FM 1200 VOLO

POWERFUL WIRELESS BACKHAULING

THE FM1200 VOLO

A 2x2 MIMO-based wireless radio, VOLO is designed for backhauling mission-critical video, voice, and data. With a fully redesigned hardware platform, VOLO is a data processing powerhouse. VOLO is intuitive, easy to deploy, and can be used to create point-to-point, point-to-multipoint, mesh, and mobility networks with a real throughput of up to 180 Mbps.

REDUCE THE COST OF OWNERSHIP
SELECT THE AMOUNT OF THROUGHPUT YOU NEED

Limit the cost of ownership with FluidThrottle by selecting only the amount of throughput required. More throughput can be easily achieved by upgrading the system with software plug-ins when the traffic requirements increase. Thanks to the FluidThrottle technology, we are the most flexible and cost effective wireless solutions provider in the market.

PRODIGY 2.0 RELIABLE WIRELESS TRANSIMISSION
FOR MISSION-CRITICAL APPLICATIONS

Our MPLS-based transmission protocol is built to overcome the limits of standard wireless protocols and to deliver an infrastructure with a higher level of reliability. At the base of our innovative transmission protocol, there is a traffic optimization algorithm that allows every Fluidmesh radio to assign a specific level of priority and reliability to every packet transmitted. The result is a better, more reliable, multi service wireless infrastructure.

UP TO 180 MBPS OF USABLE THROUGHPUT WITH VIRTUAL GIGABIT

The innovative FluidThrottle pricing allows throughput to scale as you grow by installing additional plugins. Virtual Gigabit allows you to continue growing all the way up to 180Mbps. By virtually bonding the Ethernet interfaces, real throughput above 100Mbps is just a click away.

BAZOOKA AGGREGATES MULTIPLE LINKS
FOR HIGHER THROUGHPUT CAPACITY

With the new BAZOOKA plugin, VOLO can now extend the Virtual Gigabit features across multiple point-to-point links that can be aggregated to form a single super high-speed link with a capacity of hundreds of Mbps. No special switch configuration is necessary.

WEB INTERFACE CONFIGURES, MONITORS AND
TROUBLESHOOTS THE WIRELESS NETWORK

VOLO includes the FMQuadro web interface that allows you to configure, monitor, and troubleshoot the wireless network in real time, without any additional software. To simplify the configuration of the wireless network, the radio has a built-in spectrum analyzer and a real-time bandwidth monitoring tool.

FLUIDITY. HIGH THROUGHPUT TO FAST MOVING VEHICLES

VOLO supports FLUIDITY the ultimate broadband connectivity solution for high speed vehicles. Providing up to 100 Mbps of usable throughput to vehicles traveling at up to 200mph/320Kmh is now a reality. FLUIDITY features an industry leading roaming handoff of 3 ms, and will maintain persistent network sessions and streams for any type of traffic.

YOUR INVESTMENT IS PROTECTED

Your investment is safe when business needs change. With FluidMAX, you don't have to replace your radios when you change the network's architecture from Point-to-Point to Point-to-Multipoint or Mesh. VOLO can operate in CSMA or TDMA.

EASY INSTALLATION

IP66 rated, VOLO is designed for low visual impact and easy installation in harsh environments. To facilitate installation, VOLO has a two cord watertight cable gland with a standard NPT-1 thread so you can run pre-made CAT5/6 shielded cables or conduit directly to the radio. The highly visible LEDs tell you the LAN activity and the signal strength. The low-power POE injector guarantees an easy setup.

WI-FI SERVICE PORTAL

Quick troubleshooting and firmware upgrades can be done without getting out of your truck. For fast and low cost servicing, you can now wirelessly connect to VOLO via a secure WiFi 802.11n hotspot. The SSID is undetectable and password protected.

