

# *LA Techniques Ltd*

## *Instruments, components and capabilities*

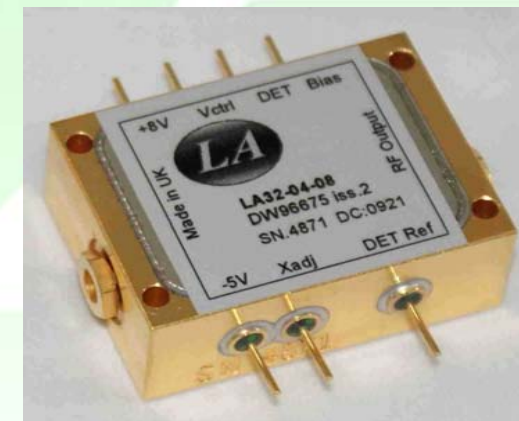
LA Techniques Ltd is a British company with expertise in wide band amplifiers, pulse pattern generators, instrumentation and RF and microwave techniques. It prides itself in its flexibility and commitment to customer satisfaction through innovation and continuous improvement in every aspect of its activities. Its comprehensive in-house facilities allow it to deliver innovative, flexible and cost effective solutions quickly.

The company operates a quality management system accredited to ISO9001:2008.



### **Data Amplifiers**

A key area of expertise is in the design and manufacture of very wide band amplifiers for handling fast pulses in such applications as drivers for optical modulators in multi-gigabit rate telecommunication systems. The range of amplifiers available includes devices for operation at 24 Gb/s and



development of faster devices ongoing. Optional features available include output level monitor, bias-T and electronic output level control.

Represented by



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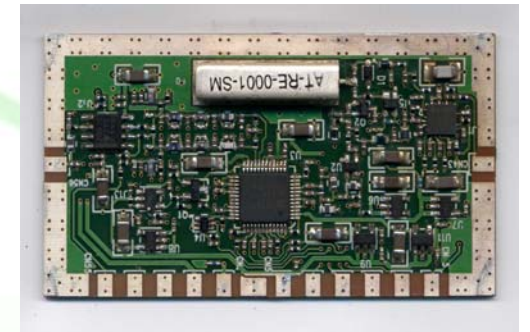
## Clock Amplifiers

In addition to data amplifiers, LA has a range of clock amplifiers operating to 24GHz with up to 20Vpp levels. Options include digital and analogue phase control, as well as output level control and detection.



## Synthesizers

Design and manufacturing capability of synthesizers is another strong area. Current designs include operation to 10GHz. The photo shown is of a direct digital synthesiser SMT module able to operate to 150MHz with precise 0.1Hz steps.



## Pattern Generators

The company also manufactures innovative high speed pattern generators featuring exceptional value for money. Applications include test and development of multi-gigabit speed logic components and systems.



## Facilities

In-house facilities include: CNC machining capability and mechanical inspection; 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.



## Vector Network Analysers

The capability of the company includes vector network analysers. The current range cover 3MHz to 3GHz and offer excellent value. A novel architecture delivers very low trace noise and excellent accuracy.

A further unique approach allows the use of low cost calibration kits to yield precision measurements.



## Reflectometer

Development of products for OEM is another area of activity. A recent example is a reflectometer for use in the treatment of breast cancer. In this case the technical requirements were very challenging, requiring exceptional

linearity and very low trace noise. LA Techniques's patented approach met the requirement with a trace noise of 0.006dB rms at the full speed of 200µs/point and measurement errors in the region of 0.01dB.



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