


Pronghorn SBC™ Single and Dual Radio Wireless Router Board

Pronghorn SBC™ is ADI Engineering's low-cost, high-performance, standards-compliant dual radio wireless router board based on the Intel IXP42x family of network processors. Pronghorn SBC is targeted at single and dual radio applications for WISPs, OEMs and system integrators in wireless mesh, indoor and outdoor access points, hotspots, and wireless CPE devices.

Designed to fill the void created by the discontinuance of popular Geode-based wireless router boards, Pronghorn SBC™ is a highly cost effective replacement that also delivers significant throughput increases, enhanced standards compliance, and higher power radio compatibility.

ADI offers three versions of Pronghorn SBC™, optimized for a variety of different applications including core mesh, mesh repeater, low-cost CPE, and AP and hotspot controllers.



	<p>As an Associate Member of the Intel Communications Alliance, ADI leads the market supporting XScale with reference designs, custom designs, manufacturing, and wireless router boards.</p>
<p>ADI's experience and commitment show in all our WISP products.</p>	

Pronghorn SBC Key Features

- **Intel IXP42x Network Processor Technology** – The IXP42x family offers up to 10x the performance of common Geode SC1100-based wireless router boards, for significant increases in throughput and capacity.
- **High-Power Radio Support** – Pronghorn SBC™ provides 6.5W of continuous MiniPCI power per slot, for complete compatibility with the latest high-power radios.
- **802.3af Compliant PoE** – Pronghorn SBC™ offers 802.3af compliant PoE, for maximal interoperability and compliance with key electrical safety and networking standards that cannot be met with passive PoE designs of competitive products.
- **Built-In Ethernet Surge Protection** – Pronghorn SBC™ 210 and 250 offer built-in surge protection on the primary Ethernet port meeting the requirements of GR1089.
- **Off-the-Shelf Indoor and Outdoor Enclosures** – Pronghorn SBC™ fits in readily available outdoor NEMA rated cast aluminum or indoor plastic cases (with optional LED lightpipes).
- **FCC Certified** – ADI provides FCC Part 15 unintentional and intentional radiator certifications. Using our RM1 MiniPCI radio, “do it yourself” systems are fully FCC compliant.
- **Spread Spectrum Clocking of CPU, SDRAM, PCI** – ADI boards are alone in the industry in their use of spread spectrum clocking, which reduces peak noise emissions up to 10dB compared to competitive products.
- **Broad Software Support** – MadWiFi, Linux 2.6, RoamAD, Antcor IkarusOS, WiliBox, Devicescape, OpenWRT, RedBoot
- **RoHS Compliant, Lead-Free Design**

Pronghorn SBC™ Feature Set by Model

Feature	SBC-201	SBC-210	SBC-250
CPU	Intel IXP420, 266 MHz	Intel IXP420, 266 MHz	Intel IXP45, 533 MHz
SDRAM	32MB	32MB	64MB
Boot Flash	8MB	8MB	16MB
Compact Flash Socket	No	Yes	Yes
10/100 Ethernet Ports	1	1	2
MiniPCI Slots (6.5W)	2	2	2
Power Inputs	5V nominal (4.5V-5.5V range) via 2.0mm jack, with 10-30V wide-range input option	<ul style="list-style-type: none"> ▪ 5V nominal (4.5V-5.5V range) via 2.0mm jack, with 10-30V wide-range input option ▪ 802.3af compliant PoE (36-60V range with 1500VRMS electrical isolation) 	<ul style="list-style-type: none"> ▪ 5V nominal (4.5V-5.5V range) via 2.0mm jack , with 10-30V wide-range input option ▪ 802.3af compliant PoE (36-60V range with 1500VRMS electrical isolation)
RS-232 Ports	None	<ul style="list-style-type: none"> ▪ One RS-232 via RJ-12 connector ▪ Optional second RS-232 available for volume orders 	<ul style="list-style-type: none"> ▪ One RS-232 via RJ-12 connector ▪ Optional second RS-232 available for volume orders
Digital I/O	None	4 bits	4 bits
LEDs	Power, Ethernet 1, WLAN; Optional lightpipes for indoor plastic enclosure	Same as SBC-201	Adds 2 nd Ethernet LED
Watchdog Timer	Built into CPU	Built into CPU	Built into CPU
Reset Pushbutton	Reset switch on rear edge of board	Reset switch on rear edge of board	Reset switch on rear edge of board
Regulatory Certifications	<ul style="list-style-type: none"> • FCC Part 15 Class B • 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 • RoHS/WEEE compliant 	Same	Same

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