

🔤 Ke	ysight Spe	ctrum Analyzer -	Swept SA									
l <mark>,XI</mark> R	L	RF 50	Ω AC	CORREC	SE	NSE:INT	#Avg Typ	ALIGN AUTO) 12:09:22 A TRAC	M May 27, 2021	F	requency
PAS	S			PNO: Wide ↔ IFGain:Low	Trig: Fre #Atten: 3	e Run 6 dB	• //		TYI Di			A
10 di Log	3/div	Ref 25.00	dBm					M	kr1 823.9 -24.	68 MHz 49 dBm		Auto Tune
15.0	Trace	e 1 Pass									82	Center Freq 4.000000 MHz
-5.00								****	el meter and a second	1996 (1997 - 1997 - 1997 (1997 - 1997 - 1997 (1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 -	82	Start Freq 2.000000 MHz
-15.0						1						Stop Freq
-25.0	Jack Mark	المرادية المراجعة ال	surger and a second	here the stranger	Warnengenard	ý*					82	CF Step
-35.0											<u>Auto</u>	400.000 kHz Man
-55.0												Freq Offset 0 Hz
-65.0												Scale Type
Cen #Po	ter 82	4.000 MHz		#\(P)	N 200 KH=			Swoon	Span 4	.000 MHz	Log	Lin
MSG	5-DW	TOU KHZ		#VDV	- 500 KH2			Sweep		ioor pis)		
mod								STA	05			

Plot 7-65. Lower Band Edge Plot (LTE Band 26/5 - 5MHz QPSK - Full RB)



Plot 7-66. Upper Band Edge Plot (LTE Band 26/5 - 5MHz QPSK - Full RB)

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	Protect to be post of @ element			Technical Manager
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🔤 Ke	ysight Spe	ctrum Analy	ter - Swept S	A									
L XI R	L	RF	50Ω A	IC COR	REC	SE	NSE:INT	#Avg	ALIGN AL Type: RMS	TTO 12:11:35 A	M May 27, 2021 DE 1 2 3 4 5 6	F	requency
PAS	S			PN IFG	O: Wide ↔ ain:Low	#Atten: 3	e Run 6 dB			יד ם			Auto Tune
10 dl Loa	3/div	Ref 25	.00 dBr	n						MKr1 823.9 -18.	28 MHZ 28 dBm		Auto Fullo
	Trace	e 1 Pass					Ĩ						Center Freq
15.0							John	materia	Jon son and the second	ermont in	www.	82	4.000000 MHz
5.00													Start Freq
-5.00												82	2.000000 MHz
-15.0							í						Stop Freq
-25.0						المهر						82	6.000000 MHz
25.0	abox 10	http:	and any allowing	Marter	and freedory and and	angan salara							CF Step
-33.0	7											<u>Auto</u>	400.000 kHz Man
-45.0													
-55.0													Freq Offset 0 Hz
-65.0													O e e la Tranc
												Log	scale Type
Cen #Re	ter 82 s BW	4.000 N 100 kHz	HZ		#VBV	/ 300 kHz			Swee	Span 4 0 6.667 ms	.000 MHz (1001 pts)	Log	
MSG									S	ATUS	,		

Plot 7-67. Lower Band Edge Plot (LTE Band 26/5 - 3MHz QPSK - Full RB)



Plot 7-68. Upper Band Edge Plot (LTE Band 26/5 - 3MHz QPSK - Full RB)

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🔤 Keysight Sp	ectrum Analyzer - Sw	ept SA								
L <mark>XI</mark> RL	RF 50 Ω	AC CORREC	9	ENSE:INT	#Avg Typ	ALIGN AUTO) 12:14:16 A TRAC	M May 27, 2021 E 1 2 3 4 5 6	F	requency
PASS	Ref 25.00 c	PNO: W IFGain:L JBm	ide ⊶⊶ Trig:Fr ow #Atten:	ee Run 36 dB		М	kr1 823.9 -21.	96 MHz 44 dBm		Auto Tune
15.0 Trac	e 1 Pass				สมาร์ เป็นสาราย	and a for the second	-		82	Center Freq 4.000000 MHz
-5.00									82	Start Freq 2.000000 MHz
-15.0			and Markedon					- Jord Martin	82	Stop Freq 6.000000 MHz
-35.0	And	Alven and an and the second							<u>Auto</u>	CF Step 400.000 kHz Man
-55.0										Freq Offset 0 Hz
-65.0										Scale Type
Center 82	24.000 MHz						Span 4	.000 MHz	Log	Lin
#Res BW	100 kHz	#	FVBW 300 kH	Z		Sweep	6.667 ms (1001 pts)		
MSG						STAT	rus			

Plot 7-69. Lower Band Edge Plot (LTE Band 26/5 – 1.4MHz QPSK – Full RB)



Plot 7-70. Upper Band Edge Plot (LTE Band 26/5 – 1.4MHz QPSK – Full RB)

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NR Band n5

Keysight Specific Keysight	ectrum Analyzer - Swept SA						
LXI RL	RF 50 Ω DC	CORREC	SENSE:INT	AL #Avg Type:	IGN AUTO 09:18 RMS	8:47 PM Jun 11, 2021 TRACE 1 2 3 4 5 6	Frequency
10 dB/div	Ref 25.00 dBm	PNO: Fast ↔ IFGain:Low	#Atten: 36 dB		Mkr1 8	23.95 MHz 25.81 dBm	Auto Tune
15.0 Trac	e 1 Pass						Center Freq 824.000000 MHz
-5.00				general production of the second s	and an and a second and a second	~~	Start Freq 799.000000 MHz
-15.0			1				Stop Freq 849.000000 MHz
-35.0		A CALL AND A CALL AND A CALL					CF Step 5.000000 MHz <u>Auto</u> Man
-55.0	~~~						Freq Offset 0 Hz
Center 82	4.00 MHz				Spa	an 50.00 MHz	Scale Type
#Res BW	200 KHZ	#VBW	620 KHZ	S	STATUS	ms (1001 pts)	

Plot 7-71. Lower Band Edge Plot (NR Band n5 – 20.0MHz - Full RB)



Plot 7-72. Upper Band Edge Plot (NR Band n5 – 20.0MHz - Full RB)

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🔤 Ke	ysight Spe	trum Analyzer - Sv	vept SA									
l <mark>,XI</mark> R	L	RF 50 \$	2 DC C	DRREC	SEN	ISE:INT	#Avg Typ	ALIGN AUTO e: RMS	09:43:56 PI TRAC	MJun 11, 2021	Fr	equency
PAS	S		F	PNO: Wide ↔ Gain:Low	, Trig: Free #Atten: 3	e Run 6 dB		Mkr	TYF DE 1 824.000			Auto Tune
10 de	3/div	Ref 25.00	dBm						-28.	25 dBm		
15.0	Trace	1 Pass									C 824	Center Freq .000000 MHz
5.00						free	Mannan	and the second	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~			Start Freq
-5.00											805	.250000 MHz
-15.U -25.0						1					842	Stop Freq
-35.0		****	-		mm	<i>.</i>				h	3	CF Step .750000 MHz
-45.0											<u>Auto</u>	Man
-55.0	/										'	Freq Offset 0 Hz
-65.0												Scale Type
Cen #Re:	ter 824 s BW	I.00 MHz 160 kHz		#V <u>BW</u>	510 k <u>Hz</u>			Sweep	Span 3 1.000 m <u>s (</u>	7.50 MHz 1001 pt <u>s)</u>	Log	Lin
MSG								STAT	US			

