

## Product Catalogue

WiBorne produces software and hardware of long range wireless systems (WISP) that achieve high bandwidth at very long distances and reasonable price for WISP. This includes base antennas / radios, CPE, wireless access points, carrier class of hotspot gateways, enterprise wireless switch, WiMAX base station radio and CPE, system integration and consultation.

WiBorne also announces active ZigBee RFID technology and Real-Time Location Systems (RTLS) based on frequency range of 802.11, 802.15.4, 900-915 MHz. These are compatible with our WISP systems for long range applications.

### Short Range Wireless - Active RFID Technology

#### WiBorne Real-Time Location Tracking System: LOC-1000

WiBorne's asset location tracking system, LOC-1000, is web based and can be applied for standard 802.11 wireless broadcast with frequencies of long range ZigBee and 802.11. For example, facilities such as Asset Tracking, Automated Parking, Access Controls, Hospitals, Airport, Harbor, Communities, Commercial Facilities, Animals, Horse Riding, Mining, and Transit Stations. It can be applied to any 802.11 applications such as Data Logging, Surveillance, Emergency, Proprietary Tracking, Field Force Automation, Law Enforcement, Tracking Fleets, Couriers, and Construction.



#### ZigBee Active RFID Tags with IEEE 802.15.4 Standard: Long Range and Scalable Wireless Sensor Networks for Multiple Market Segments

Compliant with IEEE802.15.4 network solutions or a standards' based network solution like ZigBee™, our tag system is low cost, low power, and good range. It supports 250 to 1000 nodes as scalable sensor networks from range of 100 meters to 1KM! It secures data / voice with 128-bit AES encryption, and highly 97dB receive sensitivity. It also offers sleep mode for long life of battery. It offers tree, star, mesh protocols for multiple routes and recovery to avoid interference and node failures. Interfaced with WiBorne's 802.11 WAP / CAP, you can receive data transferred seamlessly without wired connection at all. It also interfaces with 3<sup>rd</sup> party devices with UART interface and programmable stack API for variety of applications. It offers multiple market segments, including commercial buildings, infrastructure, meter reading, automotive, medical, RF remote controls, audio, emergency services, toys, gaming, price displays, VOIP headsets and door intercoms.



#### Active 868/915 MHz RFID Tags and Tracking System: VERA-1000

This includes intelligent software module that collects and aggregates data from the badge type of asset tag and AP reading devices, and then delivers location and identification information upstream to enterprise applications. With flexible data integration options, VERA-1000 can easily interface with existing end-user programs and tools. VERA-1000 family products include RFID-enabled bracelets, staff badges and asset tags are in constant communication with the network, automatically delivering critical data, including location and identity. VERA-1000 is suitable for healthcare such as hospitals, and homeland security.

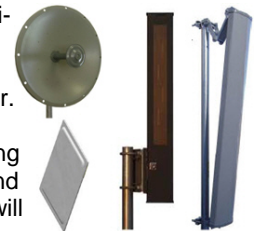


### Long Range Wireless Equipments for WISPs

#### Base Stations Antennas

Our antennas are designed with 360 degree "Stacked" Omni configuration and phased, which is a favorite for deployment requiring full omni-directional coverage with substantial multi-polarized gain. They provide Multi-Polarized/Multi-Plane/Multi-Path Technology. Multi-Polarized will solve wireless problems for tree penetration, office floor coverage, overall coverage pattern, greater non-line of site, noise reduction, with installation of lower tower.

Our 3-D Radio Waves Science provides, built spatial diversity with obstruction penetrating quality. Our antennas support any frequencies within the 900 MHz, 2.4GHz, 3.5GHz, and 5 GHz bands, and are ideal for point-to-multi-point or tower-to-CPE use. Our antennas will greatly reduce or solve common dropouts that other antennas see as obstruction or common interference. Current customers have found vast improvement in tree obstructed areas, body worn applications, and mobile use.



#### Carrier Class Radios for Base Station: WAP-250 & WAP-750

The WA-P250 wireless radio, applies to large public wireless access network without numerous smaller APs to construct wireless network. This reduces construction fees for public areas. The WA-P750 radios, applies to WiFi base station with its carrier-class broadband wireless access platform for citywide WLAN. This reduces construction fees for public areas, as one unit for all you need with 3 radios that run 900MHz, 2.4 GHz, 4.9 GHz, and 5 GHz on 3 different channels. It is backward compatible with WiMAX radio cards.



## Long Range Wireless Equipments for WISPer (Continued)

### High Power Long Range Integrated Panel Antennas for CPE: CAP Series

CAP series is 2.4GHz 802.11b/g compatible client bridge/route. There are completely integrated in to a 9, 16, or 19dBi antennas delivering up to 42dBm or 16 Watts EIRP of power! Designed with ease of installation in mind, they simplifies subscriber installation with its Integrated Antenna, Power over Ethernet (PoE), 'Plug and Play' installation and software power controlled capability. Housed in a weatherproof enclosure, CAP series is built to operate in harsh environments. Typical usages include bridging satellite offices, corporate LANs, school campus, as well as wireless Internet services, at distances from few miles to 15+ miles. CAP series is also the solution of choice for bridging networks including networks separated by difficult terrain, railroads, or bodies of water.



