

# OVC3860 AT Command Application Notes

Last Modified:2012-10-18

Document Revision:1.1

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## Table of Contents

1 Overview.....	4
2 The States of Bluetooth Application.....	4
3 AT Command Operations.....	4
3.1.Command Format.....	4
3.2.Indication Format.....	4
3.3.Supported AT Commands.....	5
3.4.State Indications.....	6
3.5.Application Examples.....	7
3.5.1 Pairing & Connecting.....	7
3.5.2 Phone Answering & Dialing.....	8
3.5.3 State Query.....	9
3.5.4 Auto-answer & Auto-connect.....	9
3.5.5 Memory R/W.....	10
3.5.6 Test mode.....	10
4 Command Explanations.....	11
4.1. Enter Pairing Mode #CA.....	11
4.2.Cancel Pairing Mode #CB.....	11
4.3.Connect HFP to Handset #CC.....	11
4.4.Disconnect HFP from Handset #CD.....	11
4.5.Answer Call #CE.....	11
4.6.Reject Call #CF.....	12
4.7.End Call #CG.....	12
4.8.Redial #CH.....	12
4.9.Voice Dial #CI.....	12
4.10.Cancel Voice Dial #CJ.....	12
4.11.Mute/Unmute MIC #CM.....	13
4.12.Transfer Call to/from Handset #CO.....	13
4.13.Release&Reject Call #CQ.....	13
4.14.Release&Accept Call #CR.....	13
4.15.Hold&Accept Call #CS.....	13
4.16.Conference Call #CT.....	14
4.17.Dial One Call #CW.....	14
4.18.Send DTMF #CX.....	14
4.19.Query HFP Status #CY.....	14
4.20.Reset #CZ.....	14
4.21.Play/Pause Music #MA.....	15
4.22.Stop Music #MC.....	15
4.23.Forward Music #MD.....	15
4.24.Backward Music #ME.....	15
4.25.Query Auto Answer and PowerOn Auto Connection Configuration #MF.....	16
4.26.Enable PowerOn Auto Connection #MG.....	16
4.27.Disable PowerOn Auto Connection #MH.....	16
4.28.Connect to AV Source #MI.....	16

4.29. Disconnect from AV Source #MJ.....	16
4.30. Query AVRCP Status #MO.....	17
4.31. Enable Auto Answer #MP.....	17
4.32. Disable Auto Answer #MQ.....	17
4.33. Start Fast Forward #MR.....	17
4.34. Start Rewind #MS.....	17
4.35. Stop Fast Forward / Rewind #MT.....	18
4.36. Query A2DP Status #MV.....	18
4.37. Write to Memory #MW.....	18
4.38. Read from Memory #MX.....	18
4.39. Switch Two Remote Devices #MZ.....	19
4.40. #ST.....	19
4.41. Set Clock Debug Mode #VC.....	19
4.42. Speaker Volume Down #VD.....	19
4.43. Enter BQB Test Mode #VE.....	19
4.44. Set to Fixed Frequency #VF.....	20
4.45. Enter EMC Test Mode #VG.....	20
4.46. Set RF Register #VH.....	20
4.47. Start Inquiry #VI.....	21
4.48. Cancel Inquiry #VJ.....	21
4.49. Speaker Volume Up #VU.....	21
4.50. Power Off OOL #VX.....	21
5 Revision History.....	21

## 1 Overview

User can use the UART serial port to communicate with OVC3860 chip, and implement bluetooth headset/handfree and stereo headset functions through sending AT command. The UART serial port uses two signal wires: Tx and Rx, supporting 1200, 2400, 4800, 9600, 14400, 19200, 38400, 57600, 115200, 230400, 460800 and 921600bps baudrate. The default baudrate is 115200bps.

## 2 The States of Bluetooth Application

These status number is combined with the Indication Strings like "MG", "MU", "ML".

