

Test Report

Conducted Output Power GSM 900, GSM 1800 and GSM 1900

SIEMENS M55

Report no: tbf
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Test Site

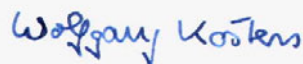
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1 Objective and Method

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

2 Results

2.1 GSM 900 Band

Device	Average Power during burst at connector		
	ARFCN 975 880.2 MHz	ARFCN 38 897.6 MHz	ARFCN 124 914.8 MHz
Siemens M55, "FCC Sample 1" IMEI: 004999.51.206583.9	+32.0 dBm	+32.0 dBm	+31.8 dBm
Siemens M55, "FCC Sample 2" IMEI: 004999.51.206591.2	+32.0 dBm	+31.9 dBm	+31.9 dBm
Siemens M55, "SAR Sample 3" IMEI: 004999.51.206257.0	+31.8 dBm	+31.8 dBm	+31.8 dBm
Siemens M55, "SAR Sample 4" IMEI: 004999.51.206578.9	+32.0 dBm	+32.0 dBm	+31.8 dBm

Tab. 1: Results of power measurements at connector for Siemens M55.

2.2 GSM 1800 Band

Device	Average Power during burst at connector		
	ARFCN 512 1710.2 MHz	ARFCN 698 1747.4 MHz	ARFCN 885 1784.8 MHz
Siemens M55, "FCC Sample 1" IMEI: 004999.51. 206583.9	+29.8 dBm	+29.4 dBm	+29.2 dBm
Siemens M55, "FCC Sample 2" IMEI: 004999.51. 206591.2	+29.8 dBm	+29.4 dBm	+29.1 dBm
Siemens M55, "SAR Sample 3" IMEI: 004999.51. 206257.0	+30.0 dBm	+29.5 dBm	+29.3 dBm
Siemens M55, "SAR Sample 4" IMEI: 004999.51. 206578.9	+30.0 dBm	+29.3 dBm	+29.2 dBm

Tab. 2: Results of power measurements at connector for Siemens M55

2.3 GSM 1900 Band

Device	Average Power during burst at connector		
	ARFCN 512 1850.2 MHz	ARFCN 661 1880.0 MHz	ARFCN 810 1909.8 MHz
Siemens M55, "FCC Sample 1" IMEI: 004999.51. 206583.9	+29.4 dBm	+29.2 dBm	+29.1 dBm
Siemens M55, "FCC Sample 2" IMEI: 004999.51. 206591.2	+29.3 dBm	+29.1 dBm	+29.0 dBm
Siemens M55, "SAR Sample 3" IMEI: 004999.51. 206257.0	+29.4 dBm	+29.2 dBm	+29.1 dBm
Siemens M55, "SAR Sample 4" IMEI: 004999.51. 206578.9	+29.4 dBm	+29.3 dBm	+29.2 dBm

Tab. 3: Results of power measurements at connector for Siemens M55

3 Minutes of Test

3.1 Description of Device under Test

Mobile Phone: Siemens M55
Frequency range GSM 900: 880 - 960 MHz
Frequency range GSM 1800: 1710 - 1880 MHz
Frequency range GSM 1900: 1850 - 1990 MHz
Siemens part number: S30880-S6300-*
FCC ID: PWX-M55

3.2 Measurement Set Up

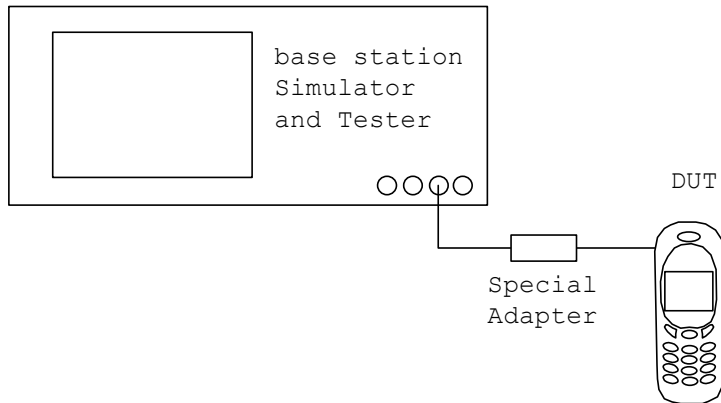
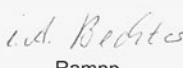


Fig. 1: Block diagram of set up for conducted power measurement.

Fig. 2: Set up for conducted power measurement.



4 Calibration Certificate

 ROHDE & SCHWARZ Messgerätebau GmbH		
Kalibrierschein <i>Calibration Certificate</i>	65058729	Nummer <i>Number</i> 20-95589
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. <i>This calibration certificate documents, that the named item is tested and measured against defined specifications.</i> <i>Measurement results are located usually in the corresponding interval with a probability of approx. 95 % (coverage factor $k = 2$).</i> <i>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).</i> <i>In all cases where no national standards are available, measurements are referenced to standards of the R&S laboratories.</i> <i>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.</i> <i>This calibration certificate may not be reproduced other than in full. Calibration certificates without signatures are not valid.</i> <i>The user is obliged to have the item recalibrated at appropriate intervals.</i>
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>	101484	
Auftraggeber <i>Customer</i>	SIEMENS AG ICM AC SAS 3	
	SUEDSTRASSE 9 DE 47475 KAMP-LINTFORT	
Bestellung Nr. <i>Order No.</i>	0000031229	
Ort u. Datum d. Kalibrierung <i>Place and date of calibration</i>	Memmingen, 2002-06-11	
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 79 pages test report	
 RefNo. 20-95589 Cal 2002-06-11 Customized Due Date		
Ausstellungsdatum <i>Date of issue</i>	Laborleitung <i>Head of laboratory</i>	Bearbeiter <i>Person responsible</i>
2002-06-12	 Steigmüller	 Ramp
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 · Registergericht: Amtsgericht München HRB 1059		
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