Plot 7-73. Lower Band Edge Plot (NR Band n5 - 15.0MHz - Full RB)



Plot 7-74. Upper Band Edge Plot (NR Band n5 – 15.0MHz - Full RB)

FCC ID: C3K1995	Pout to be part of @ reincent	PART 22 MEASUREMENT REPORT	Microsoft	Approved by: Technical Manager
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🔤 Keysight Spectrum Analyzer - Swept	SA			
LXI RL RF 50 Ω	DC CORREC SEN	SE:INT ALIGN AUT #Avg Type: RMS	TO 10:04:07 PM Jun 11, 2021 TRACE 1 2 3 4 5 6	Frequency
PASS	PNO: Wide ++- Trig: Free IFGain:Low #Atten: 36	Run dB	DET A WWWWW	
10 dB/div Ref 25.00 dB	m	Ν	/kr1 823.975 MHz -28.39 dBm	Auto Tune
15.0 Trace 1 Pass				Center Freq 824.000000 MHz
-5.00				Start Freq 811.500000 MHz
-15.0		1		Stop Freq 836.500000 MHz
-35.0	m			CF Step 2.500000 MHz <u>Auto</u> Man
-55.0				Freq Offset 0 Hz
-65.0				Scale Type
Center 824.00 MHz #Res BW 100 kHz	#VBW 300 kHz	Sweep	Span 25.00 MHz 1.200 ms (1001 pts)	Log <u>Lin</u>
MSG		ST	ATUS	

Plot 7-75. Lower Band Edge Plot (NR Band n5 - 10.0MHz - Full RB)



Plot 7-76. Upper Band Edge Plot (NR Band n5 – 10.0MHz - Full RB)

FCC ID: C3K1995	Pout to be part of @ reincent	PART 22 MEASUREMENT REPORT	Microsoft	Approved by: Technical Manager
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🔤 Keysight Spectrum Analyzer - Swept SA 🚽				
LXI RL RF 50Ω DC	CORREC SE	NSE:INT #Ava Typ	ALIGN AUTO 10:19:29 PI	MJun 11, 2021 Frequency
PASS	PNO: Wide ↔ Trig: Fre IFGain:Low #Atten: 3	e Run 36 dB	TYP	
10 dB/div Ref 25.00 dBm			Mkr1 824.00 -22.	55 dBm
15.0 Trace 1 Pass				Center Freq 824.000000 MHz
-5.00				Start Freq 817.750000 MHz
-15.0		1		Stop Freq 830.250000 MHz
-35.0	Manna			CF Step 1.250000 MHz <u>Auto</u> Man
-45.0				Freq Offset 0 Hz
-65.0				Scale Type
Center 824.000 MHz #Res BW 100 kHz	#VBW 300 kHz		Span 1 Sweep 1.000 ms (2.50 MHz Log Lin (1001 pts)
MSG			STATUS	

Plot 7-77. Lower Band Edge Plot (NR Band n5 - 5.0MHz - Full RB)



Plot 7-78. Upper Band Edge Plot (NR Band n5 – 5.0MHz - Full RB)

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Plot 7-79. Lower Band Edge Plot (GPRS Cell – Ch. 128)



Plot 7-80. Upper Band Edge Plot (GPRS Cell – Ch. 251)

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Plot 7-81. Lower Band Edge Plot (WCDMA Cell – Ch. 4132)



Plot 7-82. Upper Band Edge Plot (WCDMA Cell – Ch. 4233)

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7.5 Radiated Power (ERP)

Test Overview

Effective Radiated Power (ERP) measurements are performed using the substitution method described in ANSI/TIA-603-E-2016 with the EUT transmitting into an integral antenna. Measurements on signals operating below 1GHz are performed using vertically and horizontally polarized tuned dipole antennas. Measurements on signals operating above 1GHz are performed using vertically and horizontally polarized broadband horn antennas. All measurements are performed as RMS average measurements while the EUT is operating at maximum power, and at the appropriate frequencies.

Test Procedures Used

KDB 971168 D01 v03r01 - Section 5.2.1

ANSI/TIA-603-E-2016 – Section 2.2.17

Test Settings

- 1. Radiated power measurements are performed using the signal analyzer's "channel power" measurement capability for signals with continuous operation. For signals with burst transmission, the signal analyzer's "time domain power" measurement capability is used
- 2. RBW = 1 5% of the expected OBW, not to exceed 1MHz
- 3. VBW \geq 3 x RBW
- 4. Span = 1.5 times the OBW
- 5. No. of sweep points \geq 2 x span / RBW
- 6. Detector = RMS
- 7. Trigger is set to "free run" for signals with continuous operation with the sweep times set to "auto". Trigger is set to enable triggering only on full power bursts with the sweep time set less than or equal to the transmission burst duration
- 8. The integration bandwidth was roughly set equal to the measured OBW of the signal for signals with continuous operation. For signals with burst transmission, the "gating" function was enabled to ensure that measurements are performed during times in which the transmitter is operating at its maximum power
- 9. Trace mode = trace averaging (RMS) over 100 sweeps
- 10. The trace was allowed to stabilize

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The EUT and measurement equipment were set up as shown in the diagram below.

Figure 7-4. Radiated Test Setup <1GHz

Test Notes

- 1) This device employs GSM and GPRS capabilities. The EUT was tested under all configurations and the highest powers is reported in GPRS mode while transmitting with one slot active.
- 2) This device employs UMTS technology with WCDMA (AMR/RMC) and HSDPA capabilities. The EUT was tested under all configurations and the highest power is reported in WCDMA mode with HSDPA Inactive at 12.2 kbps RMC and TPC bits all set to "1".
- 3) The EUT was tested in three orthogonal planes and in all possible test configurations and positioning. The worst case emissions are reported with the EUT positioning, modulations, RB sizes and offsets, and channel bandwidth configurations shown in the tables below.
- 4) This unit was tested with its standard battery.
- 5) For NR operation, all subcarrier spacings (SCS) and transmission schemes (e.g. CP-OFDM and DFT-s-OFDM) were investigated to determine the worst case configuration. All modes of operation were investigated and the worst case configuration results are reported in this section.

