Manual

Mode : <u>MOFI4500-4GXeLTE</u>

Producer : <u>宋骞</u>

Verifier :

Release Date:

■ Remark:

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1. Product Overview

1.1 Simply Description

ZBT-WE826 provide an easy way to expend your wired Ethernet to wireless. It work well on gateway, and you could configure it via Web. It could meet both enterprise and the home's requirements economically, its user could browser the internet and time and anywhere. It has multi-function ,highly-perfomance and easy install. Will be your best choice to build your own WLAN. About the wireless security, WE826 provide multi-protection, support unable SSID broadcast , also provide 64/128/152 bit WEP encryption , support for WPA / WPA-PSK, WPA2/WPA2-PSK security mechanism , in order to protect your data .Comply with 802.11n/ 802.11g/ 802.11b/ 802.113/802.113u standard has 300Mbps , Our smart antenna management, makes the ZBT-WE826 performs much better than other similar product in WiFi transmission distance, perfectly compitable with other network device.

■ 1.2 Features and Specification

1.2.1 Main Features

- Provide 5 10M/100M Ethernet ports
- > DHCP server
- > Support RTS/CTS protocol , ensure the communication quality
- Roaming technology , efficient wireless connect
- DHCP serve static IP address
- Web manage

1.2.2 Specification

- Comply with 802.11n/802.11g/802.11b/802.113/802.113u standard
- Support TCP/IP、DHCP、ICMP protocol
- Auto MDI/MDIX port
- Indictor LED, power adapter(12V 1A)
- ➤ Work temperature 0°C 40°C
- > Operating Humidity: 10%~90% non-condensing

2. Hardware Description

■ 2.1 Panel Layout

2.1.1 Front Panel



Pic 2-1 Front Panel

Indictor LED (Will adjust with the specific mode)

Indictor LED	Description	Function
POWER	Power LED	Keep ON - Power in Keep Off - No Power
Mode or USB	Mode or USB LED	Flashing - Mode or USB work Keep Off - Mode or USB not work
LAN	LAN LED	On - The relevant port connect Off - No connect to the relevant port Flashing- Data transmission on the relevant port
WLAN	Wifi LED	Off - Wireless function unable On - Wireless function enable

Interface((Will adjust with the specific mode)

Interface	Description	Function
USB	USB2.0 Port	External USB device or USB net card
Micro SD(TF)	Micro SD(TF) slot	External Micro SD card slot, data exchange

2.1.2 Back Panel



Pic 2-2 Back Panel Port(Will adjust with the specific mode)

Port	Description	Function
DC	Power Port	Connect the supplied power adapter.
LAN	LAN Port (RJ45)	Connect to the devices in the LAN, such as HUB, switches or PC
WAN	WAN Port (RJ45)	Connect to the WAN device, data exchange with the internet

Button(Will adjust with the specific mode)

Button	Description	Function
REST/WPS	REST/WPS Multi-function button	Rest: Press for 8 seconds WPS: Press one times.
Antenna	2* 5Dbi omni antenna	Wireless data transfer and receive

2.2 Rest

If you want to rest to the factory default settings, please refer the below steps

- 1) To plug the power adapter.
- 2) When the router works normally, press the REST/WPS button for 8 seconds.
- 3) All the router's LEDs will off and then on again, wait until it work normally.
- 4) When above 3 steps done, the router will rest to the factory default setting.

Warming:

Before steps finishing, don't cut the power off, or it will break your router.

■ 2.3 System Requirements.

- Network card and Ethernet cable
- > TCP/TP net software (Windows 95 or higher version has pre-install)
- ➢ IE 5.0 or higher version

2.4 Install Condition

When you install the router, please refer the below

- Put the device horizontally
- > Keep away from any heat device
- > Do not put it in some place which is too dirty or too humidity.

Remark:

The environment will effect the transfer distance , recommend using environment: Temperature: $0^{\circ}C \sim 40^{\circ}C$,Humidity: $10\% \sim 95\%$ RH

3. TCP/IP Configuration

Before using the device, you need to configure the network correctly, this manual is based on the Windows 2000/XP, the IP of the device is 192.168.1.1, subnet mask is 255.255.255.0.

Firstly, connect your PC to the LAN port, and then you can configure the IP of your PC in 2 ways.

♦ Set the IP

Set your PC's IP as 192.168.1.xxx(xxx could be any number in 2~254), subnet mask to be 255.255.255.0 , default gateway 192.168.1.1 , DNS server 192.168.1.1

$\diamond~$ Auto set the IP by the DHCP server.

Set the TCP/IP to "automatically get IP address", after setting , you could use the Ping command to check if the device has connected to the PC. For an example, in Windows 2000, run the cmd.exe , and the enter ping 192.168.1.1 If the screen shows as the below, means OK, the device connected to the PC.

```
Pinging 192.168.1.1 with 32 bytes of data:
Reply from 192.168.1.1: bytes=32 time<10ms TTL=64
Ping statistics for 192.168.1.1:
    Packets: Sent = 4, Received = 4, Lost = 0 <0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 0ms, Average = 0ms
```

If it shows as below, it means fail

```
Pinging 192.168.1.1 with 32 bytes of data:
Request timed out.
Request timed out.
Request timed out.
Request timed out.
Ping statistics for 192.168.1.1:
    Packets: Sent = 4, Received = 0, Lost = 4 (100% loss),
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 0ms, Average = 0ms
```

When it fails to connect, you could check as below.

