



InterLab[®]

Final Report on

EM820W

SW: 11.808.07.03.00 (SVN:03)

HW: MD1EM820WM

Report Reference: 4-RC102a-2010

Date: January 10, 2011

Test Laboratory:

Beijing 7 layers Huarui Communications Technology Co., Ltd.
No.11 Yue Tan Nan Street, Xi Cheng District
Beijing 100045
China P.R.



Note:

The following test results relate only to the devices specified in this document. This report shall not be reproduced in parts without the written approval of the test laboratory.

Beijing 7 layers Huarui Communications Technology Co., Ltd.
No.11 Yue Tan Nan Street, Xi Cheng District
Beijing, China 100045
Phone: +86 010 68050368
Fax: +86 010 68050370
www.7Layers.cn

Chairman of the Board:
Mr. Yang Zemin
Vice Chairman of Board:
Dr. Hans-Jürgen Meckelburg

1 Administrative Data

1.1 Project Data

Project Responsible: Ms. Sun Congcong
Date Of Test Report: 2011/01/10
Date of first test: 2010/12/06
Date of last test: 2010/12/15

1.2 Applicant Data

Company Name: Huawei Technologies Co.,Ltd.
Street: Huawei Base, Bantian Longgang, Shenzhen, PRC
City: 518057 Shenzhen
Country: China
Contact Person: Mrs. kangying
Phone: 0755-36834347
Fax: 0755-36839014
E-Mail: kangying@huawei.com

1.3 Test Laboratory Data

The following list shows all places and laboratories involved for test result generation:

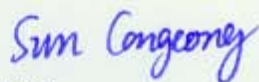
ritt 7 layers

Company Name : ritt 7 layers
Street : No.11 Yue Tan Nan Street,Xi Cheng District
City : 100045 Beijing
Country : China
Contact Person : Ph.D Bin Yao
Phone : +86 10 68050369-103
Fax : +86 10 68050370
Mobile : +86 13910007241
E Mail : bin.yao@ritt.7layers.cn

Laboratory Details

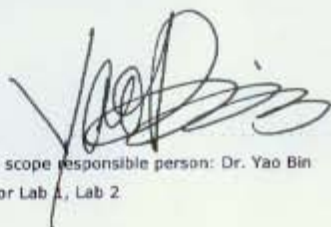
Lab ID	Identification	Responsible	Accreditation Info
Lab 1	Spurious emission radiated	Dr. Yao Bin	DAR-Registration No. DGA-PL-192/99-C1
Lab 2	TP059 - Spirent Communications	Mr. Wei Wei	DAR-Registration No. DGA-PL-192/99-C1

1.4 Signature of the Testing Responsible



Ms. Sun Congcong
responsible for tests performed in: Lab 1, Lab 2

1.5 Signature of the Accreditation Responsible



Accreditation scope responsible person: Dr. Yao Bin
responsible for Lab 1, Lab 2

2 Test Object Data

2.1 General OUT Description

The following section lists all OUTs (Object's Under Test) involved during testing.

OUT: EM820W

Type / Model / Family:

EM820W
SW: 11.808.07.03.00 (SVN:03)
HW: MD1EM820WM

Product Category:

Module

Manufacturer:

Company Name:

Huawei Technologies Co.,Ltd.

Street:

Huawei Base, Bantian Longgang, Shenzhen, PRC

City:

518057 Shenzhen

Country:

China

Country Code:

86

Contact Person:

Mrs. kangying

Phone:

0755-36834347

Fax:

0755-36839014

E-Mail:

kangying@huawei.com

2.2 Detailed Description of OUT Samples

Sample : C01

<i>OUT Identifier</i>	EM820W		
<i>Sample Description</i>	test sample #03		
<i>HW Status</i>	MD1EM820WM		
<i>SW Status</i>	11.808.07.00.00		
<i>Low Voltage</i>	3.0 V	<i>Low Temp.</i>	-10 °C
<i>High Voltage</i>	3.6 V	<i>High Temp.</i>	55 °C
<i>Nominal Voltage</i>	3.3 V	<i>Normal Temp.</i>	25 °C

Parameter List:

<i>Parameter Description</i>	<i>Value</i>
Parameter for Scope GERAN_v1	
IMEI	354283040001269
IMEISV	3542830400012601
IMSI	001010123456063
IMSI 2	001011012345063
Intermediate Frequency 1	0
Intermediate Frequency 2	0
Intermediate Frequency 3	0
Intermediate Frequency 4	0
Intermediate Frequency 5	0
Ki	5E4AB35891375D2AEE812E67C309A629
Local Oscillator Frequency	0
Number of Intermediate Frequencies	1
Sample location	Place
Sample responsibility	Name of person
Parameter for Scope UTRA_v2	
IMEI	354283040001269
px_IMEI_Def	no default
px_IMEISV_Def	no default
SAMPLE LOCATION	PLACE
SAMPLE RESPONSIBILITY	NAME OF PERSON

Sample : H01

<i>OUT Identifier</i>	EM820W		
<i>Sample Description</i>	test sample #08		
<i>HW Status</i>	MD1EM820WM		
<i>SW Status</i>	11.808.07.00.00		
<i>Low Voltage</i>	3.0 V	<i>Low Temp.</i>	-10 °C
<i>High Voltage</i>	3.6 V	<i>High Temp.</i>	55 °C
<i>Nominal Voltage</i>	3.3 V	<i>Normal Temp.</i>	25 °C

Parameter List:

<i>Parameter Description</i>	<i>Value</i>
Parameter for Scope GERAN_v1	
IMEI	354283040000550
IMEISV	3542830400005501
IMSI	001010123456063
IMSI 2	001011012345063
Intermediate Frequency 1	0
Intermediate Frequency 2	0
Intermediate Frequency 3	0
Intermediate Frequency 4	0
Intermediate Frequency 5	0
Ki	5E4AB35891375D2AEE812E67C309A629
Local Oscillator Frequency	0
Number of Intermediate Frequencies	1
Sample location	Place
Sample responsibility	Name of person
Parameter for Scope UTRA_v2	
IMEI	354283040000550
px_IMEI_Def	no default
px_IMEISV_Def	no default
SAMPLE LOCATION	PLACE
SAMPLE RESPONSIBILITY	NAME OF PERSON

2.3 OUT Features

Features for OUT: EM820W

Designation	Description	Allowed Values	Supported Value(s)
Features for scope: GERAN_v1			
34123_A.1 5/2	FDD: Frequency band: 1 920-1 980, 2 110-2 170 MHz		
34123_A.1 5/3	FDD: Frequency band: 1 850-1 910, 1 930-1 990 MHz		
34123_A.1 5/16	FDD: Frequency band: 824 - 849, 869-894 MHz		
34123_A.1 5/19	Frequency band: 880-915, 925-960 MHz		
A	Feature "A" is used for "applicability" that is referenced in 51.010-2 for many test cases. You will find the description in Annex B of this specification.		
A.1/1	Standard GSM Band (P-GSM)		
A.1/2	Extended GSM Band (E-GSM), (including standard Band)		
A.1/4	DCS 1800 band		
A.1/6	Multiple-band, simultaneously		
A.1/7	Small Mobile Station		
A.1/10	GSM Power Class 4		
A.1/12	DCS Power Class 1		
A.1/18	PCS 1900 band		
A.1/19	PCS Power Class 1		
A.1/51	GPRS Multislot operation		
A.1/52	EGPRS capable of 8PSK in Uplink, of all Multislot Classes		
A.1/55	GSM 850 band		
A.1/56	Support of UTRAN Radio Access Technology		
A.1/57	Support of GPRS Multislot class on the uplink		
A.1/63	Support of UTRAN FDD		
A.1/65	Support of Conventional GPS		
A.1/66	EGPRS Multislot operation		
A.1/78	GPRS Multislot Class12		
A.1/107	EGPRS Multislot Class12		
A.1/127	GSM 850 Power Class 4		
A.1/130	8-PSK GSM Power Class E2		
A.1/133	8-PSK DCS Power Class E2		
A.1/136	8-PSK PCS Power Class E2		
A.1/139	8-PSK GSM 850 Power Class E2		
A.1/141	GSM850 and GSM1800 Band Interworking		
A.1/142	GSM900 and GSM1900 Band Interworking		
A.1/143	GSM850 and GSM900 Band Interworking		
A.1/146	DTM/EGPRS Multislot Class 9		
A.1/188	EGPRS Multislot Operation in Uplink Direction		
A.1/200	Revision Level GSM Phase 1		
A.1/201	Revision Level GSM Phase 2		
A.1/202	Revision Level MS supporting R99 or later		
A.1/204	8-PSK RF Power Capability 1		
A.1/205	8-PSK RF Power Capability 2		
A.1/259	DTM EGPRS Multislot Class10		

