

PICCOLO PLUS IoT

OVERVIEW

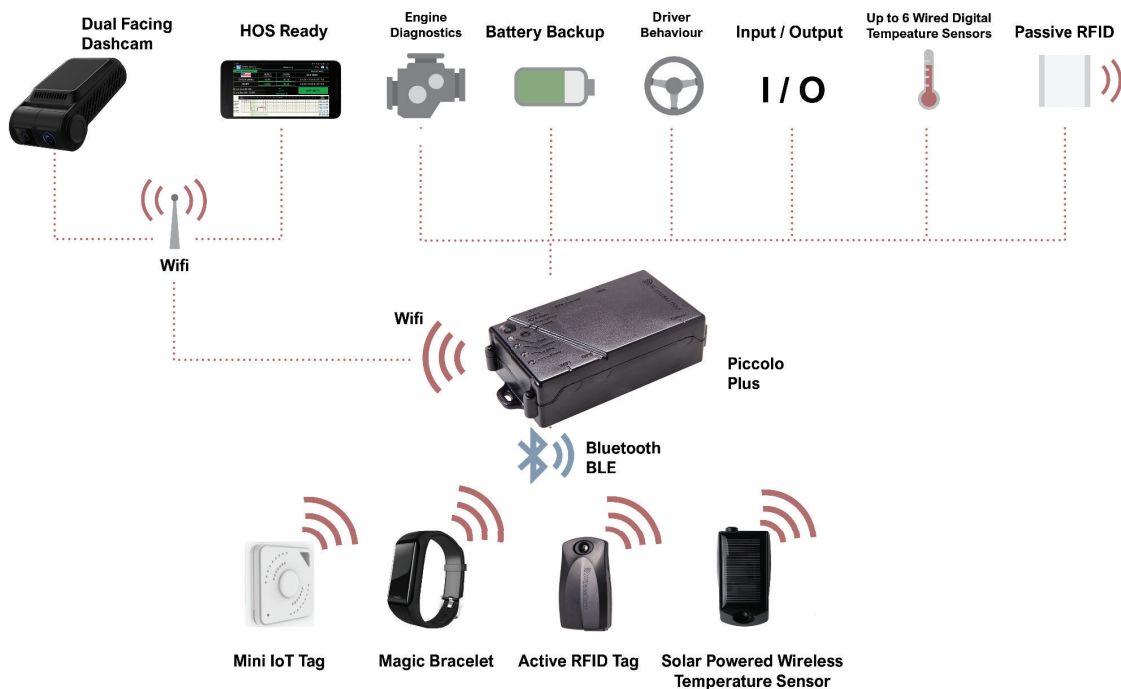
The most innovative and complete GPS Telematics Gateway with an unparalleled set of features including built-in WiFi Hotspot, Dashcam support, wireless sensor data, and ELD-ready for HOS Compliance.



KEY FEATURES

- Real Time GPS
- OTA Configurable and FOTA
- DashCam support
- Driver Behavior (optional)
- High Speed WiFi Hotspot (optional)
- Jbus Interface- OBDII/J1939 or J1708 (optional)
- ELD Ready – sends ECM data via WiFi to any iOS & Android devices
- IoT Solutions via integrated BLE Reader for wireless communication with WLI RF Beacons (optional)
- Wired High Accuracy Temp sensors (optional)
- Plug & Play Installation into any vehicle
- Plug & Play integration into any 3rd party application via API or TCP/IP integration

THE INDUSTRY'S MOST INNOVATIVE, MODULAR & COMPLETE GPS TELEMATICS GATEWAY



DIFFERENTIATE VIA INNOVATION

TECHNICAL SPECIFICATIONS

CONNECTIVITY

Network	4G LTE CAT1
Wireless Sensors	Compatible with WLI Family of RF Beacons (optional, details below)
Storage	Store & Forward- Built-in flash storage for data logging when out of cellular connectivity
WiFi Hotspot	Integrated WiFi hotspot provides highspeed WiFi access for up to 4 concurrent devices.
Communication	Highly compressed OTA, UDP communication packaged with MidLink Middleware or Direct TCP/IP communication (TCP/IP packaged with 'Plug & Play' API or DLL for quick integration into any 3rd party software.
OTA Diagnostics	Via Wireless Links proprietary apps and communication software
Configuration	USB port for FW download and local configuration. USB port powers unit during configuration. Remote OTA configuration and via SMS commands. FOTA available.
GPS Technology	GPS/GLONASS/BeiDou/Compass/Galileo, QZSS up to 1m (3ft) accuracy

ENCLOSURE

Material	Flame retardant ABS/PC Flame rating UL94V-0
Dimensions	4" x 2.3" x 1.2" LWD (100mm x 58mm x 30mm) Additional 0.35" (9mm) on each side for mounting brackets. Weight : 3.8oz (110g) without the cable
Shock / Vibration / Mechanical	meets or exceeds EIA standard RS-316B 3G (operating), 20G (non operating) XYZ 3 directions. Meets SAE J1455
Humidity	0 to 99% 110F (40C), non-condensing

RF COMMUNICATION

Radio Frequency	2.4GHz proprietary protocol
Range	220 ft / 70m. Actual range may vary depending on RF interference, building materials, and physical obstacles
Data Transmit	Automatically connects to any associated Piccolo and transmits every 20 seconds

FUNCTIONAL SPECIFICATIONS (Partial)

