

# JEBI

Quick Installation Guide

## JR254

300Mbps 802.11n, Indoor single  
frequency router

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## Equipment introduction

JR254 is a new wireless intelligent router designed by the Shen Zhen JEBI. Based on the 802.11b/g/n standard, using 2\*2MIMO technology, the maximum transmission power of 250mW, suitable for small and medium-sized shops or industry chain and other indoor scenes WiFi network coverage.



## Product highlights

- Metal shell design, rich texture and durable
- Built-in 512M Nand Flash, enhance the overall data processing capacity
- External USB port can be connected to external storage devices, and easy to expand the business
- Support the third party audit transplant, expand audit value-added services, to meet the requirements of the Ministry of public security Decree No. 82
- Qualcomm high performance chip solutions, the maximum transmit power of up to 250mW, support for maximum 300Mbps transmission rate
- Support local management and centralized management, centralized management mode to support the JEBI of wireless controller or cloud platform remote management
- Support multi SSID configuration, up to 8, to meet the needs of personalized business
- Support roaming, load balancing, spectrum navigation, illegal AP detection, RF tuning characteristics of fair scheduling of spatial resources

## Key Featureses

### 1. Metal shell design, can withstand harsh working environment

JR254 uses a metal shell design, rich texture and durable, greatly reduced the degree of damage, thus prolonging the service life. Because of the metal material density is much higher than that of plastic, waterproof and dustproof performance has better corrosion resistance and oxidation resistance.

### 2. High performance chip solutions, large capacity cache

Built-in Qualcomm high-performance chips as well as large capacity 512M flash memory, improve the overall performance of the system can allow more data stored in the cache, thereby enhancing the overall data processing capacity.

### **3. Support the docking of the third party audit platform to expand value-added services**

Third party audit support platform for docking, equipment on the WLAN site daily inspection and found Wifi hot distribution area, combined with the spot management of the online inspection and control platform, formation management information system to form a complete place, meet the Ministry of public security 82 orders, but also can realize the value-added services such as user behavior analysis.

### **4. Stable and fast network transmission, strong penetration**

Based on the IEEE802.11n standard using MIMO technology can provide the maximum transfer rate up to 300Mbps, equivalent to the wireless access rate of the traditional 802.11a/b/g network of more than 6 times. The transmission power of up to 250mW, 3 times higher than ordinary wireless router, and have more penetrating power.

### **5. Integrated intelligent management**

The centralized management mode, equipment through the cloud platform, based on the unified management of the project, the configuration of the batch, batch upgrade maintenance, greatly facilitate the user management and maintenance of equipment. At the same time combined with the cloud platform, you can also experience the rich features, such as roaming, spectrum navigation, user authentication and billing, coupled with high quality the advertising push, portal, WeChat WiFi certification, features analysis of operation flow, enhance the real operation ability of users.

### **6. Superior performance**

- Support automatic channel selection through the wireless controller or the cloud platform of intelligent channel switching function, can guarantee that each AP can be assigned to the optimal channel, as far as possible to reduce and avoid the adjacent channel interference makes the connection more stable performance.
- Support AP intelligent load sharing, through the wireless controller or cloud platform channel intelligent switching function, real-time analysis of the location of a wireless client dynamically determined in the current time and the current position of AP which can share the load, so as to avoid the client while connected to a AP, cause client throughput reduction problem.

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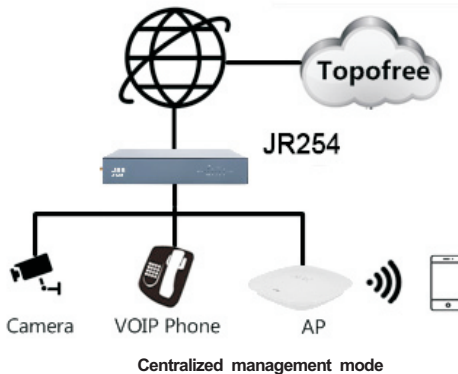
- No support for weak signal access, weak signal management functions by forcing the weak signal terminal to go offline, and the AP actively sends the relief frame to a STA that is below the specified signal strength or specifies the access rate, allowing STA to reconnect or roaming. Suitable for high density WLAN network (AP dense arrange, such as gymnasium, lecture hall, library, report hall, dormitory, the conference site, etc.) to ensure access to users, improve the user experience.

