BS TECHNOTRONICS PRIVATE LIMITED

Innovation Unlimited
Simplifying IoT Solutions

Complies to AIS140 & IS 16833: 2018 Standards

4G LTE
GPS & IRNSS Device
Complies With AIS140 Standard

4G LTE & 2G	IRNSS & BT
7 – 100V DC	IOs	RS-232
CAN	IP67

BSTPL-17L

BSTPL-17L is an advanced 4G LTE vehicle tracking device complying to newly introduced intelligent transport system standards, AIS-140. BSTPL-17L Designed for complying to standards like IS 9000, ISO 16750, AIS 004, IEC 60529, IS 2465, ISO 6722 and ISO 7637. In addition to fulfilling the functionality requirements as required by AIS-140, the device meets interface requirements like multiple IO Ports, SOS (Emergency Button), RS-232 interface, Bluetooth and CAN Interface. In addition, BSTPL-17L also complies with the government's new initiative of GNSS based toll collection system.

Considering the mandate of government of India to have vehicle tracking device with one or more emergency buttons in all existing and new public service vehicles complying to AIS140 standard, BSTPL-17L is designed keeping in view the Indian operating conditions. Software functionalities are built to integrate the device with the governments command centre and send emergency alerts as mandated in the regulation.

BSTPL-17L is equipped with advanced high-speed microprocessor and microcontroller supported by highly sensitive IRNSS/GNSS Receiver and 4G LTE Transceiver supporting automatic fall back to 2G and vice versa. With built-in high quality 4G LTE module, BSTPL-17L supports 4G LTE Bands B1/B3/B5/B7/B8/B20/B28/B38/B40/B41 and 2G GSM networks operating on 850/900/1800/1900 MHz frequencies. With Internal GSM, IRNSS and GNSS Antennas, BSTPL-17L delivers accurate real time data in toughest environmental and operating conditions. Compact in size, BSTPL-17L enables easy handling and easy installation. In addition to external memory, device is also provisioned with eMMC chip which supports government's newly proposed GNSS based toll collection system.

Supporting four different types of protocols, device has provision for generating alerts for Emergency Button, Box Tamper, Ignition On/Off, Vehicle Battery Connect / Disconnect, Internal Battery Low, Harsh Breaking, Harsh Acceleration and Harsh Maneuver. Operates on wide DC operating voltage range of 7-100V, BSTPL-17L is recommended for vehicles which operates on 12/24V battery and Electric Vehicles which operates on extended operating voltage i.e. up to 100V. BSTPL-17L is also provided with internal battery for continuous operation when main power is disconnected or tampered.

http://bstechnotronics.com/

Features

- ✓ Advanced High-Speed Microprocessor & ARM Cortex Microcontroller
- ✓ 50000 Data Packets Storage. Expandable to 100000 Data Packets. Provision for 64GB eMMC Chip
- ✓ Supports 4G LTE Bands: B1/B3/B5/B7/B8/B20/ B28/B38/B40/B41 & Quad Band GSM
- ✓ Auto fall back from 4G to 2G & 2G to 4G.
- ✓ Supports SMS; TCP/IP; FTP, HTTP, HTTPS & MQTT & MQTTS Communication Protocols*
- ✓ Internal GSM Antenna Supporting 4G and 2G
- ✓ Supports Nano SIM Card and dual profile eSIM
- ✓ Supports IRNSS, GPS & GLONASS
- ✓ 33 Tracking and 99 Acquision channels with -167 dBm Sensitivity
- ✓ Horizontal Position Accuracy of <3 meters CEP @ -130 dBm (Open to sky)
- ✓ Built in Embedded IRNSS & GNSS Antennas
- ✓ Provision for Bluetooth 4.0 with built in antenna
- ✓ Five Digital Inputs & Two Analog Inputs
- ✓ Two Digital Outputs & One SOS Interface

- ✓ Wide DC Input Operating Voltage (7V to 100V)
- ✓ Main Power Reverse connection protection
- ✓ Main Power Over Voltage protection
- ✓ 3.7V Internal Li-Ion Battery
- ✓ Main Power Voltage Reading
- ✓ 3 Axis Accelero & Gyrometer
- ✓ LED indication for Main Power, Internal Battery, GSM and IRNSS/GNSS Networks
- ✓ Box Open / Close detection
- ✓ Main Power Connect / Disconnect Alert
- ✓ GPS Odometer
- ✓ Sleep Mode function for extended internal battery backup time
- ✓ Nylon Plastic Enclosure complying to IP67
- ✓ Complies With IECXEx Standards
- ✓ Local and Over The Air (FOTA) Software Update
- ✓ Local and Over The Air (OTA) Configuration
- ✓ Secured Over The Air (OTA) Configuration
- ✓ 16 Core Cable
- ✓ Provision For Two RS-232 Interfaces

Technical Specifications

SPECIFICATION	DESCRIPTION	SPECIFICATION	DESCRIPTION
Microprocessor Microcontroller	Advanced High Speed Processor, 1MB Program Memory & 2MB RAM ARM Cortex Microcontroller 256KB Program Memory & 96KB RAM	Communication Protocols	SMS; TCP/IP; FTP, HTTP, HTTPS & MQTT & MQTTS
Internal Memory	64Mb. Supports 45000 Data Packets Storage 100K Erase & Program Cycles. 20Years Data Retention. Provision for 64GB eMMC Chip	Mechanical	Nylon Enclosure complying to IP67. Dimensions: 118 x 77 x 31 mm
Power Supply	7 – 100V DC	Sensors	3 Axis Accelero & Gyrometer
Internal Battery	3.7V / 1000 mA Li-Ion Battery		Box Opening / Closing
4G LTE GSM	4G B1/B3/B5/B7/B8/B20/B28/B38/ B40 /B41 and Quad Band GSM Sensitivity: -109dBm. Auto fall back from 4G to 2G & 2G to 4G.	Standards Complying	IS9000, ISO16750, AIS004, IEC60529, IS2465, ISO6722, ISO7637 and IP67 Complies with IECEx standard
IRNSS & GPS	Supports IRNSS, GPS & GLONASS 33 Tracking and 99 Acquision channels, -167 dBm Sensitivity, Horizontal Position Accuracy of <3 meters CEP @ -130 dBm (Open to sky)	Configuration & Firmware Update	Local and OTA Configuration. Supports SMS & GPRS Configuration Supports FOTA
SIM Support	Supports eSIM with Automatic Profile Switching. Optional Nano SIM	LED Indications	Main Power, Internal Battery, GSM and GPS Network
Inputs & Output Interfaces	4 Digital Inputs & 2 Analog Input 2 Digital Outputs & One SOS Input Bluetooth 4.0 One CAN Interface Two RS-232 Interfaces	Protections	Main Power Over Voltage Reverse Connection Tamper Detection ESD Protection CAN Bus Protection

Note: BS Technotronics Private Limited (BSTPL) reserves the right to alter this description or to adapt it to technical conditions at any time.