Thuraya m2m

Real-time, secure, two-way communications

THURAYA

FT2225 fixed applications
M2M communications terminal

POWERED BY ViaSat

The Internet of Things (IoT) is one of the fastest growing segments in technology and is changing the way people live and do business. Some estimate that the number of connected devices will reach up to 50 billion connections by 2020.

The need for real time, always-on, reliable, and secure connectivity that reaches beyond terrestrial networks has never been greater.

Thuraya understands this fundamental technological shift and is enabling value-driven solutions based on market requirements.

Thuraya M2M services support multiple sectors through its M2M network and terminals, such as:

Smart utilities; connected oilfields; security and safety; border control; ATMs and points of sale; connected cars; critical infrastructure; fixed and mobile remote assets monitoring; lone worker safety.

The FT2225 satellite M2M terminal enables connectivity for remote assets and sensors for monitoring, control and security of critical applications in the oil and gas, utilities, mining, banking and government sectors.

By utilizing our robust IP-based, highly secure, two-way communications Thuraya M2M network, you can extend the deployment of M2M and IoT applications in real-time beyond the traditional coverage areas of cellular networks. The FT2225 can also be used to provide redundancy and backup M2M communications for mission-critical applications via satellite in situations where highly resilient communications is required in times of crisis or natural disasters.

UTILITIES

Real-time, secure, two-way communications

Thuraya M2M services enable real-time monitoring, management and control of remote assets and operations. Field devices, remote terminal units and sensors such as gas valves, smart grid sensors, water pumps, reservoir level indicators and recloser RTUs can be accessed and managed remotely in real time. In addition, Thuraya M2M services provide cyber-security protection by using the same encryption as commercial virtual private network routers as well as Asynchronous 256-bit encryption.

Flexible Integration

The high performance FT2225 terminal is interface agnostic, operating across Ethernet and Wi-Fi, and it supports a wide range of applications. For added flexibility and adaptability, the terminal's onboard memory enables you to load local applications that will help you address your specific needs.

Reliable and affordable product connectivity

The Thuraya M2M network offers reliable L-band connectivity, resilient to harsh weather conditions, bringing dependable performance to locations where existing wireless and terrestrial systems are overloaded or inoperable. The FT 2225 terminal delivers remarkably efficient bandwidth usage, low-latency IP networking, and optimized power consumption. It makes real-time remote monitoring and communications more affordable than ever, and lowers total cost of ownership.

ENERGY

Key Features

- IP-based networking
- Interface agnostic with Ethernet and Wi-Fi; support for other interfaces such as USB, serial, Modbus and CanBUS is also possible.
- Two-way send/receive connectivity
- AES 256 Encryption
- Multicast and broadcast capability enabling efficient mass polling and message distribution
- Low-latency for instant message transfer and real-time monitoring with no delays
- Ruggedized highly reliable terminals for operation in harsh weather conditions
- Bandwidth-efficient networking and no minimum billing increment or overhead charges
- Embedded GPS and GLONASS navigation systems
- SDK to develop application on the terminal which is capable of storing and executing these applications

MINING

Applications supported by Thuraya M2M

Government, Safety and Security

- Perimeter monitoring and surveillance
- First responder rescue operations monitoring and support
- Tracking of various assets in the field from command and control interface
- Emergency warning communications

Mining

- Remote worker and Field safety
- Asset tracking
- Maintenance and Operations cost optimization
- Integration of field operations with back-office services

Oil and gas

- Wellhead monitoring
- Cathodic protection
- Flowmeters
- Chemical or water injection
- Security
- Asset monitoring and control