Features for OUT: EM820W

<i>Designation</i>	<i>Description</i>	<i>Allowed Values</i>	<i>Supported Value(s)</i>
A.1b/1	Release of GPRS supported	R97, R98, R99, Release 4, Release 5, Release 6, Release 7, Release 8, Release 9	Release 6
A.1b/3	Release of EGPRS supported	R99, Release 4, Release 5, Release 6, Release 7, Release 8, Release 9	Release 6
A.1b/4	Release of RRLP supported.	R98, R99, Release 4, Release 5, Release 6, Release 7, Release 8, Release 9	Release 5
A.1b/5	Release of Higher Layer supported.	R97, R98, R99, Release 4, Release 5, Release 6, Release 7, Release 8, Release 9	Release 6
A.2/4	Country / PLMN Selection.		
A.2/6	IMEI.		
A.2/7	Short Message Overflow Indication.		
A.2/8	DTE /DCE Interface.		
A.2/14	Subscription Identity Management.		
A.2/15	On / Off switch.		
A.2/17	Support of Encryption A5/1.		
A.2/19	Short Message Service Cell Broadcast DRX.		
A.2/35	ME-SIM lock		
A.2/41	Support of GPRS		
A.2/42	Support of EGPRS		
A.2/43	Support of GPRS Encryption		
A.2/45	Short message		
A.2/48	GPRS operation mode class B		
A.2/49	GPRS operation mode class C		
A.2/50	MS supporting SMS over GPRS		
A.2/54	GPRS test mode A		
A.2/55	GPRS test mode B		
A.2/56	EGPRS test mode		
A.2/58	Non-zero value of Non_DRX_Timer		
A.2/59	Support of MS-Based A-GPS L1 C/A		
A.2/60	Support of MS-Assisted A-GPS L1 C/A		
A.2/65	Support of EGPRS Packet Access enhancement		
A.2/67	Support of MT SMS over GPRS		
A.2/70	Support of Extended dynamic allocation		
A.2/72	Support of GERAN FEATURE PACKAGE 1		
A.2/73	Support of Encryption A5/3		
A.2/75	Support of Encryption GEA2		
A.2/76	Support of Encryption GEA3		
A.2/81	Support of Enhanced DTM CS		
A.2/82	Support of PS Handover		
A.3/3	Short Message MT/PP.		
A.3/4	Short Message MO/PP.		
A.3/5	SMS Cell Broadcast.		
A.3/10	SMS description		
A.4/6	Data circuit duplex async. 9 600 bit/s.		
A.4/22	GPRS		
A.6/1	Bearer Service 21(20) .. 26, unrestricted digital information transfer capability.		

Features for OUT: EM820W

<i>Designation</i>	<i>Description</i>	<i>Allowed Values</i>	<i>Supported Value(s)</i>
A.6/2	Bearer Service 21(20) .. 26, 3.1 kHz audio ex-PLMN information transfer capability.		
A.7/1	Signalling Access Protocol (SAP).	I.440, X.28nond	I.440
A.7/2	Connection Element (CE).	NT, bothNT, T, bothT	NT
A.7/3	User Info Layer 2 Protocol (UIL2P).	ISO6429, COPnoFICt, NAV	COPnoFICt, NAV, ISO6429
A.7/4	Number of Data Bits(NDB).	7 bits, 8 bits	8 bits, 7 bits
A.7/5	Parity Information (NPB).	odd, even, 0, 1, none	none
A.7/6	Number of Stop Bits (NSB).	1 bit, 2 bits	1 bit, 2 bits
A.7/7	Radio Channel Requirement (RCR).	dualHR, FR, dualFR	FR
A.7/8	Intermediate Rate (IR).	8 kbps, 16 kbps	16 kbps
A.7/9	User Rate (UR).	0.3, 1.2, 2.4, 4.8, 9.6, 1.2/0.075	9.6
A.7/10	Fixed Network User Rate (FNUR)	9.6, 14.4, 19.2, 28.8, 38.4, 48, 56, NAV	14.4, 9.6
A.7/10a	all allowed combinations according to GSM 07.01 B.1.2.1 (3GPP TS 27.001) implemented (if not, provide detailed description).		
A.7/11	Wanted Air Interface User Rate (WAIUR)	9.6, 14.4, 19.2, 28.8, 38.4, 43.2, 57.6, NAV	14.4, 9.6
A.7/12	User Initiated Modification Indication (UIMI)	not req., upto1, upto2, upto3, upto4, NAV	NAV
A.7/13	Maximum number of Traffic Channels (MaxNumTCH)	1, 2, 3, 4, NAV	1
A.8/1	Signalling Access Protocol (SAP).	I.440, X.28nond	I.440
A.8/2	Connection Element (CE).	NT, bothNT, T, bothT	NT
A.8/3	User Info Layer 2 Protocol (UIL2P).	ISO6429, COPnoFICt, NAV	COPnoFICt, NAV, ISO6429
A.8/4	Number of Data Bits(NDB).	7 bits, 8 bits	8 bits, 7 bits
A.8/5	Parity Information (NPB).	odd, even, 0, 1, none	none
A.8/6	Number of Stop Bits (NSB).	1 bit, 2 bits	1 bit, 2 bits
A.8/7	Radio Channel Requirement (RCR).	dualHR, FR, dualFR	FR
A.8/8	Intermediate Rate (IR).	8 kbps, 16 kbps	16 kbps
A.8/9	User Rate (UR).	0.3, 1.2, 2.4, 4.8, 9.6, 1.2/0.075	9.6
A.8/10	Modem Type (MT).	V.21, V.22, V.22bis, V.26ter, V.32, V.23, auto	V.32, auto
A.8/11	Fixed Network User Rate (FNUR)	9.6, 14.4, 19.2, 28.8, NAV	9.6, 14.4
A.8/11a	all allowed combinations according to GSM 07.01 B.1.2.2 (3GPP TS 27.001) implemented (if not, provide detailed description).		
A.8/12	Wanted Air Interface User Rate (WAIUR)	9.6, 14.4, 19.2, 28.8, 38.4, 43.2	9.6, 14.4
A.8/13	Acceptable channel codings (ACC)	4.8, 9.6, 14.4, NAV	14.4, 9.6
A.8/14	User Initiated Modification Indication (UIMI)	not req., upto1, upto2, upto3, upto4, NAV	NAV
A.8/15	Maximum number of Traffic Channels (MaxNumTCH)	1, 2, 3, 4, NAV	1
A.25.1/2	Loop C delay Full rate (round trip delay, in number of TDMA frames)	0 ... inf	
A.25.1/7	Averaging time Tav This time is the time between the first and the last measurement sample taken on one carrier during one averaging period when measuring received signal strength	0 ... inf	
A.25.1/10	MS LCS Notification timeout timer (units: seconds)	1 ... inf	
A.25/4	at least one data service.		

Features for OUT: EM820W

<i>Designation</i>	<i>Description</i>	<i>Allowed Values</i>	<i>Supported Value(s)</i>
A.25/5	at least one full rate data service.		
A.25/7	at least one non transparent data service.		
A.25/10	at least one asynchronous data service.		
A.25/11	at least one asynchronous non transparent data service.		
A.25/16	9.6 k full rate data mode.		
A.25/18	at least one bearer capability.		
A.25/19	at least one MT circuit switched basic service.		
A.25/20	at least one MO circuit switched basic service.		
A.25/22	at least one service on traffic channel supported		
A.25/24	only full rate radio channel type (no relation to supported speech codecs)		
A.25/25	at least one teleservice.		
A.25/26	CC protocol for at least one BC.		
A.25/31	at least one short message service.		
A.25/32	(SMS) reply procedure.		
A.25/34	display of received SMS.		
A.25/35	SMS status report capabilities.		
A.25/36	Storing of short messages in the SIM.		
A.25/38	detach on power down.		
A.25/42	Plug-In SIM.		
A.25/43	Disable PIN feature.		
A.25/48	automatically enter automatic selection of PLMN mode.		
A.25/53	follow-on request procedure.		
A.25/58	MT2 Configuration.		
A.25/59	MT2 Configuration or any other possibility to send data over Um interface.		
A.25/60	Permanent Antenna Connector.		
A.25/61	Pseudo-synchronized handover supported.		
A.25/66a	RLP supports non default parameters		
A.25/72	14.4 k data mode		
A.25/83	Support of one PDP context activation		
A.25/84	Support of more than one PDP context activation		
A.25/85	Support of more than one PDP context activation simultaneously on the same SAPI		
A.25/86	Support of GPRS data compression		
A.25/87	Support of GPRS header compression		
A.25/89	Support for user settings of minimum QoS		
A.25/90	Automatic GPRS attach procedure at switch-on/power-on		
A.25/91	MMI controlled attach/detach procedures for non-GPRS services		
A.25/92	Automatic attach procedure when MS identity cannot derived by the network		
A.25/93	Automatic MM IMSI attach procedure at switch-on / power-on		
A.25/96	1,8V/3V SIM/ME interface.		
A.25/97	Multiple SM MO/PP on same RR link		
A.25/98	Support of stored list cell selection		
A.25/99	at least one service not support immediate connection		
A.25/109	Support of Multiple SMS		
A.25/110	Cell Reselection after T3184 Expiry		
A.25/111	GPRS attach attempted automatically due to outstanding request		

