

# 社区版 OPENWRT 安装使用说明

## 软件版本

获取软件: <https://forum.rvspace.org/t/visionfive2-v1-3b-openwrt-10/3275>

openwrt-visionfive2-generic-visionfive2-ext4-sdcard.img.gz

**sha256:**

f1b46deab2437237bb6e0a09b4e9fad34a672d9d95f969571e02fa73336bd030

## 硬件环境

VisionFive2 1.3B 开发板、交换机（可选）、路由器（可选）

## 网络配置

### 接线

eth0 当做 wan 口，eth1 当做 lan 口(反接不生效)，连接方法如图：



## 修改配置文件

```
root@OpenWrt:/# vim /etc/config/network
```

```
COM25 - Tera Term VT
File Edit Setup Control Window Help

config interface 'loopback'
  option device 'lo'
  option proto 'static'
  option ipaddr '127.0.0.1'
  option netmask '255.0.0.0'

config globals 'globals'
  option ula_prefix 'fd5a:74e1:b35c::/48'

config device
  option name 'br-lan'
  option type 'bridge'
  list ports 'eth1'

config interface 'wan0'
  option device 'eth0'
  option proto 'dhcp'

config interface 'wan6'
  option device 'eth0'
  option proto 'dhcpv6'

config interface 'lan'
  option device 'br-lan'
  option proto 'static'
  option ipaddr '192.168.1.1'
  option netmask '255.255.255.0'
  option ip6assign '60'
```

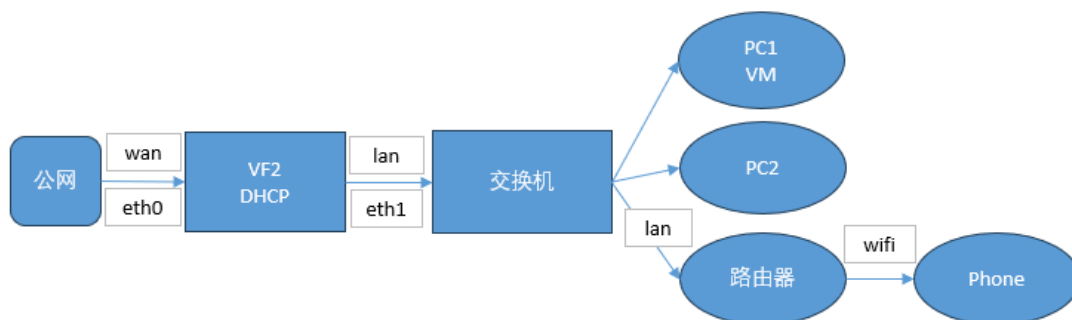
此配置文件与网页管理中接口设备保持一致

### 重启 NETWORK

```
root@OpenWrt:/# /etc/init.d/network restart
```

### 网络连接（以实际情况为准）

### 环境搭建



### 查看网络配置

```

root@OpenWrt:~# ip a
1: lo: <LOOPBACK,UP,LOWER_UP> mtu 65536 qdisc noqueue state UNKNOWN group default qlen 1000
    link/loopback 00:00:00:00:00:00 brd 00:00:00:00:00:00
    inet 127.0.0.1/8 scope host lo
        valid_lft forever preferred_lft forever
    inet6 ::1/128 scope host proto kernel lo
        valid_lft forever preferred_lft forever
2: eth0: <BROADCAST,MULTICAST,UP,LOWER_UP> mtu 1500 qdisc mq state UP group default qlen 1000
    link/ether 6c:cf:39:00:27:45 brd ff:ff:ff:ff:ff:ff
    inet 192.168.50.237/24 brd 192.168.50.255 scope global eth0
        valid_lft forever preferred_lft forever
    inet6 fe80::6ecf:39ff:fe00:2745/64 scope link proto kernel_l1
        valid_lft forever preferred_lft forever
3: eth1: <BROADCAST,MULTICAST,UP,LOWER_UP> mtu 1500 qdisc mq master br-lan state UP group default qlen 1000
    link/ether 6c:cf:39:00:27:46 brd ff:ff:ff:ff:ff:ff
4: br-lan: <BROADCAST,MULTICAST,UP,LOWER_UP> mtu 1500 qdisc noqueue state UP group default qlen 1000
    link/ether 6c:cf:39:00:27:46 brd ff:ff:ff:ff:ff:ff
    inet 192.168.1.1/24 brd 192.168.1.255 scope global br-lan
        valid_lft forever preferred_lft forever
    inet6 fd5a:74e1:b35c::1/60 scope global noprefixroute
        valid_lft forever preferred_lft forever
    inet6 fe80::6ecf:39ff:fe00:2746/64 scope link proto kernel_l1
        valid_lft forever preferred_lft forever

