Motorola Wireless Modules

G24-L GSM/GPRS Module

Release notes

Updated on: 10 March 2009
Last SW version: G24-L SW 4-0.660-000
Document version: 4.0

MOTOROLA

Document History

Version	Date	Update reason
0.1	20 Sep. 2007	Release SW 0.224
1.0	20 Jan. 2008	Release SW 0.390
2.0	20 Apr. 2008	Release SW 0.470
3.0	06 Oct. 2008	Release SW 0.610
4.0	10 Mar. 2009	Release SW 0.660

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Software versions & Generic sales models

Model Naming Convention

F67VWXYZ

F67 Fixed number designating G24-L and G24-LC

V Model dependant features
V=0 Basic Quad band GPRS G24-L & G24-LC version.

W Battery Charger capability
W=0 No Charger capability
W=2 Charger capability available

X Flex version
X=A Basic flex settings file
X=B Basic flex settings file for SW release 0.390
X=C Basic flex settings file for SW release 0.470

Y HW version
Y=A First version

Z SW version
Z=A Software version 0.224
Z=B Software version 0.390
Z=C Software version 0.470
Z=D Software version 0.610
Z=E Software version 0.660

Table 1: Generic Sales Models

Model #	SW Version	SVN	Notes
F6700AAA	G24-L SW 4-0.224-000	0x21	NA/ROW
F6702AAA	G24-L SW 4-0.224-000	0x21	NA/ROW
F6700BAB	G24-L SW 4-0.390-000	0x38	NA/ROW
F6702BAB	G24-L SW 4-0.390-100	0x38	NA/ROW
F6700CAC	G24-L SW 4-0.470-000	0x46	NA/ROW
F6702CAC	G24-L SW 4-0.470-100	0x46	NA/ROW
F6700AAD	G24-L SW 4-0.610-000	0x60	NA/ROW
F6702AAD	G24-L SW 4-0.610-100	0x60	NA/ROW
F6700AAE	G24-L SW 4-0.660-000	0x65	NA/ROW

G24-L 4-0.610 to G24-L 4-0.660

Table 2: G24-L-4-0.660 – TCP/IP

1	PR_2338	Support of DNS lookup on port 0 for TCP ODM socket
2	PR_2343	AT+MIPCALL timeout for no response reduced from 2.5 minutes to 30 seconds.
3	PR_2344	TCP/IP "min_to" parameter of the +MIPCONF improvement
4	PR_2353	AT+MIPCALL UDP communication on enhanced reliability of data transfer
5	PR_2360	AT+MIPCALL Support multiple open/close sessions

Table 3: G24-L-4-0.660 – General

1	PR_2342	Syntax change: GSN Query response
2	PR_2358	Multiple AT command line Syntax - response order according to command order
3	PR_2368	MIPODM Improvement of the MIPODM disconnections sequence
4	PR_2371	Audio Echo suppression parameter adjustments

Table 4: G24-L-4-0.660 – Network

1	PR_2351	AT+MDSI Supporting long unsolicited MDSI message.
2	PR_2354	AT+COPS? Updated operator names tables

Table 5: G24-L-4-0.660 – SMS

1	PR_2357	CSCA Setting CSCA interaction with CSD Call - conflict solved
2	PR_2373	Supporting SMS acknowledgment of SMS PID 64 from class '0'

Table 6: G24-L-4-0.660 – Hardware Information

1	PR_2348	Sleep mode HW interrupt is given higher priority than AT command interface.
2	PR_2311	CTS Activating CTS after WAKEUP sequence - Special treatment for the CTS in WAKEUP_I sequence

Table 7: G24-L-4-0.660 – Call Control

1	PR_2355	Call answer indication timing improved
2	PR_2364	Updating emergency call table numbers

G24-L 4-0.470 to G24-L 4-0.610

Table 8: G24-L-4-0.610 – TCP/IP

1	PR_2179	AT First AT command (or AT command string) after the closing of ODM socket is cut.
2	PR_2180	AT+MIPOPEN;MIPCLOSE Enabling reopening a closed socket to both same source port and different source port
3	PR_2182	AT+MIPCFF Support filtering IP address.
4	PR_2205	[Sleep mode] Enable interaction between sleep-mode and TCP commands.
5	PR_2185	AT+MIPCLOSE Support <max_close_delay> parameter
6	PR_2136	AT+MIPCLOSE Unsolicited report after losing coverage will appear with no delay
7	PR_2175	+MIPSTAT +MIPSTAT unsolicited event after reset DTR in ODM
8	PR_2230	AT+MIPOPEN;+MIPRTCP;+MIPPUSH;+MIPCLOSE;+MIPCALL Remove extra CR in the response
9	PR_2233	Improve DNS resolving
10	PR_2234	AT+MIPCLOSE Closing low level stack when closing the ODM socket.
11	PR_2257	RTS Improve interaction - activating the RTS during ODM transfer data and receiving data
12	PR_2260	AT+MIPPUSH Support pushing data with IP and destination port parameters
13	PR_2286	DTR "OK" response after toggle DTR and terminate external GPRS session.
14	PR_2302	CTS CTS behaviour during ODM mode stabilized

