



AT commands delta between GR plug-in and GR64

Revision: 006
Date: December 3, 2008



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AT commands delta between GR plug-in and GR64


Reference: WA_DEV_Q64_UGD_001

Revision: 006

Date: 3 December, 2008

Preliminary

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Overview

This document gives an exhaustive comparison between the AT commands available on GR64 Wireless CPU[®] and the AT commands provided by GR plug-in on Q64 Wireless CPU[®].

It provides useful information for current GR64 Wireless CPU[®] users to easily upgrade to Q64 Wireless CPU[®].

Preliminary

Document history

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003	February 19, 2008	Update for GR plug-in v1.03.00	Wavecom
004	April 14, 2008	Update for GR plug-in v2.00.00	Wavecom
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1 Introduction

This document gives an exhaustive comparison between the AT commands available on GR64 Wireless CPU[®] and the AT commands provided by GR plug-in on Q64 Wireless CPU[®].

It provides useful information for current GR64 Wireless CPU[®] users to easily upgrade to Q64 Wireless CPU[®].

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1.1 Related documents

- [1] AT Commands Interface Guide for Open AT[®] Firmware v7.1 (Ref: WM_DEV_OAT_UGD_059)
- [2] AT Command Manual for GR64 & GS64 Wireless CPU[®] - Revision R4B (Ref: WI_DEV_Gx64_UGD_001-003)
- [3] GR64 & GS64 Wireless CPU[®] Release Note – R4B to R4C (Ref: WI_DEV_Gx64_DVD_003)

1.2

Preliminary

Abbreviations

AT	Attention
CSD	Circuit Switched Data
CMUX	Converter Multiplexer
CPU	Central Processing Unit
DCE	Data Communication Equipment
DTE	Data Terminal Equipment
FTP	File Transfer Protocol
GPRS	General Packet Radio Service
GSM	Global System for Mobile Communications
IP	Internet protocol
MT	Mobile Termination
OS	Operating System
PPP	Point to Point Protocol
SIM	Subscriber Identity Module
SMS	Short Message Service
TCP	Transmission Control Protocol
TE	Terminal Equipment
UART	Universal Asynchronous Receiver Transmitter

2 AT commands delta between GR plug-in and GR64

2.1 Call Control

2.1.1 ATA

Supported but with WMP100 command syntax. See [1].

2.1.2 ATD

Supported but with WMP100 command syntax. See [1].

2.1.3 ATH

Supported but with WMP100 command syntax. See [1].

2.1.4 ATL

No difference.

2.1.5 ATO

Supported but with WMP100 command syntax. See [1].

2.1.6 ATX

Not supported.

2.1.7 AT+CHUP

No difference.

2.1.8 AT+CLCC

Usage	GR64	Q64
AT+CLCC?	Not supported	Supported

Response parameter	GR64	Q64
<Idx> (Call identification)	All available GSM call identification numbers	1-7
<mode>=2 (Fax)	Not supported	Supported

AT commands delta between GR plug-in and GR64

Call Control

<mode>=3 (Voice followed by data, voice mode)	Supported	Not supported
<mode>=4 (Alternating voice/data, voice mode)	Supported	Not supported
<mode>=6 (Voice followed by data, data mode)	Supported	Not supported
<mode>=7 (Alternating voice/data, data mode)	Supported	Not supported
<type> (Type of number)	All GSM 04.08 call types	129, 145, 161

2.1.9 AT+CSNS

No difference.

2.1.10 AT+CSTA

No difference.

2.1.11 AT+CVHU

Parameter	GR64	Q64
<mode>=0 ("Drop DTR" ignored but OK response given. ATH disconnects)	Supported	Not supported
<mode>=1 ("Drop DTR" and ATH ignored but OK response given)	Supported	Not supported

2.1.12 AT+VTD

Parameter	GR64	Q64
<n> (DTMF duration in tenths of seconds)	1-1000	1-255

AT commands delta between GR plug-in and GR64

Call Control

2.1.13 AT+VTS

Parameter	GR64	Q64
<n> (DTMF duration in tenths of seconds)	1-1000	1-255

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**AT commands delta between GR plug-in and GR64
Control and Status**

2.2 Control and Status

2.2.1 ATSO

No difference.

2.2.2 AT2S

Not supported.

2.2.3 AT3S

Not supported.

2.2.4 AT4S

Not supported.

2.2.5 AT5S

Not supported.

2.2.6 AT7S

No difference.

2.2.7 AT12S

Not supported.

2.2.8 AT+CEER

Response parameter	GR64	Q64
<report> (Error report)	Radio resource, mobility management, call control, GPRS session management error reports	Call control error reports
<errorNum> (Error number)	0-127 (call control errors)	0-127, 240 – FDN is active but number is not FDN, 241 – Call operation not allowed, 252 – Call barring on outgoing calls, 253 – Call barring on

AT commands delta between GR plug-in and GR64

Control and Status

		incoming calls, 254 – Call impossible, 255 – Low layer failure (call control errors)
--	--	---

2.2.9 AT+CIND

No difference.

2.2.10 AT+CLAC

No difference.

2.2.11 AT+CMEE

Supported but with WMP100 command syntax. See [1].

2.2.12 AT+CMER

Parameter	GR64	Q64
<mode>=0 (Unsolicited result codes buffered in the TA)	Supported	Not supported

2.2.13 AT+CPAS

Parameter	GR64	Q64
<mode>=1 (Manufacturer specific <pas> values allowed)	Supported	Not supported
<pas>=129-255 (Manufacturer specific status)	Supported	Not supported

2.2.14 AT+CPWD

Parameter	GR64	Q64
<fac>="PS" (SIM lock)	Not supported	Supported
<fac>="PN" (Network lock)	Not supported	Supported
<fac>="PU"	Not supported	Supported

AT commands delta between GR plug-in and GR64

Control and Status

(Network subset lock)		
<fac>="PP" (Service provider lock)	Not supported	Supported
<fac>="PC" (Corporate lock)	Not supported	Supported

2.2.15 AT+CR

Unsolicited response format	GR64	Q64
<serv>=GPRS (GPRS service)	Optional L2P parameter	No optional parameter

2.2.16 AT+CRC

Unsolicited response parameter	GR64	Q64
<type>=FAX (Facsimile)	Not supported	Supported
<type>=GPRS (GPRS)	Not supported	Supported

2.2.17 AT+CSQ

No difference.

2.2.18 AT*ECAM

Not supported.