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Frequency [MHz]	Mode	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Substitute Level [dBm]	Ant. Gain [dBi]	ERP [dBm]	ERP [Watts]	ERP Limit [dBm]	Margin [dB]
824.20	GPRS850	Н	220	103	25.16	6.65	29.66	0.925	38.45	-8.79
836.60	GPRS850	Н	205	108	24.62	6.74	29.21	0.834	38.45	-9.24
848.80	GPRS850	Н	208	114	22.99	6.73	27.57	0.571	38.45	-10.89
824.20	GPRS850	V	141	68	24.16	6.13	28.14	0.652	38.45	-10.31
824.20	GPRS850 (Half)	Н	143	128	23.88	6.65	28.38	0.689	38.45	-10.07

Table 7-2. ERP Data (GPRS Cell – South)

Frequency [MHz]	Mode	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Substitute Level [dBm]	Ant. Gain [dBi]	ERP [dBm]	ERP [Watts]	ERP Limit [dBm]	Margin [dB]
826.40	WCDMA850	Н	101	107	18.01	6.67	22.53	0.179	38.45	-15.92
836.60	WCDMA850	Н	211	104	17.38	6.74	21.97	0.157	38.45	-16.48
846.60	WCDMA850	Н	209	110	16.45	6.78	21.08	0.128	38.45	-17.37
826.40	WCDMA850	V	156	117	18.17	6.07	22.09	0.162	38.45	-16.36
826.40	WCDMA850 (Half)	V	134	126	17.93	6.07	21.85	0.153	38.45	-16.60

Table 7-3. ERP Data (WCDMA Cell – South)

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Bandwidth	Mod.	Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Ant. Gain [dBi]	RB Size/Offset	Substitute Level [dBm]	ERP [dBm]	ERP [Watts]	ERP Limit [dBm]	Margin [dB]
15MHz		831.5	Н	201	73	6.73	1 / 37	16.96	21.54	0.142	38.45	-16.91
(Pand 26	QPSK	836.5	Н	198	70	6.73	1/0	17.00	21.58	0.144	38.45	-16.87
(Dallu 20		841.5	Н	202	77	6.73	1 / 74	16.99	21.57	0.144	38.45	-16.88
oniy)	16-QAM	836.5	Н	198	70	6.73	1 / 37	16.18	20.76	0.119	38.45	-17.69
		829.0	Н	201	73	6.70	1 / 25	17.05	21.60	0.145	38.45	-16.85
	QPSK	836.5	Н	198	70	6.73	1/0	16.94	21.51	0.142	38.45	-16.94
		844.0	Н	202	77	6.76	1 / 25	17.17	21.78	0.151	38.45	-16.67
	16-QAM	829.0	Н	201	73	6.70	1 / 25	16.52	21.07	0.128	38.45	-17.38
		826.5	Н	201	73	6.67	1 / 12	17.15	21.68	0.147	38.45	-16.77
5 MH7	QPSK	836.5	Н	198	70	6.73	1 / 24	17.10	21.68	0.147	38.45	-16.77
5 WIT12		846.5	Н	202	77	6.78	1/0	17.38	22.01	0.159	38.45	-16.44
	16-QAM	826.5	Н	201	73	6.67	1 / 12	16.76	21.29	0.135	38.45	-17.16
		825.5	Н	201	73	6.66	1 / 14	17.15	21.67	0.147	38.45	-16.79
3 MH7	QPSK	836.5	Н	198	70	6.73	1/0	17.07	21.65	0.146	38.45	-16.81
3 WIT12		847.5	Н	202	77	6.79	1/7	17.12	21.76	0.150	38.45	-16.69
	16-QAM	825.5	Н	201	73	6.66	1/0	16.38	20.90	0.123	38.45	-17.56
		824.7	Н	201	73	6.66	1/0	16.96	21.46	0.140	38.45	-16.99
14 MHZ	QPSK	836.5	Н	198	70	6.73	1/5	17.01	21.59	0.144	38.45	-16.86
1.4 Wi112		848.3	Н	202	77	6.77	1/0	16.90	21.52	0.142	38.45	-16.93
	16-QAM	824.7	Н	201	73	6.66	1/5	16.41	20.91	0.123	38.45	-17.54
	QPSK (Opposite Pol.)	836.5	V	138	84	6.18	1/0	16.55	20.58	0.114	38.45	-17.87
	QPSK (Open)	836.5	Н	224	96	6.73	1/0	16.03	20.61	0.115	38.45	-17.84

Table 7-4. ERP Data (LTE Band 26/5 – North)

Bandwidth	Mod.	Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Ant. Gain [dBi]	RB Size/Offset	Substitute Level [dBm]	ERP [dBm]	ERP [Watts]	ERP Limit [dBm]	Margin [dB]
15MH7		831.5	Н	221	108	6.73	1 / 37	17.41	21.99	0.158	38.45	-16.46
(Pand 26	QPSK	836.5	Н	204	107	6.73	1 / 37	17.64	22.22	0.167	38.45	-16.23
(Dallu 20		841.5	Н	209	110	6.73	1/0	17.50	22.08	0.161	38.45	-16.37
oniy)	16-QAM	836.5	Н	204	107	6.73	1 / 37	16.95	21.53	0.142	38.45	-16.92
		829.0	Н	221	108	6.70	1 / 25	17.35	21.90	0.155	38.45	-16.55
	QPSK	836.5	Н	204	107	6.73	1/0	17.95	22.52	0.179	38.45	-15.93
		844.0	Н	209	110	6.76	1/0	17.56	22.17	0.165	38.45	-16.28
	16-QAM	836.5	Н	204	107	6.73	1/0	17.02	21.60	0.145	38.45	-16.85
		826.5	Н	221	108	6.67	1/0	17.51	22.03	0.160	38.45	-16.42
5 MU-	QPSK	836.5	Н	204	107	6.73	1/0	17.87	22.45	0.176	38.45	-16.00
5 WITZ		846.5	Н	209	110	6.78	1/0	17.30	21.93	0.156	38.45	-16.52
	16-QAM	826.5	Н	221	108	6.67	1 / 12	17.15	21.68	0.147	38.45	-16.77
		825.5	Н	221	108	6.66	1 / 14	17.57	22.08	0.162	38.45	-16.37
2 MU-	QPSK	836.5	Н	204	107	6.73	1 / 14	17.71	22.29	0.169	38.45	-16.16
3 WIFIZ		847.5	Н	209	110	6.79	1/7	17.54	22.19	0.165	38.45	-16.26
	16-QAM	836.5	Н	204	107	6.73	1/0	17.18	21.76	0.150	38.45	-16.69
		824.7	Н	221	108	6.66	1/3	17.42	21.93	0.156	38.45	-16.52
1 4 MU-	QPSK	836.5	Н	204	107	6.73	1/3	17.74	22.32	0.171	38.45	-16.13
		848.3	Н	209	110	6.77	1/0	16.93	21.55	0.143	38.45	-16.90
	16-QAM	824.7	Н	221	108	6.66	1/3	17.04	21.54	0.143	38.45	-16.91
	QPSK (Opposite Pol.)	836.5	V	141	125	6.18	1 / 37	16.65	20.68	0.117	38.45	-17.77
	QPSK (Half open)	836.5	Н	202	103	6.73	1/37	16.36	20.94	0.124	38.45	-17.51
							1 0 0 / -					

