

SAR TEST REPORT

No. I19Z62348-SEM03

For

Shenzhen Tinno Mobile Technology Corp.

Smart Phone

Model Name: U304AC

With

Hardware Version: V1.0

Software Version: U304ACV02.09.11

FCC ID: XD6U304AA

Issued Date: 2020-2-7



Note:

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REPORT HISTORY

Report Number	Revision	Issue Date	Description
I19Z62348-SEM03	Rev.0	2020-2-7	Initial creation of test report



TABLE OF CONTENT

1 T	EST LABORATORY	5
1.1	TESTING LOCATION	5
1.2	TESTING ENVIRONMENT	5
1.3	PROJECT DATA	
1.4	SIGNATURE	
2 S	STATEMENT OF COMPLIANCE	ε
3 C	CLIENT INFORMATION	8
3.1	APPLICANT INFORMATION	8
3.2	Manufacturer Information	8
4 E	QUIPMENT UNDER TEST (EUT) AND ANCILLARY EQUIPMENT (AE)	9
4.1	ABOUT EUT	9
4.2	INTERNAL IDENTIFICATION OF EUT USED DURING THE TEST	9
4.3	INTERNAL IDENTIFICATION OF AE USED DURING THE TEST	9
5 T	EST METHODOLOGY	10
5.1	APPLICABLE LIMIT REGULATIONS	10
5.2	APPLICABLE MEASUREMENT STANDARDS	10
6 S	SPECIFIC ABSORPTION RATE (SAR)	11
6.1	Introduction	11
6.2	SAR Definition	11
7 T	ISSUE SIMULATING LIQUIDS	12
7.1	TARGETS FOR TISSUE SIMULATING LIQUID	12
7.2	DIELECTRIC PERFORMANCE	12
8 S	SYSTEM VERIFICATION	19
8.1	SYSTEM SETUP	19
8.2	System Verification	20
9 N	MEASUREMENT PROCEDURES	21
9.1	Tests to be performed	21
9.2	GENERAL MEASUREMENT PROCEDURE	23
9.3	WCDMA MEASUREMENT PROCEDURES FOR SAR	24
9.4	SAR MEASUREMENT FOR LTE	-
9.5	BLUETOOTH & WI-FI MEASUREMENT PROCEDURES FOR SAR	
9.6	Power Drift	
10	AREA SCAN BASED 1-G SAR	26
10.1	REQUIREMENT OF KDB	
10.2	FAST SAR ALGORITHMS	26
11	CONDUCTED OUTPUT POWER	27



11.1	GSM MEASUREMENT RESULT	27
11.2	WCDMA MEASUREMENT RESULT	29
11.3	LTE MEASUREMENT RESULT	31
11.4	WI-FI AND BT MEASUREMENT RESULT	46
12	SIMULTANEOUS TX SAR CONSIDERATIONS	48
12.1	Introduction	48
12.2	Transmit Antenna Separation Distances	48
12.3	SAR MEASUREMENT POSITIONS	
12.4	STANDALONE SAR TEST EXCLUSION CONSIDERATIONS	49
13	EVALUATION OF SIMULTANEOUS	50
14	SAR TEST RESULT	52
14.1	SAR RESULTS	52
14.2	FULL SAR	
14.3	WIFI EVALUATION	74
15	SAR MEASUREMENT VARIABILITY	77
16	MEASUREMENT UNCERTAINTY	78
16.1	MEASUREMENT UNCERTAINTY FOR NORMAL SAR TESTS (300MHz~3GHz)	78
16.2	MEASUREMENT UNCERTAINTY FOR NORMAL SAR TESTS (3~6GHz)	79
16.3	MEASUREMENT UNCERTAINTY FOR FAST SAR TESTS (300MHz~3GHz)	80
16.4	MEASUREMENT UNCERTAINTY FOR FAST SAR TESTS (3~6GHz)	81
17	MAIN TEST INSTRUMENTS	83
ANNE	EX A GRAPH RESULTS	84
ANNE	EX B SYSTEM VERIFICATION RESULTS	124
ANNE	EX C SAR MEASUREMENT SETUP	137
ANNE	EX D POSITION OF THE WIRELESS DEVICE IN RELATION TO THE PHANTOM	143
ANNE	EX E EQUIVALENT MEDIA RECIPES	146
ANNE	EX F SYSTEM VALIDATION	147
ANNE	EX G PROBE CALIBRATION CERTIFICATE	148
ANNE	EX H DIPOLE CALIBRATION CERTIFICATE	159
ANNE	EX I EXTENDED CALIBRATION SAR DIPOLE	207
ANNE	EX J VARIANT PRODUCT TEST	210
ANNE	X K ACCREDITATION CERTIFICATE	324



1 Test Laboratory

1.1 Testing Location

Company Name:	CTTL(Shouxiang)
Address:	No. 51 Shouxiang Science Building, Xueyuan Road, Haidian District,
	Beijing, P. R. China100191

1.2 Testing Environment

Temperature:	18°C~25 °C,
Relative humidity:	30%~ 70%
Ground system resistance:	< 0.5 Ω
Ambient noise & Reflection:	< 0.012 W/kg

1.3 Project Data

Project Leader:	Qi Dianyuan
Test Engineer:	Lin Xiaojun
Testing Start Date:	May 1, 2019
Testing End Date:	December 30, 2019

1.4 Signature

Lin Xiaojun

(Prepared this test report)

Qi Dianyuan

(Reviewed this test report)

Lu Bingsong

出班本

Deputy Director of the laboratory

(Approved this test report)



2 Statement of Compliance

The maximum results of SAR found during testing for Shenzhen Tinno Mobile Technology Corp. Smart Phone U304AC is as follows:

Table 2.1: Highest Reported SAR (1g)

Table 2.1: Highest Reported SAR (1g)				
Exposure Configuration	Technology Band	Highest Reported SAR 1g (W/Kg)	Equipment Class	
	GSM 850	0.25		
	PCS 1900	0.22		
	UMTS FDD 2	0.22		
	UMTS FDD 4	0.17		
	UMTS FDD 5	0.54	DOE	
Head	LTE Band 2	0.26	PCE	
(Separation Distance 0mm)	LTE Band 4	0.21		
	LTE Band 5	0.44		
	LTE Band 12	0.33		
	LTE Band 14	0.43		
	LTE Band 30	0.32		
	WiFi 2.4 GHz	1.28	DTS	
	GSM 850	0.69		
	PCS 1900	0.84		
Hotspot (Separation Distance 10mm)	UMTS FDD 2	1.25		
	UMTS FDD 4	1.12		
	UMTS FDD 5	0.79	PCE	
	LTE Band 2	1.31	PCE	
	LTE Band 4	1.17		
1011111)	LTE Band 5	0.62		
	LTE Band 12	0.60		
	LTE Band 14	0.79		
	LTE Band 30	1.16		
	WiFi 2.4 GHz	0.37	DTS	
Body worn	PCS 1900	1.13	PCE	
(Separation Distance	UMTS FDD 2	0.94		
15mm)	UMTS FDD 4	1.00		
	LTE Band 2	0.79		
	LTE Band 4	1.20		
	LTE Band 30	1.13		

The SAR values found for the Mobile Phone are below the maximum recommended levels of 1.6 W/Kg as averaged over any 1g tissue according to the ANSI C95.1-1992.

For body worn operation, this device has been tested and meets FCC RF exposure guidelines when used with any accessory that contains no metal and which provides a minimum separation distance of 10/15 mm between this device and the body of the user. Use of other accessories may not ensure



compliance with FCC RF exposure guidelines.

The EUT battery must be fully charged and checked periodically during the test to ascertain uniform power output.

The measurement together with the test system set-up is described in annex C of this test report. A detailed description of the equipment under test can be found in chapter 4 of this test report. The highest reported SAR value is obtained at the case of **(Table 2.1)**, and the values are: 1.31 **W/kg (1g)**.

Table 2.2: The sum of reported SAR values for main antenna and WiFi

	Position	Main antenna	WiFi	Sum
Highest reported SAR value for Head	Left hand, Touch cheek (WCDMA850)	0.54	1.02	1.57
Highest reported SAR value for Body 10mm	Rear (LTE Band4)	1.17	0.37	1.54
Highest reported SAR value for Body 15mm	Rear (LTE Band4)	1.20	0.37 (10mm)	1.57

Table 2.3: The sum of reported SAR values for main antenna and BT

	Position	Main antenna	ВТ	Sum
Maximum reported	Left hand, Touch cheek	0.54 0.26 0 .		0.80
SAR value for Head	(WCDMA 850)	0.54 0.20		0.00
Maximum reported	Rear	1.20 0.13 4		4 22
SAR value for Body	(LTE Band4)	1.20	0.13	1.33

^{[1] -} Estimated SAR for Bluetooth (see the table 13.3)



3 Client Information

3.1 Applicant Information

Company Name:	Shenzhen Tinno Mobile Technology Corp.
A daluara - /Da ak	4/F, H-3 Building,OCT Eastern Industrial Park. NO.1 XiangShan East
Address /Post:	Road, Nan Shan District, Shenzhen, P.R.China
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Telephone:	0755-86095550
Fax:	1

3.2 Manufacturer Information

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Contact Person:	Jingwen.Guo
E-mail:	jingwen.guo@tinno.com
Telephone:	0755-86095550
Fax:	1



4 Equipment Under Test (EUT) and Ancillary Equipment (AE)

4.1 About EUT

Description:	Smart Phone
Model name:	U304AC
Operating mode(s):	GSM 850/900/1800/1900 WCDMA850/1700/1900
Operating mode(s).	LTE B2/4/5/12/14/30, BT, WiFi
	825 – 848.8 MHz (GSM 850)
	1850.2 – 1910 MHz (GSM 1900)
	826.4–846.6 MHz (WCDMA 850 Band V)
	1712.4 – 1752.6 MHz (WCDMA 1700 Band IV)
	1852.4-1907.6 MHz (WCDMA1900 Band II)
Tested Tx Frequency:	1860 – 1900 MHz (LTE Band 2)
rested 1x 1 requeries.	1720 – 1745 MHz (LTE Band 4)
	824.7 – 848.3 MHz (LTE Band 5)
	704.7 – 715.3 MHz (LTE Band 12)
	790.5 – 795.5MHz (LTE Band 14)
	2307.5 – 2312.5MHz(LTE Band 30)
	2412 – 2462 MHz (Wi-Fi 2.4G)
GPRS/EGPRS Multislot Class:	12
GPRS capability Class:	В
Test device Production information:	Production unit
Device type:	Portable device
Antenna type:	Integrated antenna
Hotspot mode:	Support

4.2 Internal Identification of EUT used during the test

EUTID	IMEI	HW Version	SW Version
1	863465040002421	V1.0	U304ACV02.09.11
2	863465040002801	V1.0	U304ACV02.09.11
3	863465040002736	V1.0	U304ACV02.09.11

^{*}EUT ID: is used to identify the test sample in the lab internally.

Note: It is performed to test SAR with the EUT1&2and conducted power with the EUT3.

4.3 Internal Identification of AE used during the test

AE ID	Description	Model	SN	Manufactor
AE1	Battery	LT25H426271B	1	Shenzhen BYD Lithium Battery Company Limited

^{*}AE ID: is used to identify the test sample in the lab internally.



5 TEST METHODOLOGY

5.1 Applicable Limit Regulations

ANSI C95.1–1992: IEEE Standard for Safety Levels with Respect to Human Exposure to Radio Frequency Electromagnetic Fields, 3 kHz to 300 GHz.

It specifies the maximum exposure limit of **1.6 W/kg** as averaged over any 1 gram of tissue for portable devices being used within 20 cm of the user in the uncontrolled environment.

5.2 Applicable Measurement Standards

IEEE 1528:2013 Recommended Practice for Determining the Peak Spatial-Average Specific Absorption Rate (SAR) in the Human Head from Wireless Communications Devices: Measurement Techniques.

KDB447498 D01 General RF Exposure Guidance v06 Mobile and Portable Devices RF Exposure Procedures and Equipment Authorization Policies.

KDB648474 D04 Handset SAR v01r03 SAR Evaluation Considerations for Wireless Handsets.

KDB941225 D01 SAR test for 3G devices v03r01 SAR Measurement Procedures for 3G Devices

KDB941225 D05 SAR for LTE Devices v02r05 SAR Evaluation Considerations for LTE Devices

KDB941225 D06 Hotspot Mode SAR v02r01 SAR Evaluation Procedures for Portable Devices with Wireless Router Capabilities

KDB248227 D01 802.11 Wi-Fi SAR v02r02 SAR GUIDANCE FOR IEEE 802.11 (Wi-Fi) TRANSMITTERS

KDB865664 D01SAR measurement 100 MHz to 6 GHz v01r04 SAR Measurement Requirements for 100 MHz to 6 GHz.

KDB865664 D02RF Exposure Reporting v01r02 RF Exposure Compliance Reporting and Documentation Considerations



6 Specific Absorption Rate (SAR)

6.1 Introduction

SAR is related to the rate at which energy is absorbed per unit mass in an object exposed to a radio field. The SAR distribution in a biological body is complicated and is usually carried out by experimental techniques or numerical modeling. The standard recommends limits for two tiers of groups, occupational/controlled and general population/uncontrolled, based on a person's awareness and ability to exercise control over his or her exposure. In general, occupational/controlled exposure limits are higher than the limits for general population/uncontrolled.

6.2 SAR Definition

The SAR definition is the time derivative (rate) of the incremental energy (dW) absorbed by (dissipated in) an incremental mass (dm) contained in a volume element (dv) of a given density (ρ). The equation description is as below:

$$SAR = \frac{d}{dt}(\frac{dW}{dm}) = \frac{d}{dt}(\frac{dW}{\rho dv})$$

SAR is expressed in units of Watts per kilogram (W/kg)

SAR measurement can be either related to the temperature elevation in tissue by

$$SAR = c(\frac{\delta T}{\delta t})$$

Where: C is the specific head capacity, δT is the temperature rise and δt is the exposure duration, or related to the electrical field in the tissue by

$$SAR = \frac{\sigma |E|^2}{\rho}$$

Where: σ is the conductivity of the tissue, ρ is the mass density of tissue and E is the RMS electrical field strength.

However for evaluating SAR of low power transmitter, electrical field measurement is typically applied.



7 Tissue Simulating Liquids

7.1 Targets for tissue simulating liquid

Table 7.1: Targets for tissue simulating liquid

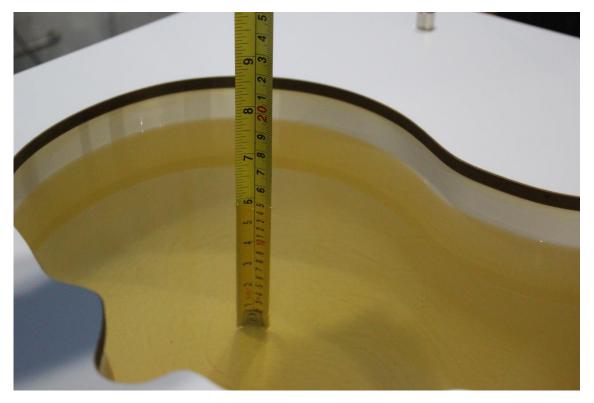
				•	
Frequency(MHz)	Liquid Type	Conductivity(σ)	± 5% Range	Permittivity(ε)	± 5% Range
835	Head	0.90	0.86~0.95	41.5	39.4~43.6
835	Body	0.97	0.92~1.02	55.2	52.4~58.0
1900	Head	1.40	1.33~1.47	40.0	38.0~42.0
1900	Body	1.52	1.44~1.60	53.3	50.6~56.0
2450	Head	1.80	1.71~1.89	39.2	37.2~41.2
2450	Body	1.95	1.85~2.05	52.7	50.1~55.3
835	Head	0.90	0.86~0.95	41.5	39.4~43.6
835	Body	0.97	0.92~1.02	55.2	52.4~58.0
2300	Head	1.67	1.59~1.75	39.47	37.5~41.4
2300	Body	1.85	1.76~1.94	52.8	50.2~55.4

7.2 Dielectric Performance

Table 7.2: Dielectric Performance of Tissue Simulating Liquid

Measurement Date yyyy/mm/dd	Frequency	Туре	Permittivity ε	Drift (%)	Conductivity σ (S/m)	Drift (%)
2019/5/1	750 MHz	Head	41.53	-0.98	0.888	-0.22
2019/5/1	7 SU IVITIZ	Body	55.83	0.59	0.961	0.10
2019/5/2	835 MHz	Head	41.04	-1.11	0.915	1.67
2019/3/2	033 IVITZ	Body	55.46	0.47	0.958	-1.24
2019/5/3	1750 MHz	Head	40.53	1.12	1.368	-0.15
2019/5/5		Body	52.72	-1.27	1.472	-1.21
2019/5/4	1900 MHz	Head	39.59	-1.02	1.377	-1.64
2019/5/4	1900 MINZ	Body	52.71	-1.11	1.495	-1.64
2019/5/5	2300 MHz	Head	39.08	-1.06	1.688	1.08
2019/5/5	ZOUU IVITZ	Body	53.54	1.21	1.783	-1.49
2019/5/6	2450 MHz	Head	39.21	0.03	1.788	-0.67
2019/5/0	2400 NIUZ	Body	51.83	-1.65	1.92	-1.54



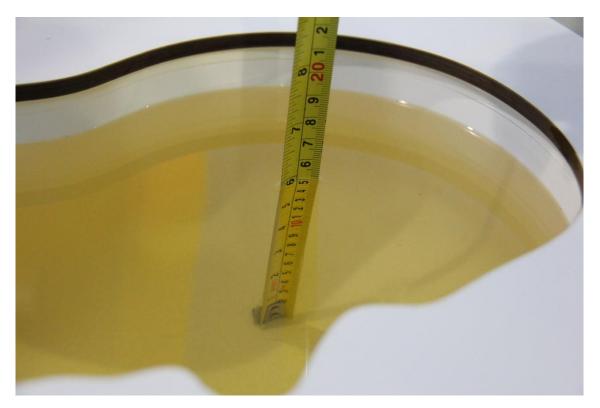


Picture 7-1 Liquid depth in the Head Phantom (750 MHz)



Picture 7-2 Liquid depth in the Flat Phantom (750 MHz)





Picture 7-3 Liquid depth in the Head Phantom (835MHz)

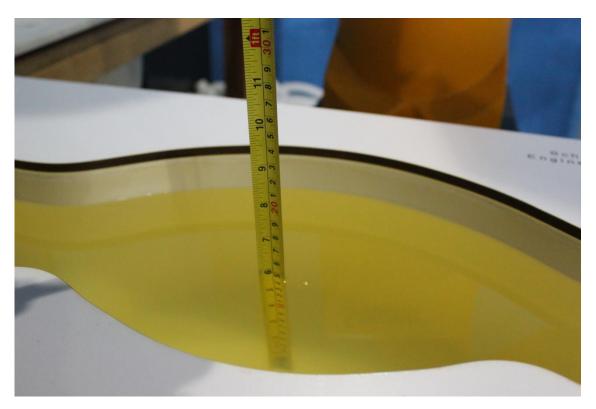


Picture 7-4 Liquid depth in the Flat Phantom (835MHz)



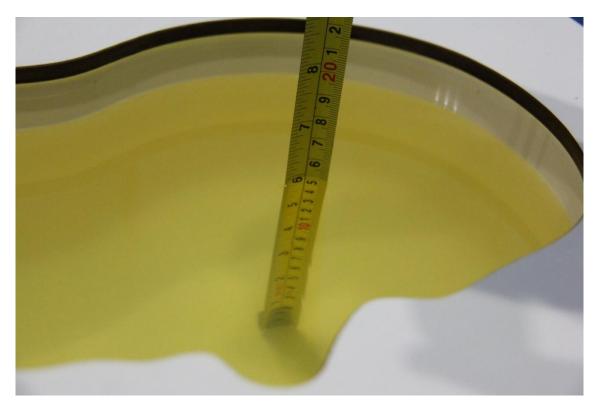


Picture 7-5 Liquid depth in the Head Phantom (1750 MHz)



Picture 7-6 Liquid depth in the Flat Phantom (1750MHz)



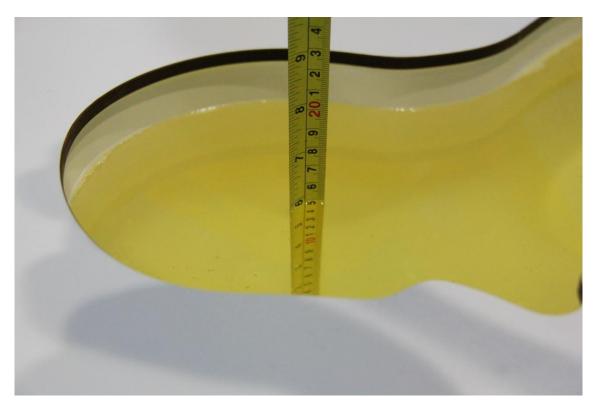


Picture 7-7 Liquid depth in the Head Phantom (1900 MHz)

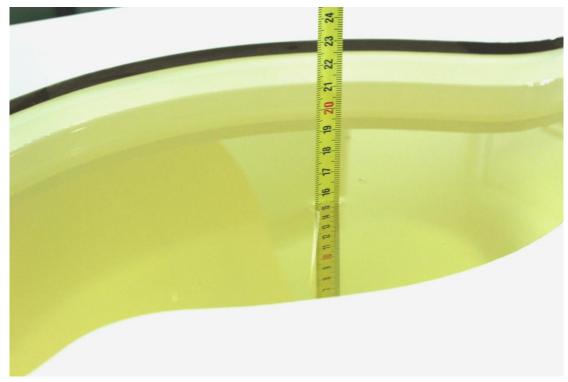


Picture 7-8 Liquid depth in the Flat Phantom (1900MHz)





Picture 7-9 Liquid depth in the Head Phantom (2450MHz)

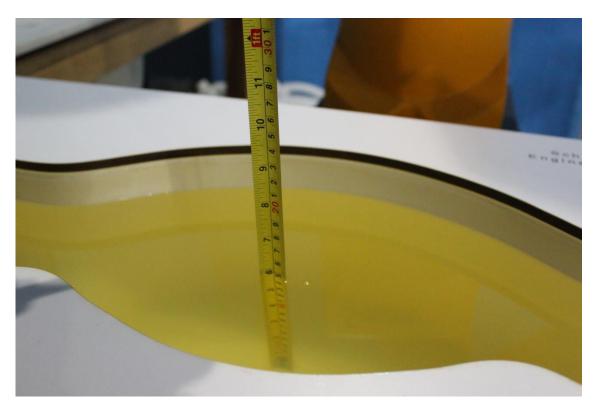


Picture 7-10 Liquid depth in the Flat Phantom (2450MHz)





Picture 7-11 Liquid depth in the Head Phantom (2300 MHz Head)



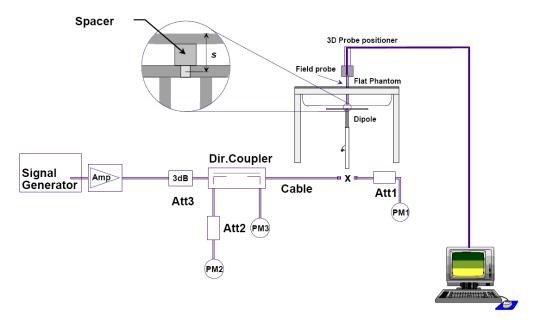
Picture 7-12 Liquid depth in the Flat Phantom (2300MHz)



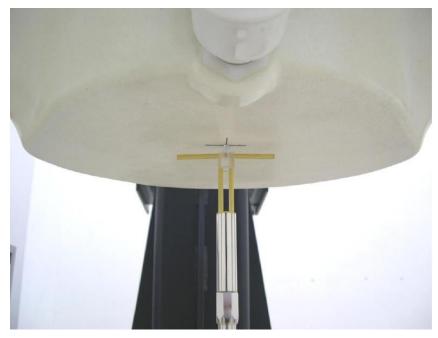
8 System verification

8.1 System Setup

In the simplified setup for system evaluation, the DUT is replaced by a calibrated dipole and the power source is replaced by a continuous wave that comes from a signal generator. The calibrated dipole must be placed beneath the flat phantom section of the SAM twin phantom with the correct distance holder. The distance holder should touch the phantom surface with a light pressure at the reference marking and be oriented parallel to the long side of the phantom. The equipment setup is shown below:



Picture 8.1 System Setup for System Evaluation



Picture 8.2 Photo of Dipole Setup



8.2 System Verification

SAR system verification is required to confirm measurement accuracy, according to the tissue dielectric media, probe calibration points and other system operating parameters required for measuring the SAR of a test device. The system verification must be performed for each frequency band and within the valid range of each probe calibration point required for testing the device.

The system verification results are required that the area scan estimated 1-g SAR is within 3% of the zoom scan 1-g SAR. The details are presented in annex B.

Table 8.1: System Verification of Head

Measurement Date		Target value (W/kg)			ed value 'kg)	Deviation		
(yyyy-mm- dd)	Frequency	10 g Average	1 g Average	10 g Average	1 g Average	10 g Average	1 g Average	
2019/5/1	750 MHz	5.42	8.32	5.36	8.32	-1.11%	0.00%	
2019/5/2	835 MHz	6.06	9.37	6.08	9.48	0.33%	1.17%	
2019/5/3	1750 MHz	19.4	36.7	19.52	36.12	0.62%	-1.58%	
2019/5/4	1900 MHz	21.0	40.0	20.8	40.6	-0.95%	1.50%	
2019/5/5	2300 MHz	23.6	49.0	24	49.88	1.69%	1.80%	
2019/5/6	2450 MHz	24.7	52.2	24.84	53.04	0.57%	1.61%	

Table 8.2: System Verification of Body

Measurement Date		Target value (W/kg)			ed value kg)	Deviation		
(yyyy-mm- dd)	Frequency	10 g Average	1 g Average	10 g Average	1 g Average	10 g Average	1 g Average	
2019/5/1	750 MHz	5.68	8.66	5.64	8.84	-0.70%	2.08%	
2019/5/2	835 MHz	6.12	9.41	6.2	9.24	1.31%	-1.81%	
2019/5/3	1750 MHz	19.8	37.1	20.08	36.76	1.41%	-0.92%	
2019/5/4	1900 MHz	21.5	40.5	21.24	40.12	-1.21%	-0.94%	
2019/5/5	2300 MHz	22.7	47	22.36	46.52	-1.50%	-1.02%	
2019/5/6	2450 MHz	23.8	50.4	24.2	49.6	1.68%	-1.59%	



9 Measurement Procedures

9.1 Tests to be performed

In order to determine the highest value of the peak spatial-average SAR of a handset, all device positions, configurations and operational modes shall be tested for each frequency band according to steps 1 to 3 below. A flowchart of the test process is shown in picture 9.1.

Step 1: The tests described in 9.2 shall be performed at the channel that is closest to the center of the transmit frequency band (f_c) for:

- a) all device positions (cheek and tilt, for both left and right sides of the SAM phantom, as described in annex D),
- b) all configurations for each device position in a), e.g., antenna extended and retracted, and c) all operational modes, e.g., analogue and digital, for each device position in a) and configuration

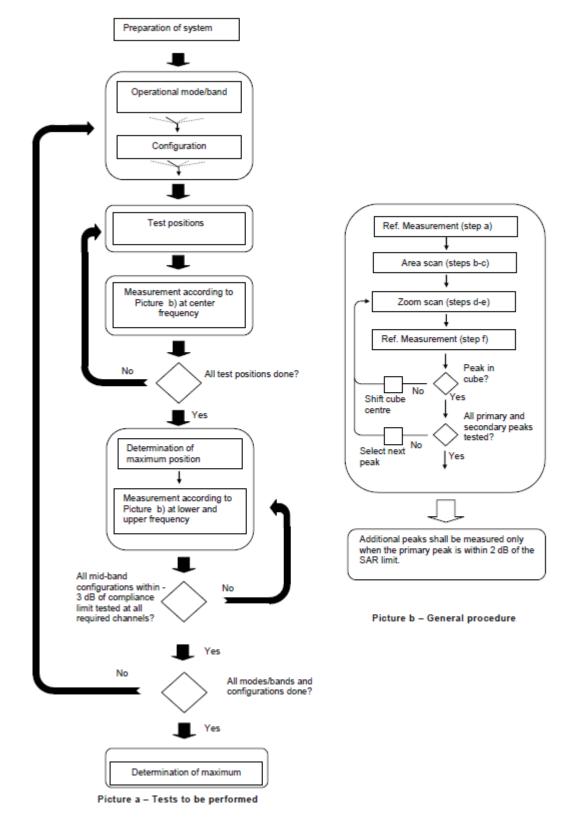
in b) in each frequency band.

If more than three frequencies need to be tested according to 11.1 (i.e., $N_c >$ 3), then all frequencies, configurations and modes shall be tested for all of the above test conditions.

Step 2: For the condition providing highest peak spatial-average SAR determined in Step 1, perform all tests described in 9.2 at all other test frequencies, i.e., lowest and highest frequencies. In addition, for all other conditions (device position, configuration and operational mode) where the peak spatial-average SAR value determined in Step 1 is within 3 dB of the applicable SAR limit, it is recommended that all other test frequencies shall be tested as well.

Step 3: Examine all data to determine the highest value of the peak spatial-average SAR found in Steps 1 to 2.





Picture 9.1 Block diagram of the tests to be performed



9.2 General Measurement Procedure

The area and zoom scan resolutions specified in the table below must be applied to the SAR measurements and fully documented in SAR reports to qualify for TCB approval. Probe boundary effect error compensation is required for measurements with the probe tip closer than half a probe tip diameter to the phantom surface. Both the probe tip diameter and sensor offset distance must satisfy measurement protocols; to ensure probe boundary effect errors are minimized and the higher fields closest to the phantom surface can be correctly measured and extrapolated to the phantom surface for computing 1-g SAR. Tolerances of the post-processing algorithms must be verified by the test laboratory for the scan resolutions used in the SAR measurements, according to the reference distribution functions specified in IEEE Std 1528-2013. The results should be documented as part of the system validation records and may be requested to support test results when all the measurement parameters in the following table are not satisfied.

			≤ 3 GHz	> 3 GHz		
Maximum distance from (geometric center of pro		-	5 ± 1 mm	½-5·ln(2) ± 0.5 mm		
Maximum probe angle f normal at the measurem			30° ± 1°	20° ± 1°		
			≤ 2 GHz: ≤ 15 mm 2 – 3 GHz: ≤ 12 mm	3 – 4 GHz: ≤ 12 mm 4 – 6 GHz: ≤ 10 mm		
Maximum area scan spa	tial resolutio	n: Δx _{Area} , Δy _{Area}	When the x or y dimension of the test device, in the measurement plane orientation, is smaller than the above, the measurement resolution must be ≤ the corresponding x or y dimension of the test device with at least one measurement point on the test device.			
Maximum zoom scan sp	oatial resolut	ion: Δx _{Zoom} , Δy _{Zoom}	≤ 2 GHz: ≤ 8 mm 2 – 3 GHz: ≤ 5 mm*	3 – 4 GHz: ≤ 5 mm* 4 – 6 GHz: ≤ 4 mm*		
	uniform g	rid: ∆z _{Zoom} (n)	≤ 5 mm	3 – 4 GHz: ≤ 4 mm 4 – 5 GHz: ≤ 3 mm 5 – 6 GHz: ≤ 2 mm		
Maximum zoom scan spatial resolution, normal to phantom surface	graded	Δz _{Zoom} (1): between 1 st two points closest to phantom surface	≤ 4 mm	3 – 4 GHz: ≤ 3 mm 4 – 5 GHz: ≤ 2.5 mm 5 – 6 GHz: ≤ 2 mm		
outset	grid	Δz _{Zoom} (n>1): between subsequent points	$\leq 1.5 \cdot \Delta z_{Zoom}(n-1)$			
Minimum zoom scan volume	x, y, z	1	≥ 30 mm	3 – 4 GHz: ≥ 28 mm 4 – 5 GHz: ≥ 25 mm 5 – 6 GHz: ≥ 22 mm		

Note: δ is the penetration depth of a plane-wave at normal incidence to the tissue medium; see draft standard IEEE P1528-2011 for details.

When zoom scan is required and the <u>reported</u> SAR from the area scan based *I-g SAR estimation* procedures of KDB 447498 is ≤ 1.4 W/kg, ≤ 8 mm, ≤ 7 mm and ≤ 5 mm zoom scan resolution may be applied, respectively, for 2 GHz to 3 GHz, 3 GHz to 4 GHz and 4 GHz to 6 GHz.



9.3 WCDMA Measurement Procedures for SAR

The following procedures are applicable to WCDMA handsets operating under 3GPP Release99, Release 5 and Release 6. The default test configuration is to measure SAR with an established radio link between the DUT and a communication test set using a 12.2kbps RMC (reference measurement channel) configured in Test Loop Mode 1. SAR is selectively confirmed for other physical channel configurations (DPCCH & DPDCH_n), HSDPA and HSPA (HSUPA/HSDPA) modes according to output power, exposure conditions and device operating capabilities. Both uplink and downlink should be configured with the same RMC or AMR, when required. SAR for Release 5 HSDPA and Release 6 HSPA are measured using the applicable FRC (fixed reference channel) and E-DCH reference channel configurations. Maximum output power is verified according to applicable versions of 3GPP TS 34.121 and SAR must be measured according to these maximum output conditions. When Maximum Power Reduction (MPR) is not implemented according to Cubic Metric (CM) requirements for Release 6 HSPA, the following procedures do not apply.

For Release 5 HSDPA Data Devices:

Sub-test	$oldsymbol{eta}_c$	$oldsymbol{eta}_d$	β_d (SF)	eta_c / eta_d	$oldsymbol{eta_{hs}}$	CM/dB
1	2/15	15/15	64	2/15	4/15	0.0
2	12/15	15/15	64	12/15	24/25	1.0
3	15/15	8/15	64	15/8	30/15	1.5
4	15/15	4/15	64	15/4	30/15	1.5

For Release 6 HSPA Data Devices

Sub-	$oldsymbol{eta_c}$	eta_d	eta_d	$oldsymbol{eta_c}$ / $oldsymbol{eta_d}$	$oldsymbol{eta_{hs}}$	$oldsymbol{eta_{ec}}$	$oldsymbol{eta}_{ed}$	$oldsymbol{eta_{ed}}$	eta_{ed}	CM (dB)	MPR (dB)	AG Index	E- TFCI
1	11/15	15/15	64	11/15	22/15	209/225	1039/225	4	1	1.5	1.5	20	75
2	6/15	15/15	64	6/15	12/15	12/15	12/15	4	1	1.5	1.5	12	67
3	15/15	9/15	64	15/9	30/15	30/15	$eta_{ed1:47/15} \ eta_{ed2:47/15}$	4	2	1.5	1.5	15	92
4	2/15	15/15	64	2/15	4/15	4/15	56/75	4	1	1.5	1.5	17	71
5	15/15	15/15	64	15/15	24/15	30/15	134/15	4	1	1.5	1.5	21	81

Rel.8 DC-HSDPA (Cat 24)

SAR test exclusion for Rel.8 DC-HSDPA must satisfy the SAR test exclusion requirements of Rel.5 HSDPA. SAR test exclusion for DC-HSDPA devices is determined by power measurements according to the H-Set 12, Fixed Reference Channel (FRC) configuration in Table C.8.1.12 of 3GPP TS 34.121-1. A primary and a secondary serving HS-DSCH Cell are required to perform the power measurement and for the results to qualify for SAR test exclusion.



9.4 SAR Measurement for LTE

SAR tests for LTE are performed with a base station simulator, Rohde & Rchwarz CMW500. Closed loop power control was used so the UE transmits with maximum output power during SAR testing. All powers were measured with the CMW 500.

It is performed for conducted power and SAR based on the KDB941225 D05.

SAR is evaluated separately according to the following procedures for the different test positions in each exposure condition – head, body, body-worn accessories and other use conditions. The procedures in the following subsections are applied separately to test each LTE frequency band.

- 1) QPSK with 1 RB allocation Start with the largest channel bandwidth and measure SAR for QPSK with 1 RB allocation, using the RB offset and required test channel combination with the highest maximum output power among RB offsets at the upper edge, middle and lower edge of each required test channel. When the reported SAR is ≤ 0.8 W/kg, testing of the remaining RB offset configurations and required test channels is not required for 1 RB allocation; otherwise, SAR is required for the remaining required test channels and only for the RB offset configuration with the highest output power for that channel. When the reported SAR of a required test channel is > 1.45 W/kg, SAR is required
- 2) QPSK with 50% RB allocation The procedures required for 1 RB allocation in 1) are applied to measure the SAR for QPSK with 50% RB allocation.
- 3) QPSK with 100% RB allocation
 For QPSK with 100% RB allocation, SAR is not required when the highest maximum output
 power for 100 % RB allocation is less than the highest maximum output power in 50% and 1 RB
 allocations and the highest reported SAR for 1 RB and 50% RB allocation in 1) and 2) are ≤ 0.8
 W/kg. Otherwise, SAR is measured for the highest output power channel; and if the reported
 SAR is > 1.45 W/kg, the remaining required test channels must also be tested.

9.5 Bluetooth & Wi-Fi Measurement Procedures for SAR

for all three RB offset configurations for that required test channel.

Normal network operating configurations are not suitable for measuring the SAR of 802.11 transmitters in general. Unpredictable fluctuations in network traffic and antenna diversity conditions can introduce undesirable variations in SAR results. The SAR for these devices should be measured using chipset based test mode software to ensure that the results are consistent and reliable.

Chipset based test mode software is hardware dependent and generally varies among manufacturers. The device operating parameters established in a test mode for SAR measurements must be identical to those programmed in production units, including output power levels, amplifier gain settings and other RF performance tuning parameters. The test frequencies should correspond to actual channel frequencies defined for domestic use. SAR for devices with switched diversity should be measured with only one antenna transmitting at a time during each SAR measurement, according to a fixed modulation and data rate. The same data pattern should be used for all measurements.



9.6 Power Drift

To control the output power stability during the SAR test, DASY4 system calculates the power drift by measuring the E-field at the same location at the beginning and at the end of the measurement for each test position. These drift values can be found in section 14 labeled as: (Power Drift [dB]). This ensures that the power drift during one measurement is within 5%.

10 Area Scan Based 1-g SAR

10.1 Requirement of KDB

According to the KDB447498 D01 v06, when the implementation is based the specific polynomial fit

algorithm as presented at the 29th Bioelectromagnetics Society meeting (2007) and the estimated 1-g SAR is \leq 1.2 W/kg, a zoom scan measurement is not required provided it is also not needed for any other purpose; for example, if the peak SAR location required for simultaneous transmission SAR test exclusion can be determined accurately by the SAR system or manually to discriminate between distinctive peaks and scattered noisy SAR distributions from area scans.

There must not be any warning or alert messages due to various measurement concerns identified by the SAR system; for example, noise in measurements, peaks too close to scan boundary, peaks are too sharp, spatial resolution and uncertainty issues etc. The SAR system verification must also demonstrate that the area scan estimated 1-g SAR is within 3% of the zoom scan 1-g SAR (See Annex B). When all the SAR results for each exposure condition in a frequency band and wireless mode are based on estimated 1-g SAR, the 1-g SAR for the highest SAR configuration must be determined by a zoom scan.

10.2 Fast SAR Algorithms

The approach is based on the area scan measurement applying a frequency dependent attenuation parameter. This attenuation parameter was empirically determined by analyzing a large number of phones. The MOTOROLA FAST SAR was developed and validated by the MOTOROLA Research Group in Ft. Lauderdale.

In the initial study, an approximation algorithm based on Linear fit was developed. The accuracy of the algorithm has been demonstrated across a broad frequency range (136-2450 MHz) and for both 1- and 10-g averaged SAR using a sample of 264 SAR measurements from 55 wireless handsets. For the sample size studied, the root-mean-squared errors of the algorithm are 1.2% and 5.8% for 1- and 10-g averaged SAR, respectively. The paper describing the algorithm in detail is expected to be published in August 2004 within the Special Issue of Transactions on MTT.

In the second step, the same research group optimized the fitting algorithm to an Polynomial fit whereby the frequency validity was extended to cover the range 30-6000MHz. Details of this study can be found in the BEMS 2007 Proceedings.

Both algorithms are implemented in DASY software.



11 Conducted Output Power

11.1 GSM Measurement result

During the process of testing, the EUT was controlled via Digital Radio Communication tester to ensure the maximum power transmission and proper modulation. This result contains conducted output power for the EUT. In all cases, the measured peak output power should be greater and within 5% than EMI measurement.