2.2.19 AT*ECIND

Unsolicited response parameter	GR64	Q64
<ind_no>=9	Not supported	Fax message waiting
<ind_no>=10	Not supported	Data message waiting
<ind_no>=11	Email message waiting, line 1	Not supported
<ind_no>=12	Email message waiting, line 2	Not supported

**AT commands delta between GR plug-in and GR64
Control and Status**

2.2.20 AT*ECLCC

Unsolicited response parameter	GR64	Q64
<exitcause> (End of call reason)	Supported	Not supported (left empty)
<calltype>=3 (Fax)	Not supported	Supported
<calltype>=128 (Voice 2)	Supported	Not supported
<type> (Type of number)	All GSM 04.08 types	129, 145, 161
<ccstatus>=8 (Call failed)	Supported	Not supported

2.2.21 AT*EDRX

Not supported.

2.2.22 AT+CFUN

Parameter	GR64	Q64
<fun>=1 (Full functionality)	No reset is performed by the Wireless CPU®	Reset is automatically performed by the Wireless CPU®

2.2.23 AT*EMRDY

No difference.

2.2.24 AT*E2RESET

No difference.

2.2.25 AT*ESRB

Parameter	GR64	Q64
<n>=1 (Enable messages)	"Restart" message at power up "SHUTDOWN COMPLETE" message at power down.	"Restart" message at power up No message at power down

**AT commands delta between GR plug-in and GR64
Control and Status**

2.2.26 AT&F

AT command	GR64 factory setting	Q64 factory setting
AT+E2IPS (IP setup)	2,8,2,1020,0,64	„2,1020,1,64
AT+CNMI (New message indication)	(1,0,0,0,1)	(2,0,0,0,1)
AT*EBSE (Band selection)	8 - Quadband	Not affected by AT&F
AT*ESSE (SIM selection)	0 – Internal	1 - External
AT+WFM (Feature management)	Off	Not affected by AT&F
AT+ICF (DTE-DCE character framing)	(3,0)	(3,4)

2.2.27 AT&V

Parameter	GR64	Q64
<pr> (Profile number)	0-2 – Profile location	0 – RAM profile 1 – EEPROM profile 2 – Factory profile

Response parameter	GR64	Q64
<overspeed>	Supported	Not supported

2.2.28 AT&W

Parameter	GR64	Q64
<pr> (Profile number)	0-2	0

2.2.29 AT&Y

Parameter	GR64	Q64
<pr>	0-2	0

AT commands delta between GR plug-in and GR64

Control and Status

(Profile number)		
------------------	--	--

2.2.30 ATZ

Parameter	GR64	Q64
<pr> (Profile number)	0-2	0

2.2.31 AT+WFM

Parameter	GR64	Q64
<FtrID> (Feature)	"SIMSPEEDENH"	All WMP100 features (see [1])

Usage	GR64	Q64
Parameters storage	Saved by AT&W	Automatically saved

2.2.32 AT*E2ANTDI

Not supported.

2.2.33 AT*E2TRACE

Not supported.

AT commands delta between GR plug-in and GR64

Time

2.3 Time

2.3.1 AT+CALA

Parameter	GR64	Q64
<recurr> (Alarm recurrence)	Supported	Not supported

2.3.2 AT+CALD

No difference.

2.3.3 AT+CCLK

No difference.

2.3.4 AT+CTZU

No difference.

Preliminary

AT commands delta between GR plug-in and GR64

Audio

2.4 Audio

2.4.1 AT*E2APR

Factory default	GR64	Q64
<param1>=0 (Audio profile 0)	0,,256,,,,10,10,1,1,,,,,,3,1,0	0,,63,,,,10,10,1,1,,,,,,1,1,0
<param1>=1 (Audio profile 1)	1,,256,,,,10,10,0,0,,,,,,3,1,0	1,,63,,,,10,10,0,0,,,,,,1,1,0
<param1>=2 (Audio profile 2)	0,,0,,,,10,10,0,0,,,,,,3,1,0	0,,0,,,,10,10,0,0,,,,,,1,1,0
<param1>=3 (Audio profile 3)	0,,0,,,,10,10,0,0,,,,,,3,1,0	0,,0,,,,10,10,0,0,,,,,,1,1,0
<param1>=4 (Audio profile 4)	1,,0,,,,10,10,1,1,,,,,,3,1,0	1,,0,,,,10,10,1,1,,,,,,1,1,0

2.4.2 AT*E2EAMS

Parameter	GR64	Q64
<op>=3 (Sidetone Gain)	0-32767	0-63*
<op>=18 (Noise reduction)	0-3	0-1

(*see AT*EAUD for Sidetone Gain range description)

2.4.3 AT*EAUD

2.4.3.1 Uplink parameters

Parameter	GR64	Q64
<item>=103 (FIR coefficients)	Supported	Not supported
<item>=108 (FIR filter enable)	Supported	Not supported
<item>=110 (IIR enable)	Supported	Not supported

AT commands delta between GR plug-in and GR64

Audio

<item>=112 (IIR coefficients)	Supported	Not supported
<item>=117 (Dynamic loudness adjustment enable)	Supported	Not supported
<item>=118 (Dynamic loudness adjustment configuration)	Supported	Not supported
<item>=119 (IIR gain)	Supported	Not supported

2.4.3.2 Downlink parameters

Parameter	GR64	Q64
<item>=207 (Number of FIR coefficients)	Supported	Not supported
<item>=219 (FIR coefficients)	Supported	Not supported
<item>=226 (FIR enable)	Supported	Not supported
<item>=229 (Tone limit)	Supported	Not supported
<item>=230 (Dynamic loudness adjustment enable)	Supported	Not supported
<item>=231 (Dynamic loudness adjustment configuration)	Supported	Not supported
<item>=232 (Audio noise reduction enable)	Supported	Not supported
<item>=233 (FIR gain)	Supported	Not supported
<item>=234 (Volume gain coefficient table)	Supported	Not supported

AT commands delta between GR plug-in and GR64

Audio

2.4.3.3 Mic-Speaker-Loop parameters

Parameter	GR64	Q64
<item>=310 (AEC configuration)	Supported	Not supported
<item>=311 (Full duplex speaker enable)	Supported	Not supported
<item>=312 (Full duplex speaker coefficients)	Supported	Not supported
<item>=313 (Anti-pop enable)	Supported	Not supported
<item>=314 (Audio data path)	Supported	Not supported
<item>=315 (Serial data configuration)	Supported	Not supported
<item>=316 (Audio noise reduction coefficients)	Supported	Not supported

