

# MP400 2CL4

# A production tester for all types of contactless objects.

Smartcards, micromodules, inlays, and NFC devices.





- New hardware architecture.
- Based on powerfull CPU ARM Dual-Core & FPGA.
- · Ethernet GigaBit.
- · OS Embedded Linux.
- · 4 test heads per tester.

### Support protocols

- ISO 14443 A/B
- Innovatron™
- · ISO 15693
- Mifare™
- FeliCa™

### Application domains

- · Personalization.
- · Pre-personalization.
- · OS loading.
- Production test of smartcard & modules.

### **Business** areas

- Telecom
- Banking
- E-health
- M2M
- · E-Passport
- · E-ID (driver licences, ID cards, ...)
- · Micro-module production
- NFC

### Supported tests

- Resonance frequency, Q factor, S11 measurement.
- · Complex impedance (L, R, C).
- · Hmin measurement.
- · Chip load-modulation.
- · Input sensitivity detection.
- Accurate definition of test parameters.
- · SAM interface.
- · GPIO extension.

### Use case

- · Production line testing.
- · Personalization verification.
- Inlay and micromodule quality control.
- · Module sensitivity assessement.

Specifications	
General	
NFC Simulation	Terminal emulation only
Testers	4 test heads
Rack	Compatible with rack x1, x4, x8, x16
Output terminal simulation	
Channel	2 TX per head
TX impedance	50Ω ± 1%
NFC Analog settings	

# NFC Forum Tags Types supported Tag types 2,3,4,5 ISO 18092 (NFC-IP1) Modes supported Passive mode Raw mode Implementation of custom protocols and support of out standard chips

Field strenght, Carrier frequency, ASK Modulation, rise and fall times, pause width

### **NFC Protocol settings**

FWT, Framing and bit-duration, data-rate

### Reception

Channel 2 RX per head

### **NFC** measurement

Resonance Frequency, Q factor

Complex impedance (chip/antenna), S11

Load modulation amplitude

### **Supported Protocols**

### ISO/IEC 14443-3 (Proximity Cards) (Type A/B)

Supported data rates

106, 212, 424, 848 kbps

VHBR 1600, 3400, 6800 kpbs

Asymetrical data rates supported

### B' (Innovatron™)

### ISO/IEC 15693 (Vicinity Cards)

Supported low data rate, high data rate communication (x1, x2, x4, x8) -

speeds One and Two Subcarrier

Mifare™

Types supported Classic, Light, Ultra Light, Ultra Light C

FeliCa™

Mode supported Polling, Read & Write without encryption

Available data rates 212 and 424 kbps

## Key features.

Scalable, compatible design.

- Modular architecture: up to 32 test heads per rack.
- Rack compatibility: works with MP300 racks.

Automated terminal simulation.

- Automation ready: GPIO extension for external antennas and system automation (IX industrial connector).
- Terminal simulation: suitable for smartcard, NFC, banking, telecom, and e-ID device testing.

### Full-feature performance.

- · Multi protocol support.
- · Fully programmable parameters.
- · Advanced measurements.
- High-speed performance.

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