Features for OUT: EM820W

<i>Designation</i>	<i>Description</i>	<i>Allowed Values</i>	<i>Supported Value(s)</i>
A.25/116	Support of MO SMS Concatenation		
A.25/117	Support of MT SMS Concatenation		
A.25/122	Support of GPRS header compression algorithm type RFC 1144		
A.25/123	Support of GPRS header compression algorithm type RFC 2507		
A.25/128	The way to trigger transferring of new user data in a different PDP context while an uplink transfer is in progress		
A.25/132	MS with improved receiver performance		
A.25/139	Support of Repeated SACCH		
A.25/140	Support for a method for resetting stored A-GPS assistance data		
A.25/149	Support of Repeated FACCH		
A.25/150	Support of HATS		
A.25/151	Controlled Early Classmark Sending		
A.25/152	SS Screening Indicator	00, 01, 10, 11	00
A.25/155	Classmark 3 options available		
A.25/156	LCS VA Capability		
A.25/157	UCS2 treatment		
A.25/160	SMS_VALUE (Switch-Measure-Switch)	0000, 0001, 0010, 0011, 0100, 0101, 0110, 0111, 1000, 1001, 1010, 1011, 1100, 1101, 1110, 1111	0000
A.25/161	SMS_VALUE (Switch-Measure)	0000, 0001, 0010, 0011, 0100, 0101, 0110, 0111, 1000, 1001, 1010, 1011, 1100, 1101, 1110, 1111	0000
A.27/2	see 51.010-2, UL/DL: 14.4 kbps		
A.27/3	see 51.010-2; UL/DL: 28.8 kbps		
A.27/4	see 51.010-2; UL/DL: 57.6 kbps		
E.1/1	Profile Download		
E.1/2	SMS-PP data download		
E.1/5	9EXX response code for SIM data download error		
E.1/9	Command result		
E.1/12	MO short message control by SIM		
E.1/20	MORE TIME		
E.1/22	POLL INTERVAL		
E.1/23	POLLING OFF		
E.1/24	REFRESH		
E.1/25	SELECT ITEM		
E.1/26	SEND SHORT MESSAGE		
E.1/27	SEND SS		
E.1/31	PROVIDE LOCAL INFORMATION (LOCI & IMEI)		
E.1/57	TIMER MANAGEMENT (start, stop)		
E.1/58	TIMER MANAGEMENT (get current value)		
E.1/59	PROVIDE LOCAL INFORMATION (date, time and time zone)		
E.1/67	PROVIDE LOCAL INFORMATION - BCCH		
E.1/68	PROVIDE LOCAL INFORMATION (language)		
E.1/69	PROVIDE LOCAL INFORMATION (Timing Advance)		
E.1/98	GPRS supported by ME		

Features for OUT: EM820W

<i>Designation</i>	<i>Description</i>	<i>Allowed Values</i>	<i>Supported Value(s)</i>
E.1/129	TCP		
E.1/130	UDP		

Additional information for scope: GERAN_v1

CatA
CatB
CatE
FDD1
FDD2
FDD5
FDD8
TH
TL
TN
VH
VL
VN

Features for scope: UTRA_v2

31121_A.1/
1 Support of CS
31121_A.1/
3 Support of UTRAN access
31121_A.1/
4 Support of GERAN access
31121_A.1/
7 Support of Higher priority PLMN selector with
Access Technology service (Implementation is
optional in Rel-6 and onwards)
31121_A.1/
10 Support of "Receive SMS" functionality
31124_A.1/
4 Extended Text String
31124_A.1/
16 Mobile supporting GPRS
31124_A.1/
17 Mobile supporting UDP
31124_A.1/
18 Mobile supporting TCP
31124_A.1/
20 Mobile decision to respond with "No response
from user" in finite time
31124_A.1/
23 Immediate response
31124_A.1/
24 Variable Timeout
31124_A.1/
44 Mobile supporting Barred Dialling Numbers
31124_A.1/
45 Mobile supporting Fixed dialling numbers
31124_A.1/
63 Terminal supports Long ForwardToNumber
31124_A.1/
64 Mobile supporting GERAN
31124_A.1/
65 Support of global phonebook
31124_A.1/
66 HSDPA Support
31124_A.1/
134 Terminal supports UTRAN
31124_E.1/
1 Profile Download

Features for OUT: EM820W

<i>Designation</i>	<i>Description</i>	<i>Allowed Values</i>	<i>Supported Value(s)</i>
31124_E.1/ 2	SMS-PP data download		
31124_E.1/ 3	Cell Broadcast data download		
31124_E.1/ 5	Bit =1 if SMS-PP data Download supported		
31124_E.1/ 6	Timer expiration		
31124_E.1/ 7	Bit=1 if Call control supported		
31124_E.1/ 8	Bit=1 if Call control supported		
31124_E.1/ 9	Command result		
31124_E.1/ 10	Call Control by USIM		
31124_E.1/ 11	Bit=1 if Call control supported		
31124_E.1/ 12	MO short message control by USIM		
31124_E.1/ 13	Bit=1 if Call control supported		
31124_E.1/ 16	Bit=1 if Display Text supported		
31124_E.1/ 17	DISPLAY TEXT		
31124_E.1/ 18	GET INKEY		
31124_E.1/ 19	GET INPUT		
31124_E.1/ 20	MORE TIME		
31124_E.1/ 21	PLAY TONE		
31124_E.1/ 22	POLL INTERVAL		
31124_E.1/ 23	POLLING OFF		
31124_E.1/ 24	REFRESH		
31124_E.1/ 25	SELECT ITEM		
31124_E.1/ 26	SEND SHORT MESSAGE		
31124_E.1/ 27	SEND SS		
31124_E.1/ 28	SEND USSD		
31124_E.1/ 29	SET UP CALL		
31124_E.1/ 30	SET UP MENU		
31124_E.1/ 31	PROVIDE LOCAL INFORMATION (LOCI & IMEI)		
31124_E.1/ 32	PROVIDE LOCAL INFORMATION (NMR)		
31124_E.1/ 33	SET UP EVENT LIST		
31124_E.1/ 34	Event: MT call		
31124_E.1/ 35	Event: Call connected		

Features for OUT: EM820W

<i>Designation</i>	<i>Description</i>	<i>Allowed Values</i>	<i>Supported Value(s)</i>
31124_E.1/ 36	Event: Call disconnected		
31124_E.1/ 37	Event: Location status		
31124_E.1/ 38	Event: User activity		
31124_E.1/ 39	Event: Idle screen available		
31124_E.1/ 41	Event: Language selection		
31124_E.1/ 45	Event: Access Technology Change		
31124_E.1/ 48	Event: Network Search Mode Change		
31124_E.1/ 57	TIMER MANAGEMENT (start, stop)		
31124_E.1/ 58	TIMER MANAGEMENT (get current value)		
31124_E.1/ 59	PROVIDE LOCAL INFORMATION (date, time and time zone)		
31124_E.1/ 60	Bit=1 if Get Inkey		
31124_E.1/ 61	SET UP IDLE MODE TEXT		
31124_E.1/ 63	Bit=1 if Set UpCall		
31124_E.1/ 64	Bit=1 if Call Control		
31124_E.1/ 65	Bit=1 if Display Text		
31124_E.1/ 66	SEND DTMF command		
31124_E.1/ 67	Bit = 1 if Provide Local Information (NMR) supported		
31124_E.1/ 68	PROVIDE LOCAL INFORMATION (language)		
31124_E.1/ 69	PROVIDE LOCAL INFORMATION (Timing Advance)		
31124_E.1/ 70	LANGUAGE NOTIFICATION		
31124_E.1/ 72	PROVIDE LOCAL INFORMATION (Access Technology)		
31124_E.1/ 136	HSDPA supported by ME		
31124_E.1/ 137	DISPLAY TEXT (Variable time out)		
31124_E.1/ 140	GET INKEY (Variable time out)		
31124_E.1/ 142	CALL CONTROL on GPRS		
31124_E.1/ 182	Reserved for 3GPP2: PROVIDE LOCAL INFORMATION (MEID)		
34121_A.1/ 1	FDD (DS)		
34121_A.1/ 4	GSM		
34121_A.1/ 5	GPRS		
34121_A.2/ 1	Circuit Switched		
34121_A.2/ 2	Packet Switched		