2.4.3.4 Sidetone gain

2.4.3.4.1 Sidetone gain range

<item>=228 (Sidetone gain)	GR64	Q64
<value1> (Audio feedback)	0-32767	0-63

2.4.3.4.2 Sidetone gain scale

<value1>	Audio feedback	<value1>	Audio feedback	<value1>	Audio feedback
0	disable	23	-25.9 dB	46	-7.3 dB
1	-60.2 dB	24	-25.2 dB	47	-6.7 dB
2	-54.2 dB	25	-24.1 dB	48	-6.2 dB
3	-50.7 dB	26	-23.1 dB	49	-5.1 dB
4	-48.2 dB	27	-22.1 dB	50	-4.2 dB

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Audio

5	-46.2 dB	28	-21.3 dB	51	-3.4 dB
6	-44.6 dB	29	-20.6 dB	52	-2.6 dB
7	-43.3 dB	30	-19.9 dB	53	-1,9 dB
8	-42.1 dB	31	-19.2 dB	54	-1,2 dB
9	-40.2 dB	32	-18.6 dB	55	-0.6 dB
10	-38.6 dB	33	-17.5 dB	56	-0.1 dB
11	-37.3 dB	34	-16.6 dB	57	1,0 dB
12	-36.1 dB	35	-15.7 dB	58	1.9 dB
13	-35.1 dB	36	-14.9 dB	59	2.7 dB
14	-34.2 dB	37	-14.2 dB	60	3.5 dB
15	-25.9 dB	38	-13.5 dB	61	4.2 dB
16	-32.6 dB	39	-12.9 dB	62	4.8 dB
17	-31.3 dB	40	-12.3 dB	63	5.4 dB
18	-30.1 dB	41	-11.3 dB		
19	-29.1 dB	42	-10.3 dB		
20	-28.2 dB	43	-9.5 dB		
21	-27.3 dB	44	-8.7 dB		
22	-26.6 dB	45	-8.0 dB		

2.4.4 AT*EMIC

Parameter	GR64	Q64
<value> (Microphone status)	Remains unchanged after a call	Automatically set to 1 after a call

Usage	GR64	Q64
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AT commands delta between GR plug-in and GR64

Audio

Action command	Available anytime	Only available during calls
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2.4.5 AT*ERSE

Not supported.

2.4.6 AT*ESIL

No difference.

2.4.7 AT+CLVL

No difference.

2.4.8 AT*ERIL

Parameter	GR64	Q64
<calltype>=1 (Line 1)	Supported	Not supported
<calltype>=2 (Line 2)	Supported	Not supported
<calltype>=3 (Fax)	Not supported	Not supported
<calltype>=4 (Data)	Supported	Not supported
<calltype>=5 (Alarm)	Supported	Not supported
<calltype>=6 (SMS)	Supported	Not supported
<calltype>=10 (Line1, Fax, data)	Not supported	Supported

2.4.9 AT*ERIN

Parameter	GR64	Q64
<calltype>=1 (Line 1)	Supported	Not supported
<calltype>=2 (Line 2)	Supported	Not supported

AT commands delta between GR plug-in and GR64

T TData – CSD

<calltype>=3 (Fax)	Not supported	Not supported
<calltype>=4 (Data)	Supported	Not supported
<calltype>=5 (Alarm)	Supported	Not supported
<calltype>=6 (SMS)	Supported	Not supported
<calltype>=10 (Line1, Fax, data)	Not supported	Supported
<soundtype> (Ring tone selection)	0-4, 255	0-10

2.4.10 AT*ERIP

Parameter	GR64	Q64
<soundtype> (Type of sound)	1-4,255	1-10

2.4.11 AT*TTY

Parameter	GR64	Q64
<Bearer_Id> (Bearer identifier)	0-1	0

2.5

Data – CSD

2.5.1 AT+CBST

No difference.

2.5.2 AT+CRLP

No difference.

Preliminary

AT commands delta between GR plug-in and GR64

Data – GPRS

2.6 Data – GPRS

2.6.1 AT*E2GDV

Not supported.

2.6.2 AT*E2GC

Usage	GR64	Q64
Parameter storage	Saved by AT&W	Automatically saved
Parameter change	Effective after reset	Immediately effective

2.6.3 AT*E2GAA

No difference.

2.6.4 AT+CGACT

Parameter	GR64	Q64
<cid> (Context identifier)	1-20	1-4

2.6.5 AT+CGANS

Parameter	GR64	Q64
<cid> (Context identifier)	1-20	1-4
Action command syntax	AT+CGANS=[<response>, [<L2P>,<cid>]]	AT+CGANS=[<response>, [<L2P>,<cid>]]

2.6.6 AT+CGATT

No difference.

2.6.7 AT+CGAUTO

Parameter	GR64	Q64
<n> (Auto-answer mode)	0-1	0 – Turn off automatic response for Domain packet only 1 – Turn on automatic

AT commands delta between GR plug-in and GR64

Data – GPRS

		<p>response for Domain packet only</p> <p>2 – Automatic response for Domain packet is controlled using ATSO command. Incoming circuit switch calls can neither automatically nor manually be answered</p> <p>3 – Automatic response for Domain packet and incoming circuit calls are controlled using ATSO command (default value)</p>
--	--	--

2.6.8 AT+CGCLASS

No difference.

2.6.9 AT+CGDATA

Parameter	GR64	Q64
<cid> (Context identifier)	1-20	1-4
Action command syntax	AT+CGDATA=[<l2p>, [<cid>[, <cid>[,]]]] (Multiple cid supported)	AT+CGDATA=[<l2p>, [<cid>]] (Multiple cid not supported)

Usage	GR64	Q64
PPP negotiation	Initiated by TE	Initiated by MT

2.6.10 AT+E2PPPRC

Not supported.

2.6.11 AT+CGDCONT

Parameter	GR64	Q64
<cid> (Context identifier)	1-20	1-4
<PDP_type> (Protocol type)	IP	IP, PPP

AT commands delta between GR plug-in and GR64

Data – GPRS

<d_comp> (Data compression)	0-2	0-1
<h_comp> (Header compression)	0-3	0-1

Usage	GR64	Q64
Command availability	Available without any SIM card inserted	Available only if SIM card is inserted
Parameters storage	Saved by AT&W	Automatically saved by AT+CGDCONT

2.6.12 AT+CGDSCONT

Not supported.

