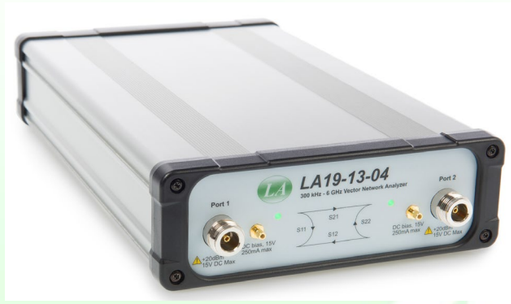
LA Techniques Ltd is a British company with expertise in instrumentation (vector network analysers and synthesizers), software, FPGA design, wideband amplifiers and RF and microwave techniques. We pride ourselves in our flexibility and commitment to customer satisfaction through innovation and continuous improvement in every aspect of our activities. Our comprehensive in-house facilities allow us to deliver innovative, flexible and cost-effective solutions quickly. The company operates a quality management system in line with ISO9001:2008.

Represented by

LA Techniques Ltd, Chancerygate Business ctr,
Unit 5, Surbiton, Surrey KT6 7RA, UK
E-mail: info@latechniques.com
Web site: www.latechniques.com

LA Techniques Ltd

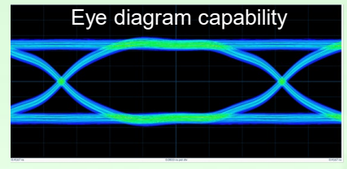
USB Instruments, modules and capabilities



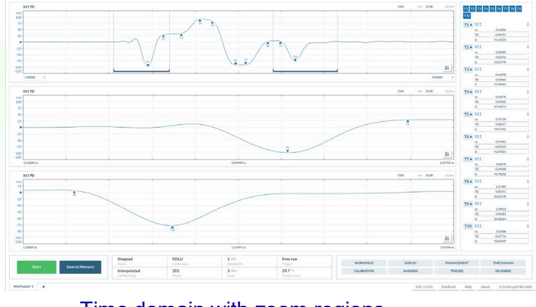
Vector Network Analysers

A key area of expertise is in the design and manufacture of USB-driven VNAs including OEM modules. Capability highlights include operation from 300 kHz to over 9 GHz with dynamic range of 124 dB and very fast sweep times of less than 100µs per measurement point. Support for advanced calibration methods such as TRL and 'Unknown Thru' as well as various de-embedding methods is provided as standard. Also provided is Time Domain capabilities such as Time Domain Reflectometry and Eye Diagram capability to aid signal integrity measurements.

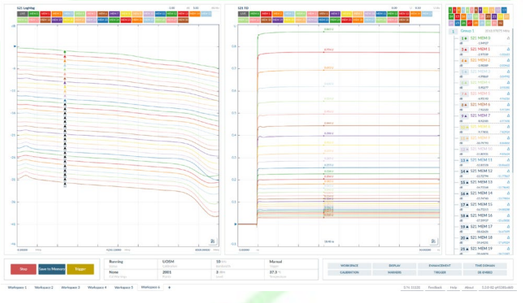
Class-Leading User Interface



Our VNA instruments come with an outstanding user interface offering best in class features that include multiple workspaces, configurable marker readouts and marker functions, log sweeps, zoom regions and many more.



Time domain with zoom regions



Unlimited memory traces and markers

LA Techniques Ltd, Chancerygate Business ctr,
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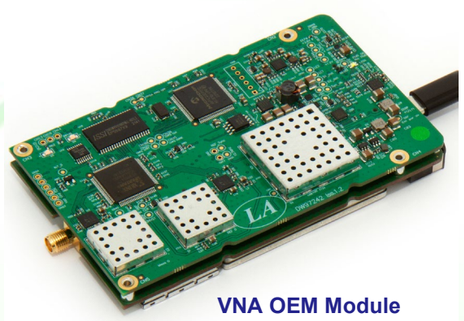
Web site: www.latechniques.com

First Class Support

Flexibility and unparalleled expert support for complex applications is central to our OEM commitment. Currently our VNA modules include extensive software offerings that include Windows and Linux control. Support for remote control includes SCPI control as well as C language bindings for use in applications such as MATLAB. Control using a Raspberry Pi is also available, and in all cases code examples are readily available.



VNA OEM Module

OEM Case Study

A successful use of LA's OEM module is a Reflectometer for use in the detection of margins during breast cancer surgery. In this case the technical requirements were very challenging, requiring not only small size but exceptional linearity and very low trace noise. LA Techniques' design met the requirement allowing the customer to dramatically shrink the size of the Margin Probe system without performance penalty. In addition, the overall cost of the system was reduced by ensuring only the necessary Reflectometer functionality was implemented.



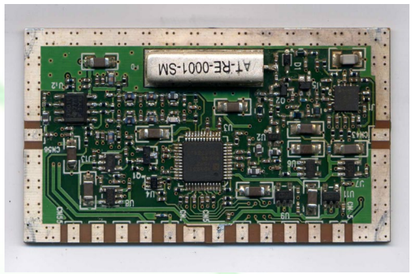
Huge reduction in size of Margin Probe system achieved after replacing off-the shelf VNA with LA's OEM module

Calibration Kits to Support VNAs and Reflectometers

Precision measurements are supported with low cost, data-based calibration kits. These yield precision measurements by very accurately characterizing the kits' Standards.
The result is exceptional accuracy with relatively low-cost components. Factory measurements of each kit's standards are referred to a traceable air line primary standard. This approach results in a superbly accurate calibration kit.

Synthesisers

Design and manufacturing capability of synthesisers is another strong area. Current designs include operation to 10 GHz. The photo shown is of a direct digital synthesiser SMT module with ultra fast tuning and precise 0.1 Hz steps.



Facilities

In-house facilities include: Class 6 clean room with chip assembly and wire bonding facilities; fully automatic pick and place machine for surface mount devices; CAD tools for both circuit and mechanical design as well as time and frequency domain analysis software with custom developed tools specific to pulse generation and transmission; electronic test equipment for all main parameters.

Automatic placement of surface mount components down to 0201 sizes is possible with the latest addition to our production capability. The Fritsch PlaceAll machine is a very capable machine with laser guidance and able to hold up to 200 intelligent feeders.
Extensive instrumentation facilities include spectrum and vector network analysers, and fast sampling oscilloscopes ranging to 50 GHz.

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