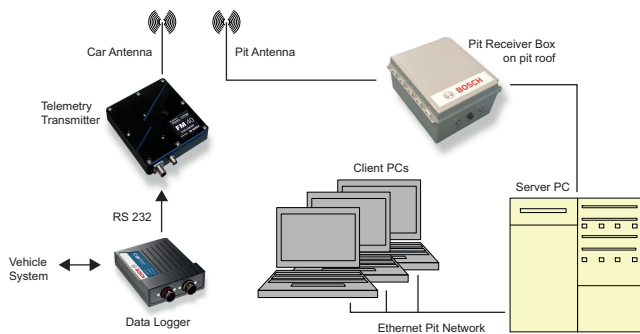


Online Telemetry System Overview

www.bosch-motorsport.com



The Bosch Motorsport Online Telemetry System enables the transmission of online measurement data from a car on a racetrack. The vehicle part of the system consists of a data logger and the FM 40 telemetry transmitter. From the data logger data is sent via a RS232 connection to the FM 40. The FM 40 adds framing and error correction information to the data stream and modulates its RF output which is fed via an antenna wire to the TX antenna.

In the pits, the RF signal is picked up by an RX antenna connected to the pit receiver box. Inside the receiver box, the signal is filtered and amplified by a low noise filter amplifier. It is then sent to a UHF modem. The modem demodulates the data stream and performs error correction, if necessary. The output stream passes the data converter and is transferred via a connection wire to the server PC in the garage. This PC decodes the car's telemetry stream and distributes the information over the pit network.

Due to the high transmission power of 1 to 10 W of the Bosch FM 40 telemetry transmitter, near 100 % coverage is achieved on most tracks, even under race conditions with high RF interference.

Application

Transmission of online measurement data

Components

Telemetry transmitter FM 40

Data logger, e.g. C 60

Pit receiver box

Functions

Good data quality even under race conditions with high RF interference.

Technical Specifications

High transmission power of 1 to 10 W

Near 100 % coverage on most tracks

Framing and error correction

Environment

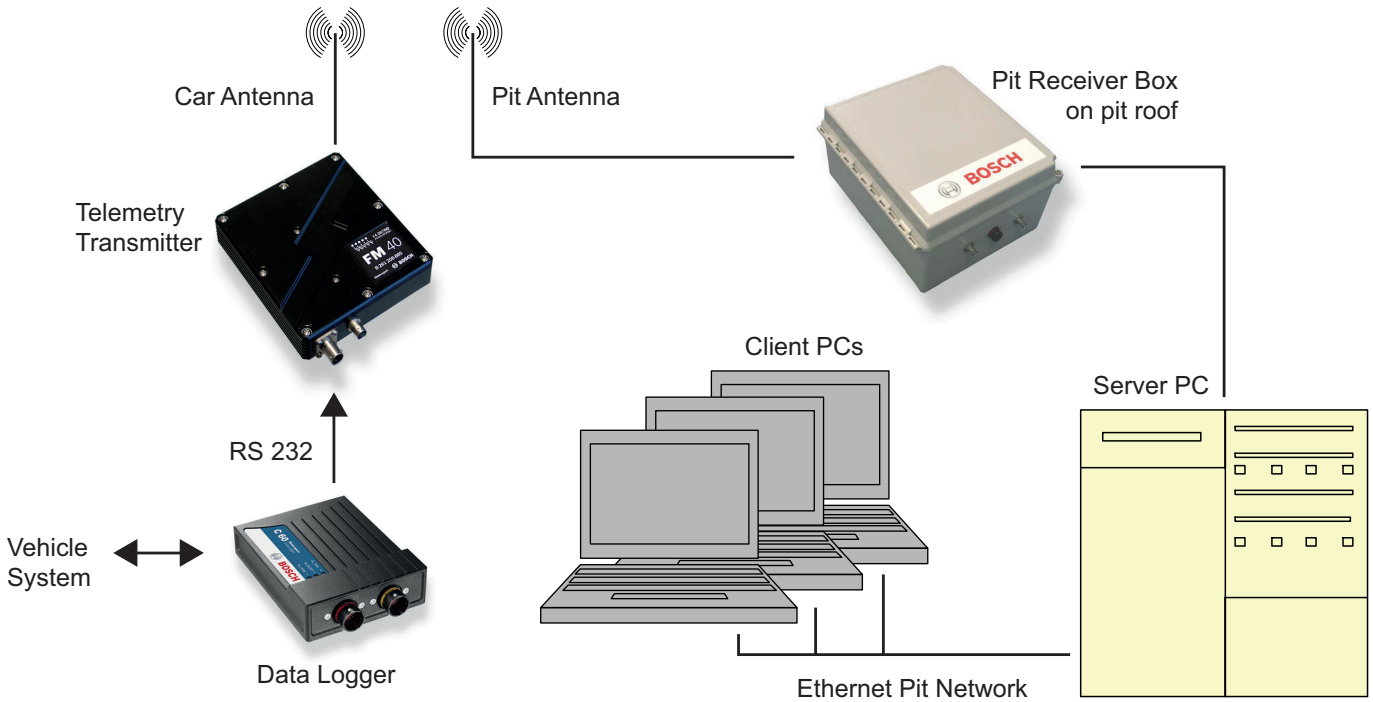
Car antenna

Pit antenna

Server PC

Ethernet pit network

Dimensions



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