2.6.13 AT+CGEREP

Parameter	GR64	Q64
<cid> (Context identifier)	1-20	1-4
<mode>=1 (Discard unsolicited result codes)	Supported	Not supported
<bfr>=1 (Flush mode)	Supported	Not supported
Action command syntax	AT+CGEREP=[<mode>, [<bfr>]]	AT+CGEREP=<mode>, [<bfr>]

Unsolicited response parameter	GR64	Q64
<PDP_type>="PPP" (Point to Point Protocol)	Not supported	Supported

2.6.14 AT+CGPADDR

Parameter	GR64	Q64
<cid>	1-20	1-4

AT commands delta between GR plug-in and GR64

Data – GPRS

(Context identifier)		
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Response parameter	GR64	Q64
<cid> not defined but in <cid> range	OK	ERROR

2.6.15 AT+CGEQMIN

Not supported.

2.6.16 AT+CGEQNEG

Not supported.

2.6.17 AT+CGCMOD

Parameter	GR64	Q64
<cid> (Context identifier)	1-20	1-4

2.6.18 AT+CGTFT

Not supported.

2.6.19 AT+CGEQREQ

Not supported.

2.6.20 AT+CGREG

No difference.

2.6.21 AT+CGSMS

No difference.

2.6.22 AT+CGRDATA

Not supported.

AT commands delta between GR plug-in and GR64

Data – TCP/IP

2.7 Data – TCP/IP

2.7.1 AT*E2IPA

Parameter	GR64	Q64
<cid> (PDP context identifier)	1-20	1-4

Response parameter	GR64	Q64
<ErrNum> (Error number)	0-255 (see GR64 documentation for details)	0 – No error 1 – Process aborted 2 – Bad channel state 3 – Command not supported 4 – Out of range 5 – Out of memory 6 – Internal error 7 – Invalid parameter 8 – DNS failure 9 – Out of resource 10 – Port in use 11 – Action refused 12 – Host unreachable 13 – Network unreachable 14 – Pipe broken 15 – Connection timeout

Usage	GR64	Q64
Equivalent to AT+CGATT followed by AT+CGACT	Supported	Not supported (to use TCP/IP commands, the connection must be activated using AT*E2IPA command only)

2.7.2 AT*E2IPC

Parameter	GR64	Q64
<BlockMode>=0	Supported	Not supported

AT commands delta between GR plug-in and GR64

Data – TCP/IP

(Blocking)		
<BlockMode>=1 (Non-blocking (with close complete notification))	Supported	Not supported

Response parameter	GR64	Q64
<ErrNum> (Error number)	0-255 (see GR64 documentation for details)	0 – No error 1 – Process aborted 2 – Bad channel state 3 – Command not supported 4 – Out of range 5 – Out of memory 6 – Internal error 7 – Invalid parameter 8 – DNS failure 9 – Out of resource 10 – Port in use 11 – Action refused 12 – Host unreachable 13 – Network unreachable 14 – Pipe broken 15 – Connection timeout

2.7.3 AT*E2IPO

Parameter	GR64	Q64
<cid> (PDP context identifier)	1-20	1-4
<FTPDataType> (File transfer type)	Not supported	New parameter added to specify the FTP data type when the FTP control socket is created 0 – ASCII file transfer type 1 – Binary file transfer type
Action command format	AT*E2IPO=<SockType>,<RemotelpAddr>,<RemotelpPort>[,<Sockid>	AT*E2IPO=<SockType>,<RemotelpAddr>,<RemotelpPort>[,<Sockid>

AT commands delta between GR plug-in and GR64

Data – TCP/IP

	[,<cid> [,<localIpPort> [,<Username> [,<Password> [,<Account>]]]]]]	[,<cid> [,<localIpPort> [,<Username> [,<Password> [,<Account> [,<FTPDataType>]]]]]]
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Response parameter	GR64	Q64
<ErrNum> (Error number)	0-255 (see GR64 documentation for details)	0 – No error 1 – Process aborted 2 – Bad channel state 3 – Command not supported 4 – Out of range 5 – Out of memory 6 – Internal error 7 – Invalid parameter 8 – DNS failure 9 – Out of resource 10 – Port in use 11 – Action refused 12 – Host unreachable 13 – Network unreachable 14 – Pipe broken 15 – Connection timeout

2.7.4 AT*E2IPI

Parameter	GR64	Q64
<cid> (PDP context identifier)	1-20	1-4

2.7.5 AT*E2IPE

Response parameter	GR64	Q64
<ErrNum> (Error number)	0-255 (see GR64 documentation for details)	0 – No error 1 – Process aborted 2 – Bad channel state

AT commands delta between GR plug-in and GR64

Data – TCP/IP

		3 – Command not supported 4 – Out of range 5 – Out of memory 6 – Internal error 7 – Invalid parameter 8 – DNS failure 9 – Out of resource 10 – Port in use 11 – Action refused 12 – Host unreachable 13 – Network unreachable 14 – Pipe broken 15 – Connection timeout
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2.7.6 AT*E2IPL

Parameter	GR64	Q64
<cid> (PDP context identifier)	1-20	1-4

2.7.7 AT*E2IPRH

Parameter	GR64	Q64
<cid> (PDP context identifier)	1-20	1-4

Usage	GR64	Q64
IP lookup method	UDP then TCP	UDP only

2.7.8 AT*E2IPKA

Parameter	GR64	Q64
Action command format	AT*E2IPKA=[<Mode>[, <IdleTime>[, <IntervalTime>[,<Count>]]]]	AT*E2IPKA=<Mode>
<Mode> (Keepalive on/off)	0 - off 1 - on	0 - off

AT commands delta between GR plug-in and GR64

Data – TCP/IP

<IdleTime> (Seconds to wait to send the first keepalive packet)	10-32767	Not supported
<IntervalTime> (Seconds to wait for an answer to the sent keepalive packet before the next keepalive packet is sent)	1-32767	Not supported
<Count> (Amount of keepalive packets to send and not have answered before closing the connection)	1-32767	Not supported

2.7.9 AT*E2IPS

Parameter	GR64	Q64
<RetryTm> (Packet sending retry time)	Supported	Not supported
<NmRetry> (Packet sending number of retries)	Supported	Not supported
<esc>=0 (Escape sequence off)	Supported	Not supported
<ConnTm> (Connection timeout)	0-120	0-70

2.7.10 AT*ENAD

Parameter	GR64	Q64
<index> (Internet account index)	1-20	1-4
<cid> (PDP context identifier)	1-20	1-4

Response to read command (AT*ENAD?)	GR64	Q64
<lock state>	0-1	0

AT commands delta between GR plug-in and GR64

Data – TCP/IP

(Predefined internet account)		
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2.7.11 AT*E2IPACT

No difference.

