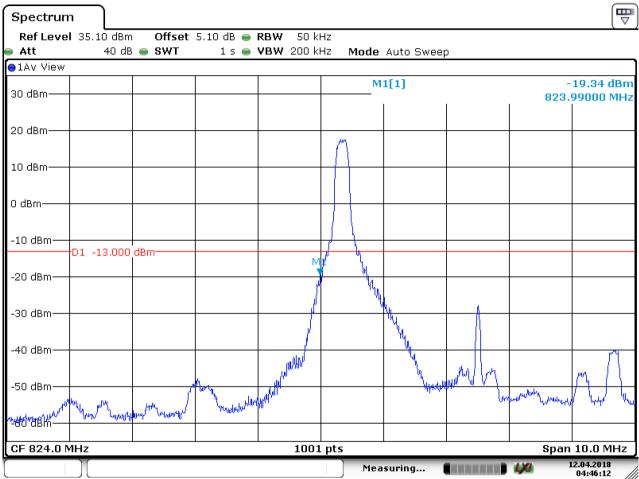
Date: 12.APR.2018 04:42:07



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### 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 04:46:13



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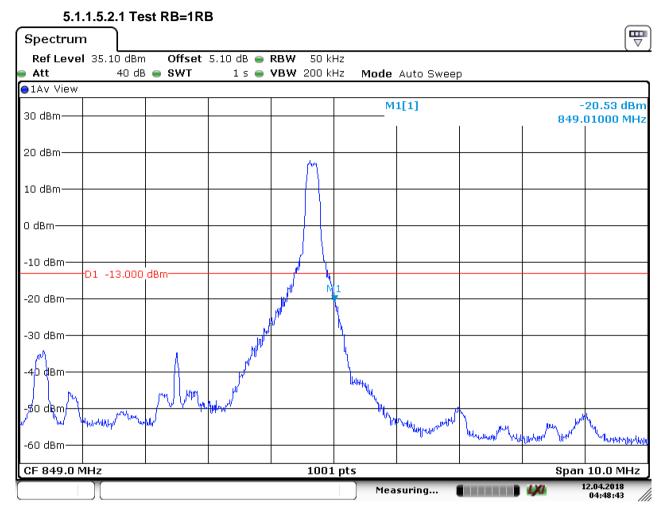
Spectrun	n									ſ	V
Ref Leve	l 35.10 dBm	n Offset	5.10 dB 👄	<b>RBW</b> 50 k	Hz						
🗕 Att	40 dE	8 👄 SWT	1 s 👄	<b>VBW</b> 200 k	Hz	Mode	Auto Sweej	C			
⊖1Av View											
30 dBm						M	1[1] I	I		·30.24 dE 99000 M	
20 dBm											
10 dBm											
0 dBm						allowladurya	etermonentulp	youwand ware	non-haun-hine	uliquiauly desperied	
-10 dBm—	-D1 -13.000	dBm									
-20 dBm—	D1 10.000										ļ
-30 dBm—				M	h						Ŋ
-40 dBm <del>y<sup>l.Uu</sup></del>	houppende	aphysion and a particular pa	herening with the production of	apointernoticity							
poularitatent											
-50 dBm—											
-60 dBm—											
CF 824.0 M	u MHz	1	1	1001	. pt	s		1	Span	10.0 MH	lz
	][					)	suring		•	12.04.2018 04:44:55	

### 5.1.1.5.1.2 Test RB=25RB

Date: 12.APR.2018 04:44:55



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### 5.1.1.5.2 Test Channel = HCH

Date: 12.APR.2018 04:48:44



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Spectrun	n								
	l 35.10 dBn		5.10 dB 👄						
Att	40 dE	B 👄 SWT	1 s 👄	<b>VBW</b> 200 k	Hz Mode	Auto Swee	p		
30 dBm					м	1[1]			32.11 dBm 01000 MHz
20 dBm									
10 dBm									
O dBm	languagehoutenthan a h	hungspiption	the warmed for	bran water and					
-10 dBm—	D1 -13.000	dBm							
-20 dBm									
/ -30 dBm—				<u> </u>	1				
-40 dBm					Workey water	hunder	and the way when the standy	antilana ana ana ana ana ana ana ana ana ana	
-50 dBm									Mohromonica
-60 dBm									
CF 849.0 N	MHz	I		1001	pts			l Span	10.0 MHz
					Mea	isuring		1/0	12.04.2018 04:47:26

