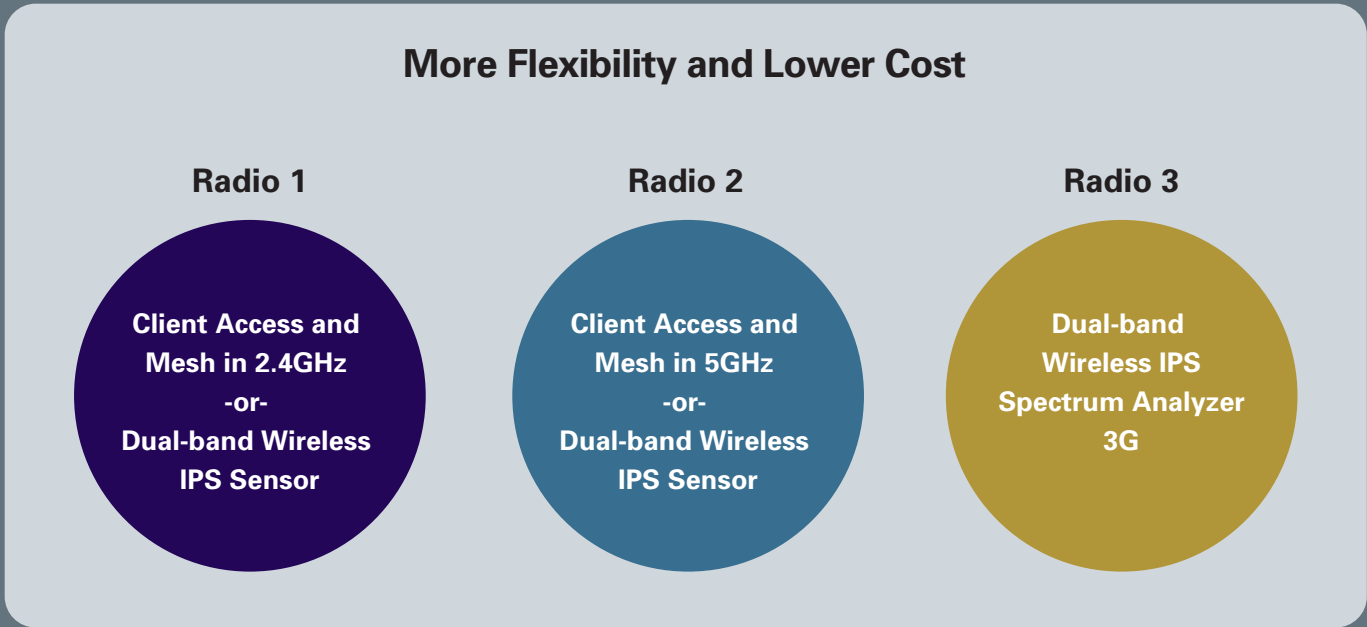


Figure1: Motorola AP 7131 with Band-Unlocked Radios



With three band-unlocked radios in a single access point, wireless traffic can be segmented as needed between two radios to ensure performance levels for wireless access and backhaul, while the third radio can provide around-the-clock dedicated dual-band sensing. The need to purchase, power and manage dedicated sensors is eliminated — an estimated savings of \$300-\$400 per sensor — providing the highest level of security for the wireless LAN at the lowest possible cost.

Gap-free dedicated 24x7 sensing via triple methodology rogue AP detection: on-channel, mobile unit and dedicated radio dual-band scanning

Around the clock network protection through instant rogue detection

Spectrum Analysis

The ability to place a remote AP-7131 in Spectrum Analysis mode allows remote identification of local RF interference, enabling remote troubleshooting and issue resolution from the Network Operation Center (NOC) or other centralized location

Adaptive AP: extending the enterprise

Enables centralized management of mesh access points at remote sites including automatic firmware upgrades; provides site survivability for remote locations with 802.11a/b/g/n networks for unparalleled resiliency

Centrally managed access point: Adaptive AP Mode

The AP 7131 is designed to cost-effectively meet the needs of large, distributed enterprises by converging the functionality of a thick access point and thin access port into a single device. Adaptive mode enables the deployment of a fully featured intelligent access point that can be centrally configured and managed via a Motorola wireless controller in either corporate headquarters or a NOC. All traffic between the adaptive access points and the wireless controller is secured through an encrypted tunnel. And in the event of a WAN, distribution or core network failure, this fully independent configuration offers a remote site survivability that enables the delivery of secure uninterrupted wireless service in the remote location, offering unparalleled network resiliency.

