Data sheet Cisco public



# Cisco FM10000 Gateway

Fluidity network appliance

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The Cisco® FM10000 Gateway is a rugged industrial-grade network appliance that allows fast, easy setup and management of large-scale Fluidity systems. It allows a Fluidity wireless infrastructure to scale to hundreds of radio devices, without impacting overall system performance.



#### Scalability up to 10 Gbps

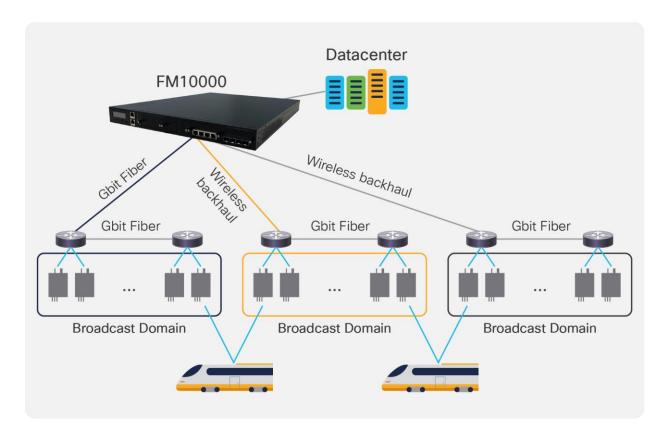
The Cisco FM10000 Gateway is capable of leveraging a choice of powerful network-grade processors to handle a large number of packets per second, lowering the load on Cisco FM radio units installed onsite. The gateway is equipped with 2 Gigabit Ethernet interfaces and is able to handle up to 10 Gbps of aggregate traffic from a Fluidity radio cluster. The Cisco FM10000 Gateway can be used together with the Cisco FM1000 Gateway to create a hierarchical architecture for scalability purposes.

#### Redundancy

Additional Cisco FM10000 Gateways can be installed as backup units within a system, providing redundancy and automatic fault tolerance. Multiple gateway units can be co-located in the same data center or installed in different data centers to provide geographical redundancy.

#### Reachability

The Cisco FM10000 Gateway helps in connecting different clusters of Fluidity networks that are separated into different broadcast domains. The gateway acts as the aggregation point for all tunnels, connecting all portions of the Fluidity infrastructure across Layer 3 networks or WANs. Using the gateway, roaming across network clusters that belong to different broadcast domains incurs zero handoff time, thanks to Fluidity's make-before-break patented technology.



#### **Rugged design**

The Cisco FM10000 Gateway is a rugged network appliance that can be installed in a data center rack. The device operates reliably within an extended temperature range.

#### Main features

- Intel Core® 7th Gen. i7
- 4x Gigabit Ethernet RJ45
- 4x 10 Gbe SFP ports
- 4x 288-pin DIMM DDR4 2400 MHz RAM
- Redundant power supply
- 1x PCI-E 4/8 FH/HL (by project), 4x cooling fans

# Technical specifications

Platform	Form factor	1U 19-in. rack mount
	Processor options	Intel Core i7
	CPU socket	1x LGA1151
	Chipset	Intel C236
	Security acceleration	N/A
	BIOS	AMI SPI Flash BIOS
System memory	Technology	DDR4 2400 MHz ECC(by CPU) or non-ECC UDIMM
	Capacity	4 GB
	Socket	4x 288-pin DIMM
Networking	Ethernet ports	4x GE RJ45 Intel i210
		4x 10Gbe SFP Intel i350-AM4
	Bypass	Up to 6 pairs Gen 3
I/O interface	Reset button	1
	LEDs	Power, status, storage
	Power button	1x ATX power switch
	Console	1x RJ45
	USB	2x USB 2.0
	LCD module	2x 20-character LCM,
	Display	4x keypads
	Power input	2x AC power inlets on each PSU
Storage	HDD/SSD support	2x 2.5-in. bays
	Onboard slots	1x mSATA
Miscellaneous	Watchdog	Yes
	Internal RTC with Li battery	Yes
Cooling	Processor	Passive CPU heatsink
	System	4x cooling fans with Smart Fan
Environmental	Temperature	0° to 40°C (32° to 104°F) (normal operation)

