DigidownT for Telematics Systems

Overview

The DigidownT is designed to act as an intelligent serial or CAN communication interface between any Telematics Host system and Digital Tachographs.

The purpose of the DigidownT is to download the Tachograph files as and when requested by the Telematics Host, and also to upload these files to the Telematics Host.

DigidownT communicates serially at 9600 baud, with 8 data bits, no parity, and no flow control.

Communication Sequences

The Communication Sequence comprises a series of message strings being sent between the Telematics Host system and the DigidownT. These message strings take the form of either of a Request, a Responds, or a Data Transmission.

- A Request – is an instruction to take an action. It always elicits a response which can take the form of either of a Response, a Data Transmission or another Request.
- A Response – is sent as an acceptance of a Request. It is only ever sent by DigidownT and usually signifies the termination of a communication sequence.
- A data Transmission is for the transfer of data.

All communications sequences are initiated by a request from the Telematics System. Each message it sends will elicit a reply from DigidownT. In some instances more than one reply is received. The communication sequence is terminated by a Response from the DigidownT. There are three basic communication sequences:

Ping

In Order to ascertain that the DigidownT device is powered on and ready to communicate, the Telematics Host system can send a 'Ping' Request. If available, the DigidownT will reply with a 'Ping' Response.

File Download

The Telematics Host system can request the DigidownT to download a Card or VU file from a tachograph.
If the tachograph has a company card inserted, the DigidownT will immediately download the relevant file and save it in its internal memory.
If the tachograph does not have a company card inserted but does support Remote Authentication, DigidownT will communicate with and through the Telematics Host system to retrieve the remote authentication information then it will proceed to download the file.

File Upload

The Telematics system can request a file upload, DigidownT will feed the file in blocks to the Telematics system which can then re-assemble the file.

Message String Format

Messages sent between a Telematics System and DigidownT consist of strings of hexadecimal bytes. These strings shall contain a Command (CMD) byte, a Byte Count (BC) byte, two Message Counter (MC_1 and MC_2) bytes, Message (MSG_1-MSG_N) bytes, and a Checksum (CK) bytes.
See the table below.

Format	Command (CMD)	Byte Count (BC)	Message Count (MC_1 MC_2)	Message (MSG_1….MSG_N)	Checksum (CK)
e.g.- `Ping´Request	0x42	0x04	0x00 0x01	0x10 0xFF	0x56
e.g.- `Ping´Response	0x81	0x04	0x00 0x01	0x80 0xFF	0x05

T+M - Ing.-Buero - Gerhard Toeter, Import - Export - D-78052 Villingen, Tel. +49-7721-963797 Fax – 963799
e-mail: marketing@t-m-ingbuero.com — http://www.t-m-ingbuero.com — T+M Technology