Table 11-1 GSM850 #1

			GSM85	i0 #1				
		Meas	ured Power	(dBm)		Frame B	urst Power	(dBm)
Config	Tune-up	CH251	CH190	CH128	Caculation	CH251	CH190	CH128
Comig	rune-up	848.8 MHz	836.6 MHz	824.2 MHz		848.8 MHz	836.6 MHz	824.2 MHz
GSM Speech	33.20	32.04	32.09	32.03				
GPRS 1 Txslot	33.20	32.03	32.10	32.04	-9.03	23.00	23.07	23.01
GPRS 2 Txslots	32.00	30.81	30.89	30.87	-6.02	24.79	24.87	24.85
GPRS 3 Txslots	30.00	28.79	28.89	28.87	-4.26	24.53	24.63	24.61
GPRS 4 Txslots	28.00	26.75	26.85	26.84	-3.01	23.74	23.84	23.83
EGPRS GMSK 1 Txslot	33.20	32.04	32.09	32.03	-9.03	23.01	23.06	23.00
EGPRS GMSK 2 Txslots	32.00	30.81	30.88	30.85	-6.02	24.79	24.86	24.83
EGPRS GMSK 3 Txslots	30.00	28.79	28.87	28.86	-4.26	24.53	24.61	24.60
EGPRS GMSK 4 Txslots	28.00	26.75	26.84	26.83	-3.01	23.74	23.83	23.82
EGPRS 8PSK 1 Txslot	28.00	26.83	26.91	26.80	-9.03	17.80	17.88	17.77
EGPRS 8PSK 2 Txslots	26.00	24.71	24.69	24.53	-6.02	18.69	18.67	18.51
EGPRS 8PSK 3 Txslots	24.00	22.48	22.46	22.30	-4.26	18.22	18.20	18.04
EGPRS 8PSK 4 Txslots	22.00	20.22	20.12	20.05	-3.01	17.21	17.11	17.04

Table 11-2 PCS1900 #1 AP OFF

			PCS1900 #	1 AP OFF				
		Measi	red Power	(dBm)		Frame B	urst Power	(dBm)
Config	T	CH810	CH661	CH512	Caculation	CH810	CH661	CH512
Comig	Tune-up	1909.8 MHz	1880 MHz	1850.2 MHz		1909.8 MHz	1880 MHz	1850.2 MHz
GSM Speech	30.00	28.38	28.37	28.21				
GPRS 1 Txslot	30.00	28.37	28.35	28.24	-9.03	19.34	19.32	19.21
GPRS 2 Txslots	28.00	27.20	26.97	26.81	-6.02	21.18	20.95	20.79
GPRS 3 Txslots	26.00	25.24	24.99	24.82	-4.26	20.98	20.73	20.56
GPRS 4 Txslots	24.00	23.26	22.98	22.73	-3.01	20.25	19.97	19.72
EGPRS GMSK 1 Txslot	30.00	28.37	28.36	28.21	-9.03	19.34	19.33	19.18
EGPRS GMSK 2 Txslots	28.00	27.19	26.95	26.79	-6.02	21.17	20.93	20.77
EGPRS GMSK 3 Txslots	26.00	25.24	24.96	24.81	-4.26	20.98	20.70	20.55
EGPRS GMSK 4 Txslots	24.00	23.26	22.95	22.72	-3.01	20.25	19.94	19.71
EGPRS 8PSK 1 Txslot	27.00	26.08	25.98	25.74	-9.03	17.05	16.95	16.71
EGPRS 8PSK 2 Txslots	24.00	23.92	23.90	23.86	-6.02	17.90	17.88	17.84
EGPRS 8PSK 3 Txslots	22.00	21.96	21.84	21.81	-4.26	17.70	17.58	17.55
EGPRS 8PSK 4 Txslots	20.00	19.91	19.78	19.72	-3.01	16.90	16.77	16.71



Table 11-3 PCS1900 #2 AP ON

			PCS1900 #	2 AP ON				
		Measi	ired Power	(dBm)		Frame B	urst Power	(dBm)
Config	Tune-up	CH810	CH661	CH512	Caculation	CH810	CH661	CH512
Comig		1909.8 MHz	1880 MHz	1850.2 MHz		1909.8 MHz	1880 MHz	1850.2 MHz
GSM Speech	1	\	\	\				
GPRS 1 Txslot	24.50	23.95	23.69	23.33	-9.03	14.92	14.66	14.30
GPRS 2 Txslots	22.50	21.80	21.50	21.41	-6.02	15.78	15.48	15.39
GPRS 3 Txslots	20.50	19.93	19.76	19.53	-4.26	15.67	15.50	15.27
GPRS 4 Txslots	18.50	18.30	17.90	17.40	-3.01	15.29	14.89	14.39
EGPRS GMSK 1 Txslot	24.50	23.74	23.67	23.53	-9.03	14.71	14.64	14.50
EGPRS GMSK 2 Txslots	22.50	21.81	21.70	21.52	-6.02	15.79	15.68	15.50
EGPRS GMSK 3 Txslots	20.50	19.93	19.76	19.55	-4.26	15.67	15.50	15.29
EGPRS GMSK 4 Txslots	18.50	18.12	17.91	17.61	-3.01	15.11	14.90	14.60
EGPRS 8PSK 1 Txslot	20.50	19.75	19.53	19.30	-9.03	10.72	10.50	10.27
EGPRS 8PSK 2 Txslots	18.00	17.34	17.31	16.97	-6.02	11.32	11.29	10.95
EGPRS 8PSK 3 Txslots	16.00	15.28	15.07	14.77	-4.26	11.02	10.81	10.51
EGPRS 8PSK 4 Txslots	14.00	12.97	12.87	12.55	-3.01	9.96	9.86	9.54

NOTES:

Division Factors

To average the power, the division factor is as follows:

1TX-slot = 1 transmit time slot out of 8 time slots=> conducted power divided by (8/1) => -9.03dB

2TX-slots = 2 transmit time slots out of 8 time slots=> conducted power divided by (8/2) => -6.02dB

3TX-slots = 3 transmit time slots out of 8 time slots=> conducted power divided by (8/3) => -4.26dB

4TX-slots = 4 transmit time slots out of 8 time slots=> conducted power divided by (8/4) => -3.01dB

According to the conducted power as above, the body measurements are performed with 2Txslots for 850MHz and 1900MHz.



11.2 WCDMA Measurement result

Table 11-4 WCDMA1900-BII #1 AP OFF

	WCDMA1	1900-BII #1 A	P OFF		
			Meası	ured Power	(dBm)
Item		Tune un	CH9538	CH9400	CH9262
item		Tune-up	1907.6 MHz	1880 MHz	1852.4 MHz
WCDMA	RMC	23.20	22.04	22.06	22.02
	subtest1	21.00	19.96	19.97	19.93
	subtest2	21.00	19.98	19.99	19.96
HSUPA	subtest3	22.00	20.91	20.90	20.88
	subtest4	21.00	19.61	19.55	19.52
	subtest5	22.00	20.98	20.97	20.95
HSPA+	1	22.00	20.58	20.55	20.61
	subtest1	22.00	21.05	21.03	20.98
DC-HSDPA	subtest2	22.00	20.90	20.96	20.95
DC-HODFA	subtest3	22.00	20.55	20.56	20.47
	subtest4	22.00	20.53	20.54	20.48

Table 11-5 WCDMA1900-BII #2 AP ON

	WCDMA	1900-BII #2 /	AP ON		
			Measi	ured Power	(dBm)
ltem		Tuna un	CH9538	CH9400	CH9262
item		Tune-up	1907.6 MHz	1880 MHz	1852.4 MHz
WCDMA	RMC	20.20	18.93	18.95	18.92
	subtest1	17.00	16.01	16.03	16.02
	subtest2	17.00	16.02	16.05	16.03
HSUPA	subtest3	18.00	17.04	17.05	17.01
	subtest4	16.50	15.47	15.50	15.48
	subtest5	18.00	16.98	16.96	16.97
HSPA+	1	19.00	17.61	17.58	17.53
	subtest1	19.00	18.07	18.09	18.05
DC-HSDPA	subtest2	19.00	17.98	18.03	17.98
DC-H3DPA	subtest3	18.00	17.52	17.53	17.51
	subtest4	18.00	17.51	17.50	17.47

Table 11-6 WCDMA1700-BIV #1 AP OFF

	WCDMA1	700-BIV #1 <i>A</i>	P OFF		
			Meas	ured Power	(dBm)
Item		Tune-up	CH1513	CH1412	CH1312
item		i une-up	1752.6 MHz	1732.4 MHz	1712.4 MHz
WCDMA	RMC	22.50	21.39	21.40	21.43
	subtest1	21.00	19.40	19.37	19.44
	subtest2	21.00	19.41	19.40	19.43
HSUPA	subtest3	22.00	20.44	20.41	20.46
	subtest4	20.00	18.89	18.88	18.92
	subtest5	22.00	20.37	20.40	20.38
HSPA+	\	21.00	19.98	19.92	20.01
	subtest1	22.00	20.88	20.95	20.96
DC-HSDPA	subtest2	22.00	20.85	20.81	20.83
DC-HODPA	subtest3	21.00	20.29	20.35	20.41
	subtest4	21.00	20.31	20.38	20.42



Table 11-7 WCDMA1700-BIV #2 AP ON

	WCDMA1	1700-BIV #2	AP ON		
			Meas	ured Power	(dBm)
ltem		Tuna un	CH1513	CH1412	CH1312
item		Tune-up	1752.6 MHz	1732.4 MHz	1712.4 MHz
WCDMA	RMC	20.00	19.28	19.28	19.31
	subtest1	17.00	16.35	16.36	16.39
	subtest2	17.00	16.38	16.39	16.41
HSUPA	subtest3	18.00	17.32	17.34	17.39
	subtest4	17.00	15.81	15.85	15.86
	subtest5	18.00	17.31	17.36	17.34
HSPA+	1	19.00	17.99	18.04	17.98
	subtest1	19.00	18.34	18.41	18.43
DC-HSDPA	subtest2	19.00	18.20	18.24	18.36
DC-H3DFA	subtest3	18.50	17.84	17.91	17.90
	subtest4	18.50	17.79	17.88	17.92

Table 11-8 WCDMA850-BV #1

	WCI	OMA850-BV #	¥1		
			Meas	ured Power	(dBm)
Item		Tune-up	CH4233	CH4183	CH4132
Kem		rune up	846.6 MHz	836.6 MHz	826.4 MHz
WCDMA	RMC	25.50	24.32	24.34	24.28
	subtest1	22.00	21.35	21.38	21.30
	subtest2	22.00	21.36	21.39	21.34
HSUPA	subtest3	23.00	22.66	22.71	22.60
	subtest4	21.00	20.84	20.87	20.82
	subtest5	23.00	22.37	22.39	22.31
HSPA+	\	23.00	22.89	22.97	22.92
	subtest1	24.00	23.37	23.36	23.31
DC-HSDPA	subtest2	24.00	23.23	23.19	23.15
DC-113DFX	subtest3	23.00	22.82	22.84	22.77
	subtest4	23.00	22.81	22.87	22.74



11.3 LTE Measurement result

Table 11-9 LTE1900-FDD2 #1 AP OFF

1		LTE1900	-FDD2 #1 AI		00UF 1 D	tor (dD) 0 1 "	DD		
N						ver (dBm) & Mi		640	0.04
BandWidth	RB No./Start	Channel	Tune-up	QP Measured	SK	16Q Measured	AIVI	64Q Measured	AIVI
Barrarria	T LO TTOM Ottain	onao.	rano ap	Power	MPR	Power	MPR	Power	MPF
		19193	24	23.43	0	22.64	1	21.08	2
	1H	18900	24	23.38	0	22.62	1	21.09	2
		18607	24	23.43	0	22.64	1	21.20	2
		19193	24	23.54	0	22.71	1	21.09	2
	1M	18900	24	23.50	0	22.77	1	21.16	2
		18607	24	23.55	0	22.73	1	21.32	2
		19193	24	23.48	0	22.66	1	21.06	2
	1L	18900	24	23.40	0	22.68	1	21.07	2
		18607	24	23.46	0	22.65	1	21.18	2
1.4841.1-	01.1	19193	24	23.55	0	22.64	11	21.10	2
1.4MHz	3H	18900 18607	24	23.54	0	22.63 22.64	<u>1</u> 1	21.04	2
		19193	24 24	23.54 23.63	0	22.64	1	21.15 21.13	2
	ЗМ	18900	24	23.58	0	22.70	1	21.13	2
	SIVI	18607	24	23.62	0	22.68	1	21.14	2
		19193	24	23.59	0	22.58	1	21.11	2
	3L	18900	24	23.52	0	22.63	1	21.04	2
		18607	24	23.54	0	22.59	1	21.15	2
		19193	24	22.60	1	21.53	2	20.02	3
	6	18900	24	22.55	1	21.55	2	19.99	3
		18607	24	22.56	1	21.59	2	20.02	3
		19185	24	23.58	0	22.66	1	21.19	2
	1H	18900	24	23.49	0	22.68	1	21.14	2
		18615	24	23.51	0	22.69	1	21.53	2
		19185	24	23.58	0	22.73	1	21.07	2
	1M	18900	24	23.64	0	22.81	1	21.09	2
		18615	24	23.64	0	22.77	1	21.14	2
		19185	24	23.54	0	22.65	1	21.10	2
	1L	18900	24	23.49	0	22.68	1	21.12	2
		18615	24	23.52	0	22.65	1	21.20	2
2041.1-	01.1	19185	24	22.58	1	21.49	2	20.01	3
3MHz	8H	18900 18615	24 24	22.53 22.52	1 1	21.54 21.54	2	20.00	3
		19185	24	22.62	1	21.54	2	20.04	3
	8M	18900	24	22.57	1	21.54	2	19.99	3
	OIVI	18615	24	22.56	<u>.</u> 1	21.60	2	20.07	3
		19185	24	22.57	1	21.51	2	20.03	3
	8L	18900	24	22.53	1	21.56	2	20.00	3
		18615	24	22.53	1	21.55	2	20.05	3
		19185	24	22.58	1	21.46	2	20.02	3
	15	18900	24	22.51	1	21.49	2	19.95	3
		18615	24	22.53	1	21.49	2	19.99	3
		19175	24	23.52	0	22.62	1	21.10	2
	1H	18900	24	23.47	0	22.65	1	21.07	2
		18625	24	23.49	0	22.68	1	21.15	2
		19175	24	23.75	0	22.81	1	21.08	2
	1M	18900	24	23.72	0	22.83	1	21.15	2
		18625	24	23.67	0	22.79	1	21.18	2
	41	19175	24	23.48	0	22.65	1	21.09	2
	1L	18900	24 24	23.49	0	22.82	1 1	21.10	2
	<u> </u>	18625 19175	24	23.50 22.58	1	22.63 21.54	2	21.15 20.01	3
5MHz	12H	18900	24	22.58	<u> </u>	21.54	2	20.00	3
OIVII IZ	1211	18625	24	22.54	1	21.54	2	20.19	3
		19175	24	22.60	1	21.53	2	20.07	3
	12M	18900	24	22.56	<u>.</u> 1	21.56	2	20.06	3
	12.111	18625	24	22.56	1	21.57	2	20.10	3
		19175	24	22.59	1	21.53	2	20.05	3
	12L	18900	24	22.54	1	21.52	2	20.03	3
		18625	24	22.53	1	21.59	2	20.06	3
		19175	24	22.60	1	21.58	2	20.00	3
	25	18900	24	22.57	1	21.58	2	20.00	3
		18625	24	22.58	1	21.57	2	20.04	3



	1	1		1		I		1	
	+	19150	24	23.57	0	22.67	1	21.15	2
	1H	18900	24	23.49	0	22.64	1	21.09	2
		18650	24	23.50	0	22.67	1	21.18	2
		19150	24	23.59	0	22.73	1	21.19	2
	1M	18900	24	23.58	0	22.78	1	21.23	2
		18650	24	23.63	0	22.86	1	21.19	2
		19150	24	23.55	0	22.69	1	21.16	2
	1L	18900	24	23.57	0	22.72	1	21.15	2
		18650	24	23.56	0	22.68	1	21.24	2
		19150	24	22.64	1	21.59	2	19.97	3
10MHz	25H	18900	24	22.62	1	21.54	2	19.99	3
		18650	24	22.59	1	21.59	2	20.02	3
		19150	24	22.60	1	21.53	2	20.01	3
	25M	18900	24	22.59	1	21.56	2	20.02	3
		18650	24	22.59	1	21.54	2	20.03	3
		19150	24	22.68	1	21.61	2	20.06	3
	25L	18900	24	22.63	1	21.51	2	20.04	3
		18650	24	22.53	1	21.63	2	20.00	3
		19150	24	22.65	1	21.60	2	20.00	3
	50	18900	24	22.65	1	21.52	2	20.02	3
		18650	24	22.58	1	21.59	2	20.01	3
						1	_		_
	+	19125	24	23.56	0	22.67	1	21.12	2
	1H	18900	24	23.51	0	22.59	1	21.09	2
	1	18675	24	23.45	0	22.65	1	21.09	2
		19125	24	23.69	0	22.77	1	21.23	2
	1M	18900	24	23.65	0	22.75	1	21.24	2
	1141	18675	24	23.68	0	22.81	1	21.21	2
		19125	24	23.52	0	22.67	1	21.14	2
	1L	18900	24	23.52	0	22.70	1	21.12	2
	"-	18675	24	23.56	0	22.65	1	21.12	2
		19125	24	22.63	1	21.59	2	19.99	3
15MHz	36H	18900	24	22.59	1	21.53	2	20.00	3
131411 12	3011	18675	24	22.55	1	21.60	2	20.00	3
		19125	24	22.59	1	21.56	2	20.00	3
	36M	18900	24	22.60	1	21.56	2	20.01	3
	SOIVI	18675	24	22.56	1	21.55	2	20.01	3
		19125	24	22.63	1	21.60	2	20.02	3
	36L	18900	24	22.63	1	21.57	2	20.03	3
	SOL	18675	24	22.58	1	21.59	2	20.07	3
		19125	24	 	1	21.55	2	 	3
	76			22.63		 		19.98	
	75	18900	24	22.63	1	21.54	2	20.00	3
	+	18675	24	22.57	1	21.58	2	19.98	3
	+	10100	0.4	22.44		22.50	4	20.00	
	41.1	19100	24	23.44	0	22.56	1	20.98	2
	1H	18900	24	23.40	0	22.47	1	20.99	2
		18700	24	23.36	0	22.57	1	20.95	2
		19100	24	23.61	0	22.76	1	21.14	2
	1M	18900	24	23.60	0	22.86	1	21.15	2
		18700	24	23.60	0	22.74	1	21.15	2
		19100	24	23.41	0	22.53	1	20.99	2
	1L	18900	24	23.43	0	22.63	1	20.98	2
		18700	24	23.46	0	22.55	1	21.03	2
		19100	24	22.63	1	21.64	2	19.95	3
20MHz	50H	18900	24	22.70	1	21.52	2	20.03	3
		18700	24	22.58	1	21.57	2	19.95	3
		19100	24	22.65	1	21.58	2	20.00	3
	50M	18900	24	22.62	1	21.58	2	19.99	3
		18700	24	22.64	1	21.59	2	20.00	3
		19100	24	22.67	1	21.65	2	20.03	3
	50L	18900	24	22.70	1	21.56	2	20.05	3
		18700	24	22.61	1	21.62	2	19.98	3
		19100	24	22.64	1	21.64	2	19.96	3
	100	18900	24	22.68	1	21.54	2	20.00	3
		18700	24	22.70	1	21.60	2	19.91	3



Table 11-10 LTE1900-FDD2 #2 AP ON

BandWidth R8 No/Start Channel Tune-up Chewer Prower	ı			0-FDD2 #2 A		asured Pow	er (dBm) & M	PR		
BandWidth RB No./Start Channel Tune-up Power MPR Power Power MPR Power More More MPR Power More MPR Power	•			1					640	ΔΝ.4
19193	Dand\M/idth	DP No /Start	Channal	Tuno un		SK		(AIVI		(AIVI
He 18900 20 19.04 0 18.59 1 17.46 18607 20 19.04 0 18.56 1 17.48 18607 20 19.04 0 18.35 1 17.49 18.60 1 17.49 18.60 20 19.20 0 18.77 1 17.69 18.60 1 17.49 18.60 20 19.20 0 18.77 1 17.69 18.60 1 17.40 18.60 20 19.20 0 18.77 1 17.60 18.60 1 17.40 18.60 20 19.20 0 18.77 1 17.40 18.60 20 18.66 0 18.47 1 17.40 18.60 20 18.66 0 18.47 1 17.40 18.60 20 18.66 0 18.46 1 17.47 1 17.40 18.60 20 18.66 0 18.61 1 17.62 18.60 20 18.60 0 18.61 1 17.62 18.60 20 18.60 0 18.61 1 17.62 18.60 20 18.60 20 18.63 1 17.43 18.60 20 18.60 20 18.63 1 17.44 18.60 20 18.63 1 17.44 18.60 20 18.62 1 17.66 18.60 1 17.66 18.60 1 17.66 18.60 1 17.66 18.60 1 17.66 18.60 1 17.66 18.60 1 17.47 18.60 1 17.47 1 18.60 1 17.47 1 18.60 1 17.47 1 18.60 1 17.47 1 18.60 1 17.47 1 18.60 1 17.42 1 18.60 1 17.44 1 18.60 1 17.44 1 17.60 1 18.60 1 17.44 1 18.60 1 17.44 1 18.60 1 17.44 1 18.60 1 17.44 1 18.60 1 17.44 1 17.40 1 18.60 1 17.42 1 18.60 1 17.42 1 18.60 1 18.60 1 17.42 1 18.60 1 18.60 1 17.42 1 18.60 1 18.60 1 17.42 1 18.60 1 18.60 1 17.44 1 17.40 1 18.60 1 18.60 1 18.60 1 17.44 1 17.44 1 18.60 1 18.6	Danuvidin	RB NO./Start	Channel	rune-up	1	MPR		MPR	1	MPI
H			40400	00				4		0
18607 20 19.04 0 18.35 1 17.49		41.1								2
1M 18900 20 19.31 0 18.74 1 17.62 18.66 1 17.64 18.66 1 17.64 18.66 1 17.65 18.66 1 17.65 18.66 1 17.65 18.66 1 17.65 18.66 1 17.65 18.66 1 17.65 18.66 1 17.65 18.66 1 17.65 18.66 1 17.65 18.66 1 17.65 18.66 1 17.65 18.66 1 17.65 18.66 1 17.65 18.66 1 17.65 18.66 1 17.65 18.66 1 17.65 18.66 1 17.65 18.66 1 17.65 18.66 1 17.65 18.66 1 17.66 18.67 18.66 1 17.66 18.67 18.66 1 17.66 18.67 18.66 1 17.66 18.67 18.66 1 17.66 18.67 18.66 1 17.66 18.67 18.66 1 17.66 18.67 18.66 1 17.66 18.67 18.66 18.67 18.66 1 17.66 18.67 18.66 18.67 18.66 18.67 18.66 18.67 18.66 18.67 18.66 18.67 18.66 18.67 18.66 18.67 18.66 18.67 18.66 18.67 18.66 18.67 18.66 18.67 18.66 18.67 18.67 18.66 18.67		IH			!					2
1M					 					2
18807 20 19.22 0 18.70 1 17.47 1 17.40 18907 20 18.98 0 18.46 1 17.44 1 18007 20 18.98 0 18.46 1 17.42 18007 20 19.00 0 18.51 1 17.62 19.90 20 19.00 0 18.58 1 17.43 18.90 20 19.00 0 18.58 1 17.42 18.607 20 19.00 0 18.58 1 17.42 18.607 20 19.05 0 18.58 1 17.44 18.90 20 19.05 0 18.38 1 17.44 19.90 20 19.05 0 18.38 1 17.44 19.90 20 19.25 0 18.76 1 17.59 19.92 0 18.38 1 17.44 18.90 20 19.25 0 18.76 1 17.59 19.93 20 19.25 0 18.76 1 17.59 19.93 20 19.25 0 18.76 1 17.59 19.93 20 19.25 0 18.76 1 17.59 19.93 20 19.25 0 18.76 1 17.59 19.93 20 19.25 0 18.76 1 17.69 19.93 20 19.25 0 18.76 1 17.69 19.93 20 19.25 0 18.50 1 17.47 18.607 20 18.94 0 18.54 1 17.47 18.607 20 18.94 0 18.54 1 17.47 18.607 20 18.94 0 18.54 1 17.47 18.607 20 18.20 1 17.26 2 16.53 18.60 20 18.20 1 17.26 2 16.53 18.60 18.20 19.03 0 18.48 1 17.44 18.600 20 19.03 0 18.48 1 17.44 19.800 20 19.03 0 18.48 1 17.44 18.600 20 19.03 0 18.48 1 17.44 19.800 20 19.03 0 18.73 1 17.64 19.85 20 19.32 0 18.73 1 17.64 19.85 20 19.32 0 18.73 1 17.64 19.85 20 19.25 0 18.74 1 17.70 2 16.53 19.85 20 19.25 0 18.49 1 17.43 19.85 20 19.26 0 18.49 1 17.44 19.850 20 19.26 0 18.49 1 17.44 19.850 20 19.26 0 18.49 1 17.44 19.850 20 18.52 1 17.15 2 16.56 19.85										2
11. 19193 20 19.28 0 118.47 1 17.47 18900 20 18.99 0 18.51 1 17.47 18900 20 19.00 0 18.51 1 17.47 17.43 19193 20 19.00 0 18.51 1 17.43 19193 20 19.00 0 18.51 1 17.44 19193 20 19.00 0 18.51 1 17.43 18900 20 19.05 0 18.50 1 17.44 19193 20 19.05 0 18.50 1 17.44 19193 20 19.05 0 18.50 1 17.44 19193 20 19.33 0 18.66 1 17.59 19193 20 19.33 0 18.66 1 1 17.59 19193 20 19.33 0 18.66 1 1 17.59 19193 20 19.25 0 18.50 1 1 17.42 19193 20 19.25 0 18.50 1 17.42 19193 20 19.25 0 18.50 1 1 17.42 19193 20 19.25 0 18.50 1 1 17.42 19193 20 19.25 0 18.50 1 1 17.42 19193 20 19.25 0 18.50 1 1 17.42 19193 20 19.25 0 18.50 1 1 17.42 19193 20 19.25 0 18.50 1 1 17.42 19193 20 18.99 0 18.49 1 1 17.47 19193 20 18.99 0 18.49 1 1 17.47 19193 20 18.20 1 1 17.22 2 16.63 18607 20 18.94 0 18.54 1 1 17.60 19193 20 18.20 1 1 17.22 2 16.63 18607 20 18.14 1 17.21 2 2 16.63 18607 20 18.14 1 17.21 2 2 16.53 18607 20 18.14 1 17.21 2 2 16.53 18607 20 18.14 1 17.21 2 2 16.53 18607 20 18.50 0 18.51 1 1 17.44 18600 20 19.05 0 18.51 1 1 17.44 18600 20 19.05 0 18.51 1 1 17.44 18600 20 19.05 0 18.51 1 1 17.44 18600 20 19.05 0 18.57 1 1 17.46 18615 20 19.28 0 18.46 1 1 17.46 18615 20 19.28 0 18.46 1 1 17.43 18615 20 19.28 0 18.46 1 1 17.43 18615 20 19.28 0 18.46 1 1 17.43 18615 20 18.92 0 18.52 1 1 17.58 19185 20 18.92 0 18.52 1 1 17.58 19185 20 18.92 0 18.52 1 1 17.58 19185 20 18.92 0 18.52 1 1 17.58 19185 20 18.92 0 18.52 1 1 17.58 19185 20 18.92 0 18.52 1 1 17.58 19185 20 18.24 1 17.13 2 18.50 18.50 18.50 2 18.50 18.50 2 18.50 18.50 2 18.50 18.50 2 18.50 18.50 2 18.50 18.50 2 18.50 18.50 2 18.50 18		1M			+					2
1L 18900 20 18.99 0 18.46 1 17.47 18607 20 19.00 0 18.58 1 1 17.62 19193 20 19.00 0 18.58 1 1 17.62 18607 20 19.05 0 18.58 1 1 17.42 18607 20 19.05 0 18.58 1 1 17.42 19193 20 19.05 0 18.58 1 1 17.42 19193 20 19.05 0 18.38 1 1 17.44 19193 20 19.25 0 18.38 1 1 17.49 18607 20 19.25 0 18.78 1 1 17.59 3M 18900 20 19.25 0 18.78 1 1 17.59 18607 20 19.24 0 18.78 1 1 17.59 19193 20 19.25 0 18.78 1 1 17.69 19193 20 19.25 0 18.78 1 1 17.47 18607 20 19.24 0 18.76 1 1 17.69 19193 20 19.25 0 18.50 1 1 17.47 18607 20 18.94 0 18.50 1 1 17.47 18607 20 18.94 0 18.54 1 1 17.60 19193 20 18.94 0 18.54 1 1 17.69 19193 20 18.94 0 18.54 1 1 17.47 18607 20 18.94 0 18.54 1 1 17.47 18607 20 18.94 0 18.54 1 1 17.47 18607 20 18.94 0 18.54 1 1 17.46 2 16.50 18900 20 18.20 1 17.26 2 16.53 18900 20 19.03 0 18.41 1 17.21 2 16.53 18900 20 19.03 0 18.44 1 17.44 1 18900 20 19.03 0 18.48 1 1 17.44 19185 20 19.32 0 18.73 1 17.44 19185 20 19.32 0 18.73 1 17.44 19185 20 19.32 0 18.73 1 17.66 19185 20 19.18 0 18.73 1 17.64 11 18800 20 19.18 0 18.77 1 17.64 11 18800 20 19.18 0 18.74 1 17.75 11 17.64 1 18.65 1 1 17.45 11 18800 20 19.18 0 18.74 1 17.76 11 18800 20 19.01 0 18.40 1 17.74 18615 20 18.60 1 18.74 1 17.75 18615 20 18.60 1 18.74 1 17.75 18615 20 18.60 1 18.74 1 17.75 18615 20 18.60 1 18.74 1 17.75 18615 20 18.60 1 17.15 2 16.50 18616 20 18.60 1 17.15 2 16.60 18616 20 18.60 1 17.15 2 16.60 18616 20 18.60 1 17.13 2 16.61 18616 20 18.60 1 17.13 2 16.67 18616 20 18.60 1 17.13 2 16.67 18616 20 18.90 0 18.44 1 17.22 2 16.69 18616 20 18.90 0 18.44 1 17.23 2 16.67 18616 20 18.90 0 18.40 1 17.13 2 16.67 18616 20 18.90 0 18.40 1 17.13 2 16.67 18616 20 18.90 0 18.40 1 17.14 2 16.57 18616 20 18.90 0 18.40 1 17.14 2 16.57 18616 20 18.90 0 18.40 1 17.15 2 16.65 18616 20 18.90 0 18.40 1 17.15 2 16.65 18617 20 18.90 0 18.40 1 17.15 2 16.65 18617 20 18.90 0 18.40 1 17.15 2 16.65 18618 20 18.90 0 18.40 1 17.15 2 16.65 18618 20 18.90 0 18.40 1 17.17 2 1 16.60 18626 20 18.13 1 17.22 2 16.69 18626 20 18.13 1 17.22 2 16.69 18626 20 18.13 1 17.22 2 16.60 18626 20 18.			18607	20	19.22	0	18.70	1	17.67	2
18807 20 19.00 0 18.51 1 17.62 19.03 20 19.06 0 18.58 1 17.43 18.00 20 19.05 0 18.50 1 17.42 18.00 20 19.05 0 18.50 1 17.42 18.00 20 19.02 0 18.38 1 17.44 18.00 20 19.25 0 18.38 1 17.44 18.00 20 19.25 0 18.76 1 17.59 18.00 20 19.25 0 18.76 1 17.59 19.02 0 18.76 1 17.69 19.02 0 18.76 1 17.69 19.02 0 18.76 1 17.69 19.02 19.25 0 18.50 1 17.47 18.00 20 18.99 0 18.49 1 17.47 18.00 20 18.99 0 18.49 1 17.47 18.00 20 18.21 1 17.12 2 16.50 18.00 20 18.20 1 17.28 2 16.63 18.00 20 18.21 1 17.12 2 16.53 18.00 20 18.20 1 17.28 2 16.63 18.00 20 18.20 1 17.28 2 16.53 18.00 20 18.20 1 17.26 2 16.53 18.00 20 18.20 1 17.44 1 17.21 2 16.53 18.00 18.			19193	20	19.28	0	18.47	1	17.40	2
1.4MHz 1.4MHz		1L	18900	20	18.96	0	18.46	1	17.47	2
1.4MHz 18900 20 19.05 0 18.50 1 17.42 19.06 19.02 0 19.38 1 17.44 19.06 19.02 0 19.38 1 17.45 19.02 19.33 0 18.66 1 17.59 19.02 19.25 0 10.78 1 17.59 19.02 0 19.25 0 10.78 1 17.59 19.02 19.25 0 10.78 1 17.59 19.02 19.25 0 10.50 1 17.69 19.02 19.25 0 10.50 1 17.42 19.03 20 19.25 0 10.50 1 17.47 19.00 19.00 20 18.99 0 18.49 1 17.47 19.00 19.00 18.20 1 1 17.12 2 16.50 19.00 20 18.21 1 17.12 2 16.50 19.00 20 18.21 1 17.22 2 16.50 19.00 20 18.20 1 17.20 2 16.53 19.00 20 18.21 1 17.21 2 16.53 19.00 20 19.05 0 18.49 1 17.46 19.00 19.00 19.00 19.00 18.49 1 17.46 19.00			18607	20	19.00	0	18.51	1	17.62	2
19807 20 19.02 0 18.38 1 17.44 19908 20 19.25 0 18.76 1 17.59 18607 20 19.25 0 18.76 1 17.58 18607 20 19.25 0 18.76 1 17.58 18607 20 19.25 0 18.76 1 17.69 18.90 20 18.90 0 18.49 1 17.47 18607 20 18.94 0 18.56 1 17.42 18.607 20 18.94 0 18.54 1 17.47 18607 20 18.94 0 18.54 1 17.47 18607 20 18.94 0 18.54 1 17.26 2 16.53 18.90 20 18.20 1 17.26 2 16.53 18.90 20 18.20 1 17.26 2 16.63 18.90 20 18.20 1 17.26 2 16.63 18.90 20 18.20 1 17.26 2 16.63 18.90 20 18.20 1 17.26 2 16.63 18.90 20 18.03 0 18.45 1 17.44 18.90 20 18.03 0 18.47 1 17.46 18.91 18.5 20 18.98 0 18.73 1 17.46 18.91 18.5 20 18.90 0 18.73 1 17.46 18.91 18.90 20 19.16 0 18.77 1 17.46 18.91 18.90 20 19.16 0 18.74 1 17.70 18.91 18.90 20 19.16 0 18.74 1 17.70 18.91 18.90 20 19.16 0 18.49 1 17.43 18.91 18.90 20 18.60 1 17.15 2 16.57 18.91 1			19193	20	19.06	0	18.58	1	17.43	2
19193 20 19.33 0 18.66 1 17.59 18000 20 19.25 0 18.78 1 17.58 18000 20 19.24 0 18.76 1 17.69 19193 20 19.24 0 18.76 1 17.42 31 18900 20 18.99 0 18.49 1 17.47 188007 20 18.99 0 18.49 1 17.47 188007 20 18.94 0 18.54 1 17.60 18.60 1 19193 20 18.21 1 17.12 2 16.50 18.00 20 18.20 1 17.22 2 16.50 18.00 20 18.20 1 17.22 2 16.53 180007 20 18.14 1 17.21 2 16.53 180007 20 18.14 1 17.21 2 16.53 180007 20 18.14 1 17.21 2 16.53 180007 20 18.14 1 17.21 2 16.53 180007 20 19.03 0 18.48 1 17.46 18615 20 19.03 0 18.48 1 17.46 18615 20 19.32 0 18.73 1 17.66 18.90 20 19.18 0 18.77 1 17.64 18615 20 19.16 0 18.74 1 17.70 19185 20 19.28 0 18.46 1 17.46 18615 20 19.16 0 18.74 1 17.70 19185 20 19.28 0 18.49 1 17.43 18615 20 18.92 0 18.52 1 17.58 18615 20 18.92 0 18.52 1 17.58 18615 20 18.92 0 18.52 1 17.58 18615 20 18.92 0 18.52 1 17.58 18615 20 18.92 0 18.52 1 17.58 18615 20 18.22 1 17.13 2 16.57 19185 20 18.22 1 17.13 2 16.57 19185 20 18.22 1 17.13 2 16.57 19185 20 18.22 1 17.13 2 16.57 19185 20 18.22 1 17.13 2 16.57 19185 20 18.22 1 17.13 2 16.59 19185 20 18.24 1 17.18 2 16.57 19185 20 18.22 1 17.13 2 16.59 19185 20 18.24 1 17.18 2 16.57 19185 20 18.24 1 17.18 2 16.57 19185 20 18.24 1 17.18 2 16.59 19185 20 18.24 1 17.18 2 16.59 19185 20 18.24 1 17.18 2 16.59 19185 20 18.24 1 17.18 2 16.59 19185 20 18.24 1 17.18 2 16.59 19185 20 18.24 1 17.18 2 16.58 18665 20 19.03 0 18.48 1 17.44 18000 20 18.26 0 18.46 1 17.	1.4MHz	3H	18900	20	19.05	0	18.50	1	17.42	2
3M 18900 20 19.25 0 18.78 1 17.59 18900 20 19.25 0 18.78 1 17.58 18900 20 19.25 0 18.78 1 17.58 19193 20 19.24 0 18.76 1 17.42 19193 20 19.25 0 18.50 1 17.42 34 18900 20 18.99 0 18.49 1 17.47 18900 20 18.99 0 18.50 1 17.42 2 16.50 18900 20 18.20 1 17.25 2 16.50 18900 20 18.20 1 17.26 2 16.50 18900 20 18.20 1 17.26 2 16.50 18900 20 18.20 1 17.21 2 16.53 18900 20 18.20 1 17.21 2 16.53 18900 20 18.20 1 17.21 2 16.53 18900 20 18.20 1 17.21 2 16.53 18900 20 19.03 0 18.48 1 17.46 18615 20 19.03 0 18.48 1 17.46 18615 20 19.32 0 18.73 1 17.66 18615 20 19.16 0 18.74 1 17.70 19185 20 19.20 0 18.73 1 17.66 19185 20 19.20 0 18.64 1 17.46 18615 20 19.16 0 18.74 1 17.70 19185 20 19.20 0 18.64 1 17.46 18615 20 19.16 0 18.74 1 17.70 19185 20 19.20 0 18.53 1 17.66 18615 20 19.16 0 18.74 1 17.70 19185 20 19.20 1 18.60 1 18.77 1 17.64 18615 20 19.16 0 18.74 1 17.70 19185 20 19.28 0 18.46 1 17.46 18615 20 18.90 1 18.50 1 17.58 18615 20 18.90 1 18.50 1 17.58 18615 20 18.90 1 17.19 2 16.50 18.90 18.90 18.90 18.52 1 17.58 18615 20 18.90 1 17.19 2 16.57 18.60 18.60 18.60 18.50 1 17.19 2 16.57 18.60 18.60 18.60 18.50 1 17.19 2 16.57 18.60 18.60 18.60 18.50 1 17.19 2 16.57 18.60 18.6			18607	20	19.02	0	18.38	1	17.44	2
Section Sect			19193	20	 	0		1		2
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8L 18900 20 18.24 1 17.18 2 16.57 18			18615	20	18.16	1		2	16.53	3
8L 18900 20 18.24 1 17.32 2 16.60 18615 20 18.04 1 17.13 2 16.57 19185 20 18.20 1 17.11 2 16.58 18900 20 18.24 1 17.26 2 16.63 18615 20 18.12 1 17.18 2 16.45 18615 20 18.12 1 17.18 2 16.45 18615 20 18.12 1 17.18 2 16.45 18625 20 19.00 0 18.48 1 17.44 18900 20 19.02 0 18.48 1 17.44 18900 20 19.26 0 18.75 1 17.66 18625 20 19.00 0 18.73 1 17.68 18625 20 19.21 0 18.73 1 17.68 18625 20 19.26 0 18.45 1 17.43 18625 20 19.03 0 18.55 1 17.45 18625 20 19.00 0 18.45 1 17.43 18625 20 19.00 0 18.55 1 17.45 18625 20 19.00 0 18.55 1 17.45 18625 20 19.00 0 18.55 1 17.45 18625 20 19.00 0 18.55 1 17.45 18625 20 19.00 0 18.55 1 17.45 18625 20 19.00 0 18.55 1 17.45 18625 20 19.00 0 18.55 1 17.45 18625 20 19.00 0 18.55 1 17.45 18625 20 18.12 1 17.14 2 16.53 18625 20 18.14 1 17.23 2 16.58 18625 20 18.17 1 17.17 2 16.54 18625 20 18.18 1 17.22 2 16.52 18.65 18625 20 18.18 1 17.22 2 16.52 18.65 18625 20 18.13 1 17.21 2 16.49 18900 20 18.16 1 17.16 2 16.50 18625 20 18.13 1 17.21 2 16.49 18900 20 18.16 1 17.17 2 16.64 18625 20 18.13 1 17.21 2 16.49 18900 20 18.16 1 17.19 2 16.64 18625 20 18.13 1 17.21 2 16.49 18900 20 18.13 1 17.21 2 16.49 18900 20 18.13 1 17.21 2 16.69 18625 20 18.00 1 17.15 2 16.50 18625 20 18.00 1 18.24 1 17.18 2 16.56 18625 20 18.00 1 18.24 1 17.22 2 16.56										3
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1M 18900 20 19.26 0 18.75 1 17.60 18625 20 19.21 0 18.73 1 17.68 19175 20 19.26 0 18.45 1 17.43 1L 18900 20 19.03 0 18.55 1 17.45 18625 20 19.00 0 18.53 1 17.55 19175 20 18.12 1 17.14 2 16.53 12H 18900 20 18.14 1 17.23 2 16.58 18625 20 18.17 1 17.17 2 16.54 19175 20 18.18 1 17.22 2 16.52 12M 18900 20 18.18 1 17.22 2 16.50 18625 20 18.13 1 17.16 2 16.50 18626 20 18.13 1 17.21 2 16.64 12L 18900 20 18.33 1 17.32 2 16.64 12L 18900 20 18.33 1 17.15 2 16.50 19175			18625	20	19.00	0	18.40	1	17.44	2
1M 18900 20 19.26 0 18.75 1 17.60 18625 20 19.21 0 18.73 1 17.68 19175 20 19.26 0 18.45 1 17.43 1L 18900 20 19.03 0 18.55 1 17.45 18625 20 19.00 0 18.53 1 17.55 19175 20 18.12 1 17.14 2 16.53 12H 18900 20 18.14 1 17.23 2 16.58 18625 20 18.17 1 17.17 2 16.54 19175 20 18.18 1 17.22 2 16.52 12M 18900 20 18.18 1 17.22 2 16.50 18625 20 18.13 1 17.16 2 16.50 18626 20 18.13 1 17.21 2 16.64 12L 18900 20 18.33 1 17.32 2 16.64 12L 18900 20 18.33 1 17.15 2 16.50 19175			19175	20	19.38	0	18.68	1	17.66	2
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19175 20 18.15 1 17.19 2 16.64 12L 18900 20 18.33 1 17.32 2 16.60 18625 20 18.00 1 17.15 2 16.50 19175 20 18.12 1 17.18 2 16.56 25 18900 20 18.24 1 17.22 2 16.56		12M	18900	20	18.16	1	17.16	2	16.50	3
19175 20 18.15 1 17.19 2 16.64 12L 18900 20 18.33 1 17.32 2 16.60 18625 20 18.00 1 17.15 2 16.50 19175 20 18.12 1 17.18 2 16.56 25 18900 20 18.24 1 17.22 2 16.56			18625	20	18.13	1	17.21	2	16.49	3
12L 18900 20 18.33 1 17.32 2 16.60 18625 20 18.00 1 17.15 2 16.50 19175 20 18.12 1 17.18 2 16.56 25 18900 20 18.24 1 17.22 2 16.56			19175	20	18.15	1	17.19	2	16.64	3
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25 18900 20 18.24 1 17.22 2 16.56										3
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		19150	20	19.12	0	18.58	1	17.46	2
	1H	18900	20	19.00	0	18.51	1	17.47	2
		18650	20	18.96	0	18.39	1	17.50	2
		19150	20	19.34	0	18.71	1	17.66	2
	1M	18900	20	19.17	0	18.71	1	17.61	2
		18650	20	19.20	0	18.73	1	17.68	2
		19150	20	19.22	0	18.49	1	17.42	2
	1L	18900	20	19.00	0	18.46	1	17.48	2
		18650	20	19.00	0	18.46	1	17.62	2
		19150	20	18.08	1	17.08	2	16.47	3
10MHz	25H	18900	20	18.14	1	17.24	2	16.58	3
		18650	20	18.17	1	17.23	2	16.49	3
		19150	20	18.22	1	17.22	2	16.56	3
	25M	18900	20	18.15	1	17.14	2	16.51	3
		18650	20	18.12	1	17.25	2	16.54	3
		19150	20	18.14	1	17.21	2	16.63	3
	25L	18900	20	18.27	1	17.26	2	16.60	3
		18650	20	18.00	1	17.16	2	16.49	3
		19150	20	18.16	1	17.19	2	16.55	3
	50	18900	20	18.19	1	17.18	2	16.60	3
		18650	20	18.08	1	17.13	2	16.49	3
	1			1			-		
	+	19125	20	19.04	0	18.58	1	17.42	2
	1H	18900	20	19.06	0	18.53	1	17.44	2
	1 ""	18675	20	19.04	0	18.40	1	17.44	2
	—	19125	20	19.29	0	18.74	1	17.60	2
	1M	18900	20	19.21	0	18.78	1	17.63	2
	1101	18675	20	19.21	0	18.79	1	17.68	2
		19125	20	19.29	0	18.53	1	17.43	2
	1L	18900	20	18.98	0	18.46	1	17.45	2
	"L	18675	20	18.92	0	18.54	1	17.45	2
	-	19125	20	18.13	1	17.07	2	16.52	3
15MHz	36H		20	18.15	1	17.07	2		3
ISIVINZ	36H	18900 18675	20	18.15	1	17.21	2	16.56 16.55	3
	—								
	2614	19125	20	18.24	1	17.22	2	16.57	3
	36M	18900	20 20	18.20	1	17.15 17.20	2	16.49	3
	—	18675		18.14				16.49	
	201	19125	20	18.24	1	17.16	2	16.60	3
	36L	18900	20	18.31	1	17.30	2	16.64	3
	<u> </u>	18675	20	18.08	1	17.17	2	16.55	3
		19125	20	18.10	1	17.17	2	16.53	3
	75	18900	20	18.22	1	17.23	2	16.62	3
	+	18675	20	18.05	1	17.13	2	16.52	3
									_
		19100	20	19.09	0	18.55	1	17.43	2
	1H	18900	20	19.02	0	18.53	1	17.46	2
		18700	20	19.00	0	18.40	1	17.50	2
		19100	20	19.35	0	18.73	1	17.64	2
	1M	18900	20	19.22	0	18.75	1	17.63	2
		18700	20	19.20	0	18.76	1	17.70	2
		19100	20	19.29	0	18.50	1	17.45	2
	1L	18900	20	19.00	0	18.52	1	17.48	2
		18700	20	18.96	0	18.52	1	17.59	2
		19100	20	18.09	1	17.13	2	16.52	3
20MHz	50H	18900	20	18.19	1	17.22	2	16.59	3
		18700	20	18.14	1	17.21	2	16.52	3
		19100	20	18.20	1	17.19	2	16.58	3
	50M	18900	20	18.19	1	17.15	2	16.53	3
	L	18700	20	18.17	1	17.25	2	16.53	3
		19100	20	18.19	1	17.19	2	16.63	3
	50L	18900	20	18.29	1	17.29	2	16.64	3
		18700	20	18.07	1	17.17	2	16.55	3
		19100	20	18.16	1	17.16	2	16.56	3
	100	18900	20	18.24	1	17.23	2	16.60	3