- Send GPS location every X seconds/mins and/or every Y miles/km or any combination between time and distance based on speed.
- Idle transmission – when the vehicle is idle (stopped) for a predetermined me period, the unit can switch to transmit in "idle mode," for example every 4 hours instead of every minute while moving
- Event logs – Events such as engine on/off, vibration alarm, door open/close are sent with a time stamp of the event and may be configured remotely and sent with or without the exact GPS location taken at the time of the event
- Driver identification - Authorized driver ID's for the specific vehicle are downloaded to the unit OTA and only the driver that has the matching Dallas key ID is authorized to start the vehicle, and the driver ID is sent to the control center database.
- Firmware download via USB or OTA (Over the Air)
- Configurable via USB or OT A
- OTA diagnostic tools

POWER

Power Source	6DC-32VDC tethered to vehicle battery or portable with cigarette plug connector
Transmit Mode	200mA at 12VDC
Running Mode	70mA at 12VDC
Standby Mode	20mA at 12VDC (when waiting for external event with GPS on)
Sleep Mode	5mA
Battery	Back up 1000mAh battery for tamper detection (optional)

BASE FEATURES

IO's	3 (expandable to 6) Digital Inputs, 2 Digital Outputs and 1 Analog Input Expandable RS-232 serial port (can support RS-485)
Digital Outputs	Two open collectors 500mA
3D Accelerometer	For tilt detection and extreme driving reporting
Geofence mode of operation	auto alarm with GPS location when the unit moves in and out of a predetermined zone
Starter Killer	Command can be sent OTA to kill vehicle starter in case of theft.

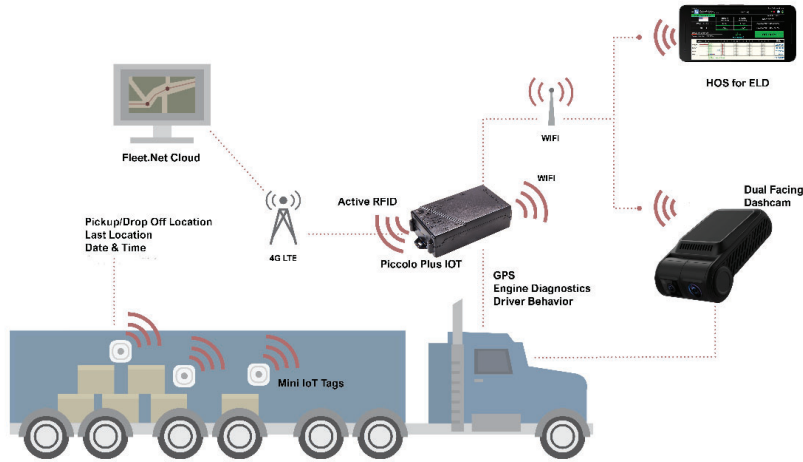
OPTIONAL FEATURES

CAN Bus Interface	Supports OBDII, J1939 and J1708
WiFi Hotspot	High-Speed WiFi hotspot for ELD, DashCam and driver connectivity
Wireless Sensors	IoT solutions for temperature monitoring, asset tracking, etc
3D Accelerometer	For tilt detection and extreme driving reporting
Starter Killer	Command can be sent OTA to kill vehicle starter in case of theft.
Driver ID	Authorized list of Driver ID's may be downloaded to the unit OTA so only specific drivers can start the vehicle.
Wired Digital Temperature Sensors	Supports up to 6 wired digital sensors
Back up battery	1000mAh rechargeable lithium back up battery

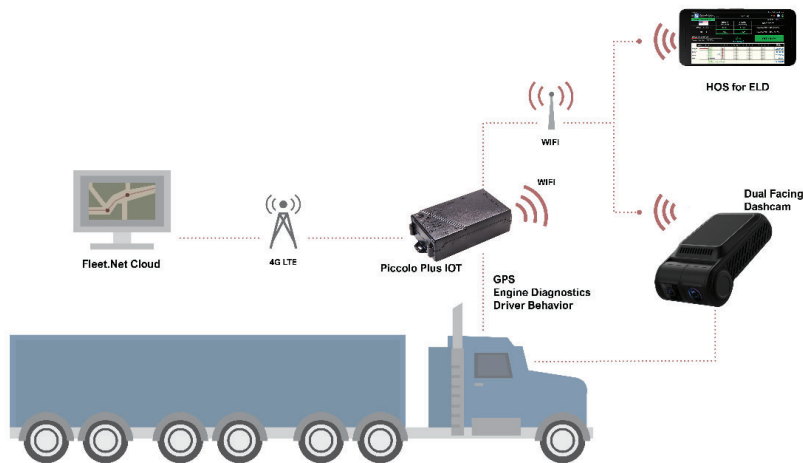
- Vibration sensor sensitivity OT A configurable
- Tilt detection and driver behavior violations sensitivity configurable OTA
- Starter killer – when the vehicle is stolen, a command can be sent OTA to kill the starter so once the vehicle is stopped and the ignition is turned off it cannot be turned on again (for safety reasons in most countries it is illegal to OTA turn off the engine or gradually decelerate when the vehicle is moving)
- Battery power value is sent automatically OTA to the control center database with every GPS data
- Battery saving mode - auto switch to deep sleep mode when engine is turned off and auto wake up when engine is turned on or on vibration (this feature does not require back up battery)
- OT A programmable via SMS
- Sends cell based location in addition to GPS coordinates
- Accurate driven distance

IOT APPLICATIONS

FLEET MANAGEMENT INTEGRATED WITH ELD AND CARGO MONITORING



FLEET MANAGEMENT INTEGRATED WITH DASHCAM AND ELD



FLEET MANAGEMENT INTEGRATED WITH ELD

