

# ViaSat Machine-to-Machine Terminal 2110

## Real-Time IP M2M Satellite Communications for Rugged Mobile Environments



Real-time, reliable IP data connectivity can be the key enabler to saving lives, averting disaster, and growing profits for valuable asset tracking and management, emergency warning communications, and intelligent infrastructure monitoring. The ViaSat Machine-to-Machine Terminal 2110 delivers dependable, instant IP-based machine-to-machine communications via satellite for mobile platforms operating in remote environments, precise monitoring and control applications, standalone banking kiosks, and utilities management.

Powered by a ViaSat managed satellite service, this satcom terminal relies on remarkably efficient bandwidth allocation, low-latency IP networking, and low required satellite power to enable real-time mobile communications more affordably than ever. The ViaSat M2M terminal offers reliable network connectivity—even in harsh weather conditions—and brings dependable performance to locations where cellular infrastructure doesn't exist or is at risk of emergency network failure due to overload or power outage.

With a standards-based IP-based network architecture and a common Ethernet interface, the ViaSat M2M terminal easily integrates with your existing M2M systems to support any real-time remote and mobile IP data application.

When used for mobile tracking and communications, the system's two-way networking capability enables both real-time monitoring of position location information and data and voice communications. In fixed site applications, access to revenue-generating data is instant, and adjustment of field devices such as gas valves, smart grid sensors, water pumps, and reservoir level indicators can be performed remotely. ViaSat M2M technology enables reduction of operating costs by monitoring and controlling gas, water, or power flow, optimizing purchase with demand-side management, and avoiding peak flow conditions to minimize costs.

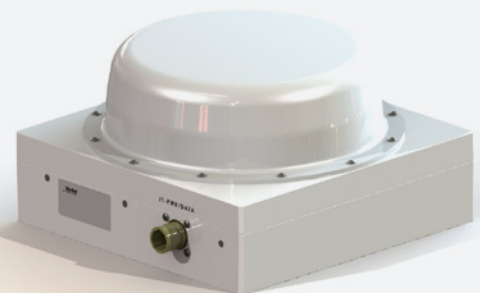
### MACHINE-TO-MACHINE TERMINAL 2110 FEATURES

#### Advanced Technology

- » High reliability—even in harsh weather conditions
- » Low service costs with bandwidth-efficient networking
- » Real-time IP-based networking
- » Low-latency for instant message transfer
- » UDP/IP Ethernet interface
- » Full-duplex connectivity
- » Embedded commercial GPS

#### Applications

- » Locomotive Tracking and Communications
- » Oil & Gas Pipeline Monitoring
- » Remote Water & Power Monitoring
- » Smart Grid Management
- » Remote Banking
- » Homeland Security
- » Rail Track Sensing & Switching Control
- » Other M2M Remote Communications, Monitoring & Control



## SPECIFICATIONS

### NETWORK CONFIGURATION

Topology	Hub-spoke with instantaneous PLI reflection
Carrier Symbol Rates	Variable to operate on different MSS L-band satellites
Throughput	
» Forward Link	1.6 kbps to 220 kbps broadcast to all transceivers
» Return Link	1.2 kbps to 16.5 kbps per transceiver
PLI Latency	Seconds
GPS	
	» 50-channel assisted receiver
	» Cold start acquisition < 27 seconds
	» Aided start acquisition < 4 seconds
	» Hot start acquisition ~1 second

### TRANSMISSION SECURITY

Link Encryption	AES 256-bit bulk encryption
NIST Certification	FIPS 140-2 Level 2

### ENVIRONMENTAL & PHYSICAL

Operational Temperature	-40° to +71° C
Relative Humidity	100% condensing IP-66 sealed enclosure
Shock/Vibration	IEC 60068/60721 compliant
Dimensions (WxHxD)	222 mm x 222 mm x 127 mm
Weight	2800 g

### ELECTRICAL

Prime Power	12 to 28 VDC
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### INTERFACES

IEEE 802.3 10/100 Mbps Ethernet with support for messages with variable Message Transmission Unit (MTU) sizes of up to 1,500 bytes

### PART NUMBER

VMT-2100-10



## CONTACT

### SALES

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