



**MOTOROLA**

# Release Notes

G24 GSM Wireless Module Family



## Technical Information Motorola G24 Release Notes

Release Version: G24\_G\_0C.11-C1R

*Sep. 06<sup>th</sup>, 2009*





## History

Document version	Date	Update reason
0.1	Sep 06, 2009	Creation

## Table of content

Software versions & Generic sales models.....	4
G24_G_0C.11-B6R to G24_G_0C.11-C1R .....	6
G24_G_0C.11-B2R to G24_G_0C.11-B6R .....	8
G24-G-0C-11-95R to G24-G-0C-11-B2R.....	10
G24-G-0C-11-80R to G24-G-0C-11-95R.....	13
G24-G-0C-11-70R to G24-G-0C-11-80R.....	16
G24-G-0C-11-61R to G24-G-0C-11-70R.....	18
G24-G-0C-11-52R to G24-G-0C-11-61R.....	20
G24-G-0C-11-45R to G24-G-0C-11-52R.....	22
G24-G-0C-11-45R .....	23

## List of tables

Table 1: SW versions & SVN numbers .....	5
Table 2: Generic Sales models.....	5
Table 3 : G24_G_0C.11.C1R - New Features .....	6
Table 4: G24_G_0C.11.C1R - Miscellaneous .....	6
Table 5: G24_G_0C.11.C1R – TCP/IP stack .....	6
Table 6: G24_G_0C.11.C1R - Java .....	7
Table 7: G24_G_0C.11.B6R - New Features .....	8
Table 8: G24_G_0C.11.B6R - Miscellaneous .....	8
Table 9: G24_G_0C.11.B6R – TCP/IP stack .....	9
Table 10: G24_G_0C.11.B6R - Java .....	9
Table 11: G24_G_0C.11.B2R - New Features .....	10
Table 12: G24_G_0C.11.B2R - Java .....	10
Table 13: G24_G_0C.11.B2R – GPRS & TCP/IP stack .....	11
Table 14: G24_G_0C.11.B2R - Phonebooks.....	11
Table 15: G24_G_0C.11.B2R - Miscellaneous .....	12
Table 16: G24_G_0C.11.95R - New Features.....	13
Table 17: G24_G_0C.11.95R - Call Control.....	13
Table 18: G24_G_0C.11.95R – GPRS & TCP/IP stack.....	14
Table 19: G24_G_0C.11.95R - Phonebooks .....	14
Table 20: G24_G_0C.11.95R - Audio.....	14
Table 21: G24_G_0C.11.95R - Miscellaneous.....	15
Table 22: G24_G_0C.11.80R - New Features.....	16
Table 23: G24_G_0C.11.80R - Call Control.....	16
Table 24: G24_G_0C.11.80R – GPRS & TCP/IP stack.....	17



Table 25: G24_G_OC.11.80R - Phonebooks .....	17
Table 26: G24_G_OC.11.80R - Miscellaneous.....	17
Table 27: G24_G_OC.11.70R - New Features.....	18
Table 28: G24_G_OC.11.70R - Call Control.....	18
Table 29: G24_G_OC.11.70R – GPRS & TCP/IP stack.....	18
Table 30: G24_G_OC.11.70R - Phonebooks .....	19
Table 31: G24_G_OC.11.70R - Miscellaneous.....	19
Table 32: G24_G_OC.11.61R - New Features.....	20
Table 33: G24_G_OC.11.61R - Network.....	20
Table 34: G24_G_OC.11.61R - Call Control .....	20
Table 35: G24_G_OC.11.61R - TCP/IP stack.....	21
Table 36: G24_G_OC.11.61R - Phonebooks .....	21
Table 37: G24_G_OC.11.61R - Miscellaneous.....	21
Table 38: G24_G_OC.11.52R - New Features.....	22
Table 39: G24_G_OC.11.52R - Phonebooks .....	22
Table 40: G24_G_OC.11.52R – Call Control .....	22
Table 41: G24_G_OC.11.52R - SMS.....	22



## Software versions & Generic sales models

### Model Naming Convention –

F6UVWXYZ

- U** G24 type.  
U=4 Fixed number designating G24  
U=5 Fixed number designating G24 Java  
U=6 Fixed number designating G24 extended temperature range
- V** Model dependant features.  
V=0 Basic Quad band GPRS G24 version.  
V=1 Quad band EDGE  
V=2 Dual band 900/1800  
V=3 Dual band 850/1900  
V=6 Dual band 900/1800 EDGE  
V=7 Dual band 850/1900 EDGE
- W** Connector height.  
W=2 stands for 2.5mm  
W=3 stands for 3mm  
W=5 stands for 5mm
- X** Flex version  
X=A Basic flex settings file.  
X=C Lock on first SIM HPLMN
- Y** HW version  
Y=A First version  
Y=B HMI version
- Z** SW version  
Z=A Software version 45R  
Z=B Software version 52R  
Z=C Software version 61R  
Z=D Software version 70R  
Z=E Software version 80R  
Z=F Software version 95R  
Z=G Software version B2R  
Z=H Software version B6R  
Z=L Software Version C1R



