



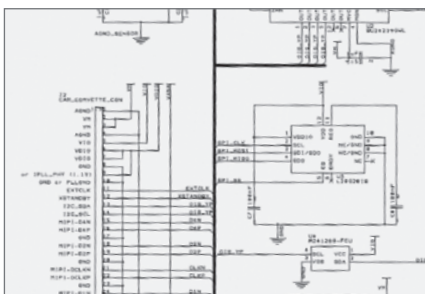
Cloud Kickers Devices provide engineering expertise to help your hardware from concept to mass production.

A hardware design centre based at the Oxford Science Park helping to bring devices to market.

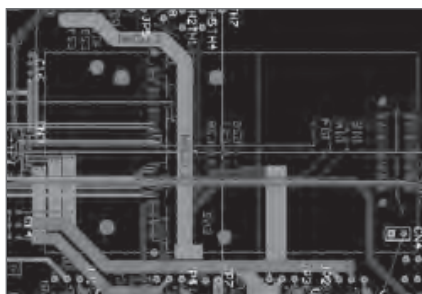
Electronics Design

Our goal is to provide cost effective electronics design support to companies who do not have sufficient in-house capability. We can support small tasks such as producing a customised adaptor board to more complex product designs suitable for mass production.

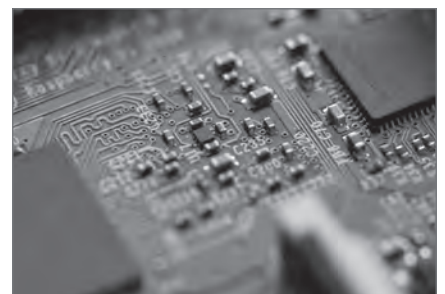
- Component selection
- Circuit design and schematic creation
- PCB layout and optimisation
- Overseeing the fabrication, assembly and debugging of PCBs and flexible circuits (FPCs)
- Offline performance verification
- Firmware development
- High speed differential interfaces (e.g. MIPI)
- Expertise in maritime communications, VLF, HF, VHF and UHF voice, video and data-link systems and Avionics.



Schematic capture



PCB Layout design

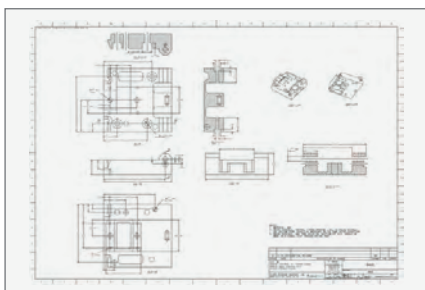


Manufacture and test

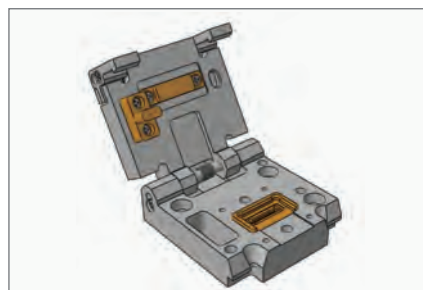
Mechanical Design

We provide cost effective support for rapid prototyping and proof of concepts. Our mechanical engineers have specialist knowledge in design for high volume manufacture.

- Expert 3D and 2D CAD for manufacture (*using Catia*)
- Test jig design and manufacture
- Selecting suppliers for prototyping and mass production
- Overseeing product reliability testing
- Production yield improvements and quality management
- Access to on-site workshop and clean room facilities
- Thermal simulation (*Comsol, Soliworks*).



2D CAD



3D CAD



Manufacture and test



Optical Design

We can offer strong technological know-how in a range of advanced electro-optical and compound semiconductor technologies leveraging access to SHARPs vast experience in the market

- Ray trace simulations
- Waveoptics simulations
- Semiconductor device physics
- Heat transfer analysis
- Optical system prototyping and assembly (active alignment).

Simulation expertise available	
Lightools	3D Optical system ray tracing
Zemax	3D Optical systems Ray tracing and wave optics
Beamprop	3D Integrated and fibre-optics/photronics waveguide design and simulation
Lumerical, Rsoft Fullwave	Find out different time domain (FDTD) 1D, 2D, 3D for modelling nanophonic devices and sub-wavelength effect

Laboratory

In addition to access to production facilities at Sharp Japan, the lab in Oxford is equipped with the following:

- Laser diode LIV test
- Optical beam quality tools
- Integrating spheres
- Spectroscopy (UV-visible to IR)
- Ultra high resolution field emission scanning electron microscopy
- Optical profilometry
- Ellipsometry
- Probe stations
- EMC/Emissions testing
- Camera image quality and hardware verification
- Temperature forcing system
- Optical system prototype assembly.



Project Management and Research & Development consultancy

We provide engineering support to companies large and small to assist in the development of their hardware. Our engineers can help complete initial feasibilities, build/ evaluate prototype designs and see them through to mass production. We help to select manufacturing partners, oversee the production line bring-up and work to improve the yield and quality of the product.

-
- Specialists in developing Camera and LCD modules
 - Concepting and feasibility studies
 - Project management and technical coordination
 - Component selection and technology scouting
 - Problem solving and root cause analysis
 - Design optimisation for lowest cost and best performance
 - Reducing time to market
 - Creation of specifications and technical documents
 - Interfacing with suppliers and end customers around the world.





FullBeams



Full Beams packages

We offer a range of Full Beams packages in addition to the larger scale project support towards mass production.



Business feasibility studies

Assessing how feasible it would be to develop a device for a certain task and to consider what technologies should be used.



Device Prototyping

Building prototype devices to show proof of concept before moving to mass production.

This can include PCB design and mechanical design work.



EMI/EMC assessment and design improvements

Deep dive into board layout and system architecture to resolve EM emissions or immunity issues and proposing solutions.



Competitor analysis/benchmarking

Assess how a new product concept stacks up against existing solution available on the market.



Oxford
United Kingdom

Sharp Laboratories of Europe Building
Oxford Science Park
Oxford
OX4 4GB

Florida
United States

10700 NW 6th St.
Plantation (FL) FL
33324

Brno
Czech Republic

Purkyňova 649/127
Brno 612 00

Bangalore
India

No.363/79
19th Main Road 1st Block
Rajajinagar
Bangalore
KA 560010 IN

cloudkickers.co.uk
+44 (0) 1865 809 421
contact@cloudkickers.co.uk

 cloudkickers