Utilities

- Meter reading
- Water flowmeters
- Power recloser control
- Substation automation
- Leak detection
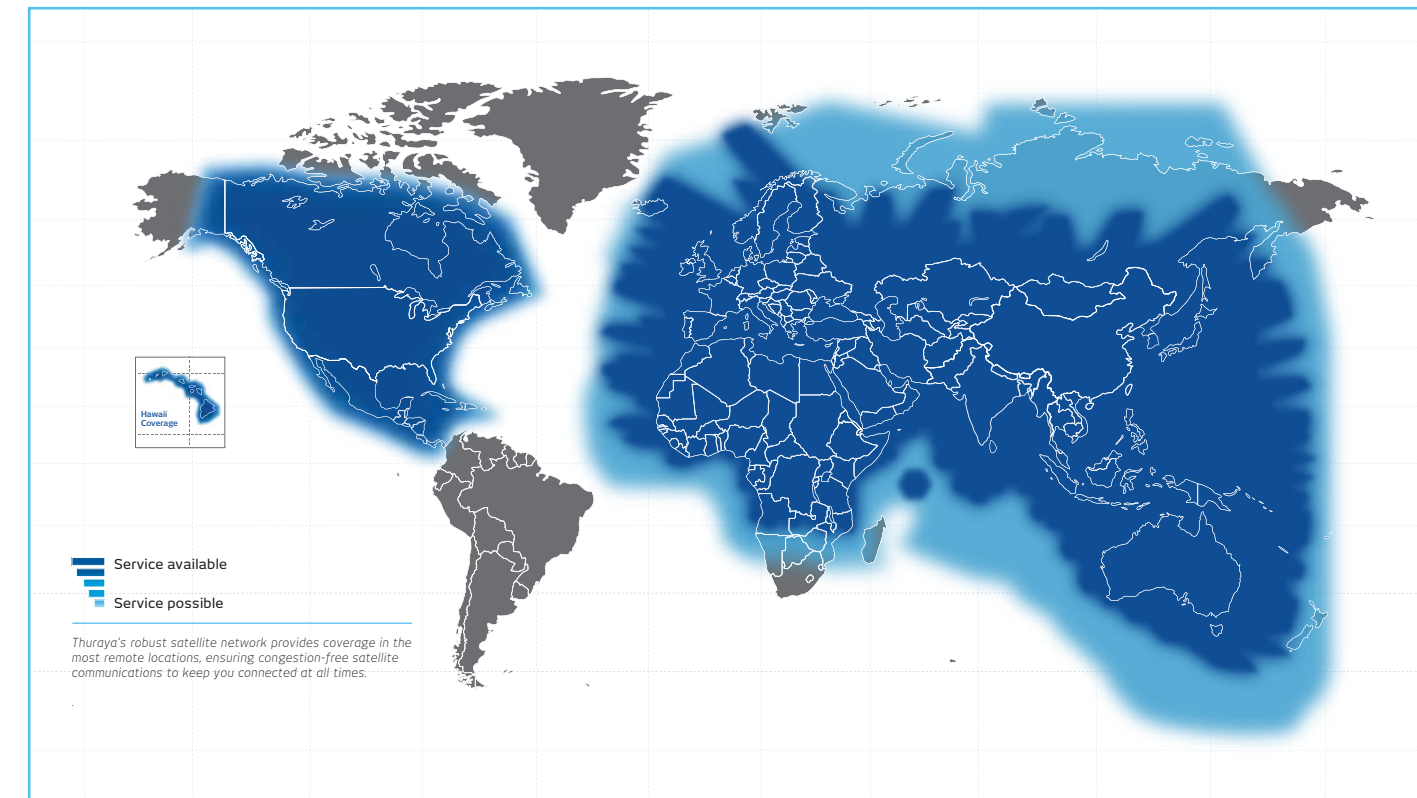
Banking

- Remote ATM
- Point of sale (PoS)

BANKING

FT2225 M2M
Coverage Map

The FT2225 enables connectivity for remote assets and sensors via satellite from anywhere within Thuraya's coverage area spanning more than 160 countries in North America, Europe, Africa, Asia and Australia.

The FT2225 offers the advantage of reliable satellite communications even in the most challenging environments and remote locations.

Hawaii Coverage

Service available

Service possible

Thuraya's robust satellite network provides coverage in the most remote locations, ensuring congestion-free satellite communications to keep you connected at all times.

Technical Specifications

SATELLITE COMMUNICATION	
TWO-WAY COMMUNICATIONS	
Narrowband IP	UDP and TCP/IP supported
Frequency Band	TX 1626.5 to 1675.0 MHz R X 1518.0 to 1559.0 MHz Typical latency <2 sec 100 bytes
Transmission Security	Link encryption AES-256
INTERFACES	
GNSS	GPS + GLONASS (L1 frequency)
EXTERNAL INTERFACES	
Power	10 to 32 VDC, via multi-pin connector, short circuit and surge protection
Wi-Fi	IEEE 802.11 B/G, 2.4 GHz
External interfaces that can be supported	Ethernet, Serial, CAN Bus, Modbus and USB 2.0 Via multi-pin connector
MECHANICAL	
Size	(L x W x H) 178 x 130 x 42 mm
Weight	<900g
ENVIRONMENTAL	
Solar Radiation	1120 W/m2 p per IEC-60068-2-5
Relative Humidity	Up to 100% condensing at 45° C, per IEC 60068-2-30
Ingress Protection	IP66 dust and spray proof in all directions
Wind Speeds	Up to 200 km/hr
Air Pressure Transport	4500 m AMSL

ENVIRONMENTAL	
TEMPERATURE	
Operational	-40° to +71° C
Transport	-40° to +85° C
Storage	-40° to +85° C
VIBRATION	
Operational	Random vibration of 1.05 g rms in each of three mutually perpendicular axes 5 to 20 Hz vibration: 0.02 g2 /Hz 20 to 150 Hz vibration: -3 dB/octave
Survival	Transportation vibe per IEC 60068-2-64 Frequency 5 to 200 Hz ASD 1.0 m^2/s3
SHOCK	
Operational	IEC 60068-2-64, 50 m/s^2, 11 ms
Survival	Transportation shock per IEC 60068-2-29, A = 180 m/s^2, t = 6 mS
CERTIFICATIONS	
CE	Per R&TTE Directive 1999/5/EC, Low Voltage Directive 2006/95/EC
FCC	Title 47 Section 15, Title 47 Section 25
RCM	AS/NZS CISPR 22:2009 Safety IEC/EN/AS/NZS 60950-1, IEC/EN/AS/NZS 60950-22
RoHS	Per European Union Council Directive 2011/65/EU
REACH	Per European Union Council Directive 1907/2006/EC
WEEE	Per European Union Council Directive 2012/19/EU