### HFP Status Value Description:(MG)

1. Ready (to be connected)
2. Connecting
3. Connected
4. Outgoing Call
5. Incoming Call
6. Ongoing Call

### A2DP Status Value Description:(MU)

1. Ready (to be connected)
2. Initializing
3. Signalling Active
4. Connected
5. Streaming

### AVRCP Status Value Description:(ML)

1. Ready (to be connected)
2. Connecting
3. Connected

## 3 AT Command Operations

### 3.1. *Command Format*

AT command is used to operate OVC3860, and there is the format as shown below:

```
AT#CMD<CR><LF>
AT#CMDsp <CR><LF>
```

Among them,

- AT# is command line prefix.
- CMD is basic command.
- sp is Sub-Parameter.
- <CR><LF> is Carriage Return and Line Feed

### 3.2. *Indication Format*

Indication symbol is the response information of OVC3860, and there is the format as shown below:

```
<CR><LF>IND<CR><LF>
<CR><LF>INDsp <CR><LF>
<CR><LF>IND ,,<CR><LF>
```

Among them,

- IND is basic indication
- sp is Sub-Parameter
- ,, is Sub-Parameter that may be omitted

### 3.3. Supported AT Commands

AT Command	Notion	Response Indication
CA	Enter pairing	II
CB	Cancel pairing	IJ2
CC	Connect hshf	IV
CD	Disconnect hshf	IA
CE	Answer	IG
CF	Reject	IF
CG	Endcall	IF
CH	Redial	IC
CI	Voice call	PE/PF
CJ	Cancel voice call	OK
CM	Toggle mic	OK
CO	Audio transfer	MC/MD
CQ*	Release held call, reject waiting call	IN
CR*	Release active call, accept other call	IT
CS*	Hold active call, accept other call	IL
CT*	Conference call	IM
CW<phonenum>	Dial phone number	IC, IP<len>, IR<phonenum>
CX<dtmf>	Send dtmf	OK
CY	Query status	MG<status>
CZ	Reset	IS<ver>, MF<ab>
MA	Play/pause	MA/MB
MC	Stop	MA
MD	Forward	OK
ME	Backward	OK
MF	Query autoconn and autoanswe configuration	MF<ab>

AT Command	Notion	Response Indication
MG	Enable autoconn	OK
MH	Disable autoconn	OK
MI	Connect to av source	MB/MA
MJ	Disconnect from av source	MY
MO	Query avrcp status	ML<status>
MP	Enable auto answer	OK
MQ	Disable auto answer	OK
MR	Start FF	OK
MS	Start Rewind	OK
MT	Stop FF/Rewind	OK
MV	Query a2dp status	MU<status>
MW	Write a byte to memory	OK
MX	Read a byte from memory	MEM:<val>
MZ	Switch two remote devices	SW
ST	SPP send data	OK
VC	Set clock debug mode	OK
VD	Decrease volume	OK
VE	Enter test mode	OK
VF	Set to a fixed frequency	OK
VG	Entering EMC test mode	OK
VH	Set RF reg	OK
VI	Start inquiry	OK
VJ	Cancel inquiry	OK
VU	Increase volume	OK
VX	OOL power off	OK

### 3.4. State Indications

In addition to the state indications mentioned above, there are some other indications used, such as audio state indications. The following is the introduction of these state indications

State Indication	Description
II	In pairing state
IJ2	Exit pairing state
IV	Connected
IA	Disconnected
IF	Phone hand up

AA1	The audio sample rating is set 48000
AA2	The audio sample rating is set 44100
AA4	The audio sample rating is set 32000
AA8	The audio sample rating is set 16000
AE	Audio config error
AF	Audio codec is closed
AS	Audio codec is in phone call mode
MP	Music Pause
MR	Music Resume
MS	Backward song
MX	Forward song
PA0	
PA1	
PC	
SC	SPP opened
SD	SPP closed
ERR	The command is error
NOEP	No eeprom
EPER	Error eeprom parameter

### 3.5. Application Examples

#### 3.5.1 Pairing & Connecting

- Pairing

Set pairing, waiting for the remote device to connect, the command format is:

**AT#CA/\* discoverable for 2 minutes \*/**

ovc3860 returns the indication:

**II /\* state indication, HSHF enters pairing state indication \*/**

if 2 minutes' timeout is arrived(no peer connect to ovc3860 device), returns the indication:

**IJ2 /\* state indication, HSHF exits pairing mode and enters listening \*/**

The device can't be found, if need to be search, repeat Pairing operation.

