# **Operation Guide**

# HF-BL200A

This document is applicable for the following product.

HF-BL200A-1
HF-BL200A-0

# Catalogue

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#### 版本记录:

2018-02-01 First Version 2018-03-23 Add OTA upgrade function

# 1. HF-BL200A Module

This document take HF-BL200A-1 EVB as example

### 1.1. HF-BL200A-1 EVB

HF-BL200A EVB is as following.



Use USB cable to connect to EVB for communication test . The jumper jump to DATA. (jump to Debug for program firmware.)

# 2. UART TOOLS

### 2.1. SecureCRT

#### Download address:

http://www.hi-flying.com/download-center-1/applications-1/download-item-securecrt

SecureCRT.exe SecureCRT Application VanDyke Software, Inc., click Quick Connect icon,		
💼 not connected - SecureCRT	_	×
File Edit View Options Transfer Script Tools Help		
15. 33 (규 성 저) 박 6 오. 등 등 승 1 2 3 1 2 1 2 1 2		
		×
		^

## 2.2. UART PARAMETERS

Set UART pa	arameters			
Quick	c Connect		-	×
<u>P</u> rot P <u>o</u> rt <u>B</u> aud <u>D</u> ata P <u>a</u> ri <u>S</u> top	tocol: t: d rate: a bits: ity: o bits:	Serial ~ COM5 ~ 115200 ~ 8 ~ None ~ 1 ~	Flow Control DTR/DSR RTS/CTS XON/XOFF	
□s	ho <u>w</u> quick	connect on star	✓Sa <u>v</u> e session Open in a <u>t</u> ab Connect	Cancel

# 3. HF-BL200A Module Test

### 3.1. AT Command

Step1: Connect USB to PC and install the following driver. <u>http://www.hi-flying.com/download-center-1/applications-1/driver-ft232r</u>

- > 🔜 磁盘驱动器
- > 🎥 存储控制器
- > 💼 打印队列
- > 邊 电池

、 🔲 计質机

Step 2: Set the jumper as following picture (Set P24 pull-down 4K7, P03 pull-down 4K7), Connect P04 to GND for disabling sleep.



Step 2: Open SecureCRT and set UART parameters.

Step 3: Click Reset button, the secureCRT will show the following data. It means the module is in broadcasting status.

🖬 Serial-COM3 - SecureCRT	—	×
文件(F) 编辑(E) 查看(V) 选项(Q) 传输(T) 脚本(S) 工具(L) 帮助(H)		
43 X3 C7 43 X3   🖻 18 A4   79 F5 🔿   🖀 X4   10   28 g		
Serial-COM3		X
AT:CNN-1		-

Step 4: Input the command in the input area and it will show the response on the output area as following picture.

Serial-COM13 - SecureCRT 文件(F) 编辑(E) 查看(V) 选项(O) 传输(T) 脚本(S) 工具(L) 帮助(H) ③ ③ □ ④ ④ ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ●	Image Serial-COM13 - SecureCRT 文件(F) 编辑(E) 查看(V) 选项(O) 传输(T) 脚本(S) 工具(L) 帮助(H) ③ ③ ④ ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ●												
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AT:VER? AT:VER? AT:VER? AT:VER?	→ → → → → → → → → → → → → → → → → → →				₽示	区戓数据	立即发	「送区」					
◎ +++ ◎ a ◎ STA ◎ WSSSID ◎ WSKEY ◎ AT+Z ◎ AT+WSC ◎ WSLQ ◎ AT+WSK ◎ AT:VER? 输入区	w +++ w a w STA w WSSSID w WSKEY w AT+Z w AT+WSC w WSLQ w AT+WSK w AT:VER? 输入区 就绪 Serial: COM13 5, 1 7行,1173												
◎ +++ ◎ a ◎ STA ◎ WSSSID ◎ WSKEY ◎ AT+Z ◎ AT+WSC ◎ WSLQ ◎ AT+WSK ◎ AT:VER? 输入区	<u>@ +++</u> <u>@ a</u> <u>@ STA</u> <u>@ WSSSID</u> <u>@ WSKEY</u> <u>@ AT+Z</u> <u>@ AT+WSC</u> <u>@ WSLQ</u> <u>@ AT+WSK</u> <u>@</u> AT:VER? 就绪 Serial: COM13 5, 1 7行,1173												
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	就绪 Serial: COM13 5, 1 7行,1173	AT:VER?	输	īλX									
	就绪 Serial: COM13 5, 1 7行,1173		114										
就绪 Serial: COM13 5, 1 7行,1173		就绪							S	erial: COM13	5,	1	7行,1173



### 3.2. Test Case One: Throughput

Download LightBlue in IOS appstore or CySmart for Android . May also use other BLE communication APP. The following take LightBlue for example. Step 1: Open LightBlue and connect HF-BL200A.