**Table 1: SW versions & SVN numbers**

SW Version	SVN	Model Suffix
G24_G_0C.11.C1R	0x95	L

**Table 2: Generic Sales models**

Description	Model #	Approved
Quad band Non-EDGE	F6403AAL	PTCRB & GCF
Quad band EDGE	F6413AAL	PTCRB & GCF
Dual band Euro Non-EDGE	F6423AAL	GCF
Dual band NA Non-EDGE	F6433AAL	PTCRB
Dual band Euro EDGE	F6463AAL	GCF
Dual band NA EDGE	F6473AAL	PTCRB
Quad band Non-EDGE Java	F6503AAL	PTCRB & GCF
Quad band Non-EDGE Java HMI	F6503ABL	PTCRB & GCF
Quad band EDGE Java	F6513AAL	PTCRB & GCF
Dual band Euro Non-EDGE Java	F6523AAL	GCF
Dual band NA Non-EDGE Java	F6533AAL	PTCRB
Dual band Euro EDGE Java	F6563AAL	GCF
Dual band NA EDGE Java	F6573AAL	PTCRB



## G24\_G\_0C.11-B6R to G24\_G\_0C.11-C1R

**Table 3 : G24\_G\_0C.11.C1R - New Features**

New Features		
1	LIBss45373	<u>AT+MCMI</u> Displays call messages indication, and enables/disables the unsolicited indication report.
2	LIBrr90828	Java New User MIDlet (UM) features: <ul style="list-style-type: none"> <li>• In case of UM crash, re-run is supported. Number of re-run attempts is configurable via a JTool command.</li> <li>• DM is now able listen to action SMSs on 6024 in addition to 16001.</li> <li>• UM invalidity flag can be cleared by sending an SMS to DM.</li> </ul>

**Table 4: G24\_G\_0C.11.C1R - Miscellaneous**

Miscellaneous		
1	LIBpp89051	<u>AT+MEMAS</u> User name supported
2	LIBpp89293	Reading e-mail message from Inbox folder when memory is full - supported
3	LIBqq13407	<u>AT+TPIN</u> Saving CHV1 value after power cycle is supported
4	LIBss05928	Email - SMTP authentication is fully supported
5	LIBrr58558	FTP –closure is fully functional
6	LIBqq04617	Increase preferred PLMN list up to 100 entries.
7	LIBqq84654	<u>AT+MJDC</u> Add option 2: solicited report.
8	LIBrr37826	After SIMTK PPLMN refresh, the network is rescanned
9	LIBrr50112	Change USSD Phase1 to use 7 bit DCS coding scheme
10	LIBss21762	Add support to Network Selection/ Foreign Entries required by AT&T
11	libss72035	G24 behavior is not affected when attempting to connect to un-available IP.
12	LIBtt05042	Moto SIM ToolKit ‘Get Input’ proactive command is fully supported

**Table 5: G24\_G\_0C.11.C1R – TCP/IP stack**

TCP/IP stack		
1	LIBss73436	Fixed wrong DTR handling when ODM and module is in pseudo command mode.
2	LIBss34609	Multiple PDP contexts are fully functional during MIPCall.

**Table 6: G24\_G\_0C.11.C1R - Java**

Java		
1	LIBpp80325	Native MMS is now fully functional
2	LIBqq14504	KEEPALIVE is fully functional.
3	LIBqq23013	Enhanced Power-Down process while Java App is running.
4	LIBqq28140	File name full path - maximal length in the file system is increased to 258.
5	LIBqq01426	Time zone delta added to Network clock feedback (getNITZClock()).
6	LIBqq47794	Time Zone auto update – disable mode is fully supported
7	LIBrr87247	Large files writing to file system process is improved.
8	LIBrr90700	<u>AT+MAPATH</u> Partial mode is enabled. That in order to route the multimedia audio in java.
9	LIBss33130	Retries OTA attempts is now supported.
10	LIBss36816	New returned failure messages upon an OTA failure
11	LIBss71120	TCP socket closure is fully functional.