### 5.1.1.5.2.2 Test RB=25RB

Date: 12.APR.2018 04:47:26

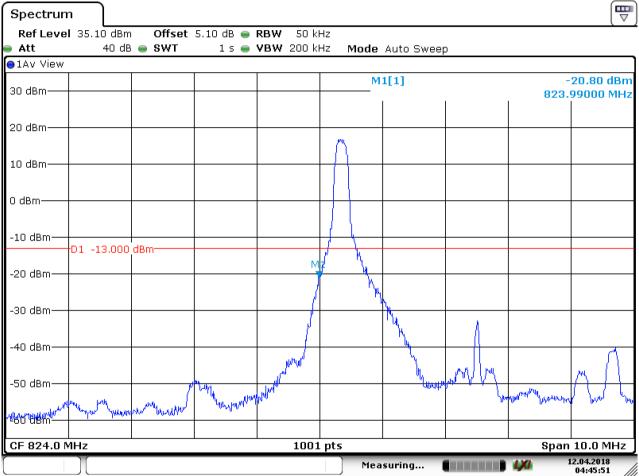


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#### 5.1.1.6 Test Mode = LTE/TM2 5MHz

5.1.1.6.1 Test Channel = LCH

### 5.1.1.6.1.1 Test RB=1RB



Date: 12.APR.2018 04:45:51



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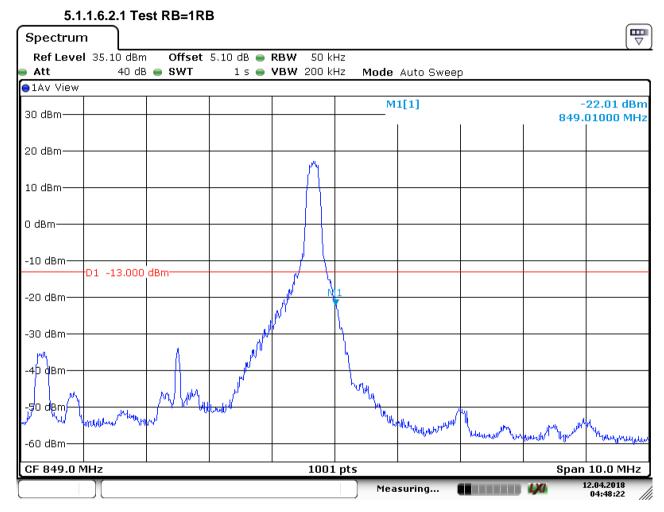
Spectrum											
Ref Level	35.10	dBm	Offs	et 5.10 dB 👄	<b>RBW</b> 50 ki	Hz					
Att	4	0 dB	SWT	1 s 👄	<b>VBW</b> 200 ki	Hz	Mode	Auto Swee	2		
●1Av View											
30 dBm							M	1[1]	I		29.35 dBm 99000 MHz 
20 dBm											
10 dBm											
0 dBm						ŗ	هميلة للحصيبيل	alainterration	naftroorgiweddhahadrod	nt and the second s	healtystown
-10 dBm	D1 -13	.000	dBm								
-20 dBm											
-30 dBm					M	10 C					<u> </u>
-40 dBm	mailling	Mapul	wywanyyw	ware and the second							
-50 dBm											
-60 dBm											
CF 824.0 M	IHz				1001	. pts	:	l	I	Span	10.0 MHz
							Mea	suring		1,70	12.04.2018 04:45:28

#### 5.1.1.6.1.2 Test RB=25RB

Date: 12.APR.2018 04:45:29



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### 5.1.1.6.2 Test Channel = HCH

