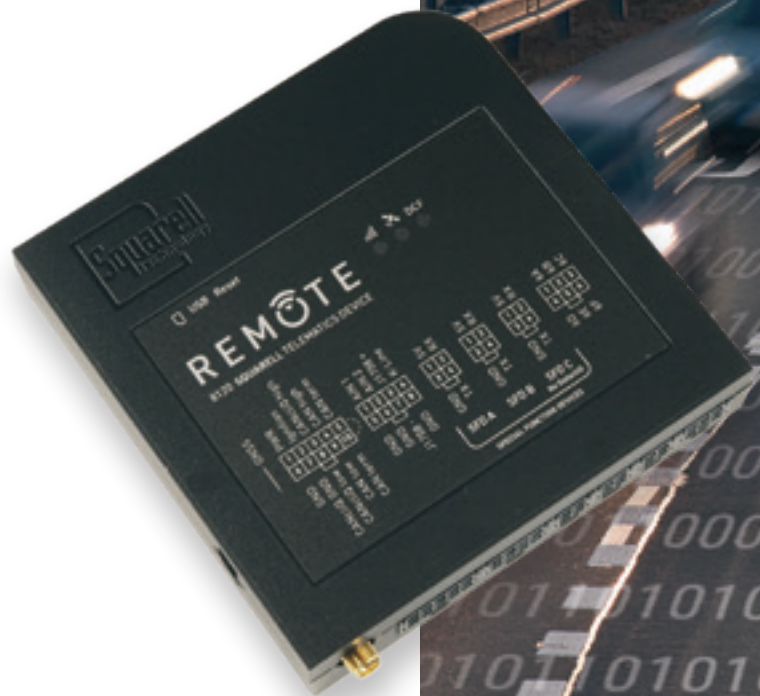


be in control



An all-in-one vehicle  
data interface with  
modem functionality



# REMOTE



Our **high quality** and **uniform** vehicle data can now be delivered on your server

## What is the REMOTE?

The REMOTE is the one box solution that combines a vehicle data interface with modem functionality. The compact design houses everything you need to provide your customers with high quality vehicle data, versatile connectivity and advanced Squarell solutions.

The Remote communicates over the LTE Cat-M network and has 2G fallback. The modem supports TCP and MQTT communication protocols and you can extend the telematics device with solutions such as Remote Tachograph Download, vehicle diagnostics (Advanced Tell Tales), driver coaching (Driver Awareness Panel), Event Data Recorder (EDR) and more.

Thanks to its extensive communication protocols and expandable hardware and software, Squarell offers you a versatile all-in-one telematics solution.

## Benefits of the REMOTE

- All-in-one telematics solution
- High quality data from every vehicle
- Expandable with advanced Squarell solutions
- Control and ownership of your data
- Patented data reader with flexible baud rate
- Plug-and-play installation
- Single point of contact: vehicle data + modem
- Application to configure, update and upgrade your solution
- Compact design, developed and assembled in the Netherlands

## High quality vehicle data and an advanced modem in one

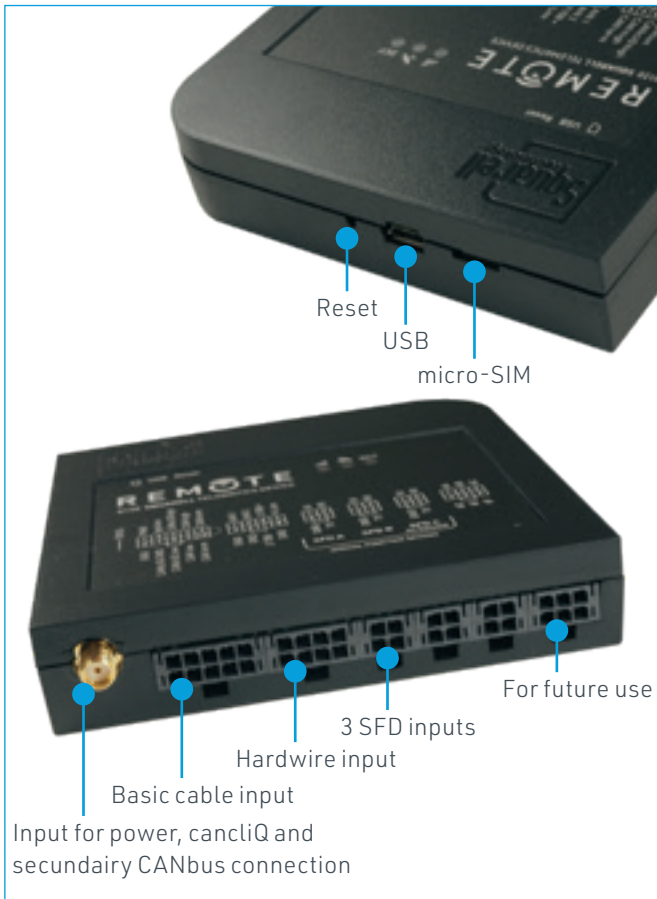
The REMOTE is an all-in-one telematics device: it reads data, tracks location data and sends raw or processed data in standardized form securely and remotely to your fleet management platform.