Features for OUT: EM820W

<i>Designation</i>	<i>Description</i>	<i>Allowed Values</i>	<i>Supported Value(s)</i>
34121_A.2/ 3	UE supports UE operation mode A: PS and CS simultaneously		
34121_A.4/ 1	Call Control		
34121_A.4/ 2	Mobility Management		
34121_A.4/ 3	Session Management		
34121_A.4/ 4	GPRS Mobility Management		
34121_A.4/ 5	Radio Resource Control		
34121_A.4/ 7	Broadcast/Multicast Control		
34121_A.4/ 8	Radio Link Control		
34121_A.4/ 9	Medium Access Control		
34121_A.4/ 10	Physical Layer		
34121_A.5/ 1	UE test loop		
34121_A.5/ 2	Support of UE test loop mode 1 with UL RLC SDU size bigger than 12160 bits (1520 octets)		
34121_A.6/ 1	Chip rate 3,84 Mcps		
34121_A.6/ 2	Frequency band: 1 920-1 980, 2 110-2 170 MHz		
34121_A.6/ 3	Frequency band: 1 850-1 910, 1 930-1 990 MHz		
34121_A.6/ 5	TX-RX Freq. Sep: 190 MHz		
34121_A.6/ 6	TX-RX Freq. Sep: 80 MHz		
34121_A.6/ 8	Carrier raster: 200 kHz		
34121_A.6/ 11	UE Power Class 3 for Operation Band I (+24 dBm)		
34121_A.6/ 13	Output RF spectrum emissions		
34121_A.6/ 16	Frequency band: 824 - 849, 869-894 MHz		
34121_A.6/ 19	Frequency band: 880-915, 925-960 MHz		
34121_A.6/ a/1	UE Power Class 3 for Operation Band II (+24 dBm)		
34121_A.6/ a/10	UE Power Class 3 for Operation Band V (+24 dBm)		
34121_A.6/ a/19	UE Power Class 3 for Operation Band VIII (+24 dBm)		
34121_A.7/ 1	Support of turbo decoding		
34121_A.7/ 2	Support of turbo encoding		
34121_A.7/ 10	Support of uplink and downlink compressed mode		
34121_A.7/ 14	Support of HS-PDSCH		
34121_A.7/ 15	Support of E-DPDCH		
34121_A.8/ 6	Category 6		

Features for OUT: EM820W

<i>Designation</i>	<i>Description</i>	<i>Allowed Values</i>	<i>Supported Value(s)</i>
34121_A.8/ 8	Category 8		
34121_A.8/ 10	Category 10		
34121_A.8/ 12	Category 12		
34121_A.8/ 14	Category 14		
34121_A.9/ 5	Category 5		
34121_A.9/ 6	Category 6		
34121_A.1 0/1	Up-link reference measurement channel 12.2 kbps (FDD)		
34121_A.1 0/2	Down-link reference measurement channel 12.2 kbps (FDD)		
34121_A.1 0/3	Up-link reference measurement channel 64 kbps (FDD)		
34121_A.1 0/4	Down-link reference measurement channel 64 kbps (FDD)		
34121_A.1 0/5	Up-link reference measurement channel 144 kbps (FDD)		
34121_A.1 0/6	Down-link reference measurement channel 144 kbps (FDD)		
34121_A.1 0/7	Up-link reference measurement channel 384 kbps (FDD)		
34121_A.1 0/8	Down-link reference measurement channel 384 kbps (FDD)		
34121_A.1 0/10	Down-link reference measurement channel 2 64 kbps (FDD)		
34121_A.1 1/1	Enhanced performance requirements type 1		
34121_A.1 1/2	Enhanced performance requirements type 2		
34121_A.1 1/3	Enhanced performance requirements type 3		
34121_A.1 1/4	Enhanced performance requirements type 1 for E-DCH		
34121_A.1 1/6	Enhanced performance requirements Type 3i		
34171_G.2 /1	FDD (DS)		
34171_G.2 /4	GSM		
34171_G.2 /5	GPRS		
34171_G.2 /6	MultiRAT_Capability		
34171_G.3 /1	Support of turbo decoding		
34171_G.3 /2	Support of turbo encoding		
34171_G.3 /10	Support of uplink and downlink compressed mode		
34171_G.3 /12	Support of UE based Network Assisted GPS		
34171_G.3 /13	Support of UE assisted Network Assisted GPS		
34171_G.3 /14	Support of HS-PDSCH		
34171_G.3 /15	Support of E-DPDCH		

Features for OUT: EM820W

<i>Designation</i>	<i>Description</i>	<i>Allowed Values</i>	<i>Supported Value(s)</i>
A.1/1	FDD (DS); this feature is mandatory for all UTRA FDD UE		
A.1/1_GER AN	Standard GSM Band (P-GSM)		
A.1/2_GER AN	Extended GSM Band (E-GSM), (including standard Band)		
A.1/4	GSM		
A.1/4_GER AN	DCS 1800 band		
A.1/10_GERAN	GSM Power Class 4		
A.1/12_GERAN	DCS Power Class 1		
A.1/18_GERAN	PCS 1900 band		
A.1/19_GERAN	PCS Power Class 1		
A.1/55_GERAN	GSM 850 band		
A.1/65_GERAN	Support of Conventional GPS		
A.1/127_GERAN	GSM 850 Power Class 4		
A.1/146_GERAN	DTM/EGPRS Multislot Class 9		
A.2/3	Short Message Service (SMS) MT over CS		
A.2/4	Short Message Service (SMS) MO over CS		
A.2/5	Short Message Service (SMS) MT over PS		
A.2/6	Short Message Service (SMS) MO over PS		
A.2/7	Cell Broadcast Service (CBS)		
A.2/17_GERAN	Support of Encryption A5/1.		
A.2/41_GERAN	Support of GPRS		
A.2/48_GERAN	GPRS operation mode class B		
A.2/49_GERAN	GPRS operation mode class C		
A.2/59_GERAN	Support of MS-Based GPS		
A.2/60_GERAN	Support of MS-Assisted GPS		
A.3/1	Circuit Switched		
A.3/2	Packet Switched		
A.3/3	UE supports UE operation mode A: PS and CS simultaneously		
A.3/3_GERAN	Short Message MT/PP.		
A.4/2	3,1 kHz Audio 14 400 bit/s		
A.4/4	3,1 kHz Audio 28 800 bit/s		
A.4/5	3,1 kHz Audio Modem AutoBauding1		
A.4/7	V.110 UDI 14 400 bit/s		
A.4/9	V.110 UDI 28 800 bit/s		
A.4/10	V.110 UDI 38 400 bit/s		
A.4/12	V.120 14 400 bit/s		
A.4/14	V.120 28 800 bit/s		
A.4/17	V.120 56 000 bit/s		
A.5/23	Bit Transparent mode 64 000 bit/s		
A.6/1	Conversational		

Features for OUT: EM820W

<i>Designation</i>	<i>Description</i>	<i>Allowed Values</i>	<i>Supported Value(s)</i>
A.6/2	Streaming		
A.6/3	Interactive		
A.6/4	Background		
A.7/31	Support of molr-Type parameter ☐ psAssistanceData		
A.8/2	Location Service (LCS)		
A.8a/4	Standalone location method is supporting by UE		
A.11/1	Call Control		
A.11/2	Mobility Management		
A.11/3	Session Management		
A.11/4	GPRS Mobility Management		
A.11/5	Radio Resource Control		
A.11/7	Broadcast/Multicast Control		
A.11/8	Radio Link Control		
A.11/9	Medium Access Control		
A.11/10	Physical Layer		
A.12/1	Up-link reference measurement channel 12.2 kbps (FDD)		
A.12/2	Down-link reference measurement channel 12.2 kbps (FDD)		
A.13/1	UE test loop		
A.13/2	Support of UE test loop mode 1 with UL RLC SDU size bigger than 12160 bits (1520 octets)		
A.14/1	Electrical Man Machine Interface (EMMI)		
A.14/2	UICC/ME test interface		
A.15/1	FDD: Chip rate 3,84 Mcps		
A.15/2	FDD: Frequency band: 1 920-1 980, 2 110-2 170 MHz		
A.15/3	FDD: Frequency band: 1 850-1 910, 1 930-1 990 MHz		
A.15/5	FDD: TX-RX Freq. Sep: 190 MHz		
A.15/6	FDD: TX-RX Freq. Sep: 80 MHz		
A.15/8	FDD: Carrier raster: 200 kHz		
A.15/11	FDD: UE Power Class 3 (+24 dBm)		
A.15/13	FDD: Output RF spectrum emissions		
A.15/16	FDD: Frequency band: 824 - 849, 869-894 MHz		
A.15/19	Frequency band: 880-915, 925-960 MHz		
A.15/21	Multiple FDD bands simultaneously		
A.18a.1/6	Category 6		
A.18a.1/8	Category 8		
A.18a.1/10	Category 10		
A.18a.1/12	Category 12		
A.18a.1a/14	Category 14		
A.18a.2/5	Category 5		
A.18a.2/6	Category 6		
A.18a/1	Support of turbo decoding		
A.18a/2	Support of turbo encoding		
A.18a/8	Need of inter-frequency uplink compressed mode		
A.18a/8a	Need of interRAT uplink compressed mode		
A.18a/9a	Need of interRAT downlink compressed mode		
A.18a/12	Support of UE based Network Assisted GPS		
A.18a/13	Support of UE assisted Network Assisted GPS		
A.18a/14	Support of HS-PDSCH		