Table 11-11 LTE1700-FDD4 #1 AP OFF

		LTE1700)-FDD4 #1 Al	P OFF					
SN				Me	asured Pov	ver (dBm) & Mi	PR		
			_	QPSK		16QAM		64Q	MAA
BandWidth	RB No./Start	Channel	Tune-up	Measured Power	MPR	Measured Power	MPR	Measured Power	MPR
		20393	24	23.38	0	22.69	1	21.20	2
	1H	20175	24	23.36	0	22.49	1	20.98	2
		19957	24	23.49	0	22.64	1	21.15	2
		20393	24	23.53	0	22.26	1	21.26	2
	1M	20175	24	23.45	0	22.06	1	21.12	2
		19957	24	23.57	0	22.22	1	21.23	2
		20393	24	23.16	0	22.05	1	21.15	2
	1L	20175	24	23.33	0	22.05	1 1	21.02	2
		19957	24 24	23.12	0	22.13 22.07	1 1	21.19	2
1.4MHz	3H	20393 20175	24	23.13 22.96	0	22.00	1	21.18 21.07	2
1.1141112	311	19957	24	23.12	0	22.13	1	21.07	2
		20393	24	23.08	0	22.13	1	21.21	2
	3M	20175	24	22.99	0	22.07	1	21.08	2
		19957	24	23.13	0	22.19	1	21.21	2
		20393	24	23.03	0	22.09	1	21.17	2
	3L	20175	24	22.95	0	22.03	1	21.09	2
		19957	24	23.07	0	22.15	1	21.20	2
		20393	24	22.06	1	21.10	2	20.07	3
	6	20175	24	21.97	1	21.01	2	19.95	3
		19957	24	22.10	1	21.13	2	20.07	3
		20225	0.4	22.07		20.40	4	24.04	0
	1H	20385	24	22.97	0	22.12 22.04	<u>1</u> 1	21.01	2
	10	20175 19965	24 24	22.88 23.02	0	22.16	<u> </u> 1	21.07 21.19	2
		20385	24	23.10	0	22.19	1	21.19	2
	1M	20365	24	23.10	0	22.19	1	20.98	2
	1141	19965	24	23.16	0	22.27	1	21.15	2
		20385	24	22.94	0	22.09	1	21.11	2
	1L	20175	24	22.87	0	22.02	1	21.07	2
		19965	24	23.03	0	22.18	1	21.21	2
		20385	24	21.95	1	21.01	2	19.92	3
3MHz	8H	20175	24	21.90	1	20.96	2	19.93	3
		19965	24	22.03	1	21.07	2	20.05	3
		20385	24	22.01	1	21.05	2	19.95	3
	8M	20175	24	21.90	1	20.95	2	19.97	3
		19965	24	22.04	1	21.10	2	20.07	3
	0.	20385	24	22.01	1	21.04	2	19.92	3
	8L	20175	24	21.90	1	20.95	2	19.93	3
		19965	24	22.06	1	21.10 20.97	2	20.06	3
	15	20385 20175	24	21.97 21.91	1	20.97	2	20.00	3
		19965	24	22.04	1	21.03	2	20.02	3
					-				_
		20375	24	22.93	0	22.09	1	21.00	2
	1H	20175	24	22.84	0	21.95	1	21.00	2
		19975	24	22.99	0	22.13	1	21.15	2
		20375	24	23.09	0	22.26	1	20.96	2
	1M	20175	24	23.02	0	22.16	1	20.98	2
		19975	24	23.18	0	22.44	1	21.15	2
	41	20375	24	22.93	0	22.06	1	20.91	2
	1L	20175	24	22.88	0	22.02	1	21.09	2
	<u> </u>	19975	24 24	23.02	1	22.13	2	21.17	3
5MHz	12H	20375 20175	24	21.93 21.86	1	20.99	2	19.92 19.94	3
5.VII 12	1211	19975	24	22.02	1	21.05	2	20.05	3
		20375	24	22.02	1	21.06	2	19.95	3
	12M	20175	24	21.92	1	20.96	2	19.95	3
		19975	24	22.05	1	21.09	2	20.70	3
		20375	24	22.01	1	21.05	2	19.94	3
	12L	20175	24	21.90	1	20.95	2	19.93	3
		19975	24	22.07	1	21.09	2	20.08	3
		20375	24	22.02	1	21.04	2	19.94	3
	25	20175	24	21.92	1	20.93	2	20.96	3
		19975	24	22.07	1	21.08	2	20.02	3



HH 20050 24 22.88 0 22.97 1 20.88 1 1 21.00 2 20060 24 23.00 0 21.99 1 1 21.00 2 20050 24 23.00 0 22.15 1 21.18 2 IM 20176 24 22.30 0 0 22.12 1 21.08 2 20050 24 23.00 0 0 22.12 1 1 21.08 2 20050 24 23.00 0 0 22.12 1 1 21.08 2 20050 24 23.00 0 0 22.12 1 21.08 2 20050 24 23.00 0 0 22.12 1 1 21.08 2 20050 24 23.00 0 0 22.04 1 21.08 2 20050 24 22.00 0 22.04 1 20.09 2 IL 20050 24 22.07 0 22.04 1 20.09 2 20050 24 21.02 1 20.09 2 20050 24 21.02 1 20.09 2 20050 24 21.02 1 20.09 2 2 19.84 3 20050 24 22.04 1 21.00 2 1 19.90 3 20050 24 22.04 1 21.00 2 19.90 3 20050 24 22.03 1 20.06 2 19.84 3 20060 24 22.03 1 21.06 2 19.90 3 20060 24 22.03 1 21.06 2 19.90 3 20060 24 22.03 1 21.06 2 19.90 3 20060 24 22.03 1 21.06 2 19.92 3 2050 24 22.03 1 21.06 2 19.92 3 2050 24 22.03 1 21.06 2 19.92 3 2050 24 22.03 1 21.06 2 19.92 3 2050 24 22.03 1 21.06 2 19.92 3 2050 24 22.08 1 20.00 2 2 19.93 3 2050 24 22.08 1 20.00 2 2 19.93 3 2050 24 22.08 1 20.00 2 2 19.93 3 2050 24 22.08 1 20.00 2 2 19.93 3 2050 24 22.08 1 20.00 2 2 19.93 3 2050 24 22.08 1 20.00 2 2 19.93 3 2050 24 22.08 1 20.00 2 2 19.93 3 2050 24 22.03 1 20.00 2 2 19.93 3 2050 24 22.04 1 20.00 2 2 19.93 3 2050 24 22.03 1 20.00 2 2 19.93 3 2050 24 22.04 1 20.00 1 20.00 2 19.93 3 2050 24 22.08 1 20.00 2 20.00 3 3 2050 24 22.00 1 20.00 2 20.00 3 3 2050 24 22.00 1 20.00 2 20.00 3 3 2050 24 22.00 1 20.00 2 20.00 3 3 2050 24 22.00 1 20.00 1 20.00 2 20.00 3 2050 24 22.00 1 20.00 1 20.00 3 3 2050 24 22.00 1 20.00 2 20.00 3 3 2050 24 22.00 1 20.00 2 20.00 3 3 2050 24 22.00 1 20.00 2 20.00 3 3 2050 24 22.00 0 22.00 1 20.00 3 3 2050 24 22.00 0 22.00 1 20.00 3 3 2050 24 22.00 0 22.00 1 20.00 3 3 2050 24 22.00 0 22.00 1 20.00 3 3 2050 24 22.00 0 22.00 1 20.00 3 3 2050 24 22.00 0 22.00 1 20.00 3 3 2050 24 22.00 0 22.00 1 20.00 3 3 2050 24 22.00 0 22.00 1 20.00 3 3 2050 24 22.00 0 22.00 1 20.00 3 3 2050 24 22.00 0 22.00 1 20.00 3 3 2050 24 22.00 0 22.00 1 20.00 3 3 2050 24 22.00 0 22.00 1 20.00 3 3 2050 24 22.00 0 22.00 1 20.00 3 3 20050 24 22.00 0 22.00 1 20.00 3 3 20050 24 22.00 0 22.00 1 20				I	1		1			
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15MHz 1		"								
1M										
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1L 20175 24 22.95 0 22.02 1 21.00 2 2 20175 24 22.95 0 22.17 1 21.11 2 2 2025		IIVI								
1L 20175										
15MHz 20025		41								
15MHz 36H 20175 24 21.94 1 20.97 2 19.87 3 20025 24 21.93 1 20.98 2 19.96 3 20025 24 21.99 1 21.02 2 19.92 3 36M 20175 24 21.99 1 21.02 2 19.92 3 36M 20175 24 21.94 1 20.98 2 20.02 3 20.02 3 20.025 24 21.94 1 20.98 2 19.97 3 20.025 24 21.96 1 21.07 2 20.05 3 20.025 24 21.96 1 21.04 2 19.92 3 36L 20175 24 21.98 1 21.02 2 19.98 3 2 20.025 24 21.98 1 21.04 2 19.92 3 3 2 20.025 24 21.98 1 21.08 2 20.08 3 2 20.05 24 21.98 1 20.99 2 19.86 3 3 2 20.025 24 21.98 1 20.99 2 19.86 3 3 2 20.025 24 22.04 1 21.04 2 20.00 3 2 2 2 2 2 2 2 2 2		1L								
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36M 20176 24 21.99 1 21.02 2 19.92 3 20026 24 22.04 1 21.07 2 20.05 3 3 36L 20175 24 21.96 1 21.04 2 19.92 3 36L 20175 24 21.96 1 21.04 2 19.98 3 3 36L 20175 24 22.04 1 21.06 2 19.98 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	15MHz	36H								
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20025 24 22.04 1 21.08 2 20.08 3 75 20175 24 21.95 1 20.96 2 19.86 3 20175 24 21.95 1 20.96 2 19.92 3 20025 24 22.04 1 21.04 2 20.00 3 20025 24 22.04 1 21.04 2 20.00 3 1H 20300 24 22.80 0 21.80 1 20.80 2 20050 24 22.73 0 21.84 1 20.95 2 20050 24 22.99 0 22.05 1 21.01 2 1M 20175 24 22.99 0 22.05 1 21.01 2 20050 24 22.99 0 22.05 1 21.01 2 20050 24 22.80 0 21.87 1 20.08 2 1L 20175 24 22.80 0 22.06 1 20.08 2 20050 24 22.99 0 22.05 1 21.01 2 20050 24 22.99 0 22.06 1 20.08 2 1L 20175 24 22.80 0 21.87 1 20.98 2 1L 20175 24 22.84 0 21.93 1 20.66 2 20050 24 22.95 0 22.13 1 21.12 2 20050 24 22.95 0 22.13 1 21.12 2 20050 24 21.94 1 20.93 2 19.86 3 20060 24 21.98 1 20.97 2 19.94 3 20070 24 22.06 1 21.03 2 20.07 3 20080 24 22.06 1 21.03 2 20.07 3 20080 24 22.06 1 21.03 2 20.07 3 20080 24 22.06 1 21.03 2 20.07 3 20080 24 22.06 1 21.03 2 20.07 3 20090 24 22.06 1 21.01 2 19.93 3 50M 20175 24 21.98 1 20.98 2 19.95 3 20050 24 22.07 1 21.05 2 19.99 3 50L 20175 24 22.06 1 21.05 2 19.99 3 50L 20175 24 22.06 1 21.05 2 19.99 3 50L 20175 24 22.06 1 21.05 2 19.99 3 50L 20175 24 22.04 1 21.01 2 19.99 3 50L 20175 24 22.04 1 21.01 2 19.99 3 50L 20175 24 22.06 1 21.05 2 19.99 3 50L 20175 24 22.06 1 21.07 2 20.09 3 50L 20175 24 22.04 1 21.01 2 19.99 3										
75		36L								
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20300 24 22.80 0 21.90 1 20.81 2 20175 24 22.69 0 21.80 1 20.80 2 20050 24 22.99 0 21.84 1 20.95 2 1M 20175 24 22.99 0 22.05 1 21.01 2 2050 24 22.98 0 22.06 1 20.08 2 20050 24 23.04 0 22.25 1 21.18 2 20300 24 22.80 0 21.87 1 20.98 2 1L 20175 24 22.84 0 21.93 1 20.66 2 20050 24 22.95 0 22.13 1 21.12 2 20300 24 22.95 0 22.13 1 21.12 2 20300 24 21.94 1 20.93 2 19.86 3 20MHz 20MHz 50H 20175 24 21.98 1 20.97 2 19.94 3 20050 24 22.06 1 21.03 2 20.07 3 20300 24 22.04 1 21.01 2 19.93 3 50M 20175 24 21.98 1 20.98 2 19.95 3 20050 24 22.06 1 21.03 2 20.04 3 20300 24 22.06 1 21.05 2 19.99 3 50L 20175 24 22.06 1 21.05 2 19.99 3 20050 24 22.06 1 21.05 2 19.99 3 20050 24 22.06 1 21.05 2 19.99 3 20050 24 22.06 1 21.05 2 19.99 3 20050 24 22.06 1 21.05 2 19.99 3		75								
20MHz 1H		ļ	20025	24	22.04	1	21.04	2	20.00	3
20MHz 1H										
20050 24 22.73 0 21.84 1 20.95 2 20300 24 22.99 0 22.05 1 21.01 2 1M 20175 24 22.98 0 22.06 1 20.08 2 20050 24 23.04 0 22.25 1 21.18 2 20300 24 22.80 0 21.87 1 20.98 2 1L 20175 24 22.84 0 21.93 1 20.66 2 20050 24 22.95 0 22.13 1 21.12 2 20050 24 22.95 0 22.13 1 21.12 2 20300 24 21.94 1 20.93 2 19.86 3 20MHz 50H 20175 24 21.98 1 20.97 2 19.94 3 20300 24 22.06 1 21.03 2 20.07 3 50M 20175 24 21.98 1 20.98 2 19.95 3 50M 20175 24 21.98 1 20.98 2 19.95 3 50M 20175 24 21.98 1 20.98 2 19.95 3 50L 20300 24 22.06 1 21.05 2 19.99 3 50L 20300 24 22.06 1 21.05 2 19.99 3 50L 20300 24 22.04 1 21.01 2 19.99 3 50L 20300 24 22.04 1 21.01 2 19.99 3 50L 20300 24 22.04 1 21.05 2 19.99 3 50L 20300 24 22.04 1 21.01 2 19.99 3 50L 20300 24 22.04 1 21.01 2 19.99 3 50L 20300 24 22.04 1 21.05 2 19.99 3 50L 20300 24 22.04 1 21.07 2 20.09 3 50L 20300 24 22.04 1 21.07 2 20.09 3			20300	24	22.80	0	21.90	1	20.81	2
20300 24 22.99 0 22.05 1 21.01 2 20175 24 22.98 0 22.06 1 20.08 2 20050 24 23.04 0 22.25 1 21.18 2 20300 24 22.80 0 21.87 1 20.98 2 1L 20175 24 22.84 0 21.93 1 20.66 2 20050 24 22.95 0 22.13 1 21.12 2 20300 24 21.94 1 20.93 2 19.86 3 20060 24 21.94 1 20.97 2 19.94 3 20070 24 22.06 1 21.03 2 20.07 3 20300 24 22.06 1 21.03 2 20.07 3 20300 24 22.04 1 21.01 2 19.93 3 50M 20175 24 21.98 1 20.98 2 19.95 3 20300 24 22.06 1 21.05 2 20.04 3 20300 24 22.06 1 21.05 2 20.04 3 20300 24 22.06 1 21.05 2 19.99 3 50L 20175 24 22.06 1 21.05 2 19.99 3 50L 20175 24 22.06 1 21.05 2 19.99 3 20300 24 22.06 1 21.05 2 19.99 3 50L 20175 24 22.04 1 21.01 2 19.99 3 50L 20175 24 22.04 1 21.01 2 19.99 3 50L 20175 24 22.04 1 21.01 2 19.99 3 50L 20175 24 22.04 1 21.01 2 19.99 3 50L 20175 24 22.04 1 21.01 2 19.99 3		1H	20175	24	22.69	0	21.80	1	20.80	
20MHz 1M 20175 24 22.98 0 22.06 1 2008 2 21.18 2 20300 24 22.80 0 21.87 1 20.98 2 1 20175 24 22.84 0 21.93 1 20.66 2 20050 24 22.95 0 21.93 1 20.66 2 20050 24 22.95 0 22.13 1 21.12 2 20300 24 21.94 1 20.93 2 19.86 3 2007 20050 24 21.98 1 2007 20050 24 21.98 1 2007 20050 24 22.06 1 21.03 2 20.07 3 20000 24 22.04 1 21.01 2 19.93 3 50M 20175 24 21.98 1 20.98 2 10.98 20.07 3 50M 20175 24 21.98 1 20.98 2 10.98 2 10.98 2 10.98 2 10.98 2 10.98 2 10.98 2 10.98 2 10.98 2 10.98 2 10.98 2 10.98 2 10.98 2 10.98 2 10.99 3 10.99 3 10.99 3 10.99 3 10.99 3 10.99 3 10.99 2 19.91 3 10.92 3 10.99 2 19.91 3			20050	24	22.73	0	21.84	1	20.95	2
20050 24 23.04 0 22.25 1 21.18 2 1L 20300 24 22.80 0 21.87 1 20.98 2 1L 20175 24 22.84 0 21.93 1 20.66 2 20050 24 22.95 0 22.13 1 21.12 2 20300 24 21.94 1 20.93 2 19.86 3 20MHz 50H 20175 24 21.98 1 20.97 2 19.94 3 20050 24 22.06 1 21.03 2 20.07 3 20300 24 22.04 1 21.01 2 19.93 3 50M 20175 24 21.98 1 20.98 2 19.95 3 50M 20175 24 22.06 1 21.05 2 19.95 3 20050 24 22.07 1 21.05 2 20.04 3 20300 24 22.06 1 21.05 2 19.99 3 50L 20300 24 22.06 1 21.05 2 19.99 3 50L 20300 24 22.04 1 21.01 2 19.99 3 50L 20300 24 22.06 1 21.05 2 19.99 3 50L 20300 24 22.06 1 21.05 2 19.99 3 50L 20175 24 22.06 1 21.05 2 19.99 3 50L 20175 24 22.04 1 21.01 2 19.99 3 50L 20175 24 22.04 1 21.01 2 19.99 3 50L 20175 24 22.04 1 21.07 2 20.09 3 100 20175 24 21.98 1 21.00 2 19.91 3			20300		22.99		22.05		21.01	
20MHz 10 20300 24 22.80 0 21.87 1 20.98 2 2 2 2 2 2 2 2 2		1M	20175		22.98				20.08	
20MHz 1L 20175 24 22.84 0 21.93 1 20.66 2 20050 24 22.95 0 22.13 1 21.12 2 20300 24 21.94 1 20.93 2 19.86 3 20175 24 21.98 1 20.97 2 19.94 3 20050 24 22.06 1 21.03 2 20.07 3 20300 24 22.04 1 21.01 2 19.93 3 50M 20175 24 21.98 1 20.97 2 19.94 3 20.07 3 20000 24 22.06 1 21.03 2 19.93 3 3 50M 20175 24 21.98 1 20.98 2 19.95 3 3 50L 20175 24 22.06 1 21.05 2 20.04 3 50L 20175 24 22.06 1 21.05 2 19.99 3 50L 20300 24 22.06 1 21.05 2 19.99 3 50L 20300 24 22.06 1 21.05 2 19.99 3 3 100 20175 24 22.11 1 21.07 2 20.09 3 100 20175 24 21.98 1 21.00 2 19.91 3 100			20050	24	23.04	0	22.25	1	21.18	2
20MHz 20			20300	24	22.80	0	21.87	1	20.98	2
20MHz 20MHz 20MHz 20MHz 20MHz 20MHz 20MHz 20050 24 21.98 21.98 1 20.97 21.994 3 20050 24 22.06 1 21.03 2 20.07 3 20300 24 22.04 1 21.01 2 19.93 3 2 20.07 3 20300 24 22.04 1 21.01 2 19.93 3 2 20.07 3 20050 24 22.07 1 21.05 2 20.04 3 20300 24 22.06 1 21.05 2 20.04 3 20300 24 22.06 1 21.05 2 20.04 3 20300 24 22.06 1 21.05 2 20.04 3 20300 24 22.06 1 21.05 2 20.09 3 20300 24 22.04 1 21.01 2 19.99 3 20300 24 22.11 1 21.07 2 20.09 3 100 20300 24 21.98 1 21.00 2 19.91 3 100 20175 24 21.98 1 20.99 2 19.92 3		1L	20175	24	22.84	0	21.93	1	20.66	2
20MHz 50H 20175 24 21.98 1 20.97 2 19.94 3 20050 24 22.06 1 21.03 2 20.07 3 20300 24 22.04 1 21.01 2 19.93 3 50M 20175 24 21.98 1 20.98 2 19.95 3 20050 24 22.07 1 21.05 2 20.04 3 20300 24 22.06 1 21.05 2 20.04 3 50L 20175 24 22.06 1 21.05 2 20.04 3 20300 24 22.06 1 21.05 2 19.99 3 50L 20175 24 22.04 1 21.01 2 19.99 3 20050 24 22.11 1 21.07 2 20.09 3 20050 24 22.11 1 21.07 2 20.09 3 100 20175 24 21.98 1 21.00 2 19.91 3			20050	24	22.95	0	22.13	1	21.12	2
20050 24 22.06 1 21.03 2 20.07 3 20300 24 22.04 1 21.01 2 19.93 3 50M 20175 24 21.98 1 20.98 2 19.95 3 20050 24 22.07 1 21.05 2 20.04 3 20300 24 22.06 1 21.05 2 19.99 3 50L 20175 24 22.04 1 21.01 2 19.99 3 20050 24 22.11 1 21.07 2 20.09 3 20300 24 21.98 1 21.00 2 19.91 3 100 20175 24 21.98 1 20.99 2 19.92 3			20300	24	21.94	1	20.93	2	19.86	3
50M 20300 24 22.04 1 21.01 2 19.93 3 20175 24 21.98 1 20.98 2 19.95 3 20050 24 22.07 1 21.05 2 20.04 3 20300 24 22.06 1 21.05 2 19.99 3 50L 20175 24 22.04 1 21.01 2 19.99 3 20050 24 22.11 1 21.07 2 20.09 3 20300 24 21.98 1 21.00 2 19.91 3 100 20175 24 21.98 1 20.99 2 19.92 3	20MHz	50H	20175	24	21.98	1	20.97	2	19.94	3
50M 20175 24 21.98 1 20.98 2 19.95 3 20050 24 22.07 1 21.05 2 20.04 3 20300 24 22.06 1 21.05 2 19.99 3 50L 20175 24 22.04 1 21.01 2 19.99 3 20050 24 22.11 1 21.07 2 20.09 3 20300 24 21.98 1 21.00 2 19.91 3 100 20175 24 21.98 1 20.99 2 19.92 3		<u></u>	20050	24	22.06	1	21.03	2	20.07	3
20050 24 22.07 1 21.05 2 20.04 3 20300 24 22.06 1 21.05 2 19.99 3 50L 20175 24 22.04 1 21.01 2 19.99 3 20050 24 22.11 1 21.07 2 20.09 3 20300 24 21.98 1 21.00 2 19.91 3 100 20175 24 21.98 1 20.99 2 19.92 3			20300	24	22.04	1	21.01	2	19.93	3
20300 24 22.06 1 21.05 2 19.99 3 50L 20175 24 22.04 1 21.01 2 19.99 3 20050 24 22.11 1 21.07 2 20.09 3 20300 24 21.98 1 21.00 2 19.91 3 100 20175 24 21.98 1 20.99 2 19.92 3		50M	20175	24	21.98	1	20.98	2	19.95	3
50L 20175 24 22.04 1 21.01 2 19.99 3 20050 24 22.11 1 21.07 2 20.09 3 20300 24 21.98 1 21.00 2 19.91 3 100 20175 24 21.98 1 20.99 2 19.92 3			20050	24	22.07	1	21.05	2	20.04	3
50L 20175 24 22.04 1 21.01 2 19.99 3 20050 24 22.11 1 21.07 2 20.09 3 20300 24 21.98 1 21.00 2 19.91 3 100 20175 24 21.98 1 20.99 2 19.92 3										
20050 24 22.11 1 21.07 2 20.09 3 20300 24 21.98 1 21.00 2 19.91 3 100 20175 24 21.98 1 20.99 2 19.92 3		50L								
20300 24 21.98 1 21.00 2 19.91 3 100 20175 24 21.98 1 20.99 2 19.92 3										
100 20175 24 21.98 1 20.99 2 19.92 3										
		100								
			20050	24	22.06		21.07	2	20.06	3



Table 11-12 LTE1700-FDD4 #2 AP ON

		LTE170	0-FDD4 #2 A	PON					
SN				Me	asured Pow				
				QP	SK	16Q	AM	64Q	AM
BandWidth	RB No./Start	Channel	Tune-up	Measured Power	MPR	Measured Power	MPR	Measured Power	MPR
		20393	20.5	19.57	0	19.03	1	17.84	2
	1H	20175	20.5	19.61	0	18.95	1	17.80	2
		19957	20.5	19.63	0	19.02	1	17.92	2
		20393	20.5	19.88	0	19.24	1	18.04	2
	1M	20175	20.5	19.80	0	19.24	1	18.13	2
		19957	20.5	19.90	0	19.29	1	18.25	2
		20393	20.5	19.52	0	18.87	1	17.94	2
	1L	20175	20.5	19.58	0	18.99	1	17.95	2
		19957 20393	20.5	19.63 19.63	0	19.04 18.97	1	18.03 17.80	2
1.4MHz	3H	20393	20.5	19.61	0	19.00	1	17.78	2
	011	19957	20.5	19.62	0	19.05	1	17.95	2
		20393	20.5	19.83	0	19.13	1	18.01	2
	3M	20175	20.5	19.81	0	19.29	1	18.12	2
		19957	20.5	19.93	0	19.33	1	18.21	2
		20393	20.5	19.51	0	18.86	1	17.94	2
	3L	20175	20.5	19.61	0	18.95	1	17.97	2
		19957	20.5	19.58	0	19.11	1	18.09	2
		20393	20.5	18.75	1	17.56	2	17.17	3
	6	20175	20.5	18.73	1	17.79	2	17.14	3
		19957	20.5	18.82	1	17.88	2	17.30	3
		20205	20 F	10.62	0	10.00	1	17 00	2
	1H	20385 20175	20.5 20.5	19.63 19.50	0	19.00 18.96	1	17.82 17.76	2
	""	19965	20.5	19.50	0	19.04	1	17.76	2
		20385	20.5	19.77	0	19.19	1	17.97	2
	1M	20175	20.5	19.82	0	19.28	1	18.12	2
		19965	20.5	19.89	0	19.31	1	18.24	2
		20385	20.5	19.55	0	18.88	1	17.99	2
	1L	20175	20.5	19.59	0	18.94	1	18.00	2
		19965	20.5	19.61	0	19.07	1	18.06	2
		20385	20.5	18.62	1	17.59	2	17.04	3
3MHz	8H	20175	20.5	18.72	1	17.69	2	17.19	3
		19965	20.5	18.78	1	17.84	2	17.31	3
		20385	20.5	18.72	1	17.63	2	17.15	3
	8M	20175	20.5	18.67	1	17.80	2	17.21	3
		19965	20.5	18.74	1	17.84	2	17.26	3
		20385	20.5	18.76	1	17.69	2	17.20	3
	8L	20175	20.5	18.65	1	17.77	2	17.17	3
		19965 20385	20.5	18.74 18.66	1	17.90 17.65	2	17.28 17.14	3
	15	20365	20.5	18.66	1	17.77	2	17.13	3
	10	19965	20.5	18.78	1	17.80	2	17.15	3
					-		_		_
		20375	20.5	19.52	0	18.97	1	17.77	2
	1H	20175	20.5	19.58	0	18.99	1	17.80	2
		19975	20.5	19.54	0	18.97	1	17.91	2
		20375	20.5	19.79	0	19.23	1	18.00	2
	1M	20175	20.5	19.82	0	19.27	1	18.14	2
		19975	20.5	19.91	0	19.36	1	18.18	2
		20375	20.5	19.50	0	18.92	1	17.99	2
	1L	20175	20.5	19.54	0	18.94	1	18.03	2
		19975	20.5	19.56	0	19.08	1	18.08	2
5MHz	12H	20375 20175	20.5 20.5	18.63 18.71	1	17.64 17.71	2	17.08 17.20	3
JIVII IZ	1217	19975	20.5	18.77	1	17.71	2	17.20	3
		20375	20.5	18.70	1	17.62	2	17.12	3
	12M	20175	20.5	18.72	1	17.79	2	17.15	3
	12,111	19975	20.5	18.79	1	17.85	2	17.28	3
		20375	20.5	18.75	1	17.64	2	17.23	3
	12L	20175	20.5	18.68	1	17.77	2	17.14	3
		19975	20.5	18.74	1	17.90	2	17.31	3
		20375	20.5	18.63	1	17.59	2	17.15	3
	25	20175	20.5	18.73	1	17.73	2	17.15	3
		19975	20.5	18.77	1	17.84	2	17.28	3



	I		I	I		1		I	
		20350	20.5	19.55	0	18.95	1	17.80	2
	1H	20175	20.5	19.56	0	18.93	1	17.74	2
		20000	20.5	19.58	0	19.03	1	17.92	2
		20350	20.5	19.75	0	19.16	1	18.00	2
	1M	20175	20.5	19.81	0	19.26	1	18.09	2
		20000	20.5	19.90	0	19.33	1	18.26	2
		20350	20.5	19.49	0	18.94	1	17.99	2
	1L	20175	20.5	19.57	0	18.93	1	18.00	2
		20000	20.5	19.64	0	19.06	1	18.02	2
		20350	20.5	18.61	1	17.65	2	17.07	3
10MHz	25H	20175	20.5	18.71	1	17.77	2	17.23	3
		20000	20.5	18.87	1	17.89	2	17.29	3
		20350	20.5	18.65	1	17.63	2	17.16	3
	25M	20175	20.5	18.70	1	17.80	2	17.21	3
		20000	20.5	18.76	1	17.81	2	17.30	3
		20350	20.5	18.66	1	17.66	2	17.21	3
	25L	20175	20.5	18.70	1	17.76	2	17.20	3
		20000	20.5	18.73	1	17.85	2	17.29	3
		20350	20.5	18.68	1	17.65	2	17.16	3
	50	20175	20.5	18.73	1	17.77	2	17.10	3
		20000	20.5	18.75	1	17.81	2	17.26	3
							-		
	1	20325	20.5	19.54	0	19.02	1	17.86	2
	1H	20175	20.5	19.60	0	18.91	1	17.77	2
		20025	20.5	19.53	0	19.01	1	17.96	2
		20325	20.5	19.87	0	19.17	1	17.98	2
	1M	20175	20.5	19.86	0	19.29	1	18.13	2
		20025	20.5	19.84	0	19.30	1	18.18	2
		20325	20.5	19.49	0	18.93	1	17.96	2
	1L	20175	20.5	19.60	0	18.94	1	17.96	2
		20025	20.5	19.68	0	19.05	1	18.05	2
		20325	20.5	18.67	1	17.62	2	17.07	3
15MHz	36H	20175	20.5	18.65	1	17.73	2	17.21	3
		20025	20.5	18.83	1	17.86	2	17.33	3
		20325	20.5	18.69	1	17.69	2	17.14	3
	36M	20175	20.5	18.66	1	17.84	2	17.19	3
		20025	20.5	18.78	1	17.81	2	17.24	3
		20325	20.5	18.68	1	17.69	2	17.26	3
	36L	20175	20.5	18.65	1	17.75	2	17.21	3
		20025	20.5	18.76	1	17.90	2	17.31	3
		20325	20.5	18.72	1	17.59	2	17.13	3
	75	20175	20.5	18.70	1	17.78	2	17.12	3
		20025	20.5	18.80	1	17.81	2	17.29	3
	1					1	_	1	_
	1	20300	20.5	19.59	0	18.99	1	17.83	2
	1H	20175	20.5	19.57	0	18.97	1	17.78	2
	I	20050	20.5	19.58	0	19.02	1	17.76	2
		20300	20.5	19.83	0	19.21	1	18.02	2
	1M	20300	20.5	19.84	0	19.25	1	18.14	2
		20050	20.5	19.91	0	19.35	1	18.24	2
		20300	20.5	19.54	0	18.92	1	17.98	2
	1L	20300	20.5	19.60	0	18.98	1	18.01	2
	"	20050	20.5	19.63	0	19.07	1	18.06	2
		20300	20.5	18.66	1	17.65	2	17.10	3
20MHz	50H	20300	20.5	18.71	1	17.05	2	17.10	3
201411 12	3017	20050	20.5	18.83	1	17.75	2	17.22	3
	<u> </u>	20300	20.5	18.71	1	17.68	2	17.17	3
	50M	20300	20.5	18.72	1	17.83	2	17.17	3
	Joint	20050	20.5	18.77	1	17.82	2	17.16	3
		20300	20.5	18.72	1	17.62	2	17.24	3
	50L	20300	20.5	18.71	1	17.81	2	17.19	3
	JUL	20050	20.5	18.77	1	17.87	2	17.19	3
		20300	20.5	18.70	1	17.62	2	17.15	3
	100	20300	20.5	18.70	1	17.62	2	17.15	3
	100	20050	20.5	18.70	1	17.78	2	17.14	3
1	1	20000	20.0	10.01		17.00	ı -	17.30	l 3



Table 11-13 LTE850-FDD5 #1

		LTE	850-FDD5 #						
						er (dBm) & M			
B			_		SK		AM	64Q	AM
BandWidth	RB No./Start	Channel	Tune-up	Measured Power	MPR	Measured Power	MPR	Measured Power	MPR
		20643	24.5	24.12	0	23.32	1	22.46	2
	1H	20525	24.5	24.12	0	23.32	1	22.47	2
		20407	24.5	24.05	0	23.27	1	22.39	2
		20643	24.5	24.18	0	23.35	1	22.48	2
	1M	20525	24.5	24.19	0	23.37	1	22.46	2
		20407	24.5	24.16	0	23.35	1	22.40	2
		20643	24.5	24.08	0	23.26	1	22.45	2
	1L	20525	24.5	24.12	0	23.26	1	22.50	2
		20407	24.5	24.15	0	23.30	1	22.46	2
		20643	24.5	24.20	0	23.26	1	22.40	2
1.4MHz	3H	20525	24.5	24.19	0	23.29	1	22.41	2
		20407	24.5	24.19	0	23.27	1	22.50	2
		20643	24.5	24.23	0	23.31	1	22.49	2
	3M	20525	24.5	24.24	0	23.34	1	22.44	2
		20407	24.5	24.23	0	23.31	1	22.43	2
		20643	24.5	24.19	0	23.31	1	22.45	2
	3L	20525	24.5	24.19	0	23.28	1	22.43	2
	~-	20407	24.5	24.22	0	23.34	1	22.48	2
		20643	24.5	23.26	1	22.24	2	21.45	3
	6	20525	24.5	23.28	1	22.23	2	21.42	3
		20407	24.5	23.29	1	22.22	2	21.36	3
					-		_		
		20635	24.5	24.02	0	23.39	1	22.47	2
	1H	20525	24.5	24.20	0	23.41	1	22.48	2
		20415	24.5	24.22	0	23.39	1	22.43	2
		20635	24.5	24.18	0	23.41	1	22.48	2
	1M	20525	24.5	24.34	0	23.45	1	22.44	2
		20415	24.5	24.31	0	23.39	1	22.49	2
		20635	24.5	24.19	0	23.33	1	22.45	2
	1L	20525	24.5	24.21	0	23.33	1	22.43	2
		20415	24.5	24.21	0	23.37	1	22.43	2
		20635	24.5	23.28	1	22.26	2	21.34	3
3MHz	8H	20525	24.5	23.28	1	22.26	2	21.48	3
		20415	24.5	23.26	1	22.25	2	21.37	3
		20635	24.5	23.29	1	22.26	2	21.39	3
	8M	20525	24.5	23.31	1	22.28	2	21.33	3
		20415	24.5	23.26	1	22.25	2	21.36	3
		20635	24.5	23.25	1	22.25	2	21.45	3
	8L	20525	24.5	23.26	1	22.25	2	21.37	3
	52	20415	24.5	23.26	1	22.25	2	21.33	3
		20635	24.5	23.27	1	22.22	2	21.42	3
	15	20525	24.5	23.29	1	22.22	2	21.47	3
		20415	24.5	23.26	1	22.19	2	21.31	3
	1				-		_		
	1	20625	24.5	24.17	0	23.26	1	22.38	2
	1H	20525	24.5	24.18	0	23.34	1	22.47	2
	"'	20425	24.5	24.20	0	23.36	1	22.42	2
		20625	24.5	24.29	0	23.49	1	22.46	2
	1M	20525	24.5	24.29	0	23.48	1	22.48	2
	1171	20325	24.5	24.29	0	23.44	1	22.49	2
		20425	24.5	24.31	0	23.30	1	22.49	2
	1L	20525	24.5	24.13	0	23.30	1	22.50	2
	'L	20525	24.5	24.18	0	23.34	1	22.41	2
		20425	24.5	23.27	1	22.28	2	21.36	3
5MHz	12H	20525	24.5	23.27	1	22.28	2	21.36	3
SIVITZ	12H	20525	24.5	23.27	1	22.27	2	21.46	3
					1	+	2		3
	1214	20625	24.5	23.29	1	22.26	2	21.37	
	12M	20525	24.5 24.5	23.32	1	22.30 22.28	2	21.33 21.27	3
	—	20425							
	101	20625	24.5	23.24	1	22.23	2	21.49	3
	12L	20525	24.5	23.26	1	22.26		21.39	
		20425	24.5	23.26	1	22.23	2	21.34	3
			24.5	22.20	- 4	22.22	2	24.40	2
	25	20625 20525	24.5 24.5	23.28 23.33	1	22.26 22.30	2	21.48 21.39	3



