

Test & Innovation Center



Vodafone D2 GmbH, D-40543 Düsseldorf

SIMcom Wireless Solution
Diane Lu
633Jinzhong Road

Shanghai 200335
China

Your reference

Your letter dated:

Our reference: TA_R1236_001

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E-Mail : eva.koehne@vodafone.com

Date: 25.09.2012

Test report for tests of SIMcom module SIM5320E against Vodafone global test criteria

Dear Mrs Lu,

Thank you very much for your reliance in our services.

Please find enclosed the test approval for the SIMcom module SIM5320E and subsequent delivery of a detailed test report.

Thank you for your contribution to our good work. It would give us a great pleasure to support you also in follow-up orders.

For any questions concerning this test report, please contact Eva Koehne (phone +49 211 533-2849).

Sincerely yours,

Vodafone D2 GmbH
Test & Innovation Center

A handwritten signature in black ink.

i.V. Dr. Sabine Müller-Albrecht
Head of department – User Equipment

A handwritten signature in blue ink.

i.V. Andreas Dorstel
Head of department – Environment

Enclosure(s):

Test case list for SIMcom Module SIM5320E

Test certificate

Vodafone D2 GmbH

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<http://www.vodafone-innovationpark.com>
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UST-Nr.: 103/5700/1789
UST-IdNr.: DE 811140971

Test report for

25.09.2012

SIMcom module SIM5320E against Vodafone global test criteria

1 Summary

This test report describes the testing activities performed by the Vodafone Test & Innovation Center resources. Module under test was SIMcom SIM5320E.

2 Test cases agreed with the customer on SIMcom module SIM5320E

The test scope consists out of the following test objects:

- BASIC: GSM test cases – Register, Location Area Update, Mobility, etc.
- BASIC: GPRS test cases – PDP Context activation, Routing Area Update, Mobility, etc.
- BASIC: 3G Bearer test cases - PDP Context activation, Routing Area Update, Mobility, Data Throughput etc.
- BASIC: Managed Roaming - To verify if the Mobile Module behaves according VF needs when roaming in foreign PLMNs.
- BASIC: SIM-ME interworking

3 Test results of agreed test cases

3.1 Module under Test

Detailed information of module under test:

Vendor:	SIMcom
Product name:	SIM5320E
HW Version:	V1.03
SW Version:	B08

3.2 Test setup

Network infrastructure Radio Release

NSN 3G	RU20MP3
NSN 2G	RG10 BR MP4
SIMcom 3G	P714_76 / P714_64
SIMcom 2G	G10B + IPA 6 + MC

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3.3 Vodafone Test Case List

Following tests have been executed by Vodafone Test & Innovation Center on SIMcom Module SIM5320E.

The test scope was agreed on the condition that the Module is already GCF certified.

Test Area	Test ID	Test Name	Status
SMS	SMS_1090	SMS_1090 Deleting of messages	Passed
SMS	SMS_3050	SMS_3050 SMS alphabet - UCS2 alphabet - ISO 8859-x	Passed
SMS	SMS_3040	SMS_3040 SMS alphabet - UCS2 alphabet - ISO 8859-1	Passed
SMS	SMS_2060	SMS_2060 DCS support	Passed
SMS	SMS_2070	SMS_2070 PID support	Failed
SMS	SMS_3030	SMS_3030 SMS alphabet - Extended default 7-bit alphabet	Passed
SMS	SMS_3020	SMS_3020 SMS alphabet - Default 7-bit alphabet	Passed
SMS	SMS_2020	SMS_2020 Reception of unsupported SMS types	Passed
SMS	SMS_1010	SMS_1010 Input of the SMS transmission parameters - Service Center Address	Passed
SMS	SMS_2040	SMS_2040 Terminated concatenated message	Passed
USIM-ME	USIM-ME_DP_0110	USIM-ME_DP_0110 - PIN1 Handling	Passed
USIM-ME	USIM-ME_DP_0210	USIM-ME_DP_0210 - USIM-Phonebook Handling	Passed
USIM-ME	USIM-ME_DP_0810	USIM-ME_DP_0810 - Compatibility	Passed
GPRS-EDGE	GPRS_EDGE_315	GPRS_EDGE_315 - PS Mobility - Check downlink performance during cell change	Passed
GPRS-EDGE	GPRS_EDGE_314	GPRS_EDGE_314 - PS Mobility - Change of infrastructure vendor, DUT in PACKET TRANSFER mode	Passed
GPRS-EDGE	GPRS_EDGE_313	GPRS_EDGE_313 - PS Mobility - different RA, different SGSN, DUT in PACKET TRANSFER mode	Passed
GPRS-EDGE	GPRS_EDGE_312	GPRS_EDGE_312 - PS Mobility - different RA, same SGSN, DUT in PACKET TRANSFER mode	Passed
GPRS-EDGE	GPRS_EDGE_311	GPRS_EDGE_311 - PS Mobility - same RA, DUT in PACKET Transfer mode	Passed
GPRS-EDGE	GPRS_EDGE_309	GPRS_EDGE_309 - PS Mobility - different RA, same SGSN, DUT in STANDBY state	Passed
GPRS-EDGE	GPRS_EDGE_310	GPRS_EDGE_310 - PS Mobility - different RA, different SGSN, DUT in STANDBY state	Passed
GPRS-EDGE	GPRS_EDGE_307	GPRS_EDGE_307 - Modem Connection - IP Upload Performance in GPRS-Cell	Passed
GPRS-EDGE	GPRS_EDGE_103	GPRS_EDGE_103 - Detach at Power Off	Passed

