



Component parts of the PocketQube including PCB from Newbury Electronics*



The PocketQube*

Satellite technology could become accessible to all with the help of Newbury Electronics' PCB expertise

Newbury Electronics is helping the Satellite Applications Catapult, an innovation and technology company fostering economic growth through the exploitation of space, to bring the benefits of satellite technology to all businesses and organisations, regardless of their size. Newbury Electronics has recently used its specialist production skills to supply the Catapult with prototype circuit boards that measure 44mm x 44mm, slightly smaller than a credit card.

Chris Brunskill, Upstream Technologies Lead at the Catapult, explains more; "Making satellite technology and the benefits it can deliver available to a wider audience is one of the goals of our organisation. Currently the smallest viable satellites are about the size of a loaf of bread but we have now been able to develop a prototype, the PocketQube that has the same functionality but is the size of a pack of butter and weighs only 180 grams. We couldn't have achieved this without Newbury Electronics input and specialist engineering skills and it is great that there are UK companies with this world beating knowledge and expertise."

The boards were designed by two summer interns working at the Catapult and then passed to Newbury's specialist team for production. Using their experience they were able to offer advice re the orientation of the boards and were able to accommodate the changing demands of the project as it evolved over a two month period. Following an initial production of 10 boards, the company is about to start producing a second batch for use by the Catapult in a series of public events being held later in the spring.

The current size and weight of satellites means that they incur significant launch costs, but by reducing the size and weight there is scope for what is known as 'constellation launches' where up to a dozen satellites can be launched at one time. As a consequence the launch costs can be reduced and then shared between different organisations making the benefits of this technology far more accessible to businesses and organisations, regardless of their size.

For more information about the PocketQube, the Satellite Applications Catapult and its forthcoming programme of public events visit www.sa.catapult.org.uk or visit www.pcbtrain.co.uk/blog/satellite-applications-catapult-project for more information about Newbury Electronics.

Background

Newbury Electronics Ltd started trading in 1956. A management buyout took place in 1987 and Philip King took on his role of Managing Director in 2011. The company offers a full electronic design, [PCB design and layout](#) service alongside PCB manufacture and assembly in Newbury, West Berkshire. It employs 73 staff and is dedicated to small and medium batch PCB assembly, specialising in [electronic design and manufacture](#) incorporating SMD, SMT, surface mount, BGA, through hole, box build, soldering, test, & rework. Customers can select from electronics design and CAD layout through to printed circuit board design and fabrication, assembly and test, and the company is happy to undertake single, bespoke projects through to the design and supply of manufacture lots of up to 10,000 pcs on its automated SMD assembly lines.

As a contract electronic manufacturer (CEM), each year, the company produces in excess of over 15,000 different PCB designs for its clients, who benefit from the economies of scale built from the volume of orders processed. For more information visit www.newburyelectronics.co.uk

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* High quality jpeg available on request

For business enquiries please contact Philip King, MD, Newbury Electronics

Tel: 01635 40347

Email: philip@newburyelectronics.co.uk

For media enquiries please contact Avril Chaffey

T:01488 608898

M:07765 343565

E:avril@avrilchaffeypr.co.uk

If you no longer wish to receive news and information from Newbury Electronics please contact Avril Chaffey at avril@avrilchaffeypr.co.uk or tel +44 (0) 7765 343565