No. I19Z62348-SEM03 Page 40 of 324

		20600	24.5	24.16	0	23.33	1	22.44	2
	1H	20525	24.5	24.21	0	23.45	1	22.49	2
		20450	24.5	24.22	0	23.38	1	22.47	2
		20600	24.5	24.21	0	23.33	1	22.48	2
	1M	20525	24.5	24.21	0	23.38	1	22.44	2
		20450	24.5	24.28	0	23.41	1	22.46	2
		20600	24.5	24.16	0	23.32	1	22.49	2
	1L	20525	24.5	24.19	0	23.40	1	22.42	2
		20450	24.5	24.16	0	23.32	1	22.41	2
		20600	24.5	23.31	1	22.27	2	21.40	3
10MHz	25H	20525	24.5	23.38	1	22.35	2	21.45	3
		20450	24.5	23.30	1	22.30	2	21.37	3
		20600	24.5	23.30	1	22.27	2	21.39	3
	25M	20525	24.5	23.29	1	22.27	2	21.35	3
		20450	24.5	23.28	1	22.28	2	21.34	3
		20600	24.5	23.36	1	22.35	2	21.46	3
	25L	20525	24.5	23.33	1	22.30	2	21.40	3
		20450	24.5	23.27	1	22.24	2	21.38	3
		20600	24.5	23.36	1	22.31	2	21.46	3
	50	20525	24.5	23.37	1	22.32	2	21.44	3
		20450	24.5	23.30	1	22.27	2	21.36	3



Table 11-14 LTE700-FDD12 #1

BandWidth RB No./Start Channel Tune-up Power MPR Measured MPR Power MPR Power Power			LTE	700-FDD12‡						
BandWidth RB No./Start Channel Tune-up Prover				ı				040		
	D 10.4 (i - 14 b	DD N- /Ctt	Charact	T		SK		AM		AM
H	Bandwidth	RB No./Start	Channel	Tune-up	1	MPR		MPR	1	MPR
23017			23173	24.5		0		1		2
1M 23066 24.5 23.62 0 22.60 1 21.67 23017 24.5 23.68 0 22.68 1 21.67 23017 24.5 23.68 0 22.76 1 21.60 23017 24.5 23.57 0 22.76 1 21.60 23017 24.5 23.68 0 22.70 1 21.60 23017 24.5 23.68 0 22.70 1 21.60 23017 24.5 23.68 0 22.70 1 21.72 23017 24.5 23.68 0 22.70 1 21.72 23017 24.5 23.68 0 22.70 1 21.72 23.73 24.5 23.68 0 22.70 1 21.72 23.73 24.5 23.68 0 22.70 1 21.72 23.73 24.5 23.68 0 22.70 1 21.60 23.75 23.75 0 22.68 1 21.50 23.75 23.75 0 22.68 1 21.50 23.75 23.75 0 22.68 1 21.50 23.77 24.5 23.68 0 22.75 1 21.61 23.77 24.5 23.75 0 22.61 1 21.65 23.77 24.5 23.75 0 22.61 1 21.65 23.77 24.5 23.75 0 22.61 1 21.65 23.77 24.5 23.77 0 22.61 1 21.65 23.77 24.5 23.77 0 22.61 1 21.65 23.77 24.5 23.77 0 22.61 1 21.65 23.77 24.5 23.77 0 22.61 1 21.65 23.77 24.5 23.77 0 22.61 1 21.65 23.77 24.5 23.77 0 22.61 1 21.65 23.77 24.5 23.77 0 22.61 1 21.65 23.77 24.5 23.77 0 22.61 1 21.65 23.77 24.5 23.77 0 22.61 1 21.65 23.77 24.5 23.77 0 22.61 1 21.65 23.77 24.5 23.77 0 22.61 1 21.65 23.77 24.5 23.77 0 22.65 1 21.65 23.77 24.5 23.77 0 22.65 1 21.65 23.77 24.5 23.77 0 22.65 1 21.65 23.77 24.5 23.77 0 22.73 1 21.70 23.77 24.5 23.77 0 22.73 1 21.70 23.77 24.5 22.67 1 21.55 22.60 1 21.65 23.65 0 22.73 1 21.70 23.77 24.5 22.60 1 21.55 22.60 1 21.65 23.65		1H	23095	24.5	23.63	0	22.64	1	21.45	2
1M 23096 24.5 23.88 0 22.276 1 21.60 23017 24.5 23.73 0 22.76 1 21.60 23017 24.5 23.73 0 22.76 1 21.60 23173 24.5 23.54 0 22.60 1 22.60 1 21.60 23173 24.5 23.54 0 22.60 1 22.60 1 21.60 23017 24.5 23.68 0 22.57 1 21.58 23017 24.5 23.68 0 22.70 1 21.72 23173 24.5 23.68 0 22.70 1 21.72 23173 24.5 23.68 0 22.70 1 21.72 23.73 24.5 23.67 0 22.76 1 21.51 23.07 24.5 23.07 0 22.68 1 21.51 23.07 24.5 23.07 0 22.68 1 21.50 23.07 24.5 23.67 0 22.75 1 21.61 23.07 24.5 23.75 0 22.75 1 21.61 23.07 24.5 23.75 0 22.75 1 21.61 23.07 24.5 23.75 0 22.75 1 21.61 23.07 24.5 23.76 0 22.75 1 21.61 23.07 24.5 23.76 0 22.75 1 21.61 23.07 24.5 23.77 0 22.67 1 1 21.65 23.07 24.5 23.79 0 22.75 1 21.64 23.07 24.5 23.68 0 22.67 1 21.64 23.07 24.5 23.68 0 22.67 1 21.64 23.07 24.5 23.07 0 22.73 1 21.69 23.07 24.5 23.07 0 22.73 1 21.69 23.07 24.5 23.07 24.5 23.07 0 22.73 1 21.69 23.07 24.5 23.07 24.5 23.07 0 22.73 1 21.69 23.07 24.5 23.07 24.5 23.07 0 22.73 1 21.60 23.07 24.5 23.07 0 22.73 1 21.60 23.07 24.5 23.07 0 22.73 1 21.60 23.07 24.5 23.07 0 22.73 1 21.60 23.07 24.5 23.07 0 22.73 1 21.60 23.07 24.5 23.07 0 22.73 1 21.60 23.07 24.5 23.07 0 22.73 1 21.60 23.07 24.5 23.07 0 22.73 1 21.60 23.07 24.5 23.07 0 22.73 1 21.60 23.07 24.5 23.07 0 22.73 1 21.70 23.07 24.5 23.07 0 22.73 1 21.70 24.5 23.72 0 22.73 1 21.70 23.07 24.5 23.07 0 22.73 1 21.70 23.07 24.5 23.07 0 22.73 1 21.70 23.07 24.5 23.07 0 22.73 1 21.70 23.07 24.5 23.07 0 22.73 1 21.70 23.07 24.5 23.07 24.5 23.08 0 22.60 1 21.50 23.07 24.5 23.08 0 22.60 1 21.50 23.07 24.5 23.08 0 22.09 1 21.53 2 20.46 23.07 24.5 23.08 0 22.09 1 21.53 2 20.46 23.07 23.07 24.5 23.08 0 22.09 1 21.50 2 20.64 23.08 23.			23017	24.5	23.68	0	22.69	1	21.60	2
23017 24-5 23.73 0 22.76 1 21.60			23173	24.5	23.62	0	22.60	1	21.65	2
1.		1M	23095	24.5	23.68	0	22.68	1	21.67	2
1L 23096 24.5 23.68 0 22.70 1 21.58 23.07 24.5 23.69 0 22.70 1 21.72 21.			23017	24.5	23.73	0	22.76	1	21.60	2
1.4MHz 1.4MHz			23173	24.5	23.54	0	22.60	1	21.60	2
1.4MHz 3H		1L	23095	24.5	23.56	0	22.57	1	21.58	2
1.4MHz 23095 24.5 23.67 0 22.68 1 21.60			23017	24.5	23.68	0		1	21.72	2
23017 24.5 23.67 0 22.68 1 21.65 23173 24.5 23.67 0 22.67 1 21.65 23017 24.5 23.68 0 22.67 1 21.64 23017 24.5 23.69 0 22.73 1 21.64 23173 24.5 23.62 0 22.56 1 21.64 23173 24.5 23.62 0 22.56 1 21.64 3L 23095 24.5 23.63 0 22.66 1 21.64 23017 24.5 23.72 0 22.73 1 21.70 23173 24.5 23.63 0 22.66 1 21.64 23017 24.5 23.63 0 22.66 1 21.64 6 23095 24.5 22.69 1 21.53 2 20.46 6 23095 24.5 22.76 1 21.53 2 20.46 6 23095 24.5 22.76 1 21.62 2 20.48 1H 23095 24.5 22.81 1 21.62 2 20.48 23165 24.5 23.65 0 22.61 1 21.55 23025 24.5 23.69 0 22.61 1 21.55 23026 24.5 23.69 0 22.61 1 21.55 23025 24.5 23.69 0 22.61 1 21.56 23055 24.5 23.69 0 22.61 1 21.56 23055 24.5 23.69 0 22.61 1 21.56 23055 24.5 23.69 0 22.69 1 21.56 23165 24.5 23.69 0 22.69 1 21.56 23165 24.5 23.69 0 22.69 1 21.56 23025 24.5 23.69 0 22.69 1 21.57 1L 23095 24.5 23.69 0 22.61 1 21.57 1L 23095 24.5 23.69 0 22.60 1 21.57 23025 24.5 23.69 0 22.60 1 21.57 23026 24.5 23.69 0 22.60 1 21.57 23026 24.5 23.69 0 22.60 1 21.57 23026 24.5 23.69 0 22.60 1 21.57 23026 24.5 23.69 0 22.60 1 21.57 23026 24.5 23.69 0 22.60 1 21.57 23026 24.5 23.69 0 22.60 1 21.57 23026 24.5 23.69 0 22.60 1 21.57 23026 24.5 23.69 0 22.60 1 21.57 23026 24.5 23.69 0 22.60 1 21.66 23026 24.5 22.70 1 21.66 2 20.52 23026 24.5 22.70 1 21.69 2 20.40 23026 24.5 22.70 1 21.61 2 20.40 23026 24.5 22.71 1 21.61 2 20.40 23026 24.5 22.73 1 21.61 2 20.40 23026 24.5 22.73 1 21.61 2 20.40 23026 24.5 22.73 1 21.61 2 20.40 23026 24.5 22.73 1 21.61 2 20.40 23026 24.5 22.73 1 21.61 2 20.40 23026 24.5 22.73 1 21.61 2 20.40 23026 24.5 22.73 1 21.61 2 20.41 23085 24.5 22.71 1 21.59 2 20.46 23085 24.5 22.73 1 21.61 2 20.40 23085 24.5 22.73 1 21.61 2 20.40 23085 24.5 22.73 1 21.61 2 20.40 23085 24.5 22.73 1 21.61 2 20.40 23085 24.5 22.73 1 21.61 2 20.40 23085 24.5 22.73 1 21.61 2 20.40 23085 24.5 22.73 1 21.61 2 20.40 23085 24.5 22.73 1 21.62 2 20.47 23085 24.5 22.73 1 21.61 2 20.40 23085 24.5 22.73 1 21.61 2 20.40 23085 24.5 22.73 1 21.61 2 20.40 23085 24.5 22.77 1 21.69 2 20.47 23085 24.5 22.77 1 21.69 2 20.47 23085 24.5 22										2
3M	1.4MHz	3H								2
23095 24.5 23.68 0 22.67 1 21.69										2
23017					.		1		1	2
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8M 23095 24.5 22.71 1 21.59 2 20.46 23025 24.5 22.73 1 21.61 2 20.46 23025 24.5 22.73 1 21.61 2 20.46 24.5 22.64 1 21.53 2 20.47 23025 24.5 22.64 1 21.55 2 20.61 23025 24.5 22.72 1 21.63 2 20.45 23025 24.5 22.72 1 21.63 2 20.45 23025 24.5 22.72 1 21.63 2 20.47 23095 24.5 22.71 1 21.52 2 20.47 23025 24.5 22.71 1 21.52 2 20.48 20.45 23025 24.5 22.71 1 21.52 2 20.48 20.45 23.00 22.66 1 21.57 23025 24.5 23.60 0 22.66 1 21.47 23095 24.5 23.60 0 22.66 1 21.47 23095 24.5 23.60 0 22.66 1 21.47 23095 24.5 23.60 0 22.69 1 21.59 23035 24.5 23.60 0 22.75 1 21.68 23035 24.5 23.60 0 22.77 1 21.68 23035 24.5 23.60 0 22.77 1 21.68 23035 24.5 23.50 0 22.77 1 21.68 23035 24.5 23.50 0 22.60 1 21.63 23035 24.5 23.50 0 22.64 1 21.58 23035 24.5 23.50 0 22.64 1 21.58 23035 24.5 23.59 0 22.64 1 21.58 23035 24.5 23.59 0 22.64 1 21.58 23035 24.5 23.59 0 22.68 1 21.58 23035 24.5 23.59 0 22.68 1 21.58 23035 24.5 23.59 0 22.68 1 21.58 23035 24.5 23.59 0 22.68 1 21.58 23035 24.5 23.59 0 22.68 1 21.58 23035 24.5 23.59 0 22.68 1 21.58 23035 24.5 23.59 0 22.68 1 21.58 23035 24.5 23.59 0 22.68 1 21.58 23035 24.5 22.62 1 21.50 2 20.49 23035 24.5 22.62 1 21.50 2 20.49 23035 24.5 22.62 1 21.50 2 20.49 23035 24.5 22.68 1 21.55 2 20.51 23.59 23.59 24.5 22.68 1 21.55 2 20.51 23.59 23.59 24.5 22.68 1 21.55 2 20.51 23.59 23.59 24.5 22.68 1 21.55 2 20.51 23.59 23.59 24.5 22.68 1 21.55 2 20.51 23.59 23.59 24.5 22.68 1 21.55 2 20.51 23.59 23.59 24.5 22.68 1 21.55 2 20.51 23.59 23.59 24.5 22.68 1 21.55 2 20.51 23.59 23.59 24.5 22.68 1 21.55 2 20.51 23.59 23.59 24.5 22.68 1 21.55 2 20.55 22.65 22.68 1 21.55 2 20.55 22.65 22.66 1 21.55 2 20.55 22.65 22.66 1 21.55 2 20.55 22.65 22.66 1 21.55 2 20.55 22.65 22.66 1 21.55 2 20.55 22.65 22.66 1 21.55 2 20.55 22.65 22.66 1 21.55 2 20.55 22.65 22.66 1 21.55 2 20.55 22.65 22.66 1 21.55 2 20.55 22.65 22.66 1 21.55 2 20.55 22.65 22.66 1 21.55 2 20.55 22.65 22.66 1 21.55 2 20.55 22.65 22.66 1 21.55 2 20.55 22.65 22.66 1 21.55 2 20.55 22.65 22.66 1 21.55 2 20.55 22.65 22.66 1 21.55 2 20.55 22.65 22.65 22.66 1 21.55 2 20					.					3
23025		8M			.					3
8L 23165 24.5 22.64 1 21.53 2 20.47 8L 23095 24.5 22.66 1 21.55 2 20.61 23025 24.5 22.72 1 21.63 2 20.45 23165 24.5 22.64 1 21.47 2 20.47 15 23095 24.5 22.71 1 21.52 2 20.50 23025 24.5 22.71 1 21.52 2 20.48 15 23025 24.5 22.70 1 21.52 2 20.48 23155 24.5 23.54 0 22.58 1 21.51 1H 23095 24.5 23.60 0 22.66 1 21.47 23035 24.5 23.60 0 22.66 1 21.47 23035 24.5 23.60 0 22.66 1 21.47 23035 24.5 23.60 0 22.77 1 21.58 1M 23095 24.5 23.60 0 22.77 1 21.68 23035 24.5 23.66 0 22.77 1 21.68 23035 24.5 23.55 0 22.77 1 21.69 23155 24.5 23.50 0 22.60 1 21.63 1L 23095 24.5 23.50 0 22.60 1 21.63 1L 23095 24.5 23.50 0 22.60 1 21.63 5MHz 5MHz 5MHz 12H 23095 24.5 22.62 1 21.58 2 20.51 23035 24.5 22.62 1 21.58 2 20.51 23035 24.5 22.62 1 21.58 2 20.51 23035 24.5 22.62 1 21.58 2 20.51 23035 24.5 22.66 1 21.58 2 20.51 23035 24.5 22.66 1 21.58 2 20.51 23035 24.5 22.66 1 21.58 2 20.51 23035 24.5 22.66 1 21.58 2 20.51 23035 24.5 22.66 1 21.58 2 20.51 23035 24.5 22.66 1 21.58 2 20.51 23035 24.5 22.66 1 21.58 2 20.51 23035 24.5 22.66 1 21.58 2 20.51 23035 24.5 22.66 1 21.58 2 20.51 23035 24.5 22.66 1 21.58 2 20.51 23035 24.5 22.66 1 21.55 2 20.47 12M 23095 24.5 22.66 1 21.55 2 20.47 12M 23095 24.5 22.66 1 21.55 2 20.55 23035 24.5 22.66 1 21.52 2 20.55 23035 24.5 22.67 1 21.60 2 20.44										3
8L 23095 24.5 22.66 1 21.55 2 20.61 23025 24.5 22.72 1 21.63 2 20.45 23165 24.5 22.72 1 21.63 2 20.45 23165 24.5 22.71 1 21.63 2 20.47 25 25 25 25 25 25 25 25 25 25 25 25 25										3
23025 24.5 22.72 1 21.63 2 20.45 23165 24.5 22.64 1 21.47 2 20.47 15 23095 24.5 22.71 1 21.52 2 20.50 23025 24.5 22.70 1 21.52 2 20.48		8L								3
15										3
15			23165							3
THE PROOF OF THE P		15								3
1H 23095 24.5 23.60 0 22.66 1 21.47 23035 24.5 23.60 0 22.69 1 21.59 1M 23095 24.5 23.73 0 22.75 1 21.58 1M 23095 24.5 23.66 0 22.77 1 21.68 23035 24.5 23.75 0 22.77 1 21.69 1L 23095 24.5 23.50 0 22.60 1 21.63 23035 24.5 23.54 0 22.64 1 21.58 23035 24.5 23.59 0 22.68 1 21.62 23155 24.5 22.62 1 21.50 2 20.49 5MHz 12H 23095 24.5 22.69 1 21.55 2 20.51 23035 24.5 22.69 1 21.58 2 20.51 23035 24.5 22.69 1 21.58 2 20.51 23035 <td< td=""><td></td><td></td><td>23025</td><td></td><td></td><td>1</td><td></td><td></td><td></td><td>3</td></td<>			23025			1				3
1H 23095 24.5 23.60 0 22.66 1 21.47 23035 24.5 23.60 0 22.69 1 21.59 1M 23095 24.5 23.73 0 22.75 1 21.58 1M 23095 24.5 23.66 0 22.77 1 21.68 23035 24.5 23.75 0 22.77 1 21.69 1L 23095 24.5 23.50 0 22.60 1 21.63 23035 24.5 23.54 0 22.64 1 21.58 23035 24.5 23.59 0 22.68 1 21.62 23155 24.5 22.62 1 21.50 2 20.49 5MHz 12H 23095 24.5 22.69 1 21.55 2 20.51 23035 24.5 22.69 1 21.58 2 20.51 23035 24.5 22.69 1 21.58 2 20.51 23035 <td< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></td<>										
TH			23155	24.5	23.54	0	22.58	1	21.51	2
M 23155 24.5 23.73 0 22.75 1 21.58 1M 23095 24.5 23.66 0 22.77 1 21.68 23035 24.5 23.75 0 22.77 1 21.69 23155 24.5 23.50 0 22.60 1 21.63 1L 23095 24.5 23.54 0 22.64 1 21.58 23035 24.5 23.59 0 22.68 1 21.62 23155 24.5 22.62 1 21.50 2 20.49 12H 23095 24.5 22.69 1 21.58 2 20.51 23035 24.5 22.65 1 21.55 2 20.51 23035 24.5 22.65 1 21.55 2 20.47 12M 23095 24.5 22.66 1 21.55 2 20.47 12M 23095 24.5 22.68 1 21.55 2 20.47 12M 23095 24.5 22.68 1 21.58 2 20.53 23155 24.5 22.66 1 21.55 2 20.47 12M 23095 24.5 22.68 1 21.58 2 20.53 23035 24.5 22.64 1 21.52 2 20.55 12L 23095 24.5 22.64 1 21.52 2 20.55		1H	23095	24.5	23.60	0	22.66	1	21.47	2
M 23095 24.5 23.66 0 22.77 1 21.68 23035 24.5 23.75 0 22.77 1 21.69 23155 24.5 23.50 0 22.60 1 21.63 1L 23095 24.5 23.54 0 22.64 1 21.58 23035 24.5 23.59 0 22.68 1 21.62 23155 24.5 22.62 1 21.50 2 20.49 12H 23095 24.5 22.62 1 21.58 2 20.51 23035 24.5 22.69 1 21.58 2 20.51 23035 24.5 22.74 1 21.61 2 20.51 23155 24.5 22.66 1 21.55 2 20.47 12M 23095 24.5 22.68 1 21.55 2 20.47 12M 23095 24.5 22.68 1 21.58 2 20.53 23035 24.5 22.66 1 21.55 2 20.47 23155 24.5 22.66 1 21.55 2 20.47 23035 24.5 22.66 1 21.55 2 20.47 23155 24.5 22.66 1 21.55 2 20.53 23035 24.5 22.64 1 21.52 2 20.55 12L 23095 24.5 22.64 1 21.52 2 20.55			23035	24.5	23.60	0	22.69	1	21.59	2
23035 24.5 23.75 0 22.77 1 21.69 1L 23155 24.5 23.50 0 22.60 1 21.63 1L 23095 24.5 23.54 0 22.64 1 21.58 23035 24.5 23.59 0 22.68 1 21.62 23155 24.5 22.62 1 21.50 2 20.49 23095 24.5 22.69 1 21.58 2 20.51 23035 24.5 22.74 1 21.61 2 20.51 23155 24.5 22.65 1 21.55 2 20.47 12M 23095 24.5 22.68 1 21.58 2 20.53 23035 24.5 22.68 1 21.58 2 20.53 23035 24.5 22.67 1 21.60 2 20.44 23155 24.5 22.64 1 21.52 2 20.55 12L 23095 24.5 22.64 1 21.54 2 20.54			23155	24.5	23.73	0	22.75	1	21.58	2
5MHz 23155 24.5 23.50 0 22.60 1 21.63		1M	23095	24.5	23.66	0	22.77	1	21.68	2
5MHz		L	23035	24.5	23.75	0	22.77	1	21.69	2
5MHz 23035 24.5 23.59 0 22.68 1 21.62 23155 24.5 22.62 1 21.50 2 20.49 12H 23095 24.5 22.69 1 21.58 2 20.51 23035 24.5 22.74 1 21.61 2 20.51 23155 24.5 22.65 1 21.55 2 20.47 12M 23095 24.5 22.68 1 21.58 2 20.53 23035 24.5 22.68 1 21.58 2 20.53 23035 24.5 22.67 1 21.60 2 20.44 23155 24.5 22.64 1 21.52 2 20.55 12L 23095 24.5 22.64 1 21.54 2 20.54			23155	24.5	23.50	0	22.60	1	21.63	2
5MHz 12H 23155 24.5 22.62 1 21.50 2 20.49 23095 24.5 22.69 1 21.58 2 20.51 23035 24.5 22.74 1 21.61 2 20.51 23155 24.5 22.65 1 21.55 2 20.47 12M 23095 24.5 22.68 1 21.58 2 20.53 23035 24.5 22.67 1 21.60 2 20.44 23155 24.5 22.64 1 21.52 2 20.55 12L 23095 24.5 22.64 1 21.52 2 20.54		1L	23095	24.5	23.54	0	22.64	1	21.58	2
5MHz 12H 23095 24.5 22.69 1 21.58 2 20.51 23035 24.5 22.74 1 21.61 2 20.51 23155 24.5 22.65 1 21.55 2 20.47 12M 23095 24.5 22.68 1 21.58 2 20.53 23035 24.5 22.67 1 21.60 2 20.44 23155 24.5 22.64 1 21.52 2 20.55 12L 23095 24.5 22.64 1 21.54 2 20.54			23035	24.5	23.59	0	22.68	1	21.62	2
23035 24.5 22.74 1 21.61 2 20.51 23155 24.5 22.65 1 21.55 2 20.47 12M 23095 24.5 22.68 1 21.58 2 20.53 23035 24.5 22.67 1 21.60 2 20.44 23155 24.5 22.64 1 21.52 2 20.55 12L 23095 24.5 22.64 1 21.54 2 20.54				24.5			21.50		20.49	3
12M 23155 24.5 22.65 1 21.55 2 20.47 12M 23095 24.5 22.68 1 21.58 2 20.53 23035 24.5 22.67 1 21.60 2 20.44 23155 24.5 22.64 1 21.52 2 20.55 12L 23095 24.5 22.64 1 21.54 2 20.54	5MHz	12H					21.58		1	3
12M 23095 24.5 22.68 1 21.58 2 20.53 23035 24.5 22.67 1 21.60 2 20.44 23155 24.5 22.64 1 21.52 2 20.55 12L 23095 24.5 22.64 1 21.54 2 20.54		<u> </u>			.		1		20.51	3
23035 24.5 22.67 1 21.60 2 20.44 23155 24.5 22.64 1 21.52 2 20.55 12L 23095 24.5 22.64 1 21.54 2 20.54					 					3
23155 24.5 22.64 1 21.52 2 20.55 12L 23095 24.5 22.64 1 21.54 2 20.54		12M								3
12L 23095 24.5 22.64 1 21.54 2 20.54		<u> </u>			 					3
										3
23035 24.5 22.62 1 21.52 2 20.51		12L								3
0045-										3
23155 24.5 22.65 1 21.52 2 20.53										3
25		25								3



No. I19Z62348-SEM03 Page 42 of 324

		23130	24.5	23.57	0	22.62	1	21.50	2
	1H	23095	24.5	23.58	0	22.64	1	21.51	2
		23060	24.5	23.63	0	22.69	1	21.58	2
		23130	24.5	23.63	0	22.66	1	21.64	2
	1M	23095	24.5	23.64	0	22.69	1	21.65	2
		23060	24.5	23.65	0	22.66	1	21.67	2
		23130	24.5	23.46	0	22.55	1	21.63	2
	1L	23095	24.5	23.48	0	22.57	1	21.64	2
		23060	24.5	23.56	0	22.63	1	21.68	2
		23130	24.5	22.72	1	21.58	2	20.47	3
10MHz	25H	23095	24.5	22.70	1	21.59	2	20.52	3
		23060	24.5	22.75	1	21.64	2	20.55	3
		23130	24.5	22.65	1	21.54	2	20.50	3
	25M	23095	24.5	22.65	1	21.54	2	20.50	3
		23060	24.5	22.67	1	21.55	2	20.49	3
		23130	24.5	22.64	1	21.54	2	20.52	3
	25L	23095	24.5	22.66	1	21.58	2	20.58	3
		23060	24.5	22.59	1	21.50	2	20.49	3
		23130	24.5	22.67	1	21.54	2	20.49	3
	50	23095	24.5	22.68	1	21.56	2	20.53	3
		23060	24.5	22.69	1	21.56	2	20.53	3



Table 11-15 LTE700-FDD14 #1

		LTE	700-FDD14#	‡1					
				Ме	asured Pow	er (dBm) & MI	P R		
				QP	S K	16Q	A M	64Q	A M
BandW idth	RB No./S tart	C hannel	Tune-up	M easured Power	MPR	M easured Power	MPR	M easured Power	MPR
		23355	24.5	23.24	0	22.34	1	21.23	2
	1H	23330	24.5	23.29	0	22.37	1	21.30	2
		23305	24.5	23.26	0	22.35	1	21.30	2
		23355	24.5	23.41	0	22.53	1	21.45	2
	1 M	23330	24.5	23.47	0	22.53	1	21.50	2
		23305	24.5	23.42	0	22.49	1	21.47	2
		23355	24.5	23.29	0	22.40	1	21.34	2
	1L	23330	24.5	23.26	0	22.35	1	21.35	2
		23305	24.5	23.26	0	22.30	1	21.37	2
		23355	24.5	22.28	1	21.24	2	20.34	3
5M H z	12H	23330	24.5	22.32	1	21.33	2	20.39	3
		23305	24.5	22.29	1	21.27	2	20.33	3
		23355	24.5	22.33	1	21.31	2	20.37	3
	12M	23330	24.5	22.33	1	21.33	2	20.38	3
		23305	24.5	22.35	1	21.33	2	20.40	3
		23355	24.5	22.31	1	21.30	2	20.39	3
	12L	23330	24.5	22.34	1	21.35	2	20.43	3
		23305	24.5	22.33	1	21.32	2	20.38	3
		23355	24.5	22.33	1	21.28	2	20.33	3
	25	23330	24.5	22.38	1	21.37	2	20.39	3
		23305	24.5	22.37	1	21.32	2	20.34	3
	1H	23330	24.5	23.28	0	22.29	1	21.25	2
	1 M	23330	24.5	23.37	0	22.51	1	21.44	2
	1L	23330	24.5	23.28	0	22.32	1	21.36	2
10M H z	25Н	23330	24.5	22.43	1	21.37	2	20.41	3
	25M	23330	24.5	22.37	1	21.32	2	20.37	3
	25L	23330	24.5	22.50	1	21.43	2	20.47	3
	50	23330	24.5	22.47	1	21.40	2	20.43	3



Table 11-16 LTE2300-FDD30 #1 AP OFF

		LTE 2300-	FDD30#1A	P O FF					
				Ме	asured Pow	er(dBm)&MI	P R	1	
				QPSK		16Q	A M	64Q A M	
BandW idth	RBNo./Start	C hannel	Tune-up	M easured Power	MPR	M easured Power	MPR	M easured Power	MPR
		27735	24	23.14	0	22.21	1	20.97	2
	1H	27710	24	23.08	0	22.02	1	20.96	2
		27685	24	23.08	0	21.74	1	20.99	2
		27735	24	23.22	0	21.87	1	21.10	2
	1 M	27710	24	23.18	0	21.83	1	21.11	2
		27685	24	23.03	0	21.78	1	21.09	2
		27735	24	22.68	0	21.75	1	21.00	2
	1L	27710	24	22.70	0	21.73	1	20.99	2
		27685	24	22.55	0	21.72	1	21.03	2
		27735	24	21.67	1	20.62	2	19.88	3
5M H z	12H	27710	24	21.71	1	20.65	2	19.90	3
		27685	24	21.63	1	20.60	2	19.89	3
		27735	24	21.71	1	20.71	2	19.91	3
	12M	27710	24	21.69	1	20.68	2	19.92	3
		27685	24	21.67	1	20.64	2	19.89	3
		27735	24	21.71	1	20.68	2	19.90	3
	12L	27710	24	21.71	1	20.69	2	19.95	3
		27685	24	21.67	1	20.62	2	19.92	3
		27735	24	21.73	1	20.68	2	19.88	3
	25	27710	24	21.71	1	20.69	2	19.89	3
		27685	24	21.68	1	20.65	2	19.85	3
	1H	27710	24	22.67	0	21.84	1	21.00	2
	1 M	27710	24	22.69	0	21.87	1	21.08	2
	1L	27710	24	22.60	0	21.75	1	21.06	2
10M H z	25H	27710	24	21.69	1	20.65	2	19.86	3
	25M	27710	24	21.74	1	20.69	2	19.91	3
	25L	27710	24	21.71	1	20.67	2	19.92	3
	50	27710	24	21.70	1	20.66	2	19.91	3



Table 11-17 LTE2300-FDD30 #2 AP ON

		LTE 2300	-FDD30#2A	PON					
				Ме	asured Pow	er (dBm) & MI	P R	1	
				Q P	SK	16Q A M		64Q	A M
BandW idth	RBNo./Start	Channel	Tune-up	M easured Power	MPR	M easured Power	MPR	M easured Power	MPR
		27735	21.5	20.90	0	20.06	1	18.86	2
	1H	27710	21.5	20.89	0	20.02	1	18.81	2
		27685	21.5	20.90	0	20.37	1	18.84	2
		27735	21.5	20.96	0	20.10	1	18.90	2
	1 M	27710	21.5	20.98	0	20.10	1	18.90	2
		27685	21.5	20.97	0	20.35	1	18.92	2
		27735	21.5	20.85	0	19.97	1	18.86	2
	1L	27710	21.5	20.85	0	20.00	1	18.83	2
		27685	21.5	20.91	0	20.31	1	18.81	2
		27735	21.5	19.82	1	18.88	2	17.80	3
5M H z	12H	27710	21.5	19.83	1	18.90	2	17.80	3
		27685	21.5	19.79	1	18.91	2	17.78	3
		27735	21.5	19.88	1	18.90	2	17.82	3
	12M	27710	21.5	19.84	1	18.92	2	17.84	3
		27685	21.5	19.81	1	18.94	2	17.79	3
		27735	21.5	19.86	1	18.90	2	17.85	3
	12L	27710	21.5	19.87	1	18.98	2	17.89	3
		27685	21.5	19.81	1	18.93	2	17.81	3
		27735	21.5	19.87	1	18.78	2	17.79	3
	25	27710	21.5	19.85	1	18.84	2	17.80	3
		27685	21.5	19.84	1	18.85	2	17.77	3
	1H	27710	21.5	20.93	0	19.83	1	18.88	2
	1 M	27710	21.5	20.90	0	19.93	1	18.95	2
	1L	27710	21.5	20.82	0	19.74	1	18.92	2
10M H z	25H	27710	21.5	19.92	1	18.85	2	17.80	3
	25M	27710	21.5	19.87	1	18.86	2	17.80	3
	25L	27710	21.5	19.86	1	18.83	2	17.83	3
	50	27710	21.5	19.85	1	18.83	2	17.82	3



11.4 Wi-Fi and BT Measurement result

The maximum power of BT is 6dBm and the maximum tune up is 8dBm.

The average conducted power for Wi-Fi is as following:

Table 11-18 WLAN2450 #1

)d	Mad	WLAN2		Data Data	Tues	Magazza
Band	Mode	Channel	Frequence	Data Rate	Tune-up	Measured
		11	2462 MHz	E EN45	20.00	19.70
		6	2437 MHz	5.5Mbps	20.50	20.29
		1	2412 MHz		20.00	19.60
		11	2462 MHz	Oldbara	/	10.00
		6	2437 MHz	2Mbps	20.50	19.93
	802.11b	1	2412 MHz		/	10.10
		11	2462 MHz	4Mbma	20.00	19.40
		6	2437 MHz	1Mbps	20.50	19.91
		1	2412 MHz		20.00	19.36
		11	2462 MHz	ddMhna	7	10.00
		6	2437 MHz	11Mbps	20.50	19.80
		1	2412 MHz		10.50	40.70
		11	2462 MHz	CMbma	19.50	18.72
		6	2437 MHz	6Mbps	19.50	19.07
		1	2412 MHz		19.50	18.78
		11	2462 MHz	0145	/	10.05
		6	2437 MHz	9Mbps	19.00	18.85
		1	2412 MHz		/	/
		11	2462 MHz	4011	/	/
		6	2437 MHz	12Mbps	19.00	18.14
		1	2412 MHz		/	/
		11	2462 MHz		/	/
		6	2437 MHz	18Mbps	19.00	18.20
	802.11g	1	2412 MHz		/	/
		11	2462 MHz		/	/
		6	2437 MHz	24Mbps	18.00	16.93
		1	2412 MHz		/	/
		11	2462 MHz		/	/
		6	2437 MHz	36Mbps	18.00	16.90
WLAN 2.4G		1	2412 MHz		/	/
20M		11	2462 MHz		/	/
		6	2437 MHz	48Mbps	18.00	16.92
		1	2412 MHz		/	/
		11	2462 MHz		1	1
		6	2437 MHz	54Mbps	18.00	17.11
		1	2412 MHz		/	/
		11	2462 MHz		19.50	18.64
		6	2437 MHz	MCS0	19.50	18.79
		1	2412 MHz		19.50	18.51
		11	2462 MHz		/	/
		6	2437 MHz	MCS1	19.00	18.31
		1	2412 MHz		/	/
		11	2462 MHz		1	1
		6	2437 MHz	MCS2	19.00	18.45
		1	2412 MHz	1	/	1
		11	2462 MHz		/	1
		6	2437 MHz	MCS3	18.00	16.97
	802.11n	1	2412 MHz		/	1
	20M	11	2462 MHz		1	1
	20111	6	2437 MHz	MCS4	18.00	16.94
		1	2412 MHz	55	/	/
		11	2462 MHz		1	1
	- 1	6	2437 MHz	MCS5	18.00	16.93
	- 1	1		MOOO	/	/ /
			2412 MHz			
		11	2462 MHz	MCSS	10.00	16.40
		6	2437 MHz	MCS6	18.00	16.49
		1	2412 MHz		/	/
		11	2462 MHz		/	/
	1	6	2437 MHz	MCS7	17.00	15.89



		1	2412 MHz		/	/
		9	2452 MHz		/	/
		6	2437 MHz	MCS0	/	/
		3	2422 MHz		/	/
		9	2452 MHz		/	/
		6	2437 MHz	MCS1	/	/
		3	2422 MHz		/	/
		9	2452 MHz		/	/
		6	2437 MHz	MCS2	/	/
		3	2422 MHz		/	/
		9	2452 MHz		/	/
		6	2437 MHz	MCS3	/	/
WLAN 2.4G	802.11n	3	2422 MHz		/	/
40M	40M	9	2452 MHz		/	/
		6	2437 MHz	MCS4	/	/
		3	2422 MHz		/	/
		9	2452 MHz		/	/
		6	2437 MHz	MCS5	/	/
		3	2422 MHz		/	/
		9	2452 MHz		/	/
		6	2437 MHz	MCS6	/	/
	1 [3	2422 MHz		/	/
		9	2452 MHz		/	/
		6	2437 MHz	MCS7	/	/
	1	3	2422 MHz		/	/



12 Simultaneous TX SAR Considerations

12.1 Introduction

The following procedures adopted from "FCC SAR Considerations for Cell Phones with Multiple Transmitters" are applicable to handsets with built-in unlicensed transmitters such as 802.11 a/b/g and Bluetooth devices which may simultaneously transmit with the licensed transmitter. For this device, the BT and Wi-Fi can transmit simultaneous with other transmitters.

12.2 Transmit Antenna Separation Distances





Picture 12.1 Antenna Locations



12.3 SAR Measurement Positions

According to the KDB941225 D06 Hot Spot SAR v02r01, the edges with less than 2.5 cm distance to the antennas need to be tested for SAR.

SAR measurement positions										
Mode Front Rear Left edge Right edge Top edge Bottom edge										
Main antenna Yes Yes Yes No Yes										
WiFi Yes Yes No Yes Yes No										

12.4 Standalone SAR Test Exclusion Considerations

Standalone 1-g head or body SAR evaluation by measurement or numerical simulation is not required when the corresponding SAR Exclusion Threshold condition, listed below, is satisfied. The 1-g SAR test exclusion threshold for 100 MHz to 6 GHz at test separation distances ≤ 50 mm are determined by:

[(max. power of channel, including tune-up tolerance, mW) / (min. test separation distance, mm)] $\cdot [\sqrt{f(GHz)}] \le 3.0$ for 1-g SAR, where

- f(GHz) is the RF channel transmit frequency in GHz
- Power and distance are rounded to the nearest mW and mm before calculation
- The result is rounded to one decimal place for comparison

Table 12.1: Standalone SAR test exclusion considerations

			SAR test	RF outpo	ut power		
Band/Mode	F(GHz)	Position	exclusion threshold (mW)	dBm	mW	SAR test exclusion	
Bluetooth	2.441	Head	9.6	8	6.31	Yes	
Didelootii		Body	19.2	8	6.31	Yes	
2.4GHz WLAN 802.11 b	2.45	Head	9.58	20.5	112.20	No	
Z.4GHZ WLAN 00Z.11 D	2.40	Body	19.17	20.5	112.20	No	



13 Evaluation of Simultaneous

Table 13.1: The sum of reported SAR values for main antenna and WiFi

	Position	Main antenna	WLAN 2.4G	Sum	Distance (mm)	Ratio
	Left hand, Touch cheek (WCDMA850)	0.54	1.28	1.82	67.81	0.04
Maximum reported SAR value for Head	Left hand, Touch cheek (LTE Band5)	0.36	1.28	1.64	73.56	0.03
	Left hand, Touch cheek (LTE Band14)	0.42	1.28	1.70	73.02	0.03
Highest reported SAR value for Body 10mm	Rear (LTE Band4)	1.17	0.34	1.51	1	1
Highest reported SAR value for Body 10mm	llue for Body (LTE Band4)		0.34 (10mm)	1.54	1	1

According to the KDB 447498 D01, when the sum of SAR is larger than the limit, SAR test exclusion is determined by the SAR to peak location separation ratio. The ratio is determined by $(SAR1 + SAR2)^{1.5}/Ri$, rounded to two decimal digits, and must be ≤ 0.04 for all antenna pairs in the configuration to qualify for 1-g SAR test exclusion.

Table 13.2: The sum of reported SAR values for main antenna and BT

	Position	Main antenna	ВТ	Sum	
Maximum reported	Left hand, Touch cheek	0.54	0.26	0.80	
SAR value for Head	(WCDMA 850)	0.54	0.20	0.00	
Maximum reported	Rear	1.20	0.13	1.33	
SAR value for Body	(LTE Band4)	1.20	0.13	1.33	

[1] - Estimated SAR for Bluetooth (see the table 13.3)



Table 13.3: Estimated SAR for Bluetooth

Mode/Band	F (GHz)	Position	Distance	Upper limit	Estimated _{1g}	
	r (GHZ)	Position	(mm)	dBm	mW	(W/kg)
Bluetooth	2.441	Head	5	8	6.31	0.26
Bluetooth	2.441	Body	10	8	6.31	0.13

* - Maximum possible output power declared by manufacturer

When standalone SAR test exclusion applies to an antenna that transmits simultaneously with other antennas, the standalone SAR must be estimated according to following to determine simultaneous transmission SAR test exclusion:

(max. power of channel, including tune-up tolerance, mW)/(min. test separation distance, mm)]·[$\sqrt{f(GHz)/x}$] W/kg for test separation distances \leq 50 mm;

where x = 7.5 for 1-g SAR.

When the minimum test separation distance is < 5 mm, a distance of 5 mm is applied to determine SAR test exclusion

Conclusion:

According to the above tables, the sum of reported SAR values is<1.6W/kg. So the simultaneous transmission SAR with volume scans is not required.



14 SAR Test Result

It is determined by user manual for the distance between the EUT and the phantom bottom. The distance is 10/15 mm and just applied to the condition of body worn accessory. It is performed for all SAR measurements with area scan based 1-g SAR estimation (Fast SAR). A zoom scan measurement is added when the estimated 1-g SAR is the highest measured SAR in each exposure configuration, wireless mode and frequency band combination or more than 1.2W/kg.