Table 7-5. ERP Data (LTE Band 26/5 – South)

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Bandwidth	Mod.	Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Ant. Gain [dBi]	RB Size/Offset	Substitute Level [dBm]	ERP [dBm]	ERP [Watts]	ERP Limit [dBm]	Margin [dB]
		834.0	Н	219	74	6.65	1 / 26	13.81	18.31	0.068	38.45	-20.14
	TT/2 BPSK	836.5	Н	219	69	6.73	1 / 53	13.57	18.15	0.065	38.45	-20.30
		839.0	Н	207	66	6.80	1 / 79	14.03	18.68	0.074	38.45	-19.77
20 MHz		834.0	Н	219	74	6.65	1 / 26	13.93	18.43	0.070	38.45	-20.02
	QPSK	836.5	Н	219	69	6.73	1 / 53	13.67	18.25	0.067	38.45	-20.20
		839.0	Н	207	66	6.80	1 / 79	14.11	18.76	0.075	38.45	-19.69
	16-QAM	834.0	Н	219	74	6.65	1 / 26	13.13	17.63	0.058	38.45	-20.82
		831.5	Н	219	74	6.73	1 / 20	13.84	18.42	0.069	38.45	-20.03
	π/2 BPSK	836.5	Н	219	69	6.73	1 / 20	13.59	18.17	0.066	38.45	-20.28
		841.5	Н	207	66	6.73	1 / 58	14.09	18.67	0.074	38.45	-19.78
15 MHz		831.5	Н	219	74	6.73	1 / 20	13.94	18.52	0.071	38.45	-19.93
	QPSK	836.5	Н	219	69	6.73	1 / 20	13.70	18.27	0.067	38.45	-20.18
		841.5	Н	207	66	6.73	1 / 58	14.22	18.81	0.076	38.45	-19.65
	16-QAM	831.5	Н	219	74	6.73	1 / 20	13.22	17.79	0.060	38.45	-20.66
		829.0	Н	219	74	6.70	1 / 13	13.70	18.25	0.067	38.45	-20.20
	π/2 BPSK	836.5	Н	219	69	6.73	1 / 13	13.58	18.16	0.065	38.45	-20.29
		844.0	Н	207	66	6.76	1 / 13	14.04	18.65	0.073	38.45	-19.80
10 MHz		829.0	Н	219	74	6.70	1 / 13	13.89	18.44	0.070	38.45	-20.01
	QPSK	836.5	Н	219	69	6.73	1 / 13	13.59	18.17	0.066	38.45	-20.28
		844.0	Н	207	66	6.76	1 / 13	14.12	18.73	0.075	38.45	-19.72
	16-QAM	829.0	Н	219	74	6.70	1 / 13	13.34	17.89	0.062	38.45	-20.56
		829.0	Н	219	74	6.67	1/6	13.61	18.13	0.065	38.45	-20.32
	π/2 BPSK	836.5	Н	219	69	6.73	1 / 12	13.47	18.05	0.064	38.45	-20.40
		844.0	Н	207	66	6.78	1 / 18	13.99	18.62	0.073	38.45	-19.83
5 MHz		829.0	Н	219	74	6.67	1/6	13.89	18.41	0.069	38.45	-20.04
	QPSK	836.5	Н	219	69	6.73	1 / 12	13.59	18.17	0.066	38.45	-20.28
		844.0	Н	207	66	6.78	1 / 18	13.86	18.49	0.071	38.45	-19.96
	16-QAM	844.0	Н	207	66	6.78	1 / 18	13.28	17.91	0.062	38.45	-20.54
	QPSK (CP-OFDM)	839.0	H	221	72	6.80	1 / 26	12.31	16.96	0.050	38.45	-21.49
20 MHz	QPSK (HALF-OPEN)	839.0	Н	221	81	6.80	1 / 79	12.53	17.18	0.052	38.45	-21.27
	QPSK (Opposite Pol.)	839.0	V	153	99	6.30	1 / 79	13.50	17.65	0.058	38.45	-20.80

Table 7-6. ERP Data (NR Band n5 – North)

Bandwidth	Mod.	Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Ant. Gain [dBi]	RB Size/Offset	Substitute Level [dBm]	ERP [dBm]	ERP [Watts]	ERP Limit [dBm]	Margin [dB]
		834.0	Н	221.0	105.0	6.65	1 / 79	13.84	18.34	0.068	38.45	-20.11
	π/2 BPSK	836.5	Н	225.0	105.0	6.73	1 / 53	14.27	18.85	0.077	38.45	-19.60
		839.0	H	205.0	105.0	6.80	1 / 79	14.20	18.85	0.077	38.45	-19.60
20 MHz		834.0	Н	221.0	105.0	6.65	1 / 79	13.97	18.47	0.070	38.45	-19.98
	QPSK	836.5	Н	225.0	105.0	6.73	1 / 53	14.35	18.93	0.078	38.45	-19.52
		839.0	Н	205.0	105.0	6.80	1 / 79	14.24	18.89	0.078	38.45	-19.56
	16-QAM	839.0	Η	205.0	105.0	6.80	1 / 79	13.65	18.30	0.068	38.45	-20.15
		831.5	Н	221.0	105.0	6.73	1 / 20	13.82	18.40	0.069	38.45	-20.05
	π/2 BPSK	836.5	Н	225.0	105.0	6.73	1 / 39	14.27	18.85	0.077	38.45	-19.60
		841.5	Н	205.0	105.0	6.73	1 / 20	14.22	18.80	0.076	38.45	-19.65
15 MHz		831.5	Н	221.0	105.0	6.73	1 / 20	13.91	18.49	0.071	38.45	-19.96
	QPSK	836.5	Н	225.0	105.0	6.73	1 / 39	14.45	19.03	0.080	38.45	-19.42
		841.5	Н	205.0	105.0	6.73	1 / 20	14.17	18.75	0.075	38.45	-19.70
	16-QAM	841.5	Н	205.0	105.0	6.73	1 / 20	13.55	18.13	0.065	38.45	-20.32
		829.0	Н	221.0	105.0	6.70	1 / 13	13.84	18.39	0.069	38.45	-20.06
	π/2 BPSK	836.5	Н	225.0	105.0	6.73	1 / 13	14.30	18.88	0.077	38.45	-19.57
		844.0	H	205.0	105.0	6.76	1 / 38	14.15	18.76	0.075	38.45	-19.69
10 MHz		829.0	H	221.0	105.0	6.70	1 / 13	13.98	18.53	0.071	38.45	-19.92
	QPSK	836.5	Н	225.0	105.0	6.73	1 / 13	14.37	18.95	0.079	38.45	-19.50
		844.0	Н	205.0	105.0	6.76	1 / 38	13.96	18.56	0.072	38.45	-19.89
	16-QAM	844.0	Н	205.0	105.0	6.76	1 / 38	13.47	18.07	0.064	38.45	-20.38
		829.0	Н	221.0	105.0	6.67	1 / 12	13.84	18.36	0.069	38.45	-20.09
	π/2 BPSK	836.5	Н	225.0	105.0	6.73	1/6	14.17	18.75	0.075	38.45	-19.70
		844.0	Н	205.0	105.0	6.78	1/6	14.35	18.99	0.079	38.45	-19.46
5 MHz		829.0	Н	221.0	105.0	6.67	1 / 12	13.88	18.41	0.069	38.45	-20.05
	QPSK	836.5	Н	225.0	105.0	6.73	1/6	14.40	18.98	0.079	38.45	-19.47
		844.0	Н	205.0	105.0	6.78	1/6	14.00	18.64	0.073	38.45	-19.81
	16-QAM	844.0	Н	205.0	105.0	6.78	1/6	13.67	18.30	0.068	38.45	-20.15
	QPSK (CP-OFDM)	836.5	Н	221.0	103.0	6.73	1 / 79	13.11	17.69	0.059	38.45	-20.76
20 MHz	QPSK (Opposite Pol.)	836.5	V	125.0	103.0	6.18	1 / 53	14.06	18.09	0.064	38.45	-20.36
	QPSK (HALF-OPEN)	836.5	V	144.0	114.0	6.18	1 / 53	13.88	17.91	0.062	38.45	-20.54

