

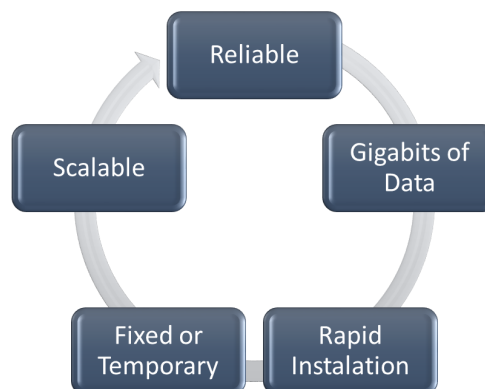
Intelligent WiFi AP, Router & Hotspot

CableFree 802.11a/b/g



About WiFi

The CableFree WiFi AP-Router & Hotspot product line is purpose-built to deliver robust, reliable connectivity. The systems provide coverage with integrated IP Router & Hotspot functions for private and public wireless network connectivity for indoor or outdoor applications. CableFree radio & IP router technology provide top class wireless performance and a rich feature set to enable sophisticated WiFi networks for corporate, service provider and WISP applications.



System Features

- All-in-one WiFi AP including Router & Hotspot
- Operates in 2.4 and/or 5.1-5.8GHz bands
- Single or Dual Radio options
- Built-in Authentication & Logon pages
- Tiered services for different classes of user
- Indoor or outdoor-grade versions

Applications

- Large-scale WiFi deployments for campus, education, corporate, sports stadium, healthcare, public WiFi
- Hotspots for Hotels, Cybercafé, Coffee bars, Airports
- Hotspot overlay for Wireless ISP
- Internet access at conferences, sports, public or special events
- Fast Roll-out & Temporary Deployment

Embedded Router Platform

CableFree WiFi AP-Hotspots are high quality enterprise-grade WLAN components. They embody powerful carrier-class routers with advanced features normally not found in wireless bridges or access points. Such features include:

- 500MHz CPU
- IP Bridging
- Layer3 IP Routing
- Border Gateway Protocol (BGP), OSPF, MPLS
- Ethernet-over-IP (EoIP) interfaces
- Virtual Router Redundancy Protocol (VRRP)
- WISP & hotspot –specific features including Walled Garden, Cookies, RADIUS authentication, accounting, control of connection time
- Uplink and downlink bandwidth control on a per-user basis
- DHCP Client and Server
- Network Address Translation (NAT)

Enhanced Wireless Performance

CableFree IEEE 802.x WiFi AP-hotspots offer major advantages over ‘off-the-shelf’ WiFi products. Examples are:

- Highly configurable – up to 2 radio cards – ‘mix and match’ 2.4/5GHz
- Upgrade to the N version for 300Mbps raw data rate using 802.11n 2x2 technology
- OFDM Software-defined radio – ‘state-of-the art’ radio using powerful DSP technology
- Inbuilt Layer2 Mesh feature for connecting between radios without need for fixed/wired infrastructure – for example, between floors of building, across streets, etc.
- Sophisticated RadioOS software platform
- Hotspot features including Radius authentication and per-user bandwidth controls

Accessories

Antennas:	Wide range of Directional, Sectored and Omnidirectional antennas available
Radio Cards:	2nd radio card for resilience, high throughput, and backhaul or hotspot applications
O/S Software:	Higher level functions for Public Wireless LAN, Hotspot, etc.
Mounting Brackets:	Wall, Pole, Tower or Tripod mount options available
Alignment kit:	Display of Local & Remote signal levels*
Management Suite:	Full range of solutions including SNMP, Windows GUI, SSH, Telnet

Specifications

System Variant	WIFI-HS-ID-X (indoor version), WIFI-HS-OD-X (outdoor version)
Performance	
Range	Up to 500m outdoors, 100m indoors depending on antennas
Bandwidth	Up to 54Mbps (108Mbps Turbo mode)
Power Consumption	10W; 48V fed from Power-over-Ethernet injector; 115/230Vac; optional Uninterruptible Power Supply (UPS)
Operating Temperature	-20...+60 deg C
Wireless	
Frequency	2.4GHz: 2.412-2.472 (5 MHz step, channels 1-13), 2484 (channel 14) 2.512-2.732 (20 MHz step, channels 15-26) - optional license required 5GHz: 5.150-5.350 (5 MHz step) 5.725-5.825 (5 MHz step) 5.47-5.725 GHz - optional license required.
Radio Type	Direct Sequence Spread Spectrum (DSSS)
Modulation	2.4GHz: CCK (11, 5.5Mbps), DQPSK (2Mbps), DBPSK (1Mbps); OFDM for data rate > 20 Mbps 5GHz: OFDM (BPSK, QPSK, 16-QAM, 64-QAM)
Operation Channels	13
RF Output Power	18dBm (125mW) – under software control. High power options available
Sensitivity @FER=0.08:	54 Mbps OFDM -73 dBm; 48 Mbps OFDM -76 dBm; 36 Mbps OFDM -82 dBm; 24 Mbps OFDM -85 dBm; 18 Mbps OFDM -88 dBm; 12 Mbps OFDM -89 dBm; 11 Mbps OFDM -91 dBm; 9 Mbps OFDM -90 dBm; 6 Mbps OFDM -91 dBm; 5.5Mbps OFDM -92 dBm; 2 Mbps OFDM -93 dBm; 1 Mbps OFDM -94 dBm
Radio Data Rate	2.4GHz-b: 11, 5.5, 2, 1 Mbps, auto-fallback, 2.4GHz-g (Normal mode): 54, 48, 36, 24, 18, 12, 11, 9, 6, 5.5, 2, 1 Mbps, auto-fallback, 2.4GHz-g (Turbo mode): 108,96,72,48,36,24,18,12 Mbps, auto-fallback, 5GHz (Normal mode): 54, 48, 36, 24, 18, 12, 9, 6 Mbps, auto-fallback, 5GHz (Turbo mode): 108, 96, 72 48, 36, 24, 18, 12 Mbps, auto-fallback
Compatibility	Proprietary modes plus back compatibility fully interoperable with IEEE 802.11a/b/g compliant products
Radio Architecture	Support ad-hoc, peer-to-peer networks and infrastructure communication to wired Ethernet networks via Access Point
Security	64/128-bit WEP data encryption; WPA; Proprietary mode
Router Platform	
CPU	AMD x86-class 500MHz; 256MB SRAM; 64MB FLASH
System Software	RadioOS 8.1; Choice of license levels 1-6; Remotely Upgradeable via TFTP
Management	Local and Remote configuration, control and administration via RS232, Telnet, HTTP, SNMP and Proprietary protocols
Resilience Features	Virtual Router Redundancy Protocol (VRRP) allows two complete radio ODUs to be configured with one in 'hot standby' for high-availability applications
Mechanical	
Dimensions (mm)	200x112x32mm (indoor version), 180x130x60mm (outdoor version)
Connectors	External: RF: Reverse SMA; 10/100 Ethernet with auto MDI/MDIX: RJ45 Internal: RS232 console: DB9. Optional POE 802.3af standard or proprietary options
Environmental	IP54 (indoor version), IP67 (outdoor version)
Weight	500g (indoor version), 2kg (outdoor version)