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Appendix B

WCDMA Band 2&4&5



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1 Effective (Isotropic) Radiated Power Output Data

Test Band	Test Mode	Test Channel	Measured[dB]	EIRP[dB]	Limit[dBm]	Verdict
		LCH	23.16	22.36	33	PASS
WCDMA1900	UMTS/TM1	MCH	23.04	22.24	33	PASS
		HCH	23.12	22.32	33	PASS
		LCH	22.72	21.72	30	PASS
WCDMA1700	UMTS/TM1	MCH	22.88	21.88	30	PASS
		HCH	22.99	21.99	30	PASS

Part I - Test Results

Note:

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

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

- b: SGP=Signal Generator Level
- c: RBW > emission bandwidth, VBW > 3 x RBW.

Detector: RMS

Test Band	Test Mode	Test Channel	Measured[dB]	ERP[dB]	Limit[dBm]	Verdict
		LCH	21.86	20.86	38.45	PASS
WCDMA850	UMTS/TM1	MCH	21.96	20.96	38.45	PASS
		HCH	21.87	20.87	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

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

Detector:

RMS



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2 Peak-to-Average Ratio

Part I - Test F	Results				
Test Band	Test Mode	Test Channel	Measured[dB]	Limit [dB]	Verdict
		LCH	2.14	13	PASS
WCDMA1900	UMTS/TM1	MCH	2.46	13	PASS
		НСН	2.29	13	PASS
		LCH	2.06	13	PASS
WCDMA1700	UMTS/TM1	MCH	2.81	13	PASS
		НСН	2.29	13	PASS
		LCH	2.90	13	PASS
WCDMA850	UMTS/TM1	MCH	3.07	13	PASS
		НСН	3.19	13	PASS



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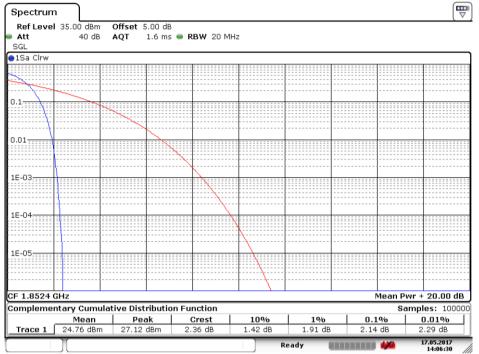
Part II - Test Plots

2.1 For WCDMA

2.1.1 Test Band = WCDMA 1900

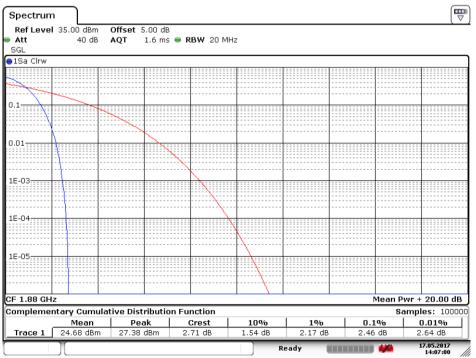
2.1.1.1 Test Mode = UMTS/TM1

2.1.1.1.1 Test Channel = LCH



Date: 17.MAY.2017 14:06:31

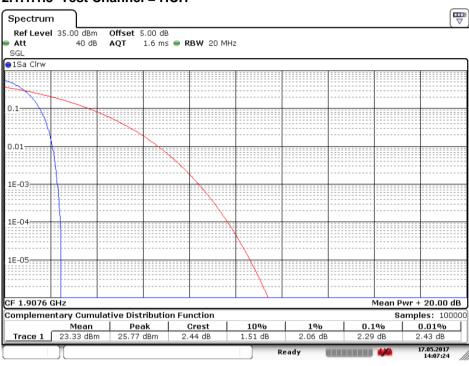
2.1.1.1.2 Test Channel = MCH



Date: 17.MAY.2017 14:07:01



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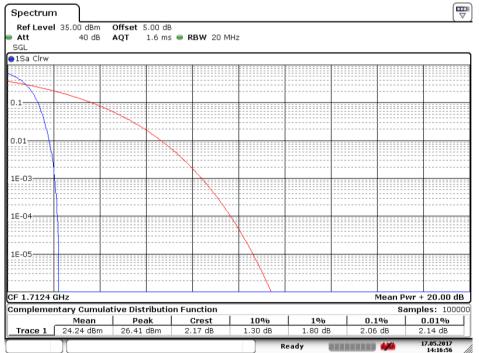
2.1.1.1.3 Test Channel = HCH

Date: 17.MAY.2017 14:07:24

2.1.2 Test Band = WCDMA 1700

2.1.2.1 Test Mode = UMTS/TM1

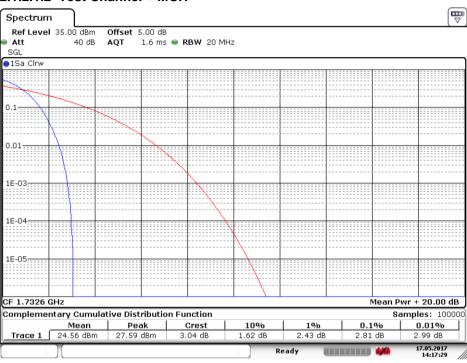
2.1.2.1.1 Test Channel = LCH



Date: 17.MAY.2017 14:16:57



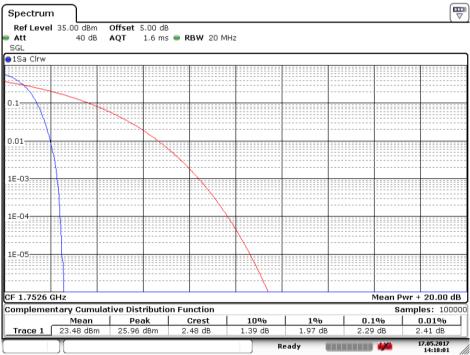
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2.1.2.1.2 Test Channel = MCH

Date: 17.MAY.2017 14:17:29

2.1.2.1.3 Test Channel = HCH



Date: 17.MAY.2017 14:18:02



2.1.3 Test Band = WCDMA 850

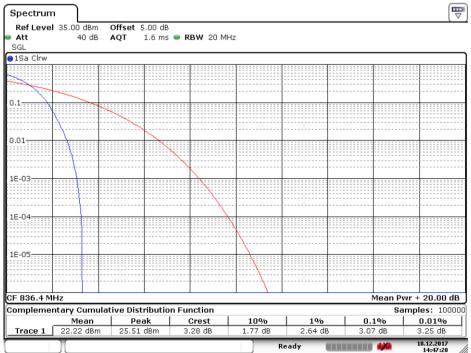
SGS-CSTC Standards Technical Services Co., Ltd. Shenzhen Branch

