

UART Protocol

00

for BC3MM BT Module

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By

STALWART TELECOM LIMITED

Website: www.stalmart.com

Email: stalmart@stalmart.com

1. Command Set

1.1 Command/Indication Syntax:

<Command or Indication Type—1 byte>(Data – n bytes)<CR><LF>

✧ <Command or Indication Type> :

‘A’ to ‘Z’ means the indication sent from the BC3MM module to the host.

‘a’ to ‘z’ means the command sent from the host to the BC3MM module.

✧ (Data): data sent by different commands or indications

✧ <CR>: Carrier Return (0x0d)

✧ <LF>: Line Feed (0x0a)

✧ <CR><LF> means the end of one command or one indication

1.2 UART setting:

9600 bps, one STOP bit, no PARITY bit, no flow control

1.3 Command Type 'a' to 'z' is the input to the BC3MM module

✧ **'a': Answer a call**

Syntax: a <CR> <LF>

✧ **'b': Inquire/set/get the phonebook**

Syntax: b <x> <y> <CR> <LF>

While <x> <y> is:

“00”, get the current phonebook storage;

“01”, set the current phonebook storage as the SIM fix-dialing phonebook;

“02”, set the current phonebook storage as the ME phonebook;

“03”, set the current phonebook storage as the SIM fix-dialing phonebook;

“04”, set the current phonebook storage as the Dialed-call list;

“05”, set the current phonebook storage as the Received-call list;

“06”, set the current phonebook storage as the Missed-call list;

“10”, get previous item of the current phonebook;

“11”, get next item of the current phonebook;

“20”, get previous 5 items of the current phonebook;

“21”, get next 5 items of the current phonebook;

“30”, get all the items of the current phonebook;

✧ **'c': Connect/Disconnect to the Active Mobile Phone(AG)**

Syntax: c <x> <CR> <LF>

While <x> is:

'0', Disconnect to the AG

'1', Connect to the last connected AG

✧ **'d': Dial a Call**

Syntax: d (x) <CR> <LF>

Where (x) are the phone number

✧ **'e': Delete all Paired Devices**

Syntax: e <CR> <LF>

✧ **'f': Issue a request to the AG to dial from the the supplied
memory_location**

Syntax: f (memory_location) <CR> <LF>

Where (memory_location): the memory location to be dialed

✧ **'h': End/Cancel/Reject a Call**

Syntax: h <CR> <LF>

✧ **'i': Query the Firmware Version**

Syntax: i <CR> <LF>

✧ **'j': Query current status / Change local name**

Syntax 1: j <x> <CR> <LF>

Where <x> = '4'

Query current status, it will return Carkit/SCO/Phone/A2DP status.

Syntax 2: j <x> (name) <CR> <LF>

Where <x> = '5'

(name): the new local name

Change local name.

✧ **'k': Request to transmit a DTMF code to the AG**

Syntax: k <dtmf> <CR> <LF>

Where <dtmf> should be set in one of '0'..'9', '*', '#'

✧ **'m': Set Auto Answer/Manual Answer**

Syntax: m <x> <CR> <LF>

Where <x> is:

'0', set manual answer

'1', set auto answer

✧ **'n': AV Streaming Control**

Syntax: n <x> <y> <CR> <LF>

While <x> <y> is:

"11", Play button pressed

"10", Paly button released

"21", Volume up

"31", Volume down

"41", Forward button pressed

"40", Forward button released

"51", Backward button pressed

“50”, Backward button released

“61”, Pause button pressed

“60”, Pause button released

“71”, Stop button pressed

“70”, Stop button released

✧ **‘o’: Toggle Microphone Mute/Un-mute**

Syntax: o <CR> <LF>

✧ **‘p’: Enter into Pairing State**

Syntax: p <CR> <LF>

✧ **‘q’: Inquiry Active Paired AG Name**

Syntax: q <CR> <LF>

✧ **‘r’: Firmware Reset**

Syntax: r <CR> <LF>

✧ **‘s’: Volume Control**

Syntax: s <x> <CR> <LF>

Where <x> = ‘0’..’3’:

‘0’, HFP/HSP volume up

‘1’, HFP/HSP volume down

‘2’, Stereo volume up

‘3’, Stereo volume down

✧ **‘t’: Toggle Audio Transfer**

Syntax: t <CR> <LF>

✧ **'u': Set Pin Code**

Syntax: u (pin_code) <CR> <LF>

Where (pin_code) is the pin code string, for example, cmd
"u0000"<CR><LF> sets the pin code as "0000"