Date: 12.APR.2018 04:48:22



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									_
Spectrum	ı ]								[₩
Ref Level	35.10 dBm	offset	5.10 dB 😑	<b>RBW</b> 50 k	Hz				`
👄 Att	40 dE	s 🔵 SWT	1 s 👄	<b>VBW</b> 200 k	Hz Mode	Auto Swee	р		
●1Av View									
					M	1[1]		-	32.64 dBm
30 dBm								849.	01000 MHz
20 dBm									
10 dBm									
TO abili									
<b>A</b>	un contrator co	. Internation							
O glettin <u>-human</u>	hand find filler and reflered	an wanter a start water a s	ղուրդիրություններում	pour rolling					
-10 dBm									
	D1 -13.000	dBm							
-20 dBm									
-20 0011									
Y.				1 1					
( <mark>-</mark> 30 dBm				1					
					"hipoter water war	Addition have a second	L.		
-40 dBm—						a	mpany phonestication	Human Marken Harland	uderik I.
									" " White has been and
-50 dBm—									
SO GBIII									
-60 dBm									
CF 849.0 M	l /IHz		1	1001	pts		1	l Span	10.0 MHz
	Ξ.					curing			12.04.2018
						suring		LXI ·	04:47:57

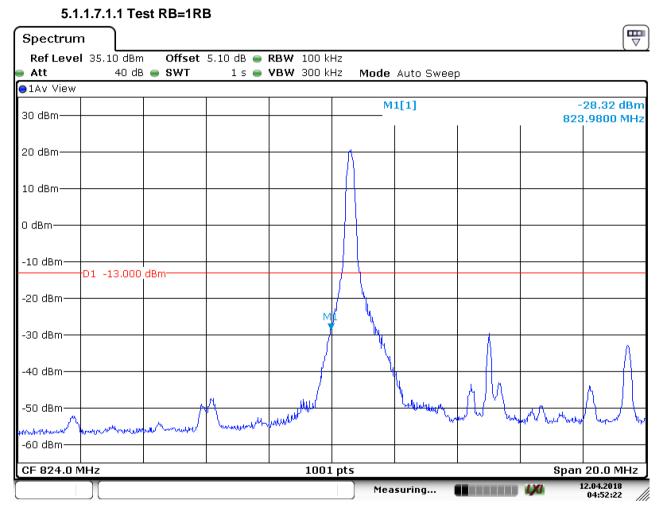
#### 5.1.1.6.2.2 Test RB=25RB

Date: 12.APR.2018 04:47:57



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



Date: 12.APR.2018 04:52:22



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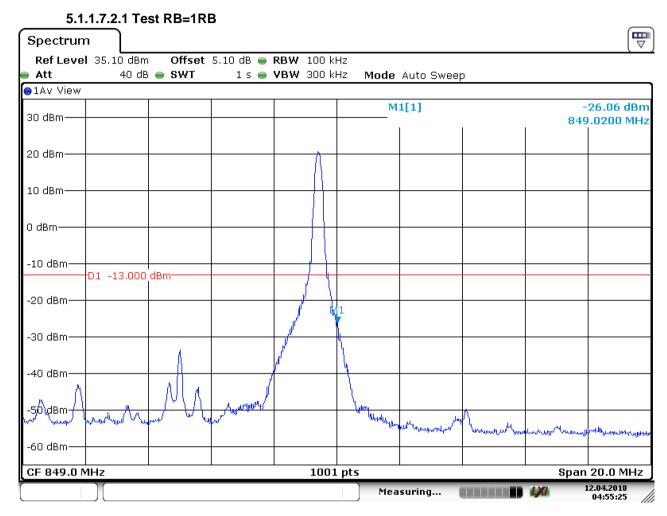
Spectrun	n									[	₩)
	l 35.10 dBm		5.10 dB 😑								
Att	40 dE	B 😑 SWT	1 s 👄	<b>VBW</b> 300 ki	Ηz	Mode	Auto Swee	p			_
⊖1Av View	1	1	1	1						<u></u>	
30 dBm					└──	M	1[1]			31.62 dE 1.9800 M	
					ł				020		1112
20 dBm											
20 00111					ł						
					1						
10 dBm											
					1	e fai baske neuto	naaraallin naaraa araa	and providence while	androluk setus serieta ada M	And when the second	
0 dBm					$\square$	Joseph Hull Street -		and the state of t	ann 1410a (befar 140a a		$\vdash$
-10 dBm—		1-			$\vdash$						+
	D1 -13.000	dBm			$\square$						$\top$
-20 dBm					$\vdash$						
-30 dBm				М	لم1						<u>ا</u>
			and mortel and the set	and marked block and	Ĩ						2
-40 dBm		ant afrest war they	a the second								
June 10 abin	annound and the				1						
- O ALAMAN					1						
<del>مە</del> ھەرەر ھو											
					ł						
-60 dBm											
CF 824.0 M	I MHz	1	I	1001	. pt:	s	1	1	Span	20.0 MF	Ηz
	γ				Ť	1	suring		-	2.04.2018	
					1	)				04:50:50	111