## G24\_G\_0C.11-B2R to G24\_G\_0C.11-B6R

Table 7: G24\_G\_0C.11.B6R - New Features

New Features		
1	LIBpp04218	<u>AT+MJDC</u> Jamming detection.
2	LIBoo48167	<u>AT+CMUX</u> MUX support over USB.
3	LIBpp60853 LIBpp74855	<u>AT+MCI</u> Add new parameters: cell ID and LAC to MCI command.
4	LIBnn67070	<u>+CPOL,+CPLS,+COPS,+COPN</u> Implementation in accordance to 3GPP TS 27.007
5	LIBoo10965	IP over CSD call
6	LIBpp62667	<u>AT+MIPCALL</u> Add keep alive options to TCP socket
7	LIBoo70866	<u>AT+MGAUTH</u> Command for setting authentication Protocol (CHAP / PAP).
8	LIBpp29834	<u>AT+MIPOPEN</u> Enable opening a new listen TCP socket on existing source port
9	LIBpp04218	Java - Jamming detection.
10	LIBpp23128	Java - GPRS Attach/Detach API
11	LIBnn26036	Java - New Network API : limit of Preferred Operators.
12	LIBoo52758	Java - Add APIs which control start and stop bits.
13	LIBoo52435	Java - Implement +CPOL and +CPLS

Table 8: G24\_G\_0C.11.B6R - Miscellaneous

Miscellaneous		
1	LIBoo49356	<u>AT+MFOTABS</u> FOTA: Init G24 for bootstrapping.
2	LIBoo56680	Remove +CREG: 002 false indication when G24 is registered for GSM services but GPRS attach was rejected by NW and only one NW is available.
3	LIBoo62504	Disable emergency call placement in airplane mode.
4	LIBoo80649	Support PDU SMS when FD is enabled.
5	LIBoo78719	Operator name is enhanced to support 24 characters.
6	LIBoo78905	G24 alerts when receiving USSD "hello" message.
7	LIBmm52354	NITZ Network Name Update
8	LIBoo80651	Signaling error affect on SMS transmitting is eliminated.
9	LIBoo82230	DTMF string after second comma to be sent to NW.
10	LIBoo78601	<u>AT+CMGR,+CMGL</u> Support Broadcast SMS in PDU mode
11	LIBpp13975	Mark SMS "sent" after sending when FD enabled.

12	LIBoo91272	Interaction between GPRS deactivation using DTR toggle and LCP termination
13	LIBpp01334	STK support of UCS2
14	LIBpp16453	<u>+MEDT</u> Enhance to enable/disable loud ring reminders.
15	LIBpp23200	Support +COPS +CPIN +CGDCONT over all the MUX channels.
16	LIBpp08462	SW Flow Control: send/receive file as text bidirectional is supported
17	LIBpp51292	Workflow Vs. CMU200 in Test Mode.
18	LIBpp71599	Fix read, store and delete of SMS's after receiving MT MMS notification.

**Table 9: G24\_G\_0C.11.B6R – TCP/IP stack**

<b>TCP/IP stack</b>		
1	LIBpp09816	Unresolved DNS causes inability to close socket
2	LIBpp13238	When ODM session is closed - MIP sockets data is sent
3	LIBpp23852	Support of SSL in ODM session data transfer.
4	LIBnn16588	ODM: Data transfer synchronization is fixed
5	LIBpp34580	TCP socket closing in case of incorrect remote side message fixed.
6	LIBpp34597	Incorrect non-ODM sockets data processing when ODM session suspended
7	LIBpp48156	Closing the ODM UDP socket fixed.
8	LIBnn40236	FTP stabilized
9	LIBoo76897	Return to pseudo-command mode from ODM enabled
10	LIBpp77810	Support MPING over USB
11	LIBpp16383	<u>AT+MEMW</u> new implementation
12	LIBpp26229	E-mail message delete process

**Table 10: G24\_G\_0C.11.B6R - Java**

<b>Java</b>		
1	LIBnn66243	Disable unknown BROWSER dialogs during OTA downloading in Java.
2	LIBoo44216	Support opening two servers on the same port in Java.
3	LIBoo46635	I2C can read or write without register address
4	LIBmm76797	Throw Exception in case phone book database isn't ready.
5	LIBoo18301	Server socket stability after several reopening
6	LIBmm41865	Access to Cell Broadcast settings is available
7	LIBpp62233	Refine exceptions when trying to establish MO call

## G24-G-0C-11-95R to G24-G-0C-11-B2R

**Table 11: G24\_G\_0C.11.B2R - New Features**

<b>New Features</b>		
1	LIBmm78480	JAVA: I2C API
2	LIBmm79945	JAVA: HMI (Display) support
3	LIBnn30887	JAVA: Location API(JSR179)
4	LIBmm51834	<u>AT+MTKR; MTKE; MTKP; MTKM; MTKC</u> STK AT commands.
5	LIBhh65807	<u>AT+MALARM; MALMH; MDBGD; MDBR; MDBW; MDBWE</u> Date book functionality
6	LIBnn18539	<u>AT+MHUP</u> Extension of +CHUP
7	LIBll93187	<u>AT+CMUX</u> Support of MUX software flow control in basic mode.
8	LIBkk75515	<u>AT+MHDPB</u> Enable and disable the SEND/END functionality of the headset dual-position button.
9	LIBnn26053	FOTA support. For more details contact customer care.

