

Tacholink 5



Event Data Recorder Vehicle Health Alerts and Monitoring System

High Resolution Data Recording

Circuitlink has built its reputation over two decades building tough, reliable Event Data Recorders and the T5 is the fifth generation in the series. The T5 is a powerful onboard and online EDR which has the processing power, memory and communication options to undertake a wide variety of modern telematics functions.

With an internal uninterruptable power supply, the Tacholink 5 is in a class of its own providing an impartial insight to the vehicle's operation and dynamics even when power is lost.

Aided by the T5 Remote Accelerometer, the pair provide accident reconstruction grade, SAE J2728 compliant data.

Networking

Integrated onboard networking allows for real time data communication between your fleet and Intelligo. High resolution data is made available for analysis in Intelligo moments after uploading with real time data available instantly for alerts and integration into 3rd party systems such as maintenance management and bus tracking applications.

Over the air communication provides instant remote management and device health alerts keeping your fleet safe.

Vehicle Communication

The T5 offers compliant interface to modern communication buses such as multiple J1939, J1708 and legislated OBD 2 protocols.

These interfaces allow the high accuracy data element recording of drivetrain, safety systems and body control systems which the T5 is renowned for.

Vehicle Health Alerts and Monitoring

With the capture of over 200 distinct data elements from the vehicles CANBus along with diagnostic, brake wear and tire pressure monitoring, understanding what your fleet is doing has never been easier. With the assistance of Intelligo's state of the art analysing and data warehousing services custom insights can be gathered on signals or events

VHAMS allows not only for the monitoring of distinct data elements and onboard active faults but the configuration control of onboard subsystems. Get a real time view of what equipment is installed and their operating software with the inbuilt functionality of the T5 EDR's VHAMS module.

Positioning

The T5 EDR provides high accuracy, high frequency navigation with the assistance of the integrated dead reckoning GPS receiver. Know where your vehicles are even in the most challenging of locations.

Technical Specification Sheet

Tacholink 5 Event Data Recorder

Tacholink 5 Event Data Recorder Specification Chart

Electrical

Voltage	24V DC Nominal, 6-36V DC Range
Power Drain	1 W nominal, up to 3W with Cellular Communication
Protection	Reverse polarity and overvoltage
Uninterruptable Power	Integrated, up to 1 hour hold up

Computing

CPU	ARM Cortex M4
RAM	32 MB LPDDR RAM
Mass Storage	32GB non volatile flash
USB Ports	1x USB 2.0 OTG

Networking

Ethernet	1x 10/100 MB via Expansion Interface
WIFI	Integrated 802.11 B/G/N
Cellular	Integrated 4G LTE Modem

Vehicle Networking

SAE J1939 / CAN	2x 250/500 kbps
SAE J1708	1x port
Serial Ports	1x dedicated RS232, 1x dedicated RS485
Dedicated Inputs	Ignition / MRS, Vehicle Speed, Engine Speed
General I/O	32 Multipurpose Digital / Analogue Inputs 4 Open Collector Outputs 4 PWM Outputs
Sensors	Accelerometer (3 Axis 16G) Gyroscope

Mechanical

Dimensions	150mm x 150mm X 50mm
Enclosure	Glass Filled Nylon
Weight	400g

Environmental

Operating Temperature	-20 – +65 ° C
Storage Temperature	-40 – +85 ° C
Seal	EDR - IP 67 Expansion Module – IP 40

Positioning

Receiver	3D inertial sensing GNSS receiver
Navigation Update Rate	Up to 30Hz
Dead Reckoning	via inertial sensors or wheel clock
Channels	72
Acquisition	Cold : 26s Aided : 3s Reacquisition : 1
Accuracy	Autonomous : 2.5 CEP With SBAS : 1.5 CEP
Antenna Support	Passive or Active

Operation

Initialisation Time	~ 30 seconds
Onboard Data Retention	No less than 2 years
Data Recording Accuracy	~ 1mS
Digital Data Element Capture	128 (J1939)
Analogue Data Element Capture	96 (J1939)
J1939 Features	J1939 DM1 Capture TMPS Capture Brake wear monitoring ECU ID / Software Version Logging J1939 DM1 Event Broadcast Operator / Route ID Capture Zero Emission / Hybrid Bus Support VIN Logging Odometer Capture
Remote Accelerometer Capture	Unlimited Nodes

Compliance

Radio Disturbance Limits	CISPR22
Equipment Authorization	FCC Part 15 Class B
Electromagnetic Compatibility (Rail)	EN50121-3-2
Electromagnetic Compatibility	SAE J1113-21
Environmental	SAE J1455
Heavy Duty Event Data Recording	SAE J2728
ROHS	Compliant
J1939 Compliance	SAE J1939-82