Table 7-7. ERP Data (NR Band n5 – South)

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7.6 Uplink Carrier Aggregation

Test Overview

The EUT is set up to transmit two contiguous LTE channels. The power level of both carriers and the various conducted spurious and harmonic frequencies is measured by means of a calibrated spectrum analyzer. The spectrum is scanned from the lowest frequency generated in the equipment up to a frequency including its 10th harmonic. All out of band emissions are measured with a spectrum analyzer connected to the antenna terminal of the EUT while the EUT is operating at its maximum duty cycle, at maximum power, and at the appropriate frequencies. All data rates were investigated to determine the worst case configuration. All modes of operation were investigated and the worst case configuration results are reported in this section.

Test Procedure Used

KDB 971168 D01 v03r01 - Section 6.0

Test Settings

- 1. Start frequency was set to 30MHz and stop frequency was set to at least 10 * the fundamental frequency (separated into at least two plots per channel)
- 2. Detector = RMS
- 3. Trace mode = trace average for continuous emissions, max hold for pulse emissions
- 4. Sweep time = auto couple
- 5. The trace was allowed to stabilize
- 6. Please see test notes below for RBW and VBW settings

Test Setup

The EUT and measurement equipment were set up as shown in the diagram below.



Figure 7-5. Test Instrument & Measurement Setup

Test Notes

- 1. Uplink carrier aggregation is only supported in this EUT while operating in Power Class 3.
- 2. Conducted power and spurious emissions measurements were evaluated for the two contiguous channels using various combinations of RB size, RB offset, modulation, and channel bandwidth. Channel bandwidth data is shown in the tables below based only on the channel bandwidths that were supported in this device. The worst case (highest) powers were found while operating with QPSK modulation with both carriers set to transmit using 1RB.
- 3. Compliance with the applicable limits is based on the use of measurement instrumentation employing a resolution bandwidth of 100 kHz or greater for frequencies less than 1 GHz and 1 MHz or greater for frequencies greater than 1 GHz. However, in the 1 MHz bands immediately outside and adjacent to the frequency block a resolution bandwidth of at least one percent of the emission bandwidth of the fundamental emission of the transmitter may be employed.

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Power State	Band	Bandwidth			PCC					ULCA Tx.																			
		(PCC + SCC)	Modulation	UL Channel	UL Frequency	UL # RB	UL RB Offset	Modulation	UL Channel	UL Frequency	UL # RB	UL RB Offset	[dBm]																
				20450	829.0	1	49	QPSK	20549	838.9	1	0	24.74																
		TE B5 10MHz + 10MHz -	QPSK	20475	831.5	1	49		20574	841.4	1	0	24.58																
Max				20600	844.0	1	0		20501	834.1	1	49	24.44																
IVIAX	LIE DO		. B5 10MHz + 10MHz	10MHz + 10MHz		10MHz + 10MHz	10MHz + 10MHz	10MHz + 10MHz	10MHz + 10MHz	10MHz + 10MHz		10MHz + 10MHz	10MHz + 10MHz	10MHz + 10MHz		10MHz + 10MHz		10MHz + 10MHz	QPSK	20450	829	50	0	QPSK	20549	838.9	50	0	21.95
			16-QAM	20450	829	50	0	16-QAM	20549	838.9	50	0	21.21																
			64-QAM	20450	829	50	0	64-QAM	20549	838.9	50	0	20.05																

Table 7-8. Conducted Power Output Data (ULCA LTE Band 5 – North)

Power State	Band	Bandwidth			PCC				ULCA Tx.																				
		(PCC + SCC)	Modulation	UL Channel	UL Frequency	UL # RB	UL RB Offset	Modulation	UL Channel	UL Frequency	UL # RB	UL RB Offset	[dBm]																
				20450	829.0	1	49		20549	838.9	1	0	24.50																
			QPSK	20475	831.5	1	49	QPSK	20574	841.4	1	0	24.36																
Max				20600	844.0	1	0		20501	834.1	1	49	24.35																
IVIAX	LIEDJ	B5 10MHz + 10MHz -	10MHz + 10MHz	10MHz + 10MHz	TUIVIHZ + TUIVIHZ	IUMHZ + 10MHZ	10MHz + 10MHz	10MHz + 10MHz	10MHz + 10MHz	10MHz + 10MHz	10MHz + 10MHz	TUIVIHZ + TUIVIHZ	TUMHZ + TUMHZ						QPSK	20450	829	50	0	QPSK	20549	838.9	50	0	22.49
			16-QAM	20450	829	50	0	16-QAM	20549	838.9	50	0	21.52																
			64-QAM	20450	829	50	0	64-QAM	20549	838.9	50	0	21.07																

Table 7-9. Conducted Power Output Data (ULCA LTE Band 5 – South)

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Keysight Spectrum Ar	nalyzer - Swept SA									
LXU RL RF	50 Ω DC	CORREC	SENSI	E:INT #A	A vg Type	LIGN AUTO : RMS	06:36:06 PM TRACI	Jul 15, 2021 E 1 2 3 4 5 6	Fr	equency
PASS		PNO: Fast +++ IFGain:Low	#Atten: 36 d	dB			DE			
10 dB/div Ref	20.00 dBm					Mk	r1 822. -50.99	65 MHz 90 dBm		Auto Tune
10.0	ISS								426	Center Freq
10.00									30	Start Freq
-10.0										
-20.0									823	Stop Freq 8.000000 MHz
-40.0									70	CF Step
-50.0								1	Auto	Man
-60.0									I	Freq Offset
70.0						and the standard standards and an	متقاد فحريت اللاحر ويري	a mina a Majiya ka kari ya safi		0 Hz
-70.0										Scale Type
Start 30.0 MHz #Res BW 100 k	Hz	#VBW	300 kHz		Sv	veep 38	Stop 82 06 ms (1	23.0 MHz 5861 pts)	Log	<u>Lin</u>
MSG						STATUS				

