InterLab®

Final Report on

EM820W
HW: MD1EM820WM
SW: 11.810.10.19.00 (SVN: 13)

Report Reference: 4-RC082b-2012

Date: September 18, 2012

Test Laboratory:

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

TESTING
CNAS L4320

GLOBAL SYSTEM FOR
MOBILE COMMUNICATIONS

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.

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Chairman of the Board:
Mr. Yang Zemin
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1 Administrative Data

1.1 Project Data

Project Responsible:	Liuwei
Date Of Test Report:	2012/09/18
Date of first test:	2012/08/14
Date of last test:	2012/08/21

1.2 Applicant Data

Company Name: Huawei Technologies Co., Ltd.

Street:	Administration Building, Headquarters of Huawei Technologies Co., Ltd., Bantian, Longgang District, Shenzhen 518129, P.R.China
City:	Shenzhen
Country:	China

Contact Person: Mr. Lance Xie

Phone:	+86-10-59722504
Fax:	+86-10-59722930
E-Mail:	xieyan@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
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Laboratory Details

Lab ID	*Identification*	*Responsible*	*Accreditation Info*
Lab 1	TP050 - Anite SAT(A) UE WCDMA(#1967)	Mr. Sunpeibo	CNAS-Registration No. CNAS-L4320
Lab 2	TP098 - R&S TS8950/80	Dr. Yao Bin	CNAS-Registration No. CNAS-L4320

1.4 Signature of the Testing Responsible

Liu Wei

Liuwei
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 ECO

Type / Model / Family:	EM820W HW: MD1EM820WM SW: 11.810.10.19.00 (SVN: 13)

Manufacturer:

Company Name:	Huawei Technologies Co., Ltd.
Street:	L05-Q2, Huawei Building, Shi-Chuang-Ke-Ji-Shi-Fan-Yuan, Z-park, No.156 Beiqing Rd., Hai-Dian District
City:	Beijing 100095
Country:	China
Contact Person:	Mr. Lance Xie
Phone:	+86 10 59722504
Fax:	+86 10 59722930
E-Mail:	xieyan@huawei.com

Parameter List:

Parameter name	*Value*
AddInfo_Internal_CTM_modem_support	True (n/a)
AMR C/I normalization factor	0 (dB)
Antenna Connector	True
Auto ReAttach	false
Early_classmark_sending	true
GPRS Compression	false
Length Indicator	false
Loop C delay (RTD), in number of TCH frames for FR	4
Loop C delay (RTD), in number of TCH frames for HR	4
Max number of SMS Characters	160
Maximum number of CP-DATA retransmissions	1
MMI GPRS detach	false
Number of MS initiated PDP contexts	1
Number of Network initiated PDP contexts	1
parameter_20_2_a	2.0
parameter_20_2_b	1.5
SMS over EGPRS	false
Timer TC1M	20

2.2 Detailed Description of OUT Samples

Sample : a01

OUT Identifier	EM820W ECO		
Sample Description	Test sample #01		
HW Status	MD1EM820WM		
SW Status	11.810.10.18.00		
Low Voltage	3.0 V	*Low Temp.*	-10 °C
High Voltage	3.6 V	*High Temp.*	55 °C
Nominal Voltage	3.3 V	*Normal Temp.*	25 °C

Parameter List:

Parameter Description	*Value*
Parameter for Scope GERAN_v1	
IMEI	354283043015977
IMEISV	3542830430159712
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	Beijing
Sample responsibility	Li Yunzhuo
Parameter for Scope UTRA_v2	
IMEI	354283043015977
px_IMEI_Def	no default
px_IMEISV_Def	no default
SAMPLE LOCATION	Beijing
SAMPLE RESPONSIBILITY	Li Yunzhuo