### 5.1.1.7.1.2 Test RB=50RB

Date: 12.APR.2018 04:50:50



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### 5.1.1.7.2 Test Channel = HCH

Date: 12.APR.2018 04:55:25



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Spectrun	n										
Ref Leve				5.10 dB 👄							
Att	4	0 dB 🛑 🕄	SWT	1 s 👄	<b>VBW</b> 30	IO kH	lz Mode	Auto Swee	ep		
●1Av View								1[1]			34.17 dBm
30 dBm								1[1]			.0200 MH;
20 dBm											
10 dBm											
0 dBm	power	Antomorphismed	manne	a management	human						
-10 dBm											
	D1 -13	.000 dBm-									
-20 dBm											
20 00											
, ∕≝30 dBm—											
, 50 abin						Y	1				
-40 dBm							war white the second	Multimeter	mar the manufacture way	with the second of the second second	wine
-40 0011											
-50 dBm											Mar Maria
-50 uBIII											Mr.L.
-60 dBm											
CF 849.0 N	/IHz	·			1	001	pts		•	Span	20.0 MHz
	$\gamma$						Mea	suring		LXI	2.04.2018 04:53:54

### 5.1.1.7.2.2 Test RB=50RB

Date: 12.APR.2018 04:53:54



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### 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] -28.00 dBm 30 dBm-823.9800 MHz 20 dBm-10 dBm-0 dBm--10 dBm-D1 -13.000 dBm -20 dBm--30 dBm--40 dBm· -50 dBmnut www.www. -60 dBm-CF 824.0 MHz 1001 pts Span 20.0 MHz 12.04.2018 LXI Measuring... 04:51:58

Date: 12.APR.2018 04:51:58



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Spectrum		ſ													
Ref Level	35.1	LO dBm	1	Offset	5.10 dE		RBW	100 kH	Ηz						<u> </u>
Att		40 dB		SWT	1 9		VBW	300 kH	Ηz	Mode	Auto Swe	ер			
●1Av View							_								
30 dBm										M	1[1]	I		-31.51 3.9800 	
20 dBm															
10 dBm															
0 dBm										Lupersteller	un martender and and a start of the second	www.unionalista	erapater daturante	-t-totantant	huling
-10 dBm	D1 -:	13.000	dBm	٦											
-20 dBm															+
-30 dBm						فلهلهل	www.	M	1) )						
-40 dBm	show by the	whenter	4.10 m. M.A	the for the second											
-5.@rd8m															
-60 dBm															
CF 824.0 M	Hz							1001	pt	2			-	1 20.0 M	
										Mea	suring		1,70	12.04.201 04:51:3	

### 5.1.1.8.1.2 Test RB=50RB

Date: 12.APR.2018 04:51:34



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Spectrum	· )								
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 Sweep	b		
●1Av View									
30 dBm					M	1[1] 			28.40 dBm .0200 MHz
20 dBm				Λ					
10 dBm									
0 dBm									
-10 dBm	D1 -13.000	dBm							
-20 dBm					1				
-30 dBm		Å		John 1					
-40 dBm		AL A		ŕ	N.				
-50 dBm	warner Mar	where the second se	And the first of the second		Gur Vilredown	44 mar when when when	A Malmenter and	understramthings and	hangenter
-60 dBm									
CF 849.0 M	IHz	ı	J	1001	l pts	·	·	Span	20.0 MHz
					Mea	suring		<b>1</b> /0	12.04.2018 04:55:05

