



Pronghorn Outdoor

Outdoor 802.11a/b/g Access Point Based on the Intel IXP42x Network Processor

Robust, Proven, Cost Effective...

Pronghorn Outdoor is a highly robust, standards-compliant outdoor 802.11b/g or a/b/g OEM access point based on Intel XScale technology and ADI's proven Pronghorn product family. Pronghorn Outdoor is housed in a weatherproof NEMA 6 enclosure, and it supports up to two standard or high-power 802.11 radios, industrial grade construction, optional extended temperature components, multiple antenna options, regulatory certifications, industry-leading Wi-Fi application firmware support, and RoHS compliance by the July 1, 2006 deadline.



Ideal solution for WISPs, System Integrators and OEMs...

Pronghorn Outdoor is the ideal solution for WISPs, integrators and OEMs needing a high-performance, robust, yet inexpensive XScale-based outdoor Wi-Fi product. Pronghorn Outdoor delivers rapid time to market at low risk and very low cost. Pronghorn Outdoor and its embedded firmware can be privately branded by ADI.

Supported by Industry-Leading Wi-Fi Application Firmware...

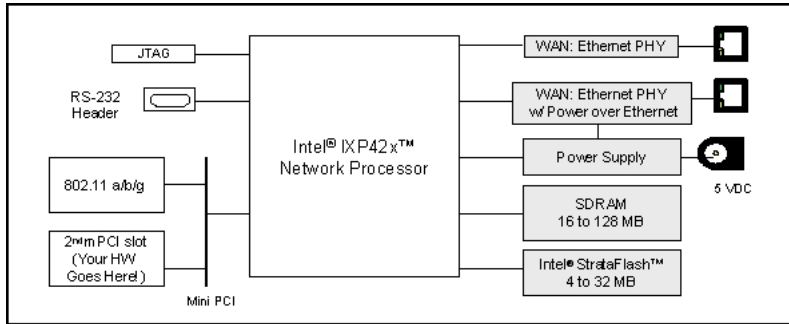
Pronghorn Outdoor is supported by industry-leading Wi-Fi application firmware stacks, including Wireless Infrastructure Platform (WIP) from Devicescape, WILI-S from Wilibox, and dot11Linux and dot11Core from Absolute Value Systems. All are Linux-based software platforms enabling implementation of highly functional, secure and manageable wireless networking devices: hotspot access points, access controllers, enterprise access points, fixed 802.11a/b/g wireless network elements, base stations and customer premise equipment (CPE) and high performance, secure point-to-point or point-to-multipoint wireless bridges.

Pronghorn Outdoor Feature Set		
Feature	Standard Production Configuration	Upgrade Options <small>(Features that can be customized for larger OEM orders)</small>
CPU	Intel® IXP420, 266 MHz (low cost solution)	<ul style="list-style-type: none"> Intel® IXP420, 533 MHz (higher clock rate, no encryption acceleration) Intel® IXP422, 266 MHz (adds encryption acceleration) Intel® IXP425, 533 MHz (highest performance, adds encryption acceleration)
SDRAM	32 MB	Up to 128 MB
Flash Memory	8 MB	Up to 32 MB
Encryption Acceleration	None built into the IXP420	Crypto acceleration hardware built into the IXP425 and IXP422 CPUs - can handle sustained 70 Mbps minimum in AES mode (worst-case with minimum packet size)
Ethernet	One 10/100 port, with built-in surge protection	Two 10/100 ports, with built-in surge protection
MiniPCI Slots	One 33 MHz	Two 33 MHz
Watchdog Timer	Built into CPU	Built into CPU
802.11 Radio	One EnGenius EMP-8602 400 mW 802.11a/b/g radio, based on Atheros AR5006XS chipset	Other MiniPCI radios or dual radios
Antenna Options	N-type female connector – for case-mounted omnidirectional antenna or antenna cable	Specific antenna and connector requirements readily handled
Enclosure	NEMA 6 rated cast aluminum <ul style="list-style-type: none"> White powder coat finish IP67 cable entry quick disconnects and antenna connector Wall mount or pole mount with supplied hardware 	Branding with customer-supplied logo
Power Source	802.3af Power over Ethernet or 5V local power supply	Same as Standard Production version
Component Temperature Rating	0 - 70C	-40 - 85C
RS-232 Ports	None	One
Regulatory Certifications	<ul style="list-style-type: none"> FCC Part 15 Class B, 15.247 Industry Canada - RSS210, ICES003, NMB003, CNR210 CE Mark - EN 60950, EN 301 489-1, EN 301 489-17, EN 301 893, EN 300 328, EN 800 836 	ADI can provide other certifications upon customer request

