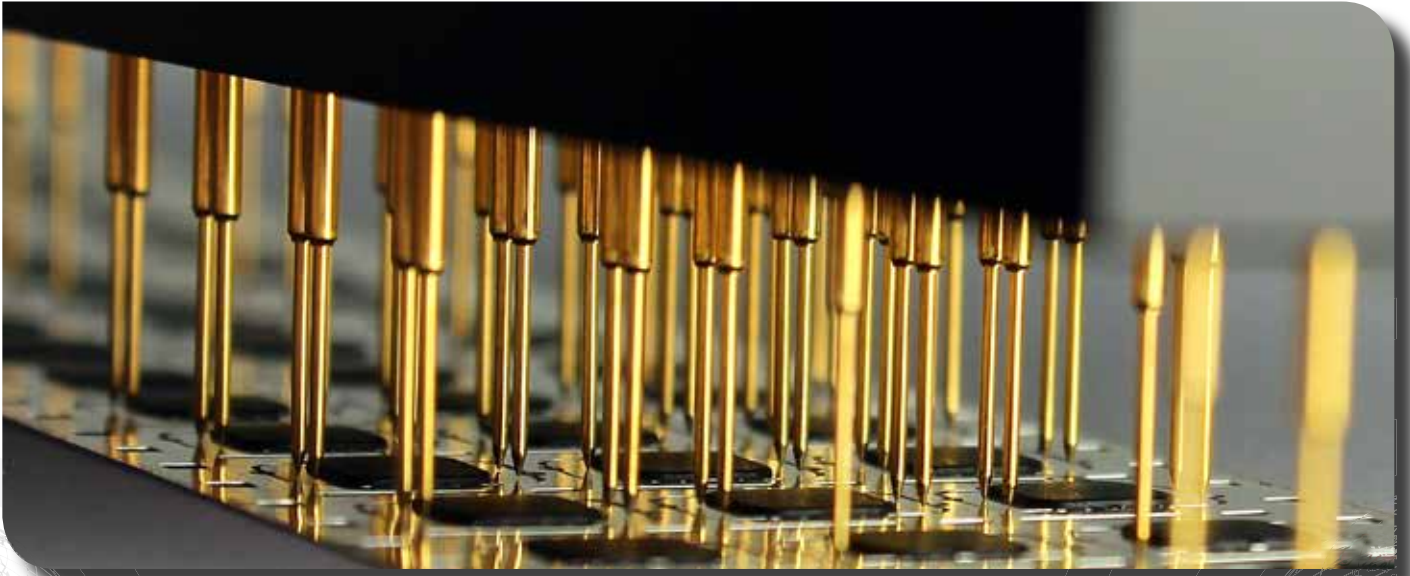


# ULTRASMART™ SOLUTIONS FOR CARD AND CHIP MODULE TEST IN PRODUCTION ENVIRONMENT



Based on longterm relationship with silicon manufacturers, Smartware has developed a complete open and configurable product range dedicated to the test of card and chip module.


## Contact testing solution

## Contactless testing solution



### CMT 4 heads

- Based on US-CORE V5 and 2x US-CMT
- Test and personalization of card and module
- Robust design for industrial environment
- Special test & measure library for R&D usage



### CLT 2 heads


- Based on US-CORE V5 and 2x US-CLT
- Test and personalization of card and module
- Robust design for industrial environment
- Special test & measure library for R&D usage

## US-Rack 4U/63F

## US-Rack 5U/84F



- 5 slots for double-size assembly
- PCB Europe format up to 220mm
- Integrated GB Ethernet switch
- Integrated power supply 320W
- Width: 342 mm
- Height: 177 mm
- Depth: 349 mm
- Weight: 7.7 kg



- 10 slots for double-size assembly
- PCB Europe format up to 220mm
- Integrated GB Ethernet switch
- Integrated power supply 640W
- Width: 482 mm
- Height: 221 mm
- Depth: 480 mm
- Weight: 14.2 kg

	3U/8F	6U/16F	4U/63F	5U/84F
US-CLT Assy 2 heads	1 (2 heads P)	4 (8 heads P)	5 (10 heads P)	10 (20 heads P)
US-CMT Assy 4 heads	1 (4 heads I)	4 (16 heads I)	5 (20 heads I)	10 (40 heads I)

X: number of assembly (I: number of contact head, P: number of contactless head)

# ULTRASMART™ HARDWARE MODULES FOR CARD AND CHIP MODULE TEST IN PRODUCTION ENVIRONMENT

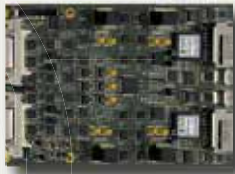
All our hardware modules are based on UltraSmart™ modular architecture proven platform that consistently demonstrate superior productivity and reliability.

## US-CORE V5 CPU Board



- 32bit 240 MHz processor
- 256MB SDRAM for applications and data
- 8MB Flash memory for OS and resident applications
- Ethernet 10/100 Mbps (UDP & TCP/IP)
- RS-232
- Support up to 2 test-dedicated daughter boards

## US-CMT 2 contact testing interfaces



- FPGA-based contact interfaces
- ISO 7816 (T=0 and T=1)
- Memory chips (SLExxxx, ATxx, ST13xx)
- Adjustable communication parameters (Frequency, ETU, Timings)

### Parametric test features

- Open Short & Leakage Test on all contacts
- Static and dynamic power consumption (FIMV, FVMI)
- C7 level monitoring
- Special Test & Measurement library (Tearing generation, accurate timing measurement)

## US-CLT 1 contactless testing interface



- FPGA-based contactless interface
- ISO 14443 A/B up to 847 Kbps
- ISO 15693
- Mifare™, Mifare+™
- FeliCa™, i•Code™
- Adjustable signal and communication parameters (Carrier amplitude, Modulation index)

### Parametric test features

- Resonance frequency and quality factor measurement
- Chip input capacitor measurement
- Antenna coil inductance measurement
- Retro modulation voltage measurement
- Static power consumption (FIMV, FVMI)



# SMARTWARE