

OTA Summation Test Report

Date of Report	17-Oct-2017	Client's Contact person:	Jose J. Machado
Number of pages:		Responsible Test engineer:	Pertti Mäkikyrö
Testing laboratory:	Verkotan Oy Elektroniikkatie 17 90590 Oulu Finland	Client:	Noxtak Group
Tested device	ZTE AXON Cellular phone		
Related reports:	-		
Testing has been carried out in accordance with:	3GPP 34.114		
Documentation:	The test report must always be reproduced in full; reproduction of an excerpt only is subject to written approval of the testing laboratory		
Test Results:	The test results relate only to devices specified in this document		

Date and signatures: 17.10.2017
For the contents:

Miia Nurkkala

1. SUMMARY

1.1 TEST DETAILS

Equipment under Test (EUT):

Product:	Cellular phone
Manufacturer:	ZTE AXON
Type:	
IMEI:	860935032579688
FCC ID Number:	
Hardware Version:	
Software Version:	
DUT Number:	
Battery Type used in testing:	
Configuration of Primary Mechanical Mode:	

Testing information:

Testing performed:	Pertti Mäkikyrö
Notes:	
Document name:	ZTE AXON OTA report.docx
Temperature °C / Humidity RH%	20 +/- 1 °C 45 +/- 10 RH%
Measurement performed by:	Pertti Mäkikyrö

EUTs Used For Each Test:

Serial Number	CATL/Chamber used	Band(s)	Test Type(s)	Test Condition(s)
860935032579688	2	LTE 2	TRP/TRS	FS

1.2 MEASUREMENT UNCERTAINTY

Expanded Uncertainty (dB)		
Test Configuration	TRP	TRS
Free Space	1.60	1.85
Beside Head and Hand Left and Beside Head and Hand Right	N/A	N/A

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2. TEST EQUIPMENT

Main used test equipment are listed below. For full equipment list and calibration intervals, please contact the testing laboratory.

Type of Equipment	Type	Manufacturer
Power Meter	NRP-Z21	Rohde&Schwarz
Radio Communication Tester	MT8820C	Anritsu
Diagonal Dual Polarized Horn Measurement Antenna	3161-03	EMCO
Positioning Controller	2090	EMCO
3D Positioner	Custom made	ETS-Lindgren
RF Network Analyzer	E5071C	Agilent
Switching System	1256	Racal
Switching System	MSN-6TD-06-DEC-SP	American Microwave
Anechoic Chamber	2	ETS-Lindgren
Head Phantom	SAM V4.5	SPEAG
Head Phantom	IBX-030	Indexsar
Talk mode Hand Fixture	SHO-FTMV1	SPEAG
HR Hand Fixture	SHO-FDMV2	SPEAG
PDA Hand Phantom	SHOV2RP, SHOV2LP	SPEAG
Ultra Wide PDA Hand Phantom	IBX-056R, IBX-056L	Indexsar

3. MEASUREMENTS

Testing was performed according to the 3GPP 34.114 test specification

3.1 TEST SETUP FOR FREE SPACE MEASUREMENT



4. RESULTS

4.1 TRP

Band	Uplink Channel	TRP (dBm)					
		FS	FS AVG	BHHL	BHHL AVG	BHHR	BHHR AVG
LTE 2	18650	16.12	15.92				
	18900	16.05					
	19150	15.57					

4.2 TRP with SPIRO level 3 card

Band	Uplink Channel	TRP (dBm)					
		FS	FS AVG	BHHL	BHHL AVG	BHHR	BHHR AVG
LTE 2	18650	16.31	16.12				
	18900	16.26					
	19150	15.78					

4.3 TRS

Band	Downlink Channel	TRS (dBm)					
		FS	FS AVG	BHHL	BHHL AVG	BHHR	BHHR AVG
LTE 2	650	-93.24	-92.33				
	900	-91.57					
	1150	-92.00					

4.4 TRs with SPIRO level 3 card

Band	Downlink Channel	TRS (dBm)					
		FS	FS AVG	BHHL	BHHL AVG	BHHR	BHHR AVG
LTE 2	650	-92.80	-91.94				
	900	-91.37					
	1150	-91.49					

FS = Free Space

BHHL= Beside Head and Hand Left Side (Head and Hand Phantom)

BHHR= Beside Head and Hand Right Side (Head and Hand Phantom)

5. SUMMATION TEST REPORT PLOT MATRIX

Band	FS		BHHR		BHHL	
	TRP	TRS	TRP	TRS	TRP	TRS
LTE band 1						
LTE band 2	x	x				
LTE band 3						
LTE band 4						
LTE band 5						
LTE band 7						
LTE band 12						
LTE band 20						
LTE band 28						

5.1 3D-PLOTS FREE SPACE