Pronghorn Outdoor



Pronghorn Outdoor Block Diagram



In addition to complete off-the-shelf firmware application stacks, Pronghorn Outdoor is supported by leading real-time operating systems. Customers looking to deploy their own proprietary firmware may do so building on real-time operating system kernels supplied by ADI – Linux from MontaVista and SnapGear and VxWorks from WindRiver Systems.

Pronghorn Outdoor Third-Party Software Support	
Wi-Fi Application Frameworks	
Devicescape Wireless Infrastructure Platform (WIP) 2.0	
Willbox WILI-S	
Absolute Value Systems	
Real-Time Operating Systems	
MontaVista Linux Professional Edition 3.1	
SnapGear Linux 2.4.27	
WindRiver Systems VxWorks	
Diagnostic and Test	
Kozio kDiagnostics, kManufacturing & kPOST	

Pronghorn Outdoor Stands Out From the Crowd

Pronghorn Outdoor is set apart by a number of factors:

- ❑ Pronghorn Outdoor’s Ethernet ports both have built-in surge protection as a standard feature. Built-in surge protection adds to the design robustness, and it eliminates the cost of separate protection devices.
- ❑ The DC-DC converter on Pronghorn Outdoor is a unique architecture that is equally capable of delivering power to the MiniPCI cards at 3.3V as it is at 5V. Some MiniPCI radios operate from 3.3V, others from 5V. High power radios present significant fast transient loads switching into and out of high power transmit mode. Yet many router boards cannot meet the fast transient demands and cannot power MiniPCI radios equally as well at 3.3V and 5V – compromising system performance. Pronghorn SBC allows maximum flexibility in selecting MiniPCI radios.
- ❑ ADI is the leader in Intel XScale reference platforms, OEM products and design services. Our XScale design experience spans back to 2000 – the release of XScale by Intel – and our technical expertise has been sharpened on 15 different reference design platforms and numerous customer designs. Pronghorn Outdoor benefits from ADI’s many cumulative decades of XScale expertise.

Pronghorn Outdoor



Ready for Harsh Environments

Pronghorn Outdoor has been designed from the ground up to meet the rigors of harsh outdoor or industrial usage. Pronghorn Outdoor is housed in a NEMA 6 cast aluminum enclosure with IP67 rated Ethernet, power and antenna connections. Pronghorn Outdoor available from ADI in an optional extended temperature grade version, with 100% -40 to +85C rated components (main board, excluding MiniPCI radios)

Complete Family of Solutions Available

Customers looking for indoor 802.11 equipment or Wi-Fi router boards can use ADI's Pronghorn Outdoor or Pronghorn SBC solutions. All are software compatible and use the same underlying architecture.

ADI is also releasing a multi-radio XScale Metro Wi-Fi product in early 2006. Check back often for more information.



"Pronghorn" Indoor 802.11 Platform

Standards Compliant Design

WISPs and system integrators can use Pronghorn Outdoor confident that the design meets applicable standards. RoHS compliant product will be shipping well in advance of the July 1, 2006 deadline. And Pronghorn Outdoor features full FCC and CE certifications.

Pricing and Availability

Pronghorn Outdoor is in production. Please contact ADI with your requirements so that we may provide you with a quotation.

ADI also stands ready to create custom hardware and firmware designs leveraging Pronghorn Outdoor. We can privately brand the existing hardware and firmware. If custom hardware is required, in many cases, we can populate boards to meet your exact requirements with no redesign. If necessary, we can quickly adapt the design to meet your specific feature set and form factor requirements. Please contact ADI with your requirements so that we may provide pricing and availability information.

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