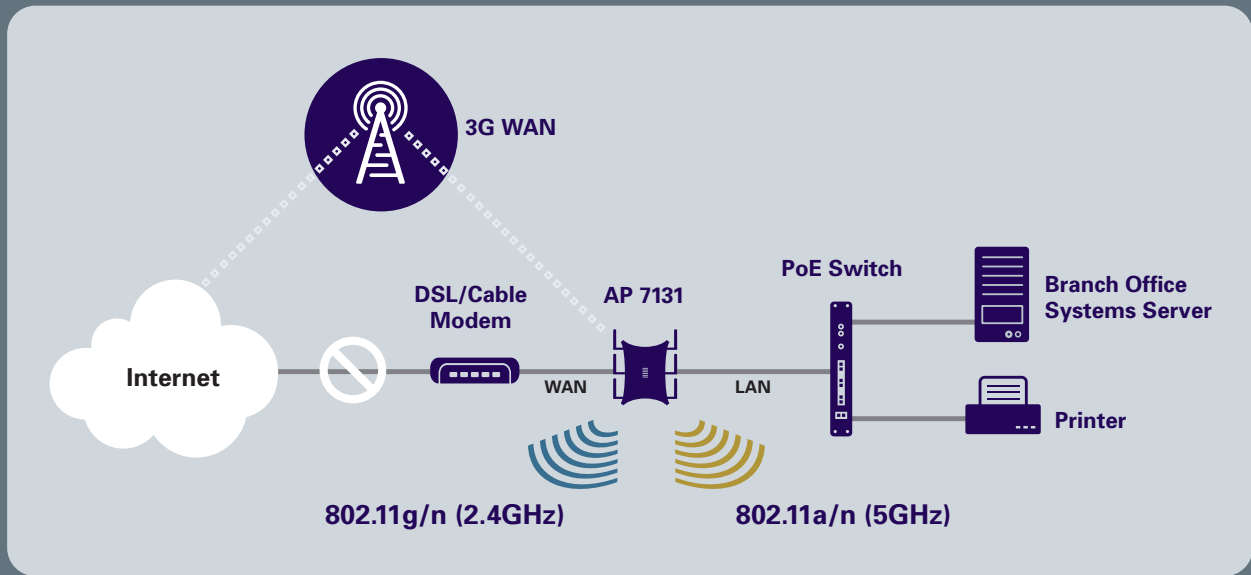
Gap-free security

To achieve true gap-free security, you need gap-free rogue detection, requiring dedicated dual-band sensing of 2.4GHz and 5GHz wireless LANs

— typically provided by a stand-alone sensor. The AP 7131 is the first a/b/g/n access point to offer concurrent around-the-clock dual-band sensing and wireless traffic — eliminating the need for separate devices. Integrated Wireless IPS sensor firmware enables the configuration of one radio for 24x7 rogue detection and termination, and two others can simultaneously be dedicated to wireless client access and/or meshing. As a result, enterprises can now deploy the most robust Wireless IPS solution while saving money — the cost to purchase, deploy and manage dedicated sensor hardware is eliminated.

