

## sword Intelligent Transceiver<sup>®</sup>

### More flexible, powerful, faster and cost effective.

The sword Intelligent Transceiver solution is the most cost effective, ultra high power solution available for LON Twisted Pair networks, enabling devices with unrivalled power and capabilities to be developed at a cost less than current solutions.

The sword Intelligent Transceiver comprises of a high power 32 bit RISC processor with scalable fpga, a free topology twisted-pair transceiver core, Neuron-ID chip and transformer. When allied with low cost memories it is now possible to develop higher power, more cost effective solutions than with any other technology.

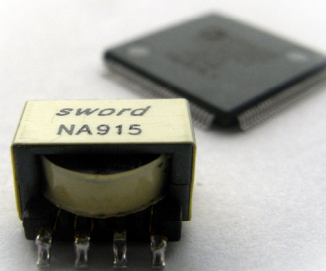
### Features

- The worlds only truly independent LON transceiver solution
- 3.3/1.2V power rails
- System clocks up to 188 MHz, an increase of nearly 38x existing solutions
- Serial, parallel, SD and DDR interfaces for low cost large capacity memories
- 4096 Network Variables
- User definable interrupt sources to deal with real-time events
- ANSI-709.3/ISO1-4908.2 Free topology, polarity insensitive twisted pair wiring
- Works with existing free topology devices
- Fully scaleable device selection
- 50 to 400+ I/O pins that can be configured for thousands of different interface & I/O modes
- Supports application code space from a few Kilobytes to hundreds of Megabytes
- Up to 2GB of external address space for RAM and other memory mapped peripherals
- Every device comes with a unique 48-bit Neuron-ID
- JTAG debug interface
- Meets the following communication standards
  - ISO/IEC 14908.1 and 14908.2
  - ANSI 709.1 and ANSI 709.3
- No need for any other MCU for high power operation
- Easy to use development tools

### Benefits

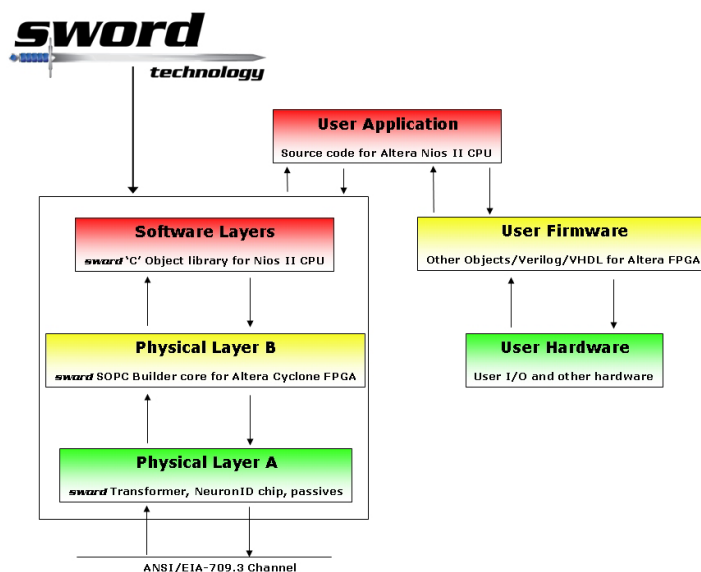
The fully scalable options available when using the sword Intelligent Transceiver now make it possible to develop higher power devices at a lower cost than with any other solution. This makes it possible to use LON technology for a wider range of products than before while still remaining cost effective.

Being able to incorporate other interfaces such as Ethernet, I2C, SPI, Display drivers and hundreds of others into the same device makes for a far more flexible platform than before.



Processors are 32 Bit RISC devices running up to 220 DMIPS with options of a 6 stage pipeline, closely coupled data and instruction cache and DMA with dedicated bus paths.

Utilising the full power of the protocol free's the developer from a 62/256 Network Variable limit. Also removing the constraint on address table entries also makes for some powerful binding possibilities.



Having powerful processing capabilities is all well and good, but if constrained by limited memory, the power is useless. The sword Intelligent Transceiver opens up an array of endless possibilities allowing the easy use of low cost memory technologies like DDR2. With a huge address space, fitting the most demanding applications is no longer an issue that the developer need worry about.

But that is not all, it is possible to incorporate other protocols such as BACnet<sup>®</sup> or Modbus<sup>®</sup> which may be run in parallel allowing cross system compatibility.