

SuperMesh 8200

Outdoor Dual Mesh Router

Rugged Outdoor Dual Wireless Mesh

ValuePoint Networks' SuperMesh™ 8200 Mesh Router creates a self-configuring and self-healing wireless mesh network over Single or Dual 5 GHz, 4.9 GHz, 2.4 GHz, or 900MHz spectrums. The Dual mesh configuration achieves the highest throughput and lowest latency across multiple hops. The SuperMesh 8200 is a 300-700 mWatt outdoor router with weatherized Ethernet and power-out connectors for co-locating client Access Points, security devices, or other network hardware on the pole. A single PoE connection powers both the mesh and attached AP. Multiple SuperMeshes automatically create a wireless network that is reliable, efficient, and responsive to environmental changes, reducing support calls and onsite visits.

Pricing for the SuperMesh 8200 will dramatically lower your infrastructure costs, making previously unreachable venues affordable and increasing your Return on Investment.



Wireless Mesh

Self-configuring Mesh is scalable, flexible, and reliable

Deployed 8200s automatically negotiate optimal routes with neighboring and distant peers to provide efficient, but also redundant, LAN networking for voice, data, and video. Multiple ISP WAN connections into the mesh are supported as well, increasing reliability still further and boosting available bandwidth.

A single local mesh supports up to 50 nodes, and multiple local meshes can be interlinked without limit. The dynamic nature of the mesh allows it to adapt quickly to service outages, introduced interference, or changes in line-of-site caused by season or movement.



Dual mesh configuration

Dual mesh gives highest performance end-to-end

The 8200's efficient dual mesh routing algorithm provides 300 Mbps 802.11n end-end throughput and low latency across 7 individual node hops. Therefore a 7x7 dual radio mesh will give vastly improved end-end performance over a single radio mesh. Each radio can run on a different spectrum to help overcome interference, if necessary.

Easily Connect Network Devices

Power and data out to any device

SuperMesh 8200 has two (2) weatherized NEMA4 RJ45 connectors to connect to Ethernet devices. One (1) has POE OUT to connect to and power ValuePoint SuperAP Access Points or any other Ethernet device such as Video cameras, IR or 900 Mhz bridges. A single PoE Ethernet cable supplies the power and data for the whole installation.

Secure and Manageable

Flexible Management options

SuperMesh 8200 is fully manageable via Telnet, SNMP, or a user-friendly HTTP web interface. Data in the mesh can be 128bit encrypted and VLAN or VPN protected.

Technical Specifications

Wireless

IEEE 802.11n (2.4 GHz)		
Chipset	Atheros AR9220 with DFS SUPPORT	
Peak Power	600 mW / 28 dBm	
Data Rates	6, 9, 12, 24, 36, 48, 54 Mbps	
TX Specifications	Data Rate	Avg. Power
802.11a OFDM	6 Mbps	28 dBm
	9 Mbps	28 dBm
	12 Mbps	28 dBm
	18 Mbps	28 dBm
	24 Mbps	28 dBm
	36 Mbps	27 dBm
	48 Mbps	25 dBm
	54 Mbps	23 dBm
RX Specifications	Data Rate	Sensitivity
802.11a OFDM	6 Mbps	-97 dBm
	9 Mbps	-97 dBm
	12 Mbps	-97 dBm
	18 Mbps	-97 dBm
	24 Mbps	-97 dBm
	36 Mbps	-90 dBm
	48 Mbps	-86 dBm
	54 Mbps	-84 dBm



802.11n 5 GHz		
Chipset	Atheros AR9220 with DFS SUPPORT	
Peak Power	320 mW / 25 dBm	
Data Rates	6, 9, 12, 24, 36, 48, 54 Mbps	
TX Specifications	Data Rate	Avg. Power
4.9 GHz OFDM	6 Mbps	25 dBm
	9 Mbps	25 dBm
	12 Mbps	25 dBm
	18 Mbps	25 dBm
	24 Mbps	25 dBm
	36 Mbps	24 dBm
	48 Mbps	22 dBm
	54 Mbps	21 dBm
RX Specifications	Data Rate	Sensitivity
4.9 GHz OFDM	6 Mbps	-97 dBm
	9 Mbps	-97 dBm
	12 Mbps	-97 dBm
	18 Mbps	-97 dBm
	24 Mbps	-97 dBm
	36 Mbps	-90 dBm
	48 Mbps	-86 dBm
	54 Mbps	-84 dBm