The REMOTE processes J1939, FMS, a lot of proprietary CAN Bus protocols, ISO 11992 and J1708 parameters into a standardized solution.

### Advanced Squarell solutions

Next to the complete set of standard parameters, the Remote output can be extended with additional Squarell features like:

- Remote Tachograph Download,
- Tacho Remaining Driving Time,
- Driver Awareness Panel,
- Event Data Recorder,
- Advanced Tell Tales.



## Save time through smart installation

The REMOTE is designed with a compact housing of 10 by 10 centimetres. Additional accessories and peripherals, such as contactless vehicle data readers, a Bluetooth module, etc., can be connected using smart plug-and-play connectors, drastically reducing installation time. The housing has two cable tie trays to securely attach the REMOTE to any desired location.

## A single point of contact

You can not only save time and money with the smart hardware installation, but also by the fact that you only need one party: Squarell offers you a vehicle data interface and modem in one package. You don't need two different parties for interfacing vehicle data and purchase modem hardware separately. In addition, you benefit from optimal integration between the hardware components and the software solutions.

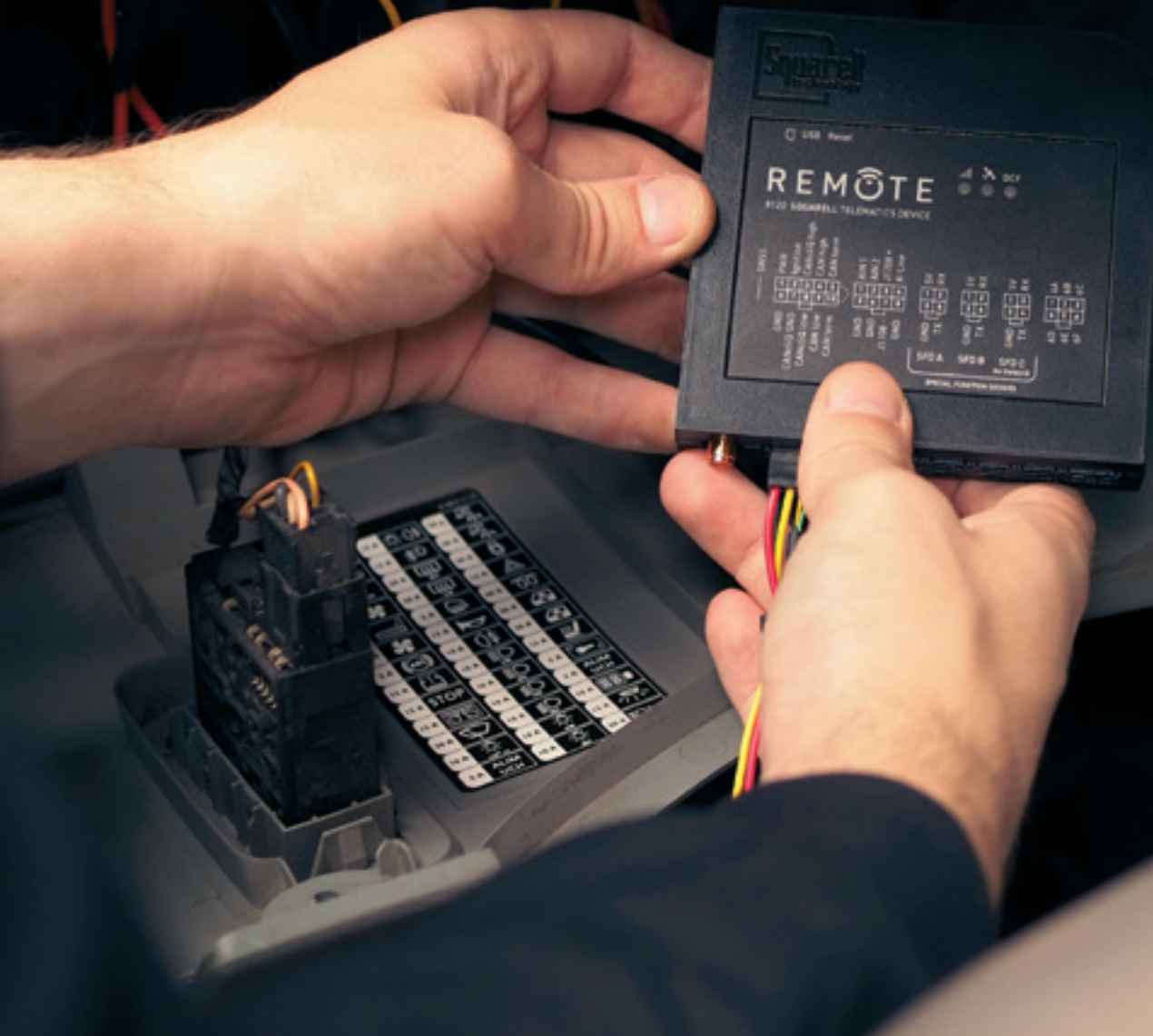
## Control and ownership of your data

An additional advantage of the REMOTE is that the vehicle data remains under your control. The data is sent to your location of choice without the intervention of third parties. This makes the REMOTE a privacy friendly solution.