The calculated SAR is obtained by the following formula:

Reported SAR = Measured SAR
$$\times 10^{(P_{Target} - P_{Measured})/10}$$

Where P_{Target} is the power of manufacturing upper limit;

P_{Measured} is the measured power in chapter 11.

Mode	Duty Cycle
Speech for GSM850/1900	1:8.3
GPRS&EGPRS for GSM850/1900	1:2
WCDMA<E	1:1

14.1 SAR results

Table 14-1 GSM850 #1 Head

			GS	M850 #1 Hea	d						
Ambient T	emperature:		22.	5		Liquid Ter	mperature:	22.3			
	Device	SAR		sured SAR [orted SAR [V				
Mode	orientation	measurement	CH251	CH190	CH128	CH251	CH190	CH128			
	Offeritation	measurement	848.8 MHz	836.6 MHz	824.2 MHz	848.8 MHz	836.6 MHz	824.2 MHz			
	Tur	ne-up	33.20	33.20	33.20	9	Scaling factor	.*			
	Slot Average	e Power [dBm]	32.04	32.09	32.03	1.31	1.29	1.31			
		1g SAR	0.11	0.133	0.131	0.14	0.17	0.17			
	Left Cheek	10g SAR	0.084	0.101	0.099	0.11	0.13	0.13			
		Deviation	-0.04	0.08	0.06	-0.04	0.08	0.06			
		1g SAR		0.093			0.12				
GSM	Left Tilt	10g SAR		0.072			0.09				
GSIVI		Deviation		0.11			0.11				
		1g SAR		0.121			0.16				
	Right Cheek	10g SAR		0.09			0.12				
		Deviation		0.14			0.14				
		1g SAR		0.085			0.11				
	Right Tilt	10g SAR		0.065			0.08				
		Deviation		0.09			0.09				



Table 14-2 GSM850 #1 Body

			GS	M850 #1 Body	/			
Ambient Te	emperature:	22.5				Liquid Ter	mperature:	22.3
Mode	Device	SAR measurement	CH251	Sured SAR [\ CH190	CH128	CH251	orted SAR [V CH190	CH128
				836.6 MHz				
		ne-up	32.00 30.81	32.00 30.89	32.00 30.87	1.32	Scaling factor	1.30
	Slot Average	e Power [dBm]	30.81		30.87	1.32		1.30
		1g SAR		0.281			0.36	
	Front	10g SAR		0.213			0.27	
		Deviation		-0.11			-0.11	
		1g SAR	0.409	0.416	0.477	0.54	0.54	0.62
	Rear	10g SAR	0.318	0.322	0.375	0.42	0.42	0.49
GPRS 2		Deviation	0.08	-0.01	-0.01	0.08	-0.01	-0.01
Txslots		1g SAR		0.24			0.31	
I ASIOLS	Left edge	10g SAR		0.169			0.22	
	, i	Deviation		-0.06			-0.06	
		1g SAR		0.295			0.38	
	Right edge	10g SAR		0.206			0.27	
		Deviation		0.07			0.07	
		1g SAR		0.109			0.14	
	Bottom edge	10g SAR		0.07			0.09	
		Deviation		-0.07			-0.07	
	Tune-up		32.00	32.00	32.00		Scaling factor	*
EGPRS	Slot Average	e Power [dBm]	30.81	30.88	30.85	1.31	1.30	1.30
GMSK 2		1g SAR			0.472			0.61
Txslots	Rear	10g SAR			0.371			0.48
		Deviation			0.04			0.04

Table 14-3 PCS1900 #1 Head

1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1										
			PCS19	00 #1 AP OFF	Head					
Ambient Te	emperature:		22.	5		Liquid Ter	mperature:	22.3		
	Device	SAR		sured SAR [\			orted SAR [\			
Mode			CH810	CH661	CH512	CH810	CH661	CH512		
	orientation	measurement	1909.8	1880 MHz	1850.2	1909.8	1880 MHz	1850.2		
	Tur	ne-up	30.00	30.00	30.00		Scaling factor	*		
	Slot Average	e Power [dBm]	28.38	28.37	28.21	1.45	1.45	1.51		
		1g SAR		0.069			0.10			
	Left Cheek	10g SAR		0.06			0.09			
		Deviation		-0.03			-0.03			
	Left Tilt	1g SAR		<0.01			<0.01			
GSM		10g SAR		<0.01			<0.01			
GSM		Deviation		0.03			0.03			
		1g SAR	0.131	0.148	0.124	0.19	0.22	0.19		
	Right Cheek	10g SAR	0.091	0.095	0.086	0.13	0.14	0.13		
		Deviation	-0.07	0.09	0.08	-0.07	0.09	0.08		
		1g SAR		<0.01			<0.01			
	Right Tilt	10g SAR		<0.01			<0.01			
		Deviation		0.11			0.11			



Table 14-4 PCS1900 #1 AP OFF Body

	PCS1900 #1 AP OFF Body										
Ambient Te	emperature:	22.5				Liquid Ter	mperature:	22.3			
	Device	SAR		sured SAR [\			orted SAR [V				
Mode	orientation	measurement	CH810	CH661	CH512	CH810	CH661	CH512			
	onentation	measurement	1909.8	1880 MHz	1850.2	1909.8	1880 MHz	1850.2			
	Tui	ne-up	28.00	28.00	28.00	Ç	Scaling factor	.*			
	Slot Average	e Power [dBm]	27.20	26.97	26.81	1.20	1.27	1.32			
		1g SAR		0.423			0.54				
GPRS 2	Front 15mm	10g SAR		0.254			0.32				
Txslots		Deviation		0.03			0.03				
		1g SAR	0.687	0.651	0.663	0.83	0.83	0.87			
	Rear 15mm	10g SAR	0.391	0.384	0.378	0.47	0.49	0.50			
		Deviation	0.12	0.04	0.11	0.12	0.04	0.11			
	Tui	ne-up	28.00	28.00	28.00		Scaling factor	.*			
EGPRS	Slot Average	e Power [dBm]	27.19	26.95	26.79	1.20	1.27	1.32			
GMSK 2		1g SAR	0.665			0.80					
Txslots	Rear 15mm	10g SAR	0.386			0.46					
		Deviation	-0.01			-0.01					

Table 14-5 PCS1900 #2 AP ON Body

			PCS19	000 #2 AP ON	Body			
Ambient Te	emperature:	22.5				Liquid Ter	mperature:	22.3
	Device	SAR		sured SAR [\	N/kg]		orted SAR [V	V/kg]
Mode		measurement	CH810	CH661	CH512	CH810	CH661	CH512
			1909.8	1880 MHz	1850.2	1909.8	1880 MHz	1850.2
	Tun		22.50	22.50	22.50		Scaling factor	
	Slot Average	e Power [dBm]	21.80	21.50	21.41	1.17	1.26	1.29
		1g SAR		0.373			0.47	
	Front	10g SAR		0.197			0.25	
		Deviation		0.08			0.08	
		1g SAR		0.603			0.76	
	Rear	10g SAR		0.303			0.38	
GPRS 2		Deviation		0.04			0.04	
Txslots		1g SAR		0.035			0.04	
17101010	Left edge	10g SAR		0.019			0.02	
		Deviation		0.06			0.06	
		1g SAR		0.063			0.08	
	Right edge	10g SAR		0.039			0.05	
		Deviation		0.03			0.03	
		1g SAR	0.695	0.671	0.619	0.82	0.84	0.80
	Bottom edge	10g SAR	0.364	0.35	0.325	0.43	0.44	0.42
		Deviation	0.09	0.07	0.13	0.09	0.07	0.13
	Tune-up		22.50	22.50	22.50		Scaling factor	*
EGPRS	Slot Average	e Power [dBm]	21.81	21.70	21.52	1.17	1.20	1.25
GMSK 2		1g SAR	0.689			0.81		
Txslots	Bottom edge	10g SAR	0.368			0.43		
		Deviation	0.04			0.04		



Table 14-6 WCDMA1900-BII #1 Head

	WCDMA1900-BII #1 AP OFFHead										
Ambient Te	emperature:	22.5				Liquid Ten	22.3				
	Device	SAR		sured SAR [V			orted SAR [V				
Mode	orientation	measurement	CH9538	CH9400	CH9262	CH9538	CH9400	CH9262			
			1907.6 MHz		1852.4 MHz						
	Tun	ie-up	23.20	23.20	23.20		Scaling factor	*			
	Slot Average	Power [dBm]	22.04	22.06	22.02	1.31	1.30	1.31			
		1g SAR		0.099			0.13				
	Left Cheek	10g SAR		0.069			0.09				
		Deviation		0.11			0.11				
	Left Tilt	1g SAR		0.051			0.07				
RMC		10g SAR		0.033			0.04				
KWC		Deviation		0.04			0.04				
		1g SAR	0.172	0.142	0.162	0.22	0.18	0.21			
	Right Cheek	10g SAR	0.106	0.086	0.1	0.14	0.11	0.13			
		Deviation	0.08	-0.01	-0.03	0.08	-0.01	-0.03			
	Right Tilt	1g SAR		0.048			0.06				
		10g SAR		0.03			0.04				
		Deviation		-0.02			-0.02				

Table 14-7 WCDMA1900-BII #1 AP OFF Body

	WCDMA1900-BII #1 AP OFFBody										
Ambient Te	emperature:	22.5				Liquid Ten	mperature:	22.3			
	Device	SAR		sured SAR [V			orted SAR [W				
Mode	orientation	measurement	CH9538	CH9400	CH9262	CH9538	CH9400	CH9262			
	Orientation	measurement	1907.6 MHz	1880 MHz	1852.4 MHz	1907.6 MHz	1880 MHz	1852.4 MHz			
	Tune-up		23.20	23.20	23.20	Scaling factor*					
	Slot Average Power [dBm]		22.04	22.06	22.02	1.31	1.30	1.31			
		1g SAR		0.348			0.45				
RMC	Front 15mm	10g SAR		0.204			0.27				
RIVIC		Deviation		0.08			0.08				
	Rear 15mm	1g SAR	0.521	0.602	0.719	0.68	0.78	0.94			
		10g SAR	0.298	0.342	0.407	0.39	0.44	0.53			
		Deviation	0.12	0.02	0.1	0.12	0.02	0.10			

Table 14-8 WCDMA1900-BII #2 AP ON Body

			WCDMA	1900-BII #2 AP	ONBody			
Ambient T	emperature:	22.5				Liquid Ter	mperature:	22.3
	Device	SAR		sured SAR [V			orted SAR [W	
Mode	orientation	measurement	CH9538	CH9400	CH9262	CH9538	CH9400	CH9262
			1907.6 MHz		1852.4 MHz		1880 MHz Scaling factor	1852.4 MHz
	Tune-up Slot Average Power [dBm]		20.20 18.93	20.20 18.95	20.20 18.92	1.34	1.33	1.34
	Siot / Wcrage		10.55	0.346	10.52	1.0-1	0.46	
	Front	1g SAR						
		10g SAR		0.193			0.26	
		Deviation		0.06			0.06	
		1g SAR	0.621	0.634	0.676	0.83	0.85	0.91
	Rear	10g SAR	0.311	0.334	0.365	0.42	0.45	0.49
		Deviation	-0.09	0.09	0.08	-0.09	0.09	0.08
RMC		1g SAR		0.028			0.04	
	Left edge	10g SAR		0.019			0.03	
		Deviation		0.13			0.13	
		1g SAR		0.052			0.07	
	Right edge	10g SAR		0.033			0.04	
		Deviation		0.1			0.10	
		1g SAR	0.707	0.802	0.933	0.95	1.07	1.25
	Bottom edge	10g SAR	0.385	0.432	0.496	0.52	0.58	0.67
		Deviation	0.03	-0.09	-0.17	0.03	-0.09	-0.17



Table 14-9 WCDMA1700-BIV #1 Head

			WCDMA1	700-BIV #1 AP	OFFHead			
Ambient Te	emperature:	22.5				Liquid Ter	mperature:	22.3
	Device	SAR		sured SAR [V			V/kg]	
Mode	orientation	measurement	CH1513	CH1412	CH1312	CH1513	CH1412	CH1312
			1752.6 MHz					1712.4 MHz
	Tun	ie-up	22.50	22.50	22.50		Scaling factor	*
	Slot Average	Power [dBm]	21.39	21.40	21.43	1.29	1.29	1.28
	Left Cheek	1g SAR		0.091			0.12	
		10g SAR		0.058			0.07	
		Deviation		0.03			0.03	
		1g SAR		<0.01			<0.01	
RMC	Left Tilt	10g SAR		<0.01			<0.01	
KIVIC		Deviation		0.07			0.07	
		1g SAR	0.135	0.125	0.121	0.17	0.16	0.15
	Right Cheek	10g SAR	0.086	0.08	0.078	0.11	0.10	0.10
		Deviation	0	0.12	0.11	0.00	0.12	0.11
		1g SAR		<0.01			<0.01	
	Right Tilt	10g SAR		<0.01			<0.01	
		Deviation		0.12			0.12	

Table 14-10 WCDMA1700-BIV #1 AP OFF Body

	WCDMA1700-BIV #1 AP OFFBody									
Ambient Te	emperature:	22.5				Liquid Ter	mperature:	22.3		
	Device	SAR	Measured SAR [W/kg]			Reported SAR [W/kg]				
Mode	orientation	measurement	CH1513	CH1412	CH1312	CH1513	CH1412	CH1312		
	Offeritation	measurement	1752.6 MHz	1732.4 MHz	1712.4 MHz	1752.6 MHz	1732.4 MHz	1712.4 MHz		
	Tun	ie-up	22.50	22.50	22.50		Scaling factor	•		
	Slot Average	Power [dBm]	21.39	21.40	21.43	1.29 1.29 1.28				
		1g SAR		0.41			0.53			
RMC	Front 15mm	10g SAR		0.243			0.31			
RIVIC		Deviation		0.05			0.05			
		1g SAR	0.775	0.748	0.667	1.00	0.96	0.85		
	Rear 15mm	10g SAR	0.443	0.426	0.379	0.57	0.55	0.48		
		Deviation	0.02	0.07	0.12	0.02	0.07	0.12		

Table 14-11 WCDMA1700-BIV #2 AP ON Body

	WCDMA1700-BIV #2 AP ONBody									
			WCDMA1	1700-BIV #2 AP	ONBody					
Ambient T	emperature:	22.5				Liquid Ter	mperature:	22.3		
	Device	SAR		sured SAR [V			orted SAR [W			
Mode	orientation	measurement	CH1513	CH1412	CH1312	CH1513	CH1412	CH1312		
							1732.4 MHz			
		ne-up	20.00	20.00	20.00		Scaling factor			
	Slot Average	Power [dBm]	19.28	19.28	19.31	1.18	1.18	1.17		
		1g SAR		0.491			0.58			
	Front	10g SAR		0.275			0.32			
		Deviation		0.03			0.03			
		1g SAR	0.878	0.844	0.712	1.04	1.00	0.83		
	Rear	10g SAR	0.463	0.452	0.387	0.55	0.53	0.45		
		Deviation	-0.01	0.09	-0.04	-0.01	0.09	-0.04		
RMC		1g SAR		0.049			0.06			
	Left edge	10g SAR		0.033			0.04			
		Deviation		0.05			0.05			
		1g SAR		0.039			0.05			
	Right edge	10g SAR		0.025			0.03			
		Deviation		0.04			0.04			
		1g SAR	0.946	0.876	0.758	1.12	1.03	0.89		
	Bottom edge	10g SAR	0.5	0.46	0.399	0.59	0.54	0.47		
		Deviation	-0.13	0.05	0.01	-0.13	0.05	0.01		



Table 14-12 WCDMA850-BV #1 Head

			WCD	MA850-BV #1F	lead			
Ambient Te	emperature:	22.5				Liquid Ter	mperature:	22.3
Mode	Device orientation	SAR measurement	CH4233	Sured SAR [V CH4183	CH4132	CH4233	Orted SAR [V	CH4132
	Tune-up		846.6 MHz 25.50	836.6 MHz 25.50	826.4 MHz 25.50		836.6 MHz Scaling factor	
	Slot Average	Power [dBm]	24.32	24.34	24.28	1.31	1.31	1.32
	Left Cheek	1g SAR	0.409	0.416	0.402	0.54	0.54	0.53
		10g SAR	0.317	0.323	0.311	0.42	0.42	0.41
		Deviation	0.03	0.02	0.06	0.03	0.02	0.06
		1g SAR		0.238			0.31	
RMC	Left Tilt	10g SAR		0.186			0.24	
RIVIC		Deviation		0.11			0.11	
		1g SAR		0.332			0.43	
	Right Cheek	10g SAR		0.25			0.33	
		Deviation		-0.03			-0.03	
		1g SAR		0.21			0.27	
	Right Tilt	10g SAR		0.163			0.21	
		Deviation		0.04			0.04	

Table 14-13 WCDMA850-BV #1 Body

	WCDMA850-BV #1Body									
Ambient To	emperature:	22.5				Liquid Ter	mperature:	22.3		
	Device	SAR		sured SAR [V			orted SAR [W			
Mode		measurement	CH4233	CH4183	CH4132	CH4233	CH4183	CH4132		
			846.6 MHz			846.6 MHz				
	Tune-up Slot Average Power [dBm]		25.50	25.50	25.50		Scaling factor			
	Slot Average		24.32	24.34	24.28	1.31	1.31	1.32		
		1g SAR		0.378			0.49			
	Front	10g SAR		0.3			0.39			
		Deviation		-0.04			-0.04			
		1g SAR	0.456	0.5	0.528	0.60	0.65	0.70		
	Rear	10g SAR	0.363	0.393	0.416	0.48	0.51	0.55		
		Deviation	0	-0.01	-0.03	0.00	-0.01	-0.03		
RMC		1g SAR		0.37			0.48			
	Left edge	10g SAR		0.262			0.34			
		Deviation		-0.06			-0.06			
		1g SAR		0.356			0.46			
	Right edge	10g SAR		0.253			0.33			
		Deviation		0.08			0.08			
		1g SAR		0.176			0.23			
	Bottom edge	10g SAR		0.113			0.15			
		Deviation		0.03			0.03			



Table 14-14 LTE1900-FDD2 #1 Head

				1900-FDD2#1				
Ambient Te	emperature:	22.5				Liquid Te	mperature:	22.3
	Davisa	SAR	Meas	sured SAR [\	V/kg]	Rep	orted SAR [\	N/kg]
Mode	Device	measureme	19100	18900	18700	19100	18900	18700
	orientation	nt	М	M	M	М	M	M
		e-up	24.00	24.00	24.00		Scaling factor	
	Measured F	Power [dBm]	23.61	23.60	23.60	1.09	1.10	1.10
		1g SAR	0.108			0.12		
	Left Cheek	10g SAR	0.074			0.08		
		Deviation	0.12			0.12		
		1g SAR	0.049			0.05		
20MHz	Left Tilt	10g SAR	0.033			0.04		
QPSK1RB		Deviation	-0.09			-0.09		
		1g SAR	0.209			0.23		
	Right Cheek	10g SAR	0.129			0.14		
-		Deviation	0.07			0.07		
		1g SAR	0.056			0.06		
	Right Tilt	10g SAR	0.039			0.04		
		Deviation	0.1			0.10		
		SAR	Meas	sured SAR [\	V/kg]	Rep	orted SAR [N/kg]
TRUE	Device	measureme	19100	18900	18700	19100	18900	18700
	orientation	nt	L	Н	М	L	Н	М
	Tun	e-up	23.00	23.00	23.00		Scaling factor	r*
	Measured F	Power [dBm]	22.67	22.70	22.64	1.08	1.07	1.09
		1g SAR		0.08			0.09	
	Left Cheek	10g SAR		0.058			0.06	
		Deviation		-0.08			-0.08	
		1g SAR		0.05			0.05	
20MHz	Left Tilt	10g SAR		0.035			0.04	
QPSK50%		Deviation		0.11			0.11	
RB		1g SAR		0.133			0.14	
	Right Cheek			0.089			0.10	
	_	Deviation		0.08			0.08	
		1g SAR		0.046			0.05	
	Right Tilt	10g SAR		0.031			0.03	
	J .	Deviation		0.01			0.01	



Table 14-15 LTE1900-FDD2 #1 AP OFF Body

			LTE1	900-FDD2 #1	Body	•				
Ambient Te	mperature:	22.5				Liquid Ter	mperature:	22.3		
		SAR	Meas	sured SAR [\	N/kg]	Reported SAR [W/kg]				
Mode	Device	measureme	19100	18900	18700	19100	18900	18700		
	orientation	nt	М	М	М	М	М	М		
	Tun	e-up	24.00	24.00	24.00		Scaling factor	.*		
	Measured F	Power [dBm]	23.61	23.60	23.60	1.09	1.10	1.10		
		1g SAR	0.443			0.48				
20MHz	Front 15mm	10g SAR	0.258			0.28				
QPSK1RB	QPSK1RB	Deviation	0.09			0.09				
		1g SAR	0.726			0.79				
	Rear 15mm	10g SAR	0.417			0.46				
		Deviation	0.04			0.04				
	Device	SAR	Meas	sured SAR [N/kg]	Rep	orted SAR [V	1.10		
Mode	orientation	measureme	19100	18900	18700	19100	18900	18700		
	onentation	nt	L	Н	М					
	Tun	e-up	23.00	23.00	23.00		Scaling factor	*		
	Measured F	Power [dBm]	22.67	22.70	22.64	1.08	1.07	1.09		
20MHz		1g SAR		0.385			0.41			
QPSK50%	Front 15mm	10g SAR		0.224			0.24			
RB		Deviation		-0.05			-0.05			
		1g SAR		0.593			0.64			
	Rear 15mm	10g SAR		0.336			0.36			
		Deviation		0.07			0.07			



Table 14-16 LTE1900-FDD2 #2 Body AP ON

			LTE1	900-FDD2 #2	Rody	AP ON		
Ambient Te	emperature:	22.5	LIEI	900-FDD2 #2	body	Liquid Ter	mperature:	22.3
Ambient re	emperature.	SAR	Moas	sured SAR [\	M/ka]		orted SAR [V	
Mode	Device	measureme	19100	18900	18700	19100	18900	18700
Wiode	orientation	nt	M	M	M	M	M	M
	Tun	e-up	20.00	20.00	20.00		Scaling factor	
		Power [dBm]	19.35	19.22	19.20	1.16	1.20	1.20
	Measured F			19.22	19.20		1.20	1.20
	Front	1g SAR	0.376			0.44		
	TTOTIC	10g SAR	0.231 -0.05			0.27 -0.05		
		Deviation 1g SAR	0.587			0.68		
	Rear	10g SAR	0.293			0.34		
	rtear	Deviation	0.02			0.02		
20MHz		1g SAR	0.036			0.02		
QPSK1RB	Left edge	10g SAR	0.021			0.02		
	Lowers	Deviation	0.04			0.04		
		1g SAR	0.058			0.07		
	Right edge	10g SAR	0.034			0.04		
	lgzzgz	Deviation	0.08			0.08		
		1g SAR	0.859	0.966	1.09	1.00	1.16	1.31
	Bottom edge	10g SAR	0.411	0.501	0.565	0.48	0.60	0.68
		Deviation	0.09	0.01	-0.16	0.09	0.01	-0.16
		SAR		sured SAR [\	N/kg]		orted SAR [V	
Mode	Device	measureme	19100	18900	18700	19100	18900	18700
	orientation	nt	M	10000	M	10100		
	Tun	e-up	19.00	19.00	19.00		Scaling factor	r*
		Power [dBm]	18.20	18.29				
				10.29	18.17	1.20	I 1.18	1.21
			10.20	0.313	18.17	1.20	1.18 0.37	1.21
	Front	1g SAR 10g SAR	10.20		18.17	1.20		1.21
	Front	1g SAR	1020	0.313	18.17	1.20	0.37	1.21
	Front	1g SAR 10g SAR		0.313 0.159	18.17	1.20	0.37 0.19	1.21
	Front Rear	1g SAR 10g SAR Deviation		0.313 0.159 -0.04	18.17	1.20	0.37 0.19 -0.04	1.21
20MHz		1g SAR 10g SAR Deviation 1g SAR	10.20	0.313 0.159 -0.04 0.532	18.17	1.20	0.37 0.19 -0.04 0.63	1.21
QPSK50%		1g SAR 10g SAR Deviation 1g SAR 10g SAR Deviation 1g SAR	1022	0.313 0.159 -0.04 0.532 0.259 0.12 0.026	18.17	1.20	0.37 0.19 -0.04 0.63 0.30 0.12 0.03	1.21
		1g SAR 10g SAR Deviation 1g SAR 10g SAR 10g SAR Deviation 1g SAR 10g SAR	1023	0.313 0.159 -0.04 0.532 0.259 0.12 0.026 0.015	18.17	1.20	0.37 0.19 -0.04 0.63 0.30 0.12 0.03 0.02	1.21
QPSK50%	Rear	1g SAR 10g SAR Deviation 1g SAR 10g SAR 10g SAR Deviation 1g SAR 10g SAR Deviation	1023	0.313 0.159 -0.04 0.532 0.259 0.12 0.026 0.015 -0.03	18.17	1.20	0.37 0.19 -0.04 0.63 0.30 0.12 0.03 0.02 -0.03	1.21
QPSK50%	Rear Left edge	1g SAR 10g SAR Deviation 1g SAR 10g SAR 10g SAR Deviation 1g SAR 10g SAR Deviation 1g SAR	1025	0.313 0.159 -0.04 0.532 0.259 0.12 0.026 0.015 -0.03 0.046	18.17	1.20	0.37 0.19 -0.04 0.63 0.30 0.12 0.03 0.02 -0.03 0.05	1.21
QPSK50%	Rear	1g SAR 10g SAR Deviation 1g SAR 10g SAR Deviation 1g SAR Deviation 1g SAR 10g SAR Deviation 1g SAR 10g SAR		0.313 0.159 -0.04 0.532 0.259 0.12 0.026 0.015 -0.03 0.046 0.026	18.17	1.20	0.37 0.19 -0.04 0.63 0.30 0.12 0.03 0.02 -0.03 0.05 0.03	1.21
QPSK50%	Rear Left edge	1g SAR 10g SAR Deviation 1g SAR 10g SAR Deviation 1g SAR Deviation 1g SAR 10g SAR Deviation 1g SAR Deviation 1g SAR 10g SAR		0.313 0.159 -0.04 0.532 0.259 0.12 0.026 0.015 -0.03 0.046 0.026			0.37 0.19 -0.04 0.63 0.30 0.12 0.03 0.02 -0.03 0.05 0.02	
QPSK50%	Rear Left edge Right edge	1g SAR 10g SAR Deviation 1g SAR 10g SAR 10g SAR Deviation 1g SAR 10g SAR 10g SAR Deviation 1g SAR 10g SAR 10g SAR 10g SAR	0.674	0.313 0.159 -0.04 0.532 0.259 0.12 0.026 0.015 -0.03 0.046 0.026 0.02 0.721	0.828	0.81	0.37 0.19 -0.04 0.63 0.30 0.12 0.03 0.02 -0.03 0.05 0.03 0.02 0.03	1.00
QPSK50%	Rear Left edge	1g SAR 10g SAR Deviation 1g SAR 10g SAR Deviation 1g SAR 10g SAR Deviation 1g SAR Deviation 1g SAR 10g SAR Deviation 1g SAR 10g SAR Deviation 1g SAR	0.674 0.351	0.313 0.159 -0.04 0.532 0.259 0.12 0.026 0.015 -0.03 0.046 0.026 0.02 0.721 0.345	0.828 0.431	0.81 0.42	0.37 0.19 -0.04 0.63 0.30 0.12 0.03 0.02 -0.03 0.05 0.03 0.02 0.85 0.41	1.00
QPSK50%	Rear Left edge Right edge	1g SAR 10g SAR Deviation 1g SAR 10g SAR 10g SAR Deviation 1g SAR 10g SAR Deviation 1g SAR Deviation 1g SAR 10g SAR 10g SAR 10g SAR Deviation 1g SAR Deviation 1g SAR Deviation	0.674 0.351 0.01	0.313 0.159 -0.04 0.532 0.259 0.12 0.026 0.015 -0.03 0.046 0.026 0.02 0.721 0.345 0.11	0.828 0.431 0.15	0.81 0.42 0.01	0.37 0.19 -0.04 0.63 0.30 0.12 0.03 0.02 -0.03 0.05 0.02 0.85 0.41	1.00 0.52 0.15
QPSK50% RB	Rear Left edge Right edge	1g SAR 10g SAR Deviation 1g SAR 10g SAR 10g SAR Deviation 1g SAR 10g SAR Deviation 1g SAR Deviation 1g SAR 10g SAR 10g SAR 10g SAR Deviation 1g SAR Deviation 1g SAR	0.674 0.351 0.01 Meas	0.313 0.159 -0.04 0.532 0.259 0.12 0.026 0.015 -0.03 0.046 0.026 0.02 0.721 0.345 0.11 sured SAR [0.828 0.431 0.15	0.81 0.42 0.01 Rep	0.37 0.19 -0.04 0.63 0.30 0.12 0.03 0.02 -0.03 0.05 0.03 0.02 0.85 0.41 0.11 orted SAR [V	1.00 0.52 0.15
QPSK50%	Rear Left edge Right edge Bottom edge	1g SAR 10g SAR Deviation 1g SAR 10g SAR Deviation 1g SAR 10g SAR Deviation 1g SAR Deviation 1g SAR 10g SAR Deviation 1g SAR 10g SAR Deviation 1g SAR Deviation 1g SAR Measureme	0.674 0.351 0.01	0.313 0.159 -0.04 0.532 0.259 0.12 0.026 0.015 -0.03 0.046 0.026 0.02 0.721 0.345 0.11	0.828 0.431 0.15	0.81 0.42 0.01	0.37 0.19 -0.04 0.63 0.30 0.12 0.03 0.02 -0.03 0.05 0.02 0.85 0.41	1.00 0.52 0.15
QPSK50% RB	Rear Left edge Right edge Bottom edge Device orientation	1g SAR 10g SAR Deviation 1g SAR 10g SAR Deviation 1g SAR 10g SAR 10g SAR Deviation 1g SAR Deviation 1g SAR 10g SAR Deviation 1g SAR Deviation 1g SAR Deviation 1g SAR measureme nt	0.674 0.351 0.01 Meas 19100	0.313 0.159 -0.04 0.532 0.259 0.12 0.026 0.015 -0.03 0.046 0.026 0.02 0.721 0.345 0.11 sured SAR [0]	0.828 0.431 0.15 W/kg]	0.81 0.42 0.01 Rep	0.37 0.19 -0.04 0.63 0.30 0.12 0.03 0.02 -0.03 0.05 0.03 0.02 0.85 0.41 0.11 orted SAR [V	1.00 0.52 0.15 W/kgl
QPSK50% RB	Rear Left edge Right edge Bottom edge Device orientation Tun	1g SAR 10g SAR Deviation 1g SAR 10g SAR Deviation 1g SAR 10g SAR 10g SAR Deviation 1g SAR 10g SAR Deviation 1g SAR Deviation 1g SAR Deviation 1g SAR Deviation 1g SAR to S	0.674 0.351 0.01 Meas 19100	0.313 0.159 -0.04 0.532 0.259 0.12 0.026 0.015 -0.03 0.046 0.026 0.02 0.721 0.345 0.11 sured SAR [N	0.828 0.431 0.15 W/kg] 18700	0.81 0.42 0.01 Rep 19100	0.37 0.19 -0.04 0.63 0.30 0.12 0.03 0.02 -0.03 0.05 0.03 0.02 0.85 0.41 0.11 orted SAR [V	1.00 0.52 0.15 V/kg] 18700
QPSK50% RB Mode	Rear Left edge Right edge Bottom edge Device orientation Tun	1g SAR 10g SAR Deviation 1g SAR 10g SAR Deviation 1g SAR 10g SAR 10g SAR Deviation 1g SAR 10g SAR Deviation 1g SAR 10g SAR Deviation 1g SAR Deviation 1g SAR Deviation 1g SAR 10g SAR Deviation SAR measureme nt e-up Power [dBm]	0.674 0.351 0.01 Meas 19100	0.313 0.159 -0.04 0.532 0.259 0.12 0.026 0.015 -0.03 0.046 0.026 0.02 0.721 0.345 0.11 sured SAR N 18900 19.00	0.828 0.431 0.15 W/kg]	0.81 0.42 0.01 Rep	0.37 0.19 -0.04 0.63 0.30 0.12 0.03 0.02 -0.03 0.05 0.03 0.02 0.85 0.41 0.11 orted SAR [V	1.00 0.52 0.15 W/kgl
Mode 20MHz QPSK100%	Rear Left edge Right edge Bottom edge Device orientation Tun Measured F	1g SAR 10g SAR Deviation 1g SAR Deviation 1g SAR Deviation 1g SAR 0eviation 1g SAR 10g SAR Deviation 1g SAR 10g SAR Deviation SAR measureme nt e-up Power [dBm] 1g SAR	0.674 0.351 0.01 Meas 19100	0.313 0.159 -0.04 0.532 0.259 0.12 0.026 0.015 -0.03 0.046 0.026 0.02 0.721 0.345 0.11 sured SAR N 18900 19.00 18.24 0.745	0.828 0.431 0.15 W/kg] 18700	0.81 0.42 0.01 Rep 19100	0.37 0.19 -0.04 0.63 0.30 0.12 0.03 0.02 -0.03 0.05 0.03 0.02 0.85 0.41 0.11 orted SAR [V 18900 Scaling factor 1.19 0.89	1.00 0.52 0.15 V/kg] 18700
QPSK50% RB Mode	Rear Left edge Right edge Bottom edge Device orientation Tun	1g SAR 10g SAR Deviation 1g SAR 10g SAR Deviation 1g SAR 10g SAR 10g SAR Deviation 1g SAR 10g SAR Deviation 1g SAR 10g SAR Deviation 1g SAR Deviation 1g SAR Deviation 1g SAR 10g SAR Deviation SAR measureme nt e-up Power [dBm]	0.674 0.351 0.01 Meas 19100	0.313 0.159 -0.04 0.532 0.259 0.12 0.026 0.015 -0.03 0.046 0.026 0.02 0.721 0.345 0.11 sured SAR N 18900 19.00	0.828 0.431 0.15 W/kg] 18700	0.81 0.42 0.01 Rep 19100	0.37 0.19 -0.04 0.63 0.30 0.12 0.03 0.02 -0.03 0.05 0.03 0.02 0.85 0.41 0.11 orted SAR [V	1.00 0.52 0.15 V/kg] 18700



Table 14-17 LTE1700-FDD4 #1 Head

LTE1700-FDD4 #1 Head										
Ambient Te	emperature:	22.5	LIEI	1700-FDD4#1	пеац	Liquid Ter	mperature:	22.3		
Ambient re		SAR	Meas	sured SAR [\	V/kal		orted SAR [V			
Mode	Device	measureme	20300	20175	20050	20300	20175	20050		
ouc	orientation	nt	М	М	М	М	М	М		
	Tun	e-up	24.00	24.00	24.00		Scaling factor	*		
	Measured F	Power [dBm]	22.99	22.98	23.04	1.26	1.26	1.25		
		1g SAR			0.098			0.12		
	Left Cheek	10g SAR			0.067			80.0		
		Deviation			-0.04			-0.04		
		1g SAR			<0.01			<0.01		
20MHz	Left Tilt	10g SAR			<0.01			<0.01		
QPSK1RB		Deviation			0.02			0.02		
		1g SAR			0.172			0.21		
	Right Cheek	10g SAR			0.111			0.14		
-		Deviation			0.04			0.08 -0.04 <0.01 <0.01 0.02 0.21 0.14 0.04 0.06 0.04 -0.09 R [W/kg] 20050		
		1g SAR			0.046			0.06		
	Right Tilt	10g SAR			0.03			0.04		
		Deviation			-0.09			-0.09		
		SAR	Meas	sured SAR [\	V/kg]	Repo	orted SAR [V	V/kg]		
TRUE	Device	measureme	20300	20175	20050	20300	20175	20050		
	orientation	nt	L	1	1	L	- 1			
	Tun	e-up		_	_	_	Caling factor	_		
		e-up Power [dBm]	23.00 22.06	23.00 22.04	23.00 22.11	1.24	1.25	1.23		
	weasureu r	1g SAR	22.00	22.04	0.081	1.24	1.25	0.10		
	Left Cheek	10g SAR			0.054			0.10		
	Leit Cheek	Deviation			-0.1			-0.10		
		1g SAR			<0.01			<0.01		
20MHz	Left Tilt	10g SAR			<0.01			<0.01		
QPSK50%	Leit Till									
RB		Deviation			0.01			0.01 0.16		
	Diabt ObsIn	1g SAR								
	Right Cheek	_			0.085			0.10		
		Deviation			-0.12			-0.12		
	D. 1 . T.	1g SAR			<0.01			<0.01		
	Right Tilt	10g SAR Deviation			<0.01			<0.01		
					-0.09			-0.09		



Table 14-18 LTE1700-FDD4 #1 Body AP OFF

			LTE1	1700-FDD4 #1	Body					
Ambient Te	emperature:	22.5				Liquid Ter	mperature:	22.3		
	ъ.	SAR	Meas	sured SAR [V	N/kg]	Rep	orted SAR [V	V/kg]		
Mode	Device orientation	measureme	20300	20175	20050	20300	20175	20050		
	orientation	nt	М	М	М	М	М	М		
	Tun	e-up	24.00	24.00	24.00	9	Scaling factor*			
	Measured F	Power [dBm]	22.99	22.98	23.04	1.26	1.26	1.25		
		1g SAR			0.531			0.66		
20MHz	Front 15mm	10g SAR			0.292			0.36		
QPSK1RB		Deviation			0.12			0.12		
		1g SAR	0.949	0.924	0.899	1.20	1.17	1.12		
	Rear 15mm	10g SAR	0.541	0.529	0.508	0.68	0.67	0.63		
		Deviation	0.09	0.04	0.11	0.09	0.04	0.11		
	Б.	SAR	Meas	ured SAR [V/kg]	Rep	orted SAR [V	V/kg]		
Mode	Device r	measureme	20300	20175	20050	20300	20175	20050		
	onentation	nt	L	L	L			0.36 0.12 1.12 0.63 0.11 W/kg] 20050 0.50		
	Tun	e-up	23.00	23.00	23.00	5	Scaling factor*			
	Managera of F		00.00	22.04	22.11	1.24	1.25	1 22		
	Measured F	Power [dBm]	22.06	22.04	22.11	1.27	1.23	1.23		
20MHz	Measured F	1g SAR	22.06	22.04	0.409	1.27	1.23			
20MHz	Front 15mm		22.06	22.04		1.2-1	1.23			
QPSK50%		1g SAR	22.06	22.04	0.409	112-1	1.23	0.50		
		1g SAR 10g SAR Deviation 1g SAR	0.755	0.702	0.409 0.225 0.03 0.688	0.94	0.88	0.50 0.28 0.03 0.84		
QPSK50%		1g SAR 10g SAR Deviation 1g SAR 10g SAR	0.755 0.43	0.702 0.397	0.409 0.225 0.03	0.94 0.53	0.88 0.50	0.50 0.28 0.03 0.84 0.48		
QPSK50%	Front 15mm	1g SAR 10g SAR Deviation 1g SAR	0.755 0.43 0.05	0.702 0.397 0.02	0.409 0.225 0.03 0.688 0.389 0.11	0.94 0.53 0.05	0.88 0.50 0.02	0.50 0.28 0.03 0.84 0.48		
QPSK50%	Front 15mm Rear 15mm	1g SAR 10g SAR Deviation 1g SAR 10g SAR	0.755 0.43 0.05	0.702 0.397	0.409 0.225 0.03 0.688 0.389 0.11	0.94 0.53 0.05	0.88 0.50	0.50 0.28 0.03 0.84 0.48		
QPSK50%	Front 15mm	1g SAR 10g SAR Deviation 1g SAR 10g SAR Deviation	0.755 0.43 0.05	0.702 0.397 0.02	0.409 0.225 0.03 0.688 0.389 0.11	0.94 0.53 0.05	0.88 0.50 0.02	0.50 0.28 0.03 0.84 0.48		
QPSK50% RB	Front 15mm Rear 15mm Device orientation	1g SAR 10g SAR Deviation 1g SAR 10g SAR Deviation SAR measureme	0.755 0.43 0.05 Meas	0.702 0.397 0.02 sured SAR [N	0.409 0.225 0.03 0.688 0.389 0.11	0.94 0.53 0.05 Rep 20300	0.88 0.50 0.02 orted SAR [V	0.50 0.28 0.03 0.84 0.48 0.11 V/kg]		
QPSK50% RB	Front 15mm Rear 15mm Device orientation Tun	1g SAR 10g SAR Deviation 1g SAR 10g SAR Deviation SAR measureme nt	0.755 0.43 0.05 Meas 20300	0.702 0.397 0.02 sured SAR [N	0.409 0.225 0.03 0.688 0.389 0.11 W/kgl	0.94 0.53 0.05 Rep 20300	0.88 0.50 0.02 orted SAR [V	0.50 0.28 0.03 0.84 0.48 0.11 V/kg]		
QPSK50% RB Mode	Front 15mm Rear 15mm Device orientation Tun	1g SAR 10g SAR Deviation 1g SAR 10g SAR Deviation SAR measureme nt e-up	0.755 0.43 0.05 Meas 20300	0.702 0.397 0.02 sured SAR [v 20175	0.409 0.225 0.03 0.688 0.389 0.11 W/kg] 20050	0.94 0.53 0.05 Rep 20300	0.88 0.50 0.02 orted SAR [V 20175	0.50 0.28 0.03 0.84 0.48 0.11 Wkgl		
QPSK50% RB Mode	Front 15mm Rear 15mm Device orientation Tun	1g SAR 10g SAR Deviation 1g SAR 10g SAR Deviation SAR measureme nt e-up Power [dBm]	0.755 0.43 0.05 Meas 20300	0.702 0.397 0.02 sured SAR [v 20175	0.409 0.225 0.03 0.688 0.389 0.11 V/kg] 20050 23.00 22.06	0.94 0.53 0.05 Rep 20300	0.88 0.50 0.02 orted SAR [V 20175	0.50 0.28 0.03 0.84 0.48 0.11 //kg] 20050		