**Table 12: G24\_G\_0C.11.B2R - Java**

<b>Java</b>		
1	LIBmm30254	Incoming CBS data integrity is verified
2	LIBmm31469	Reject Browser Message provisioning according to settings
3	LIBmm49336	Close server socket, when client side closes connection.
4	LIBmm54182	Support backspace regular expression in JTool Parser.
5	LIBmm15698	Exception handling during MMS session provisioning
6	LIBmm28588	KDWP improvement
7	LIBnn16572	Allow AT+CPAS command in partial Java mode
8	LIBmm31094	The user MIDlet's current web session is restored after OTA
9	LIBmm38860	Trusted MIDlet protection from being overwritten by untrusted MIDlet
10	LIBmm90076	OSC.getPowerUpReason() returned values were updated
11	LIBmm41799	Synchronization of VM and MMGR-JTool GPIO
12	LIBmm41808	Memory allocation improvement
13	LIBmm75997	Memory leak in IOException code was fixed
14	LIBmm76808	While VM loads, it will not be suspended by an incoming call (rejected).
15	LIBnn26130	Operator name in alpha returns with the last registered operator even if the G24 is not registered anymore.

16	LIBmm21330	Block commands that shouldn't be working without PIN
17	LIBmm76793	FileConnection API was improved
18	LIBnn59782	"No flow control" support n CommConnection API
19	LIBnn09666	IPD inactive state event was missed sometimes when *99# is disconnected in Java Mode
20	LIBnn11988	While in JTool mode, recurring IPD state changes were redundant
21	LIBnn15574	IP Director - DCD line behavior improved while using local socket
22	LIBnn30920	IP Director - Opening client socket several times supported
23	LIBnn10829	IP Director - UDP behavior while using local socket improved
24	LIBnn09654	IP Director – Support TCP Server return address

**Table 13: G24\_G\_0C.11.B2R – GPRS & TCP/IP stack**

<b>TCP/IP stack</b>		
1	LIBoo03893	<u>AT+MIPSETS</u> Add timeout parameter to command.
2	LIBmm07383	<u>AT+MIPCLOSE</u> Closing Online data (ODM) session and TCP socket improved.
3	LIBmm50542	Correction of packets splitting in TCP connection data transfer.
4	LIBmm71250	<u>AT+MEML; MEMR</u> Additional parameters and options were added: priority, number of attachments, and size of email.
5	LIBmm47577	Email: concatenated MSG: The number of CR LF symbols was fixed.
6	LIBmm31113	Support SSL in e-mail commands.
7	LIBmm82324	<u>AT+MIPODM</u> Switch from Online Data (ODM) to command mode and vice versa was improved as well as the CTS line behavior. Extended errors were refined.
8	LIBoo20406	Increase username and password length in GPRS activation to 64 characters

**Table 14: G24\_G\_0C.11.B2R - Phonebooks**

<b>Phonebooks</b>		
1	LIBll77537	<u>AT+CPBS; CPBF</u> Support of commands when "FD" is enabled.

**Table 15: G24\_G\_0C.11.B2R - Miscellaneous**

<b>Misc.</b>		
1	LIBll82578	AT+MMAD Add average reporting.
2	LIBmm91406	AT+MCELL Add last optional parameter, which is 0 by default. That means the output is multiline.
3	LIBll80871	AT+CLCK Change error from “unknown” to “operation not allowed” on "AO", "AI", "IR" facilities.
4	LIBmm07370	Synchronization of PIN2 unlocking in case of EPIN and CPUC and CPIN commands.
5	LIBnn22172	Open MIP commands on DLC3 of MUX.
6	LIBmm85851	AT+MMAD The returned value of +MMAD for channel 5 (DC) is accurate.
7	LIBnn22169	+CREG On first camping- G24 will not indicates registration (+CREG: 1 or +CREG: 5).
8	LIBnn04051	AT+CUSD Support phase 2 according to GSM07.07
9	LIBmm74830	When SW Flow Control is enabled (AT&K4), CTS line is de-asserted.
10	LIBnn15270	During data transmission (on 460800 bit/s baud-rate) CTS line de-asserted, but not asserted anymore.
11	LIBnn31271	AT+MCSAT After illegal input alert tone was wrongly disabled for all DCS's
12	LIBoo01582	Write mechanism to memory was improved to be more robust.