IEEE 802.11a (5 GHz)		
Chipset	Atheros, 6th Generation, AR514 with SuperA Turbo Support	
Peak Power	600 mW / 28 dBm	
Data Rates	6, 9, 12, 24, 36, 48, 54 Mbps	
TX Specifications	Data Rate	Avg. Power
802.11a OFDM	6 Mbps	28 dBm
	9 Mbps	28 dBm
	12 Mbps	28 dBm
	18 Mbps	28 dBm
	24 Mbps	28 dBm
	36 Mbps	26 dBm
	48 Mbps	24 dBm
	54 Mbps	23 dBm
RX Specifications	Data Rate	Sensitivity
802.11a OFDM	6 Mbps	-94 dBm
	9 Mbps	-93 dBm
	12 Mbps	-91 dBm
	18 Mbps	-90 dBm
	24 Mbps	-86 dBm
	36 Mbps	-83 dBm
	48 Mbps	-77 dBm
	54 Mbps	-74 dBm

4.9 GHz		
Chipset	Proprietary 4.9 GHz based on OFDM 802.11a with QPSK/16QAM/64QAM	
Peak Power	400 mW / 26 dBm	
Data Rates	6, 9, 12, 24, 36, 48, 54 Mbps	
TX Specifications	Data Rate	Avg. Power
4.9 GHz OFDM	6 Mbps	26 dBm
	9 Mbps	26 dBm
	12 Mbps	26 dBm
	18 Mbps	26 dBm
	24 Mbps	26 dBm
	36 Mbps	24 dBm
	48 Mbps	23 dBm
	54 Mbps	22 dBm
RX Specifications	Data Rate	Sensitivity
4.9 GHz OFDM	6 Mbps	-94 dBm
	9 Mbps	-93 dBm
	12 Mbps	-91 dBm
	18 Mbps	-90 dBm
	24 Mbps	-86 dBm
	36 Mbps	-83 dBm
	48 Mbps	-77 dBm
	54 Mbps	-74 dBm

IEEE 802.11a (5 GHz)		
Chipset	Atheros, 6th Generation, AR514 with SuperA Turbo Support	
Peak Power	600 mW / 28 dBm	
Data Rates	6, 9, 12, 24, 36, 48, 54 Mbps	
TX Specifications	Data Rate	Avg. Power
802.11a OFDM	6 Mbps	28 dBm
	9 Mbps	28 dBm
	12 Mbps	28 dBm
	18 Mbps	28 dBm
	24 Mbps	28 dBm
	36 Mbps	26 dBm
	48 Mbps	24 dBm
	54 Mbps	23 dBm
RX Specifications	Data Rate	Sensitivity
802.11a OFDM	6 Mbps	-94 dBm
	9 Mbps	-93 dBm
	12 Mbps	-91 dBm
	18 Mbps	-90 dBm
	24 Mbps	-86 dBm
	36 Mbps	-83 dBm
	48 Mbps	-77 dBm
	54 Mbps	-74 dBm



4.9 GHz			
Chipset	Proprietary 4.9 GHz based on OFDM 802.11a with QPSK/16QAM/64QAM		
Peak Power	400 mW / 26 dBm		
Data Rates	6, 9, 12, 24, 36, 48, 54 Mbps		
TX Specifications	Data Rate	Avg. Power	
4.9 GHz OFDM	6 Mbps	26 dBm	
	9 Mbps	26 dBm	
	12 Mbps	26 dBm	
	18 Mbps	26 dBm	
	24 Mbps	26 dBm	
	36 Mbps	24 dBm	
	48 Mbps	23 dBm	
4.9 GHz OFDM	54 Mbps	22 dBm	
	RX Specifications	Data Rate	Sensitivity
	4.9 GHz OFDM	6 Mbps	-94 dBm
		9 Mbps	-93 dBm
		12 Mbps	-91 dBm
		18 Mbps	-90 dBm
		24 Mbps	-86 dBm
36 Mbps		-83 dBm	
48 Mbps		-77 dBm	
54 Mbps	-74 dBm		