2.3 OUT Features

Features for OUT: EM820W ECO

Designation	*Description*	*Allowed Values*	*Supported Value(s)*
Features for scope: AT-CMD_v1			
A			
Additional information for scope: AT-CMD_v1			
CatA	Test Category of Certification Body		
CatB	Test Category of Certification Body		
CatE	Test Category of Certification Body		
Features for scope: GERAN_v1			
34123_A.15/2	FDD: Frequency band: 1 920-1 980, 2 110-2 170 MHz		
34123_A.15/3	FDD: Frequency band: 1 850-1 910, 1 930-1 990 MHz		
34123_A.15/16	FDD: Frequency band: 824 - 849, 869-894 MHz		
34123_A.15/19	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.1/5	Multiple-band, not simultaneously		
A.1/6	Multiple-band, simultaneously		
A.1/9	GSM Power Class 3		
A.1/11	GSM Power Class 5		
A.1/17	GSM 480 band		
A.1/18	PCS 1900 band		
A.1/39	Multislot Class18		
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		

Features for OUT: EM820W ECO

Designation	*Description*	*Allowed Values*	*Supported Value(s)*
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		
A.1b/1	Release of GPRS supported	R97, R98, R99, Release 4, Release 5, Release 6, Release 7, Release 8, Release 9, Release 10	Release 6
A.1b/3	Release of EGPRS supported	R99, Release 4, Release 5, Release 6, Release 7, Release 8, Release 9, Release 10	Release 6
A.1b/4	Release of RRLP supported.	R98, R99, Release 4, Release 5, Release 6, Release 7, Release 8, Release 9, Release 10	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 10	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.		

Features for OUT: EM820W ECO

Designation	*Description*	*Allowed Values*	*Supported Value(s)*
A.4/22	GPRS		
A.6/1	Bearer Service 21(20) .. 26, unrestricted digital information transfer capability.		
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, COPnoFlCt, NAV	NAV, ISO6429, COPnoFlCt
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	2 bits, 1 bit
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	9.6, 14.4
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, COPnoFlCt, NAV	ISO6429, COPnoFlCt, NAV
A.8/4	Number of Data Bits(NDB).	7 bits, 8 bits	7 bits, 8 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	14.4, 9.6
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 measurering received signal strength	0 ... inf	

Features for OUT: EM820W ECO

Designation	*Description*	*Allowed Values*	*Supported Value(s)*
A.25.1/10	MS LCS Notification timeout timer (units: seconds)	1 ... inf	
A.25/4	at least one data service.		
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		

Features for OUT: EM820W ECO

Designation	*Description*	*Allowed Values*	*Supported Value(s)*
A.25/110	Cell Reselection after T3184 Expiry		
A.25/111	GPRS attach attempted automatically due to outstanding request		
A.25/116	Support of MO SMS Concatenation		
A.25/117	Support of MT SMS Concatenation		
A.25/122	Support of GPRS header compression algoritm type RFC 1144		
A.25/123	Support of GPRS header compression algoritm 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, 01, 10, 11
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	0011, 0000, 0010, 1100, 0001, 0100, 1111, 1101, 1011, 1010, 1001, 1000, 0111, 0110, 0101, 1110
A.25/161	SM_VALUE (Switch-Measure)	0000, 0001, 0010, 0011, 0100, 0101, 0110, 0111, 1000, 1001, 1010, 1011, 1100, 1101, 1110, 1111	1110, 0001, 1000, 1101, 1100, 1011, 1010, 1001, 0111, 1111, 0110, 0101, 0100, 0010, 0000, 0011
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		

Features for OUT: EM820W ECO

Designation	*Description*	*Allowed Values*	*Supported Value(s)*
E.1/68	PROVIDE LOCAL INFORMATION (language)		
E.1/69	PROVIDE LOCAL INFORMATION (Timing Advance)		
E.1/98	GPRS supported by ME		
E.1/129	TCP		
E.1/130	UDP		
Additional information for scope: GERAN_v1			
CatA	Test Category of Certification Body		
CatB	Test Category of Certification Body		
CatE	Test Category of Certification Body		
FDD1	Void		
FDD2	Void		
FDD5	Void		
FDD8	Void		
R99	R99		
TH	high temperature		
TL	low temperature		
TN	normal temperature		
VH	high voltage		
VL	low voltage		
VN	nominal voltage		
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 storing received Class 2 Short Messages in the USIM		
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		

