DIGITAL CORE DESIGN

&

DCD-SEMI

CAN XL

THE FUTURE IS NOW

fully operational CAN XL IP Core validated during the CiA's Plugfest in Baden-Baden and Embedded World in Nuremberg

www.dcd.pl

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ABOUT US

Digital Core Design has been established in **1999**, Poland, EU. During these **two decades** at least **1 000 000 000** devices have been based on DCD’s IP Cores.

Since our inception, our focus has been unwaveringly directed towards:

- IP Core & SoC development,
- catering to obsolete parts replacement,
- engaging in R&D ventures.

With over 1 000,000,000 electronic devices worldwide harnessing DCD's solutions and a multitude of satisfied clientele spanning the globe, our impact resonates across industries.

DIGITAL CORE DESIGN

CAN, CAN FD, CAN FD FULL

CAN

DCD has been designing automotive IP Cores for more than two decades. The first solution, DCAN IP Core, together with LIN IP Core have gained thousands of implementions.

CAN FD

This engineering marvel can be harnessed as a standalone powerhouse, an integral part of an ASIC, or an FPGA marvel. Guided by the ISO 11898-1:2024 standard. **learn more**

CAN FULL

CAN FD FULL IP Core is a missing gap between CAN FD and CAN XL. It is called “CPU friendly” because it efficiently relieves it thro-ugh configurable registers and... **learn more**

DIGITAL CORE DESIGN

CAN ALL - ALL YOU NEED FOR AUTOMOTIVE

The CAN ALL is a robust and feature-rich CAN bus controller designed for serial communication based on the Controller Area Network (CAN) protocol. It **supports classical CAN and CAN FD in accordance with ISO 11898-1:2024**, **CAN XL as per the CiA 610-1 specification**, and CAN Frame time-stamping according to the CiA 603 profile.

This controller core **can handle data rates exceeding 20 Mbit/s and is optimized for AUTOSAR and SAE J1939 specifications**. The CAN ALL is especially efficient in minimizing host CPU overhead and simplifying software development.

more information

ALL IN ONE
CAN, CAN FD
CAN XL, LIN

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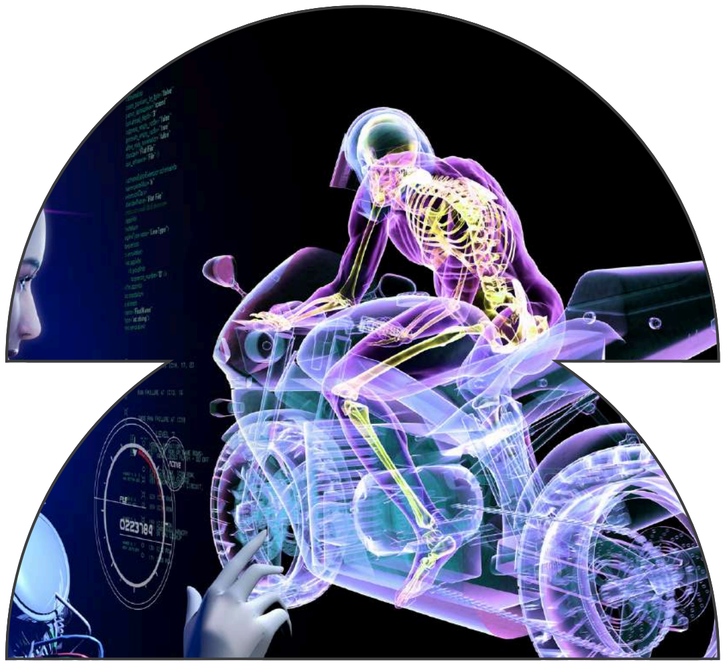
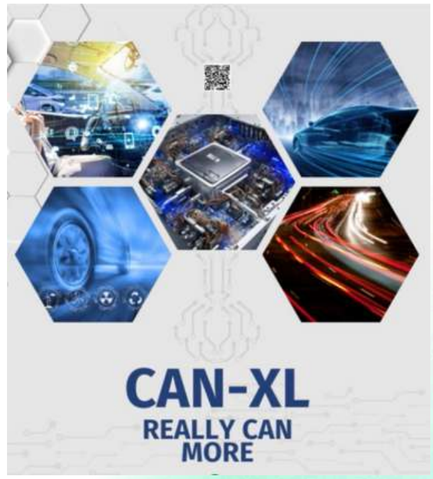
CAN XL - THE FUTURE IS NOW