2.7.12 AT*E2IPEV

Parameter	GR64	Q64
<cid> (PDP context identifier)	1-20	1-4

Response parameter	GR64	Q64
<ErrNum> (Error number)	0-255 (see GR64 documentation for details)	0 – No error 1 – Process aborted 2 – Bad channel state 3 – Command not supported 4 – Out of range 5 – Out of memory 6 – Internal error 7 – Invalid parameter 8 – DNS failure 9 – Out of resource 10 – Port in use 11 – Action refused 12 – Host unreachable 13 – Network unreachable 14 – Pipe broken 15 – Connection timeout

2.7.13 AT*E2IPATO

No difference.

AT commands delta between GR plug-in and GR64

FTP

2.8 FTP

2.8.1 AT*E2FTPOPT

Parameter	GR64	Q64
<DataType> (FTP data type)	Supported	Setting this parameter has no effect. This parameter can be set in AT*E2IPO when the FTP control socket is created
Test command response format	*E2FTPOPT: (0-15),(0-1),(0-1)	*E2FTPOPT: (0-15),(),(0-1)

2.8.2 AT*E2FTPFILE

No difference.

Preliminary

**AT commands delta between GR plug-in and GR64
Identification**

2.9 Identification

2.9.1 AT

No difference.

2.9.2 AT*EIDSUM

Not supported.

2.9.3 AT*EPINFO

No difference.

2.9.4 AT+CGMI

No difference.

2.9.5 AT+CGMM

Response	GR64	Q64
<model> (Model name for the transceiver unit)	GR64	Q64

2.9.6 AT+CGMR

Response	GR64	Q64
<revision> (Software revision)	<SW revision>	<SW revision>.<WCPU> <size> <date> <time>

2.9.7 AT+CGSN

No difference.

2.9.8 AT*E2GSN

No difference.

2.9.9 AT+GCAP

No difference.

**AT commands delta between GR plug-in and GR64
Identification**

2.9.10 AT+GMI

No difference.

2.9.11 AT+GMM

Response	GR64	Q64
<model> (Model name for the transceiver unit)	GR64	Q64

2.9.12 AT+GMR

Response	GR64	Q64
<revision> (Software revision)	3-6 characters	4 characters

2.9.13 AT+GSN

No difference.

2.9.14 ATI

Response	GR64	Q64
<value>=0 (Model identification)	GR64	Q64
<value>=1 (Revision identification)	3-6 characters	4 characters
<value>=3 (Modem manufacturer name)	Wavecom	<SW revision>.<WCPU> <size> <date> <time>
<value>=8 (DCE hardware type version)	XYZ	X.YZ
<value>=9 (Plug n Play identification)	Supported	Not supported

2.9.15 AT+Q64

Usage	GR64	Q64
AT+Q64? <version>	Not supported	Supported

AT commands delta between GR plug-in and GR64
Identification

(GR plug-in revision)		
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Preliminary

**AT commands delta between GR plug-in and GR64
Serial Interface**

2.10 Serial Interface

2.10.1 AT&C

Parameter	GR64	Q64
<value> (Carrier detect behaviour)	0-4	0-1

Usage	GR64	Q64
While entering the text or PDU of a SMS message	DCD will always be asserted	DCD will not be asserted

2.10.2 AT&D

Parameter	GR64	Q64
<value>=2	Deassert DTR closes the current connection (CSD call, GPRS session or socket connection)	Deassert DTR closes the current call (CSD call or GPRS session) but not the current socket connection

2.10.3 AT&S

No difference.

2.10.4 ATV

Result code	GR64	Q64
CONNECT / 1	Supported	Not supported
NO DIALTONE / 6	Supported	Not supported

Usage	GR64	Q64
Read command (ATV?)	Supported	Not supported
Test command (ATV=?)	Supported	Not supported
ATV=<value>	Supported	Not supported (ATV<value> supported)

**AT commands delta between GR plug-in and GR64
Serial Interface**

2.10.5 AT+ICF

Parameter	GR64	Q64
<format>=1 (8 data 2 stop)	Not supported	Supported
<format>=2 (8 data 1 parity 1 stop)	Not supported	Supported
<format>=4 (7 data 2 stop)	Not supported	Supported
<format>=5 (7 data 1 parity 1 stop)	Not supported	Supported
<format>=6 (8 data 1 stop)	Not supported	Supported
<parity>=4 (None)	Not supported	Supported

Usage	GR64	Q64
Default value	<format>=3 (8 data 1 stop) <parity>=0 (odd)	<format>=3 (8 data 1 stop) <parity>=4 (none)

2.10.6 AT+IFC

Parameter	GR64	Q64
<by_te> (DTE flow control type)	0-2	0,2
<by_ta> (DCE flow control type)	0-2	0,2
<mode> (Flow control mode)	0-1	1

2.10.7 AT+ILRR

Intermediate result code	GR64	Q64
<rate>=0	Supported	Not supported
<rate>=300	Not supported	Supported

**AT commands delta between GR plug-in and GR64
Serial Interface**

<rate>=600	Not supported	Supported
<rx_rate> (Rate on RXD)	Supported	Not supported

2.10.8 AT+IPR

Parameter	GR64	Q64
<rate>=300 (Baudrate)	Not supported	Supported
<rate>=600 (Baudrate)	Not supported	Supported

2.10.9 ATE

No difference.

2.10.10 AT*E2ESC

Not supported.

2.10.11 AT*E2EST

Not supported.

2.10.12 ATQ

Command response	GR64	Q64
ATQ? (Read command)	Q: <value> OK	OK
ATQ=? (Test command)	Q: (0,1) OK	OK

Usage	GR64	Q64
Parameters saved by AT&W	Supported	Not supported
Factory settings restored by AT&F	Supported	Not supported

**AT commands delta between GR plug-in and GR64
General Interface**

2.11 General Interface

2.11.1 AT*E2IO

Parameter	GR64	Q64
<io> (IO number)	IO1-IO15	IO1-IO18

2.11.2 AT*E2RS232

Parameter	GR64	Q64
<val>=0 (Full RS232 functionality)	Supported	Supported
<val>=2 (RS232 control lines as IO)	Tx, Rx as data lines RTS, CTS, DCD, RI, DSR, DTR as IO	Tx, Rx, RTS, CTS, DCD, RI, DSR, DTR as IO
<sel> (Handshake selection)	Supported	Not supported
<itmr> (Inactivity timer)	Supported	Not supported

Response parameter	GR64	Q64
<val>=1 (All extended IO lines are released but UART1 is still OFF. Full RS232 functionality will take effect after reset)	Not supported	Supported
<val>=4 (UART1 is OFF but extended IO lines are not released yet. All RS232 lines swapped out for general use by IO will take effect after reset)	Not supported	Supported

Usage	GR64	Q64
Command	Concerns UART1 only	Concerns UART1 only

AT commands delta between GR plug-in and GR64

General Interface

Action command	Must be executed from UART1	Must be executed from UART2
Switching from <val>=0 to <val>=2	Immediate action	UART1 is immediately disabled but IO will be available after reset
Switching from <val>=2 to <val>=0	Immediate action	IO are immediately released but UART1 will be enabled after reset

2.11.3 AT*E2I2C

No difference.