Features for OUT: EM820W ECO

Designation	*Description*	*Allowed Values*	*Supported Value(s)*
31124_A.1/ 66	HSDPA Support		
31124_A.1/ 134	Terminal supports UTRAN		
31124_E.1/ 1	Profile Download		
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)		

Features for OUT: EM820W ECO

Designation	*Description*	*Allowed Values*	*Supported Value(s)*
31124_E.1/33	SET UP EVENT LIST		
31124_E.1/34	Event: MT call		
31124_E.1/35	Event: Call connected		
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		

Features for OUT: EM820W ECO

Designation	*Description*	*Allowed Values*	*Supported Value(s)*
34121_A.1/5	GPRS		
34121_A.1/7	E-UTRAN TDD		
34121_A.2/1	Circuit Switched		
34121_A.2/2	Packet Switched		
34121_A.3/4	Void		
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.4/6	Packet Data Convergence Protocol		
34121_A.4/7	Broadcast/Multicast Control		
34121_A.4/8	Radio Link Control		
34121_A.4/9	Medium Access Control		
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.6a/1	UE Power Class 3 for Operation Band II (+24 dBm)		
34121_A.6a/10	UE Power Class 3 for Operation Band V (+24 dBm)		
34121_A.6a/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		

Features for OUT: EM820W ECO

Designation	*Description*	*Allowed Values*	*Supported Value(s)*
34121_A.7/14	Support of HS-PDSCH		
34121_A.7/15	Support of E-DPDCH		
34121_A.8/6	Category 6		
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.10/1	Up-link reference measurement channel 12.2 kbps (FDD)		
34121_A.10/2	Down-link reference measurement channel 12.2 kbps (FDD)		
34121_A.10/3	Up-link reference measurement channel 64 kbps (FDD)		
34121_A.10/4	Down-link reference measurement channel 64 kbps (FDD)		
34121_A.10/5	Up-link reference measurement channel 144 kbps (FDD)		
34121_A.10/6	Down-link reference measurement channel 144 kbps (FDD)		
34121_A.10/7	Up-link reference measurement channel 384 kbps (FDD)		
34121_A.10/8	Down-link reference measurement channel 384 kbps (FDD)		
34121_A.10/10	Down-link reference measurement channel 2 64 kbps (FDD)		
34121_A.11/1	Enhanced performance requirements type 1 for HSDPA		
34121_A.11/1_FDD1	Enhanced performance requirements type 1 for HSDPA		
34121_A.11/1_FDD2	Enhanced performance requirements type 1 for HSDPA		
34121_A.11/1_FDD5	Enhanced performance requirements type 1 for HSDPA		
34121_A.11/1_FDD8	Enhanced performance requirements type 1 for HSDPA		
34121_A.11/2	Enhanced performance requirements type 2		
34121_A.11/2_FDD1	Enhanced performance requirements type 2		
34121_A.11/2_FDD2	Enhanced performance requirements type 2		
34121_A.11/2_FDD5	Enhanced performance requirements type 2		
34121_A.11/2_FDD8	Enhanced performance requirements type 2		
34121_A.11/3	Enhanced performance requirements type 3		
34121_A.11/3_FDD1	Enhanced performance requirements type 3		
34121_A.11/3_FDD2	Enhanced performance requirements type 3		