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2.1.3.1 Test Mode = UMTS/TM1 2.1.3.1.1 Test Channel = LCH **B** Spectrum Ref Level 35.00 dBm Offset 5.00 dB 1.6 ms 👄 RBW 20 MHz Att 40 dB AQT SGL ⊖1Sa Clrw 0.1 0.01 1E-03-1E-04-1E-05: CF 826.4 MHz Mean Pwr + 20.00 dB Samples: 100000 Complementary Cumulative Distribution Function 0.1% 0.01% Peak Crest 10% 1% Mean Trace 1 22.18 dBm 25.34 dBm 3.16 dB 1.74 dB 2.52 dB 2.90 dB 3.10 dB 8.12.2017 14:46:22

Date: 18.DEC.2017 14:46:22

2.1.3.1.2 Test Channel = MCH



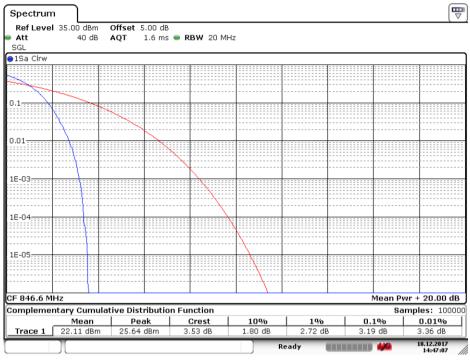
Date: 18.DEC.2017 14:47:28



2.1.3.1.3 Test Channel = HCH

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3 Modulation Characteristics

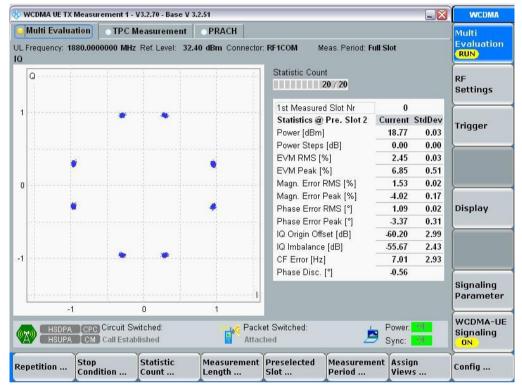
Part I - Test Plots

3.1 For WCDMA

3.1.1 Test Band = WCDMA 1900

3.1.1.1 Test Mode = UMTS/TM1

3.1.1.1.1 Test Channel = MCH



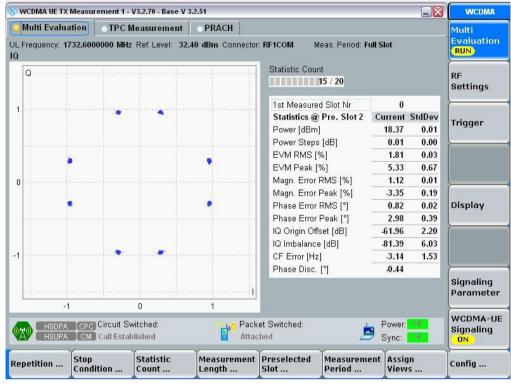


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3.1.2 Test Band = WCDMA 1700

3.1.2.1 Test Mode = UMTS /TM1

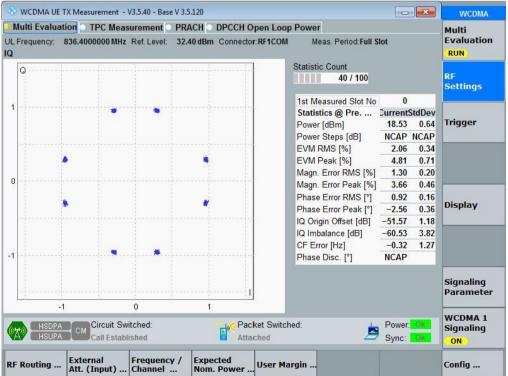
3.1.2.1.1 Test Channel = MCH



3.1.3 Test Band = WCDMA 850

3.1.3.1 Test Mode = UMTS /TM1

3.1.3.1.1 Test Channel = MCH





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4 Bandwidth

Part I - Test Results

Test Band	Test Mode	Test Channel	Occupied Bandwidth [MHz]	Emission Bandwidth [MHz]	Verdict
		LCH	4.17	4.71	PASS
WCDMA1900	UMTS/TM1	MCH	4.17	4.70	PASS
		HCH	4.17	4.71	PASS
		LCH	4.19	4.72	PASS
WCDMA1700	UMTS/TM1	MCH	4.15	4.68	PASS
		HCH	4.17	4.71	PASS
		LCH	4.14	4.64	PASS
WCDMA850	UMTS/TM1	MCH	4.14	4.64	PASS
		HCH	4,16	4.66	PASS



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4.1 For WCDMA

4.1.1 Test Band = WCDMA 1900

4.1.1.1 Test Mode = UMTS/TM1

4.1.1.1.1 Test Channel = LCH

30 dBm 4.70500 20 dBm D1 21.180 dBm 10 dBm 71 0 dBm 72 10 dBm 71 0 dBm 72 10 dBm 71 0 dBm 71 1.85005200 10 dBm 71 0 dBm 71	Spectrum			
1Pk View DI[1] -1.3 30 dBm 0cc Bw 4.165834166 20 dBm D1 21.180 dBm 0cc Bw 4.165834166 10 dBm 71 1.85005200 1.85005200 10 dBm 72 1.85005200 1.85005200 10 dBm 72 1.85005200 1.85005200 -10 dBm 01 01 01 0.1 -20 dBm -30 dBm -10 -10 -10 -30 dBm -30 dBm -10 -10 -10 -50 dBm -50 dBm -10 -10 -10				
30 dBm D1[1] -1.3 30 dBm 0cc Bw 4.165834166 20 dBm D1 21.180 dBm -4.21 10 dBm 7 1.85005200 0 dBm 02 -4.820 dBm 01 -10 dBm 02 -4.820 dBm 01 -30 dBm 0 0 -30 dBm 0 0 -50 dBm 0 0		3 SWT 1 S VBW 300	kHz Mode Auto Sweep	
30 dBm 4.70500 20 dBm D1 21.180 dBm 0cc Bw 4.165834166 10 dBm 71 1.85005200 0 dBm 72 1.85005200 0 dBm 72 1.85005200 -10 dBm 72 1.95005200 -20 dBm 92 -4.21 -30 dBm -30 dBm -4.21 -50 dBm -50 dBm -4.21	1Pk View	<u> </u>		
Occ Bw 4.165834166 20 dBm D1 21.180 dBm 4.1 10 dBm T1 1.85005200 10 dBm T1 1.85005200 0 dBm D2 -4.820 dBm 1.0 -D2 -4.820 dBm 1.0 1.0 -10 dBm 1.0 1.0 -20 dBm 1.0 1.0 -30 dBm 1.0 1.0 -40 dBm 1.0 1.0 -50 dBm 1.0 1.0	30 dBm		D1[1]	-1.30 dE
20 dBm D1 21.180 dBm 4.21 10 dBm 1.85005200 10 dBm 2 0 dBm 0 -02 -4.820 dBm -10 -10 dBm -10 -20 dBm -10 -30 dBm -10 -50 dBm -10			Occ Bw	4.165834166 MHz
10 dBm 1.85005200 10 dBm 12 0 dBm 1 0 D2 4.820 dBm -10 dBm 1 -20 dBm 1 -30 dBm 1 -50 dBm 1	D1 21.180	dBm	M1[1]	-4.21 dBm
10 dBm	20 ubiii	TI want and then the		1.85005200 GHz
0 dBmM1 C1 -10 dBm C2 -4.820 dBm C1 C1 -10 dBm C2 dBm		∀		
-10 dBm -20 dBm -30 dBm -50 dBm -50 dBm -50 dBm -20				
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-10 dBm				
-20 dBm -20 dBm -30 dBm -40 dBm -50 dBm	D2 -4.	820 dBm		
-20 dBm		allel and a second		
-20 dBm	A preserve and a preserve			white all and a second and as second and a second and as second and a
-40 dBm	-20 dBm			
-40 dBm				
-50 dBm	-30 dBm			
-50 dBm				
-50 dBm	-40 dBm			
	50 dBm			
-60 dBm	So ubm			
	co dos			
	ou usm			
CF 1.8524 GHz 1001 pts Span 10.0 M	CF 1.8524 GHz	100)1 pts	Span 10.0 MHz
			Measuring	17.05.2017 14:00:27