## G24-G-0C-11-80R to G24-G-0C-11-95R

**Table 16: G24\_G\_0C.11.95R - New Features**

<b>New Features</b>		
1		<u>Java</u> – Feature that enables the G24 to perform as a stand alone controller. Giving the host device the option to run a java MIDlet on the G24 processor using its memory. See latest product sheet for full details.
2	LIBll23720	<u>AT+MTTY</u> Enable TTY feature and open AT+MTTY for G24
3	LIBll01716	<u>AT+MIPCF</u> Add IP filtering capability to listen socket for TCP connections.
4	LIBll59384	<u>AT+MIPCALL, MIPODM</u> SSL (Secure Socket Layer) support for MIP-commands.
5	LIBll59288	<u>AT+MRICS</u> Enable RI indicator for incoming SMS
6	LIBll80710	<u>AT+MEDT</u> Control of audio tones
7	LIBkk33143	<u>AT+MEMXX</u> Support e-mail functionality
8	LIBll23013	<u>FTP "Beta" implementation</u> For details on the implementation of this feature please contact the M2MCare@motorola.com Customer Care team.

**Table 17: G24\_G\_0C.11.95R - Call Control**

<b>Call Control</b>		
1	LIBmm14632	<u>ATH; AT+CHLD</u> Enable hang up of call when call state is connecting
2	LIBll34796	<u>AT+CMUX</u> Disconnect incoming call when exiting MUX state.
3	LIBmm27243	<u>AT+MDC</u> Enable MDC command in MUX.
4	LIBmm55809	<u>ATH; AT+CHLD</u> Remove redundant NO CARRIER when hanging up an unanswered incoming call.

**Table 18: G24\_G\_0C.11.95R – GPRS & TCP/IP stack**

<b>TCP/IP stack</b>		
1	LIBll94368	<u>ATD*99</u> Interaction of incoming call and GPRS session when &D1 is set was improved.
2	LIBmm07923	In LCP Echo-Reply packets Magic Number field will be equal to negotiated value at connection time
3	LIBmm01121	<u>AT+MIPODM</u> Interaction between unanswered CS calls and command mode was improved.
4	LIBmm15936	<u>AT+MIPODM</u> When the far side resets the connection, close the connection on the G24 side in a complete manner.
5	LIBll02968	<u>ATD*99</u> Handling of wrong incoming frame structure in ppp
6	LIBll07837	Interaction between deactivating GPRS by toggling the DTR and behavior of the DCD line was refined.
7	LIBll17773	<u>AT+CMUX</u> PDP context deactivation before MUX closing.
8	LIBmm20505	For &c2 when GPRS is deactivated by DTR diss-assert the DCD line
9	LIBjj25618	<u>AT+MIPCLOSE</u> MIPCLOSE will report closing of a socket only after remote side acknowledges. An additional parameter was added to the response of the command.
10	LIBmm03140	<u>AT+MIPODM</u> Prevent data loss when both sides of the connection are G24.

**Table 19: G24\_G\_0C.11.95R - Phonebooks**

<b>Phonebooks</b>		
1	LIBll66691	<u>AT+CPBS</u> Add additional "pin 2" parameter for "FD" (fixed dialing) phone selection. When "pin 2" is given the AT+CPBW (write) to the phonebook is enabled.

**Table 20: G24\_G\_0C.11.95R - Audio**

<b>Audio</b>		
1	LIBll95739	<u>AT+MMICG</u> Enable/Disable setting of microphone level in digital audio mode
2	LIBkk93369	<u>AT+MVC</u> Support selecting between one to five vocoders.
3	LIBll48347	<u>AT+MAMUT ; AT+CMUT</u> Support commands in digital audio