Features for OUT: EM820W ECO

Designation	*Description*	*Allowed Values*	*Supported Value(s)*
34121_A.11/3_FDD5	Enhanced performance requirements type 3		
34121_A.11/3_FDD8	Enhanced performance requirements type 3		
34121_A.11/4	Enhanced performance requirements type 1 for E-DCH		
34121_A.11/4_FDD1	Enhanced performance requirements type 1 for E-DCH		
34121_A.11/4_FDD2	Enhanced performance requirements type 1 for E-DCH		
34121_A.11/4_FDD5	Enhanced performance requirements type 1 for E-DCH		
34121_A.11/4_FDD8	Enhanced performance requirements type 1 for E-DCH		
34121_A.11/6	Enhanced performance requirements Type 3i		
34121_A.11/6_FDD1	Enhanced performance requirements Type 3i		
34121_A.11/6_FDD2	Enhanced performance requirements Type 3i		
34121_A.11/6_FDD5	Enhanced performance requirements Type 3i		
34121_A.11/6_FDD8	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		
A.1/1	FDD (DS); this feature is mandatory for all UTRA FDD UE		
A.1/1_GERAN	Standard GSM Band (P-GSM)		
A.1/2_GERAN	Extended GSM Band (E-GSM), (including standard Band)		
A.1/4	GSM		
A.1/4_GERAN	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		

Features for OUT: EM820W ECO

Designation	*Description*	*Allowed Values*	*Supported Value(s)*
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		
A.6/2	Streaming		
A.6/3	Interactive		
A.6/4	Background		
A.7/31	Support of molr-Type parameter 惜 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		

Features for OUT: EM820W ECO

Designation	*Description*	*Allowed Values*	*Supported Value(s)*
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 L1 C/A		
A.18a/13	Support of UE assisted Network Assisted GPS L1 C/A		
A.18a/14	Support of HS-PDSCH		
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-ehs		
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		

Features for OUT: EM820W ECO

Designation	*Description*	*Allowed Values*	*Supported Value(s)*
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		
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		

Features for OUT: EM820W ECO

Designation	*Description*	*Allowed Values*	*Supported Value(s)*
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		
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		

Features for OUT: EM820W ECO

Designation	*Description*	*Allowed Values*	*Supported Value(s)*
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		
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		

Features for OUT: EM820W ECO

Designation	*Description*	*Allowed Values*	*Supported Value(s)*
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-ehs / 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		
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 by the UE		
A.20/31	UE capable of displaying short messages in PS mode		
A.20/34	Support detach on USIM removal		
A.20/37	Void		
A.20/38	Support of automatic PS attach procedure at switch on.		

Features for OUT: EM820W ECO

Designation	*Description*	*Allowed Values*	*Supported Value(s)*
A.20/40	User requested non-PS detached		
A.20/41	Support for user setting of minimum QoS		
A.20/42	PS attach attempted automatically by outstanding request		
A.20/44	Void		
A.20/46	Void		
A.20/51	Support Algorithm A5/7		
A.20/52	Void		
A.20/53	Void		
A.20/54	Void		
A.20/61	Void		
A.20/62	Access technology priority supported in HPLMNwACT field		
A.20/64	Void		
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.20/71	Void		
A.20/74	Void		
A.20/75	Automatic attach procedure when UE identity cannot be derived by the network		
A.20/76	GMM Information Supported		
A.20/80	Support for being configured to discover the Home Agent address via DNS		
A.25/4_GERAN	at least one data service.		
A.25/5_GERAN	at least one full rate data service.		
A.25/38_GERAN	detach on power down.		
A.25/61_GERAN	Pseudo-synchronized handover supported.		
A.25/72_GERAN	14.4 k data mode		
A.27/3_GERAN	see 51.010-2; UL/DL: 28.8 kbps		
A.27/4_GERAN	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		
UICC_Class_C	Voltage Class C (1,8V) of UICC - Terminal interface		
Additional information for scope: UTRA_v2			
CatA	used for certification test plans		
CatB	used for certification test plans		
CatE	used for certification test plans		
Rel7	UE supporting Release 7		
Service_Conversational	ServiceToBeTested Conversational		
TH	high temperature		
TL	low temperature		
TN	normal temperature		
VH	high voltage		
VL	low voltage		

Features for OUT: EM820W ECO

Designation	*Description*	*Allowed Values*	*Supported Value(s)*
VN	voltage normal		
VX	vibration axis x		
VY	vibration axis y		
VZ	vibration axis z		

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.