Date: 17.MAY.2017 14:00:27

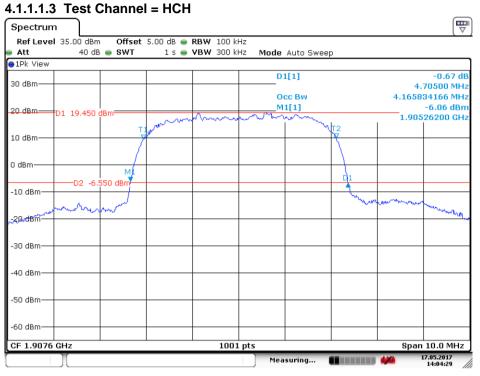
4.1.1.1.2 Test Channel = MCH

Att	40 dB	B 👄 SWT	1 s 👄	VBW 300 ki	Hz Mode Auto Sv	veep		
1Pk View								
30 dBm					D1[1]			-0.63 d 59500 MH
	1 00 050	 			Occ Bw			34166 MH -4.60 dBr
U dBm	1 20.850	авт <u> — — — —</u>	man	mound	and the work on	~~		66200 GH
LO dBm		T1 7	ur.			VT2 V		
dBm		150 dBm				Di		
10 dBm	D2 -3.	130 UBIII				1		
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20 dBm								
30 dBm								
40 dBm								
50 dBm								
50 dBm								
oo abiii								

Date: 17.MAY.2017 14:02:30



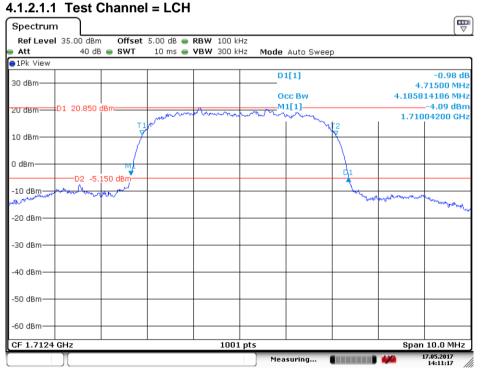
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Date: 17.MAY.2017 14:04:29

4.1.2 Test Band = WCDMA 1700

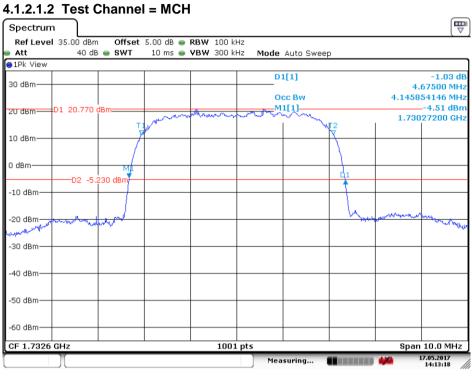
4.1.2.1 Test Mode = UMTS/TM1



Date: 17.MAY.2017 14:11:17

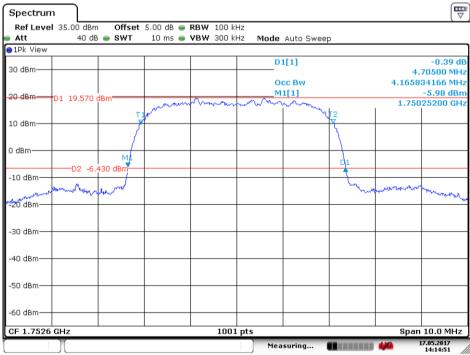


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Date: 17.MAY.2017 14:13:19

4.1.2.1.3 Test Channel = HCH



Date: 17.MAY.2017 14:14:51

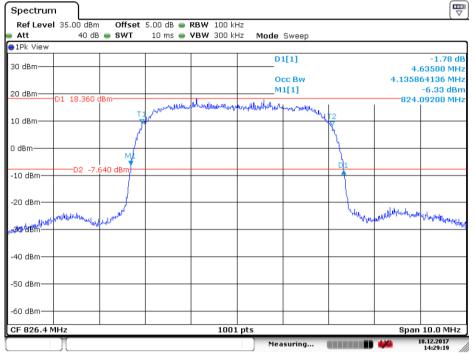


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4.1.3 Test Band = WCDMA 850

4.1.3.1 Test Mode = UMTS/TM1

4.1.3.1.1 Test Channel = LCH



Date: 18.DEC.2017 14:29:19

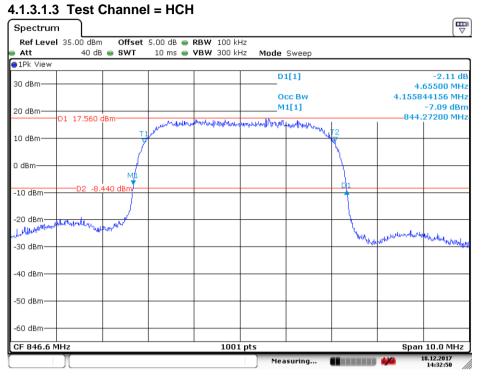
4.1.3.1.2 Test Channel = MCH

	35.00 dBm		_	RBW 100 kH:					
Att	40 dB	e swt	10 ms 😑	VBW 300 kH:	Mode	Sweep			
1Pk View	1			· · · ·					1.00
30 dBm					D	1[1]		4	-1.92 d 63500 MH
					C	CC BW			64136 MF
20 dBm					M	11[1]			-6.26 dB
	D1 18.380 (dBm	marph	whenthe		upurthurmun.	1	834.	09200 MH
10 dBm		Т1	Martin		· · · ·	VL	12		
TO UDIII		7					X		
0 dBm									
u asm		M							
10.10	D2 -7.0	620 dBm							
-10 dBm									
-20 dBm	Armaldun mar						1		
	in the second	Myles and					hade m	Munnun	How have here a
-30 dBm—									
-40 dBm—				+ +					
-50 dBm—				+ +					
-60 dBm				+					
CF 836.4 M	l MHz			1001	ots			 Span	10.0 MHz
	1			1001	1	asuring			18.12.2017

