



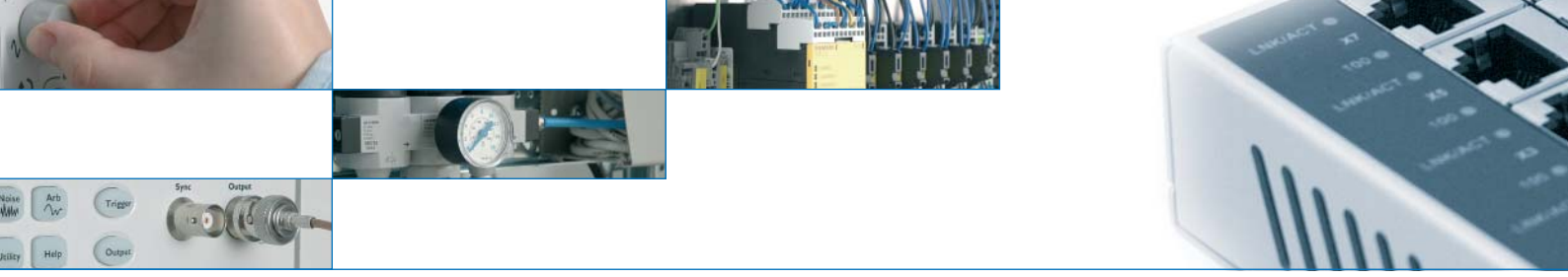
## ■ RF Multiport Testsets

LX-RFMP10-4GHz

LX-RFMP10-26,5GHz

LX-RFMP16-4GHz

LX-RFMP16-26,5GHz



## Functionality

Today's communication technologies require the use of an increasing number of multiport RF components and subsystems.

A broad range of devices such as components for multi-band cellular phones, MIMO appliances, automotive antenna amplifiers, differential SAW filters and other differential components are evaluated. Multiple parameters need to be measured on multiple communication paths to characterise the DUT properly. Calibration data for the different signal paths as well as measurement results need to be managed under computer control to master this challenge.

The LXinstruments Multiport Testset extends the number of ports for any 4-port (2-port) Network-Analyzer and covers a frequency range from DC to 26,5 GHz.

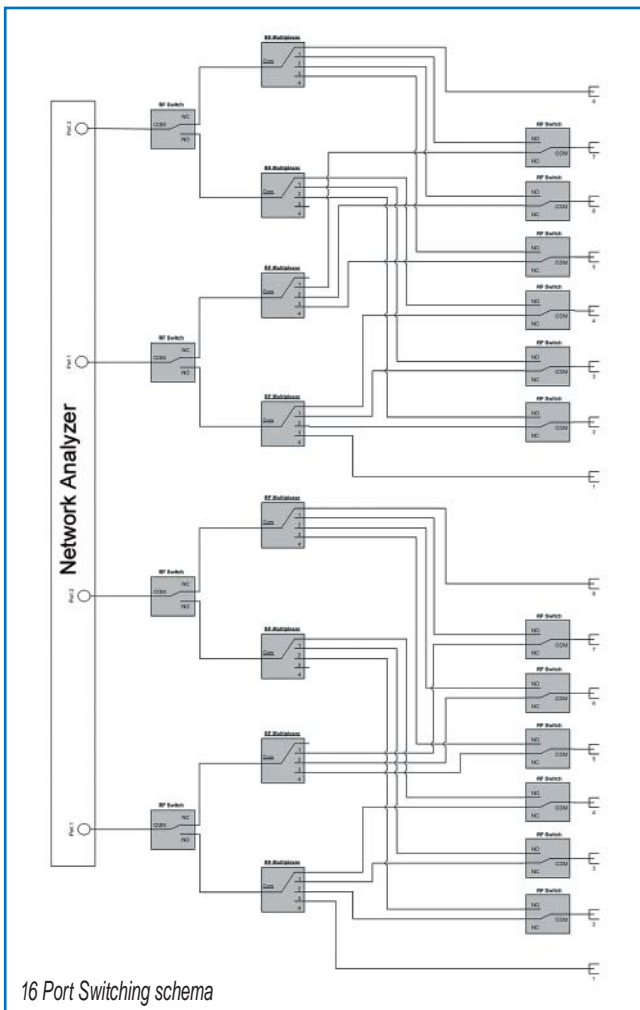
The following topologies are currently available:

- 10-Port Full Access Matrix for 4-Port NWA's
- 16-Port Full Access Matrix for 4-Port NWA's
- Custom topologies (for example 2 multiplexers 1 by 12 with integrated attenuator and bias tees)

The LX Multiport Testset features mechanical RF relays that in contrast to solid state switches cover the frequency range down to 0 Hz (DC) and are less subject to drift due to changes in ambient temperature than solid state switches.

However, solid state relays are available within the custom range of testsets for high volume manufacturing applications requiring optimized switch closure times.

