

BL602 模组 iperf

测试说明

版本: 1.0

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Contents

1	iperf 测试准备 .		•		•	•	•		•	•	 		•	•	•	•		•	•		•	 •	•		•			3
2	ipu/UDP Tx 测试	•	•		•	•	•		•	•	 			•					•		•	 •	•		•			11
3	ipc/TCP Tx 测试	•	•	•	•	•	•		•	•	 	•		•					•		•		•		•			12
4	ips/TCP Rx 测试	•	•	•	•	•	•		•	•	 	•		•					•		•		•		•			13
5	ipus/UDP Rx 测试		•		•	•	•			•	 			•					•		•	 •	•		•			14

iperf 测试准备

1. Window PC 安装 iperf 工具:

lperf下载链接,(下载的 2.0.9 版本)下载完之后解压得到 iperf-2.0.9-win64 文件,使用快捷键 WIN + R,启动运行窗口,输入 cmd,点击确定按钮,进入 iperf 工具所在的目录(本示例 iperf 工具放在 c 盘的根目录下)。

此	电脑 > 本地磁盘 (C:) > iperf-2.0.9-win64			
	名称 ^	修改日期	类型	大小
	📧 checkdelay	2016/6/16 11:17	应用程序	67 KB
<u>_</u>	🗟 cyggcc_s-seh-1.dll	2016/4/17 16:12	应用程序扩展	70 KB
×.	🗟 cygstdc++-6.dll	2016/4/17 16:13	应用程序扩展	1,338 KB
*	🗟 cygwin1.dll	2016/4/21 22:14	应用程序扩展	3,457 KB
*	📧 iperf	2016/6/16 11:17	应用程序	173 KB
*				

图 1.1: 解压后的文件

C:\Users\admin>cd/
C:\>cd iperf-2.0.9-win64
C:\iperf-2.0.9-win64>iperf.exe Usage: iperf [-s -c host] [options] Try `iperfhelp' for more information.
C:\iperf-2.0.9-win64>_

图 1.2: cmd 界面

- 2. PC 与路由器通过有线连接
- 3. 烧录:烧录前硬件模块的相关引脚连接如下图所示,其中图一是模块的正面图,其标号1处用跳线帽短接,标号2 处将左边两根排针短接,标号3处将上面的两根排针短接;图二是模块的背面图,烧录时将 IO8 和 HI 两根排针短



接,烧录完成后将 IO8 和 LOW 两根排针短接并重新上电。



图 1.3: 模块正面



图 1.4: 模块背面



完成硬件连接后,打开烧写工具 Bouffalo Lab Dev Cube 中的 BLFlashEnv.exe, chip type 选择 BL602/604,打开 后设置界面参数,配置完后点击 Download,配置及下载完成效果如下图所示:

™ Bouffalo Fla File View He	ish Environment 1.3.0 - BL602/604 Ip			-	o ×
Simple Fla	sher				
Interface COM Port Uart Rate JLink Rate Board Xtal Chip/Flash	Uart ~ COM4 ~ 2000000 1000 10TKitA ~ 40M ~ BL602C-20-Q21-G0 ~ Refresh	Erase All Single D Factory Params Partition Table Boot2 Bin Firmware Bin Media Romfs MFG Bin AES-Encrypt	Download Browse Browse Browse Browse Browse Browse Key (16 Bytes) IV (16 Bytes)	kage_V1.2\BouffaloLabDevCube-1.3.0-win32\bi602\partition\partition_cfg_2M.toml Package_V1.2\BouffaloLabDevCube-1.3.0-win32\bi602\builtin_imgs\blsp_boot2.bin uation_Package_V1.2\App_Demos\bi602_demo_wifn\build_out\bi602_demo_wifn\bi602_de	
	Clear	OxO	Browse		
verifyin	9	100%		Log Build	Download
finished sha caled by h xip mode verif read sha256/3 flash xip reads finished sha caled by d verify succes program finish all time cost(m	ost: adaf0ed5bc9d4bdf5ee5e2982; y 818 sha time cost(ms): 15.1845703125 lev: adaf0ed5bc9d4bdf5ee5e29822 sed us): 12266.727783203125	25cce42f903f2540083dba 25cce42f903f2540083dba5	5c59b36af56648c46 ;c59b36af56648c46		~

图 1.5: 烧写工具界面

4. 串口工具 putty 的使用:

下载链接



Alternative binary files

The installer packages above will provide versions of all of these (except PuTTYtel), but you can download standalone binar (Not sure whether you want the 32-bit or the 64-bit version? Read the <u>FAQ entry</u>.)

putty.exe (the SSH and Telnet client itself)										
32-bit:	<u>putty.exe</u>	(<u>or by FTP)</u>	(<u>signature)</u>							
64-bit:	<u>putty.exe</u>	(<u>or by FTP)</u>	(<u>signature)</u>							
pscp.exe (an S	CP client, i.e. command-line secu	re file copy)								
32-bit:	<u>pscp.exe</u>	(<u>or by FTP)</u>	(<u>signature)</u>							
64-bit:	<u>pscp.exe</u>	(<u>or by FTP)</u>	(<u>signature)</u>							
psftp.exe (an S	SFTP client, i.e. general file trans	fer sessions much like FTI	?)							
32-bit:	<u>psftp.exe</u>	(<u>or by FTP)</u>	(<u>signature)</u>							
64-bit:	<u>psftp.exe</u>	(<u>or by FTP)</u>	(<u>signature)</u>							
puttytel.exe(a Telnet-only client)									
32-bit:	<u>puttytel.exe</u>	(<u>or by FTP)</u>	(<u>signature)</u>							
64-bit:	<u>puttytel.exe</u>	(<u>or by FTP)</u>	(<u>signature)</u>							