Setup No.	*List of OUT samples*		*List of auxiliary equipment*	
	Sample No.	*Sample Description*	*AE No.*	*AE Description*
a01 (Test sample #01)				
	Sample: a01	Test sample #01		

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: UTRA_v2)

Designation	*Description*
GCF-CC 3.46 bis	Official GCF-CC Version 3.46.0 dated 2012-04-18. EXPIRY DATE: 2012-10-15
NAPRD.03 v5.12 bis	Official PTCRB NAPRD.03 Version 5.12, forced from 17th July 2012 plus new 5-day-rule PVG changes.

3.3 List of Test Specification

Test Specification:	**3GPP TS 34.121-1**
Date / Version	2012/07/04 Version: 10.3.0
Title:	3rd Generation Partnership Project; Technical Specification Group Radio Access Network; User Equipment (UE) conformance specification; Radio transmission and reception (FDD);
Description:	Part 1: Conformance specification

Applicable Errata	*Activate Date*	*Comment*
R5-110426	11/3/15	Correction to table references in minimum requirements

Test Specification:	**3GPP TS 34.123-1**
Date / Version	2012/07/04 Version: 10.1.0
Title:	User Equipment (UE) conformance specification; - Part 1: Protocol conformance specification (Technical Specification Group Terminals)
Description:	The present document specifies the protocol conformance testing for the 3rd Generation User Equipment (UE).

Applicable Errata	*Activate Date*	*Comment*
R5-106230	10/12/7	Correction of test case 8.1.5.7 audit of UE capability

3.4 Summary

Test Case Identifier / Name Test (condition)	*Cat*	*Result*	*Date of Test*	*Lab Ref.*	*Setup*
Test Specification: 3GPP TS 34.121-1					
9.2.3E Closed Loop Diversity Performance Enhanced Performance Requirements Type 3, QPSK/16QAM, Fixed Reference Channel (FRC) H-Set 3					
9.2.3E; FDD1, TN, VN	A	Conformity footnote: 2	2012/08/21	Lab 2	a01
9.2.3E; FDD2, TN, VN	A	Conformity footnote: 2	2012/08/21	Lab 2	a01
9.2.3E; FDD5, TN, VN	A	Conformity footnote: 2	2012/08/21	Lab 2	a01
Test Specification: 3GPP TS 34.123-1					
8.1.5.7 UE Capability Information/ Audit Of UE Capabilities.					
8.1.5.7; FDD2, TN, VN	E	Failed footnote: 1	2012/08/14	Lab 1	a01
8.4.1.5 Measurement Control and Report: Intra-frequency measurement for transition from CELL_DCH to CELL_FACH state (FDD)					
8.4.1.5; FDD1, TN, VN, ST3	A	Passed	2012/08/14	Lab 1	a01

3.5 Detailed Footnotes

No.	*Description*
1	For the category E test case following type of error was indicated:UE CAPABILITY INFORMATION messages aren't compatible with the ICS statements.
2	Refer to the waiver approved .

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 Anite SAT6 (A)(E)

Lab ID:	**Lab 1**		
Description:	Conformance Test System		
Type:	Anite SAT6 (A)(E)		
Serial Number:	See Single Devices		
	HW/SW Status	*Date of Start*	*Date of End*
	Anite Core Software v19.0 Conformance Toolset (UTRAN) Version 24.0 ETSI TTCN Test Cases v 24.0	2012/07/24	

Single Devices for Anite SAT6 (A)(E)