Table 14-19 LTE1700-FDD4 #2 Body AP ON

				700-FDD4 #2				
Ambient Te	emperature:	22.5	LIEI	700-5004 #2	Бойу	Liquid Ter	mperature:	22.3
Ambient re	Imperature.	SAR	Moas	sured SAR [\	M/kal		orted SAR [W	
Mode	Device	measureme	20300	20175	20050	20300	20175	20050
Mode	orientation	nt	Z0300 M	M	Z0050 M	20300 M	Z0175 M	Z0050 M
	Tue							
		e-up	20.50	20.50	20.50		Scaling factor	
	Measured F	Power [dBm]	19.83	19.84	19.91	1.17	1.17	1.15
	Front	1g SAR			0.596			0.68
	FIOIIL	10g SAR			0.322			0.37
		Deviation	0.999	0.974	0.02 0.897	1.17	1.14	0.02 1.03
	Rear	1g SAR	0.539	0.466	0.431	0.63	0.54	0.49
	ixeai	10g SAR	-0.03	0.466		-0.03	0.09	0.49
20MHz		Deviation 1g SAR	-0.03	0.09	0.18 0.064	-0.03	0.09	0.18
QPSK1RB	Left edge	10g SAR			0.043			0.07
	Loncoago	Deviation			-0.06			-0.06
		1g SAR			0.049			0.06
	Right edge	10g SAR			0.031			0.04
	. ug. u dugd	Deviation			0.08			0.08
		1g SAR	0.991	0.923	0.847	1.16	1.08	0.97
	Bottom edge	10g SAR	0.501	0.467	0.429	0.59	0.54	0.49
	Bottom edge	Deviation	0.02	0.07	-0.05	0.02	0.07	-0.05
		SAR		sured SAR [\			orted SAR [W	
Mode	Device	measureme	20300	20175	20050	20300	20175	20050
ouc	orientation	nt	1	M	Н	20000	20170	20000
	Tun	e-up	19.50	19.50	19.50	9	Scaling factor	*
		Power [dBm]	18.72	18.72	18.83	1.20	1.20	1.17
		1g SAR			0.461			0.54
	Front	10g SAR			0.249			0.29
		Deviation			-0.12			-0.12
		1g SAR			0.676			0.79
	Rear	10g SAR			0.335			0.39
20MHz		Deviation			0.04			0.04
QPSK50%		1g SAR			0.052			0.06
RB	Left edge	10g SAR			0.034			0.04
		Deviation			0.06			0.06
	I	1g SAR			0.038			0.04
	B							0.00
	Right edge	10g SAR			0.024			0.03
	Right edge	10g SAR Deviation			0.024 0.08			0.08
		10g SAR Deviation 1g SAR			0.024 0.08 0.632			0.08 0.74
	Right edge Bottom edge	10g SAR Deviation 1g SAR 10g SAR			0.024 0.08 0.632 0.304			0.08 0.74 0.35
		10g SAR Deviation 1g SAR 10g SAR Deviation	Meas	sured SAR N	0.024 0.08 0.632 0.304 0.12	Ren	orted SAR IM	0.08 0.74 0.35 0.12
Mode		10g SAR Deviation 1g SAR 10g SAR Deviation SAR		sured SAR [\	0.024 0.08 0.632 0.304 0.12		orted SAR [W	0.08 0.74 0.35 0.12
Mode	Bottom edge	10g SAR Deviation 1g SAR 10g SAR Deviation SAR measureme	Meas 20300	sured SAR N	0.024 0.08 0.632 0.304 0.12	Rep 20300	orted SAR [W	0.08 0.74 0.35 0.12
Mode	Bottom edge Device orientation	10g SAR Deviation 1g SAR 10g SAR Deviation SAR measureme nt	20300	20175	0.024 0.08 0.632 0.304 0.12 W/kg]	20300	20175	0.08 0.74 0.35 0.12 //kg]
	Bottom edge Device orientation Tun	10g SAR Deviation 1g SAR 10g SAR Deviation SAR measureme nt e-up	20300 19.50	20175 19.50	0.024 0.08 0.632 0.304 0.12 W/kg] 20050	20300	20175 Scaling factor	0.08 0.74 0.35 0.12 //kg] 20050
20MHz	Bottom edge Device orientation Tun	10g SAR Deviation 1g SAR 10g SAR Deviation SAR measureme nt e-up Power [dBm]	20300	20175	0.024 0.08 0.632 0.304 0.12 W/kg] 20050 19.50 18.81	20300	20175	0.08 0.74 0.35 0.12 //kg] 20050
20MHz QPSK100%	Device orientation Tun Measured F	10g SAR Deviation 1g SAR 10g SAR Deviation SAR measureme nt e-up Power [dBm] 1g SAR	20300 19.50	20175 19.50	0.024 0.08 0.632 0.304 0.12 W/kgl 20050 19.50 18.81 0.722	20300	20175 Scaling factor	0.08 0.74 0.35 0.12 //kg] 20050 1.17 0.85
20MHz	Bottom edge Device orientation Tun	10g SAR Deviation 1g SAR 10g SAR Deviation SAR measureme nt e-up Power [dBm]	20300 19.50	20175 19.50	0.024 0.08 0.632 0.304 0.12 W/kg] 20050 19.50 18.81	20300	20175 Scaling factor	0.08 0.74 0.35 0.12 //kg] 20050



Table 14-20 LTE850-FDD5 #1 Head

			LTE	850-FDD5 #1 F	Head			
Ambient Te	emperature:	22.5				Liquid Ter	mperature:	22.3
	Device	SAR	Meas	sured SAR [\	V/kg]	Repo	orted SAR [\	N/kg]
Mode	orientation	measureme	20600	20525	20450	20600	20525	20450
	onentation	nt	M	Н	M	M	Н	M
		e-up	24.50	24.50	24.50		Scaling factor	
	Measured F	Power [dBm]	24.21	24.21	24.28	1.07	1.07	1.05
	Left Cheek	1g SAR			0.34			0.36
		10g SAR			0.266			0.28
		Deviation			-0.15			-0.15
		1g SAR			0.216			0.23
10MHz	Left Tilt	10g SAR			0.168			0.18
QPSK1RB		Deviation			-0.07			-0.07
		1g SAR			0.241			0.25
	Right Cheek	10g SAR			0.186			0.20
		Deviation			-0.06			-0.06
		1g SAR			0.183			0.19
	Right Tilt	10g SAR			0.145			0.15
		Deviation			0.06			0.06
		SAR	Measured SAR [W/kg]			Reported SAR [W/kg]		
TRUE	Device	measureme	20600	20525	20450	20600	20525	20450
	orientation	nt	L	Н	Н	L	Н	Н
	Tun	e-up	23.50	23.50	23.50	5	Scaling factor	r*
	Measured F	Power [dBm]	23.36	23.38	23.30	1.03	1.03	1.05
		1g SAR		0.273			0.28	
	Left Cheek	10g SAR		0.212			0.22	
		Deviation		-0.01			-0.01	
		1g SAR		0.183			0.19	
10MHz	Left Tilt	10g SAR		0.142			0.15	
QPSK50%		Deviation		0.02			0.02	
RB		1g SAR		0.242			0.25	
	Right Cheek	10g SAR		0.185			0.19	
	_	Deviation		-0.11			-0.11	
		1g SAR		0.156			0.16	
	Right Tilt	10g SAR		0.122			0.13	
		Deviation		0.05			0.05	



Table 14-21 LTE850-FDD5 #1 Body

			LTE	850-FDD5 #1	Body	-		
Ambient Te	emperature:	22.5				Liquid Ten	nperature:	22.3
		SAR	Meas	sured SAR [\	W/kg]	Repo	orted SAR [V	V/kg]
Mode	Device	measureme	20600	20525	20450	20600	20525	20450
	orientation	nt	М	Н	М	М	Н	М
	Tun	e-up	24.50	24.50	24.50	5	Scaling factor	.*
	Measured F	Power [dBm]	24.21	24.21	24.28	1.07	1.07	1.05
		1g SAR			0.268			0.28
	Front	10g SAR			0.212			0.22
		Deviation			0.02			0.02
		1g SAR			0.383			0.40
	Rear	10g SAR			0.301			0.32
10141.1-		Deviation			0			0.00
10MHz QPSK1RB		1g SAR			0.185			0.19
QPSKIRB	Left edge	10g SAR			0.13			0.14
		Deviation			0.09			0.09
		1g SAR			0.257			0.27
	Right edge	10g SAR			0.181			0.19
		Deviation			0.01			0.01
		1g SAR			0.123			0.13
	Bottom edge	10g SAR			0.079			0.08
		Deviation			0.1			0.10
	ъ.	SAR	Meas	ured SAR [W/kg]	Rep	orted SAR [V	V/kg]
Mode	Device orientation	measureme	20600	20525	20450	20600	20525	20450
	onentation	nt	L	Н	Н			
	Tun	e-up	23.50	23.50	23.50	5	Scaling factor	.*
	Measured F	Power [dBm]	23.36	23.38	23.30	1.03	1.03	1.05
		1g SAR		0.219			0.23	
	Front	10g SAR		0.173			0.18	
		Deviation		0.02			0.02	
		1g SAR		0.248			0.25	
	Rear	10g SAR		0.182			0.19	
10MHz		Deviation		0.11			0.11	
QPSK50%		1g SAR		0.213			0.22	
RB	Left edge	10g SAR		0.152			0.16	
		Deviation		0.06			0.06	
	Distr.	1g SAR		0.208			0.21	
	Right edge	10g SAR		0.149			0.15	
		Deviation 1g SAR		0.01 0.102			0.01	
	Pottom odgo	10g SAR		0.102			0.10	
	Bottom edge	TOG SAIN		0.000			0.07	
		Deviation		-0.05			-0.05	



Table 14-22 LTE700-FDD12 #1 Head

			LTE7	'00-FDD12#1	Head			
Ambient Te	emperature:	22.5				Liquid Ten	nperature:	22.3
	Davisa	SAR	Meas	sured SAR [\	V/kg]	Repo	orted SAR [V	N/kg]
Mode	Device	measureme	23130	23095	23060	23130	23095	23060
	orientation	nt	М	M	М	M	М	М
		e-up	24.50	24.50	24.50		Scaling factor	
	Measured F	Power [dBm]	23.63	23.64	23.65	1.22	1.22	1.22
		1g SAR			0.206			0.25
	Left Cheek	10g SAR			0.162			0.20
		Deviation			0.17			0.17
		1g SAR			0.147			0.18
10MHz	Left Tilt	10g SAR			0.115			0.14
QPSK1RB		Deviation			0.1			0.10
		1g SAR			0.195			0.24
	Right Cheek	10g SAR			0.152			0.18
		Deviation			-0.11			-0.11
	Right Tilt	1g SAR			0.142			0.17
		10g SAR			0.113			0.14
		Deviation			-0.04			-0.04
		SAR	Measured SAR [W/kg]			Reported SAR [W/kg]		
TRUE	Device	measureme	23130	23095	23060	23130	23095	23060
	orientation	nt	Н	Н	Н	Н	Н	Н
	Tun	e-up	23.50	23.50	23.50	5	Scaling factor	*
	Measured F	Power [dBm]	22.72	22.70	22.75	1.20	1.20	1.19
		1g SAR			0.161			0.19
	Left Cheek	10g SAR			0.125			0.15
		Deviation			0.03			0.03
		1g SAR			0.118			0.14
10MHz	Left Tilt	10g SAR			0.092			0.11
QPSK50%		Deviation			0.11			0.11
RB		1g SAR			0.15			0.18
	Right Cheek				0.116			0.14
		Deviation			-0.07			-0.07
		1g SAR			0.112			0.13
	D							
	Right Tilt	10g SAR			0.088			0.10



Table 14-23 LTE700-FDD12 #1 Body

			LTE7	00-FDD12 #1	Body			
Ambient Te	emperature:	22.5				Liquid Ter	mperature:	22.3
		SAR	Meas	ured SAR [V	V/kg]		orted SAR [W	//kg]
Mode	Device	measureme	23130	23095	23060	23130	23095	23060
	orientation	nt	М	М	М	М	М	М
	Tun	e-up	24.50	24.50	24.50		Scaling factor	•
		Power [dBm]	23.63	23.64	23.65	1.22	1.22	1.22
		1g SAR			0.278			0.34
	Front	10g SAR			0.221			0.27
	- 1011	Deviation			-0.11			-0.11
		1g SAR			0.436			0.53
	Rear	10g SAR			0.345			0.42
401411		Deviation			0			0.00
10MHz		1g SAR			0.337			0.41
QPSK1RB	Left edge	10g SAR			0.248			0.30
		Deviation			-0.02			-0.02
		1g SAR			0.256			0.31
	Right edge	10g SAR			0.189			0.23
		Deviation			0.01			0.01
		1g SAR			0.053			0.06
	Bottom edge	10g SAR			0.037			0.04
		Deviation			-0.12			-0.12
		SAR	Meas	ured SAR [V	V/kg]	Rep	orted SAR [W	/kg]
Mode	Device	measureme	23130	23095	23060	23130	23095	23060
	orientation	nt	Н	н	Н			
	Tun	e-up	23.50	23.50	23.50	5	Scaling factor	
		Power [dBm]	22.72	22.70	22.75	1.20	1.20	1.19
		1= CAD						
		1g SAR			0.212			0.25
	Front	10g SAR			0.212 0.169			0.25 0.20
	Front							
	Front	10g SAR			0.169			0.20
	Front Rear	10g SAR Deviation			0.169 0.03			0.20 0.03
10MHz		10g SAR Deviation 1g SAR			0.169 0.03 0.33			0.20 0.03 0.39
QPSK50%		10g SAR Deviation 1g SAR 10g SAR Deviation 1g SAR			0.169 0.03 0.33 0.263 0.05 0.26			0.20 0.03 0.39 0.31 0.05 0.31
		10g SAR Deviation 1g SAR 10g SAR Deviation 1g SAR 10g SAR			0.169 0.03 0.33 0.263 0.05 0.26 0.192			0.20 0.03 0.39 0.31 0.05 0.31 0.23
QPSK50%	Rear	10g SAR Deviation 1g SAR 10g SAR Deviation 1g SAR 10g SAR 10g SAR Deviation			0.169 0.03 0.33 0.263 0.05 0.26 0.192 -0.04			0.20 0.03 0.39 0.31 0.05 0.31 0.23 -0.04
QPSK50%	Rear Left edge	10g SAR Deviation 1g SAR 10g SAR Deviation 1g SAR 10g SAR 10g SAR Deviation 1g SAR			0.169 0.03 0.33 0.263 0.05 0.26 0.192 -0.04 0.197			0.20 0.03 0.39 0.31 0.05 0.31 0.23 -0.04 0.23
QPSK50%	Rear	10g SAR Deviation 1g SAR 10g SAR Deviation 1g SAR 10g SAR 10g SAR 10g SAR Deviation 1g SAR 10g SAR			0.169 0.03 0.33 0.263 0.05 0.26 0.192 -0.04 0.197 0.146			0.20 0.03 0.39 0.31 0.05 0.31 0.23 -0.04 0.23 0.17
QPSK50%	Rear Left edge	10g SAR Deviation 1g SAR 10g SAR Deviation 1g SAR 10g SAR 10g SAR 10g SAR Deviation 1g SAR 10g SAR Deviation			0.169 0.03 0.33 0.263 0.05 0.26 0.192 -0.04 0.197 0.146 0.05			0.20 0.03 0.39 0.31 0.05 0.31 0.23 -0.04 0.23 0.17 0.05
QPSK50%	Rear Left edge Right edge	10g SAR Deviation 1g SAR 10g SAR Deviation 1g SAR 10g SAR 10g SAR Deviation 1g SAR 10g SAR Deviation 1g SAR 10g SAR			0.169 0.03 0.33 0.263 0.05 0.26 0.192 -0.04 0.197 0.146 0.05 <0.01			0.20 0.03 0.39 0.31 0.05 0.31 0.23 -0.04 0.23 0.17 0.05 <0.01
QPSK50%	Rear Left edge	10g SAR Deviation 1g SAR 10g SAR Deviation 1g SAR 10g SAR 10g SAR 10g SAR Deviation 1g SAR 10g SAR 10g SAR 10g SAR			0.169 0.03 0.33 0.263 0.05 0.26 0.192 -0.04 0.197 0.146 0.05			0.20 0.03 0.39 0.31 0.05 0.31 0.23 -0.04 0.23 0.17 0.05



Table 14-24 LTE700-FDD14 #1 Head

			LTE7	00-FDD14#1				
Ambient Te	emperature:	22.5				Liquid Ten	mperature:	22.3
	Davisa	SAR	Meas	sured SAR [V	V/kg]	Repo	orted SAR [\	N/kg]
Mode	Device	measureme	Η	M	23330	Н	М	23330
	orientation	nt	Η	Н	M	Н	Н	M
		e-up	24.50	24.50	24.50		Scaling factor	
	Measured F	Power [dBm]	0.00	0.00	23.37	281.84	281.84	1.30
		1g SAR			0.326			0.42
	Left Cheek	10g SAR			0.254			0.33
		Deviation			0.04			0.04
		1g SAR			0.242			0.31
10MHz	Left Tilt	10g SAR			0.188			0.24
QPSK1RB		Deviation			-0.02			-0.02
		1g SAR			0.308			0.40
	Right Cheek	10g SAR			0.236			0.31
		Deviation			-0.1			-0.10
	Right Tilt	1g SAR			0.225			0.29
		10g SAR			0.176			0.23
		Deviation			0.06			0.06
		SAR	Meas	sured SAR [V	N/kg]	Repo	orted SAR [\	N/kg]
TRUE	Device	measureme	н	М	23330	н	М	23330
	orientation	nt	Н	Н	L	Н	Н	L
	Tun	e-up	23.50	23.50	23.50	5	Scaling factor	*
	Measured F	Power [dBm]	0.00	0.00	22.50	223.87	223.87	1.26
		1g SAR			0.245			0.31
	Left Cheek	10g SAR			0.189			0.24
		Deviation			0.06			0.06
		1g SAR			0.18			0.23
10MHz	Left Tilt	10g SAR			0.14			0.18
QPSK50%		Deviation			-0.04			-0.04
RB		1g SAR			0.242			0.30
	Right Cheek				0.186			0.23
	Right Cheek							0.09
		Deviation			0.09			0.09
					0.09			0.09
	Right Tilt	Deviation 1g SAR 10g SAR						



Table 14-25 LTE700-FDD14 #1 Body

			LTE7	00-FDD14#1	Body			
Ambient Te	emperature:	22.5				Liquid Ter	mperature:	22.3
		SAR	Meas	ured SAR [V	V/kg]	Rep	orted SAR [W	//kg]
Mode	Device	measureme	Н	М	23330	Н	M	23330
	orientation	nt	Н	Н	М	Н	Н	М
	Tun	e-up	24.50	24.50	24.50		Scaling factor	*
		ower [dBm]	0.00	0.00	23.37	281.84	281.84	1.30
		1g SAR			0.332			0.43
	Front	10g SAR			0.257			0.33
	- 19.11	Deviation			-0.02			-0.02
		1g SAR			0.477			0.62
	Rear	10g SAR			0.373			0.48
401411		Deviation			-0.01			-0.01
10MHz		1g SAR			0.314			0.41
QPSK1RB	Left edge	10g SAR			0.221			0.29
		Deviation			0.03			0.03
		1g SAR			0.329			0.43
	Right edge	10g SAR			0.232			0.30
		Deviation			0.11			0.11
	Bottom edge	1g SAR			0.078			0.10
		10g SAR			0.053			0.07
		Deviation			0.12			0.12
	Davisa	SAR	Meas	ured SAR [V	V/kg]	Rep	orted SAR [W	//kg]
Mode	Device	SAR measureme	Meas H	sured SAR [V M	V/kg] 23330	Rep H	orted SAR [W M	//kg] 23330
Mode	Device orientation							
Mode	orientation	measureme	н	М	23330	Н		23330
Mode	orientation Tun	measureme nt	H H	M H	23330 L	Н	М	23330
Mode	orientation Tun	measureme nt e-up	H H 23.50	M H 23.50	23330 L 23.50	Н	M Scaling factor	23330
Mode	orientation Tun	measureme nt e-up Power [dBm]	H H 23.50	M H 23.50	23330 L 23.50 22.50	Н	M Scaling factor	23330 * 1.26
Mode	orientation Tun Measured F	measureme nt e-up Power [dBm]	H H 23.50	M H 23.50	23330 L 23.50 22.50 0.245	Н	M Scaling factor	23330 • 1.26 0.31
Mode	orientation Tun Measured F	re-up Power [dBm] 1g SAR 10g SAR Deviation 1g SAR	H H 23.50	M H 23.50	23330 L 23.50 22.50 0.245 0.19	Н	M Scaling factor	23330
	orientation Tun Measured F	measureme nt e-up Power [dBm] 1g SAR 10g SAR Deviation	H H 23.50	M H 23.50	23330 L 23.50 22.50 0.245 0.19 0.06	Н	M Scaling factor	**************************************
10MHz	Tun Measured F Front	re-up Power [dBm] 1g SAR 10g SAR Deviation 1g SAR	H H 23.50	M H 23.50	23330 L 23.50 22.50 0.245 0.19 0.06 0.364	Н	M Scaling factor	23330 1.26 0.31 0.24 0.06 0.46 0.36 -0.11
10MHz QPSK50%	Tun Measured F Front Rear	re-up Power [dBm] 1g SAR 10g SAR Deviation 1g SAR 10g SAR Deviation 1g SAR 10g SAR	H H 23.50	M H 23.50	23330 L 23.50 22.50 0.245 0.19 0.06 0.364 0.285 -0.11 0.234	Н	M Scaling factor	23330 1.26 0.31 0.24 0.06 0.46 0.36 -0.11 0.29
10MHz	Tun Measured F Front	measureme nt e-up ower [dBm] 1g SAR 10g SAR Deviation 1g SAR 10g SAR Deviation 1g SAR 10g SAR Deviation 1g SAR	H H 23.50	M H 23.50	23330 L 23.50 22.50 0.245 0.19 0.06 0.364 0.285 -0.11 0.234 0.164	Н	M Scaling factor	23330 1.26 0.31 0.24 0.06 0.46 0.36 -0.11 0.29 0.21
10MHz QPSK50%	Tun Measured F Front Rear	measureme nt e-up ower [dBm] 1g SAR 10g SAR Deviation 1g SAR 10g SAR Deviation 1g SAR Deviation 1g SAR Deviation	H H 23.50	M H 23.50	23330 L 23.50 22.50 0.245 0.19 0.06 0.364 0.285 -0.11 0.234 0.164 -0.06	Н	M Scaling factor	23330 1.26 0.31 0.24 0.06 0.46 0.36 -0.11 0.29 0.21 -0.06
10MHz QPSK50%	Tun Measured F Front Rear Left edge	measureme nt e-up ower [dBm] 1g SAR 10g SAR Deviation 1g SAR 10g SAR Deviation 1g SAR 10g SAR Deviation 1g SAR 10g SAR 10g SAR	H H 23.50	M H 23.50	23330 L 23.50 22.50 0.245 0.19 0.06 0.364 0.285 -0.11 0.234 0.164 -0.06 0.242	Н	M Scaling factor	23330 1.26 0.31 0.24 0.06 0.46 0.36 -0.11 0.29 0.21 -0.06 0.30
10MHz QPSK50%	Tun Measured F Front Rear	reasureme nt e-up rower [dBm] 1g SAR 10g SAR Deviation 1g SAR 10g SAR Deviation 1g SAR 10g SAR Deviation 1g SAR 10g SAR 10g SAR 10g SAR 10g SAR	H H 23.50	M H 23.50	23330 L 23.50 22.50 0.245 0.19 0.06 0.364 0.285 -0.11 0.234 0.164 -0.06 0.242 0.171	Н	M Scaling factor	*** 1.26 0.31 0.24 0.06 0.46 0.36 -0.11 0.29 0.21 -0.06 0.30 0.22
10MHz QPSK50%	Tun Measured F Front Rear Left edge	reasureme nt e-up rower [dBm] 1g SAR 10g SAR Deviation 1g SAR 10g SAR Deviation 1g SAR 10g SAR Deviation 1g SAR Deviation	H H 23.50	M H 23.50	23330 L 23.50 22.50 0.245 0.19 0.06 0.364 0.285 -0.11 0.234 0.164 -0.06 0.242 0.171 -0.01	Н	M Scaling factor	*** 1.26 0.31 0.24 0.06 0.46 0.36 -0.11 0.29 0.21 -0.06 0.30 0.22 -0.01
10MHz QPSK50%	Tun Measured F Front Rear Left edge Right edge	measureme nt e-up lower [dBm] 1g SAR 10g SAR Deviation 1g SAR Deviation 1g SAR 10g SAR Deviation 1g SAR 10g SAR 10g SAR 10g SAR Deviation 1g SAR Deviation 1g SAR	H H 23.50	M H 23.50	23330 L 23.50 22.50 0.245 0.19 0.06 0.364 0.285 -0.11 0.234 0.164 -0.06 0.242 0.171 -0.01 0.058	Н	M Scaling factor	**************************************
10MHz QPSK50%	Tun Measured F Front Rear Left edge	reasureme nt e-up rower [dBm] 1g SAR 10g SAR Deviation 1g SAR 10g SAR Deviation 1g SAR 10g SAR Deviation 1g SAR Deviation	H H 23.50	M H 23.50	23330 L 23.50 22.50 0.245 0.19 0.06 0.364 0.285 -0.11 0.234 0.164 -0.06 0.242 0.171 -0.01	Н	M Scaling factor	*** 1.26 0.31 0.24 0.06 0.46 0.36 -0.11 0.29 0.21 -0.06 0.30 0.22 -0.01



Table 14-26 LTE2300-FDD30 #1 Head

	LTE2	300-FDD30 #1	Head	
Ambient Te	emperature:	22.5		22.3
Mode	Device orientation	SAR measureme	Measured SAR [W/kg] 27710	Reported SAR [W/kg] 27710
		nt	М	М
	Tun	e-up	24.00	Scaling factor*
	Measured F	ower [dBm]	22.69	1.35
		1g SAR	0.195	0.26
	Left Cheek	10g SAR	0.11	0.15
		Deviation	0.01	0.01
10MHz		1g SAR	0.081	0.11
QPSK1RB	Left Tilt	10g SAR	0.044	0.06
QI SKIND		Deviation	0	0.00
		1g SAR	0.184	0.25
	Right Cheek	10g SAR	0.107	0.14
		Deviation	0.04	0.04
		1g SAR	0.094	0.13
	Right Tilt	10g SAR	0.053	0.07
		Day to the second		0.04
		Deviation	-0.01	-0.01
		Deviation	-0.01 Measured	-0.01 Reported
TOUE	Device	SAR		
TRUE	Device orientation		Measured	Reported
TRUE		SAR measureme	Measured SAR [W/kg]	Reported SAR [W/kg]
TRUE	orientation	SAR measureme nt	Measured SAR [W/kg] 27710 M	Reported SAR [W/kg] 27710
TRUE	orientation	SAR measureme	Measured SAR [W/kg] 27710	Reported SAR [W/kg] 27710 M
TRUE	orientation Tun	SAR measureme nt	Measured SAR [W/kg] 27710 M	Reported SAR [W/kg] 27710 M Scaling
TRUE	orientation Tun	SAR measureme nt e-up	Measured SAR [W/kg] 27710 M 23.00	Reported SAR [W/kg] 27710 M Scaling factor*
TRUE	orientation Tun	SAR measureme nt e-up	Measured SAR [W/kg] 27710 M 23.00 21.74	Reported SAR [W/kg] 27710 M Scaling factor* 1.34
TRUE	Tun Measured F	SAR measureme nt e-up ower [dBm]	Measured SAR [W/kg] 27710 M 23.00 21.74 0.152	Reported SAR [W/kg] 27710 M Scaling factor* 1.34 0.20
TRUE 10MHz	Tun Measured F	SAR measureme nt e-up Ower [dBm] 1g SAR 10g SAR	Measured SAR [W/kg] 27710 M 23.00 21.74 0.152 0.086	Reported SAR [W/kg] 27710 M Scaling factor* 1.34 0.20 0.11
	Tun Measured F	SAR measureme nt e-up Power [dBm] 1g SAR 10g SAR Deviation	Measured SAR [W/kg] 27710 M 23.00 21.74 0.152 0.086 -0.04	Reported SAR [W/kg] 27710 M Scaling factor* 1.34 0.20 0.11 -0.04
10MHz	Tun Measured F Left Cheek	SAR measureme nt e-up Power [dBm] 1g SAR 10g SAR Deviation 1g SAR	Measured SAR [W/kg] 27710 M 23.00 21.74 0.152 0.086 -0.04 0.063	Reported SAR [W/kg] 27710 M Scaling factor* 1.34 0.20 0.11 -0.04 0.08
10MHz QPSK50%	Tun Measured F Left Cheek	SAR measureme nt e-up Power [dBm] 1g SAR 10g SAR Deviation 1g SAR 10g SAR	Measured SAR [W/kg] 27710 M 23.00 21.74 0.152 0.086 -0.04 0.063 0.036	Reported SAR [W/kg] 27710 M Scaling factor* 1.34 0.20 0.11 -0.04 0.08 0.05
10MHz QPSK50%	Tun Measured F Left Cheek	SAR measureme nt e-up ower [dBm] 1g SAR 10g SAR Deviation 1g SAR 10g SAR Deviation	Measured SAR [W/kg] 27710 M 23.00 21.74 0.152 0.086 -0.04 0.063 0.036 0.06	Reported SAR [W/kg] 27710 M Scaling factor* 1.34 0.20 0.11 -0.04 0.08 0.05 0.06
10MHz QPSK50%	Tun Measured F Left Cheek Left Tilt	SAR measureme nt e-up ower [dBm] 1g SAR 10g SAR Deviation 1g SAR Deviation 1g SAR	Measured SAR [W/kg] 27710 M 23.00 21.74 0.152 0.086 -0.04 0.063 0.036 0.06 0.134	Reported SAR [W/kg] 27710 M Scaling factor* 1.34 0.20 0.11 -0.04 0.08 0.05 0.06 0.18
10MHz QPSK50%	Tun Measured F Left Cheek Left Tilt	SAR measureme nt e-up Power [dBm] 1g SAR 10g SAR Deviation 1g SAR 10g SAR Deviation 1g SAR 10g SAR Deviation	Measured SAR [W/kg] 27710 M 23.00 21.74 0.152 0.086 -0.04 0.063 0.036 0.036 0.0134 0.076	Reported SAR [W/kg] 27710 M Scaling factor* 1.34 0.20 0.11 -0.04 0.08 0.05 0.06 0.18 0.10
10MHz QPSK50%	Tun Measured F Left Cheek Left Tilt	SAR measureme nt e-up Power [dBm] 1g SAR 10g SAR Deviation 1g SAR 10g SAR Deviation 1g SAR Deviation 1g SAR Deviation	Measured SAR [W/kg] 27710 M 23.00 21.74 0.152 0.086 -0.04 0.063 0.036 0.06 0.134 0.076 -0.1	Reported SAR [W/kg] 27710 M Scaling factor* 1.34 0.20 0.11 -0.04 0.08 0.05 0.06 0.18 0.10 -0.10



Table 14-27 LTE2300-FDD30 #1 AP OFF Body

	LTE2	300-FDD30 #1	Body	
Ambient Te	emperature:	22.5		22.3
Mode	Device	SAR measureme	Measured SAR [W/kg]	Reported SAR [W/kg]
	orientation	nt	27710	27710
			М	М
	Tun	e-up	24.00	Scaling factor*
	Measured F	Power [dBm]	22.69	1.35
10MHz		1g SAR	0.433	0.59
OPSK1RB	Front 15mm	10g SAR	0.24	0.32
QI OITHE		Deviation	0.03	0.03
		1g SAR	0.838	1.13
	Rear 15mm	10g SAR	0.45	0.61
		Deviation	0.11	0.11
			Measured	Reported
Mada	Device	SAR	SAR [W/kg]	SAR [W/kg]
Mode	orientation	measureme nt	27710	27710
			М	
	Tun	e-up	23.00	Scaling factor*
		e-up Power [dBm]		
10MHz		Power [dBm]	23.00	factor* 1.34 0.45
QPSK50%		ower [dBm]	23.00 21.74	factor*
	Measured F	Power [dBm]	23.00 21.74 0.3331	factor* 1.34 0.45
QPSK50%	Measured F	Power [dBm] 1g SAR 10g SAR Deviation 1g SAR	23.00 21.74 0.3331 0.18 0.09 0.553	factor* 1.34 0.45 0.24 0.09 0.74
QPSK50%	Measured F	Power [dBm] 1g SAR 10g SAR Deviation 1g SAR 10g SAR	23.00 21.74 0.3331 0.18 0.09 0.553 0.303	factor* 1.34 0.45 0.24 0.09 0.74 0.40
QPSK50%	Measured F Front 15mm	Power [dBm] 1g SAR 10g SAR Deviation 1g SAR	23.00 21.74 0.3331 0.18 0.09 0.553 0.303 0.04	factor* 1.34 0.45 0.24 0.09 0.74 0.40 0.04
QPSK50%	Measured F Front 15mm	Power [dBm] 1g SAR 10g SAR Deviation 1g SAR 10g SAR Deviation	23.00 21.74 0.3331 0.18 0.09 0.553 0.303 0.04 Measured	factor* 1.34 0.45 0.24 0.09 0.74 0.40 0.04 Reported
QPSK50% RB	Measured F Front 15mm	Power [dBm] 1g SAR 10g SAR Deviation 1g SAR 10g SAR Deviation	23.00 21.74 0.3331 0.18 0.09 0.553 0.303 0.04	factor* 1.34 0.45 0.24 0.09 0.74 0.40 0.04
QPSK50%	Measured F Front 15mm Rear 15mm	Power [dBm] 1g SAR 10g SAR Deviation 1g SAR 10g SAR Deviation	23.00 21.74 0.3331 0.18 0.09 0.553 0.303 0.04 Measured	factor* 1.34 0.45 0.24 0.09 0.74 0.40 0.04 Reported
QPSK50% RB	Measured F Front 15mm Rear 15mm Device orientation	Power [dBm] 1g SAR 10g SAR Deviation 1g SAR 10g SAR Deviation SAR Deviation	23.00 21.74 0.3331 0.18 0.09 0.553 0.303 0.04 Measured SAR [W/kg]	factor* 1.34 0.45 0.24 0.09 0.74 0.40 0.04 Reported SAR [W/kg]
QPSK50% RB Mode	Measured F Front 15mm Rear 15mm Device orientation	Power [dBm] 1g SAR 10g SAR Deviation 1g SAR 10g SAR Deviation SAR measureme nt	23.00 21.74 0.3331 0.18 0.09 0.553 0.303 0.04 Measured SAR [W/kg]	factor* 1.34 0.45 0.24 0.09 0.74 0.40 0.04 Reported SAR [W/kg] 27710 Scaling
Mode 10MHz QPSK100%	Measured F Front 15mm Rear 15mm Device orientation	Power [dBm] 1g SAR 10g SAR Deviation 1g SAR 10g SAR Deviation SAR measureme nt e-up Power [dBm] 1g SAR	23.00 21.74 0.3331 0.18 0.09 0.553 0.303 0.04 Measured SAR [W/kg] 27710 23.00	factor* 1.34 0.45 0.24 0.09 0.74 0.40 0.04 Reported SAR [W/kg] 27710 Scaling factor*
QPSK50% RB Mode	Measured F Front 15mm Rear 15mm Device orientation	Power [dBm] 1g SAR 10g SAR Deviation 1g SAR 10g SAR Deviation SAR measureme nt Power [dBm]	23.00 21.74 0.3331 0.18 0.09 0.553 0.303 0.04 Measured SAR [W/kg] 27710 23.00 21.70	factor* 1.34 0.45 0.24 0.09 0.74 0.40 0.04 Reported SAR [W/kg] 27710 Scaling factor* 1.35



Table 14-28 LTE2300-FDD30 #2 AP ON Body

	LTF2	300-FDD30 #2	Podv	
Ambient Te	emperature:	22.5	Dody	22.3
Mode	Device orientation	SAR measureme	Measured SAR [W/kg] 27710	Reported SAR [W/kg] 27710
		nt	Н	Н
	т		24.50	Scaling
	Tun	e-up	21.50	factor*
	Measured F	ower [dBm]	20.93	1.14
	Front	1g SAR	0.414	0.47
		10g SAR	0.215	0.24
		Deviation	0.07	0.07
	D	1g SAR	0.891	1.01
101411-	Rear	10g SAR	0.429	0.49
10MHz QPSK1RB		Deviation 1g SAR	0.02 0.093	0.02 0.11
QESKIKB	Left edge	10g SAR	0.053	0.06
		Deviation	0.15	0.15
		1g SAR	0.061	0.07
	Right edge	10g SAR	0.035	0.04
		Deviation	0.06	0.06
		1g SAR	0.965	1.10
	Bottom edge	10g SAR	0.483	0.55
		Deviation	0.08	0.08
			Measured	Reported
	Device	SAR	SAR [W/kg]	SAR [W/kg]
Mode	orientation	measureme nt	27710	27710
			Н	
	Т			Scaling
			20 E0	
		e-up	20.50	factor*
		ower [dBm]	19.92	factor*
	Measured F	Power [dBm]	19.92 0.316	factor* 1.14 0.36
		Power [dBm] 1g SAR 10g SAR	19.92 0.316 0.164	factor* 1.14 0.36 0.19
	Measured F	Power [dBm] 1g SAR 10g SAR Deviation	19.92 0.316 0.164 0.14	factor* 1.14 0.36 0.19 0.14
	Measured F Front	Power [dBm] 1g SAR 10g SAR Deviation 1g SAR	19.92 0.316 0.164 0.14 0.676	factor* 1.14 0.36 0.19 0.14 0.77
	Measured F	Power [dBm] 1g SAR 10g SAR Deviation 1g SAR 10g SAR	19.92 0.316 0.164 0.14 0.676 0.328	factor* 1.14 0.36 0.19 0.14 0.77 0.37
10MHz	Measured F Front	Power [dBm] 1g SAR 10g SAR Deviation 1g SAR 10g SAR Double SAR Deviation	19.92 0.316 0.164 0.14 0.676	factor* 1.14 0.36 0.19 0.14 0.77
10MHz QPSK50%	Measured F Front	Power [dBm] 1g SAR 10g SAR Deviation 1g SAR 10g SAR	19.92 0.316 0.164 0.14 0.676 0.328 -0.05	factor* 1.14 0.36 0.19 0.14 0.77 0.37 -0.05
	Measured F Front Rear	Power [dBm] 1g SAR 10g SAR Deviation 1g SAR 10g SAR Deviation 1g SAR	19.92 0.316 0.164 0.14 0.676 0.328 -0.05	factor* 1.14 0.36 0.19 0.14 0.77 0.37 -0.05 0.08
QPSK50%	Measured F Front Rear Left edge	Power [dBm] 1g SAR 10g SAR Deviation 1g SAR 10g SAR Deviation 1g SAR Deviation 1g SAR 10g SAR 10g SAR Deviation 1g SAR	19.92 0.316 0.164 0.14 0.676 0.328 -0.05 0.071 0.04 0.02 0.047	factor* 1.14 0.36 0.19 0.14 0.77 0.37 -0.05 0.08 0.05 0.02 0.05
QPSK50%	Measured F Front Rear	Power [dBm] 1g SAR 10g SAR Deviation 1g SAR Deviation 1g SAR Deviation 1g SAR 10g SAR 10g SAR 10g SAR 10g SAR 10g SAR	19.92 0.316 0.164 0.14 0.676 0.328 -0.05 0.071 0.04 0.02 0.047	factor* 1.14 0.36 0.19 0.14 0.77 0.37 -0.05 0.08 0.05 0.02 0.05 0.03
QPSK50%	Measured F Front Rear Left edge	Power [dBm] 1g SAR 10g SAR Deviation 1g SAR Deviation 1g SAR Deviation 1g SAR 10g SAR 10g SAR 10g SAR Deviation 1g SAR Deviation 1g SAR Deviation	19.92 0.316 0.164 0.14 0.676 0.328 -0.05 0.071 0.04 0.02 0.047 0.027	factor* 1.14 0.36 0.19 0.14 0.77 0.37 -0.05 0.08 0.05 0.02 0.05 0.03 0.07
QPSK50%	Front Rear Left edge Right edge	Dower [dBm] 1g SAR 10g SAR Deviation 1g SAR Deviation 1g SAR Deviation 1g SAR 10g SAR 10g SAR Deviation 1g SAR Deviation 1g SAR Deviation 1g SAR 10g SAR	19.92 0.316 0.164 0.14 0.676 0.328 -0.05 0.071 0.04 0.02 0.047 0.027 0.07	factor* 1.14 0.36 0.19 0.14 0.77 0.37 -0.05 0.08 0.05 0.02 0.05 0.03 0.07 0.84
QPSK50%	Measured F Front Rear Left edge	Power [dBm] 1g SAR 10g SAR Deviation 1g SAR 10g SAR Deviation 1g SAR Deviation 1g SAR 10g SAR Deviation 1g SAR Deviation 1g SAR Deviation 1g SAR 10g SAR 10g SAR 10g SAR	19.92 0.316 0.164 0.14 0.676 0.328 -0.05 0.071 0.04 0.02 0.047 0.027 0.07 0.738 0.368	factor* 1.14 0.36 0.19 0.14 0.77 0.37 -0.05 0.08 0.05 0.02 0.05 0.03 0.07 0.84 0.42
QPSK50%	Front Rear Left edge Right edge	Power [dBm] 1g SAR 10g SAR Deviation 1g SAR 10g SAR Deviation 1g SAR Deviation 1g SAR 10g SAR Deviation 1g SAR Deviation	19.92 0.316 0.164 0.14 0.676 0.328 -0.05 0.071 0.04 0.02 0.047 0.027 0.07	factor* 1.14 0.36 0.19 0.14 0.77 0.37 -0.05 0.08 0.05 0.02 0.05 0.03 0.07 0.84
QPSK50%	Front Rear Left edge Right edge	Power [dBm] 1g SAR 10g SAR Deviation 1g SAR 10g SAR Deviation 1g SAR Deviation 1g SAR 10g SAR Deviation 1g SAR Deviation 1g SAR Deviation 1g SAR 10g SAR 10g SAR 10g SAR	19.92 0.316 0.164 0.14 0.676 0.328 -0.05 0.071 0.04 0.02 0.047 0.027 0.07 0.738 0.368	factor* 1.14 0.36 0.19 0.14 0.77 0.37 -0.05 0.08 0.05 0.02 0.05 0.03 0.07 0.84 0.42
QPSK50%	Front Rear Left edge Right edge Bottom edge	Power [dBm] 1g SAR 10g SAR Deviation 1g SAR 10g SAR Deviation 1g SAR Deviation 1g SAR 10g SAR Deviation 1g SAR Deviation 1g SAR 10g SAR Deviation 1g SAR 10g SAR Deviation 1g SAR Deviation 1g SAR	19.92 0.316 0.164 0.14 0.676 0.328 -0.05 0.071 0.04 0.02 0.047 0.027 0.07 0.738 0.368	factor* 1.14 0.36 0.19 0.14 0.77 0.37 -0.05 0.08 0.05 0.02 0.05 0.03 0.07 0.84 0.42
QPSK50%	Front Rear Left edge Right edge Bottom edge Top edge	Power [dBm] 1g SAR 10g SAR Deviation 1g SAR 10g SAR Deviation 1g SAR Deviation 1g SAR 10g SAR Deviation 1g SAR Deviation 1g SAR 10g SAR Deviation 1g SAR Deviation 1g SAR Deviation 1g SAR 10g SAR Deviation 1g SAR 10g SAR	19.92 0.316 0.164 0.14 0.676 0.328 -0.05 0.071 0.04 0.02 0.047 0.027 0.07 0.738 0.368	factor* 1.14 0.36 0.19 0.14 0.77 0.37 -0.05 0.08 0.05 0.02 0.05 0.03 0.07 0.84 0.42
QPSK50%	Front Rear Left edge Right edge Bottom edge	Dower [dBm] 1g SAR 10g SAR Deviation 1g SAR Deviation 1g SAR 10g SAR Deviation 1g SAR 10g SAR Deviation 1g SAR Deviation SAR Measureme	19.92 0.316 0.164 0.14 0.676 0.328 -0.05 0.071 0.04 0.02 0.047 0.027 0.07 0.738 0.368 0.12	factor* 1.14 0.36 0.19 0.14 0.77 0.37 -0.05 0.08 0.05 0.02 0.05 0.03 0.07 0.84 0.42 0.12
QPSK50% RB	Measured F Front Rear Left edge Right edge Bottom edge Top edge Device orientation	Power [dBm] 1g SAR 10g SAR Deviation 1g SAR Deviation 1g SAR 10g SAR Deviation 1g SAR Deviation 1g SAR Deviation 1g SAR Measureme nt	19.92 0.316 0.164 0.14 0.676 0.328 -0.05 0.071 0.04 0.02 0.047 0.027 0.07 0.738 0.368 0.12 Measured 27710	factor* 1.14 0.36 0.19 0.14 0.77 0.37 -0.05 0.08 0.05 0.02 0.05 0.03 0.07 0.84 0.42 0.12
QPSK50% RB	Front Rear Left edge Right edge Bottom edge Top edge Device orientation Tun	Power [dBm] 1g SAR 10g SAR Deviation 1g SAR Deviation SAR measureme nt	19.92 0.316 0.164 0.14 0.676 0.328 -0.05 0.071 0.04 0.02 0.047 0.027 0.07 0.738 0.368 0.12 Measured 27710 20.50	factor* 1.14 0.36 0.19 0.14 0.77 0.37 -0.05 0.08 0.05 0.02 0.05 0.03 0.07 0.84 0.42 0.12 Reported 27710 Scaling
Mode 10MHz	Measured F Front Rear Left edge Right edge Bottom edge Top edge Device orientation Tun Measured F	Power [dBm] 1g SAR 10g SAR Deviation 1g SAR Deviation 1g SAR Deviation 1g SAR Deviation 1g SAR Deviation 2g SAR Deviation SAR measureme nt e-up Power [dBm]	19.92 0.316 0.164 0.14 0.676 0.328 -0.05 0.071 0.04 0.02 0.047 0.027 0.07 0.738 0.368 0.12 Measured 27710 20.50 19.85	factor* 1.14 0.36 0.19 0.14 0.77 0.37 -0.05 0.08 0.05 0.02 0.05 0.03 0.07 0.84 0.42 0.12 Reported 27710 Scaling factor* 1.16
QPSK50% RB	Measured F Front Rear Left edge Right edge Bottom edge Top edge Device orientation Tun Measured F	Power [dBm] 1g SAR 10g SAR Deviation 1g SAR Deviation 3g SAR Deviation 9g SAR 10g SAR	19.92 0.316 0.164 0.14 0.676 0.328 -0.05 0.071 0.04 0.02 0.047 0.027 0.07 0.738 0.368 0.12 Measured 27710 20.50 19.85 0.695	factor* 1.14 0.36 0.19 0.14 0.77 0.37 -0.05 0.08 0.05 0.02 0.05 0.03 0.07 0.84 0.42 0.12 Reported 27710 Scaling factor* 1.16 0.81
Mode 10MHz QPSK100%	Measured F Front Rear Left edge Right edge Bottom edge Top edge Device orientation Tun Measured F	Power [dBm] 1g SAR 10g SAR Deviation 1g SAR Deviation 1g SAR Deviation 1g SAR Deviation 1g SAR Deviation 2g SAR Deviation SAR measureme nt e-up Power [dBm]	19.92 0.316 0.164 0.14 0.676 0.328 -0.05 0.071 0.04 0.02 0.047 0.027 0.07 0.738 0.368 0.12 Measured 27710 20.50 19.85	factor* 1.14 0.36 0.19 0.14 0.77 0.37 -0.05 0.08 0.05 0.02 0.05 0.03 0.07 0.84 0.42 0.12 Reported 27710 Scaling Factor* 1.16