**Table 21: G24\_G\_0C.11.95R - Miscellaneous**

<b>Misc.</b>		
1	LIBkk81559	<u>AT+CRSM</u> Add CPHS elementary files support to +CRSM feature
2	LIBkk78702	<u>AT+CMGS</u> In PDU mode, if entered data is incorrect, DCD line will go down.
3	LIBjj47093	<u>ATI9</u> Output after "-" character will be presented
4	LIBll51049	<u>AT+CMUX</u> For &D4, DTR line toggle will close the MUX session
5	LIBll58070	<u>AT+CMUX</u> Support baud rates higher than 115200
6	LIBll56175	DSP stack upgrade
7	LIBll58891	Support Logging on UART2 and entering sleep mode.
8	LIBll64241	<u>AT+CREG</u> Return +CREG: 0 in case of "IMSI unknown in HLR"
9	LIBhh39912	<u>ATS7</u> Support of ATS7 in MUX mode
10	LIBll78139	<u>ATS100</u> Save ATS100 parameter in Non Volatile Memory – Setting will remain after power cycle.
11	LIBll94197	<u>AT+COPS</u> Support command when SIM is not inserted
12	LIBkk77024	<u>AT+EPIN;AT+CPIN</u> Synchronization between the two commands was improved.
13	LIBll98461	Customer specific (flex dependant behavior) – Wake up line is asserted after power up.
14	LIBll00665	<u>AT+CMER</u> Enable CDEV operation
15	LIBll39036	<u>AT+CMUX</u> BUF's leak during data transmitting in MUX.
16	LIBll27941	<u>+CMGS</u> Update reference number for MO SMS +CMGS indication.
17	LIBmm21711	Enable recovery if a power cut occurred during a write operation to two files
18	LIBmm29669	Interaction between Wakeup In and CTS lines was refined.
19	LIBmm24226	<u>AT+TWUS</u> When TWUS is set, wakeup out line will be asserted. (Customer config. file dependent)
21	LIBmm23119	<u>AT+CMGS</u> Block SMS reading while G24 is in Subsidy Lock
22	LIBmm33981	<u>AT+TWUR</u> - In MUX mode TWUR will wakeup out line off
23	LIBll77906	AT+CBC Tune battery range values.

## G24-G-0C-11-70R to G24-G-0C-11-80R

**Table 22: G24\_G\_0C.11.80R - New Features**

<b>New Features</b>		
1	LIBhh65809	<u>AT+MVREF</u> Motorola Voltage Reference - This command controls the Vref regulator's configuration and behavior in sleep mode.
2	LIBhh65811	<u>AT+MMAD</u> Support of additional parameter to read the input voltage
3	LIBjj76757	<u>AT+MPSU</u> Support of 2 physical UARTS
4	LIBkk26660	<u>AT+MNTFY</u> Gives the option to get a notification that a land line hanged up/resumed a call (notifies far side hook status). This gives the application an option to decide to disconnect the call immediately and not wait until the landline does it (the time varies upon the operator).
5	LIBkk28187	<u>AT+MCELL</u> Command that gives information on the network conditions.
6	LIBkk61639	<u>AT+MIPCALL; AT+MIPODM</u> Support of incoming TCP connection
7	LIBkk63031	<u>AT+MVC</u> Control Vocoders configuration
8	LIBjj85645	<u>AT+MCEG</u> Enable or disable EGPRS support – This command is available only in G24's that are EDGE enabled from factory.
9	LIBii20080	<u>AT+MCI</u> Add TA information to the MCI (Cell information) command.

**Table 23: G24\_G\_0C.11.80R - Call Control**

<b>Call Control</b>		
1	LIBkk11406	<u>AT+TCLCC</u> Exit cause to be presented when dialing e-call
2	LIBjj31971	<u>AT+CLCC</u> Interaction of e-call in MPTY state.
3	LIBkk26666	<u>AT+CLCC</u> Call status when changing from "waiting" to "alerting" is updated.
4	LIBkk73520	<u>AT+CHLD</u> RI indicator behavior within MPTY has been improved.

**Table 24: G24\_G\_0C.11.80R – GPRS & TCP/IP stack**

<b>TCP/IP stack</b>		
1	Libjj81949	<u>AT+MIPODM</u> Handling of server side releasing the connection.
2	LIBkk45366	<u>AT+MIPOPEN</u> Support of domain name in UDP

**Table 25: G24\_G\_0C.11.80R - Phonebooks**

<b>Phonebooks</b>		
1	LIBkk36181	<u>AT+CPBW</u> Character set UTF8 – return error if input is to long and cannot be fully stored in the SIM Character set GSM – support of extended character set.
2	LIBkk77640	<u>AT+CPBW</u> Support wild cards in FD phonebook.