Single Device Name	*Type*	*Serial Number*	*Manufacturer*	
Agilent 8960 Series 10 digial radio test set	8960 Series 10	GB45360181	Agilent	
	Calibration Details		*Last Execution*	*Next Execution*
	calibration		2011/05/11	2014/05/10
	HW/SW Status		*Date of Start*	*Date of End*
	Agilent 8960 firmware A.05.89		2012/07/24	
Agilent 8960 Series 10 digial radio test set	8960 Series 10	GB45360327	Agilent	
	Calibration Details		*Last Execution*	*Next Execution*
	calibration		2011/05/11	2014/05/10
	HW/SW Status		*Date of Start*	*Date of End*
	Agilent 8960 firmware A.05.89		2012/07/24	
Agilent 8960 Series 10 digial radio test set	8960 Series 10	GB45360397	Agilent	
	Calibration Details		*Last Execution*	*Next Execution*
	calibration		2011/05/11	2014/05/10
	HW/SW Status		*Date of Start*	*Date of End*
	Agilent 8960 firmware A.05.89		2012/07/24	
Agilent 8960 Series 10 digial radio test set	8960 Series 10	GB45360425	Agilent	
	Calibration Details		*Last Execution*	*Next Execution*
	calibration		2011/05/11	2014/05/10
	HW/SW Status		*Date of Start*	*Date of End*
	Agilent 8960 firmware A.05.89		2012/07/24	
Agilent 8960 Series 10 digial radio test set	8960 Series 10	GB45360447	Agilent	
	Calibration Details		*Last Execution*	*Next Execution*
	calibration		2011/05/11	2014/05/10
	HW/SW Status		*Date of Start*	*Date of End*
	Agilent 8960 firmware A.05.89		2012/07/24	
Agilent 8960 Series 10 digial radio test set	8960 Series 10	GB45360457	Agilent	
	Calibration Details		*Last Execution*	*Next Execution*
	calibration		2011/05/11	2014/05/10
	HW/SW Status		*Date of Start*	*Date of End*
	Agilent 8960 firmware A.05.78		2011/07/04	
	Agilent 8960 firmware A.05.89		2012/07/24	

Single Devices for Anite SAT6 (A)(E) (continued)

Single Device Name	*Type*	*Serial Number*	*Manufacturer*	
Anite B4605/100 RF Combiner	B4605/100	1165		
	Calibration Details		*Last Execution*	*Next Execution*
	calibration		2011/05/11	2014/05/10
	HW/SW Status		*Date of Start*	*Date of End*
	Anite CRMP Firmware V20.0		2011/07/04	
Baseband Processor	ABP	2946		
	HW/SW Status		*Date of Start*	*Date of End*
	Agilent ABP firmware A.05.78		2011/07/04	
Baseband Processor	ABP	2985		
	HW/SW Status		*Date of Start*	*Date of End*
	Agilent ABP firmware A.05.78		2011/07/04	
Baseband Processor	ABP	2992		
	HW/SW Status		*Date of Start*	*Date of End*
	Agilent ABP firmware A.05.78		2011/07/04	
Baseband Processor	ABP	2996		
	HW/SW Status		*Date of Start*	*Date of End*
	Agilent ABP firmware A.05.78		2011/07/04	

Test Equipment shield room

Lab ID:	**Lab 1**		
Manufacturer:	Bei Jing An Fang		
Description:	shield room		
Serial Number:	shangdi Lab 2		
	Calibration Details	*Last Execution*	*Next Execution*
	calibration	2011/06/30	2014/06/29

Test Equipment TS8950/80

Lab ID:	**Lab 2**		
Description:	LTE RF RRM Conformance Test System		
Serial Number:	100033		
	HW/SW Status	*Date of Start*	*Date of End*
	HW:RF-WCDMA 1.91 SW:V 2.24 LTE:V 241	2012/02/17	