The DCAN XL IP presents a revolutionary advancement bridging the gap between CAN FD and 100Mbit Ethernet, making strides in data transmission technology. With support for data rates reaching up to 20 Mbit/s and accommodating data fields up to 2048 bytes in length, it surpasses previous standards. Moreover, it offers the flexibility of employing higher layer protocols and Ethernet frame tunneling, enhancing its versatility in various applications.





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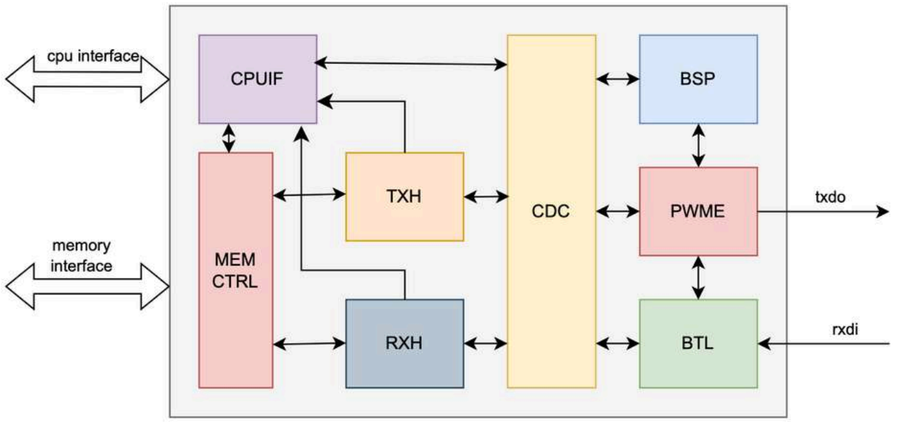
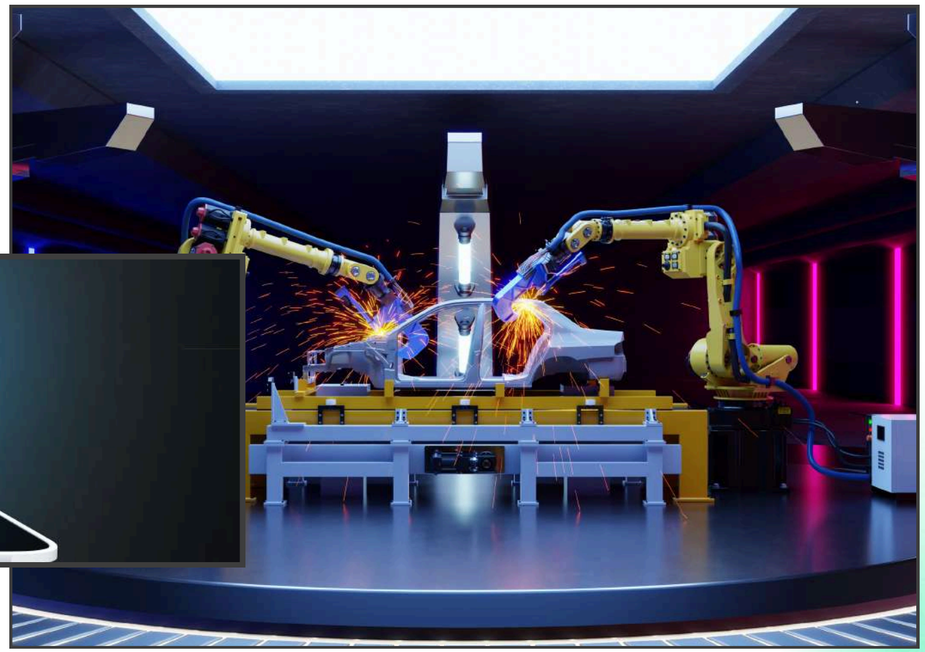
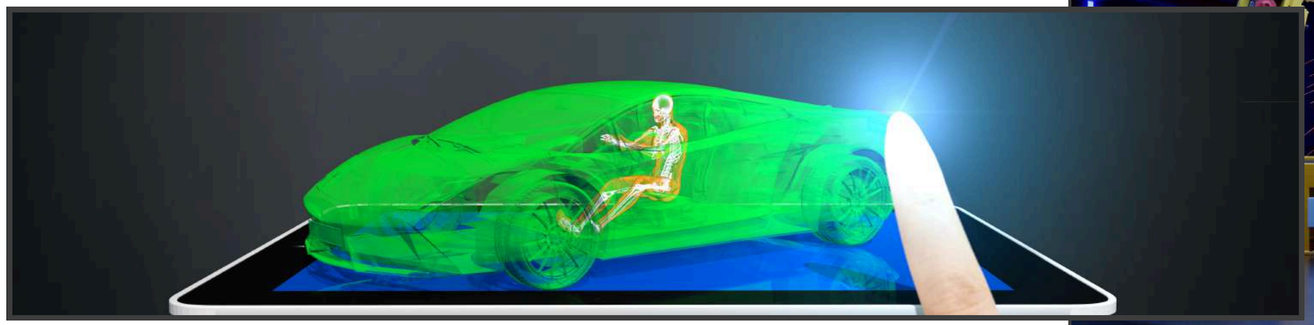
BASIC DOCUMENTATION