Table 9: G24-L-4-0.610 – STK

1	PR_2167	Support of Alphabetical data
2	PR_2200	Improve interaction of STK and SMS
3	PR_2202	Incorrect main menu name in VodaFASTA application
4	PR_2221	Support of specific TIM application

Table 10: G24-L-4-0.610 – General

1	PR_1753	ATZ Will take affect on extended At commands, like CMEE;CLCC;CREG;CGREG;MDSI etc.
2	PR_2192	AT+CNUM Syntax aligned with ETSI.
3	PR_2195	AT+MDMIC Support mic gain in digital audio
4	PR_2080	AT+CPBW Support WILDCARD("?")
5	PR_2258	ATV0 Support configuration.
6	PR_2280	Improve module response to first AT
7	PR_2297	Improve response for multiple AT commands in one line
8	PR_2191	AT+EMPC Support of Subsidy Lock type A - Lock on NW

Table 11: G24-L-4-0.610 – Network

1	PR_2193	AT+CGPRS Implementation separated from the GPRS attachment
2	PR_1685	AT+CGACT Redundant "NO CARRIER" indication for +CGACT deactivation command removed.
3	PR_2227	AT+COPS? Updated Claro name.
4	PR_2186	AT+CCLK NITZ/EONS support of CV test case CV, BTR-1-9190-2
5	PR_2259	AT+COPS=? Missing comma (",") between lists
6	PR_2210	AT+MCI Improved implementation
7	PR_2297	Registration on last registered PLMN algorithm was improved

Table 12: G24-L-4-0.610 – SMS

1	PR_2187	AT+CMGD Support Deletion of all SMS
2	PR_2019	AT+CMGR;CMGL Display of [ ] { } ~ characters
3	PR_2092	AT+CMGL SMS Listing missing a Carriage Return
4	PR_2188	AT+CMGW Interaction with MT call improved
5	PR_2222	AT+MCSAT=0 G24-L is returned ERROR message in the first +MCSAT setting
6	PR_2064	Support SMS PDU Message reference number

7	PR_2201	AT+MRICS Support RI indication on incoming SMS

Table 13: G24-L-4-0.610 – Hardware Information

1	PR_2225	DTR > The module loses the baudrate after deactivating the DTR > AT&D2 support
2	PR_2226	RTS Interaction between RTS line and sleep-mode improved
3	PR_2224	AT+CPIN? Returned READY when removing the SIM (without SIM detect)
4	PR_2248	Flow control Support baudrate synchronization on any AT+XXX and not only AT as standalone
5	PR_2256	RTS Interaction between RTS line and MT call improved
6	PR_2263	AT&K After AT&K setting the module is returned to default baudrate
7	PR_2278	WKUPI&CTS Activating the WKUPI line caused the CTS to be inactive in AT&K0
8	PR_2303	IGN Support of power down by the IGN
9	PR_2292	Toggle of WKUPI without sleepmode being used caused integration issue with specific customer
10	PR_2306	Constant assertion of On/Off line is not rerouted as an interupt – freeing up module resources.

Table 14: G24-L-4-0.610 – Call Control

1	PR_2212	CSD – Stabilize CSD call operation.
2	PR_2209	Support of CV test - atd*123456#

G24-L 4-0.390 to G24-L 4-0.470

Table 15: G24-L-4-0.470 – New Features

New Features		
1	PR_1916	ODM Support ODM interface in internal TCP/IP stack – See table 3
2	PR_2074	STK Define new command for acknowledge (+MTKA) – See table 4
3	PR_2070	MMAD Adding averaging ability – See table 5

Table 16: G24-L-4-0.470 – Internal TCP/IP ODM

ODM - Online Data Mode		
1	PR_1916	AT+MIPODM Initializes a new ODM socket (TCP or UDP) and opens a connection with a remote side
2	PR_1917	AT+MIPODM Data transfer performance was improved
3	PR_2066	AT+MIPOPEN Enable the ability of using destination port greater than 40000
4	PR_2160	AT+MIPOPEN The mechanism of releasing socket was improved
5	PR_2067	AT+MIPCONF Enable the number of retransmissions parameter of +MIPCONF

Table 17: G24-L-4-0.470 – STK

STK - SIM Tool Kit		
1	PR_2074	AT+MTKA Send acknowledge respond from the user (TE) to the STK, use for suspend proactive message “Display Text”
2	PR_2161	STK Memory management mechanism was improved
3	PR_2165	STK Behavior during interaction of STK and MT call was fixed

Table 18: G24-L-4-0.470 – AT+MMAD

A/D converter		
1	PR_2070	MMAD Query and Monitor ADC Value – Adding averaging ability
2	PR_2151	MMAD MMAD reporting and Sleep mode interaction was improved