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Test Area	Test ID	Test Name	Status
GPRS-EDGE	GPRS_EDGE_308	GPRS_EDGE_308 - PS Mobility - same RA, DUT in STANDBY state	Passed
GPRS-EDGE	GPRS_EDGE_305	GPRS_EDGE_305 - Modem Connection - IP Download Performance in GPRS-Cell	Passed
GPRS-EDGE	GPRS_EDGE_101	GPRS_EDGE_101 - Attach procedure	Passed
GPRS-EDGE	GPRS_EDGE_306	GPRS_EDGE_306 - Modem Connection - IP Upload Performance in EDGE-Cell	Passed
GPRS-EDGE	GPRS_EDGE_316	GPRS_EDGE_316 - PS Mobility - Check uplink performance during cell change	Passed
GPRS-EDGE	GPRS_EDGE_304	GPRS_EDGE_304 - Modem Connection - IP Download Performance in EDGE-Cell	Passed
GPRS-EDGE	GPRS_EDGE_317	GPRS_EDGE_317 - PS Mobility - Change of Infrastructure technology, EDGE to GPRS and vice versa, DUT in PACKET TRANSFER mode	Passed
GPRS-EDGE	GPRS_EDGE_302	GPRS_EDGE_302 - Activate PDP Context for Modem application with default QoS	Passed
GPRS-EDGE	GPRS_EDGE_201	GPRS_EDGE_201 - Several Up- and Downloads at the same time, using different applications	Passed
GPRS-EDGE	GPRS_EDGE_203	GPRS_EDGE_203 - Huge FTP file transfer, check average throughput	Passed
GPRS-EDGE	GPRS_EDGE_202	GPRS_EDGE_202 - No PDP Context deactivation from DUT side without user action	Passed
GSM_and_Basic_Operations	BASIC_OP_410	BASIC_OP_410 - MVTC Signalling and A5_3 ciphering	Passed
GSM_and_Basic_Operations	BASIC_OP_400	BASIC_OP_400 - MVTC Signalling and speech codec	Passed
GSM_and_Basic_Operations	BASIC_OP_430	BASIC_OP_430 - MVTC Mobile orig_term CS call (diff. codecs)	Passed
GSM_and_Basic_Operations	BASIC_OP_460	BASIC_OP_460 - MVTC SMS originated_HR	Passed
GSM_and_Basic_Operations	BASIC_OP_440	BASIC_OP_440 - MVTC Vodafone Voice Power Control DTX	Passed

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Test Area	Test ID	Test Name	Status
GSM_and_Basic_Operations	BASIC_OP_310	BASIC_OP_310 - Called party transfers call - to external	Passed
GSM_and_Basic_Operations	BASIC_OP_420	BASIC_OP_420 - MVTC Codec Handover	Passed
GSM_and_Basic_Operations	BASIC_OP_450	BASIC_OP_450 - MVTC DTMF (voice mail system_HR)	Passed
GSM_and_Basic_Operations	BASIC_OP_480	BASIC_OP_480 - CMU Roaming out	Passed
GSM_and_Basic_Operations	BASIC_OP_128	BASIC_OP_128 - Change dialling number and name	Passed
GSM_and_Basic_Operations	BASIC_OP_100	BASIC_OP_100 - Cell selection (switched ON with new SIM) _opearator name	Passed
GSM_and_Basic_Operations	BASIC_OP_120	BASIC_OP_120 - Volume changeable during call	Passed
GSM_and_Basic_Operations	BASIC_OP_102	BASIC_OP_102 - IMEI Check	Passed
GSM_and_Basic_Operations	BASIC_OP_146	BASIC_OP_146 - Display and list received calls	Passed
GSM_and_Basic_Operations	BASIC_OP_142	BASIC_OP_142 - Reset of call timer	Passed
GSM_and_Basic_Operations	BASIC_OP_106	BASIC_OP_106 - Clock settings	Passed

