



# SkyConnector Pro

## Business-Class Broadband Wireless CPE

If you are looking to provide robust broadband wireless connectivity to business subscribers, you'll find it with the SkyConnector™ Pro. The SkyConnector Pro is customer premise equipment (CPE) that uses the unlicensed 5 GHz spectrum to provide DSL- and cable-like 'last-mile' broadband connectivity to permanent structures like office buildings. When combined with SkyPilot's broadband wireless base stations, the SkyConnector Pro provides the substantial wireless link budget required to ensure maximum uptime of high-speed Internet services, even when connected over long coverage areas.

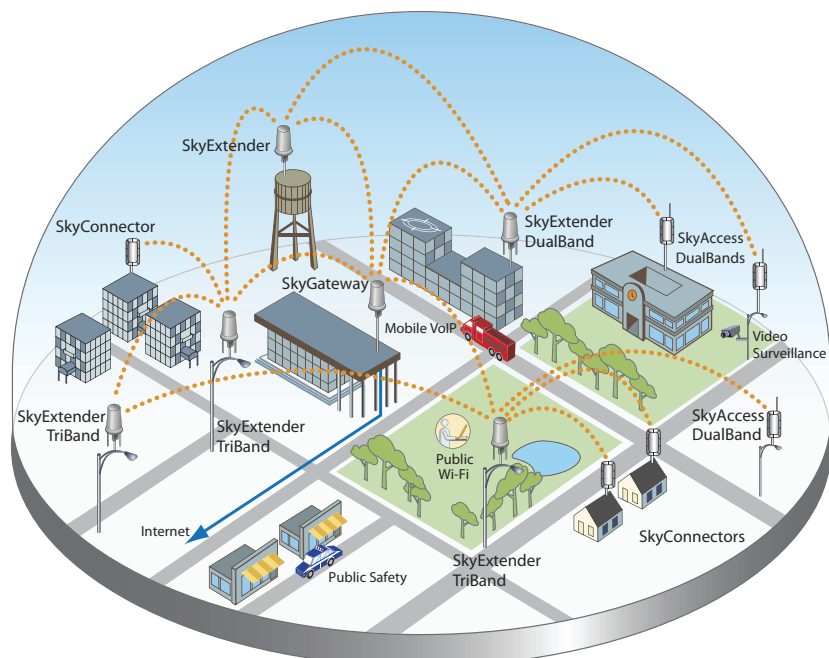
Although the SkyConnector Pro provides the industry's best link budget, it also minimizes per-subscriber costs. The SkyConnector Pro has a surprisingly low per-unit price and features expense-reducing capabilities such as "zero-touch" configuration, which combines visual feedback of signal strength with auto-discovery and auto-provisioning features to ensure proper installation and minimize deployment and ongoing operational costs.

As a high-end business-class device, the SkyConnector Pro includes a full array of features as part of the standard package. The SkyConnector Pro comes standard with OFDM modulation and hardware-based AES encryption on all wireless links, ensuring both non-line-of-sight (NLOS) and hack-proof security. It also features SkyPilot's unique SyncMesh™ protocol, which synchronizes all wireless communications to minimize interference, maximize spectral capacity, and ensure deterministic traffic flows to guarantee latency-sensitive applications like Voice-over-IP (VoIP). And since the SkyConnector Pro is part of SkyPilot's Layer 2 broadband wireless backhaul network, it even has advanced traffic management capabilities such as per-subscriber rate limiting and virtual LAN (VLAN) segmentation. All of this in a compact package that can operate anywhere over the entire 5.250-6.075 GHz frequency range and has a variety of mounting options for flexible installation.

The SkyConnector Pro – business-class connectivity for robust last-mile services.

## Benefits

- **Robust Connectivity** – broadband wireless CPE with a **high link budget** for robust connectivity to business subscribers
- **Long Range** – links at distances up to **7.5 miles/12 km**
- **High Capacity** – up to **13 Mbps** of throughput
- **Non-Line of Sight (NLOS)** – standard **OFDM** leverages multipath for NLOS connectivity
- **Synchronous QoS** – deterministic traffic flows guarantees applications like **VoIP**
- **Secure Connectivity** – all wireless links hardware encrypted with **AES**
- **Frequency Flexibility** – each unit can operate anywhere from **5.250 to 6.075 GHz**
- **"Zero-Touch" Configuration** – auto-discovery and auto-provisioning minimizes operational expenses
- **Traffic Management** – Layer 2 networking with per-subscriber rate limiting and virtual LANs



SkyConnectors provide broadband wireless services to fixed locations like office buildings and houses.



## SkyConnector Pro Specifications

### Wireless

<b>Frequency band</b>	5.250-6.075 GHz
<b>Transmit power</b>	32 dBm/1.6 W (peak)/26 dBm/400 mW (average)
<b>Antenna gain</b>	22 dBi (6° azimuth x 6° elevation)/vertical polarity
<b>EIRP</b>	54 dBm/250 W (peak)/48 dBm/63 W (average)
<b>Receive sensitivity</b>	-94 dBm at 6 Mbps modulation
<b>Range</b>	Up to 7.5 miles (12 km)
<b>Media access</b>	Time Division Duplex (TDD)
<b>Modulation technique</b>	OFDM with adaptive modulation
<b>Modulation rates</b>	54, 48, 36, 24, 18, 12, 9, and 6 Mbps
<b>Throughput</b>	Up to 13 Mbps TCP/20 Mbps UDP (at 36 Mbps modulation rate)
<b>Latency</b>	8-10 ms roundtrip per hop
<b>Channel width</b>	20 MHz
<b>Channel resolution</b>	5 MHz frequency control
<b>Authentication</b>	RSA-based certificates
<b>Encryption</b>	128-bit AES

### Product Specifications

<b>Enclosure</b>	Outdoor UV stabilized plastic (antenna) and die-cast metal (system)
<b>Connectors</b> (under waterproof thumbscrew lid)	RJ-45 to 12V/1A Power over Ethernet (PoE) injector
<b>Power</b>	100-240 VAC, 50-60 Hz input; 6.5 Watts
<b>Mounting</b>	Pole mount (standard), wall mount (optional), or window suction mount (optional)
<b>LEDs</b>	Power, Ethernet, wireless link, and wireless signal strength
<b>Dimensions</b>	13" (33 cm) H x 18" (46 cm) W x 2" (5 cm) D
<b>Weight</b>	6.7 pounds (3.0 kg)
<b>Operating temperature</b>	-40° to 185° F (-40° to 85° C)
<b>Operating humidity</b>	5 to 95% condensing
<b>Certifications</b>	FCC Part 15.247, IC RS210, CE, ETSI 300-019-1.4 shock and vibration, RoHS
<b>Warranty</b>	One-year limited warranty on hardware; 90-day limited warranty on software

### Traffic Management

- VLAN support: IEEE 802.1q
- Traffic Prioritization: IEEE 802.1p, protocol type, IP port, IP ToS field, and IP address list
- Traffic Filtering: protocol type, IP port, and IP address list
- Traffic Shaping: upstream and downstream per-user rate control

### Configuration, Management, & Monitoring

- NMS integration: SNMPv2c
- EMS: SkyControl™
- IP address: DHCP or static
- Firmware: Multiple versions stored in nonvolatile memory; updated over the air via FTP
- Provisioning: Manual or automated
- Configuration file: XML over HTTP
- MIB support: MIB-II (RFC 1213); EtherLike (RFC 2665); Bridge (RFC 1493); SkyPilot private MIB
- Remote management: CLI via Telnet, SNMPv2c



Redefining Broadband Wireless

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