1): If the hardware connect in right way?

>>The relevant LED to the PC must be on

2): If your PC's TCP/IP sets right?

>>If the IP of the device is 192.168.1.1 , your PC's IP must be 192.168.1.xxx(xxx should be 2~253)

4. Configuration Guide

■ 4.1 Start and Login

The router provide the UI based on the IE, this solution could work in any MS Windows, Macintosh or UNIX system . Run the browser, unable the VPN (if the VPN is working), and then input the 192.168.1.1 in browser. After doing that, you will see the login page, you should enter it as the administer, which means you should enter the username: root /Password: admin , and then click the "log in"

The system of the ZBT-WE826 is OpenWrt

ZBT-	WR8305RT OpenWrt Attitude Adjustment 12.09.1 Load: 0.20 0.11 0.05			
	Authorization Required			
	Please enter your username and password.			
	Username		1	
	Password	2		
		(1	
				Reset Login
Pov	vered by LuCI Trunk (0.11+svn396)			

4-1 Log in webpage

When everything goes well, the browser will show as the 4-2. There are several tag, click some tag, you could configure relevant function settings.

8305RT OpenWrt Attitude Adjustment 12.09.1 Load: 0.14 0.	10 0.05 Auto Refresh: on				C
tatus System Services Network Logout					
verview Firewall Routes System Log Kernel Log Proc	esses Realtime Graphs				
stus					
System					
Router Name Router Model	ZBT-WR8305RT ZBT WR8305RT				
Firmware Version		ment 12.09.1 / LuCI Trunk (0.11-	evn306)		
Kernel Version	3.3.8		21113201		
Local Time	Tue Apr 2 19:20:50 2013	3			
Uptime	Oh 4m Os				
Load Average	0.08, 0.09, 0.05				
Memory					
Total Available	49456 kB / 61944 kB				
Free	49456 kB / 61944 kB 39568 kB / 61944 kB				
Cached	7648 kb7 61944 kb 2240 kb7 61944 kb				
Buffered	2240 kB / 61944 kB (3%)				
Network	1011011001				
IPv4 WAN Status	2 Not connected				
Active Connections	270 / 16384 (1%)				
DHCP Leases					
Hostname I	Pv4-Address	MAC-Address		Leasetime remai	ining
		There are no active leases.			
Vireless					
Generic 802.11bgn Wireless Controller (ra0)	SSID: <u>2BT-China</u> Mode: Master Channel: 11 (0.0) 100% Bitrate: 300 Mbi, BSSID: 00:01:42 Encryption: -	912C08 00 GH2) /s :91:2C:DB			
Associated Stations					
MAC-Address	Network	Signal	Noise	RX Rate	TX Rate
		No information available			

4-2

I will explain each menu.

- 4.2 us
 - ♦ 4.2.1 Overview

Click the "Overview" You could check the running information, included system information, Memory, network, DHCP leases, wireless and associate stations, as 4.2.1

🔞 ZBT-WR8305RT - Overview 🗙 📃					
← → C 🗋 192.168.1.1/cgi-bin/luci					요 ☆ 🔇
ZBT-WR8305RT OpenWrt Attitude Adjustment 12.09.1 Load	: 0.14 0.10 0.05 Auto Refresh: on				Change
Status System Services Network Logout					
Overview Firewall Routes System Log Kernel Lo	og Processes Realtime Graphs				
61 J					
Status					
System					
Router Name	ZBT-WR8305R1				
Router Model	ZBT WR8305RT				
Firmware Version		de Adjustment 12.09.1 / LuCI Trunk (0.1	.1+svn396)		
Kernel Version	3.3.8				
Local Time	Tue Apr 2 19:2	0:50 2013			
Uptime	0h 4m 0s	-			
Load Average	0.08, 0.09, 0.0	, ,			
Memory					
Total Available	49456 kB / 6	1944 kB			
Free	39568 kB / 6	1944 kB			
Cached	7648 kB 761	944 kB			
Buffered	2240 kB 7 61 (3%)				
Network					
IPv4 WAN Status					
	Not connect	əd			
Active Connections	270 / 16384	(1%)			
DHCP Leases					
Hostname	IPv4-Address	MAC-Address		Leasetime remai	ning
		There are no active leases.			
Wireless					
Generic 802.11ban Wireless Controller (ra0)	CCID:	PT Chine R10CDR			
concine obz. 11 bg/r virieless controller (rady	Mode: 1	<u>BT-China 912CDB</u> Master : 11 (0.000 GHz) 300 Mbit/s 00:01:42:91:2C:DB			
	Channe 100% Bitrate:	I: 11 (0.000 GHz) 300 Mbit/s			1
	BSSID: Encrypt	00:01:42:91:2C:DB			
	спстур				
Associated Stations					
MAC-Address	Network	Signal	Noise	RX Rate	TX Rate
		No information available			

4.2.1 Status

- System: Router name, Router model, Firmware version, Kernel version, Local Time, Uptime, Load average.
- > Memory: Total available , Free, Caches, Buffered
- > Network: The connection status of the WAN port.
- > DHCP Leases: Show the IP address ,MAC, and the Lease time
- Wireless: It is about the wireless status, will included SSID, Mode, Work Channel, Bitrates, the MAC of the wireless interface, the Encryption of the transmission.
- > Associate: Shows the status of all the device connect to the router via Wireless

