



VP2210 – Vivato 802.11g Outdoor Wi-Fi Base Station

The Vivato 802.11g Outdoor Wi-Fi Base Station offers up to 54Mbps data-rates to large outdoor areas to significantly lower the cost of deployment for large scale Wi-Fi networks.

Benefits

- Lowest cost network deployments using Vivato Wi-Fi architecture
- Increased coverage area reduces equipment cost and installation time
- Simplified management and maintenance with dramatically reduced device count
- Secure network access through robust security features and rogue AP detection

Functionality

The smart antenna Base Station combines PacketSteering™ technology and a phased array antenna to provide up to 12 times the coverage area of industrial-grade Wi-Fi products.

This approach enables a new outdoor Wi-Fi deployment architecture with fewer Wi-Fi devices, rather than managing many Wi-Fi Access Points, resulting in a system that is easier to manage and secure.

Suitable deployment environments:

- University and education campuses
- Government and Military facilities
- Logistics facilities
- Resorts and Hotels
- Outdoor sports facilities
- Seaports, Airports, Train terminals



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The VP2210 Base Station utilizes a smart antenna to form 6 narrow beams of Wi-Fi that transmit 802.11b/g packets to standard Wi-Fi clients. The VP2210 provides connectivity to the Internet at speeds up to 54Mbps over much greater areas than with traditional Wi-Fi products because it uses its entire phased array antenna to receive low-power transmissions from distantly located clients.

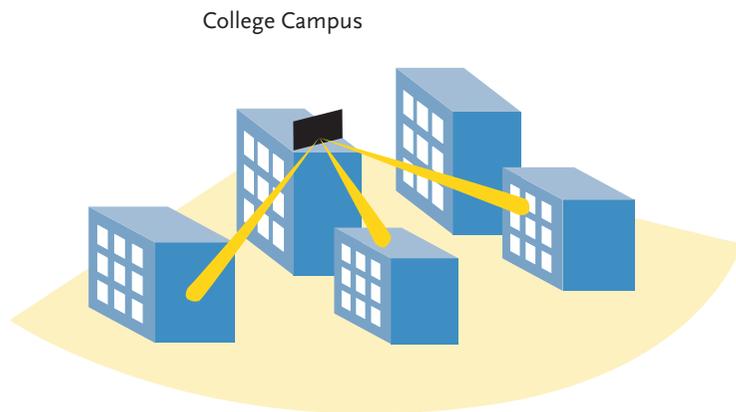
Deployed as a system, the VP2210 supports up to 24 Vivato AP/Bridges via Wireless Distribution System (WDS) links to extend the Wi-Fi coverage area, to fill in coverage gaps, or to add capacity. Flexible network architectures of VP2210s and Vivato AP/Bridges provide comprehensive outdoor coverage for even the most demanding deployments.

Security

Vivato products offer industry standard security on all its devices. To protect the wireless network, the device offers multiple SSID/VLAN support to segregate client traffic and each SSID/VLAN supports different authentication/security models. Standard security: WEP (40- and 104-bit (RC4)) encryption, 802.1x (EAP-TLS, EAP-TTLS, PEAP), and WPA (TKIP/MIC, 802.1x) are supported. Enhanced features such as ICCF (inter-client communication filtering), which prevents client-to-client traffic, and MAC address filtering, allow administrators to deny or permit client association.

Manageability

The device can be easily managed remotely via VivatoVision™ WebUI or CLI through secure HTTPs connections and supports SNMP and remote and local logging. The VP2210 may also be managed locally through a DB-9 serial port. Vivato helps protect investments by offering software upgrades that keep the device up-to-date with the latest features.

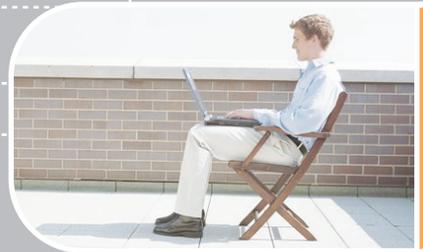


The VP2210 provides Wi-Fi coverage for campus buildings and open spaces.

By reducing the number of devices and their associated installation costs, Vivato Wi-Fi Base Stations enable telecom service providers and IT network managers to provide Wi-Fi where it's needed at an affordable price.

