ibd SOI [O34]

Sensing requirements

-§7.1.6, §7.1.1, §7.1.2, §7.1.1, §7.1.2, §7.1.3, §7.1.4, §7.1
-Data Storage System for Automated Systems

a single perception malfunction does not introduce hazardous events. [UNR106]

surrounding vehicles are detected. [UNR103]

forward detection range is at least 46m. [UNR100]

lateral detection range covers the full width of the lane immediately to the left and of the lane immediately to the right of the vehicle. [UNR102]

the system adapts to environmental conditions affecting sensors. [UNR104]

performance of the sensing system is provided for the vehicle time life. [UNR105]

driving environment is determined by sensing and traffic dynamics. [UNR99]

Recorded occurrences

§8.2.1

DSSAD records data about ALKS. [UNR108]

UN Standard

-Object and Event Detection and Response (OEDR)
-Data Storage System for Automated Systems
-Cybersecurity and Software Updates

Data elements

§8.3.3, §8.3.2

many elements are recorded on a single timestamp. [UNR110]

software versions associated to a recorded event are identified. [UNR109]

Data availability

§8.4.2, §8.4.5, §8.4.2, §8.4.1, §8.4.2, §8.4.3, §8.4.4, §8.4.3

DSSAD data access is provided through OBD. [UNR116]

recorded data are overwritten using a FIFO procedure when storage limit is reached. [UNR112]

data retrievability is provided in case of impact or power loss. [UNR114]

Software requirements.

§8.5.1, §9.1, §9.2, §9.3, §9.3.1

DSSAD is protected against data manipulation. [UNR117]

protection is provided against cyberattacks. [UNR119]

software updates are provided. [UNR120]

R15XWIN information are provided. [UNR123]

the software can be identified by R15XSWIN. [UNR121]

Regulation requirements, are laws, regulations, orders, or rules, defined by authorities, and forbidden to exceed. The block diagram gives a example of needs from regulations and standards. An extract of the UNO standard for autonomous driving vehicle has been used. External elements are represented in lateral boxes and corresponding needs are displayed in a compartment of the box . Text above lines describes the way the system satisfies the need. Hypertext links point to requirements.