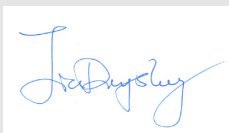
Only for SAR Test Report

WLAN Radiated Peak Output Power Test Report

Test Report no.:	Bej_FCC_0752_05WLAN power for SAR.doc	**Date of Report:**	30.12.2007
Number of pages:	7	**Customer's Contact person:**	Lehtinen Tero
Testing laboratory:	TCC Nokia Beijing Laboratory Nokia Tower Pacific Century Place 2A Gong Ti Bei Lu Chaoyang District 100027 BEIJING, PRC Tel. +86 10 65392828 Fax. +86 10 65393838	**Customer:**	Nokia Corporation P.O. Box 86 Joensuunkatu 7 FIN-24101 SALO, FINLAND Tel. +358 (0) 7180 08000 Fax. +358 (0) 7180 44277
FCC listing no.: **IC recognition no.:**	4917		
Tested devices/ accessories:	**Phone RM-426 / Battery BP-6MT, AC-charger AC-5E, Headset HS-47**		
FCC ID:	PYARM-426	**IC:**	661V-RM426
Supplement reports:	-		
Testing has been carried out in accordance with:	**See section "Test method and limit". WLAN Radiated peak output power results are used only for SAR Test Report.**		
Documentation:	The test report must always be reproduced in full; reproduction of an excerpt only is subject to written approval of the testing laboratory. The documentation of the testing performed on the tested devices is archived for 15 years at TCC Nokia.		
Test Results:	**The EUT complies with the requirements in respect of all parameters subject to the test.** The test results relate only to devices specified in this document.		
Date and signature for the contents:	 Digitally signed by Jia Dongsheng DN: CN = Jia Dongsheng, C = CN, O = Nokia, OU = CertMT Date: 2007.12.30 23:02:06 +08'00'		

Jia Dongsheng, Engineer

1. Summary for WLAN Radiated Peak Output Power Test Report

Date of receipt	29.12.2007
Testing completed	30.12.2007
The customer's contact person	Lehtinen Tero
Test Plan referred to	T:\Projects\RM-426\TestPlan_RS\RS_Testplan_RM-426.xls
Notes	-
Document name	T:\Projects\RM-426\EMC\Results\FCC\Bej_FCC_0752_05WLAN power for SAR.doc

1.1. EUT and Accessory Information

The EUT is a 6-band (GSM850/900/1800/1900 and WCDMA Band I/V(850)) mobile phone with GPRS, EGPRS, Bluetooth and WLAN. WLAN is tested with maximum rated TX power.

Product	Type	SN	HW	MV	SW	DUT
Phone	RM-426	004401012862302	0850	-	151.34.02	50786
Battery	BP-6MT	3932137173110100826;0670551	-	-	-	50787
AC-Charger	AC-5E	394349731108060599 8;0675540	1.9	-	-	50765
Headset	HS-47	-	-	-	-	50788

1.2. Summary of Test Results

Name of the test	Result
WLAN Radiated peak output power for SAR Test Report	PASSED

PASSED	The EUT complies with the essential requirements in the standard.
FAILED	The EUT does not comply with the essential requirements in the standard.
NP	The test was not performed by the TCC Nokia Beijing Laboratory.

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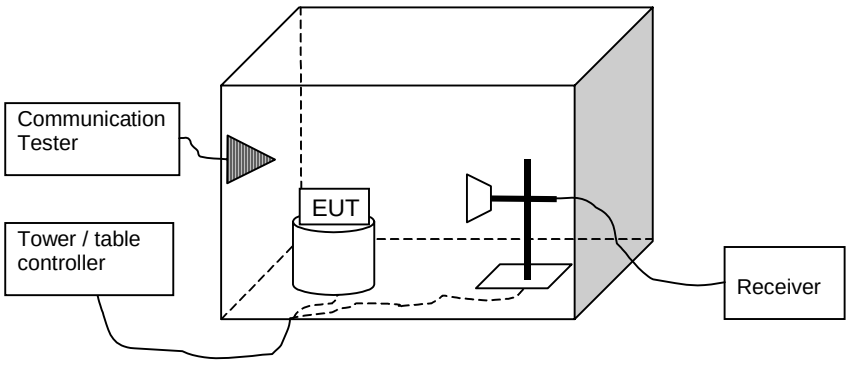
2. Radiated peak output power

