

DualPHY 100/1000BASE-T1 22FDX

Single Port, Dual Speed, Automotive Ethernet PHY IP in GF 22FDX

The DualPHY 100/1000BASE-T1 22FDX is the most favourable IP for our customers. Being compliant to IEEE 802.3bw (100BASE-T1) & IEEE 802.3bp (1000BASE-T1) it supports both 100 and 1000 MBit/s automotive ethernet over single twisted-pair cables and is capable of auto-negotiation with the communication partner. With 100BASE-T1 supporting unshielded single twisted-pair cables.

The DualPHY benefits from an adaptive reverse body bias solution for unparalleled low power consumption even at automotive Grade-1 temperatures up to 150°C. It is silicon proven in multiple tape-outs in GLOBALFOUNDRIES® 22FDX® technology and ready for SoC integration by our customers to enable short time to market solutions.

SILICONALLY is the only provider of fully integrated automotive single-pair-ethernet (SPE) IP.

Key Features

- Open Alliance TC10 Sleep/Wake
- Open Alliance TC12 Interoperability
- Open Alliance EMC Compliant
- Wake-on-LAN
- OAM Signaling
- Auto-Negotiation
- 250 mW Typical Power Consumption
- 1.53 mm² Macro Size in GLOBALFOUNDRIES® 22FDX® Technology
- MII/GMII Interface
- APB Interface
- IEEE 1500 Interface
- Debug Interface
- Automotive Grade 1 Design Rules

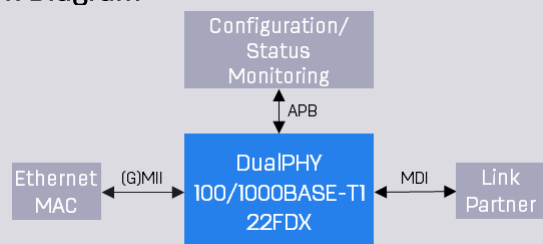
Applications

- Autonomous Driving (AD)
- Advanced Driver Assistance Systems (ADAS)
- X-by-wire
- High Bandwidth Sensors
- Zonal Computing (MCU)
- Active Safety
- Body Control
- Robotics
- Smart Metering
- Drones
- Aviation

Deliverables

- Verilog Simulation Models
- Timing and Power Models
- DFT Views
- Layout Abstract Views
- GDSII Files
- Netlists
- User Manual and Documentation

Block Diagram



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