

Pre-WiMAX OFDM Radio HP sectored radio base station Overview

IHPR/IMPR/ICR Bundle



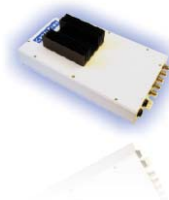
ICR Radio Unit



MPR Radio Unit



HPR Radio Unit



IHPR-DP Bundle



About CableFree

Founded in 1997 and with headquarters in London, UK, CableFree is a leading designer and supplier of broadband Wireless communication equipment.

With a complete range of solutions including Radio, Microwave, Millimeter-Wave, Free Space Optics, WiFi and WiMax solutions, customers in over 60 countries have chosen CableFree as the “one stop shop” solution of choice for dependable wireless networking.

About Our OFDM Range

CableFree Wireless Broadband solutions deliver the power, connectivity, high-demand services and cost-effectiveness that are crucial to increased return on investment whilst offering the flexibility to support virtually any wireless broadband network. The platform combines superior access performance with the flexibility to facilitate a wide range of applications.

The technology is designed to speed deployment and time to market, while helping control equipment, management and installation costs.

System Features

- All-in-one Hotspot solution for public internet access
- Operates in 2.4 and/or 5.3-5.8GHz ISM band
- Built-in Authentication & Logon pages
- Tiered services for premium customers
- Contract and/or Pre-pay cards
- Walled-garden screens advertising service
- Single or Dual Radio options

Indoor or outdoor-grade versions

Applications

- 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

All-in-One-Box Solution: Powerful Embedded Router Platform

CableFree Hotspots integrate are not cheap 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:

Hotspot Authentication, User Profiles, Logon Screens, Walled Garden, Cookies, RADIUS authentication, accounting, control of connection time

- uplink and downlink bandwidth control on a per-user basis
- IP Bridging
- Layer3 IP Routing
- Border Gateway Protocol (BGP)
- Ethernet-over-IP (EoIP) interfaces
- Virtual Router Redundancy Protocol (VRRP)
- DHCP Client and Server
- Network Address Translation (NAT)

Enhanced Wireless Performance

CableFree 802.11x radios offer major advantages over 'off-the-shelf' WiFi products. Examples are:

- Highly configurable – up to 2 radio cards – 'mix and match' 2.4/5GHz
- 108Mbps raw data rate using 'turbo mode' offers 25Mbps throughput.
- 3dB advantage over older 'Prism' based products – 'state-of-the art' radio technology
- Full duplex throughput by using dual wireless cards
- Sophisticated RadioOS software platform
- Hotspot features including Radius authentication and per-user bandwidth controls

Accessories

Antennas	Wide range of Directional, Sectorized and Omnidirectional antennas available
Radio Cards	2 nd radio card for resilience, high throughput, 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
Management Suite	Full range of solutions including SNMP, LinkManager™, AlarmView™, ClusterManager™

Specifications

System Variant	W-Hotspot
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;
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	11
RF Output Power	18dBm (125mW) – under software control
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 WiFi-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 133MHz or 266MHz; 8MB SRAM; 64MB FLASH
System Software Management	RadioOS 2.9.x; Choice of license levels; Remotely Upgradeable 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 hotspots to be configured for high-availability applications
Mechanical	
Dimensions (mm)	180x130x60mm
Connectors	External: RF: N-type Internal: 10/100 Ethernet: RJ45; RS232 console: DB9
Environmental Weight	IP66 2kg

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