

## ESCATEC's MOEMS Team is a finalist in Elektra Awards' Design Team of the Year



**Heerbrugg, Switzerland – 21 October 2015** – ESCATEC's MOEMS Design Team has been selected as a finalist in the Design Team of the Year category for this year's prestigious Elektra Awards. The winners will be announced on the 24th November 2015 at a gala event in London. The industry's largest technology and business awards are in their 13<sup>th</sup> year of celebrating the best the electronics industry has achieved. The Elektra Awards demonstrates the inherent strength of the industry and the ambition and vision of the individuals who work in it. <http://www.elektraawards.co.uk/>

The MOEMS Team uses a novel workshop concept to dramatically reduce the time taken to go from concept to prototype for LED-based products. Wolfgang Plank, who heads the MOEMS Design Team explained, "We have developed the workshop concept to fast track the development of a new product. We have a meeting room beside the MOEMS Future Lab where we meet with customers who explain the concept of what they want. We can then brainstorm ideas to work out possible designs and the best ones can be prototyped in the Future Lab's clean room there and then. They are evaluated and the design refined until the customer is satisfied."

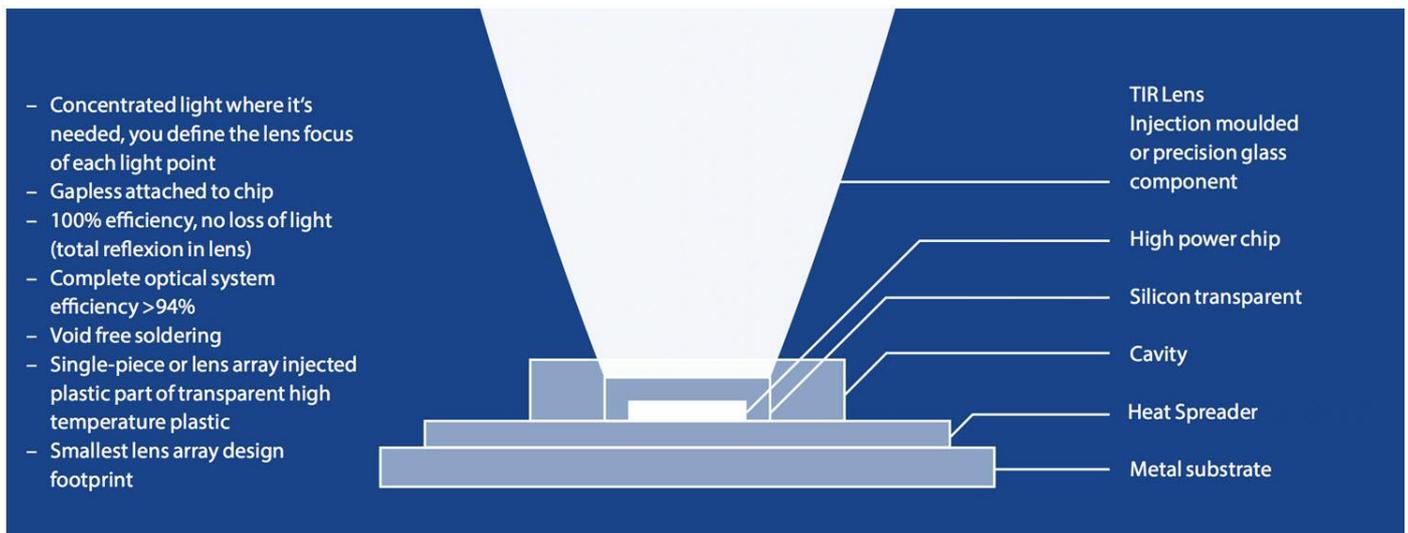
Since launching, ESCATEC has used this workshop to successfully prototype a product in just a day on several occasions. This makes the exercise very cost effective for the customer especially as ESCATEC's Future Lab is in its Swiss facility, which is centrally located in Europe so that the visit can be done in a day trip.

"One of the secrets of our success in the Future Lab is that we start from the bare LED die," explained Plank. "This enables us to create custom solutions to exactly meet the specification of the project rather than LEDs that are already packaged and only available in a limited number of variations."

By starting from the bare LED die, ESCATEC can customise the solution with regards to the size of the package, the shape of the beam so that there are minimal losses, and the wavelength of the light along with its intensity. This freedom of design enables the LED solution to be highly efficient, appropriately cooled and optimised for the required power consumption. It also enables the lens or lens array to be custom made to provide the exact optics required by the application and ensures that design can be compact with high optical efficiency.

An example of the team's innovation is its solution to the challenge of effectively cooling high brightness LEDs. Its Heat Spreader solution solders the LEDs onto a copper substrate, which is up to ten times more effective at dissipating the heat generated by the LEDs than current solutions. The Heat Spreader design means that LEDs with a power density of up to 10W per mm<sup>2</sup> could be passively cooled.

"Heat dissipation is always a challenge for LEDs as their compact size means that the LEDs can be packed close together to form a powerful illumination source but that also forms a highly concentrated heat source, for example, when a hundred 5 Amp LEDs are side by side," explained Plank. "Our novel Heat Spreader solution opens up such high power LEDs to be used in many new applications such as stage lighting, architectural illumination and video projectors."



### *ESCATEC's Heat Spreader for LEDs*

#### **ESCATEC**

The ESCATEC Group provides fully-integrated electronic and mechatronic design and manufacturing solutions to assist customers in achieving success in their market. Its one-stop solutions and best-in-class service enable companies around the world to operate more profitably, sustainably and efficiently. Founded in 1984, its history is full of innovation, which made it a first choice partner for many European and North American OEMs. The Swiss-owned company perfectly blends Swiss business philosophy and attention to quality, precision and detail with the advantage of low-cost, mass-volume manufacturing capabilities in its Asian factories.

**Further information about ESCATEC**, one of Europe's leading providers of contract design and manufacturing services: [www.escatec.com](http://www.escatec.com) [enquiries@escatec.com](mailto:enquiries@escatec.com)

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