### 5.1.1.8.2 Test Channel = HCH

5.1.1.8.2.1 Test RB=1RB

Date: 12.APR.2018 04:55:05



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Spectrun Ref Leve	I 35.10 dBm	Offset	5.10 dB 👄	<b>RBW</b> 100 k	Hz				( V
Att		SWT		<b>VBW</b> 300 k		Auto Sweej	2 C		
●1Av View									
30 dBm					M	1[1]	I		33.36 dBr ).0200 MH 
20 dBm									
10 dBm									
o dem <u>unitation</u>	phymenesialities	herestlipelentrum	<u>ക്ഷ്യത്തായമക്ഷെം</u> .	ware housen					
-10 dBm	D1 -13.000	dBm							
-20 dBm—									
, ≠30 dBm—									
-40 dBm——					Wale-havelle-last which	manually	Patrice College and a set	and a surface by Takley	Proven
-50 dBm									Www.www.
-60 dBm									
CF 849.0 M	⊥ ∕IHz		1	1001	. pts		1	LSpan	20.0 MHz

#### 5.1.1.8.2.2 Test RB=50RB

Date: 12.APR.2018 04:54:31



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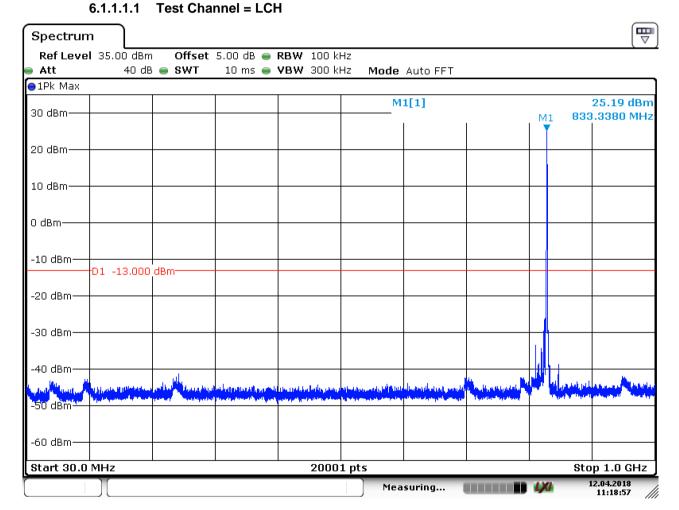
### 6 Spurious Emission at Antenna Terminal

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





Date: 12.APR.2018 11:18:58

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Spectrun	ı )								
	I 35.00 dBm			RBW 1 MHz					
Att	40 dB	SWT 😑 SWT	10 ms 👄	VBW 3 MHz	Mode A	uto FFT			
⊖1Pk Max	1	1	1						
30 dBm					M	1[1]			30.87 dBm 00190 GHz
20 dBm——									
10 dBm									
0 dBm									
o abiii									
-10 dBm—									
	-D1 -13.000	dBm							
-20 dBm—									
						M1			
-30 dBm—			te di badit di		<ol> <li>A statistical di alcaliti</li> </ol>	Lulius all.			
Harrison and the solution of the	epite. We phylochol	pole lake the second	ndert, bess after der s		na presi La cada fada ca cadachica	An Information	Homester		
-30 dBm Wyddynhyddyndd dyganger ffyr <sup>y</sup> n	الوادان المرأولين ومرارى	had a station of the	had the star	and a day to be the second	den al construction de la construction de la construcción de la	"Ipt	aproduction by the	Netwood Phylophysics	<sup>dind</sup> highdinn
-50 dBm	1								
-60 dBm									
Start 1.0 G	l GHz	1		2000	1 pts		1	Stop	10.0 GHz
	)[				) Mea	suring (		1/0	12.04.2018