Single Devices for TS8950/80

Single Device Name	*Type*	*Serial Number*	*Manufacturer*	
10 MHz reference	8040C	100154		
	Calibration Details		*Last Execution*	*Next Execution*
	calibration		2012/02/11	2013/02/10
baseband signal generator	AMU200A	100481		
	Calibration Details		*Last Execution*	*Next Execution*
	calibration		2012/02/20	2013/02/19
baseband signal generator	AMU200A	100482		
	Calibration Details		*Last Execution*	*Next Execution*
	calibration		2012/02/20	2013/02/19
external power supply	NGMO2	100468		
	Calibration Details		*Last Execution*	*Next Execution*
	calibration		2012/02/15	2013/02/14
power meter probe	NRP-Z21	102768		
	Calibration Details		*Last Execution*	*Next Execution*
	calibration		2012/02/16	2013/02/15
signaling unit	CMW500	103826		
	Calibration Details		*Last Execution*	*Next Execution*
	calibration		2012/02/16	2013/02/15
vector signal analyzer	FSQ26	201045		
	Calibration Details		*Last Execution*	*Next Execution*
	calibration		2012/02/17	2013/02/16
vector signal generator	SMU200A	104363	Rohde & Schwarz GmbH & Co. KG	
	Calibration Details		*Last Execution*	*Next Execution*
	calibration		2012/02/22	2013/02/21
wideband signal generator	SMF100A	101888		
	Calibration Details		*Last Execution*	*Next Execution*
	calibration		2012/02/15	2013/02/14

5 Annex

5.1 Additional Information for OUT Description

Annex A

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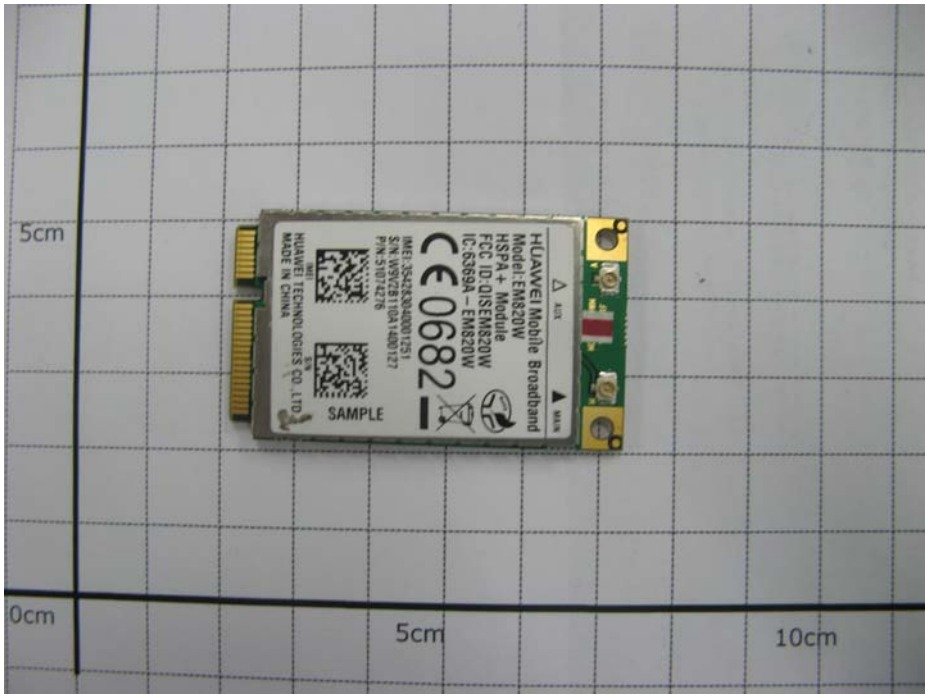
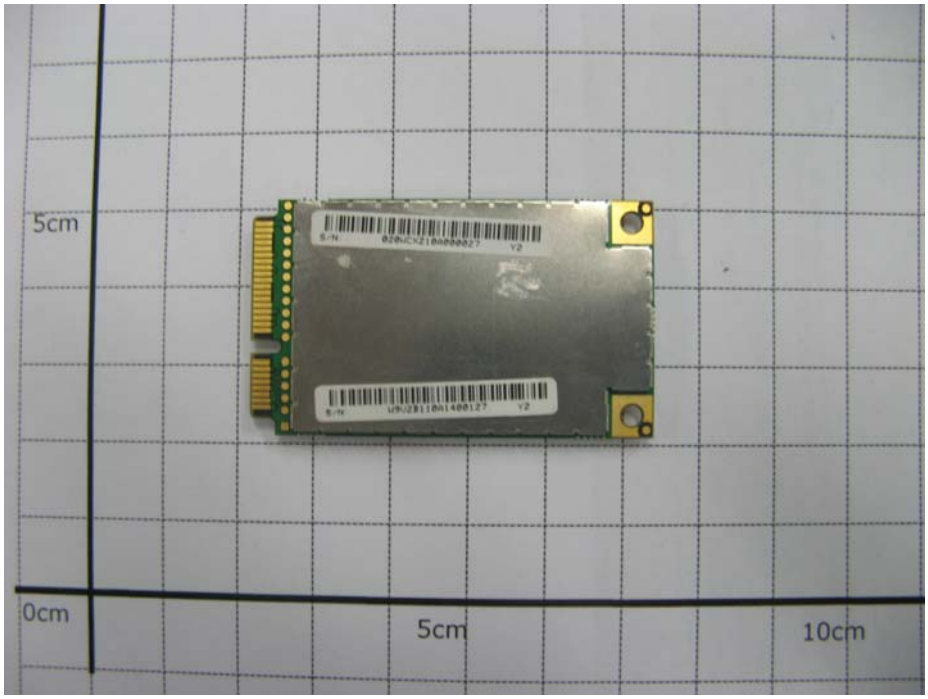
Photos of OUT