2.11.4 AT*EADCREAD

Parameter	GR64	Q64
<adc_adj> (Converted ADC raw value in mV)	0-2800	0-2000

2.11.5 AT*USB

No difference.

2.11.6 AT*E2LED

Usage	GR64	Q64
Parameter change	Immediately effective	Effective after reset

2.11.7 AT+CBC

Parameter	GR64	Q64
<bcs> (Battery charge status)	Supported	Not supported
<bcl>=0 (Battery charge level)	Battery is exhausted, or MT does not have a battery connected	Battery is exhausted

2.11.8 AT*EBATTCONF

Not supported.

**AT commands delta between GR plug-in and GR64
General Interface**

2.11.9 AT*ECHGSTAT

Error code	GR64	Q64
<err>=0x04	Charging Error, Battery Over Temp	Not supported
<err>=0x08	Charging Error, Battery Under Temp	Not supported
<err>=0x10	Charging Error, Maximum charge time exceeded	Not supported
<err>=0x20	Charging Error, Over Current	Not supported
<err>=0x80	Charging Error, Charger Over Voltage	Not supported

2.11.10 AT+CMUX

Parameter	GR64	Q64
<port_speed> (Port speed)	Supports 1 – 6 only (Default value is 4 – 57600 bits/s)	Two more port speeds are supported: 7 – 460800 bits/s 8 – 921600 bits/s (Default value is the current baud rate)
<N1> (Maximum frame size)	1 – 127	1 – 255
<T1> (Acknowledgement timer)	1 – 255 in units of 10ms (i.e. 10ms – 2.55s)	1 – 128 in units of 20ms (i.e. 20ms – 2.56s)
<N2> (Maximum number of retransmissions)	0 – 100	0 – 255
<T2> (Response timer for the multiplexer control channel)	2 – 255 in units of 10ms (i.e. 20ms – 2.55s)	1 – 128 in units of 20ms (i.e. 20ms – 2.56s)
<T3> (Wake up response timer)	1 – 255 in units of seconds (i.e. 1s – 255s)	1 – 128 in units of 2 seconds (i.e. 2s – 256s)
<k> (Window size)	Allowed in Action command but ignored	Not supported

**AT commands delta between GR plug-in and GR64
General Interface**

Preliminary

**AT commands delta between GR plug-in and GR64
Network**

2.12 Network

2.12.1 AT*E2CD

Usage	GR64	Q64
Unsolicited response	Generated when one of the parameters changes	Generated with a maximum delay of 5 seconds after one of the parameters has changed

2.12.2 AT*E2EMM

Parameter	GR64	Q64
<c1> (Path loss criterion parameter for neighbour cells)	Supported	Not supported
<c2> (Cell reselection parameter for neighbour cells)	Supported	Not supported
<tn> (Time slot number in traffic channel)	Supported	Not supported

Usage	GR64	Q64
Number of neighbour cells displayed	Up to more than 6	Up to 6

2.12.3 AT*EBSE

Parameter	GR64	Q64
<band>=6 (Tri-band 900/1800/1900)	Supported	Not supported
<band>=7 (Tri-band 850/1800/1900)	Supported	Not supported
<band>=8 (Quad-band 850/900/1800/1900)	Supported	Not supported

AT commands delta between GR plug-in and GR64

Network

Usage	GR64	Q64
Default value	<band>=8 (Quad-band 850/900/1800/1900)	Depends on purchase order code

2.12.4 AT*E2SSCS

Parameter	GR64	Q64
<codec_mask>=63 (All available speech codec)	FR, HR, EFR, EHR, AMR- FR, AMR-HR	FR, HR, AMR-FR, AMR-HR
<codec_mask>=21 (All HR speech codec disabled)	FR, EFR, AMR-FR	FR, EFR
<codec_mask>=5 (All HR and AMR speech codec disabled)	FR, EFR	FR, EFR

2.12.5 AT*ERINFO

Not supported.

2.12.6 AT+CLCK

Parameter	GR64	Q64
<fac>="CS" (CNTRL lock control surface)	Supported	Not supported
<mode>=10 (Full lock)	Supported	Not supported
<class>=4 (Fax)	Not supported	Supported
<class>=7 (Voice, data and fax)	Not supported	Supported
<class>=16 (Data circuit sync)	Supported	Not supported
<class>=32 (Data circuit async)	Supported	Not supported
<class>=64 (Dedicated packet access)	Supported	Not supported
<class>=128	Supported	Not supported

AT commands delta between GR plug-in and GR64

Network

(Dedicated PAD access)		
<class>=1..30 (When “no reply” is enabled or queried, this gives the time in seconds to wait before the call is forwarded)	Supported	Not supported

Usage	GR64	Q64
Read command (AT+CLCK?)	Not supported	+CLCK: (<fac>,<status>),[...] OK

2.12.7 AT+COPN

No difference.

2.12.8 AT+COPS

Response parameter	GR64	Q64
<AcT> (Access technology)	0-2	0

2.12.9 AT+CPOL

Usage	GR64	Q64
Entry deletion	All indexes above deleted entry are decreased by 1	Deleted entry is empty, all other indexes remain unchanged

2.12.10 AT+CREG

No difference.