Step 1:	Open Lig	ontBlue and o	LIGITEDIUE	rexplorei	
	t ¢≣ Pe	eripherals I	Nearby		
	1   11	Unna No serv	med vices		> 4
	波展 <sup>为修</sup> 』  	Unna No serv	med vices		> -BL
	<sup>xp</sup> al	Unna	med vices		> <mark>=0</mark>
	al 	Unna	med vices		>
	11 -7	HF-B	<b>L200A</b> e		>
Step 2:	Click the	following UL	JID to read UA	RT data.	
	< Searc	h 📲 4G	20	:12	i 🗱 11% 🛄 i
	K Bac	ck	Perip	heral	Clone
	HF-	BL20	OA		
	UUID: (	00077867-6	350-5C05-5I	53-CA9BF4BB0E1	9
	Conne	ected			
	ADV	ERTISE	MENT DA	TA	Show
	UUII 000	D: 02B00-	0000-1	00-00805F9I	B34FB
	OxOC Prope	002B10- rties: Notify	0000-1000	-8000-00805F9{	B34FB >

Step 3: Click Listen For notifications to show the received UART data.





Step 4: Click Write new value to send data.



Search 💵 4G	20:19	
KHF-BL200A Ox	00002B11-00	000-1000 Hex
HF-BL200A		
0x00002B1	1-0000	-1000-8
UUID: 00002B11-0000-	-1000-8000-008	05F9B34FB
Connected		
WRITTEN VALUES		
Write new value		
0x <b>30</b> 20:18:50.562		í
0x03		i
0x88		i
20,10,33,007		

# 3.3. UART Upgrade

Step 1: Connect as following picture.



Step 2: Open iLoad Tools and load firmware. Set baud rate to 921600.



🍰 Downlo	bad		- 🗆 ×
	Binary File:	E:\hiflying\产品\HF-BL200\HF-BL200A\烧录程序\HF-BL200A-HSF_1.0_20180	Select Binary
Patch	Binary File:		Select Binary
	Com Port:	COM4 921600 🗸	Start
	about		

Step 3: Press down Reload(Set P03 to high), then click Reset, when the tools show Download, then loose nReload to wait upgrade.

A I DU / F SF AU UDWAA / AAAA AA HAAF Z / UWD SA CAA / F SF AHADWAA / AAAAAANA Z / UWD 4A CAA	/PSPAHWDV	AA/ AAAAga 	TAAPZ/DWCEACAA				
AIDU/FOFAISDWAA/AAAAJAHAAFZ/DWUQACAA/FOFAJQDWAA/AAAAMAHAAFZ/DWUCACAA ATRD/PSPAKwRasta/aaaaataataataataataataataataataataata	/PSPANADV /PSPANORs	/AA/ AAAAPA +66 / 666 6476	TAAFZ/DWCOACAA TAAFZ/DwDWacaa				
ATRD/PRPANABwaa/aaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaa	AAAAAAAAAA		AAAAAAAAAAAAAA				
ATBDAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA	AAAAAAAAA	AAAAAAAAA	AAAAAAAAgTCAg				
ATBDICAgICAoKCgoKCAgICAgICAgICAgICAgICAgIIaQEBAQEBAQEBAQEBAQEBAEBAQE	BAQEBAQEE	BAQEBAQEE	BOUFBOOEBAOEB				
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ATBDAQAAAAAAAACCAAAAQQAAAERUgAAAABAAUwAAABQqEAADAAAACQAAAGhUgAADAAAA			A A AURIT of A AD A Anna				
ATBUUWAAABU QEAACAAAAUUAAA JKUgAADAAWAUWAAABU QEAACAAAUUAAALhUgAADABKA	🖆 Downlo	bad					- U X
AIBUCWAAAIgnEAAUAAAAEUeeytwkUu®p4jFzo/UBAEBuAAACAUUjCUhGLUjMLVNIAAAA							
AIDU-AAAAryaAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA		Binary File:	E:\hiflying\产品\HF-BL200\HF-BL200	AV烧录程序IH	F-BL200A-HSP	F_1.0_20180	Select Binary
ATBF							
ATTE.	Patch	Binary File:					Select Binary
onLoaderChange: idx = 0, the state:E LS CHECK DEVICE READY							
do write enable $\#$ :		Com Port:	COM14	921600		-	Start
onLoaderChange: idx = 0, the state:E_LS_FLASH_START_ERASE_CHIP			Down	oading 0%			
do chip erase			Down	ouung.o.o			
onLoaderChange: idx = 0, the state:E_LS_ERASE_CHIP_FINISHED		about					
onLoaderChange: idx = 0, the state:E_LS_START_BLOCK_WRITE							
Step 4: Do reboot after upgrade.							
Download							$\sim$
Download					_		_
					_		

