



Snapshots & Memberships



Established in 2005



Based in Italy

- HQ in Padua
- Second office in Genoa



26 employees



Infrastructures

- Industry-Std EDA tools
- IC qualification Lab



Privately held

Active member and contributor of industry and telecommunication standards



Single Pair Ethernet
System Alliance



Design Service & IP Licensing

Delivering mixed-signal & analog-intensive design services and standard IPs to the semiconductor market worldwide

Mixed-signal design support

- On-site & off-shore
- Under the direction of the customer's Project Leader
- Mixed-signal design layout and verification
- VPN to customer's servers

Custom block design

- Block spec co-development and review
- Complete block design, layout and verification according to the specs
- Delivery of design views, test specifications, integration guidelines, complete database
- Weekly calls and dedicated meetings

End-to-end ASIC Design

- Architectural study and feasibility assessment
- IC spec co-development and review
- Complete IC design
- Complete IC testing and characterization
- Engineering support during transfer to production
- Complete IC database delivery
- Weekly calls and dedicated meetings

Standard IP customization

- Block spec from Canova's IPs
- Complete IP design, layout and verification according to the specs
- Delivery of design views, test specifications, integration guidelines
- IP test chip design and characterization
- Weekly calls and dedicated meetings

Wireline Standard IP

- 802.3cg 10BASE-T1S Single-Pair MultiDrop Automotive and Industrial Ethernet PHY IP
- USB2 FS PHY and dedicated RTL stacks
- USB2 clock-less oscillator (for device side)
- USB Power Delivery PHY and Stack for USB Type-C
- Embedded USB2 (eUSB2) Repeater IP
- 802.3bw 100BASE-T1 Single-Pair Automotive Ethernet PHY IP

Silicon processes experience & Quality

BCD

- 350 nm
 - 180 nm
 - 130 nm
- High voltage options

CMOS

- 65 nm
- 40 nm
- 32 nm
- 28 nm
- 22 nm

FinFET

- 7 nm
- 5 nm
- Below

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- Management system as per **ISO 9001:2015**
 - **IATF 16949** compliance

Canova Tech is
ISO 9001
Certified by

TUV NORD

since 2014

Silicon-proven wireline technologies

SPE

Automotive & Industrial single-pair Ethernet

- IEEE 802.3cg, 10BASE-T1S dPHY + OA-TXC
- IEEE 802.3cg, 10BASE-T1S PHY & OA-MACPHY
- IEEE 802.3da, 10BASE-T1M (under standardization)
- OPEN Alliance TC14, OA-TXC Interface
- OPEN Alliance TC14, OA-MACPHY Interface
- OPEN Alliance TC14-TC16, Sleep/Wake
- IEEE 802.3bw, 100BASE-T1 PHY

USB

Consumer & Automotive universal serial bus

- USB2, USB2 PHY and XTAL-less oscillator
- eUSB2, eUSB2 Repeater
- USB-PD, USB-PD3 PHY
- USB-PD, USB-PD3 Protocol Stack
- USB Type-C, USB-C Interface
- USB TCPC, Type-C Port Controller

Custom

Custom interfaces

- NFC-like (implantable medical)
- Custom powerline (junction box)

SerDes

Consumer SerDes (Transmitter & Receiver)

- 3.5 Gbit/sec HDMI/DP/MHL
- 6 Gbit/sec HDMI/DP/eDP
- 0.5 Gbit/sec LVDS (image sensor)

Silicon-proven custom design

Power management

Linear and switching

- Low-drop regulators (incl. cap-less)
- Buck converters
- Boost converters
- AC/DC active bridge
- Battery operated
- Energy harvesting

Auxiliary & Monitors

Auxiliary and monitors

- Oscillators and timing
- Bandgap voltage references
- Temperature sensors and monitors
- Process monitor
- Leakage monitor
- Current and voltage monitors

AFE+AD & DA+Drivers

AD/DA converters

- Industrial IO-Expander AD
- Imagers AD and serializers
- UWB baseband AD
- IVT monitor AD
- Motor/MEMS drivers

FinFET

A/MS & Mask design

- Skilled team of A/MS and Mask designers with 20.000 hours of cumulative experience in N7, N5, N3 and N2

The logo for Canova Tech features a large, stylized orange letter 'T' on the left. To its right, the word 'Canova' is written in a bold, orange, sans-serif font, and the word 'Tech' is written below it in a bold, white, sans-serif font.

Canova Tech