IEEE 802.11b/g (2.4 GHz)		
Chipset	Atheros, 6th Generation, AR5414	
Peak Power	600 mW / 28 dBm	
Data Rates	1, 2, 5.5, 11 (802.11b) 6, 9, 12, 24, 36, 48, 54 Mbps (802.11g)	
TX Specifications	Data Rate	Avg. Power
802.11b	1 Mbps	28 dBm
	2 Mbps	28 dBm
	5.5 Mbps	28 dBm
	11 Mbps	28 dBm
802.11g OFDM	6 Mbps	28 dBm
	9 Mbps	28 dBm
	12 Mbps	28 dBm
	18 Mbps	28 dBm
	24 Mbps	28 dBm
	36 Mbps	26 dBm
	48 Mbps	25 dBm
54 Mbps	24 dBm	
RX Specifications	Data Rate	Sensitivity
802.11b	1 Mbps	-97 dBm
	2 Mbps	-96 dBm
	5.5 Mbps	-95 dBm
	11 Mbps	-92 dBm



802.11g OFDM	6 Mbps	-94 dBm
	9 Mbps	-93 dBm
	12 Mbps	-91 dBm
	18 Mbps	-90 dBm
	24 Mbps	-86 dBm
	36 Mbps	-83 dBm
	48 Mbps	-77 dBm
	54 Mbps	-74 dBm

900 MHz		
Chipset	Proprietary 900 MHz based on 802.11b/g CCK/OFDM	
Peak Power	700 mW / 28 dBm	
Data Rates	1, 2, 5.5, 11 (802.11b) 6, 9, 12, 24, 36, 48, 54 Mbps (802.11g)	
TX Specifications	Data Rate	Avg. Power
802.11b	1 Mbps	28 dBm
	2 Mbps	28 dBm
	5.5 Mbps	28 dBm
	11 Mbps	28 dBm
802.11g OFDM	6 Mbps	28 dBm
	9 Mbps	28 dBm
	12 Mbps	28 dBm
	18 Mbps	28 dBm
	24 Mbps	28 dBm
	36 Mbps	26 dBm
	48 Mbps	23 dBm
	54 Mbps	21 dBm
RX Specifications	Data Rate	Sensitivity
802.11b	1 Mbps	-93 dBm
	2 Mbps	-92 dBm
	5.5 Mbps	-91 dBm
	11 Mbps	-88 dBm
802.11g OFDM	6 Mbps	-91 dBm
	9 Mbps	-90 dBm
	12 Mbps	-88 dBm
	18 Mbps	-87 dBm
	24 Mbps	-83 dBm
	36 Mbps	-83 dBm
	48 Mbps	-74 dBm
	54 Mbps	-71 dBm



Networking

- IEEE 802.3
- Telnet, SNMP, Web manageable
- Voice and Video support
- Powered by PoE-1 injector
- Ethernet – Mesh bridging
- VPN Pass-through
- SNMP MIB II

Mesh

- Up to 50 Nodes per local mesh
- Multiple WAN connections
- OLSR Mesh Routing
- Up to 300 Mbps 802.11n throughput
- Up to 6 WiFi links per radio, 12 links per node (Dual)
- Dynamic Self-configuration

Security and Management

- SNMP MIB II
- Payload Encryption
- VPN IPSEC in Each Node
- VLAN and VPN Passthrough
- 40 (64) or 128 bit WEP
- Web Based Management
- Remote Firmware Upgrade

Hardware

- Dual RJ45 weatherized Ethernet out
- 2 Switched 10/100M Fast Ethernet LAN ports
- Humidity: Max. 95% non-condensing
- NEMA4 Rugged Enclosure
- 10.8 x 8.3 x 4 In. / 3.6 Lbs.
- POE out to power attached AP
- Operating Temperature: -20 to 55 C
- Pole Mounting Kit
- Power: PoE-1

Certification and Approval

- FCC part 15 Class B
- CE Mark
- VCCI Class B
- UL

Warranty

- One year parts and labor
- 30 day satisfaction guaranteed

About ValuePoint Networks

ValuePoint Networks is the foremost manufacturer of price leading Gateway controllers, Rugged Access Points, and Mesh gear. ValuePoint products are used in Hospitality, MTU/MDU, industrial, WISP, outdoor, hotspot, municipal, and enterprise applications. Light up more for less, reduce your capital expenditures and improve your Return on Investment with ValuePoint gear. For more information, please visit us online.

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