CAN Newsletter Online

Transceivers support CAN FD

NXP (Netherlands) has launched the Mantis/Mantis GT CAN transceivers with â€˜chokelessâ€™ EMC performance and support for CAN FD. The transceivers compliant with ISO 11898-2.

THE MANTIS (TJA1044T AND TJA1057T) AND THE MANTIS GT (TJA1044GT and TJA1057GT) OFFER A FEATURE SET targeting 12-V automotive applications and EMC performance, with the high-end "GT" variant guaranteeing critical parameters for CAN FD (Flexible Data rate) networks.
Mantis is meeting today's EMC emission limits at 500 kbit/s without requiring a common-mode choke. And with a choke, these same limits can be met at data rates of 2 Mbit/s in CAN FD networks. Also the components' bus pins are tolerant to ±42 V, and ESD meets automotive requirements of 6 kV (IEC-61004-2) with typical standby currents of 10 µA.
"Mantis is designed as a best-in-class HS-CAN transceiver for standard automotive applications, both now and in the future. We continue to raise the bar in the industry," said Toni Versluijs, vice president and general manager, in-vehicle networking business, NXP Semiconductors. "As the industry continues to innovate to extract more from traditional CAN networks, Mantis GT addresses many of the concerns around CAN FD. With this product, NXP has shown that it's possible to also achieve excellent EMC performance at speeds of 2 Mbit/s and beyond, representing a major validation of the CAN FD standard."
Mantis GT also introduces "loop delay symmetry", a new parameter resulting in a transceiver that is optimized for data rates of 2 Mbit/s and over. Which means CAN communication is preserved at higher speeds. This is a development for the industry's adoption of CAN FD, which depends on semiconductor solutions being able to support CAN communication at higher speeds.