• 4.2.2 Firewall

Click the firewall tag, you could check the firewall status of the device

GDI	192.168.1.	1/cgi-bin/luci/;s	tok=e8bcdf8e525cae8f0728f5	:Uc7c89191/a	dmin/sta	tus/iptabl	es/			Q 🏠
8305RT O	penWrt Atti	tude Adjustment 12.0	9.1 Load: 0.04 0.08 0.05							Char
atus Sys	stem Servi	ces Network L	ogout							
verview	Firewall F	Routes System Log	Kernel Log Processes Realtin	ne Graphs						
	-									
ewall Statu	IS									
Actions										
 Reset C Restart 	Counters Firewall									
• <u>Restart</u>	ritewaii									
Table: Filte	r									
Chain INP& Rule #	DT (Policy: Pkts.	ACCEPT, Packets: 0, Traffic	Traffic: 0.00 B) Target	Prot.	Flags	In	Out	Source	Destination	Options
Rule #		173.78 KB	delegate input	all		•	*	0.0.0.0/0	0.0.0/0	-
Chain COD								10111030114.2013		
Rule #	Pkts.	icy: DROP, Packets: Traffic	Target	Prot.	Flags	In	Out	Source	Destination	Options
1	0	0.00 B	delegate forward	all		*	*	0.0.0.0/0	0.0.0/0	-
Chain OUT	7747 (Dolice	: ACCEPT, Packets:	D Traffic: 0.00 B)							
Rule #	Pkts.	Traffic	Target	Prot.	Flags	In	Out	Source	Destination	Options
1	2623	252.32 KB	delegate output	all		*	*	0.0.0.0/0	0.0.0/0	-
Chain dolo	aste forus	ard (References: 1)								
Rule #	Pkts.	Traffic	Target	Prot.	Flags	In	Out	Source	Destination	Options
1	0	0.00 B	forwarding_rule	all			*	0.0.0.0/0	0.0.0/0	/* user chain for forwarding */
2	0	0.00 B 0.00 B	ACCEPT zone lan forward	all		br-lan	*	0.0.0.0/0	0.0.0/0	ctstate RELATED,ESTABLISHED
4	ŏ	0.00 B	zone wan forward	all		eth2.2	*	0.0.0.0/0	0.0.0/0	
5	0	0.00 B	reject	all		*	*	0.0.0.0/0	0.0.0/0	-
Chain <i>dele</i>	gate input	(References: 1)								
Rule #	Pkts.	Traffic	Target	Prot.	Flags	In	Out	Source	Destination	Options
1	1968	130.69 KB	ACCEPT	all		lo *	*	0.0.0.0/0	0.0.0.0/0	
2	489 384	43.09 KB 32.75 KB	input_rule ACCEPT	all			*	0.0.0.0/0	0.0.0.0/0	/* user chain for input */ ctstate RELATED,ESTABLISHED
4	29	1.47 KB	syn flood	tcp				0.0.0.0/0	0.0.0/0	tcp flags:0x17/0x02
5	105	10.35 KB	zone lan input	all		br-lan	*	0.0.0/0	0.0.0.0/0	
6	0	0.00 B	zone wan input	all		eth2.2		0.0.0.0/0	0.0.0/0	-
		t (References: 1)								
Rule #	Pkts. 1968	Traffic	Target ACCEPT	Prot.	Flags	In *	Out	Source	Destination	Options
2	1968	130.69 KB 121.64 KB	output rule	all			lo *	0.0.0.0/0	0.0.0/0	/* user chain for output */
3	655	121.64 KB	ACCEPT	all		•	*	0.0.0.0/0	0.0.0/0	dstate RELATED,ESTABLISHED
4	0	0.00 B	zone lan output	all		*	br-lan	0.0.0/0	0.0.0/0	
5	0	0.00 B	zone wan output	all		·	eth2.2	0.0.0.0/0	0.0.0/0	
	ct (Referen									
Rule #	Pkts.	Traffic	Target	Prot.	Flags	In	Out	Source	Destination	Options
1	0	0.00 B 0.00 B	REJECT REJECT	tcp		*	*	0.0.0.0/0	0.0.0.0/0 0.0.0.0/0	reject-with tcp-reset reject-with icmp-port-unreachable
2	0	0.00 8	REJECT	all				0.0.0.0/0	0.0.0.0/0	reject-warnanp-port-unreathable

4.2.3 Routing List

Click the status-routes, you could check the routing list of the device, the currently active on the device.

Status System Services Network Logout Overview Frewall Routes System Log Free August Routes Routes System Log Free August Interface Interface 192-168.1.3 Active IPv4-Routes	bc:5f:14:18:72:05 br-lan	T-WR8305RT OpenWrt Attitude Adjustment 12.09.1 Load: 0.0	3 0.07 0.05			Changes:
Routes Mac-address Interface ARP IPs4-Address Interface bc:5f:f4:f8:72:05 br-tan	bc:5f:14:18:72:05 br-lan	Status System Services Network Logout				
The following rules are currently active on this system. ARP IPv4-Address Interface 192.168.1.3 bc:5f:f4:f8:72:05 br-lan	bc:5f:14:18:72:05 br-lan	Overview Firewall Routes System Log Kernel Log F	rocesses Realtime Graphs			
ARP MAC-Address Interface 192.168.1.3 bc:5f:f4:f8:72:05 br-tan	bc:5f:f4:f8:72:05 br-lan	Routes				
IPv4-Address MAC-Address Interface 192.168.1.3 bc.51:14:18:72:05 br-lan	bc:5f:14:18:72:05 br-lan	The following rules are currently active on this system.				
192.168.1.3 bc:51:14:18:72:05 br-lan	bc:5f:14:18:72:05 br-lan	ARP				
	IPv1-Gateway Metric					
CActive IPv4-Routes		192.108.1.3		DC:51:14:18:72:05	br-tan	
		Active IPv4-Routes				
lan 192.168.1.0/24 0.0.0.0 0	00000 0	lan	192.108.1.0/24	0.0.0	U	