Features for OUT: EM820W

<i>Designation</i>	<i>Description</i>	<i>Allowed Values</i>	<i>Supported Value(s)</i>
A.18a/17	Capability with simultaneous HS-DSCH configuration	kbps32, kbps64, kbps128, kbps384	kbps64
A.18a/18	Support of E-DPDCH		
A.18a/24	Support for MAC-e-hs		
A.18c/2	Stand-alone UL:3.4 DL:3.4 kbps SRBs for DCCH		
A.18c/3	Stand-alone UL:13.6 DL:13.6 kbps SRBs for DCCH		
A.18c/12	Conversational / unknown / UL:28.8 DL:28.8 kbps / CS RAB + UL:3.4 DL:3.4 kbps SRBs for DCCH		
A.18c/13.1	Conversational / unknown / UL:64 DL:64 kbps / CS RAB + UL:3.4 DL:3.4 kbps SRBs for DCCH / 20 ms TTI		
A.18c/13.2	Conversational / unknown / UL:64 DL:64 kbps / CS RAB + UL:3.4 DL:3.4 kbps SRBs for DCCH / 40 ms TTI		
A.18c/14.1	Conversational / unknown / UL:32 DL:32 kbps / CS RAB + UL:3.4 DL:3.4 kbps SRBs for DCCH / 20 ms TTI		
A.18c/14.2	Conversational / unknown / UL:32 DL:32 kbps / CS RAB + UL:3.4 DL:3.4 kbps SRBs for DCCH / 40 ms TTI		
A.18c/15	Streaming / unknown / UL:14.4/DL:14.4 kbps / CS RAB + UL:3.4 DL:3.4 kbps SRBs for DCCH		
A.18c/16	Streaming / unknown / UL:28.8/DL:28.8 kbps / CS RAB + UL:3.4 DL:3.4 kbps SRBs for DCCH		
A.18c/17	Streaming / unknown / UL:57.6/DL:57.6 kbps / CS RAB + UL:3.4 DL:3.4 kbps SRBs for DCCH		
A.18c/18	Streaming / unknown / UL:0 DL:64 kbps / CS RAB + UL:3.4 DL:3.4 kbps SRBs for DCCH		
A.18c/19	Streaming / unknown / UL:64 DL:0 kbps / CS RAB + UL:3.4 DL:3.4 kbps SRBs for DCCH		
A.18c/23.1	Interactive or background / UL:32 DL:8 kbps / PS RAB + UL:3.4 DL:3.4 kbps SRBs for DCCH / (TC, 10 ms TTI)		
A.18c/23.2	Interactive or background / UL:32 DL:8 kbps / PS RAB + UL:3.4 DL:3.4 kbps SRBs for DCCH / (TC, 20 ms TTI)		
A.18c/23.3	Interactive or background / UL:32 DL:8 kbps / PS RAB + UL:3.4 DL:3.4 kbps SRBs for DCCH / (CC, 10 ms TTI)		
A.18c/23.4	Interactive or background / UL:32 DL:8 kbps / PS RAB + UL:3.4 DL:3.4 kbps SRBs for DCCH / (CC, 20 ms TTI)		
A.18c/23a.1	Interactive or background / UL:8 DL:8 kbps / PS RAB + UL:3.4 DL:3.4 kbps SRBs for DCCH / (CC)		
A.18c/23a.2	Interactive or background / UL:8 DL:8 kbps / PS RAB + UL:3.4 DL:3.4 kbps SRBs for DCCH / (TC)		
A.18c/23b	Interactive or background / UL:16 DL:16 kbps / PS RAB + UL:3.4 DL:3.4 kbps SRBs for DCCH.		
A.18c/23c	Interactive or background / UL:32 DL:32 kbps / PS RAB + UL:3.4 DL:3.4 kbps SRBs for DCCH.		
A.18c/23d	Interactive or background / UL:32 DL:32 kbps / PS RAB (20 ms TTI) + UL:3.4 DL:3.4 kbps SRBs for DCCH.		
A.18c/24.1	Interactive or background / UL:64 DL:8 kbps / PS RAB + UL:3.4 DL:3.4 kbps SRBs for DCCH / TC		
A.18c/24.2	Interactive or background / UL:64 DL:8 kbps / PS RAB + UL:3.4 DL:3.4 kbps SRBs for DCCH / CC		

Features for OUT: EM820W

<i>Designation</i>	<i>Description</i>	<i>Allowed Values</i>	<i>Supported Value(s)</i>
A.18c/25.1	Interactive or background / UL:32 DL: 64 kbps / PS RAB + UL:3.4 DL:3.4 kbps SRBs for DCCH/ (TC, 10 ms TTI)		
A.18c/25.2	Interactive or background / UL:32 DL: 64 kbps / PS RAB + UL:3.4 DL:3.4 kbps SRBs for DCCH / (TC, 20 ms TTI)		
A.18c/25.3	Interactive or background / UL:32 DL: 64 kbps / PS RAB + UL:3.4 DL:3.4 kbps SRBs for DCCH / (CC, 10 ms TTI)		
A.18c/25.4	Interactive or background / UL:32 DL: 64 kbps / PS RAB + UL:3.4 DL:3.4 kbps SRBs for DCCH / (CC, 20 ms TTI)		
A.18c/26	Interactive or background / UL:64 DL: 64 kbps / PS RAB + UL:3.4 DL:3.4 kbps SRBs for DCCH		
A.18c/27	Interactive or background / UL:64 DL:128 kbps / PS RAB + UL:3.4 DL:3.4 kbps SRBs for DCCH		
A.18c/28	Interactive or background / UL:128 DL:128 kbps / PS RAB + UL:3.4 DL:3.4 kbps SRBs for DCCH		
A.18c/29	Interactive or background / UL:64 DL:144 kbps / PS RAB + UL:3.4 DL: 3.4 kbps SRBs for DCCH		
A.18c/30	Interactive or background / UL:144 DL:144 kbps / PS RAB + UL:3.4 DL: 3.4 kbps SRBs for DCCH		
A.18c/31.1	Interactive or background / UL:64 DL:256 kbps / PS RAB + UL:3.4 DL: 3.4 kbps SRBs for DCCH /10 ms TTI		
A.18c/31.2	Interactive or background / UL:64 DL:256 kbps / PS RAB + UL:3.4 DL: 3.4 kbps SRBs for DCCH /20 ms TTI		
A.18c/32.1	Interactive or background / UL:64 DL:384 kbps / PS RAB + UL:3.4 DL: 3.4 kbps SRBs for DCCH / 10 ms TTI		
A.18c/33.1	Interactive or background / UL:128 DL:384 kbps / PS RAB + UL:3.4 DL:3.4 kbps SRBs for DCCH / 10 ms TTI		
A.18c/34.1	Interactive or background / UL:384 DL:384 kbps / PS RAB + UL:3.4 DL:3.4 kbps SRBs for DCCH / 10 ms TTI		
A.18c/51.1	Conversational / unknown / UL:64 DL:64 kbps / CS RAB / 20 ms TTI + Interactive or background / UL:64 DL:64 kbps / PS RAB + UL:3.4 DL:3.4 kbps SRBs for DCCH		
A.18c/51.2	Conversational / unknown / UL:64 DL:64 kbps / CS RAB / 40 ms TTI + Interactive or background / UL:64 DL:64 kbps / PS RAB + UL:3.4 DL:3.4 kbps SRBs for DCCH		
A.18c/51a	Conversational / unknown / UL:64 DL:64 kbps / CS RAB + Interactive or Background / UL:8 DL:8 kbps / PS RAB + UL:3.4 DL:3.4 kbps SRBs for DCCH.		
A.18c/51b	Conversational / unknown / UL:64 DL:64 kbps / CS RAB + Interactive or Background / UL:16 DL:64 kbps / PS RAB + UL:3.4 DL:3.4 kbps SRBs for DCCH.		
A.18c/52.1	Conversational / unknown / UL:64 DL:64 kbps / CS RAB / 20 ms TTI + Interactive or background / UL:64 DL:128 kbps / PS RAB + UL:3.4 DL:3.4 kbps SRBs for DCCH		
A.18c/52.2	Conversational / unknown / UL:64 DL:64 kbps / CS RAB / 40 ms TTI + Interactive or background / UL:64 DL:128 kbps / PS RAB + UL:3.4 DL:3.4 kbps SRBs for DCCH		

