AT COMMAND GUIDE
NOKIA 12 GSM MODULE

Contents

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Legal notice

References

/1/ AT command list for Nokia GSM products

1 INTRODUCTION

This document introduces the AT commands that can be used with the Nokia 12 GSM module. More detailed instructions about using these AT commands can be found in document *AT command set for Nokia GSM products* /1/. This document is available in http://www.forum.nokia.com/m2m or http://www.americas.forum.nokia.com.

The Nokia 12 GSM module has two versions

- RX-2 dual-band GSM device supporting EDGE, GPRS, HSCSD, CSD and SMS in EGSM 900/GSM 1800 MHz bands

- RX-9 dual band GSM device supporting EDGE, GPRS, CSD, SMS in GSM 850/GSM 1900 MHZ bands.

Both versions are referred as Nokia 12 GSM module in this document.

For more information about the Nokia 12 GSM module and other Nokia M2M products and application development, please visit our website at http://www.forum.nokia.com/m2m or http://www.americas.forum.nokia.com.

> **Note:** Some commands related to HSCSD described or mentioned in this document are not implemented in the Nokia 12 version RX-9 (for GSM 850 /GSM 1900 MHz network).

2 PRODUCT SUPPORT

2.1 V.250

ATS3	Command line termination character
ATS4	Response formatting character
ATS5	Command line editing character
ATE	Command echo
ATQ	Result code suppression
ATV	DCE response format
ATX	Result code selection and call progress monitoring control
AT&C	Circuit 109 (received line signal detector) behaviour
AT&D	Circuit 108 (data terminal ready) behaviour
AT+IFC	DTE-DCE local flow control
AT+IPR	Fixed DTE rate
AT+ICF	DTE-DCE Character Framing

2.2   DE FACTO

ATS25	Detect DTR change time
AT&S	DSR signal behaviour
AT&K	Select flow control

3 GENERIC COMMANDS

3.1 V.250

ATZ	Reset to default configuration
AT&F	Set to factory-defined configuration
ATI	Request identification information
AT+GMI	Request TA manufacturer identification
AT+GMM	Request TA model identification
AT+GMR	Request TA revision identification
AT+GSN	Request TA serial number identification
AT+GCAP	Request complete capabilities list

3.2 DE FACTO

AT&V	View configuration
AT&W	Store configuration
AT&Y	Select power-up configuration

3.3 GSM 07.07

AT+CGMI	Request ME manufacturer identification
AT+CGMM	Request ME model identification
AT+CGMR	Request ME revision identification
AT+CGSN	Request ME serial number identification
AT+CSCS	Select TE character set
AT+WS46	Select wireless network

4 CALL CONTROL COMMANDS

4.1 V.250

ATD	Dial
ATT	Select tone dialling
ATP	Select pulse dialling
ATA	Answer response

ATH	Hook control
ATO	Return to online data state
ATS0	Automatic answer
ATS6	Pause before blind dialling
ATS7	Connection completion timeout
ATS8	Comma dial modifier time
ATS10	Automatic disconnect delay
ATL	Monitor speaker loudness
ATM	Monitor speaker mode
AT+DS	Data compression
AT+DR	Data compression reporting

4.2   DE FACTO

ATB	CCITT/Bell mode
ATS1	Ring count
ATS2	Escape code character
ATS12	Escape guard time
+++	Escape sequence

4.3   GSM 07.07

AT+CSTA	Select type of address
AT+CHUP	Hangup call
AT+CBST	Select bearer service type
AT+CRLP	Radio link protocol
AT+CR	Service reporting control
AT+CEER	Extended error report
AT+CRC	Cellular result codes
AT+CSNS	Single numbering scheme
AT+CHSR	HSCSD parameters reporting (not supported in RX-9)
AT+CHSD	HSCSD device parameters (not supported in RX-9)
AT+CHSN	HSCSD non-transparent call configuration (not supported in RX-9)
AT+CHSC	HSCSD current call parameters (not supported in RX-9)
AT+CV120	V.120 rate adaptation protocol
AT+CVHU	Voice hangup control

5 NETWORK SERVICE COMMANDS (GSM 07.07)

AT+CREG	Network registration
AT+COPS	Operator selection
AT+CLCK	Facility lock
AT+CLIP	Calling line identification presentation
AT+CLIR	Calling line identification restriction
AT+COLP	Connected line identification presentation
AT+CCFC	Call forwarding number and conditions
AT+CCWA	Call waiting
AT+CHLD	Call related to supplementary services
AT+CUSD	Unstructured supplementary services
AT+CSSN	Supplementary service notifications
AT+CLCC	List current calls

6 ME CONTROL AND STATUS COMMANDS (GSM 07.07)

AT+CPIN	Enter PIN
AT+CSQ	Signal quality
AT+CPBS	Select phonebook memory storage
AT+CPBR	Read phonebook entries
AT+CPBF	Find phonebook entries
AT+CPBW	Write phonebook entry
AT+CPAS	Phone activity status
AT+CIMI	Request International Mobile Subscriber Identity

