

# Introducing the “WEDLED”



## First, the “WED” part.

Williams Electronic Design Ltd. is primarily an electronic design consultancy with decades of experience in analogue, digital and R.F. design. Being involved with many varied designs and research projects for leading companies and EU bodies has given us full appreciation of the design challenges facing many organisations. In the commercial world one of the most pressing demands is providing a comprehensive and complex product whilst minimising the time to market.

We have more recently produced reference designs and interfaces for a leading processor manufacturer in the high power LED market segment. This has allowed us to recognise the demands of this sector and has provided access to some of the latest LED products available.

With this experience, we came to the realisation that many smaller (and larger) companies have limited resources or experience to achieve a fast turnaround at the same time as providing a comprehensive range of full colour LED driving features and interface options. This could leave such companies with a serious disadvantage. WED have all the required experience and this led us (sorry!) to:

## The “LED” part.

With our experience of designing high power LED drivers, controlling brightness, colour balance and temperature variations as well as industry standard “DALI” and “DMX512” interfaces we have all the necessary tools in place to assist companies in achieving the fast time to market required. We therefore decided to produce a design to showcase these skills. The recent introduction of the LUMINUS SBM160 high power RGBW LED provided an ideal product to base this particular design around. This design has become the first “WEDLED”, the WEDLED 441!

The WEDLED 441 is a fully functioning, full colour, LED design with DALI, DMX512 and Zigbee\* interface options, LED and driver temperature monitors and is complete with PAR30 size heat sink and cooler speed control. We know, however, that the WEDLED will not be physically ideal for all potential applications. Hence it should perhaps be regarded more as “proof of concept”. This proof of concept can be easily extended to incorporate multiple SBM160 devices or indeed other manufacturers devices.

The WEDLED is a design providing 4A of drive to 4 independently controlled single LED’s, hence the “441” model number. We also already have two other 4-channel designs for drive currents up to 1.5A and also up to 16A. The peak current of each design can be simply adjusted providing a full range of driving options. All these are proven designs that can be quickly adapted to specific physical requirements.

Williams Electronic Design Ltd. can offer flexible packages to enable customers to get their product to market. Our preferred route offers, we believe, the most flexible and cost effective solution. This comprises a modest NRE charge to cover the cost of adapting schematics and PCB design to suit requirements and thereafter a per unit license fee to cover the use of our proprietary technology.

While all derivative products will require individual approvals testing, the use of proven technology with our in house R.F. experience and test equipment, we can provide a safe route towards successful CE and FCC compliance.

### **What are the benefits of adopting “WEDLED” technology?**

1. Faster time to market.
2. Minimal up front development costs.
3. Licensing costs spread over the product lifetime.
4. Proven technology right from the start.
5. In house EMC expertise with some pre compliance test facilities.
6. No re-inventing “the wheel”.
7. Select your required lighting interface from proven designs.

The downsides? Well we can’t think of any. Let us know if you can.

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