Features for OUT: EM820W

<i>Designation</i>	<i>Description</i>	<i>Allowed Values</i>	<i>Supported Value(s)</i>
A.18c/53.1	Conversational / unknown / UL:64 DL:64 kbps / CS RAB / 20 ms TTI + Interactive or background / UL:128 DL:128 kbps / PS RAB + UL:3.4 DL:3.4 kbps SRBs for DCCH		
A.18c/53.2	Conversational / unknown / UL:64 DL:64 kbps / CS RAB / 40 ms TTI + Interactive or background / UL:128 DL:128 kbps / PS RAB + UL:3.4 DL:3.4 kbps SRBs for DCCH		
A.18c/56	Interactive or background / UL:8 DL:8 kbps / PS RAB + Interactive or background / UL:8 DL:8 kbps / PS RAB + UL:3.4 DL:3.4 kbps SRBs for DCCH		
A.18c/57	Interactive or background / UL:64 DL:64 kbps / PS RAB + interactive or background / UL:64 DL:64 kbps / PS RAB + UL:3.4 DL:3.4 kbps SRBs for DCCH		
A.18c/58	Streaming / unknown / UL:16 DL:64 kbps / PS RAB + interactive or background / UL:8 DL:8 kbps / PS RAB + UL:3.4 DL:3.4 kbps SRBs for DCCH		
A.18c/58a	Streaming / unknown / UL:16 DL:128 kbps / PS RAB + Interactive or background / UL:8 DL:8 kbps / PS RAB + UL:3.4 DL:3.4 kbps SRBs for DCCH.		
A.18e/1	Stand-alone signalling RB for PCCH		
A.18e/2	Interactive/Background 32 kbps PS RAB + SRBs for CCCH + SRB for DCCH + SRB for BCCH		
A.18e/3	Interactive/Background 32 kbps RAB + SRBs for PCCH + SRB for CCCH + SRB for DCCH + SRB for BCCH		
A.18e/4	RB for CTCH + SRB for CCCH +SRB for BCCH		
A.18e/5	Interactive/Background 32 kbps PS RAB + Interactive/Background 32 kbps PS RAB + SRBs for CCCH + SRB for DCCH + SRB for BCCH		
A.18f.1/1	Interactive or Background / UL:64 DL: [max bit rate depending on UE category] / PS RAB + UL:3.4 DL:3.4 kbps SRBs for DCCH		
A.18f.1/1a	Interactive or Background / UL:128 DL: [max bit rate depending on UE category] / PS RAB + UL:3.4 DL:3.4 kbps SRBs for DCCH		
A.18f.1/2	Interactive or background / UL:384 DL: [max bit rate depending on UE category] / PS RAB + UL:3.4 DL:3.4 kbps SRBs for DCCH		
A.18f.1/4	Conversational / unknown / UL:64 DL:64 kbps / CS RAB + Interactive or background / UL:384 DL:[Bit rate depending on the UE category] / PS RAB + UL:3.4 DL:3.4 kbps SRBs for DCCH		
A.18f.1/4a	Conversational / unknown / UL:64 DL:64 kbps / CS RAB + Interactive or background / UL:64 DL:[Bit rate depending on the UE category] / PS RAB + UL:3.4 DL:3.4 kbps SRBs for DCCH		
A.18f.1/5	Interactive or background / UL:384 DL:[Bit rate depending on the UE category] / PS RAB + Interactive or background / UL:384 DL:[Bit rate depending on the UE category] / PS RAB + UL:3.4 DL:3.4 kbps SRBs for DCCH		
A.18f.1/5a	Interactive or background / UL:64 DL:[Bit rate depending on the UE category] / PS RAB + Interactive or background / UL:64 DL:[Bit rate depending on the UE category] / PS RAB + UL:3.4 DL:3.4 kbps SRBs for DCCH		

Features for OUT: EM820W

<i>Designation</i>	<i>Description</i>	<i>Allowed Values</i>	<i>Supported Value(s)</i>
A.18f.1/6	Streaming / unknown / UL:128 DL: [guaranteed 128, max bit rate depending on UE category] kbps / PS RAB + Interactive or background / UL:128 DL: [max bit rate depending on UE category] / PS RAB + UL:3.4 DL:3.4 kbps SRBs for DCCH		
A.18f.2/1	Streaming / unknown / UL:16 DL:64 kbps / PS RAB + Interactive or background / UL:16 DL:64 kbps / PS RAB + UL:13.6 DL:13.6 kbps SRBs for DCCH		
A.18f.3/1	Streaming or interactive or background / UL: [max bit rate depending on UE category and TTI] DL: [max bit rate depending on UE category] / PS RAB + UL: 3.4 DL:3.4 kbps SRBs for DCCH on DCH		
A.18f.3/2	Streaming or interactive or background / UL: [max bit rate depending on UE category and TTI] DL: [max bit rate depending on UE category] / PS RAB + UL:[max bit rate depending on UE category and TTI] DL:3.4 kbps SRBs for DCCH on E-DCH and DL DCH		
A.18f.3/5	Streaming or interactive or background / UL: [max bit rate depending on UE category and TTI] DL: [max bit rate depending on UE category] kbps / PS RAB + Streaming or interactive or background / UL: [max bit rate depending on UE category and TTI] DL: [max b		
A.18f/1	Interactive/Background 32 kbps PS RAB + SRB for CCCH + SRB for DCCH		
A.18f/2	Interactive/Background 32 kbps PS RAB + Interactive/Background 32 kbps PS RAB + SRB for CCCH + SRB for DCCH		
A.18f/3	Interactive/Background / UL:32 DL: [max bit rate depending on UE category] with fixed RLC and MAC-e/h / PS RAB + SRBs for DCCH on RACH and SRB with ..		
A.19a/4	Support of UM RB and AM RB		
A.19a/6	Maximum header compression context space	by16384, by32768, by65536, by131072	by16384
A.19b/1	Support of BMC		
A.19b/2	Support of BMC Scheduling		
A.19c/1	Total RLC AM and MAC-hs buffer size	kb2, kb10, kb50, kb100, kb150, kb200, kb300, kb400, kb500, kb750, kb1000, kb2000	kb400
A.20/1	At least one bearer service		
A.20/3	Inter-system measurement for GSM		
A.20/4	At least one MO circuit switched basic service		
A.20/5	At lease one MT circuit switched basic service		
A.20/7	Activation of one or more PDP contexts simultaneously		
A.20/8	Sending of correct acknowledgement of memory full condition		
A.20/9	Status report capability		
A.20/11	Storing of received Class 1 short messages		
A.20/12	Storing of received Class 2 short messages in the SIM		
A.20/15	Sending of concatenated multiple short messages on the same RR connection when there is no call in progress		
A.20/16	Sending of concatenated multiple short messages on the same RR connection when there is a call in progress		