Plot 7-83. Conducted Spurious Plot (Band 5 - 10.0MHz QPSK - PCC 1/49 SCC 1/0 - Low Channel)



Plot 7-84. Conducted Spurious Plot (Band 5 - 10.0MHz QPSK - PCC 1/49 SCC 1/0 - Low Channel)

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🔤 Key	ysight Spec	trum Analyzer - S	wept SA								_	
l,XI RI	L	RF 50	Ω DC C	ORREC	T-i F	NSE:INT	#Avg Typ	ALIGN AUTO	06:38:20 P	M Jul 15, 2021	Fr	requency
PAS	S		I	PNO: Fast ↔ FGain:Low	#Atten: 4	odB			Di	ANNNN		
10 dE	3/div	Ref 20.00	dBm					N	4kr1 850. -54.5	10 MHZ 04 dBm		Auto Func
10.0	Trace	1 Pass									(924	Center Freq 1.500000 MHz
0.00 -10.0											849	Start Freq 9.000000 MHz
-20.0 -30.0											1.00	Stop Freq 0000000 GHz
-40.0	.1										15 <u>Auto</u>	CF Step 5.100000 MHz Man
-60.0	and a state of the	uteris-ternetister	ir vertil verse standere	erfektaskageketisasetykig	an a	รุงสร _า งสุดสาราช เรื่องประการ	******	afantala tanan falada	ang ing analys in the states	adiyati mayayiniyi nanar		Freq Offset 0 Hz
-70.0												Scale Type
Star #Res	t 0.849 s BW 1	00 GHz 00 kHz		#VBW	/ 300 kHz			Sweep	Stop 1.0 7.248 ms (0000 GHz 3021 pts)	Log	Lin
MSG								STATI	US			





Plot 7-86. Conducted Spurious Plot (Band 5 - 10.0MHz QPSK - PCC 1/49 SCC 1/0 - Low Channel)

FCC ID: C3K1995		PART 22 MEASUREMENT REPORT	Microsoft	Approved by: Technical Manager
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🔤 Ke	ysight Spe	ctrum Analyzer -	Swept SA									
l XI R	L	RF 50	Ω DC	CORREC	SEN	ISE:INT	#Avg Typ	ALIGN AUTO e: RMS	06:46:05 PI TRAC	4 Jul 15, 2021 E 1 2 3 4 5 6	F	requency
PAS	SS			PNO: Fast ++ IFGain:Low	#Atten: 4	dB			DE			A
10 di	B/div	Ref 20.00) dBm					Μ	kr1 823. -52.1	95 MHz 69 dBm		Auto Tune
10.0	Trace	1 Pass			Ì						42	Center Freq 7.000000 MHz
0.00											3(Start Freq 0.000000 MHz
-20.0											824	Stop Freq 4.000000 MHz
-40.0										1	7! <u>Auto</u>	CF Step 9.400000 MHz Man
-50.0					entre förstand till till till biller Hanna som			n station of the second se		iter da en destra de Standard		Freq Offset 0 Hz
-70.0												Scale Type
Star #Re	t 30.0 s BW	MHz 100 kHz		#VBW	/ 300 kHz		s	weep 3	8 Stop 3.11 ms <u>(</u> 1	24.0 MHz 5881 pt <u>s)</u>	Log	Lin
MSG								STATU	s			

Plot 7-87. Conducted Spurious Plot (Band 5 - 10.0MHz QPSK - PCC 1/49 SCC 1/0 - Mid Channel)



Plot 7-88. Conducted Spurious Plot (Band 5 – 10.0MHz QPSK – PCC 1/49 SCC 1/0 – Mid Channel)

FCC ID: C3K1995		PART 22 MEASUREMENT REPORT	Microsoft	Approved by: Technical Manager		
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🔤 Key	/sight Spe	trum Analyzer - S	Swept SA								_	
l xi Ri	L	RF 50	Ω DC CO	RREC	SEN	SE:INT	#Ava Tvp	ALIGN AUTO	06:46:26 P	M Jul 15, 2021	F	requency
PAS	S		P IF	NO: Fast ↔ Gain:Low	Trig: Free #Atten: 4	e Run 0 dB			TYI Di			A
10 dE	3/div	Ref 20.00	dBm					Ν	/lkr1 850 -55.0	10 MHz 90 dBm		Auto I une
Log 10.0	Trace	1 Pass									92	Center Freq 4.500000 MHz
0.00 -10.0											84	Start Freq 9.000000 MHz
-20.0 -30.0											1.00	Stop Freq 00000000 GHz
-40.0 -50.0	<u> </u>										1! <u>Auto</u>	CF Step 5.100000 MHz Man
-60.0	Angel apple and	nin an		nyononinanyon anyo kara	hang-selantaspanah	entstrangt inn jool (n	lter an starte for the section	rayh , henjiy he nvikne	ารหรือสาวอุสหรองจะไหญหารับไรสาว	erinan kuruntun		Freq Offset 0 Hz
-70.0												Scale Type
Star #Res	t 0.849 s BW	000 GHz 100 kHz		#VBW	300 kHz			Sweep	Stop 1.0 7.248 ms (0000 GHz 3021 pts)	Log	Lin
MSG								STAT	US			

Plot 7-89. Conducted Spurious Plot (Band 5 - 10.0MHz QPSK - PCC 1/49 SCC 1/0 - Mid Channel)



Plot 7-90. Conducted Spurious Plot (Band 5 – 10.0MHz QPSK – PCC 1/49 SCC 1/0 – Mid Channel)

FCC ID: C3K1995		PART 22 MEASUREMENT REPORT	licrosoft	Approved by: Technical Manager		
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🔤 Keys	sight Spe	trum Analyzer -	Swept SA									
I,XI RL		RF 50	Ω DC	CORREC	SEN	ISE:INT	#Avg Typ	ALIGN AUTO e: RMS	06:48:39 PI TRAC	1 Jul 15, 2021 E 1 2 3 4 5 6	F	requency
PAS	S			PNO: Fast ++ IFGain:Low	#Atten: 4	dB			DE	ANNNN		
10 dBa	/div	Ref 20.00) dBm					M	kr1 823. -54.9	80 MHz 89 dBm		Auto Tune
10.0	Trace	1 Pass									42	Center Freq 7.000000 MHz
0.00 -											31	Start Freq 0.000000 MHz
-20.0 -											82	Stop Freq 4.000000 MHz
-40.0 -										1	7: <u>Auto</u>	CF Step 9.400000 MHz Man
-60.0		n stá stán nevi lé jel, miny		yn 12 f 12 g	Strangers Linguist Million	ng tanàng taong	a an a bay dia mandrima tifa basa basa ng ng ng ding ting tang na ng bag	a genetin sterne de certilade geneticipante mag				Freq Offset 0 Hz
-70.0											1.00	Scale Type
Start #Res	30.0 BW	MHz 100 kHz		#VBV	/ 300 kHz		s	weep 3	Stop 8 3.11 ms (1	24.0 MHz 5881 pts)	Log	
MSG								STATU	S			