✧ **'v': Issue a Voice Dial**

Syntax: v <CR> <LF>

✧ **'w': Call Waiting Control**

Syntax: w <x> <CR> <LF>

Where <x> = '0'~'3':

'0', Set User Busy to the Waiting Call

'1', Hang Up the Active Call and Accept the Waiting Call

'2', Place the Active Call on Hold and Accept the Held or
Waiting Call

'3', Add the Held Call to 3-Way Calling

✧ **'x': Connect/Disconnect A2DP device last connected**

Syntax: x <x> <CR> <LF>

Where <x> = '0'~'1':

'0', Connect to last connected A2DP device

'1', Disconnect A2DP device

1.4 Indication Type, 'A' to 'Z' is the output from the BC3MM module

✧ **'A': Call Answered, there is an active call**

Syntax: A <CR> <LF>

✧ **'B': Phonebook Command response**

Syntax: B <x> (y) <CR> <LF>

Where <x> = '0',

Where (y) = '1' ~ '6', indicate which phonebook storage has been set

Where <x> = '2',

Where (y) = '1', response to cmd "b2x", get 5 index of current phonebook storage completely

Where (y) = '2', response to cmd "b1x", get 1 index of current phonebook storage completely

Where (y) = '4', response to cmd "b30", get all index of current phonebook storage completely

Where (y) = '6', there is no more index for current phonebook storage or there is an error/respone for phonbook cmd sent.

Where <x> = '1',

Where (y) = <z> (phone_num) <flag> (name)

Where <z> is the selected phonebook, phone_num is the phone number, (name) is encoded as UNICODE(UCS2), and <flag> is defined as following:

'H', Home

'W', Work

'M', Mobile

'O', Other

✧ **'C': Incoming Call Indication**

Syntax: C (x) <CR> <LF>

Where (x) = Caller Number.

✧ **'D': Call Dialing**

Syntax: D <CR> <LF>

✧ **'F': Voice Dial**

Syntax: F <CR> <LF>

Response to Cmd 'v'

✧ **'H': Call End**

Syntax: H <CR> <LF>

✧ **'I': Firmware Version**

Syntax: I (x) <CR> <LF>

Where (x) occupies 8 bytes(VxxxByyy), means Verson xxx Build
yyy.

✧ **'J2': VOL Indication**

Syntax: J2 (x) <CR> <LF>

Where (x) occupies 2 bytes, to indicate the audio volume

✧ **'O': Microphone Mute/Unmute indication**

Syntax: O <x> <CR> <LF>

Wher <x> is

- '0', Microphone Mute
- '1', Microphone Unmute

✧ **'P': Paring Indication**

Syntax 1: P 0 <CR> <LF>

Pair Failed

Syntax 2: P <dev_type> + (bd_addr) + (name) <CR> <LF>

Where <dev_type> = '1', HFP pair succes

<dev_type> = '2', AV pair success

(bd_addr) occupies 6 bytes

(name) is the remote device name, it is encoded as UNICODE (UCS2)

✧ **'Q': Remote Device Name**

Syntax: Q (name) <CR> <LF>

It's the response to cmd 'q'

Where (name) is the remote device name, it is encoded as UNICODE (UCS2)

✧ **'R': Ring Indication**

Syntax: R <CR> <LF>

✧ **'S': Status Report**

Syntax: S <x> <y> <z> <CR> <LF>

Where <x>= '0', Manual Answer

'1', Auto Answer

<y>= '0', Unpaired

'1', Paired

<z>= '0', AG connected
'1', AG diconnected

✧ **'U': SCO Connection Status**

Syntax: U <x> <CR> <LF>

Where <x>= '0', SCO disconnected
'1', SCO connected

✧ **'W': Call Waiting Indication**

Syntax: W (x) <CR> <LF>

Where (x) = Caller Number.

✧ **'X': AV Connection Status**

Syntax: X <x> <CR> <LF>

Where <x>= '0', AV disconnected
'1', AV connected

✧ **'Y': the Connected Device Information**

Syntax: Y <dev_type> + (bd_addr) + (name) <CR> <LF>

Where <dev_type> = '1', HFP device

<dev_type> = '2', AV device

(bd_addr) occupies 6 bytes

(name) is the remote device name, it is encoded as UNICODE
(UCS2)

Advertising Page

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- OPPS Object Push Profile Server
- HFP/HSP
- AVRCP
- A2DP