4.2.3

4.2.4 System Log

Click the System Log, you could check the running status and the operate history

🔊 🔻 🙋 http://192.168.1.1/cgi-bin/luci/;stok=70ef5b10a486c7c726d672281b4b7f8b/admin/status/syslog/	💙 🐼 🦘 🗙 📴 Live Search	2
2. 编辑 E) 查看 (Y) 收藏夹 (L) 工具 E) 帮助 (L)		
(福央 / 2BI - 系統日志 - LuCI / 2DI - 2DI		
OpenWrt Attitude Adjustment 12.09.1 负载: 0.00 0.03 0.02		修改数:
状态 系统 服务 网络 退出		
总览防火墙路由表 系统日志 内核日志系统进程实时信息		
系统日志		
Apr 2 19:17:05 ZBT kern.info kernel: [1.484000] serial8250: ttyS0 at MMIO 0x10000500 (ir	r = 37) is a 16550b	<u></u>
Apr 2 19:17:05 ZBT kern.info kernel: [1.492000] serial8250: ttyS1 at MMIO 0x10000c00 (ir		
Apr 2 19:17:05 ZBT kern.alert kernel: [1.500000] Enable Ralink GDMA Controller Module	- · ·	
Apr 2 19:17:05 ZBT kern.alert kernel: [1.504000] GDMA IP Version=3		
Apr 2 19:17:05 ZBT kern.info kernel: [1.516000] loop: module loaded		
Apr 2 19:17:05 ZBT kern.alert kernel: [1.520000] Ralink SPI flash Driver for PandoraBox.		
Apr 2 19:17:05 ZBT kern.alert kernel: [1.524000] deice id : ef 40 18 0 0 (40180000)		
Apr 2 19:17:05 ZBT kern.alert kernel: [1.528000] W25Q128BV(ef 40180000) (16384 Kbytes)		
Apr 2 19:17:05 ZBT kern.alert kernel: [1.532000] mtd .name = raspi, .size = 0x01000000 (OM) .erasesize = 0x00000010 (OK) .numeraseredi	ions =
Apr 2 19:17:05 ZBT kern.notice kernel: [1.544000] Creating 5 MTD partitions on "raspi":		
Apr 2 19:17:05 ZBT kern.notice kernel: [1.548000] 0x00000000000-0x000000030000 : "u-boo		
Apr 2 19:17:05 ZBT kern.notice kernel: [1.556000] 0x00000030000-0x000000040000 : "u-boo		
Apr 2 19:17:05 ZBT kern.notice kernel: [1.564000] 0x00000040000-0x000000050000 : "Facto		
Apr 2 19:17:05 ZBT kern.notice kernel: [1.568000] 0x0000000000-0x000001000000 : "fullf	-	
Apr 2 19:17:05 ZBT kern.notice kernel: [1.576000] 0x000000050000-0x00001000000 : "firmw		
Apr 2 19:17:05 ZBT kern.notice kernel: [1.584000] Creating 2 MTD partitions on "raspi":		
Apr 2 19:17:05 ZBT kern.notice kernel: [1.5880001 0x00000050000-0x000000150000 : "kerne	1 "	
Apr 2 19:17:05 ZBT kern.notice kernel: [1.5960001 0x00000150000-0x00001000000 : "rootf		
Apr 2 19:17:05 ZBT kern.notice kernel: [1.600000] mtd: partition "rootfs" set to be root		
Apr 2 19:17:05 ZBT kern.info kernel: [1.608000] mtd; partition "rootfs data" created aut		
Apr 2 19:17:05 ZBT kern.notice kernel: [1.616000] 0x000005b0000-0x000001000000 : "rootf		
Apr 2 19:17:05 ZBT kern.alert kernel: [1.624000] rdm major = 253		
Apr 2 19:17:05 ZBT kern.alert kernel: [1.628000] Fdm major = 235 Apr 2 19:17:05 ZBT kern.alert kernel: [1.628000] EEPROM:Read from [Factory] offset 0x28,]	length Ouf	
Apr 2 19:17:05 ZBT kern.alert kernel: [1.628000] ELFKOM:Read from [ractory] offset 0x28, Apr 2 19:17:05 ZBT kern.alert kernel: [1.632000] SMACCR1 : 0x00000001	tengon ono.	
Apr 2 19:17:05 ZBT kern.alert kernel: [1.636000] SMACCRO : 0x42d0bd30 Apr 2 19:17:05 ZBT kern.alert kernel: [1.640000] Ralink APSoC Ethernet Driver Initilizat	ion w2 0 256 ww/tw descriptors allocated w	
		5u = 15
Apr 2 19:17:05 ZBT kern.alert kernel: [1.648000] NAFI enable, Tx Ring = 256, Rx Ring = 2 Apr 2 19:17:05 ZBT kern.alert kernel: [1.656000] EEPROM:Read from [Factory] offset 0x28.		
	Length VAC.	