Date: 12.APR.2018 11:23:24



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Spectrun	n									
	I 35.00 dBm		5.00 dB 👄							
Att	40 dB	SWT 😑 SWT	10 ms 👄	<b>VBW</b> 300 ki	Hz Mode	Auto FFT				
⊖1Pk Max	1		1							<u></u>
30 dBm					M	1[1]		м		25.31 dBm ).8550 MHz
									1 040	.0000 MHz
20 dBm										
20 4011										
10 dBm										
0 dBm——										
-10 dBm—	D1 -13.000	d8m								
	01 -13,000									
-20 dBm—										
-30 dBm—										
-40 dBm—										
and the state	والمتحدد والمراجع	Jak	delension of a second	والمالة بالمرافعة فالأراف المحار	a Jacob Internation	الالقار بالملا أفر العرور بنرا	a handle and		all selles	and and a Alberthu
-50 dBm	Burnardinal-Koffilia	and the Characterian	a distanta piningan harangan b	and a second state of a	A second state of the second	and all showing the last	long primore	[	lade.	and the property of the state of the
-60 dBm										
Start 30.0	MHz			2000	1 pts			_		p 1.0 GHz
	J				Mea	suring		LXI	1	12.04.2018 11:20:06

6.1.1.1.2 Test Channel = MCH

Date: 12.APR.2018 11:20:07



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Spectrun	ן י								
	1 35.00 dBm		5.00 dB 👄						`
Att 1Pk Max	40 dE	3 👄 SWT	10 ms 👄	VBW 3 MHz	Mode A	uto FF I			
30 dBm					M	1[1]	1		28.72 dBm 65380 GHz
20 dBm									
10 dBm									
0 dBm									
-10 dBm	D1 -13.000	dBm							
-20 dBm					M1				
-30 dBm——	and and a start of the band of	himilandik	a de la carrica	anna Mada and	a a superior and the su	l Inconstant al ser Inconstant al services de la service de la	Weinspeaker, Mile	Waharahada	alternation of the sector
proposibilities distri	upolitica de la constitución	dupple lines	and and a state of the state of	in the state of the state		Part Part	and the state of t	in the state of th	and the second s
-50 dBm——									
-60 dBm									
Start 1.0 G	Hz			2000	1 pts			Stop	10.0 GHz
					Mea	suring		LX0	12.04.2018 11:22:47

Date: 12.APR.2018 11:22:47



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Spectrum	, )								
	35.00 dBn			<b>RBW</b> 100 k					`
Att	40 df	B 👄 SWT	10 ms 👄	<b>VBW</b> 300 k	Hz Mode	Auto FFT			
⊖1Pk Max		1	1	1	1				
30 dBm					M	1[1]		M1 848	25.34 dBm 3.3720 MHz
20 dBm									
20 0011									
10 dBm									
0 dBm									
-10 dBm—	D1 -13.000	l dBm							
	DI -13,000								
-20 dBm—									
-30 dBm—									
-40 dBm—									
and the second	and the state of the second	Louis Hall Barris	L. H. S. Langer	Lupbert Love det	the second second second	الكريب أفرج انتقالهما	أفراءها بالتقال وال	Mar Barrie	a tata and the south
-50 dBm-	hay and a state of the last state of the	polet Station	يدين رايي ميزيا ريون ا	and a fill and a state of the	<mark>ng alian ing Kawakatan</mark> I	( <sup>11</sup> 1) a the birth of the officer	Sudaethausee	I THE REQUEST	na handari bilikaya
-60 dBm									
Start 30.0	MHz			2000	1 pts				op 1.0 GHz
					Mea	suring		LXI	12.04.2018 11:20:44