7 ME ERROR COMMAND (GSM 07.07)

AT+CMEE	Report mobile equipment error

8   SMS COMMANDS (GSM 07.05)

AT+CSMS	Select message service
AT+CPMS	Preferred message storage
AT+CMGF	Message format
AT+CSCA	Service centre address
AT+CSMP	Set text mode parameters
AT+CSDH	Show text mode parameters
AT+CSCB	Select cell broadcast message types
AT+CSAS	Save settings
AT+CRES	Restore settings
AT+CNMI	New message indications to TE
AT+CMGL	List messages
AT+CMGR	Read message
AT+CNMA	New message acknowledgement to ME/TA
AT+CMGS	Send message
AT+CMSS	Send message from storage
AT+CMGW	Write message to memory
AT+CMGD	Delete message
AT+CMGC	Send command
AT+CMMS	More messages to send
AT+CGSMS	Select service for MO SMS messages

9   FAX COMMANDS

9.1   ALL CLASSES

AT+FCLASS	DCE mode select
AT+FLO	Select flow control
AT+FPR	Serial port rate control

9.2　CLASS 1

AT+FDD	Double escape character replacement
AT+FMI	Request manufacturer ID
AT+FMM	Request model ID
AT+FMR	Request revision ID
AT+FRH	Receive HDLC data with a supported carrier
AT+FRM	Receive data with a supported carrier
AT+FRS	Receive silence
AT+FTH	Transmit HDLC data with a supported carrier
AT+FTM	Transmit data with a supported carrier
AT+FTS	Transmit silence

9.3　CLASS 2

AT+FAA	Adaptive answer
AT+FAXERR	Fax error value parameter
AT+FBADLIN	RTN threshold number of consecutive bad lines for FCQ
AT+FBADMUL	RTN threshold error rate multiplier for FCQ
AT+FBOR	Data bit order
AT+FBUF	DCE's buffer characteristics
AT+FBUG	Session message reporting
AT+FCIG	Local polling ID string
AT+FCQ	Quality checking
AT+FCR	Capability to receive
AT+FCTCRTY	ECM retry count
AT+FDCC	Capabilities parameters
AT+FDCS	Negotiated current session parameters
AT+FDFFC	Data encoding format conversion parameter
AT+FDIS	Current session parameters
AT+FDR	Receive phase C data
AT+FDT	Transmit phase C data
AT+FECM	ECM control parameter
AT+FET	Transmit page punctuation
AT+FK	Terminate session

AT+FLID	Local ID string
AT+FLNFC	Page length format conversion parameter
AT+FLPL	Indicate a document to poll
AT+FMDL	Request model ID
AT+FMFR	Request manufacturer ID
AT+FMINSP	Minimum acceptable Phase C speed
AT+FPHCTO	Phase C response timeout
AT+FPTS	Page transmission status parameter
AT+FRBC	Phase C receive data block size
AT+FREL	Phase C received EOL alignment control parameter
AT+FREV	Request revision ID
AT+FSPL	Request to poll
AT+FTBC	Phase C transmit data block size
AT+FVRFC	Vertical resolution format conversion
AT+FWDFC	Page width format conversion

9.4   CLASS 2.0

AT+FAA	Adaptive answer
AT+FBO	Data bit order
AT+FBS	Buffer size
AT+FBU	HDLC frame reporting
AT+FCC	Capabilities parameters
AT+FCQ	Copy quality checking
AT+FCR	Capability to receive
AT+FCS	Current session results
AT+FCT	Phase C response timeout
AT+FDR	Receive phase C data
AT+FDT	Transmit phase C data
AT+FEA	Phase C receive EOL alignment
AT+FCC	Data encoding format conversion
AT+FHS	Call termination status
AT+FIE	Procedure interrupt enable
AT+FIP	Initialize facsimile parameters
AT+FIS	Current session parameters

AT+FKS	Terminate session
AT+FLI	Local ID string
AT+FLP	Indicate a document to poll
AT+FMI	Request manufacturer ID
AT+FMM	Request model ID
AT+FMR	Request revision ID
AT+FMS	Minimum phase C speed
AT+FNR	Negotiation message reporting
AT+FNS	Non-standard frame FIF octet string
AT+FPI	Local polling ID string
AT+FPP	Packet protocol command
AT+FPS	Page status
AT+FRQ	Receive quality threshold
AT+FRY	ECM Retry Count
AT+FSP	Request to poll

10   VOICE COMMANDS

AT+FCLASS	DCE mode
AT+VTS	DTMF generation

11   GPRS COMMANDS (GSM 07.07)

AT+CGDCONT	Define PDP context
AT+CGATT	GPRS attach or detach
AT+CGACT	PDP context activate or deactivate
AT+CGDATA	Enter data state
AT+CGREG	GPRS network registration status
AT+CGEQREQ	3G quality of service profile (requested)
AT+CGEQMIN	3G quality of service profile (minimum acceptable)
AT+CGEQNEG	3G Quality of service profile (negotiated)

12   RESULT CODES

12.1 V.250

+DR	Data compression result

12.2 GSM 07.07

+CSSI	Intermediate supplementary service notification
+COLP	Connected line identification report
AT+CR	Data service report
+CRING	Distinctive ring
+CLIP	Calling line identification report
+CSSU	Unsolicited supplementary service notification
+CCWA	Call waiting
+CUSD	Network initiated unstructured supplementary service data
+CME	ERROR Mobile equipment error
+CHSR	HSCSD parameters report (not supported in RX-9)

12.3 GSM 07.05

+CMTI	New SMS-DELIVER indication
+CMT	New SMS-DELIVER
+CBM	New CBM
+CDSI	New SMS-STATUS-REPORT indication
+CDS	New SMS-STATUS-REPORT
+CMS	ERROR Message service failure