

ELECTRA IC

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ELECTRA IC

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www.electraic.com

WHO WE ARE

Core Business

- Digital IC Design Services (Frontend/Backend)
- Embedded Software Design Services
- Electronic Board Design Services
- Electronic Equipment Design Services

Year of Establishment: 2014

Offices in Türkiye, Belgium and Netherlands

Microsoft
Partner

cādence®



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BROKERAGE
EVENT



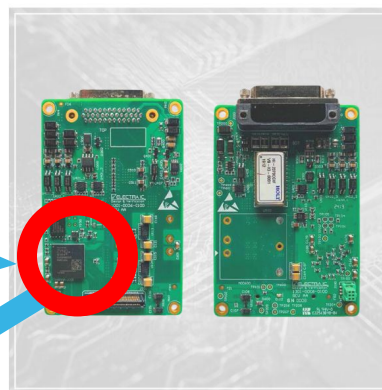
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WHAT ARE OUR DIFFERENCES?

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Functional Safety at Different Levels

Equipment

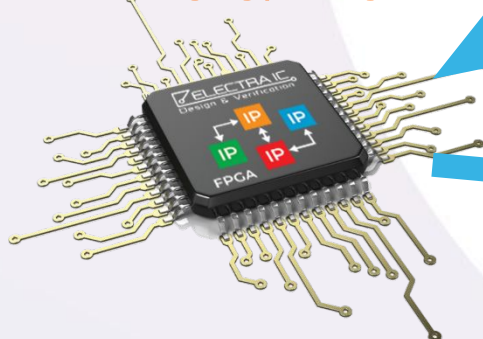


Circuit Board Assembly

MIL-STD-1553 Board

Complete Dual-Redundant MIL-STD-1553B Bus transceiver and transformer | Simultaneously configurable MIL-STD-1553 BC, RT, BM modes | Synchronous/asynchronous parallel or SPI host interface.

ASIC/FPGA



IP Core

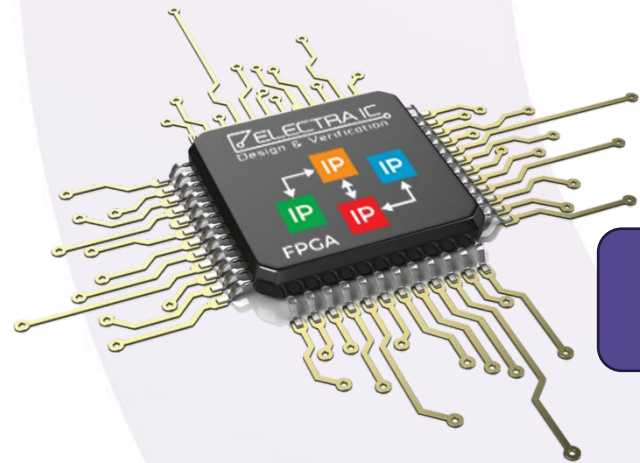
MIL-STD-1553 IP Core

MIL-STD-1553 IP is an IP Core which implements the MIL-STD-1553B standard and provides a single or multi-functional interface between the host processor and the MIL-STD-1553 bus transceiver.

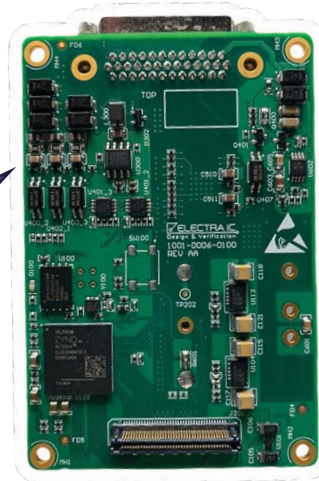
HOW CAN WE COLLABORATE?

Electronics Design & Verification

1. **IP Core Level:** Digital/Analog IP Core Design
2. **Chip Level:** ASIC/FPGA & Embedded SW Design
3. **Board Level:** Electronic Circuit Board Design
4. **Equipment Level:** Electronic Hardware Equipment Design
5. **Trainings**



MIL-STD-1553
Board



3U VPX SW
Development



ARINC664 End
System & Switch

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Digital Design Examples

Communication Protocols

- ARINC 664 End System
- ARINC 664 Switch
- ARINC 429
- MIL-STD-1553
- LiFi - Light Fidelity
- O-RAN Compatible 5G NR O-RU

Video/Signal Processing Applications

- IP Camera Based Video Tracking Module
- Magnetic Resonance Imaging
- Target Acquisition Radars
- Synthetic Aperture Radars
- Phased Array Radars
- Train Speed Measurement Radars

Advanced Verification

- ElectraIC Advanced Verification Suite
- High-Speed Network Chip Verification
- NXP Coldfire CPU SoC Verification

Functional Safety

- DO-254, DO-178
- EN-50129
- ISO26262

DIGITAL IP CORES

• Avionic IP Cores

- MIL-STD-1553
- ARINC-664 End System
- ARINC-664 Switch
- ARINC-429

Telecom IP Cores

- PRACH IP Suite

Others

- RISC-V SoC Verification Suite

ELECTRA IC can design a function from scratch at IP Core

level!