Date: 18.DEC.2017 14:31:15



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Date: 18.DEC.2017 14:32:50



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5 Band Edges Compliance

Part I - Test Plots

5.1 For WCDMA

5.1.1 Test Band = WCDMA 1900

5.1.1.1 Test Mode = UMTS/TM1

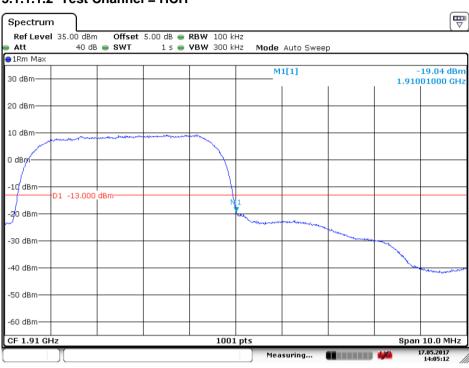
5.1.1.1.1 Test Channel = LCH



Date: 17.MAY.2017 14:05:56



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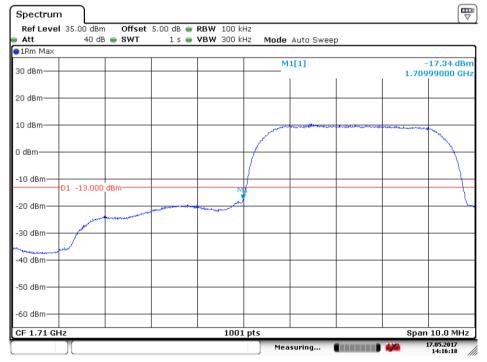
5.1.1.1.2 Test Channel = HCH

Date: 17.MAY.2017 14:05:13

5.1.2 Test Band = WCDMA 1700

5.1.2.1 Test Mode = UMTS/TM1

5.1.2.1.1 Test Channel = LCH



Date: 17.MAY.2017 14:16:19



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5.1.2.1.2 Test Channel = HCH

5.1.3 Test Band = WCDMA 850

5.1.3.1 Test Mode = UMTS/TM1

Date: 17.MAY.2017 14:15:31



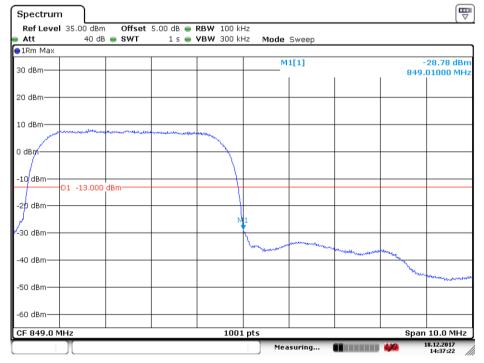
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5.1.3.1.1 Test Channel = LCH



Date: 18.DEC.2017 14:36:49

5.1.3.1.2 Test Channel = HCH



Date: 18.DEC.2017 14:37:23



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6 Spurious Emission at Antenna Terminal

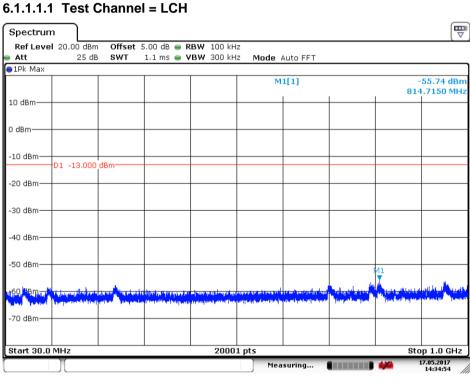
NOTE: For the averaged unwanted emissions measurements, the measurement points in each sweep is greater than twice the Span/RBW in order to ensure bin-to-bin spacing of < RBW/2 so that narrowband signals are not lost between frequency bins. As to the present test item, the "Measurement Points = k * (Span / 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 WCDMA

6.1.1 Test Band = WCDMA 1900

6.1.1.1 Test Mode = UMTS/TM1



Date: 17.MAY.2017 14:34:55

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								Report No. Page:	.: SZEM171001110301 24 of 42
Spectru	m								
	el 20.00 dBm			RBW 1 MHz				<u>`</u>	
Att 1Pk Max	25 dE	SWT	27 ms 👄	VBW 3 MHz	Mode A	uto Sweep			
					N	11[1]	3.	-37.36 dBm 702790 GHz	
10 dBm									
0 dBm									
-10 dBm—	D1 -13.000	dBm							
-20 dBm—	D1 -13.000								
-30 dBm—			1						
-40 dBm—	•								
			فسيقتضي						
-50 dPm	Party of the second second second	La sectification for the party	1	and ware to produce a first of south			Construction of the second second		
-60 dBm—									
-70 dBm—									
Start 1.0	GHz			2000	1 pts		Sto	p 10.0 GHz	
					Me	asuring		17.05.2017 14:34:06	
Date: 17.MAY	Y.2017 14:34:(06							
Spectrui Ref Leve	m el 20.00 dBm 25 dE			RBW 1 MHz VBW 3 MHz	Mode *	uto Swoon	 		
	25 GE	5 8 1 1	30 ms 🖷	YOW 3 MHZ	Mode A	uto Sweep			

⊖1Pk Max M1[1] -46.94 dBm 19.834760 GHz 10 dBm· 0 dBm--10 dBm-D1 -13.000 dBm--20 dBm -30 dBm--40 dBm M 50 -60 dBm--70 dBm Start 10.0 GHz 20001 pts Stop 20.0 GHz 17.05.2017 14:33:04 Measuring... •••••

Date: 17.MAY.2017 14:33:04

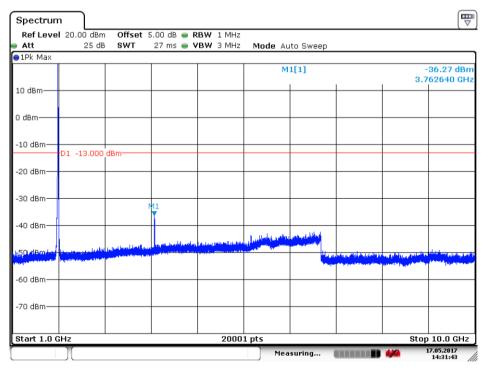


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Spectrum	ר ר										
Ref Leve	1 20.00	dBm	Offset	5.00 dB	🔵 RBV	V 100 k⊢	Iz				
🕨 Att	2	25 dB	SWT	1.1 ms	e vbv	V 300 k⊦	z Mode	Auto FFT			
⊖1Pk Max											
							M	1[1]			56.27 dBm 5210 MHz
10 dBm											
0 dBm		_									
-10 dBm	·D1 -13	L000 d	Bm								
-20 dBm		_									
-30 dBm		_									
-40 dBm		_									
-50 dBm										M1	
-60 Bm	। सङ्ग्राम भाग मन्त्र			Personal Providence	prostes, andé		जातील्यां सुध सांस्थेप्रयो		a second second	And the second	an a
	Julianski	(holicore) (diff. Manue	n an 1994 (no she an	alan ah	a na tatang si dan sa	na an a	an air air an thair an tha tha an tha tha		f polosionitali	and a second second
-70 dBm											
Start 30.0	MHz					2000	1 pts			Sto	p 1.0 GHz