- Exit pairing

Exit pairing, can not be found by peers, the command format is:

**AT#CB /\*exit pairing mode, non-discoverable \*/**

return:

**IJ2 /\* state indication, HSHF exits pairing mode and enters listening \*/**

- Connecting

- Passive connection

The first step is setting the ovc3860 device into pairing mode(refer to Paring operation).

The remote device begins to connect HSHF, then input PIN code to send to ovc3860 H

SHF device, when connection is successful, HSHF returns the indication:

**IV**           /\* state indication, connected \*/

- Active connection

Actively connect to the last successful connected device

**AT#CC/\* Connect to remote Device \*/**

then input the local PIN code, and ovc3860 returns HSHF's state indication:

**IV**           /\* HSHF state is connected indication \*/

if Bluetooth mobile phone is turned off or not in Bluetooth signal range, will return a status indication:

**IJ2**           /\* HSHF exits pairing mode and enters listening state indication\*/

- Exit connecting

Send the command:

**AT#CD**       /\* ACL disconnect from remote \*/

ovc3860 returns the indication:

**IA**           /\* HSHF state is listening \*/

if the remote device disconnects connection actively, ovc3860 also returns the same indication.

### 3.5.2 Phone Answering & Dialing

- Answering the phone

The phone receives a call, ovc3860 returns the indication, such as:

**02167850001**       /\* Receive a incoming call 02167850001 \*/

at this time, user may refuse to answer the phone:

**AT#CF**       /\* Refuse to answer the phone \*/

ovc3860 returns:

**IF**           /\* Call-setup status is idle \*/

also, user may answer the phone:

**AT#CE**

return the indication:

**IF**           /\* hang-up indication \*/

if the other party hangs up the phone, also return:

**IF**           /\* hang-up indication \*/

- Dialing the phone

- Dialing

For example, dialing 10086, the command format is:

**AT#CW10086**

return

**IC**           /\* Call-setup status is outgoing \*/

**IP5**           /\* Outgoing call number length indication \*/

**IR10086**       /\* Outgoing call number indication \*/

- Sending DTMF

For example, sending number “1”

**AT#CX1**

return:

**OK**           /\* send DTMF successfully indication \*/

NOTE: supported sending characters (0-9, #, \*, A-D).

- Voice dialing

The command format is:

**AT#CI**

return:

**PE**           /\* The voice dial start indication \*/

or,  
**PF** /\* The voice dial is not supported indication \*/  
cancel the voice dialing:  
**AT#CJ**  
return:  
**PF** /\* The voice dial is stopped indication \*/

- Redialing  
Redial the last outgoing call:  
**AT#CH**  
return:  
**IC** /\* Call-setup status is outgoing \*/
- Audio transfer  
Transfer audio between HSHF and phone speaker:  
**AT#CO**  
when transferred to HSHF, ovc3860 returns:  
**MC** /\* The voice is on Bluetooth indication \*/  
when transferred to HSHF:  
**MD** /\*The voice is on phone indication \*/

### 3.5.3 State Query

Query the HSHF applications state, the command is:

**AT#CY**

ovc3860 returns:

**MGX** /\* The HSHF applications state is X indication\*/

NOTE: X is the return parameter, 1 – “Ready”, 2 – “Connecting”, 3 – “Connected”, 4 –“Outgoing call”, 5 –“Incoming call”,6 – “Ongoing call”.