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Test Area	Test ID	Test Name	Status
GSM_and_Basic_Operations	BASIC_OP_104	BASIC_OP_104 - Display SW-Version	Passed
GSM_and_Basic_Operations	BASIC_OP_144	BASIC_OP_144 - Display and list missed calls	Passed
GSM_and_Basic_Operations	BASIC_OP_148	BASIC_OP_148 - Display and list performed calls	Passed
GSM_and_Basic_Operations	BASIC_OP_130	BASIC_OP_130 - Delete dialling number and name	Passed
GSM_and_Basic_Operations	BASIC_OP_132	BASIC_OP_132 - Recall dialling number and name	Passed
GSM_and_Basic_Operations	BASIC_OP_138	BASIC_OP_138 - Activation of call timer	Passed
GSM_and_Basic_Operations	BASIC_OP_122	BASIC_OP_122 - Automatic call answer	Passed
3G_Handset	3G_Handset_A302	3G_Handset_A302 - PdpContext Activation	Passed
3G_Handset	3G_Handset_A307	3G_Handset_A307 - HSPA max IP Download performance	Passed
3G_Handset	3G_Handset_A401	3G_Handset_A401 - Cellular Data Connection + Emergency Call	Passed
3G_Handset	3G_Handset_A101	3G_Handset_A101 - Location Updating Procedure	Passed
3G_Handset	3G_Handset_A102	3G_Handset_A102 - CS Domain Integrity UIA1+2	Passed
3G_Handset	3G_Handset_A103	3G_Handset_A103 - CS Domain Ciphering UEA0+1+2	Passed
3G_Handset	3G_Handset_A105	3G_Handset_A105 - PS Domain Integrity UIA1+2	Passed
3G_Handset	3G_Handset_A106	3G_Handset_A106 - PS Domain Ciphering UEA0+1+2	Passed

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Test Area	Test ID	Test Name	Status
3G_Handset	3G_Handset_A107	3G_Handset_A107 - CS ImsiDetach Procedure	Passed
3G_Handset	3G_Handset_A108	3G_Handset_A108 - PS Detach Procedure	Passed
3G_Handset	3G_Handset_A202	3G_Handset_A202 - LU Procedure after loss of coverage	Passed
3G_Handset	3G_Handset_A403	3G_Handset_A403 - cellular data connection + outgoing SMS	Passed
3G_Handset	3G_Handset_B203	3G_Handset_B203 - Inter System Handover 3G to 2G for Speech Call	Passed
3G_Handset	3G_Handset_A404	3G_Handset_A404 - cellular data connection + incoming SMS	Passed
3G_Handset	3G_Handset_B101	3G_Handset_B101 - Cell Selection 3G to 2G - change RAT	Passed
3G_Handset	3G_Handset_B102	3G_Handset_B102 - Cell Selection 2G to 3G - change RAT	Passed
3G_Handset	3G_Handset_A104	3G_Handset_A104 - Attach Procedure	Passed
3G_Handset	3G_Handset_A203	3G_Handset_A203 - Display indication for no coverage	Passed
3G_Handset	3G_Handset_B202	3G_Handset_B202 - Inter Frequency Handover 3G to 3G for Speech Call	Passed
3G_Handset	3G_Handset_B204	3G_Handset_B204 - subsequent Inter System Handover 3G-2G-3G for Speech Call	Passed
3G_Handset	3G_Handset_B301	3G_Handset_B301 - Handover 3G to 3G in DCH for Packet Connection	Passed
3G_Handset	3G_Handset_B302	3G_Handset_B302 - Cell Reselection 3G to 3G in FACH	Passed
3G_Handset	3G_Handset_C203	3G_Handset_C203 - Inter System Handover 3G to 2G for Speech Call	Passed
3G_Handset	3G_Handset_B305	3G_Handset_B305 - Inter Frequency Handover 3G to 3G for Packet Connection	Passed
3G_Handset	3G_Handset_C101	3G_Handset_C101 - Cell Selection 3G to 2G - change RAT	Passed
3G_Handset	3G_Handset_C102	3G_Handset_C102 - Cell Selection 2G to 3G - change RAT	Passed
3G_Handset	3G_Handset_C201	3G_Handset_C201 - Handover 3G to 3G for Speech Call	Passed
3G_Handset	3G_Handset_C202	3G_Handset_C202 - Inter Frequency Handover 3G to 3G for Speech Call	Passed
3G_Handset	3G_Handset_C301	3G_Handset_C301 - Handover 3G to 3G in DCH for Packet Connection	Passed
3G_Handset	3G_Handset_C302	3G_Handset_C302 - Cell Reselection 3G to 3G in FACH	Passed

