Contactless Test Station

High-end technologies concentrated in ONE BOX

The total package

The time where setting up a test bench for performing contactless testing took as long as performing the test cases themselves is over. Micropross, now NI offers to the market the Contactless Test Station (CTS), an all-in-one box capable of performing, without adding any additionnal hardware, all normative test cases, defined by organisations such as the ISO, the ICAO, the EMVCo, and the NFC Forum.

The Contactless Test Station contains **all needed hardware and software elements,** that enable you to perform all normative analog and digital tests, without having to seek for additionnal signal generators, or measurement devices. They are all included inside the box..

1 **Windows 10 PC**
Dual core 8GB RAM
750 GB Hard Drive
8 USB sockets

2 **14 bits 130 MS/s DAQ Board**

3 **Oscilloscope**
350 MHz - 2.5GS/s - 4 channels

4 **50W power amplifier**
Optimised for 13.56MHz software controlled 100% automatic operating

5 **Extension Bay**
2x12V supplies CRM supply & control

6 **MP500 TCL3**
13.56MHz signal generator
Terminal simulator
Contactless SC simulator
Waveshape customisable

7 **Automated test libraries**

8 **Powerful integrated test platform**

The Ideal Tool

Supported Protocols
- ISO/IEC 14443 (proximity)
- Supported data rates :
- 106, 212, 424, 848 kbps
- VHBR optionnal. Support up to 6.8Mbps
- Asymetrical baudrates supported
- B' (Innovatron)
- ISO/IEC 15693 (Vicinity cards)
- Supported data rates :
- Low & high data rate (1 out of 4, 1 out of 256)
- Tag behaviour :
- 1 and 2 sub carriers
- ISO 18000-3 Mode 1
- Mifare™
- Supported versions (Classic, Light, Ultra Light, Ultra Light C, Desfire)
- FeliCa™

- - Supported data rates (212, 424 kbps)
- NFC Forum modes
- Peer 2 Peer, Listening, Polling
- NFC Forum tags
- Tag type 1 (Innovision Topaz)
- Tag type 2 (Mifare Ultra Light)
- Tag type 3 (FeliCa)
- Tag type 4 (ISO 14443 A/B)
- ISO 18092 (NFC-IP1)
- Supported communication mechanisms (Active/passive mode, initiator/target)
- Raw mode
- Possibility to implement custom protocols

Programmable parameters
- Physical parameters (all types)
- Field strength
- Rise/fall time of the modulation
- Modulation index
- Pause time (ISO 14443 A & ISO 15693)
- Duration of each bit + EOF + SOF (ISO 14443 A)
- Arbitrary waveshape generator

- Logical parameters
- Type A pause
- FWT, TR0, TR1, TR2
- Communication speed
- Response time (contactless smartcard simulation

Mechanical Dimensions
- 230mmx431mmx466mm
- Weight : 19 kg
- Cooling system : Integrated, no need for external cooling

Available option
- Compatible with the Denso Robot for a full automated test experience

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BUSINESS AREAS

| Telecom | Banking | E-health | M2M | NFC enabled | WPC | E-passport | E-ID (driver licences ID cards, and more) |

Spy feature

Signals displayed	- Field presence - Modulation - Sequences - Bytes - I/O direction - Baudrate change - Trigger state

Power amplifier Part

Power output	50W
Input impedance :	50 Ohm
Class A	
Baudrate coverage	From 106kbps to 6,8Mbps for optimum behaviour
RF bandwidth	6-20MHz

Oscilloscope part

Bandwidth	350MHz
Number of channels :	4
Sampling rate	5GS.s
Resolution	8 bits

A/D converter block

Model recommended for EMVCo analog testing	
Resolution	14 bits
Sampling rate	130 MS.s
Number of channels	2

PC block

Operating system	Windows 10 Pro SP1
RAM	8 GB
Hard Drive	750 GB
Extension ports	8 USB 2.0
	Ethernet connection
	VGA screen

NI Services and Support

- Maintenance contracts :
  - Firmware/software updates
  - Hardware repair
  - Onsite customer support
  - Replacement tool
- Technical support located in Asia, Europe and Americas

- Training courses customizable :
  - knowledge level based
  - Time constraints
  - Topics of interest
- Debug and pre-certification of contact and contactless devices