4.2.4

♦ 4.2.5 Kernel Log

Click the Kernel Log, you could check some information about the device's system

C 192.168.1.1/cgi-bin/luci/.stok=e8bcdf8e525cae8f0728f5c0c7c89191/admin/status/dmesg/	Q 22 (
VR8305RT OpenWrt Attitude Adjustment 12.09.1 Load: 0.01 0.06 0.05	Chang
Status System Services Network Logout	
Overview Firewall Routes System Log Kernel Log Processes Realtime Graphs	
Kernel Log	
[0.000000] Linux version 3.3.8 (LuoREST-Server) (got version 4.6.3 20120201 (grerelesse) (Linux 900 4.6-2012.02)) #1 Men, Jun 16 17:32:41 CST 2014	
[0.00000] MediaTek WTT62DN CPV S60MHr, Bux 145MHr Vert 40MHr	
[0.00000] Bost form:SPI FLASH	
[0.00000] MES CPT iies add eabled. 0.000000 Detecting meansr. 64 MB1	
0.000000) FCIE Vess FCIE HL	
0.000000) FCIE: Emails buffer centrel: Addr:0x60 -> 0x64	
0.00000 divale all peer about File	
0.000000] FCIR FLL power down for MIT620M	
[0.00000] CPV revision is: 00019650 (MIPS 2402c)	
[0.00000] Determined physical RAM map:	
[0.00000] manery 04000000 # 0000000 (stalle)	
[0.00000] Zons PFF ranges:	
[0.000000] Bereal 0x0000000 -> 0x00004000	
O.000000 Hovable some start PFF for each node O.000000 Hovable some start PFF for each node	
0.0000001 6 - 0.0000000 0 - 0.0000000000000000000	
0 000000 0 na na 0 tatajagat 1894	
0.000000] free_wra_init_node: aode 0, pgdat 002acad0, node_mem_mag 01000000	
[0.000000] Normal rone: 128 pages used for memory	
[0.00000] Normal rome 0 pages reserved	
[0.00000] Bernal zene: 18256 pages, LIFO batch:3	
[0.00000] pepuralloc: s0 r0 432768 alloc=1*32768	
[0.00000] pcps-alloc; [0] 0	
[0.000000] Built 1 zmelists in Zone order, mobility grouping on. Total pages: 16256	
[0.00000] Excal considering of the considering of	
[0.00000] FIB bash table entries: 356 (order: -7, 1024 bytes) 0.000000] Bastry seaks bash table entries: 8192 (order: 3, 32788 bytes)	
0.000000 Inder cada hash table entries: 4096 (order: 2, 10304 bytes)	
0.00000] Frisary instruction cache 5408, VIFT, 4-way, linesize 32 bytes.	
0.000000] Frinary data cache 3036, 4-way, FIFT, no aliance, linevice 32 bytes	
[0.00000] Writing ErsCtl register=00079293	
[0.00000] Bashback ErrCtl register=00079293	
[0.00000] Hamory: 61778k/65536k available (2351k kernal code, 3760k reserved, 388k data, 168k init, Ok highwam)	
[0.000000] SLNB: Genslahs=9, HFaligs=16, Order=0-3, HinGbjects=0, GFVs=1, Hodes=1	
[0.00000] NR JMS:128	
[0.00000] HTX/Kalink System Tick Crunter init ed: 80294820, in 214748, s132 - [0.000000] ensails [15:231] enabled	
0.000000 Calibrating dalay loop	
0.040000 pid.ast default 3768 minimum 301	
[0.04000] Nount-cache hash table entries: 512	
[0.048000] MET: Bagistared protocol family 16	
[0.052000] Balind/WTK BootEOM maped.	
[0.056000] MIPS: machine is ZDT WHEDDERT	
[0.060000] Balink Board GPI0_800E init:	
[0.664000] IRC GTD	
0 000000 377_337C1C 07D 0 000000 1047_F07D	
1 0.000000 0001 0001 0'010 0'000 0'010	

♦ 4.2.6 Processes

Click the progresses, you could check an overview over currently running system processes and their status. Such as CPU usage, Memory usage. You could hang up ,terminate or even kill the program, depends on your requirements.