Features for OUT: EM820W

<i>Designation</i>	<i>Description</i>	<i>Allowed Values</i>	<i>Supported Value(s)</i>
A.20/19	Poll_PU based polling mode of AM RLC		
A.20/20	Timer based polling mode of AM RLC		
A.20/21	Discard mode of AM RLC		
A.20/22	At least one MO circuit switched basic service		
A.20/23	At least one MO circuit switched basic service for which immediate connect is not used		
A.20/26	Secondary PDP context activation procedure		
A.20/32	Support of Follow On Proceed		
A.20/35	Support switch on/off		
A.20/38	Support of automatic PS attach procedure at switch on.		
A.20/39	User requested combined PS and non-PS detached without powering off		
A.20/41	Support for user setting of minimum QoS		
A.20/42	PS attach attempted automatically by outstanding request		
A.20/43	Support for making an outgoing PS call by AT commands		
A.20/45	Controlled Early Classmark Sending option implementation		
A.20/47	Void		
A.20/52	Void		
A.20/53	Void		
A.20/54	Void		
A.20/55	Void		
A.20/62	Access technology priority supported in HPLMNwACT field		
A.20/63	User requested PS detach without powering off		
A.20/65	AT command +CHUP supported		
A.20/66	UE which supports follow-on request procedure (PS)		
A.20/67	UE which supports Inter-RAT network assisted cell change from UTRAN		
A.20/68	RLP supported		
A.20/72	Support of DSAC		
A.20/75	Automatic attach procedure when UE identity cannot be derived by the network		
A.20/76	GMM Information Supported		
A.20/77	Multiplexer protocol supported		
A.20/80	Support for being configured to discover the Home Agent address via DNS		
A.25/4_GE RAN	at least one data service.		
A.25/5_GE RAN	at least one full rate data service.		
A.25/38_G ERAN	detach on power down.		
A.25/61_G ERAN	Pseudo-synchronized handover supported.		
A.25/72_G ERAN	14.4 k data mode		
A.27/3_GE RAN	see 51.010-2; UL/DL: 28.8 kbps		
A.27/4_GE RAN	see 51.010-2; UL/DL: 57.6 kbps		
R	recommended - the test case is recommended		
UICC_Class _B	Voltage Class B (3V) of UICC - Terminal interface		

Features for OUT: EM820W

<i>Designation</i>	<i>Description</i>	<i>Allowed Values</i>	<i>Supported Value(s)</i>
UICC_Class_C	Voltage Class C (1,8V) of UICC - Terminal interface		
Additional information for scope: UTRA_v2			
CatA			
CatB			
CatE			
Rel7			
Service_Conversation			
I			
TH			
TL			
TN			
VH			
VL			
VN			
VX			
VY			
VZ			

2.4 Setups used for Testing

For each setup a relation is given to determine if and which samples and auxiliary equipment is used. The left side list all OUT samples and the right side lists all auxiliary equipment for the given setup.

<i>Setup No.</i>	<i>List of OUT samples</i>	<i>List of auxiliary equipment</i>
<i>Sample No.</i>	<i>Sample Description</i>	<i>AE No.</i> <i>AE Description</i>
C01		
Sample: C01	test sample #03	
H01		
Sample: H01	test sample #08	

3 Results

3.1 General

Documentation of tested devices:

Available at the test laboratory.

Interpretation of the test results:

The results of the inspection are described on the following pages, where 'Conformity' or 'Passed' means that the certification criteria were verified and that the tested device is conform to the applied standard.

In cases where 'Declaration' is printed, the required documents are available in the manufacturers product documentation.

In cases where 'not applicable' is printed, the test case requirements are not relevant to the specific equipment implementation.

3.2 List of the Applicable Body

(Bodies for Scope: GERAN_v1)

<i>Designation</i>	<i>Description</i>
GCF-CC v3.40 bis	Official GCF-CC Version 3.40.0/3.40.1 dated 2010-10-27/2010-12-26. EXPIRY DATE: 2011-05-16
NAPRD.03 v5.4 bis	Official PTCRB NAPRD.03 v5.4

3.3 List of Test Specification

<i>Test Specification:</i>	51.010-1
<i>Date / Version</i>	2010/12/22 Version: V9.4.0
<i>Title:</i>	3GPP TS 51.010-1
<i>Description:</i>	Part 1: Conformance specification

3.4 Summary

Test Case Identifier / Name Test (condition)	Cat	Result	Date of Test	Lab Ref.	Setup
12.2.1 Radiated spurious emissions, MS allocated a channel					
12.2.1; Frequency Band = 1800, VN	A	Passed	2010/12/15	Lab 1	C01
12.2.1; Frequency Band = 1900, VN	A	Passed	2010/12/15	Lab 1	C01
12.2.1; Frequency Band = 850, VN	A	Passed	2010/12/15	Lab 1	C01
12.2.1; Frequency Band = 900, VN	A	Passed	2010/12/15	Lab 1	C01
12.2.2 Radiated spurious emissions, MS in idle mode					
12.2.2; Frequency Band = 1800, VN	A	Passed	2010/12/15	Lab 1	C01
12.2.2; Frequency Band = 1900, VN	A	Passed	2010/12/15	Lab 1	C01
12.2.2; Frequency Band = 850, VN	A	Passed	2010/12/15	Lab 1	C01
12.2.2; Frequency Band = 900, VN	A	Passed	2010/12/15	Lab 1	C01
70.7.2.1 (deleted) A-GPS LCS Classmark Interrogation test case for MS-Based GPS					
70.7.2.1; Frequency Band = 1900	A	Passed	2010/12/06	Lab 2	H01
70.7.2.1; Frequency Band = 850	A	Passed	2010/12/06	Lab 2	H01
70.7.4.1 Network Induced Location Request Emergency Call on TCH for mobiles supporting MS-Based GPS					
70.7.4.1; Frequency Band = 1900	A	Passed	2010/12/06	Lab 2	H01
70.7.4.2 Network Induced Location Request Emergency Call on TCH for mobiles supporting MS-Assisted GPS					
70.7.4.2; Frequency Band = 1900	A	Passed	2010/12/06	Lab 2	H01
70.7.4.3 Network Induced Location Request Emergency Call on TCH, no IMSI for mobiles supporting MS-Based GPS					
70.7.4.3; Frequency Band = 1900	A	Passed	2010/12/06	Lab 2	H01
70.7.4.4 Network Induced Location Request Emergency Call on TCH, no IMSI for mobiles supporting MS-Assisted GPS					
70.7.4.4; Frequency Band = 1900	A	Passed	2010/12/06	Lab 2	H01
70.11.5.1 Sensitivity Coarse Time Assistance					
70.11.5.1; Frequency Band = 1900, mode = MS-Assisted	A	Passed	2010/12/06	Lab 2	H01
70.11.5.1; Frequency Band = 1900, mode = MS-Based	A	Passed	2010/12/06	Lab 2	H01
70.11.5.1; Frequency Band = 850, mode = MS-Assisted	A	Passed	2010/12/06	Lab 2	H01
70.11.5.1; Frequency Band = 850, mode = MS-Based	A	Passed	2010/12/06	Lab 2	H01
70.11.6 Nominal Accuracy					
70.11.6; Frequency Band = 1900, mode = MS-Assisted	A	Passed	2010/12/06	Lab 2	H01
70.11.6; Frequency Band = 1900, mode = MS-Based	A	Passed	2010/12/07	Lab 2	H01
70.11.7 Dynamic Range					
70.11.7; Frequency Band = 1900, mode = MS-Assisted	A	Passed	2010/12/07	Lab 2	H01
70.11.7; Frequency Band = 1900, mode = MS-Based	A	Passed	2010/12/07	Lab 2	H01
70.11.8 Multi-Path scenario					
70.11.8; Frequency Band = 1900, mode = MS-Assisted	A	Passed	2010/12/07	Lab 2	H01
70.11.8; Frequency Band = 1900, mode = MS-Based	A	Passed	2010/12/07	Lab 2	H01

4 Test Equipment Details

4.1 List of Used Test Equipment

The calibration, hardware and software states are shown for the testing period.

Test Equipment Spirent Communications

Lab ID:	Lab 2		
Manufacturer:	Spirent Communications, Inc		
Description:	Spirent Communications		
Type:	ULTS-ALL-CPUP-AX		
	<i>HW/SW Status</i>	<i>Date of Start</i>	<i>Date of End</i>
	ULTS-ALL-CPUP-AX	2008/10/06	
	Test Drive ULTS: V5.0.108.0	2008/10/06	
	Air Access HS (GSM): V1.01.106		
	Spirent SMLC Emulator: V5.00.108		
	SimGEN: V2.83 SR04		
	TS 51.010 SC (Conformance): V1.0.4		
	Test Drive ULTS: 5.0.108.0		
	Air Access WCDMA-HS: 4.01.101		
	Air Access HS (GSM): 1.02.100		
	Spirent SMLC Emulator: 5.00.108		
	SimGen: 2.83 SR04		

Test Equipment Spurious Radiated Test Setup - ritt7layers-Beijing

Lab ID:	Lab 1
Manufacturer:	see single devices
Description:	Spurious Radiated
Serial Number:	N/a

