



# SkyConnector Mini

## Economical Broadband Wireless CPE

If you are looking to provide economical broadband wireless, you'll find it with the SkyConnector™ Mini. Like DSL and cable modems, the SkyConnector Mini is customer premise equipment (CPE) designed for business or residential subscribers; however, instead of requiring copper or coaxial wires, the SkyConnector Mini uses the unlicensed 5 GHz spectrum to provide DSL- and cable-like broadband connectivity. When combined with SkyPilot's broadband wireless base stations, the SkyConnector Mini provides high-speed services over large coverage areas at a surprisingly low cost.

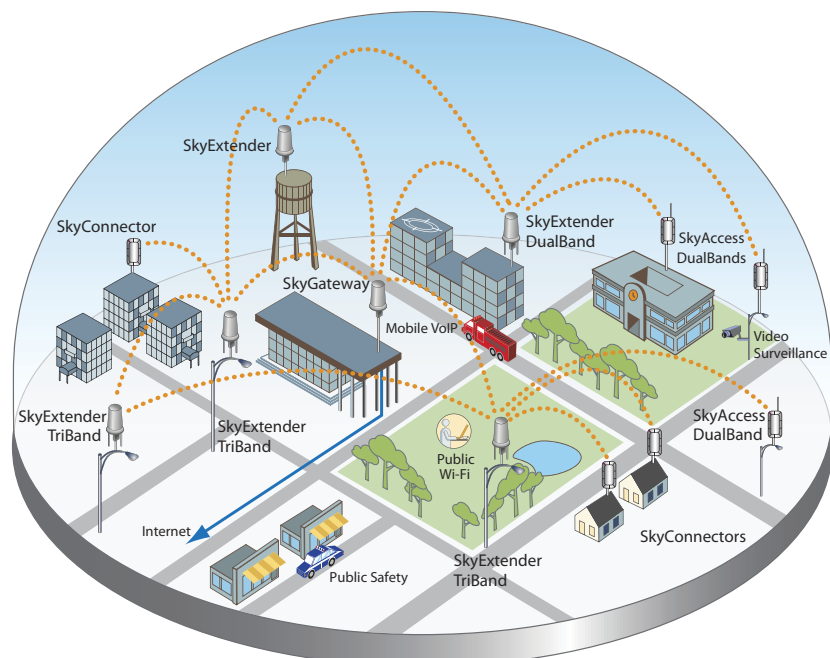
Since per-subscriber expenses are so critical to a service provider's business model, the SkyConnector Mini is designed to minimize costs while simultaneously providing industry-leading capabilities. The SkyConnector Mini's low per-unit price also comes with expense-reducing features such as "zero-touch" 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.

But don't let the SkyConnector Mini's low total cost-of-ownership fool you – it also includes the features of competitive broadband wireless CPEs that cost 5 times as much. The SkyConnector Mini 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 Mini 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.

So, if you are seeking the most cost-effective and feature-rich broadband wireless CPE available, look no further than the SkyConnector Mini.

## Benefits

- **Low Cost – economical** broadband wireless CPE
- **Long Range** – high-power (38 dBm EIRP) enables 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 Mini Specifications

### 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

### Wireless

<b>Frequency band</b>	5.250-6.075 GHz
<b>Transmit power</b>	30 dBm/1W (peak)/24 dBm/250mW (average)
<b>Antenna</b>	14 dBi (55° azimuth x 18° elevation)/vertical polarity
<b>EIRP</b>	44 dBm/25 W (peak)/38 dBm/6 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
<b>Connectors</b> (under waterproof sliding door)	RJ-45 to 12V/1A Power over Ethernet (PoE) injector (Optional) reverse-polarity SMA to external antenna
<b>Power</b>	100-240 VAC, 50-60 Hz input; 5 Watts
<b>Mounting</b>	Pole mount (standard), wall mount (optional), or window suction mount (optional)
<b>LEDs</b>	Power, Ethernet, and wireless signal strength
<b>Dimensions</b>	10.4" (26 cm) H x 3.2" (8 cm) W x 1.2" (3 cm) D
<b>Weight</b>	0.9 pounds (0.4 kg)
<b>Operating temperature</b>	-40° to 158° F (-40° to 70° 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



Redefining Broadband Wireless

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