SUPPORTED ARCHITECTURES

POINT TO POINT   POINT TO MULTIPOINT

MESH   MOBILITY   MIXED

QUICK PEEK

POWERFUL WIRELESS BACKHAULING

FLUIDTHROTTLE
Select only the throughput you need

PRODIGY 2.0
MPLS transmission protocol with intelligent QoS

VIRTUAL GIGABIT
Up to 180 Mbps usable throughput

BAZOOKA
Aggregates multiple links for higher throughput capacity

FMQUADRO
Web-based interface to easily configure, monitor, and troubleshoot the network

FLUIDMAX
Change network's architecture not the radios

MULTI FREQUENCY
4.9 GHz and 5.1-5.8 GHz

DUAL ETHERNET PORTS
Support PoE and multiple IP devices

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POWERFUL WIRELESS BACKHAULING

RADIO

Range	Up to 24 miles / 38Km *
Frequency Bands	4.9-5.9GHz
Throughput	Up to 180 Mbps
Modulation	Up to 300Mbps
Transmission Power	Up to 27 dBm, depending on configuration and regulations
Receiving Sensitivity	-96dB@6.5 Mbps; -75dB@300Mbps;
Latency Per hop	< 0.3 ms
Antenna Type	Built in 2x2 MIMO Panel
Antenna Gain	16.1 – 17.1 DBi
Polarization	Dual Linear
Cross-pol Isolation	22dB minimum
Max VSWR	2.0:1
Horizontal Beamwidth Coverage	33 deg
Vertical Beamwidth Covarage	17 deg

COMMUNICATION PROTOCOLS

Prodigy 1.0 and 2.0	Fluidmesh Intelligent Transmission Protocol
Wi Fi 802.11n	Opt in servicing only. Wi-Fi disabled by default. Invisible SSID.

ENVIRONMENTAL

Power Consumption	Max 8W
Operating Temperature	-40C to 80C -40F to 176F
Humidity	95% condensing
Weather Rating	IP66
Wind Survivability	120Mph 193 Kmh
Shock & Vibration	ETSI 300 – 019 - 1.4
Wind Loading @ 125Mph/200kmh	<25lb/11kg

SUPPLIED ACCESSORIES

POE injector 24VDC with US/EU/UK cord	Yes
Staging Kit	Yes

OPTIONAL SOFTWARE PLUGINS

Ethernet Capacity Plug in up to 1 Mbps	Included
Ethernet Capacity Plug in up to 2.5 Mbps	Yes
Ethernet Capacity Plug in up to 5 Mbps	Yes
Ethernet Capacity Plug in up to 10 Mbps	Yes
Ethernet Capacity Plug in up to 30 Mbps	Yes
Ethernet Capacity Plug in up to 60 Mbps	Yes
Ethernet Capacity Plug in up to 100 Mbps	Yes
Fluidity Plugin	Yes
802.1Q VLAN Support Plugin	Yes
AES – 128 bit Link Level Encryption Plugin	Yes
AES – 256 bit Link Level Encryption Plugin	Yes
Virtual Gigabit Plugin	Yes
Bazooka Plugin	Yes

* In optimal environmental conditions

POINT TO POINT USABLE THROUGHPUT*

Throughput (Mbps)	Max Range (Miles)	Max Range (Km)
100	4	6
50	9	14
30	16	25
20	20	32
15	24	38

ELECTRICAL

Power Input	Passive PoE from 12V DC to 24V DC
Power Consumption	Max 8W
Power over Ethernet Injector	Included, 90 to 260V, 50/60 Hz AC Input

PHYSICAL

Interfaces	2 Internal RJ45 Ports. Shielded CAT5/6 cables and connectors are recommended.
Coupling	NPT-1 threaded cable gland
Dimensions (in)	13(h)x6.1(w)x3.1(d)
Dimensions (mm)	330.5(h)x156.6(w)x79.9(d)
Weight	18.34oz / 0.519Kg

NETWORK

Protocols	UDP, TCP, IP, RTP, RTCP, RTSP, HTTP, HTTPS, ICMP, ARP
Web Based INTERFACE	Yes
Multicast Support	Yes
UPnP	Yes
SNMP	Yes
802.1Q VLAN	Yes

SECURITY

VPN	Yes
AES – 128 bit Link Level Encryption	Yes
AES – 256 bit Link Level Encryption	Yes
Full compatibility with AES, 3DES, RSA, HTTPS, SSL	Yes

APPROVALS

FCC CFR 47 Part 15, class B	Yes
Industry Canada RSS 210	Yes
CE	Yes

WARRANTY

2 years	Limited on parts and labor
3 years	Optional
5 years	Optional

SUPPORTED ARCHITECTURES

POINT TO POINT	POINT TO MULTIPOINT	MESH	MIXED	MOBILITY

Fluidmesh Networks products are installed locally by professional System Integrators and are available worldwide through a network of Authorized Dealers. For additional information please call +1.617.209.6080 or visit us at fluidmesh.com

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NETWORKS
A CARRICK BEND COMPANY