

Fluidmesh™ 2200 Duo is the only *wireless mesh networking* product designed and manufactured specifically for **video-surveillance applications**. Every Fluidmesh 2200 Duo not only transmits the video streams from the cameras directly attached to it, but also dynamically routes packets coming from other Fluidmesh units through the optimal path.

Reliability and flexibility

The wireless mesh architecture enables the creation of reliable and redundant networks, where every Fluidmesh unit can route packets around physical obstacles, sources of interference or low-quality links.

Simultaneous transmission with two quadri band radios

The Fluidmesh 2200 Duo features two quadri-band radios that can operate at 2.4, 4.9, 5.3, and 5.8 GHz. The double radio allows to double the available bandwidth and to create 100% full-duplex wireless links. The selection the most appropriate band for each link does not need any hardware change.

EasyMesh™ Platform

Layer 2 Addressing Mode

The EasyMesh™ technology allows the user to set the same range of private IP addresses on both sides of the Fluidmesh network. This automatic tunnelling transparently hides the Fluidmesh layer 3 network to the connected devices.

FMQuadro™

The routing table is a fully interactive network monitoring system based on the EasyMesh technology. The FMQuadro web-based user interface provides real time throughput analysis and it is capable of automatically detecting network congestion scenarios.

MPEG4 and M-JPEG optimization and multicast support

Every Fluidmesh 2200 Duo automatically detects the type of video packets (eg. MPEG4 vs. M-JPEG, I-frame vs. P-frame) and the transport protocol (eg. UDP vs. TCP) and optimizes the wireless transmission based on the packet type. Moreover, video packets are prioritized over data packets in order to minimize delays. Contrary to many other wireless transmission products, Fluidmesh technology supports multicast transmission, greatly reducing the required bandwidth for every camera.

Simple Network Management Protocol (SNMP) Support

The Simple Network Management Protocol (SNMP) allows to centrally manage the mesh devices with a SNMP server and to receive automatic alarms in case of network failure.

Compatible with every IP camera and video-server

Fluidmesh technology is 100% compatible with the IP protocol and with every IP video-surveillance product, such as IP cameras and video-servers.

Every Fluidmesh 2200 Duo is equipped with an internal support to install up to two video-servers directly within the transmitter enclosure.



FEATURES

WIRELESS

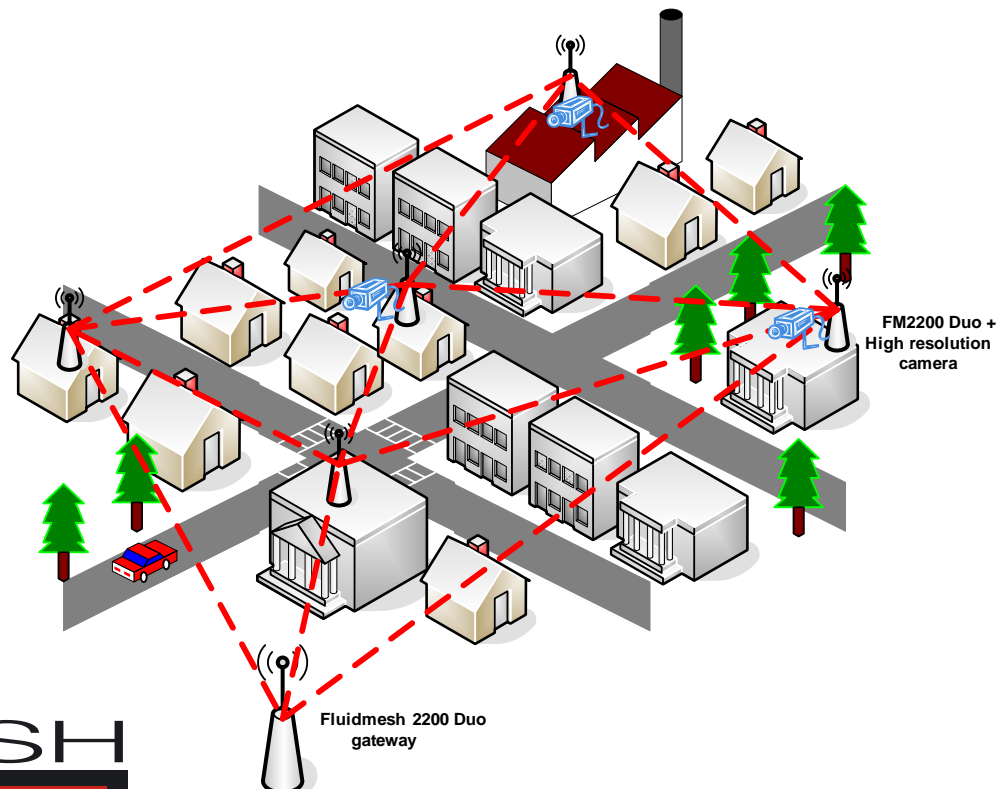
- + Mesh-based architecture
- + Low latency and high bandwidth
- + Double quadri band radio on 2.4 and 5 GHz
- + Full-duplex links
- + Video packets prioritization
- + MPEG4 and M-JPEG optimization