Plot 7-91. Conducted Spurious Plot (Band 5 – 10.0MHz QPSK – PCC 1/0 SCC 1/49 – High Channel)



Plot 7-92. Conducted Spurious Plot (Band 5 - 10.0MHz QPSK - PCC 1/0 SCC 1/49 - High Channel)

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🔤 Keysi	ight Spect	rum Analyzer - S	owept SA									
l <mark>XI</mark> RL		RF 50	Ω DC	CORREC	SEI	NSE:INT	#Avg Typ	ALIGN AUTO e: RMS	06:49:13 P	M Jul 15, 2021 DE 1 2 3 4 5 6	Fr	equency
	diu	Pof 20.00	dBm	PNO: Fast ↔ IFGain:Low	#Atten: 4	0 dB		N	/kr1 850 -53.2	.35 MHz 06 dBm		Auto Tune
	Trace	1 Pass									(925	Center Freq 5.000000 MHz
-10.0											850	Start Freq 0.000000 MHz
-20.0 -											1.00	Stop Freq 0000000 GHz
-40.0	1										1t <u>Auto</u>	CF Step 5.000000 MHz Man
-60.0	an the state of th	14.00.00 4 40.00 400 50 400 50 50 50 50 50 50 50 50 50 50 50 50 5	Den ang per Kirjejat ang per kirjejat dan se	~ <u>~~~</u> ~~~~	hann Marian Antin Anga-		42 ¹⁴⁴ 8424-11444	ang	wighers of the Arson of	alaigteraini mielikipat		F req Offset 0 Hz
Start	0.850 BM(4	00 GHz		#\/B\/	(300 kHz			Sweep	Stop 1.0	0000 GHz	Log	Scale Type <u>Lin</u>
MSG	GW I	00 MHZ			- 500 MHZ			STAT	US	5001 prs)		

Plot 7-93. Conducted Spurious Plot (Band 5 – 10.0MHz QPSK – PCC 1/0 SCC 1/49 – High Channel)



Plot 7-94. Conducted Spurious Plot (Band 5 – 10.0MHz QPSK – PCC 1/0 SCC 1/49 – High Channel)

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🔤 Keysight Sp	ectrum Analyzer - Swept S/	Α				
LXU RL	RF 50 Ω D	C CORREC	SENSE:INT	#Avg Type: RMS	07:17:03 PM Jul 20, 2021 TRACE 1 2 3 4 5 6 TYPE A WAAAAAAA	Frequency
PASS	Ref 25.00 dBr	IFGain:Low	#Atten: 36 dB	Μ	Let A NNNNN Ikr1 820.60 MHz -27.99 dBm	Auto Tune
15.0	e 1 Pass					Center Freq 824.000000 MHz
-5.00				manut forman		Start Freq 799.000000 MHz
-15.0		Apropriese .	1			Stop Freq 849.000000 MHz
-35.0		M				CF Step 5.000000 MHz <u>Auto</u> Man
-55.0						Freq Offset 0 Hz
						Scale Type
Center 82 #Res BW	24.00 MHz 200 kHz	#VBW	680 kHz	Sweep	Span 50.00 MHz 1.000 ms (1001 pts)	Log <u>Lin</u>
MSG				STATU	IS	

Plot 7-95. Lower Band Edge Plot (Band 5 QPSK - PCC:10 MHz SCC:10 MHz - Full RB)



Plot 7-96. Upper Band Edge Plot (Band 5 QPSK - PCC:10 MHz SCC:10 MHz - Full RB)

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7.7 Radiated Spurious Emissions Measurements

Test Overview

Radiated spurious emissions measurements are performed using the field strength conversion method described in KDB 971168 with the EUT transmitting into an integral antenna. Measurements on signals operating below 1GHz are performed using horizontally and vertically polarized tuned dipole antennas. Measurements on signals operating above 1GHz are performed using vertically and horizontally polarized broadband horn antennas. All measurements are performed as RMS measurements while the EUT is operating at maximum power, and at the appropriate frequencies.

Test Procedures Used

KDB 971168 D01 v03r01 - Section 5.8

Test Settings

- 1. RBW = 100kHz for emissions below 1GHz and 1MHz for emissions above 1GHz
- 2. VBW \geq 3 x RBW
- 3. Span = 1.5 times the OBW
- 4. No. of sweep points \geq 2 x span / RBW
- 5. Detector = RMS
- 6. Trace mode = Average (Max Hold for pulsed emissions)
- 7. The trace was allowed to stabilize

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The EUT and measurement equipment were set up as shown in the diagram below.



Figure 7-7. Test Instrument & Measurement Setup >1 GHz

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- Field strengths are calculated using the Measurement quantity conversions in KDB 971168 Section 5.8.4.
 b) E(dBµV/m) = Measured amplitude level (dBm) + 107 + Cable Loss (dB) + Antenna Factor (dB/m)
 d) EIRP (dBm) = E(dBµV/m) + 20logD 104.8; where D is the measurement distance in meters.
- 2) This device employs GSM and GPRS capabilities. The EUT was tested under all configurations and the highest powers is reported in GPRS mode while transmitting with one slot active.
- 3) This device employs UMTS technology with WCDMA (AMR/RMC) and HSDPA capabilities. The EUT was tested under all configurations and the highest power is reported in WCDMA mode with HSDPA Inactive at 12.2 kbps RMC and TPC bits all set to "1".
- 4) The EUT was tested in three orthogonal planes and in all possible test configurations and positioning. The worst case emissions are reported with the EUT positioning, modulations, RB sizes and offsets, and channel bandwidth configurations shown in the tables below.
- 5) This unit was tested with its standard battery.
- 6) The spectrum is measured from 9kHz to the 10th harmonic of the fundamental frequency of the transmitter. The worst-case emissions are reported.
- 7) Emissions below 18GHz were measured at a 3 meter test distance while emissions above 18GHz were measured at a 1 meter test distance with the application of a distance correction factor.
- 8) The "-" shown in the following RSE tables are used to denote a noise floor measurement.
- 9) ULCA spurious emissions measurements were evaluated for the two contiguous channels using various combinations of RB size, RB offset, modulation, and channel bandwidth. Channel bandwidth data is shown in the tables below based only on the channel bandwidths that were supported in this device.
- 10) For NR operation, all subcarrier spacings (SCS) and transmission schemes (e.g. CP-OFDM and DFT-s-OFDM) were investigated to determine the worst case configuration. All modes of operation were investigated and the worst case configuration results are reported in this section.
- 11) Spurious emissions shown in this section are measured while operating in EN-DC mode with Sub 6GHz NR carrier as well as an LTE carrier (anchor). Spurious emissions from the NR carrier device, is subject to the rules under which the NR carrier operates. Spurious emission caused by the LTE carrier must meet the requirements of the rules under which the LTE carrier operates.