6.1.1.1.2 Test Channel = MCH

Date: 17.MAY.2017 14:31:08



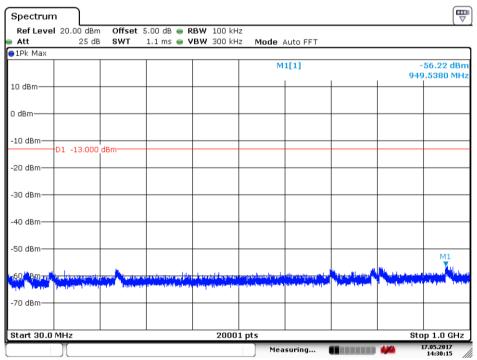
Date: 17.MAY.2017 14:31:43



								age:	.: SZEM171001110301 26 of 42
Spectrun	n								
	el 20.00 dBm		5.00 dB 😑 R						
Att 1Pk Max	25 dB	SWT	30 ms 🖷 🎙	BW 3 MHz	Mode Au	ito Sweep			
THK MAX					м	1[1]		-46.34 dBm 533970 GHz	
10 dBm									
0 dBm									
-10 dBm—	-D1 -13.000	dBm							
-20 dBm—									
-30 dBm									
-40 dBm—					M1				
" <u>Ş</u> Ç <mark>i den a</mark> la	and a state of the second s	and the second		high a strong of the		a la contra de la contra	 an Relay, dependent synamic	المحالي والمحالي والمسال	
-60 dBm—			hanna a shiffi sa					· · · · · · · · · · · · · · · · · · ·	
-70 dBm—									
Start 10.0	GHZ			2000		curing		20.0 GHz	
					mea	isuring		14:32:16	

Date: 17.MAY.2017 14:32:16

6.1.1.1.3 Test Channel = HCH



Date: 17.MAY.2017 14:30:16



										.: SZEM171001110301
								F	Page:	27 of 42
Spectrur	m									
Ref Leve	el 20.00 dBr	n Offset	5.00 dB 😑 I	RBW 1 MHz						
Att	25 di	B SWT	27 ms 👄 🞙	VBW 3 MHz	Mode A	uto Sweep				
⊖1Pk Max										
					M	1[1]		3.	-38.21 dBm 817080 GHz	
10 dBm										
0 dBm										
-10 dBm—			-							
	D1 -13.000	dBm								
-20 dBm—										
-30 dBm—										
			М1							
-40 dBm—			Ť							
-40 0011					فاللد ووالندو	Land and the second second				
			والمسالية واستقدامه والم	ومعاقبته والمديني				I .		
-50 dP book	and the state of t	And the second state of the second	1				a di kabupatén Malakaban Kap	10 million (special sector)		
						'				
-60 dBm—										
-70 dBm—										
Start 1.0	GH7			2000	1 nts			Sto	p 10.0 GHz	
oture 110				2000		asuring			17.05.2017	
(, ne	as an ing			14:29:07	
Date: 17.MAY	Y.2017 14:29:	07								

Spectrum												
Ref Level			Offset	5.00 dB	😑 RE	W 1 MHz						
Att	2!	5 dB	SWT	30 ms	● VE	3W 3 MHz	M	ode Au	ito Sweep			
⊖1Pk Max												
								М	1[1]			46.54 dBm 57250 GHz
10 dBm		+		-			-					
0 dBm					_							
-10 dBm	D1 -13,	b 000	Bm									
-20 dBm					-		-					
-30 dBm					_							
-40 dBm		_			_							M
<u>, 50, d8 m-100</u>	rit dilli	IT TOTAL		A DISPACE OF LA	ليسيل			la la domant de	المعيدا والالب بالما		المعلى والمستعدية	a second in full as a filler
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-60 dBm		+					+					
-70 dBm		+			-		-					
Start 10.0	GHz					2000)1 pt:	5			Stop	20.0 GHz
								Mea	suring		440 1	14:28:24

Date: 17.MAY.2017 14:28:24

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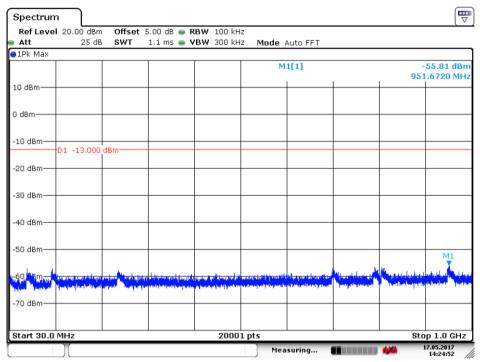


Report No.: SZEM171001110301 Page: 28 of 42

6.1.2 Test Band = WCDMA 1700

6.1.2.1 Test Mode = UMTS/TM1

6.1.2.1.1 Test Channel = LCH



Date: 17.MAY.2017 14:24:52

Spectrum				
Ref Level 20.00 dBm Att 25 dB		RBW 1 MHz /BW 3 MHz Mode Au	to Sweep	
●1Pk Max				
		M	1[1]	-40.05 dBm 5.134170 GHz
10 dBm				
0 dBm				
-10 dBm	dBm			
-20 dBm-				
-30 dBm				
-40 dBm		M1	da urve stalakla	
		collect have a second second second	and a second	
-60 dBm				
-70 dBm				
Start 1.0 GHz		20001 pts		Stop 10.0 GHz
) Mea	suring	17.05.2017 14:25:52

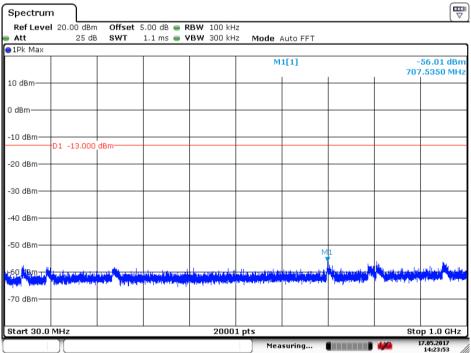
Date: 17.MAY.2017 14:25:53



									age:	 SZEM171001110301 29 of 42
Spectrum	·									
	20.00 dBm		5.00 dB 👄 R							
Att 1Pk Max	25 dB	SWT	30 ms 👄 V	BW 3 MHZ	Mode Au	ito Sweep				
					м	1[1]			47.27 dBm 78250 GHz	
10 dBm										
0 dBm										
-10 dBm	D1 -13.000	dBm								
-20 dBm										
-30 dBm										
-40 dBm										
ե50desթեեր	and the second second	Contraction of the local distance of the loc	terreter to be a feasible of the	der and the state	etherite, and a day	and the state of the state	المراجعة اللاجية	الغرابي ومخطو ويتارك	M بر المعادي	
-60 dBm			And a second second second second					The low to the local sector sector is a sector of the sect	1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1	
-70 dBm										
Start 10.0 (GHz			2000	1 pts			Stop	20.0 GHz	
][Mea	suring			17.05.2017 14:26:40	