图 1.6: putty 下载界面

将 BL602 模组用串口线与电脑连接,右击我的电脑-> 管理-> 设备管理器-> 端口,查看端口号,一般选择较小的端口 号用来配置 putty。



图 1.7: 查看串口号



打开 putty 工具,设置对应的端口号,波特率设定为 2000000 bps。在 putty 中输入 "reboot" 命令重启模块 (IO8 和 LOW 两根排针短接)。

🕵 PuTTY Configuration		?	\times
Category:			
Session	Basic options for your PuTTY se	ssion	
Logging	Specify the destination you want to conne	ct to	
	Serial li <u>n</u> e	Speed	ר
Bell	COM4	2000000	
Features	Connection type:		
	◯ Ra <u>w</u> ◯ <u>T</u> elnet ◯ Rlogin ◯ <u>S</u> SF	I O Seria	al
Appearance Behaviour Translation Selection Colours Connection Poxy Telnet Rlogin SSH Selection	Load, save or delete a stored session Sav <u>e</u> d Sessions Default Settings	Load Sa <u>v</u> e Delete	
<u>A</u> bout <u>H</u> elp	Open	<u>C</u> ancel	

图 1.8: putty 配置

ipu/UDP Tx 测试

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bl602 作为 client, PC 作为 server

- 1. router ssid: bl_test_008, passwd: 12345678
- 2. 在 PC 的 cmd 界面运行命令: \$iperf.exe -s -u -i 1

C:\iperf-2.0.9-win64>iperf.exe -s -u -i 1 Server listening on UDP port 5001 Receiving 1470 byte datagrams UDP buffer size: 208 KByte (default)

图 2.1: PC 端 lperf 开启 sever 模式

- **3**. 在 putty 中运行命令:
 - #wifi_sta_connect bl_test_008 12345678 (连接成功后会获取 IP 地址)



图 2.2: 模块成功连接 WiFi

• #ipu 192.168.8.101 (192.168.8.101 是 PC 的 IP 地址)



#	bin	d UDP	soc	ket :	succe	ssful	lly!			
р	a 64'	75404	9d,	rssi	-34,	rss	trk	-36,	ppm	6.3
1	push	back								
1	push	back								
1	push	back								
	push	back								

图 2.3: 模块开启 ipu

3]	19.0-20.0 sec	1.76 MBytes	14.8 Mbits/sec	0.347 ms	1/ 1423	(0.07%)
3]	19.0-20.0 sec	1 datagrams	received out-of-	order		
3]	20.0-21.0 sec	1.84 MBytes	15.5 Mbits/sec	0.261 ms	1/ 1487	(0.067%)
3]	20.0-21.0 sec	1 datagrams	received out-of-	order		
3]	21.0-22.0 sec	1.73 MBytes	14.5 Mbits/sec	0.311 ms	1/ 1395	(0.072%)
3]	21.0-22.0 sec	1 datagrams	received out-of-	order		
3]	22.0-23.0 sec	1.84 MBytes	15.5 Mbits/sec	0.274 ms	2/ 1487	(0.13%)
3]	22.0-23.0 sec	2 datagrams	received out-of-	order		
3]	23.0-24.0 sec	1.81 MBytes	15.1 Mbits/sec	0.436 ms	2/ 1456	(0.14%)
3]	23.0-24.0 sec	2 datagrams	received out-of-	order		
3]	24.0-25.0 sec	1.61 MBytes	13.5 Mbits/sec	0.313 ms	2/ 1296	(0.15%)
3]	24.0-25.0 sec	2 datagrams	received out-of-	order		
3]	25.0-26.0 sec	1.77 MBytes	14.8 Mbits/sec	0.279 ms	2/ 1426	(0.14%)

图 2.4: Sever 端数据

ipc/TCP Tx 测试

bl602 作为 client, PC 作为 server

- 1. router ssid: bl_test_008, passwd: 12345678
- 2. PC 运行命令: \$iperf -s -i 1
- 3. 启动 bl602 模组,运行命令:
 - #wifi_sta_connect bl_test_008 12345678 (连接成功后会获取 IP 地址)
 - #ipc 192.168.8.101 (192.168.8.101 是 PC 的 IP 地址)



4

bl602 作为 server, PC 作为 client

- 1. router ssid: bl_test_008, passwd: 12345678
- 2. 启动 b1602 模组,运行命令:
 - #wifi_sta_connect bl_test_008 12345678 (连接成功后会获取 IP 地址)
 - #ips
- 3. PC 运行命令: \$iperf.exe -c 192.168.8.100 -t 360 -i 1 (192.168.8.100 是模组的 IP 地址)

ipus/UDP Rx 测试

5

bl602 作为 server, PC 作为 client

- 1. router ssid: bl_test_008, passwd: 12345678
- 2. 启动 b1602 模组,运行命令:
 - #wifi_sta_connect bl_test_008 12345678 (连接成功后会获取 IP 地址)
 - #ipus
- 3. PC 运行命令: \$iperf.exe -u -c 192.168.8.100 -t 360 -i 1 (192.168.8.100 是模组的 IP 地址)