**Table 26: G24\_G\_0C.11.80R - Miscellaneous**

<b>Misc.</b>		
1	LIBjj65891	<u>AT+MMAD</u> The command will work regardless of registration status.
2	LIBjj68548	<u>AT+MMICG</u> Support in digital mode.
3	LIBkk21611	<u>AT+CFUN</u> Syntaks – accept CFUN=1
4	LIBkk84360 LIBkk84370	Avoid lock-up if SIM communication is damaged in the middle of a deactivation process.
5	LIBkk89995	<u>AT+TFCC</u> Support EDGE testing option
6	NO CR	Up-merge to KAZAR base line of: GSM stack base line label: STACK_G_04.53.39I DSP label - DSP-G_P_63.34.34_R

## G24-G-0C-11-61R to G24-G-0C-11-70R

**Table 27: G24\_G\_0C.11.70R - New Features**

<b>New Features</b>		
1	LIBjj56087	<u>AT+MIPODM</u> Support "Online Data Mode" in the internal TCP stack.
2	LIBhh65802	<u>AT+MSDNS</u> Enables setting the DNS server address.
3	LIBhh52814	<u>AT+CFUN</u> Support of disabling/enabling the module RX/TX functionality.
4	LIBjj17624	<u>AT+MGEER</u> Returns extended error report for failed GPRS activation
5	LIBii91531	<u>ATD</u> Support pauses ("," character) in sending DTMF in dial string.
6	LIBhh79008	<u>AT+MPCMC</u> Support Continuous PCM clock

**Table 28: G24\_G\_0C.11.70R - Call Control**

<b>Call Control</b>		
1	LIBhh45690	<u>ATD</u> Display of alpha tag "Emergency" when dialing an e-call
2	LIBii82203	<u>ATD</u> Enable calls if SIM card was removed and re-inserted during an e-call
3	LIBjj60570	<u>ATD</u> In a data call, block any data from appearing before "CONNECT" is displayed.

**Table 29: G24\_G\_0C.11.70R – GPRS & TCP/IP stack**

<b>TCP/IP stack</b>		
1	LIBjj18716	<u>AT+MIPCALL</u> DCD to indicate connection closed.
2	LIBhh48844	<u>DTR</u> DTR functionality will not be blocked by BER threshold.
3	LIBjj45765	<u>AT+MIPOPEN</u> Support opening two sockets in one command line



Table 30: G24\_G\_0C.11.70R - Phonebooks

<b>Phonebooks</b>		
1	LIBii32771	<u>AT+CPBW</u> Support alpha tags longer than 24 characters.
	LIBjj05001	When SIM card related command fails do to the SIM card coming up, the error code returned will be SIM BUSY instead of MEMORY FAILURE.

Table 31: G24\_G\_0C.11.70R - Miscellaneous

<b>Misc.</b>		
1	LIBii94132	Enter sleep mode regardless of SIM state (pin required or not)
2	LIBii50438	PCM clock behavior on power up is set not to transmit continuously.
3	LIBjj13157	Reduce power down time when logger on UART 2 is running.
4	LIBii94316	SIM reset and SIM vcc lines behavior when turning off through IGN line was changed to match ON/OFF behavior.
5	LIBii68355	<u>AT+MMAD</u> Remove redundant <CR><LF> between result codes.
6	LIBjj18078	<u>AT+MMICG</u> Support MMICG in digital audio mode.

## G24-G-0C-11-52R to G24-G-0C-11-61R

**Table 32: G24\_G\_0C.11.61R - New Features**

<b>New Features</b>		
1	LIBii02622	<u>AT+CGEQREQ; +CGEQMIN; +CGEQNEG</u> EDGE support, enable QoS commands
2	LIBhh88948	<u>AT+TADIAG</u> Telematics antenna diagnostics
3	LIBii06231	<u>AT+TWUS; +TWUR</u> Telematics wake up line control
4	LIBii08759	<u>AT+TCLCC</u> Telematics list current calls
5	LIBii10464	Enable flex dependant option for UART2 Data Logging
6	LIBii23465	<u>AT+CLAN</u> Controls preferred language in the SIM card
7	LIBii44494	<u>AT+CFSN</u> Read Factory Serial Number
8	LIBhh65800	<u>AT+CRSM</u> Restricted SIM access command according to ETSI 07.07
9	LIBhh52582	<u>AT+MMAD</u> Monitor analog to digital conversion and module temperature.
10	LIBhh64899	<u>AT+MGGIND</u> GSM/GPRS service indicator
11	LIBhh65804	<u>AT+MPING</u> Ping a remote computer
12	LIBii59309	<u>AT+EPIN</u> Enables unlocking and interrogating the subsidy lock status of the SIM.
13	LIBhh65801	<u>AT+MIPOPEN</u> Additional support for entering a Domain Name and not only an IP address.