The DCANXL is a standalone CAN (Controller Area Network) controller extensively used in automotive and industrial applications. Compliant with ISO-11898-1:2024 and CiA610-1 standards, this IP core features a straightforward 32-bit CPU interface with configurable little-endian or big-endian addressing. It includes a dedicated CDC (Clock Domain Crossing) unit to facilitate operation across multiple clock domains. Typically, the CPU interface runs in a higher frequency clock domain, while the CAN protocol operates in a lower frequency, high-accuracy clock domain. The DCANXL is provided as HDL source code, suitable for use in FPGA or ASIC technologies.







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DELIVERABLES

SourceCode

- VERILOG Source Code

VERILOG test bench environment

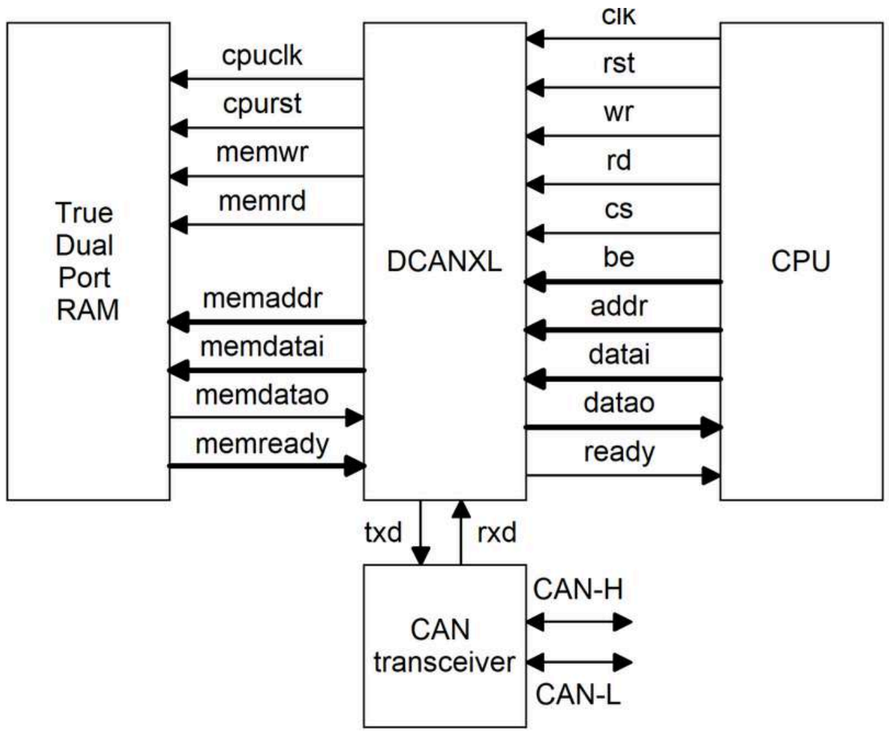
- behavioral
- post-synthesis verification

