Generating and evaluating video data

The Video Dragon by Goepel (Germany) can generate and evaluate image and video data in infotainment systems. It allows checking high-speed connections (LVDS) or HDMI interfaces.

The Video Dragon can be configured for various units under test and is therefore usable for different projects (Photo: Goepel)

With the Video Dragon test system, generated and transferred frames can be compared at the pixel level. The modular system structure allows the device's configuration as a frame grabber or frame generator. The system is a stand-alone device that by virtue of exchangeable serializer/deserializer modules supports the following specifications and protocols: APIX 1/2, FPD Link III, HDMI, GMSL (Gigabit multimedia serial link). Display control is possible via CAN or LIN.

Data communication with the device under test can be carried out with the protocols I²C or SPI. Data recorded with the test system are directly transferred to a display connected to the frame grabber. An electronic control unit (ECU) for data visualization is not required. Image and video sequence recording is done in compressed or raw data format. Using eSATA, users can store image data within the device or on an external SSD/HDD card.

Testing LVDS connections between image sources and indicating devices is one possible application (Photo: Goepel)

The CAN or LIN communication interface synchronizes bus systems and helps control and configure the unit under test. The passive cooling concept provides a soundless utilization in any environment. With an extended temperature range between -40 °C and +70 °C, the test system can be applied in test drives within a real vehicle.