## Typical network diagram

Local management mode, JR254 through the formation of local area network NAT, the application of ordinary single routing equipment scene



Centralized management mode, JR254 can be formed with the cloud platform or wireless controller, suitable for small and medium-sized shops or industry chain



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## Product specification

PHYSICAL	
Power supply	DC 12V
Programme	AR9344
Nand Flash	512MB
RAM	128MB
Dimension	190mm x 143mm x 34mm
Weight	0.85kg
Interface	1*10/100M upstream ports
	4*10/100M downstream ports
	1 USB ports
Working temperature	-10°C – 55°C
Working humidity	5%-95% (non-condensing)
Power waste	<8W
Antenna	Two external SMA interface 5dBi gain antenna

WIFI	
Standard	IEEE802.11b/g/n
Support rate	802.11b: 1,2,5.5,11Mbps
	802.11g: 6,9,12,18,24,36,48, 54Mbps
	802.11n: MCS0~MCS15
Spatial flow	2 *2
Maximum transmit power	250mW
Channel bandwidth	20Mhz/40Mhz
Working band	2.4GHz
SSID	8

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2G Supported channel frequency	Channel 1: 2.412GHZ
	Channel 2: 2.417GHZ
	Channel 3: 2.422GHZ
	Channel 4: 2.427GHZ
	Channel 5: 2.432GHZ
	Channel 6: 2.437GHZ
	Channel 7: 2.442GHZ
	Channel 8: 2.447GHZ
	Channel 9: 2.452GHZ
	Channel 10: 2.457GHZ
	Channel 11: 2.462GHZ
	Channel 12: 2.467GHZ
	Channel 13: 2.472GHZ

PERFORMANCE	
Maximum physical transfer rate	300Mbps
Maximum number of wireless access users	128
NAT forwarding performance	90Mpps

Software specification	
Network Protocol	PPPOE
	DHCP Client
	DHCP Server
Radio frequency	Support Automatic/Manual channel adjustment
	Support manual adjustment,adjust the size of 1dBm
	Support timing on/off RF
	Support for access control based on SSID
	Support Chinese SSID
	Support limit based on SSID/STA

## JR254

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Network security	Support WEP
	Support WAPI-PSK
	Support WPA/WPA2-PSK
	Support WPA/WPA2 WITH RADIUS
	User isolation
	Support MAC black and white list
	Support for SSID hide
	Illegal AP detection
	WIDS(Wireless intrusion detection system)
	WIPS(Preventing illegal device access)
Authentication billing	Support free certification
	Support SMS authentication
	Support WeChat wifi authentication
	Support key authentication
	Support portal authentication
	Support wifidog authentication
Local access management	WEB management mode (Http/Https)
	Snmpv1,v2c,v3
	Support telnet and SSH remote login query
	Support reverse SSH function
Deployment mode	Support local management
	Support centralized management
	Support wired control
	Support routing mode, AP mode, Relay mode
	Support IPv4 protocol
AC discovery mechanism	Two layer broadcast discovery
	Static IP address three layer discovery
	DHCP Option43 discovery
	DNS domain name discovery

## JR254

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Configuration management	Support breakpoint continuingly upgrade
	Support remote batch update,restart
	Support local survival mode
	Support Syslog log management
	Support NTP time synchronization
	Export and recovery
WLAN comprehensive application	Terminal rate set optimal allocation
	AP minimum contract rate configuration
	Weak signal access is prohibited
	Seamless roaming
	Spectrum navigation function
	Load balancing function
	Multicast application optimization
	Wireless location
	Electronic fence
	Passenger flow analysis



# JR254

## 300Mbps 802.11n, 室内单频路由器

### 产品简介

JR254是JEBI全新设计推出的无线智能路由器.基于802.11b/g/n标准,采用2\*2MIMO技术,最大可达250mW发射功率,适用于中小型商铺或行业连锁等室内场景的wifi网络覆盖.



### 产品亮点

- 金属外壳设计,富有质感且坚固耐用
- 内置512M Nand Flash,提升数据整体处理能力
- 外置usb端口,可连接外部存储等设备,便于业务扩展
- 支持第三方审计移植,扩展审计增值业务,满足公安部82号令相关要求
- 高通高性能芯片方案,发射功率最大可达250mW,支持最高300Mbps传输速率
- 支持本地管理和集中管理,集中管理模式下支持JEBI无线控制器或云平台远程管理
- 支持多SSID配置,最多可达8个,满足个性化业务需要
- 支持漫游、负载均衡、频谱导航、非法AP检测、空间资源公平调度等RF调优特性

### 产品特性

#### 1. 金属外壳设计,可承受严酷工作环境

JR254采用金属外壳设计,富有质感且坚固耐用,极大程度降低了其损坏程度,从而延长其使用寿命.因其金属材料密度大大高于塑料,具有更好的防水防尘性能,耐腐蚀抗氧化.

#### 2. 高性能芯片方案,大容量缓存

内置高通高性能芯片以及大容量512M闪存存储器,提升了系统整体性能.可让更多的数据存储在缓存中,从而提升数据整体处理能力.

#### 3. 支持对接第三方审计平台,扩展增值业务

支持第三方审计平台对接,设备可对WLAN场所日常巡检和发现掌握辖区内Wifi热点分布情况,并结合上网场所巡检管控平台的场所管理,形成完整系统的场所信息管理资料,满足公安部82号令外,还可实现如用户行为分析等增值业务.

### 4. 网络传输稳定快速, 穿透能力强

基于IEEE802.11n标准, 采用MIMO等技术可提供最高达300Mbps的传输速率, 相当于传统的802.11a/b/g网络6倍以上的无线接入速率. 发射功率高达250mW, 比普通无线路由器高3倍以上, 穿透能力更强.

