## **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 MULTIPOINT









### **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**

Range	Up to 24 miles / 38Km *	Throughput	Max Rang	IP.	Max Range	
Frequency Bands	4.9-5.9GHz	(Mbps)	(Miles)	le	(Km)	
Throughput	Up to 180 Mbps	100	4		6	
Modulation	Up to 300Mbps	50	9		14	
riodulation	Up to 27 dBm, depending on	30	16		25	
Transmission Power	configuration and regulations	20	20		32	
		15	24		38	
Receiving Sensitivity	-96dB@6.5 Mbps; -75dB@300Mbps;	ELECTRICAL	24		30	
Latency Per hop	< 0.3 ms	ELECTRICAL				
Antenna Type	Built in 2x2 MIMO Panel	Power Input  Passive PoE from 12V DC			rom 12V DC	
Antenna Gain	16.1 - 17.1 DBi			to 24V DC		
Polarization	Dual Linear	Power Consumption		Max 8W		
Cross-pol Isolation	22dB minimum	Dawar avar Etharnat Injector		Included, 90 to 260V,		
Max VSWR	2.0:1			50/60 Hz AC Input		
Horizontal Beamwidth Coverage	33 deg	DUNGLEAL				
Vertical Beamwidth Covarage	17 deg	PHYSICAL				
DMMUNICATION PROTOCOLS Interfaces			2 Internal RJ45 Ports. Shielded CAT5/6 cables and connectors			
Prodigy 1.0 and 2.0	Fluidmesh Intelligent Transmission Protocol			are recommended.		
		Coupling		NPT-1 threade	ed cable gland	
Wi Fi 802.11n	Opt in servicing only. Wi-Fi	Dimensions (in)		13(h)x6.1(w)x3.1(d)		
	disabled by default. Invisible SSID.	Dimensions (mm)		330.5(h)x156.6(w)x79.9(d)		
ENVIRONMENTAL		Weight		18.34oz / 0.51	l9Kg	
Power Consumption	Max 8W	NETWORK				
	-40C to 80C			LIDD TCD ID	RTP, RTCP, RTSI	
Operating Temperature	-40F to 176F	Protocols		HTTP, HTTPS, ICMP, ARP		
Humidity	95% condensing	Web Based INTERFACE		Yes		
Weather Rating	IP66	Multicast Support		Yes		
Wind Survivability	120Mph	UPnP		Yes		
	193 Kmh	SNMP		Yes		
Shock & Vibration	ETSI 300 - 019 - 1.4	802.1Q VLAN		Yes		
Wind Loading @ 125Mph/200kmh	<25lb/11kg	SECURITY				
SUPPLIED ACCESSORIES		VPN		Yes		
POE injector 24VDC		AES - 128 bit Link Level Encryp	tion	Yes		
with US/EU/UK cord	Yes	AES - 256 bit Link Level Encry		Yes		
Staging Kit	Yes	Full compatibility with AES, 3D		Yes		
OPTIONAL SOFTWARE PLUGINS		RSA, HTTPS, SSL				
Ethernet Capacity Plug in up to 1 Mbps	Included	APPROVALS				
Ethernet Capacity Plug in up to 2.5 Mbps	Yes	FCC CFR 47 Part 15, class B		Yes		
Ethernet Capacity Plug in up to 5 Mbps	Yes	Industry Canada RSS 210		Yes		
Ethernet Capacity Plug in up to 10 Mbps	Yes	CE		Yes		
Ethernet Capacity Plug in up to 30 Mbps	Yes					
Ethernet Capacity Plug in up to 60 Mbps	Yes	WARRANTY				
Ethernet Capacity Plug in up to 100 Mbps		2 years		Limited on pa	arts and labor	
Fluidity Plugin	Yes	3 years		Optional		
802.1Q VLAN Support Plugin	Yes	5 years		Optional		
AES - 128 bit Link Level Encryption Plugin			IDEC	- prioritai		
AES - 256 bit Link Level Encryption Plugir		SUPPORTED ARCHITECTU	JKES			
Virtual Gigabit Plugin	Yes			₽ .	<b>F</b> 4	
TILLIAN DIGUDIL I IUGIII	100			· <b>Y</b>	. 1	

<sup>\*</sup> In optimal environmental conditions

Bazooka Plugin

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



Yes

HEADQUARTERS.

POINT TO POINT

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MESH

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MIXED

MOBILITY