

The Fluidmesh 1100 is a **point-to-point wireless Ethernet bridge** designed for security, public safety and video-surveillance applications. A Fluidmesh 1100-based wireless link creates a fully IP-compatible connection that guarantees the highest performance in terms of security, throughput and reliability.



### Quadri-band Radio operating at 2.4 GHz, 4.9 GHz, 5.4 GHz, and 5.8 GHz

Thanks to advanced software radio technology, the Fluidmesh 1100 can operate either on **license-free 2.4 GHz, 5.4 GHz and 5.8 GHz** frequency bands or on the **public-safety 4.9 GHz** band. The preferred frequency can be easily selected through a web-based interface during the installation.

### Compact Design for Easy Installation

The integrated planar antenna makes the Fluidmesh 1100 a compact solution extremely easy to install. Its sleek design provides a **low-visual impact** for discrete deployments in urban areas and the provided proprietary Power over Ethernet injector guarantees a straight-forward installation.

### Intuitive Network Set-up

The system's web-based interface provides users an effective and intuitive way to configure, align and monitor the wireless link.

### Fully IP/Ethernet Compatible

The Fluidmesh 1100 is a fully IP and Ethernet compatible device. Despite being designed and optimized for video solutions, it can also create fully IP compatible networks that can be employed for multiple services. Possible applications are VOIP communication, data network interconnection, remote DVR control, etc.

### MPEG4 and M-JPEG Proprietary Optimization

Every Fluidmesh 1100 takes advantage of the proprietary Fluidmesh optimization technology for video applications which guarantees unparalleled performances in terms of latency and reliability of the video streams.

### Security and Privacy

Thanks to its proprietary communication protocol, the Fluidmesh 1100 provides a very high level of privacy because its traffic cannot be either detected or decoded by standard Wi-Fi compatible radio. Moreover, Fluidmesh technology is fully compatible with VPN tunnels and industry-standard encryption schemes like AES and 3DES.

### Mesh Routing Software Available as Plug-in

Every Fluidmesh 1100 can be upgraded to become a mesh-capable transmitter by purchasing a routing software plug-in. With this software upgrade, the Fluidmesh 1100 can be deployed in combination with the Fluidmesh 2200 to create mesh networks with more complex architectures. Such a feature gives the user maximum flexibility in the design of the wireless infrastructure and allows for easy expansions or reconfigurations of the network.



## FEATURES

### WIRELESS

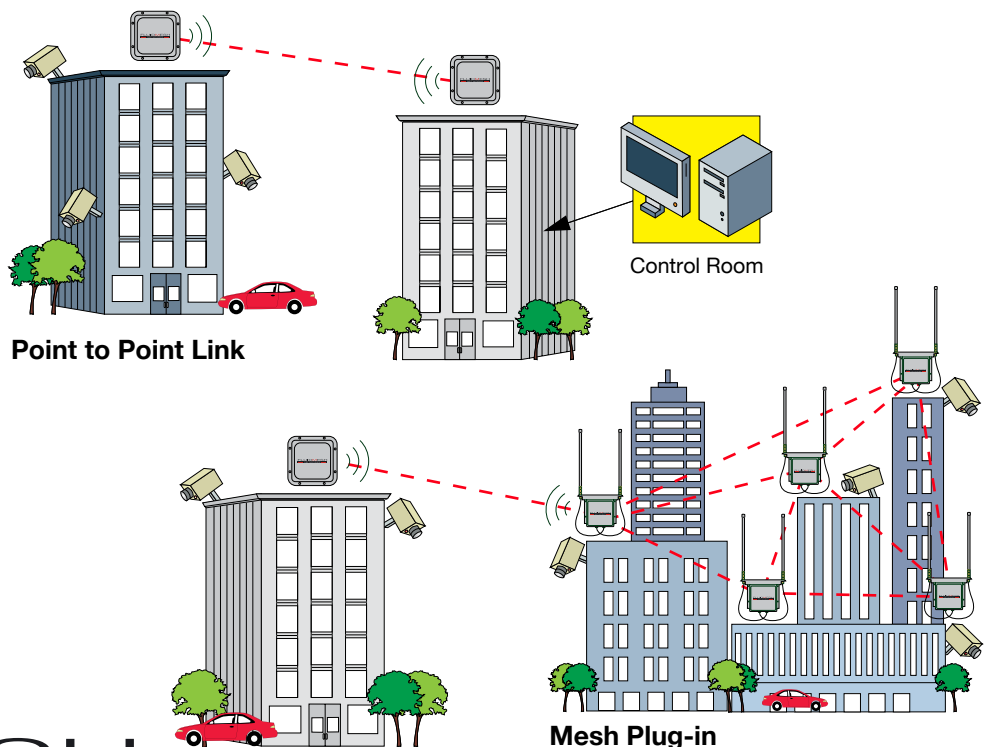
- + Quadri-band: 2.4, 4.9, 5.4, 5.8GHz
- + Low latency and high bandwidth
- + Video packets prioritization
- + MPEG4 and M-JPEG optimization