The LXinstruments Multiport Testset can also be combined with 2-port Network-Analyzers.



## Usability

The optional LXinstruments MultiportManager software for Agilent ENA Network Analyzers guides the user through the calibration process and manages calibration datasets and switch movements as measurements are performed.

The software provides both an interactive graphical user interface for laboratory applications and an automation interface based on ActiveX controls that allows for easy integration with

- NI LabView
- Agilent VEE Pro
- Microsoft .net languages
- Virtually any other programming environment

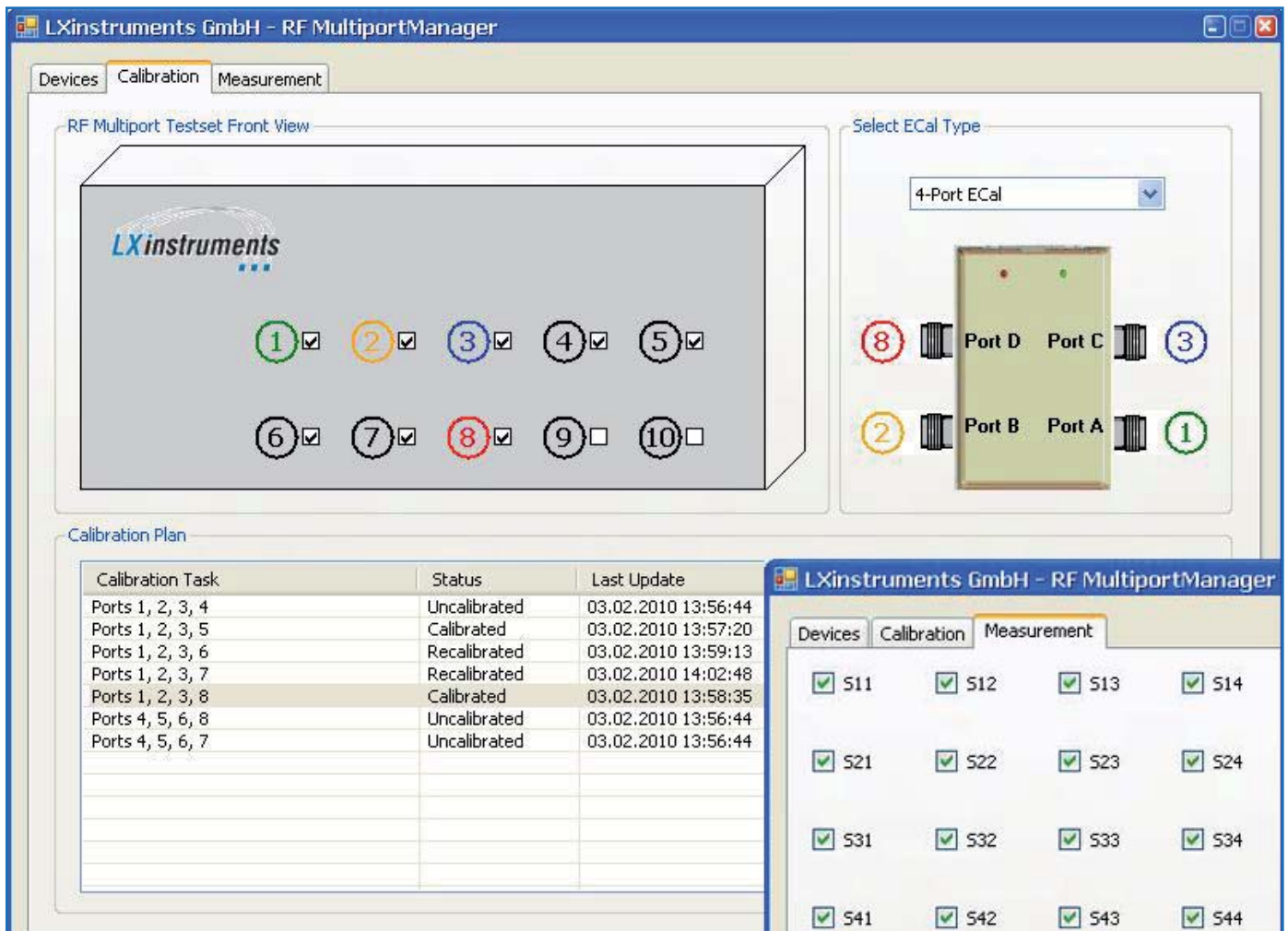
The LX MultiportManager software runs on a standard PC. Network Analyzer and Testset are controlled through Ethernet or USB. There is no software to be installed on the Network Analyzer.

Using the LX MultiportManager software you can easily check the proper instrument connection and design your individual connectivity matrix. You define the connectivity matrix by tickmarking the check boxes. It takes you seconds to have your settings done.

The LX MultiportManager software leads you interactively through the calibration procedure while minimizing the number of connections and computes all error coefficients needed.