14.2 Full SAR

Test Band	Channel	Frequency	Tune-Up	Measured Power	Test Position	Measured 10g SAR	Measured 1g SAR	Reported 10g SAR	Reported 1g SAR	Power Drift	Figure
GSM850	190	836.6 MHz	33.2	32.09	Left Cheek	0.101	0.133	0.13	0.17	0.08	<u>Fig A. 1</u>
GSM850	128	824.2 MHz	32	30.87	Rear	0.375	0.477	0.49	0.62	-0.01	<u>Fig A. 2</u>
PCS1900	661	1880 MHz	30	28.37	Right Cheek	0.095	0.148	0.14	0.22	0.09	<u>Fig A.3</u>
PCS1900	512	1850.2 MHz	28	26.81	Rear 15mm	0.378	0.663	0.50	0.87	0.11	Fig A. 4
PCS1900	661	1880 MHz	22.5	21.50	Bottom edge	0.35	0.671	0.44	0.84	0.07	Fig A. 5
WCDMA1900-BII	9538	1907.6 MHz	23.2	22.04	Right Cheek	0.106	0.172	0.14	0.22	0.08	Fig A. 6
WCDMA1900-BII	9262	1852.4 MHz	23.2	22.02	Rear 15mm	0.407	0.719	0.53	0.94	0.1	<u>Fig A.7</u>
WCDMA1900-BII	9262	1852.4 MHz	20.2	18.92	Bottom edge	0.496	0.933	0.67	1.25	-0.17	<u>Fig A.8</u>
WCDMA1700-BIV	1513	1752.6 MHz	22.5	21.39	Right Cheek	0.086	0.135	0.11	0.17	0	<u>Fig A.9</u>
WCDMA1700-BIV	1513	1752.6 MHz	22.5	21.39	Rear 15mm	0.443	0.775	0.57	1.00	0.02	Fig A. 10
WCDMA1700-BIV	1513	1752.6 MHz	20	19.28	Bottom edge	0.5	0.946	0.59	1.12	-0.13	Fig A. 11
WCDMA850-BV	4183	836.6 MHz	25.5	24.34	Left Cheek	0.323	0.416	0.42	0.54	0.02	Fig A. 12
WCDMA850-BV	4132	826.4 MHz	25.5	24. 28	Rear	0.416	0.528	0.55	0.70	-0.03	Fig A. 13
LTE1900-FDD2	19100	1900 MHz	24	23.61	Right Cheek	0.129	0.209	0.14	0.23	0.07	Fig A. 14
LTE1900-FDD2	19100	1900 MHz	24	23.61	Rear 15mm	0.417	0.726	0.46	0.79	0.04	Fig A. 15
LTE1900-FDD2	18700	1860 MHz	20	19.20	Bottom edge	0.565	1.09	0.68	1.31	-0.16	Fig A. 16
LTE1700-FDD4	20050	1720 MHz	24	23.04	Right Cheek	0.111	0.172	0.14	0.21	0.04	Fig A. 17
LTE1700-FDD4	20300	1745 MHz	24	22.99	Rear 15mm	0.541	0.949	0.68	1.20	0.09	Fig A. 18
LTE1700-FDD4	20300	1745 MHz	20.5	19.83	Rear	0.539	0.999	0.63	1.17	-0.03	Fig A. 19
LTE850-FDD5	20450	829 MHz	24.5	24.28	Left Cheek	0.266	0.34	0.28	0.36	-0.15	Fig A. 20
LTE850-FDD5	20450	829 MHz	24.5	24.28	Rear	0.301	0.383	0.32	0.40	0	Fig A. 21
LTE700-FDD12	23060	704 MHz	24.5	23.65	Left Cheek	0.162	0.206	0.20	0.25	0.17	Fig A. 22
LTE700-FDD12	23060	704 MHz	24.5	23.65	Rear	0.345	0.436	0.42	0.53	0	Fig A. 23
LTE700-FDD14	23330	793 MHz	24.5	23.37	Left Cheek	0.254	0.326	0.33	0.42	0.04	Fig A. 24
LTE700-FDD14	23330	793 MHz	24.5	23.37	Rear	0.373	0.477	0.48	0.62	-0.01	Fig A. 25
LTE2300-FDD30	27710	2310 MHz	24	22.69	Left Cheek	0.11	0.195	0.15	0.26	0.01	Fig A. 26
LTE2300-FDD30	27710	2310 MHz	24	22.69	Rear 15mm	0.45	0.838	0.61	1.13	0.11	Fig A. 27
LTE2300-FDD30	27710	2310 MHz	21.5	20.93	Bottom edge	0.483	0.965	0.55	1.10	0.08	Fig A. 28



14.3 WiFi Evaluation

According to the KDB248227 D01, SAR is measured for 802.11b DSSS using the <u>initial test position</u> procedure.

Note1: When the reported SAR of the initial test position is > 0.4 W/kg, SAR is repeated for the 802.11 transmission mode configuration tested in the initial test position using subsequent highest estimated 1-g SAR conditions determined by area scans, on the highest maximum output power channel, until the reported SAR is \leq 0.8 W/kg.

Note2: For all positions/configurations tested using the initial test position and subsequent test positions, when the reported SAR is > 0.8 W/kg, SAR is measured for these test positions/configurations on the subsequent next highest measured output power channel until the reported SAR is \leq 1.2 W/kg or all required channels are tested.

Note3: According to the KDB248227 D01, The reported SAR must be scaled to 100% transmission duty factor to determine compliance at the maximum tune-up tolerance limit.

WLAN2450 #1 Head Fast SAR Ambient Temperature: 22.5 Liquid Temperature: 22.3 Measured SAR [W/kg] Reported SAR [W/kg] Device SAR Rate measurement 2462 MHz 2437 MHz 2412 MHz 20 20.5 20 Scaling factor* Tune up Slot Average Power [dBm] 19.70 20.29 19.60 1.07 1.05 1.10 1g Fast SAR 1.04 0.863 0.618 1.11 0.91 0.68 Left Cheek 10g SAR 0.586 0.344 0.63 0.50 0.38 0.473 Deviation 0.1 0.05 -0.05 0.10 0.05 -0.05 1g Fast SAR 0.785 1.21 0.82 1.13 802.11b Left Tilt 10g SAR 0.595 0.44 0.64 0.46 5.5Mbps Deviation 0.07 0.07 0.07 0.07 1g Fast SAR 0.381 0.40 Right Cheek 10g SAR 0.215 0.23 Deviation -0.09 -0.09 1g Fast SAR 0.278 0.29 Right Tilt 10g SAR 0.106 0.11 -0.06 Deviation -0.06

Table 14-29 WLAN2450 #1 Head Fast SAR

Table 14-30 WLAN2450 #1 Head Full SAR

	WLAN2450 #1 Head Full SAR												
Ambient Te	emperature:	22.5				Liquid Ter	mperature:	22.3					
	Device	SAR	Mea	sured SAR [V	V/kg]	Reported SAR [W/kg]							
Rate	orientation	measurement	11	6	1	11	6	1					
	orientation	measurement	2462 MHz	2437 MHz	2412 MHz	-	В	'					
	Tur	ne up	20	20.5	20	:	Scaling factor	.*					
	Slot Average	Power [dBm]	19.70	20.29	19.60	1.07	1.05	1.10					
		1g Full SAR	1.19	1	0.666	1.28	1.05	0.73					
	Left Cheek	10g SAR	0.602	0.516	0.342	0.65	0.54	0.37					
802.11b		Deviation	0.1	0.05	-0.05	0.10	0.05	-0.05					
5.5Mbps		1g Full SAR	1.03	0.845		1.10	0.89						
3.3Mibps	Left Tilt	10g SAR	0.551	0.44		0.59	0.46						
		Deviation	0.07	0.07		0.07	0.07						
	Right Cheek	1g Full SAR		0.41			0.43						
		10g SAR		0.224			0.24						
		Deviation		-0.09			-0.09						



Table 14-31 WLAN2450 #1 Body Fast SAR

			WLAN24	450 #1 Body Fa	st SAR				
Ambient Te	emperature:	22.5				Liquid Ter	mperature:	22.3	
	Device	SAR	Mea	sured SAR [V	V/kg]	Rep	orted SAR [V	V/kg]	
Rate	orientation	measurement	11	6	1	11	6	1	
	onentation	measurement	2462 MHz	2437 MHz	2412 MHz	-	0		
	Tur	ne up	20	20.5	20		Scaling factor	.*	
	Slot Average	Power [dBm]	19.70	20.29	19.60	1.07	1.05	1.10	
		1g Fast SAR		0.288			0.30		
	Front	10g SAR		0.161			0.17		
		Deviation		0.09			0.09		
		1g Fast SAR		0.323			0.34		
802.11b	Rear	10g SAR		0.173			0.18		
5.5Mbps		Deviation		-0.09			-0.09		
		1g Fast SAR		0.113			0.12		
	Top edge	10g SAR		0.059			0.06		
		Deviation		0.03			0.03		
	Right edge	1g Fast SAR		0.311			0.33		
		10g SAR		0.159			0.17		
		Deviation		0.09			0.09		

Table 14-32 WLAN2450 #1 Body Full SAR

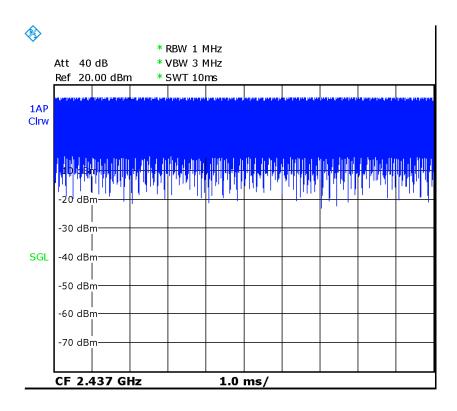
14.5.0 1. 5.2 11.2 11.2 100 // 1. 204 y 1. 4.11 07.11													
	WLAN2450 #1 Body Full SAR												
Ambient Te	emperature:	22.5				Liquid Ter	mperature:	22.3					
	Dovine	CAD	Mea	sured SAR [V	V/kg]	Reported SAR [W/kg]							
Rate	Device orientation	SAR measurement	11	6	1	11	6	1					
		measurement	2462 MHz	2437 MHz	2412 MHz	-	0	'					
	Tur	ne up	20	20.5	20		г*						
802.11b	Slot Average	Power [dBm]	19.70	20.29	19.60	1.07	1.05	1.10					
5.5Mbps	Rear	1g Full SAR		0.322			0.34						
5.5MDps		10g SAR		0.172			0.18						
		Deviation		-0.09			-0.09						

	According to the KDB248227 D01, The reported SAR must be scaled to 100% transmission duty factor to determine compliance at the maximum tune-up to brance limit. The scaled reported SAR is presented as below												
Frequ	iency	TestPosition	Actualduty	maximum duty	-	Scaled reported	Figure						
МНг	С h.		factor	factor	SAR (1g) (W /kg)	SAR (1g) (W /kg)	. 4						
2462 M H z 11 LeftCheek 100.00% 100% 1.28 1.28 Fig A.29													

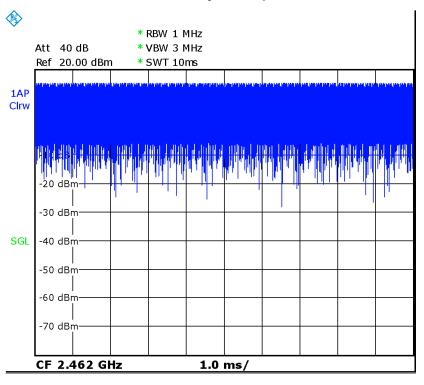
	According to the KDB 248227 D 01, The reported SAR must be scaled to 100% transmission duty factor to determine compliance at the maximum tune-up to brance limit. The scaled reported SAR is presented as below													
Frequ	iency	TestPosition	Actualduty	maximum duty	Reported SAR (1g) (W /kg)	Scaled reported SAR (1g) (W /kg)	Figure							
МНz	factor SAR(lg)(W/kg) SAR(lg)(W/kg)													
2437	2437 6 0 100.00% 100% 0.34 Fig A.30													

SAR is not required for OFDM because the 802.11b adjusted SAR $\,\leqslant\,\,$ 1.2 W/kg.





Picture 14.1 Duty factor plot CH6



Picture 14.1 Duty factor plot CH11



15 SAR Measurement Variability

SAR measurement variability must be assessed for each frequency band, which is determined by the SAR probe calibration point and tissue-equivalent medium used for the device measurements. When both head and body tissue-equivalent media are required for SAR measurements in a frequency band, the variability measurement procedures should be applied to the tissue medium with the highest measured SAR, using the highest measured SAR configuration for that tissue-equivalent medium.

The following procedures are applied to determine if repeated measurements are required.

- 1) Repeated measurement is not required when the original highest measured SAR is < 0.80 W/kg; steps 2) through 4) do not apply.
- 2) When the original highest measured SAR is ≥ 0.80 W/kg, repeat that measurement once.
- 3) Perform a second repeated measurement only if the ratio of largest to smallest SAR for the original and first repeated measurements is > 1.20 or when the original or repeated measurement is ≥ 1.45 W/kg ($\sim 10\%$ from the 1-g SAR limit).
- 4) Perform a third repeated measurement only if the original, first or second repeated measurement is \geq 1.5 W/kg and the ratio of largest to smallest SAR for the original, first and second repeated measurements is > 1.20.

Mode	СН	Freq	Test Poisition	Original SAR (W/kg)	First Repeated SAR(W/kg)	The Ratio
WCDMA1900-BII	9262	1852.4 MHz	Bottom edge	0.933	0.929	1.00
WCDMA1700-BIV	1513	1752.6 MHz	Bottom edge	0.946	0.931	1.02
LTE1900-FDD2	18700	1860 MHz	Bottom edge	1.09	1.07	1.02
LTE1700-FDD4	20300	1745 MHz	Rear 15mm	0.949	0.942	1.01
LTE1700-FDD4	20300	1745 MHz	Rear	0.999	0.989	1.01
LTE2300-FDD30	27710	2310 MHz	Rear 15mm	0.838	0.821	1.02
LTE2300-FDD30	27710	2310 MHz	Bottom edge	0.965	0.959	1.01
WLAN2450	11	2462 MHz	Left Cheek	1. 19	1.15	1.03



16 Measurement Uncertainty

16.1 Measurement Uncertainty for Normal SAR Tests (300MHz~3GHz)

	Measurement on	ooi ta			00.0	1000		<i>,</i>		
No.	Error Description	Type	Uncertainty	Probably	Div.	(Ci)	(Ci)	Std.	Std.	Degree
			value	Distribution		1g	10g	Unc.	Unc.	of
								(1g)	(10g)	freedo
										m
Meas	surement system									
1	Probe calibration	В	6.0	N	1	1	1	6.0	6.0	8
2	Isotropy	В	4.7	R	$\sqrt{3}$	0.7	0.7	1.9	1.9	8
3	Boundary effect	В	1.0	R	$\sqrt{3}$	1	1	0.6	0.6	8
4	Linearity	В	4.7	R	$\sqrt{3}$	1	1	2.7	2.7	8
5	Detection limit	В	1.0	N	1	1	1	0.6	0.6	8
6	Readout electronics	В	0.3	R	$\sqrt{3}$	1	1	0.3	0.3	8
7	Response time	В	0.8	R	$\sqrt{3}$	1	1	0.5	0.5	8
8	Integration time	В	2.6	R	$\sqrt{3}$	1	1	1.5	1.5	8
9	RF ambient conditions-noise	В	0	R	$\sqrt{3}$	1	1	0	0	8
10	RFambient conditions-reflection	В	0	R	$\sqrt{3}$	1	1	0	0	8
11	Probe positioned mech. restrictions	В	0.4	R	$\sqrt{3}$	1	1	0.2	0.2	8
12	Probe positioning with respect to phantom shell	В	2.9	R	$\sqrt{3}$	1	1	1.7	1.7	88
13	Post-processing	В	1.0	R	$\sqrt{3}$	1	1	0.6	0.6	8
		I.	Test s	sample related	i	U.	ı		l.	
14	Test sample positioning	A	3.3	N	1	1	1	3.3	3.3	71
15	Device holder uncertainty	A	3.4	N	1	1	1	3.4	3.4	5
16	Drift of output power	В	5.0	R	$\sqrt{3}$	1	1	2.9	2.9	8
		•	Phant	tom and set-u	p		•	•	•	
17	Phantom uncertainty	В	4.0	R	$\sqrt{3}$	1	1	2.3	2.3	∞
18	Liquid conductivity (target)	В	5.0	R	$\sqrt{3}$	0.64	0.43	1.8	1.2	8
19	Liquid conductivity (meas.)	A	2.06	N	1	0.64	0.43	1.32	0.89	43
20	Liquid permittivity (target)	В	5.0	R	$\sqrt{3}$	0.6	0.49	1.7	1.4	8
21	Liquid permittivity (meas.)	A	1.6	N	1	0.6	0.49	1.0	0.8	521



C	Combined standard uncertainty	$u_c^{'} =$	$\sqrt{\sum_{i=1}^{21} c_i^2 u_i^2}$					9.55	9.43	257
(conf 95 %	<u> </u>		$u_e = 2u_c$					19.1	18.9	
16.2	Measurement U	ncerta	ainty for No	ormal SAR	Tests	(3~6	GHz)		T	,
No.	Error Description	Type	Uncertainty	Probably	Div.	(Ci)	(Ci)	Std.	Std.	Degree
			value	Distribution		1g	10g	Unc.	Unc.	of
								(1g)	(10g)	freedo
										m
Meas	surement system			1						
1	Probe calibration	В	6.55	N	1	1	1	6.55	6.55	∞
2	Isotropy	В	4.7	R	$\sqrt{3}$	0.7	0.7	1.9	1.9	∞
3	Boundary effect	В	2.0	R	$\sqrt{3}$	1	1	1.2	1.2	∞
4	Linearity	В	4.7	R	$\sqrt{3}$	1	1	2.7	2.7	8
5	Detection limit	В	1.0	R	$\sqrt{3}$	1	1	0.6	0.6	8
6	Readout electronics	В	0.3	R	$\sqrt{3}$	1	1	0.3	0.3	8
7	Response time	В	0.8	R	$\sqrt{3}$	1	1	0.5	0.5	∞
8	Integration time	В	2.6	R	$\sqrt{3}$	1	1	1.5	1.5	∞
9	RF ambient conditions-noise	В	0	R	$\sqrt{3}$	1	1	0	0	∞
10	RF ambient conditions-reflection	В	0	R	$\sqrt{3}$	1	1	0	0	8
11	Probe positioned mech. restrictions	В	0.8	R	$\sqrt{3}$	1	1	0.5	0.5	∞
12	Probe positioning with respect to phantom shell	В	6.7	R	$\sqrt{3}$	1	1	3.9	3.9	∞
13	Post-processing	В	4.0	R	$\sqrt{3}$	1	1	2.3	2.3	∞
			Test s	sample related	l					
14	Test sample positioning	A	3.3	N	1	1	1	3.3	3.3	71
15	Device holder uncertainty	A	3.4	N	1	1	1	3.4	3.4	5
16	Drift of output power	В	5.0	R	$\sqrt{3}$	1	1	2.9	2.9	∞
			Phan	tom and set-u	p	•				
17	Phantom uncertainty	В	4.0	R	$\sqrt{3}$	1	1	2.3	2.3	∞
18	Liquid conductivity (target)	В	5.0	R	$\sqrt{3}$	0.64	0.43	1.8	1.2	80
19	Liquid conductivity (meas.)	A	2.06	N	1	0.64	0.43	1.32	0.89	43
20	Liquid permittivity	В	5.0	R	$\sqrt{3}$	0.6	0.49	1.7	1.4	∞



	(target)									
21	Liquid permittivity (meas.)	A	1.6	N	1	0.6	0.49	1.0	0.8	521
(Combined standard uncertainty	$u_c^{'} =$	$= \sqrt{\sum_{i=1}^{21} c_i^2 u_i^2}$					10.7	10.6	257
_	anded uncertainty fidence interval of	1	$u_e = 2u_c$					21.4	21.1	

16.3 Measurement Uncertainty for Fast SAR Tests (300MHz~3GHz)

16.3 Measurement Uncertainty for Fast SAR Tests (300MHz~3GHz)											
No.	Error Description	Type	Uncertainty	Probably	Div.	(Ci)	(Ci)	Std.	Std.	Degree	
			value	Distribution		1g	10g	Unc.	Unc.	of	
								(1g)	(10g)	freedo	
										m	
Meas	surement system	1		.	1			r	1	T	
1	Probe calibration	В	6.0	N	1	1	1	6.0	6.0	∞	
2	Isotropy	В	4.7	R	$\sqrt{3}$	0.7	0.7	1.9	1.9	∞	
3	Boundary effect	В	1.0	R	$\sqrt{3}$	1	1	0.6	0.6	∞	
4	Linearity	В	4.7	R	$\sqrt{3}$	1	1	2.7	2.7	∞	
5	Detection limit	В	1.0	R	$\sqrt{3}$	1	1	0.6	0.6	∞	
6	Readout electronics	В	0.3	R	$\sqrt{3}$	1	1	0.3	0.3	∞	
7	Response time	В	0.8	R	$\sqrt{3}$	1	1	0.5	0.5	∞	
8	Integration time	В	2.6	R	$\sqrt{3}$	1	1	1.5	1.5	∞	
9	RF ambient conditions-noise	В	0	R	$\sqrt{3}$	1	1	0	0	∞	
10	RF ambient conditions-reflection	В	0	R	$\sqrt{3}$	1	1	0	0	∞	
11	Probe positioned mech. Restrictions	В	0.4	R	$\sqrt{3}$	1	1	0.2	0.2	8	
12	Probe positioning with respect to phantom shell	В	2.9	R	$\sqrt{3}$	1	1	1.7	1.7	8	
13	Post-processing	В	1.0	R	$\sqrt{3}$	1	1	0.6	0.6	8	
14	Fast SAR z- Approximation	В	7.0	R	$\sqrt{3}$	1	1	4.0	4.0	8	
			Test s	sample related	l						
15	Test sample positioning	A	3.3	N	1	1	1	3.3	3.3	71	
16	Device holder uncertainty	A	3.4	N	1	1	1	3.4	3.4	5	
17	Drift of output power	В	5.0	R	$\sqrt{3}$	1	1	2.9	2.9	∞	
Phantom and set-up											
18	Phantom uncertainty	В	4.0	R	$\sqrt{3}$	1	1	2.3	2.3	∞	



19	Liquid conductivity (target)	В	5.0	R	$\sqrt{3}$	0.64	0.43	1.8	1.2	∞
20	Liquid conductivity (meas.)	A	2.06	N	1	0.64	0.43	1.32	0.89	43
21	Liquid permittivity (target)	В	5.0	R	$\sqrt{3}$	0.6	0.49	1.7	1.4	∞
22	Liquid permittivity (meas.)	A	1.6	N	1	0.6	0.49	1.0	0.8	521
(Combined standard uncertainty	$u_c^{'} =$	$\sqrt{\sum_{i=1}^{22} c_i^2 u_i^2}$					10.4	10.3	257
_	inded uncertainty fidence interval of	i	$u_e = 2u_c$					20.8	20.6	

16.4 Measurement Uncertainty for Fast SAR Tests (3~6GHz)

No.	Error Description	Type	Uncertainty	Probably	Div.	(Ci)	(Ci)	Std.	Std.	Degree
			value	Distribution		1g	10g	Unc.	Unc.	of
								(1g)	(10g)	freedo
										m
Meas	Measurement system									
1	Probe calibration	В	6.55	N	1	1	1	6.55	6.55	∞
2	Isotropy	В	4.7	R	$\sqrt{3}$	0.7	0.7	1.9	1.9	∞
3	Boundary effect	В	2.0	R	$\sqrt{3}$	1	1	1.2	1.2	∞
4	Linearity	В	4.7	R	$\sqrt{3}$	1	1	2.7	2.7	∞
5	Detection limit	В	1.0	R	$\sqrt{3}$	1	1	0.6	0.6	∞
6	Readout electronics	В	0.3	R	$\sqrt{3}$	1	1	0.3	0.3	8
7	Response time	В	0.8	R	$\sqrt{3}$	1	1	0.5	0.5	8
8	Integration time	В	2.6	R	$\sqrt{3}$	1	1	1.5	1.5	8
9	RF ambient conditions-noise	В	0	R	$\sqrt{3}$	1	1	0	0	8
10	RF ambient conditions-reflection	В	0	R	$\sqrt{3}$	1	1	0	0	8
11	Probe positioned mech. Restrictions	В	0.8	R	$\sqrt{3}$	1	1	0.5	0.5	∞
12	Probe positioning with respect to phantom shell	В	6.7	R	$\sqrt{3}$	1	1	3.9	3.9	8
13	Post-processing	В	1.0	R	$\sqrt{3}$	1	1	0.6	0.6	8
14	Fast SAR z- Approximation	В	14.0	R	$\sqrt{3}$	1	1	8.1	8.1	8
Test sample related										
15	Test sample positioning	A	3.3	N	1	1	1	3.3	3.3	71

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16	Device holder uncertainty	A	3.4	N	1	1	1	3.4	3.4	5
17	Drift of output power	В	5.0	R	$\sqrt{3}$	1	1	2.9	2.9	∞
	Phantom and set-up									
18	Phantom uncertainty	В	4.0	R	$\sqrt{3}$	1	1	2.3	2.3	∞
19	Liquid conductivity (target)	В	5.0	R	$\sqrt{3}$	0.64	0.43	1.8	1.2	8
20	Liquid conductivity (meas.)	A	2.06	N	1	0.64	0.43	1.32	0.89	43
21	Liquid permittivity (target)	В	5.0	R	$\sqrt{3}$	0.6	0.49	1.7	1.4	∞
22	Liquid permittivity (meas.)	A	1.6	N	1	0.6	0.49	1.0	0.8	521
Combined standard uncertainty		$u_c' = \sqrt{\sum_{i=1}^{22} c_i^2 u_i^2}$						13.5	13.4	257
Expanded uncertainty (confidence interval of $u_e = 2u_c$ 95 %)		$u_e = 2u_c$					27.0	26.8		



17 MAIN TEST INSTRUMENTS

Table 17.1: List of Main Instruments

No.	Name	Туре	Serial Number	Calibration Date	Valid Period	
01	Network analyzer	E5071C	MY55491241	June 15, 2018	One year	
02	Power meter	NRP2	101919	luna 20, 2019	One year	
03	Power sensor	NRP-Z91	101547	June 20, 2018		
04	Signal Generator	E4438C	MY49070393	January 4,2019	One Year	
05	Amplifier	60S1G4	0331848	No Calibration Requested		
06	BTS	CMW500	159890	January 3, 2019	One year	
07	E-field Probe	SPEAG EX3DV4	7514	August 27,2018	One year	
80	DAE	SPEAG DAE4	1525	September 18, 2018	One year	
09	Dipole Validation Kit	SPEAG D750V3	1017	July 19, 2017	Three years	
10	Dipole Validation Kit	SPEAG D835V2	4d069	July 19, 2017	Three years	
11	Dipole Validation Kit	SPEAG D1750V2	1003	July 21, 2017	Three years	
12	Dipole Validation Kit	SPEAG D1900V2	5d101	July 26, 2017	Three years	
13	Dipole Validation Kit	SPEAG D2300V2	1018	July 24, 2018	One years	
14	Dipole Validation Kit	SPEAG D2450V2	853	July 21, 2017	Three years	

^{***}END OF REPORT BODY***



ANNEX A Graph Results

GSM850 CH190 Left Cheek

Date: 5/2/2019

Electronics: DAE4 Sn1525 Medium: head 835 MHz

Medium parameters used: f = 836.6 MHz; $\sigma = 0.917 \text{ mho/m}$; $\epsilon r = 41.04$; $\rho = 1000 \text{ kg/m}^3$

Ambient Temperature: 22.5°C, Liquid Temperature: 22.3°C Communication System: GSM850 836.6 MHz Duty Cycle: 1:8.3

Probe: EX3DV4 – SN7514 ConvF(9.09,9.09,9.09)

Area Scan (71x121x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 0.143 W/kg

Zoom Scan (7x7x7)/**Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 4.505 V/m; Power Drift = 0.08 dB

Peak SAR (extrapolated) = 0.168 W/kg

SAR(1 g) = 0.133 W/kg; SAR(10 g) = 0.101 W/kg

Maximum value of SAR (measured) = 0.139 W/kg

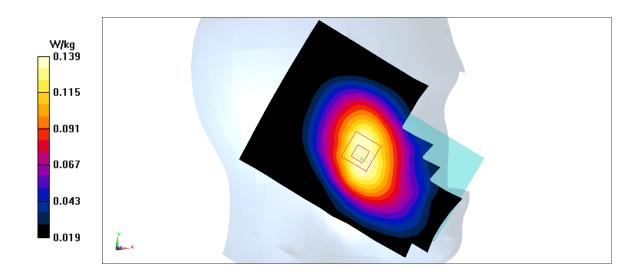


Fig A.1



GSM850 CH128 Rear

Date: 5/2/2019

Electronics: DAE4 Sn1525 Medium: body 835 MHz

Medium parameters used: f = 824.2 MHz; $\sigma = 0.948 \text{ mho/m}$; $\epsilon r = 55.47$; $\rho = 1000 \text{ kg/m}^3$

Ambient Temperature: 22.5°C, Liquid Temperature: 22.3°C Communication System: GSM850 824.2 MHz Duty Cycle: 1:4

Probe: EX3DV4 – SN7514 ConvF(9.47,9.47,9.47)

Area Scan (71x121x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 0.566 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 22.93 V/m; Power Drift = -0.01 dB

Peak SAR (extrapolated) = 0.617 W/kg

SAR(1 g) = 0.477 W/kg; SAR(10 g) = 0.375 W/kg

Maximum value of SAR (measured) = 0.566 W/kg

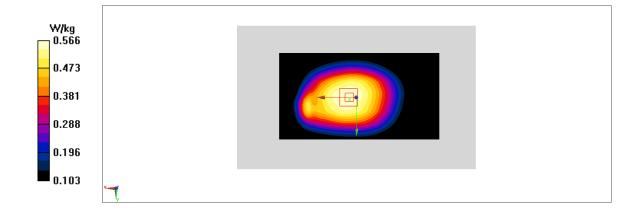


Fig A.2



PCS1900 CH661 Right Cheek

Date: 5/4/2019

Electronics: DAE4 Sn1525 Medium: head 1900 MHz

Medium parameters used: f = 1880 MHz; $\sigma = 1.358 \text{ mho/m}$; $\epsilon r = 39.61$; $\rho = 1000 \text{ kg/m}^3$

Ambient Temperature: 22.5°C, Liquid Temperature: 22.3°C Communication System: PCS1900 1880 MHz Duty Cycle: 1:8.3

Probe: EX3DV4 – SN7514 ConvF(7.73,7.73,7.73)

Area Scan (71x121x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 0.183 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 2.898 V/m; Power Drift = 0.09 dB

Peak SAR (extrapolated) = 0.222 W/kg

SAR(1 g) = 0.148 W/kg; SAR(10 g) = 0.095 W/kg

Maximum value of SAR (measured) = 0.16 W/kg

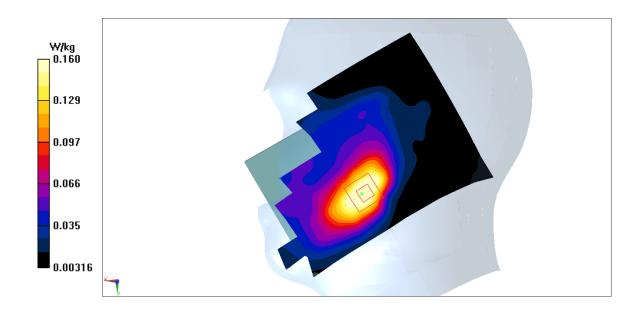


Fig A.3



PCS1900 CH512 Rear 15mm

Date: 5/4/2019

Electronics: DAE4 Sn1525 Medium: body 1900 MHz

Medium parameters used: f = 1850.2 MHz; $\sigma = 1.448 \text{ mho/m}$; $\epsilon r = 52.77$; $\rho = 1000 \text{ kg/m}^3$

Ambient Temperature: 22.5°C, Liquid Temperature: 22.3°C Communication System: PCS1900 1850.2 MHz Duty Cycle: 1:4

Probe: EX3DV4 – SN7514 ConvF(7.53,7.53,7.53)

Area Scan (71x121x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 0.834 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 6.286 V/m; Power Drift = 0.11 dB

Peak SAR (extrapolated) = 1.14 W/kg

SAR(1 g) = 0.663 W/kg; SAR(10 g) = 0.378 W/kg

Maximum value of SAR (measured) = 0.917 W/kg

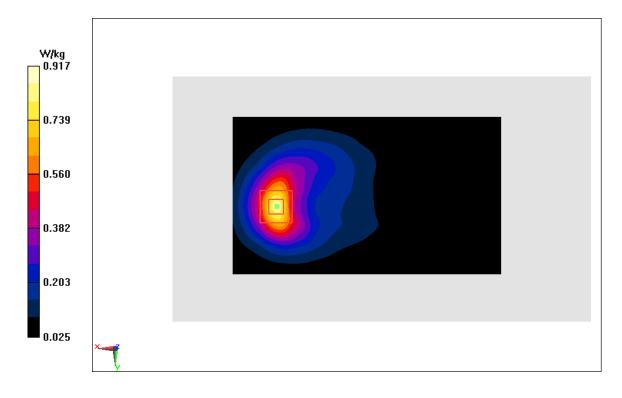


Fig A.4



PCS1900_CH661 Bottom edge

Date: 5/4/2019

Electronics: DAE4 Sn1525 Medium: body 1900 MHz

Medium parameters used: f = 1880 MHz; $\sigma = 1.476 \text{ mho/m}$; $\epsilon r = 52.73$; $\rho = 1000 \text{ kg/m}^3$

Ambient Temperature: 22.5°C, Liquid Temperature: 22.3°C Communication System: PCS1900 1880 MHz Duty Cycle: 1:4

Probe: EX3DV4 – SN7514 ConvF(7.53,7.53,7.53)

Area Scan (71x121x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 0.86 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 21.48 V/m; Power Drift = 0.07 dB

Peak SAR (extrapolated) = 1.2 W/kg

SAR(1 g) = 0.671 W/kg; SAR(10 g) = 0.35 W/kg

Maximum value of SAR (measured) = 0.958 W/kg

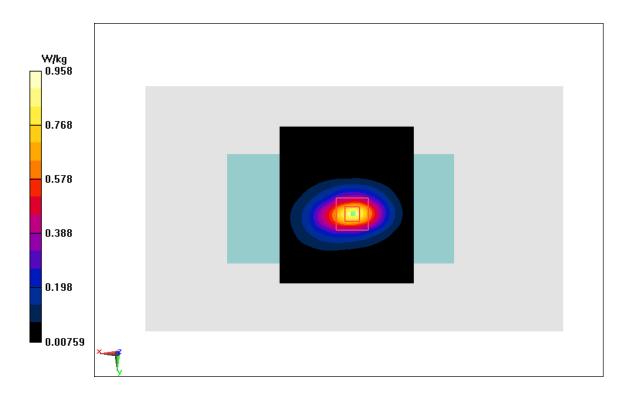


Fig A.5



WCDMA1900-BII_CH9538 Right Cheek

Date: 5/4/2019

Electronics: DAE4 Sn1525 Medium: head 1900 MHz

Medium parameters used: f = 1907.6 MHz; $\sigma = 1.385 \text{ mho/m}$; $\epsilon r = 39.58$; $\rho = 1000 \text{ kg/m}^3$

Ambient Temperature: 22.5°C, Liquid Temperature: 22.3°C

Communication System: WCDMA1900-BII 1907.6 MHz Duty Cycle: 1:1

Probe: EX3DV4 – SN7514 ConvF(7.73,7.73,7.73)

Area Scan (71x121x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 0.219 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 3.706 V/m; Power Drift = 0.08 dB

Peak SAR (extrapolated) = 0.266 W/kg

SAR(1 g) = 0.172 W/kg; SAR(10 g) = 0.106 W/kg

Maximum value of SAR (measured) = 0.187 W/kg

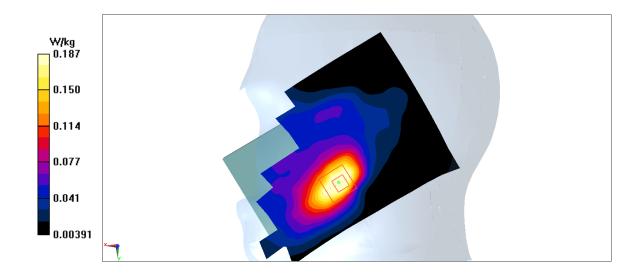


Fig A.6



WCDMA1900-BII_CH9262 Rear 15mm

Date: 5/4/2019

Electronics: DAE4 Sn1525 Medium: body 1900 MHz

Medium parameters used: f = 1852.4 MHz; $\sigma = 1.449$ mho/m; $\epsilon r = 52.77$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.5°C, Liquid Temperature: 22.3°C

