NFC Validation and Conformance Tester

CONTACTLESS TEST STATION III

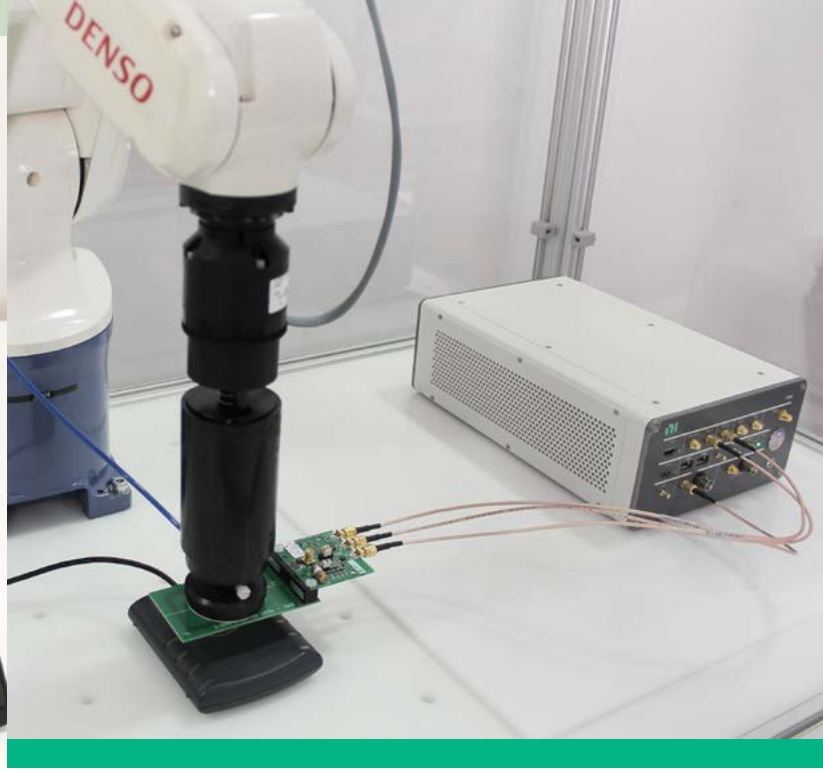
Accelerator Of Time To Market, The CTS III Ensures Your Customer Satisfaction

The mass deployment of the NFC technology through innovative use cases such as mobile payment, ticketless transportation or automotive keyless entry places engineers in front of new challenges. They are related to the handling of interoperability issues coming from the field. In addition to performing conformance tests in good conditions, engineers need tools that allow them to go deeper in the validation and verification phase of their prototypes. In order to ensure their customers a seamless user experience.

The Contactless Test Station III (or CTS III) positions itself as the perfect tool to help engineers solve those challenges. Thanks to its new signal generation possibilities, a spectacular acceleration of testing times and its powerful hardware components.

> We made the choice to completely redesign the tester, in order to meet and even exceed our customer expectations. We selected the best technology to reach our objectives. Best in class contactless front end, best in class FPGA, fast processor, quick internal communication Interfaces.

Jocelyn Fauquet
Hardware Engineer - NI NFC Group

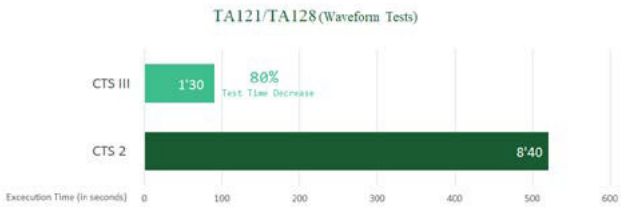


The Ideal Tool for NFC Validation and Conformance Testing

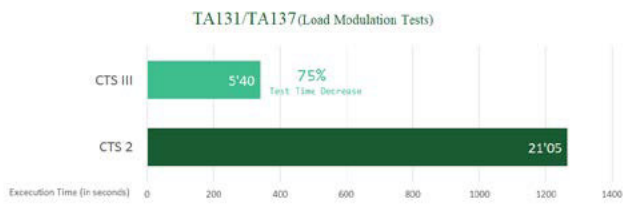
Key features

- High performance NFC smartcard and reader simulator
- Support of the ISO 14443 A/B, ISO 15693, Mifare™ and FeliCa™ protocols
- Automated test libraries for EMVCo L1 and NFC Forum available
- Accurate definition of the analog test parameters
- Integrated protocol analyzer feature
- High performance DAQ board available
- Resonance frequency, Q factor, S11 parameter measurement available
- Supplied with the MPManager user interface
- Can be integrated in any customer specific test sequencer thanks to its extensive API
- Compact form factor
- Up to 80% faster compared to our previous generation of NFC test platforms

Example of test time reduction versus our latest generation of NFC testers obtained leveraging the CTS III



Tests done according to the reference test specification : EMV Analog test bench and test cases v 3.0a



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Business Areas


Telecom


Payment


Life Science


M2M


Smart and Connected Devices


WPC


E-passport


Semiconductor

Technical Datas

SUPPORTED PROTOCOLS	
ISO/IEC 14443-3 (proximity cards) (Type A/B)	Supported data rates 106, 212, 424, 828 kbps, 1.6, 3.2, 6.4 Mbps Asymetrical data rates supported
ISO/IEC 15693	Supported communication speeds Low & high data dates, 1 out of 4 & 1 out of 256
Mifare™	
FeliCa™	
NFC Forum modes : Peer2Peer, Listening, Polling	
NFC Forum tags (Tag types 1,2,3,4)	
ISO 18092 (NFC-IP1)	
Modes supported	Active/passive mode, in both Initiator/Target variantes
Raw mode : implementation of custom protocols and support of out of standard chips	

SIGNAL GENERATION	
Rf output	Tx / Rx channel : 30 Vpp @ 50Ω
	Rf Out channel : 18 Vpp @ 50Ω
Load modulation amplitude generator	LMA Square 0-8V DC
	LMA Sinus 4Vpp AC
Resolution	16 bits
IQLM PICC signal generator	

TEST FEATURES	
Integrated DAQ board	2 channels
	Sampling : 150 Ms.s
	Resolution : 16 bits
	Bandwidth : 50MHz
	Memory : 1GB
Parametric tests	Resonance frequency / Q factor / S11 : from 5MHz to 30MHz, @-20dBM to +20dBM
	Complex impedance measurement
	Normative measurement (i.e. Load modulation, Field strength, Waveform analysis, …)
	Numerous signal customization possibilities
Logical tests	Anti tearing
	Accurate timing definition
	CRC, parity errors, wrong byte serilialization

MISC
Dimensions : 150 x 150 x 300 mm
Weight : 3.4kg
Connectivity to PC : USB 2.0 or Ethernet 1Gb