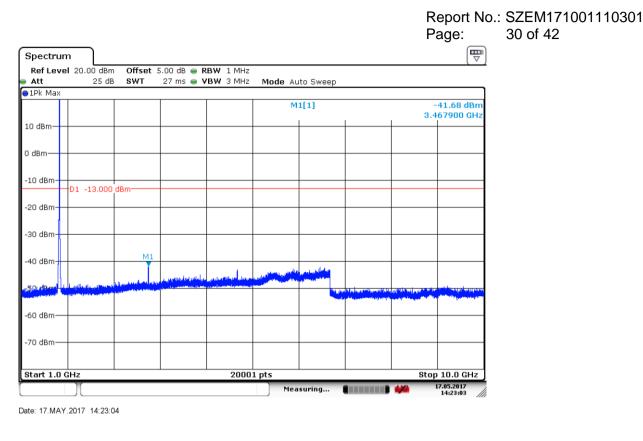
Date: 17.MAY.2017 14:26:41

6.1.2.1.2 Test Channel = MCH



Date: 17.MAY.2017 14:23:54





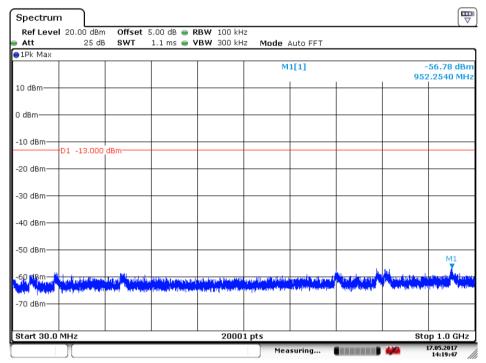
Spectrun	Γ							
	20.00 dBm		5.00 dB 👄 R					`
Att 1Pk Max	25 dE	SWT	30 ms 👄 🖌	BW 3 MHz	Mode	Auto Sweep		
						M1[1]		-46.04 dBm)27250 GHz
10 dBm								
0 dBm								
-10 dBm	·D1 -13.000	dBm						
-20 dBm								
-30 dBm								
-40 dBm								M:
-50 dPiblain		eriora della catalante						
-60 dBm								
-70 dBm—								
Start 10.0	GHz			2000	1 pts			0 20.0 GHz
					M	easuring	444	17.05.2017

Date: 17.MAY.2017 14:22:08

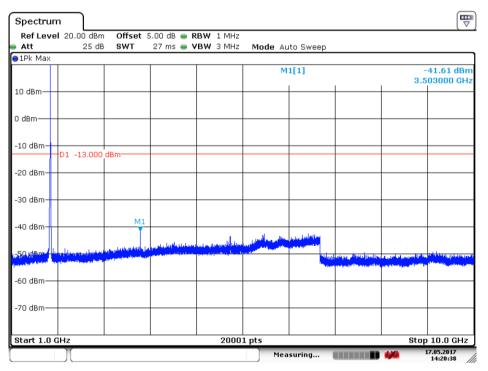


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6.1.2.1.3 Test Channel = HCH



Date: 17.MAY.2017 14:19:48



Date: 17.MAY.2017 14:20:39



									age:	 b.: SZEM171001110301 32 of 42
Spectrun										
Ref Leve Att	20.00 dBm 25 dB		5.00 dB 👄 R 30 ms 👄 V		Mada Au	ito Sweep				
All 1Pk Max	25 UE	0 011	30 IIIS 🖶 ¥		MOUE AU	ito Sweep				
					М	1[1]			46.64 dBm 46250 GHz	
10 dBm										
0 dBm										
-10 dBm	D1 10 000									
-20 dBm	D1 -13.000	abm								
-20 ubiii										
-30 dBm										
-40 dBm										
50. dPm				فللمر الشراب ال		Jul, Maria Ma		l Lander, Lander des Disc	M	
(Physics) - Control of the second sec			And Street plants of the	And and the statements of	the definition of the state	Mary Add Advantage	and the second second	ماس _و د تأثير ورام الأدار	and the state of the	
-60 dBm										
-70 dBm										
Start 10.0	GHz			2000	1 pts				20.0 GHz	
					Mea	suring		444	17.05.2017 14:21:13	

Date: 17.MAY.2017 14:21:13

6.1.3 Test Band = WCDMA 850

6.1.3.1 Test Mode = UMTS/TM1

6.1.3.1.1 Test Channel = LCH

Spectrun	n											
Ref Leve Att	1 25.00 dBm	Offset		RBW 100 kł VBW 300 kł								
■ Att ● 1Pk Max	30 UB) — 5₩1	1.1 ms 🖷	Y D W 300 K	12 Mode	Auto FFT						
20 dBm			M1[1]						-51.46 dBm 794.4430 MHz			
10 dBm												
0 dBm												
-10 dBm	D1 -13.000	dBm										
-20 dBm												
-30 dBm												
-40 dBm—								+				
-50 dBm		141					M1	6				
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-70 dBm												
Start 30.0	MHz	I	I	2000	1 pts				Sto	p 1.0 GHz		
					Mea	isuring		4	6 1	14:43:01		

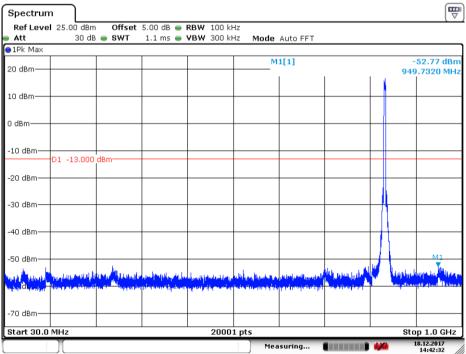
Date: 18.DEC.2017 14:43:01



Spectrur	m								Report No Page:	 b.: SZEM171001110301 33 of 42
	el 25.00 dBm		5.00 dB 👄							
Att 1Pk Max	30 GB	s 👄 SWT	30 ms 🖷	VBW 3 MHz	Mode A	uto Sweep				
20 dBm					M	1[1]	1	1	-38.94 dBm .654940 GHz	
10 dBm										
0 dBm										
-10 dBm—	D1 -13.000	dBm								
-20 dBm—										
-30 dBm—										
M1 -40 dBm						in the still				
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	<mark>in program (not program) in the labels</mark>									
-60 dBm—										
-70 dBm—										
Start 1.0	GHz	1	1	2000	1 pts	1	1	St	op 10.0 GHz	
					Mea	asuring		444	18.12.2017 14:45:36	

