

SKYFIBER™ Solutions Overview and Datasheet



SKYFIBER™
Optical Wireless Broadband To Connect The World

Annual global Broadband traffic will exceed half a zettabyte in four years. According to a report by Research and Markets Consultancy, there will be close to 500 million broadband subscribers worldwide in 2012. Today's economic dependence on global network connectivity has resulted in unprecedented demands for greater capacity, faster speeds, and higher quality broadband coverage to support the proliferation of voice, data, and video content in both wired and mobile enterprises.

A recent study by Vertical Systems Group identified an astonishing gap in US fiber availability: Over 80% of U.S. commercial buildings twenty or more employees do not have fiber access.

Carriers and Enterprises alike need a cost-effective way to keep up with the explosion in broadband demand, and SKYFIBER has the broadband solutions to deliver. SKYFIBER's SkyLINK and SkyMESH solutions offer high capacity Broadband at low cost, as little as one-tenth the cost of in-ground fiber. Deployment is rapid, and free of the licenses, permits, and right-of-way constraints of other solutions. With 13 years of industry experience, SKYFIBER leverages over a decade of product innovation to deliver exclusively patented point-to-multipoint Optical Wireless Broadband (OWB) mesh networks that allow customers to rapidly expand their networks. Coupled with the industry's first On-Demand licensing model, SKYFIBER offers a high-performance solution that removes the cost of entry and time to market barriers inherent in other broadband solutions.

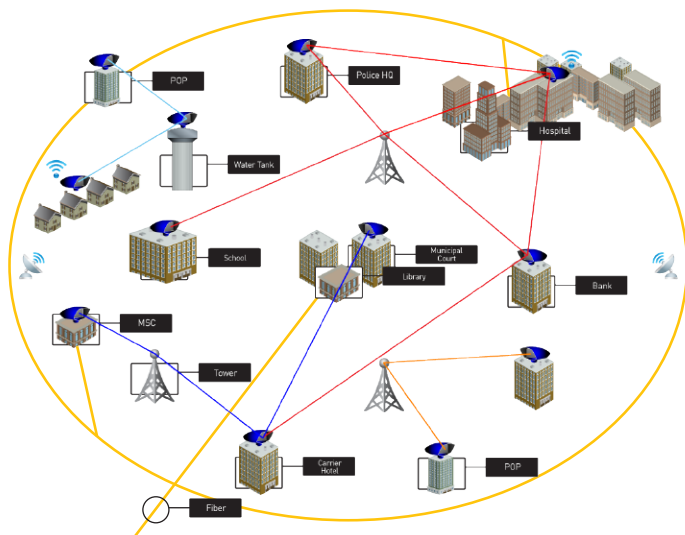


Figure 1: SKYFIBER's Patented Mesh Network

Applications for the SKYFIBER Solution:

- Enterprise Broadband Networks
- Carrier Network Solutions
- Emergency Response Networks
- Wireless Backhaul & Overlay Networks
- Municipality & Campus Solutions
- Government Federal & Local
- Secure Communications
- Triple Play to the Next Mile
- Turbo-charging Microwave Networks
- Fiber Extensions
- Fast/Gigabit Ethernet (FE/GE) service

SKYFIBER's Unique Solution Delivers:

- High Bandwidth
- Low Cost
- Rapid Deployment
- Reliable and Secure
- Patented Architecture
- Green Technology



Communication
Service Terminal



Outdoor Lens Unit

SKYFIBER™ Product Portfolio Overview

SKYFIBER delivers its bandwidth via Optical Wireless Broadband technology, using exclusive patents to provide mesh solutions that employ Point to Multipoint (PtMP) architectures. Optical Wireless Broadband, or OWB, is a technology that uses infra-red light to transmit highly-secure optical wireless data, utilizing air as the transmission medium. SKYFIBER's portfolio is comprised of two main products:

SkyLINK: Optical Wireless Broadband Connectivity

This product delivers a secure, reliable point-to-point Optical Wireless Broadband link, sending up to 1.25Gbps of bandwidth over distances of up to 1.6 km per link. With exclusive patents on OWB Point to Multi-Point (PtMP) architecture, SKYFIBER delivers the only viable mesh OWB solutions in the industry. SkyLINK can also be deployed with a MW Radio backup, for system redundancy.

SkyCAST: Broadband Distribution & Delivery

SKYFIBER provides customers with multiple ways to maximize the value of their bandwidth, by providing Broadband Delivery Solutions. With SkyCAST allows the customer to deliver customized amounts of bandwidth up to 24 different users. With both a 4 port and a 24 port product, SkyCAST opens up great new revenue generating opportunities for the customer.

OUTDOOR LENS UNIT (OLU)

Description	Fixed Optics System
Receiver/Transmitter(s)	One transmitter, one receiver
Dimensions	8.1" (W) x 13.4" (L) x 5" (H)
Unit Weight	5.1 kg (11.4 lbs)
Operating Temperature	-40° to +65° C (-40° to 149° F)
Humidity Range	Up to 95% non-condensing
Power Input	-42 to -60Vdc Dual feed (A / B)
Maximum Power Consumption	20W
Immune to EMI & RF Interference	Yes
Built-In Active Alignment	Yes
Built-In Lens Heater & Anti-Fog Coating	Yes
Network Management	SNMPv3

COMMUNICATIONS SERVICE TERMINAL (CST)

Dimensions	8.6" (W) x 9.1" (D) x 1.75" (H)
Unit Weight	1.6 kg [3.5 lbs]
Operating Voltage	+/- 48 V DC (converters available)
Operating Temperature	0° to +45° C (32° to 113° F)
Humidity Range	Up to 95% non-condensing
Power Input	-42 to -60Vdc Dual feed (A / B)
Power Consumption	15W
Network Management	SNMPv3
External Interfaces	3 Copper (GE/FE RJ45) 1 Fiber GE/FE (SFP or RJ45)

COMMUNICATIONS SERVICE TERMINAL (CST) Operations

User Interfaces	SNMPv3, Web (HTML), CLI
Local Access	FE port or RS-232 (CLI only)
Remote Access	In-Band or Out-of-Band
SW Upgrade Capability	Remote & Non-service affecting
Reset Flexibility	Pushbutton and Remote
Terminal Status LEDs	Power, Alarm, Tx, Rx, Client
Performance Monitoring	Yes

CLIENT

External Interfaces	3 Copper (GE/FE RJ45) 1 Fiber GE/FE (SFP or RJ45)
Aggregation support	Yes
Per port rate limiting	Yes
Flow control	Yes
VLAN transparent	Yes
QoS support	Yes
IGMP snooping	Yes

OPTICAL WIRELESS LINK

Link Data Rate	100Mbps, 1.25Gbps
Available Link Budget	48dB
Operational Range	250m to 1.6km
Optical Wireless Wavelength	850 nm
Optical Receiver	Si APD
Forward Error Correction	Yes

INTER-CONNECT CABLES (ICC)

Description	Connects CST and OLU
Fiber	200 um GI MMF Pair
Connection	RJ-45
Power	+48V

REGULATORY

Compliance	FCC/CE, UL/CSA, ROHS, ESD
Laser Safety	Class 1M

Contact Us

For further information on SKYFIBER™ products and solutions, please contact sales@skyfiber.com Or visit us on the web at www.skyfiber.com.