6.1.1.1.3 Test Channel = HCH

Date: 12.APR.2018 11:20:44



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Spectrun	n )								
	l 35.00 dBm		5.00 dB 👄						· · · ·
Att	40 dE	B 😑 SWT	10 ms 👄	VBW 3 MHz	Mode A	uto FFT			
●1Pk Max									
00 JB					M	1[1]			29.54 dBm
30 dBm							1	6.6	58240 GHz
20 dBm——									
10 dBm									
0 dBm									
-10 dBm——	D1 -13.000								
	DI -13.000	ubiii							
-20 dBm—									
						M1			
-30 dBm						_			
00 40.00	L L		,	Ithil that	and shirt his same him.	<mark>ularit patrial</mark>	المرور والقابية التهاد	da na	والمراجع والمراجع
الملاحد وملياهما	الرور المتلك المروا الأل	14 patro 1 1 1 1 1 1 1	and the second second second	interpreter productions and a second seco	and the balance of the		a se tendroletik dita.	nam Albara A	a an an an Artholise Ind. An an Artholise Ind.
habled and habe	بأرطأها بمعالك فعاداه	, by task and below as t	Alteration - and a state of the	a halan haran da	hulanthe street et	1111	n in the second s	ny na katala na katala	i di kingana kata kata kata kata kata kata kata k
admin a state out	hini -								
-50 dBm—									
-60 dBm									
Start 1.0 G	GHz			2000	1 pts				10.0 GHz
	) (				Mea	suring (		1,00	12.04.2018 11:21:46

Date: 12.APR.2018 11:21:47



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### 7 Field Strength of Spurious Radiation

### 7.1 For LTE

### 7.1.1 Test Band = LTE band5

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

7.1.1.1.1	Test Channel = LC	H		
Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Over Limit (dB)	Polarization
72.186667	-80.40	-13.00	67.40	Vertical
170.466667	-84.87	-13.00	71.87	Vertical
1649.000000	-60.61	-13.00	47.61	Vertical
2470.000000	-46.78	-13.00	33.78	Vertical
4648.725000	-67.41	-13.00	54.41	Vertical
9213.675000	-63.96	-13.00	50.96	Vertical
62.900000	-77.94	-13.00	64.94	Horizontal
433.993333	-81.38	-13.00	68.38	Horizontal
1649.500000	-61.03	-13.00	48.03	Horizontal
2469.500000	-49.06	-13.00	36.06	Horizontal
4415.700000	-67.37	-13.00	54.37	Horizontal
9070.350000	-62.74	-13.00	49.74	Horizontal

#### 7.1.1.1.2 Test Channel = MCH

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Over Limit (dB)	Polarization
71.580000	-79.90	-13.00	66.90	Vertical
434.040000	-80.00	-13.00	67.00	Vertical
1664.500000	-62.37	-13.00	49.37	Vertical
2651.000000	-57.73	-13.00	44.73	Vertical
4295.287500	-67.13	-13.00	54.13	Vertical
7819.912500	-64.31	-13.00	51.31	Vertical
63.786667	-78.27	-13.00	65.27	Horizontal
605.925000	-79.17	-13.00	66.17	Horizontal
1664.000000	-62.61	-13.00	49.61	Horizontal
4387.425000	-67.39	-13.00	54.39	Horizontal
7938.862500	-64.00	-13.00	51.00	Horizontal
9526.650000	-64.46	-13.00	51.46	Horizontal

7.1.1.1.3 Test Channel = HCH

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Over Limit (dB)	Polarization
70.973333	-80.83	-13.00	67.83	Vertical

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			•	EM180100088201 of 86
633.470833	-80.18	-13.00	67.18	Vertical
1679.000000	-59.87	-13.00	46.87	Vertical
2711.000000	-57.76	-13.00	44.76	Vertical
5078.700000	-67.11	-13.00	54.11	Vertical
9267.787500	-63.98	-13.00	50.98	Vertical
56.320000	-77.44	-13.00	64.44	Horizontal
104.293333	-84.93	-13.00	71.93	Horizontal
1679.000000	-60.70	-13.00	47.70	Horizontal
4313.812500	-67.10	-13.00	54.10	Horizontal
5952.787500	-66.51	-13.00	53.51	Horizontal
9235.612500	-61.98	-13.00	48.98	Horizontal

#### NOTE:

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

2) We have tested all modulation and all Bandwidth, but only the worst case data presented in this report.