## Supplied and additional peripherals and Special Function Devices

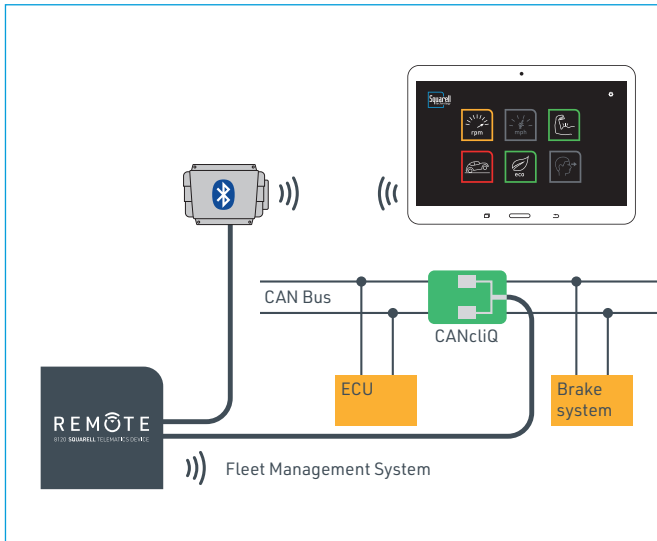
- GPS antenna (included)
- CANcliQ cable (included)
- DatacliQ for 2nd of 3rd CANbus, J1708 or ISO11992
- Bluetooth
- Fuel Level Sensor
- Trailer data (Via ISO11992 connector) of Trailer ID solution?
- Driver Awareness Panel

# vehicle data interface and modem in one package



# Versatile and future-proof hardware and software





## Versatile and future-proof hardware and software

The REMOTE can be updated over-the-air with new firmware (FOTA), additional features and advanced Squarell solutions. This makes the REMOTE future-proof, flexible and durable.

You can configure, update, upgrade and diagnose the REMOTE using the advanced Squarell iControl application.

Vehicle data is read using non-intrusive technology: Squarell's contactless data readers - the CANcliQ and DatacliQ - are patent-protected, which minimizes liability issues. The Squarell data readers also support a variable baud rate for maximum compatibility, useful for many (future) data protocols.

## Squarell provides open, fair and flexible solutions

Squarell is the independent specialist in CAN Bus and vehicle data. We offer standardized data for the entire fleet and support all vehicles (some on request).

Our partners stay in control of the data and are free to use their data as they see fit. The Squarell hardware delivers the data to the client in real time and in a pure format. This information is not influenced by third parties, such as the gateway of the OEM. Therefore, the high-quality Squarell solutions are open, fair and flexible.

Squarell provides two-year free support and warranty on the hardware. Squarell products are developed, designed and assembled in-house in the Netherlands in compliance with the high European standards.

## Technical information

NETWORK PROTOCOLS	
MQTT, TCP	

GNSS	
GNSS	GPS, GLONASS, Beidou and Galileo
Cold start sensitivity	-148 dBm
Accuracy (Open Sky)	<2.5 m (CEP50)
Hot start	<1 s
Cold start	<35 s

CELLULAR	
Technology	2G, LTE-M
2G bands	GSM 850 MHz, EGSM 900 MHz, DCS 1800 MHz, PCS 1900 MHz
4G bands	LTE-M

POWER	
Input voltage range	10 – 30 V DC
Power consumption	Normal operation: 1.2 W average ( 49 mA at 24 V, 98 mA at 12 V) Ultra sleep: 150 mW (6 mA at 24 V, 12 mA at 12 V)

PHYSICAL SPECIFICATION	
Dimensions	100 x 100 x 20 mm (L x w x h)
Weight	130 gram

INTERFACE	
CAN interfaces	4 (2x Read only & 2x Read/write) Auto baud, J1939, Layer 2
Inputs	2 x J1708 Inputs, 1 x K-Line Input 1 x ISO 11992 Input, 2 x Analog Inputs 3 x SFD Inputs
USB	Micro-B USB (for diagnostics and updates)
LED indication	Status LED indicators (for modem, GNSS and DCF)
SIM	Nano-SIM
Reset button	Yes
Memory	8 MB
Back up battery	1050 mA H

OPERATING ENVIRONMENT	
Operating temperature	-40 to 70 °C
Operating humidity	10 - 90 % (non-condensing)
Ingress Protection Rating	IP40

FEATURES	
Sensors	3-axis accelerometer
Time Synchronization	NTP
Back up battery	1050 mA H

CERTIFICATIONS & APPROVALS	
Regulatory	E4, CE, UN ECE Regulation 10 rev. 05, RoHS

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