SYSTEM

- + Self-healing network
- + Web-based management
- + IP68/NEMA6P submersible enclosure
- + Full compatibility with any IP camera and video-server

SECURITY

- + VPN support
- + Cryptographic support (SSL, HTTPS)





Technical Specifications

- RADIO**
- Frequency Bands: 5.17 - 5.850 GHz (US, FCC)
5.470 - 5.725 (Europe, ETSI)
2.4 - 2.462 GHz (US, FCC)
2.4 - 2.472 GHz (US, FCC)
4.940 - 4.990 GHz (US, FCC)
 - Non-overlapping channels: 29 (US, FCC)
22 (Europe, ETSI)
 - 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: N-Female
- ELECTRICAL**
- Power input AC/DC: 12/24 V either AC or DC (90/240V 50/60 Hz AC optional)
 - Power consumption: Max 11W@24V (transceiver only), Max 12.5W@12V (transceiver only), Max 33W (with video-server, Ethernet switch, etc.)
- ENVIRONMENTAL**
- Operating Temperature: -25°C(-13°F) to +60°C(140°F)
 - Extended O.T. (optional): -50°C(-58°F) to + 60°C(140°F)
 - Storage Temperature: -30°C(-22°F) to +65°C(149°F)
 - Humidity: 95% non-condensing
 - Weather Rating: IP68, NEMA 6P
 - Wind Survivability: >165 mph
 - Wind Loading: <1024 N
 - Salt/Fog/Rust Resistance: MIL-STD-810F 509.4
 - Shock & Vibration: ETSI 300-19-2-4 spec. T41.E
- PHYSICAL**
- Dimensions (inches/mm): 8"/203 (h) x 8"/203(w) x 4"/102(d)
 - Weight (lb/Kg): 7.0/3.2
 - Enclosure material: Polycarbonate
 - External Status LED
- NETWORK**
- Interfaces: Two (2) Internal Ethernet 10/100BaseT autosensing, RJ45
 - Protocols: UDP, TCP, IP, RTP, RTCP, RTSP, HTTP, HTTPS, ICMP, ARP
 - 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)
- APPROVALS**
- FCC CFR 47 Part 15, class B
 - Industry Canada RSS 210
 - CE!
 - IP68/NEMA6P enclosure, rated for outdoor use
- SUPPLIED ACCESSORIES**
- Video-server Internal Mounting Kit
 - Wall-mount brackets
 - Pole Mounting Kit
 - Fluidmesh SunShield
- OPTIONAL ACCESSORIES**
- 4.9 GHz Software Plug-in
 - AES-128 (FIPS-197 Compliant) Encryption Software Plug-in
 - Directional and omni-directional antennas at 2.4 GHz, 4.9GHz and 5 GHz
 - Low loss 400 series antenna cable assemblies with N-male connectors
 - High Voltage AC Power Supply: 90/240 V 50/60 Hz single and split phase ANSI/IEEE C62.41 category C3 integrated branch protection
 - Extreme Cool Heating Kit: max -50°C (-58°F)
- WARRANTY**
- Two (2) years on parts and labor

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