### 3.5.4 Auto-answer & Auto-connect

- Query configuration

Query configurations of auto answer and auto connect after power on, the command is:

**AT#MF**

return:

**MFXY** /\* X and Y are auto answer and auto connect configuration \*/

NOTE: X is the configuration parameter of auto answer, 1 – “support auto answer”, 0 – “not support auto answer”

Y is the configuration parameter of auto connect, 1 – “support auto connect after power on”, 0 – “not support auto connect after power on”

- Auto-answer

Enable auto answer, the command is:

**AT#MG**

Disable auto answer, the command is:

**AT#MH**

both return:

**OK** /\* set successfully indication\*/

- Auto-connect

Enable auto connect, the command is:

**AT#MP**

Disable auto connect, the command is:

**AT#MQ**

both return:

OK                   /\* set successfully indication\*/

**3.5.5 Memory R/W**

- Read from memory

Read a byte from memory at a given address, the command is:

**AT#MXADDR /\* Read a byte from memory \*/**and, ADDR is a given address(32-bit, hexadecimal), for example, AT#MX08001AC4  
ovc3860 returns:**MEM:VAL**

VAL is the return hexadecimal value.

- Write to memory

Write a byte into memory at a given address, the command is:

**AT#MWADDR\_VAL           /\* Write a byte to memory \*/**and, ADDR is a given address(32-bit, hexadecimal), VAL is the written hexadecimal value, f  
or example, AT#MW08001B9C\_F6  
return the indication:

OK

**3.5.6 Test mode**Entering EMC test mode, ovc3860 transmits the specific packets in the specific frequency  
or hopping frequency, the command format is :**AT#VGxx\_yy**xx: If set to be 0~78, the frequency is fixed at (2402+xx)MHz, If set to 88, the frequency is  
in hopping mode.

yy: Set the tx packet type according to the following table.

Packet Type	Value
DH1	'04
DH3	'08
DH5	10
2DH1	'05
2DH3	11
2DH5	13
3DH1	'06
3DH3	12
3DH5	14

For example, AT#VG01\_04, will make the chip sending out DH1 packets continuously in the  
frequency 2403MHz

## 4 Command Explanations

### 4.1. Enter Pairing Mode #CA

Command	Current Status(s)	Possible Indication(s)	Indication Description
#CA	Any	II	Enter Pairing Mode Indication

Description

This command puts the module in the pairing mode. The information response and causes will indicate the command success or failure. Enter pairing mode indication or failure indication will be sent to the host.

Note:

1. This command will cause a disconnection if module has already connected with some device.
2. Module will exit pairing mode if connection not happen in 2 minutes.

Syntax: AT#CA

### 4.2. Cancel Pairing Mode #CB

Command	Current Status(s)	Possible Indication(s)	Indication Description
#CB	Pairing	IJ2	Exit Pairing Mode Indication

Description

If the module is in pairing mode, this command causes the module to exit the pairing mode and enter the idle mode. The information response and causes will indicate the command success or failure.

Syntax: AT#CB

### 4.3. Connect HFP to Handset #CC

Command	Current Status(s)	Possible Indication(s)	Indication Description
#CC	HFP Status = 1	IV	Connecting Indication

Note: You can get current HFP status by #CY.

Description

This command causes the module to connect to a paired handset. The information response and causes will indicate the command success or failure. Connect Indication will be sent to the host after the connection is established. Otherwise Disconnect Indication will be sent to the host.

Syntax: AT#CC

### 4.4. Disconnect HFP from Handset #CD

Command	Current Status(s)	Possible Indication(s)	Indication Description
#CD	HFP Status ≥ 3	IA	Disconnected Indication

Description

This command causes the module to disconnect from the connected handset. The information response and causes will indicate the command success or failure. Disconnect Indication will be sent to the host after the connection is dropped.

Syntax: AT#CD

### 4.5. Answer Call #CE

Command	Current Status(s)	Possible Indication(s)	Indication Description
#CE			

#CE	HFP Status = 4	IG	Pick up Indication
-----	----------------	----	--------------------

**Description**

This command causes the module to answer an incoming call. The information response and causes will indicate the command success or failure.