**AT commands delta between GR plug-in and GR64
Phonebook**

2.13 Phonebook

2.13.1 AT+CPBR

Parameter	GR64	Q64
<index> (Phonebook location index)	For "ME" storage: 1-100 For "DC" storage: 1-30 For "RC", "MC" storage: 1-30 For "EN" storage: 1-18	For "ME" storage: 1-500 For "DC" storage: 1-10 For "RC", "MC" storage: 1-10 For "EN" storage: 1-16
<nlength> (<number> maximum length)	For "ME" storage: 80 For "DC" storage: 22 For "RC", "MC" storage: 22 For "EN" storage: 6	For "ME" storage: 80 For "DC" storage: 80 For "RC", "MC" storage: 80 For "EN" storage: 6
<tlength> (<text> maximum length)	For "ME" storage: 90 For "DC" storage: 90 For "RC", "MC" storage: 90 For "EN" storage: 0	For "ME" storage: 30 For "DC" storage: ** For "RC", "MC" storage: 32 For "EN" storage: 0

(**SIM dependant)

Response parameter	GR64	Q64
<text_datetime> (Date and time)	Supported	Not supported

2.13.2 AT+CPBS

Parameter	GR64	Q64
<storage> (Phonebook memory storage)	For "EN": 18 entries For "ME": 100 entries For "DC": 30 entries For "RC": 30 entries For "MC": 30 entries	For "EN": 16 entries For "ME": 500 entries For "DC": 10 entries For "RC": 10 entries For "MC": 10 entries

2.13.3 AT+CPBW

No difference.

**AT commands delta between GR plug-in and GR64
SMS – Point to Point**

2.14 SMS – Point to Point

2.14.1 AT+E2SMSRI

Usage	GR64	Q64
Parameter storage	Saved by AT&W	Automatically saved

2.14.2 AT+CGSMS

No difference.

2.14.3 AT+CMGF

No difference.

2.14.4 AT+CMGW

Parameter	GR64	Q64
<stat> (Message status)	"STO UNSENT" / 2	"REC UNREAD" / 0 "REC READ" / 1 "STO UNSENT" / 2 "STO SENT" / 3

2.14.5 AT+CMGC

Not supported.

2.14.6 AT+CMGS

Parameter	GR64	Q64
<scts> (TP message reference)	Supported	Not supported
<ackpdu> (RP-User-Data element of RP-ACK PDU)	Supported	Not supported

2.14.7 AT+CMSS

Parameter	GR64	Q64
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**AT commands delta between GR plug-in and GR64
SMS – Point to Point**

<scts> (TP-Service-Centre-Time-Stamp)	Supported	Not supported
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2.14.8 AT+CMGD

No difference.

2.14.9 AT+CMGL

Usage	GR64	Q64
SMS-COMMAND listing	Supported	Not supported

2.14.10 AT+CMGR

Usage	GR64	Q64
SMS-COMMAND reading	Supported	Not supported

2.14.11 AT+CNMI

Parameter	GR64	Q64
<ds> (SMS-STATUS-REPORT routing)	0-1	0-2
<bfr> (TA buffering of unsolicited result codes)	1	0-1
<mode> (Processing mode of unsolicited result codes)	0-2	2

Usage	GR64	Q64
Parameters storage	Saved by AT&W	Saved by AT+CSAS

2.14.12 AT+CPMS

Usage	GR64	Q64
"BM" storage size	30	20

**AT commands delta between GR plug-in and GR64
SMS – Point to Point**

"ME" storage size	100	99
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2.14.13 AT+CSCA

No difference.

2.14.14 AT+CSCS

Parameter	GR64	Q64
<chset>="PCCP437"	Supported	Supported
<chset>="UCS2"	Supported	Not supported
<chset>="GSM"	Supported	Supported
<chset>="IRA"	Supported	Not supported
<chset>="HEX"	Supported	Supported
<chset>="8859-1"	Supported	Not supported
<chset>="PCDN"	Supported	Not supported
<chset>="UTF-8"	Supported	Not supported

2.14.15 AT+CSDH

No difference.

2.14.16 AT+CSMP

Usage	GR64	Q64
SMS-COMMAND settings	Supported	Not supported
Parameters storage	Saved by AT&W	Saved by AT+CSAS

2.14.17 AT+CSMS

No difference.

2.14.18 AT*E2CMGA

No difference.

2.14.19 AT*E2CMGL

Parameter	GR64	Q64
<exclude_body>=1	Test body (UD) of PDU is not	Whole PDU is displayed

**AT commands delta between GR plug-in and GR64
SMS – Point to Point**

	displayed	
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2.14.20 AT*E2CMGR

No difference.

2.14.21 AT+CRES

Parameter	GR64	Q64
<profile> (Profile number)	0-2 (SIM card dependant)	0

2.14.22 AT+CSAS

Parameter	GR64	Q64
<profile> (Profile number)	0-2 (SIM card dependant)	0

Usage	GR64	Q64
Settings storage	Saves AT+CSCA parameters	Saves AT+CSCA, AT+CSMP and AT+CNMI parameters

AT commands delta between GR plug-in and GR64
SMS – Cell Broadcast

2.15 SMS – Cell Broadcast

2.15.1 AT+CSCB

Parameter	GR64	Q64
<mode>=1	Message types in <mids> and <dcss> are not accepted	All message types are rejected

2.15.2 AT+EMWI

Unsolicited response parameter	GR64	Q64
<count> (Number of waiting messages)	Supported	Not supported

Preliminary

AT commands delta between GR plug-in and GR64
SIM

2.16 SIM

2.16.1 AT+CRSM

Usage	GR64	Q64
AT+CRSM?	Not supported	Supported

Parameter	GR64	Q64
<cmd>=214 (Update binary)	Supported	Not supported
<cmd>=220 (Update record)	Supported	Not supported

2.16.2 AT+CSIM

Usage	GR64	Q64
AT+CSIM?	Not supported	Supported

Parameter	GR64	Q64
<command> (SIM command)	No restriction on commands	Only the following commands are supported: READ BINARY READ RECORD FETCH STATUS SELECT SEEK TERMINAL RESPONSE ENVELOPE TERMINAL RESPONSE

2.16.3 AT*ESSE

Parameter	GR64	Q64
<sel>=0 (Internal SIM)	Supported	Not supported

AT commands delta between GR plug-in and GR64

SIM

2.16.4 AT*E2SDR

Response parameter	GR64	Q64
<stat>=0 (Internal SIM is present only)	Supported	Not supported
<stat>=2 (Internal SIM and external SIM are both present)	Supported	Not supported

2.16.5 AT+CPIN

Response parameter	GR64	Q64
<code>=PH-FSIM PUK (Phone-to-very first SIM/UICC card unblocking password)	Supported	Not supported
<code>=PH-NET PUK (Network personalization unblocking password)	Supported	Not supported
<code>=PH-SUBNET PUK (Network subset personalization unblocking password)	Supported	Not supported
<code>=PH-SP PUK (Service provider personalization unblocking password)	Supported	Not supported
<code>=PH-CORP PUK (Corporate personalization unblocking password)	Supported	Not supported
<code>=BLOCKED (SIM card blocked for the user)	Supported	Not supported

Error code	GR64	Q64
AT+CPIN="123456789" (Pin code out of range)	+CME ERROR: 50	+CME ERROR: 3
AT+CPIN="0000" (Wrong pin code 3 rd attempt)	+CME ERROR: 12	+CME ERROR: 16

AT commands delta between GR plug-in and GR64

SIM

2.16.6 AT+EPEE

No difference.