```

## OPENWRT 管理平台验证

网页地址: <http://192.168.1.1/>

安装成功

The screenshot shows the OpenWrt LuCI web interface. The top navigation bar includes links for '项目 - Redmine', '空间目录 - Confluence', '登录 - JIRA', 'OpenWrt - LuCI', 'RVspace Forum', '腾讯文档', 'git相关', 'linux', 'riscv', '协议', 'confluence', and 'docker'. The main content area is titled 'OpenWrt' and contains several sections:

- 状态 (Status):** A table of system information including:
  - 名称 (Name): OpenWrt
  - 型号 (Model): StarFive VisionFive 2 v1.3B
  - 架构 (Architecture): riscv64
  - CPU 速度 (CPU Speed): v54 11C
  - 固件名称 (Firmware Name): visionfive2-generic
  - 固件版本 (Firmware Version): OpenWrt SNAPSHOT r-20230819 / LuCI Master git-23.210.21070-r22b0e2
  - 内核版本 (Kernel Version): 6.1.35
  - 本地时间 (Local Time): 2023-08-14 07:07:21
  - 运行时间 (Uptime): 0h 43m 46s
  - 平均负载 (Load Average): 0.00, 0.00, 0.00
- 内存 (Memory):** Progress bars showing usage for:
  - 可用 (Available): 7.63 GB / 7.78 GB (98%)
  - 已使用 (Used): 165.28 MB / 7.78 GB (2%)
  - 已缓存 (Cached): 1.21 MB / 7.78 GB (0%)
  - 已交换 (Swapped): 87.85 MB / 7.78 GB (1%)
- 存储空间使用 (Storage Usage):** Progress bars showing usage for:
  - 磁盘空间 (Disk Space): 242.81 MB / 1.44 GB (16%)
  - 根目录空间 (Root Directory Space): 6.07 MB / 3.89 GB (0%)
- 网络 (Network):** A section for 'IPv4 设置' (IPv4 Settings) showing DHCP client configuration:
  - 地址: DHCP 客户端 (Address: DHCP Client)
  - 地址: 192.168.50.237/24 (Address: 192.168.50.237/24)
  - 网关: 192.168.50.1 (Gateway: 192.168.50.1)
  - DNS 1: 192.168.110.101 (DNS 1: 192.168.110.101)
  - DNS 2: 8.8.8.4 (DNS 2: 8.8.4.4)
  - 接口名称: br-lan (Interface Name: br-lan)
  - 子网掩码: 255.255.255.0 (Subnet Mask: 255.255.255.0)
  - 备注: 以本行添加设备 "eth0" (Note: Add device "eth0" on this line)
  - MAC 地址: 6C:CF:39:00:27:45 (MAC Address: 6C:CF:39:00:27:45)
- 已分配的 DHCP 租约 (Allocated DHCP Leases):** A table listing active leases:
 

主机名 (Hostname)	IPv4 地址 (IPv4 Address)	MAC 地址 (MAC Address)	剩余租约 (Remaining Lease)	操作 (Action)
L-SH-1067 (L-SH-1067.lan)	192.168.1.190	E8:8A:04:81:D6:4F	11h 58m 54s	设为静态 (Set Static)
- 已分配的 DHCPv6 租约 (Allocated DHCPv6 Leases):** A table listing active leases:
 

主机名 (Hostname)	IPv4 地址 (IPv4 Address)	DUID (DUID)	剩余租约 (Remaining Lease)	操作 (Action)
L-SH-1067 (L-SH-1067.lan)	fd5a:74e1:b35c:c8a:12b	00010001265554ee0b0d461d84f	11h 58m 51s	设为静态 (Set Static)
C-SD-1001	fd5a:74e1:b35c:d1e:12b	00010001273aa3f06041a91c491d	11h 19m 37s	设为静态 (Set Static)

Red arrows on the left side of the DHCP tables point to the entries for 'PC1' and 'PC2', indicating the specific devices being tracked.