### High Power Long Range 802.11a for WiFi Citywide

WAP-500 and CAP-5019 / CAP-5024 bundled as Carrier Class 5 GHz 400mW / 600mW High Power and Superior Performance Routing Base or Backhaul Radio and CPE nodes for up to 108Mbps of throughput or 145 miles of extreme range.



### Backhaul Radios and Mesh / Dual-Quad Radios Access Points: WAP2450, WAP-192/240/280/500/520

The WAP-2450, WAP-192 and WAP-240/280/500/520 outdoor high power 802.11a or b/g wireless access points (AP), applied to long range public wireless access network as backhaul with dual radio / mesh solutions:

- Acts as a carrier class **Wireless Backhaul** for point to point link, which enables broadband internet services across cities with consistent high data throughput.
- Acts as an **Dual Radio** unit, which allows wireless connections from backhaul and broadcast as base station radio simultaneous with high data rates
- Acts as an **AP / WDS / Bridge / Mesh**: AP-AP handover, multi-country roaming, L2 WDS, L3 routing (OSPF, BGP, and ISIS), L3 OSLR Dynamic mesh protocol, 802.11s mesh Protocol, with **WiMAX client upgradeable**



### High Power Wireless USB Dongle

This is absolutely fantastic for short range connection from client's laptop to CPE with range of few kilometers! You gain 802.11 a/b/g radios by using these USB 2.0 wireless devices that offer high-speed wireless connection up to 54Mbps with encrypted data - WPA2 and AES.



## Carrier Class Network Management Systems & Controllers

### Hotspot Controller: HSG Series

The HSG hotspot controller, applies to public access network such as Wi-Fi hotspots, guest access, global roaming, and hospitality deployments - With reliability, capacity, efficiency, and ultra security. It supports 250 or unlimited concurrent users with built in billing systems and VPN clients. , this optimizes performance of wireless radios for best throughput for wireless clients. HSG is fully integrated with our CPE and access points for that performs centralized management remotely. One button does operations for all of associated CAP and WAP series.



### Enterprise Wireless Switch: AWG Series

The AWG series, a wireless security switch integrated with our high power access points / CPEs for network management systems, delivers the secure, intelligent, and flexible management of wireless local area networks (WLAN) for today's mobile workforce demands. It has built in Intrusion Detection / Prevention Systems (IDS/IPS) that protect your wired / wireless infra-structures.

AWG is fully integrated with variety of popular access points such as Netgear WG302/WAG302, Linksys, and Realtek based AP. One button does operations for all of associated CAP and WAP series.



### Wireless Mobile 3G / WiMAX Router: W3G Series

W3G is a mobile/portable 3G/WiMAX/Wireless communication router built for mission-critical applications with the industrial most integrated WLAN and WWA solution for Enterprise, Mobile Hot Spots, and WISPs. The W3G turns vehicles into local area networks, providing truly mobile workers with all the benefits of being connected to the "corporate" network while working in the field.

**Applications:** Landline Replacement, Telemetry/M2M, Mobile Fail-over, Portable Networks, Public Safety, Fire/Rescue, Law Enforcement, Municipalities, Broadcast, Defense, Public or Private Transit, and Transportation



## WiMAX Base Radio and CPEs

### WiMAX Base Station Radio Units: WBRU

Our WiMAX Base Station Radio Units (WBRU) —a fully-redundant and scalable WiMAX base station that is ideally suited for larger scale deployments. WBRU enables carriers to simultaneously deliver a full range of revenue-generating WiMAX services -including VoIP, high-speed Internet, VPN, WiFi, streaming multimedia and online gaming - to millions of subscribers.

Fully-scalable with sectors, the WBRU offers unique radio diversity capabilities for maximum coverage, capacity and throughput. WBRU can simultaneously support both fixed and mobile WiMAX airborne technologies with optimized UDP/TCP/IP performance on tunable 2.3-2.7 and 3.3-3.8 GHz of WiMAX spectrum.



### WiMAX Subscriber Station - outdoor CPE: WSS

The WiMAX Subscriber Station (WSS) - outdoor CPE. With proven performance and extremely stable RF signal, WSS provides the most cost-effective solution to fulfill BWA access requirement from customer, especially enterprise clients. Fully compliant with IEEE 802.16-2004 plus advanced Space Time Coding (STC) & OFDM technology, sub-channeling, antenna diversity, adaptive modulation, power control, and fast QoS scheduling, WSS enhanced coverage and stability of connection to reach Non Line of Sight (NLoS) and provide QoS features. Full line tunable frequency (2.3-2.7, 3.3-3.8 GHz) with TDD / HFDD modes enables capability to be adopted all over the world.



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