Single Devices for Spurious Radiated Test Setup - ritt7layers-Beijing

<i>Single Device Name</i>	<i>Type</i>	<i>Serial Number</i>	<i>Manufacturer</i>
Air compressor	none		
Anechoic Chamber	11.8mx 6.5m x 6.3m		ETS
Antenna mast 4m	2075-2		ETS
Artificial Mains Network	ESH2-Z5	837480/002	Rohde & Schwarz and HEAD
Audio Analyzer	UPL	100061	Rohde & Schwarz and HEAD
Biconical dipole	VUBA 9117	9117118	Schwarzbeck
Broadband Amplifier	JS4-00102600-42-5A		
Broadband Amplifier 18MHz-26GHz	JS4-18002600-32-5P		
Broadband Amplifier 30MHz-18GHz	JS4-00101800-35-5P		
Cable "ESI to EMI Antenna"	RTK081+AriceII7		
Cable "ESI to Horn Antenna"	RTK081		
Comparison Noise Emitter	CNE III		Rohde & Schwarz and HEAD
Controller	HD 100		
Coupling Networks	ENY22	839446/013	Rohde & Schwarz and HEAD

Single Devices for Spurious Radiated Test Setup - ritt7layers-Beijing (continued)

<i>Single Device Name</i>	<i>Type</i>	<i>Serial Number</i>	<i>Manufacturer</i>
Coupling Networks	ENY41	838119/004	Rohde & Schwarz and HEAD
Coupling-Decoupling Network	801-M2/M3	1821	Luthi
Double-ridged horn	HF 906	100037	EMCO
Double-ridged horn	HF 906	100038	EMCO
EFT/Burst Generator	PEFT Junior	583333-50	HAEFELY
Electric Field Probe	HI-6005	105121	HOLIDAY
Electrostatic Discharge Simulator	PESD	H604087	HAEFELY
EMC camera	CE-CAM/1		
EMC camera Nr.2	CCD-400E		
EMI Analyzer	ESI 26	100211	Rohde & Schwarz and HEAD
EMI Test Receiver	ESI40	839283/007	Rohde & Schwarz and HEAD
EMI Test Receiver	ESIB26	100211	Rohde & Schwarz and HEAD
<i>Calibration Details</i>		<i>Last Execution</i>	
calibration		2010/01/12	
EMS Antenna	HL046	359132/005	Rohde & Schwarz and HEAD
ent Injection Probe	F-120-9A	260	FCC
Filter ISDN	B84312-C110-E1		
Filter telephone systems / modem	BB4312-C40-B1		
Filter Universal 1A	BB4312-C30-H3		
High Pass Filter	4HC1600/12750-1.5-KK		
High Pass Filter	5HC2700/12750-1.5-KK		
High Pass Filter	5HC3500/12750-1.2-KK		
Laboratory Power supply	PS-303D	P22/CM 2535-01	Conrad
Log.-per. Antenna	HL 562 Ultralog	100013	Rohde & Schwarz and HEAD
Loop Antenna	HFH2-Z2		
Mains Interference Simulator	PLINE1610	080572-05	HAEFELY
Multivoltagemeter	URV5	100023	Rohde & Schwarz and HEAD
Powermeter	NRVS	100085	Rohde & Schwarz and HEAD
Pyramidal Horn Antenna 26,5 GHz	3160-09		
Signal Generator	SMR 27	100003	Rohde & Schwarz and HEAD
Signal Generator	SMY01	100066	Rohde & Schwarz and HEAD

Single Devices for Spurious Radiated Test Setup - ritt7layers-Beijing (continued)

<i>Single Device Name</i>	<i>Type</i>	<i>Serial Number</i>	<i>Manufacturer</i>
Signal Generator	SMY02	100024	Rohde & Schwarz and HEAD
Turntable	DS 420S		
Ultra Broadband Antenna	HL562	100013	Rohde & Schwarz and HEAD
Universal Radio Communication Tester	CMU 200	839005/016	Rohde & Schwarz and HEAD
Valuve Control Unit	VE 615P		

Test Equipment temperature and humidity meter

Lab ID:
Description:
Serial Number:

Lab 1
 Temperature: 24 °C
 Humidity: 40%
 Air Pressure: 1020hPa
 G-093

5 Annex

5.1 Additional Information for OUT Description

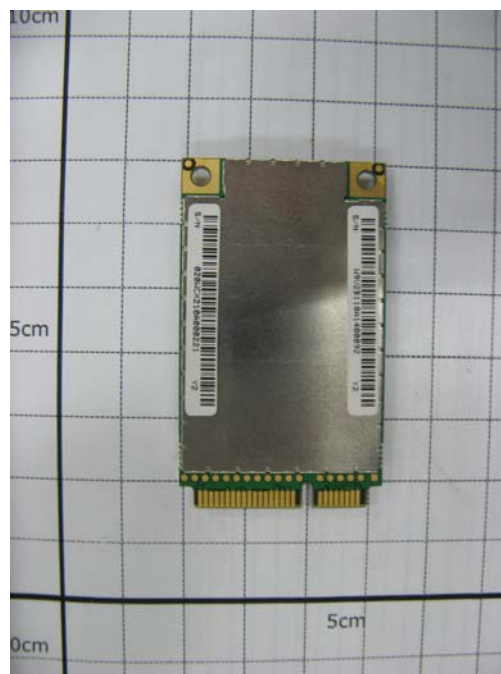
Annex A

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Photos of OUT



1. Front View of OUT



2. Back View of OUT

5.2 Additional Information for Report

5.2.1 Assessment of Project

Annex B

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Assessment of Project

1 General

The Huawei Technologies Co.,Ltd.'s GSM/GPRS/EDGE/WCDMA/HSDPA/HSUPA/HSPA+ 900/1800/850/1900/FDDI/FDDII/FDDV/FDDVIII terminal equipment type EM820W is a new member of the Huawei Technologies Co.,Ltd.'s type family. And it is based on the already type tested Huawei's GSM/GPRS/EDGE/WCDMA/HSDPA/HSUPA/HSPA+ 900/1800/850/1900/FDDI/FDDII/FDDIV/FDDV terminal equipment type EM820U as referenced in Test Report 4-RC077a-2010.

ritt7layers has generated this Conformity Assessment Report in order to confirm the successful evaluation of all product changes against Product EM820W which are explained within this document.

During the assessment process, all available documentation has been reviewed.

2 Technical Assessment

(1) Technical Assessment of Software Changes

The software of the terminal equipment type EM820W is based on EM820U.

The main software changes are:

- EM820W adds A-GPS function.

The previous software version of EM820W was:

11.808.07.00.00

The final software version is: 11.808.07.03.00

Official software version number is 11.808.07.03.00 for EM820W.

The decision to repeat specific tests was made according to the ritt7layers technical assessment of the applicant software changing documentation and the declaration of conformity.

The results are listed in the referenced Test Report(s).

(2) Technical Assessment of Hardware

The hardware of the terminal equipment type EM820W based on EM820U.

The main changes of Hardware are:

- EM820W adds the componet which supports the new band FDDVIII.
- Change the PCB's layout

The decision to repeat specific tests was made according to the ritt7layers technical assessment of the applicant hardware changing documentation.

The results are listed in the referenced Test Report(s).

3 Assessment Summary

As the result of the assessment, ritt7layers assumes that the product conformity of the GSM/GPRS/EDGE/WCDMA/HSDPA/HSUPA/HSPA+ 900/1800/850/1900/FDDI/FDDII/FDDV/FDDVIII terminal equipment type

EM820W

With Hardware version: MD1EM820WM, Basic Software version: 11.808.07.03.00 is valid according to the standards referenced in the related Test Report(s).

ritt7layers maintains the delivered product documentation as a part of the assessment process.

5.2.2 Accreditation Certificate

Annex C

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ISO/IEC 17025

Accreditation Certificate

Deutsche Gesellschaft für Akkreditierung mbH  **DGA Deutsche Gesellschaft für Akkreditierung mbH**
Signatory to the Multilateral Agreements of
EA and ILAC for mutual recognition
represented in the

Deutscher Akkreditierungsrat



Accreditation

The DGA Deutsche Gesellschaft für Akkreditierung mbH herewith confirms that the testing laboratory

ritt7layers
Beijing 7 layers Huarui Communications Technology Co., Ltd.
No. 11 Yue Tan Nan Street
Xi Chen District
100045 Beijing
P.R. China

is competent under the terms of DIN EN ISO/IEC 17025 to carry out tests in the fields of

Mobile Communications
GSM/DCS/PCS/UMTS

The annex forms part of the certificate and comprises 4 pages.

The accreditation is valid from **2009-12-08** to **2014-11-23**.

DAR registration number: **DGA-PL-192/99-C1**
(This certificate is only valid in relation with the certificate DGA-PL-192/99-02)

Frankfurt, 2009-12-02



Dr. Thomas Facklam
Managing Director

Member in EA, ILAC, IAF

Translation for information purposes only. The German Accreditation Certificate is authoritative. See notes overleaf

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