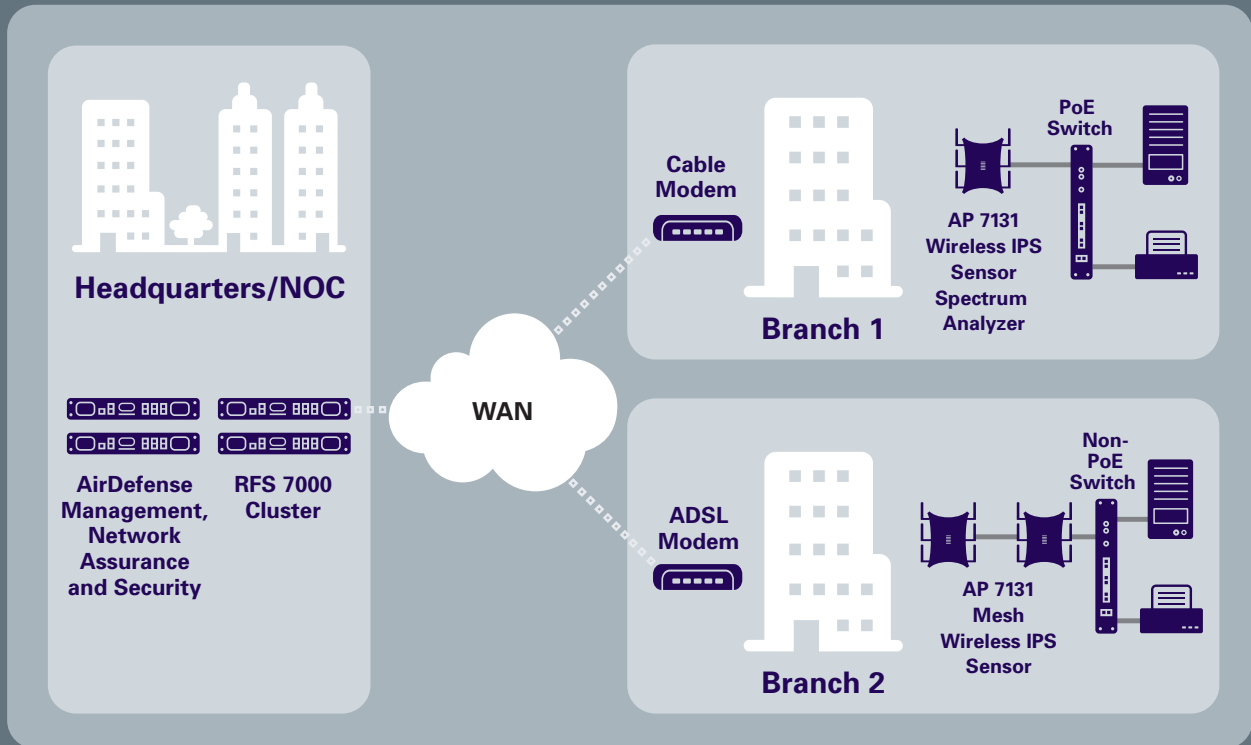
In addition, stateful firewall, encryption and authentication support key standards-based security protocols that ensure enterprise-level protection for the wired and wireless network infrastructure. The powerful feature set enables security to be administered by either local, non-technical staff or remote IT professionals at your headquarters.

Figure 2: AP 7131 for the Small/Medium Enterprise (SME)



The diagram above illustrates the AP 7131 in action in small and medium-size enterprises, able to provide wireless connectivity for all clients (including .11n) as well as a redundant 3G WAN network connection, ensuring continuity of business and protecting customer service levels despite network outages.

Figure 3: AP 7131 for the Distributed Enterprise



The versatile AP 7131 also plays a crucial role in large distributed enterprises. When deployed in adaptive AP mode, this fully featured intelligent access point can be centrally configured and managed via a Motorola wireless controller in either corporate headquarters or a network operations center (NOC). Yet in the event of a WAN, distribution or core network failure, the remote site survivability feature enables the AP 7131 to revert to stand-alone mode, ensuring the delivery of secure uninterrupted wireless service in remote locations, providing unparalleled network resiliency.

