

PROFINET Technology

The Easy Way to PROFINET

Into the Future with ANTAIOIS

Flexible Multi-Protocol Solutions with a Future

More than just chips

profichip has been a reliable partner in the Ethernet and fieldbus world since 1999. Based in Herzogenaurach, Bavaria, we support customers all over the world with our comprehensive ASIC portfolio in the field of industrial communication and control technology. Many well-known companies not only trust in our technology, but also commission us to implement their ideas and visions. Because profichip is not just about chips, but about the whole world of automation.

True to our motto: *Automation in Silicon*

For almost 20 years, the fieldbus specialists here at profichip have enjoyed great success in the PROFIBUS sector with their VPC3+ product family. As well as our renowned personalized customer support, users appreciate the versatile technical capabilities of our solutions. We are continuing this successful strategy with the ANTAIOIS multi-fieldbus communication chip.

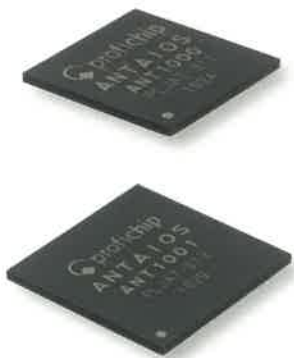
ANTAIOIS primarily focuses on the efficient and flexible implementation of high-performance real-time Ethernet communication protocols such as PROFINET IRT or TSN/ OPC UA. The real-time Ethernet unit is programmable, and is therefore able to support all Ethernet-based protocols. This enables quick reaction to any protocol changes and offers a high degree of flexibility and security in the future, as new features can be conveniently retrofitted via software (microcode). It means ANTAIOIS is ready now for any TSN extensions that are coming up and whatever future challenges Industry 4.0 and IIoT may bring.

Setting it apart from other implementations, the I/O data is available via a hardware interface (consistency interface). Slow access times via software callback functions and long copy routines are a thing of the past. This makes the I/O data available in real-time.

Furthermore, the user has the option to separate the PROFINET consumer/provider states from the I/O data via the consistency interface. A convenient extra function is that the data can be re-sorted into virtually any order by the hardware and converted into the desired target format, which also eliminates time-consuming software routines.

Additional ANTAIOIS key features:

- ARM® Cortex® A5 processor, 32/32kB cache, 288MHz
- 2-port real-time Ethernet switch with integrated PHYs
- Gigabit Ethernet MAC with external PHY
- DDR2 SDRAM (max. 256 MB)
- QuadSPI controller (96 MHz)
- Parallel host interface consisting of:
 - Consistency interface for I/O data
 - FIFO interface for acyclic functions
- Serial host interface:
 - SPI slave (max. 24 Mbps)
 - High-speed UARTs (up to 12 Mbps)
- Classic fieldbuses:
 - PROFIBUS Master
 - PROFIBUS Slave
 - CAN
- SliceBus Master
 - I/O system with up to 64 modules



profichip offers easy access to PROFINET with an evaluation board comprising the following components:

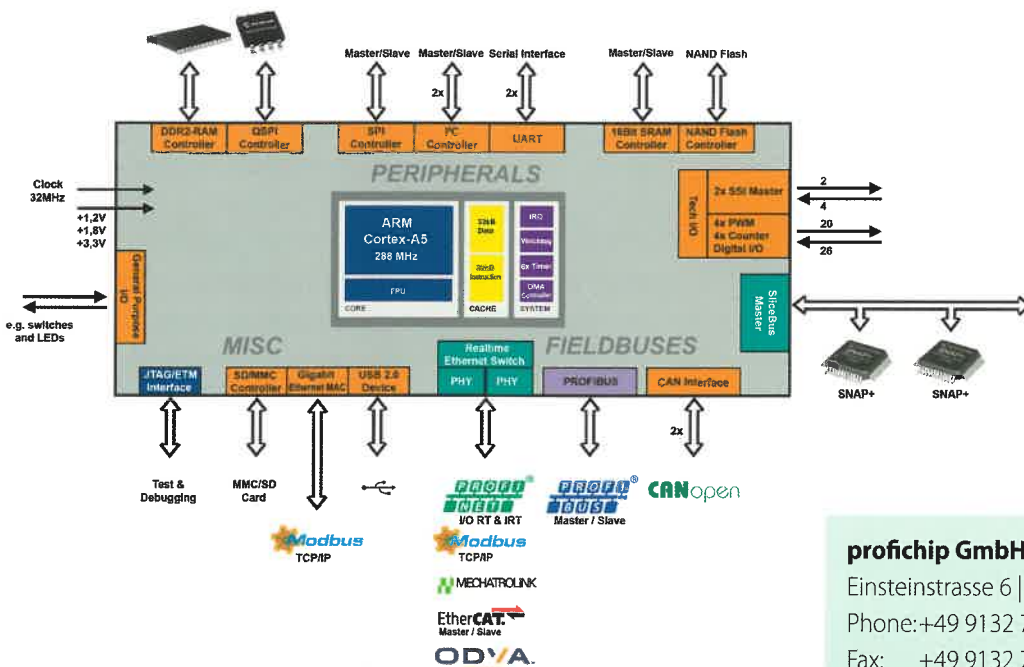
- Free development environment
 - eCos 3.0 operating system
 - GNU GCC compiler 5.4.0
- PROFINET I/O device stack
- PROFINET examples:
 - Simple slave (certificate number: Z11905)
 - Compact slave
 - Modular slave
 - Isochron Mode



In this way you can develop your software entirely on the evaluation board while simultaneously working on your hardware. Our reference circuit diagrams are available to you as a basis for your hardware design. Before you create your layout, we offer a free review of your circuit diagram.

profichip gives you the support you need:

- Individual consultation before you purchase development packages or software
- Phone or email support free of charge during development
- Expert after-sales service
- Assistance with creating GSDML files
- Free review of circuit diagram
- PROFINET conformity test in our own test laboratory
- Assistance with certification
- Contract development
- Workshops, training courses and on-site support by appointment
- Access to our experts in ASIC design and software development



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