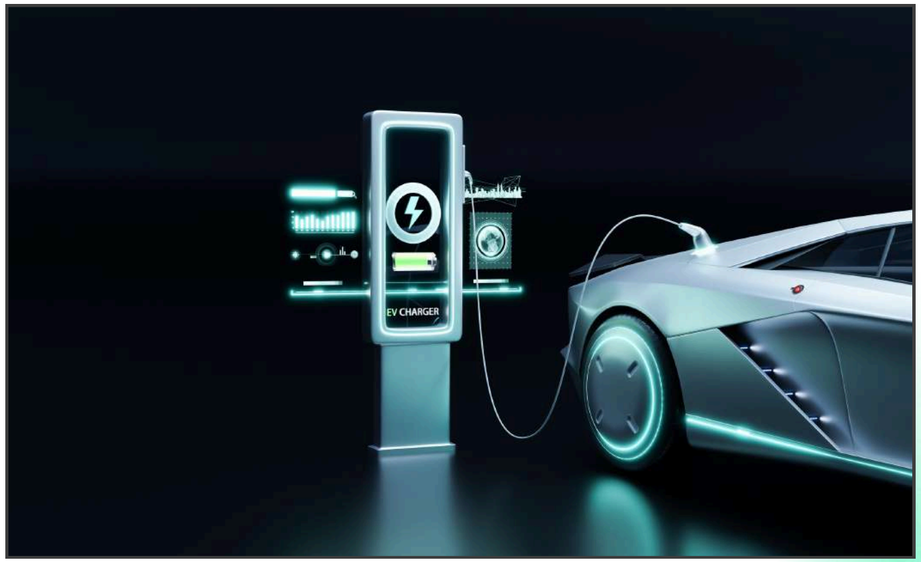
Simulation and synthesis scripts

Documentation

Technical support

- IP Core implementation support
- 12 months maintenance
- delivery of the IP Core & documentation updates,
- design consulting
- phone & email support





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LICENSE

1 CLEAR OBJECTIVES
License fee depends on target implementation

2 FUNCTIONAL SAFETY
Every CAN IP Core can be equipped with ASIL X Safety Package

3 RISK MANAGEMENT
Three months of design maintenance

4 RESOURCE ALLOCATION
Don’t waste time, use validated and proved IP

5 CONTINUOUS MONITORING
Implementation support and updates

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CONCLUSION

The DCAN XL IP Core has been mastered, basing on more than 2 decades of automotive IP development experience. With security & safety in mind, the CAN XL offers more than any other CAN IP Core. Proved in the most reputable Plug Fest run by CiA (CAN in Automation) and during the Embedded World in Nuremberg.

GET MORE INFORMATION AT DCD.PL.
YOU CAN ALSO GET THE DETAILED TECHNICAL DOCUMENTATION AND THE PRICE LIST, JUST AFTER THE NDA HAS BEEN SIGNED.

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THANK YOU

Thank you for your interest in Digital Core Design's DCAN XL IP Core. We look forward to the opportunity to work with you and help you to achieve your project goals with excellence, precision and innovation.
Contact us directly or through the net of DCD’s distributors.

For more information on how Digital Core Design can assist with your CAN projects, please feel free to contact us at:

ul. Wrocławska 94, 41-902
Bytom, Poland, EU.

www.dcd.pl

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