Both, 2-Port and 4-Port ECal modules are supported. The calibration progress is displayed to inform the user about the remain time and steps.

The calibration data is saved into a configuration file after having completed all calibration steps. When taking a measurement, calibration data for the related switch path is reloaded and corrected values are computed by the analyzer.



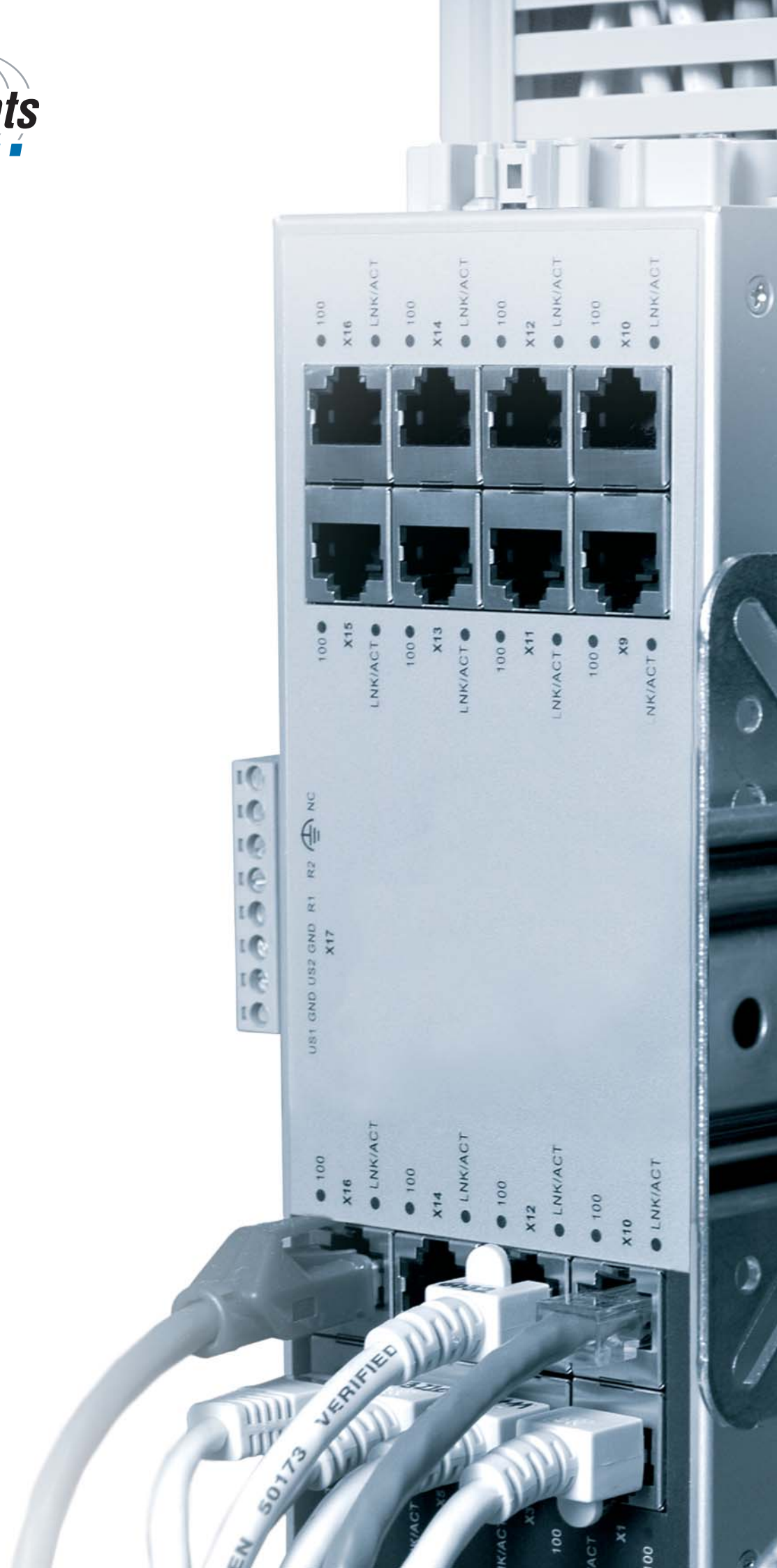
**Calibration Plan**

Calibration Task	Status	Last Update
Ports 1, 2, 3, 4	Uncalibrated	03.02.2010 13:56:44
Ports 1, 2, 3, 5	Calibrated	03.02.2010 13:57:20
Ports 1, 2, 3, 6	Recalibrated	03.02.2010 13:59:13
Ports 1, 2, 3, 7	Recalibrated	03.02.2010 14:02:48
Ports 1, 2, 3, 8	Calibrated	03.02.2010 13:58:35
Ports 4, 5, 6, 8	Uncalibrated	03.02.2010 13:56:44
Ports 4, 5, 6, 7	Uncalibrated	03.02.2010 13:56:44

**Connectivity Matrix**

<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>



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