EUT with DUT number	RM-426, DUT50786
Accessories with DUT numbers	BP-6MT, DUT50787; AC-5E, DUT50765; HS-47, DUT50788
Operation Voltage [V] / [Hz]	220 / 50
Result	PASSED
Remarks	-
Temp [°C] / Humidity [%RH] / Air Pressure [kPa]	20 / 11 / 102
Date of measurements	30.12.2007
Measured by	Jia Dongsheng

2.1. Test setup



2.2. Test method and limit

The measurement is performed in the Anechoic Chamber with absorbers on the floor and measuring antenna at fixed height using 2-axis EUT position system. The turntable is rotated 360 degrees and this is repeated for both horizontal and vertical receive antenna polarizations.

The EUT is placed on a nonconductive plate at 170 cm height.

The substitution method is used. Substitution values at each frequencies are measured beforehand and saved to the test software.

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The substitution corrections are obtained as described below:

$$A_{SUBST} = P_{SUBST\_TX} - P_{SUBST\_RX} - L_{SUBST\_CABLES} + G_{SUBST\_TX\_ANT}$$

Where A_{SUBST} is the final substitution correction including receive antenna gain. P_{SUBST_TX} is signal generator level, P_{SUBST_RX} is receiver level, L_{SUBST_CABLES} is cable losses including both TX and RX cables and $G_{SUBST\_TX\_ANT}$ is substitution antenna gain.

The measurement results are obtained as described below:

$$P\ [dBm] = P_{MEAS} + A_{TOT}$$

Where P_{MEAS} is receiver reading in dBm and A_{TOT} is total correction factor including cable loss and substitution correction ($A_{TOT} = L_{CABLES} + A_{SUBST}$).

Limits for radiated peak output power measurements

Frequency range [MHz[	Limit [W]	Limit [dBm]
2400 – 2483.5	≤ 1	≤ 30

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2.3. Test results

2.3.1 DSSS mode, QPSK modulation, 11 Mbps data rate

Channel / f_C [MHz]	EIRP [dBm]	EIRP [W]	P_{MEAS} [dBm]	A_{TOT} [dB]	Polarisation	Result
1 / 2412	21.70	0.148	-29.80	51.50	VERTICAL	PASSED
7 / 2442	22.30	0.170	-28.60	50.90	VERTICAL	PASSED
11 / 2462	22.10	0.162	-29.60	51.70	VERTICAL	PASSED

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3. Test Equipment

3.1. Radiated measurements

Eq. No	Equipment	Type	Manufacturer	Used in
BJPCPT0129	Relay Unit	TS-RSP	Rohde&Schwarz	22/24
BJPCPT0130	Relay Unit	TS-RSP	Rohde&Schwarz	22/24
BJPCPT0080	Device Controller	EMCO2090	ETS-EMCO	22/24
BJPCTC0048	RF Preamplifier 10MHz-3GHz (Metal chassis)	AFS4-00100300-10-10P-4	MITEQ	22/24
BJPCTC0007	Ultra Broadband Antenna 30MHz-3000MHz	HL562	Rohde&Schwarz	22/24
BJPCPT0162	Horn Antenna 1GHz-18GHz	HF906	Rohde&Schwarz	22/24
BJPCTC0029	Horn Antenna 1GHz-18GHz	HF906	Rohde&Schwarz	22/24
BJPCTC0049	RF preamplifier 3GHz-18GHz	BLMA-0118-1A-BT	Rohde&Schwarz	22/24
BJPCTC0046	Shielding Enclosure	3M Test Site	ETS-Lindgren	22/24
BJPCTC0047	Turntable	Model 2088-1.23	ETS-EMCO	22/24
BJPCPT0072	EMI Test Receiver 20Hz-26.5GHz	ESIB26	Rohde&Schwarz	22/24
BJPCPT0150	High Pass filter	WHKS 1200-10SS	Wainwright instruments	22/24
BJPCTC0034	Notch Filter	WRCT800/880-0.2/40-5SSK	Wainwright instruments	22/24
BJPCPT0151	Notch Filter	WRCD1800/2000-0.2/40-5SSK	Wainwright instruments	22/24
BJPCTC0017	Radio Communication Tester	CMU200	Rohde&Schwarz	22/24

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