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Test Area	Test ID	Test Name	Status
3G_Handset	3G_Handset_C303	3G_Handset_C303 - Cell Reselection 3G to 3G in CELL_PCH	Passed
3G_Handset	3G_Handset_C304	3G_Handset_C304 - Cell Reselection 3G to 3G in URA_PCH	Passed
3G_Handset	3G_Handset_C305	3G_Handset_C305 - Inter Frequency Handover 3G to 3G for Packet Connection	Passed
3G_Handset	3G_Handset_C204	3G_Handset_C204 - subsequent Inter System Handover 3G-2G-3G for Speech Call	Passed
3G_Handset	3G_Handset_B201	3G_Handset_B201 - Handover 3G to 3G for Speech Call	Passed
3G_Handset	3G_Handset_A305	3G_Handset_A305 - HSPA HS-DSCH physical Layer Category	Passed
3G_Handset	3G_Handset_A301	3G_Handset_A301 - APN Setting	Passed
3G_Handset	3G_Handset_A204	3G_Handset_A204 - Speech Call Handling	Passed
SoR_based_on_SS7	SoR_SS7_100	SoR_SS7_100 - Steering of Roaming based on SS7	Failed

4 Open defects at end of test

4.1 Open severity 1 defect

There is no severity 1 issue after second test cycle.

4.2 Open severity 2 defect

The following issues occurred during the test execution. These defects are not blocking the Vodafone approval.

Defect ID	Test Area	Summary	Short description
14	SMS	SMS:PID support	<p>Expected:</p> <ol style="list-style-type: none"> 1. Message with PID = 0x41 has been sent to DUT. 2. The message shall be received correctly on DUT. Message text is displayed in message inbox 3. Second message with PID = 0x41 and modified text has been sent to DUT. 4. The second message shall be received correctly with a sound indication on DUT. The first received message is replaced by the second one in message inbox and marked as unread. <p>Note:</p>

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			<p>If not supported, please open a Severity 2 defect.</p> <p>Linked Requirements: TCD-BEAR-REQ-000150</p> <p>Actual: The message is send and the second message also but the first message is not replaced by the second one.</p>
18	SoR_base_d_on_SS7	Steering of Roaming based on SS7 - Manual Network Selection -> failed to register to E+ network, LU Status: not updated	<p>Expected: During manual network selection, and the device is rejected with LURej#17 "Network Failure", the device shall attempt 4 LU requests. During this time, the device shall indicate to the user that it is attempting to select the network. After the 4th unsuccessful LU request, the device shall indicate to the user that the manual network selection was unsuccessful and return to the list of available networks, from which the user can invoke a further manual network selection (cycle). If the user abandons the manual network selection menu (e.g. return to idle screen), the device shall return to automatic network selection mode and register to the original network. VF Requirement: TCD-BEAR-GEN-009231 GSM Association DG11</p> <p>Actual: Defect: failed to register to E+ network after 4 LU requests (+CREG: 0,0). SIM LU Status: 01 not updated CS: not available PS: available</p>

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5 Summary Check of Technical approval criteria checklist

The following list summarizes the criteria and approvals / statement of compliances, which have to be available / passed to achieve the module approval.

Technical Approval Criteria Checklist	Comment
No outstanding Severity 1 Faults	Passed
GCF Certified Declaration & GCF FT / IOP Test Results	Available
R&TTE Certificate (must cover safety: EN 60950, EMC: EN 301*)	Available
CE mark at the module and CE-identifier of auditing body	Available
IMEI range (Valid Type Approval Code)	Available
ROHS Certification	Available
FCC ID at the module	Available
Evidence of FCC approval (conducted mode only)	Available

6 Summary

The Vodafone Test&Innovation Center attests that the module SIM5320E works as specified in the agreed test scope.



Vodafone Test Certificate

This is to certify that Vodafone Group has tested the following stand-alone module and found it acceptable for use on all Vodafone and Partner networks

MANUFACTURER : SIMcom

MODEL : SIM5320E
(HW V1.03, SW B08)

TECHNOLOGY : HSPA

DATE : 25/09/2012

A handwritten signature in black ink, appearing to read "Nicholas Dixon".

Nicholas Dixon
on behalf of Stephen Packer
Head of Requirements and Verification Terminal Products (Vodafone Group Services Limited)

This certificate is a statement that the module referred to above has been tested by Vodafone Group and is acceptable for use on all Vodafone and Partner networks. It is not a validation of the performance of the module other than in relation to acceptability on Vodafone networks at the time of testing. No warranty is given by Vodafone Group with regard to the module or its fitness for purpose. The use of this certificate and the Vodafone names are subject to the terms and conditions set out in the Vodafone Group Module Approval Services Agreement.

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Document Reference Number: 0001