Radio Specifications

Wireless medium:	Direct Sequence Spread Spectrum (DSSS), Orthogonal Frequency Division Multiplexing (OFDM) and Spatial multiplexing (MIMO)
Network standards:	IEEE 802.11a/b/g/n, 802.11d and 802.11i WPA2, WMM and WMM-UAPSD
Data rates supported:	802.11b/g: 1,2,5.5,11,6,9,12,18,24,36,48, and 54Mbps 802.11a: 6,9,12,18,24,36,48, and 54Mbps 802.11n: MCS 0-15 up to 300Mbps
Operating channels:	All channels from 4920 MHz to 5825 MHz Chan 1-13 (2412-2472 MHz) Chan 14 (2484 MHz) Japan only Actual operating frequencies depend on regulatory rules and certification agency

	AP 7131N	AP 7131
Maximum available transmit power per chain:	23 dBm	20 dBm
Maximum available transmit power per AP:	27.7 dBm	24.5 dBm
Antenna configuration:	3x3 MIMO (transmit/receive on all three antennas)	
Transmit power adjustment:	1dB increments	

Operating bands:

FCC	EU	Japan
2.412 to 2.462 GHz	2.412 to 2.472 GHz	2.412 to 2.484GHz
5.150 to 5.250 (UNII -1)	5.150 to 5.250 GHz	4.900 to 5.000 GHz
5.250 to 5.350 (UNII -2)	5.250 to 5.350 GHz	5.150 to 5.250 GHz (W52)
5.470 to 5.725 (UNII -3)	5.470 to 5.725 GHz	5.250 to 5.350 GHz (W53)
5.725 to 5.850 (ISM)	(Country Specific)	5.470 to 5.725 GHz (W56)

Regulatory

Product safety certifications:	UL / cUL 60950-1, IEC / EN60950-1, UL2043, RoHS
Radio approvals:	FCC (USA), Industry Canada, CE (Europe), TELEC (Japan), China, Korea, Australia, Brazil

Part Numbers

AP-7131N-66S70-WR	Tri-Radio 802.11n Adaptive Services Access Point, with QIG*
AP-7131N-66S78-WW	Tri-Radio 802.11n Adaptive Services Access Point, 6 element Façade antenna module, with QIG*
AP-7131N-66S70-US	Tri-Radio 802.11n Adaptive Services Access Point, with QIG

AP-7131N-66S78-US	Tri-Radio 802.11n Adaptive Services Access Point, 6 element Façade antenna module, with QIG
AP-7131N-66E40-WR	Dual Radio 802.11n Adaptive Services Access Point with integrated ExpressCard Slot, with QIG*
AP-7131N-66E48-WW	Dual Radio 802.11n Adaptive Services Access Point with integrated ExpressCard Slot, 6 element Façade antenna module, with QIG*
AP-7131N-66E40-US	Dual Radio 802.11n Adaptive Services Access Point with integrated ExpressCard Slot, with QIG
AP-7131N-66E48-US	Dual Radio 802.11n Adaptive Services Access Point with integrated ExpressCard Slot, 6 element Façade antenna module, with QIG
AP-7131-66040-WR	AP-7131 Dual Radio 802.11n Access Point, Plastic Façade, with QIG
AP-7131-66048-WR	APN Dual Radio 802.11n Access Point, 6 element Façade antenna Module, with QIG
AP-7131-60020-WR	AP 7131 Single Radio 802.11n Access Point, Plastic Façade, with QIG
AP-7131-60028-WR	AP 7131 Single Radio 802.11n Access Point, 6 element Façade antenna Module, with QIG
AP-7131-60020-D-WR	APN Single Radio 802.11n Access Point Dependent Mode
AP-7131-66040-D-WR	APN Dual Radio 802.11n Access Point Dependent Mode
SNB-7120FL-P-1	AP 7131 Single-Radio Remote 11n Sensor (external antenna) with Full WIPS license
SNB-7128FL-P-1	AP 7131 Single-Radio Remote 11n Sensor (integrated antenna) with Full WIPS license
SNB-7140FL-P-1	AP 7131 Dual-Radio Remote 11n Sensor (external antenna) with Full WIPS license
SNB-7148FL-P-1	AP 7131 Dual-Radio Remote 11n Sensor (integrated antenna) with Full WIPS license
50-14000-247R	AP 7131 Power Supply
AP-PSBIAS-1P3-AFR	Single Port High Power 802.3at (Draft) Power Injector
ML-2452-PTA3M3-036	3 Port MIMO Antenna
ML-2452-PTA2M3X3-1	Façade with 6 element antenna Module
KT-135628-01	AP 7131 mounting kit (optional)
M25.90001.001	Plastic façade cover for AP 7131

