ULTRASMART™ SOLUTIONS FOR CARD AND MODULE PRODUCTION

The Smartware’s longterm relationship with silicon manufacturers and equipment providers is a guarantee that all our smartcard personalization solutions fulfill chip card manufacturing requirements in term of personalization speed, production yield and versatile communication interfaces.

US\textsuperscript{nano} based products

\begin{itemize}
  \item **USN\textsuperscript{1se-1M}**
    \begin{itemize}
      \item Dual interface perso coupler
      \item Personalize telecom, banking and ID card
      \item Personalize contact and contactless module
      \item Personalize SWP NFC µSD
      \item Ultra-compact design
    \end{itemize}
  \item **USN\textsuperscript{1se}**
    \begin{itemize}
      \item Dual interface perso coupler
      \item Personalize telecom, banking and ID card
      \item Personalize contact and contactless module
      \item Design for Smartware racks
      \item Solution to upgrade PowerFACET in Datacard MPR3000 machine
    \end{itemize}
  \item **USN\textsuperscript{3se}**
    \begin{itemize}
      \item 3 Dual interface perso couplers
      \item Personalize telecom, banking and ID card
      \item Personalize contact and contactless module
      \item Design for Smartware racks
    \end{itemize}
  \item **MX\textsuperscript{3se-3I3P}**
    \begin{itemize}
      \item 3 Dual interface perso couplers
      \item Personalize telecom, banking and ID card
      \item Dedicated to Datacard/MX smartcard module
    \end{itemize}
  \item **MX\textsuperscript{6se-6I}**
    \begin{itemize}
      \item 6 contact interface perso couplers
      \item Personalize telecom, banking and ID card
      \item Dedicated to Datacard/MX smartcard module
    \end{itemize}
\end{itemize}

US-CORE based products

\begin{itemize}
  \item **US-4I\textsubscript{R}J**
    \begin{itemize}
      \item Based on 1xUS-CORE V5 and 2xUS-ICC2
      \item 4 contact heads with basic parametric testing feature
      \item Cost-effective solution for telecom and chip card module personalization
    \end{itemize}
  \item **US-4P**
    \begin{itemize}
      \item Based on 1xUS-CORE V5 and 2xUS-PICC2
      \item 4 contactless heads
      \item Inlay and contactless chip card module personalization
    \end{itemize}
  \item **US-4P4I**
    \begin{itemize}
      \item Based on 1xUS-CORE V5, 2xUS-PICC2, and 2xUS-ICC2
      \item 4 contact/contactless heads
      \item Personalization of dual interface card and chip card module
    \end{itemize}
  \item **US-4SAM**
    \begin{itemize}
      \item Based on 1xUS-CORE V5 and 2xUS-ICC2
      \item 4 contact SAM slots for secured personalization solution
    \end{itemize}
  \item **OEM assembly**
    \begin{itemize}
      \item Based on 1xUS-CORE V5, US-ICC2 and US-PICC2
      \item Customized assembly to fit all requirements
    \end{itemize}
\end{itemize}
ULTRASMART™ HARDWARE MODULES FOR CARD AND CHIP PRODUCTION

All our hardware modules are based on modular architecture UltraSmart™ proven platform that consistently demonstrate superior productivity and reliability.

**USnano all-in-one module**

- 32bit 240 MHz processor
- 64 MB SDRAM for applications and data
- 8 MB Flash memory for OS and resident applications
- Ethernet 100 Mbps (UDP & TCP/IP)

**Contact interface**
- ISO 7816 (T=0 and T=1)
- SWP/SHDLC up to 1.6 Mbps
- SD/MMC x1/x4 bit / 50MHz + hardware duplication
- Memory chips (SLExxxx, ATxx)
- Continuity test
- Adjustable parameters (Vcc, Frequency, ETU, S2 threshold, Timings)

**Contactless interface**
- ISO 14443 A/B up to 848 kbps, ISO 15693 (for USNse model only)
- Mifare™, Mifare+™, FeliCa™
- Possibility to personalize chip card contactless module in contact

**US-CORE V5 - CPU Board**

- 32bit 240 MHz processor
- 256MB SDRAM for applications and data
- 8MB Flash memory for OS and resident applications
- Ethernet 100 Mbps (UDP & TCP/IP)
- RS-232
- Support up to 4 production-dedicated daughter boards

**US-ICC2 - 2 contact interfaces**

- FPGA-based contact interfaces
- ISO 7816 (T=0 and T=1)
- SWP/SHDLC up to 1.6 Mbps
- Memory chips (SLExxxx, ATxx)
- Continuity test
- Adjustable parameters (Vcc, Frequency, ETU, S2 threshold, Timings)
- Integrated Electrostatic discharge suppressors

**US-PICC2 - 2 contactless interfaces + 2 simplified contact interfaces**

**Contactless interfaces**
- FPGA-based contactless interfaces
- VHBR ready, ISO 14443 A/B
- ISO 15693, Mifare™, Mifare+™, FeliCa™
- Programmable RF field amplitude, RF demultiplexer

**Contact interfaces**
- ISO 7816 (T=0 and T=1), Memory chips (SLExxxx, ATxx)