



PRODUCT FACT SHEET

DLD® (WIDERANGE DOWNLOAD DEVICE) – UPSSELL OPTIONS

OVERVIEW

The VDO DLD® has been designed and developed by MiX Telematics for Continental. The DLD enables remote downloading of DTCO and driver card data according to the European hours laws.

However, the MiX Telematics platform that the DLD is built on offers much more. Every DLD can be upgraded to become a high end fleet telematics solution simply by switching on the features over the air. All that is required is a signed service contract with MiX Telematics to access a comprehensive set of functionality, from realtime tracking & tracing to vehicle and driver management reports.



FEATURES

DLD	
2 x CAN Interface	supports the FMS (J1939)
Zigbee	2.4GHz 12 channels (not full Zigbee stack)
RS232	Connects D8 on DTCO
Push button	Starts DTCO Download
DLD Removable Harness	Plugs into DC Power socket
DLD Permanent Harness	Wired into Vehicle

COMMUNICATIONS	
Downloading from / Uploading to Vehicle	The GSM modem is used to download data from and upload data to the DLD. This allows for real-time active tracking and immediate SMS event notifications. It is possible to upgrade firmware or update operational settings remotely over-the-air using the GSM modem.

VEHICLE TRACKING	
Real-time Tracking and Historical Trip Replay	Track the vehicle's position in real-time, or view and replay historic routes on detailed street level or Google Maps (high resolution satellite imagery).
GPS Data Recording	A variety of information is recorded with every GPS position such as Mobile Device Date & Time, Longitude, Latitude, Speed (km/h), Heading, Altitude (Meters), HDOP, VDOP, PDOP, Satellites visible, Age of reading (minutes).
Manage Geofence Locations	Add, delete or edit geofence locations to mark supplier locations, no-go zones etc. Configure entry, exit, start and stop events to immediately notify selected recipients by SMS / email. Geofencing can be circular, rectangular, polygon or polyline.
Active Events	Immediate event notifications can be sent via SMS / email whenever a set event is triggered.

miX | TELEMATICS
MOBILE INFORMATION EXCHANGE

HALE[®]
electronic



	Such events include entering, exiting, stopping or starting in a geofenced location, alert button pressed, over speeding, theft detect and more.
Backup Battery	For additional security the OBC can be equipped optionally is equipped with a backup battery, making tracking possible even if the vehicle's main battery has been disconnected. The backup battery starts to operate as soon as the supply to the main vehicle battery is cut.

VEHICLE AND DRIVER MANAGEMENT	
Trip Data Recording	The following data is recorded: date and time, distance travelled, trip duration, vehicle speed, departure / arrival time, locations entered / exited and start / stop locations.
Driving Violations	The following standard violations are recorded: over speeding, theft and tow-away detect, driving during restricted times, locations entered, exited, stopped and started.

TECHNICAL SPECIFICATIONS

Power Supply	7.5V to 33V
Over Voltage Protection	Standard Automotive Vehicle protection
Reverse Polarity Protector	Yes
Current Consumption	Active Mode: <150mA, consumption depends on instantaneous conditions Sleep Mode: -+3mA
In-line Fuse Protection	5 Amp inside holder, standard automotive blade-type
Buzzer	4KHz
2 x RS232 (Main harness)	19200 Baud
Zigbee	2.4GHz RF transceiver, 15M range
Backup Battery	Optional

RS232 PORTS	
Maximum Speed	19200 Baud
Protection	15Kv as per human body model
Protection DC	-12V , +12V

WSD	
Power Supply	7.5V to 33V
Current Consumption	Drive Mode: <25mA, Sleep Mode: <5mA,

mix | TELEMATICS
MOBILE INFORMATION EXCHANGE

HALE[®]
electronic



RF Transmitter Frequency	2.4 GHz 12 Channels
RF Transmitter Range	15m support, depends on receiver position

ENVIRONMENT	
Temperature	(Storage) -0°C to +50°C (Operating) -40°C to +80°C GSM functionality extends to -40°C and +80°C limited functionality

GPS	
Channels	50
Update rate	4
Accuracy position	2.5m CEP
Accuracy DGPS/SBAS	2.0m CEP
Start-up time	<1 minute
GPS operating temperature	-40°C to 85°C

GSM	
GPRS	Multi-slot class 10
Triple band	EGSM900/DSC1800/PSC1900 For voice, data, text messages (SMS) and fax.
Transmit power	Class 4 (2W) for EGSM900 Class 1 (1W) for DSC1800/PCS1900
Operating temperature	-40°C to 80°C (limited functionality)
SIM Card	3V or 1V8

POWER OUTPUT (DTCO IGN)	
Voltage	Battery – 3V
Current	500mA
Current limit	Yes

BUTTON INPUT	
Type	Normally Open
Signal type	Pull down, Open collector
Signal limit	<0.5V to be true (3 SEC)



MAIN HARNESS	
Type	Information
Battery	7.5 – 33V Voltage input 5A fuse
GND	Unit GND
Button	Button input active low
CAN1H	CAN bus 1
CAN1L	CAN bus 1
CAN2H	CAN bus 2
CAN2L	CAN bus 2
Buzzer	4KHz output drive 7.5V to 33V
IGN	ING signal input 100K impedance
RPM	RPM Input 0 to 5KHz
SPEED	Speed Input 0 to 5KHz
RS232 TX1	RS232 output 1
RS232 RX1	RS232 input 1
RS232 TX2	RS232 output 2
RS232 TX2	RS232 input 21
Pos. DRV1	500mA Voltage output (Battery – 3V)

TESTS	
Environmental Requirement	ISO 16750 – ZA – VA – F -G -ZB -IP 54
Safety Requirement	EN 60950
CE	0682
E1	035423
Electrical transient conducting anlong supply line level (IV)	ISO 7637-2
Electrical transient transmission	ISO 7637-3
EMC radiated and conducted emissions	CISPR 25

Note: All specifications are subject to change without prior notice.