

Tech1000 Functional Description

This product is hand-held and is 190mm * 100mm * 50mm approximately. It has the capability of reading all current TPMS sensors.

As a rule, sensors are awoken by a 125kHz magnetic field and transmit UHF with low power, typically 250uw. The UHF reception distance required is very small, usually less than 250mm distance. The TPMS typically transmit at 315MHz or 433.92MHz, although some variation is possible.

There are two UHF receivers with 26MHz crystals and the communications to the microcontroller is via an SPI bus.

The 125kHz magnetic field (LF) has a strength between 0.1uT and 15uT at 8cm. The LF is generated by a microcontroller with four overlapping clocks driving a dual MOSFET with centre-lapped transformer to produce a 125KHz sine wave.