Syntax: AT#CE

**4.6. Reject Call #CF**

Command	Current Status(s)	Possible Indication(s)	Indication Description
#CF	HFP Status = 4	IF	Hang up Indication

**Description**

This command causes the module to reject an incoming call. The information response and causes will indicate the command success or failure.

Syntax: AT#CF

**4.7. End Call #CG**

Command	Current Status(s)	Possible Indication(s)	Indication Description
#CG	HFP Status = 5   6	IF	Hang up Indication

**Description**

This command causes the module to end an active call. The information response and causes will indicate the command success or failure.

Syntax: AT#CG

**4.8. Redial #CH**

Command	Current Status(s)	Possible Indication(s)	Indication Description
#CH	HFP Status = 3   6	IC	Outgoing Call Indication

**Description**

This command causes the module to redial the last number called in the phone. The information response and causes will indicate the command success or failure.

Syntax: AT#CH

**4.9. Voice Dial #CI**

Command	Current Status(s)	Possible Indication(s)	Indication Description
#CI	HFP Status = 3	PE PF	Voice Dial Start Indication Handset Not Support Void Dial

**Description**

This command causes the module to active voice dial functionality in the phone. The information response and causes will indicate the command success or failure.

Note: Voice dialing not works in some handset while .

Syntax: AT#CI

**4.10. Cancel Voice Dial #CJ**

Command	Current Status(s)	Possible Indication(s)	Indication Description

#CJ	HFP Status = 3	PF	Voice Dial Stop Indication
-----	----------------	----	----------------------------

**Description**

This command causes the module to cancel on going voice dial in the phone. The information response and causes will indicate the command success or failure.

Syntax: AT#CJ

**4.11. Mute/Unmute MIC #CM**

Command	Current Status(s)	Possible Indication(s)	Indication Description
#CM	HFP Status = 6	OK	Command Accepted by Module

**Description**

This command causes the module to mute or unmute the MIC. The information response and causes will indicate the command success or failure.

Syntax: AT#CM

**4.12. Transfer Call to/from Handset #CO**

Command	Current Status(s)	Possible Indication(s)	Indication Description
#CO	HFP Status = 6(without audio) HFP Status = 6(without audio)	MC MD	HFP Audio Connected MD HFP Audio Disconnect

**Description**

This command causes the module to transfer the active call from the module to the handset ( MD will received ) or from the handset to the module ( MC will received ). The information response and causes will indicate the command success or failure.

Syntax: AT#CO

**4.13. Release&Reject Call #CQ**

Command	Current Status(s)	Possible Indication(s)	Indication Description
#CQ	HFP Status = 6	IN	Release Held Call, Reject Waiting Call

**Description**

This command causes the module to release held call, and reject waiting call. The information response and causes will indicate the command success or failure.

Syntax: AT#CQ

**4.14. Release&Accept Call #CR**

Command	Current Status(s)	Possible Indication(s)	Indication Description
#CR	HFP Status = 6	IT	Release Active Call, Accept Other Call

**Description**

This command causes the module to release active call, accept other call. The information response and causes will indicate the command success or failure.

Syntax: AT#CR

**4.15. Hold&Accept Call #CS**

Command	Current Status(s)	Possible Indication(s)	Indication Description

#CS	HFP Status = 6	IL	Hold Active Call, Accept Other Call
-----	----------------	----	-------------------------------------

**Description**

This command causes the module to hold active call, accept other call. The information response and causes will indicate the command success or failure.

Syntax: AT#CS

**4.16. Conference Call #CT**

Command	Current Status(s)	Possible Indication(s)	Indication Description
#CT	HFP Status = 6	IM	Make Conference Call

**Description**

This command causes the module to make a conference call. The information response and causes will indicate the command success or failure.

Syntax: AT#CT

**4.17. Dial One Call #CW**

Command	Current Status(s)	Possible Indication(s)	Indication Description
#CW	HFP Status = 3	IC IP<length> IR<phone number>	Outgoing Call Indication Length of Phone Number Current Call Indication

**Description**

This command causes the module to dial one call. The information response and causes will indicate the command success or failure.

