

TELEMATICS GATEWAY

BTSTX

4G Cat-M1 / NB1 Telematics Gateway

A 4G Cat-M1 / NB1 telematics gateway with 2G fallback, built for comprehensive fleet management. The BTSTX combines extensive I/O, driver ID, and advanced fleet management features — including CAN Bus / OBDII / J1939 / J1708 diagnostics, Bluetooth HOS tablet support, and OTA starter kill — in a single versatile gateway.



4G Cat-M1 NB1 BT 4.0

KEY FEATURES

- ✓ 4G Cat-M1 / NB1 connectivity with 2G fallback
- ✓ 66-channel MTK GNSS receiver
- ✓ Bluetooth 4.0 for HOS tablet communication
- ✓ 4x digital inputs / 2x digital outputs
- ✓ OTA starter killer for stolen vehicle recovery
- ✓ Driver ID via iButton or RFID
- ✓ Store & forward for up to 5,000 events
- ✓ Geo-fence entry/exit alarms
- ✓ Tow detection with ignition off
- ✓ Adjustable vibration sensor
- ✓ 3D accelerometer for driving behavior
- ✓ CAN Bus / OBDII / J1939 / J1708 support

APPLICATIONS

Fleet Management

Asset & Trailer Tracking

Driver Behavior Monitoring

HOS Compliance via Bluetooth Tablet

Stolen Vehicle Recovery

Cold Chain Temperature Monitoring

OBDII / CAN Bus Vehicle Diagnostics

BTSTX — Full Technical Specifications

NETWORK & OPERATING BAND

LTE FDD Cat-M1/NB1	B1/B2/B3/B4/B5/B8/B12/B13/B18/B19/B20/B26/B28
LTE TDD Cat-M1	B39
GSM	850 / 900 MHz
Protocol	UDP (MidLink), TCP/IP direct, SMS OTA config
OTA	Firmware, config, diagnostics, vibration sensitivity
Store & Forward	Up to 5,000 events when out of coverage

GNSS SPECIFICATIONS

Technology	MTK GPS — 66 channels
Constellation	GPS + GLONASS + BeiDou + Galileo + QZSS
Accuracy	Up to 1 m (3 ft)
Cell Location	Yes — cell-based location in addition to GNSS
Distance	Accurate driven distance reporting

POWER

Transmit Mode	200 mA @ 12V
Running Mode	70 mA @ 12V
Standby (GPS on)	20 mA @ 12V
Sleep Mode	5 mA @ 12V
Backup Battery	Li-Ion 1800 mAh / 3.7V rechargeable — up to 1200 GPS locations
Fuse	Internal resettable 1 A
ESD	4 kV contact / 15 kV air

CONNECTIVITY & DIAGNOSTICS

CAN Bus	OBDII / J1939 / J1708 (optional)
Bluetooth	4.0 — HOS tablet communication
iButton	Driver ID + up to 6 temperature sensors
USB	Firmware download and configuration

I/O INTERFACES

Digital Inputs	4 total: 2 ground sense + 2 positive sense (5–32V)
Analog Inputs	1× 0–5V DC (expandable to 2)
Digital Outputs	2× open collector, 500 mA
Temp Sensor	Internal analog temperature sensor
Expansion	+3 digital inputs, +1 analog, + RS-232 / RS-485
Serial	1× RS-232 (expandable to 2 incl. RS-485)

PHYSICAL

Weight	94 g (3.17 oz) without batteries
Dimensions	85 × 52 × 25.4 mm (3.36" × 2.0" × 1.0")
Operating Temp.	-40°C to +80°C (-40°F to +176°F)
Operating Voltage	6V – 32V DC
Enclosure	Flame retardant ABS/PC (UL94V-0)
SIM	External accessible SIM with security lock

FUNCTIONAL FEATURES

Reporting	Time, distance, or speed-based intervals
Idle Mode	Configurable idle transmission (e.g. 4 hrs when stopped)
Event Logs	Engine on/off, vibration, door, timestamped with GPS
Driver ID	OTA-managed authorized driver list via iButton/RFID
Starter Killer	OTA disable starter on stolen vehicle recovery

SAFETY & SECURITY

Tow Detection	Detects movement with ignition off
Geo-fence	Auto alarm on zone entry/exit
Vibration	Adjustable sensitivity OTA — theft alarm
3D Accel.	Tilt, hard braking, acceleration, sharp turns, lane changes
Battery Saving	Auto deep sleep on ignition off, wake on ignition/vibration

CERTIFICATIONS

FCC

EIA RS-316B

SAE J1455

UL94V-0