### 5. 一体化智能管理

集中管理模式下, 设备通过云平台, 基于项目统一管理、配置批量下发、批量升级维护等, 极大地便利了用户管理及维护. 同时设备结合云平台, 还可以体验丰富的功能特性, 如漫游、频谱导航、用户认证和计费等, 再加上优质的广告推送、portal门户定制、微信连wifi认证、客流分析等运营类的特性功能, 提升用户实体运营能力.

### 5. 性能更出众

- 支持自动信道选择, 通过无线控制器或者云平台信道智能切换功能, 可以保证每个AP能够分配到最优的信道, 尽可能地减少和避免相邻信道干扰使连接性能更稳定;
- 支持AP智能负载分担, 通过无线控制器或者云平台负载均衡功能, 可以实时地分析无线客户端的位置, 动态地确定在当前时刻和当前位置下哪些AP可以彼此分担负载, 从而避免客户端同时连接到一个AP上, 导致客户端吞吐量减少的问题;
- 支持弱信号禁止接入, 弱信号管理功能通过强制弱信号终端下线, AP主动向低于指定信号强度或指定接入速率的STA发送解除关联帧, 让STA可以重新连接或漫游. 适用于高密WLAN网络 ( Ap密集布放, 例如体育馆、演讲厅、图书馆、报告厅、宿舍、发布会现场等 ), 保证用户的接入效果, 提升用户体验.

### 典型组网图

本地管理模式下, JR254通过NAT组建局域网, 适用普通单路由设备场景.



# JR254

## 300Mbps 802.11n, 室内单频路由器

集中管理模式下, JR254可通过与云平台或无线控制器组建, 适用于中小型商铺或行业连锁。



### 产品规格

物理 PHYSICAL	
电源	DC 12V
方案	Ar9344
Nand Flash	512MB
Nor Flash	16MB
RAM	128MB
尺寸	190mm x 143mm x 34mm
重量	0.85kg
接口	1个10/100M 上行口
	4个10/100M 下行口
	1个USB口
工作温度	-10°C – 55°C
工作湿度	5%-95% (非冷凝)
功耗	<8W
天线	外置两根SMA接口5dBi增益天线

## JR254

### 300Mbps 802.11n, 室内单频路由器

无线 WIFI	
标准	IEEE802.11b/g/n
支持速率	802.11b: 1,2,5.5,11Mbps
	802.11g: 6,9,12,18,24,36,48, 54Mbps
	802.11n: MCS0~MCS15
空间流	2 *2
最大发射功率	250mW
信道带宽	20MHz/40MHz
工作频段	2.4GHz
SSID个数	8个
2G支持的信道频率	信道1: 2.412GHZ
	信道2: 2.417GHz
	信道3: 2.422GHz
	信道4: 2.427GHz
	信道5: 2.432GHz
	信道6: 2.437GHz
	信道7: 2.442GHz
	信道8: 2.447GHz
	信道9: 2.452GHz
	信道10: 2.457GHz
	信道11: 2.462GHz
	信道12: 2.467GHz
	信道13: 2.472GHz

性能 PERFORMANCE	
最高物理传输速率	300Mbps
无线最大接入用户数	128个
NAT转发性能	90Mpps

## JR254

### 300Mbps 802.11n, 室内单频路由器

软件规格	
网络协议	PPPOE
	DHCP Client
	DHCP Server
射频	支持自动、手动信道调整
	支持手动功率调整, 调整粒度为1dBm
	支持定时开启/关闭射频
	支持基于SSID接入用户数控制
	支持中文SSID
网络安全	支持基于SSID/STA的限速
	支持WEP
	支持WAPI-PSK
	支持WPA/WPA2-PSK
	支持WPA/WPA2 WITH RADIUS
	用户隔离
	支持基于MAC黑白名单
	支持对SSID的隐藏
	非法AP检测
认证计费	WIDS (无线入侵检测)
	WIPS (防止非法设备接入)
	支持免认证
	支持手机短信认证
	支持微信连wifi认证
	支持一键认证
支持portal认证	
支持wifidog认证	

## JR254

### 300Mbps 802.11n, 室内单频路由器

本地访问管理	WEB 管理方式 (Http/Https)
	Snmpv1,v2c,v3
	支持telnet与SSH方式远程登录查询
	支持反向SSH功能
部署方式	支持本地管理
	支持集中管理
	支持路由模式、Client模式、AP模式、中继模式
	支持IPv4协议
AC发现机制	二层广播发现
	静态IP地址三层发现
	DHCP Option43发现
	DNS域名发现
配置管理	支持断点续传升级
	支持远程批量升级、重启
	支持本地存活模式
	支持Syslog日志管理
	支持NTP时间同步
	配置导出与恢复
WLAN 综合应用	终端速率集优化配置
	AP最低发包速率配置
	弱信号禁止接入
	无缝漫游
	频谱导航功能
	负载均衡功能
	组播应用优化
	无线定位
	电子围栏
	客流分析

For more information, please visit [www.jebi-tech.com](http://www.jebi-tech.com)

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