Communication System: WCDMA1900-BII 1852.4 MHz Duty Cycle: 1:1

Probe: EX3DV4 – SN7514 ConvF(7.53,7.53,7.53)

Area Scan (71x121x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 0.835 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 4.696 V/m; Power Drift = 0.1 dB

Peak SAR (extrapolated) = 1.17 W/kg

SAR(1 g) = 0.719 W/kg; SAR(10 g) = 0.407 W/kg

Maximum value of SAR (measured) = 0.965 W/kg

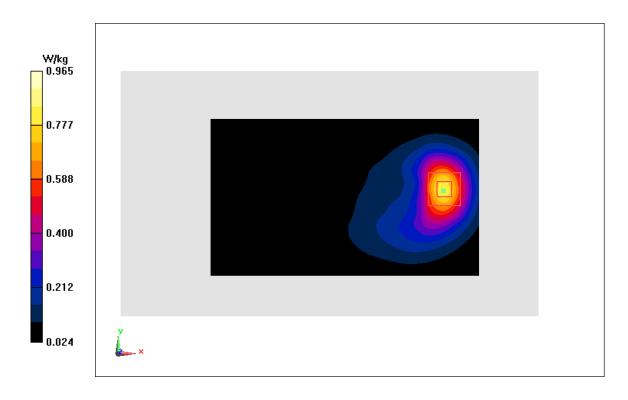


Fig A.7



WCDMA1900-BII_CH9262 Bottom edge

Date: 5/4/2019

Electronics: DAE4 Sn1525 Medium: body 1900 MHz

Medium parameters used: f = 1852.4 MHz; $\sigma = 1.449$ mho/m; $\epsilon r = 52.77$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.5°C, Liquid Temperature: 22.3°C

Communication System: WCDMA1900-BII 1852.4 MHz Duty Cycle: 1:1

Probe: EX3DV4 – SN7514 ConvF(7.53,7.53,7.53)

Area Scan (71x121x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 1.18 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 17.1 V/m; Power Drift = -0.17 dB

Peak SAR (extrapolated) = 1.58 W/kg

SAR(1 g) = 0.933 W/kg; SAR(10 g) = 0.496 W/kg

Maximum value of SAR (measured) = 1.26 W/kg

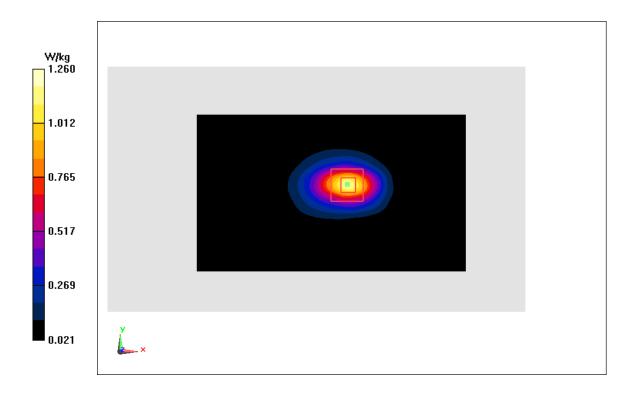


Fig A.8



WCDMA1700-BIV_CH1513 Right Cheek

Date: 5/3/2019

Electronics: DAE4 Sn1525 Medium: head 1750 MHz

Medium parameters used: f = 1752.6 MHz; $\sigma = 1.371 \text{ mho/m}$; $\epsilon r = 40.53$; $\rho = 1000 \text{ kg/m}^3$

Ambient Temperature: 22.5°C, Liquid Temperature: 22.3°C

Communication System: WCDMA1700-BIV 1752.6 MHz Duty Cycle: 1:1

Probe: EX3DV4 – SN7514 ConvF(8.10,8.10,8.10)

Area Scan (71x121x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 0.161 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 4.299 V/m; Power Drift = 0 dB

Peak SAR (extrapolated) = 0.203 W/kg

SAR(1 g) = 0.135 W/kg; SAR(10 g) = 0.086 W/kg

Maximum value of SAR (measured) = 0.145 W/kg

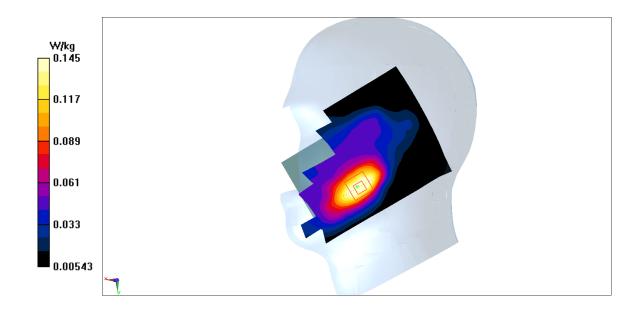


Fig A.9



WCDMA1700-BIV_CH1513 Rear 15mm

Date: 5/3/2019

Electronics: DAE4 Sn1525 Medium: body 1750 MHz

Medium parameters used: f = 1752.6 MHz; $\sigma = 1.475 \text{ mho/m}$; $\epsilon r = 52.72$; $\rho = 1000 \text{ kg/m}^3$

Ambient Temperature: 22.5°C, Liquid Temperature: 22.3°C

Communication System: WCDMA1700-BIV 1752.6 MHz Duty Cycle: 1:1

Probe: EX3DV4 – SN7514 ConvF(7.82,7.82,7.82)

Area Scan (71x121x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 0.909 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 4.861 V/m; Power Drift = 0.02 dB

Peak SAR (extrapolated) = 1.25 W/kg

SAR(1 g) = 0.775 W/kg; SAR(10 g) = 0.443 W/kg

Maximum value of SAR (measured) = 1.03 W/kg

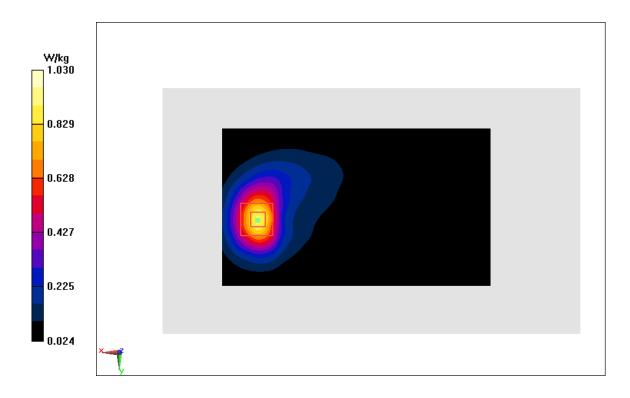


Fig A.10



WCDMA1700-BIV_CH1513 Bottom edge

Date: 5/3/2019

Electronics: DAE4 Sn1525 Medium: body 1750 MHz

Medium parameters used: f = 1752.6 MHz; $\sigma = 1.475$ mho/m; $\epsilon r = 52.72$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.5°C, Liquid Temperature: 22.3°C

Communication System: WCDMA1700-BIV 1752.6 MHz Duty Cycle: 1:1

Probe: EX3DV4 – SN7514 ConvF(7.82,7.82,7.82)

Area Scan (71x121x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 1.22 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 17.74 V/m; Power Drift = -0.13 dB

Peak SAR (extrapolated) = 1.6 W/kg

SAR(1 g) = 0.946 W/kg; SAR(10 g) = 0.5 W/kg

Maximum value of SAR (measured) = 1.29 W/kg

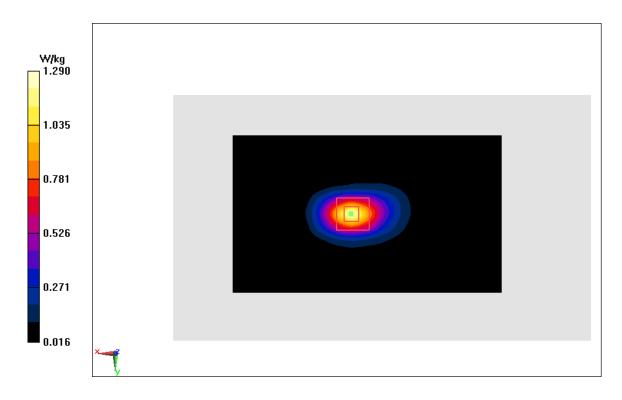


Fig A.11



WCDMA850-BV_CH4183 Left Cheek

Date: 5/2/2019

Electronics: DAE4 Sn1525 Medium: head 835 MHz

Medium parameters used: f = 836.6 MHz; $\sigma = 0.917 \text{ mho/m}$; $\epsilon r = 41.04$; $\rho = 1000 \text{ kg/m}^3$

Ambient Temperature: 22.5°C, Liquid Temperature: 22.3°C

Communication System: WCDMA850-BV 836.6 MHz Duty Cycle: 1:1

Probe: EX3DV4 – SN7514 ConvF(9.09,9.09,9.09)

Area Scan (71x121x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 0.455 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 7.492 V/m; Power Drift = 0.02 dB

Peak SAR (extrapolated) = 0.513 W/kg

SAR(1 g) = 0.416 W/kg; SAR(10 g) = 0.323 W/kg

Maximum value of SAR (measured) = 0.436 W/kg

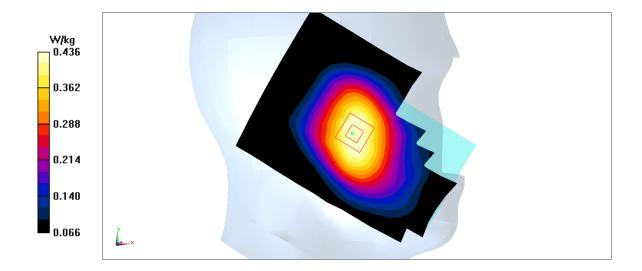


Fig A.12



WCDMA850-BV_CH4132 Rear

Date: 5/2/2019

Electronics: DAE4 Sn1525 Medium: body 835 MHz

Medium parameters used: f = 826.4 MHz; $\sigma = 0.949 \text{ mho/m}$; $\epsilon r = 55.47$; $\rho = 1000 \text{ kg/m}^3$

Ambient Temperature: 22.5°C, Liquid Temperature: 22.3°C

Communication System: WCDMA850-BV 826.4 MHz Duty Cycle: 1:1

Probe: EX3DV4 – SN7514 ConvF(9.47,9.47,9.47)

Area Scan (71x121x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 0.635 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 23.71 V/m; Power Drift = -0.03 dB

Peak SAR (extrapolated) = 0.692 W/kg

SAR(1 g) = 0.528 W/kg; SAR(10 g) = 0.416 W/kg

Maximum value of SAR (measured) = 0.633 W/kg

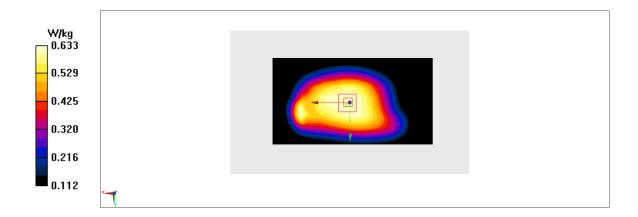


Fig A.13



LTE1900-FDD2_CH19100 Right Cheek

Date: 5/4/2019

Electronics: DAE4 Sn1525 Medium: head 1900 MHz

Medium parameters used: f = 1900 MHz; $\sigma = 1.377 \text{ mho/m}$; $\epsilon r = 39.59$; $\rho = 1000 \text{ kg/m}^3$

Ambient Temperature: 22.5°C, Liquid Temperature: 22.3°C

Communication System: LTE1900-FDD2 1900 MHz Duty Cycle: 1:1

Probe: EX3DV4 – SN7514 ConvF(7.73,7.73,7.73)

Area Scan (71x121x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 0.263 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 3.963 V/m; Power Drift = 0.07 dB

Peak SAR (extrapolated) = 0.324 W/kg

SAR(1 g) = 0.209 W/kg; SAR(10 g) = 0.129 W/kg

Maximum value of SAR (measured) = 0.224 W/kg

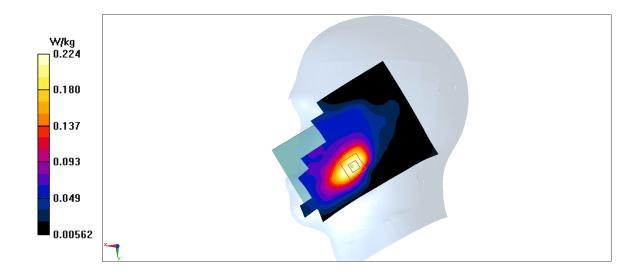


Fig A.14



LTE1900-FDD2_CH19100 Rear 15mm

Date: 5/4/2019

Electronics: DAE4 Sn1525 Medium: body 1900 MHz

Medium parameters used: f = 1900 MHz; $\sigma = 1.495 \text{ mho/m}$; $\epsilon r = 52.71$; $\rho = 1000 \text{ kg/m}^3$

Ambient Temperature: 22.5°C, Liquid Temperature: 22.3°C

Communication System: LTE1900-FDD2 1900 MHz Duty Cycle: 1:1

Probe: EX3DV4 – SN7514 ConvF(7.53,7.53,7.53)

Area Scan (71x121x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 1.07 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 4.073 V/m; Power Drift = 0.04 dB

Peak SAR (extrapolated) = 1.49 W/kg

SAR(1 g) = 0.726 W/kg; SAR(10 g) = 0.417 W/kg

Maximum value of SAR (measured) = 1.22 W/kg

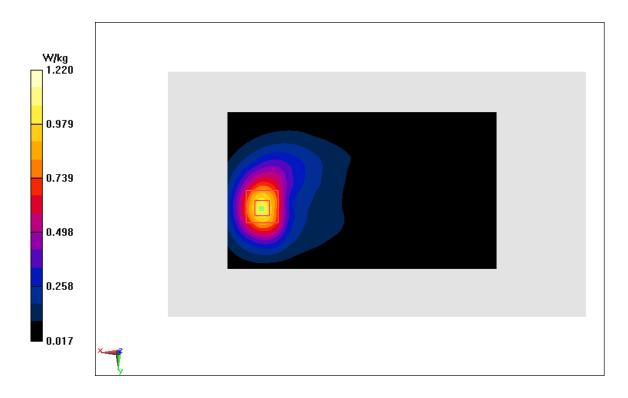


Fig A.15



LTE1900-FDD2_CH18700 Bottom edge

Date: 5/4/2019

Electronics: DAE4 Sn1525 Medium: body 1900 MHz

Medium parameters used: f = 1860 MHz; $\sigma = 1.457 \text{ mho/m}$; $\epsilon r = 52.76$; $\rho = 1000 \text{ kg/m}^3$

Ambient Temperature: 22.5°C, Liquid Temperature: 22.3°C

Communication System: LTE1900-FDD2 1860 MHz Duty Cycle: 1:1

Probe: EX3DV4 – SN7514 ConvF(7.53,7.53,7.53)

Area Scan (71x121x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 1.34 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 24.37 V/m; Power Drift = -0.16 dB

Peak SAR (extrapolated) = 1.93 W/kg

SAR(1 g) = 1.09 W/kg; SAR(10 g) = 0.565 W/kg

Maximum value of SAR (measured) = 1.57 W/kg

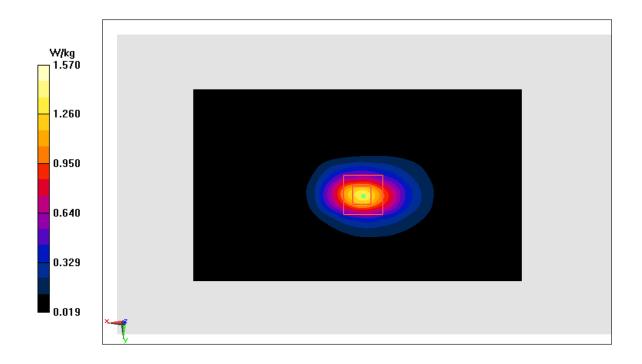


Fig A.16



LTE1700-FDD4_CH20050 Right Cheek

Date: 5/3/2019

Electronics: DAE4 Sn1525 Medium: head 1750 MHz

Medium parameters used: f = 1720 MHz; $\sigma = 1.34 \text{ mho/m}$; $\epsilon r = 40.57$; $\rho = 1000 \text{ kg/m}^3$

Ambient Temperature: 22.5°C, Liquid Temperature: 22.3°C

Communication System: LTE1700-FDD4 1720 MHz Duty Cycle: 1:1

Probe: EX3DV4 – SN7514 ConvF(8.10,8.10,8.10)

Area Scan (71x121x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 0.208 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 4.218 V/m; Power Drift = 0.04 dB

Peak SAR (extrapolated) = 0.259 W/kg

SAR(1 g) = 0.172 W/kg; SAR(10 g) = 0.111 W/kg

Maximum value of SAR (measured) = 0.186 W/kg

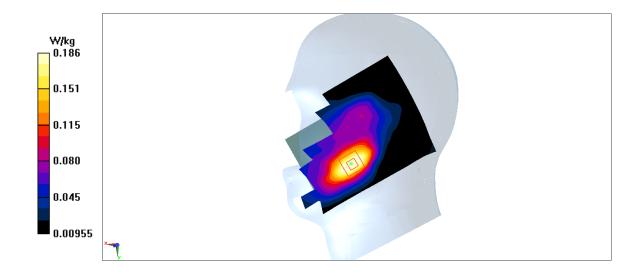


Fig A.17



LTE1700-FDD4_CH20300 Rear 15mm

Date: 5/3/2019

Electronics: DAE4 Sn1525 Medium: body 1750 MHz

Medium parameters used: f = 1745 MHz; $\sigma = 1.467$ mho/m; $\epsilon r = 52.73$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.5°C, Liquid Temperature: 22.3°C

Communication System: LTE1700-FDD4 1745 MHz Duty Cycle: 1:1

Probe: EX3DV4 – SN7514 ConvF(7.82,7.82,7.82)

Area Scan (71x121x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 1.13 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 5.292 V/m; Power Drift = 0.09 dB

Peak SAR (extrapolated) = 1.53 W/kg

SAR(1 g) = 0.949 W/kg; SAR(10 g) = 0.541 W/kg

Maximum value of SAR (measured) = 1.25 W/kg

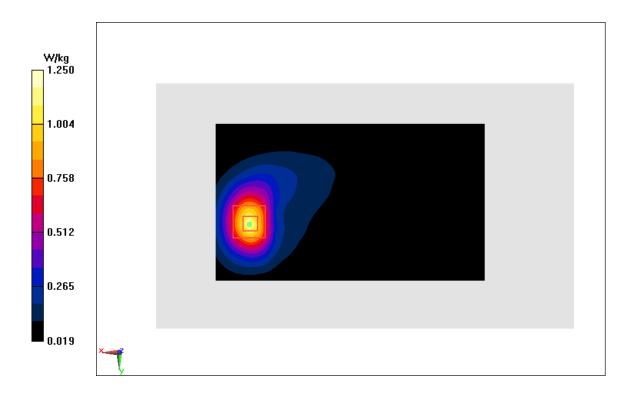


Fig A.18



LTE1700-FDD4_CH20300 Rear

Date: 5/3/2019

Electronics: DAE4 Sn1525 Medium: body 1750 MHz

Medium parameters used: f = 1745 MHz; $\sigma = 1.467$ mho/m; $\epsilon r = 52.73$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.5°C, Liquid Temperature: 22.3°C

Communication System: LTE1700-FDD4 1745 MHz Duty Cycle: 1:1

Probe: EX3DV4 – SN7514 ConvF(7.82,7.82,7.82)

Area Scan (71x121x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 1.43 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 13.21 V/m; Power Drift = -0.03 dB

Peak SAR (extrapolated) = 1.64 W/kg

SAR(1 g) = 0.999 W/kg; SAR(10 g) = 0.539 W/kg

Maximum value of SAR (measured) = 1.32 W/kg

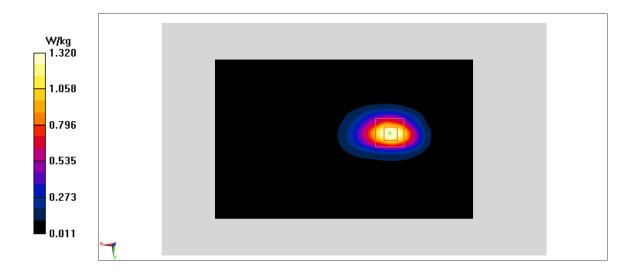


Fig A.19



LTE850-FDD5_CH20450 Left Cheek

Date: 5/2/2019

Electronics: DAE4 Sn1525 Medium: head 835 MHz

Medium parameters used: f = 829 MHz; $\sigma = 0.909$ mho/m; $\epsilon r = 41.05$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.5°C, Liquid Temperature: 22.3°C Communication System: LTE850-FDD5 829 MHz Duty Cycle: 1:1

Probe: EX3DV4 – SN7514 ConvF(9.09,9.09,9.09)

Area Scan (71x121x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 0.379 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 7.619 V/m; Power Drift = -0.15 dB

Peak SAR (extrapolated) = 0.416 W/kg

SAR(1 g) = 0.34 W/kg; SAR(10 g) = 0.266 W/kg

Maximum value of SAR (measured) = 0.358 W/kg

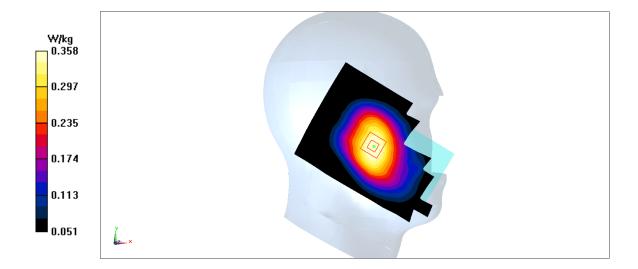


Fig A.20



LTE850-FDD5_CH20450 Rear

Date: 5/2/2019

Electronics: DAE4 Sn1525 Medium: body 835 MHz

Medium parameters used: f = 829 MHz; $\sigma = 0.952$ mho/m; $\epsilon r = 55.47$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.5°C, Liquid Temperature: 22.3°C Communication System: LTE850-FDD5 829 MHz Duty Cycle: 1:1

Probe: EX3DV4 – SN7514 ConvF(9.47,9.47,9.47)

Area Scan (71x121x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 0.458 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 19.52 V/m; Power Drift = 0 dB

Peak SAR (extrapolated) = 0.501 W/kg

SAR(1 g) = 0.383 W/kg; SAR(10 g) = 0.301 W/kg

Maximum value of SAR (measured) = 0.458 W/kg

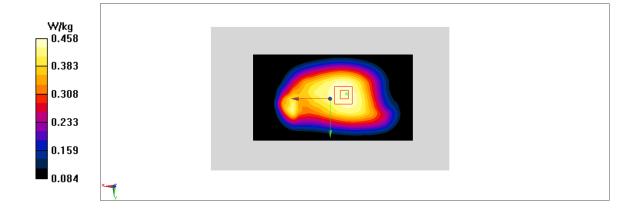


Fig A.21



LTE700-FDD12 CH23060 Left Cheek

Date: 5/1/2019

Electronics: DAE4 Sn1525 Medium: head 750 MHz

Medium parameters used: f = 704 MHz; $\sigma = 0.844$ mho/m; $\epsilon r = 41.59$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.5°C, Liquid Temperature: 22.3°C

Communication System: LTE700-FDD12 704 MHz Duty Cycle: 1:1

Probe: EX3DV4 – SN7514 ConvF(9.47,9.47,9.47)

Area Scan (71x121x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 0.224 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 6.432 V/m; Power Drift = 0.17 dB

Peak SAR (extrapolated) = 0.252 W/kg

SAR(1 g) = 0.206 W/kg; SAR(10 g) = 0.162 W/kg

Maximum value of SAR (measured) = 0.216 W/kg

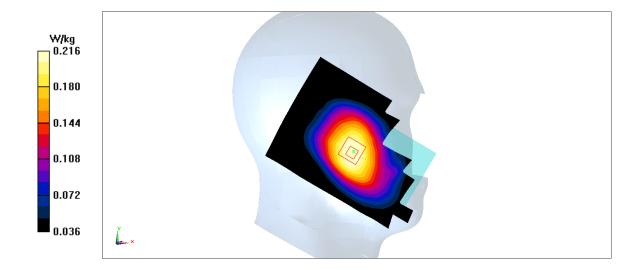


Fig A.22



LTE700-FDD12_CH23060 Rear

Date: 5/1/2019

Electronics: DAE4 Sn1525 Medium: body 750 MHz

Medium parameters used: f = 704 MHz; $\sigma = 0.917$ mho/m; $\epsilon r = 55.89$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.5°C, Liquid Temperature: 22.3°C

Communication System: LTE700-FDD12 704 MHz Duty Cycle: 1:1

Probe: EX3DV4 – SN7514 ConvF(9.68,9.68,9.68)

Area Scan (71x121x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 0.518 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 21.83 V/m; Power Drift = 0 dB

Peak SAR (extrapolated) = 0.563 W/kg

SAR(1 g) = 0.436 W/kg; SAR(10 g) = 0.345 W/kg

Maximum value of SAR (measured) = 0.517 W/kg

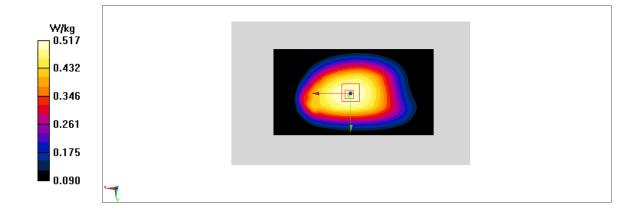


Fig A.23



LTE700-FDD14_CH23330 Left Cheek

Date: 5/1/2019

Electronics: DAE4 Sn1525 Medium: head 750 MHz

Medium parameters used: f = 793 MHz; $\sigma = 0.929$ mho/m; $\epsilon r = 41.48$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.5°C, Liquid Temperature: 22.3°C

Communication System: LTE700-FDD14 793 MHz Duty Cycle: 1:1

Probe: EX3DV4 – SN7514 ConvF(9.47,9.47,9.47)

Area Scan (71x121x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 0.351 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 6.463 V/m; Power Drift = 0.04 dB

Peak SAR (extrapolated) = 0.4 W/kg

SAR(1 g) = 0.326 W/kg; SAR(10 g) = 0.254 W/kg

Maximum value of SAR (measured) = 0.34 W/kg

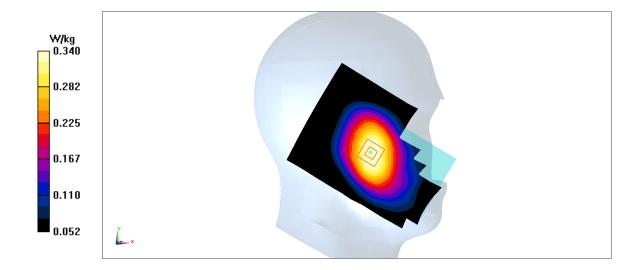


Fig A.24



LTE700-FDD14_CH23330 Rear

Date: 5/1/2019

Electronics: DAE4 Sn1525 Medium: body 750 MHz

Medium parameters used: f = 793 MHz; $\sigma = 1.002$ mho/m; $\epsilon r = 55.78$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.5°C, Liquid Temperature: 22.3°C

Communication System: LTE700-FDD14 793 MHz Duty Cycle: 1:1

Probe: EX3DV4 - SN7514 ConvF(9.68,9.68,9.68)

Area Scan (71x121x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 0.569 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 22.38 V/m; Power Drift = -0.01 dB

Peak SAR (extrapolated) = 0.624 W/kg

SAR(1 g) = 0.477 W/kg; SAR(10 g) = 0.373 W/kg

Maximum value of SAR (measured) = 0.569 W/kg

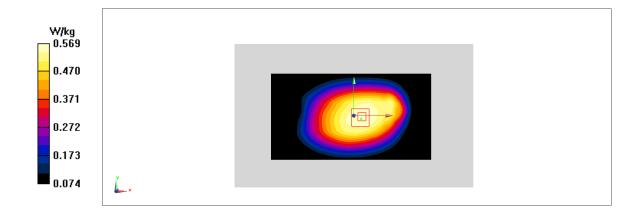


Fig A.25



LTE2300-FDD30_CH27710 Left Cheek

Date: 5/5/2019

Electronics: DAE4 Sn1525 Medium: head 2300 MHz

Medium parameters used: f = 2310 MHz; $\sigma = 1.698 \text{ mho/m}$; $\epsilon r = 39.07$; $\rho = 1000 \text{ kg/m}^3$

Ambient Temperature: 22.5°C, Liquid Temperature: 22.3°C

Communication System: LTE2300-FDD30 2310 MHz Duty Cycle: 1:1

Probe: EX3DV4 – SN7514 ConvF(7.42,7.42,7.42)

Area Scan (71x121x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 0.238 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 2.816 V/m; Power Drift = 0.01 dB

Peak SAR (extrapolated) = 0.341 W/kg

SAR(1 g) = 0.195 W/kg; SAR(10 g) = 0.11 W/kg

Maximum value of SAR (measured) = 0.216 W/kg

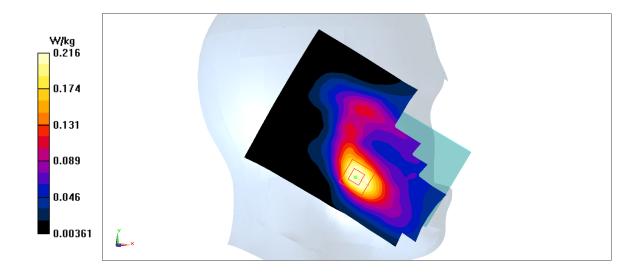


Fig A.26



LTE2300-FDD30_CH27710 Rear 15mm

Date: 5/5/2019

Electronics: DAE4 Sn1525 Medium: body 2300 MHz

Medium parameters used: f = 2310 MHz; $\sigma = 1.792$ mho/m; $\epsilon r = 53.53$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.5°C, Liquid Temperature: 22.3°C

Communication System: LTE2300-FDD30 2310 MHz Duty Cycle: 1:1

Probe: EX3DV4 – SN7514 ConvF(7.25,7.25,7.25)

Area Scan (71x121x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 1.01 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 7.381 V/m; Power Drift = 0.11 dB

Peak SAR (extrapolated) = 1.5 W/kg

SAR(1 g) = 0.838 W/kg; SAR(10 g) = 0.45 W/kg

Maximum value of SAR (measured) = 1.17 W/kg

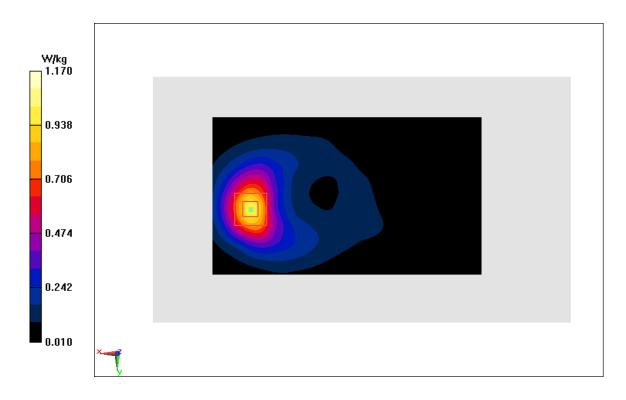


Fig A.27



LTE2300-FDD30_CH27710 Bottom edge

Date: 5/5/2019

Electronics: DAE4 Sn1525 Medium: body 2300 MHz

Medium parameters used: f = 2310 MHz; $\sigma = 1.792 \text{ mho/m}$; $\epsilon r = 53.53$; $\rho = 1000 \text{ kg/m}^3$

Ambient Temperature: 22.5°C, Liquid Temperature: 22.3°C

Communication System: LTE2300-FDD30 2310 MHz Duty Cycle: 1:1

Probe: EX3DV4 – SN7514 ConvF(7.25,7.25,7.25)

Area Scan (71x121x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 1.38 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 6.307 V/m; Power Drift = 0.08 dB

Peak SAR (extrapolated) = 1.77 W/kg

SAR(1 g) = 0.965 W/kg; SAR(10 g) = 0.483 W/kg

Maximum value of SAR (measured) = 1.39 W/kg

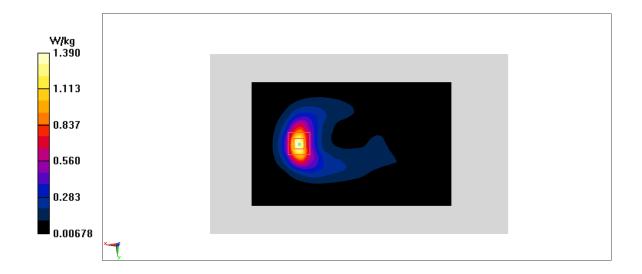


Fig A.28



WLAN2450_CH11 Left Cheek

Date: 5/6/2019

Electronics: DAE4 Sn1525 Medium: head 2450 MHz

Medium parameters used: f = 2462 MHz; $\sigma = 1.799 \text{ mho/m}$; $\epsilon r = 39.2$; $\rho = 1000 \text{ kg/m}^3$

Ambient Temperature: 22.5°C, Liquid Temperature: 22.3°C Communication System: WLAN2450 2462 MHz Duty Cycle: 1:1

Probe: EX3DV4 – SN7514 ConvF(6.95,6.95,6.95)

Area Scan (71x121x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 1.53 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 13.8 V/m; Power Drift = 0.1 dB

Peak SAR (extrapolated) = 2.36 W/kg

SAR(1 g) = 1.19 W/kg; SAR(10 g) = 0.602 W/kg

Maximum value of SAR (measured) = 1.54 W/kg

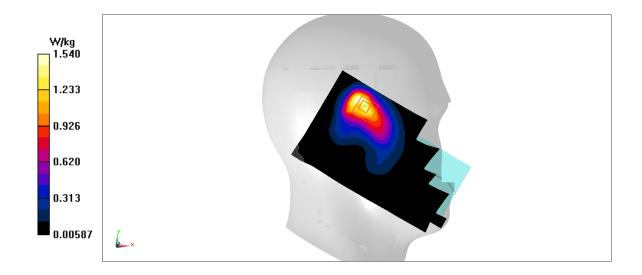


Fig A.29



WLAN2450_CH6 Rear

Date: 5/6/2019

Electronics: DAE4 Sn1525 Medium: body 2450 MHz

Medium parameters used: f = 2437 MHz; $\sigma = 1.908 \text{ mho/m}$; $\epsilon r = 51.85$; $\rho = 1000 \text{ kg/m}^3$

Ambient Temperature: 22.5°C, Liquid Temperature: 22.3°C Communication System: WLAN2450 2437 MHz Duty Cycle: 1:1

Probe: EX3DV4 – SN7514 ConvF(7.13,7.13,7.13)

Area Scan (71x121x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 0.415 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 7.027 V/m; Power Drift = -0.09 dB

Peak SAR (extrapolated) = 0.619 W/kg

SAR(1 g) = 0.322 W/kg; SAR(10 g) = 0.172 W/kg

Maximum value of SAR (measured) = 0.466 W/kg

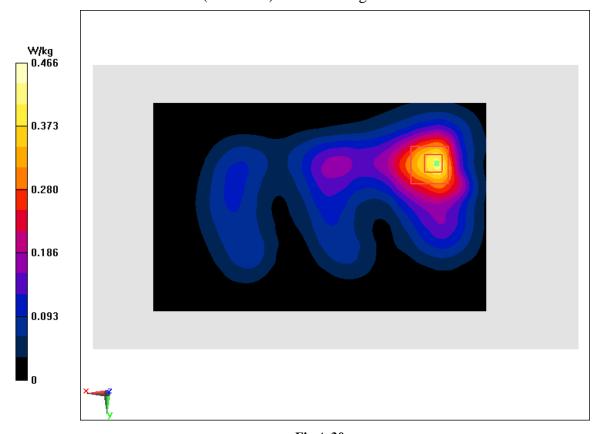


Fig A.30



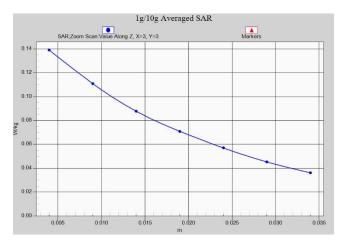


Fig.A.1- 1 Z-Scan at power reference point (GSM850)



Fig.A.1- 2 Z-Scan at power reference point (GSM850)

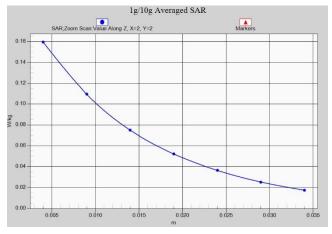


Fig.A.1- 3 Z-Scan at power reference point (PCS1900)



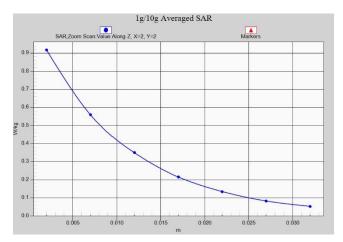


Fig.A.1- 4 Z-Scan at power reference point (PCS1900) 15mm

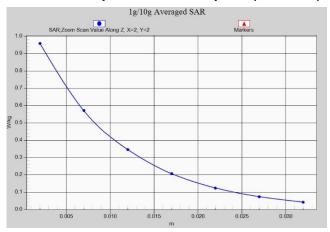


Fig.A.1- 5 Z-Scan at power reference point (PCS1900) 10mm

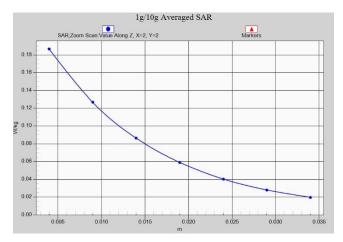


Fig.A.1- 6 Z-Scan at power reference point (W1900)



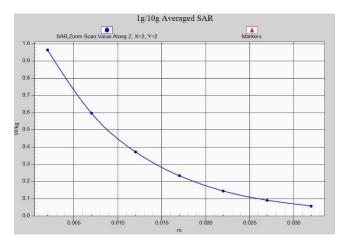


Fig.A.1- 7 Z-Scan at power reference point (W1900) 15mm

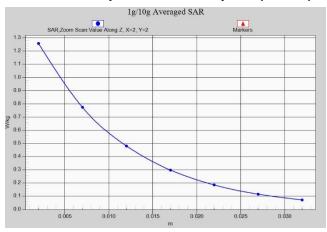


Fig.A.1-8 Z-Scan at power reference point (W1900) 10mm

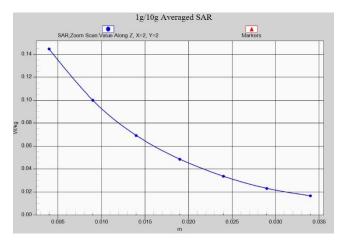


Fig.A.1- 9 Z-Scan at power reference point (W1700)



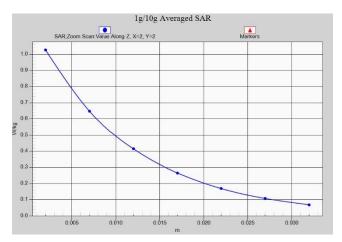


Fig.A.1- 10 Z-Scan at power reference point (W1700) 15mm

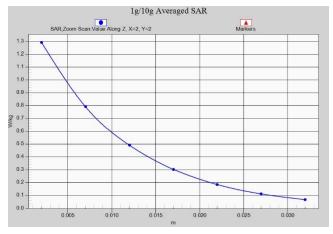


Fig.A.1- 11 Z-Scan at power reference point (W1700) 10mm

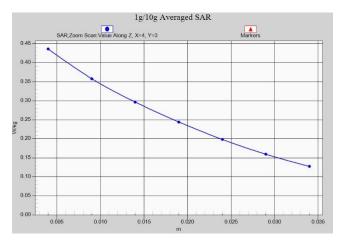


Fig.A.1- 12 Z-Scan at power reference point (W850)



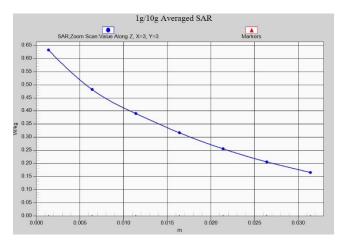


Fig.A.1- 13 Z-Scan at power reference point (W850)

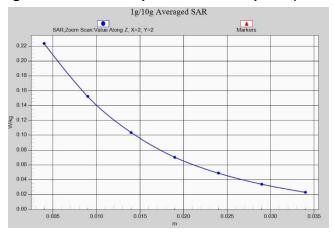


Fig.A.1- 14 Z-Scan at power reference point (LTE band2)

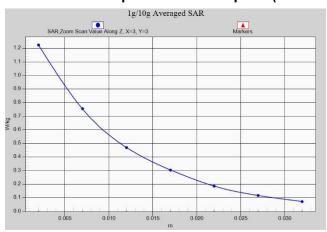


Fig.A.1- 15 Z-Scan at power reference point (LTE band2) 15mm



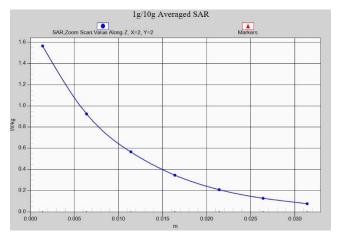


Fig.A.1- 16 Z-Scan at power reference point (LTE band2) 10mm

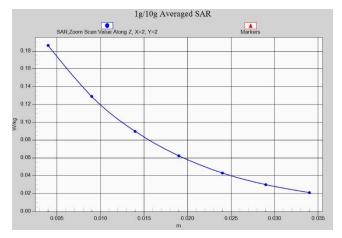


Fig.A.1- 17 Z-Scan at power reference point (LTE band4)



Fig.A.1- 18 Z-Scan at power reference point (LTE band4) 15mm



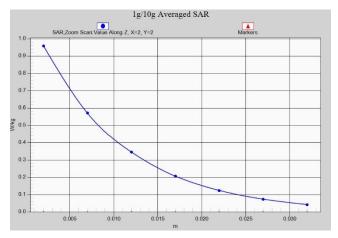


Fig.A.1- 19 Z-Scan at power reference point (LTE band4) 10mm



Fig.A.1- 20 Z-Scan at power reference point (LTE band5)

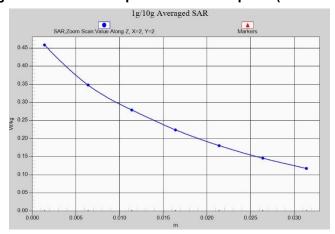


Fig.A.1- 21 Z-Scan at power reference point (LTE band5)