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About the Document

History

Revision	Date	Author	Description
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1.1	2016-12-14	Walker HAN	<ol style="list-style-type: none">1. Added AT+NCONFIG command2. Updated description of Neul Hi2110 implementation for AT+COPS/CGATT/CGDCONT/NMGS/NRB/NCDP/NTSETID

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1 Introduction

This document gives details of the AT Command Set supported by Quectel NB-IoT BC95 module.

The following string will be output after booting the module:

```
\r\nNeul\r\nOK\r\n
```

After this string has been received, the AT command processor is ready to accept AT commands.

1.1. AT Command Syntax

Table 1: AT Commands Syntax

Test Command	AT+<cmd>=?	Check possible sub-parameter values
Read Command	AT+<cmd>?	Check current sub-parameter values
Set Command	AT+<cmd>=p1[,p2[,p3[.....]]]	Set command
Execute Command	AT+<cmd>	Execute command

Multiple commands can be placed on a single line using a semi-colon (“;”) between commands. Only the first command should have AT prefix. Commands can be in upper or lower case.

When entering AT commands spaces are ignored. They can be used to make the input more human-readable. On input, at least a carriage return is required. A newline character is ignored so it is permissible to use carriage return/line feed pairs on the input. For B600, the AT command processor uses carriage return/line feed pairs (\r\n, 0x0D0A) to end lines on its output.

1.2. AT Command Responses

When the AT Command processor has finished processing a line, it will output either OK or ERROR indicating that it is ready to accept a new command. Solicited informational responses are sent before the final OK or ERROR. Unsolicited information responses will never occur between a solicited informational response and the final OK or ERROR.

1.3. 3GPP Compliance

3GPP commands are complied with the *3GPP TS 27.007 v13.5.0 (2016-06)*. For clarification on 3GPP commands, please refer to this document.

2 Implementation Status

Table 2: Types of AT Commands

Command	Description	Implemented in
3GPP		
+CGMI	Request Manufacturer Identification	B350 or later
+CGMM	Request Manufacturer Model	B350 or later
+CGMR	Request Manufacturer Revision	B350 or later
+CGSN	Request Product Serial Number	B350 or later
+CEREG	EPS Network Registration Status	B350 or later
+CSCON	Signalling Connection Status	B350 or later
+CLAC	List Available Commands	B350 or later
+CSQ	Get Signal Strength Indicator	B350 or later
+CGPADDR=?	Show PDP Addresses	B350 or later
+COPS	PLMN Selection	B350 or later
+CGATT	PS Attach or Detach	B350 or later
+CIMI	Request International Mobile Subscriber Identity	B350 or later
+CGDCONT	Define PDP Context	B350 or later
+CFUN	Set Phone Functionality	B350 or later
+CMEE	Report Mobile Termination Error	B600 or later
Neul		
+NMGS	Neul Send Message Command	B350 or later
+NMGR	Neul Get Message Command	B350 or later

+NNMI	Neul New Message Indications	B350 or later
+NSMI	Neul Send message Indications	B350 or later
+NQMGR	Neul Query Messages Received	B350 or later
+NQMGS	Neul Query Messages Sent	B350 or later
+NRB	Neul Reboot	B350 or later
+NCDP	Configure and Query CDP Server Settings	B350 or later
+NUESTATS	Query UE Statistics	B350 or later
+NEARFCN	Specify Search Frequencies	B350 or later
+NSOCR	Create Socket	B350 or later
+NSOST	SendTo Command (UDP Only)	B350 or later
+NSORF	Receive Command (UDP only)	B350 or later
+NSOCL	Close Socket	B350 or later
+NSONMI	Socket Message Arrived Indicator (Response Only)	B350 or later
+NPING	Test IP Network Connectivity To A Remote Host	B350 or later
+NBAND	Set Supported Bands	B600 or later
+NLOGLEVEL	Set Debug Logging Level	B600 or later
+NCONFIG	Configure UE Behaviour	B650
Temporary		
+NTSETID	Set ID	B350 or later

3 3GPP Commands

3.1. AT+CGMI Request Manufacturer Identification

This command returns manufacturer information. By default it will return “Neul Ltd; www.neul.com/” on the standard platform. Refer to **Chapter 6** for possible <err> values.

AT+CGMI Request Manufacturer Identification

Execute Command
AT+CGMI

Response
<manufacturer>

OK

+CME ERROR: <err>

Test Command
AT+CGMI=?

Response
OK

Parameter

<manufacturer> The total number of characters, including line terminators. In the information text shall not exceed 2048 characters. Text shall not contain the sequence 0<CR> or OK<CR>.

Example

AT+CGMI

Neul Ltd; www.neul.com/

OK

3.2. AT+CGMM Request Manufacturer Model

This command returns manufacturer model information. By default it will return “Neul Hi2110” on the standard platform. Refer to **Chapter 6** for possible <err> values.

AT+CGMM Request Manufacturer Model

Execute Command AT+CGMM	Response <model> OK +CME ERROR: <err>
Test Command AT+CGMM=?	Response OK

Parameter

<model>	The total number of characters, including line terminators, in the information text shall not exceed 2048 characters. Text shall not contain the sequence 0<CR> or OK<CR>.
----------------------	--

Example

```
AT+CGMM
Neul Hi2110
OK
```

3.3. AT+CGMR Request Manufacturer Revision

This command returns the manufacturer revision. The text is human-readable and is not intended for microcontroller parsing. By default it will return the firmware revision - release and build.

Execution command returns one or more lines of information text <revision>. Refer to **Chapter 6** for possible <err> values.

AT+CGMR Request Manufacturer Revision

Execute Command AT+CGMR	Response <Revision> OK +CME ERROR: <err>
Test Command AT+CGMR=?	Response OK

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