

## 國立台灣大學技術行銷表

台大案號: \_\_\_\_\_ (由產學組填寫)

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產品/技術名稱	電流脈衝雷射二極體驅動器
發明人/單位	陳秋麟 林明憲
產品/技術說明	本發明是有關利用脈波產生單元提供一脈波訊號，再利用功率電晶體驅動電路，開關切換功率電晶體，製造出數百毫安培、十奈秒左右的電流脈衝，來驅動雷射二極體。
應用範圍	可應用於一般使用雷射二極體及發光二極體為光源的驅動器。
產品/技術優勢	低功耗及散熱佳的優點適合應用於可攜式系統,例如:手機, 雷射筆, 微型投影機。若將電流脈衝雷射二極體驅動器裝置在手機中, 可以將手機的螢幕投影在牆壁上。此目的是為了滿足隨時都想要享受大銀幕的使用者, 讓使用者走到那裡, 電影就可以播放到那裡; 對於商業人士而言, 更可以做為隨時進行簡報的利器, 減少了重量的負擔, 工作效率卻絲毫不打折扣。
市場潛力	iSuppli 對微型投影機的定義, 是重量在 2 英磅(pounds)以下、體積小於 60 立方英吋(inches)、不含電池組的前投影機(front projectors); 該機構預估, 在今年出貨量少於 5 萬台的微型投影機, 將在 2013 年成長到 300 萬台的規模。微型投影機能讓可攜式電子裝置克服螢幕尺寸限制, 投射出大型影像。市場研究機構 iSuppli 預測, 嵌入智慧手機等可攜式產品的微型投影機(pico projectors)出貨量, 將在接下來的四年內經歷 60 倍的成長。
產品/技術 智財權保護方式	

## Marketing Abstract of NTU's Invention Disclosure

NTU's docket no: \_\_\_\_\_ (由技轉室填寫)

TTO contact : Chen, Chern-Lin    Tel : 0939 -310-286    e-mail : clchen@cc.ee.ntu.edu.tw

<b>Title</b>	Current-Pulsed Driver for Laser Diode
<b>Inventor (s)</b>	Chen, Chern-Lin Lin, Ming-Shian
<b>Brief Description</b>	This particular invention utilizes pulse generator to produce pulse signals. Then, it makes use of the power transistor driver circuit and by switching the power transistor, it is able to produce hundreds of milli-ampere of current pulse which can last approximately ten nano-seconds, which in turn is applied to boost the laser diode driver.
<b>Fields of Application</b>	This particular invention can generally be applied onto laser diode driver and LED as the power of the driver.
<b>Advantages</b>	Low power consumption and heat dissipation make it a suitable candidate for portable system, for example on gadgets such as cell phones, laser pointers and pico-projectors. If we install "current-pulsed driver for laser diode" into a cell phone, we can project the image from the phone onto the wall. The main purpose of this invention is to satisfy users' love for widescreen entertainment. This particular product will enable users to take their entertainment with them anywhere anytime. Furthermore, for professionals in their different fields of work, this product allows them to present their briefings and cut down their workload and at the same time, doesn't compromise their work efficiency.
<b>Market Potential</b>	Marketing Reseach Company iSuppli defines mini-projector as weighing less than two pounds and has a mass of no bigger than sixty cubic inches and doesn't comprise of batteries in the front projectors. This renowned institute estimates that the growth of pico-projectors will accelerate to the scale of three million pcs. by 2013 even though sales this year for the same product has fall well below 50,000 pcs. Pico-projectors can enable portable electronic devices to overcome the limitations of their screens by projecting large images. iSuppli predicts that mini projectors associated with portable electronic devices will hit an increase of 60 folds in the next four years.
<b>IP Right(s)</b>	(由技轉室填寫)