EVX1150 Cellular Tag & Gateway

The EVX1150 tag functions both as a wide-area cellular asset tracking tag and a cloud-gateway for the EVX1000 family of robust self-configured IoT asset tracking and wireless sensing networks.

The EVX1150 Cellular Tag and Gateway delivers both functions cost-effectively in a compact rugged battery-powered unit. The EVX1150 tag when used in conjunction with EVX1000 family asset and sensor tags form a comprehensive self-configured IoT asset tracking and sensing network for a broad range of assets and items in-transit and in-operations. The EVX1150-based network provides wide-area cellular network connectivity without requiring any cables and delivers superior battery life based on EVX technology.

Applications

- Wide-area monitoring and asset tracking
- Vehicle yard and gate management
- High-value asset movement, inventory and condition monitoring
- Industrial operations/site management
- Security and infrastructure monitoring
- Construction material and equipment tracking

Benefits

- Wide-area cellular tracking and monitoring with GPS location
- Both standalone cellular tag and network gateway
- Local-wireless network capable with 10,000's feet range in multi-hop mode
- Easy installation / no maintenance
- No infrastructure or cables
- Long Battery life
- Operational in harshest environments

Features

- Global and regional cellular network coverage using 3G/2G GSM and CDMA
- GPS/GNSS location with 8.2 ft (2.5 m) accuracy
- Local-wireless mesh networkable with up to 1200 ft wireless range per link
- Battery powered with 4 years life
- Operational in -40ºC to 80ºC
- IP67 Water Immersible
- Autonomous self-configuring network

Technical Specifications	EVX1150 Cellular Tag & Gateway
Cellular Link (-G & -C models)	

RF
    EVX1150-G model
    EVX1150-C model
	3G: 850/900/1700, (AWS)/1900/2100 **2G:** 850/900/1800/1900
	800/1900 MHz

Network & Protocol
    EVX1150-G model
    EVX1150-C model
	
	HSPA+ 3G/2G
	CDMA2000 1xRTT

Antenna	Internal
Beacon rate	Once every 2sec to once every week , Software programmable through USB port
GPS Link	
RF	1559-1610 MHz (receive only)
Protocol	GNSS (GPS, GLONASS, QZSS and SBAS) , 56 channels GPS/QZSS L1C/A
Location accuracy	~2.5m (8.2 feet) in autonomous mode
Time to Location Fix	30 sec cold-start , 1 sec hot-start
Antenna	Internal omni-directional, Performance not affected by mounting on metal surfaces in most orientations, including orientation for best satellite data link performance
Wireless Tag-to-Tag & Mesh Network	
RF	2.4GHz , IEEE802.15.4, ISM band
Protocol	Ultra-low power optimized 6LoWPAN mesh
Range	Up 1200 ft to EVX wireless devices with internal compact antenna
Antenna	Internal, omni-directional, Performance not affected by mounting on metal surfaces
RF power / range	Software programmable through USB port
Beacon rate	Once every 2sec-12hrs , Software programmable through USB connection
Motion-Based Operation & Battery-Life Optimization	
Motion Sensor	Thresholds and motion detection criteria user programmable through USB Use case specific factory-defaults are available
Stationary mode	Reduced satellite and GPS reports Mesh network update rate change with factory default to "No Change" All parameters user programmable through USB Use case specific factory-defaults are available
Storage mode	Factory default: No satellite, GPS, mesh communication All parameters including various network rates are user programmable through USB
Power	
Battery	Single D size 3.6 V primary lithium (Li-SOCl2), User replaceable , Non-rechargeable
Battery life	> 4 years with 3min mesh network gateway update rate & report generation, 2 daily report cellular uplinks with GPS location
Low Battery Indicator	Through cellular link to application software
Physical	
Size	7.90" x 3.57" x 2.46"
Weight	17.9 oz (507 grams)
Mount	Two mounting holes for tie-wrap or screw; Optional industrial-grade back adhesive
Environment	
Enclosure	IP67 dust tight
Temperature	-40⁰C to 80⁰C
Moisture	5 feet Water immersible for >1hr
Vibrations/shock	6 feet drop on concrete; 10g random vibrations 10Hz-2kHz; Mil810

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About Evigia

Evigia Systems, Inc. designs and produces innovative ultra-low power sensors, integrated wireless systems, and sensor data analytics that bring the Internet of Things to real-world business impact for organizations around the globe. Ultra-low energy usage + advanced sensing is the core of our DNA. Evigia has a proven record in design, delivery, manufacturing and support of sensing and tracking systems deployed in the most demanding applications and harshest environments. We enable organizations to put the critical IoT insights obtained from remote sensors directly into the hands of the decision-makers who need them.