As the 4.2.6

cesses						
esses						
s list gives a	verview over currently running system processes and their status.					
PID Owner	Command	CDILucado (%)	Memory usage (%)	Hang Lip	Torminato	rill
1 root	init	0%	2%		Terminate	
2 root	Itthreadd	0%	2%		× Terminate	
3 root	[Kisofirad/]	0%	0%		× Terminate	
4 root	[ksolaidy0] [kwoker/0:0]	0%	0%		× Terminate	
5 root	[kwoiker/u:0] [kwoiker/u:0]	0%	0%		× Terminate	
6 root	[kHelper]	0%	0%		× Terminate	
7 root	[kweker/u:1]	0%	0%		× Terminate	
56 root	[swinks] [sync_supers]	0%	0%		Terminate	
58 root	[bil-default]	0%	0%		Terminate	
60 root	[kblockd]	0%	0%		X Terminate	
91 root	[kswapd0]	0%	0%		Terminate	
143 root	[fsnotify_mark]	0%	0%		Terminate	
180 root	[mtdblock0]	0%	0%		x) Terminate	
185 root	[mtdblock1]	0%	0%		Terminate	
190 root	[mtdblock2]	0%	0%		Terminate	
195 root	[mtdblock3]	0%	0%		× Terminate	
200 root	[mtdblock4]	0%	0%		x Terminate	
205 root	[mtdblock5]	0%	0%		Terminate	
210 root	[mtdblock6]	0%	0%		Terminate	
215 root	[mtdblock 7]	0%	0%		x) Terminate	
225 root	[kworker/0:1]	0%	0%		x Terminate	
144 root	[jffs2_gcd_mtd7]	0%	0%		x Terminate	
146 root	[flush-mtd-unmap]	0%	0%		x) Terminate	
468 root	[khubd]	0%	0%		 Terminate 	
496 root	init	0%	2%		x Terminate	
497 root	init	0%	2%	a Hang Up	Terminate	🛛 Kil
517 root	/sbin/syslagd -C16	0%	2%		x Terminate	
519 root	/sbin/klogd	0%	2%	# Hang Up	x) Terminate	🛛 Kil
521 root	/sbin/hotplug2overridepersistentset-rules-file /etc/hotplug2.rulesset-coldplug-cmd /sbin/udevtriggermax-children 1	0%	1%	# Hang Up	Terminate	🛛 Kil
529 root	/sbin/ubusd	0%	1%		x) Terminate	
551 root	/sbin/netifd	0%	2%		Terminate	
710 root	udhcpc -p /var/run/udhcpc-eth2.2.pid -s /lib/netifd/dhcp.script -f -t 0 -i eth2.2 -C	0%	2%		 Terminate 	
125 root	[RtmpCmdQTask]	0%	0%		x) Terminate	
126 root	[RtmpWscTask]	0%	0%		 Terminate 	
128 root	/sbin/watchdog -t 5 /dev/watchdog	0%	2%		Terminate	

4.2.6

♦ 4.2.7 Realtime Graphs

Click the Realtime Graphs ,you could check the load, traffic, wireless and connection of the device.

	all Routes System Log Kernel	Log Processes Realtime	Graphs			
	Vireless Connections					
ealtime Load						
	6n	5n	6n	3n	2n	1
0.22						_
0.15						
0.07						
0.01						
						(6 minute window, 3 second interv

图 4.2.7

◆ 4.3.1 System

Click the System tag, you could check and edit some basic information of the device, including Local time, Hostname, time zone.

-WR8305RT OpenWrt Attitude Adjustment 12.09.1 Load: 0.05 0.05 0.05	5 Auto Refresh: on	Chan
Status System Services Network Logout		
System Administration Software Startup Scheduled Tasks Mc	ount Points LED Configuration Backup / Flash Firmware Reboot	
System		
Here you can configure the basic aspects of your device like its hostnam	e or the timezone.	
System Properties		
General Settings Logging Language and Style		
Local Time	Tue Apr 2 19:25:01 2013 Dispression Sync with browser	
Hostname	ZBT-WR8305RT	
Timezone	UTC	
		,
Time Synchronization		
Enable NTP client	8	
Provide NTP server	8	
NTP server candidates	0.openwrt.pool.ntp.org R 1.openwrt.pool.ntp.org R 2.openwrt.pool.ntp.org R 3.openwrt.pool.ntp.org 2	
		⊚Reset ⊘Save ∎Save & Apph

4.3.1

4.3.2 Administration

You can edit the administrator password for accessing the device

-WR8305RT OpenWrt Attitude Adjustment 12.09.1 Load: 0.04 0.05 0	L05 Change
Status System Services Network Logout	
System Administration Software Startup Scheduled Tasks	Mount Points LED Configuration Backup / Flash Firmware Reboot
Router Password	
Changes the administrator password for accessing the device	
Password	<i>₽</i> #
Confirmation	¢
SSH Access	
Dropbear offers SSH network shell access and an integrated SCP serv	er
Drophear Instance	
Interface	× Delete
Internade	• lan: 27 👳
	 wan: m unspecified
	Listen only on the given interface or, if unspecified, on all
Port	22 Specifies the listening port of this Dropbear instance
Password authentication	R O Allow SSH password authentication
Allow root logins with password	🗷 🔍 Allow the root user to login with password
Gateway ports	Allow remote hosts to connect to local SSH forwarded ports
1 Add	
SSH-Keys	
Here you can paste public SSH-Keys (one per line) for SSH public-ke	y authentication.
	4
	Repet Same Barre & Apply
wered by LuCI Trunk (0.11+svn396)	Treset Some Shippy

4.3.3 Software

Click the software page, you could download and install the package , do not operate it without a professional engineer.

♦ 4.3.4 Startup

Click to the Startup page, You can enable or disable installed init scripts here. Changes will applied after a device reboot, do not operate it without a professional engineer.

• 4.3.5 Schedule Tasks

This is the system crontab in which scheduled tasks can be defined., do not operate it without a professional engineer.

◆ 4.3.6 Mount Points, LED Configuration

Do some edition about the system , do not operate it without a professional engineer.

◆ 4.3.7 Backup/Flash Firmware

You could upgrade the firmware or backup it in this page, as below.

atus System Services Network Logout		
stem Administration Software Startup Scheduled	Tasks Mount Points LED Configuration Backup / Flash Firmware Reboot	
h operations		
tions Configuration		
-Backup / Restore Click "Generate archive" to download a tar archive of the	current configuration files. To reset the firmware to its initial state, click "Perform reset" (only possible with squashfs ima	iges).
Download backup:	C Generate archive	
Reset to defaults:	© Perform reset	
To restore configuration files, you can upload a previous	y generated backup archive here.	
Restore backup:	选择文件 未选择任何文件 UDpload archive	
Flash new firmware image Upload a sysupgrade-compatible image here to replace t	he running firmware. Check "Keep settings" to retain the current configuration (requires an OpenWrt compatible firmware	e image).
Keep settings:	8	
Image:	选择文件 未选择任何文件 UFlash image	

4.3.7



选择菜单系统-重启,您可以重启设备。

When you click the Reboot tag, the device will reboot.



