

**Model No.: WDR5082**

**Outdoor Dual Radio AP/Bridge**



WDR5082 Outdoor Rugged and weatherized AP/Bridge is a secure dual Radio WiFi-abg with up to 108Mbps providing the extra edge for increased flexibility & performance of WiFi deployment and increased throughput for enterprise, campus, WISP networks covering WiFi access. 1st radio for AP, 2nd radio WDS, or dual radio WDS backhaul link or 1 st radio for AP , 2<sup>nd</sup> radio RF scanning or 1 st radio for WDS , 2<sup>nd</sup> radio RF scanning. The advantage of these functions are to enhance wireless network security supporting VLAN & up to 4 different multi ESSIDs, WDS interconnection for backhaul link, WiFi bridge, WiFi repeater and RF scanning capability to monitor health status of managed APs.

## **Product Benefits :**

- Easy-to-deploy, WISP , Enterprise , Campus class outdoor AP/Bridge eliminates RF channel planning, significantly reducing costs
- RF Scan Capability
- Rugged enclosure designed for outdoor use or in harsh indoor environments with exposure to extreme heat ,cold, and/or rain
- Multi-layered security options allow multiple applications and user groups
- Dual radios enable simultaneous support of 802.11a backhaul link and 802.11b/g clients
- Supports and works in all wireless mode when integrated with Lanready Wireless Backbone System .

## **System Administration**

- Web-based administration
- CLI (command line interface) via serial console and SSH
- RADIUS Accounting
- Real-time event notification
- Configuration backup and restore
- Comprehensive status display of wireless clients
- Administrator may kick out specified clients
- Firmware upgrade

- Hidden SSID for on-site maintenance

## **CC Wireless Network**

- IEEE 802.11a supports data rate up to 54Mbps; it's mainly used for WDS links.
- IEEE 802.11b supports data rate up to 11Mbps
- IEEE 802.11g supports data rate up to 54Mbps,
- Supports data rate up to 108Mbps when Super A/Super G Mode is enabled,
- Wi-Fi access service supports up to 4 different ESSIDs providing different security settings.
- Supports VLAN tags on backhaul links to separate traffic of different ESSIDs.

## **Easy-to-deploy**

Equipped with 2 RF interfaces, which provides 4 types of setting :

- Access Point and WDS Link
- Access Point and RF scanning function
- WDS links uplink/down link simultaneously
- WDS link and RF scanning function

### **(1) WDS Interconnection**

- WDS capability allows AP-to-AP interconnection for backhaul link; can be used as backup or replacement of Ethernet.
- Wireless bridge function
- Wireless repeater function ( Uplink and downlink works simultaneously)
- Monitors signal strength of WDS peers during normal operation
- WDS peer discovery
- Painless setup of WDS links
- Signal strength display while setting WDS links

### **(2)RF Scanning Capability**

- Monitors health status of managed APs
- Notifies when neighboring AP fails
- Scans for current status of channel utilization to determine best channel
- Scans neighboring APs and highlights those who are using the same channel
- Scan results are sent to M5000/M3000 gateway for further analysis

### **(3) Multi-Layered Security**

- WEP 64/128 bit mode
- WPA/WPA2 supports PSK, IEEE 802.1x, WPA encryption supports RC4-TKIP, AES-CCMP
- IEEE 802.1x authentication supports EAP-TLS, EAP-TTLS, PEAP., etc.
- Station isolation blocks inter-client communication
- Hidden ESSID capability



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<b>Software Specifications</b>	
<b>Security</b>	MAC Filtering <ul style="list-style-type: none"> <li>- Local MAC database; RADIUS MAC authentication</li> </ul> Layer 2 Security <ul style="list-style-type: none"> <li>- 802.11 Security:WEP-64,WEP-128</li> <li>- 802.1x with EAP-TLS,EAP-TTLS,PEAP,WPA ,WPA2</li> <li>- Dynamic VLAN assignment on a per-client basis</li> </ul>
<b>Encryption</b>	WEP keys of 40bit,64bit, and 128 bit (in hardware) TKIP (in hardware) AES (in hardware)
<b>RADIUS Interoperability</b>	Microsoft IAS, Steel-Belted RADIUS, Free RADIUS
<b>Layer 3 Security</b>	VPN Pass through Captive Portal for guest access
<b>Management</b>	Administrative Access <ul style="list-style-type: none"> <li>- GUI (through controller)</li> </ul> Configuration <ul style="list-style-type: none"> <li>- Automatically downloaded from Controller</li> <li>- All configuration changes performed on the controller</li> </ul> Troubleshooting and Local Access <ul style="list-style-type: none"> <li>- Advanced trouble shooting through controller</li> <li>- Historical reports and alerts through</li> </ul> Remote/Central Management <ul style="list-style-type: none"> <li>- RF Management for : Monitoring, Alerts ,Reports, RF Visualization, RF Location</li> </ul>
<b>SNMP Support</b>	SNMP v1 and v2c Agent with monitoring through controller MIBs
<b>Remote Logging</b>	Syslog v1 and v2 – failure alerts and change notifications through controller
<b>Software Upgrade</b>	Automatic software upgrades, originated by controller
<b>Networking</b>	Forwarding <ul style="list-style-type: none"> <li>- IP Tunnel to Controller in Coordinated Mode 802.3/802.11 bridging in Bridge Mode</li> </ul> Network Interfaces <ul style="list-style-type: none"> <li>- 2 Auto-sensing 10/100 Base-TX Ethernet (RJ45)</li> </ul> Addressing <ul style="list-style-type: none"> <li>- DHCP or manual assignment</li> </ul> VLAN <ul style="list-style-type: none"> <li>- 802.1Q tagging support throughput controller</li> </ul>