* Cannot be ordered in the US

Wi-Fi Multimedia (WMM™), Quality of Service (QoS) and voice prioritization

Superior performance for demanding mission critical applications, including voice and video

MU Rate Limiting

Allows client-based control of bandwidth, preventing any single user from impacting network availability

WAN and LAN Ethernet ports

Single device solution for both wired and wireless networking

Java™ web-based graphical user interface; SNMPv3; command line interface (CLI)

Flexible management options; easy-to-use "anytime, anywhere" management

Integrated VPN

Cost-effective secure site-to-site communications

DFS compliance

Increased throughput through greater channel availability in the 5 GHz bands

SPECIFICATION SHEET

AP 7131

The industry's first 802.11n access point with tri-radio design

AP 7131 MODELS



AP 7131 Tri-Radio



AP 7131 Dual-Radio with Express Card Slot



AP 7131 Dual Radio



AP 7131 Single Radio (shown without façade)

Receiver Sensitivity: Operating Band 2.4GHz			
Operating Modes	Data Rate	Typical Receive Sensitivity (dBm)	
		AP 7131N Radios 1 and 2	AP 7131
802.11b	1 Mb/s	-96	-92
	2 Mb/s	-94	-91
	5.5 Mb/s	-93	-89
	11 Mb/s	-90	-87
802.11g	6 Mb/s	-94	-90
	9 Mb/s	-94	-90
	12 Mb/s	-95	-90
	18 Mb/s	-94	-88
	24 Mb/s	-90	-86
	36 Mb/s	-87	-82
	48 Mb/s	-83	-78
802.11n (HT20)	MCS0	-95	-90
	MCS1	-93	-88
	MCS2	-91	-85
	MCS3	-87	-82
	MCS4	-85	-79
	MCS5	-81	-76
	MCS6	-79	-74
	MCS7	-78	-72
	MCS8	-94	-89
	MCS9	-91	-86
	MCS10	-88	-82
	MCS11	-85	-80
	MCS12	-82	-77
	MCS13	-79	-73
	MCS14	-77	-71
MCS15	-75	-69	
802.11n (HT40)	MCS0	-90	-83
	MCS1	-89	-81
	MCS2	-87	-77
	MCS3	-84	-76
	MCS4	-82	-71
	MCS5	-78	-69
	MCS6	-76	-66
	MCS7	-75	-64
	MCS8	-87	-83
	MCS9	-87	-80
	MCS10	-85	-77
	MCS11	-83	-76
	MCS12	-80	-70
	MCS13	-75	-69
	MCS14	-74	-66
MCS15	-72	-62	

Receiver Sensitivity: Operating Band 5GHz			
Operating Modes	Data Rate	Typical Receive Sensitivity (dBm)	
		AP 7131N Radios 1 and 2	AP 7131
802.11a	6 Mb/s	-93	-89
	9 Mb/s	-93	-90
	12 Mb/s	-93	-89
	18 Mb/s	-92	-88
	24 Mb/s	-89	-85
	36 Mb/s	-86	-82
	48 Mb/s	-82	-78
802.11n (HT20)	MCS0	-93	-89
	MCS1	-92	-88
	MCS2	-90	-86
	MCS3	-86	-83
	MCS4	-83	-79
	MCS5	-79	-75
	MCS6	-78	-74
	MCS7	-76	-72
	MCS8	-92	-88
	MCS9	-90	-86
	MCS10	-87	-83
	MCS11	-84	-81
	MCS12	-81	-77
	MCS13	-77	-73
	MCS14	-75	-71
MCS15	-73	-69	
802.11n (HT40)	MCS0	-90	-86
	MCS1	-89	-84
	MCS2	-86	-82
	MCS3	-83	-79
	MCS4	-80	-76
	MCS5	-76	-72
	MCS6	-74	-70
	MCS7	-73	-68
	MCS8	-89	-85
	MCS9	-86	-83
	MCS10	-84	-79
	MCS11	-81	-77
	MCS12	-78	-74
	MCS13	-74	-69
	MCS14	-72	-68
MCS15	-71	-66	



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