4.4. Service

4.4.1 Dynamic DNS

Dynamic DNS allows that your router can be reached with a fixed hostname while having a dynamically changing IP address

■ 4.5 Network

4.5.1 Interfaces

Click the Interface tag, you could check the wired port's status and edit it.

Status System Services Network	Logout	
Interfaces win once and bits hos	Inames Static Routes Filewair Diagnostics	
Interfaces		
Interface Overview		
Network	Status	Actions
LAN	Uptime: 0h 11m 39s MBC-Address: D0:01:42:91:20:0B	
양 (문문) br-lan	Uptime: 0h 11m 395 MAC-Address: 00:0142:91:2C:DB RX: 359.50 (54850 PMts.) IPV4: 192.168.1.1242 IPV4: 192.168.1.1242	🧭 Connect 🧶 Stop 📝 Edit 💌
WAN	Uptime: Oh Om Os MAC-Address: 00:01:42:91:2C:DC	
eth2.2	RX: 0.00 B (0 Pkts.) TX: 91.57 KB (233 Pkts.)	🥔 Connect 🧔 Stop 🛛 Z Edit 💌
Add new interface		

4.5.1

• 4.5.2 Wireless

Click the Interface tag, you could check the wireless port's status and edit it.

	DNS Hostnames Static Routes Firewall	Diagnostics				
a0: Master "ZBT-China_912C	DB"					
ireless Overview						
Ralink/MTK RT2860v Channel: 11 (? GHz)	2,802.11bgn (ra0)					🖸 Scan 🎦 Ad
						Ø Disable Ø E
SSID: ZBT-Chir 100% BSSID: 00:01:	1a_912CDB Mode: Master 42:91:20:0B Encryption: -					
SSID: ZBT-Chir 100% BSSID: 00:01:	na_912CDB Mode: Master 42:91:2C:DB Encryption: -					
	na_912CDB Mode: Master 42:91:2C:DB Encryption: -					Clisable & Cl
SSID: ZBT-Chir 100% BSSID: 00:01: sociated Stations SSID	NAC-Address	IPv4-Address	Signal	Noise	RX Rate	

4.5.2

◆ 4.5.3 DHCP/DNS、Hostnames, Static Routes,

You could edit these setting in relevant page. do not operate it without a professional engineer.

♦ 4.5.4 Firewall

The firewall creates zones over your network interfaces to control network traffic flow

R8305RT OpenWrt Attitude Adjustment 12.09.1 Load: 0.	29 0.14 0.09					C
Status System Services Network Logout						
interfaces Wifi DHCP and DNS Hostnames Static Ro		5				
General Settings Port Forwards Traffic Rules Custom	Rules					
irewall - Zone Settings						
he firewall creates zones over your network interfaces to co	introl network traffic flow.					
General Settings						
Enable SYN-flood protection		8				
Drop invalid packets		0				
Input		accept	٣			
Output		accept				
Forward		reject	¥			
- Zones						
Zone ⇒ Forwardings	Input	Output	Forward	Masquerading	MSS clamping	
lan: lan: 📰 🙊 👄 🛛 wan	accept 🔻	accept	▼ reject ▼			Edit Delete
wan: wan: 📰 📼 [REJECT]	reject 🔻	accept	▼ reject ▼	8	8	ZEdit ZDelete
* Add						
						Reset Save Save & A

Pic 4.5.4

♦ 4.5.5 QOS

With QoS you can prioritize network traffic selected by addresses, ports or services.

	05 0.63 0.26						C
ces Network Log	gout						
and DNS Hostnames	Static Routes Diagnostics	Firewall QoS					-
e network traffic selectr	ed by addresses, ports or serv	ices.					
							×De
		default		T			
		8					
/s)		1024					
		128					
bbA							
Source host	Destination host	Service	Protocol	Ports	Number of bytes	Sort	
					•		💌 Deleti
					•		💌 Delet
	all 🔻	all '	🕇 all 🔹	5190	•	• •	💌 Delete
2	e network traffic select	e network traffic selected by addresses, ports or serv (s) (s) Source host Destination host V all V at	and DNS Hostnames Static Routes Diagnostics Firewall QoS ee network traffic selected by addresses, ports or services.	and DNS Hostnames Static Routes Diagnostics Firewall QoS ee network traffic selected by addresses, ports or services. default (s) 1024 128 Source host Destination host Service Protocol 138 Y all Y all Y all Y all Y	and DNS Hostnames Static Routes Diagnostics Firewall QoS re network traffic selected by addresses, ports or services. default • (s) 1024 102 1024 128 Source host Destination host Service Protocol Ports Source host Destination host Service Protocol Ports all • all • all • all • 22,53 • all • all • all • 100 • 20,21,25,80,110,443,983,986	and DNS Hostnames Static Routes Diagnostics Firewall Q05 re network traffic selected by addresses, ports or services. re network traffic selected by addresses, ports or services. default default default (s) 1024 1024 1024 1024 1024 1024 1024 1024 1024 1024 1024	and DNS Hostnames Static Routes Diagnostics Firewall QoS te network traffic selected by addresses, ports or services. default v (s) 1024 128 Source host Destination host Service Protocol Ports Number of bytes Sort v all v all v TCP v 20,21,25,80,110,443,983,996 v 0