2.16.7 AT+E2SSN

No difference.

2.16.8 AT+CIMI

No difference.

2.16.9 AT*EPIN

No difference.

2.16.10 AT+CNUM

Response parameter	GR64	Q64
<speed> (Data rate)	Supported	Not supported
<service> (Service provided by SIM)	Supported	Not supported
<itc> (Clock)	Supported	Not supported

2.17 SIM Application Toolkit

2.17.1 AT*ESTKMENU

Not supported.

2.17.2 AT*ESTKRES

Not supported.

2.17.3 AT*ESTKS

Not supported.

Preliminary

AT commands delta between GR plug-in and GR64
Supplementary Services

2.18 Supplementary Services

2.18.1 AT+COLP

No difference.

2.18.2 AT+CACM

Parameter	GR64	Q64
Action command syntax	AT+CACM=[<passwd>]	AT+CACM=<passwd>

2.18.3 AT+CAMM

Parameter	GR64	Q64
Action command syntax	AT+CACM=[<acmmax>[,<passwd>]]	AT+CACM=<acmmax>,<passwd>

2.18.4 AT+CAOC

Usage	GR64	Q64
Default value	<mode>=0 (Query CCM value)	<mode>=1 (Deactivate the unsolicited reporting of CCM value)

2.18.5 AT+CPUC

Parameter	GR64	Q64
<passwd> (Password)	SIM PIN1 or SIM PIN2	SIM PIN2
Action command syntax	AT+CPUC=<currency>,<ppu>[,<passwd>]	AT+CPUC=<currency>,<ppu>,<passwd>

2.18.6 AT+CCWE

Usage	GR64	Q64
Unsolicited result code behavior	Shortly before the ACM (Accumulated Call Meter) maximum value is reached, an unsolicited result code +CCWV will be sent, if	The unsolicited result code will be sent, when the accumulated call meter value reaches its maximum – 1

**AT commands delta between GR plug-in and GR64
Supplementary Services**

	enabled by this command. The warning is issued when approximately 30 seconds call time remains. It is also issued when starting a call if less than 30 seconds call time remains	
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2.18.7 AT+CCFC

Parameter	GR64	Q64
<type> (Address type)	All GSM 04.08 types	129, 145, 161
<satype> (Subaddress type)	All GSM 04.08 subaddress types	Not supported
<subaddr> (Subaddress)	All GSM 04.08 subaddresses	Not supported
<class> (Class of information)	1-Voice 2-Data 4-Fax (Not supported) 7-Voice, data and fax 8-Short message service 16-Data circuit sync 32-Data circuit async 64-Dedicated packet access 128-Dedicated PAD access (Sum of integers each representing a class of information)	1-Voice 2-Data 4-Fax (Not supported) 7-Voice, data and fax 8-Short message service (The combination of different classes is not supported, it will only result in the activation/deactivation/status request of all classes(7))
<time> (Time to wait)	Not specified in the GR64 documentation	1-30 For <reason>=2 (No reply), 4 (all calls forwarding) and 5 (all conditional call forwarding), (1 to 30) in seconds before call is forwarded (Default value: 20)

**AT commands delta between GR plug-in and GR64
Supplementary Services**

2.18.8 AT+CCWA

Unsolicited response parameter	GR64	Q64
Unsolicited response format	+CCWA: <number>,<type>,<class>, [,<alpha>],[,<CLI validity>]	+CCWA: <number>,<type> [,<class>],[,<alpha>]
<CLI validity> (Calling Line Identification validity)	0-2	Not supported
<type> (Address type)	All GSM 04.08 address types	129, 145, 161
<classx> (Class of information)	1-Voice 2-Data 4-Fax (Not supported) 7-Voice, data and fax 8-Short message service 16-Data circuit sync 32-Data circuit async 64-Dedicated packet access 128-Dedicated PAD access (Sum of integers each representing a class of information)	1-Voice 2-Data 4-Fax (Not supported) 7-Voice, data and fax 8-Short message service (The combination of different classes is not supported, it will only result in the activation/deactivation/status request of all classes(7))

2.18.9 AT+CHLD

No difference.

2.18.10 AT+CLIP

Unsolicited response parameter	GR64	Q64
<type> (Address type)	All GSM 04.08 address types	129, 145, 161
<satype> (Subaddress type)	All GSM 04.08 subaddress types	129, 145, 161

**AT commands delta between GR plug-in and GR64
Supplementary Services**

2.18.11 AT+CLIR

Usage	GR64	Q64
Parameters storage	Saved by AT&W	Automatically saved

2.18.12 AT+CSSN

Unsolicited response parameter	GR64	Q64
<subaddr> (Subaddress)	Supported	Not supported
<satype> (Subaddress type)	Supported	Not supported
<type> (Address type)	All GSM 04.08 address types	129, 145, 161
<code1>=4 (Closed User Group call, with CUG <index>)	Not supported	Supported
<code2>=1 (Closed User Group call, with CUG <index>)	Not supported	Supported
<code2>=6 (Forward check SS message received (can be received whenever))	Supported	Not supported
<code2>=10 (Additional incoming call forwarded)	Not supported	Supported
Unsolicited response format	+CSSU: <code2>[,<index> [,<number>,<type> [,<subaddr>,<satype>]]]	+CSSU: <code2>[,<index> [,<number>,<type>]]

2.18.13 AT+CUUSD

No difference.

2.18.14 AT*EALS

No difference.

**AT commands delta between GR plug-in and GR64
Supplementary Services**

2.18.15 AT*ESLN

Not supported.

2.18.16 AT*ELIN

No difference.

2.18.17 AT*ECSP

No difference.

Preliminary

2.19 Embedded Applications

2.19.1 AT*E2APC

Not supported.

2.19.2 AT*E2APRV

Not supported.

2.19.3 AT*E2APD

Not supported.

2.19.4 AT*E2APDLY

Not supported.

Preliminary

2.20 Environmental

2.20.1 AT+E20TR

Not supported.

Preliminary