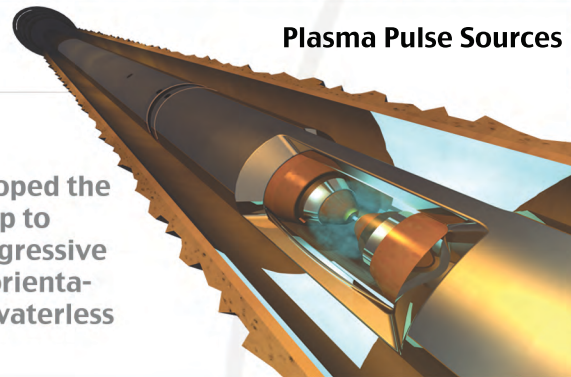


Pulse Plasma Technology

Developing uses across the oil and gas industry.

In conjunction with the parent company Avalon Sciences Ltd, we have developed the use of Pulse Plasma technology as a repeatable down hole high frequency (up to 4kHz) source delivering a high energy shot. The applications are actively progressive across the exploration and production sectors ranging from QC MS receiver orientations before fracture mapping, cross well tomography, screen cleaning and waterless fracturing.

Plasma Pulse Sources



Embedded Software Development

Neopartners Ltd. has many years experience of developing embedded software for 8051's and derivatives. Very rugged parts are available with a wide range of peripherals including DAQ, ADC, CAN, RS232, Real Time Clock, counters and timers.

Using C and the Keil development environment the Neopartners team have developed software for data logging, actuation and control systems, memory based applications using FLASH memory, CAN based systems and MODbus based systems.

Higher level C++ middleware running on Linux and Coldfire targets have been developed to provide communications bridges between CAN and Ethernet. These also provide local node functionality. Typically sited in remote locations with difficult access these systems are remotely serviceable for software maintenance and adaptability

High reliability Windows based control, monitoring and communication systems is developed in C++ and C# with WPF/Silverlight using industry standard Microsoft development tools. Neopartners Ltd. has extensive in-depth experience with low latency, high speed, high reliability Windows interfaces to USB and CAN hardware

Operating Areas

Neopartners Ltd. operates worldwide with projects spanning the UK, USA, Japan, Norway and Continental Europe



Neopartners Ltd. benefits from a well equipped infrastructure of engineers and designers, as well as an electronic engineering workshop on site and access to the Avalon Research Centre in Somerton, UK.

From this, Neopartners is able to offer bespoke electronic design and technology development for all its clients.

www.neopartners.co.uk

Unit 10a Falmouth Business Park, Bickland Water Road, Falmouth,
Cornwall TR11 4SZ, United Kingdom
info@neopartners.co.uk TEL +44 (0)1326 318444

neopartners

ELECTRONIC ENGINEERING

Extreme borehole environment solutions for the Oil and Gas sector

www.neopartners.co.uk

About Neopartners

Neopartners Ltd. designs, develops and produces harsh environment, well based electronic systems for intelligent well application that require data acquisition and actuation. We provide a range of products, services and consultancy in these areas and are a source of innovative solutions for bespoke projects.

Research and Development

Established in 2005 by Managing Director Mike Manning, former director of a highly successful electronic engineering company. Neopartners benefits from being built on a firm foundation of expertise and experience. The business continues to deliver progressive solutions to its clients and to consistently expand in both turnover and staff numbers. With a well equipped infrastructure of engineers and designers, as well as an electronic engineering workshop on site, Neopartners is able to offer bespoke electronic design and technology.

The neopartners team has participated in European Union and UK Government funded shared cost R&D programmes in support of core business objectives.

This includes trans-national, multi partner collaborative projects in co-operation with European based organisations. The Neopartners Ltd. team has won SMART awards for its innovative work on high temperature products.

High Temperature Electronics

We have a knowledge base of extensively tested electronic components and sub-systems capable of high temperature applications. This is a firm basis for the design of hostile environment borehole equipment. To date, most applications have been based upon 200 °C surface mount and through connected PCB substrates. However we have developing interests in the commercial development of 200 °C hermetic hybrid technology for permanent well based instrumentation.

Thermal Management Development

The Neopartners Ltd thermal management solutions package provides temperature control and temperature limitation of well logging systems. The system controls the rate of change and limits the maximum temperature seen by the electronics/ Sensors. The principle is based upon the use of phase change materials (PCMs) to provide a massive heat store function and also heat pipes to distribute and maintain an isothermal temperature regime within the package. Most systems operate within a vacuum flask but some have solid material insulation.

Neopartners provides consultancy and electronics development to the oil/Gas and Geothermal Industries, these include:

- High temperature electronics systems for smart well and subsurface systems
- Consultancy on high temperature components and systems
- Component qualification and testing
- Construction of specialist thermal management systems.

Intelligent Well Systems

The Neopartners Ltd. team has built many monoline-based Intelligent Well Electronics Systems, fully rated to 150 °C and qualified for a minimum 5 years continuous life at this temperature.

Smart Well Systems Include:

- Signal Conditioning • Switched Power Mode Supplies • Motor Drive Systems
- Data Acquisition • Control and Communications • Solenoid Valve Actuation • Timing

These smart well systems utilise the CANbus communications protocol, but other systems are available, such as FSK Modem and a range of field bus standards. All of our intelligent well designs use high temperature qualified components. These proven parts and protocols have enabled us to develop very reliable systems.

Highly Accelerated Life Testing (Shake and Bake) carried out to defence and aerospace specifications, has contributed further to the robustness of our intelligent well systems systems.

Neopartners can provide the complete Intelligent Well Electronics solution: Design, build, test, commissioning, calibration, software & documentation

Actual smart well systems can be designed to the customers own requirements, including joint industry projects.

Production Logging Tools

Neopartners have been designing, manufacturing, testing and delivering high performance down hole production logging tools for the oil/gas and geothermal industries for over 15 years. We have focussed on developing borehole production logging tool systems to meet exacting user requirements in hostile environments up to 350 °C. This has required precision engineering and high reliability high temperature electronics.

The PTFC-350° production logging slickline memory tool is a fully rated memory based system that offers excellent levels of performance and reliability. Over 65 man years of experience developing very high temperature rated tools have culminated in the PTFC-350° development.

Field proven to be reliable, field worthy and simple to use the Slickline tool PTFC-350° is available in two basic models – low pressure geothermal applications and high pressure oil & gas. Both are manufactured to exacting standards with all wetted parts conforming to NACE-MR-0175-2000.

The PTFC-200 production logging tool is a fully 200°C rated surface readout (SRO) monoline and multi-conductor based wireline tool system that offers excellent levels of performance and reliability.

PTFC-200C Production Logging Tool



Smart down hole logging & seismic surveying systems



Slickline Memory Tool 350C