WIRELESS SPECIFICATIONS

Network Standard	IEEE 802.11b/g																
Frequency Band/Operating Channels	2.4 – 2.483 GHz, North America Channel Set (1-11)																
Supported Data Rates	802.11b: 1, 2, 5.5, 11 Mbps 802.11g: 6, 9, 12, 18, 24, 36, 48, and 54 Mbps																
Media Access Protocol	Carrier Sense Multiple Access/Collision Avoidance																
Receive Sensitivity	Rate (mode) receiver sensitivity																
CCK: 8% PER, 1000 bytes OFDM: 10% PER, 1024 bytes	<table border="0"> <tr> <td>54 (OFDM) -72dBm</td> <td>11 (CCK) -90dBm</td> </tr> <tr> <td>48 (OFDM) -76dBm</td> <td>5.5 (CCK) -93dBm</td> </tr> <tr> <td>36 (OFDM) -81dBm</td> <td>2 (CCK) -94dBm</td> </tr> <tr> <td>24 (OFDM) -84dBm</td> <td>1 (CCK) -95dBm</td> </tr> <tr> <td>18 (OFDM) -87dBm</td> <td></td> </tr> <tr> <td>12 (OFDM) -90dBm</td> <td></td> </tr> <tr> <td>9 (OFDM) -91dBm</td> <td></td> </tr> <tr> <td>6 (OFDM) -92dBm</td> <td></td> </tr> </table>	54 (OFDM) -72dBm	11 (CCK) -90dBm	48 (OFDM) -76dBm	5.5 (CCK) -93dBm	36 (OFDM) -81dBm	2 (CCK) -94dBm	24 (OFDM) -84dBm	1 (CCK) -95dBm	18 (OFDM) -87dBm		12 (OFDM) -90dBm		9 (OFDM) -91dBm		6 (OFDM) -92dBm	
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Operating Range

Outdoor Line of Sight:
VP2210 with 85% coverage, 2.2 path loss coefficient
Typical 802.11b/g Wi-Fi client with 15 dBm output power

Data Rate	Range (feet/meters)	Data Rate	Range (feet/meters)
54Mbps	2,100ft / 642m	11Mbps	14,000ft / 4,223m
48Mbps	3,200ft / 976m	5.5Mbps	19,000ft / 5,780m
36Mbps	5,400ft / 1,646m	2Mbps	21,000ft / 6,418m
24Mbps	7,300ft / 2,254m	1Mbps	23,000ft / 7,126m
18Mbps	10,000ft / 3,085m		
12Mbps	14,000ft / 4,223m		
9Mbps	15,000ft / 4,689m		
6Mbps	17,000ft / 5,206m		

Users per Device	Up to 50 simultaneous users / 1,530 associated users
Coverage Pattern	90° horizontal and 12° vertical field of view
EIRP (Max.)	41 dBm typical @ 802.11b rates, 21dBi antenna 37 dBm typical @ 802.11g rates, 21dBi antenna

WIRED SPECIFICATIONS

Network Interfaces	2 - IEEE 802.3 auto-sensing 10/100 BaseT Ports
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MANAGEMENT & MIB SUPPORT

Local Management	RS-232 Serial Console Port
Remote Management	HTTPs, SNMP, (v1, v2c)
MIBs	RFC 1213, RFC 1493 Bridge Generic and Enterprise Specific Traps: IEEE 802.11, IEEE 802.1x
Logging	SNMP trap support Local and Remote Syslog
File Management	TFTP, SCP

Wi-Fi WHERE YOU [NEED] IT

SECURITY

Static and Dynamic WEP Encryption

40- and 140-bit (RC4) Encryption

WPA

802.1x – EAP-TLS, EAP-TTLS, PEAP, TKIP/MIC

802.11i / WPA2

AES supported
802.1x – EAP-TLS, EAP-TTLS, PEAP, TKIP/MIC

ICCF

Inter-client communication filtering

Multiple SSID/VLAN

Support for up to 16 MSSID/VLANs each capable of supporting a different security model



ENVIRONMENTAL SPECIFICATIONS

Dimensions

30" (L) x 30" (H) x 11" (W)
76.15cm (L) x 76.15cm (H) x 27.85cm (W)

Power Requirement

48VDC, 200 Watts maximum

Weight

83lbs. (37.64Kg.)

Weather Rating

NEMA-4x (IP66)

Temperature

-40° F to 131° F (-40° C to 55° C) – Operating
Solar load tested per GR-487-CORE Sec 3.26 Category 2
-40° F to 185° F (-40° C to 85° C) - Storage

Wind Survivability

125mph

Shock & Vibration

GR-63-CORE

Transportation

ISTA 2A

CERTIFICATIONS

Radio

FCC 47 CFR Part 15, Class B
Industry Canada RSS 210

Safety

UL 60950
CB Report IEC 60950

WARRANTY

One year limited warranty

PACKAGE CONTENTS

One VP2210
One sun shroud and mounting hardware
One CD-ROM containing User Guide
Two RJ-45 to DB-9 adapters
Quick Start Guide

OPTIONAL ACCESSORIES

Tower Mounting Kit, with 125mph wind survivability



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