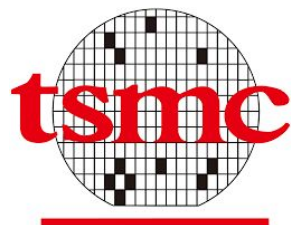
• Cryptography IP Cores

- Symmetric Key Cryptography
- Public Key Cryptography
- Hash Functions
- Random Number Generators
- Stream Ciphers for 5G/LTE/4G/3G/GSM
- Post Quantum Cryptography Suit
 - Kyber
 - Dilithium
 - Falcon

DIGITAL IC DESIGN

Digital IC Design

- Frontend Design
- Backend Design
- Rich tool infrastructure
- Rich IP/VIP infrastructure
- Close collaboration with EDA Vendors
- Close collaboration with Foundries



cadence®



imec

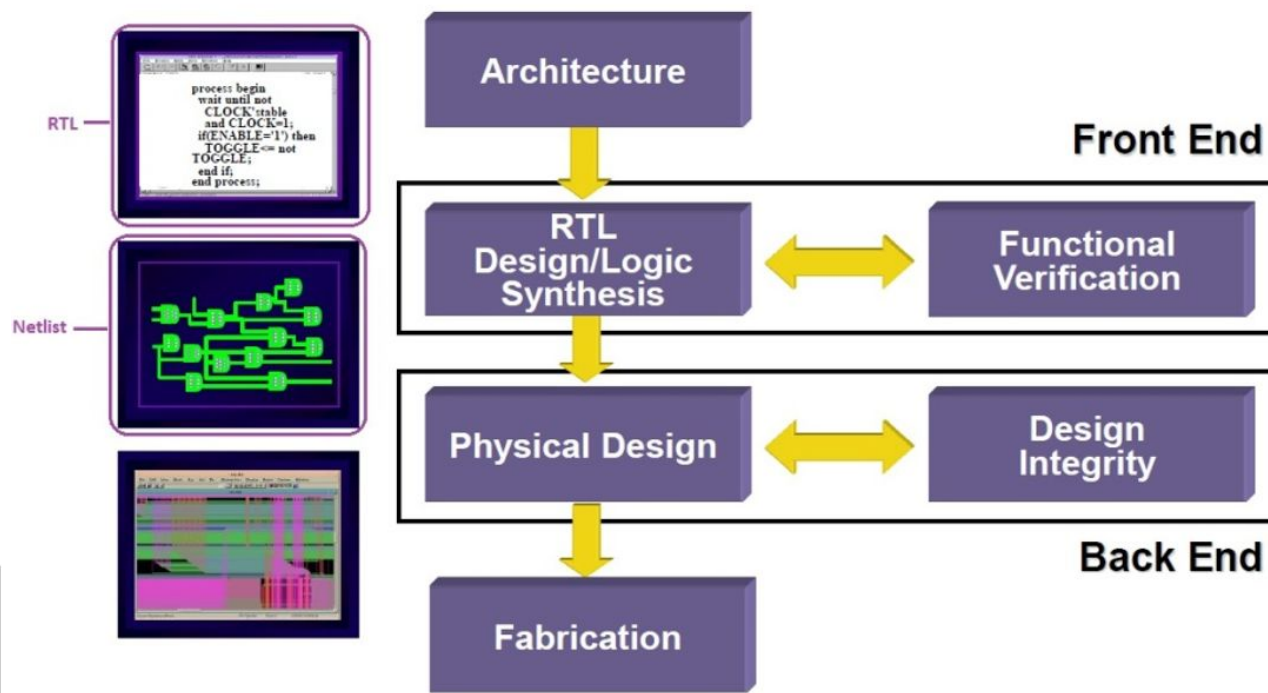
SYNOPSYS®



v/sure

ELECTRA IC is your strong IC Design & Verification

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ELECTRONIC BOARDS

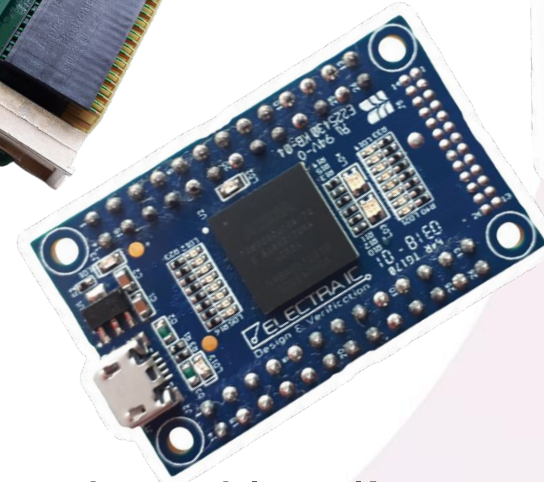
Electronic Boards

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Radar Signal
Processing

MIL-STD-1553
Board

FPGA System on
Modules



ELECTRA IC can design a function from scratch at board level!

ELECTRONIC EQUIPMENTS

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Electronic Equipment

Micro Satellite Launching
System Communication
ARINC 664 End System &
Switch



Software Testing
FPGA Platform



Radar Switching
Box



Handle
Controller



ELECTRA IC can design a function from scratch at equipment level!

TRAININGS

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Trainings



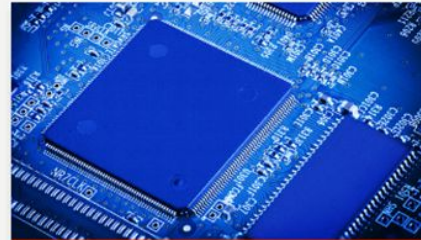
SoC Design and Verification

- > Formal Verification
- > SystemVerilog & UVM
- > SystemC & TLM-2.0
- > Verification Methodology



Scripting Languages and Utilities

- > Digital Design
- > Python
- > Tcl



Arm and Embedded Software

- > Embedded C/C++
- > Linux/Yocto
- > Security
- > Android
- > Rust
- > Arm
- > RTOS



FPGA and Hardware Design

- > AMD
- > Verilog & SystemVerilog
- > VHDL
- > Signal Integrity
- > Intel (Altera)

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ECS BROKERAGE EVENT

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