

The Fluidmesh® Endo series units are designed to be embedded in custom-made, outdoor enclosures for special applications such as public-safety or industrial monitoring in classified areas.

The Fluidmesh 2200 Endo is a dual-quadri-band radio wireless product which can operate at 2.4 GHz, 4.9 GHz, and 5.1-5.8 GHz and modulate up to 108 Mbps. It uses the same hardware and software of the Fluidmesh 2200 Duo, but is encased in a much smaller form factor.

The Fluidmesh 2100 Endo features one quadri-band radio and can operate at 2.4 GHz, 4.9 GHz, and 5.1-5.8 GHz. Like the Fluidmesh 1100, the 2100 Endo comes with the innovative FluidThrottle™ technology which allows the user to limit the total cost of ownership of the wireless network by paying only for the amount of bandwidth required. It has three Ethernet ports and a single SMA antenna connector.

FluidMAX™

The Fluidmesh Endo units support the patent-pending FluidMAX™ technology and can be used to create Point-to-Point, Point-to-Multipoint, and Mesh architectures. In developing FluidMAX, Fluidmesh has embraced the WiMax Point-to-Multipoint architecture and enabled its wireless units to operate with a centralized or a distributed Medium Access Control protocol, depending on the network layout.

EasyMesh™ Platform

The Fluidmesh Endo units include the EasyMesh™ platform. This technology allows the user to set the same range of private IP addresses across the entire network. This automatic tunneling hides the Fluidmesh Layer 3 network from the connected devices allowing the user to set up the system in Layer 2, reducing configuration and deployment time.

The Fluidmesh Endo units also include the FMQuadro™ Web interface which allows the user to configure, monitor, and troubleshoot the wireless network in real time without the need for additional software. The FMQuadro Web-based user interface provides real time throughput analysis and is capable of automatically reporting network congestion scenarios through a fully interactive network monitoring system.

MPEG4, M-JPEG, and H.264 optimization and multicast support

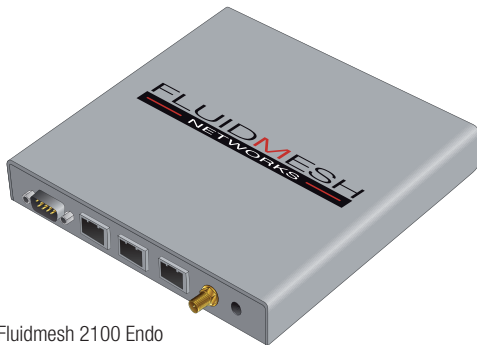
Every Fluidmesh Endo unit automatically detects the type of video packets (eg. MPEG4 vs. M-JPEG vs. H.264, I-frame vs. P-frame) and the transport protocol (e.g., UDP vs. TCP) in use and optimizes the wireless transmission based on the packet type. Moreover, video packets are prioritized over other packets in order to minimize delays. Fluidmesh technology supports multicast transmission, greatly reducing the required bandwidth for every camera.

AES-128 Encryption Support (FIPS-197 Compliant)

The Fluidmesh Endo units include support for 128 bit AES Encryption at the link-level which can be used for FIPS-197 compliance. Because AES is implemented in hardware, there is no loss in terms of performance when AES is enabled.



Fluidmesh 2200 Endo



Fluidmesh 2100 Endo

FEATURES

WIRELESS

- + Quadri band radio on 2.4, 4.9, and 5.1-5.8 GHz
- + Video packets prioritization
- + MPEG4, M-JPEG, and H.264 optimization

SYSTEM

- + Self-healing network
- + Web-based management
- + Full compatibility with any IP camera or video-server

SECURITY

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

Supported Architectures



Point-to-Point



Point-to-Multipoint



Mesh



Mixed



Fluidmesh 2200 Endo



Fluidmesh 2100 Endo

Technical Specifications

RADIO (Fluidmesh 2100 ENDO)

- Frequency Range: 2300-2485 MHz and 4940-6075 MHz
Channel availability depends on the country of operation
- Channel Widths: 5,10,20,40 MHz (software selectable)
- Modulation: OFDM (BPSK, QPSK, 16-QAM, 64-QAM)
- Modulation speed: Up to 108 Mbps
- TX Power: 18-23 dBm, depending on configuration and regulatory constraints
- RX Sensitivity 2.4GHz: -91dB@6Mbps, -74dB@54Mbps
- RX Sensitivity 4.9GHz: -90dB@6Mbps, -73dB@54Mbps
- RX Sensitivity 5GHz: -90dB@6Mbps, -73dB@54Mbps
- Antenna connectors: one (1) SMA

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Channel availability depends on the country of operation
- Channel Widths: 5,10,20,40 MHz (software selectable)
- Modulation: OFDM (BPSK, QPSK, 16-QAM, 64-QAM)
- Modulation speed: Up to 108 Mbps per radio
- TX Power: 13-18 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 connectors: Two (2) SMA

ELECTRICAL

- Power input DC: 12-18 V DC (90/240V 50/60 Hz AC with the AC adapter included)
- Power consumption: Max 10W

ENVIRONMENTAL

- Operating Temperature: -5°C (23°F) to +70°C (158°F)
- Storage Temperature: -30°C (-22°F) to +70°C (158°F)
- Humidity: 95% non-condensing

PHYSICAL

- Dimensions (inches/mm): 6.4"/162 (h) x 6.1"/155(w) x 1.1"/28(d)
- Weight (lb/Kg): 0.9/0.4
- Enclosure material: Aluminium

APPROVALS

- FCC CFR 47 Part 15, class B
- Industry Canada RSS 210
- CE!
- C-Tick (Fluidmesh 2200 Endo only)
- Anatel (Fluidmesh 2200 Endo only)

NETWORK

- Interfaces: Three (3) Ethernet 10/100BaseT autosensing, RJ45 (2100 Endo)
- Interfaces: Two (2) Ethernet 10/100BaseT autosensing, RJ45 (2200 Endo)
- Protocols: UDP, TCP, IP, RTP, RTCP, RTSP, HTTP, HTTPS, ICMP, ARP
- Medium Access Control (MAC) Protocols: Centralized Polling-based, Distributed CSMA/CA-based
- FMQuadro Web-based interface for remote management
- Multicast support
- UPnP support
- SNMP support

SECURITY

- Authenticated routing
- Full VPN compatibility
- Full compatibility with all encryption and authentication standards (AES, 3DES, RSA, HTTPS, SSL, etc.)
- AES-128 (FIPS-197 Compliant) Wireless Link Encryption Support (optional)

SUPPLIED ACCESSORIES

- 90/240V 50/60 Hz AC-DC UL/cUL Adapter 18V max. 15W Multi-Plug (US, EU, UK)

OPTIONAL ACCESSORIES

- AES-128 (FIPS-197 Compliant) Encryption Software Plug-in
- Directional and omni-directional antennas at 2.4 GHz, 4.9 GHz, and 5.1-5.8 GHz
- Low loss 200 series and 400 series antenna cable assemblies with SMA and N-male connectors
- Wired Ethernet Capacity Plug-in up to 15 Mbps (Fluidmesh 2100 Endo only)
- Unlimited Wired Ethernet Capacity Plug-In (up to 100 Mbps) (Fluidmesh 2100 Endo only)

WARRANTY

- Two (2) years on parts and labor
- Optional extended warranty plan with advanced replacement Three (3) years
- Optional extended warranty plan with advanced replacement Five (5) years

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