<b>Hardware Specification</b>	
<b>Base Platform</b>	
<b>Processor</b>	INTEL IXP 425
<b>Wireless Radio</b>	2 x 802.11abg 2.4/5Ghz Dual Band
<b>Standards Conformance</b>	IEEE 802.3 / IEEE 802.3u



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<b>Network Ports</b>	<ul style="list-style-type: none"> <li>- 3 * 10/100Mbps Ethernet ports with weatherproof connectors</li> <li>- IEEE 802.3, 802.3u compliant</li> <li>- CSMA/CD 10/100 auto sense</li> <li>- Port 1 Consol Port , Ports 2 ,3 PSE Power over Ethernet</li> </ul>
<b>Enclosure</b>	
<b>Weather Rating</b>	Die Cast aluminum IP66,IP67 (NEMA-4X) Weathertight
<b>Antenna Connector</b>	2 * N-Type
<b>Ethernet Connector</b>	3 * weatherproof Ethernet Connectors
<b>Port 2</b>	IEEE802.3af compatible PoE (PSE) , 48W max. (48V)
<b>Port 3</b>	IEEE802.3af compatible PoE (PSE) , 48W max. (48V)
<b>Environmental Specification</b>	
<b>Operating Temperature</b>	-40 °C ~ 75 °C
<b>Storage Temperature</b>	-40 °C ~ 85 °C
<b>Operating Humidity</b>	10% to 80% Non-Condensing
<b>Storage Humidity</b>	5% to 90% Non-Condensing
<b>Unit Weight</b>	267.96mm (L)x 202.84mm (W)x 64.52mm(H) mm
<b>Unit Dimension</b>	2,590g

<b>Wireless Specifications</b>	
<b>RF Module</b>	Atheros
<b>Interface</b>	Mini-PCI bus
<b>Network Standards Conformance</b>	IEEE802.11a/ b /g /h compliant
<b>Data Transfer Rate</b>	IEEE802.11b : 1 / 2 / 5.5 / 11Mbps (auto sensing) IEEE802.11g : 6 / 9 / 12 / 18 / 24 / 36 / 48 / 54/108Mbps (auto sensing) IEEE802.11a : 6/9/12/18/24/36/48/54/108Mbps(auto sensing)
<b>Frequency Range</b>	IEEE802.11a: 4.94-4.99GHz (US Public Safety band) 5.15-5.25GHz,5.25-5.35GHz,5.725-5.825GHz IEEE802.11b/g : 2.412 ~ 2.462GHz (USA) 2.412 ~ 2.484GHz (Japan) 2.412 ~ 2.472 GHz (Europe ETSI) 2.457 ~ 2.462 GHz (Spain) 2.457 ~ 2.472 GHz (France)
<b>Media Access Protocol</b>	CSMA / CA with ACK
<b>Modulation Method</b>	IEEE802.11b : DSSS (DBPK,DQPSK,CCK) IEEE802.11a/g : OFDM(64-QAM,16-QAM,QPSK,BPSK)
<b>Operating Channels</b>	802.11a : 12 for FCC, 11 for Europe, 4 for Japan,5 for Singapore, 4 for Taiwan 802.11b/g : 11 for FCC,14 for Japan,13 for Europe, 2 for Spain, 4 for France
<b>Transmit Power (TX)</b>	100mW
<b>Transmit Power Variation</b>	802.11a : Up to 16dBm 802.11g : Up to 16 dBm 802.11b : up to 18 dBm
<b>Frequency Response</b>	±1dB over operating range



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<b>flatness</b>	
<b>Receiver Sensitivity(RX)</b>	802.11a : -82dBm@6Mbps, -81dBm@9Mbps, -79dBm@12Mbps, -78dBm@18Mbps, -75dBm@24Mbps, -72dBm@36Mbps -70dBm@48Mbps, -68dBm@54Mbps, 802.11b/g : -91dBm@1Mbps, -90dBm@2Mbps, -89dBm@5.5Mbps, -87dBm@11Mbps, -84dBm@6Mbps, -82dBm@9Mbps, -79dBm@12Mbps, -77dBm@18Mbps, -75dBm@24Mbps, -73dBm@36Mbps, -70dBm@48Mbps, -68dBm@54Mbps

<b>Standard Packing</b>	
<b>Outdoor Bridge Unit</b>	1
<b>Ethernet Power Injector</b>	1 ( 48V)
<b>Power Cable</b>	1
<b>CD User Manual</b>	1
<b>Wall/Pole Mounting Bracket</b>	1