# DLD® Wide Range II

## Fully Automated Remote Download of Tachograph Data via GSM 2G/3G

The new DLD® Wide Range II enables customer together with TIS-Web® RTM to do the Remote Download from DTCO and Stoneridge tachograph data via GSM 2G/3G communication. Data can be downloaded flexibly anytime from anywhere (all European countries) automatically without driver intervention.

DLD® Wide Range II is transferring the data via a mobile network (2G/3G) to a VDO server that you can access securely over the internet. DLD® Wide Range II is based on the powerful and flexible Linux platform and already equipped with mobile communication (SIM). Together with TIS-Web® RTM it offers in addition to the remote download also the possibility to record GPS positions (for this a GPS antenna as accessory is required). In the same, DLD® Wide Range II has two additional CAN interfaces on board and several digital I/Os. Thus it is prepared for future implementations of more interesting telematics features.

The existing accessories from DLD® Short Range II like the main harness, front interface cables, GPS antenna could be used directly for DLD® Wide Range II. In addition to this the optional DLD® Wide Range II I/O Harness will allow to connect one analogue, three digital inputs and the third CAN if implemented in future applications.

### DLD® Wide Range II Benefits

- Based on a powerful and flexible Linux Platform with 512 MB storage
- Includes GSM and an internal GPS module (with external GPS antena )
- Additional CAN, digital inputs and other interfaces (with optional harness)
- Integrated SIM card, communications onboard
- Main Harness and accessories compatible with DLD® Short Range II
- Prepared for future Telematics applications

VDO

# DLD® Wide Range II

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**Technical Specifications**

| | |
|---|---|
| • Power supply | 9 – 32 V |
| • Overvoltage protection | Automotive Standard for Vehicle Protection |
| • Reverse battery protection | Yes |
| • Power consumption "Active" mode | For 12V system: maximum 600 mA.  Peak  1450mA ( < 4.6ms). For 24 V system : maximum 290 mA.   Peak   720mA ( < 4.6ms). |
| • Power consumption "Sleep" mode | without GSM 6.5/3 mA at 12/24 V with GSM: 26/13 mA at 12/24 V |
| • Backup battery | No |

**Host controller**          ARM 11 Family

**GNSS**          GPS, Glonass, Galileo ready

| | |
|---|---|
| • Channels | 32 tracking channels |
| • GPS Update speed | 1 Hz |
| • GPS-precision | < 10m (open sky) |
| • GPS-Hot Start | 8s (typically / open sky) |
| • GPS-Warm Start | 40s (typically / open sky) |
| • GPS-Cold Start | 70s (typically / open sky) |

**Memory**

| | |
|---|---|
| • Non-Volatile Memory | 512 MByte NANO Flash |
| • Volatile Memory | 128 MByte SDRAM |

**RS232 Ports**

| | |
|---|---|
| • Baud rate | 9 600 - 115 200 bps |
| • Provisions | Offers provision for implementation of ISO14229 -1_2001 |

**GSM**

| | |
|---|---|
| • Generation | 2G/3G |
| • GSM Quad-Band | 850 / 900 / 1800 / 1900 MHz |
| • 2G/3G | Class 10 |

**CAN**

| | |
|---|---|
| • Interfaces | 2 |
| • Interface certificate | ISO 11898 |
| • Transfer rate | up to 1MBit/s |
| • Format | Base format (11 bits for identifier) and extended frame (29 bits identifier) |
| • CAN1 | DTCO CAN |
| • CAN2 | FMS CAN (Vehicle CAN) |

**K-line**

| | |
|---|---|
| • Interface certificate | Complies with ISO 9141 and ISO 14230 |

**USB High Speed Interface**

| | |
|---|---|
| • Type | USB 2.0 |
| • Transfer rate | 480MBit/s |

**Environment**

| | |
|---|---|
| • Temperature | Storage temperature range of -25°C...+85°C Ambient operating temperature range of -25°C...+70°C |
| • Protection ingression | IP42 according to IEC 6052 |

**Dimensions**          116 x 128 x 37,1 mm (Width x Height x Thickness)

**Connectors**

| | |
|---|---|
| • Connector I (main) | Molex 22 pins |
| • Connector II | Molex 8 pins |
| • Connector for external GNSS antenna | Fakra Code C blue |
| • USB connector | Mini USB receptacle type AB |

**DIP switch**

| | |
|---|---|
| • Role | DIP switch for 2 CAN interfaces (Termination Node or Not) |