



SkyConnector

Outdoor CPE

One of the key success factors for service providers deploying broadband wireless is cost effectiveness. The wireless network has to be capable of providing an economical means of building an infrastructure as well as a profitable method of deploying subscriber access devices. SkyPilot's SkyGateway™ and SkyExtender™ series provide a cost-effective way to build a world-class infrastructure and the SkyConnector™ enables service providers to focus on profitable subscriber access.

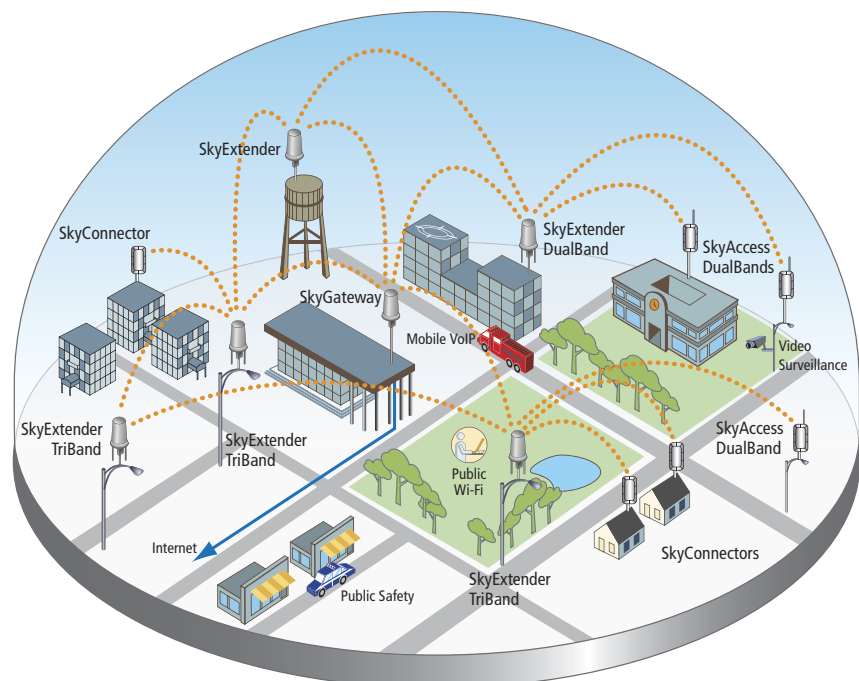
The SkyConnector was designed to keep both capital expenditures and operating costs in check when deploying broadband wireless access (BWA) services to a broad base of subscribers. Like their DSL and cable modem counterparts, the SkyConnector is a cost-effective outdoor CPE that can be used for either business or residential access but without requiring copper or coaxial connections. The SkyConnector provides an Ethernet drop to the subscriber and connects to the high-capacity wireless mesh network through a directional 5 GHz link. In addition to keeping per-unit costs down, the SkyConnector also makes efficient use of the wireless mesh infrastructure through long-range (up to 7.5 miles/12 km) and non-line of sight (NLOS) connectivity. To combat ongoing operational expenses, the SkyConnector is easy to deploy with audible and visual feedback of signal strength to ensure proper installation and are provisioned through the centrally-management SkyControl™ application.

Not only does the SkyConnector keep costs down but it also provides a range of advanced, revenue-enhancing services. The units integrate per-user rate control to allow for different service tiers (i.e. 1 Mbps, 2 Mbps, etc.) as well as providing VLAN support for transparent LAN services and quality of service parameters for latency-sensitive applications such as VoIP and video surveillance.

The units are available in a choice of frequency bands to meet the variety of specifications for international deployments. The frequency bands include 4.940-5.150, 5.150-5.350, 5.470-5.725, or 5.725-5.850 GHz and selection of the frequency band is made at the time of ordering.

Benefits

- **Cost-effective** CPE focuses on keeping capital and operational expenses down
- **Auto discovery and provisioning** —just point the SkyConnector towards the mesh network to get it configured
- **Wireless connectivity** via long-range (up to 7.5 miles/12km) links to mesh network
- **Non-line of sight (NLOS)** capabilities achieved through OFDM modulation (multipath), high-power transmissions (boring through trees), and routing around obstacles (via mesh)



SkyConnectors provide broadband wireless access to business and residential customers.

SkyConnector 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

Frequency band	4.940-5.150, 5.150-5.350, 5.470-5.725, or 5.725-5.850 GHz
EIRP	42.5 dBm / 17 W peak
Media access	Time Division Duplex (TDD)
Modulation technique	OFDM with adaptive modulation
Modulation rates	6 to 54 Mbps
Throughput	Up to 20 Mbps UDP / up to 12 Mbps TCP
Latency	8-10 ms roundtrip per hop
Antenna	28° horizontal x 9° vertical panel, 16.5 dBi
Channel width	20 MHz
Channel resolution	5 MHz frequency control
Receive sensitivity	-90 dBm at 6 Mbps modulation
Connectivity	Connects with SkyGateway series or SkyExtender series
Authentication	RSA-based certificates
Encryption	128-bit AES on wireless link

Product Specifications

Connector	RJ-45 (Power over Ethernet)
Mounting	Eave, roof, or chimney
Range	Up to 7.5 miles/12 km to wireless mesh network
LEDs	Power, signal strength, wireless link, Ethernet activity, Ethernet link
Dimensions	12.6" (32 cm) H x 6.6" (16.8 cm) W x 4.2" (10.7 cm) D
Weight	3.8 pounds (1.7 kg)
Operating temperature	-40° to 131° F (-40° to 55° C)
Wind loading	Up to 150 mph (240 km/h)
Enclosure/humidity	NEMA-4X
Power	110-230 VAC, 50-60 Hz input; 7 Watts
Certifications	FCC Part 15, FCC 47 CFR Part 15, Class B USA; compliance with UL safety standards, CE, C-Tick, IC RSS210 Issue 5
EMI and susceptibility	FCC Part 15.107 and 15.109
Warranty	One-year limited warranty on hardware; 90-day limited warranty on software



Leading the Mesh Revolution

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