Pic 4.5.5

■ 4.6 Log out

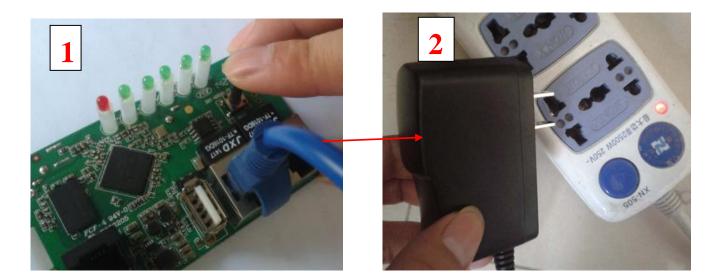
Click the Log Out tag, you will log out the website.

More details about the system. Please refer the https://openwrt.org/

■ 4.7 Flash Firmware

Operate this keep the router connecting computer status.

First, use sharp item Pressing the RESET button as "Picture 1" below, then power on the router.



Second, set the computer TCP/IP in to static IP 192.168.1.X (X means any number between 2 to 255) and Subnet mask into 255.255.255.0

Local Area Connection Properties ? 🔀	Internet Protocol (TCP/IP) Properties
General Authentication Advanced	General
Connect using: Baseline Configure Baseline Configure	You can get IP settings assigned automatically if your network supports this capability. Otherwise, you need to ask your network administrator for the appropriate IP settings.
This connection uses the following items: Image: Client for Microsoft Networks Image: Client for Microsoft Networks	 ○ <u>O</u>btain an IP address automatically ○ Use the following IP address:
Image: Constraint of the second se	IP address: 192.168.1.22 Subnet mask: 255.255.255.0
Install Uninstall Properties Description Transmission Control Protocol/Internet Protocol. The default wide area network protocol that provides communication across diverse interconnected networks.	Default gateway: Obtain DNS server address automatically Olyce the following DNS server addresses: Preferred DNS server:
Show icon in notification area when connected Notify me when this connection has limited or no connectivity	Alternate DNS server:
OK Cancel	Ad <u>v</u> anced OK Cancel

Third,key in 192.168.1.1 into browser, come into "Firmware recovery page" as below pic. (this system developed based on Chinese ,so the page shows Chinese word)

Click "Brower " button find the firmware "root_ulmage.ulmage" from your computer, double click "root_ulmage.ulmage" to hang on it. Then click "刷新固件"to start uploading

(During uploading time,don't move or power off the router!! Otherwise will cause the router dead !!)



s 🕘 http://192.168.1.1/

固件恢复模式

			请选持	承固件:		Browse.	1	
				刷	新固件	/		_
	Choose file					? 🛛		
記错误	Look jn: My Recent Documents	Removable AVF_INFO DCIM MP_ROOT PRIVATE	Disk (G:) 3	<u></u> ← ⊡ 2	•			
	Desktop My Documents	root_uimage	uImage					
	My Computer							
	My Network Places	File <u>n</u> ame: Files of <u>t</u> ype:	root_ulmage.ulmage All Files ([×] . [×])		•	<u>O</u> pen Cancel		
; 🙆 http:,	//192.168.1.1/							V
			扬	K 救模式				
				因固件,请等待…96利 在更新完成后自动重启。)。			
り更新	过程中请不要断	电或者重启。						

File Uploading, don't restar or power off the router during this time!!

About 100seconds, the file upload success will show "升级完毕" as below picture show. And the router will automatic restart



Fourth, Set the computer TCP/IP into automatic obtain IP

Connect using:					
Realtek PCIe FE Family Controller	Internet Protocol (TCP/IP) Pro	operties ?			
his connection uses the following items:	General Alternate Configuration				
 Client for Microsoft Networks File and Printer Sharing for Microsoft Networks QoS Packet Scheduler Thternet Protocol (TCP/IP) 		utomatically if your network supports I to ask your network administrator for			
	Obtain an IP address automat	tically			
Install	Use the following IP address:				
Description	IP address:				
Transmission Control Protocol/Internet Protoco wide area network protocol that provides comr across diverse interconnected networks.	Subhet mask.				
	Default gateway:				
Show icon in notification area when connecte	○ O <u>b</u> tain DNS server address a	utomatically			
Notify me when this connection has limited or	O Use the following DNS server addresses:				
	Preferred DNS server:				
ΟΚ	Alternate DNS server:				
	Alternate DNU3 server.				



1、LAN LED off

It is about the hardware connection issue, you could check follow below steps

- > To check if the Ethernet cable plug into the port firmly.
- > To check if the network device is power on
- Make sure the Ethernet cable are working well

2. The device work normally after setting . But the link will become unsteady after working

some time, such as delay and package dropping.

It means there are some interference in the work environment, you could follow the below steps to solve such problem.

- > To check if each part of the connection are steady.
- If the signal strength are too weak, you can try to change the work channel, in order to reduce the reference.
- Reboot the device.

Reset to the factory default setting.

After all the above steps, if it still have the same questions, please contact to the reseller or our FAE.

FCC Statement:

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications.

However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment to an outlet on a circuit different from that to which the receiver is connected.

This device complies with part 15 of the FCC rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Note: Modifications to this product will void the user's authority to operate this equipment.