

Test Report

Conducted Output power GSM 900 / 1800 / 1900



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Test Sites: ICM MP PD ST2 KLF
Development Center Kamp-Lintfort

Phone: +49 28 42/95 54 72
Fax: +49 28 42/95 47 17

Maik Hoffmann
RF Test Engineer, System Test

Christian Vieth
Subproject leader RF

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1 Objective and Method

FCC approval for mobile phones requires reporting output power at RF output terminal pursuant to title 47 CFR part 2.1046. SIEMENS devices use special test fixtures with 50 Ohm connection suitable for such measurements. Using a special adapter and connecting the phone to an appropriate load in terms of the input port of the measurement equipment used, we hereby report the values for highest power setting.

2 Results

2.1 GSM 900

Device	Average Power during burst at connector		
	Ch. 975 880.2 MHz	Ch. 38 897.2 MHz	Ch. 124 914.8 MHz
Siemens S65, "SAR Sample 1" IMEI: 004999 00 286931 0	32.1	32.1	31.9
Siemens S65, "SAR Sample 2" IMEI: 004999 00 286882 5	32.1	32.0	31.9
Siemens S65, "x Sample 1" IMEI: 004999 00 286880 9	32.1	32.1	32.0
Siemens S65, "x Sample 2" IMEI: 004999 00 287394 0	32.0	31.9	31.9
Siemens S65, "x Sample 5" IMEI: 004999 00 286875 9	32.0	31.9	31.9

Table 1: Results of power measurements at connector in the GSM 900 Band

2.2 GSM 1800

Device	Average Power during burst at connector		
	Ch. 512 1710.2 MHz	Ch. 698 1747.4 MHz	Ch. 885 1784.8 MHz
Siemens S65, "SAR Sample 1" IMEI: 004999 00 286931 0	29.1	29.1	28.9
Siemens S65, "SAR Sample 2" IMEI: 004999 00 286882 5	29.2	29.1	28.9
Siemens S65, "x Sample 1" IMEI: 004999 00 286880 9	29.2	29.0	28.8
Siemens S65, "x Sample 2" IMEI: 004999 00 287394 0	29.3	29.2	29.0
Siemens S65, "x Sample 5" IMEI: 004999 00 286875 9	29.3	29.2	29.0

Table 2: Results of power measurements at connector in the GSM 1800 Band

2.3 GSM 1900

Device	Average Power during burst at connector		
	Ch. 512 1850.2 MHz	Ch. 661 1880.0 MHz	Ch. 810 1909.8 MHz
Siemens S65, "SAR Sample 1" IMEI: 004999 00 286931 0	28.9	29.0	29.2
Siemens S65, "SAR Sample 2" IMEI: 004999 00 286882 5	28.9	29.0	29.3
Siemens S65, "x Sample 1" IMEI: 004999 00 286880 9	29.2	29.3	29.4
Siemens S65, "x Sample 2" IMEI: 004999 00 287394 0	29.2	29.2	29.2
Siemens S65, "x Sample 5" IMEI: 004999 00 286875 9	29.2	29.2	29.3

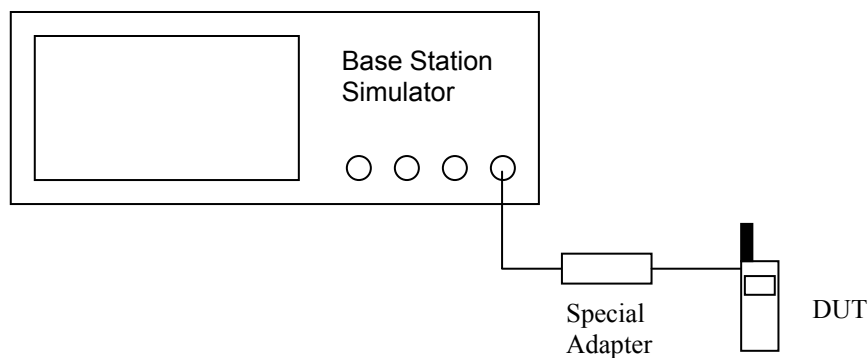
Table 3: Results of power measurements at connector in the GSM 1900 Band

3 Minutes of Test

3.1 Description of device under test

Mobile Phone:	Siemens S65
Frequency Range GSM 900:	880 – 915 MHz
Frequency Range GSM 1800:	1710 – 1785 MHz
Frequency Range GSM 1900:	1850 – 1990 MHz
Siemens Part Number:	S30880-S7400-A90-1
FCC ID	PWX-S65