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### 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 band5	LTE/TM1 10MHz	LCH	TN	VL	-4.91	-0.005923	PASS
				VN	-5.28	-0.006369	PASS
				VH	-5.89	-0.007105	PASS
		МСН	TN	VL	4.88	0.005834	PASS
				VN	5.46	0.006527	PASS
				VH	-8.75	-0.010460	PASS
		НСН	TN	VL	4.39	0.005201	PASS
				VN	3.99	0.004727	PASS
				VH	-9.43	-0.011173	PASS
	LTE/TM2 10MHz	LCH	TN	VL	-5.24	-0.006321	PASS
				VN	-5.15	-0.006212	PASS
				VH	-4.68	-0.005645	PASS
		MCH	TN	VL	3.03	0.003622	PASS
				VN	6.04	0.007221	PASS
				VH	6.38	0.007627	PASS
		НСН	TN	VL	-5.08	-0.006019	PASS
				VN	5.32	0.006303	PASS
				VH	-4.51	-0.005344	PASS



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### 8.2 Frequency Error VS. Temperature

Test Band	Test Mode	Test Channel	Test Volt.	Test Temp.	Freq. Error [Hz]	Freq. vs. rated [ppm]	Verdict
LTE band5	LTE/TM1 10MHz	LCH	VN	-30	5.01	0.006043	PASS
				-20	-4.49	-0.005416	PASS
				-10	-4.32	-0.005211	PASS
				0	4.39	0.005296	PASS
				10	4.23	0.005103	PASS
				20	-4.38	-0.005236	PASS
				30	3.98	0.004758	PASS
				40	-5.51	-0.006587	PASS
				50	4.03	0.004818	PASS
		МСН	VN	-30	4.39	0.005248	PASS
				-20	-6.27	-0.007429	PASS
				-10	-4.61	-0.005462	PASS
				0	-3.25	-0.003851	PASS
				10	-4.96	-0.005877	PASS
				20	4.23	0.005012	PASS
				30	-2.98	-0.003513	PASS
				40	-4.86	-0.005729	PASS
				50	4.62	0.005446	PASS
		нсн	VN	-30	-3.13	-0.003690	PASS
				-20	-3.79	-0.004468	PASS
				-10	-4.65	-0.005638	PASS
				0	-5.35	-0.006487	PASS
				10	-4.88	-0.005917	PASS
				20	-3.88	-0.004705	PASS
				30	-2.98	-0.003513	PASS
				40	-4.86	-0.005729	PASS
				50	4.62	0.005446	PASS



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Test Band	Test Mode	Test Channel	Test Volt.	Test Temp.	Freq. Error [Hz]	Freq. vs. rated [ppm]	Verdict
		LCH	VN	-30	-4.82	-0.005814	PASS
				-20	-5.42	-0.006538	PASS
				-10	-4.69	-0.005657	PASS
				0	-5.35	-0.006454	PASS
				10	-4.08	-0.004922	PASS
	LTE/TM2 10MHz			20	2.95	0.003527	PASS
				30	-3.13	-0.003742	PASS
				40	2.42	0.002893	PASS
				50	4.33	0.005176	PASS
		МСН	VN	-30	5.59	0.006683	PASS
				-20	4.81	0.005699	PASS
LTE band5				-10	-5.66	-0.006706	PASS
				0	-5.25	-0.006220	PASS
				10	-4.59	-0.005438	PASS
				20	-4.29	-0.005083	PASS
				30	-3.62	-0.004389	PASS
				40	-2.86	-0.003419	PASS
				50	5.68	0.006790	PASS
		нсн	VN	-30	3.25	0.003885	PASS
				-20	3.28	0.003921	PASS
				-10	6.69	0.007998	PASS
				0	-2.78	-0.003277	PASS
				10	3.72	0.004385	PASS
				20	-3.55	-0.004185	PASS
				30	3.33	0.003925	PASS
				40	3.40	0.004008	PASS
				50	-4.82	-0.005814	PASS

The End