Date: 18.DEC.2017 14:45:36

6.1.3.1.2 Test Channel = MCH



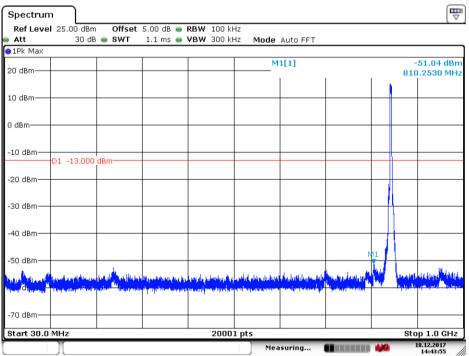
Date: 18.DEC.2017 14:42:32



Spectru									Report No Page:	b.: SZEM171001110301 34 of 42
Ref Leve Att	el 25.00 dBm 30 dB	Offset	5.00 dB 👄	RBW 1 MHz VBW 3 MHz		uto Sweep				
IPk Max	50 GE	, on t	30 mb 🍯		mode A	uto Sweep]	
20 dBm					м	1[1]	I	6	-38.71 dBm .339660 GHz	
10 dBm										
0 dBm										
-10 dBm—	D1 -13.000	dBm								
-20 dBm—										
-30 dBm—										
-40 dBm—		ورو الرومة القوتا فورته		والشوية ويستعلمون والمستع	M		a andre and an star date and	Lather cause	here and the second second	
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-60 dBm—										
-70 dBm—										
Start 1.0	ĠHz			2000	1 pts			St	op 10.0 GHz	
					Mea	isuring		444	18.12.2017 14:44:59	

Date: 18.DEC.2017 14:44:59

6.1.3.1.3 Test Channel = HCH



Date: 18.DEC.2017 14:43:55



Spectrum									Report No Page: ()	.: SZEM171001110301 35 of 42
Ref Level Att	25.00 dBm	Offset SWT	5.00 dB 👄 I	RBW 1 MHz VBW 3 MHz		uto Sweep				
Att 1Pk Max	30 05	- 311	30 ms 🖶	BW JMHZ	HOUE A	uto Sweep				
20 dBm					M	1[1]	I	1	-37.69 dBm .691840 GHz	
10 dBm										
0 dBm										
-10 dBm	D1 -13.000	dBm								
-20 dBm										
-30 dBm										
-40 dBm			الباغيم ومراجع		Here and A Market Processo	Constitution of the second		an statil, a star	here the first have not been as	
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h-d-o-labra atalan										
-60 dBm										
-70 dBm										
Start 1.0 G	Hz			2000	L pts	·		Sto	op 10.0 GHz	
					Mea	suring		444	18.12.2017 14:44:27	

Date: 18.DEC.2017 14:44:27

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7 Field Strength of Spurious Radiation

Part I - Test Plots

7.1 For WCDMA

7.1.1 Test Band = WCDMA 1900

7.1.1.1 Test Mode = UMTS/TM1

7.1.1.1.1 Test Channel = LCH

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Over Limit (dB)	Polarization
73.900000	-62.12	-13.00	49.12	Vertical
165.450000	-63.19	-13.00	50.19	Vertical
316.900000	-65.49	-13.00	52.49	Vertical
1254.000000	-48.50	-13.00	35.50	Vertical
3702.487500	-55.11	-13.00	42.11	Vertical
7955.437500	-51.51	-13.00	38.51	Vertical
63.150000	-68.46	-13.00	55.46	Horizontal
163.600000	-61.94	-13.00	48.94	Horizontal
1200.000000	-49.71	-13.00	36.71	Horizontal
2889.500000	-44.44	-13.00	31.44	Horizontal
3706.875000	-50.63	-13.00	37.63	Horizontal
7846.725000	-51.63	-13.00	38.63	Horizontal

7.1.2 Test Band = WCDMAband 1700

7.1.2.1 Test Mode = UMTS/TM1

7.1.2.1.1 Test Channel = HCH

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Over Limit (dB)	Polarization
40.000000	-59.22	-13.00	46.22	Vertical
165.450000	-59.95	-13.00	46.95	Vertical
775.966667	-62.76	-13.00	49.76	Vertical
1285.500000	-48.91	-13.00	35.91	Vertical
2822.000000	-44.58	-13.00	31.58	Vertical
6604.575000	-53.10	-13.00	40.10	Vertical
73.700000	-67.35	-13.00	54.35	Horizontal
167.650000	-60.45	-13.00	47.45	Horizontal
426.400000	-66.18	-13.00	53.18	Horizontal
2800.500000	-44.98	-13.00	31.98	Horizontal
6050.287500	-53.09	-13.00	40.09	Horizontal
11899.312500	-51.19	-13.00	38.19	Horizontal



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7.1.3 Test Band = WCDMAband 850

7.1.3.1 Test Mode = UMTS/TM1

7.1.3.1.1 Test Channel = LCH

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Over Limit (dB)	Polarization
40.000000	-72.81	-13.00	59.81	Vertical
74.700000	-74.20	-13.00	61.20	Vertical
167.200000	-71.69	-13.00	58.69	Vertical
1651.000000	-55.16	-13.00	42.16	Vertical
4306.987500	-66.87	-13.00	53.87	Vertical
7990.537500	-63.87	-13.00	50.87	Vertical
62.550000	-77.39	-13.00	64.39	Horizontal
166.600000	-70.98	-13.00	57.98	Horizontal
193.850000	-75.96	-13.00	62.96	Horizontal
1651.000000	-52.91	-13.00	39.91	Horizontal
4296.750000	-66.89	-13.00	53.89	Horizontal
7916.925000	-64.07	-13.00	51.07	Horizontal

7.1.3.1.2 Test Channel = MCH

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Over Limit (dB)	Polarization
40.250000	-73.44	-13.00	60.44	Vertical
74.650000	-75.26	-13.00	62.26	Vertical
165.650000	-73.73	-13.00	60.73	Vertical
1674.500000	-55.08	-13.00	42.08	Vertical
2882.000000	-57.19	-13.00	44.19	Vertical
7237.837500	-64.72	-13.00	51.72	Vertical
55.900000	-77.37	-13.00	64.37	Horizontal
104.300000	-80.40	-13.00	67.40	Horizontal
167.100000	-71.20	-13.00	58.20	Horizontal
1671.000000	-52.35	-13.00	39.35	Horizontal
4896.862500	-66.87	-13.00	53.87	Horizontal
7924.725000	-63.91	-13.00	50.91	Horizontal



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Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Over Limit (dB)	Polarization
40.350000	-73.09	-13.00	60.09	Vertical
166.050000	-70.85	-13.00	57.85	Vertical
330.100000	-74.25	-13.00	61.25	Vertical
1691.500000	-54.55	-13.00	41.55	Vertical
4096.387500	-67.67	-13.00	54.67	Vertical
7963.725000	-63.67	-13.00	50.67	Vertical
56.900000	-78.07	-13.00	65.07	Horizontal
166.700000	-71.18	-13.00	58.18	Horizontal
193.800000	-75.74	-13.00	62.74	Horizontal
1692.000000	-53.20	-13.00	40.20	Horizontal
4294.312500	-66.86	-13.00	53.86	Horizontal
7709.737500	-64.60	-13.00	51.60	Horizontal

7.1.3.1.3 Test Channel = HCH

NOTE:

1) 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.