Note: IP, IR indications only supported by HFP1.5 version.

Syntax: AT#CW13800138000

**4.18. Send DTMF #CX**

Command	Current Status(s)	Possible Indication(s)	Indication Description
#CX	HFP Status = 6	OK	Command Accepted

**Description**

This command causes the module to send one DTMF. The information response and causes will indicate the command success or failure.

Syntax:

AT#CX1

AT#CX5

**4.19. Query HFP Status #CY**

Command	Current Status(s)	Possible Indication(s)	Indication Description
#CY	Any	MG<code>	Report Current HFP Status

**Description**

This command queries the module's HFP current status. The information response and causes will indicate the command success or failure.

Syntax: AT#CY

**4.20. Reset #CZ**

Command	Current Status(s)	Possible	Indication Description

		Indication(s)	
#CZ	Any	IS<version> MF<a><b>	Power ON Init Complete Report Auto Answer and PowerOn Auto Connection Configuration

**Description**

This command causes the module to reset. The information response and causes will indicate the command success or failure.

Syntax: AT#CZ

**4.21. Play/Pause Music #MA**

Command	Current Status(s)	Possible Indication(s)	Indication Description
#MA	A2DP State = 5	MA MB	AV pause/stop Indication AV play Indication

**Description**

If the module is connected with a AV Source, this command causes the AV source to play/pause music. If module isn't connected AV source, this command will cause module try to connected current connected mobile's AV source. The information response and causes will indicate the command success or failure.

Syntax: AT#MA

**4.22. Stop Music #MC**

Command	Current Status(s)	Possible Indication(s)	Indication Description
#MC	A2DP State = 5	MA	AV pause/stop Indication

**Description**

If the module is connected with a AV Source, this command causes the AV Source to Stop Music. The information response and causes will indicate the command success or failure.

Syntax: AT#MC

**4.23. Forward Music #MD**

Command	Current Status(s)	Possible Indication(s)	Indication Description
#MD	A2DP State = 5	OK	Command Accepted by Module

**Description**

If the module is connected with a AV Source, this command causes the AV Source to Play next song. The information response and causes will indicate the command success or failure.

Syntax: AT#MD

**4.24. Backward Music #ME**

Command	Current Status(s)	Possible Indication(s)	Indication Description
#ME	A2DP State = 5	OK	Command Accepted by Module

**Description**

If the module is connected with a AV Source, this command causes the AV Source to play last song. The information response and causes will indicate the command success or failure.

Syntax: AT#ME

#### **4.25. Query Auto Answer and PowerOn Auto Connection Configuration #MF**

Command	Current Status(s)	Possible Indication(s)	Indication Description
#MF	Any	MF<a><b>	Report Auto Answer and PowerOn Auto Connection Configuration

Description

This command queries the module's auto answer configuration and poweron auto connect configuration. The information response and causes will indicate the command success or failure

Syntax: MF<a><b>

Value:

< a >: auto answer configuration, where 0: disable, 1: enabled

< b >: poweron auto configuration, where 0: disable, 1: enabled

#### **4.26. Enable PowerOn Auto Connection #MG**

Command	Current Status(s)	Possible Indication(s)	Indication Description
#MG	Any	OK	Command Accepted

Description

This command enables the module to connect to the last used AG after PowerOn. The information response and causes will indicate the command success or failure.

Syntax: AT#MG

#### **4.27. Disable PowerOn Auto Connection #MH**

Command	Current Status(s)	Possible Indication(s)	Indication Description
#MH	Any	OK	Command Accepted

Description

This command disables the module to connect to the Last used AG after PowerOn. The information response and causes will indicate the command success or failure.

Syntax: AT#MH

#### **4.28. Connect to AV Source #MI**

Command	Current Status(s)	Possible Indication(s)	Indication Description
#MI	A2DP State = 1	MA MB	AV pause/stop Indication AV play Indication

Description

If the module is connected with a HFP phone, this command causes the module try to connect to the phone's AV Source. The information response and causes will indicate the command success or failure.