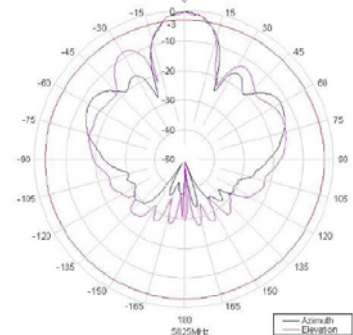
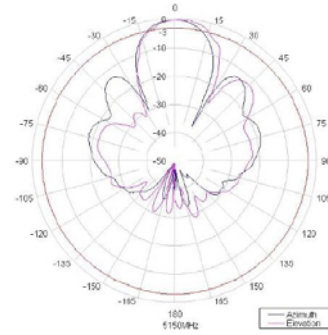
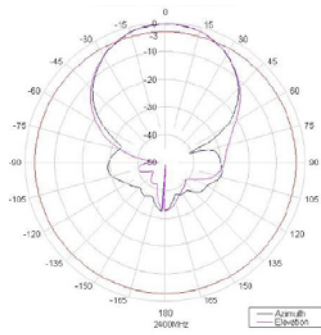
### SYSTEM

- + Power over Ethernet (not IEEE802.3af)
- + Integrated planar antenna
- + Self-healing network
- + Web-based management
- + IP66 outdoor-rated enclosure
- + Full compatibility with any IP camera and video-server

### SECURITY

- + Proprietary communication protocol
- + VPN support
- + Cryptographic support (SSL, HTTPS)





## Technical Specifications

### RADIO

- Frequency Bands:
  - 5.17 - 5.33 GHz (US, FCC)
  - 5.470 - 5.850 GHz (US, FCC)
  - 5.470 - 5.725 (Europe, ETSI)
  - 2.4 - 2.462 GHz (US, FCC)
  - 2.4 - 2.472 GHz (Europe, ETSI)
  - 4.940 - 4.990 GHz (US, FCC)
- Non-overlapping channels:
  - 22 (US, FCC)
  - 22 (Europe, ETSI)
- Modulation:
  - OFDM (BPSK, QPSK, 16-QAM, 64-QAM)
- Modulation speed:
  - Up to 54 Mbps
- TX Power:
  - Up to 18 dBm, depending on configuration and regulatory constraints
- RX Sensitivity 2.4Ghz:
  - 90dB@6Mbps, -74dB@54Mbps
- RX Sensitivity 4.9Ghz:
  - 88dB@6Mbps, -71dB@54Mbps
- RX Sensitivity 5Ghz:
  - 88dB@6Mbps, -71dB@54Mbps
- Antenna Gain:
  - 13dBi@2.4GHz, 15dBi@4.9/5GHz

### ELECTRICAL

- Power input DC: 12V
- Power consumption: Max 8W
- Power over Ethernet: Non-IEEE802.3af compliant

### ENVIRONMENTAL

- Operating Temperature: -25°C(-13°F) to +60°C(140°F)
- Storage Temperature: -30°C(-22°F) to +65°C(149°F)
- Humidity: 95% non-condensing
- Weather Rating: IP66
- Wind Survivability: >165 mph
- Wind Loading@125mph: <43.4 lb
- Salt/Fog/Rust Resistance: MIL-STD-810F 509.4
- Shock & Vibration: ETSI 300-19-2-4 spec. T41.E

### PHYSICAL

- Dimensions (inches/mm): 10.7"/267 (h) x 10.7"/267 (w) x 2.6"/67(d)
- Weight (lb/Kg): 2.9/1.3
- Enclosure material: Fiber Glass

### NETWORK

- Interfaces: One (1) Internal Ethernet 10/100BaseT autosensing, RJ45
- Protocols: UDP, TCP, IP, RTP, RTCP, RTSP, HTTP, HTTPS, ICMP, ARP
- Web-based interface for remote management
- Multicast support

### SECURITY

- Full VPN compatibility
- Full compatibility with all encryption and authentication standards (AES, 3DES, RSA, HTTPS, SSL, etc.)

### APPROVALS

- FCC CFR 47 Part 15, class B
- Industry Canada RSS 210
- CE!
- IP66 enclosure, rated for outdoor use

### SUPPLIED ACCESSORIES

- Power Supply
- PoE Injector
- Pole Mounting Kit

### OPTIONAL ACCESSORIES

- Proprietary Fluidmesh compatible mesh routing plug-in
- 4.9GHz public safety band plug-in

### WARRANTY

- Two (2) years on parts and labor

Copyright © 2005-2007 Fluidmesh Networks, Inc. All rights reserved. Fluidmesh is a trademark of Fluidmesh Networks, Inc. All other brand or product names are the trademarks or registered trademarks of their respective holder(s). Information contained herein is subject to change without notice. The only warranties for Fluidmesh Networks products and services are set forth in the express warranty statements accompanying such products and services. Nothing herein should be construed as constituting an additional warranty. Fluidmesh Networks shall not be liable for technical or editorial errors or omissions contained herein.

Fluidmesh Networks, Inc.  
 165 Tremont St. - Suite 1502  
 Boston, MA 02111  
 U.S.A.  
 Tel. +1 (617) 381-4219  
 Fax. +1 (866) 458-1522

www.fluidmesh.com  
 info@fluidmesh.com