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LTE Band 26/5 – North







Plot 7-98. Radiated Spurious Plot (LTE Band 26/5 - North - Closed)

Bandwidth (MHz): Frequency (MHz): RB / Offset:	83 1	15)1.5 / 37							
Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBµV/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
1663.0	V	112	23	-71.92	2.34	37.42	-57.84	-13.00	-44.84
2494.5	V	-	-	-79.11	5.57	33.46	-61.80	-13.00	-48.80
3326.0	V	-	-	-80.20	7.49	34.29	-60.97	-13.00	-47.97
4157.5	V	-	-	-80.36	8.03	34.67	-60.59	-13.00	-47.59

Table 7-10. Radiated Spurious Data (LTE Band 26/5 – Low Channel – North - Open)

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Bandwidth (MHz):	15
Frequency (MHz):	836.5
RB / Offset:	1/37

Frequency (MHz)	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBµV/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
1673.0	V	150	69	-73.75	2.83	36.08	-59.18	-13.00	-46.18
2509.5	V	-	-	-79.34	5.54	33.20	-62.05	-13.00	-49.05
3346.0	V	-	-	-80.35	7.75	34.40	-60.86	-13.00	-47.86
4182.5	V	-	-	-80.54	7.91	34.37	-60.89	-13.00	-47.89

Table 7-11. Radiated Spurious Data (LTE Band 26/5 – Mid Channel – North - Open)

Bandwidth (MHz):	15
Frequency (MHz):	841.5
RB / Offset:	1/37

Frequency (MHz)	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBµV/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
1683.00	V	141	75	-74.64	3.29	35.65	-59.61	-13.00	-46.61
2524.50	V	-	-	-79.43	5.80	33.37	-61.88	-13.00	-48.88
3366.00	V	-	-	-79.93	7.28	34.35	-60.91	-13.00	-47.91
4207.50	V	-	-	-80.43	8.09	34.66	-60.60	-13.00	-47.60

Table 7-12. Radiated Spurious Data (LTE Band 26/5 – High Channel – North - Open)

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-5

LTE Band 26/5 – South



10	00 18	89 27	78 36	67 45 Frequ	56 54 56 54	44 63	33 72	22 81	11 9000
-60 -									
-50	بالمستعودي والمتعاد والمستحالين والمناطئ								FECT
-50 -			In the second se	دىمىرىق بى مەلەر مەل	and the second	A DESCRIPTION OF THE OWNER OF THE	A CONTRACTOR OF THE OWNER OF THE		



Bandwidth (MHz):	15
Frequency (MHz):	831.5
RB / Offset:	1/37

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBµV/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
1663.0	V	116	16	-72.26	2.34	37.08	-58.18	-13.00	-45.18
2494.5	V	-	-	-79.28	5.57	33.29	-61.97	-13.00	-48.97
3326.0	V	-	-	-80.17	7.49	34.32	-60.94	-13.00	-47.94
4157.5	V	-	-	-80.25	8.03	34.78	-60.48	-13.00	-47.48

Table 7-13. Radiated Spurious Data (LTE Band 26/5 - Low Channel - South - Open)

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Bandwidth (MHz):	15
Frequency (MHz):	836.5
RB / Offset:	1/37

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBµV/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
1673.0	V	148	62	-73.63	2.83	36.20	-59.06	-13.00	-46.06
2509.5	V	-	-	-79.44	5.54	33.10	-62.15	-13.00	-49.15
3346.0	V	-	-	-80.45	7.75	34.30	-60.96	-13.00	-47.96
4182.5	V	-	-	-80.57	7.91	34.34	-60.92	-13.00	-47.92

Table 7-14. Radiated Spurious Data (LTE Band 26/5 – Mid Channel – South - Open

Bandwidth (MHz):	15
Frequency (MHz):	841.5
RB / Offset:	1/37

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBµV/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
1683.00	V	133	79	-74.09	3.29	36.20	-59.06	-13.00	-46.06
2524.50	V	-	-	-79.37	5.80	33.43	-61.82	-13.00	-48.82
3366.00	V	-	-	-79.96	7.28	34.32	-60.94	-13.00	-47.94
4207.50	V	-	-	-80.44	8.09	34.65	-60.61	-13.00	-47.61

Table 7-15. Radiated Spurious Data (LTE Band 26/5 – High Channel – South - Open)

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Plot 7-103. Radiated Spurious Plot (ULCA LTE Band 5 – Mid CH – North - Half)

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PCC Bandwidth (MHz):	10
PCC Frequency (MHz):	829.0
PCC RB / Offset:	1/49
SCC Bandwidth (MHz):	10
SCC Frequency (MHz):	838.9
SCC RB / Offset:	1/0

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBµV/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
1668.0	Н	-	-	-76.63	-2.46	27.91	-67.35	-13.00	-54.35
2502.0	Н	339	352	-72.71	2.06	36.35	-58.91	-13.00	-45.91
3336.0	Н	-	-	-77.30	2.41	32.11	-63.15	-13.00	-50.15
4170.0	Н	-	-	-78.21	3.12	31.91	-63.35	-13.00	-50.35
5004.0	Н	-	-	-78.65	4.63	32.98	-62.27	-13.00	-49.27

Table 7-16. Radiated Spurious Data (ULCA LTE Band 5 – Low Channel – North - Half)

PCC Bandwidth (MHz):	10
PCC Frequency (MHz):	831.5
PCC RB / Offset:	1/49
SCC Bandwidth (MHz):	10
SCC Frequency (MHz):	841.4
SCC RB / Offset:	1/0

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBµV/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
1673.0	Н	152	270	-75.44	-2.41	29.15	-66.11	-13.00	-53.11
2509.5	Н	332	354	-69.28	2.13	39.85	-55.41	-13.00	-42.41
3346.0	Н	-	-	-77.96	2.41	31.45	-63.81	-13.00	-50.81
4182.5	Н	-	-	-78.09	3.28	32.19	-63.07	-13.00	-50.07
5019.0	Н	-	-	-78.82	4.68	32.86	-62.40	-13.00	-49.40

Table 7-17. Radiated Spurious Data (ULCA LTE Band 5 - Mid Channel - North - Half)

PCC Bandwidth (MHz):	10
PCC Frequency (MHz):	844.0
PCC RB / Offset:	1/0
SCC Bandwidth (MHz):	10
SCC Frequency (MHz):	834.1
SCC RB / Offset:	1/49

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBµV/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
1688.0	Н	155	119	-76.31	-1.95	28.74	-66.52	-13.00	-53.52
2517.0	Н	135	8	-74.39	2.23	34.84	-60.42	-13.00	-47.42
3356.0	Н	-	-	-77.29	2.28	31.99	-63.27	-13.00	-50.27
4195.0	Н	-	-	-77.85	3.17	32.32	-62.94	-13.00	-49.94
5034.0	Н	-	-	-78.96	5.12	33.16	-62.09	-13.00	-49.09

Table 7-18. Radiated Spurious Data (ULCA LTE Band 5 – High Channel – North - Half)

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Plot 7-109. Radiated Spurious Plot (ULCA LTE Band 5 – Mid CH – South - Half)

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