Note: Music will be played automatic after A2DP connected in some handset.

Syntax: AT#MI

#### **4.29. Disconnect from AV Source #MJ**

Command	Current Status(s)	Possible Indication(s)	Indication Description
#MJ	A2DP Status ≥ 3	MY	AV Disconnect Indication

Description

This module causes the module to disconnect from the connected phone's AV source. The

information response and causes will indicate the command success or failure.

Syntax: AT#MJ

#### **4.30. Query AVRCP Status #MO**

Command	Current Status(s)	Possible Indication(s)	Indication Description
#MO	Any	ML<code>	Report Current AVRCP Status

Description

This command queries the module's AVRCP current status. The information response and causes will indicate the command success or failure.

Syntax: AT#MO

<code> Status

- 1 Ready (to be connected)
- 2 Connecting
- 3 Connected

#### **4.31. Enable Auto Answer #MP**

Command	Current Status(s)	Possible Indication(s)	Indication Description
#MP	Any	OK	Command Accepted

Description

This command enables the module auto answer an incoming call. The information response and causes will indicate the command success or failure.

Syntax: AT#MP

#### **4.32. Disable Auto Answer #MQ**

Command	Current Status(s)	Possible Indication(s)	Indication Description
#MQ	Any	OK	Command Accepted

Description

This command disables the module auto answer an incoming call. The information response and causes will indicate the command success or failure.

Syntax: AT#MQ

#### **4.33. Start Fast Forward #MR**

Command	Current Status(s)	Possible Indication(s)	Indication Description
#MR	A2DP Status = 5	OK	Command Accepted by Module

Description

If the module is connected with a AV Source, this command causes the AV Source to start fast forward. The information response and causes will indicate the command success or failure.

Syntax: AT#MR

#### **4.34. Start Rewind #MS**

Command	Current Status(s)	Possible Indication(s)	Indication Description
#MS	A2DP Status = 5	OK	Command Accepted by Module

Description

If the module is connected with a AV Source, this command causes the AV Source to start rewind. The information response and causes will indicate the command success or failure.

Syntax: AT#MS

#### **4.35. Stop Fast Forward / Rewind #MT**

Command	Current Status(s)	Possible Indication(s)	Indication Description
#MT	A2DP Status = 5 (after started Fast Forward or Rewind)	OK	Command Accepted by Module

Description

If the module is connected with a AV Source, this command causes the AV Source to stop fast forward or

rewind. The information response and causes will indicate the command success or failure.

Syntax: AT#MT

#### **4.36. Query A2DP Status #MV**

Command	Current Status(s)	Possible Indication(s)	Indication Description
#MV	Any	MU<code>	Report Current A2DP Status

Description

This command queries the module's A2DP current status. The information response and causes will indicate the command success or failure.

Syntax: AT#MV

<code>:1-5, status of A2DP

- 1 Ready
- 2 Initiating
- 3 SignallingActive
- 4 Connected
- 5 Streaming

#### **4.37. Write to Memory #MW**

Command	Current Status(s)	Possible Indication(s)	Indication Description
#MW	Any	OK	Command Accepted

Description

This command causes the module to write a byte into a given memory address. The information response and causes will indicate the command success or failure.

Syntax: AT#MWADDR\_VAL

ADDR: a given 32-bit, hexadecimal address

VAL: a written hexadecimal byte value

#### **4.38. Read from Memory #MX**

Command	Current Status(s)	Possible Indication(s)	Indication Description
#MX	Any	MEM:<val>	The Returned Value

Description

This command causes the module to read a byte from a given memory address. The information response and causes will indicate the returned value from module reading.