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 ECO which supports GSM/GPRS/EDGE/WCDMA/HSDPA/HSUPA/ HSPA+ 900/1800/850/1900/FDDI/FDDII/FDDV/FDDVIII is a new member of the Huawei Technologies Co., Ltd. 's type family. And it is based on the already type tested Huawei Technologies Co., Ltd. 's GSM/GPRS/EDGE/WCDMA/ HSDPA/HSUPA/HSPA+ 900/1800/850/1900/FDDI/FDDII/ FDDV/FDDVIII terminal equipment type EM820W.

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 ECO is based on approved EM820W.

The main software changes are:

- Fixed a bug that when setting at+cnmi=2,2, AT port occasionally freeze when receiving a new SMS during sending long SMS.

- Fix a bug that SMS Sent failed in HSDSCH, DCH, FACH and PCH RRC state which were found during Europe field test. Include the workaround for the bug that for some samples, there's no service when starting GPS.

The previous software version of EM820W was: 11.810.10.17.00

Official software version number is 11.810.10.19.00 for EM820W ECO.

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.

(2) Technical Assessment of Hardware

The hardware of the terminal equipment type EM820W ECO based on approved EM820W.

The main change of Hardware is none.

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.

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 ECO

With Hardware version: MD1EM820WM, Basic Software version: 11.810.10.19.00 is valid according to the standards referenced in the related Test Report.

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

5.2.1 Accreditation Certificate

Annex B

ritt7layers

ISO / IEC 17025

Accreditation Certificate

China National Accreditation Service for Conformity Assessment

LABORATORY ACCREDITATION CERTIFICATE

(No. CNAS L4320)

China National Accreditation Service for Conformity Assessment has accredited

Beijing 7 Layers Huarui Communications Technology Co., Ltd.

No.8 E-301, Tongji South Road,

Beijing Economic-Technological Development Area, Beijing, China

to ISO/IEC 17025:2005 General Requirements for the Competence of Testing and Calibration Laboratories(CNAS-CL01 Accreditation Criteria for the Competence of Testing and Calibration Laboratories) for the competence in the field of testing.

The scope of accreditation is detailed in the attached schedule bearing the same accreditation number as above. The schedule forms an integral part of this certificate.

Date of Issue: 2009-12-14

Date of Expiry: 2012-12-13

Date of Initial Accreditation: 2009-12-14

Signed on behalf of China National Accreditation Service for Conformity Assessment

China National Accreditation Service for Conformity Assessment(CNAS) is authorized by Certification and Accreditation Administration of the People's Republic of China (CNCA) to operate the national accreditation systems for conformity assessment. CNAS is the signatory to International Laboratory Accreditation Cooperation Multilateral Recognition Arrangement (ILAC MRA), and the signatory to Asia Pacific Laboratory Accreditation Cooperation Multilateral Recognition Arrangement (APLAC MRA).

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