Table 19: G24-L-4-0.470 – Network

Network		
1	PR_2024	A5/2 encryption was disabled
2	PR_2160	AT+COPS Response in case of floating antenna was fixed
3	PR_2169	AT+CSQ Extra LF in command response was removed

Table 20: G24-L-4-0.470 – SMS

SMS		
1	PR_2072	SMS Sending SM from FD phonebook was improved
2	PR_2120	SMS Reading SM immediately after +CMTI report was improved

Table 21: G24-L-4-0.470 – Hardware Information

Hardware Information		
1	PR_2145	AT&K Ability to save flow control setting by profile was fixed
2	PR_2027	AT+CFUN Behavior of CFUN during E-Call was fixed

Table 22: G24-L-4-0.470 – Call Control

Call Control		
1	PR_2035	AT+MTTY CTM bit behavior was fixed

G24-L 4-0.224 to G24-L 4-0.390

Table 23: G24-L-4-0.390 – New Features

New Features	
1	Internal TCP/IP – The G24-L support internal TCP/IP stack to establish a TCP/IP connection – See table 7
2	Filtering - Protect the G24-L module from non-authorized clients trying to establish an IP connection with it – See table 8
3	STK – SIM Tool Kit - set of applications and related procedures, which may be used in conjunction with SIM or Smart Cards during a GSM session -See table 9

Table 24: G24-L-4-0.390 – Internal TCP/IP

Internal TCP/IP	
1	AT+MIPCALL Sets up a PPP connection with the GGSN.
2	AT+MIPOPEN Initializes a new socket (TCP or UDP) and opens a connection with a remote side.
3	AT+MIPCLOSE Closes an open socket (TCP or UDP).
4	AT+MIPSETS Sets a watermark in the accumulating buffer.
5	AT+MIPSEND Stores the data in the accumulating buffer.
6	AT+MIPPUSH Push the data accumulated in the buffers into the protocol stack.
7	AT+MIPFLUSH Flush (delete) data accumulated in the buffers.
8	+MIPRUDP Unsolicited event is sent by G24-L to the terminal when data is received from the UDP protocol stack.
9	+MIPRTCP Unsolicited event is sent by G24-L to the terminal when data is received from the TCP protocol stack.
10	+MIPSTAT Unsolicited event is sent to the terminal indicating the connection status or activity.
11	+MIPXOFF Flow Control – Xoff - Unsolicited response the G24-L sends to the terminal to stop sending data when it does not have enough memory to process new +MIPSEND requests.
12	+MIPXON Flow Control – Xon - Unsolicited event the G24-L sends to the terminal when it detects that it has free memory in the accumulating buffer and can process new +MIPSEND requests.
13	AT+MIPCONF Configuration of the TCP stack parameters.
14	AT+MPING

	Verifies IP connectivity to the remote machine.
15	+MPINGSTAT Unsolicited response the G24-L sends to the terminal to inform of ping execution status update.
16	AT+MSDNS Configure DNS (Domain Name Server) IP address (primary/secondary) for each socket.

Table 25: G24-L-4-0.390 – Filtering

Filtering	
1	AT+MIPCFF Protects the G24-L from non-authorized clients trying to establish an IP connection with it.

Table 26: G24-L-4-0.390 – STK

STK	
1	AT+MTKR Displays the profile that is downloaded from the G24-L to the SIM during the SIM initialization process.
2	AT+MTKE Enables/disables the SIM ToolKit functionality.
3	AT+MTKP Both command and unsolicited response which identifies the pro-active command sent by the SIM ToolKit and response.
4	AT+MTKM Select items from the STK menu.
5	AT+MTKC Unsolicited events notifying the terminal when supplementary services, SMS Control or Call Control are activated.

Table 27: G24-L-4-0.390 – HW Info

HW Info	
1	AT+MMAD Added functionality to support converter 5.
2	AT+CFUN Removed support in <fun> parameters 2, 3 for this command.

Table 28: G24-L-4-0.390 – Call Control

Call Control	
1	AT+CRTT Ring Tones 16,17,18 were added
2	AT+CUSD Added user action parameters 3, 4, 5 for this command.
3	CSD Call Only non-transparent mode is supported.

G24-L 4-0.224-000

Motorola M2M Wireless Modules are proud to present the latest addition the G24 product family, the G24-Lite module.

G24-Lite is a GSM/GPRS Quad-band RoHS compliant product supporting the right set of features at the right price tag that enables you to go large scale with your M2M applications.

The G24-Lite is fully type approved and complies with strict quality standards.
The module supports GSM 07.05 and GSM 07.07 AT command sets as well as a set of various Motorola proprietary commands – Full details can be found in the AT commands reference manual. The product supports 2 basic configurations, G24-L and G24-LC (C stands for charger capability).

Amongst the features that will be available in future releases:
Internal TCP/IP stack, 115200 baud rate in RS232, GSM 07.10 – MUX protocol, Cell Broadcast, STK commands, Fax.

For further information please contact your distributor or our customer care team at M2MCare@motorola.com.