**Table 33: G24\_G\_0C.11.61R - Network**

<b>Network</b>		
1	LIBhh91637	New requirement from Cingular network - MS should attach when FH (frequency hopping) is on in PDTCH (future feature in the Cingular NW)
2	LIBii81940	Update PLMN name list

**Table 34: G24\_G\_0C.11.61R - Call Control**

<b>Call Control</b>		
1	LIBii14314	<u>ATH</u> Command is received during a call release process

**Table 35: G24\_G\_0C.11.61R - TCP/IP stack**

<b>TCP/IP stack</b>		
1	LIBii81297	ICMP Echo reply header fields were adjusted

**Table 36: G24\_G\_0C.11.61R - Phonebooks**

<b>Phonebooks</b>		
1	LIBii62608	When changing the SIM-card without resetting the unit, the module provided the previous SIM phonebook

**Table 37: G24\_G\_0C.11.61R - Miscellaneous**

<b>Misc.</b>		
1	LIBii62608	<u>AT+TPIN</u> Data is updated on SIM removal
2	LIBii38280	<u>AT+CMGS</u> Add error report if +CMGS failed after it was aborted
3	LIBii52823	If feature is set in the flex (default is not set) , send "READY" string to DTE only on first power up.
4	LIBhh35084	<u>AT+CCWA</u> Indication added when G24 gets an incoming call when it already has an active and held call.
5	LIBii14315	<u>AT+CREG</u> Update to provide correct cell ID in a specific NW condition.
6	LIBii14327	<u>AT+CCFC</u> Support Unicode character in relation to Call Forward functionality.
7	LIBii25533	<u>ATI7</u> Returns an updated string "G24 OEM Module"
8	LIBii75583	<u>AT+COPS</u> COPS command indication in roaming was updated to cover a specific NW condition.
9	LIBii35065	<u>AT+MHIG</u> Remove command
10	LIBii06739	Interaction between MUX and CSD call was improved.
11	LIBii81223	<u>AT+IPR; CBAUD</u> Support setting all the declared values.
12	LIBhh45549	<u>AT+MCI</u> Return empty string if requested band is not supported

## G24-G-0C-11-45R to G24-G-0C-11-52R

**Table 38: G24\_G\_0C.11.52R - New Features**

<b>New Features</b>		
1	LIBhh62583	<u>AT+MIOD, AT+MIOC</u> Control over 8 GPIO lines – can be configured as input or output using AT+MIOD and AT+MIOC commands
2	LIBhh63178	<u>AT+MFIC</u> Enables filtering out predefined phone numbers.
3	LIBhh83463	<u>AT+TPIN</u> Command keeps track of the number of SIM PIN/PUK attempts left.
4	LIBii11542	A flex dependant option to receive an unsolicited indication “READY” on power up, when UART is ready for communication.
5	LIBhh50194	<u>AT+EMPC</u> Command handles subsidy lock – read status and enter unlock code.
6	LIBhh80712	<u>AT+CIND</u> command reads out the status of various G24 indicators: Signal Strength, Service Status, Message Waiting, Call Status, Roaming, SMS Full & SIM Inserted/Removed.
7	LIBgg20743	<u>PC-Loader</u> Support RS232 SW upgrade of the unit.

**Table 39: G24\_G\_0C.11.52R - Phonebooks**

<b>Phonebooks</b>		
1	LIBff85849	<u>AT+CPBW</u> Fix characters being cut off when storing in specific character sets.

**Table 40: G24\_G\_0C.11.52R – Call Control**

<b>Call Control</b>		
1	LIBii05180	<u>ATD</u> - Support Alpha dialing when character set ASCII is set.
2	LIBff82621	<u>ATA</u> - Prevent ATA from releasing an MO call when given at the alert stage.

**Table 41: G24\_G\_0C.11.52R - SMS**

<b>SMS</b>		
1	LIBhh77296	<u>AT+CMGR</u> Fix TP-UDL setting in MT SMS PDU mode when default alphabet is used for encoding and UDHI is set
2	LIBii14313	<u>AT+CSCA</u> Support setting of service center address when the character set is Unicode.
3	LIBhh98325	<u>AT+CNMI</u> Support CNMI as a basic command ( can be given regardless of SIM state )



## **G24-G-0C-11-45R**

Motorola Wireless modules are proud to present the G24 GSM/GPRS module. G24 is a Quad-band RoHS (green) compliant product which is fully backward compatible to our G20 GSM/GPRS module. G24 is fully type approved and complies with strict quality standards. The module supports GSM 07.05, GSM 07.07, GSM 07.10 AT command sets and a set of various Motorola proprietary commands – Full details can be found in the AT commands reference manual.

This release is upgradeable only through USB interface. The next release will support upgrading via RS232. However, units that come out with 45R software will not be able to support upgrading via RS232 even if upgraded to an advanced release.

Future releases of G24 will support EDGE and JAVA.

For further information please contact your distributor or our helpdesk at [M2M.CustomerCare@motorola.com](mailto:M2M.CustomerCare@motorola.com)