

ICON ST-I

Satellite terminal - Datasheet

Real-time satellite data communication, at anyplace under the sky.



Viabilize connectivite and IoT applications in a safe way even at remote places.

- Versatile, simple and safe
- Easy installation and integration
- True global coverage
- Sattelite bidiretional communication

Effortech's satellite terminal ICON ST-I is a versatile device capable of transmit and receive messages through satellite at any part of the world. It provides actives' tracking, control and remote monitoring even at the most isolated places. The device was developed for outdoor installations, it is ideal to be part of hibrid or pure sattelital solutions at the most variable segments such as telemetry, fleet management, load monitoring, agribusiness, utilities, etc.

ICON ST-I provides a satellite bidiretional interface and it assures a simple and safe communication with message administration and sending without adicional development or hardware.

Parameterizable actions

Effortech's mission is to viabilize market's IoT applications implementation. Said that, ICON ST-I is completely configurable by parameterization in event form and actions which makes it easy to develop personalized solutions for the most diverse segments.

True connection and global coverage

ICON ST-I offers a true coverage at 100% of the planet because it uses Iridium's low orbit satellite constellation which guarantees safe and continue global communication for the most critical operations even at the most remote places for any segment. ICON ST-I is a bidirectional satellite technology so it makes possible to send information and control remotely actives without human interference needed.

Variety of resources

Effortech's terminal ICON ST-I propitiates a lot of interfaces for general operations like serial communication and digital inputs and outputs. The device has embedded intelligence integration and high capacity memory and it was developed to retain data so no message is lost during the operation even if the signal is lost. It also has a integrates module for navenagation global system compatible with GPS and Glonass constellations.

Along with this wide recourses joint ICON ST-I is a versatily and simple alternative for connectivity supply at anywhere in the world and it offers the best cost-benefit and security for the operation.

Satellite communication

- Satellite communication: bidirecional, truly global, Iridium NEXT SBD Network
- Uplink message: 340 bytes
- Downlink message: 270 bytes
- Tipical latency: < 15 seconds
- Frequency: 1616 MHz to 1626.5 MHz
- Duplexing method: TDD
- Multiplexing method: TDMA/FDMA
- Gain: up to 3dB

GNSS

- Constellation: GPS / Glonass
- Acquisition time:
 - Hot departure: < 1 seconds
 - Lukewarm/cold departure: ~30 secons
- Accuracy: $\leq 2.5m$
- Sensibility:
 - Acquisition: -148 dBm
 - Tracking: -164 dBm

Certifications

- Regulatory: Anatel
- Others: Iridium Homologation

Source

- Operational voltage: 9 to 32VDC
- Protection against Load Dump (ISO 7637-2:2004 Pulse 5)
- Protection against polarity inversion
- Consume
 - Stand by (data reception): ~50mA
 - Transmission: mean 150mA, peak 2A

Dimensions

- 17,5 x 15,9 x 5,5 cm
- Weight: 376 g
- Box's dimension: 23,5 x 19,5 x 6,5 cm.

Interfaces

- Serial communication RS-232 or RS-485
- Negative inputs: 3
- Positive inputs: 1
- Outputs (open collector up to 700mA, protected): 2

Environment

- Operational temperature: -20 to +85C
- Dust and water ingress: IP67

Programming

- Event/action parameterization capability for any interface and with temporization.