		-20° to 70°C (-4° to 158°F) (not operating)
Parameters	Humidity (RH)	5% to 90% (normal operation) 5% to 95% (not operating)
System dimensions	(WxDxH)	438 x 525 x 44 mm (4.8 x 5.7 x 0.5 in.)
	Weight	15 kg (33 lb)
Package dimensions	(WxDxH)	790 x 600 x 220 mm (8.6 x 6.6 x 2.4 in.)
	Weight	16 kg (35 lb)
Power	Type/watts	300W 1+1 ATX redundant PSUs
	Input	AC 90V~264V at 47~63Hz
Certification	Approvals and compliance	RoHS, CE/FCC Class A, UL

## Dimensions

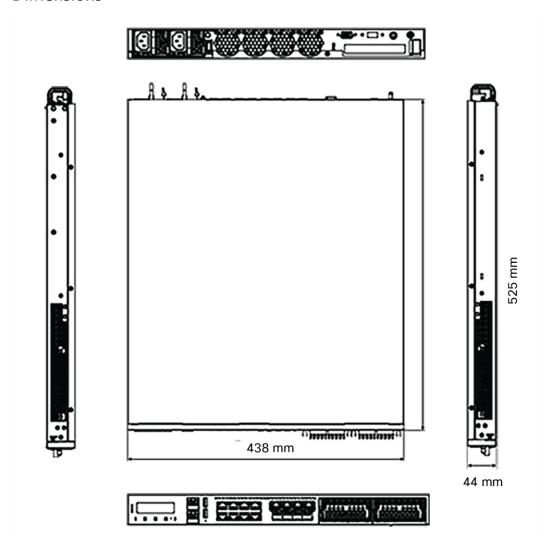


Table 1. Cisco FM10000: Plugin and License Summary

Type of Plugin or License	Fluidmesh Part Numbers	Cisco PID	Description
Hardware P/N	FM10000-GWY	FLMESH-HW-10000-1	Cisco FM10000 Gateway for Fluidity up to 10 Gpbs of aggregate throughput. Embedded Device with Fluidity Fast-Roaming Software Enabled. 9 x Gbit RJ45 Ports. Aggregate throughput up to 250 Mpbs. DOES NOT INCLUDE FLUIDCARE SUPPORT PLAN
Software upgrade	FM10000-GWY-500	L-FLMESH-10000-1	Software upgrade up to 500 Mbps (aggregate throughput)
	FM10000-GWY-1000	L-FLMESH-10000-2	Software upgrade up to 1 Gbps (aggregate throughput)
	FM10000-GWY-2000	L-FLMESH-10000-3	Software upgrade up to 2 Gbps (aggregate throughput)

Type of Plugin or License	Fluidmesh Part Numbers	Cisco PID	Description
	FM10000-GWY-5000	L-FLMESH-10000-4	Software upgrade up to 5 Gbps (aggregate throughput)
	FM10000-GWY-UN	L-FLMESH-10000-5	Software upgrade to unlimited aggregate throughput (10 Gbps)
High availability	FM-TITAN	L-FLMESH-TITAN-1	TITAN Plug-in. Enables Fast Failover in case of network, radio or power failure on a single Fluidmesh product. All Fluidmesh devices in a network mush have a plugin-in to operate.

### Product sustainability

Information about Cisco's Environmental, Social and Governance (ESG) initiatives and performance is provided in Cisco's CSR and sustainability <u>reporting</u>.

 Table 2.
 Cisco environmental sustainability information

Sustainability Topic		Reference
General Information on product-material-content laws and regulations		<u>Materials</u>
	Sustainability Inquiries	Contact: csr_inquiries@cisco.com
	Countries and Regions Supported	Table: <u>Technical Specification</u>
Power	Power (Including Pluggable)	Table: <u>Technical Specification</u>
Material	Product packaging weight and materials	Contact: environment@cisco.com
	Dimensions	Table: <u>Technical Specification</u>

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