3.2 Measurement Set-up



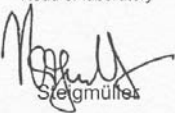
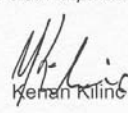
Base Station Simulator:	CMU 200
Serial Number:	103958
Software Version:	Base 3.52 / GSM 3.52

Figure 1: Block Diagram of set-up for conducted power measurement



Figure 2: Set-up for conducted power measurement

4 Calibration Certificate

 ROHDE & SCHWARZ Messgerätebau GmbH		Nummer 20-120756 Number	
Kalibrierschein <i>Calibration Certificate</i>		650 604 42	
Gegenstand <i>Item</i>	UNIVERSAL RADIO COMMUNICATION TESTER	Dieser Kalibrierschein dokumentiert, daß der genannte Gegenstand nach festgelegten Vorgaben geprüft und gemessen wurde. Die Meßwerte lagen im Regelfall mit einer Wahrscheinlichkeit von annähernd 95 % im zugeordneten Werteintervall (Erweiterte Meßunsicherheit mit $k = 2$). Die Kalibrierung erfolgte mit Meßmitteln und Normen, die direkt oder indirekt durch Ableitung mittels anerkannter Kalibriertechniken rückgeführt sind auf Normale der PTB/DKD oder anderer nationaler/internationaler Standards zur Darstellung der physikalischen Einheiten in Übereinstimmung mit dem Internationalen Einheitensystem (SI). Wenn keine Normale existieren, erfolgt die Rückführung auf Bezugsnormale der R&S-Laboratorien. Grundsätze und Verfahren der Kalibrierung entsprechen IEC/ISO 17025. Das Bestätigungssystem für die verwendeten Meßmittel entspricht DIN ISO 10012-1. Das angewandte Qualitätsmanagement-System ist zertifiziert nach DIN EN ISO 9001. Dieser Kalibrierschein darf nur vollständig und unverändert weiterverbreitet werden. Kalibrierscheine ohne Signifizierungen sind ungültig. Für die Einhaltung einer angemessenen Frist zur Wiederholung der Kalibrierung ist der Benutzer verantwortlich. This calibration certificate documents, that the named item is tested and measured against defined specifications. Measurement results are located usually in the corresponding interval with a probability of approx. 95 % (coverage factor $k = 2$). Calibration is performed with test equipment and standards directly or indirectly traceable by means of approved calibration techniques to the PTB/DKD or other national/international standards, which realize the physical units of measurement according to the International System of Units (SI). In all cases where no national standards are available, measurements are referenced to standards of the R&S laboratories. Principles and methods of calibration correspond with IEC/ISO 17025. The metrological confirmation system for the measuring equipment used is in compliance with DIN ISO 10012-1. The applied quality system is certified to DIN EN ISO 9001. This calibration certificate may not be reproduced other than in full. Calibration certificates without signatures are not valid. The user is obliged to have the item recalibrated at appropriate intervals.	
Hersteller <i>Manufacturer</i>	ROHDE & SCHWARZ		
Typ <i>Type</i>	CMU200		
Material Nr. <i>Material No.</i>	1100.0008K02		
Serial Nr. <i>Serial No.</i>	103958		
Auftraggeber <i>Customer</i>			
Bestellung Nr. <i>Order No.</i>			
Ort u. Datum d. Kalibrierung <i>Place and date of calibration</i>	Memmingen, 2003-10-28		
Umfang der Kalibrierung <i>Scope of calibration</i>	Standard Calibration		
Eingangsprüfung <i>Performance on receipt</i>			
Kalibrierergebnis <i>Result of calibration</i>	Measurement results within specifications		
Umfang des Kalibrierscheins <i>Extent of the certificate</i>	3 pages 64 pages test report		
Ausstellungsdatum <i>Date of issue</i> 2003-10-28 Laborleitung <i>Head of laboratory</i>  Seigmüller Bearbeiter <i>Person responsible</i>  Keren Kilinc			
RefNo. 20-120756 Cal 2003-10-28 Rohde & Schwarz Messgerätebau GmbH Postfach 1652 D-87686 Memmingen Riedbachstraße 58 D-87700 Memmingen Telefon national: 08331/108-0; international: 0049 8331/108-0; Fax: 08331/108-124 Geschäftsführer: Dipl.-Ing. Dipl.-Wirtsch.-Ing. Friedrich Schwarz · Aufsichtsratsvorsitzender: Ing. (grad) Heinz Ewald Sitz der Gesellschaft: München · Registeramt: Amtsgericht München HRB 1059			

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