	Binary File:	E:\hiflying\产品\HF-BL200\HF-BL200A\烧录程序\HF-BL200A-HSF_1.0_20180	Select Binary
Patch	Binary File:		Select Binary
	Com Port:	COM14 👻 921600 💌	Start
		Finished	
	about		

### 3.4. OTA Upgrade

Step 1: Install leRemote, and put the OTA firmware into the iComm directory(Need to enable USB debug mode), then connect phone to PC and copy the firmware.

1织 ▼			
🖌 收藏夹	hsad	hswf	icbcimlite
🕠 下载	文件夹	文件夹	文件夹
1911 最近访问的位置	ICBCWAPLog	iComm	JDIM
4 2345下载	文件夹	文件夹	文件夹
■ 库	kugou	libs	live
	文件夹	文件夹	文件夹
<ul> <li>图片</li> <li>文档</li> </ul>	logcat	miad	miliao
	文件夹	文件夹	文件夹
📄 迅雷下载	mishop	MIUI	mivideo
👌 音乐	文件夹	文件夹	文件夹
■ 11/29+0	NA-L		

Step 2: Enable the APP read and write authority.



< 应用	用管理	:			11:30	*⊜⊠⊂
Q 授労	106 个应用程序				時形相並	
	小米服务框架 (這行中) 內存:15 MB	存储: 6.38 MB	<b>leRemote</b> 版本: 00.03.20180323		<sup>184411</sup> 天 <b>定位</b> 通过网络或者卫星对您的手机定位	
íна	智能家居 (105 MB	存储: 90.33 MB	● 存储占用	2.56 MB >	读取应用列表 读取手机中已安装应用列表	
			● 月流量消耗	0B >	多媒体相关	
<b>X</b>	leRemote [圖行中] 內存: 13 MB	存储: 2.56 MB	■ 电量消耗	0.5% >	读写手机存储 <sub>读写手机存储</sub>	
Θ,	QQ [ <u>遠行中</u> ]		权限相关		设置相关	
5	内存:141 MB	存储: 612 MB	自启动		开启蓝牙 <sub>开启或关闭蓝牙</sub>	
١	352Air 最近未打开	存储: 52.86 MB	权限管理	4项允许 >	<b>锁屏显示</b> 允许应用在锁屏上显示	
4	<b>阿里智能</b> 最近未打开	存储: 237 MB	通知管理	角标 >	后台弹出界面 <sup>允许应用在后台弹出界面</sup>	
	爱奇艺播放器		省电策略	智能限制 >		
	最近未打开	存储: 24.27 MB	高级设置			
Ų,	<b>安智市场</b> 最近未打开	存储: 21.63 MB				

Step 3: Connect as the following picture(P03 and P04 pull-down or connect to GND)



Step 4: Open APP, and click the HF-BL200A, then click Start-OTA upgrade.



BLE Devices Version: 00.02.20171213	SCAN (HF-BL200A (3C:CF:5B:09:D7:96)
Unknown device 3F:6C:FD:D7:83:93 NOT BONDED	
Unknown device 31:95:B1:4F:01:A5 NOT BONDED	State: Disconnected
Unknown device 32:16:33:71:99:F9 NOT BONDED	Data: No data
HF-BL200A 3C:CF:5B:09:D7:96 NOT BONDED	Start - OTA upgrade
Unknown device 12:A2:FE:C2:6D:63 NOT BONDED	
Unknown device 25:DE:34:48:7F:80 NOT BONDED	Select Binary
Unknown device 30:DA:86:AA:9B:3D NOT BONDED	[BL200A-HSF_APP_1.6.bin]
Unknown device 20:3E:0E:A2:91:A1 NOT BONDED	

Step 5: The OTA is in progress. When it show Stop, the upgrade is finished.

幾上7:16 0.00K/s \$ <sup>(</sup> ) 중	晚上7:17 0.25K/s \$ 🗇 🛹 电信 🛲 联番 4G 📻 78		
( HF-BL200A (3C:CF:5B:09:D7:96)	( HF-BL200A (3C:CF:5B:09:D7:96)		
Info: 00:00:06.063	Info: 00:00:26.740		
State: OTA Upgrading	State: Stop		
Data: Progress: 3900/28712 Bytes	Data: Progress: 28712/28712 Bytes		
Stop - OTA upgrade	Start - OTA upgrade		