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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
				VL	2.29	0.00124	PASS
		LCH	TN	VN	-3.35	-0.00181	PASS
				VH	4.52	0.00244	PASS
WCDMA		МСН	TN	VL	1.23	0.00065	PASS
1900	1900 UMTS/TM1			VN	6.75	0.00359	PASS
				VH	-5.35	-0.00285	PASS
		НСН	TN	VL	2.55	0.00134	PASS
				VN	-3.64	-0.00191	PASS
				VH	-1.72	-0.00090	PASS

Test Band	Test Mode	Test Channel	Test Temp.	Test Volt.	Freq. Error [Hz]	Freq. vs. rated [ppm]	Verdict
				VL	-3.37	-0.00197	PASS
		LCH	ΤN	VN	-3.45	-0.00201	PASS
				VH	2.34	0.00137	PASS
		МСН	TN	VL	-5.86	-0.00338	PASS
WCDMA	UMTS/TM1			VN	1.83	0.00106	PASS
1700				VH	-2.63	-0.00152	PASS
		нсн	TN	VL	1.77	0.00101	PASS
				VN	-4.62	-0.00264	PASS
				VH	2.88	0.00164	PASS

Test Band	Test Mode	Test Channel	Test Temp.	Test Volt.	Freq. Error [Hz]	Freq. vs. rated [ppm]	Verdict
				VL	-3.34	-0.00404	PASS
		LCH	ΤN	VN	-3.42	-0.00414	PASS
			-	VH	2.36	0.00286	PASS
		МСН	TN	VL	-5.81	-0.00695	PASS
WCDMA	UMTS/TM1			VN	1.36	0.00163	PASS
850				VH	-2.47	-0.00295	PASS
			HCH TN	VL	1.74	0.00206	PASS
		НСН		VN	-4.68	-0.00553	PASS
				VH	2.87	0.00339	PASS



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Test Band	Test Mode	Test Channel	Test Volt.	Test Temp.	Freq. Error [Hz]	Freq. vs. rated [ppm]	Verdict
				-30	-4.78	-0.00258	PASS
				-20	1.62	0.00087	PASS
				-10	2.46	0.00133	PASS
				0	-2.65	-0.00143	PASS
		LCH	VN	10	1.53	0.00083	PASS
				20	-4.87	-0.00263	PASS
				30	1.63	0.00088	PASS
				40	-2.08	-0.00112	PASS
				50	-6.22	-0.00336	PASS
				-30	-3.87	-0.00206	PASS
		МСН		-20	-5.22	-0.00278	PASS
			VN	-10	-0.36	-0.00019	PASS
NCDMA				0	-3.32	-0.00177	PASS
1900	UMTS/TM1			10	1.76	0.00094	PASS
1900				20	2.74	0.00146	PASS
				30	1.67	0.00089	PASS
				40	4.12	0.00219	PASS
				50	-4.37	-0.00232	PASS
				-30	-4.12	-0.00216	PASS
				-20	3.62	0.00190	PASS
				-10	2.56	0.00134	PASS
				0	-5.37	-0.00282	PASS
		НСН	VN	10	1.52	0.00080	PASS
				20	-2.75	-0.00144	PASS
				30	3.62	0.00190	PASS
				40	-1.23	-0.00064	PASS
			50	-4.68	-0.00245	PASS	

8.2 Frequency Error VS. Temperature



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Test Band	Test Mode	Test Channel	Test Volt.	Test Temp.	Freq. Error [Hz]	Freq. vs. rated [ppm]	Verdict
				-30	-3.46	-0.00202	PASS
				-20	-4.42	-0.00258	PASS
				-10	1.68	0.00098	PASS
				0	-3.55	-0.00207	PASS
		LCH	VN	10	-0.68	-0.00040	PASS
				20	1.18	0.00069	PASS
				30	-3.24	-0.00189	PASS
				40	-5.71	-0.00333	PASS
				50	-4.84	-0.00283	PASS
				-30	-4.32	-0.00249	PASS
		МСН		-20	1.87	0.00108	PASS
			VN	-10	-2.43	-0.00140	PASS
WCDMA				0	4.94	0.00285	PASS
1700	UMTS/TM1			10	-3.65	-0.00211	PASS
1700				20	-6.89	-0.00398	PASS
				30	-3.77	-0.00218	PASS
				40	-8.23	-0.00475	PASS
				50	-5.71	-0.00330	PASS
				-30	-3.25	-0.00185	PASS
				-20	3.43	0.00196	PASS
				-10	1.65	0.00094	PASS
				0	-0.77	-0.00044	PASS
		НСН	VN	10	-3.38	-0.00193	PASS
				20	-4.86	-0.00277	PASS
				30	1.31	0.00075	PASS
				40	-2.72	-0.00155	PASS
				50	-4.34	-0.00248	PASS

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Test Band	Test Mode	Test Channel	Test Volt.	Test Temp.	Freq. Error [Hz]	Freq. vs. rated [ppm]	Verdict	
				-30	-3.63	-0.00439	PASS	
				-20	-4.28	-0.00518	PASS	
				-10	1.78	0.00215	PASS	
				0	-3.85	-0.00466	PASS	
		LCH	VN	10	-0.68	-0.00082	PASS	
				20	1.38	0.00167	PASS	
				30	-3.64	-0.00440	PASS	
				40	-5.21	-0.00630	PASS	
				50	-4.54	-0.00549	PASS	
				-30	-4.12	-0.00493	PASS	
		МСН		-20	1.67	0.00200	PASS	
			VN	-10	-2.73	-0.00326	PASS	
WCDMA				0	4.34	0.00519	PASS	
850	UMTS/TM1			10	-3.75	-0.00448	PASS	
000				20	-6.39	-0.00764	PASS	
				30	-3.67	-0.00439	PASS	
				40	-8.63	-0.01032	PASS	
				50	-5.31	-0.00635	PASS	
				-30	-3.65	-0.00431	PASS	
				-20	3.73	0.00441	PASS	
				-10	1.65	0.00195	PASS	
				0	-0.37	-0.00044	PASS	
		HCH	VN	10	-3.88	-0.00458	PASS	
				20	-4.86	-0.00574	PASS	
				30	1.61	0.00190	PASS	
				40	-2.72	-0.00321	PASS	
				50	-4.74	-0.00560	PASS	

The End