



## KEY BENEFITS

### Data Rates up to 1.5Gbps

Supports data rates from 45 Mbps to 1.5 Gbps

### Protocol Agnostic

Transports most network protocols such as Ethernet, SONET etc.

### FCC Licensed Spectrum

Uses 71-76 GHz and 81-86 GHz licensed spectrum

### Highly Reliable

Achieves 99.999% weather availability for most common deployments

### Small Form Factor

Smaller than competitive products in its class due to a unique lens based design

### Ease of Deployment

Can be deployed within hours

### Extremely Low Latency

Radio latency < 10 ns

# L1000

## Gigabit Wireless Link

## Product Overview

The Loea L1000 is a point-to-point wireless communication system capable of transporting up to 1.5 Gbps of full duplex traffic over a distance of a few kilometers. It operates in the 71-76 GHz and 81-86 GHz, licensed bands, allowing for interference free communication when deployed properly. It was introduced by Loea to address the needs of short range deployments, ranging from about 1 km to 2 km, with carrier class weather availability.

A Layer 1 wireless product, the L1000 has the ability to transmit data at rates ranging from 45 Mbps to 1.5 Gbps. This unique feature makes it protocol agnostic, making it compatible with transmission rates of a wide range of standards such as SONET, Ethernet, Fibre Channel and many other protocols.

The L1000 includes an out-of-band management interface, allowing it to be managed remotely over an Ethernet LAN, independent of the data protocol the link is transporting. The out-of-band management capability also has the benefit of keeping the management channel and data channel separate, often desirable for security purposes.

Its unique design deviates from industry tradition with the combination of a lens and cylindrical structure, allowing the L1000 to achieve smaller form factor with an esthetically pleasing non-obtrusive antenna.

## Applications

Cellular Backhaul (RAN)

LAN Extension

Storage Area Network (SAN)

Distributed Antenna Systems (DAS)

Metro/Carrier Ethernet Services

Temporary Network Deployments

Disaster Recovery

Network Redundancy/Failure Recovery





# L1000

## Gigabit Wireless Link

### Range (99.99% Availability)

Los Angeles	2.15 km
New York	1.4 km
London	2.0 km
Milan	1.6 km
Sydney	1.3 km
Riyadh	3.1 km

### Availability (1.5 km Range)

Los Angeles	99.997%
New York	99.988%
London	99.997%
Milan	99.91%
Sydney	99.986%
Riyadh	99.999%



### Sales & Marketing

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## Product Specifications

- Data Path**
  - Data Rates: 45 Mbps to 1.5 Gbps full duplex
  - System Latency: ~10 nsec
  - Bit Error Rate:  $<10^{-11}$
- Interfaces**
  - Data Interface: Field upgradeable SFP Optical Module
  - Management Interface: 100BaseTX (RJ-45), RS-232
- Management**
  - Loea Element Manager (LEM)
  - SNMP: Version 1,2c & 3
  - MIB Supports: Proprietary MIB
- Radio & Antenna**
  - RF Spectrum: 71-76 GHz and 81-86 GHz
  - Modulation: OOK (On-Off-Keying)
  - Transmit Power: 100 mW (20dBm) peak, 50 mW (17 dBm) average
  - Receiver Sensitivity: -50 dBm (typical)
  - Antenna Size: 1 0 inch (25 cm) lens
  - Beam width:  $< 1.2^\circ$  (3dB point)
- Environmental**
  - Operating Temperature: 22°F to 131°F (-30°C to 55°C)
  - Altitude: 0 to 10,000 ft (3000 meters)
- Size**
  - Radio: 10" (25 cm) diameter x 26" (66 cm) long
  - Shipping: 32" x 17" x 15" (81 cm x 43 cm x 38 cm)
- Weight**
  - Radio: 20 lbs. (9 kg)
  - Radio with Mount: 40 lbs. (18 kg)
  - Shipping Weight: 48 lbs. (22 kg)
- Regulatory**
  - FCC, Par 101 (FCC ID: S2N-L1000-1, S2N-L1000-2)

## Corporate Overview

Loea Corporation is an industry leader in the development of 70/80 GHz millimeter wave wireless products. Founded in 2001, Loea is a privately-held subsidiary of Trex Enterprises, a pioneer in the field of millimeter wave technologies with decades of experience behind it. Loea pioneered the adaptation of millimeter wave technology for point-to-point application in 2001, first as a key architect of the FCC petition for opening the spectrum followed by the demonstration of the first 71-86 GHz radio system in the industry. Loea continues to maintain its leadership role in the industry by introducing innovative millimeter wave products like the L1000 and by standing behind them with its strong support.