Syntax: AT#MXADDR

ADDR: a given 32-bit, hexadecimal address

<val>: a read hexadecimal byte value

#### **4.39. Switch Two Remote Devices #MZ**

Command	Current Status(s)	Possible Indication(s)	Indication Description
#MZ	Any	SW	Command Accepted

Description

This command causes the module to switch two remote devices. The information response and causes will indicate the command success or failure.

Syntax: AT#MZ

#### **4.40. SPP data transmit #ST**

Command	Current Status(s)	Possible Indication(s)	Indication Description
#ST	When SPP is connected	OK	Command Accepted

Description

This command will send SPP data to the remote device.

Syntax: AT#STdata

data: the string you need to send. The max len is 20.

#### **4.41. Set Clock Debug Mode #VC**

Command	Current Status(s)	Possible Indication(s)	Indication Description
#VC	Any	OK	Command Accepted

Description

This command causes the module to enter clock debug mode. The information response and causes will indicate the command success or failure.

Syntax: AT#VC

#### **4.42. Speaker Volume Down #VD**

Command	Current Status(s)	Possible Indication(s)	Indication Description
#VD	Any	OK	Command Accepted

Description

This command causes the module to decrease the speaker volume. The information response and causes will indicate the command success or failure.

Syntax: AT#VD

#### **4.43. Enter BQB Test Mode #VE**

Command	Current Status(s)	Possible Indication(s)	Indication Description
#VE	Any	OK	Command Accepted

Description

This command causes the module to enter test mode. The information response and causes will indicate the command success or failure.

Syntax: AT#VE

#### 4.44. Set to Fixed Frequency #VF

Command	Current Status(s)	Possible Indication(s)	Indication Description
#VF	Any	OK	Command Accepted

Description

This command causes the module to work at 2404MHz. The information response and causes will indicate the command success or failure.

Syntax: AT#VF

#### 4.45. Enter EMC Test Mode #VG

Command	Current Status(s)	Possible Indication(s)	Indication Description
#VG	Any	OK	Command Accepted

Description

This command causes the module to work at 2404MHz. The information response and causes will indicate the command success or failure.

Syntax: AT#VGxx\_yy

xx: if set to be 0~78, the frequency is fixed at (2402+xx)MHz, If set to 88, the frequency is in hopping mode.

yy: set the tx packet type according to the following table.

Packet Type	Value
DH1	'04
DH3	'08
DH5	10
2DH1	'05
2DH3	11
2DH5	13
3DH1	'06
3DH3	12
3DH5	14

#### 4.46. Set RF Register #VH

Command	Current Status(s)	Possible Indication(s)	Indication Description
#VH	Any	OK	Command Accepted

Description

This command causes the module to set a RF register with a given value. The information response and causes will indicate the command success or failure.

Syntax: AT#VHxx\_yy

xx: a register address

yy: a byte value

Example: AT#VH54\_88(set RF reg 0x54 to be 0x88)

#### **4.47. Start Inquiry #VI**

Command	Current Status(s)	Possible Indication(s)	Indication Description
#VI	Any	OK	Command Accepted

Description

This command causes the module to inquiry Bluetooth devices. The information response and causes will indicate the command success or failure.

Syntax: AT#VI

#### **4.48. Cancel Inquiry #VJ**

Command	Current Status(s)	Possible Indication(s)	Indication Description
#VJ	Any	OK	Command Accepted

Description

This command causes the module to cancel inquiry Bluetooth devices. The information response and causes will indicate the command success or failure.

Syntax: AT#VJ

#### **4.49. Speaker Volume Up #VU**

Command	Current Status(s)	Possible Indication(s)	Indication Description
#VU	Any	OK	Command Accepted

Description

This command causes the module to increase the speaker volume. The information response and causes will indicate the command success or failure.

Syntax: AT#VU

#### **4.50. Power Off OOL #VX**

Command	Current Status(s)	Possible Indication(s)	Indication Description
#VX	Any	OK	Command Accepted

Description

This command causes the module to power off OOL. The information response and causes will indicate the command success or failure.

Syntax: AT#VX

## **5 Revision History**

Rev 1.1: Update to support OVC3860 RevE